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# Windpark Geefsweer

## Slagschaduwonderzoek alternatieven projectMER




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# Windpark Geefsweer

# Slagschaduwonderzoek

Datum
1-3-2017

Versie
1.1

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# Hoofdstuk 1 Inleiding

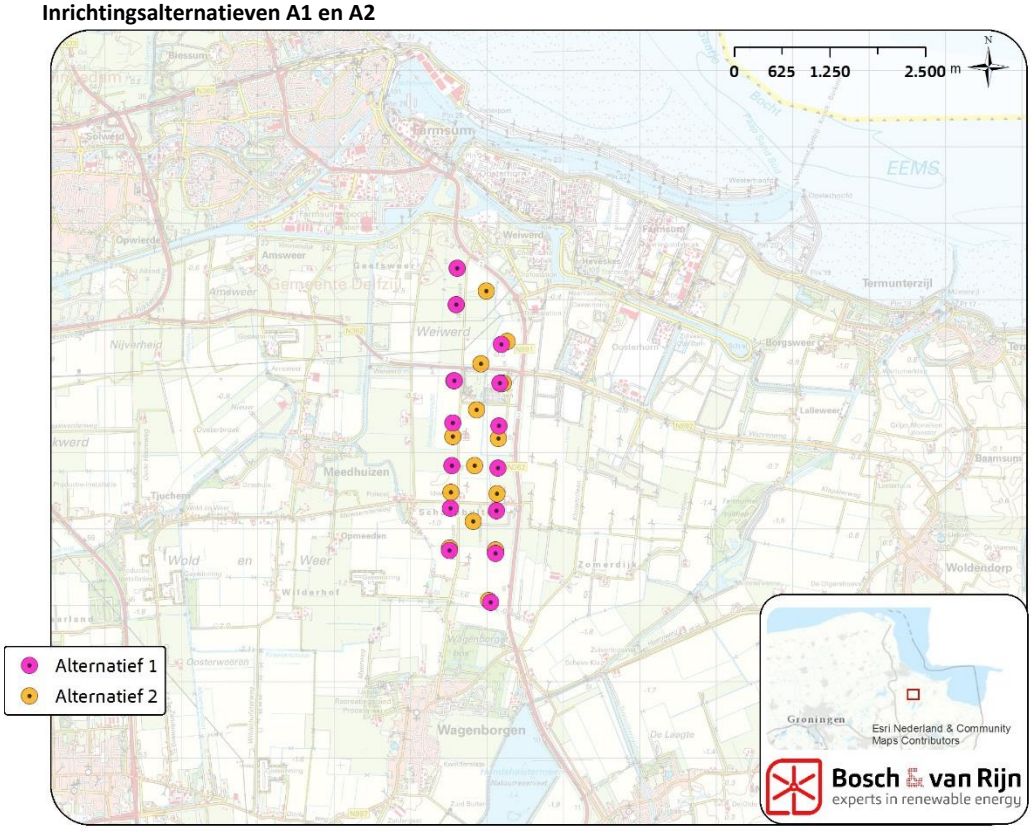
## 1.1 Inleiding

Bosch & van Rijn heeft een slagschaduwstudie uitgevoerd naar de slagschaduweffecten bij woningen nabij nieuw te plaatsen windturbines bij Geefsweer in gemeente Delftzijl ten behoeve van een milieueffectrapportage (MER). Deze studie toets de slagschaduw vanwege enkele opstellingen van windturbines ter plaatse van nabijgelegen gevoelige bestemmingen aan de norm zoals beschreven in het Activiteitenbesluit milieubeheer.

## 1.2 Alternatieven projectMER

In het projectMER deel worden vier inrichtingsalternatieven onderzocht op de slagschaduweffecten, in twee opstellingen. De inrichting van de alternatieven is weergegeven in onderstaand figuur en de gehanteerde windturbinetypes in onderstaand tabel.

**Figuur 1** **Inrichtingsalternatieven A1 en A2**




Voor de slagschaduwberekening zijn verschillende types windturbines gebruikt. Voor het alternatief 1A is gebruikt gemaakt van een referentieturbine met een rotordiameter van 145m en een ashoogte van 145m. Voor het alternatief 2A is gebruik gemaakt van een GE3.4-130 (ashoogte: 145m) terwijl voor de alternatieven 1B en 2B gebruik is gemaakt van een GE3.4-130 (ashoogte: 120m). In Tabel 1 staan details van deze windturbines.

**Tabel 1** **Afmetingen van de windturbines**

| Alternatief | Aatal windturbines | Type | Ashoogte | Rotordiameter |
|---|---|---|---|---|
| 1A | 14 | Fictieve windturbine[1] | 145 | 145 |
| 1B | 14 | GE3.4-130 | 120 | 130 |
| 2A | 17 | GE3.4-130 | 145 | 130 |
| 2B | 17 | GE3.4-130 | 120 | 130 |

## 1.3 Wettelijke norm

Windturbines vallen onder het Activiteitenbesluit milieubeheer en de Activiteitenregeling milieubeheer[2]. In artikel 3.12 van de Activiteitenregeling is voorgeschreven dat een turbine moet zijn voorzien van een automatische stilstandvoorziening die de windturbine afschakelt indien slagschaduw optreedt ter plaatse van gevoelige objecten[3] voor zover de afstand tussen de turbine en de woning minder bedraagt dan twaalf maal de rotordiameter en gemiddeld meer dan 17 dagen per jaar gedurende meer dan 20 minuten slagschaduw kan optreden, 17 maal 20 minuten. In deze rapportage interpreteren we deze grenswaarden op de strengst mogelijke manier: maximale slagschaduwbelasting is 5 uur en 40 minuten.

## 1.4 Stilstandvoorziening

Om normoverschrijding te voorkomen kan een stilstandvoorziening op de windturbine worden aangebracht zoals vermeld in het Activiteitenbesluit. Deze zorgt ervoor dat bij overschrijding van de slagschaduwnorm, de windturbine wordt uitgeschakeld. De voorziening wordt per schaduwgevoelige woning vooraf ingeregeld, aangezien het gaat om specifieke momenten die van te voren bepaald kunnen worden afhankelijk van de zonnestand. Daarnaast wordt gemeten of er daadwerkelijk voldoende zon (en dus slagschaduw) is op die momenten.

[1] Op het moment van het onderzoek is er nog geen commercieel beschikbare windturbine met een rotordiameter van 145m en een ashoogte van 145m. Om deze reden heeft de auteur een fictieve windturbine geconstrueerd.

[2] Regeling van de Minister van Volkshuisvesting, Ruimtelijke Ordening en Milieubeheer van 9 november 2007, nr. DJZ 2007104180 houdende algemene regels voor inrichtingen - Regeling algemene regels voor inrichtingen milieubeheer

[3] Onder gevoelige objecten worden verstaan: woningen, onderwijsgebouwen, ziekenhuizen, verpleeghuizen, verzorgingstehuizen, psychiatrische inrichtingen, kinderdagverblijven, woonwagenstandplaatsen en ligplaatsen voor woonschepen. Bron: Wet geluidhinder.

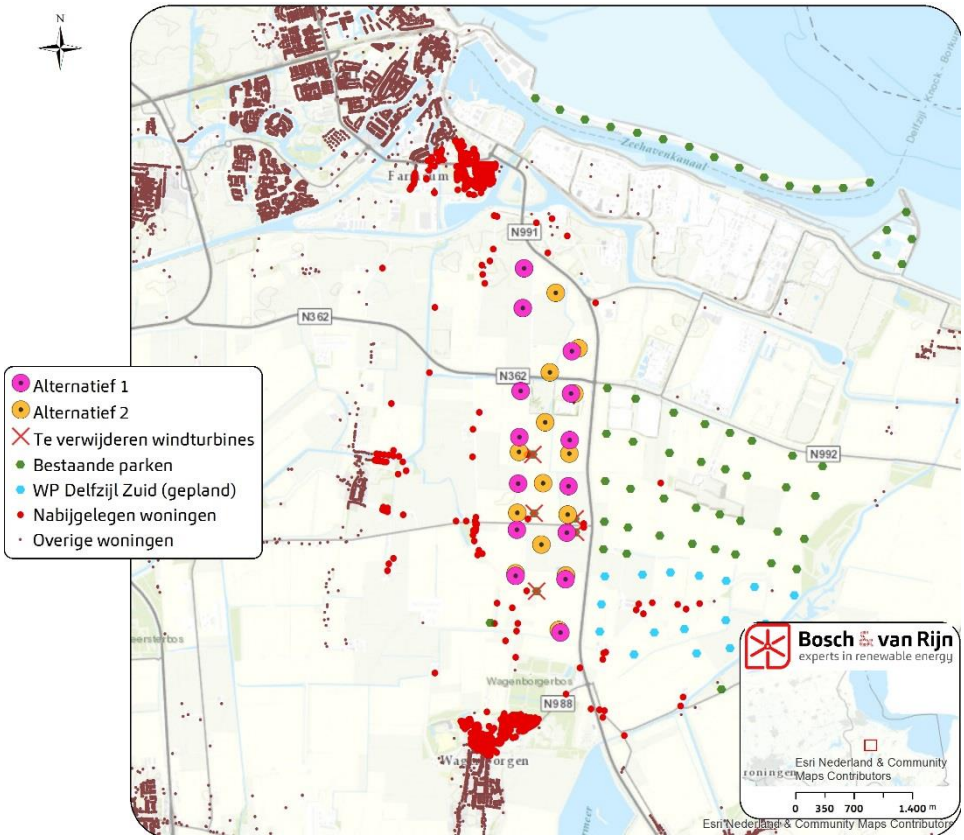
## 1.5 Cumulatie

Volgens het Activiteitenbesluit wordt cumulatie met andere windturbines niet beschouwd bij toetsing aan de norm. Voor het projectMER is deze informatie echter wel van belang. In dit rapport is zowel inzicht gegeven in de slagschaduwduur van het project afzonderlijk als inzicht in de cumulatieve slagschaduwduur van het voorgenomen project en de reeds bestaande/geplande windparken. Er zal zich geen situatie voordoen dat de bestaande windturbines in het plangebied in operatie zijn als de beoogde nieuwe windturbines: de bestaande zullen worden verwijderd voordat de nieuwe worden gebouwd.

## 1.6 Gevoelige objecten

In de omgeving van het geplande windpark liggen enkele gevoelige objecten. De bron van de locatie van de woningen (rode stippen in onderstaande afbeelding) is de Basisadministratie Adressen en Gebouwen (BAG, januari 2017). In de berekening zijn alleen woningen binnen 12x de rotordiameter (830 woningen in totaal) meegenomen.

**Figuur 2** **Gevoelige objecten in omgeving van de beoogde windlocaties.**



Voor woningen in de sfeer van de inrichting geldt de norm niet. Deze woningen zijn te vinden in onderstaande tabel.

**Tabel 2** **Woningen in de sfeer van de inrichting**

| Woningen in de sfeer van de inrichting |
|---|
| Westerlaan 10, 9937TS, Meedhuizen |
| Ideweersterweg 2, 9937TM, Meedhuizen |
| Ideweersterweg 1, 9937TM, Meedhuizen |
| Westerlaan 6, 9937TS, Meedhuizen |
| Ideweersterweg 4, 9937TS, Meedhuizen |

## 1.7 Beoordelingscriteria projectMER

In het milieueffectrapport waar dit onderzoek een bijlage van is wordt het milieueffect slagschaduw beoordeeld aan de hand van vier criteria:

- Aantal gevoelige objecten binnen 340-minuten slagschaduwcontour (absoluut en relatief)
- Aantal gevoelige objecten binnen cumulatieve 340-minuten slagschaduwcontour (absoluut en relatief)
- Aantal gevoelige objecten binnen 0-minuten slagschaduwcontour (absoluut en relatief)
- De elektriciteitsproductie die wordt gederfd met een bepaalde windturbine door toepassing van mitigerende[4] maatregelen.

In het slagschaduwonderzoek worden de eerste drie beoordelingscriteria onderzocht. Er wordt een grove inschatting gemaakt van de opbrengstderving. De relatieve milieueffecten vallen buiten de scope van een slagschaduwonderzoek. Deze komen in het MER aan de orde.

## 1.8 Leeswijzer

In hoofdstuk 2 wordt uitgelegd hoe de berekeningen uitgevoerd zijn. Hoofdstuk 3 presenteert de resultaten van deze berekeningen, inclusief cumulatie en mitigatiemaatregelen. Hoofdstuk 4 bevat de conclusies.

[4] Met mitigerende maatregelen worden alle maatregelen bedoeld die zorgen voor een vermindering van nadelige milieueffecten. Voor slagschaduw is dit tijdelijke stilstand.

# Hoofdstuk 2 Berekening

## 2.1 Inleiding

Slagschaduw van een windturbine is de bewegende schaduw van de draaiende wieken. Als slagschaduw op het raam van een woning valt kan dat als hinderlijk worden ervaren.

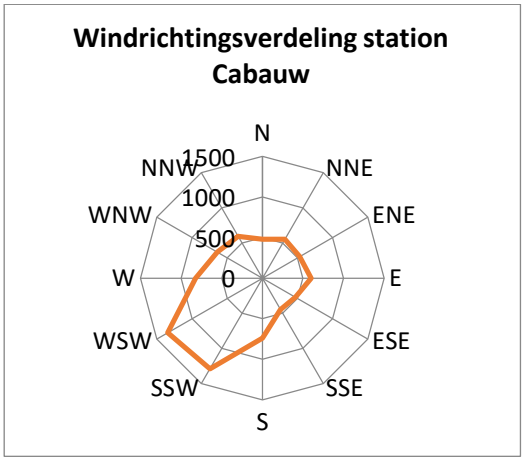
De stand van de zon is een vast gegeven voor elke datum en elk tijdstip en voor elke breedtegraad. Voor elk object (bijvoorbeeld een windturbine) is het daarom mogelijk een berekening te doen om het tijdvak te bepalen wanneer er slagschaduw valt op een bepaald punt (bijvoorbeeld het raam van een huis). Om dit te kunnen doen is de volgende informatie nodig:

- De grootte van het object dat slagschaduw veroorzaakt; voor een windturbine is de grootte van de wieken van belang;
- De positie van de windturbine en het beschaduwde object (met name ten opzichte van elkaar);
- De ashoogte van de windturbine;
- De grootte, richting en oriëntatie (hellingshoek) van het beschaduwde object; met de richting wordt bedoeld hoe het raam (lichtdoorlatende deel van de gevel) gericht is ten opzichte van de windturbine(s), oriëntatie is in het algemeen verticaal, maar ook kan gedacht worden aan een dakraam in een schuin dak onder een bepaalde hoek.

## 2.2 Windaanbod

Om de hoeveelheid slagschaduw op een specifieke locatie te berekenen, is het van belang om te weten uit welke richting de wind waait, en hoe hard het waait. Immers als de windsnelheid te laag is, staat de windturbine stil. Deze grens ligt op ongeveer 3 m/s. Een moderne windturbine met een ashoogte boven de 80 meter is gemiddeld maximaal 95% van de tijd in bedrijf. Wij gaan in dit onderzoek uit van 96%. Onderstaande grafiek geeft de langjarige windrichtingsverdeling weer van meteostation Cabauw.

**Figuur 3** **Windroos van meteostation Cabauw op 140 meter hoogte.**



## 2.3 Zonaanbod

Het zonaanbod is in de berekening gebaseerd op het zonaanbod in Eelde (de dichtstbijzijnde meetpost waarvan bij de auteur data bekend is). Zie de bijlage met de WindPRO-rekenresultaten voor de precieze waarden.

Zomer- & wintertijd hebben geen effect op de duur van de schaduw, maar wel op het moment van de dag waarop schaduw plaatsvindt. Tijdswijzigingen vinden plaats iedere laatste zondag van maart en laatste zondag van oktober. Het effect hiervan is meegenomen in de berekening.

## 2.4 Rekenmethode

Met het software pakket is voor de vier alternatieven twee contouren getekend. Eén contour van de norm van 5:40 uur slagschaduw per jaar en één contour van de 0 uur slagschaduw per jaar.

## 2.5 Aannames

De berekening gaat uit van de realistisch gemiddelde situatie. Hiertoe wordt een aantal aannames gedaan om de situatie te benaderen zoals die werkelijk zal optreden:

- Correctie voor de gemiddelde zonneschijnduur;
  *De zon schijnt (overdag) niet altijd vanwege de aanwezigheid van bewolking (en mist); op basis van klimatologische gegevens van het KNMI voor de gemiddelde zonneschijnduur wordt een maandelijks getal afgeleid voor de kans dat de zon daadwerkelijk schijnt. Op deze locatie is gebruik gemaakt van KNMI-gegevens van station Eelde (afstand tot de parklocatie: ca. 28km).*

- Correctie voor stilstand;
  *Als een windturbine niet draait is er ook geen sprake van slagschaduw. Dit is bijvoorbeeld het geval bij lage windsnelheden (minder dan ca. 3m/s), dan draait een windturbine (nog) niet en bij zeer hoge windsnelheden (boven 25m/s) wordt een windturbine uit veiligheidsoverwegingen stilgezet. Verder worden windturbines stilgezet tijdens onderhoudswerkzaamheden. In praktijk is een windturbine maximaal 95% van de tijd in bedrijf.*

- Correctie voor de windrichting;
  *Op basis van windmetingen op de gondel wordt de windturbine zo gedraaid dat bladen altijd staan in de richting waar de wind vandaan komt. Afhankelijk van de gemiddelde windrichtingsverdeling wordt een correctiefactor afgeleid aangezien de grootte en positie van de schaduw verandert met de positie van de gondel.*

Bovenstaande correcties zijn gebaseerd op gegevens over het klimaat. De correctie van de gemiddelde zonneschijnduur wordt op de maandgemiddelde metingen gebaseerd en de overige twee correcties op de jaargemiddelde metingen. Dit zijn langjarige gemiddelden. In een individueel jaar is de schaduwhinder soms meer, en soms minder dan dit gemiddelde. De berekening is uitgevoerd met het softwarepakket WindPRO, een programma dat slagschaduw nauwkeurig berekent en dat veel gebruikt wordt in de windenergiesector.

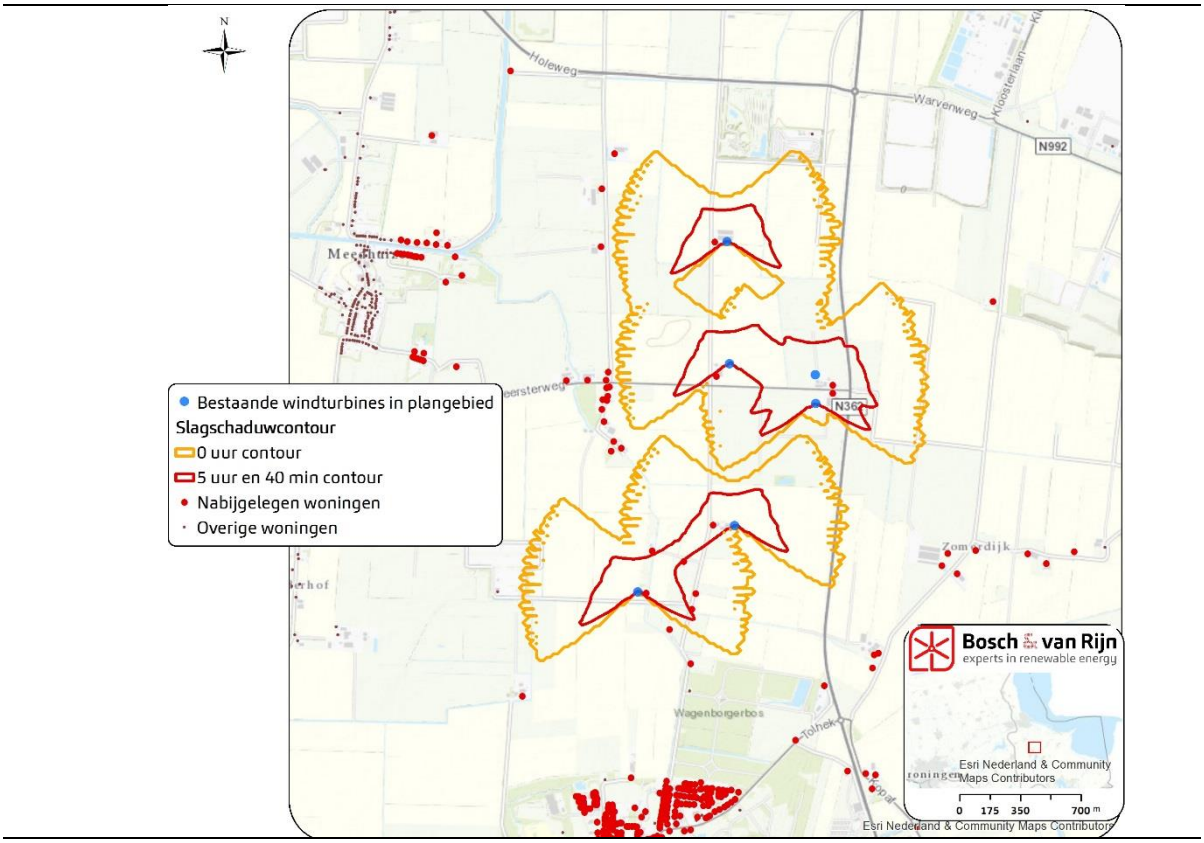
# Hoofdstuk 3 Resultaten

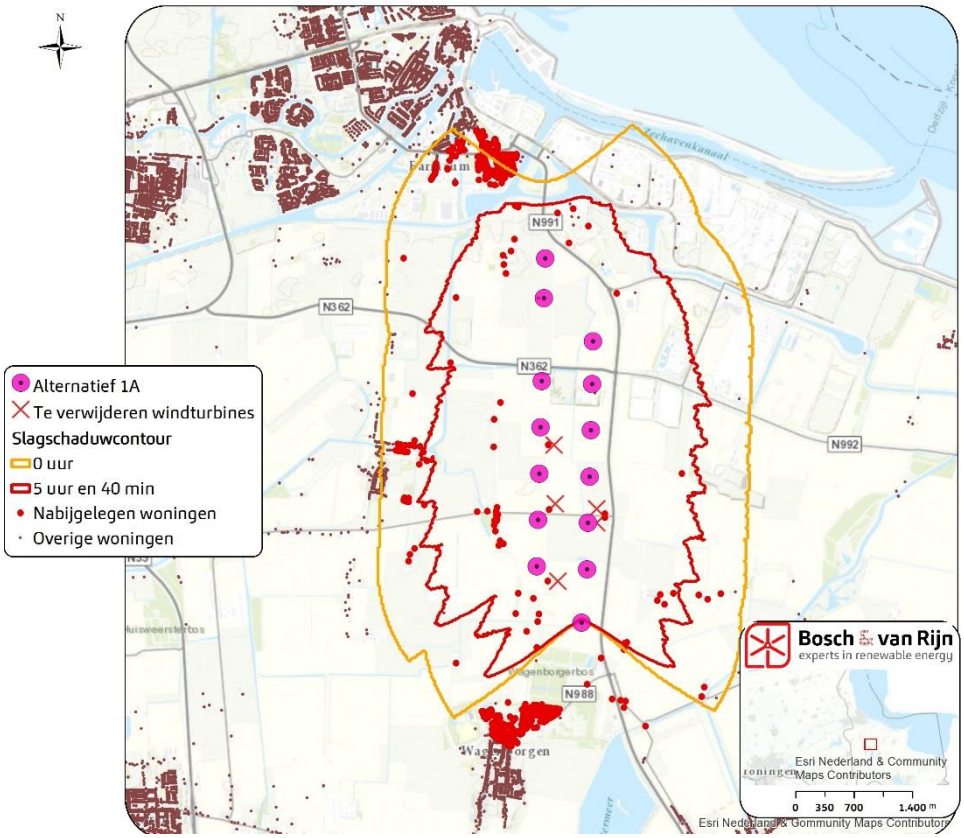
## 3.1 Slagschaduwcontour

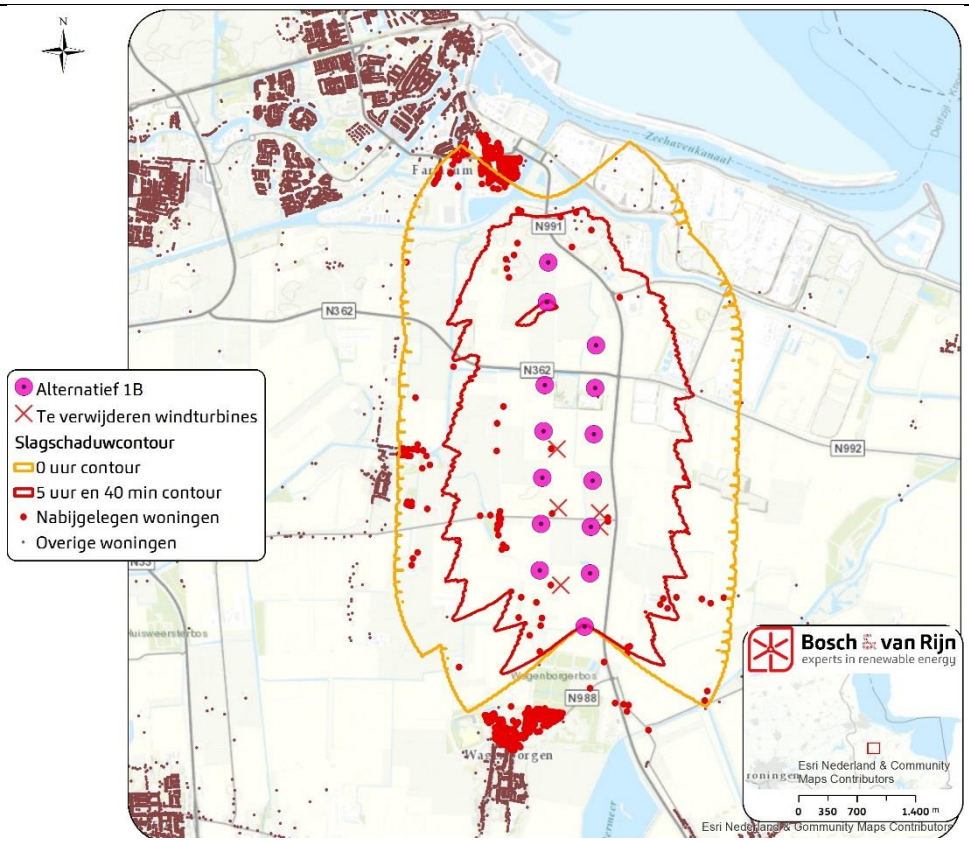
### 3.1.1 *Resultaten zonder cumulatie*

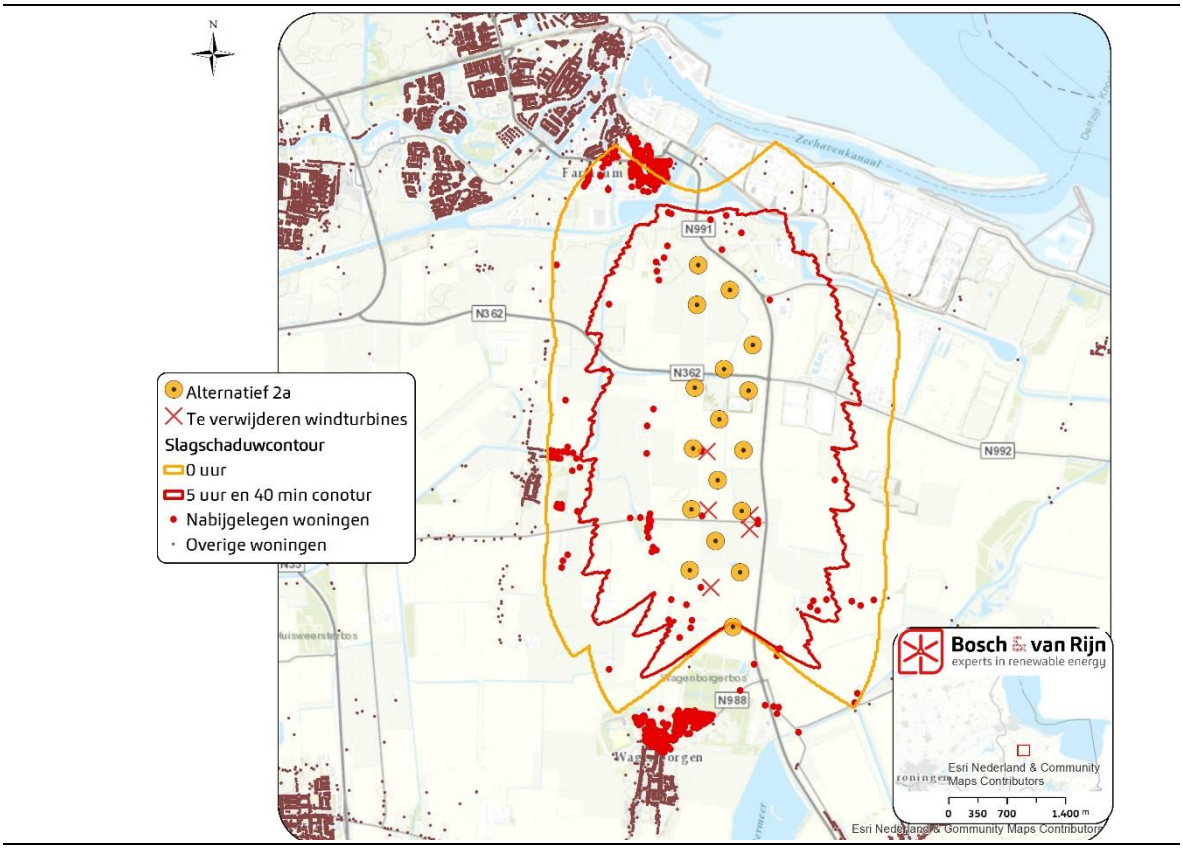
Onderstaande afbeeldingen tonen de slagschaduwcontouren van 5 uur en 40 minuten slagschaduw per jaar en 0 uur slagschaduw per jaar, uitgaande van een *realistische meteorologische situatie* (in tegenstelling tot een *worst case* scenario), voor de alternatieven. Binnen de 5 uur en 40 minuten slagschaduw contour treedt naar verwachting jaarlijks meer dan 5 uur en 40 minuten slagschaduw op, en erbuiten minder. De contouren van de opstellingen zijn vergroot weergegeven in Bijlage B.

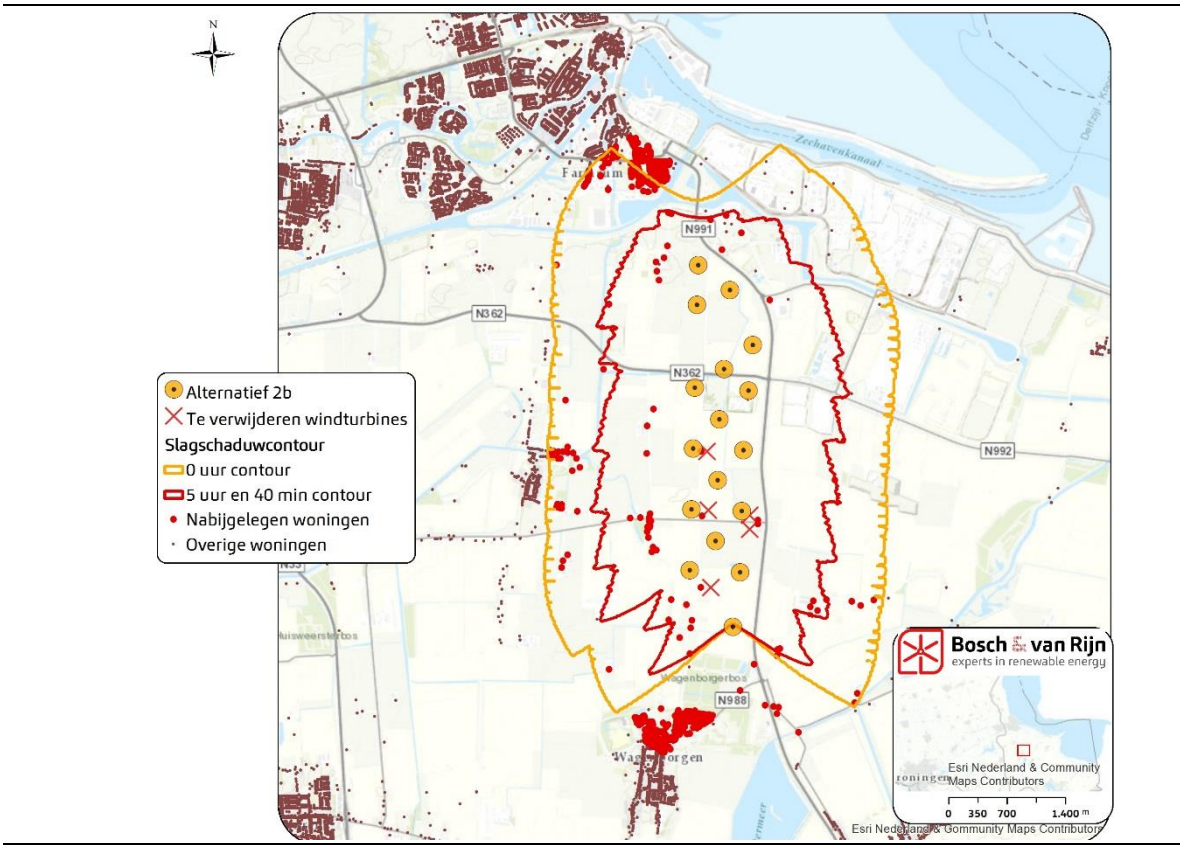
**Figuur 4** **5:40u en 0:00u slagschaduwcontouren van de alternatieven (volgorde: referentiesituatie, 1A, 1B, 2A, 2B). Hierbij zijn ook woningen van derden weergegeven. Dit zijn immers de objecten waarvoor de norm geldt. (Er liggen geen andere gevoelige objecten, zoals scholen en ziekenhuizen, binnen of nabij de contour)**




N
Alternatief 1A
Te verwijderen windturbines
Slagschaduwcontour
0 uur
5 uur en 40 min
Nabijgelegen woningen
Overige woningen
N991
N362
N992
N988
Zeehavenkanaal
Bosch & van Rijn
experts in renewable energy
Esri Nederland & Community Maps Contributors
0 350 700 1.400 m
Esri Nederland & Community Maps Contributors


N
Alternatief 1B
Te verwijderen windturbines
Slagschaduwcontour
0 uur contour
5 uur en 40 min contour
Nabijgelegen woningen
Overige woningen
N991
N362
N992
N988
Zeehavenkanaal
Bosch & van Rijn
experts in renewable energy
Esri Nederland & Community Maps Contributors
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Esri Nederland & Community Maps Contributors


Alternatief 2a
Te verwijderen windturbines
Slagschaduwcontour
0 uur
5 uur en 40 min conotur
Nabijgelegen woningen
Overige woningen
N991
N362
N992
N988
Bosch & van Rijn
experts in renewable energy
Esri Nederland & Community Maps Contributors
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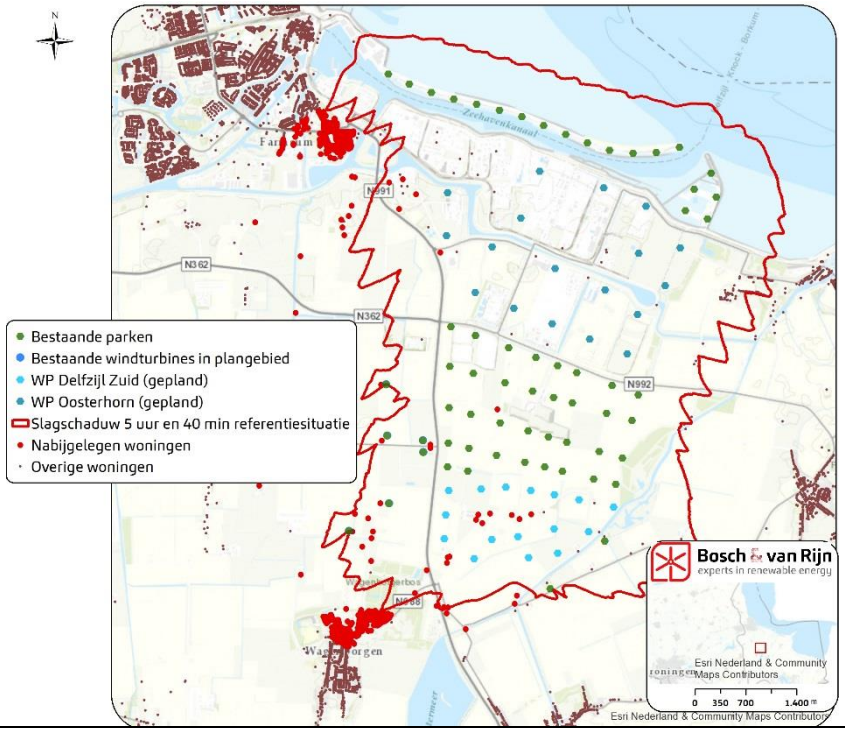

Alternatief 2b
Te verwijderen windturbines
Slagschaduwcontour
0 uur contour
5 uur en 40 min contour
Nabijgelegen woningen
Overige woningen
N991
N362
N992
N988
Bosch & van Rijn
experts in renewable energy
Esri Nederland & Community Maps Contributors
0 350 700 1.400 m

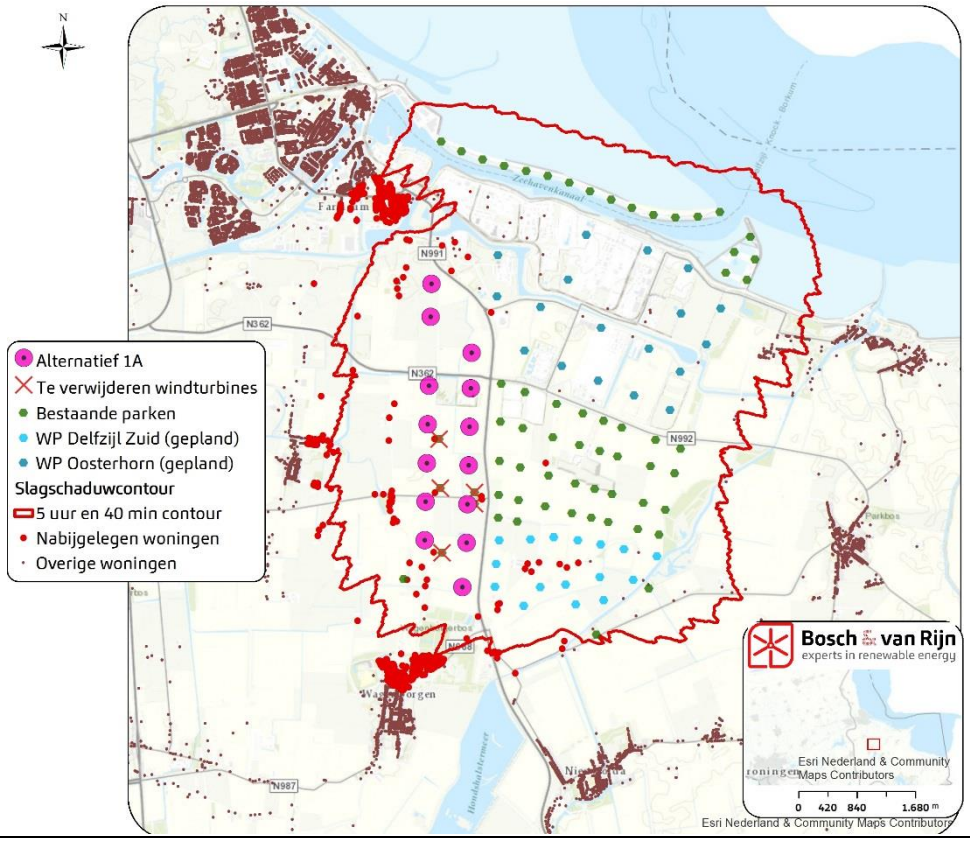
Bijlage B toont deze figuren in groter formaat.

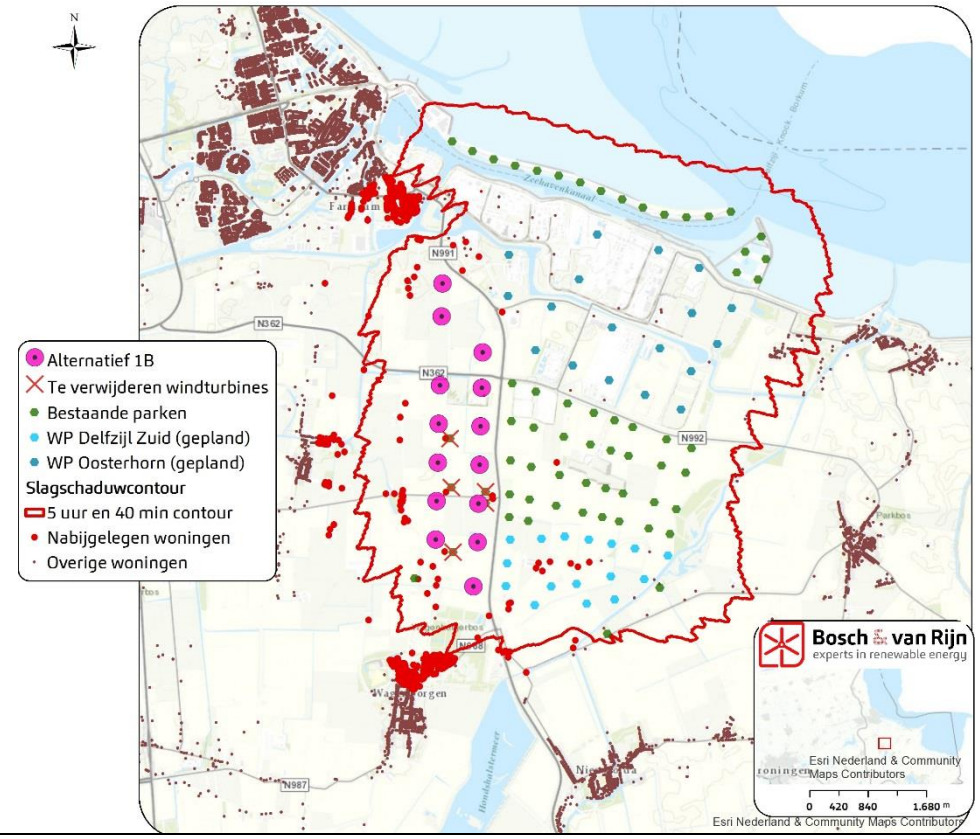
### 3.1.2 *Resultaten met cumulatie*

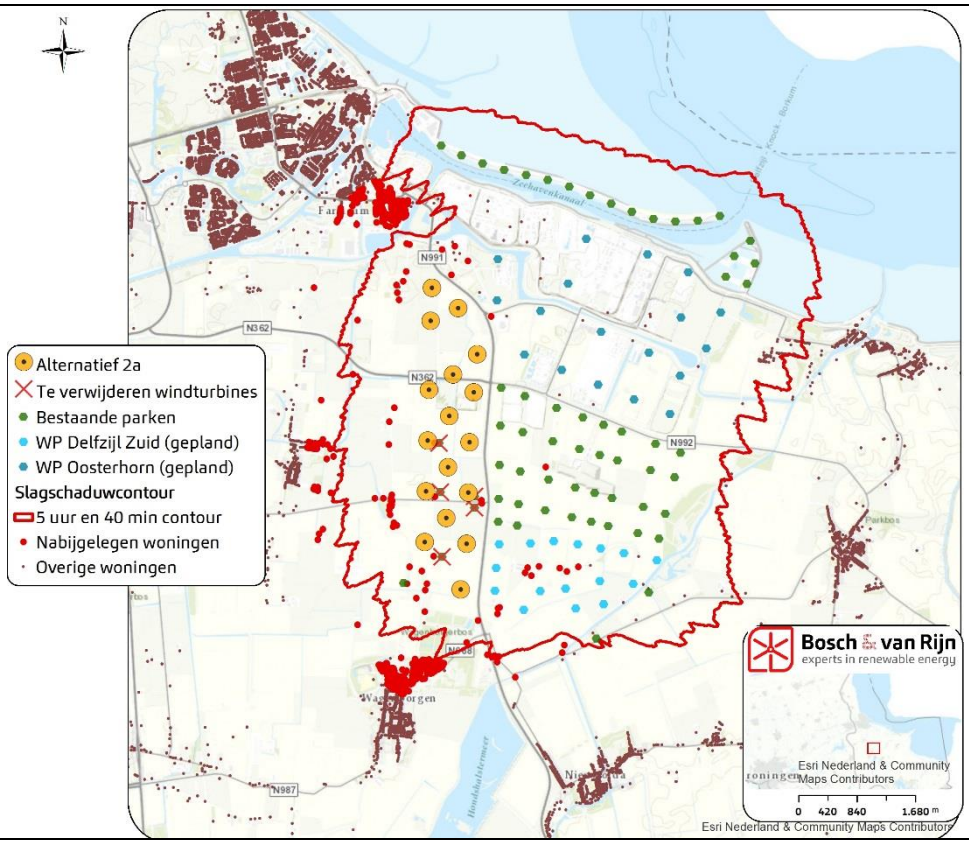
Onderstaande afbeeldingen (volgorde: referentiesituatie, A1A, A1B, A2A, A2B) tonen de 5 uur en 40 minuten slagschaduwcontouren per jaar van de referentiesituatie *en* van de nieuwe opstellingen met bestaande/geplande windparken. Hierbij worden dezelfde aannames gebruikt als bij de bovenstaande afbeeldingen.

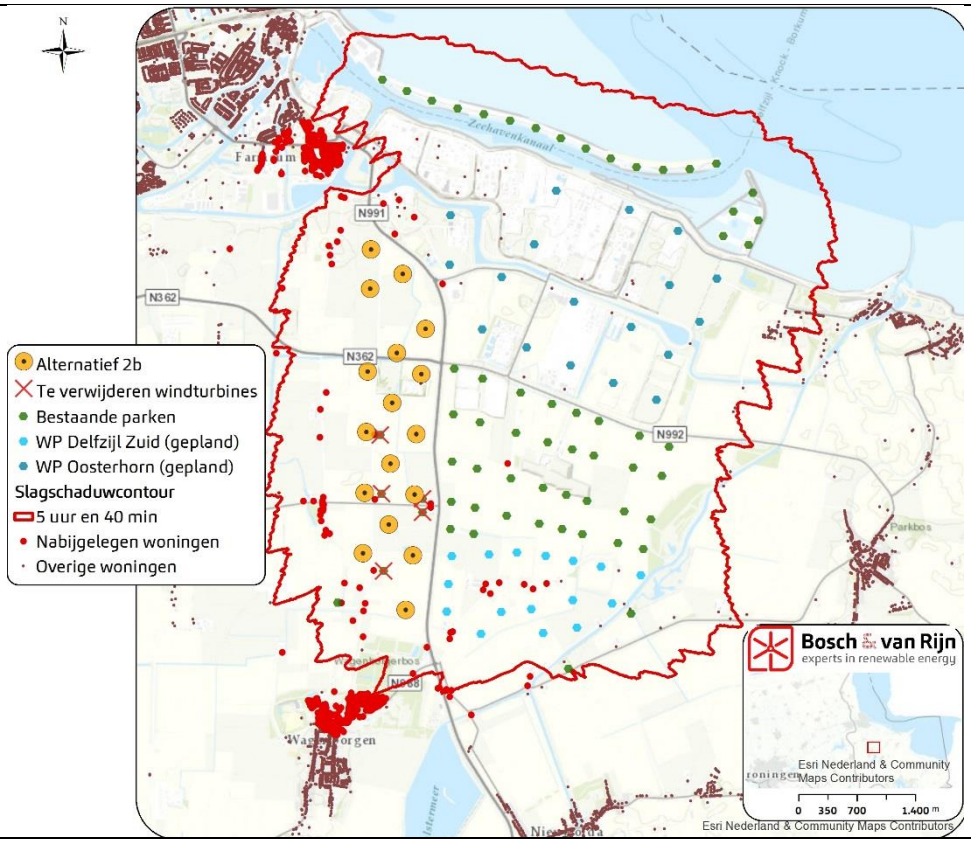
**Figuur 5** **5:40u en 0:00u slagschaduwcontouren van de alternatieven inclusief cumulatie (volgorde: referentiesituatie, A1A, A1B, A2A, A2B). Hierbij zijn ook woningen van derden weergegeven. Dit zijn immers de objecten waarvoor de norm geldt. (Er liggen geen andere gevoelige objecten, zoals scholen en ziekenhuizen, binnen of nabij de contour)**




N
Alternatief 1A
Te verwijderen windturbines
Bestaande parken
WP Delfzijl Zuid (gepland)
WP Oosterhorn (gepland)
Slagschaduwcontour
5 uur en 40 min contour
Nabijgelegen woningen
Overige woningen
N991
N362
N992
N987
Bosch & van Rijn
experts in renewable energy
Esri Nederland & Community Maps Contributors
0 420 840 1.680 m
Esri Nederland & Community Maps Contributors


N
Alternatief 1B
Te verwijderen windturbines
Bestaande parken
WP Delfzijl Zuid (gepland)
WP Oosterhorn (gepland)
Slagschaduwcontour
5 uur en 40 min contour
Nabijgelegen woningen
Overige woningen
N991
N362
N992
N987
Bosch & van Rijn
experts in renewable energy
Esri Nederland & Community Maps Contributors
0 420 840 1.680 m
Esri Nederland & Community Maps Contributors


N
Alternatief 2a
Te verwijderen windturbines
Bestaande parken
WP Delfzijl Zuid (gepland)
WP Oosterhorn (gepland)
Slagschaduwcontour
5 uur en 40 min contour
Nabijgelegen woningen
Overige woningen
N991
N362
N992
N987
Bosch & van Rijn
experts in renewable energy
Esri Nederland & Community Maps Contributors
0 420 840 1.680 m
Esri Nederland & Community Maps Contributors


N
Alternatief 2b
Te verwijderen windturbines
Bestaande parken
WP Delfzijl Zuid (gepland)
WP Oosterhorn (gepland)
Slagschaduwcontour
5 uur en 40 min
Nabijgelegen woningen
Overige woningen
N991
N362
N992
Bosch & van Rijn
experts in renewable energy
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## 3.2 Woningen binnen de contour

Er bevinden zich een aantal woningen binnen ten minste één van de 5 uur en 40 minuten slagschaduwcontouren, niet zijnde de woningen in de sfeer van de inrichting. Onderstaande tabel geeft de aantallen en in Bijlage A is een lijst van adressen opgenomen met de hoeveelheid slagschaduw die deze woningen ontvangen. Merk op dat sommige woningen ook slagschaduw ontvangen van nabijgelegen windturbines. In Bijlage A is ook de gecumuleerde slagschaduwduur weergegeven.

**Tabel 3** **Aantal woningen binnen 5:40 uur slagschaduwcontour van de opstellingen.**

| Opstelling | Aantal woningen binnen 5:40u contour | | Aantal woningen binnen 0u contour |
|---|---|---|---|
| | Zonder cumulatie | Met cumulatie | |
| Referentiesituatie | 3 | 27 | 5 |
| 1A | 46 | 54 | 256 |
| 1B | 41 | 52 | 188 |
| 2A | 44 | 53 | 235 |
| 2B | 44 | 52 | 189 |

## 3.3 Slagschaduw per woning

In Bijlage A is voor woningen die ten minste 5 uur en 40 minuten slagschaduw ontvangen, beschreven hoeveel slagschaduw te verwachten is per jaar als er geen mitigerende maatregelen genomen zouden worden.
Het onderzoek is uitgevoerd voor alle woningen binnen 12x de rotordiameter van alternatief 1A (grootste alternatief). De resultaten zijn te vinden in de uitdraai van het rekenprogramma (Bijlage C).

## 3.4 Stilstand per windturbine

De tabel hieronder geeft weer hoeveel schaduw er in *totaal* optreedt op *alle* woningen van derden binnen 12 keer de rotordiameter van alternatief 1A. In deze berekening wordt slagschaduw veroorzaakt door nabijgelegen/geplande windturbines *niet* meegenomen in de berekening. Tevens zijn woningen in de sfeer van de inrichting buiten de berekening gelaten.

**Tabel 4** **Benodigde stilstand in uren per jaar om slagschaduw te voorkomen**

| Opstelling | Stilstand per jaar (uu:mm) | Derving (%) |
|---|---|---|
| Referentiesituatie | 99:33 | 0,20% |
| Alternatief 1A | 1264:16 | 1,07% |
| Alternatief 1B | 855:52 | 0,73% |
| Alternatief 2A | 1203:51 | 0,84% |
| Alternatief 2B | 1032:04 | 0,72% |

Zie ook de WindPRO-bijlage (Bijlage C) voor de slagschaduwwaarden per woning. Om aan de norm te voldoen mogen woningen 5:40 uur slagschaduw ontvangen.

Om hieraan te voldoen is dus minder stilstand nodig. Tabel 5 geeft de derving. Deze is berekend per woning de slagschaduw *boven de 5:40 uur* te berekenen, en deze waarden op te tellen.

**Tabel 5** **Stilstand in uren per jaar om aan de norm te voldoen**

| Opstelling | Stilstand per jaar (uu:mm) | Derving (%) |
|---|---|---|
| Referentiesituatie | 73:50 | 0,15% |
| Alternatief 1A | 730:19 | 0,62% |
| Alternatief 1B | 515:19 | 0.44% |
| Alternatief 2A | 746:33 | 0,52% |
| Alternatief 2B | 686:37 | 0,48% |

# Hoofdstuk 4 Voorkeursalternatief

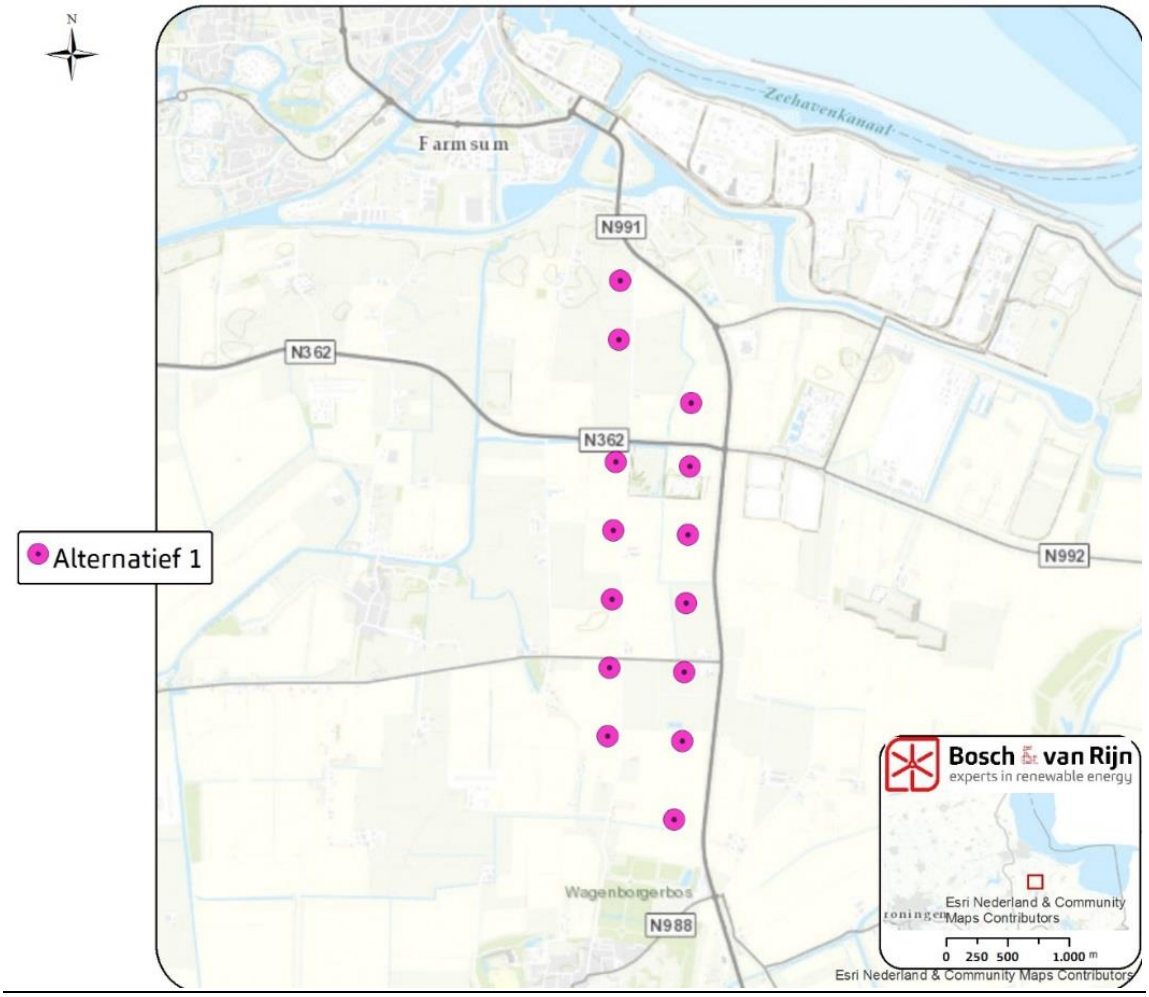
## 4.1 Beschrijving voorkeursalternatief

Op basis van de resultaten van het MER is een voorkeursalternatief gedefinieerd. Het voorkeursalternatief betreft 14 windturbines waarbij onderstaande bandbreedte wordt aangehouden:

- Ashoogte: 120 – 145 meter
- Rotordiameter: 120 – 145 meter

De bovenkant van de bandbreedte komt exact overeen met Alternatief 1A. Om de onderkant van de bandbreedte te dekken wordt een nieuwe slagschaduwberekening uitgevoerd waarbij gebruik wordt gemaakt van de minimale afmetingen. In dit geval wordt gebruik gemaakt van een GE2.5-120 op 120 meter ashoogte. De locaties van de windturbines zijn in onderstaand figuur weergegeven.

**Figuur 6** **Windturbine locaties van het voorkeursalternatief (VKA) voor windpark Geefsweer.**



De coördinaten van de windturbines staan in onderstaande tabel.

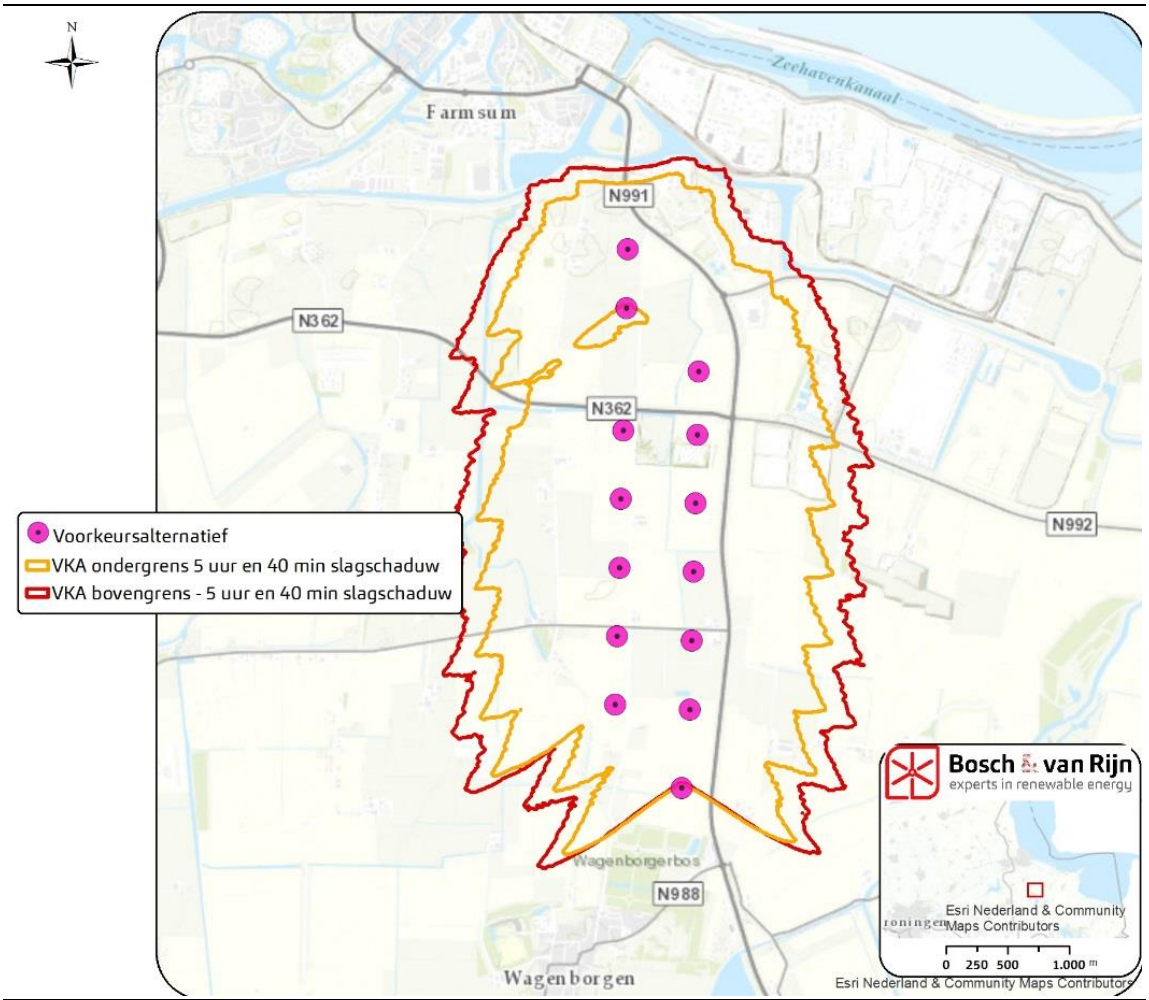
| Windturbines (van Noord naar zuid en van oost naar west) | RD-x | RD-y |
|---|---|---|
| 1 | 258610 | 592416 |
| 2 | 258598 | 591937 |
| 3 | 258572 | 590942 |
| 4 | 258554 | 590388 |
| 5 | 258542 | 589830 |
| 6 | 258528 | 589275 |
| 7 | 258509 | 588721 |
| 8 | 259187 | 591420 |
| 9 | 259174 | 590910 |
| 10 | 259158 | 590354 |
| 11 | 259144 | 589798 |
| 12 | 259127 | 589240 |
| 13 | 259112 | 588683 |
| 14 | 259050 | 588043 |

## 4.2 Rekenmethode

Voor het voorkeursalternatief wordt dezelfde rekenmethode gehanteerd als voor de MER-alternatieven (Hoofdstuk 2).

## 4.3 Resultaten

Onderstaande afbeelding toont de 5 uur en 40 minuten per jaar slagschaduwcontour van zowel de bovengrens als ondergrens. Hierbij wordt uitgegaan van een *realistische meteorologische* situatie. Dit wil dus zeggen dat er binnen de lijn jaarlijks meer dan 5 uur en 40 minuten slagschaduw optreedt en er buiten minder.




## 4.4 Woningen binnen de contour

Er bevinden zich (volgens de Basisregistratie Adressen en Gebouwen (BAG))) 46 woningen van derden binnen de slagschaduwcontouren van het voorkeursalternatief. Zie de bijlage voor een lijst met adressen.

**Tabel 6** **Aantal woningen binnen de slagschaduwcontour**

| Opstelling | Aantal woningen |
|---|---|
| Ondergrens | 40 |
| Bovengrens | 46 |

Op de locatie van elke woning is uitgegaan van een verticale schaduw ‘receptor’ van 5 meter hoog en 8 meter breed, beginnend op 50 cm hoogte. De receptoren zijn in alle richtingen gevoelig voor slagschaduw, en er is geen rekening gehouden met obstakels als bebouwing en begroeiing. Als uiteindelijk een te bouwen windturbinetype bekend zal voor elke woning in de nabijheid van het windpark een stilstandsregeling moeten worden ingesteld op de betreffende windturbines.

## 4.5 Slagschaduw per woning

In de bijlage is voor de woningen die zich binnen tenminste 1 van de 5 uur en 40 min slagschaduwcontouren bevinden beschreven hoeveel slagschaduw er te verwachten is per jaar als er geen mitigerende maatregelen zouden worden genomen.

## 4.6 Stilstand per woning

De tabel hieronder heeft weer hoe lang de windturbines jaarlijks uitgeschakeld moet worden om *alle* slagschaduw op woningen binnen een afstand van twaalf keer de rotordiameter te voorkomen.

**Tabel 7** **Benodigde stilstand in uren per jaar om slagschaduw te voorkomen**

| Opstelling | Derving [%] | [uu:mm] |
|---|---|---|
| Ondergrens | 0,63 | 737:42 |
| Bovengrens | 1,07 | 1264:16 |

Om aan de norm te voldoen mogen woningen 5:40 uur slagschaduw ontvangen. Om hieraan te voldoen is dus minder stilstand nodig. Tabel 5 8 geeft de derving. Deze is berekend per woning de slagschaduw *boven de 5:40 uur* te berekenen, en deze waarden op te tellen.

**Tabel 8** **Stilstand in uren per jaar om aan de norm te voldoen**

| Opstelling | Derving [%] | [uu:mm] |
|---|---|---|
| Ondergrens | 0,36 | 420:38 |
| Bovengrens | 0,62 | 730:19 |

# Hoofdstuk 5 Conclusie

## 5.1 Conclusie slagschaduwonderzoek projectMER

Voor de vier alternatieven hebben woningen in de omgeving van het windpark jaarlijks meer slagschaduw dan volgens de Activiteitenregeling is toegestaan. Om aan de wettelijke norm voor slagschaduw te voldoen zal een stilstandvoorziening in de turbines moeten worden aangebracht. Deze turbine schakelt de turbine uit wanneer deze norm overschrijdende slagschaduw veroorzaakt, afhankelijk van tijd, datum, windrichting en bewolking.

Met meteorologische gegevens is voor de vier onderzochte alternatieven berekend hoe lang de turbines moeten worden stilgezet om de slagschaduw op woningen te reduceren tot de 5:40 uur norm. Voor Alternatief 2A (alternatief met de meeste slagschaduw) levert dit een verlies op van ongeveer 0,52% van de energieopbrengst terwijl voor Alternatief 1B (alternatief met de minste slagschaduw) dit een opbrengstderving van 0,44% geeft.

Tevens is voor het voorkeursalternatief berekend hoeveel slagschaduw er valt op woningen in de omgeving van het windpark. Voor 40 tot 46 woningen is dit meer dan volgens de Activiteitenregeling is toegestaan. Om aan de wettelijke norm voor slagschaduw te voldoen zal een stilstandvoorziening in de turbines moeten worden aangebracht. Voor de bovengrens leidt dit tot een verlies van 0,62% en voor de ondergrens van 0,36%.

Een dergelijke kleine opbrengstderving brengt rendabele exploitatie van de vier alternatieven niet in gevaar.

# Hoofdstuk 6 Bijlagen

# Bijlage A Resultaten per woning

Hieronder staan de woningen die ten minste 5 uur en 40 minuten slagschaduw ontvangen bij de projectMER alternatieven. De adresgegevens komen uit de Basisadministratie Adressen en Gebouwen (BAG), download van juli 2016.

Uren schaduw per jaar, per opstelling.

| Adres | Ref. sit. | Ref. sit.* | A1A | A1A* | A1B | A1B* | A2A | A2A* | A2B | A2B* |
|---|---|---|---|---|---|---|---|---|---|---|
| Kloosterlaan 26 9945TG Wagenborgen | 00:00 | 123:11 | 13:05 | 136:14 | 09:12 | 132:27 | 10:09 | 133:24 | 08:45 | 131:59 |
| Zomerdijk 3 A 9945TH Wagenborgen | 00:00 | 126:16 | 02:53 | 128:49 | 01:24 | 127:32 | 01:54 | 128:05 | 01:07 | 127:21 |
| Kloosterlaan 21 B 9945TG Wagenborgen | 00:00 | 112:14 | 15:21 | 127:39 | 11:38 | 123:57 | 11:42 | 123:59 | 10:31 | 122:48 |
| Kloosterlaan 21 A 9945TG Wagenborgen | 00:00 | 108:26 | 15:36 | 124:12 | 09:19 | 117:51 | 14:16 | 122:52 | 10:51 | 119:25 |
| Zomerdijk 2 9945TH Wagenborgen | 00:00 | 122:07 | 02:50 | 123:30 | 00:34 | 122:38 | 01:07 | 122:59 | 00:33 | 122:35 |
| Zomerdijk 3 9945TH Wagenborgen | 00:00 | 114:41 | 03:30 | 118:04 | 01:52 | 116:33 | 02:29 | 117:11 | 01:36 | 116:19 |
| Zomerdijk 1 9945TH Wagenborgen | 00:00 | 105:42 | 08:38 | 113:58 | 04:32 | 110:19 | 09:43 | 113:35 | 06:26 | 111:31 |
| Kloosterlaan 23 9945TG Wagenborgen | 00:00 | 74:12 | 12:24 | 86:35 | 13:48 | 87:59 | 08:31 | 82:41 | 11:55 | 86:06 |
| Kloosterlaan 25 9945TG Wagenborgen | 00:00 | 69:16 | 09:39 | 78:53 | 11:52 | 81:06 | 05:55 | 75:09 | 10:00 | 79:14 |
| Kloosterlaan 21 9936TE Farmsum | 00:00 | 58:14 | 12:59 | 70:06 | 07:11 | 64:44 | 10:31 | 68:00 | 06:38 | 64:22 |
| T.J. Jansenweg 11 9936HL Farmsum | 00:00 | 26:46 | 37:32 | 64:41 | 29:53 | 57:03 | 42:13 | 69:29 | 39:24 | 66:41 |
| Kloosterlaan 27 9945TG Wagenborgen | 00:00 | 62:33 | 00:00 | 62:33 | 02:35 | 65:06 | 00:00 | 62:33 | 01:36 | 64:08 |
| Karspelpad 8 9936HP Farmsum | 00:00 | 45:12 | 13:27 | 59:08 | 10:20 | 55:57 | 15:50 | 61:45 | 13:09 | 58:58 |
| Oosterlaan 9 9936HN Farmsum | 00:00 | 24:46 | 26:34 | 51:32 | 20:14 | 45:11 | 49:51 | 74:40 | 49:07 | 73:54 |
| Geefsweersterweg 16 9937TC Meedhuizen | 00:00 | 01:27 | 46:05 | 47:17 | 37:54 | 39:01 | 18:24 | 19:50 | 20:52 | 22:00 |
| Geefsweersterweg 23 9937TB Meedhuizen | 00:00 | 01:01 | 40:29 | 41:12 | 27:07 | 27:53 | 25:58 | 26:56 | 28:34 | 29:31 |
| Geefsweersterweg 7 9937TB Meedhuizen | 00:00 | 02:41 | 38:10 | 40:51 | 27:15 | 29:56 | 35:21 | 38:02 | 29:57 | 32:38 |
| Geefsweersterweg 14 9937TC Meedhuizen | 00:00 | 01:03 | 37:46 | 38:25 | 26:32 | 27:13 | 31:48 | 32:43 | 34:32 | 35:26 |
| Geefsweersterweg 15 9937TB Meedhuizen | 00:00 | 00:00 | 38:22 | 38:22 | 32:28 | 32:28 | 39:20 | 39:20 | 33:44 | 33:44 |
| Geefsweersterweg 8 9937TC Meedhuizen | 00:00 | 03:11 | 34:02 | 37:06 | 32:34 | 34:28 | 33:24 | 36:34 | 36:23 | 38:18 |
| Geefsweersterweg 12 9937TC Meedhuizen | 00:00 | 01:03 | 35:38 | 36:15 | 25:19 | 25:58 | 35:13 | 36:05 | 37:37 | 38:28 |
| Geefsweersterweg 8 A 9937TC Meedhuizen | 00:00 | 00:00 | 35:17 | 35:17 | 30:50 | 30:50 | 31:01 | 31:01 | 30:35 | 30:35 |
| Geefsweersterweg 6 9937TC Meedhuizen | 00:00 | 02:58 | 30:44 | 33:42 | 23:46 | 26:12 | 28:03 | 31:00 | 26:20 | 28:46 |
| Geefsweersterweg 21 A 9937TB Meedhuizen | 00:00 | 00:58 | 33:05 | 33:41 | 23:13 | 23:52 | 33:37 | 34:27 | 35:07 | 35:57 |
| Tolhek 4 9945TJ Wagenborgen | 00:00 | 33:24 | 00:00 | 33:24 | 00:00 | 33:24 | 00:00 | 33:24 | 00:00 | 33:24 |
| Geefsweersterweg 10 9937TC Meedhuizen | 00:00 | 00:59 | 31:36 | 32:09 | 22:43 | 23:17 | 43:14 | 43:55 | 43:48 | 44:19 |
| Geefsweersterweg 18 9937TC Meedhuizen | 00:00 | 01:51 | 29:20 | 31:06 | 28:07 | 29:32 | 23:34 | 25:14 | 21:12 | 22:35 |
| Geefsweersterweg 21 9937TB Meedhuizen | 00:00 | 00:58 | 30:03 | 30:37 | 21:37 | 22:11 | 42:29 | 43:11 | 42:29 | 43:03 |
| Familie Bronsweg 68 9945TA Wagenborgen | 05:51 | 17:49 | 18:35 | 30:35 | 17:27 | 29:16 | 12:14 | 24:14 | 14:28 | 26:01 |
| Familie Bronsweg 64 9945TA Wagenborgen | 05:48 | 22:11 | 16:26 | 30:21 | 12:38 | 25:30 | 16:20 | 30:57 | 15:16 | 28:17 |
| Familie Bronsweg 66 9945TA Wagenborgen | 03:34 | 21:57 | 12:48 | 29:55 | 10:06 | 26:15 | 12:30 | 29:41 | 12:06 | 27:48 |
| Geefsweersterweg 19 9937TB Meedhuizen | 00:00 | 00:54 | 26:59 | 27:31 | 19:28 | 20:00 | 46:30 | 46:58 | 42:25 | 42:44 |
| Geefsweersterweg 17 9937TB Meedhuizen | 00:00 | 00:52 | 25:45 | 26:16 | 18:35 | 19:06 | 45:44 | 45:58 | 39:47 | 39:52 |
| Geefsweersterweg 3 9937TB Meedhuizen | 00:00 | 02:23 | 23:41 | 26:03 | 18:18 | 20:18 | 22:16 | 24:39 | 20:46 | 22:44 |
| Geefsweersterweg 4 9937TC Meedhuizen | 00:00 | 03:05 | 22:06 | 25:10 | 17:14 | 20:17 | 20:22 | 23:26 | 18:09 | 21:13 |
| Geefsweersterweg 20 9937TC Meedhuizen | 00:00 | 02:11 | 21:52 | 24:00 | 19:23 | 21:15 | 29:40 | 31:32 | 26:37 | 28:18 |
| Geefsweersterweg 29 9937TB Meedhuizen | 00:00 | 01:55 | 21:57 | 23:48 | 20:56 | 22:37 | 24:48 | 26:22 | 21:53 | 23:11 |
| Geefsweersterweg 13 9937TB Meedhuizen | 00:00 | 00:00 | 23:17 | 23:17 | 16:38 | 16:38 | 19:57 | 19:57 | 16:44 | 16:44 |
| Familie Bronsweg 62 9945TA Wagenborgen | 00:00 | 11:45 | 13:32 | 23:16 | 09:55 | 19:11 | 13:06 | 24:10 | 11:42 | 22:05 |
| Schaappad 1 9936HT Farmsum | 00:00 | 13:17 | 09:38 | 23:15 | 07:15 | 20:53 | 08:11 | 21:47 | 07:12 | 20:51 |
| Ideweersterweg 10 9937TM Meedhuizen | 00:00 | 00:00 | 20:58 | 20:58 | 15:37 | 15:37 | 23:02 | 23:02 | 17:15 | 17:15 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Familie Bronsweg 89 9945TA Wagenborgen | 05:09 | 11:14 | 15:34 | 20:55 | 10:20 | 15:37 | 15:01 | 21:12 | 11:32 | 17:32 |
| Ideweersterweg 8 9937TM Meedhuizen | 00:00 | 00:23 | 20:27 | 20:50 | 15:39 | 16:03 | 34:14 | 34:34 | 28:34 | 28:48 |
| Familie Bronsweg 60 9945TA Wagenborgen | 00:00 | 12:38 | 10:15 | 20:23 | 12:19 | 20:43 | 02:34 | 13:52 | 07:36 | 15:22 |
| Heemskesweg 5 9936HE Farmsum | 00:00 | 08:23 | 11:13 | 20:00 | 07:37 | 16:24 | 10:46 | 19:33 | 07:33 | 16:20 |
| Familie Bronsweg 87 9945TA Wagenborgen | 79:11 | 86:39 | 11:23 | 17:38 | 09:07 | 15:12 | 07:56 | 14:10 | 07:31 | 13:24 |
| Geefsweersterweg 9 9937TB Meedhuizen | 00:00 | 00:00 | 10:32 | 10:32 | 06:15 | 06:15 | 10:07 | 10:07 | 07:05 | 07:05 |
| Tolhek 1 9945TJ Wagenborgen | 00:00 | 09:56 | 00:00 | 09:56 | 00:00 | 09:56 | 00:00 | 09:56 | 00:00 | 09:56 |
| Geefsweersterweg 2 9937TC Meedhuizen | 00:00 | 02:23 | 07:16 | 09:42 | 05:03 | 07:29 | 08:46 | 11:12 | 07:03 | 09:29 |
| Geefsweersterweg 1 9937TB Meedhuizen | 00:00 | 02:10 | 06:55 | 09:08 | 04:55 | 07:07 | 08:20 | 10:32 | 06:47 | 08:59 |
| Geefsweersterweg 11 9937TB Meedhuizen | 00:00 | 00:00 | 07:23 | 07:23 | 04:14 | 04:14 | 05:56 | 05:56 | 04:21 | 04:21 |
| Kopaf 8 9945TE Wagenborgen | 00:00 | 06:47 | 00:00 | 06:47 | 00:00 | 06:47 | 00:00 | 06:47 | 00:00 | 06:47 |
| Kerklaan 6 9937PG Meedhuizen | 00:00 | 00:00 | 06:35 | 06:35 | 02:54 | 02:54 | 05:01 | 05:01 | 02:33 | 02:33 |
| Kopaf 6 9945TE Wagenborgen | 00:00 | 05:53 | 00:00 | 05:53 | 00:00 | 05:53 | 00:00 | 05:53 | 00:00 | 05:53 |

Hieronder staan de woningen die ten minste 5 uur en 40 minuten slagschaduw ontvangen bij het VKA. De adresgegevens komen uit de Basisadministratie Adressen en Gebouwen (BAG), download van juli 2016.

Uren schaduw per jaar, per opstelling.

| Adres | VKA bovengrens | VKA ondergrens |
|---|---|---|
| Familie Bronsweg 60 9945TA Wagenborgen | 10:15 | 10:53 |
| Tolhek 4 9945TJ Wagenborgen | 00:00 | 00:00 |
| Tolhek 1 9945TJ Wagenborgen | 00:00 | 00:00 |
| Familie Bronsweg 62 9945TA Wagenborgen | 13:32 | 08:38 |
| Meerweg 3 9945RC Wagenborgen | 01:22 | 00:29 |
| G. Boelmanweg 2 9945RJ Wagenborgen | 00:00 | 00:00 |
| G. Boelmanweg 3 9945RE Wagenborgen | 00:00 | 00:00 |
| G. Boelmanweg 5 9945RE Wagenborgen | 00:00 | 00:00 |
| G. Boelmanweg 4 9945RJ Wagenborgen | 00:00 | 00:00 |
| G. Boelmanweg 7 9945RE Wagenborgen | 00:00 | 00:00 |
| G. Boelmanweg 6 9945RJ Wagenborgen | 00:00 | 00:00 |
| Kokslaan 1 9945RD Wagenborgen | 00:00 | 00:00 |
| Kokslaan 2 9945RD Wagenborgen | 00:00 | 00:00 |
| Kerkstraat 1 9945SB Wagenborgen | 00:00 | 00:00 |
| Hoofdweg 30 9945PG Wagenborgen | 00:00 | 00:00 |
| Hoofdweg 32 9945PG Wagenborgen | 00:00 | 00:00 |
| Hoofdweg 31 9945PA Wagenborgen | 00:00 | 00:00 |
| Hoofdweg 38 9945PG Wagenborgen | 00:00 | 00:00 |
| Hoofdweg 39 9945PB Wagenborgen | 00:00 | 00:00 |
| Hoofdweg 35 9945PB Wagenborgen | 00:00 | 00:00 |
| Hoofdweg 37 9945PB Wagenborgen | 00:00 | 00:00 |
| Hoofdweg 44 9945PH Wagenborgen | 00:00 | 00:00 |
| Hoofdweg 48 9945PH Wagenborgen | 00:00 | 00:00 |
| Hoofdweg 41 9945PB Wagenborgen | 00:00 | 00:00 |
| Hoofdweg 20 9945PG Wagenborgen | 00:00 | 00:00 |
| Hoofdweg 22 9945PG Wagenborgen | 00:00 | 00:00 |
| Hoofdweg 26 9945PG Wagenborgen | 00:00 | 00:00 |
| Hoofdweg 23 9945PA Wagenborgen | 00:00 | 00:00 |
| Hoofdweg 25 9945PA Wagenborgen | 00:00 | 00:00 |
| Hoofdweg 27 9945PA Wagenborgen | 00:00 | 00:00 |
| Hoofdweg 29 9945PA Wagenborgen | 00:00 | 00:00 |
| Hoofdweg 18 9945PG Wagenborgen | 00:00 | 00:00 |
| Hoofdweg 14 9945PG Wagenborgen | 00:00 | 00:00 |
| Hoofdweg 10 9945PG Wagenborgen | 00:00 | 00:00 |
| Hoofdweg 8 9945PG Wagenborgen | 00:00 | 00:00 |
| Hoofdweg 6 9945PG Wagenborgen | 00:00 | 00:00 |
| Hoofdweg 4 9945PG Wagenborgen | 00:00 | 00:00 |
| Hoofdweg 21 9945PA Wagenborgen | 00:00 | 00:00 |
| Hoofdweg 19 9945PA Wagenborgen | 00:00 | 00:00 |
| Hoofdweg 2 9945PG Wagenborgen | 00:00 | 00:00 |
| Hoofdweg 15 9945PA Wagenborgen | 00:00 | 00:00 |
| Hoofdweg 9 9945PA Wagenborgen | 00:00 | 00:00 |
| Hoofdweg 11 9945PA Wagenborgen | 00:00 | 00:00 |
| Hoofdweg 7 9945PA Wagenborgen | 00:00 | 00:00 |
| Hoofdweg 5 9945PA Wagenborgen | 00:00 | 00:00 |
| H.L. Emmensweg 17 9945PW Wagenborgen | 00:00 | 00:00 |
| H.L. Emmensweg 18 9945PX Wagenborgen | 00:00 | 00:00 |
| H.L. Emmensweg 20 9945PX Wagenborgen | 00:00 | 00:00 |
| H.L. Emmensweg 22 9945PX Wagenborgen | 00:00 | 00:00 |
| H.L. Emmensweg 24 9945PX Wagenborgen | 00:00 | 00:00 |
| H.L. Emmensweg 26 9945PX Wagenborgen | 00:00 | 00:00 |
| H.L. Emmensweg 10 9945PX Wagenborgen | 00:00 | 00:00 |
| H.L. Emmensweg 12 9945PX Wagenborgen | 00:00 | 00:00 |
| H.L. Emmensweg 14 9945PX Wagenborgen | 00:00 | 00:00 |

| | | |
|---|---|---|
| H.L. Emmensweg 16 9945PX Wagenborgen | 00:00 | 00:00 |
| H.L. Emmensweg 13 9945PW Wagenborgen | 00:00 | 00:00 |
| H.L. Emmensweg 15 9945PW Wagenborgen | 00:00 | 00:00 |
| H.L. Emmensweg 9 9945PW Wagenborgen | 00:00 | 00:00 |
| H.L. Emmensweg 11 9945PW Wagenborgen | 00:00 | 00:00 |
| H.L. Emmensweg 5 9945PW Wagenborgen | 00:00 | 00:00 |
| H.L. Emmensweg 7 9945PW Wagenborgen | 00:00 | 00:00 |
| H.L. Emmensweg 4 9945PX Wagenborgen | 00:00 | 00:00 |
| H.L. Emmensweg 2 9945PX Wagenborgen | 00:00 | 00:00 |
| H.L. Emmensweg 1 9945PW Wagenborgen | 00:00 | 00:00 |
| H.L. Emmensweg 3 9945PW Wagenborgen | 00:00 | 00:00 |
| de Linden 4 9945PZ Wagenborgen | 00:00 | 00:00 |
| de Linden 6 9945PZ Wagenborgen | 00:00 | 00:00 |
| de Linden 10 9945PZ Wagenborgen | 00:00 | 00:00 |
| de Linden 12 9945PZ Wagenborgen | 00:00 | 00:00 |
| de Linden 2 9945PZ Wagenborgen | 00:00 | 00:00 |
| de Wilgen 12 9945RB Wagenborgen | 00:00 | 00:00 |
| de Wilgen 10 9945RB Wagenborgen | 00:00 | 00:00 |
| de Wilgen 8 9945RB Wagenborgen | 00:00 | 00:00 |
| de Wilgen 2 9945RB Wagenborgen | 00:00 | 00:00 |
| de Wilgen 4 9945RB Wagenborgen | 00:00 | 00:00 |
| de Wilgen 6 9945RB Wagenborgen | 00:00 | 00:00 |
| de Wilgen 6 A 9945RB Wagenborgen | 00:00 | 00:00 |
| de Wilgen 3 9945RB Wagenborgen | 00:00 | 00:00 |
| de Wilgen 3 A 9945RB Wagenborgen | 00:00 | 00:00 |
| de Wilgen 3 B 9945RB Wagenborgen | 00:00 | 00:00 |
| de Wilgen 5 9945RB Wagenborgen | 00:00 | 00:00 |
| de Wilgen 46 9945RB Wagenborgen | 00:00 | 00:00 |
| de Wilgen 44 9945RB Wagenborgen | 00:00 | 00:00 |
| de Wilgen 48 9945RB Wagenborgen | 00:00 | 00:00 |
| de Wilgen 50 9945RB Wagenborgen | 00:00 | 00:00 |
| de Wilgen 36 9945RB Wagenborgen | 00:00 | 00:00 |
| de Wilgen 38 9945RB Wagenborgen | 00:00 | 00:00 |
| de Wilgen 40 9945RB Wagenborgen | 00:00 | 00:00 |
| de Wilgen 42 9945RB Wagenborgen | 00:00 | 00:00 |
| de Wilgen 28 9945RB Wagenborgen | 00:00 | 00:00 |
| de Wilgen 30 9945RB Wagenborgen | 00:00 | 00:00 |
| de Wilgen 32 9945RB Wagenborgen | 00:00 | 00:00 |
| de Wilgen 34 9945RB Wagenborgen | 00:00 | 00:00 |
| de Wilgen 24 9945TK Wagenborgen | 00:00 | 00:00 |
| de Wilgen 26 9945RB Wagenborgen | 00:00 | 00:00 |
| de Wilgen 20 9945RB Wagenborgen | 00:00 | 00:00 |
| de Wilgen 22 9945RB Wagenborgen | 00:00 | 00:00 |
| de Wilgen 18 9945RB Wagenborgen | 00:00 | 00:00 |
| de Wilgen 16 9945RB Wagenborgen | 00:00 | 00:00 |
| de Wilgen 14 9945RB Wagenborgen | 00:00 | 00:00 |
| de Wilgen 9 9945RB Wagenborgen | 00:00 | 00:00 |
| de Wilgen 52 9945RB Wagenborgen | 00:00 | 00:00 |
| Menterne 22 9945RA Wagenborgen | 00:00 | 00:00 |
| Menterne 18 9945RA Wagenborgen | 00:00 | 00:00 |
| Menterne 21 9945RA Wagenborgen | 00:00 | 00:00 |
| Menterne 19 9945RA Wagenborgen | 00:00 | 00:00 |
| Menterne 20 9945RA Wagenborgen | 00:00 | 00:00 |
| Menterne 17 9945RA Wagenborgen | 00:00 | 00:00 |
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| Menterne 11 9945RA Wagenborgen | 00:00 | 00:00 |
| Menterne 12 9945RA Wagenborgen | 00:00 | 00:00 |
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| Menterne 1 9945RA Wagenborgen | 00:00 | 00:00 |
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| Menterne 4 9945RA Wagenborgen | 00:00 | 00:00 |
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| Menterne 15 9945RA Wagenborgen | 00:00 | 00:00 |
| Menterne 16 9945RA Wagenborgen | 00:00 | 00:00 |
| de Berken 6 9945PT Wagenborgen | 00:00 | 00:00 |
| de Berken 2 9945PT Wagenborgen | 00:00 | 00:00 |
| de Berken 4 9945PT Wagenborgen | 00:00 | 00:00 |
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| de Eiken 2 9945VA Wagenborgen | 00:00 | 00:00 |
| de Eiken 4 9945VA Wagenborgen | 00:00 | 00:00 |
| de Eiken 6 9945VA Wagenborgen | 00:00 | 00:00 |
| de Eiken 8 9945VA Wagenborgen | 00:00 | 00:00 |
| de Eiken 10 9945VA Wagenborgen | 00:00 | 00:00 |
| de Eiken 12 9945VA Wagenborgen | 00:00 | 00:00 |
| de Eiken 2 A 9945VA Wagenborgen | 00:00 | 00:00 |
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| Troostlaan 8 9945PV Wagenborgen | 00:00 | 00:00 |
| Troostlaan 9 9945PV Wagenborgen | 00:00 | 00:00 |
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| Troostlaan 19 9945PV Wagenborgen | 00:00 | 00:00 |
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| Familie Bronsweg 69 9945PP Wagenborgen | 00:00 | 00:00 |
| Familie Bronsweg 67 9945PP Wagenborgen | 00:00 | 00:00 |
| Familie Bronsweg 65 9945PP Wagenborgen | 00:00 | 00:00 |

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| Familie Bronsweg 63 9945PP Wagenborgen | 00:00 | 00:00 |
| Familie Bronsweg 61 9945PP Wagenborgen | 00:00 | 00:00 |
| Familie Bronsweg 59 9945PP Wagenborgen | 00:00 | 00:00 |
| Familie Bronsweg 57 9945PP Wagenborgen | 00:00 | 00:00 |
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| Familie Bronsweg 73 9945PP Wagenborgen | 00:00 | 00:00 |
| Familie Bronsweg 85 9945PP Wagenborgen | 00:00 | 00:00 |
| Familie Bronsweg 83 9945PP Wagenborgen | 00:00 | 00:00 |
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| Familie Bronsweg 10 9945PR Wagenborgen | 00:00 | 00:00 |
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| Familie Bronsweg 15 9945PN Wagenborgen | 00:00 | 00:00 |
| Familie Bronsweg 17 9945PN Wagenborgen | 00:00 | 00:00 |
| Familie Bronsweg 2 A 9945PR Wagenborgen | 00:00 | 00:00 |
| Familie Bronsweg 2 B 9945PR Wagenborgen | 00:00 | 00:00 |
| Familie Bronsweg 2 C 9945PR Wagenborgen | 00:00 | 00:00 |
| Familie Bronsweg 2 D 9945PR Wagenborgen | 00:00 | 00:00 |
| Familie Bronsweg 2 F 9945PR Wagenborgen | 00:00 | 00:00 |
| Familie Bronsweg 2 G 9945PR Wagenborgen | 00:00 | 00:00 |
| Familie Bronsweg 2 H 9945PR Wagenborgen | 00:00 | 00:00 |
| Familie Bronsweg 2 J 9945PR Wagenborgen | 00:00 | 00:00 |
| Akeleistraat 17 9945VD Wagenborgen | 00:00 | 00:00 |
| Akeleistraat 19 9945VD Wagenborgen | 00:00 | 00:00 |
| Akeleistraat 21 9945VD Wagenborgen | 00:00 | 00:00 |
| Akeleistraat 23 9945VD Wagenborgen | 00:00 | 00:00 |
| Akeleistraat 20 9945VD Wagenborgen | 00:00 | 00:00 |
| Akeleistraat 22 9945VD Wagenborgen | 00:00 | 00:00 |
| Akeleistraat 16 9945VD Wagenborgen | 00:00 | 00:00 |
| Akeleistraat 18 9945VD Wagenborgen | 00:00 | 00:00 |
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| Akeleistraat 2 9945VD Wagenborgen | 00:00 | 00:00 |
| Akeleistraat 4 9945VD Wagenborgen | 00:00 | 00:00 |
| Akeleistraat 6 9945VD Wagenborgen | 00:00 | 00:00 |
| Akeleistraat 8 9945VD Wagenborgen | 00:00 | 00:00 |
| Akeleistraat 15 9945VD Wagenborgen | 00:00 | 00:00 |
| Bremstraat 6 9945VC Wagenborgen | 00:00 | 00:00 |
| Bremstraat 2 9945VC Wagenborgen | 00:00 | 00:00 |
| Bremstraat 4 9945VC Wagenborgen | 00:00 | 00:00 |
| Bremstraat 12 9945VC Wagenborgen | 00:00 | 00:00 |
| Hibiscusstraat 30 9945VB Wagenborgen | 00:00 | 00:00 |
| Hibiscusstraat 2 9945VB Wagenborgen | 00:00 | 00:00 |
| Hibiscusstraat 4 9945VB Wagenborgen | 00:00 | 00:00 |
| Hibiscusstraat 10 9945VB Wagenborgen | 00:00 | 00:00 |
| Hibiscusstraat 16 9945VB Wagenborgen | 00:00 | 00:00 |
| Bremstraat 14 9945VC Wagenborgen | 00:00 | 00:00 |

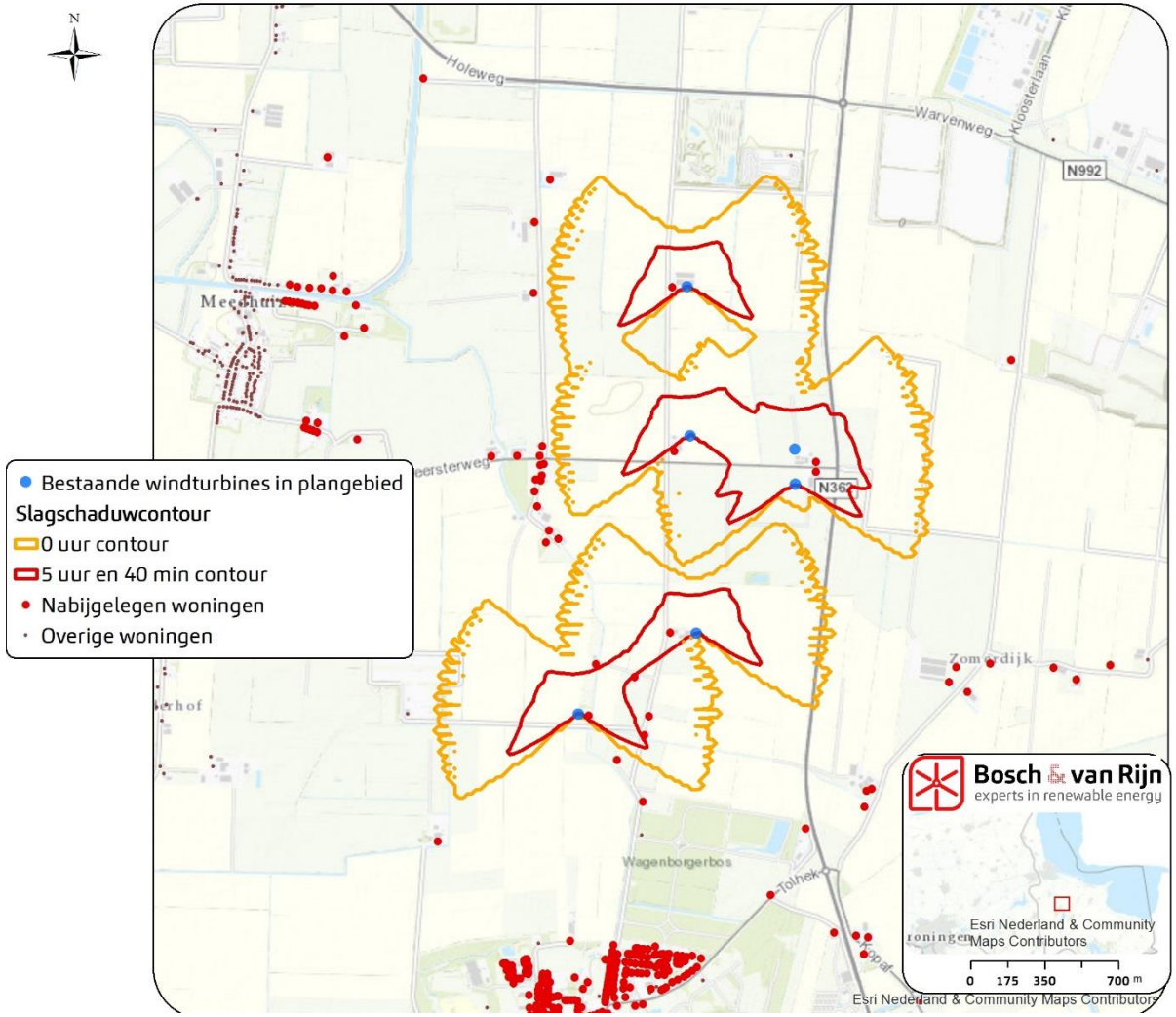
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| Kopaf 7 9945TE Wagenborgen | 00:00 | 00:00 |
| Kopaf 6 9945TE Wagenborgen | 00:00 | 00:00 |
| Kloosterlaan 27 9945TG Wagenborgen | 00:00 | 01:39 |
| Kloosterlaan 25 9945TG Wagenborgen | 09:39 | 10:18 |
| Kloosterlaan 23 9945TG Wagenborgen | 12:24 | 12:19 |
| Scheve Klap 5 9945TD Wagenborgen | 02:27 | 00:34 |
| Scheve Klap 4 9945TD Wagenborgen | 01:05 | 00:33 |
| Hibiscusstraat 8 9945VB Wagenborgen | 00:00 | 00:00 |
| Hibiscusstraat 12 9945VB Wagenborgen | 00:00 | 00:00 |
| Hibiscusstraat 18 9945VB Wagenborgen | 00:00 | 00:00 |
| Hibiscusstraat 24 9945VB Wagenborgen | 00:00 | 00:00 |
| Hibiscusstraat 22 9945VB Wagenborgen | 00:00 | 00:00 |
| Troostlaan 15 9945PV Wagenborgen | 00:00 | 00:00 |
| Bremstraat 10 9945VC Wagenborgen | 00:00 | 00:00 |
| Hibiscusstraat 20 9945VB Wagenborgen | 00:00 | 00:00 |
| Hibiscusstraat 28 9945VB Wagenborgen | 00:00 | 00:00 |
| Troostlaan 5 9945PV Wagenborgen | 00:00 | 00:00 |
| Troostlaan 6 9945PV Wagenborgen | 00:00 | 00:00 |
| Boslaan 5 9945TM Wagenborgen | 00:00 | 00:00 |
| Hoofdweg 33 A 9945PB Wagenborgen | 00:00 | 00:00 |
| Akeleistraat 13 9945VD Wagenborgen | 00:00 | 00:00 |
| Hoofdweg 42 9945PG Wagenborgen | 00:00 | 00:00 |
| Familie Bronsweg 2 E 9945PR Wagenborgen | 00:00 | 00:00 |
| Hibiscusstraat 14 9945VB Wagenborgen | 00:00 | 00:00 |
| Bremstraat 8 9945VC Wagenborgen | 00:00 | 00:00 |
| Menterne 23 003 9945RA Wagenborgen | 00:00 | 00:00 |
| Menterne 23 004 9945RA Wagenborgen | 00:00 | 00:00 |
| Menterne 23 005 9945RA Wagenborgen | 00:00 | 00:00 |
| Menterne 23 006 9945RA Wagenborgen | 00:00 | 00:00 |
| Menterne 23 007 9945RA Wagenborgen | 00:00 | 00:00 |
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| Menterne 23 017 9945RA Wagenborgen | 00:00 | 00:00 |
| Menterne 23 030 9945RA Wagenborgen | 00:00 | 00:00 |
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| Menterne 23 226 9945RA Wagenborgen | 00:00 | 00:00 |
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| Menterne 23 231 9945RA Wagenborgen | 00:00 | 00:00 |
| Menterne 23 232 9945RA Wagenborgen | 00:00 | 00:00 |
| G. Boelmanweg 1 9945RE Wagenborgen | 00:00 | 00:00 |
| Boslaan 7 9945TM Wagenborgen | 00:00 | 00:00 |
| H.L. Emmensweg 23 9945PW Wagenborgen | 00:00 | 00:00 |
| Kopaf 5 9944VA Nieuwolda | 00:00 | 00:00 |
| Familie Bronsweg 68 9945TA Wagenborgen | 18:35 | 15:46 |
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| Maarkampen 24 9937PL Meedhuizen | 02:58 | 00:32 |
| Maarkampen 22 9937PL Meedhuizen | 02:49 | 00:29 |
| Maarkampen 20 9937PL Meedhuizen | 02:39 | 00:27 |
| Maarkampen 18 9937PL Meedhuizen | 02:28 | 00:24 |
| Maarkampen 16 9937PL Meedhuizen | 01:35 | 00:22 |
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| Maarlaan 22 E 9937TH Meedhuizen | 02:49 | 00:28 |
| Maarlaan 22 D 9937TH Meedhuizen | 02:21 | 00:22 |
| Schaapbulterweg 8 9937TL Meedhuizen | 03:35 | 00:49 |
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| Schaapbulterweg 29 9937TL Meedhuizen | 03:41 | 00:48 |
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| Geefsweersterweg 11 9937TB Meedhuizen | 07:23 | 03:43 |
| Schaapbulterweg 35 9937TL Meedhuizen | 05:32 | 02:38 |
| Meedhuizerweg 20 9937TK Meedhuizen | 02:05 | 00:38 |
| Familie Bronsweg 66 9945TA Wagenborgen | 12:48 | 08:38 |
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| Ideweersterweg 10 9937TM Meedhuizen | 20:58 | 14:09 |

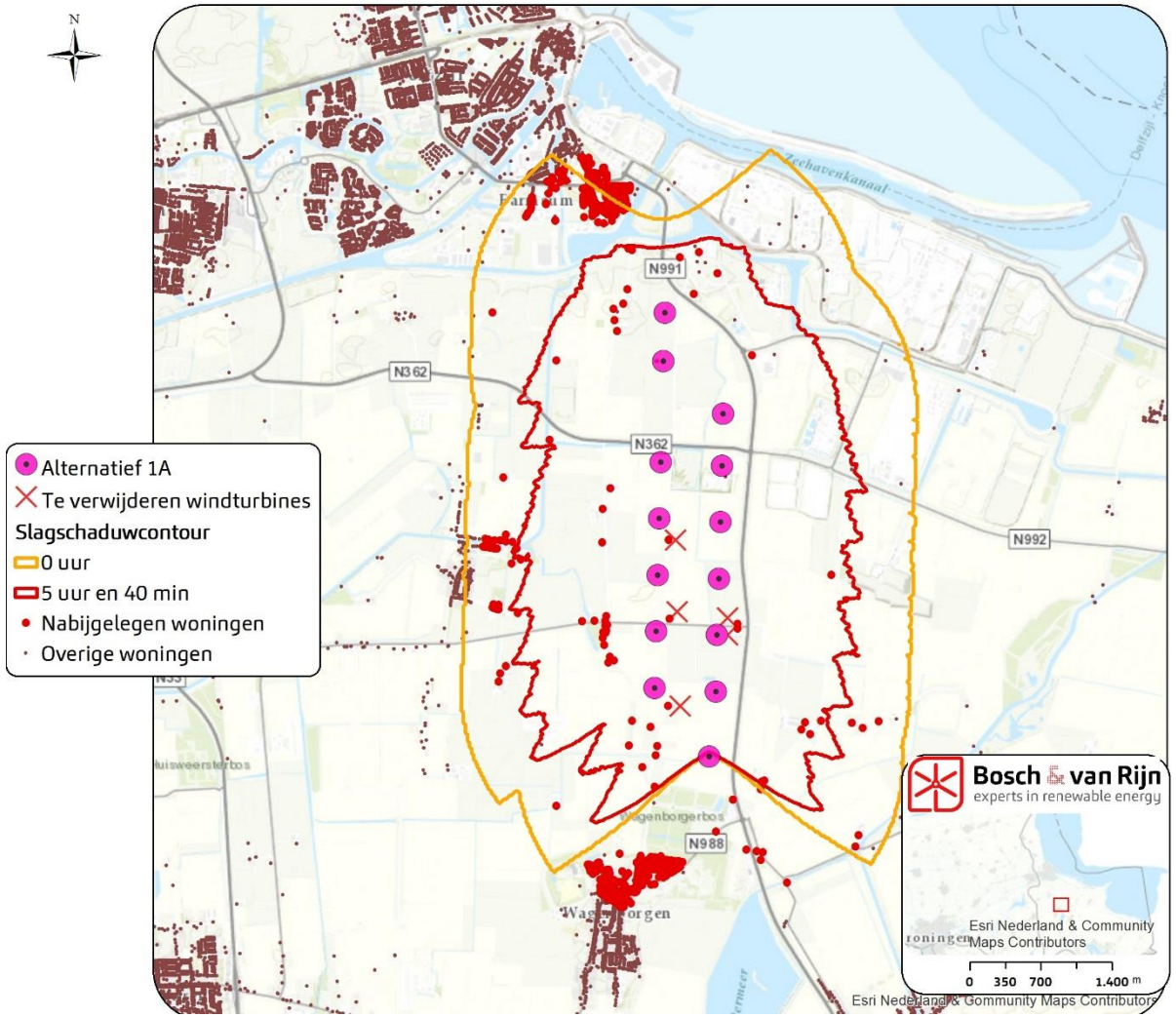
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| Geefsweersterweg 18 9937TC Meedhuizen | 29:20 | 24:02 |
| Geefsweersterweg 29 9937TB Meedhuizen | 21:57 | 17:12 |
| Geefsweersterweg 16 9937TC Meedhuizen | 46:05 | 33:19 |
| Geefsweersterweg 23 9937TB Meedhuizen | 40:29 | 23:38 |
| Geefsweersterweg 12 9937TC Meedhuizen | 35:38 | 22:11 |
| Geefsweersterweg 14 9937TC Meedhuizen | 37:46 | 23:09 |
| Geefsweersterweg 21 A 9937TB Meedhuizen | 33:05 | 20:20 |
| Geefsweersterweg 10 9937TC Meedhuizen | 31:36 | 20:01 |
| Geefsweersterweg 21 9937TB Meedhuizen | 30:03 | 19:01 |
| Geefsweersterweg 17 9937TB Meedhuizen | 25:45 | 16:15 |
| Geefsweersterweg 19 9937TB Meedhuizen | 26:59 | 17:07 |

# Bijlage B Slagschaduwcontouren

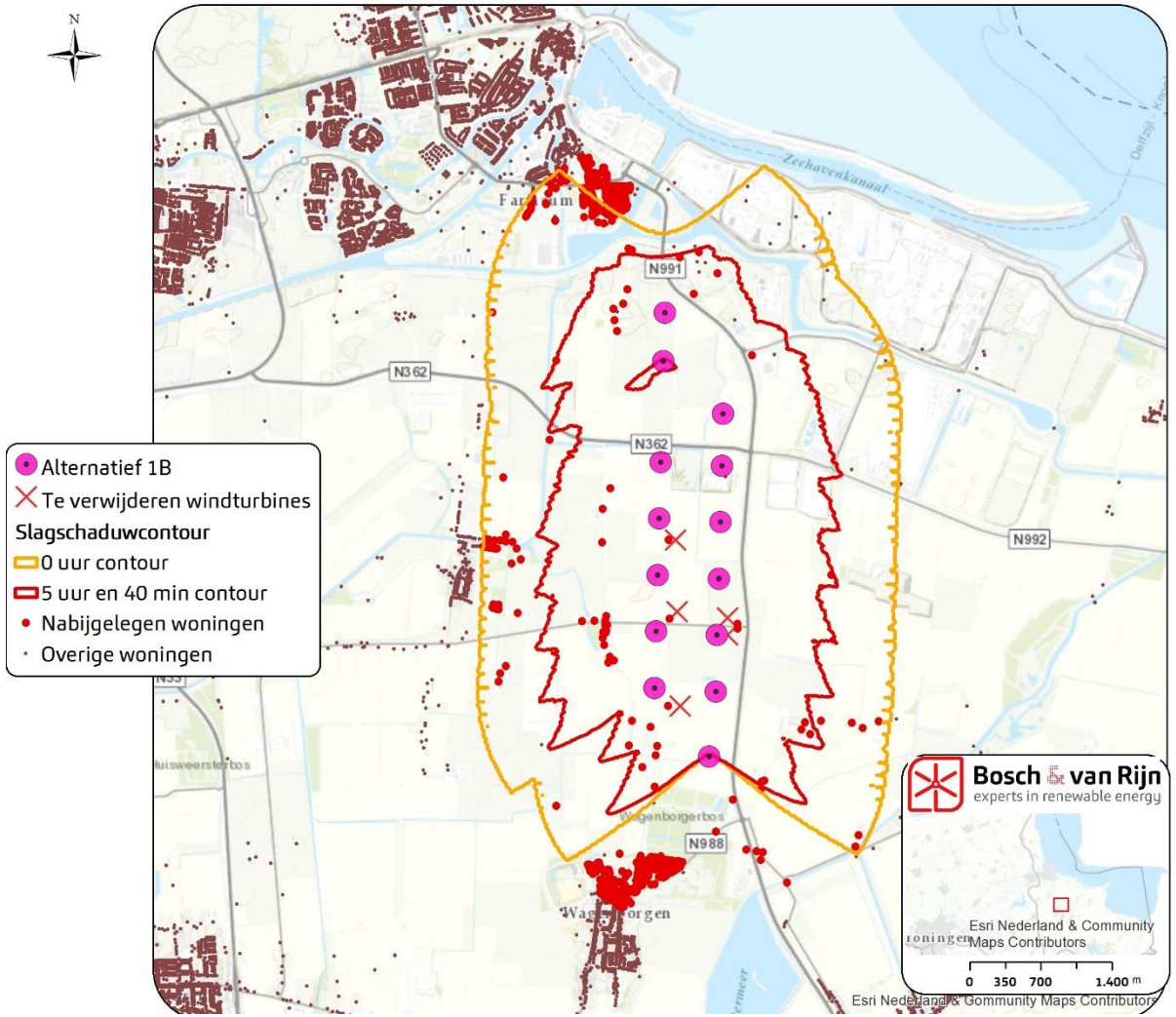
**Figuur 6** **Slagschaduwcontour referentiesituatie zonder cumulatie**



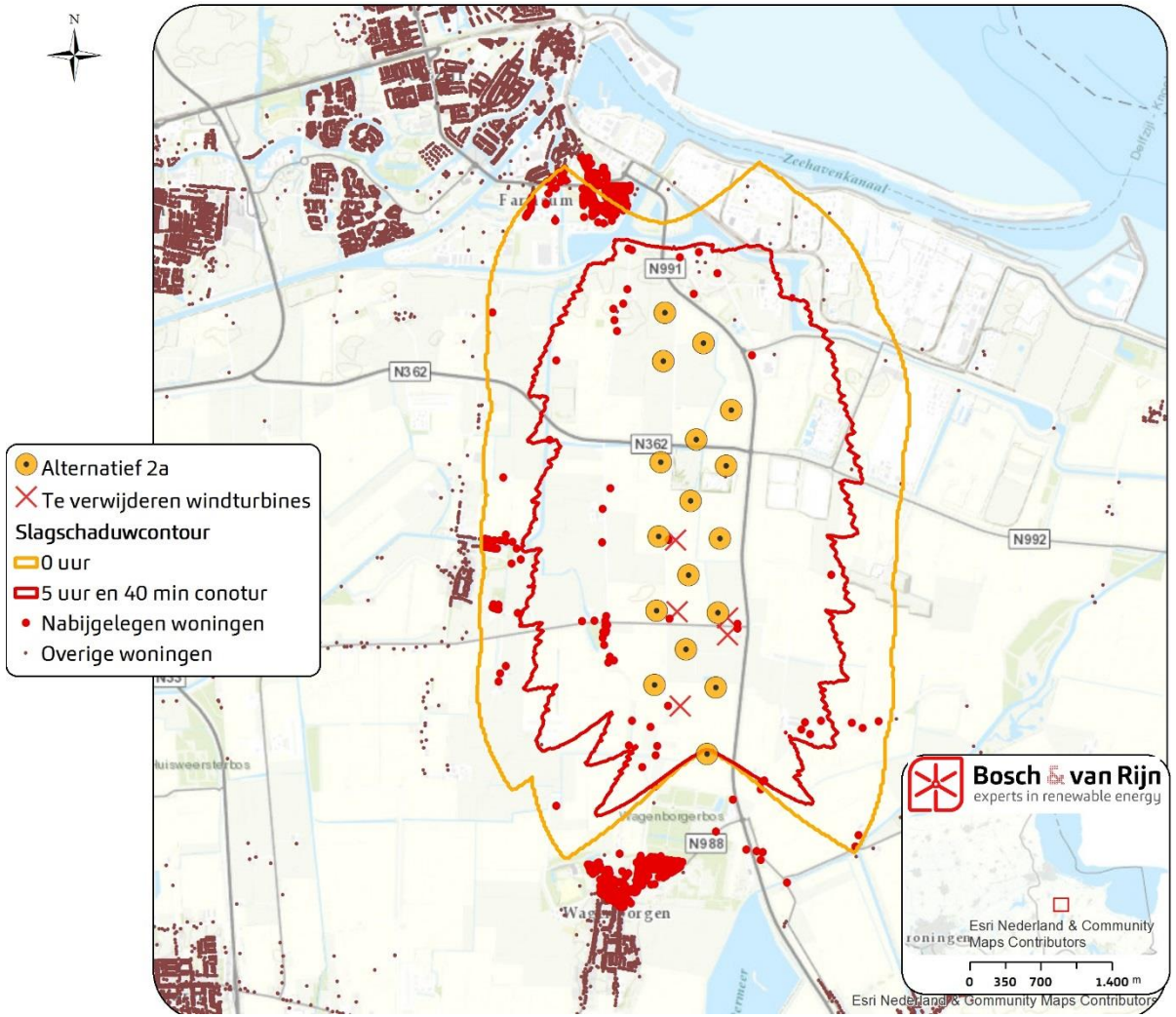
**Figuur 7** **Slagschaduwcontour Alternatief 1A zonder cumulatie**



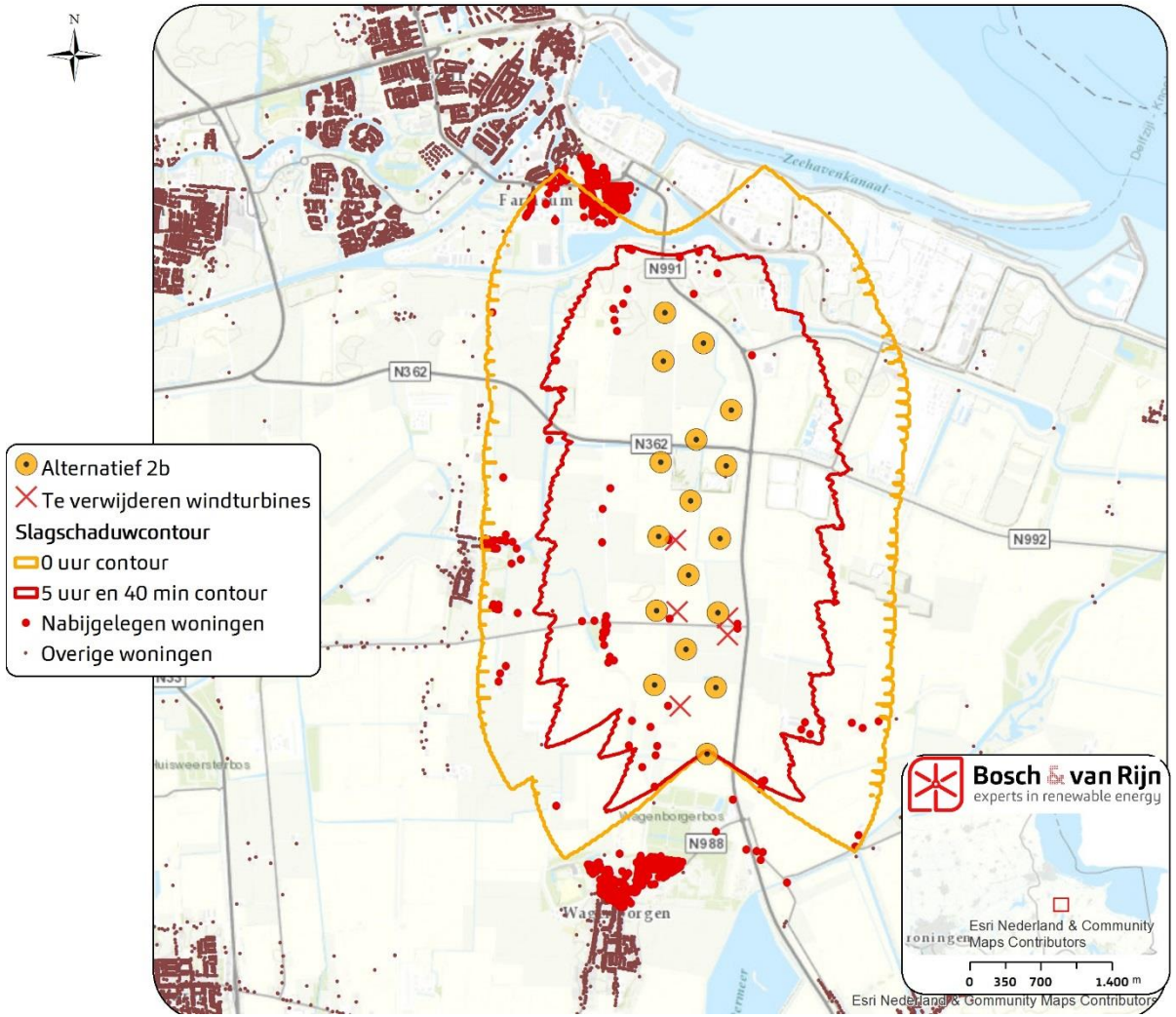
**Figuur 8** **Slagschaduwcontour Alternatief 1B zonder cumulatie**



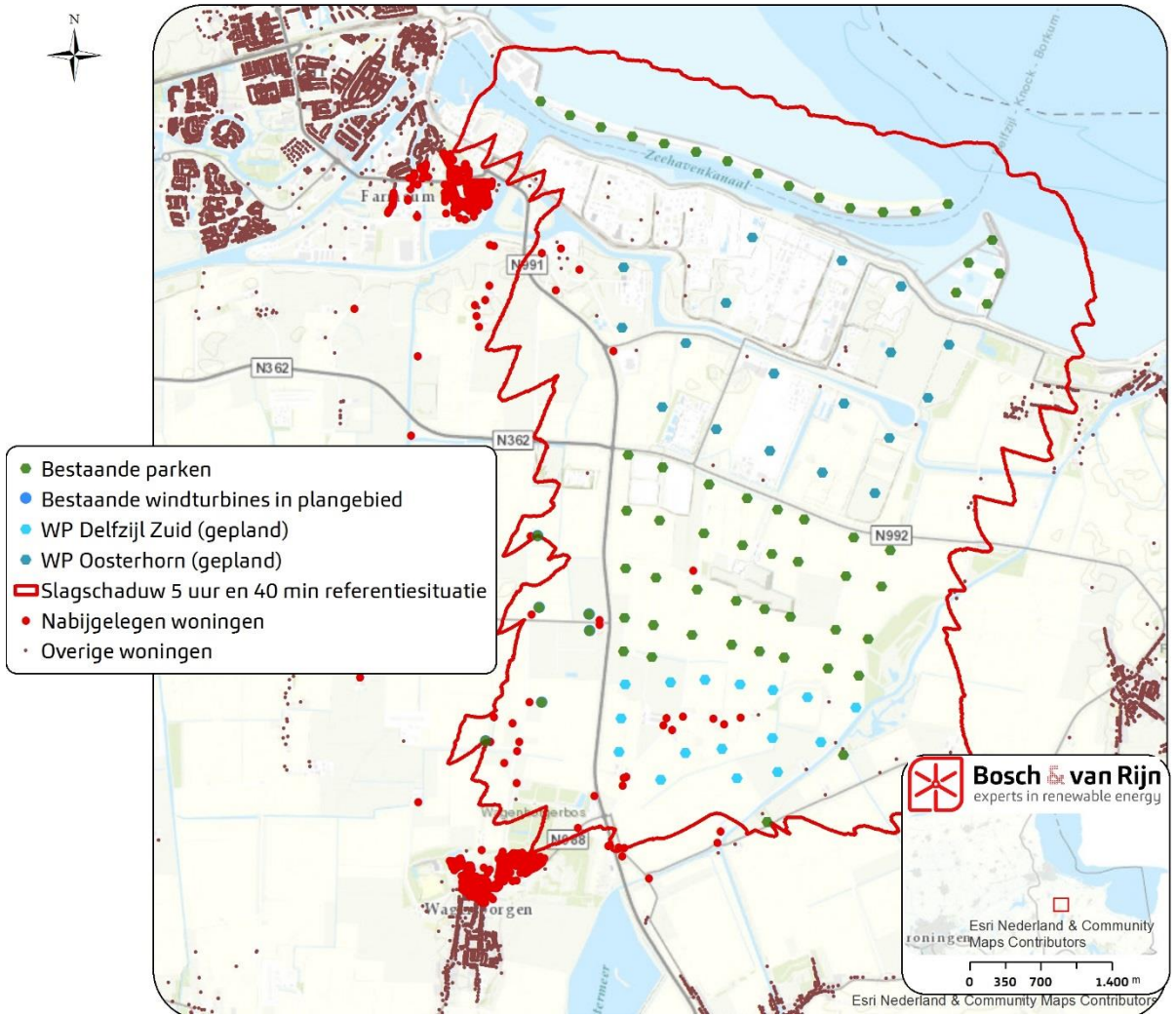
**Figuur 9** **Slagschaduwcontour Alternatief 2A zonder cumulatie**



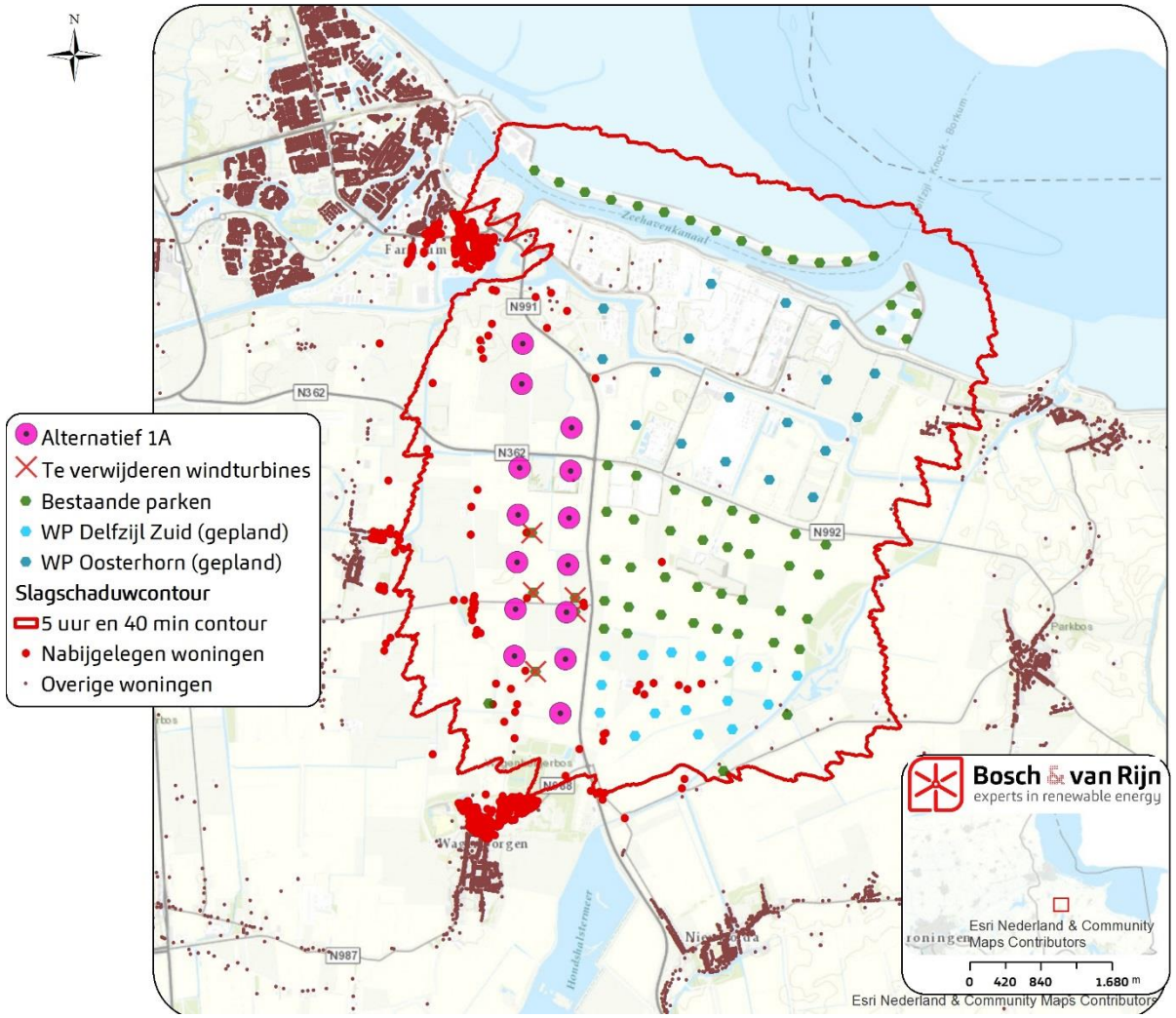
**Figuur 10** **Slagschaduwcontour Alternatief 2B zonder cumulatie**



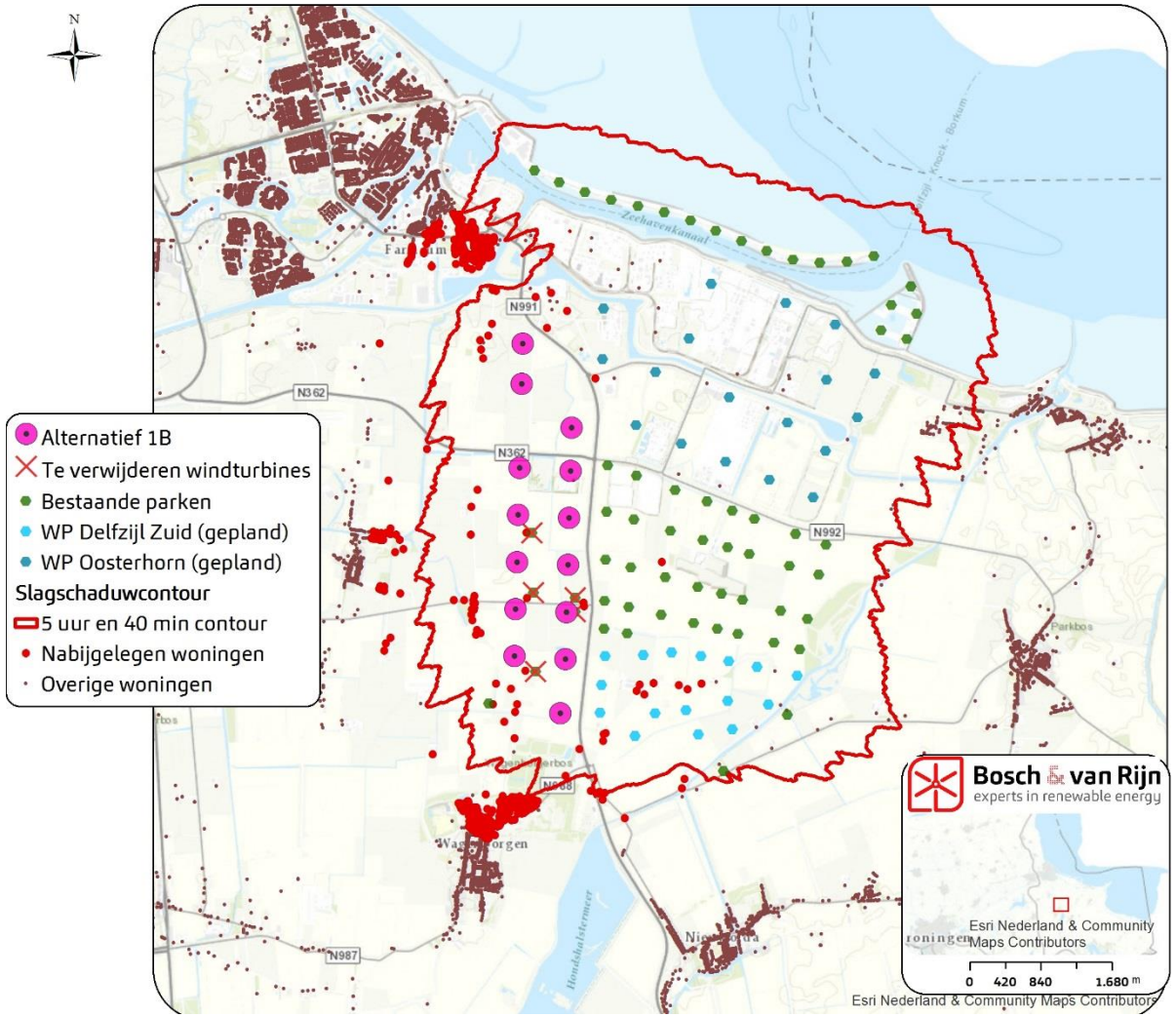
**Figuur 11** **Slagschaduwcontour referentiesituatie met cumulatie**



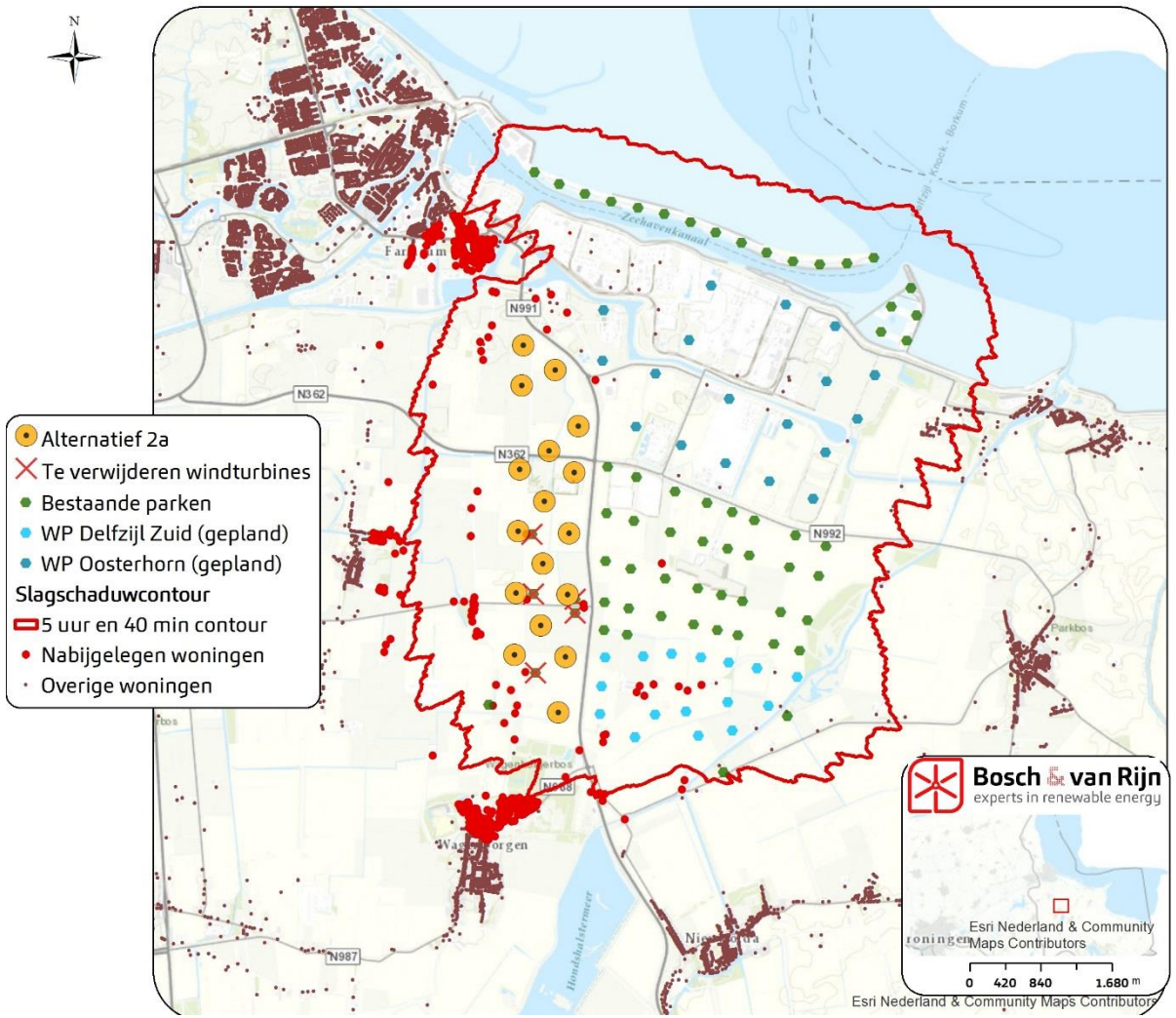
**Figuur 12** **Slagschaduwcontour Alternatief 1A met cumulatie**



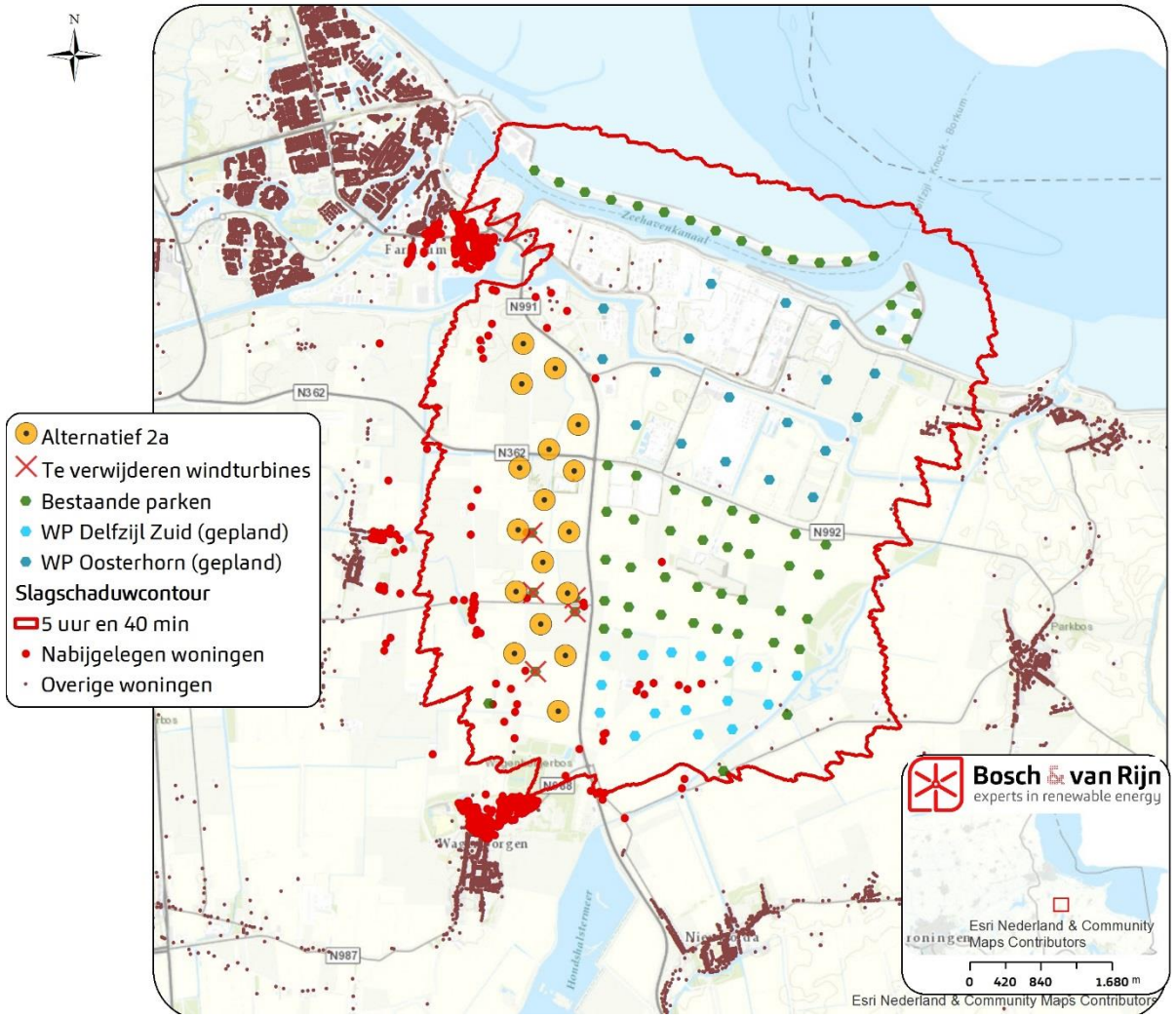
**Figuur 13** **Slagschaduwcontour Alternatief 1B met cumulatie**

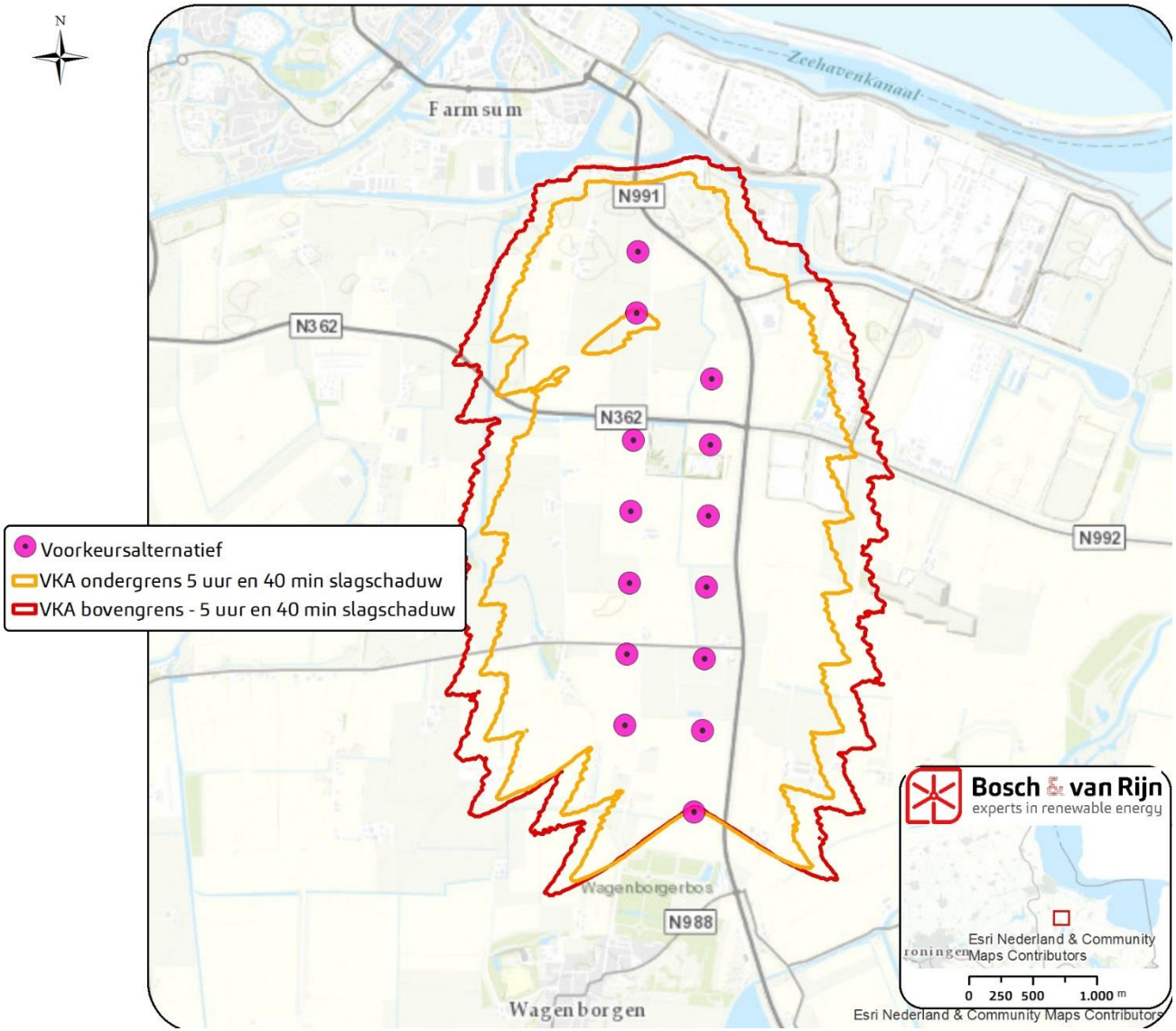


**Figuur 14 Slagschaduwcontour 2A met cumulatie**



**Figuur 15** **Slagschaduwcontour 2B met cumulatie**




N
Farmsum
Zeehavenkanaal
N991
N362
N992
Wagenborgerbos
N988
Wagenborgen
Voorkeursalternatief
VKA ondergrens 5 uur en 40 min slagschaduw
VKA bovengrens - 5 uur en 40 min slagschaduw
Bosch & van Rijn
experts in renewable energy
Esri Nederland & Community Maps Contributors
0 250 500 1.000 m
Esri Nederland & Community Maps Contributors

# Bijlage C Uitdraai WindPRO

Bijgevoegde WindPRO uitdraaien geven per adres een waarde voor de slagschaduw per jaar voor de vier alternatieven. De adressen zijn aangegeven met een letter-code.

Bosch & van Rijn
experts in renewable energy

Groenmarktstraat 56
3521 AV Utrecht
www.boschenvanrijn.nl

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Behoudens hetgeen met de opdrachtgever is overeengekomen, mag in dit rapport vervatte informatie niet aan derden worden bekendgemaakt. Bosch & Van Rijn BV is niet aansprakelijk voor schade door het gebruik van deze informatie.

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Calculated:
8-2-2017 12:21/3.0.654

# SHADOW - Main Result

## Calculation: Referentiesituatie zonder cumulatie

### Assumptions for shadow calculations

Maximum distance for influence
Calculate only when more than 20 % of sun is covered by the blade
Please look in WTG table

| | |
|---|---|
| Minimum sun height over horizon for influence | 5 ° |
| Day step for calculation | 1 days |
| Time step for calculation | 1 minutes |

Sunshine probability S (Average daily sunshine hours) [EELDE]

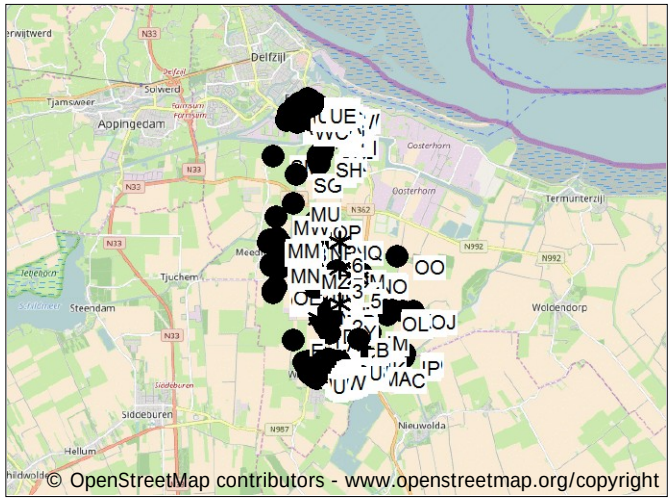
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

All coordinates are in
Dutch Stereo-RD/NAP 2008




Scale 1:200.000

✳ Existing WTG  Shadow receptor

## WTGs

| | X (east) | Y (north) | Z [m] | Row data/Description | WTG type Valid | Manufact. | Type-generator | Power, rated [kW] | Rotor diameter [m] | Hub height [m] | Shadow data Calculation distance [m] | RPM [RPM] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 258.206 | 588.157 | 0,0 | VESTAS V47 660 47.0 !O! hub: 40,0 m (T... | No | VESTAS | V47-660 | 660 | 47,0 | 40,0 | 881 | 28,5 |
| 2 | 258.763 | 588.539 | 0,0 | NORDEX N43 600-125 43.0 !O! hub: 40,0... | Yes | NORDEX | N43-600/125 | 600 | 43,0 | 40,0 | 803 | 27,2 |
| 3 | 258.735 | 589.472 | 0,0 | NORDEX N43 600-125 43.0 !O! hub: 40,0... | Yes | NORDEX | N43-600/125 | 600 | 43,0 | 40,0 | 803 | 27,2 |
| 4 | 259.229 | 589.409 | 0,0 | NORDEX N43 600-125 43.0 !O! hub: 40,0... | Yes | NORDEX | N43-600/125 | 600 | 43,0 | 40,0 | 803 | 27,2 |
| 5 | 259.231 | 589.244 | 0,0 | NORDEX N43 600-125 43.0 !O! hub: 40,0... | Yes | NORDEX | N43-600/125 | 600 | 43,0 | 40,0 | 803 | 27,2 |
| 6 | 258.720 | 590.178 | 0,0 | NORDEX N43 600-125 43.0 !O! hub: 40,0... | Yes | NORDEX | N43-600/125 | 600 | 43,0 | 40,0 | 803 | 27,2 |

## Shadow receptor-Input

| No. | Name | X (east) | Y (north) | Z [m] | Width [m] | Height [m] | Height a.g.l. [m] | Degrees from south cw [°] | Slope of window [°] | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| [A | Rengersweg 99 9936GG Farmsum | 258.006 | 593.455 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [B | Rengersweg 12 9936GH Farmsum | 258.034 | 593.437 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [C | Rengersweg 10 9936GH Farmsum | 258.034 | 593.444 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [D | Kluft 1 9936GP Farmsum | 258.040 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [E | Kluft 3 9936GP Farmsum | 258.047 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [F | Proosdij 46 9936EX Farmsum | 258.058 | 593.427 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [G | Proosdij 48 9936EX Farmsum | 258.062 | 593.433 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [H | Proosdij 50 9936EX Farmsum | 258.090 | 593.443 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [I | Proosdij 52 9936EX Farmsum | 258.090 | 593.430 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [J | Proosdij 54 9936EX Farmsum | 258.094 | 593.415 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [K | Proosdij 56 9936EX Farmsum | 258.108 | 593.416 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [L | Olderman 21 9936GS Farmsum | 258.128 | 593.420 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [M | Olderman 19 9936GS Farmsum | 258.126 | 593.434 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [N | Olderman 17 9936GS Farmsum | 258.125 | 593.448 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [O | Kluft 5 9936GP Farmsum | 258.060 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [P | Kluft 7 9936GP Farmsum | 258.067 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [Q | Kluft 9 9936GP Farmsum | 258.096 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [R | Kluft 11 9936GP Farmsum | 258.102 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [S | Kluft 17 9936GP Farmsum | 258.122 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [T | Zijlvest 8 9936GZ Farmsum | 258.202 | 593.424 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [U | Olderman 32 9936GT Farmsum | 258.151 | 593.480 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [V | Olderman 34 9936GT Farmsum | 258.151 | 593.474 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [W | Olderman 36 9936GT Farmsum | 258.153 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [X | Olderman 38 9936GT Farmsum | 258.153 | 593.453 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [Y | Olderman 40 9936GT Farmsum | 258.155 | 593.440 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [Z | Olderman 42 9936GT Farmsum | 258.155 | 593.434 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \A | Zijlvest 22 A 9936GZ Farmsum | 258.238 | 593.466 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 12:21/3.0.654

# SHADOW - Main Result

## Calculation: Referentiesituatie zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| | \B Zijlvest 18 A 9936GZ Farmsum | 258.229 | 593.451 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | \C Zijlvest 18 9936GZ Farmsum | 258.233 | 593.449 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | \D Zijlvest 14 9936GZ Farmsum | 258.229 | 593.441 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | \E Borgweg 1 9936EH Farmsum | 258.030 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | \F Borgweg 3 9936EH Farmsum | 258.031 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | \G Borgweg 5 9936EH Farmsum | 258.031 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | \H Borgweg 7 9936EH Farmsum | 258.031 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | \I Borgweg 9 9936EH Farmsum | 258.031 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | \J Borgweg 11 9936EH Farmsum | 258.031 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | \K Borgweg 13 9936EH Farmsum | 258.031 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | \L Borgweg 15 9936EH Farmsum | 258.033 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | \M Borgweg 17 9936EH Farmsum | 258.033 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | \N Borgweg 19 9936EH Farmsum | 258.033 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | \O Borgweg 21 9936EH Farmsum | 258.033 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | \P Borgweg 23 9936EH Farmsum | 258.033 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | \Q Borgweg 25 9936EH Farmsum | 258.033 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | \R Borgweg 27 9936EH Farmsum | 258.033 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | \S Borgweg 29 9936EJ Farmsum | 258.035 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | \T Borgweg 31 9936EJ Farmsum | 258.035 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | \U Borgweg 33 9936EJ Farmsum | 258.035 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | \V Borgweg 35 9936EJ Farmsum | 258.035 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | \W Borgweg 37 9936EJ Farmsum | 258.035 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | \X Borgweg 39 9936EJ Farmsum | 258.036 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | \Y Borgweg 41 9936EJ Farmsum | 258.036 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | \Z Borgweg 43 9936EJ Farmsum | 258.037 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ]A Borgweg 45 9936EJ Farmsum | 258.038 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ]B Borgweg 47 9936EJ Farmsum | 258.038 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ]C Borgweg 49 9936EJ Farmsum | 258.038 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ]D Borgweg 51 9936EJ Farmsum | 258.038 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ]E Borgweg 53 9936EJ Farmsum | 258.038 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ]F Borgweg 55 9936EJ Farmsum | 258.038 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ]G Borgweg 57 9936EK Farmsum | 258.003 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ]H Borgweg 59 9936EK Farmsum | 258.003 | 593.802 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ]I Borgweg 61 9936EK Farmsum | 258.003 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ]J Borgweg 63 9936EK Farmsum | 258.003 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ]K Borgweg 65 9936EK Farmsum | 258.003 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ]L Borgweg 67 9936EK Farmsum | 258.003 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ]M Borgweg 69 9936EK Farmsum | 258.003 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ]N Borgweg 71 9936EK Farmsum | 258.006 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ]O Borgweg 73 9936EK Farmsum | 258.006 | 593.802 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ]P Borgweg 75 9936EK Farmsum | 258.006 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ]Q Borgweg 77 9936EK Farmsum | 258.005 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ]R Borgweg 79 9936EK Farmsum | 258.005 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ]S Borgweg 81 9936EK Farmsum | 258.005 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ]T Borgweg 83 9936EK Farmsum | 258.005 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ]U Borgweg 85 9936EL Farmsum | 258.008 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ]V Borgweg 87 9936EL Farmsum | 258.008 | 593.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ]W Borgweg 89 9936EL Farmsum | 258.008 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ]X Borgweg 91 9936EL Farmsum | 258.008 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ]Y Borgweg 93 9936EL Farmsum | 258.008 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ]Z Borgweg 95 9936EL Farmsum | 258.008 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ^A Borgweg 97 9936EL Farmsum | 258.008 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ^B Borgweg 99 9936EL Farmsum | 258.010 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ^C Borgweg 101 9936EL Farmsum | 258.010 | 593.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ^D Borgweg 103 9936EL Farmsum | 258.010 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ^E Borgweg 105 9936EL Farmsum | 258.010 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ^F Borgweg 107 9936EL Farmsum | 258.010 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ^G Borgweg 109 9936EL Farmsum | 258.010 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ^H Borgweg 111 9936EL Farmsum | 258.010 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ^I Kluft 18 9936GR Farmsum | 258.043 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ^J Kluft 20 9936GR Farmsum | 258.050 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ^K Kluft 22 9936GR Farmsum | 258.057 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ^L Kluft 24 9936GR Farmsum | 258.064 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| | ^M Kluft 26 9936GR Farmsum | 258.071 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 12:21/3.0.654

# SHADOW - Main Result

## Calculation: Referentiesituatie zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| ^N | Kluft 28 9936GR Farmsum | 258.078 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^O | Kluft 30 9936GR Farmsum | 258.085 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^P | Kluft 32 9936GR Farmsum | 258.092 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Q | Kluft 2 9936GR Farmsum | 258.043 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^R | Kluft 4 9936GR Farmsum | 258.050 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^S | Kluft 6 9936GR Farmsum | 258.057 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^T | Kluft 8 9936GR Farmsum | 258.064 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^U | Kluft 10 9936GR Farmsum | 258.071 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^V | Kluft 12 9936GR Farmsum | 258.078 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^W | Kluft 14 9936GR Farmsum | 258.085 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^X | Kluft 16 9936GR Farmsum | 258.092 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Y | Zijlvest 20 A 9936GZ Farmsum | 258.233 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Z | Schepperij 51 9936GM Farmsum | 258.194 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _A | Waarman 15 9936GV Farmsum | 258.223 | 593.543 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _B | Waarman 17 9936GV Farmsum | 258.223 | 593.537 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _C | Waarman 19 9936GV Farmsum | 258.223 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _D | Waarman 21 9936GV Farmsum | 258.223 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _E | Waarman 23 9936GV Farmsum | 258.223 | 593.518 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _F | Waarman 25 9936GV Farmsum | 258.223 | 593.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _G | Waarman 27 9936GV Farmsum | 258.223 | 593.506 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _H | Waarman 29 9936GV Farmsum | 258.222 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _I | Heemskesweg 5 9936HE Farmsum | 258.759 | 592.961 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _J | Geefsweersterweg 2 9937TC Meedhuizen | 258.288 | 593.033 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _K | Seendweg 12 9936GA Farmsum | 257.950 | 593.306 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _L | Schepperij 39 9936GM Farmsum | 258.194 | 593.537 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _M | Schepperij 43 9936GM Farmsum | 258.194 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _N | Zijlvest 14 A 9936GZ Farmsum | 258.222 | 593.445 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _O | Zijlvest 24 A 9936GZ Farmsum | 258.239 | 593.474 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| A | Familie Bronsweg 60 9945TA Wagenborgen | 258.511 | 587.742 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AA | Hoofdweg 26 9945PG Wagenborgen | 258.194 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AB | Hoofdweg 23 9945PA Wagenborgen | 258.227 | 586.683 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AC | Hoofdweg 25 9945PA Wagenborgen | 258.217 | 586.663 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AD | Hoofdweg 27 9945PA Wagenborgen | 258.213 | 586.652 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AE | Hoofdweg 29 9945PA Wagenborgen | 258.212 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AF | Hoofdweg 18 9945PG Wagenborgen | 258.219 | 586.709 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AG | Hoofdweg 14 9945PG Wagenborgen | 258.222 | 586.726 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AH | Hoofdweg 10 9945PG Wagenborgen | 258.236 | 586.722 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AI | Hoofdweg 8 9945PG Wagenborgen | 258.258 | 586.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AJ | Hoofdweg 6 9945PG Wagenborgen | 258.276 | 586.731 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AK | Hoofdweg 4 9945PG Wagenborgen | 258.298 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AL | Hoofdweg 21 9945PA Wagenborgen | 258.243 | 586.704 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AM | Hoofdweg 19 9945PA Wagenborgen | 258.272 | 586.709 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AN | Hoofdweg 2 9945PG Wagenborgen | 258.318 | 586.748 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AO | Hoofdweg 15 9945PA Wagenborgen | 258.311 | 586.705 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AP | Hoofdweg 9 9945PA Wagenborgen | 258.331 | 586.713 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AQ | Hoofdweg 11 9945PA Wagenborgen | 258.325 | 586.710 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AR | Hoofdweg 7 9945PA Wagenborgen | 258.338 | 586.725 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AS | Hoofdweg 5 9945PA Wagenborgen | 258.343 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AT | H.L. Emmensweg 17 9945PW Wagenborgen | 258.087 | 586.741 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AU | H.L. Emmensweg 18 9945PX Wagenborgen | 258.106 | 586.733 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AV | H.L. Emmensweg 20 9945PX Wagenborgen | 258.107 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AW | H.L. Emmensweg 22 9945PX Wagenborgen | 258.107 | 586.747 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AX | H.L. Emmensweg 24 9945PX Wagenborgen | 258.108 | 586.753 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AY | H.L. Emmensweg 26 9945PX Wagenborgen | 258.111 | 586.767 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AZ | H.L. Emmensweg 10 9945PX Wagenborgen | 258.103 | 586.698 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| B | Tolhek 4 9945TJ Wagenborgen | 259.289 | 587.610 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BA | H.L. Emmensweg 12 9945PX Wagenborgen | 258.103 | 586.704 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BB | H.L. Emmensweg 14 9945PX Wagenborgen | 258.104 | 586.711 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BC | H.L. Emmensweg 16 9945PX Wagenborgen | 258.105 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BD | H.L. Emmensweg 13 9945PW Wagenborgen | 258.085 | 586.719 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BE | H.L. Emmensweg 15 9945PW Wagenborgen | 258.086 | 586.725 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BF | H.L. Emmensweg 9 9945PW Wagenborgen | 258.083 | 586.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BG | H.L. Emmensweg 11 9945PW Wagenborgen | 258.084 | 586.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BH | H.L. Emmensweg 5 9945PW Wagenborgen | 258.081 | 586.681 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
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# SHADOW - Main Result

## Calculation: Referentiesituatie zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| BI | H.L. Emmensweg 7 9945PW Wagenborgen | 258.082 | 586.687 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BJ | H.L. Emmensweg 4 9945PX Wagenborgen | 258.103 | 586.676 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BK | H.L. Emmensweg 2 9945PX Wagenborgen | 258.099 | 586.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BL | H.L. Emmensweg 1 9945PW Wagenborgen | 258.081 | 586.651 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BM | H.L. Emmensweg 3 9945PW Wagenborgen | 258.083 | 586.667 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BN | de Linden 4 9945PZ Wagenborgen | 258.042 | 586.733 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BO | de Linden 6 9945PZ Wagenborgen | 258.058 | 586.734 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BP | de Linden 10 9945PZ Wagenborgen | 258.040 | 586.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BQ | de Linden 12 9945PZ Wagenborgen | 258.021 | 586.721 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BR | de Linden 2 9945PZ Wagenborgen | 258.030 | 586.694 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BS | de Wilgen 12 9945RB Wagenborgen | 258.008 | 586.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BT | de Wilgen 10 9945RB Wagenborgen | 258.008 | 586.764 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BU | de Wilgen 8 9945RB Wagenborgen | 258.007 | 586.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BV | de Wilgen 2 9945RB Wagenborgen | 257.995 | 586.662 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BW | de Wilgen 4 9945RB Wagenborgen | 257.997 | 586.675 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BX | de Wilgen 6 9945RB Wagenborgen | 258.001 | 586.693 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BY | de Wilgen 6 A 9945RB Wagenborgen | 258.004 | 586.726 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BZ | de Wilgen 3 9945RB Wagenborgen | 257.975 | 586.694 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| C | Tolhek 1 9945TJ Wagenborgen | 259.114 | 587.301 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CA | de Wilgen 3 A 9945RB Wagenborgen | 257.977 | 586.713 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CB | de Wilgen 3 B 9945RB Wagenborgen | 257.977 | 586.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CC | de Wilgen 5 9945RB Wagenborgen | 257.973 | 586.766 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CD | de Wilgen 46 9945RB Wagenborgen | 258.036 | 586.921 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CE | de Wilgen 44 9945RB Wagenborgen | 258.036 | 586.927 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CF | de Wilgen 48 9945RB Wagenborgen | 258.034 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CG | de Wilgen 50 9945RB Wagenborgen | 258.034 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CH | de Wilgen 36 9945RB Wagenborgen | 258.060 | 586.908 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CI | de Wilgen 38 9945RB Wagenborgen | 258.059 | 586.915 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CJ | de Wilgen 40 9945RB Wagenborgen | 258.059 | 586.921 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CK | de Wilgen 42 9945RB Wagenborgen | 258.059 | 586.928 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CL | de Wilgen 28 9945RB Wagenborgen | 258.050 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CM | de Wilgen 30 9945RB Wagenborgen | 258.056 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CN | de Wilgen 32 9945RB Wagenborgen | 258.063 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CO | de Wilgen 34 9945RB Wagenborgen | 258.070 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CP | de Wilgen 24 9945TK Wagenborgen | 258.033 | 586.884 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CQ | de Wilgen 26 9945RB Wagenborgen | 258.039 | 586.886 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CR | de Wilgen 20 9945RB Wagenborgen | 258.019 | 586.866 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CS | de Wilgen 22 9945RB Wagenborgen | 258.019 | 586.872 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CT | de Wilgen 18 9945RB Wagenborgen | 258.016 | 586.853 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CU | de Wilgen 16 9945RB Wagenborgen | 258.015 | 586.837 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CV | de Wilgen 14 9945RB Wagenborgen | 258.014 | 586.813 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CW | de Wilgen 9 9945RB Wagenborgen | 257.970 | 586.829 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CX | de Wilgen 52 9945RB Wagenborgen | 258.167 | 587.083 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CY | Menterne 22 9945RA Wagenborgen | 257.891 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CZ | Menterne 18 9945RA Wagenborgen | 257.856 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| D | Familie Bronsweg 62 9945TA Wagenborgen | 258.389 | 587.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DA | Menterne 21 9945RA Wagenborgen | 257.884 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DB | Menterne 19 9945RA Wagenborgen | 257.863 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DC | Menterne 20 9945RA Wagenborgen | 257.876 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DD | Menterne 17 9945RA Wagenborgen | 257.849 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DE | Menterne 7 9945RA Wagenborgen | 257.896 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DF | Menterne 8 9945RA Wagenborgen | 257.889 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DG | Menterne 9 9945RA Wagenborgen | 257.882 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DH | Menterne 10 9945RA Wagenborgen | 257.875 | 586.913 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DI | Menterne 11 9945RA Wagenborgen | 257.893 | 586.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DJ | Menterne 12 9945RA Wagenborgen | 257.893 | 586.932 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DK | Menterne 13 9945RA Wagenborgen | 257.893 | 586.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DL | Menterne 14 9945RA Wagenborgen | 257.893 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DM | Menterne 1 9945RA Wagenborgen | 257.930 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DN | Menterne 2 9945RA Wagenborgen | 257.924 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DO | Menterne 3 9945RA Wagenborgen | 257.917 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DP | Menterne 4 9945RA Wagenborgen | 257.910 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DQ | Menterne 5 9945RA Wagenborgen | 257.899 | 586.883 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DR | Menterne 6 9945RA Wagenborgen | 257.899 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 12:21/3.0.654

# SHADOW - Main Result

## Calculation: Referentiesituatie zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| DS | Menterne 15 9945RA Wagenborgen | 257.866 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DT | Menterne 16 9945RA Wagenborgen | 257.866 | 586.952 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DU | de Berken 6 9945PT Wagenborgen | 258.085 | 586.768 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DV | de Berken 2 9945PT Wagenborgen | 258.040 | 586.782 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DW | de Berken 4 9945PT Wagenborgen | 258.061 | 586.783 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DX | de Berken 1 9945PT Wagenborgen | 258.038 | 586.808 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DY | de Berken 5 9945PT Wagenborgen | 258.087 | 586.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DZ | de Berken 7 9945PT Wagenborgen | 258.102 | 586.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| E | Meerweg 3 9945RC Wagenborgen | 257.540 | 587.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EA | de Berken 9 9945PT Wagenborgen | 258.109 | 586.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EB | de Eiken 14 9945VA Wagenborgen | 258.037 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EC | de Eiken 16 9945VA Wagenborgen | 258.044 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ED | de Eiken 2 9945VA Wagenborgen | 258.061 | 586.829 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EE | de Eiken 4 9945VA Wagenborgen | 258.061 | 586.836 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EF | de Eiken 6 9945VA Wagenborgen | 258.061 | 586.842 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EG | de Eiken 8 9945VA Wagenborgen | 258.062 | 586.853 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EH | de Eiken 10 9945VA Wagenborgen | 258.061 | 586.859 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EI | de Eiken 12 9945VA Wagenborgen | 258.061 | 586.866 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EJ | de Eiken 2 A 9945VA Wagenborgen | 258.065 | 586.807 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EK | Troostlaan 7 9945PV Wagenborgen | 258.200 | 586.801 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EL | Troostlaan 8 9945PV Wagenborgen | 258.187 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EM | Troostlaan 9 9945PV Wagenborgen | 258.172 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EN | Troostlaan 10 9945PV Wagenborgen | 258.153 | 586.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EO | Troostlaan 11 9945PV Wagenborgen | 258.142 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EP | Troostlaan 1 9945PV Wagenborgen | 258.204 | 586.736 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EQ | Troostlaan 2 9945PV Wagenborgen | 258.204 | 586.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ER | Troostlaan 3 9945PV Wagenborgen | 258.205 | 586.772 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ES | Troostlaan 2 A 9945PV Wagenborgen | 258.221 | 586.769 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ET | Troostlaan 4 9945PV Wagenborgen | 258.228 | 586.858 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EU | Troostlaan 14 9945PV Wagenborgen | 258.132 | 586.686 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EV | Troostlaan 22 9945PV Wagenborgen | 258.177 | 586.707 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EW | Troostlaan 20 9945PV Wagenborgen | 258.155 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EX | Troostlaan 21 9945PV Wagenborgen | 258.162 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EY | Troostlaan 18 9945PV Wagenborgen | 258.132 | 586.718 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EZ | Troostlaan 19 9945PV Wagenborgen | 258.139 | 586.718 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| F | G. Boelmanweg 2 9945RJ Wagenborgen | 258.181 | 586.579 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FA | Familie Bronsweg 40 9945PS Wagenborgen | 258.373 | 586.856 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FB | Familie Bronsweg 44 9945PS Wagenborgen | 258.373 | 586.900 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FC | Familie Bronsweg 46 9945PS Wagenborgen | 258.373 | 586.905 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FD | Familie Bronsweg 48 9945PS Wagenborgen | 258.375 | 586.919 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FE | Familie Bronsweg 50 9945PS Wagenborgen | 258.376 | 586.924 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FF | Familie Bronsweg 79 9945PP Wagenborgen | 258.360 | 586.991 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FG | Familie Bronsweg 81 9945PP Wagenborgen | 258.361 | 586.997 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FH | Familie Bronsweg 36 9945PS Wagenborgen | 258.377 | 586.815 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FI | Familie Bronsweg 38 9945PS Wagenborgen | 258.365 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FJ | Familie Bronsweg 42 9945PS Wagenborgen | 258.371 | 586.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FK | Familie Bronsweg 54 9945PS Wagenborgen | 258.390 | 587.021 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FL | Familie Bronsweg 52 9945PS Wagenborgen | 258.387 | 586.987 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FM | Familie Bronsweg 50 B 9945PS Wagenborgen | 258.384 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FN | Familie Bronsweg 50 A 9945PS Wagenborgen | 258.381 | 586.949 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FO | Familie Bronsweg 75 9945PP Wagenborgen | 258.353 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FP | Familie Bronsweg 75 A 9945PP Wagenborgen | 258.355 | 586.957 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FQ | Familie Bronsweg 75 B 9945PP Wagenborgen | 258.357 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FR | Familie Bronsweg 71 9945PP Wagenborgen | 258.349 | 586.917 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FS | Familie Bronsweg 69 A 9945PP Wagenborgen | 258.347 | 586.902 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FT | Familie Bronsweg 69 9945PP Wagenborgen | 258.344 | 586.888 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FU | Familie Bronsweg 67 9945PP Wagenborgen | 258.342 | 586.873 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FV | Familie Bronsweg 65 9945PP Wagenborgen | 258.341 | 586.863 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FW | Familie Bronsweg 63 9945PP Wagenborgen | 258.338 | 586.850 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FX | Familie Bronsweg 61 9945PP Wagenborgen | 258.335 | 586.831 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FY | Familie Bronsweg 59 9945PP Wagenborgen | 258.334 | 586.816 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FZ | Familie Bronsweg 57 9945PP Wagenborgen | 258.332 | 586.805 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| G | G. Boelmanweg 3 9945RE Wagenborgen | 258.198 | 586.584 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GA | Familie Bronsweg 53 9945PP Wagenborgen | 258.332 | 586.793 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 12:21/3.0.654

# SHADOW - Main Result

## Calculation: Referentiesituatie zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| GB | Familie Bronsweg 73 9945PP Wagenborgen | 258.351 | 586.930 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GC | Familie Bronsweg 85 9945PP Wagenborgen | 258.372 | 587.065 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GD | Familie Bronsweg 83 9945PP Wagenborgen | 258.363 | 587.014 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GE | Familie Bronsweg 83 A 9945PP Wagenborgen | 258.365 | 587.034 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GF | Familie Bronsweg 77 9945PP Wagenborgen | 258.333 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GG | Familie Bronsweg 51 9945PP Wagenborgen | 258.389 | 586.776 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GH | Familie Bronsweg 2 9945PR Wagenborgen | 258.765 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GI | Familie Bronsweg 4 9945PR Wagenborgen | 258.743 | 586.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GJ | Familie Bronsweg 4 A 9945PR Wagenborgen | 258.723 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GK | Familie Bronsweg 6 9945PR Wagenborgen | 258.705 | 586.916 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GL | Familie Bronsweg 8 9945PR Wagenborgen | 258.677 | 586.901 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GM | Familie Bronsweg 10 9945PR Wagenborgen | 258.649 | 586.888 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GN | Familie Bronsweg 12 9945PR Wagenborgen | 258.620 | 586.864 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GO | Familie Bronsweg 14 9945PR Wagenborgen | 258.608 | 586.858 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GP | Familie Bronsweg 16 9945PR Wagenborgen | 258.597 | 586.852 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GQ | Familie Bronsweg 15 9945PN Wagenborgen | 258.511 | 586.783 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GR | Familie Bronsweg 17 9945PN Wagenborgen | 258.473 | 586.777 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GS | Familie Bronsweg 2 A 9945PR Wagenborgen | 258.786 | 587.001 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GT | Familie Bronsweg 2 B 9945PR Wagenborgen | 258.745 | 587.014 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GU | Familie Bronsweg 2 C 9945PR Wagenborgen | 258.710 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GV | Familie Bronsweg 2 D 9945PR Wagenborgen | 258.686 | 586.974 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GW | Familie Bronsweg 2 F 9945PR Wagenborgen | 258.671 | 586.991 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GX | Familie Bronsweg 2 G 9945PR Wagenborgen | 258.671 | 587.016 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GY | Familie Bronsweg 2 H 9945PR Wagenborgen | 258.696 | 587.012 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GZ | Familie Bronsweg 2 J 9945PR Wagenborgen | 258.717 | 587.009 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| H | G. Boelmanweg 5 9945RE Wagenborgen | 258.203 | 586.561 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HA | Akeleistraat 17 9945VD Wagenborgen | 258.515 | 587.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HB | Akeleistraat 19 9945VD Wagenborgen | 258.505 | 587.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HC | Akeleistraat 21 9945VD Wagenborgen | 258.486 | 587.050 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HD | Akeleistraat 23 9945VD Wagenborgen | 258.477 | 587.051 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HE | Akeleistraat 20 9945VD Wagenborgen | 258.448 | 587.022 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HF | Akeleistraat 22 9945VD Wagenborgen | 258.439 | 587.022 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HG | Akeleistraat 16 9945VD Wagenborgen | 258.477 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HH | Akeleistraat 18 9945VD Wagenborgen | 258.467 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HI | Akeleistraat 12 9945VD Wagenborgen | 258.506 | 587.013 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HJ | Akeleistraat 14 9945VD Wagenborgen | 258.496 | 587.013 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HK | Akeleistraat 10 9945VD Wagenborgen | 258.532 | 587.007 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HL | Akeleistraat 1 9945VD Wagenborgen | 258.634 | 587.024 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HM | Akeleistraat 3 9945VD Wagenborgen | 258.625 | 587.021 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HN | Akeleistraat 5 9945VD Wagenborgen | 258.604 | 587.023 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HO | Akeleistraat 7 9945VD Wagenborgen | 258.595 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HP | Akeleistraat 9 9945VD Wagenborgen | 258.574 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HQ | Akeleistraat 11 9945VD Wagenborgen | 258.565 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HR | Akeleistraat 2 9945VD Wagenborgen | 258.626 | 586.998 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HS | Akeleistraat 4 9945VD Wagenborgen | 258.617 | 586.995 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HT | Akeleistraat 6 9945VD Wagenborgen | 258.597 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HU | Akeleistraat 8 9945VD Wagenborgen | 258.588 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HV | Akeleistraat 15 9945VD Wagenborgen | 258.535 | 587.045 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HW | Bremstraat 6 9945VC Wagenborgen | 258.522 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HX | Bremstraat 2 9945VC Wagenborgen | 258.570 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HY | Bremstraat 4 9945VC Wagenborgen | 258.545 | 586.969 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HZ | Bremstraat 12 9945VC Wagenborgen | 258.448 | 586.982 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| I | G. Boelmanweg 4 9945RJ Wagenborgen | 258.168 | 586.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IA | Hibiscusstraat 30 9945VB Wagenborgen | 258.633 | 586.942 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IB | Hibiscusstraat 2 9945VB Wagenborgen | 258.428 | 586.818 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IC | Hibiscusstraat 4 9945VB Wagenborgen | 258.449 | 586.865 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ID | Hibiscusstraat 10 9945VB Wagenborgen | 258.426 | 586.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IE | Hibiscusstraat 16 9945VB Wagenborgen | 258.482 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IF | Bremstraat 14 9945VC Wagenborgen | 258.428 | 586.984 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IG | Hibiscusstraat 6 9945VB Wagenborgen | 258.417 | 586.860 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IH | Hibiscusstraat 26 9945VB Wagenborgen | 258.608 | 586.953 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| II | Kopaf 8 9945TE Wagenborgen | 259.518 | 587.109 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IJ | Kopaf 7 9945TE Wagenborgen | 259.555 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IK | Kopaf 6 9945TE Wagenborgen | 259.575 | 587.100 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
8-2-2017 12:21/3.0.654

# SHADOW - Main Result

## Calculation: Referentiesituatie zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| IL | Kloosterlaan 27 9945TG Wagenborgen | 259.558 | 587.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IM | Kloosterlaan 25 9945TG Wagenborgen | 259.567 | 587.793 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IN | Kloosterlaan 23 9945TG Wagenborgen | 259.592 | 587.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IO | Scheve Klap 5 9945TD Wagenborgen | 260.522 | 587.264 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IP | Scheve Klap 4 9945TD Wagenborgen | 260.493 | 587.154 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IQ | Hibiscusstraat 8 9945VB Wagenborgen | 258.420 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IR | Hibiscusstraat 12 9945VB Wagenborgen | 258.431 | 586.945 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IS | Hibiscusstraat 18 9945VB Wagenborgen | 258.503 | 586.931 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IT | Hibiscusstraat 24 9945VB Wagenborgen | 258.612 | 586.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IU | Hibiscusstraat 22 9945VB Wagenborgen | 258.583 | 586.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IV | Troostlaan 15 9945PV Wagenborgen | 258.151 | 586.693 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IW | Bremstraat 10 9945VC Wagenborgen | 258.473 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IX | Hibiscusstraat 20 9945VB Wagenborgen | 258.529 | 586.931 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IY | Hibiscusstraat 28 9945VB Wagenborgen | 258.622 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IZ | Troostlaan 5 9945PV Wagenborgen | 258.189 | 586.911 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| J | G. Boelmanweg 7 9945RE Wagenborgen | 258.198 | 586.536 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JA | Troostlaan 6 9945PV Wagenborgen | 258.249 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JB | Boslaan 5 9945TM Wagenborgen | 259.413 | 587.123 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JC | Hoofdweg 33 A 9945PB Wagenborgen | 258.174 | 586.602 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JD | Akeleistraat 13 9945VD Wagenborgen | 258.569 | 587.057 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JE | Hoofdweg 42 9945PG Wagenborgen | 258.103 | 586.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JF | Familie Bronsweg 2 E 9945PR Wagenborgen | 258.670 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JG | Hibiscusstraat 14 9945VB Wagenborgen | 258.456 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JH | Bremstraat 8 9945VC Wagenborgen | 258.502 | 586.974 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JI | Menterne 23 003 9945RA Wagenborgen | 257.949 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JJ | Menterne 23 004 9945RA Wagenborgen | 257.949 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JK | Menterne 23 005 9945RA Wagenborgen | 257.948 | 586.990 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JL | Menterne 23 006 9945RA Wagenborgen | 257.948 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JM | Menterne 23 007 9945RA Wagenborgen | 257.960 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JN | Menterne 23 008 9945RA Wagenborgen | 257.960 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JO | Menterne 23 009 9945RA Wagenborgen | 257.960 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JP | Menterne 23 010 9945RA Wagenborgen | 257.961 | 586.988 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JQ | Menterne 23 017 9945RA Wagenborgen | 257.971 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JR | Menterne 23 030 9945RA Wagenborgen | 257.958 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JS | Menterne 23 103 9945RA Wagenborgen | 257.951 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JT | Menterne 23 104 9945RA Wagenborgen | 257.951 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JU | Menterne 23 105 9945RA Wagenborgen | 257.951 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JV | Menterne 23 106 9945RA Wagenborgen | 257.950 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JW | Menterne 23 107 9945RA Wagenborgen | 257.958 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JX | Menterne 23 108 9945RA Wagenborgen | 257.958 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JY | Menterne 23 109 9945RA Wagenborgen | 257.958 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JZ | Menterne 23 110 9945RA Wagenborgen | 257.958 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| K | G. Boelmanweg 6 9945RJ Wagenborgen | 258.176 | 586.541 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KA | Menterne 23 111 9945RA Wagenborgen | 257.959 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KB | Menterne 23 113 9945RA Wagenborgen | 257.967 | 586.972 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KC | Menterne 23 114 9945RA Wagenborgen | 257.967 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KD | Menterne 23 115 9945RA Wagenborgen | 257.967 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KE | Menterne 23 116 9945RA Wagenborgen | 257.968 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KF | Menterne 23 117 9945RA Wagenborgen | 257.968 | 586.957 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KG | Menterne 23 118 9945RA Wagenborgen | 257.968 | 586.953 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KH | Menterne 23 119 9945RA Wagenborgen | 257.967 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KI | Menterne 23 120 9945RA Wagenborgen | 257.968 | 586.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KJ | Menterne 23 121 9945RA Wagenborgen | 257.968 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KK | Menterne 23 122 9945RA Wagenborgen | 257.968 | 586.936 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KL | Menterne 23 123 9945RA Wagenborgen | 257.968 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KM | Menterne 23 124 9945RA Wagenborgen | 257.968 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KN | Menterne 23 125 9945RA Wagenborgen | 257.956 | 586.930 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KO | Menterne 23 126 9945RA Wagenborgen | 257.956 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KP | Menterne 23 127 9945RA Wagenborgen | 257.956 | 586.937 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KQ | Menterne 23 128 9945RA Wagenborgen | 257.956 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KR | Menterne 23 129 9945RA Wagenborgen | 257.956 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KS | Menterne 23 130 9945RA Wagenborgen | 257.961 | 586.958 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KT | Menterne 23 131 9945RA Wagenborgen | 257.961 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KU | Menterne 23 132 9945RA Wagenborgen | 257.960 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
8-2-2017 12:21/3.0.654

# SHADOW - Main Result

## Calculation: Referentiesituatie zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| KV | Menterne 23 201 9945RA Wagenborgen | 257.953 | 586.973 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KW | Menterne 23 202 9945RA Wagenborgen | 257.953 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KX | Menterne 23 203 9945RA Wagenborgen | 257.953 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KY | Menterne 23 204 9945RA Wagenborgen | 257.953 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KZ | Menterne 23 205 9945RA Wagenborgen | 257.953 | 586.990 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| L | Kokslaan 1 9945RD Wagenborgen | 258.257 | 586.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LA | Menterne 23 206 9945RA Wagenborgen | 257.953 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LB | Menterne 23 207 9945RA Wagenborgen | 257.956 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LC | Menterne 23 208 9945RA Wagenborgen | 257.956 | 586.995 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LD | Menterne 23 209 9945RA Wagenborgen | 257.956 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LE | Menterne 23 210 9945RA Wagenborgen | 257.956 | 586.988 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LF | Menterne 23 211 9945RA Wagenborgen | 257.957 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LG | Menterne 23 212 9945RA Wagenborgen | 257.957 | 586.981 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LH | Menterne 23 213 9945RA Wagenborgen | 257.964 | 586.972 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LI | Menterne 23 214 9945RA Wagenborgen | 257.965 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LJ | Menterne 23 215 9945RA Wagenborgen | 257.965 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LK | Menterne 23 216 9945RA Wagenborgen | 257.965 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LL | Menterne 23 217 9945RA Wagenborgen | 257.965 | 586.956 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LM | Menterne 23 218 9945RA Wagenborgen | 257.965 | 586.954 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LN | Menterne 23 219 9945RA Wagenborgen | 257.965 | 586.947 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LO | Menterne 23 220 9945RA Wagenborgen | 257.965 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LP | Menterne 23 221 9945RA Wagenborgen | 257.965 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LQ | Menterne 23 222 9945RA Wagenborgen | 257.965 | 586.937 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LR | Menterne 23 223 9945RA Wagenborgen | 257.965 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LS | Menterne 23 224 9945RA Wagenborgen | 257.966 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LT | Menterne 23 226 9945RA Wagenborgen | 257.959 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LU | Menterne 23 228 9945RA Wagenborgen | 257.958 | 586.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LV | Menterne 23 229 9945RA Wagenborgen | 257.958 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LW | Menterne 23 230 9945RA Wagenborgen | 257.962 | 586.958 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LX | Menterne 23 231 9945RA Wagenborgen | 257.962 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LY | Menterne 23 232 9945RA Wagenborgen | 257.962 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LZ | G. Boelmanweg 1 9945RE Wagenborgen | 258.213 | 586.607 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| M | Kokslaan 2 9945RD Wagenborgen | 258.279 | 586.598 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MA | Boslaan 7 9945TM Wagenborgen | 259.467 | 586.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MB | H.L. Emmensweg 23 9945PW Wagenborgen | 258.086 | 586.747 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MC | Kopaf 5 9944VA Nieuwolda | 259.816 | 586.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MD | Familie Bronsweg 68 9945TA Wagenborgen | 258.470 | 588.333 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ME | Maarkampen 26 9937PL Meedhuizen | 256.956 | 590.088 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MF | Maarkampen 24 9937PL Meedhuizen | 256.931 | 590.090 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MG | Maarkampen 22 9937PL Meedhuizen | 256.916 | 590.093 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MH | Maarkampen 20 9937PL Meedhuizen | 256.898 | 590.098 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MI | Maarkampen 18 9937PL Meedhuizen | 256.878 | 590.101 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MJ | Maarkampen 16 9937PL Meedhuizen | 256.858 | 590.104 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MK | Maarkampen 14 9937PL Meedhuizen | 256.838 | 590.106 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ML | Maarlaan 22 E 9937TH Meedhuizen | 256.932 | 590.173 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MM | Maarlaan 22 D 9937TH Meedhuizen | 256.877 | 590.178 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MN | Schaapbulterweg 8 9937TL Meedhuizen | 256.971 | 589.534 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MO | Schaapbulterweg 6 9937TL Meedhuizen | 256.919 | 589.544 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MP | Schaapbulterweg 29 9937TL Meedhuizen | 256.970 | 589.489 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MQ | Schaapbulterweg 27 9937TL Meedhuizen | 256.949 | 589.497 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MR | Schaapbulterweg 25 9937TL Meedhuizen | 256.935 | 589.503 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MS | Schaapbulterweg 23 9937TL Meedhuizen | 256.920 | 589.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MT | Schaapbulterweg 21 9937TL Meedhuizen | 256.908 | 589.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MU | Geefsweersterweg 11 9937TB Meedhuizen | 257.472 | 591.162 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MV | Schaapbulterweg 35 9937TL Meedhuizen | 257.159 | 589.455 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MW | Meedhuizerweg 20 9937TK Meedhuizen | 257.017 | 590.790 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MX | Familie Bronsweg 66 9945TA Wagenborgen | 258.538 | 588.146 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MY | Familie Bronsweg 64 9945TA Wagenborgen | 258.518 | 588.056 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MZ | Ideweersterweg 10 9937TM Meedhuizen | 257.794 | 589.376 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| N | Kerkstraat 1 9945SB Wagenborgen | 258.120 | 586.579 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NA | Ideweersterweg 8 9937TM Meedhuizen | 257.916 | 589.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NB | Geefsweersterweg 20 9937TC Meedhuizen | 258.111 | 588.986 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NC | Geefsweersterweg 18 9937TC Meedhuizen | 258.066 | 589.025 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ND | Geefsweersterweg 29 9937TB Meedhuizen | 258.051 | 588.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
8-2-2017 12:21/3.0.654

# SHADOW - Main Result

## Calculation: Referentiesituatie zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| NE | Geefsweersterweg 16 9937TC Meedhuizen | 258.011 | 589.140 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NF | Geefsweersterweg 23 9937TB Meedhuizen | 257.998 | 589.209 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NG | Geefsweersterweg 12 9937TC Meedhuizen | 258.033 | 589.285 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NH | Geefsweersterweg 14 9937TC Meedhuizen | 258.028 | 589.261 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NI | Geefsweersterweg 21 A 9937TB Meedhuizen | 258.002 | 589.266 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NJ | Geefsweersterweg 10 9937TC Meedhuizen | 258.042 | 589.339 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NK | Geefsweersterweg 21 9937TB Meedhuizen | 258.025 | 589.335 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NL | Geefsweersterweg 17 9937TB Meedhuizen | 258.035 | 589.424 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NM | Geefsweersterweg 19 9937TB Meedhuizen | 258.023 | 589.378 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NN | Ideweersterweg 2 9937TM Meedhuizen | 259.329 | 589.348 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NO | Ideweersterweg 1 9937TM Meedhuizen | 259.330 | 589.303 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NP | Geefsweersterweg 15 9937TB Meedhuizen | 257.994 | 590.149 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NQ | Westerlaan 6 9937TS Meedhuizen | 258.650 | 590.176 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NR | Familie Bronsweg 87 9945TA Wagenborgen | 258.255 | 588.149 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NS | Familie Bronsweg 89 9945TA Wagenborgen | 258.288 | 588.393 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NT | Westerlaan 10 9937TS Meedhuizen | 258.640 | 588.541 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NU | Geefsweersterweg 13 9937TB Meedhuizen | 257.998 | 590.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NV | Maarlaan 26 9937TH Meedhuizen | 257.044 | 590.228 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NW | Maarlaan 24 9937TH Meedhuizen | 256.988 | 590.171 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NX | Maarlaan 28 9937TH Meedhuizen | 257.042 | 590.160 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NY | Maarlaan 30 9937TH Meedhuizen | 257.109 | 590.155 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NZ | Kerklaan 3 9937PG Meedhuizen | 257.099 | 589.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| O | Hoofdweg 30 9945PG Wagenborgen | 258.190 | 586.634 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OA | Kerklaan 8 9937PG Meedhuizen | 257.192 | 589.983 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OB | Kerklaan 6 9937PG Meedhuizen | 257.151 | 590.090 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OC | Opmeedenlaan 6 9937TN Meedhuizen | 256.970 | 588.781 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OD | Opmeedenlaan 4 9937TN Meedhuizen | 256.988 | 588.863 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OE | Opmeedenlaan 2 9937TN Meedhuizen | 257.043 | 588.932 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OF | Kloosterlaan 26 9945TG Wagenborgen | 260.046 | 588.262 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OG | Zomerdijk 1 9945TH Wagenborgen | 260.153 | 588.395 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OH | Zomerdijk 3 9945TH Wagenborgen | 260.454 | 588.375 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OI | Zomerdijk 3 A 9945TH Wagenborgen | 260.560 | 588.321 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OJ | Zomerdijk 2 9945TH Wagenborgen | 260.721 | 588.388 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OK | Kloosterlaan 21 A 9945TG Wagenborgen | 259.991 | 588.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OL | Kloosterlaan 21 B 9945TG Wagenborgen | 259.957 | 588.308 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OM | Ideweersterweg 4 9937TM Meedhuizen | 258.658 | 589.400 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ON | Maarlaan 22 C 9937TH Meedhuizen | 256.840 | 590.186 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OO | Kloosterlaan 21 9936TE Farmsum | 260.253 | 589.832 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OP | Geefsweersterweg 8 A 9937TC Meedhuizen | 258.072 | 590.685 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OQ | Houtweg 20 9936BL Farmsum | 257.300 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OR | Houtweg 22 9936BL Farmsum | 257.298 | 593.542 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OS | Houtweg 24 9936BL Farmsum | 257.297 | 593.528 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OT | Houtweg 26 9936BL Farmsum | 257.296 | 593.515 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OU | Houtweg 28 9936BL Farmsum | 257.294 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OV | Rondeboslaan 6 9936BK Farmsum | 257.466 | 593.590 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OW | Proosdij 14 9936EW Farmsum | 257.893 | 593.570 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OX | Bredelaan 6 9936ER Farmsum | 257.806 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OY | Bredelaan 4 9936ER Farmsum | 257.804 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OZ | Bredelaan 2 A 9936ER Farmsum | 257.802 | 593.559 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| P | Hoofdweg 32 9945PG Wagenborgen | 258.177 | 586.629 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PA | Proosdij 24 9936EW Farmsum | 257.913 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PB | Proosdij 22 9936EW Farmsum | 257.910 | 593.522 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PC | Proosdij 20 9936EW Farmsum | 257.906 | 593.533 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PD | Proosdij 18 9936EW Farmsum | 257.901 | 593.549 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PE | Proosdij 16 9936EW Farmsum | 257.899 | 593.554 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PF | Trambaan 19 9936ES Farmsum | 257.863 | 593.507 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PG | Proosdij 17 9936ET Farmsum | 257.864 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PH | Proosdij 15 9936ET Farmsum | 257.862 | 593.560 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PI | Proosdij 13 9936ET Farmsum | 257.859 | 593.568 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PJ | Trambaan 17 9936ES Farmsum | 257.856 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PK | Trambaan 15 9936ES Farmsum | 257.849 | 593.520 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PL | Trambaan 13 9936ES Farmsum | 257.844 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PM | Trambaan 11 9936ES Farmsum | 257.839 | 593.530 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PN | Trambaan 9 9936ES Farmsum | 257.833 | 593.536 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
8-2-2017 12:21/3.0.654

# SHADOW - Main Result

## Calculation: Referentiesituatie zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| PO | Trambaan 5 9936ES Farmsum | 257.825 | 593.544 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PP | Trambaan 3 9936ES Farmsum | 257.818 | 593.551 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PQ | Trambaan 1 9936ES Farmsum | 257.814 | 593.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PR | Proosdij 12 9936EW Farmsum | 257.888 | 593.590 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PS | Proosdij 8 9936EW Farmsum | 257.881 | 593.604 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PT | Proosdij 6 9936EW Farmsum | 257.876 | 593.616 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PU | Proosdij 4 9936EW Farmsum | 257.872 | 593.630 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PV | Proosdij 11 9936ET Farmsum | 257.856 | 593.577 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PW | Proosdij 9 9936ET Farmsum | 257.853 | 593.584 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PX | Proosdij 7 9936ET Farmsum | 257.849 | 593.596 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PY | Proosdij 5 9936ET Farmsum | 257.846 | 593.605 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PZ | Proosdij 1 9936ET Farmsum | 257.839 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Q | Hoofdweg 31 9945PA Wagenborgen | 258.210 | 586.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QA | Proosdij 3 9936ET Farmsum | 257.844 | 593.611 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QB | Farmsumerzijl 55 9936GC Farmsum | 257.821 | 593.640 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QC | Farmsumerzijl 57 9936GC Farmsum | 257.800 | 593.636 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QD | Rengersweg 4 9936GH Farmsum | 258.026 | 593.578 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QE | Rengersweg 2 9936GH Farmsum | 258.026 | 593.587 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QF | Schepperij 4 A 9936GN Farmsum | 258.046 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QG | Schepperij 2 A 9936GN Farmsum | 258.033 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QH | Schepperij 4 9936GN Farmsum | 258.040 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QI | Schepperij 2 9936GN Farmsum | 258.027 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QJ | Dijkrecht 4 9936GK Farmsum | 258.021 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QK | Dijkrecht 6 9936GK Farmsum | 258.035 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QL | Dijkrecht 10 9936GK Farmsum | 258.054 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QM | Dijkrecht 12 9936GK Farmsum | 258.061 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QN | Dijkrecht 14 9936GK Farmsum | 258.074 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QO | Dijkrecht 16 9936GK Farmsum | 258.081 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QP | Dijkrecht 18 9936GK Farmsum | 258.095 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QQ | Dijkrecht 20 9936GK Farmsum | 258.107 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QR | Dijkrecht 22 9936GK Farmsum | 258.123 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QS | Dijkrecht 24 9936GK Farmsum | 258.138 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QT | Dijkrecht 26 9936GK Farmsum | 258.159 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QU | Dijkrecht 28 9936GK Farmsum | 258.166 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QV | Dijkrecht 30 9936GK Farmsum | 258.186 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QW | Dijkrecht 32 9936GK Farmsum | 258.192 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QX | Dijkrecht 34 9936GK Farmsum | 258.206 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QY | Dijkrecht 36 9936GK Farmsum | 258.213 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QZ | Dijkrecht 40 9936GK Farmsum | 258.233 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| R | Hoofdweg 38 9945PG Wagenborgen | 258.142 | 586.621 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RA | Dijkrecht 38 9936GK Farmsum | 258.227 | 593.624 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RB | Schepperij 20 9936GN Farmsum | 258.190 | 593.563 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RC | Schepperij 18 9936GN Farmsum | 258.184 | 593.563 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RD | Waarman 12 9936GW Farmsum | 258.263 | 593.622 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RE | Waarman 10 9936GW Farmsum | 258.263 | 593.629 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RF | Waarman 8 9936GW Farmsum | 258.265 | 593.641 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RG | Waarman 6 9936GW Farmsum | 258.265 | 593.648 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RH | Farmsumerzijl 1 9936GB Farmsum | 258.234 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RI | Farmsumerzijl 3 9936GB Farmsum | 258.227 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RJ | Farmsumerzijl 5 9936GB Farmsum | 258.213 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RK | Farmsumerzijl 7 9936GB Farmsum | 258.207 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RL | Farmsumerzijl 13 9936GB Farmsum | 258.172 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RM | Farmsumerzijl 15 9936GB Farmsum | 258.166 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RN | Farmsumerzijl 17 9936GB Farmsum | 258.152 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RO | Farmsumerzijl 19 9936GB Farmsum | 258.146 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RP | Farmsumerzijl 25 9936GB Farmsum | 258.115 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RQ | Farmsumerzijl 27 9936GB Farmsum | 258.108 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RR | Farmsumerzijl 29 9936GB Farmsum | 258.096 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RS | Farmsumerzijl 31 9936GC Farmsum | 258.089 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RT | Farmsumerzijl 37 9936GC Farmsum | 258.057 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RU | Farmsumerzijl 39 9936GC Farmsum | 258.050 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RV | Farmsumerzijl 41 9936GC Farmsum | 258.037 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RW | Farmsumerzijl 43 9936GC Farmsum | 258.031 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RX | Schepperij 1 9936GL Farmsum | 258.054 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
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# SHADOW - Main Result

## Calculation: Referentiesituatie zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| RY | Schepperij 3 9936GL Farmsum | 258.060 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RZ | Schepperij 5 9936GL Farmsum | 258.066 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| S | Hoofdweg 39 9945PB Wagenborgen | 258.126 | 586.603 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SA | Schepperij 7 9936GL Farmsum | 258.072 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SB | Schepperij 9 9936GL Farmsum | 258.078 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SC | Schepperij 11 9936GL Farmsum | 258.084 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SD | Schepperij 13 9936GL Farmsum | 258.090 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SE | Schepperij 15 9936GL Farmsum | 258.097 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SF | Dijkrecht 8 9936GK Farmsum | 258.041 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SG | Geefsweersterweg 9 9937TB Meedhuizen | 257.539 | 591.945 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SH | Geefsweersterweg 7 9937TB Meedhuizen | 258.115 | 592.341 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SI | Geefsweersterweg 8 9937TC Meedhuizen | 258.139 | 592.234 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SJ | Geefsweersterweg 3 9937TB Meedhuizen | 258.102 | 592.452 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SK | Geefsweersterweg 6 9937TC Meedhuizen | 258.202 | 592.502 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SL | Geefsweersterweg 4 9937TC Meedhuizen | 258.243 | 592.643 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SM | Meedhuizerweg 2 9937TK Meedhuizen | 256.911 | 592.415 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SN | Molenstraat 31 9936EB Farmsum | 257.786 | 593.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SO | Hindrik Jagerstraat 32 9936CV Farmsum | 257.573 | 593.810 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SP | Hindrik Jagerstraat 11 9936CT Farmsum | 257.561 | 593.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SQ | Hindrik Jagerstraat 13 9936CT Farmsum | 257.568 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SR | Hindrik Jagerstraat 15 9936CT Farmsum | 257.574 | 593.790 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SS | Hindrik Jagerstraat 34 9936CV Farmsum | 257.581 | 593.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ST | Hindrik Jagerstraat 36 9936CV Farmsum | 257.587 | 593.799 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SU | Borgshof 31 9936CR Farmsum | 257.617 | 593.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SV | Borgshof 33 9936CR Farmsum | 257.615 | 593.807 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SW | Borgshof 39 9936CR Farmsum | 257.605 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SX | Borgshof 35 9936CR Farmsum | 257.604 | 593.768 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SY | Molenstraat 20 9936EC Farmsum | 257.801 | 593.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SZ | Molenstraat 24 9936EC Farmsum | 257.812 | 593.926 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| T | Hoofdweg 35 9945PB Wagenborgen | 258.160 | 586.604 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TA | Molenstraat 28 9936EC Farmsum | 257.817 | 593.918 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TB | Molenstraat 41 9936EB Farmsum | 257.798 | 593.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TC | Molenstraat 43 9936EB Farmsum | 257.802 | 593.918 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TD | Molenstraat 45 9936EB Farmsum | 257.807 | 593.910 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TE | Molenstraat 32 9936EC Farmsum | 257.821 | 593.908 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TF | Achterweg 13 9936EG Farmsum | 257.848 | 593.913 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TG | Achterweg 11 9936EG Farmsum | 257.855 | 593.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TH | Achterweg 9 9936EG Farmsum | 257.861 | 593.915 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TI | Molenstraat 49 9936EB Farmsum | 257.809 | 593.905 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TJ | Molenstraat 51 9936EB Farmsum | 257.812 | 593.900 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TK | Molenstraat 53 9936EB Farmsum | 257.815 | 593.894 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TL | Molenstraat 57 9936EB Farmsum | 257.819 | 593.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TM | Molenstraat 61 9936EB Farmsum | 257.826 | 593.870 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TN | Molenstraat 63 9936EB Farmsum | 257.830 | 593.861 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TO | Molenstraat 34 9936ED Farmsum | 257.827 | 593.897 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TP | Molenstraat 38 9936ED Farmsum | 257.832 | 593.886 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TQ | Molenstraat 40 9936ED Farmsum | 257.835 | 593.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TR | Molenstraat 42 9936ED Farmsum | 257.837 | 593.870 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TS | Molenstraat 44 9936ED Farmsum | 257.842 | 593.859 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TT | Molenstraat 65 9936EB Farmsum | 257.834 | 593.850 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TU | Molenstraat 48 9936ED Farmsum | 257.847 | 593.847 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TV | Molenstraat 50 9936ED Farmsum | 257.850 | 593.837 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TW | Molenstraat 56 9936ED Farmsum | 257.851 | 593.824 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TX | Molenstraat 58 9936EE Farmsum | 257.863 | 593.810 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TY | Molenstraat 62 9936EE Farmsum | 257.858 | 593.798 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TZ | Molenstraat 72 9936EE Farmsum | 257.855 | 593.753 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| U | Hoofdweg 37 9945PB Wagenborgen | 258.149 | 586.603 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UA | Molenstraat 70 9936EE Farmsum | 257.854 | 593.758 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UB | Molenstraat 68 9936EE Farmsum | 257.854 | 593.765 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UC | Molenstraat 66 9936EE Farmsum | 257.854 | 593.773 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UD | Achterweg 2 9936EG Farmsum | 257.886 | 593.882 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UE | Achterweg 12 9936EG Farmsum | 257.919 | 593.766 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UF | Achterweg 10 9936EG Farmsum | 257.918 | 593.779 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UG | Achterweg 8 9936EG Farmsum | 257.916 | 593.791 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
8-2-2017 12:21/3.0.654

# SHADOW - Main Result

## Calculation: Referentiesituatie zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| UH | Hindrik Jagerstraat 17 9936CT Farmsum | 257.588 | 593.777 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UI | Molenstraat 30 9936EC Farmsum | 257.820 | 593.912 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UJ | Borgweg 141 9936EN Farmsum | 257.451 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UK | Borgweg 139 9936EN Farmsum | 257.466 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UL | Borgweg 137 9936EN Farmsum | 257.473 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UM | Borgweg 135 9936EN Farmsum | 257.487 | 593.708 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UN | Afwateringskanaal 109 9936AV Farmsum | 257.508 | 593.724 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UO | Borgweg 131 9936EM Farmsum | 257.636 | 593.714 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UP | Borgweg 133 9936EM Farmsum | 257.581 | 593.701 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UQ | Borgshof 41 9936CR Farmsum | 257.598 | 593.743 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UR | Borgshof 43 9936CR Farmsum | 257.595 | 593.730 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| US | Borgshof 45 9936CR Farmsum | 257.594 | 593.720 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UT | Molenstraat 74 9936EE Farmsum | 257.855 | 593.743 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UU | Molenstraat 76 9936EE Farmsum | 257.857 | 593.736 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UV | Molenstraat 78 9936EE Farmsum | 257.858 | 593.730 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UW | Molenstraat 82 9936EE Farmsum | 257.858 | 593.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UX | Molenstraat 84 9936EE Farmsum | 257.858 | 593.708 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UY | Borgweg 123 9936EM Farmsum | 257.927 | 593.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UZ | Borgweg 125 9936EM Farmsum | 257.917 | 593.698 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| V | Hoofdweg 44 9945PH Wagenborgen | 258.071 | 586.624 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VA | Borgweg 127 9936EM Farmsum | 257.906 | 593.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VB | Borgweg 129 9936EM Farmsum | 257.897 | 593.699 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VC | Farmsumerzijl 51 9936GC Farmsum | 257.925 | 593.665 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VD | Molenstraat 80 9936EE Farmsum | 257.858 | 593.723 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VE | Houtweg 30 9936BL Farmsum | 257.294 | 593.486 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VF | Houtweg 32 9936BL Farmsum | 257.292 | 593.473 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VG | Houtweg 34 9936BL Farmsum | 257.291 | 593.459 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VH | Houtweg 36 9936BL Farmsum | 257.289 | 593.446 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VI | Houtweg 38 9936BL Farmsum | 257.288 | 593.429 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VJ | Houtweg 40 9936BL Farmsum | 257.261 | 593.394 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VK | Houtweg 42 9936BL Farmsum | 257.257 | 593.387 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VL | Houtweg 44 9936BL Farmsum | 257.250 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VM | Houtweg 46 9936BL Farmsum | 257.248 | 593.372 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VN | Houtweg 48 9936BL Farmsum | 257.240 | 593.359 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VO | Rondeboslaan 26 9936BK Farmsum | 257.440 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VP | Rondeboslaan 28 9936BK Farmsum | 257.438 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VQ | Seendweg 32 9936GA Farmsum | 257.903 | 593.454 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VR | Trambaan 21 9936ES Farmsum | 257.870 | 593.499 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VS | Proosdij 19 9936ET Farmsum | 257.892 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VT | Bredelaan 14 9936ER Farmsum | 257.814 | 593.354 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VU | Bredelaan 10 9936ER Farmsum | 257.808 | 593.470 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VV | Bredelaan 8 9936ER Farmsum | 257.807 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VW | Seendweg 22 9936GA Farmsum | 257.897 | 593.364 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VX | Seendweg 28 9936GA Farmsum | 257.898 | 593.405 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VY | Proosdij 28 9936EW Farmsum | 257.922 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VZ | Proosdij 30 9936EX Farmsum | 257.932 | 593.484 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| W | Hoofdweg 48 9945PH Wagenborgen | 258.051 | 586.630 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WA | Proosdij 26 9936EW Farmsum | 257.919 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WB | Afwateringskanaal 107 9936AV Farmsum | 257.499 | 593.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WC | Rondeboslaan 22 A 9936BK Farmsum | 257.532 | 593.326 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WD | Rondeboslaan 22 B 9936BK Farmsum | 257.532 | 593.320 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WE | Rondeboslaan 2 A 9936BK Farmsum | 257.534 | 593.639 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WF | Rondeboslaan 2 B 9936BK Farmsum | 257.493 | 593.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WG | Seendweg 17 9936GA Farmsum | 257.931 | 593.394 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WH | Borgshof 29 9936CR Farmsum | 257.619 | 593.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WI | Molenstraat 22 9936EC Farmsum | 257.808 | 593.935 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WJ | Achterweg 7 A 9936EG Farmsum | 257.858 | 593.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WK | Molenstraat 26 9936EC Farmsum | 257.814 | 593.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WL | Borgweg 113 9936EM Farmsum | 257.957 | 593.782 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WM | Borgweg 115 9936EM Farmsum | 257.968 | 593.707 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WN | Borgweg 117 9936EM Farmsum | 257.959 | 593.705 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WO | Borgweg 119 9936EM Farmsum | 257.947 | 593.703 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WP | Borgweg 121 9936EM Farmsum | 257.938 | 593.701 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WQ | Farmsumerzijl 45 9936GC Farmsum | 257.966 | 593.671 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
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# SHADOW - Main Result

## Calculation: Referentiesituatie zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| WR | Farmsumerzijl 47 9936GC Farmsum | 257.947 | 593.667 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WS | Farmsumerzijl 49 9936GC Farmsum | 257.933 | 593.666 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WT | Waarman 4 9936GW Farmsum | 258.267 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WU | Waarman 2 9936GW Farmsum | 258.267 | 593.668 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WV | Farmsumerzijl 9 9936GB Farmsum | 258.192 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WW | Farmsumerzijl 11 9936GB Farmsum | 258.186 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WX | Farmsumerzijl 21 9936GB Farmsum | 258.134 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WY | Farmsumerzijl 23 9936GB Farmsum | 258.126 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WZ | Farmsumerzijl 33 9936GC Farmsum | 258.076 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| X | Hoofdweg 41 9945PB Wagenborgen | 258.092 | 586.599 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XA | Farmsumerzijl 35 9936GC Farmsum | 258.070 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XB | Schepperij 17 9936GL Farmsum | 258.103 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XC | Schepperij 19 9936GL Farmsum | 258.109 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XD | Schepperij 21 9936GL Farmsum | 258.115 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XE | Dijkrecht 3 9936GJ Farmsum | 258.042 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XF | Dijkrecht 5 9936GJ Farmsum | 258.052 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XG | Dijkrecht 7 9936GJ Farmsum | 258.054 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XH | Dijkrecht 9 9936GJ Farmsum | 258.063 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XI | Dijkrecht 11 9936GJ Farmsum | 258.073 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XJ | Dijkrecht 13 9936GJ Farmsum | 258.079 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XK | Dijkrecht 15 9936GJ Farmsum | 258.085 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XL | Dijkrecht 17 9936GJ Farmsum | 258.092 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XM | Dijkrecht 19 9936GJ Farmsum | 258.098 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XN | Dijkrecht 21 9936GJ Farmsum | 258.104 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XO | Schepperij 6 9936GN Farmsum | 258.058 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XP | Schepperij 8 9936GN Farmsum | 258.064 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XQ | Schepperij 10 9936GN Farmsum | 258.070 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XR | Schepperij 12 9936GN Farmsum | 258.075 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XS | Schepperij 14 9936GN Farmsum | 258.081 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XT | Schepperij 16 9936GN Farmsum | 258.087 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XU | Olderman 2 9936GT Farmsum | 258.132 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XV | Olderman 4 9936GT Farmsum | 258.132 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XW | Olderman 6 9936GT Farmsum | 258.132 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XX | Olderman 8 9936GT Farmsum | 258.132 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XY | Olderman 10 9936GT Farmsum | 258.132 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XZ | Olderman 12 9936GT Farmsum | 258.132 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Y | Hoofdweg 20 9945PG Wagenborgen | 258.207 | 586.682 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YA | Olderman 14 9936GT Farmsum | 258.132 | 593.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YB | Dijkrecht 23 9936GJ Farmsum | 258.162 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YC | Dijkrecht 25 9936GJ Farmsum | 258.162 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YD | Dijkrecht 27 9936GJ Farmsum | 258.163 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YE | Dijkrecht 29 9936GJ Farmsum | 258.163 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YF | Dijkrecht 31 9936GJ Farmsum | 258.163 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YG | Dijkrecht 33 9936GJ Farmsum | 258.163 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YH | Dijkrecht 35 9936GJ Farmsum | 258.163 | 593.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YI | Dijkrecht 37 9936GJ Farmsum | 258.182 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YJ | Dijkrecht 39 9936GJ Farmsum | 258.182 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YK | Dijkrecht 41 9936GJ Farmsum | 258.182 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YL | Dijkrecht 43 9936GJ Farmsum | 258.182 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YM | Olderman 1 9936GS Farmsum | 258.107 | 593.574 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YN | Olderman 3 9936GS Farmsum | 258.107 | 593.567 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YO | Olderman 5 9936GS Farmsum | 258.108 | 593.561 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YP | Olderman 7 9936GS Farmsum | 258.108 | 593.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YQ | Schepperij 37 9936GM Farmsum | 258.194 | 593.543 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YR | Schepperij 41 9936GM Farmsum | 258.194 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YS | Schepperij 45 9936GM Farmsum | 258.194 | 593.518 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YT | Schepperij 47 9936GM Farmsum | 258.194 | 593.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YU | Schepperij 49 9936GM Farmsum | 258.194 | 593.506 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YV | Olderman 18 9936GT Farmsum | 258.143 | 593.539 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YW | Olderman 20 9936GT Farmsum | 258.143 | 593.533 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YX | Olderman 22 9936GT Farmsum | 258.143 | 593.527 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YY | Olderman 24 9936GT Farmsum | 258.143 | 593.521 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YZ | Olderman 26 9936GT Farmsum | 258.143 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Z | Hoofdweg 22 9945PG Wagenborgen | 258.202 | 586.669 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
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# SHADOW - Main Result

## Calculation: Referentiesituatie zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| ZA | Olderman 28 9936GT Farmsum | 258.143 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZB | Olderman 30 9936GT Farmsum | 258.143 | 593.502 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZC | Olderman 9 9936GS Farmsum | 258.120 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZD | Olderman 11 9936GS Farmsum | 258.120 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZE | Olderman 13 9936GS Farmsum | 258.120 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZF | Proosdij 32 9936EX Farmsum | 257.941 | 593.479 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZG | Proosdij 36 9936EX Farmsum | 257.952 | 593.473 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZH | Proosdij 38 9936EX Farmsum | 257.963 | 593.468 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZI | Proosdij 40 9936EX Farmsum | 257.984 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZJ | Proosdij 27 9936EV Farmsum | 257.995 | 593.418 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZK | Proosdij 25 9936EV Farmsum | 257.979 | 593.425 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZL | Proosdij 23 9936EV Farmsum | 257.962 | 593.433 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZM | Proosdij 21 9936EV Farmsum | 257.941 | 593.443 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZN | Seendweg 5 9936GA Farmsum | 258.091 | 593.322 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZO | Proosdij 29 9936EV Farmsum | 258.005 | 593.413 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZP | Proosdij 31 9936EV Farmsum | 258.019 | 593.403 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZQ | Proosdij 33 9936EV Farmsum | 258.043 | 593.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZR | Proosdij 35 9936EV Farmsum | 258.067 | 593.376 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZS | Proosdij 37 9936EV Farmsum | 258.085 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZT | Proosdij 39 9936EV Farmsum | 258.092 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZU | Proosdij 41 9936EV Farmsum | 258.099 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZV | Proosdij 43 9936EV Farmsum | 258.106 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZW | Proosdij 45 9936EV Farmsum | 258.112 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZX | Proosdij 47 9936EV Farmsum | 258.119 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZY | Olderman 15 9936GS Farmsum | 258.118 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZZ | Rengersweg 97 9936GG Farmsum | 258.010 | 593.468 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

## Calculation Results

Shadow receptor

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| [A | Rengersweg 99 9936GG Farmsum | 0:00 |
| [B | Rengersweg 12 9936GH Farmsum | 0:00 |
| [C | Rengersweg 10 9936GH Farmsum | 0:00 |
| [D | Kluft 1 9936GP Farmsum | 0:00 |
| [E | Kluft 3 9936GP Farmsum | 0:00 |
| [F | Proosdij 46 9936EX Farmsum | 0:00 |
| [G | Proosdij 48 9936EX Farmsum | 0:00 |
| [H | Proosdij 50 9936EX Farmsum | 0:00 |
| [I | Proosdij 52 9936EX Farmsum | 0:00 |
| [J | Proosdij 54 9936EX Farmsum | 0:00 |
| [K | Proosdij 56 9936EX Farmsum | 0:00 |
| [L | Olderman 21 9936GS Farmsum | 0:00 |
| [M | Olderman 19 9936GS Farmsum | 0:00 |
| [N | Olderman 17 9936GS Farmsum | 0:00 |
| [O | Kluft 5 9936GP Farmsum | 0:00 |
| [P | Kluft 7 9936GP Farmsum | 0:00 |
| [Q | Kluft 9 9936GP Farmsum | 0:00 |
| [R | Kluft 11 9936GP Farmsum | 0:00 |
| [S | Kluft 17 9936GP Farmsum | 0:00 |
| [T | Zijlvest 8 9936GZ Farmsum | 0:00 |
| [U | Olderman 32 9936GT Farmsum | 0:00 |
| [V | Olderman 34 9936GT Farmsum | 0:00 |
| [W | Olderman 36 9936GT Farmsum | 0:00 |
| [X | Olderman 38 9936GT Farmsum | 0:00 |
| [Y | Olderman 40 9936GT Farmsum | 0:00 |
| [Z | Olderman 42 9936GT Farmsum | 0:00 |
| \A | Zijlvest 22 A 9936GZ Farmsum | 0:00 |
| \B | Zijlvest 18 A 9936GZ Farmsum | 0:00 |
| \C | Zijlvest 18 9936GZ Farmsum | 0:00 |
| \D | Zijlvest 14 9936GZ Farmsum | 0:00 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Referentiesituatie zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| \E | Borgweg 1 9936EH Farmsum | 0:00 |
| \F | Borgweg 3 9936EH Farmsum | 0:00 |
| \G | Borgweg 5 9936EH Farmsum | 0:00 |
| \H | Borgweg 7 9936EH Farmsum | 0:00 |
| \I | Borgweg 9 9936EH Farmsum | 0:00 |
| \J | Borgweg 11 9936EH Farmsum | 0:00 |
| \K | Borgweg 13 9936EH Farmsum | 0:00 |
| \L | Borgweg 15 9936EH Farmsum | 0:00 |
| \M | Borgweg 17 9936EH Farmsum | 0:00 |
| \N | Borgweg 19 9936EH Farmsum | 0:00 |
| \O | Borgweg 21 9936EH Farmsum | 0:00 |
| \P | Borgweg 23 9936EH Farmsum | 0:00 |
| \Q | Borgweg 25 9936EH Farmsum | 0:00 |
| \R | Borgweg 27 9936EH Farmsum | 0:00 |
| \S | Borgweg 29 9936EJ Farmsum | 0:00 |
| \T | Borgweg 31 9936EJ Farmsum | 0:00 |
| \U | Borgweg 33 9936EJ Farmsum | 0:00 |
| \V | Borgweg 35 9936EJ Farmsum | 0:00 |
| \W | Borgweg 37 9936EJ Farmsum | 0:00 |
| \X | Borgweg 39 9936EJ Farmsum | 0:00 |
| \Y | Borgweg 41 9936EJ Farmsum | 0:00 |
| \Z | Borgweg 43 9936EJ Farmsum | 0:00 |
| ]A | Borgweg 45 9936EJ Farmsum | 0:00 |
| ]B | Borgweg 47 9936EJ Farmsum | 0:00 |
| ]C | Borgweg 49 9936EJ Farmsum | 0:00 |
| ]D | Borgweg 51 9936EJ Farmsum | 0:00 |
| ]E | Borgweg 53 9936EJ Farmsum | 0:00 |
| ]F | Borgweg 55 9936EJ Farmsum | 0:00 |
| ]G | Borgweg 57 9936EK Farmsum | 0:00 |
| ]H | Borgweg 59 9936EK Farmsum | 0:00 |
| ]I | Borgweg 61 9936EK Farmsum | 0:00 |
| ]J | Borgweg 63 9936EK Farmsum | 0:00 |
| ]K | Borgweg 65 9936EK Farmsum | 0:00 |
| ]L | Borgweg 67 9936EK Farmsum | 0:00 |
| ]M | Borgweg 69 9936EK Farmsum | 0:00 |
| ]N | Borgweg 71 9936EK Farmsum | 0:00 |
| ]O | Borgweg 73 9936EK Farmsum | 0:00 |
| ]P | Borgweg 75 9936EK Farmsum | 0:00 |
| ]Q | Borgweg 77 9936EK Farmsum | 0:00 |
| ]R | Borgweg 79 9936EK Farmsum | 0:00 |
| ]S | Borgweg 81 9936EK Farmsum | 0:00 |
| ]T | Borgweg 83 9936EK Farmsum | 0:00 |
| ]U | Borgweg 85 9936EL Farmsum | 0:00 |
| ]V | Borgweg 87 9936EL Farmsum | 0:00 |
| ]W | Borgweg 89 9936EL Farmsum | 0:00 |
| ]X | Borgweg 91 9936EL Farmsum | 0:00 |
| ]Y | Borgweg 93 9936EL Farmsum | 0:00 |
| ]Z | Borgweg 95 9936EL Farmsum | 0:00 |
| ^A | Borgweg 97 9936EL Farmsum | 0:00 |
| ^B | Borgweg 99 9936EL Farmsum | 0:00 |
| ^C | Borgweg 101 9936EL Farmsum | 0:00 |
| ^D | Borgweg 103 9936EL Farmsum | 0:00 |
| ^E | Borgweg 105 9936EL Farmsum | 0:00 |
| ^F | Borgweg 107 9936EL Farmsum | 0:00 |
| ^G | Borgweg 109 9936EL Farmsum | 0:00 |
| ^H | Borgweg 111 9936EL Farmsum | 0:00 |
| ^I | Kluft 18 9936GR Farmsum | 0:00 |
| ^J | Kluft 20 9936GR Farmsum | 0:00 |
| ^K | Kluft 22 9936GR Farmsum | 0:00 |
| ^L | Kluft 24 9936GR Farmsum | 0:00 |
| ^M | Kluft 26 9936GR Farmsum | 0:00 |
| ^N | Kluft 28 9936GR Farmsum | 0:00 |
| ^O | Kluft 30 9936GR Farmsum | 0:00 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Referentiesituatie zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| ^P | Kluft 32 9936GR Farmsum | 0:00 |
| ^Q | Kluft 2 9936GR Farmsum | 0:00 |
| ^R | Kluft 4 9936GR Farmsum | 0:00 |
| ^S | Kluft 6 9936GR Farmsum | 0:00 |
| ^T | Kluft 8 9936GR Farmsum | 0:00 |
| ^U | Kluft 10 9936GR Farmsum | 0:00 |
| ^V | Kluft 12 9936GR Farmsum | 0:00 |
| ^W | Kluft 14 9936GR Farmsum | 0:00 |
| ^X | Kluft 16 9936GR Farmsum | 0:00 |
| ^Y | Zijlvest 20 A 9936GZ Farmsum | 0:00 |
| ^Z | Schepperij 51 9936GM Farmsum | 0:00 |
| _A | Waarman 15 9936GV Farmsum | 0:00 |
| _B | Waarman 17 9936GV Farmsum | 0:00 |
| _C | Waarman 19 9936GV Farmsum | 0:00 |
| _D | Waarman 21 9936GV Farmsum | 0:00 |
| _E | Waarman 23 9936GV Farmsum | 0:00 |
| _F | Waarman 25 9936GV Farmsum | 0:00 |
| _G | Waarman 27 9936GV Farmsum | 0:00 |
| _H | Waarman 29 9936GV Farmsum | 0:00 |
| _I | Heemskesweg 5 9936HE Farmsum | 0:00 |
| _J | Geefsweersterweg 2 9937TC Meedhuizen | 0:00 |
| _K | Seendweg 12 9936GA Farmsum | 0:00 |
| _L | Schepperij 39 9936GM Farmsum | 0:00 |
| _M | Schepperij 43 9936GM Farmsum | 0:00 |
| _N | Zijlvest 14 A 9936GZ Farmsum | 0:00 |
| _O | Zijlvest 24 A 9936GZ Farmsum | 0:00 |
| A | Familie Bronsweg 60 9945TA Wagenborgen | 0:00 |
| AA | Hoofdweg 26 9945PG Wagenborgen | 0:00 |
| AB | Hoofdweg 23 9945PA Wagenborgen | 0:00 |
| AC | Hoofdweg 25 9945PA Wagenborgen | 0:00 |
| AD | Hoofdweg 27 9945PA Wagenborgen | 0:00 |
| AE | Hoofdweg 29 9945PA Wagenborgen | 0:00 |
| AF | Hoofdweg 18 9945PG Wagenborgen | 0:00 |
| AG | Hoofdweg 14 9945PG Wagenborgen | 0:00 |
| AH | Hoofdweg 10 9945PG Wagenborgen | 0:00 |
| AI | Hoofdweg 8 9945PG Wagenborgen | 0:00 |
| AJ | Hoofdweg 6 9945PG Wagenborgen | 0:00 |
| AK | Hoofdweg 4 9945PG Wagenborgen | 0:00 |
| AL | Hoofdweg 21 9945PA Wagenborgen | 0:00 |
| AM | Hoofdweg 19 9945PA Wagenborgen | 0:00 |
| AN | Hoofdweg 2 9945PG Wagenborgen | 0:00 |
| AO | Hoofdweg 15 9945PA Wagenborgen | 0:00 |
| AP | Hoofdweg 9 9945PA Wagenborgen | 0:00 |
| AQ | Hoofdweg 11 9945PA Wagenborgen | 0:00 |
| AR | Hoofdweg 7 9945PA Wagenborgen | 0:00 |
| AS | Hoofdweg 5 9945PA Wagenborgen | 0:00 |
| AT | H.L. Emmensweg 17 9945PW Wagenborgen | 0:00 |
| AU | H.L. Emmensweg 18 9945PX Wagenborgen | 0:00 |
| AV | H.L. Emmensweg 20 9945PX Wagenborgen | 0:00 |
| AW | H.L. Emmensweg 22 9945PX Wagenborgen | 0:00 |
| AX | H.L. Emmensweg 24 9945PX Wagenborgen | 0:00 |
| AY | H.L. Emmensweg 26 9945PX Wagenborgen | 0:00 |
| AZ | H.L. Emmensweg 10 9945PX Wagenborgen | 0:00 |
| B | Tolhek 4 9945TJ Wagenborgen | 0:00 |
| BA | H.L. Emmensweg 12 9945PX Wagenborgen | 0:00 |
| BB | H.L. Emmensweg 14 9945PX Wagenborgen | 0:00 |
| BC | H.L. Emmensweg 16 9945PX Wagenborgen | 0:00 |
| BD | H.L. Emmensweg 13 9945PW Wagenborgen | 0:00 |
| BE | H.L. Emmensweg 15 9945PW Wagenborgen | 0:00 |
| BF | H.L. Emmensweg 9 9945PW Wagenborgen | 0:00 |
| BG | H.L. Emmensweg 11 9945PW Wagenborgen | 0:00 |
| BH | H.L. Emmensweg 5 9945PW Wagenborgen | 0:00 |
| BI | H.L. Emmensweg 7 9945PW Wagenborgen | 0:00 |

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8-2-2017 12:21/3.0.654

# SHADOW - Main Result

## Calculation: Referentiesituatie zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| BJ | H.L. Emmensweg 4 9945PX Wagenborgen | 0:00 |
| BK | H.L. Emmensweg 2 9945PX Wagenborgen | 0:00 |
| BL | H.L. Emmensweg 1 9945PW Wagenborgen | 0:00 |
| BM | H.L. Emmensweg 3 9945PW Wagenborgen | 0:00 |
| BN | de Linden 4 9945PZ Wagenborgen | 0:00 |
| BO | de Linden 6 9945PZ Wagenborgen | 0:00 |
| BP | de Linden 10 9945PZ Wagenborgen | 0:00 |
| BQ | de Linden 12 9945PZ Wagenborgen | 0:00 |
| BR | de Linden 2 9945PZ Wagenborgen | 0:00 |
| BS | de Wilgen 12 9945RB Wagenborgen | 0:00 |
| BT | de Wilgen 10 9945RB Wagenborgen | 0:00 |
| BU | de Wilgen 8 9945RB Wagenborgen | 0:00 |
| BV | de Wilgen 2 9945RB Wagenborgen | 0:00 |
| BW | de Wilgen 4 9945RB Wagenborgen | 0:00 |
| BX | de Wilgen 6 9945RB Wagenborgen | 0:00 |
| BY | de Wilgen 6 A 9945RB Wagenborgen | 0:00 |
| BZ | de Wilgen 3 9945RB Wagenborgen | 0:00 |
| C | Tolhek 1 9945TJ Wagenborgen | 0:00 |
| CA | de Wilgen 3 A 9945RB Wagenborgen | 0:00 |
| CB | de Wilgen 3 B 9945RB Wagenborgen | 0:00 |
| CC | de Wilgen 5 9945RB Wagenborgen | 0:00 |
| CD | de Wilgen 46 9945RB Wagenborgen | 0:00 |
| CE | de Wilgen 44 9945RB Wagenborgen | 0:00 |
| CF | de Wilgen 48 9945RB Wagenborgen | 0:00 |
| CG | de Wilgen 50 9945RB Wagenborgen | 0:00 |
| CH | de Wilgen 36 9945RB Wagenborgen | 0:00 |
| CI | de Wilgen 38 9945RB Wagenborgen | 0:00 |
| CJ | de Wilgen 40 9945RB Wagenborgen | 0:00 |
| CK | de Wilgen 42 9945RB Wagenborgen | 0:00 |
| CL | de Wilgen 28 9945RB Wagenborgen | 0:00 |
| CM | de Wilgen 30 9945RB Wagenborgen | 0:00 |
| CN | de Wilgen 32 9945RB Wagenborgen | 0:00 |
| CO | de Wilgen 34 9945RB Wagenborgen | 0:00 |
| CP | de Wilgen 24 9945TK Wagenborgen | 0:00 |
| CQ | de Wilgen 26 9945RB Wagenborgen | 0:00 |
| CR | de Wilgen 20 9945RB Wagenborgen | 0:00 |
| CS | de Wilgen 22 9945RB Wagenborgen | 0:00 |
| CT | de Wilgen 18 9945RB Wagenborgen | 0:00 |
| CU | de Wilgen 16 9945RB Wagenborgen | 0:00 |
| CV | de Wilgen 14 9945RB Wagenborgen | 0:00 |
| CW | de Wilgen 9 9945RB Wagenborgen | 0:00 |
| CX | de Wilgen 52 9945RB Wagenborgen | 0:00 |
| CY | Menterne 22 9945RA Wagenborgen | 0:00 |
| CZ | Menterne 18 9945RA Wagenborgen | 0:00 |
| D | Familie Bronsweg 62 9945TA Wagenborgen | 0:00 |
| DA | Menterne 21 9945RA Wagenborgen | 0:00 |
| DB | Menterne 19 9945RA Wagenborgen | 0:00 |
| DC | Menterne 20 9945RA Wagenborgen | 0:00 |
| DD | Menterne 17 9945RA Wagenborgen | 0:00 |
| DE | Menterne 7 9945RA Wagenborgen | 0:00 |
| DF | Menterne 8 9945RA Wagenborgen | 0:00 |
| DG | Menterne 9 9945RA Wagenborgen | 0:00 |
| DH | Menterne 10 9945RA Wagenborgen | 0:00 |
| DI | Menterne 11 9945RA Wagenborgen | 0:00 |
| DJ | Menterne 12 9945RA Wagenborgen | 0:00 |
| DK | Menterne 13 9945RA Wagenborgen | 0:00 |
| DL | Menterne 14 9945RA Wagenborgen | 0:00 |
| DM | Menterne 1 9945RA Wagenborgen | 0:00 |
| DN | Menterne 2 9945RA Wagenborgen | 0:00 |
| DO | Menterne 3 9945RA Wagenborgen | 0:00 |
| DP | Menterne 4 9945RA Wagenborgen | 0:00 |
| DQ | Menterne 5 9945RA Wagenborgen | 0:00 |
| DR | Menterne 6 9945RA Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Referentiesituatie zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| DS | Menterne 15 9945RA Wagenborgen | 0:00 |
| DT | Menterne 16 9945RA Wagenborgen | 0:00 |
| DU | de Berken 6 9945PT Wagenborgen | 0:00 |
| DV | de Berken 2 9945PT Wagenborgen | 0:00 |
| DW | de Berken 4 9945PT Wagenborgen | 0:00 |
| DX | de Berken 1 9945PT Wagenborgen | 0:00 |
| DY | de Berken 5 9945PT Wagenborgen | 0:00 |
| DZ | de Berken 7 9945PT Wagenborgen | 0:00 |
| E | Meerweg 3 9945RC Wagenborgen | 0:00 |
| EA | de Berken 9 9945PT Wagenborgen | 0:00 |
| EB | de Eiken 14 9945VA Wagenborgen | 0:00 |
| EC | de Eiken 16 9945VA Wagenborgen | 0:00 |
| ED | de Eiken 2 9945VA Wagenborgen | 0:00 |
| EE | de Eiken 4 9945VA Wagenborgen | 0:00 |
| EF | de Eiken 6 9945VA Wagenborgen | 0:00 |
| EG | de Eiken 8 9945VA Wagenborgen | 0:00 |
| EH | de Eiken 10 9945VA Wagenborgen | 0:00 |
| EI | de Eiken 12 9945VA Wagenborgen | 0:00 |
| EJ | de Eiken 2 A 9945VA Wagenborgen | 0:00 |
| EK | Troostlaan 7 9945PV Wagenborgen | 0:00 |
| EL | Troostlaan 8 9945PV Wagenborgen | 0:00 |
| EM | Troostlaan 9 9945PV Wagenborgen | 0:00 |
| EN | Troostlaan 10 9945PV Wagenborgen | 0:00 |
| EO | Troostlaan 11 9945PV Wagenborgen | 0:00 |
| EP | Troostlaan 1 9945PV Wagenborgen | 0:00 |
| EQ | Troostlaan 2 9945PV Wagenborgen | 0:00 |
| ER | Troostlaan 3 9945PV Wagenborgen | 0:00 |
| ES | Troostlaan 2 A 9945PV Wagenborgen | 0:00 |
| ET | Troostlaan 4 9945PV Wagenborgen | 0:00 |
| EU | Troostlaan 14 9945PV Wagenborgen | 0:00 |
| EV | Troostlaan 22 9945PV Wagenborgen | 0:00 |
| EW | Troostlaan 20 9945PV Wagenborgen | 0:00 |
| EX | Troostlaan 21 9945PV Wagenborgen | 0:00 |
| EY | Troostlaan 18 9945PV Wagenborgen | 0:00 |
| EZ | Troostlaan 19 9945PV Wagenborgen | 0:00 |
| F | G. Boelmanweg 2 9945RJ Wagenborgen | 0:00 |
| FA | Familie Bronsweg 40 9945PS Wagenborgen | 0:00 |
| FB | Familie Bronsweg 44 9945PS Wagenborgen | 0:00 |
| FC | Familie Bronsweg 46 9945PS Wagenborgen | 0:00 |
| FD | Familie Bronsweg 48 9945PS Wagenborgen | 0:00 |
| FE | Familie Bronsweg 50 9945PS Wagenborgen | 0:00 |
| FF | Familie Bronsweg 79 9945PP Wagenborgen | 0:00 |
| FG | Familie Bronsweg 81 9945PP Wagenborgen | 0:00 |
| FH | Familie Bronsweg 36 9945PS Wagenborgen | 0:00 |
| FI | Familie Bronsweg 38 9945PS Wagenborgen | 0:00 |
| FJ | Familie Bronsweg 42 9945PS Wagenborgen | 0:00 |
| FK | Familie Bronsweg 54 9945PS Wagenborgen | 0:00 |
| FL | Familie Bronsweg 52 9945PS Wagenborgen | 0:00 |
| FM | Familie Bronsweg 50 B 9945PS Wagenborgen | 0:00 |
| FN | Familie Bronsweg 50 A 9945PS Wagenborgen | 0:00 |
| FO | Familie Bronsweg 75 9945PP Wagenborgen | 0:00 |
| FP | Familie Bronsweg 75 A 9945PP Wagenborgen | 0:00 |
| FQ | Familie Bronsweg 75 B 9945PP Wagenborgen | 0:00 |
| FR | Familie Bronsweg 71 9945PP Wagenborgen | 0:00 |
| FS | Familie Bronsweg 69 A 9945PP Wagenborgen | 0:00 |
| FT | Familie Bronsweg 69 9945PP Wagenborgen | 0:00 |
| FU | Familie Bronsweg 67 9945PP Wagenborgen | 0:00 |
| FV | Familie Bronsweg 65 9945PP Wagenborgen | 0:00 |
| FW | Familie Bronsweg 63 9945PP Wagenborgen | 0:00 |
| FX | Familie Bronsweg 61 9945PP Wagenborgen | 0:00 |
| FY | Familie Bronsweg 59 9945PP Wagenborgen | 0:00 |
| FZ | Familie Bronsweg 57 9945PP Wagenborgen | 0:00 |
| G | G. Boelmanweg 3 9945RE Wagenborgen | 0:00 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Referentiesituatie zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| GA | Familie Bronsweg 53 9945PP Wagenborgen | 0:00 |
| GB | Familie Bronsweg 73 9945PP Wagenborgen | 0:00 |
| GC | Familie Bronsweg 85 9945PP Wagenborgen | 0:00 |
| GD | Familie Bronsweg 83 9945PP Wagenborgen | 0:00 |
| GE | Familie Bronsweg 83 A 9945PP Wagenborgen | 0:00 |
| GF | Familie Bronsweg 77 9945PP Wagenborgen | 0:00 |
| GG | Familie Bronsweg 51 9945PP Wagenborgen | 0:00 |
| GH | Familie Bronsweg 2 9945PR Wagenborgen | 0:00 |
| GI | Familie Bronsweg 4 9945PR Wagenborgen | 0:00 |
| GJ | Familie Bronsweg 4 A 9945PR Wagenborgen | 0:00 |
| GK | Familie Bronsweg 6 9945PR Wagenborgen | 0:00 |
| GL | Familie Bronsweg 8 9945PR Wagenborgen | 0:00 |
| GM | Familie Bronsweg 10 9945PR Wagenborgen | 0:00 |
| GN | Familie Bronsweg 12 9945PR Wagenborgen | 0:00 |
| GO | Familie Bronsweg 14 9945PR Wagenborgen | 0:00 |
| GP | Familie Bronsweg 16 9945PR Wagenborgen | 0:00 |
| GQ | Familie Bronsweg 15 9945PN Wagenborgen | 0:00 |
| GR | Familie Bronsweg 17 9945PN Wagenborgen | 0:00 |
| GS | Familie Bronsweg 2 A 9945PR Wagenborgen | 0:00 |
| GT | Familie Bronsweg 2 B 9945PR Wagenborgen | 0:00 |
| GU | Familie Bronsweg 2 C 9945PR Wagenborgen | 0:00 |
| GV | Familie Bronsweg 2 D 9945PR Wagenborgen | 0:00 |
| GW | Familie Bronsweg 2 F 9945PR Wagenborgen | 0:00 |
| GX | Familie Bronsweg 2 G 9945PR Wagenborgen | 0:00 |
| GY | Familie Bronsweg 2 H 9945PR Wagenborgen | 0:00 |
| GZ | Familie Bronsweg 2 J 9945PR Wagenborgen | 0:00 |
| H | G. Boelmanweg 5 9945RE Wagenborgen | 0:00 |
| HA | Akeleistraat 17 9945VD Wagenborgen | 0:00 |
| HB | Akeleistraat 19 9945VD Wagenborgen | 0:00 |
| HC | Akeleistraat 21 9945VD Wagenborgen | 0:00 |
| HD | Akeleistraat 23 9945VD Wagenborgen | 0:00 |
| HE | Akeleistraat 20 9945VD Wagenborgen | 0:00 |
| HF | Akeleistraat 22 9945VD Wagenborgen | 0:00 |
| HG | Akeleistraat 16 9945VD Wagenborgen | 0:00 |
| HH | Akeleistraat 18 9945VD Wagenborgen | 0:00 |
| HI | Akeleistraat 12 9945VD Wagenborgen | 0:00 |
| HJ | Akeleistraat 14 9945VD Wagenborgen | 0:00 |
| HK | Akeleistraat 10 9945VD Wagenborgen | 0:00 |
| HL | Akeleistraat 1 9945VD Wagenborgen | 0:00 |
| HM | Akeleistraat 3 9945VD Wagenborgen | 0:00 |
| HN | Akeleistraat 5 9945VD Wagenborgen | 0:00 |
| HO | Akeleistraat 7 9945VD Wagenborgen | 0:00 |
| HP | Akeleistraat 9 9945VD Wagenborgen | 0:00 |
| HQ | Akeleistraat 11 9945VD Wagenborgen | 0:00 |
| HR | Akeleistraat 2 9945VD Wagenborgen | 0:00 |
| HS | Akeleistraat 4 9945VD Wagenborgen | 0:00 |
| HT | Akeleistraat 6 9945VD Wagenborgen | 0:00 |
| HU | Akeleistraat 8 9945VD Wagenborgen | 0:00 |
| HV | Akeleistraat 15 9945VD Wagenborgen | 0:00 |
| HW | Bremstraat 6 9945VC Wagenborgen | 0:00 |
| HX | Bremstraat 2 9945VC Wagenborgen | 0:00 |
| HY | Bremstraat 4 9945VC Wagenborgen | 0:00 |
| HZ | Bremstraat 12 9945VC Wagenborgen | 0:00 |
| I | G. Boelmanweg 4 9945RJ Wagenborgen | 0:00 |
| IA | Hibiscusstraat 30 9945VB Wagenborgen | 0:00 |
| IB | Hibiscusstraat 2 9945VB Wagenborgen | 0:00 |
| IC | Hibiscusstraat 4 9945VB Wagenborgen | 0:00 |
| ID | Hibiscusstraat 10 9945VB Wagenborgen | 0:00 |
| IE | Hibiscusstraat 16 9945VB Wagenborgen | 0:00 |
| IF | Bremstraat 14 9945VC Wagenborgen | 0:00 |
| IG | Hibiscusstraat 6 9945VB Wagenborgen | 0:00 |
| IH | Hibiscusstraat 26 9945VB Wagenborgen | 0:00 |
| II | Kopaf 8 9945TE Wagenborgen | 0:00 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Referentiesituatie zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| IJ | Kopaf 7 9945TE Wagenborgen | 0:00 |
| IK | Kopaf 6 9945TE Wagenborgen | 0:00 |
| IL | Kloosterlaan 27 9945TG Wagenborgen | 0:00 |
| IM | Kloosterlaan 25 9945TG Wagenborgen | 0:00 |
| IN | Kloosterlaan 23 9945TG Wagenborgen | 0:00 |
| IO | Scheve Klap 5 9945TD Wagenborgen | 0:00 |
| IP | Scheve Klap 4 9945TD Wagenborgen | 0:00 |
| IQ | Hibiscusstraat 8 9945VB Wagenborgen | 0:00 |
| IR | Hibiscusstraat 12 9945VB Wagenborgen | 0:00 |
| IS | Hibiscusstraat 18 9945VB Wagenborgen | 0:00 |
| IT | Hibiscusstraat 24 9945VB Wagenborgen | 0:00 |
| IU | Hibiscusstraat 22 9945VB Wagenborgen | 0:00 |
| IV | Troostlaan 15 9945PV Wagenborgen | 0:00 |
| IW | Bremstraat 10 9945VC Wagenborgen | 0:00 |
| IX | Hibiscusstraat 20 9945VB Wagenborgen | 0:00 |
| IY | Hibiscusstraat 28 9945VB Wagenborgen | 0:00 |
| IZ | Troostlaan 5 9945PV Wagenborgen | 0:00 |
| J | G. Boelmanweg 7 9945RE Wagenborgen | 0:00 |
| JA | Troostlaan 6 9945PV Wagenborgen | 0:00 |
| JB | Boslaan 5 9945TM Wagenborgen | 0:00 |
| JC | Hoofdweg 33 A 9945PB Wagenborgen | 0:00 |
| JD | Akeleistraat 13 9945VD Wagenborgen | 0:00 |
| JE | Hoofdweg 42 9945PG Wagenborgen | 0:00 |
| JF | Familie Bronsweg 2 E 9945PR Wagenborgen | 0:00 |
| JG | Hibiscusstraat 14 9945VB Wagenborgen | 0:00 |
| JH | Bremstraat 8 9945VC Wagenborgen | 0:00 |
| JI | Menterne 23 003 9945RA Wagenborgen | 0:00 |
| JJ | Menterne 23 004 9945RA Wagenborgen | 0:00 |
| JK | Menterne 23 005 9945RA Wagenborgen | 0:00 |
| JL | Menterne 23 006 9945RA Wagenborgen | 0:00 |
| JM | Menterne 23 007 9945RA Wagenborgen | 0:00 |
| JN | Menterne 23 008 9945RA Wagenborgen | 0:00 |
| JO | Menterne 23 009 9945RA Wagenborgen | 0:00 |
| JP | Menterne 23 010 9945RA Wagenborgen | 0:00 |
| JQ | Menterne 23 017 9945RA Wagenborgen | 0:00 |
| JR | Menterne 23 030 9945RA Wagenborgen | 0:00 |
| JS | Menterne 23 103 9945RA Wagenborgen | 0:00 |
| JT | Menterne 23 104 9945RA Wagenborgen | 0:00 |
| JU | Menterne 23 105 9945RA Wagenborgen | 0:00 |
| JV | Menterne 23 106 9945RA Wagenborgen | 0:00 |
| JW | Menterne 23 107 9945RA Wagenborgen | 0:00 |
| JX | Menterne 23 108 9945RA Wagenborgen | 0:00 |
| JY | Menterne 23 109 9945RA Wagenborgen | 0:00 |
| JZ | Menterne 23 110 9945RA Wagenborgen | 0:00 |
| K | G. Boelmanweg 6 9945RJ Wagenborgen | 0:00 |
| KA | Menterne 23 111 9945RA Wagenborgen | 0:00 |
| KB | Menterne 23 113 9945RA Wagenborgen | 0:00 |
| KC | Menterne 23 114 9945RA Wagenborgen | 0:00 |
| KD | Menterne 23 115 9945RA Wagenborgen | 0:00 |
| KE | Menterne 23 116 9945RA Wagenborgen | 0:00 |
| KF | Menterne 23 117 9945RA Wagenborgen | 0:00 |
| KG | Menterne 23 118 9945RA Wagenborgen | 0:00 |
| KH | Menterne 23 119 9945RA Wagenborgen | 0:00 |
| KI | Menterne 23 120 9945RA Wagenborgen | 0:00 |
| KJ | Menterne 23 121 9945RA Wagenborgen | 0:00 |
| KK | Menterne 23 122 9945RA Wagenborgen | 0:00 |
| KL | Menterne 23 123 9945RA Wagenborgen | 0:00 |
| KM | Menterne 23 124 9945RA Wagenborgen | 0:00 |
| KN | Menterne 23 125 9945RA Wagenborgen | 0:00 |
| KO | Menterne 23 126 9945RA Wagenborgen | 0:00 |
| KP | Menterne 23 127 9945RA Wagenborgen | 0:00 |
| KQ | Menterne 23 128 9945RA Wagenborgen | 0:00 |
| KR | Menterne 23 129 9945RA Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Referentiesituatie zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| KS | Menterne 23 130 9945RA Wagenborgen | 0:00 |
| KT | Menterne 23 131 9945RA Wagenborgen | 0:00 |
| KU | Menterne 23 132 9945RA Wagenborgen | 0:00 |
| KV | Menterne 23 201 9945RA Wagenborgen | 0:00 |
| KW | Menterne 23 202 9945RA Wagenborgen | 0:00 |
| KX | Menterne 23 203 9945RA Wagenborgen | 0:00 |
| KY | Menterne 23 204 9945RA Wagenborgen | 0:00 |
| KZ | Menterne 23 205 9945RA Wagenborgen | 0:00 |
| L | Kokslaan 1 9945RD Wagenborgen | 0:00 |
| LA | Menterne 23 206 9945RA Wagenborgen | 0:00 |
| LB | Menterne 23 207 9945RA Wagenborgen | 0:00 |
| LC | Menterne 23 208 9945RA Wagenborgen | 0:00 |
| LD | Menterne 23 209 9945RA Wagenborgen | 0:00 |
| LE | Menterne 23 210 9945RA Wagenborgen | 0:00 |
| LF | Menterne 23 211 9945RA Wagenborgen | 0:00 |
| LG | Menterne 23 212 9945RA Wagenborgen | 0:00 |
| LH | Menterne 23 213 9945RA Wagenborgen | 0:00 |
| LI | Menterne 23 214 9945RA Wagenborgen | 0:00 |
| LJ | Menterne 23 215 9945RA Wagenborgen | 0:00 |
| LK | Menterne 23 216 9945RA Wagenborgen | 0:00 |
| LL | Menterne 23 217 9945RA Wagenborgen | 0:00 |
| LM | Menterne 23 218 9945RA Wagenborgen | 0:00 |
| LN | Menterne 23 219 9945RA Wagenborgen | 0:00 |
| LO | Menterne 23 220 9945RA Wagenborgen | 0:00 |
| LP | Menterne 23 221 9945RA Wagenborgen | 0:00 |
| LQ | Menterne 23 222 9945RA Wagenborgen | 0:00 |
| LR | Menterne 23 223 9945RA Wagenborgen | 0:00 |
| LS | Menterne 23 224 9945RA Wagenborgen | 0:00 |
| LT | Menterne 23 226 9945RA Wagenborgen | 0:00 |
| LU | Menterne 23 228 9945RA Wagenborgen | 0:00 |
| LV | Menterne 23 229 9945RA Wagenborgen | 0:00 |
| LW | Menterne 23 230 9945RA Wagenborgen | 0:00 |
| LX | Menterne 23 231 9945RA Wagenborgen | 0:00 |
| LY | Menterne 23 232 9945RA Wagenborgen | 0:00 |
| LZ | G. Boelmanweg 1 9945RE Wagenborgen | 0:00 |
| M | Kokslaan 2 9945RD Wagenborgen | 0:00 |
| MA | Boslaan 7 9945TM Wagenborgen | 0:00 |
| MB | H.L. Emmensweg 23 9945PW Wagenborgen | 0:00 |
| MC | Kopaf 5 9944VA Nieuwolda | 0:00 |
| MD | Familie Bronsweg 68 9945TA Wagenborgen | 5:51 |
| ME | Maarkampen 26 9937PL Meedhuizen | 0:00 |
| MF | Maarkampen 24 9937PL Meedhuizen | 0:00 |
| MG | Maarkampen 22 9937PL Meedhuizen | 0:00 |
| MH | Maarkampen 20 9937PL Meedhuizen | 0:00 |
| MI | Maarkampen 18 9937PL Meedhuizen | 0:00 |
| MJ | Maarkampen 16 9937PL Meedhuizen | 0:00 |
| MK | Maarkampen 14 9937PL Meedhuizen | 0:00 |
| ML | Maarlaan 22 E 9937TH Meedhuizen | 0:00 |
| MM | Maarlaan 22 D 9937TH Meedhuizen | 0:00 |
| MN | Schaapbulterweg 8 9937TL Meedhuizen | 0:00 |
| MO | Schaapbulterweg 6 9937TL Meedhuizen | 0:00 |
| MP | Schaapbulterweg 29 9937TL Meedhuizen | 0:00 |
| MQ | Schaapbulterweg 27 9937TL Meedhuizen | 0:00 |
| MR | Schaapbulterweg 25 9937TL Meedhuizen | 0:00 |
| MS | Schaapbulterweg 23 9937TL Meedhuizen | 0:00 |
| MT | Schaapbulterweg 21 9937TL Meedhuizen | 0:00 |
| MU | Geefsweersterweg 11 9937TB Meedhuizen | 0:00 |
| MV | Schaapbulterweg 35 9937TL Meedhuizen | 0:00 |
| MW | Meedhuizerweg 20 9937TK Meedhuizen | 0:00 |
| MX | Familie Bronsweg 66 9945TA Wagenborgen | 3:34 |
| MY | Familie Bronsweg 64 9945TA Wagenborgen | 5:48 |
| MZ | Ideweersterweg 10 9937TM Meedhuizen | 0:00 |
| N | Kerkstraat 1 9945SB Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Referentiesituatie zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| NA | Ideweersterweg 8 9937TM Meedhuizen | 0:00 |
| NB | Geefsweersterweg 20 9937TC Meedhuizen | 0:00 |
| NC | Geefsweersterweg 18 9937TC Meedhuizen | 0:00 |
| ND | Geefsweersterweg 29 9937TB Meedhuizen | 0:00 |
| NE | Geefsweersterweg 16 9937TC Meedhuizen | 0:00 |
| NF | Geefsweersterweg 23 9937TB Meedhuizen | 0:00 |
| NG | Geefsweersterweg 12 9937TC Meedhuizen | 0:00 |
| NH | Geefsweersterweg 14 9937TC Meedhuizen | 0:00 |
| NI | Geefsweersterweg 21 A 9937TB Meedhuizen | 0:00 |
| NJ | Geefsweersterweg 10 9937TC Meedhuizen | 0:00 |
| NK | Geefsweersterweg 21 9937TB Meedhuizen | 0:00 |
| NL | Geefsweersterweg 17 9937TB Meedhuizen | 0:00 |
| NM | Geefsweersterweg 19 9937TB Meedhuizen | 0:00 |
| NN | Ideweersterweg 2 9937TM Meedhuizen | 28:40 |
| NO | Ideweersterweg 1 9937TM Meedhuizen | 30:12 |
| NP | Geefsweersterweg 15 9937TB Meedhuizen | 0:00 |
| NQ | Westerlaan 6 9937TS Meedhuizen | 81:08 |
| NR | Familie Bronsweg 87 9945TA Wagenborgen | 79:11 |
| NS | Familie Bronsweg 89 9945TA Wagenborgen | 5:09 |
| NT | Westerlaan 10 9937TS Meedhuizen | 38:45 |
| NU | Geefsweersterweg 13 9937TB Meedhuizen | 0:00 |
| NV | Maarlaan 26 9937TH Meedhuizen | 0:00 |
| NW | Maarlaan 24 9937TH Meedhuizen | 0:00 |
| NX | Maarlaan 28 9937TH Meedhuizen | 0:00 |
| NY | Maarlaan 30 9937TH Meedhuizen | 0:00 |
| NZ | Kerklaan 3 9937PG Meedhuizen | 0:00 |
| O | Hoofdweg 30 9945PG Wagenborgen | 0:00 |
| OA | Kerklaan 8 9937PG Meedhuizen | 0:00 |
| OB | Kerklaan 6 9937PG Meedhuizen | 0:00 |
| OC | Opmeedenlaan 6 9937TN Meedhuizen | 0:00 |
| OD | Opmeedenlaan 4 9937TN Meedhuizen | 0:00 |
| OE | Opmeedenlaan 2 9937TN Meedhuizen | 0:00 |
| OF | Kloosterlaan 26 9945TG Wagenborgen | 0:00 |
| OG | Zomerdijk 1 9945TH Wagenborgen | 0:00 |
| OH | Zomerdijk 3 9945TH Wagenborgen | 0:00 |
| OI | Zomerdijk 3 A 9945TH Wagenborgen | 0:00 |
| OJ | Zomerdijk 2 9945TH Wagenborgen | 0:00 |
| OK | Kloosterlaan 21 A 9945TG Wagenborgen | 0:00 |
| OL | Kloosterlaan 21 B 9945TG Wagenborgen | 0:00 |
| OM | Ideweersterweg 4 9937TM Meedhuizen | 0:23 |
| ON | Maarlaan 22 C 9937TH Meedhuizen | 0:00 |
| OO | Kloosterlaan 21 9936TE Farmsum | 0:00 |
| OP | Geefsweersterweg 8 A 9937TC Meedhuizen | 0:00 |
| OQ | Houtweg 20 9936BL Farmsum | 0:00 |
| OR | Houtweg 22 9936BL Farmsum | 0:00 |
| OS | Houtweg 24 9936BL Farmsum | 0:00 |
| OT | Houtweg 26 9936BL Farmsum | 0:00 |
| OU | Houtweg 28 9936BL Farmsum | 0:00 |
| OV | Rondeboslaan 6 9936BK Farmsum | 0:00 |
| OW | Proosdij 14 9936EW Farmsum | 0:00 |
| OX | Bredelaan 6 9936ER Farmsum | 0:00 |
| OY | Bredelaan 4 9936ER Farmsum | 0:00 |
| OZ | Bredelaan 2 A 9936ER Farmsum | 0:00 |
| P | Hoofdweg 32 9945PG Wagenborgen | 0:00 |
| PA | Proosdij 24 9936EW Farmsum | 0:00 |
| PB | Proosdij 22 9936EW Farmsum | 0:00 |
| PC | Proosdij 20 9936EW Farmsum | 0:00 |
| PD | Proosdij 18 9936EW Farmsum | 0:00 |
| PE | Proosdij 16 9936EW Farmsum | 0:00 |
| PF | Trambaan 19 9936ES Farmsum | 0:00 |
| PG | Proosdij 17 9936ET Farmsum | 0:00 |
| PH | Proosdij 15 9936ET Farmsum | 0:00 |
| PI | Proosdij 13 9936ET Farmsum | 0:00 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Referentiesituatie zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| PJ | Trambaan 17 9936ES Farmsum | 0:00 |
| PK | Trambaan 15 9936ES Farmsum | 0:00 |
| PL | Trambaan 13 9936ES Farmsum | 0:00 |
| PM | Trambaan 11 9936ES Farmsum | 0:00 |
| PN | Trambaan 9 9936ES Farmsum | 0:00 |
| PO | Trambaan 5 9936ES Farmsum | 0:00 |
| PP | Trambaan 3 9936ES Farmsum | 0:00 |
| PQ | Trambaan 1 9936ES Farmsum | 0:00 |
| PR | Proosdij 12 9936EW Farmsum | 0:00 |
| PS | Proosdij 8 9936EW Farmsum | 0:00 |
| PT | Proosdij 6 9936EW Farmsum | 0:00 |
| PU | Proosdij 4 9936EW Farmsum | 0:00 |
| PV | Proosdij 11 9936ET Farmsum | 0:00 |
| PW | Proosdij 9 9936ET Farmsum | 0:00 |
| PX | Proosdij 7 9936ET Farmsum | 0:00 |
| PY | Proosdij 5 9936ET Farmsum | 0:00 |
| PZ | Proosdij 1 9936ET Farmsum | 0:00 |
| Q | Hoofdweg 31 9945PA Wagenborgen | 0:00 |
| QA | Proosdij 3 9936ET Farmsum | 0:00 |
| QB | Farmsumerzijl 55 9936GC Farmsum | 0:00 |
| QC | Farmsumerzijl 57 9936GC Farmsum | 0:00 |
| QD | Rengersweg 4 9936GH Farmsum | 0:00 |
| QE | Rengersweg 2 9936GH Farmsum | 0:00 |
| QF | Schepperij 4 A 9936GN Farmsum | 0:00 |
| QG | Schepperij 2 A 9936GN Farmsum | 0:00 |
| QH | Schepperij 4 9936GN Farmsum | 0:00 |
| QI | Schepperij 2 9936GN Farmsum | 0:00 |
| QJ | Dijkrecht 4 9936GK Farmsum | 0:00 |
| QK | Dijkrecht 6 9936GK Farmsum | 0:00 |
| QL | Dijkrecht 10 9936GK Farmsum | 0:00 |
| QM | Dijkrecht 12 9936GK Farmsum | 0:00 |
| QN | Dijkrecht 14 9936GK Farmsum | 0:00 |
| QO | Dijkrecht 16 9936GK Farmsum | 0:00 |
| QP | Dijkrecht 18 9936GK Farmsum | 0:00 |
| QQ | Dijkrecht 20 9936GK Farmsum | 0:00 |
| QR | Dijkrecht 22 9936GK Farmsum | 0:00 |
| QS | Dijkrecht 24 9936GK Farmsum | 0:00 |
| QT | Dijkrecht 26 9936GK Farmsum | 0:00 |
| QU | Dijkrecht 28 9936GK Farmsum | 0:00 |
| QV | Dijkrecht 30 9936GK Farmsum | 0:00 |
| QW | Dijkrecht 32 9936GK Farmsum | 0:00 |
| QX | Dijkrecht 34 9936GK Farmsum | 0:00 |
| QY | Dijkrecht 36 9936GK Farmsum | 0:00 |
| QZ | Dijkrecht 40 9936GK Farmsum | 0:00 |
| R | Hoofdweg 38 9945PG Wagenborgen | 0:00 |
| RA | Dijkrecht 38 9936GK Farmsum | 0:00 |
| RB | Schepperij 20 9936GN Farmsum | 0:00 |
| RC | Schepperij 18 9936GN Farmsum | 0:00 |
| RD | Waarman 12 9936GW Farmsum | 0:00 |
| RE | Waarman 10 9936GW Farmsum | 0:00 |
| RF | Waarman 8 9936GW Farmsum | 0:00 |
| RG | Waarman 6 9936GW Farmsum | 0:00 |
| RH | Farmsumerzijl 1 9936GB Farmsum | 0:00 |
| RI | Farmsumerzijl 3 9936GB Farmsum | 0:00 |
| RJ | Farmsumerzijl 5 9936GB Farmsum | 0:00 |
| RK | Farmsumerzijl 7 9936GB Farmsum | 0:00 |
| RL | Farmsumerzijl 13 9936GB Farmsum | 0:00 |
| RM | Farmsumerzijl 15 9936GB Farmsum | 0:00 |
| RN | Farmsumerzijl 17 9936GB Farmsum | 0:00 |
| RO | Farmsumerzijl 19 9936GB Farmsum | 0:00 |
| RP | Farmsumerzijl 25 9936GB Farmsum | 0:00 |
| RQ | Farmsumerzijl 27 9936GB Farmsum | 0:00 |
| RR | Farmsumerzijl 29 9936GB Farmsum | 0:00 |

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# SHADOW - Main Result

## Calculation: Referentiesituatie zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| RS | Farmsumerzijl 31 9936GC Farmsum | 0:00 |
| RT | Farmsumerzijl 37 9936GC Farmsum | 0:00 |
| RU | Farmsumerzijl 39 9936GC Farmsum | 0:00 |
| RV | Farmsumerzijl 41 9936GC Farmsum | 0:00 |
| RW | Farmsumerzijl 43 9936GC Farmsum | 0:00 |
| RX | Schepperij 1 9936GL Farmsum | 0:00 |
| RY | Schepperij 3 9936GL Farmsum | 0:00 |
| RZ | Schepperij 5 9936GL Farmsum | 0:00 |
| S | Hoofdweg 39 9945PB Wagenborgen | 0:00 |
| SA | Schepperij 7 9936GL Farmsum | 0:00 |
| SB | Schepperij 9 9936GL Farmsum | 0:00 |
| SC | Schepperij 11 9936GL Farmsum | 0:00 |
| SD | Schepperij 13 9936GL Farmsum | 0:00 |
| SE | Schepperij 15 9936GL Farmsum | 0:00 |
| SF | Dijkrecht 8 9936GK Farmsum | 0:00 |
| SG | Geefsweersterweg 9 9937TB Meedhuizen | 0:00 |
| SH | Geefsweersterweg 7 9937TB Meedhuizen | 0:00 |
| SI | Geefsweersterweg 8 9937TC Meedhuizen | 0:00 |
| SJ | Geefsweersterweg 3 9937TB Meedhuizen | 0:00 |
| SK | Geefsweersterweg 6 9937TC Meedhuizen | 0:00 |
| SL | Geefsweersterweg 4 9937TC Meedhuizen | 0:00 |
| SM | Meedhuizerweg 2 9937TK Meedhuizen | 0:00 |
| SN | Molenstraat 31 9936EB Farmsum | 0:00 |
| SO | Hindrik Jagerstraat 32 9936CV Farmsum | 0:00 |
| SP | Hindrik Jagerstraat 11 9936CT Farmsum | 0:00 |
| SQ | Hindrik Jagerstraat 13 9936CT Farmsum | 0:00 |
| SR | Hindrik Jagerstraat 15 9936CT Farmsum | 0:00 |
| SS | Hindrik Jagerstraat 34 9936CV Farmsum | 0:00 |
| ST | Hindrik Jagerstraat 36 9936CV Farmsum | 0:00 |
| SU | Borgshof 31 9936CR Farmsum | 0:00 |
| SV | Borgshof 33 9936CR Farmsum | 0:00 |
| SW | Borgshof 39 9936CR Farmsum | 0:00 |
| SX | Borgshof 35 9936CR Farmsum | 0:00 |
| SY | Molenstraat 20 9936EC Farmsum | 0:00 |
| SZ | Molenstraat 24 9936EC Farmsum | 0:00 |
| T | Hoofdweg 35 9945PB Wagenborgen | 0:00 |
| TA | Molenstraat 28 9936EC Farmsum | 0:00 |
| TB | Molenstraat 41 9936EB Farmsum | 0:00 |
| TC | Molenstraat 43 9936EB Farmsum | 0:00 |
| TD | Molenstraat 45 9936EB Farmsum | 0:00 |
| TE | Molenstraat 32 9936EC Farmsum | 0:00 |
| TF | Achterweg 13 9936EG Farmsum | 0:00 |
| TG | Achterweg 11 9936EG Farmsum | 0:00 |
| TH | Achterweg 9 9936EG Farmsum | 0:00 |
| TI | Molenstraat 49 9936EB Farmsum | 0:00 |
| TJ | Molenstraat 51 9936EB Farmsum | 0:00 |
| TK | Molenstraat 53 9936EB Farmsum | 0:00 |
| TL | Molenstraat 57 9936EB Farmsum | 0:00 |
| TM | Molenstraat 61 9936EB Farmsum | 0:00 |
| TN | Molenstraat 63 9936EB Farmsum | 0:00 |
| TO | Molenstraat 34 9936ED Farmsum | 0:00 |
| TP | Molenstraat 38 9936ED Farmsum | 0:00 |
| TQ | Molenstraat 40 9936ED Farmsum | 0:00 |
| TR | Molenstraat 42 9936ED Farmsum | 0:00 |
| TS | Molenstraat 44 9936ED Farmsum | 0:00 |
| TT | Molenstraat 65 9936EB Farmsum | 0:00 |
| TU | Molenstraat 48 9936ED Farmsum | 0:00 |
| TV | Molenstraat 50 9936ED Farmsum | 0:00 |
| TW | Molenstraat 56 9936ED Farmsum | 0:00 |
| TX | Molenstraat 58 9936EE Farmsum | 0:00 |
| TY | Molenstraat 62 9936EE Farmsum | 0:00 |
| TZ | Molenstraat 72 9936EE Farmsum | 0:00 |
| U | Hoofdweg 37 9945PB Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Referentiesituatie zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| UA | Molenstraat 70 9936EE Farmsum | 0:00 |
| UB | Molenstraat 68 9936EE Farmsum | 0:00 |
| UC | Molenstraat 66 9936EE Farmsum | 0:00 |
| UD | Achterweg 2 9936EG Farmsum | 0:00 |
| UE | Achterweg 12 9936EG Farmsum | 0:00 |
| UF | Achterweg 10 9936EG Farmsum | 0:00 |
| UG | Achterweg 8 9936EG Farmsum | 0:00 |
| UH | Hindrik Jagerstraat 17 9936CT Farmsum | 0:00 |
| UI | Molenstraat 30 9936EC Farmsum | 0:00 |
| UJ | Borgweg 141 9936EN Farmsum | 0:00 |
| UK | Borgweg 139 9936EN Farmsum | 0:00 |
| UL | Borgweg 137 9936EN Farmsum | 0:00 |
| UM | Borgweg 135 9936EN Farmsum | 0:00 |
| UN | Afwateringskanaal 109 9936AV Farmsum | 0:00 |
| UO | Borgweg 131 9936EM Farmsum | 0:00 |
| UP | Borgweg 133 9936EM Farmsum | 0:00 |
| UQ | Borgshof 41 9936CR Farmsum | 0:00 |
| UR | Borgshof 43 9936CR Farmsum | 0:00 |
| US | Borgshof 45 9936CR Farmsum | 0:00 |
| UT | Molenstraat 74 9936EE Farmsum | 0:00 |
| UU | Molenstraat 76 9936EE Farmsum | 0:00 |
| UV | Molenstraat 78 9936EE Farmsum | 0:00 |
| UW | Molenstraat 82 9936EE Farmsum | 0:00 |
| UX | Molenstraat 84 9936EE Farmsum | 0:00 |
| UY | Borgweg 123 9936EM Farmsum | 0:00 |
| UZ | Borgweg 125 9936EM Farmsum | 0:00 |
| V | Hoofdweg 44 9945PH Wagenborgen | 0:00 |
| VA | Borgweg 127 9936EM Farmsum | 0:00 |
| VB | Borgweg 129 9936EM Farmsum | 0:00 |
| VC | Farmsumerzijl 51 9936GC Farmsum | 0:00 |
| VD | Molenstraat 80 9936EE Farmsum | 0:00 |
| VE | Houtweg 30 9936BL Farmsum | 0:00 |
| VF | Houtweg 32 9936BL Farmsum | 0:00 |
| VG | Houtweg 34 9936BL Farmsum | 0:00 |
| VH | Houtweg 36 9936BL Farmsum | 0:00 |
| VI | Houtweg 38 9936BL Farmsum | 0:00 |
| VJ | Houtweg 40 9936BL Farmsum | 0:00 |
| VK | Houtweg 42 9936BL Farmsum | 0:00 |
| VL | Houtweg 44 9936BL Farmsum | 0:00 |
| VM | Houtweg 46 9936BL Farmsum | 0:00 |
| VN | Houtweg 48 9936BL Farmsum | 0:00 |
| VO | Rondeboslaan 26 9936BK Farmsum | 0:00 |
| VP | Rondeboslaan 28 9936BK Farmsum | 0:00 |
| VQ | Seendweg 32 9936GA Farmsum | 0:00 |
| VR | Trambaan 21 9936ES Farmsum | 0:00 |
| VS | Proosdij 19 9936ET Farmsum | 0:00 |
| VT | Bredelaan 14 9936ER Farmsum | 0:00 |
| VU | Bredelaan 10 9936ER Farmsum | 0:00 |
| VV | Bredelaan 8 9936ER Farmsum | 0:00 |
| VW | Seendweg 22 9936GA Farmsum | 0:00 |
| VX | Seendweg 28 9936GA Farmsum | 0:00 |
| VY | Proosdij 28 9936EW Farmsum | 0:00 |
| VZ | Proosdij 30 9936EX Farmsum | 0:00 |
| W | Hoofdweg 48 9945PH Wagenborgen | 0:00 |
| WA | Proosdij 26 9936EW Farmsum | 0:00 |
| WB | Afwateringskanaal 107 9936AV Farmsum | 0:00 |
| WC | Rondeboslaan 22 A 9936BK Farmsum | 0:00 |
| WD | Rondeboslaan 22 B 9936BK Farmsum | 0:00 |
| WE | Rondeboslaan 2 A 9936BK Farmsum | 0:00 |
| WF | Rondeboslaan 2 B 9936BK Farmsum | 0:00 |
| WG | Seendweg 17 9936GA Farmsum | 0:00 |
| WH | Borgshof 29 9936CR Farmsum | 0:00 |
| WI | Molenstraat 22 9936EC Farmsum | 0:00 |

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# SHADOW - Main Result

## Calculation: Referentiesituatie zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| WJ | Achterweg 7 A 9936EG Farmsum | 0:00 |
| WK | Molenstraat 26 9936EC Farmsum | 0:00 |
| WL | Borgweg 113 9936EM Farmsum | 0:00 |
| WM | Borgweg 115 9936EM Farmsum | 0:00 |
| WN | Borgweg 117 9936EM Farmsum | 0:00 |
| WO | Borgweg 119 9936EM Farmsum | 0:00 |
| WP | Borgweg 121 9936EM Farmsum | 0:00 |
| WQ | Farmsumerzijl 45 9936GC Farmsum | 0:00 |
| WR | Farmsumerzijl 47 9936GC Farmsum | 0:00 |
| WS | Farmsumerzijl 49 9936GC Farmsum | 0:00 |
| WT | Waarman 4 9936GW Farmsum | 0:00 |
| WU | Waarman 2 9936GW Farmsum | 0:00 |
| WV | Farmsumerzijl 9 9936GB Farmsum | 0:00 |
| WW | Farmsumerzijl 11 9936GB Farmsum | 0:00 |
| WX | Farmsumerzijl 21 9936GB Farmsum | 0:00 |
| WY | Farmsumerzijl 23 9936GB Farmsum | 0:00 |
| WZ | Farmsumerzijl 33 9936GC Farmsum | 0:00 |
| X | Hoofdweg 41 9945PB Wagenborgen | 0:00 |
| XA | Farmsumerzijl 35 9936GC Farmsum | 0:00 |
| XB | Schepperij 17 9936GL Farmsum | 0:00 |
| XC | Schepperij 19 9936GL Farmsum | 0:00 |
| XD | Schepperij 21 9936GL Farmsum | 0:00 |
| XE | Dijkrecht 3 9936GJ Farmsum | 0:00 |
| XF | Dijkrecht 5 9936GJ Farmsum | 0:00 |
| XG | Dijkrecht 7 9936GJ Farmsum | 0:00 |
| XH | Dijkrecht 9 9936GJ Farmsum | 0:00 |
| XI | Dijkrecht 11 9936GJ Farmsum | 0:00 |
| XJ | Dijkrecht 13 9936GJ Farmsum | 0:00 |
| XK | Dijkrecht 15 9936GJ Farmsum | 0:00 |
| XL | Dijkrecht 17 9936GJ Farmsum | 0:00 |
| XM | Dijkrecht 19 9936GJ Farmsum | 0:00 |
| XN | Dijkrecht 21 9936GJ Farmsum | 0:00 |
| XO | Schepperij 6 9936GN Farmsum | 0:00 |
| XP | Schepperij 8 9936GN Farmsum | 0:00 |
| XQ | Schepperij 10 9936GN Farmsum | 0:00 |
| XR | Schepperij 12 9936GN Farmsum | 0:00 |
| XS | Schepperij 14 9936GN Farmsum | 0:00 |
| XT | Schepperij 16 9936GN Farmsum | 0:00 |
| XU | Olderman 2 9936GT Farmsum | 0:00 |
| XV | Olderman 4 9936GT Farmsum | 0:00 |
| XW | Olderman 6 9936GT Farmsum | 0:00 |
| XX | Olderman 8 9936GT Farmsum | 0:00 |
| XY | Olderman 10 9936GT Farmsum | 0:00 |
| XZ | Olderman 12 9936GT Farmsum | 0:00 |
| Y | Hoofdweg 20 9945PG Wagenborgen | 0:00 |
| YA | Olderman 14 9936GT Farmsum | 0:00 |
| YB | Dijkrecht 23 9936GJ Farmsum | 0:00 |
| YC | Dijkrecht 25 9936GJ Farmsum | 0:00 |
| YD | Dijkrecht 27 9936GJ Farmsum | 0:00 |
| YE | Dijkrecht 29 9936GJ Farmsum | 0:00 |
| YF | Dijkrecht 31 9936GJ Farmsum | 0:00 |
| YG | Dijkrecht 33 9936GJ Farmsum | 0:00 |
| YH | Dijkrecht 35 9936GJ Farmsum | 0:00 |
| YI | Dijkrecht 37 9936GJ Farmsum | 0:00 |
| YJ | Dijkrecht 39 9936GJ Farmsum | 0:00 |
| YK | Dijkrecht 41 9936GJ Farmsum | 0:00 |
| YL | Dijkrecht 43 9936GJ Farmsum | 0:00 |
| YM | Olderman 1 9936GS Farmsum | 0:00 |
| YN | Olderman 3 9936GS Farmsum | 0:00 |
| YO | Olderman 5 9936GS Farmsum | 0:00 |
| YP | Olderman 7 9936GS Farmsum | 0:00 |
| YQ | Schepperij 37 9936GM Farmsum | 0:00 |
| YR | Schepperij 41 9936GM Farmsum | 0:00 |

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# SHADOW - Main Result

## Calculation: Referentiesituatie zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| YS | Schepperij 45 9936GM Farmsum | 0:00 |
| YT | Schepperij 47 9936GM Farmsum | 0:00 |
| YU | Schepperij 49 9936GM Farmsum | 0:00 |
| YV | Olderman 18 9936GT Farmsum | 0:00 |
| YW | Olderman 20 9936GT Farmsum | 0:00 |
| YX | Olderman 22 9936GT Farmsum | 0:00 |
| YY | Olderman 24 9936GT Farmsum | 0:00 |
| YZ | Olderman 26 9936GT Farmsum | 0:00 |
| Z | Hoofdweg 22 9945PG Wagenborgen | 0:00 |
| ZA | Olderman 28 9936GT Farmsum | 0:00 |
| ZB | Olderman 30 9936GT Farmsum | 0:00 |
| ZC | Olderman 9 9936GS Farmsum | 0:00 |
| ZD | Olderman 11 9936GS Farmsum | 0:00 |
| ZE | Olderman 13 9936GS Farmsum | 0:00 |
| ZF | Proosdij 32 9936EX Farmsum | 0:00 |
| ZG | Proosdij 36 9936EX Farmsum | 0:00 |
| ZH | Proosdij 38 9936EX Farmsum | 0:00 |
| ZI | Proosdij 40 9936EX Farmsum | 0:00 |
| ZJ | Proosdij 27 9936EV Farmsum | 0:00 |
| ZK | Proosdij 25 9936EV Farmsum | 0:00 |
| ZL | Proosdij 23 9936EV Farmsum | 0:00 |
| ZM | Proosdij 21 9936EV Farmsum | 0:00 |
| ZN | Seendweg 5 9936GA Farmsum | 0:00 |
| ZO | Proosdij 29 9936EV Farmsum | 0:00 |
| ZP | Proosdij 31 9936EV Farmsum | 0:00 |
| ZQ | Proosdij 33 9936EV Farmsum | 0:00 |
| ZR | Proosdij 35 9936EV Farmsum | 0:00 |
| ZS | Proosdij 37 9936EV Farmsum | 0:00 |
| ZT | Proosdij 39 9936EV Farmsum | 0:00 |
| ZU | Proosdij 41 9936EV Farmsum | 0:00 |
| ZV | Proosdij 43 9936EV Farmsum | 0:00 |
| ZW | Proosdij 45 9936EV Farmsum | 0:00 |
| ZX | Proosdij 47 9936EV Farmsum | 0:00 |
| ZY | Olderman 15 9936GS Farmsum | 0:00 |
| ZZ | Rengersweg 97 9936GG Farmsum | 0:00 |

Total amount of flickering on the shadow receptors caused by each WTG

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 1 | VESTAS V47 660 47.0 !O! hub: 40,0 m (TOT: 63,5 m) (1) | 501:30 | 96:47 |
| 2 | NORDEX N43 600-125 43.0 !O! hub: 40,0 m (TOT: 61,5 m) (2) | 191:36 | 41:30 |
| 3 | NORDEX N43 600-125 43.0 !O! hub: 40,0 m (TOT: 61,5 m) (3) | 1:26 | 0:17 |
| 4 | NORDEX N43 600-125 43.0 !O! hub: 40,0 m (TOT: 61,5 m) (4) | 40:29 | 7:28 |
| 5 | NORDEX N43 600-125 43.0 !O! hub: 40,0 m (TOT: 61,5 m) (5) | 258:37 | 46:24 |
| 6 | NORDEX N43 600-125 43.0 !O! hub: 40,0 m (TOT: 61,5 m) (6) | 372:41 | 81:08 |

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Calculated:
8-2-2017 13:28/3.0.654

# SHADOW - Main Result

## Calculation: Referentiesituatie zonder cumulatie incl verblijfsobjecten later toegevoegd

### Assumptions for shadow calculations

Maximum distance for influence
Calculate only when more than 20 % of sun is covered by the blade
Please look in WTG table

| | |
|---|---|
| Minimum sun height over horizon for influence | 5 ° |
| Day step for calculation | 1 days |
| Time step for calculation | 1 minutes |

Sunshine probability S (Average daily sunshine hours) [EELDE]

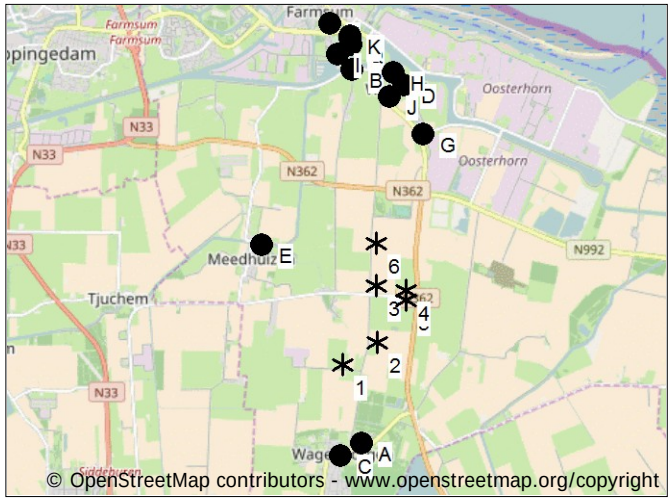
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

All coordinates are in
Dutch Stereo-RD/NAP 2008




Scale 1:125.000

✱ Existing WTG  Shadow receptor

### WTGs

| | X (east) | Y (north) | Z [m] | Row data/Description | WTG type Valid | Manufact. | Type-generator | Power, rated [kW] | Rotor diameter [m] | Hub height [m] | Shadow data Calculation distance [m] | RPM [RPM] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 258.206 | 588.157 | 0,0 | VESTAS V47 660 47.0 !O! hub: 40,0 m (T... | No | VESTAS | V47-660 | 660 | 47,0 | 40,0 | 881 | 28,5 |
| 2 | 258.763 | 588.539 | 0,0 | NORDEX N43 600-125 43.0 !O! hub: 40,0... | Yes | NORDEX | N43-600/125 | 600 | 43,0 | 40,0 | 803 | 27,2 |
| 3 | 258.735 | 589.472 | 0,0 | NORDEX N43 600-125 43.0 !O! hub: 40,0... | Yes | NORDEX | N43-600/125 | 600 | 43,0 | 40,0 | 803 | 27,2 |
| 4 | 259.229 | 589.409 | 0,0 | NORDEX N43 600-125 43.0 !O! hub: 40,0... | Yes | NORDEX | N43-600/125 | 600 | 43,0 | 40,0 | 803 | 27,2 |
| 5 | 259.231 | 589.244 | 0,0 | NORDEX N43 600-125 43.0 !O! hub: 40,0... | Yes | NORDEX | N43-600/125 | 600 | 43,0 | 40,0 | 803 | 27,2 |
| 6 | 258.720 | 590.178 | 0,0 | NORDEX N43 600-125 43.0 !O! hub: 40,0... | Yes | NORDEX | N43-600/125 | 600 | 43,0 | 40,0 | 803 | 27,2 |

### Shadow receptor-Input

| No. | Name | X (east) | Y (north) | Z [m] | Width [m] | Height [m] | Height a.g.l. [m] | Degrees from south cw [°] | Slope of window [°] | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| A | Familie Bronsweg 22 9945PS Wagenborgen | 258.549 | 586.857 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| B | Geefsweersterweg 1 9937TB Meedhuizen | 258.250 | 593.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| C | Hoofdweg 28 9945PG Wagenborgen | 258.194 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| D | Karspelpad 8 9936HP Farmsum | 259.130 | 592.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| E | Maarkampen 12 9937PL Meedhuizen | 256.818 | 590.108 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| F | Molenstraat 64 9936EE Farmsum | 257.875 | 593.798 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| G | Oosterlaan 9 9936HN Farmsum | 259.468 | 591.997 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| H | Schaappad 1 9936HT Farmsum | 258.946 | 593.010 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| I | Seendweg 8 9936GA Farmsum | 258.005 | 593.293 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| J | T.J. Jansenweg 11 9936HL Farmsum | 258.896 | 592.598 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| K | Waarman 1 9936GV Farmsum | 258.213 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| L | Waarman 11 9936GV Farmsum | 258.213 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| M | Waarman 3 9936GV Farmsum | 258.213 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| N | Waarman 5 9936GV Farmsum | 258.213 | 593.587 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| O | Waarman 7 9936GV Farmsum | 258.213 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| P | Waarman 9 9936GV Farmsum | 258.213 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Q | Zijlvest 20 9936GZ Farmsum | 258.233 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

### Calculation Results

Shadow receptor

| No. | Name | Shadow, expected values: Shadow hours per year [h/year] |
|---|---|---|
| A | Familie Bronsweg 22 9945PS Wagenborgen | 0:00 |
| B | Geefsweersterweg 1 9937TB Meedhuizen | 0:00 |

To be continued on next page...

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Calculated:
8-2-2017 13:28/3.0.654

# SHADOW - Main Result

## Calculation: Referentiesituatie zonder cumulatie incl verblijfsobjecten later toegevoegd

...continued from previous page

Shadow, expected values

| No. | Name | Shadow hours per year [h/year] |
|---|---|---|
| C | Hoofdweg 28 9945PG Wagenborgen | 0:00 |
| D | Karspelpad 8 9936HP Farmsum | 0:00 |
| E | Maarkampen 12 9937PL Meedhuizen | 0:00 |
| F | Molenstraat 64 9936EE Farmsum | 0:00 |
| G | Oosterlaan 9 9936HN Farmsum | 0:00 |
| H | Schaappad 1 9936HT Farmsum | 0:00 |
| I | Seendweg 8 9936GA Farmsum | 0:00 |
| J | T.J. Jansenweg 11 9936HL Farmsum | 0:00 |
| K | Waarman 1 9936GV Farmsum | 0:00 |
| L | Waarman 11 9936GV Farmsum | 0:00 |
| M | Waarman 3 9936GV Farmsum | 0:00 |
| N | Waarman 5 9936GV Farmsum | 0:00 |
| O | Waarman 7 9936GV Farmsum | 0:00 |
| P | Waarman 9 9936GV Farmsum | 0:00 |
| Q | Zijlvest 20 9936GZ Farmsum | 0:00 |

Total amount of flickering on the shadow receptors caused by each WTG

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 1 | VESTAS V47 660 47.0 !O! hub: 40,0 m (TOT: 63,5 m) (1) | 0:00 | 0:00 |
| 2 | NORDEX N43 600-125 43.0 !O! hub: 40,0 m (TOT: 61,5 m) (2) | 0:00 | 0:00 |
| 3 | NORDEX N43 600-125 43.0 !O! hub: 40,0 m (TOT: 61,5 m) (3) | 0:00 | 0:00 |
| 4 | NORDEX N43 600-125 43.0 !O! hub: 40,0 m (TOT: 61,5 m) (4) | 0:00 | 0:00 |
| 5 | NORDEX N43 600-125 43.0 !O! hub: 40,0 m (TOT: 61,5 m) (5) | 0:00 | 0:00 |
| 6 | NORDEX N43 600-125 43.0 !O! hub: 40,0 m (TOT: 61,5 m) (6) | 0:00 | 0:00 |

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Calculated:
3-2-2017 0:09/3.0.654

# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer 3 februari 2017

### Assumptions for shadow calculations

Maximum distance for influence
Calculate only when more than 20 % of sun is covered by the blade
Please look in WTG table

| | |
|---|---|
| Minimum sun height over horizon for influence | 5 ° |
| Day step for calculation | 1 days |
| Time step for calculation | 1 minutes |

Sunshine probability S (Average daily sunshine hours) [EELDE]

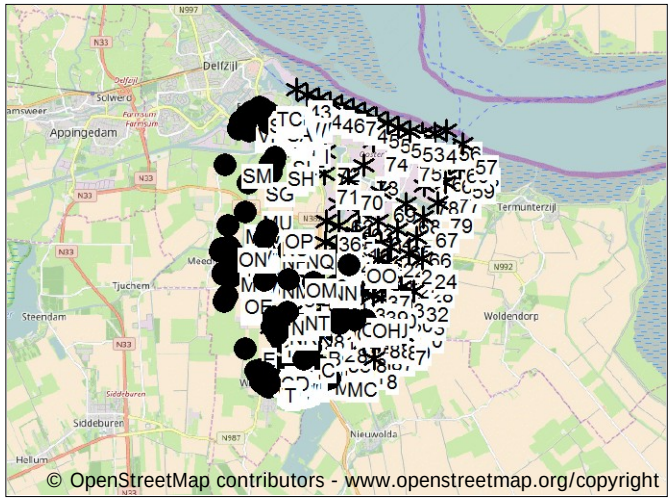
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

All coordinates are in
Dutch Stereo-RD/NAP 2008




Scale 1:200.000
Existing WTG  Shadow receptor

## WTGs

| | X (east) | Y (north) | Z | Row data/Description | WTG type Valid | Manufact. | Type-generator | Power, rated | Rotor diameter | Hub height | Shadow data Calculation distance | RPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [m] | | | | | [kW] | [m] | [m] | [m] | [RPM] |
| 1 | 258.206 | 588.157 | 0,0 | VESTAS V47 660 47.0 !O! hub:... | No | VESTAS | V47-660 | 660 | 47,0 | 40,0 | 881 | 28,5 |
| 2 | 258.763 | 588.539 | 0,0 | NORDEX N43 600-125 43.0 !O... | Yes | NORDEX | N43-600/125 | 600 | 43,0 | 40,0 | 803 | 27,2 |
| 3 | 258.735 | 589.472 | 0,0 | NORDEX N43 600-125 43.0 !O... | Yes | NORDEX | N43-600/125 | 600 | 43,0 | 40,0 | 803 | 27,2 |
| 4 | 259.229 | 589.409 | 0,0 | NORDEX N43 600-125 43.0 !O... | Yes | NORDEX | N43-600/125 | 600 | 43,0 | 40,0 | 803 | 27,2 |
| 5 | 259.231 | 589.244 | 0,0 | NORDEX N43 600-125 43.0 !O... | Yes | NORDEX | N43-600/125 | 600 | 43,0 | 40,0 | 803 | 27,2 |
| 6 | 258.720 | 590.178 | 0,0 | NORDEX N43 600-125 43.0 !O... | Yes | NORDEX | N43-600/125 | 600 | 43,0 | 40,0 | 803 | 27,2 |
| 7 | 261.738 | 588.022 | 0,0 | LAGERWEY 80 18.0 !O! hub: ... | No | LAGERWEY | -80 | 80 | 18,0 | 31,0 | 1.740 | 120,0 |
| 8 | 260.986 | 587.360 | 0,0 | LAGERWEY 80 18.0 !O! hub: ... | No | LAGERWEY | -80 | 80 | 18,0 | 31,0 | 1.740 | 120,0 |
| 9 | 259.587 | 589.858 | 0,0 | ENERCON E-70 E4 2000 71.0 !... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 10 | 259.890 | 589.770 | 0,0 | ENERCON E-70 E4 2000 71.0 !... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 11 | 259.863 | 589.300 | 0,0 | ENERCON E-70 E4 2000 71.0 !... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 12 | 259.845 | 588.985 | 0,0 | ENERCON E-70 E4 2000 71.0 !... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 13 | 260.245 | 589.206 | 0,0 | ENERCON E-70 E4 2000 71.0 !... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 14 | 260.295 | 589.652 | 0,0 | ENERCON E-70 E4 2000 71.0 !... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 15 | 259.952 | 590.853 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 16 | 260.412 | 590.685 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 17 | 260.358 | 590.202 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 18 | 260.680 | 589.539 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 19 | 260.789 | 590.548 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 20 | 261.086 | 590.440 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 21 | 260.740 | 590.089 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 22 | 261.353 | 590.343 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 23 | 261.840 | 590.166 | 0,0 | ENERCON E-70 E4 2000 71.0 !... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 24 | 262.200 | 590.035 | 0,0 | ENERCON E-70 E4 2000 71.0 !... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 25 | 261.031 | 590.003 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 26 | 261.292 | 589.926 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 27 | 261.764 | 589.785 | 0,0 | ENERCON E-70 E4 2000 71.0 !... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 28 | 262.111 | 589.683 | 0,0 | ENERCON E-70 E4 2000 71.0 !... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 29 | 261.212 | 589.384 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 30 | 261.584 | 588.876 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 31 | 261.660 | 589.255 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 32 | 261.980 | 589.161 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 33 | 261.889 | 588.801 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 34 | 259.922 | 590.332 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 35 | 259.601 | 590.427 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 36 | 259.614 | 590.976 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 37 | 260.962 | 589.457 | 0,0 | ENERCON E-70 E4 2000 71.0 !... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 38 | 260.634 | 589.110 | 0,0 | ENERCON E-70 E4 2000 71.0 !... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 39 | 260.909 | 589.042 | 0,0 | ENERCON E-70 E4 2000 71.0 !... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |

To be continued on next page...

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Hans / Hans@boschenvanrijn.nl
Calculated:
3-2-2017 0:09/3.0.654

# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer 3 februari 2017

...continued from previous page

| | | | | | WTG type | | | | | | | Shadow data | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | X (east) | Y (north) | Z | Row data/Description | Valid | Manufact. | Type-generator | Power, rated | Rotor diameter | Hub height | Calculation distance | RPM |
| | | | [m] | | | | | [kW] | [m] | [m] | [m] | [RPM] |
| 40 | 261.153 | 588.982 | 0,0 | ENERCON E-70 E4 2000 71.0 !... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 41 | 259.576 | 589.371 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 42 | 259.568 | 589.041 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 43 | 258.748 | 594.458 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 44 | 259.042 | 594.322 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 45 | 259.344 | 594.205 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 46 | 259.655 | 594.114 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 47 | 259.971 | 594.042 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 48 | 260.286 | 593.965 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 49 | 260.596 | 593.872 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 50 | 260.896 | 593.750 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 51 | 261.196 | 593.627 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 52 | 261.497 | 593.509 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 53 | 261.805 | 593.407 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 54 | 262.126 | 593.367 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 55 | 262.450 | 593.380 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 56 | 262.767 | 593.448 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 57 | 263.205 | 593.092 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 58 | 263.273 | 592.764 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 59 | 263.154 | 592.466 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 60 | 262.970 | 592.872 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 61 | 262.850 | 592.574 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 62 | 259.947 | 591.451 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 63 | 260.484 | 591.233 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 64 | 261.011 | 591.019 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 65 | 261.526 | 590.802 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 66 | 262.046 | 590.599 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 67 | 262.190 | 591.144 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 68 | 261.741 | 591.483 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 69 | 261.052 | 591.780 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 70 | 260.181 | 592.081 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 71 | 259.555 | 592.229 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 72 | 259.567 | 592.826 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 73 | 260.577 | 592.475 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 74 | 260.839 | 593.122 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 75 | 261.722 | 592.893 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 76 | 262.307 | 592.636 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 77 | 262.775 | 592.062 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 78 | 262.206 | 591.985 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 79 | 262.568 | 591.542 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 80 | 259.583 | 588.718 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 81 | 259.541 | 588.381 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 82 | 259.520 | 588.051 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 83 | 259.935 | 587.778 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 84 | 260.176 | 588.043 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 85 | 260.538 | 588.081 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 86 | 260.683 | 587.792 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 87 | 261.087 | 587.854 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 88 | 261.036 | 588.189 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 89 | 261.513 | 588.148 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 90 | 261.859 | 588.487 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 91 | 261.380 | 588.591 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 92 | 261.043 | 588.659 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 93 | 260.714 | 588.719 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 94 | 260.368 | 588.763 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 95 | 260.032 | 588.735 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |

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Calculated:
3-2-2017 0:09/3.0.654

# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer 3 februari 2017

### Shadow receptor-Input

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| [A | Rengersweg 99 9936GG Farmsum | 258.006 | 593.455 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [B | Rengersweg 12 9936GH Farmsum | 258.034 | 593.437 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [C | Rengersweg 10 9936GH Farmsum | 258.034 | 593.444 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [D | Kluft 1 9936GP Farmsum | 258.040 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [E | Kluft 3 9936GP Farmsum | 258.047 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [F | Proosdij 46 9936EX Farmsum | 258.058 | 593.427 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [G | Proosdij 48 9936EX Farmsum | 258.062 | 593.433 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [H | Proosdij 50 9936EX Farmsum | 258.090 | 593.443 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [I | Proosdij 52 9936EX Farmsum | 258.090 | 593.430 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [J | Proosdij 54 9936EX Farmsum | 258.094 | 593.415 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [K | Proosdij 56 9936EX Farmsum | 258.108 | 593.416 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [L | Olderman 21 9936GS Farmsum | 258.128 | 593.420 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [M | Olderman 19 9936GS Farmsum | 258.126 | 593.434 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [N | Olderman 17 9936GS Farmsum | 258.125 | 593.448 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [O | Kluft 5 9936GP Farmsum | 258.060 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [P | Kluft 7 9936GP Farmsum | 258.067 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [Q | Kluft 9 9936GP Farmsum | 258.096 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [R | Kluft 11 9936GP Farmsum | 258.102 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [S | Kluft 17 9936GP Farmsum | 258.122 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [T | Zijlvest 8 9936GZ Farmsum | 258.202 | 593.424 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [U | Olderman 32 9936GT Farmsum | 258.151 | 593.480 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [V | Olderman 34 9936GT Farmsum | 258.151 | 593.474 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [W | Olderman 36 9936GT Farmsum | 258.153 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [X | Olderman 38 9936GT Farmsum | 258.153 | 593.453 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [Y | Olderman 40 9936GT Farmsum | 258.155 | 593.440 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [Z | Olderman 42 9936GT Farmsum | 258.155 | 593.434 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \A | Zijlvest 22 A 9936GZ Farmsum | 258.238 | 593.466 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \B | Zijlvest 18 A 9936GZ Farmsum | 258.229 | 593.451 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \C | Zijlvest 18 9936GZ Farmsum | 258.233 | 593.449 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \D | Zijlvest 14 9936GZ Farmsum | 258.229 | 593.441 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \E | Borgweg 1 9936EH Farmsum | 258.030 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \F | Borgweg 3 9936EH Farmsum | 258.031 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \G | Borgweg 5 9936EH Farmsum | 258.031 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \H | Borgweg 7 9936EH Farmsum | 258.031 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \I | Borgweg 9 9936EH Farmsum | 258.031 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \J | Borgweg 11 9936EH Farmsum | 258.031 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \K | Borgweg 13 9936EH Farmsum | 258.031 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \L | Borgweg 15 9936EH Farmsum | 258.033 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \M | Borgweg 17 9936EH Farmsum | 258.033 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \N | Borgweg 19 9936EH Farmsum | 258.033 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \O | Borgweg 21 9936EH Farmsum | 258.033 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \P | Borgweg 23 9936EH Farmsum | 258.033 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \Q | Borgweg 25 9936EH Farmsum | 258.033 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \R | Borgweg 27 9936EH Farmsum | 258.033 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \S | Borgweg 29 9936EJ Farmsum | 258.035 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \T | Borgweg 31 9936EJ Farmsum | 258.035 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \U | Borgweg 33 9936EJ Farmsum | 258.035 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \V | Borgweg 35 9936EJ Farmsum | 258.035 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \W | Borgweg 37 9936EJ Farmsum | 258.035 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \X | Borgweg 39 9936EJ Farmsum | 258.036 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \Y | Borgweg 41 9936EJ Farmsum | 258.036 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \Z | Borgweg 43 9936EJ Farmsum | 258.037 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]A | Borgweg 45 9936EJ Farmsum | 258.038 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]B | Borgweg 47 9936EJ Farmsum | 258.038 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]C | Borgweg 49 9936EJ Farmsum | 258.038 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]D | Borgweg 51 9936EJ Farmsum | 258.038 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]E | Borgweg 53 9936EJ Farmsum | 258.038 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]F | Borgweg 55 9936EJ Farmsum | 258.038 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]G | Borgweg 57 9936EK Farmsum | 258.003 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]H | Borgweg 59 9936EK Farmsum | 258.003 | 593.802 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]I | Borgweg 61 9936EK Farmsum | 258.003 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]J | Borgweg 63 9936EK Farmsum | 258.003 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]K | Borgweg 65 9936EK Farmsum | 258.003 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]L | Borgweg 67 9936EK Farmsum | 258.003 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
3-2-2017 0:09/3.0.654

# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer 3 februari 2017

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| ]M | Borgweg 69 9936EK Farmsum | 258.003 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]N | Borgweg 71 9936EK Farmsum | 258.006 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]O | Borgweg 73 9936EK Farmsum | 258.006 | 593.802 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]P | Borgweg 75 9936EK Farmsum | 258.006 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]Q | Borgweg 77 9936EK Farmsum | 258.005 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]R | Borgweg 79 9936EK Farmsum | 258.005 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]S | Borgweg 81 9936EK Farmsum | 258.005 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]T | Borgweg 83 9936EK Farmsum | 258.005 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]U | Borgweg 85 9936EL Farmsum | 258.008 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]V | Borgweg 87 9936EL Farmsum | 258.008 | 593.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]W | Borgweg 89 9936EL Farmsum | 258.008 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]X | Borgweg 91 9936EL Farmsum | 258.008 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]Y | Borgweg 93 9936EL Farmsum | 258.008 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]Z | Borgweg 95 9936EL Farmsum | 258.008 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^A | Borgweg 97 9936EL Farmsum | 258.008 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^B | Borgweg 99 9936EL Farmsum | 258.010 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^C | Borgweg 101 9936EL Farmsum | 258.010 | 593.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^D | Borgweg 103 9936EL Farmsum | 258.010 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^E | Borgweg 105 9936EL Farmsum | 258.010 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^F | Borgweg 107 9936EL Farmsum | 258.010 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^G | Borgweg 109 9936EL Farmsum | 258.010 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^H | Borgweg 111 9936EL Farmsum | 258.010 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^I | Kluft 18 9936GR Farmsum | 258.043 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^J | Kluft 20 9936GR Farmsum | 258.050 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^K | Kluft 22 9936GR Farmsum | 258.057 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^L | Kluft 24 9936GR Farmsum | 258.064 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^M | Kluft 26 9936GR Farmsum | 258.071 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^N | Kluft 28 9936GR Farmsum | 258.078 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^O | Kluft 30 9936GR Farmsum | 258.085 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^P | Kluft 32 9936GR Farmsum | 258.092 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Q | Kluft 2 9936GR Farmsum | 258.043 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^R | Kluft 4 9936GR Farmsum | 258.050 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^S | Kluft 6 9936GR Farmsum | 258.057 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^T | Kluft 8 9936GR Farmsum | 258.064 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^U | Kluft 10 9936GR Farmsum | 258.071 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^V | Kluft 12 9936GR Farmsum | 258.078 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^W | Kluft 14 9936GR Farmsum | 258.085 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^X | Kluft 16 9936GR Farmsum | 258.092 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Y | Zijlvest 20 A 9936GZ Farmsum | 258.233 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Z | Schepperij 51 9936GM Farmsum | 258.194 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _A | Waarman 15 9936GV Farmsum | 258.223 | 593.543 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _B | Waarman 17 9936GV Farmsum | 258.223 | 593.537 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _C | Waarman 19 9936GV Farmsum | 258.223 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _D | Waarman 21 9936GV Farmsum | 258.223 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _E | Waarman 23 9936GV Farmsum | 258.223 | 593.518 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _F | Waarman 25 9936GV Farmsum | 258.223 | 593.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _G | Waarman 27 9936GV Farmsum | 258.223 | 593.506 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _H | Waarman 29 9936GV Farmsum | 258.222 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _I | Heemskesweg 5 9936HE Farmsum | 258.759 | 592.961 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _J | Geefsweersterweg 2 9937TC Meedhuizen | 258.288 | 593.033 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _K | Seendweg 12 9936GA Farmsum | 257.950 | 593.306 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _L | Schepperij 39 9936GM Farmsum | 258.194 | 593.537 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _M | Schepperij 43 9936GM Farmsum | 258.194 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _N | Zijlvest 14 A 9936GZ Farmsum | 258.222 | 593.445 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _O | Zijlvest 24 A 9936GZ Farmsum | 258.239 | 593.474 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| A | Familie Bronsweg 60 9945TA Wagenborgen | 258.511 | 587.742 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AA | Hoofdweg 26 9945PG Wagenborgen | 258.194 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AB | Hoofdweg 23 9945PA Wagenborgen | 258.227 | 586.683 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AC | Hoofdweg 25 9945PA Wagenborgen | 258.217 | 586.663 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AD | Hoofdweg 27 9945PA Wagenborgen | 258.213 | 586.652 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AE | Hoofdweg 29 9945PA Wagenborgen | 258.212 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AF | Hoofdweg 18 9945PG Wagenborgen | 258.219 | 586.709 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AG | Hoofdweg 14 9945PG Wagenborgen | 258.222 | 586.726 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AH | Hoofdweg 10 9945PG Wagenborgen | 258.236 | 586.722 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
3-2-2017 0:09/3.0.654

# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer 3 februari 2017

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| AI | Hoofdweg 8 9945PG Wagenborgen | 258.258 | 586.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AJ | Hoofdweg 6 9945PG Wagenborgen | 258.276 | 586.731 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AK | Hoofdweg 4 9945PG Wagenborgen | 258.298 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AL | Hoofdweg 21 9945PA Wagenborgen | 258.243 | 586.704 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AM | Hoofdweg 19 9945PA Wagenborgen | 258.272 | 586.709 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AN | Hoofdweg 2 9945PG Wagenborgen | 258.318 | 586.748 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AO | Hoofdweg 15 9945PA Wagenborgen | 258.311 | 586.705 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AP | Hoofdweg 9 9945PA Wagenborgen | 258.331 | 586.713 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AQ | Hoofdweg 11 9945PA Wagenborgen | 258.325 | 586.710 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AR | Hoofdweg 7 9945PA Wagenborgen | 258.338 | 586.725 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AS | Hoofdweg 5 9945PA Wagenborgen | 258.343 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AT | H.L. Emmensweg 17 9945PW Wagenborgen | 258.087 | 586.741 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AU | H.L. Emmensweg 18 9945PX Wagenborgen | 258.106 | 586.733 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AV | H.L. Emmensweg 20 9945PX Wagenborgen | 258.107 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AW | H.L. Emmensweg 22 9945PX Wagenborgen | 258.107 | 586.747 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AX | H.L. Emmensweg 24 9945PX Wagenborgen | 258.108 | 586.753 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AY | H.L. Emmensweg 26 9945PX Wagenborgen | 258.111 | 586.767 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AZ | H.L. Emmensweg 10 9945PX Wagenborgen | 258.103 | 586.698 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| B | Tolhek 4 9945TJ Wagenborgen | 259.289 | 587.610 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BA | H.L. Emmensweg 12 9945PX Wagenborgen | 258.103 | 586.704 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BB | H.L. Emmensweg 14 9945PX Wagenborgen | 258.104 | 586.711 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BC | H.L. Emmensweg 16 9945PX Wagenborgen | 258.105 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BD | H.L. Emmensweg 13 9945PW Wagenborgen | 258.085 | 586.719 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BE | H.L. Emmensweg 15 9945PW Wagenborgen | 258.086 | 586.725 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BF | H.L. Emmensweg 9 9945PW Wagenborgen | 258.083 | 586.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BG | H.L. Emmensweg 11 9945PW Wagenborgen | 258.084 | 586.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BH | H.L. Emmensweg 5 9945PW Wagenborgen | 258.081 | 586.681 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BI | H.L. Emmensweg 7 9945PW Wagenborgen | 258.082 | 586.687 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BJ | H.L. Emmensweg 4 9945PX Wagenborgen | 258.103 | 586.676 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BK | H.L. Emmensweg 2 9945PX Wagenborgen | 258.099 | 586.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BL | H.L. Emmensweg 1 9945PW Wagenborgen | 258.081 | 586.651 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BM | H.L. Emmensweg 3 9945PW Wagenborgen | 258.083 | 586.667 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BN | de Linden 4 9945PZ Wagenborgen | 258.042 | 586.733 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BO | de Linden 6 9945PZ Wagenborgen | 258.058 | 586.734 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BP | de Linden 10 9945PZ Wagenborgen | 258.040 | 586.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BQ | de Linden 12 9945PZ Wagenborgen | 258.021 | 586.721 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BR | de Linden 2 9945PZ Wagenborgen | 258.030 | 586.694 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BS | de Wilgen 12 9945RB Wagenborgen | 258.008 | 586.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BT | de Wilgen 10 9945RB Wagenborgen | 258.008 | 586.764 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BU | de Wilgen 8 9945RB Wagenborgen | 258.007 | 586.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BV | de Wilgen 2 9945RB Wagenborgen | 257.995 | 586.662 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BW | de Wilgen 4 9945RB Wagenborgen | 257.997 | 586.675 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BX | de Wilgen 6 9945RB Wagenborgen | 258.001 | 586.693 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BY | de Wilgen 6 A 9945RB Wagenborgen | 258.004 | 586.726 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BZ | de Wilgen 3 9945RB Wagenborgen | 257.975 | 586.694 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| C | Tolhek 1 9945TJ Wagenborgen | 259.114 | 587.301 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CA | de Wilgen 3 A 9945RB Wagenborgen | 257.977 | 586.713 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CB | de Wilgen 3 B 9945RB Wagenborgen | 257.977 | 586.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CC | de Wilgen 5 9945RB Wagenborgen | 257.973 | 586.766 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CD | de Wilgen 46 9945RB Wagenborgen | 258.036 | 586.921 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CE | de Wilgen 44 9945RB Wagenborgen | 258.036 | 586.927 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CF | de Wilgen 48 9945RB Wagenborgen | 258.034 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CG | de Wilgen 50 9945RB Wagenborgen | 258.034 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CH | de Wilgen 36 9945RB Wagenborgen | 258.060 | 586.908 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CI | de Wilgen 38 9945RB Wagenborgen | 258.059 | 586.915 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CJ | de Wilgen 40 9945RB Wagenborgen | 258.059 | 586.921 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CK | de Wilgen 42 9945RB Wagenborgen | 258.059 | 586.928 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CL | de Wilgen 28 9945RB Wagenborgen | 258.050 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CM | de Wilgen 30 9945RB Wagenborgen | 258.056 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CN | de Wilgen 32 9945RB Wagenborgen | 258.063 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CO | de Wilgen 34 9945RB Wagenborgen | 258.070 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CP | de Wilgen 24 9945TK Wagenborgen | 258.033 | 586.884 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CQ | de Wilgen 26 9945RB Wagenborgen | 258.039 | 586.886 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CR | de Wilgen 20 9945RB Wagenborgen | 258.019 | 586.866 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer 3 februari 2017

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| CS | de Wilgen 22 9945RB Wagenborgen | 258.019 | 586.872 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CT | de Wilgen 18 9945RB Wagenborgen | 258.016 | 586.853 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CU | de Wilgen 16 9945RB Wagenborgen | 258.015 | 586.837 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CV | de Wilgen 14 9945RB Wagenborgen | 258.014 | 586.813 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CW | de Wilgen 9 9945RB Wagenborgen | 257.970 | 586.829 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CX | de Wilgen 52 9945RB Wagenborgen | 258.167 | 587.083 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CY | Menterne 22 9945RA Wagenborgen | 257.891 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CZ | Menterne 18 9945RA Wagenborgen | 257.856 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| D | Familie Bronsweg 62 9945TA Wagenborgen | 258.389 | 587.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DA | Menterne 21 9945RA Wagenborgen | 257.884 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DB | Menterne 19 9945RA Wagenborgen | 257.863 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DC | Menterne 20 9945RA Wagenborgen | 257.876 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DD | Menterne 17 9945RA Wagenborgen | 257.849 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DE | Menterne 7 9945RA Wagenborgen | 257.896 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DF | Menterne 8 9945RA Wagenborgen | 257.889 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DG | Menterne 9 9945RA Wagenborgen | 257.882 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DH | Menterne 10 9945RA Wagenborgen | 257.875 | 586.913 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DI | Menterne 11 9945RA Wagenborgen | 257.893 | 586.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DJ | Menterne 12 9945RA Wagenborgen | 257.893 | 586.932 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DK | Menterne 13 9945RA Wagenborgen | 257.893 | 586.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DL | Menterne 14 9945RA Wagenborgen | 257.893 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DM | Menterne 1 9945RA Wagenborgen | 257.930 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DN | Menterne 2 9945RA Wagenborgen | 257.924 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DO | Menterne 3 9945RA Wagenborgen | 257.917 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DP | Menterne 4 9945RA Wagenborgen | 257.910 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DQ | Menterne 5 9945RA Wagenborgen | 257.899 | 586.883 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DR | Menterne 6 9945RA Wagenborgen | 257.899 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DS | Menterne 15 9945RA Wagenborgen | 257.866 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DT | Menterne 16 9945RA Wagenborgen | 257.866 | 586.952 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DU | de Berken 6 9945PT Wagenborgen | 258.085 | 586.768 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DV | de Berken 2 9945PT Wagenborgen | 258.040 | 586.782 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DW | de Berken 4 9945PT Wagenborgen | 258.061 | 586.783 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DX | de Berken 1 9945PT Wagenborgen | 258.038 | 586.808 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DY | de Berken 5 9945PT Wagenborgen | 258.087 | 586.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DZ | de Berken 7 9945PT Wagenborgen | 258.102 | 586.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| E | Meerweg 3 9945RC Wagenborgen | 257.540 | 587.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EA | de Berken 9 9945PT Wagenborgen | 258.109 | 586.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EB | de Eiken 14 9945VA Wagenborgen | 258.037 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EC | de Eiken 16 9945VA Wagenborgen | 258.044 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ED | de Eiken 2 9945VA Wagenborgen | 258.061 | 586.829 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EE | de Eiken 4 9945VA Wagenborgen | 258.061 | 586.836 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EF | de Eiken 6 9945VA Wagenborgen | 258.061 | 586.842 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EG | de Eiken 8 9945VA Wagenborgen | 258.062 | 586.853 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EH | de Eiken 10 9945VA Wagenborgen | 258.061 | 586.859 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EI | de Eiken 12 9945VA Wagenborgen | 258.061 | 586.866 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EJ | de Eiken 2 A 9945VA Wagenborgen | 258.065 | 586.807 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EK | Troostlaan 7 9945PV Wagenborgen | 258.200 | 586.801 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EL | Troostlaan 8 9945PV Wagenborgen | 258.187 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EM | Troostlaan 9 9945PV Wagenborgen | 258.172 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EN | Troostlaan 10 9945PV Wagenborgen | 258.153 | 586.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EO | Troostlaan 11 9945PV Wagenborgen | 258.142 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EP | Troostlaan 1 9945PV Wagenborgen | 258.204 | 586.736 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EQ | Troostlaan 2 9945PV Wagenborgen | 258.204 | 586.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ER | Troostlaan 3 9945PV Wagenborgen | 258.205 | 586.772 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ES | Troostlaan 2 A 9945PV Wagenborgen | 258.221 | 586.769 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ET | Troostlaan 4 9945PV Wagenborgen | 258.228 | 586.858 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EU | Troostlaan 14 9945PV Wagenborgen | 258.132 | 586.686 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EV | Troostlaan 22 9945PV Wagenborgen | 258.177 | 586.707 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EW | Troostlaan 20 9945PV Wagenborgen | 258.155 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EX | Troostlaan 21 9945PV Wagenborgen | 258.162 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EY | Troostlaan 18 9945PV Wagenborgen | 258.132 | 586.718 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EZ | Troostlaan 19 9945PV Wagenborgen | 258.139 | 586.718 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| F | G. Boelmanweg 2 9945RJ Wagenborgen | 258.181 | 586.579 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FA | Familie Bronsweg 40 9945PS Wagenborgen | 258.373 | 586.856 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
3-2-2017 0:09/3.0.654

# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer 3 februari 2017

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| FB | Familie Bronsweg 44 9945PS Wagenborgen | 258.373 | 586.900 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FC | Familie Bronsweg 46 9945PS Wagenborgen | 258.373 | 586.905 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FD | Familie Bronsweg 48 9945PS Wagenborgen | 258.375 | 586.919 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FE | Familie Bronsweg 50 9945PS Wagenborgen | 258.376 | 586.924 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FF | Familie Bronsweg 79 9945PP Wagenborgen | 258.360 | 586.991 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FG | Familie Bronsweg 81 9945PP Wagenborgen | 258.361 | 586.997 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FH | Familie Bronsweg 36 9945PS Wagenborgen | 258.377 | 586.815 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FI | Familie Bronsweg 38 9945PS Wagenborgen | 258.365 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FJ | Familie Bronsweg 42 9945PS Wagenborgen | 258.371 | 586.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FK | Familie Bronsweg 54 9945PS Wagenborgen | 258.390 | 587.021 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FL | Familie Bronsweg 52 9945PS Wagenborgen | 258.387 | 586.987 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FM | Familie Bronsweg 50 B 9945PS Wagenborgen | 258.384 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FN | Familie Bronsweg 50 A 9945PS Wagenborgen | 258.381 | 586.949 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FO | Familie Bronsweg 75 9945PP Wagenborgen | 258.353 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FP | Familie Bronsweg 75 A 9945PP Wagenborgen | 258.355 | 586.957 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FQ | Familie Bronsweg 75 B 9945PP Wagenborgen | 258.357 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FR | Familie Bronsweg 71 9945PP Wagenborgen | 258.349 | 586.917 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FS | Familie Bronsweg 69 A 9945PP Wagenborgen | 258.347 | 586.902 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FT | Familie Bronsweg 69 9945PP Wagenborgen | 258.344 | 586.888 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FU | Familie Bronsweg 67 9945PP Wagenborgen | 258.342 | 586.873 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FV | Familie Bronsweg 65 9945PP Wagenborgen | 258.341 | 586.863 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FW | Familie Bronsweg 63 9945PP Wagenborgen | 258.338 | 586.850 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FX | Familie Bronsweg 61 9945PP Wagenborgen | 258.335 | 586.831 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FY | Familie Bronsweg 59 9945PP Wagenborgen | 258.334 | 586.816 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FZ | Familie Bronsweg 57 9945PP Wagenborgen | 258.332 | 586.805 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| G | G. Boelmanweg 3 9945RE Wagenborgen | 258.198 | 586.584 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GA | Familie Bronsweg 53 9945PP Wagenborgen | 258.332 | 586.793 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GB | Familie Bronsweg 73 9945PP Wagenborgen | 258.351 | 586.930 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GC | Familie Bronsweg 85 9945PP Wagenborgen | 258.372 | 587.065 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GD | Familie Bronsweg 83 9945PP Wagenborgen | 258.363 | 587.014 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GE | Familie Bronsweg 83 A 9945PP Wagenborgen | 258.365 | 587.034 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GF | Familie Bronsweg 77 9945PP Wagenborgen | 258.333 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GG | Familie Bronsweg 51 9945PP Wagenborgen | 258.389 | 586.776 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GH | Familie Bronsweg 2 9945PR Wagenborgen | 258.765 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GI | Familie Bronsweg 4 9945PR Wagenborgen | 258.743 | 586.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GJ | Familie Bronsweg 4 A 9945PR Wagenborgen | 258.723 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GK | Familie Bronsweg 6 9945PR Wagenborgen | 258.705 | 586.916 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GL | Familie Bronsweg 8 9945PR Wagenborgen | 258.677 | 586.901 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GM | Familie Bronsweg 10 9945PR Wagenborgen | 258.649 | 586.888 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GN | Familie Bronsweg 12 9945PR Wagenborgen | 258.620 | 586.864 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GO | Familie Bronsweg 14 9945PR Wagenborgen | 258.608 | 586.858 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GP | Familie Bronsweg 16 9945PR Wagenborgen | 258.597 | 586.852 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GQ | Familie Bronsweg 15 9945PN Wagenborgen | 258.511 | 586.783 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GR | Familie Bronsweg 17 9945PN Wagenborgen | 258.473 | 586.777 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GS | Familie Bronsweg 2 A 9945PR Wagenborgen | 258.786 | 587.001 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GT | Familie Bronsweg 2 B 9945PR Wagenborgen | 258.745 | 587.014 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GU | Familie Bronsweg 2 C 9945PR Wagenborgen | 258.710 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GV | Familie Bronsweg 2 D 9945PR Wagenborgen | 258.686 | 586.974 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GW | Familie Bronsweg 2 F 9945PR Wagenborgen | 258.671 | 586.991 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GX | Familie Bronsweg 2 G 9945PR Wagenborgen | 258.671 | 587.016 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GY | Familie Bronsweg 2 H 9945PR Wagenborgen | 258.696 | 587.012 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GZ | Familie Bronsweg 2 J 9945PR Wagenborgen | 258.717 | 587.009 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| H | G. Boelmanweg 5 9945RE Wagenborgen | 258.203 | 586.561 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HA | Akeleistraat 17 9945VD Wagenborgen | 258.515 | 587.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HB | Akeleistraat 19 9945VD Wagenborgen | 258.505 | 587.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HC | Akeleistraat 21 9945VD Wagenborgen | 258.486 | 587.050 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HD | Akeleistraat 23 9945VD Wagenborgen | 258.477 | 587.051 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HE | Akeleistraat 20 9945VD Wagenborgen | 258.448 | 587.022 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HF | Akeleistraat 22 9945VD Wagenborgen | 258.439 | 587.022 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HG | Akeleistraat 16 9945VD Wagenborgen | 258.477 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HH | Akeleistraat 18 9945VD Wagenborgen | 258.467 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HI | Akeleistraat 12 9945VD Wagenborgen | 258.506 | 587.013 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HJ | Akeleistraat 14 9945VD Wagenborgen | 258.496 | 587.013 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HK | Akeleistraat 10 9945VD Wagenborgen | 258.532 | 587.007 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
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# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer 3 februari 2017

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| HL | Akeleistraat 1 9945VD Wagenborgen | 258.634 | 587.024 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HM | Akeleistraat 3 9945VD Wagenborgen | 258.625 | 587.021 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HN | Akeleistraat 5 9945VD Wagenborgen | 258.604 | 587.023 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HO | Akeleistraat 7 9945VD Wagenborgen | 258.595 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HP | Akeleistraat 9 9945VD Wagenborgen | 258.574 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HQ | Akeleistraat 11 9945VD Wagenborgen | 258.565 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HR | Akeleistraat 2 9945VD Wagenborgen | 258.626 | 586.998 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HS | Akeleistraat 4 9945VD Wagenborgen | 258.617 | 586.995 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HT | Akeleistraat 6 9945VD Wagenborgen | 258.597 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HU | Akeleistraat 8 9945VD Wagenborgen | 258.588 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HV | Akeleistraat 15 9945VD Wagenborgen | 258.535 | 587.045 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HW | Bremstraat 6 9945VC Wagenborgen | 258.522 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HX | Bremstraat 2 9945VC Wagenborgen | 258.570 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HY | Bremstraat 4 9945VC Wagenborgen | 258.545 | 586.969 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HZ | Bremstraat 12 9945VC Wagenborgen | 258.448 | 586.982 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| I | G. Boelmanweg 4 9945RJ Wagenborgen | 258.168 | 586.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IA | Hibiscusstraat 30 9945VB Wagenborgen | 258.633 | 586.942 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IB | Hibiscusstraat 2 9945VB Wagenborgen | 258.428 | 586.818 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IC | Hibiscusstraat 4 9945VB Wagenborgen | 258.449 | 586.865 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ID | Hibiscusstraat 10 9945VB Wagenborgen | 258.426 | 586.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IE | Hibiscusstraat 16 9945VB Wagenborgen | 258.482 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IF | Bremstraat 14 9945VC Wagenborgen | 258.428 | 586.984 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IG | Hibiscusstraat 6 9945VB Wagenborgen | 258.417 | 586.860 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IH | Hibiscusstraat 26 9945VB Wagenborgen | 258.608 | 586.953 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| II | Kopaf 8 9945TE Wagenborgen | 259.518 | 587.109 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IJ | Kopaf 7 9945TE Wagenborgen | 259.555 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IK | Kopaf 6 9945TE Wagenborgen | 259.575 | 587.100 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IL | Kloosterlaan 27 9945TG Wagenborgen | 259.558 | 587.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IM | Kloosterlaan 25 9945TG Wagenborgen | 259.567 | 587.793 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IN | Kloosterlaan 23 9945TG Wagenborgen | 259.592 | 587.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IO | Scheve Klap 5 9945TD Wagenborgen | 260.522 | 587.264 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IP | Scheve Klap 4 9945TD Wagenborgen | 260.493 | 587.154 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IQ | Hibiscusstraat 8 9945VB Wagenborgen | 258.420 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IR | Hibiscusstraat 12 9945VB Wagenborgen | 258.431 | 586.945 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IS | Hibiscusstraat 18 9945VB Wagenborgen | 258.503 | 586.931 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IT | Hibiscusstraat 24 9945VB Wagenborgen | 258.612 | 586.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IU | Hibiscusstraat 22 9945VB Wagenborgen | 258.583 | 586.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IV | Troostlaan 15 9945PV Wagenborgen | 258.151 | 586.693 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IW | Bremstraat 10 9945VC Wagenborgen | 258.473 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IX | Hibiscusstraat 20 9945VB Wagenborgen | 258.529 | 586.931 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IY | Hibiscusstraat 28 9945VB Wagenborgen | 258.622 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IZ | Troostlaan 5 9945PV Wagenborgen | 258.189 | 586.911 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| J | G. Boelmanweg 7 9945RE Wagenborgen | 258.198 | 586.536 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JA | Troostlaan 6 9945PV Wagenborgen | 258.249 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JB | Boslaan 5 9945TM Wagenborgen | 259.413 | 587.123 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JC | Hoofdweg 33 A 9945PB Wagenborgen | 258.174 | 586.602 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JD | Akeleistraat 13 9945VD Wagenborgen | 258.569 | 587.057 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JE | Hoofdweg 42 9945PG Wagenborgen | 258.103 | 586.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JF | Familie Bronsweg 2 E 9945PR Wagenborgen | 258.670 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JG | Hibiscusstraat 14 9945VB Wagenborgen | 258.456 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JH | Bremstraat 8 9945VC Wagenborgen | 258.502 | 586.974 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JI | Menterne 23 003 9945RA Wagenborgen | 257.949 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JJ | Menterne 23 004 9945RA Wagenborgen | 257.949 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JK | Menterne 23 005 9945RA Wagenborgen | 257.948 | 586.990 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JL | Menterne 23 006 9945RA Wagenborgen | 257.948 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JM | Menterne 23 007 9945RA Wagenborgen | 257.960 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JN | Menterne 23 008 9945RA Wagenborgen | 257.960 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JO | Menterne 23 009 9945RA Wagenborgen | 257.960 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JP | Menterne 23 010 9945RA Wagenborgen | 257.961 | 586.988 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JQ | Menterne 23 017 9945RA Wagenborgen | 257.971 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JR | Menterne 23 030 9945RA Wagenborgen | 257.958 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JS | Menterne 23 103 9945RA Wagenborgen | 257.951 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JT | Menterne 23 104 9945RA Wagenborgen | 257.951 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JU | Menterne 23 105 9945RA Wagenborgen | 257.951 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
3-2-2017 0:09/3.0.654

# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer 3 februari 2017

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| JV | Menterne 23 106 9945RA Wagenborgen | 257.950 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JW | Menterne 23 107 9945RA Wagenborgen | 257.958 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JX | Menterne 23 108 9945RA Wagenborgen | 257.958 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JY | Menterne 23 109 9945RA Wagenborgen | 257.958 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JZ | Menterne 23 110 9945RA Wagenborgen | 257.958 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| K | G. Boelmanweg 6 9945RJ Wagenborgen | 258.176 | 586.541 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KA | Menterne 23 111 9945RA Wagenborgen | 257.959 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KB | Menterne 23 113 9945RA Wagenborgen | 257.967 | 586.972 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KC | Menterne 23 114 9945RA Wagenborgen | 257.967 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KD | Menterne 23 115 9945RA Wagenborgen | 257.967 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KE | Menterne 23 116 9945RA Wagenborgen | 257.968 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KF | Menterne 23 117 9945RA Wagenborgen | 257.968 | 586.957 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KG | Menterne 23 118 9945RA Wagenborgen | 257.968 | 586.953 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KH | Menterne 23 119 9945RA Wagenborgen | 257.967 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KI | Menterne 23 120 9945RA Wagenborgen | 257.968 | 586.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KJ | Menterne 23 121 9945RA Wagenborgen | 257.968 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KK | Menterne 23 122 9945RA Wagenborgen | 257.968 | 586.936 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KL | Menterne 23 123 9945RA Wagenborgen | 257.968 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KM | Menterne 23 124 9945RA Wagenborgen | 257.968 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KN | Menterne 23 125 9945RA Wagenborgen | 257.956 | 586.930 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KO | Menterne 23 126 9945RA Wagenborgen | 257.956 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KP | Menterne 23 127 9945RA Wagenborgen | 257.956 | 586.937 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KQ | Menterne 23 128 9945RA Wagenborgen | 257.956 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KR | Menterne 23 129 9945RA Wagenborgen | 257.956 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KS | Menterne 23 130 9945RA Wagenborgen | 257.961 | 586.958 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KT | Menterne 23 131 9945RA Wagenborgen | 257.961 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KU | Menterne 23 132 9945RA Wagenborgen | 257.960 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KV | Menterne 23 201 9945RA Wagenborgen | 257.953 | 586.973 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KW | Menterne 23 202 9945RA Wagenborgen | 257.953 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KX | Menterne 23 203 9945RA Wagenborgen | 257.953 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KY | Menterne 23 204 9945RA Wagenborgen | 257.953 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KZ | Menterne 23 205 9945RA Wagenborgen | 257.953 | 586.990 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| L | Kokslaan 1 9945RD Wagenborgen | 258.257 | 586.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LA | Menterne 23 206 9945RA Wagenborgen | 257.953 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LB | Menterne 23 207 9945RA Wagenborgen | 257.956 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LC | Menterne 23 208 9945RA Wagenborgen | 257.956 | 586.995 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LD | Menterne 23 209 9945RA Wagenborgen | 257.956 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LE | Menterne 23 210 9945RA Wagenborgen | 257.956 | 586.988 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LF | Menterne 23 211 9945RA Wagenborgen | 257.957 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LG | Menterne 23 212 9945RA Wagenborgen | 257.957 | 586.981 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LH | Menterne 23 213 9945RA Wagenborgen | 257.964 | 586.972 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LI | Menterne 23 214 9945RA Wagenborgen | 257.965 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LJ | Menterne 23 215 9945RA Wagenborgen | 257.965 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LK | Menterne 23 216 9945RA Wagenborgen | 257.965 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LL | Menterne 23 217 9945RA Wagenborgen | 257.965 | 586.956 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LM | Menterne 23 218 9945RA Wagenborgen | 257.965 | 586.954 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LN | Menterne 23 219 9945RA Wagenborgen | 257.965 | 586.947 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LO | Menterne 23 220 9945RA Wagenborgen | 257.965 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LP | Menterne 23 221 9945RA Wagenborgen | 257.965 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LQ | Menterne 23 222 9945RA Wagenborgen | 257.965 | 586.937 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LR | Menterne 23 223 9945RA Wagenborgen | 257.965 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LS | Menterne 23 224 9945RA Wagenborgen | 257.966 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LT | Menterne 23 226 9945RA Wagenborgen | 257.959 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LU | Menterne 23 228 9945RA Wagenborgen | 257.958 | 586.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LV | Menterne 23 229 9945RA Wagenborgen | 257.958 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LW | Menterne 23 230 9945RA Wagenborgen | 257.962 | 586.958 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LX | Menterne 23 231 9945RA Wagenborgen | 257.962 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LY | Menterne 23 232 9945RA Wagenborgen | 257.962 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LZ | G. Boelmanweg 1 9945RE Wagenborgen | 258.213 | 586.607 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| M | Kokslaan 2 9945RD Wagenborgen | 258.279 | 586.598 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MA | Boslaan 7 9945TM Wagenborgen | 259.467 | 586.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MB | H.L. Emmensweg 23 9945PW Wagenborgen | 258.086 | 586.747 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MC | Kopaf 5 9944VA Nieuwolda | 259.816 | 586.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MD | Familie Bronsweg 68 9945TA Wagenborgen | 258.470 | 588.333 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer 3 februari 2017

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| ME | Maarkampen 26 9937PL Meedhuizen | 256.956 | 590.088 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MF | Maarkampen 24 9937PL Meedhuizen | 256.931 | 590.090 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MG | Maarkampen 22 9937PL Meedhuizen | 256.916 | 590.093 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MH | Maarkampen 20 9937PL Meedhuizen | 256.898 | 590.098 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MI | Maarkampen 18 9937PL Meedhuizen | 256.878 | 590.101 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MJ | Maarkampen 16 9937PL Meedhuizen | 256.858 | 590.104 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MK | Maarkampen 14 9937PL Meedhuizen | 256.838 | 590.106 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ML | Maarlaan 22 E 9937TH Meedhuizen | 256.932 | 590.173 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MM | Maarlaan 22 D 9937TH Meedhuizen | 256.877 | 590.178 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MN | Schaapbulterweg 8 9937TL Meedhuizen | 256.971 | 589.534 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MO | Schaapbulterweg 6 9937TL Meedhuizen | 256.919 | 589.544 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MP | Schaapbulterweg 29 9937TL Meedhuizen | 256.970 | 589.489 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MQ | Schaapbulterweg 27 9937TL Meedhuizen | 256.949 | 589.497 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MR | Schaapbulterweg 25 9937TL Meedhuizen | 256.935 | 589.503 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MS | Schaapbulterweg 23 9937TL Meedhuizen | 256.920 | 589.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MT | Schaapbulterweg 21 9937TL Meedhuizen | 256.908 | 589.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MU | Geefsweersterweg 11 9937TB Meedhuizen | 257.472 | 591.162 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MV | Schaapbulterweg 35 9937TL Meedhuizen | 257.159 | 589.455 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MW | Meedhuizerweg 20 9937TK Meedhuizen | 257.017 | 590.790 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MX | Familie Bronsweg 66 9945TA Wagenborgen | 258.538 | 588.146 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MY | Familie Bronsweg 64 9945TA Wagenborgen | 258.518 | 588.056 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MZ | Ideweersterweg 10 9937TM Meedhuizen | 257.794 | 589.376 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| N | Kerkstraat 1 9945SB Wagenborgen | 258.120 | 586.579 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NA | Ideweersterweg 8 9937TM Meedhuizen | 257.916 | 589.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NB | Geefsweersterweg 20 9937TC Meedhuizen | 258.111 | 588.986 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NC | Geefsweersterweg 18 9937TC Meedhuizen | 258.066 | 589.025 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ND | Geefsweersterweg 29 9937TB Meedhuizen | 258.051 | 588.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NE | Geefsweersterweg 16 9937TC Meedhuizen | 258.011 | 589.140 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NF | Geefsweersterweg 23 9937TB Meedhuizen | 257.998 | 589.209 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NG | Geefsweersterweg 12 9937TC Meedhuizen | 258.033 | 589.285 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NH | Geefsweersterweg 14 9937TC Meedhuizen | 258.028 | 589.261 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NI | Geefsweersterweg 21 A 9937TB Meedhuizen | 258.002 | 589.266 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NJ | Geefsweersterweg 10 9937TC Meedhuizen | 258.042 | 589.339 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NK | Geefsweersterweg 21 9937TB Meedhuizen | 258.025 | 589.335 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NL | Geefsweersterweg 17 9937TB Meedhuizen | 258.035 | 589.424 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NM | Geefsweersterweg 19 9937TB Meedhuizen | 258.023 | 589.378 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NN | Ideweersterweg 2 9937TM Meedhuizen | 259.329 | 589.348 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NO | Ideweersterweg 1 9937TM Meedhuizen | 259.330 | 589.303 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NP | Geefsweersterweg 15 9937TB Meedhuizen | 257.994 | 590.149 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NQ | Westerlaan 6 9937TS Meedhuizen | 258.650 | 590.176 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NR | Familie Bronsweg 87 9945TA Wagenborgen | 258.255 | 588.149 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NS | Familie Bronsweg 89 9945TA Wagenborgen | 258.288 | 588.393 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NT | Westerlaan 10 9937TS Meedhuizen | 258.640 | 588.541 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NU | Geefsweersterweg 13 9937TB Meedhuizen | 257.998 | 590.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NV | Maarlaan 26 9937TH Meedhuizen | 257.044 | 590.228 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NW | Maarlaan 24 9937TH Meedhuizen | 256.988 | 590.171 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NX | Maarlaan 28 9937TH Meedhuizen | 257.042 | 590.160 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NY | Maarlaan 30 9937TH Meedhuizen | 257.109 | 590.155 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NZ | Kerklaan 3 9937PG Meedhuizen | 257.099 | 589.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| O | Hoofdweg 30 9945PG Wagenborgen | 258.190 | 586.634 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OA | Kerklaan 8 9937PG Meedhuizen | 257.192 | 589.983 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OB | Kerklaan 6 9937PG Meedhuizen | 257.151 | 590.090 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OC | Opmeedenlaan 6 9937TN Meedhuizen | 256.970 | 588.781 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OD | Opmeedenlaan 4 9937TN Meedhuizen | 256.988 | 588.863 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OE | Opmeedenlaan 2 9937TN Meedhuizen | 257.043 | 588.932 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OF | Kloosterlaan 26 9945TG Wagenborgen | 260.046 | 588.262 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OG | Zomerdijk 1 9945TH Wagenborgen | 260.153 | 588.395 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OH | Zomerdijk 3 9945TH Wagenborgen | 260.454 | 588.375 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OI | Zomerdijk 3 A 9945TH Wagenborgen | 260.560 | 588.321 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OJ | Zomerdijk 2 9945TH Wagenborgen | 260.721 | 588.388 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OK | Kloosterlaan 21 A 9945TG Wagenborgen | 259.991 | 588.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OL | Kloosterlaan 21 B 9945TG Wagenborgen | 259.957 | 588.308 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OM | Ideweersterweg 4 9937TM Meedhuizen | 258.658 | 589.400 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ON | Maarlaan 22 C 9937TH Meedhuizen | 256.840 | 590.186 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
3-2-2017 0:09/3.0.654

# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer 3 februari 2017

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| OO | Kloosterlaan 21 9936TE Farmsum | 260.253 | 589.832 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OP | Geefsweersterweg 8 A 9937TC Meedhuizen | 258.072 | 590.685 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OQ | Houtweg 20 9936BL Farmsum | 257.300 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OR | Houtweg 22 9936BL Farmsum | 257.298 | 593.542 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OS | Houtweg 24 9936BL Farmsum | 257.297 | 593.528 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OT | Houtweg 26 9936BL Farmsum | 257.296 | 593.515 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OU | Houtweg 28 9936BL Farmsum | 257.294 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OV | Rondeboslaan 6 9936BK Farmsum | 257.466 | 593.590 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OW | Proosdij 14 9936EW Farmsum | 257.893 | 593.570 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OX | Bredelaan 6 9936ER Farmsum | 257.806 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OY | Bredelaan 4 9936ER Farmsum | 257.804 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OZ | Bredelaan 2 A 9936ER Farmsum | 257.802 | 593.559 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| P | Hoofdweg 32 9945PG Wagenborgen | 258.177 | 586.629 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PA | Proosdij 24 9936EW Farmsum | 257.913 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PB | Proosdij 22 9936EW Farmsum | 257.910 | 593.522 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PC | Proosdij 20 9936EW Farmsum | 257.906 | 593.533 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PD | Proosdij 18 9936EW Farmsum | 257.901 | 593.549 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PE | Proosdij 16 9936EW Farmsum | 257.899 | 593.554 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PF | Trambaan 19 9936ES Farmsum | 257.863 | 593.507 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PG | Proosdij 17 9936ET Farmsum | 257.864 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PH | Proosdij 15 9936ET Farmsum | 257.862 | 593.560 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PI | Proosdij 13 9936ET Farmsum | 257.859 | 593.568 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PJ | Trambaan 17 9936ES Farmsum | 257.856 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PK | Trambaan 15 9936ES Farmsum | 257.849 | 593.520 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PL | Trambaan 13 9936ES Farmsum | 257.844 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PM | Trambaan 11 9936ES Farmsum | 257.839 | 593.530 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PN | Trambaan 9 9936ES Farmsum | 257.833 | 593.536 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PO | Trambaan 5 9936ES Farmsum | 257.825 | 593.544 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PP | Trambaan 3 9936ES Farmsum | 257.818 | 593.551 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PQ | Trambaan 1 9936ES Farmsum | 257.814 | 593.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PR | Proosdij 12 9936EW Farmsum | 257.888 | 593.590 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PS | Proosdij 8 9936EW Farmsum | 257.881 | 593.604 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PT | Proosdij 6 9936EW Farmsum | 257.876 | 593.616 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PU | Proosdij 4 9936EW Farmsum | 257.872 | 593.630 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PV | Proosdij 11 9936ET Farmsum | 257.856 | 593.577 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PW | Proosdij 9 9936ET Farmsum | 257.853 | 593.584 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PX | Proosdij 7 9936ET Farmsum | 257.849 | 593.596 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PY | Proosdij 5 9936ET Farmsum | 257.846 | 593.605 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PZ | Proosdij 1 9936ET Farmsum | 257.839 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Q | Hoofdweg 31 9945PA Wagenborgen | 258.210 | 586.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QA | Proosdij 3 9936ET Farmsum | 257.844 | 593.611 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QB | Farmsumerzijl 55 9936GC Farmsum | 257.821 | 593.640 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QC | Farmsumerzijl 57 9936GC Farmsum | 257.800 | 593.636 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QD | Rengersweg 4 9936GH Farmsum | 258.026 | 593.578 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QE | Rengersweg 2 9936GH Farmsum | 258.026 | 593.587 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QF | Schepperij 4 A 9936GN Farmsum | 258.046 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QG | Schepperij 2 A 9936GN Farmsum | 258.033 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QH | Schepperij 4 9936GN Farmsum | 258.040 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QI | Schepperij 2 9936GN Farmsum | 258.027 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QJ | Dijkrecht 4 9936GK Farmsum | 258.021 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QK | Dijkrecht 6 9936GK Farmsum | 258.035 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QL | Dijkrecht 10 9936GK Farmsum | 258.054 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QM | Dijkrecht 12 9936GK Farmsum | 258.061 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QN | Dijkrecht 14 9936GK Farmsum | 258.074 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QO | Dijkrecht 16 9936GK Farmsum | 258.081 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QP | Dijkrecht 18 9936GK Farmsum | 258.095 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QQ | Dijkrecht 20 9936GK Farmsum | 258.107 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QR | Dijkrecht 22 9936GK Farmsum | 258.123 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QS | Dijkrecht 24 9936GK Farmsum | 258.138 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QT | Dijkrecht 26 9936GK Farmsum | 258.159 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QU | Dijkrecht 28 9936GK Farmsum | 258.166 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QV | Dijkrecht 30 9936GK Farmsum | 258.186 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QW | Dijkrecht 32 9936GK Farmsum | 258.192 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QX | Dijkrecht 34 9936GK Farmsum | 258.206 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
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# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer 3 februari 2017

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| QY | Dijkrecht 36 9936GK Farmsum | 258.213 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QZ | Dijkrecht 40 9936GK Farmsum | 258.233 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| R | Hoofdweg 38 9945PG Wagenborgen | 258.142 | 586.621 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RA | Dijkrecht 38 9936GK Farmsum | 258.227 | 593.624 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RB | Schepperij 20 9936GN Farmsum | 258.190 | 593.563 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RC | Schepperij 18 9936GN Farmsum | 258.184 | 593.563 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RD | Waarman 12 9936GW Farmsum | 258.263 | 593.622 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RE | Waarman 10 9936GW Farmsum | 258.263 | 593.629 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RF | Waarman 8 9936GW Farmsum | 258.265 | 593.641 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RG | Waarman 6 9936GW Farmsum | 258.265 | 593.648 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RH | Farmsumerzijl 1 9936GB Farmsum | 258.234 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RI | Farmsumerzijl 3 9936GB Farmsum | 258.227 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RJ | Farmsumerzijl 5 9936GB Farmsum | 258.213 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RK | Farmsumerzijl 7 9936GB Farmsum | 258.207 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RL | Farmsumerzijl 13 9936GB Farmsum | 258.172 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RM | Farmsumerzijl 15 9936GB Farmsum | 258.166 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RN | Farmsumerzijl 17 9936GB Farmsum | 258.152 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RO | Farmsumerzijl 19 9936GB Farmsum | 258.146 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RP | Farmsumerzijl 25 9936GB Farmsum | 258.115 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RQ | Farmsumerzijl 27 9936GB Farmsum | 258.108 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RR | Farmsumerzijl 29 9936GB Farmsum | 258.096 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RS | Farmsumerzijl 31 9936GC Farmsum | 258.089 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RT | Farmsumerzijl 37 9936GC Farmsum | 258.057 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RU | Farmsumerzijl 39 9936GC Farmsum | 258.050 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RV | Farmsumerzijl 41 9936GC Farmsum | 258.037 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RW | Farmsumerzijl 43 9936GC Farmsum | 258.031 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RX | Schepperij 1 9936GL Farmsum | 258.054 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RY | Schepperij 3 9936GL Farmsum | 258.060 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RZ | Schepperij 5 9936GL Farmsum | 258.066 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| S | Hoofdweg 39 9945PB Wagenborgen | 258.126 | 586.603 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SA | Schepperij 7 9936GL Farmsum | 258.072 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SB | Schepperij 9 9936GL Farmsum | 258.078 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SC | Schepperij 11 9936GL Farmsum | 258.084 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SD | Schepperij 13 9936GL Farmsum | 258.090 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SE | Schepperij 15 9936GL Farmsum | 258.097 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SF | Dijkrecht 8 9936GK Farmsum | 258.041 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SG | Geefsweersterweg 9 9937TB Meedhuizen | 257.539 | 591.945 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SH | Geefsweersterweg 7 9937TB Meedhuizen | 258.115 | 592.341 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SI | Geefsweersterweg 8 9937TC Meedhuizen | 258.139 | 592.234 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SJ | Geefsweersterweg 3 9937TB Meedhuizen | 258.102 | 592.452 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SK | Geefsweersterweg 6 9937TC Meedhuizen | 258.202 | 592.502 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SL | Geefsweersterweg 4 9937TC Meedhuizen | 258.243 | 592.643 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SM | Meedhuizerweg 2 9937TK Meedhuizen | 256.911 | 592.415 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SN | Molenstraat 31 9936EB Farmsum | 257.786 | 593.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SO | Hindrik Jagerstraat 32 9936CV Farmsum | 257.573 | 593.810 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SP | Hindrik Jagerstraat 11 9936CT Farmsum | 257.561 | 593.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SQ | Hindrik Jagerstraat 13 9936CT Farmsum | 257.568 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SR | Hindrik Jagerstraat 15 9936CT Farmsum | 257.574 | 593.790 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SS | Hindrik Jagerstraat 34 9936CV Farmsum | 257.581 | 593.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ST | Hindrik Jagerstraat 36 9936CV Farmsum | 257.587 | 593.799 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SU | Borgshof 31 9936CR Farmsum | 257.617 | 593.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SV | Borgshof 33 9936CR Farmsum | 257.615 | 593.807 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SW | Borgshof 39 9936CR Farmsum | 257.605 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SX | Borgshof 35 9936CR Farmsum | 257.604 | 593.768 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SY | Molenstraat 20 9936EC Farmsum | 257.801 | 593.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SZ | Molenstraat 24 9936EC Farmsum | 257.812 | 593.926 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| T | Hoofdweg 35 9945PB Wagenborgen | 258.160 | 586.604 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TA | Molenstraat 28 9936EC Farmsum | 257.817 | 593.918 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TB | Molenstraat 41 9936EB Farmsum | 257.798 | 593.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TC | Molenstraat 43 9936EB Farmsum | 257.802 | 593.918 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TD | Molenstraat 45 9936EB Farmsum | 257.807 | 593.910 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TE | Molenstraat 32 9936EC Farmsum | 257.821 | 593.908 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TF | Achterweg 13 9936EG Farmsum | 257.848 | 593.913 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TG | Achterweg 11 9936EG Farmsum | 257.855 | 593.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
3-2-2017 0:09/3.0.654

# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer 3 februari 2017

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| TH | Achterweg 9 9936EG Farmsum | 257.861 | 593.915 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TI | Molenstraat 49 9936EB Farmsum | 257.809 | 593.905 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TJ | Molenstraat 51 9936EB Farmsum | 257.812 | 593.900 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TK | Molenstraat 53 9936EB Farmsum | 257.815 | 593.894 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TL | Molenstraat 57 9936EB Farmsum | 257.819 | 593.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TM | Molenstraat 61 9936EB Farmsum | 257.826 | 593.870 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TN | Molenstraat 63 9936EB Farmsum | 257.830 | 593.861 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TO | Molenstraat 34 9936ED Farmsum | 257.827 | 593.897 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TP | Molenstraat 38 9936ED Farmsum | 257.832 | 593.886 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TQ | Molenstraat 40 9936ED Farmsum | 257.835 | 593.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TR | Molenstraat 42 9936ED Farmsum | 257.837 | 593.870 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TS | Molenstraat 44 9936ED Farmsum | 257.842 | 593.859 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TT | Molenstraat 65 9936EB Farmsum | 257.834 | 593.850 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TU | Molenstraat 48 9936ED Farmsum | 257.847 | 593.847 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TV | Molenstraat 50 9936ED Farmsum | 257.850 | 593.837 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TW | Molenstraat 56 9936ED Farmsum | 257.851 | 593.824 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TX | Molenstraat 58 9936EE Farmsum | 257.863 | 593.810 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TY | Molenstraat 62 9936EE Farmsum | 257.858 | 593.798 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TZ | Molenstraat 72 9936EE Farmsum | 257.855 | 593.753 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| U | Hoofdweg 37 9945PB Wagenborgen | 258.149 | 586.603 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UA | Molenstraat 70 9936EE Farmsum | 257.854 | 593.758 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UB | Molenstraat 68 9936EE Farmsum | 257.854 | 593.765 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UC | Molenstraat 66 9936EE Farmsum | 257.854 | 593.773 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UD | Achterweg 2 9936EG Farmsum | 257.886 | 593.882 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UE | Achterweg 12 9936EG Farmsum | 257.919 | 593.766 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UF | Achterweg 10 9936EG Farmsum | 257.918 | 593.779 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UG | Achterweg 8 9936EG Farmsum | 257.916 | 593.791 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UH | Hindrik Jagerstraat 17 9936CT Farmsum | 257.588 | 593.777 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UI | Molenstraat 30 9936EC Farmsum | 257.820 | 593.912 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UJ | Borgweg 141 9936EN Farmsum | 257.451 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UK | Borgweg 139 9936EN Farmsum | 257.466 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UL | Borgweg 137 9936EN Farmsum | 257.473 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UM | Borgweg 135 9936EN Farmsum | 257.487 | 593.708 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UN | Afwateringskanaal 109 9936AV Farmsum | 257.508 | 593.724 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UO | Borgweg 131 9936EM Farmsum | 257.636 | 593.714 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UP | Borgweg 133 9936EM Farmsum | 257.581 | 593.701 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UQ | Borgshof 41 9936CR Farmsum | 257.598 | 593.743 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UR | Borgshof 43 9936CR Farmsum | 257.595 | 593.730 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| US | Borgshof 45 9936CR Farmsum | 257.594 | 593.720 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UT | Molenstraat 74 9936EE Farmsum | 257.855 | 593.743 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UU | Molenstraat 76 9936EE Farmsum | 257.857 | 593.736 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UV | Molenstraat 78 9936EE Farmsum | 257.858 | 593.730 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UW | Molenstraat 82 9936EE Farmsum | 257.858 | 593.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UX | Molenstraat 84 9936EE Farmsum | 257.858 | 593.708 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UY | Borgweg 123 9936EM Farmsum | 257.927 | 593.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UZ | Borgweg 125 9936EM Farmsum | 257.917 | 593.698 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| V | Hoofdweg 44 9945PH Wagenborgen | 258.071 | 586.624 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VA | Borgweg 127 9936EM Farmsum | 257.906 | 593.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VB | Borgweg 129 9936EM Farmsum | 257.897 | 593.699 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VC | Farmsumerzijl 51 9936GC Farmsum | 257.925 | 593.665 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VD | Molenstraat 80 9936EE Farmsum | 257.858 | 593.723 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VE | Houtweg 30 9936BL Farmsum | 257.294 | 593.486 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VF | Houtweg 32 9936BL Farmsum | 257.292 | 593.473 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VG | Houtweg 34 9936BL Farmsum | 257.291 | 593.459 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VH | Houtweg 36 9936BL Farmsum | 257.289 | 593.446 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VI | Houtweg 38 9936BL Farmsum | 257.288 | 593.429 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VJ | Houtweg 40 9936BL Farmsum | 257.261 | 593.394 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VK | Houtweg 42 9936BL Farmsum | 257.257 | 593.387 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VL | Houtweg 44 9936BL Farmsum | 257.250 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VM | Houtweg 46 9936BL Farmsum | 257.248 | 593.372 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VN | Houtweg 48 9936BL Farmsum | 257.240 | 593.359 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VO | Rondeboslaan 26 9936BK Farmsum | 257.440 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VP | Rondeboslaan 28 9936BK Farmsum | 257.438 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VQ | Seendweg 32 9936GA Farmsum | 257.903 | 593.454 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
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# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer 3 februari 2017

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| VR | Trambaan 21 9936ES Farmsum | 257.870 | 593.499 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VS | Proosdij 19 9936ET Farmsum | 257.892 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VT | Bredelaan 14 9936ER Farmsum | 257.814 | 593.354 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VU | Bredelaan 10 9936ER Farmsum | 257.808 | 593.470 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VV | Bredelaan 8 9936ER Farmsum | 257.807 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VW | Seendweg 22 9936GA Farmsum | 257.897 | 593.364 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VX | Seendweg 28 9936GA Farmsum | 257.898 | 593.405 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VY | Proosdij 28 9936EW Farmsum | 257.922 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VZ | Proosdij 30 9936EX Farmsum | 257.932 | 593.484 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| W | Hoofdweg 48 9945PH Wagenborgen | 258.051 | 586.630 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WA | Proosdij 26 9936EW Farmsum | 257.919 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WB | Afwateringskanaal 107 9936AV Farmsum | 257.499 | 593.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WC | Rondeboslaan 22 A 9936BK Farmsum | 257.532 | 593.326 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WD | Rondeboslaan 22 B 9936BK Farmsum | 257.532 | 593.320 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WE | Rondeboslaan 2 A 9936BK Farmsum | 257.534 | 593.639 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WF | Rondeboslaan 2 B 9936BK Farmsum | 257.493 | 593.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WG | Seendweg 17 9936GA Farmsum | 257.931 | 593.394 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WH | Borgshof 29 9936CR Farmsum | 257.619 | 593.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WI | Molenstraat 22 9936EC Farmsum | 257.808 | 593.935 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WJ | Achterweg 7 A 9936EG Farmsum | 257.858 | 593.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WK | Molenstraat 26 9936EC Farmsum | 257.814 | 593.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WL | Borgweg 113 9936EM Farmsum | 257.957 | 593.782 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WM | Borgweg 115 9936EM Farmsum | 257.968 | 593.707 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WN | Borgweg 117 9936EM Farmsum | 257.959 | 593.705 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WO | Borgweg 119 9936EM Farmsum | 257.947 | 593.703 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WP | Borgweg 121 9936EM Farmsum | 257.938 | 593.701 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WQ | Farmsumerzijl 45 9936GC Farmsum | 257.966 | 593.671 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WR | Farmsumerzijl 47 9936GC Farmsum | 257.947 | 593.667 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WS | Farmsumerzijl 49 9936GC Farmsum | 257.933 | 593.666 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WT | Waarman 4 9936GW Farmsum | 258.267 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WU | Waarman 2 9936GW Farmsum | 258.267 | 593.668 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WV | Farmsumerzijl 9 9936GB Farmsum | 258.192 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WW | Farmsumerzijl 11 9936GB Farmsum | 258.186 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WX | Farmsumerzijl 21 9936GB Farmsum | 258.134 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WY | Farmsumerzijl 23 9936GB Farmsum | 258.126 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WZ | Farmsumerzijl 33 9936GC Farmsum | 258.076 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| X | Hoofdweg 41 9945PB Wagenborgen | 258.092 | 586.599 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XA | Farmsumerzijl 35 9936GC Farmsum | 258.070 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XB | Schepperij 17 9936GL Farmsum | 258.103 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XC | Schepperij 19 9936GL Farmsum | 258.109 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XD | Schepperij 21 9936GL Farmsum | 258.115 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XE | Dijkrecht 3 9936GJ Farmsum | 258.042 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XF | Dijkrecht 5 9936GJ Farmsum | 258.052 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XG | Dijkrecht 7 9936GJ Farmsum | 258.054 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XH | Dijkrecht 9 9936GJ Farmsum | 258.063 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XI | Dijkrecht 11 9936GJ Farmsum | 258.073 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XJ | Dijkrecht 13 9936GJ Farmsum | 258.079 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XK | Dijkrecht 15 9936GJ Farmsum | 258.085 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XL | Dijkrecht 17 9936GJ Farmsum | 258.092 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XM | Dijkrecht 19 9936GJ Farmsum | 258.098 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XN | Dijkrecht 21 9936GJ Farmsum | 258.104 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XO | Schepperij 6 9936GN Farmsum | 258.058 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XP | Schepperij 8 9936GN Farmsum | 258.064 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XQ | Schepperij 10 9936GN Farmsum | 258.070 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XR | Schepperij 12 9936GN Farmsum | 258.075 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XS | Schepperij 14 9936GN Farmsum | 258.081 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XT | Schepperij 16 9936GN Farmsum | 258.087 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XU | Olderman 2 9936GT Farmsum | 258.132 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XV | Olderman 4 9936GT Farmsum | 258.132 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XW | Olderman 6 9936GT Farmsum | 258.132 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XX | Olderman 8 9936GT Farmsum | 258.132 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XY | Olderman 10 9936GT Farmsum | 258.132 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XZ | Olderman 12 9936GT Farmsum | 258.132 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Y | Hoofdweg 20 9945PG Wagenborgen | 258.207 | 586.682 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
3-2-2017 0:09/3.0.654

# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer 3 februari 2017

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| YA | Olderman 14 9936GT Farmsum | 258.132 | 593.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YB | Dijkrecht 23 9936GJ Farmsum | 258.162 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YC | Dijkrecht 25 9936GJ Farmsum | 258.162 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YD | Dijkrecht 27 9936GJ Farmsum | 258.163 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YE | Dijkrecht 29 9936GJ Farmsum | 258.163 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YF | Dijkrecht 31 9936GJ Farmsum | 258.163 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YG | Dijkrecht 33 9936GJ Farmsum | 258.163 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YH | Dijkrecht 35 9936GJ Farmsum | 258.163 | 593.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YI | Dijkrecht 37 9936GJ Farmsum | 258.182 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YJ | Dijkrecht 39 9936GJ Farmsum | 258.182 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YK | Dijkrecht 41 9936GJ Farmsum | 258.182 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YL | Dijkrecht 43 9936GJ Farmsum | 258.182 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YM | Olderman 1 9936GS Farmsum | 258.107 | 593.574 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YN | Olderman 3 9936GS Farmsum | 258.107 | 593.567 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YO | Olderman 5 9936GS Farmsum | 258.108 | 593.561 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YP | Olderman 7 9936GS Farmsum | 258.108 | 593.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YQ | Schepperij 37 9936GM Farmsum | 258.194 | 593.543 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YR | Schepperij 41 9936GM Farmsum | 258.194 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YS | Schepperij 45 9936GM Farmsum | 258.194 | 593.518 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YT | Schepperij 47 9936GM Farmsum | 258.194 | 593.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YU | Schepperij 49 9936GM Farmsum | 258.194 | 593.506 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YV | Olderman 18 9936GT Farmsum | 258.143 | 593.539 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YW | Olderman 20 9936GT Farmsum | 258.143 | 593.533 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YX | Olderman 22 9936GT Farmsum | 258.143 | 593.527 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YY | Olderman 24 9936GT Farmsum | 258.143 | 593.521 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YZ | Olderman 26 9936GT Farmsum | 258.143 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Z | Hoofdweg 22 9945PG Wagenborgen | 258.202 | 586.669 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZA | Olderman 28 9936GT Farmsum | 258.143 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZB | Olderman 30 9936GT Farmsum | 258.143 | 593.502 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZC | Olderman 9 9936GS Farmsum | 258.120 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZD | Olderman 11 9936GS Farmsum | 258.120 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZE | Olderman 13 9936GS Farmsum | 258.120 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZF | Proosdij 32 9936EX Farmsum | 257.941 | 593.479 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZG | Proosdij 36 9936EX Farmsum | 257.952 | 593.473 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZH | Proosdij 38 9936EX Farmsum | 257.963 | 593.468 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZI | Proosdij 40 9936EX Farmsum | 257.984 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZJ | Proosdij 27 9936EV Farmsum | 257.995 | 593.418 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZK | Proosdij 25 9936EV Farmsum | 257.979 | 593.425 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZL | Proosdij 23 9936EV Farmsum | 257.962 | 593.433 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZM | Proosdij 21 9936EV Farmsum | 257.941 | 593.443 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZN | Seendweg 5 9936GA Farmsum | 258.091 | 593.322 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZO | Proosdij 29 9936EV Farmsum | 258.005 | 593.413 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZP | Proosdij 31 9936EV Farmsum | 258.019 | 593.403 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZQ | Proosdij 33 9936EV Farmsum | 258.043 | 593.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZR | Proosdij 35 9936EV Farmsum | 258.067 | 593.376 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZS | Proosdij 37 9936EV Farmsum | 258.085 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZT | Proosdij 39 9936EV Farmsum | 258.092 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZU | Proosdij 41 9936EV Farmsum | 258.099 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZV | Proosdij 43 9936EV Farmsum | 258.106 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZW | Proosdij 45 9936EV Farmsum | 258.112 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZX | Proosdij 47 9936EV Farmsum | 258.119 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZY | Olderman 15 9936GS Farmsum | 258.118 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZZ | Rengersweg 97 9936GG Farmsum | 258.010 | 593.468 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

## Calculation Results

Shadow receptor

| No. | Name | Shadow, expected values<br>Shadow hours per year<br>[h/year] |
|---|---|---|
| [A | Rengersweg 99 9936GG Farmsum | 0:45 |
| [B | Rengersweg 12 9936GH Farmsum | 0:53 |
| [C | Rengersweg 10 9936GH Farmsum | 0:52 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer 3 februari 2017

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| [D | Kluft 1 9936GP Farmsum | 0:52 |
| [E | Kluft 3 9936GP Farmsum | 0:55 |
| [F | Proosdij 46 9936EX Farmsum | 0:58 |
| [G | Proosdij 48 9936EX Farmsum | 1:01 |
| [H | Proosdij 50 9936EX Farmsum | 1:24 |
| [I | Proosdij 52 9936EX Farmsum | 1:26 |
| [J | Proosdij 54 9936EX Farmsum | 1:32 |
| [K | Proosdij 56 9936EX Farmsum | 1:42 |
| [L | Olderman 21 9936GS Farmsum | 2:04 |
| [M | Olderman 19 9936GS Farmsum | 1:50 |
| [N | Olderman 17 9936GS Farmsum | 1:42 |
| [O | Kluft 5 9936GP Farmsum | 1:00 |
| [P | Kluft 7 9936GP Farmsum | 1:00 |
| [Q | Kluft 9 9936GP Farmsum | 1:11 |
| [R | Kluft 11 9936GP Farmsum | 1:14 |
| [S | Kluft 17 9936GP Farmsum | 1:38 |
| [T | Zijlvest 8 9936GZ Farmsum | 2:03 |
| [U | Olderman 32 9936GT Farmsum | 1:55 |
| [V | Olderman 34 9936GT Farmsum | 1:56 |
| [W | Olderman 36 9936GT Farmsum | 2:02 |
| [X | Olderman 38 9936GT Farmsum | 2:10 |
| [Y | Olderman 40 9936GT Farmsum | 2:17 |
| [Z | Olderman 42 9936GT Farmsum | 2:13 |
| \A | Zijlvest 22 A 9936GZ Farmsum | 2:36 |
| \B | Zijlvest 18 A 9936GZ Farmsum | 2:21 |
| \C | Zijlvest 18 9936GZ Farmsum | 2:19 |
| \D | Zijlvest 14 9936GZ Farmsum | 2:13 |
| \E | Borgweg 1 9936EH Farmsum | 2:47 |
| \F | Borgweg 3 9936EH Farmsum | 2:51 |
| \G | Borgweg 5 9936EH Farmsum | 2:53 |
| \H | Borgweg 7 9936EH Farmsum | 3:00 |
| \I | Borgweg 9 9936EH Farmsum | 3:07 |
| \J | Borgweg 11 9936EH Farmsum | 3:15 |
| \K | Borgweg 13 9936EH Farmsum | 3:33 |
| \L | Borgweg 15 9936EH Farmsum | 2:50 |
| \M | Borgweg 17 9936EH Farmsum | 2:53 |
| \N | Borgweg 19 9936EH Farmsum | 2:56 |
| \O | Borgweg 21 9936EH Farmsum | 3:03 |
| \P | Borgweg 23 9936EH Farmsum | 3:08 |
| \Q | Borgweg 25 9936EH Farmsum | 3:17 |
| \R | Borgweg 27 9936EH Farmsum | 3:36 |
| \S | Borgweg 29 9936EJ Farmsum | 2:53 |
| \T | Borgweg 31 9936EJ Farmsum | 2:57 |
| \U | Borgweg 33 9936EJ Farmsum | 2:59 |
| \V | Borgweg 35 9936EJ Farmsum | 3:04 |
| \W | Borgweg 37 9936EJ Farmsum | 3:11 |
| \X | Borgweg 39 9936EJ Farmsum | 3:25 |
| \Y | Borgweg 41 9936EJ Farmsum | 3:43 |
| \Z | Borgweg 43 9936EJ Farmsum | 2:54 |
| ]A | Borgweg 45 9936EJ Farmsum | 3:00 |
| ]B | Borgweg 47 9936EJ Farmsum | 3:03 |
| ]C | Borgweg 49 9936EJ Farmsum | 3:09 |
| ]D | Borgweg 51 9936EJ Farmsum | 3:16 |
| ]E | Borgweg 53 9936EJ Farmsum | 3:32 |
| ]F | Borgweg 55 9936EJ Farmsum | 3:45 |
| ]G | Borgweg 57 9936EK Farmsum | 2:20 |
| ]H | Borgweg 59 9936EK Farmsum | 2:18 |
| ]I | Borgweg 61 9936EK Farmsum | 2:16 |
| ]J | Borgweg 63 9936EK Farmsum | 2:16 |
| ]K | Borgweg 65 9936EK Farmsum | 2:13 |
| ]L | Borgweg 67 9936EK Farmsum | 2:13 |
| ]M | Borgweg 69 9936EK Farmsum | 2:12 |
| ]N | Borgweg 71 9936EK Farmsum | 2:23 |

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# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer 3 februari 2017

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| ]O | Borgweg 73 9936EK Farmsum | 2:21 |
| ]P | Borgweg 75 9936EK Farmsum | 2:18 |
| ]Q | Borgweg 77 9936EK Farmsum | 2:16 |
| ]R | Borgweg 79 9936EK Farmsum | 2:14 |
| ]S | Borgweg 81 9936EK Farmsum | 2:15 |
| ]T | Borgweg 83 9936EK Farmsum | 2:13 |
| ]U | Borgweg 85 9936EL Farmsum | 2:24 |
| ]V | Borgweg 87 9936EL Farmsum | 2:23 |
| ]W | Borgweg 89 9936EL Farmsum | 2:22 |
| ]X | Borgweg 91 9936EL Farmsum | 2:20 |
| ]Y | Borgweg 93 9936EL Farmsum | 2:18 |
| ]Z | Borgweg 95 9936EL Farmsum | 2:16 |
| ^A | Borgweg 97 9936EL Farmsum | 2:15 |
| ^B | Borgweg 99 9936EL Farmsum | 2:26 |
| ^C | Borgweg 101 9936EL Farmsum | 2:23 |
| ^D | Borgweg 103 9936EL Farmsum | 2:21 |
| ^E | Borgweg 105 9936EL Farmsum | 2:20 |
| ^F | Borgweg 107 9936EL Farmsum | 2:18 |
| ^G | Borgweg 109 9936EL Farmsum | 2:17 |
| ^H | Borgweg 111 9936EL Farmsum | 2:16 |
| ^I | Kluft 18 9936GR Farmsum | 0:53 |
| ^J | Kluft 20 9936GR Farmsum | 0:55 |
| ^K | Kluft 22 9936GR Farmsum | 0:57 |
| ^L | Kluft 24 9936GR Farmsum | 0:59 |
| ^M | Kluft 26 9936GR Farmsum | 1:01 |
| ^N | Kluft 28 9936GR Farmsum | 1:03 |
| ^O | Kluft 30 9936GR Farmsum | 1:06 |
| ^P | Kluft 32 9936GR Farmsum | 1:09 |
| ^Q | Kluft 2 9936GR Farmsum | 0:55 |
| ^R | Kluft 4 9936GR Farmsum | 0:56 |
| ^S | Kluft 6 9936GR Farmsum | 0:57 |
| ^T | Kluft 8 9936GR Farmsum | 0:59 |
| ^U | Kluft 10 9936GR Farmsum | 1:02 |
| ^V | Kluft 12 9936GR Farmsum | 1:04 |
| ^W | Kluft 14 9936GR Farmsum | 1:04 |
| ^X | Kluft 16 9936GR Farmsum | 1:08 |
| ^Y | Zijlvest 20 A 9936GZ Farmsum | 2:30 |
| ^Z | Schepperij 51 9936GM Farmsum | 2:27 |
| _A | Waarman 15 9936GV Farmsum | 2:37 |
| _B | Waarman 17 9936GV Farmsum | 2:40 |
| _C | Waarman 19 9936GV Farmsum | 2:43 |
| _D | Waarman 21 9936GV Farmsum | 2:47 |
| _E | Waarman 23 9936GV Farmsum | 2:54 |
| _F | Waarman 25 9936GV Farmsum | 3:05 |
| _G | Waarman 27 9936GV Farmsum | 3:05 |
| _H | Waarman 29 9936GV Farmsum | 3:04 |
| _I | Heemskesweg 5 9936HE Farmsum | 8:23 |
| _J | Geefsweersterweg 2 9937TC Meedhuizen | 2:23 |
| _K | Seendweg 12 9936GA Farmsum | 0:33 |
| _L | Schepperij 39 9936GM Farmsum | 2:14 |
| _M | Schepperij 43 9936GM Farmsum | 2:17 |
| _N | Zijlvest 14 A 9936GZ Farmsum | 2:17 |
| _O | Zijlvest 24 A 9936GZ Farmsum | 2:44 |
| A | Familie Bronsweg 60 9945TA Wagenborgen | 12:38 |
| AA | Hoofdweg 26 9945PG Wagenborgen | 0:00 |
| AB | Hoofdweg 23 9945PA Wagenborgen | 0:00 |
| AC | Hoofdweg 25 9945PA Wagenborgen | 0:00 |
| AD | Hoofdweg 27 9945PA Wagenborgen | 0:00 |
| AE | Hoofdweg 29 9945PA Wagenborgen | 0:00 |
| AF | Hoofdweg 18 9945PG Wagenborgen | 0:00 |
| AG | Hoofdweg 14 9945PG Wagenborgen | 0:00 |
| AH | Hoofdweg 10 9945PG Wagenborgen | 0:00 |
| AI | Hoofdweg 8 9945PG Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer 3 februari 2017

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| AJ | Hoofdweg 6 9945PG Wagenborgen | 0:00 |
| AK | Hoofdweg 4 9945PG Wagenborgen | 0:00 |
| AL | Hoofdweg 21 9945PA Wagenborgen | 0:00 |
| AM | Hoofdweg 19 9945PA Wagenborgen | 0:00 |
| AN | Hoofdweg 2 9945PG Wagenborgen | 0:00 |
| AO | Hoofdweg 15 9945PA Wagenborgen | 0:00 |
| AP | Hoofdweg 9 9945PA Wagenborgen | 0:00 |
| AQ | Hoofdweg 11 9945PA Wagenborgen | 0:00 |
| AR | Hoofdweg 7 9945PA Wagenborgen | 0:00 |
| AS | Hoofdweg 5 9945PA Wagenborgen | 1:26 |
| AT | H.L. Emmensweg 17 9945PW Wagenborgen | 0:00 |
| AU | H.L. Emmensweg 18 9945PX Wagenborgen | 0:00 |
| AV | H.L. Emmensweg 20 9945PX Wagenborgen | 0:00 |
| AW | H.L. Emmensweg 22 9945PX Wagenborgen | 0:00 |
| AX | H.L. Emmensweg 24 9945PX Wagenborgen | 0:00 |
| AY | H.L. Emmensweg 26 9945PX Wagenborgen | 0:00 |
| AZ | H.L. Emmensweg 10 9945PX Wagenborgen | 0:00 |
| B | Tolhek 4 9945TJ Wagenborgen | 33:24 |
| BA | H.L. Emmensweg 12 9945PX Wagenborgen | 0:00 |
| BB | H.L. Emmensweg 14 9945PX Wagenborgen | 0:00 |
| BC | H.L. Emmensweg 16 9945PX Wagenborgen | 0:00 |
| BD | H.L. Emmensweg 13 9945PW Wagenborgen | 0:00 |
| BE | H.L. Emmensweg 15 9945PW Wagenborgen | 0:00 |
| BF | H.L. Emmensweg 9 9945PW Wagenborgen | 0:00 |
| BG | H.L. Emmensweg 11 9945PW Wagenborgen | 0:00 |
| BH | H.L. Emmensweg 5 9945PW Wagenborgen | 0:00 |
| BI | H.L. Emmensweg 7 9945PW Wagenborgen | 0:00 |
| BJ | H.L. Emmensweg 4 9945PX Wagenborgen | 0:00 |
| BK | H.L. Emmensweg 2 9945PX Wagenborgen | 0:00 |
| BL | H.L. Emmensweg 1 9945PW Wagenborgen | 0:00 |
| BM | H.L. Emmensweg 3 9945PW Wagenborgen | 0:00 |
| BN | de Linden 4 9945PZ Wagenborgen | 0:00 |
| BO | de Linden 6 9945PZ Wagenborgen | 0:00 |
| BP | de Linden 10 9945PZ Wagenborgen | 0:00 |
| BQ | de Linden 12 9945PZ Wagenborgen | 0:00 |
| BR | de Linden 2 9945PZ Wagenborgen | 0:00 |
| BS | de Wilgen 12 9945RB Wagenborgen | 0:00 |
| BT | de Wilgen 10 9945RB Wagenborgen | 0:00 |
| BU | de Wilgen 8 9945RB Wagenborgen | 0:00 |
| BV | de Wilgen 2 9945RB Wagenborgen | 0:00 |
| BW | de Wilgen 4 9945RB Wagenborgen | 0:00 |
| BX | de Wilgen 6 9945RB Wagenborgen | 0:00 |
| BY | de Wilgen 6 A 9945RB Wagenborgen | 0:00 |
| BZ | de Wilgen 3 9945RB Wagenborgen | 0:00 |
| C | Tolhek 1 9945TJ Wagenborgen | 9:56 |
| CA | de Wilgen 3 A 9945RB Wagenborgen | 0:00 |
| CB | de Wilgen 3 B 9945RB Wagenborgen | 0:00 |
| CC | de Wilgen 5 9945RB Wagenborgen | 0:00 |
| CD | de Wilgen 46 9945RB Wagenborgen | 0:00 |
| CE | de Wilgen 44 9945RB Wagenborgen | 0:00 |
| CF | de Wilgen 48 9945RB Wagenborgen | 0:00 |
| CG | de Wilgen 50 9945RB Wagenborgen | 0:00 |
| CH | de Wilgen 36 9945RB Wagenborgen | 0:00 |
| CI | de Wilgen 38 9945RB Wagenborgen | 0:00 |
| CJ | de Wilgen 40 9945RB Wagenborgen | 0:00 |
| CK | de Wilgen 42 9945RB Wagenborgen | 0:00 |
| CL | de Wilgen 28 9945RB Wagenborgen | 0:00 |
| CM | de Wilgen 30 9945RB Wagenborgen | 0:00 |
| CN | de Wilgen 32 9945RB Wagenborgen | 0:00 |
| CO | de Wilgen 34 9945RB Wagenborgen | 0:00 |
| CP | de Wilgen 24 9945TK Wagenborgen | 0:00 |
| CQ | de Wilgen 26 9945RB Wagenborgen | 0:00 |
| CR | de Wilgen 20 9945RB Wagenborgen | 0:00 |

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3-2-2017 0:09/3.0.654

# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer 3 februari 2017

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| CS | de Wilgen 22 9945RB Wagenborgen | 0:00 |
| CT | de Wilgen 18 9945RB Wagenborgen | 0:00 |
| CU | de Wilgen 16 9945RB Wagenborgen | 0:00 |
| CV | de Wilgen 14 9945RB Wagenborgen | 0:00 |
| CW | de Wilgen 9 9945RB Wagenborgen | 0:00 |
| CX | de Wilgen 52 9945RB Wagenborgen | 1:15 |
| CY | Menterne 22 9945RA Wagenborgen | 0:00 |
| CZ | Menterne 18 9945RA Wagenborgen | 0:00 |
| D | Familie Bronsweg 62 9945TA Wagenborgen | 11:45 |
| DA | Menterne 21 9945RA Wagenborgen | 0:00 |
| DB | Menterne 19 9945RA Wagenborgen | 0:00 |
| DC | Menterne 20 9945RA Wagenborgen | 0:00 |
| DD | Menterne 17 9945RA Wagenborgen | 0:00 |
| DE | Menterne 7 9945RA Wagenborgen | 0:00 |
| DF | Menterne 8 9945RA Wagenborgen | 0:00 |
| DG | Menterne 9 9945RA Wagenborgen | 0:00 |
| DH | Menterne 10 9945RA Wagenborgen | 0:00 |
| DI | Menterne 11 9945RA Wagenborgen | 0:00 |
| DJ | Menterne 12 9945RA Wagenborgen | 0:00 |
| DK | Menterne 13 9945RA Wagenborgen | 0:00 |
| DL | Menterne 14 9945RA Wagenborgen | 0:00 |
| DM | Menterne 1 9945RA Wagenborgen | 0:00 |
| DN | Menterne 2 9945RA Wagenborgen | 0:00 |
| DO | Menterne 3 9945RA Wagenborgen | 0:00 |
| DP | Menterne 4 9945RA Wagenborgen | 0:00 |
| DQ | Menterne 5 9945RA Wagenborgen | 0:00 |
| DR | Menterne 6 9945RA Wagenborgen | 0:00 |
| DS | Menterne 15 9945RA Wagenborgen | 0:00 |
| DT | Menterne 16 9945RA Wagenborgen | 0:00 |
| DU | de Berken 6 9945PT Wagenborgen | 0:00 |
| DV | de Berken 2 9945PT Wagenborgen | 0:00 |
| DW | de Berken 4 9945PT Wagenborgen | 0:00 |
| DX | de Berken 1 9945PT Wagenborgen | 0:00 |
| DY | de Berken 5 9945PT Wagenborgen | 0:00 |
| DZ | de Berken 7 9945PT Wagenborgen | 0:00 |
| E | Meerweg 3 9945RC Wagenborgen | 0:00 |
| EA | de Berken 9 9945PT Wagenborgen | 0:00 |
| EB | de Eiken 14 9945VA Wagenborgen | 0:00 |
| EC | de Eiken 16 9945VA Wagenborgen | 0:00 |
| ED | de Eiken 2 9945VA Wagenborgen | 0:00 |
| EE | de Eiken 4 9945VA Wagenborgen | 0:00 |
| EF | de Eiken 6 9945VA Wagenborgen | 0:00 |
| EG | de Eiken 8 9945VA Wagenborgen | 0:00 |
| EH | de Eiken 10 9945VA Wagenborgen | 0:00 |
| EI | de Eiken 12 9945VA Wagenborgen | 0:00 |
| EJ | de Eiken 2 A 9945VA Wagenborgen | 0:00 |
| EK | Troostlaan 7 9945PV Wagenborgen | 0:00 |
| EL | Troostlaan 8 9945PV Wagenborgen | 0:00 |
| EM | Troostlaan 9 9945PV Wagenborgen | 0:00 |
| EN | Troostlaan 10 9945PV Wagenborgen | 0:00 |
| EO | Troostlaan 11 9945PV Wagenborgen | 0:00 |
| EP | Troostlaan 1 9945PV Wagenborgen | 0:00 |
| EQ | Troostlaan 2 9945PV Wagenborgen | 0:00 |
| ER | Troostlaan 3 9945PV Wagenborgen | 0:00 |
| ES | Troostlaan 2 A 9945PV Wagenborgen | 0:00 |
| ET | Troostlaan 4 9945PV Wagenborgen | 0:00 |
| EU | Troostlaan 14 9945PV Wagenborgen | 0:00 |
| EV | Troostlaan 22 9945PV Wagenborgen | 0:00 |
| EW | Troostlaan 20 9945PV Wagenborgen | 0:00 |
| EX | Troostlaan 21 9945PV Wagenborgen | 0:00 |
| EY | Troostlaan 18 9945PV Wagenborgen | 0:00 |
| EZ | Troostlaan 19 9945PV Wagenborgen | 0:00 |
| F | G. Boelmanweg 2 9945RJ Wagenborgen | 0:00 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer 3 februari 2017

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| FA | Familie Bronsweg 40 9945PS Wagenborgen | 1:40 |
| FB | Familie Bronsweg 44 9945PS Wagenborgen | 1:31 |
| FC | Familie Bronsweg 46 9945PS Wagenborgen | 1:30 |
| FD | Familie Bronsweg 48 9945PS Wagenborgen | 1:30 |
| FE | Familie Bronsweg 50 9945PS Wagenborgen | 1:29 |
| FF | Familie Bronsweg 79 9945PP Wagenborgen | 1:17 |
| FG | Familie Bronsweg 81 9945PP Wagenborgen | 1:17 |
| FH | Familie Bronsweg 36 9945PS Wagenborgen | 2:10 |
| FI | Familie Bronsweg 38 9945PS Wagenborgen | 1:44 |
| FJ | Familie Bronsweg 42 9945PS Wagenborgen | 1:31 |
| FK | Familie Bronsweg 54 9945PS Wagenborgen | 1:24 |
| FL | Familie Bronsweg 52 9945PS Wagenborgen | 1:25 |
| FM | Familie Bronsweg 50 B 9945PS Wagenborgen | 1:27 |
| FN | Familie Bronsweg 50 A 9945PS Wagenborgen | 1:27 |
| FO | Familie Bronsweg 75 9945PP Wagenborgen | 1:18 |
| FP | Familie Bronsweg 75 A 9945PP Wagenborgen | 1:17 |
| FQ | Familie Bronsweg 75 B 9945PP Wagenborgen | 1:17 |
| FR | Familie Bronsweg 71 9945PP Wagenborgen | 1:19 |
| FS | Familie Bronsweg 69 A 9945PP Wagenborgen | 1:21 |
| FT | Familie Bronsweg 69 9945PP Wagenborgen | 1:20 |
| FU | Familie Bronsweg 67 9945PP Wagenborgen | 1:21 |
| FV | Familie Bronsweg 65 9945PP Wagenborgen | 1:21 |
| FW | Familie Bronsweg 63 9945PP Wagenborgen | 1:23 |
| FX | Familie Bronsweg 61 9945PP Wagenborgen | 1:25 |
| FY | Familie Bronsweg 59 9945PP Wagenborgen | 1:31 |
| FZ | Familie Bronsweg 57 9945PP Wagenborgen | 1:34 |
| G | G. Boelmanweg 3 9945RE Wagenborgen | 0:00 |
| GA | Familie Bronsweg 53 9945PP Wagenborgen | 1:48 |
| GB | Familie Bronsweg 73 9945PP Wagenborgen | 1:19 |
| GC | Familie Bronsweg 85 9945PP Wagenborgen | 1:16 |
| GD | Familie Bronsweg 83 9945PP Wagenborgen | 1:17 |
| GE | Familie Bronsweg 83 A 9945PP Wagenborgen | 1:16 |
| GF | Familie Bronsweg 77 9945PP Wagenborgen | 1:08 |
| GG | Familie Bronsweg 51 9945PP Wagenborgen | 1:43 |
| GH | Familie Bronsweg 2 9945PR Wagenborgen | 1:21 |
| GI | Familie Bronsweg 4 9945PR Wagenborgen | 1:18 |
| GJ | Familie Bronsweg 4 A 9945PR Wagenborgen | 1:14 |
| GK | Familie Bronsweg 6 9945PR Wagenborgen | 1:12 |
| GL | Familie Bronsweg 8 9945PR Wagenborgen | 1:14 |
| GM | Familie Bronsweg 10 9945PR Wagenborgen | 1:17 |
| GN | Familie Bronsweg 12 9945PR Wagenborgen | 1:08 |
| GO | Familie Bronsweg 14 9945PR Wagenborgen | 1:10 |
| GP | Familie Bronsweg 16 9945PR Wagenborgen | 1:10 |
| GQ | Familie Bronsweg 15 9945PN Wagenborgen | 0:50 |
| GR | Familie Bronsweg 17 9945PN Wagenborgen | 1:03 |
| GS | Familie Bronsweg 2 A 9945PR Wagenborgen | 2:09 |
| GT | Familie Bronsweg 2 B 9945PR Wagenborgen | 3:15 |
| GU | Familie Bronsweg 2 C 9945PR Wagenborgen | 3:02 |
| GV | Familie Bronsweg 2 D 9945PR Wagenborgen | 2:57 |
| GW | Familie Bronsweg 2 F 9945PR Wagenborgen | 3:37 |
| GX | Familie Bronsweg 2 G 9945PR Wagenborgen | 4:21 |
| GY | Familie Bronsweg 2 H 9945PR Wagenborgen | 3:55 |
| GZ | Familie Bronsweg 2 J 9945PR Wagenborgen | 3:31 |
| H | G. Boelmanweg 5 9945RE Wagenborgen | 0:00 |
| HA | Akeleistraat 17 9945VD Wagenborgen | 2:14 |
| HB | Akeleistraat 19 9945VD Wagenborgen | 2:07 |
| HC | Akeleistraat 21 9945VD Wagenborgen | 1:59 |
| HD | Akeleistraat 23 9945VD Wagenborgen | 1:54 |
| HE | Akeleistraat 20 9945VD Wagenborgen | 1:45 |
| HF | Akeleistraat 22 9945VD Wagenborgen | 1:42 |
| HG | Akeleistraat 16 9945VD Wagenborgen | 2:00 |
| HH | Akeleistraat 18 9945VD Wagenborgen | 1:56 |
| HI | Akeleistraat 12 9945VD Wagenborgen | 2:17 |

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# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer 3 februari 2017

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| HJ | Akeleistraat 14 9945VD Wagenborgen | 2:13 |
| HK | Akeleistraat 10 9945VD Wagenborgen | 2:38 |
| HL | Akeleistraat 1 9945VD Wagenborgen | 4:57 |
| HM | Akeleistraat 3 9945VD Wagenborgen | 4:58 |
| HN | Akeleistraat 5 9945VD Wagenborgen | 5:06 |
| HO | Akeleistraat 7 9945VD Wagenborgen | 5:00 |
| HP | Akeleistraat 9 9945VD Wagenborgen | 4:38 |
| HQ | Akeleistraat 11 9945VD Wagenborgen | 3:04 |
| HR | Akeleistraat 2 9945VD Wagenborgen | 4:22 |
| HS | Akeleistraat 4 9945VD Wagenborgen | 4:21 |
| HT | Akeleistraat 6 9945VD Wagenborgen | 3:50 |
| HU | Akeleistraat 8 9945VD Wagenborgen | 3:46 |
| HV | Akeleistraat 15 9945VD Wagenborgen | 2:26 |
| HW | Bremstraat 6 9945VC Wagenborgen | 2:53 |
| HX | Bremstraat 2 9945VC Wagenborgen | 3:34 |
| HY | Bremstraat 4 9945VC Wagenborgen | 3:26 |
| HZ | Bremstraat 12 9945VC Wagenborgen | 1:52 |
| I | G. Boelmanweg 4 9945RJ Wagenborgen | 0:00 |
| IA | Hibiscusstraat 30 9945VB Wagenborgen | 2:46 |
| IB | Hibiscusstraat 2 9945VB Wagenborgen | 2:08 |
| IC | Hibiscusstraat 4 9945VB Wagenborgen | 2:37 |
| ID | Hibiscusstraat 10 9945VB Wagenborgen | 1:52 |
| IE | Hibiscusstraat 16 9945VB Wagenborgen | 2:39 |
| IF | Bremstraat 14 9945VC Wagenborgen | 1:43 |
| IG | Hibiscusstraat 6 9945VB Wagenborgen | 2:24 |
| IH | Hibiscusstraat 26 9945VB Wagenborgen | 3:21 |
| II | Kopaf 8 9945TE Wagenborgen | 6:47 |
| IJ | Kopaf 7 9945TE Wagenborgen | 3:37 |
| IK | Kopaf 6 9945TE Wagenborgen | 5:53 |
| IL | Kloosterlaan 27 9945TG Wagenborgen | 62:33 |
| IM | Kloosterlaan 25 9945TG Wagenborgen | 69:16 |
| IN | Kloosterlaan 23 9945TG Wagenborgen | 74:12 |
| IO | Scheve Klap 5 9945TD Wagenborgen | 0:00 |
| IP | Scheve Klap 4 9945TD Wagenborgen | 0:00 |
| IQ | Hibiscusstraat 8 9945VB Wagenborgen | 2:02 |
| IR | Hibiscusstraat 12 9945VB Wagenborgen | 1:50 |
| IS | Hibiscusstraat 18 9945VB Wagenborgen | 3:06 |
| IT | Hibiscusstraat 24 9945VB Wagenborgen | 2:33 |
| IU | Hibiscusstraat 22 9945VB Wagenborgen | 2:53 |
| IV | Troostlaan 15 9945PV Wagenborgen | 0:00 |
| IW | Bremstraat 10 9945VC Wagenborgen | 2:06 |
| IX | Hibiscusstraat 20 9945VB Wagenborgen | 3:17 |
| IY | Hibiscusstraat 28 9945VB Wagenborgen | 3:31 |
| IZ | Troostlaan 5 9945PV Wagenborgen | 0:00 |
| J | G. Boelmanweg 7 9945RE Wagenborgen | 0:00 |
| JA | Troostlaan 6 9945PV Wagenborgen | 0:00 |
| JB | Boslaan 5 9945TM Wagenborgen | 4:37 |
| JC | Hoofdweg 33 A 9945PB Wagenborgen | 0:00 |
| JD | Akeleistraat 13 9945VD Wagenborgen | 4:16 |
| JE | Hoofdweg 42 9945PG Wagenborgen | 0:00 |
| JF | Familie Bronsweg 2 E 9945PR Wagenborgen | 3:13 |
| JG | Hibiscusstraat 14 9945VB Wagenborgen | 2:07 |
| JH | Bremstraat 8 9945VC Wagenborgen | 2:27 |
| JI | Menterne 23 003 9945RA Wagenborgen | 0:54 |
| JJ | Menterne 23 004 9945RA Wagenborgen | 0:57 |
| JK | Menterne 23 005 9945RA Wagenborgen | 1:02 |
| JL | Menterne 23 006 9945RA Wagenborgen | 1:05 |
| JM | Menterne 23 007 9945RA Wagenborgen | 1:04 |
| JN | Menterne 23 008 9945RA Wagenborgen | 1:02 |
| JO | Menterne 23 009 9945RA Wagenborgen | 0:57 |
| JP | Menterne 23 010 9945RA Wagenborgen | 0:56 |
| JQ | Menterne 23 017 9945RA Wagenborgen | 0:33 |
| JR | Menterne 23 030 9945RA Wagenborgen | 0:00 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer 3 februari 2017

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| JS | Menterne 23 103 9945RA Wagenborgen | 0:53 |
| JT | Menterne 23 104 9945RA Wagenborgen | 0:57 |
| JU | Menterne 23 105 9945RA Wagenborgen | 1:01 |
| JV | Menterne 23 106 9945RA Wagenborgen | 1:05 |
| JW | Menterne 23 107 9945RA Wagenborgen | 1:05 |
| JX | Menterne 23 108 9945RA Wagenborgen | 1:03 |
| JY | Menterne 23 109 9945RA Wagenborgen | 0:58 |
| JZ | Menterne 23 110 9945RA Wagenborgen | 0:57 |
| K | G. Boelmanweg 6 9945RJ Wagenborgen | 0:00 |
| KA | Menterne 23 111 9945RA Wagenborgen | 0:54 |
| KB | Menterne 23 113 9945RA Wagenborgen | 0:41 |
| KC | Menterne 23 114 9945RA Wagenborgen | 0:37 |
| KD | Menterne 23 115 9945RA Wagenborgen | 0:34 |
| KE | Menterne 23 116 9945RA Wagenborgen | 0:31 |
| KF | Menterne 23 117 9945RA Wagenborgen | 0:29 |
| KG | Menterne 23 118 9945RA Wagenborgen | 0:27 |
| KH | Menterne 23 119 9945RA Wagenborgen | 0:00 |
| KI | Menterne 23 120 9945RA Wagenborgen | 0:00 |
| KJ | Menterne 23 121 9945RA Wagenborgen | 0:00 |
| KK | Menterne 23 122 9945RA Wagenborgen | 0:00 |
| KL | Menterne 23 123 9945RA Wagenborgen | 0:00 |
| KM | Menterne 23 124 9945RA Wagenborgen | 0:00 |
| KN | Menterne 23 125 9945RA Wagenborgen | 0:00 |
| KO | Menterne 23 126 9945RA Wagenborgen | 0:00 |
| KP | Menterne 23 127 9945RA Wagenborgen | 0:00 |
| KQ | Menterne 23 128 9945RA Wagenborgen | 0:00 |
| KR | Menterne 23 129 9945RA Wagenborgen | 0:00 |
| KS | Menterne 23 130 9945RA Wagenborgen | 0:00 |
| KT | Menterne 23 131 9945RA Wagenborgen | 0:36 |
| KU | Menterne 23 132 9945RA Wagenborgen | 0:38 |
| KV | Menterne 23 201 9945RA Wagenborgen | 0:47 |
| KW | Menterne 23 202 9945RA Wagenborgen | 0:49 |
| KX | Menterne 23 203 9945RA Wagenborgen | 0:52 |
| KY | Menterne 23 204 9945RA Wagenborgen | 0:56 |
| KZ | Menterne 23 205 9945RA Wagenborgen | 0:59 |
| L | Kokslaan 1 9945RD Wagenborgen | 0:00 |
| LA | Menterne 23 206 9945RA Wagenborgen | 1:03 |
| LB | Menterne 23 207 9945RA Wagenborgen | 1:05 |
| LC | Menterne 23 208 9945RA Wagenborgen | 1:03 |
| LD | Menterne 23 209 9945RA Wagenborgen | 1:01 |
| LE | Menterne 23 210 9945RA Wagenborgen | 0:57 |
| LF | Menterne 23 211 9945RA Wagenborgen | 0:54 |
| LG | Menterne 23 212 9945RA Wagenborgen | 0:51 |
| LH | Menterne 23 213 9945RA Wagenborgen | 0:42 |
| LI | Menterne 23 214 9945RA Wagenborgen | 0:38 |
| LJ | Menterne 23 215 9945RA Wagenborgen | 0:35 |
| LK | Menterne 23 216 9945RA Wagenborgen | 0:32 |
| LL | Menterne 23 217 9945RA Wagenborgen | 0:30 |
| LM | Menterne 23 218 9945RA Wagenborgen | 0:00 |
| LN | Menterne 23 219 9945RA Wagenborgen | 0:00 |
| LO | Menterne 23 220 9945RA Wagenborgen | 0:00 |
| LP | Menterne 23 221 9945RA Wagenborgen | 0:00 |
| LQ | Menterne 23 222 9945RA Wagenborgen | 0:00 |
| LR | Menterne 23 223 9945RA Wagenborgen | 0:00 |
| LS | Menterne 23 224 9945RA Wagenborgen | 0:00 |
| LT | Menterne 23 226 9945RA Wagenborgen | 0:00 |
| LU | Menterne 23 228 9945RA Wagenborgen | 0:00 |
| LV | Menterne 23 229 9945RA Wagenborgen | 0:00 |
| LW | Menterne 23 230 9945RA Wagenborgen | 0:00 |
| LX | Menterne 23 231 9945RA Wagenborgen | 0:36 |
| LY | Menterne 23 232 9945RA Wagenborgen | 0:37 |
| LZ | G. Boelmanweg 1 9945RE Wagenborgen | 0:00 |
| M | Kokslaan 2 9945RD Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer 3 februari 2017

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| MA | Boslaan 7 9945TM Wagenborgen | 0:00 |
| MB | H.L. Emmensweg 23 9945PW Wagenborgen | 0:00 |
| MC | Kopaf 5 9944VA Nieuwolda | 0:00 |
| MD | Familie Bronsweg 68 9945TA Wagenborgen | 17:49 |
| ME | Maarkampen 26 9937PL Meedhuizen | 0:00 |
| MF | Maarkampen 24 9937PL Meedhuizen | 0:00 |
| MG | Maarkampen 22 9937PL Meedhuizen | 0:00 |
| MH | Maarkampen 20 9937PL Meedhuizen | 0:00 |
| MI | Maarkampen 18 9937PL Meedhuizen | 0:00 |
| MJ | Maarkampen 16 9937PL Meedhuizen | 0:00 |
| MK | Maarkampen 14 9937PL Meedhuizen | 0:00 |
| ML | Maarlaan 22 E 9937TH Meedhuizen | 0:00 |
| MM | Maarlaan 22 D 9937TH Meedhuizen | 0:00 |
| MN | Schaapbulterweg 8 9937TL Meedhuizen | 0:00 |
| MO | Schaapbulterweg 6 9937TL Meedhuizen | 0:00 |
| MP | Schaapbulterweg 29 9937TL Meedhuizen | 0:00 |
| MQ | Schaapbulterweg 27 9937TL Meedhuizen | 0:00 |
| MR | Schaapbulterweg 25 9937TL Meedhuizen | 0:00 |
| MS | Schaapbulterweg 23 9937TL Meedhuizen | 0:00 |
| MT | Schaapbulterweg 21 9937TL Meedhuizen | 0:00 |
| MU | Geefsweersterweg 11 9937TB Meedhuizen | 0:00 |
| MV | Schaapbulterweg 35 9937TL Meedhuizen | 0:00 |
| MW | Meedhuizerweg 20 9937TK Meedhuizen | 0:00 |
| MX | Familie Bronsweg 66 9945TA Wagenborgen | 21:57 |
| MY | Familie Bronsweg 64 9945TA Wagenborgen | 22:11 |
| MZ | Ideweersterweg 10 9937TM Meedhuizen | 0:00 |
| N | Kerkstraat 1 9945SB Wagenborgen | 0:00 |
| NA | Ideweersterweg 8 9937TM Meedhuizen | 0:23 |
| NB | Geefsweersterweg 20 9937TC Meedhuizen | 2:11 |
| NC | Geefsweersterweg 18 9937TC Meedhuizen | 1:51 |
| ND | Geefsweersterweg 29 9937TB Meedhuizen | 1:55 |
| NE | Geefsweersterweg 16 9937TC Meedhuizen | 1:27 |
| NF | Geefsweersterweg 23 9937TB Meedhuizen | 1:01 |
| NG | Geefsweersterweg 12 9937TC Meedhuizen | 1:03 |
| NH | Geefsweersterweg 14 9937TC Meedhuizen | 1:03 |
| NI | Geefsweersterweg 21 A 9937TB Meedhuizen | 0:58 |
| NJ | Geefsweersterweg 10 9937TC Meedhuizen | 0:59 |
| NK | Geefsweersterweg 21 9937TB Meedhuizen | 0:58 |
| NL | Geefsweersterweg 17 9937TB Meedhuizen | 0:52 |
| NM | Geefsweersterweg 19 9937TB Meedhuizen | 0:54 |
| NN | Ideweersterweg 2 9937TM Meedhuizen | 85:03 |
| NO | Ideweersterweg 1 9937TM Meedhuizen | 85:01 |
| NP | Geefsweersterweg 15 9937TB Meedhuizen | 0:00 |
| NQ | Westerlaan 6 9937TS Meedhuizen | 82:19 |
| NR | Familie Bronsweg 87 9945TA Wagenborgen | 86:39 |
| NS | Familie Bronsweg 89 9945TA Wagenborgen | 11:14 |
| NT | Westerlaan 10 9937TS Meedhuizen | 50:23 |
| NU | Geefsweersterweg 13 9937TB Meedhuizen | 0:00 |
| NV | Maarlaan 26 9937TH Meedhuizen | 0:00 |
| NW | Maarlaan 24 9937TH Meedhuizen | 0:00 |
| NX | Maarlaan 28 9937TH Meedhuizen | 0:00 |
| NY | Maarlaan 30 9937TH Meedhuizen | 0:00 |
| NZ | Kerklaan 3 9937PG Meedhuizen | 0:00 |
| O | Hoofdweg 30 9945PG Wagenborgen | 0:00 |
| OA | Kerklaan 8 9937PG Meedhuizen | 0:00 |
| OB | Kerklaan 6 9937PG Meedhuizen | 0:00 |
| OC | Opmeedenlaan 6 9937TN Meedhuizen | 0:00 |
| OD | Opmeedenlaan 4 9937TN Meedhuizen | 0:00 |
| OE | Opmeedenlaan 2 9937TN Meedhuizen | 0:00 |
| OF | Kloosterlaan 26 9945TG Wagenborgen | 123:11 |
| OG | Zomerdijk 1 9945TH Wagenborgen | 105:42 |
| OH | Zomerdijk 3 9945TH Wagenborgen | 114:41 |
| OI | Zomerdijk 3 A 9945TH Wagenborgen | 126:16 |

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# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer 3 februari 2017

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| OJ | Zomerdijk 2 9945TH Wagenborgen | 122:07 |
| OK | Kloosterlaan 21 A 9945TG Wagenborgen | 108:26 |
| OL | Kloosterlaan 21 B 9945TG Wagenborgen | 112:14 |
| OM | Ideweersterweg 4 9937TM Meedhuizen | 7:17 |
| ON | Maarlaan 22 C 9937TH Meedhuizen | 0:00 |
| OO | Kloosterlaan 21 9936TE Farmsum | 58:14 |
| OP | Geefsweersterweg 8 A 9937TC Meedhuizen | 0:00 |
| OQ | Houtweg 20 9936BL Farmsum | 0:00 |
| OR | Houtweg 22 9936BL Farmsum | 0:00 |
| OS | Houtweg 24 9936BL Farmsum | 0:00 |
| OT | Houtweg 26 9936BL Farmsum | 0:00 |
| OU | Houtweg 28 9936BL Farmsum | 0:00 |
| OV | Rondeboslaan 6 9936BK Farmsum | 0:23 |
| OW | Proosdij 14 9936EW Farmsum | 1:39 |
| OX | Bredelaan 6 9936ER Farmsum | 1:01 |
| OY | Bredelaan 4 9936ER Farmsum | 0:58 |
| OZ | Bredelaan 2 A 9936ER Farmsum | 0:36 |
| P | Hoofdweg 32 9945PG Wagenborgen | 0:00 |
| PA | Proosdij 24 9936EW Farmsum | 0:43 |
| PB | Proosdij 22 9936EW Farmsum | 0:51 |
| PC | Proosdij 20 9936EW Farmsum | 1:00 |
| PD | Proosdij 18 9936EW Farmsum | 1:18 |
| PE | Proosdij 16 9936EW Farmsum | 1:24 |
| PF | Trambaan 19 9936ES Farmsum | 0:53 |
| PG | Proosdij 17 9936ET Farmsum | 1:27 |
| PH | Proosdij 15 9936ET Farmsum | 1:35 |
| PI | Proosdij 13 9936ET Farmsum | 1:37 |
| PJ | Trambaan 17 9936ES Farmsum | 0:58 |
| PK | Trambaan 15 9936ES Farmsum | 1:06 |
| PL | Trambaan 13 9936ES Farmsum | 1:10 |
| PM | Trambaan 11 9936ES Farmsum | 1:13 |
| PN | Trambaan 9 9936ES Farmsum | 1:17 |
| PO | Trambaan 5 9936ES Farmsum | 1:17 |
| PP | Trambaan 3 9936ES Farmsum | 1:02 |
| PQ | Trambaan 1 9936ES Farmsum | 0:58 |
| PR | Proosdij 12 9936EW Farmsum | 1:56 |
| PS | Proosdij 8 9936EW Farmsum | 1:35 |
| PT | Proosdij 6 9936EW Farmsum | 1:24 |
| PU | Proosdij 4 9936EW Farmsum | 1:19 |
| PV | Proosdij 11 9936ET Farmsum | 1:26 |
| PW | Proosdij 9 9936ET Farmsum | 1:18 |
| PX | Proosdij 7 9936ET Farmsum | 1:11 |
| PY | Proosdij 5 9936ET Farmsum | 1:09 |
| PZ | Proosdij 1 9936ET Farmsum | 0:47 |
| Q | Hoofdweg 31 9945PA Wagenborgen | 0:00 |
| QA | Proosdij 3 9936ET Farmsum | 1:06 |
| QB | Farmsumerzijl 55 9936GC Farmsum | 0:41 |
| QC | Farmsumerzijl 57 9936GC Farmsum | 0:34 |
| QD | Rengersweg 4 9936GH Farmsum | 1:01 |
| QE | Rengersweg 2 9936GH Farmsum | 1:08 |
| QF | Schepperij 4 A 9936GN Farmsum | 0:54 |
| QG | Schepperij 2 A 9936GN Farmsum | 0:51 |
| QH | Schepperij 4 9936GN Farmsum | 0:52 |
| QI | Schepperij 2 9936GN Farmsum | 0:49 |
| QJ | Dijkrecht 4 9936GK Farmsum | 1:53 |
| QK | Dijkrecht 6 9936GK Farmsum | 1:43 |
| QL | Dijkrecht 10 9936GK Farmsum | 1:32 |
| QM | Dijkrecht 12 9936GK Farmsum | 1:31 |
| QN | Dijkrecht 14 9936GK Farmsum | 1:28 |
| QO | Dijkrecht 16 9936GK Farmsum | 1:25 |
| QP | Dijkrecht 18 9936GK Farmsum | 1:21 |
| QQ | Dijkrecht 20 9936GK Farmsum | 1:17 |
| QR | Dijkrecht 22 9936GK Farmsum | 1:16 |

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# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer 3 februari 2017

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| QS | Dijkrecht 24 9936GK Farmsum | 1:21 |
| QT | Dijkrecht 26 9936GK Farmsum | 1:31 |
| QU | Dijkrecht 28 9936GK Farmsum | 1:34 |
| QV | Dijkrecht 30 9936GK Farmsum | 1:43 |
| QW | Dijkrecht 32 9936GK Farmsum | 1:46 |
| QX | Dijkrecht 34 9936GK Farmsum | 1:52 |
| QY | Dijkrecht 36 9936GK Farmsum | 1:57 |
| QZ | Dijkrecht 40 9936GK Farmsum | 2:09 |
| R | Hoofdweg 38 9945PG Wagenborgen | 0:00 |
| RA | Dijkrecht 38 9936GK Farmsum | 2:04 |
| RB | Schepperij 20 9936GN Farmsum | 1:50 |
| RC | Schepperij 18 9936GN Farmsum | 1:49 |
| RD | Waarman 12 9936GW Farmsum | 2:50 |
| RE | Waarman 10 9936GW Farmsum | 2:28 |
| RF | Waarman 8 9936GW Farmsum | 2:25 |
| RG | Waarman 6 9936GW Farmsum | 2:25 |
| RH | Farmsumerzijl 1 9936GB Farmsum | 2:04 |
| RI | Farmsumerzijl 3 9936GB Farmsum | 2:01 |
| RJ | Farmsumerzijl 5 9936GB Farmsum | 1:50 |
| RK | Farmsumerzijl 7 9936GB Farmsum | 1:49 |
| RL | Farmsumerzijl 13 9936GB Farmsum | 1:33 |
| RM | Farmsumerzijl 15 9936GB Farmsum | 1:34 |
| RN | Farmsumerzijl 17 9936GB Farmsum | 1:37 |
| RO | Farmsumerzijl 19 9936GB Farmsum | 1:38 |
| RP | Farmsumerzijl 25 9936GB Farmsum | 1:51 |
| RQ | Farmsumerzijl 27 9936GB Farmsum | 1:53 |
| RR | Farmsumerzijl 29 9936GB Farmsum | 2:04 |
| RS | Farmsumerzijl 31 9936GC Farmsum | 2:07 |
| RT | Farmsumerzijl 37 9936GC Farmsum | 2:22 |
| RU | Farmsumerzijl 39 9936GC Farmsum | 2:25 |
| RV | Farmsumerzijl 41 9936GC Farmsum | 2:36 |
| RW | Farmsumerzijl 43 9936GC Farmsum | 2:39 |
| RX | Schepperij 1 9936GL Farmsum | 0:55 |
| RY | Schepperij 3 9936GL Farmsum | 0:58 |
| RZ | Schepperij 5 9936GL Farmsum | 1:00 |
| S | Hoofdweg 39 9945PB Wagenborgen | 0:00 |
| SA | Schepperij 7 9936GL Farmsum | 1:00 |
| SB | Schepperij 9 9936GL Farmsum | 1:03 |
| SC | Schepperij 11 9936GL Farmsum | 1:04 |
| SD | Schepperij 13 9936GL Farmsum | 1:08 |
| SE | Schepperij 15 9936GL Farmsum | 1:08 |
| SF | Dijkrecht 8 9936GK Farmsum | 1:39 |
| SG | Geefsweersterweg 9 9937TB Meedhuizen | 0:00 |
| SH | Geefsweersterweg 7 9937TB Meedhuizen | 2:41 |
| SI | Geefsweersterweg 8 9937TC Meedhuizen | 3:11 |
| SJ | Geefsweersterweg 3 9937TB Meedhuizen | 2:23 |
| SK | Geefsweersterweg 6 9937TC Meedhuizen | 2:58 |
| SL | Geefsweersterweg 4 9937TC Meedhuizen | 3:05 |
| SM | Meedhuizerweg 2 9937TK Meedhuizen | 0:00 |
| SN | Molenstraat 31 9936EB Farmsum | 3:10 |
| SO | Hindrik Jagerstraat 32 9936CV Farmsum | 0:56 |
| SP | Hindrik Jagerstraat 11 9936CT Farmsum | 0:53 |
| SQ | Hindrik Jagerstraat 13 9936CT Farmsum | 0:58 |
| SR | Hindrik Jagerstraat 15 9936CT Farmsum | 0:58 |
| SS | Hindrik Jagerstraat 34 9936CV Farmsum | 1:02 |
| ST | Hindrik Jagerstraat 36 9936CV Farmsum | 1:05 |
| SU | Borgshof 31 9936CR Farmsum | 1:18 |
| SV | Borgshof 33 9936CR Farmsum | 1:17 |
| SW | Borgshof 39 9936CR Farmsum | 1:28 |
| SX | Borgshof 35 9936CR Farmsum | 1:19 |
| SY | Molenstraat 20 9936EC Farmsum | 3:32 |
| SZ | Molenstraat 24 9936EC Farmsum | 4:26 |
| T | Hoofdweg 35 9945PB Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer 3 februari 2017

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| TA | Molenstraat 28 9936EC Farmsum | 4:36 |
| TB | Molenstraat 41 9936EB Farmsum | 3:49 |
| TC | Molenstraat 43 9936EB Farmsum | 4:14 |
| TD | Molenstraat 45 9936EB Farmsum | 4:26 |
| TE | Molenstraat 32 9936EC Farmsum | 4:36 |
| TF | Achterweg 13 9936EG Farmsum | 4:48 |
| TG | Achterweg 11 9936EG Farmsum | 4:49 |
| TH | Achterweg 9 9936EG Farmsum | 4:50 |
| TI | Molenstraat 49 9936EB Farmsum | 4:25 |
| TJ | Molenstraat 51 9936EB Farmsum | 4:27 |
| TK | Molenstraat 53 9936EB Farmsum | 4:22 |
| TL | Molenstraat 57 9936EB Farmsum | 4:01 |
| TM | Molenstraat 61 9936EB Farmsum | 3:36 |
| TN | Molenstraat 63 9936EB Farmsum | 3:14 |
| TO | Molenstraat 34 9936ED Farmsum | 4:27 |
| TP | Molenstraat 38 9936ED Farmsum | 4:06 |
| TQ | Molenstraat 40 9936ED Farmsum | 3:51 |
| TR | Molenstraat 42 9936ED Farmsum | 3:28 |
| TS | Molenstraat 44 9936ED Farmsum | 3:02 |
| TT | Molenstraat 65 9936EB Farmsum | 2:49 |
| TU | Molenstraat 48 9936ED Farmsum | 2:33 |
| TV | Molenstraat 50 9936ED Farmsum | 2:11 |
| TW | Molenstraat 56 9936ED Farmsum | 1:47 |
| TX | Molenstraat 58 9936EE Farmsum | 1:20 |
| TY | Molenstraat 62 9936EE Farmsum | 1:08 |
| TZ | Molenstraat 72 9936EE Farmsum | 0:50 |
| U | Hoofdweg 37 9945PB Wagenborgen | 0:00 |
| UA | Molenstraat 70 9936EE Farmsum | 0:50 |
| UB | Molenstraat 68 9936EE Farmsum | 0:50 |
| UC | Molenstraat 66 9936EE Farmsum | 0:48 |
| UD | Achterweg 2 9936EG Farmsum | 3:13 |
| UE | Achterweg 12 9936EG Farmsum | 1:33 |
| UF | Achterweg 10 9936EG Farmsum | 1:12 |
| UG | Achterweg 8 9936EG Farmsum | 1:14 |
| UH | Hindrik Jagerstraat 17 9936CT Farmsum | 1:06 |
| UI | Molenstraat 30 9936EC Farmsum | 4:37 |
| UJ | Borgweg 141 9936EN Farmsum | 0:20 |
| UK | Borgweg 139 9936EN Farmsum | 0:23 |
| UL | Borgweg 137 9936EN Farmsum | 0:25 |
| UM | Borgweg 135 9936EN Farmsum | 0:28 |
| UN | Afwateringskanaal 109 9936AV Farmsum | 0:35 |
| UO | Borgweg 131 9936EM Farmsum | 1:15 |
| UP | Borgweg 133 9936EM Farmsum | 1:19 |
| UQ | Borgshof 41 9936CR Farmsum | 1:29 |
| UR | Borgshof 43 9936CR Farmsum | 1:37 |
| US | Borgshof 45 9936CR Farmsum | 1:34 |
| UT | Molenstraat 74 9936EE Farmsum | 0:49 |
| UU | Molenstraat 76 9936EE Farmsum | 0:50 |
| UV | Molenstraat 78 9936EE Farmsum | 0:52 |
| UW | Molenstraat 82 9936EE Farmsum | 0:51 |
| UX | Molenstraat 84 9936EE Farmsum | 0:50 |
| UY | Borgweg 123 9936EM Farmsum | 1:43 |
| UZ | Borgweg 125 9936EM Farmsum | 1:36 |
| V | Hoofdweg 44 9945PH Wagenborgen | 0:00 |
| VA | Borgweg 127 9936EM Farmsum | 1:32 |
| VB | Borgweg 129 9936EM Farmsum | 1:27 |
| VC | Farmsumerzijl 51 9936GC Farmsum | 1:49 |
| VD | Molenstraat 80 9936EE Farmsum | 0:52 |
| VE | Houtweg 30 9936BL Farmsum | 0:00 |
| VF | Houtweg 32 9936BL Farmsum | 0:00 |
| VG | Houtweg 34 9936BL Farmsum | 0:00 |
| VH | Houtweg 36 9936BL Farmsum | 0:00 |
| VI | Houtweg 38 9936BL Farmsum | 0:00 |

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# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer 3 februari 2017

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| VJ | Houtweg 40 9936BL Farmsum | 0:00 |
| VK | Houtweg 42 9936BL Farmsum | 0:00 |
| VL | Houtweg 44 9936BL Farmsum | 0:00 |
| VM | Houtweg 46 9936BL Farmsum | 0:00 |
| VN | Houtweg 48 9936BL Farmsum | 0:00 |
| VO | Rondeboslaan 26 9936BK Farmsum | 0:00 |
| VP | Rondeboslaan 28 9936BK Farmsum | 0:00 |
| VQ | Seendweg 32 9936GA Farmsum | 0:27 |
| VR | Trambaan 21 9936ES Farmsum | 0:45 |
| VS | Proosdij 19 9936ET Farmsum | 0:29 |
| VT | Bredelaan 14 9936ER Farmsum | 0:19 |
| VU | Bredelaan 10 9936ER Farmsum | 0:39 |
| VV | Bredelaan 8 9936ER Farmsum | 0:47 |
| VW | Seendweg 22 9936GA Farmsum | 0:26 |
| VX | Seendweg 28 9936GA Farmsum | 0:27 |
| VY | Proosdij 28 9936EW Farmsum | 0:32 |
| VZ | Proosdij 30 9936EX Farmsum | 0:32 |
| W | Hoofdweg 48 9945PH Wagenborgen | 0:00 |
| WA | Proosdij 26 9936EW Farmsum | 0:35 |
| WB | Afwateringskanaal 107 9936AV Farmsum | 0:32 |
| WC | Rondeboslaan 22 A 9936BK Farmsum | 0:00 |
| WD | Rondeboslaan 22 B 9936BK Farmsum | 0:00 |
| WE | Rondeboslaan 2 A 9936BK Farmsum | 0:39 |
| WF | Rondeboslaan 2 B 9936BK Farmsum | 0:45 |
| WG | Seendweg 17 9936GA Farmsum | 0:32 |
| WH | Borgshof 29 9936CR Farmsum | 1:17 |
| WI | Molenstraat 22 9936EC Farmsum | 3:58 |
| WJ | Achterweg 7 A 9936EG Farmsum | 5:17 |
| WK | Molenstraat 26 9936EC Farmsum | 4:33 |
| WL | Borgweg 113 9936EM Farmsum | 1:51 |
| WM | Borgweg 115 9936EM Farmsum | 2:14 |
| WN | Borgweg 117 9936EM Farmsum | 2:04 |
| WO | Borgweg 119 9936EM Farmsum | 1:57 |
| WP | Borgweg 121 9936EM Farmsum | 1:51 |
| WQ | Farmsumerzijl 45 9936GC Farmsum | 2:41 |
| WR | Farmsumerzijl 47 9936GC Farmsum | 2:10 |
| WS | Farmsumerzijl 49 9936GC Farmsum | 1:56 |
| WT | Waarman 4 9936GW Farmsum | 2:24 |
| WU | Waarman 2 9936GW Farmsum | 2:22 |
| WV | Farmsumerzijl 9 9936GB Farmsum | 1:41 |
| WW | Farmsumerzijl 11 9936GB Farmsum | 1:39 |
| WX | Farmsumerzijl 21 9936GB Farmsum | 1:44 |
| WY | Farmsumerzijl 23 9936GB Farmsum | 1:50 |
| WZ | Farmsumerzijl 33 9936GC Farmsum | 2:16 |
| X | Hoofdweg 41 9945PB Wagenborgen | 0:00 |
| XA | Farmsumerzijl 35 9936GC Farmsum | 2:20 |
| XB | Schepperij 17 9936GL Farmsum | 1:12 |
| XC | Schepperij 19 9936GL Farmsum | 1:12 |
| XD | Schepperij 21 9936GL Farmsum | 1:16 |
| XE | Dijkrecht 3 9936GJ Farmsum | 1:08 |
| XF | Dijkrecht 5 9936GJ Farmsum | 1:05 |
| XG | Dijkrecht 7 9936GJ Farmsum | 1:04 |
| XH | Dijkrecht 9 9936GJ Farmsum | 1:02 |
| XI | Dijkrecht 11 9936GJ Farmsum | 1:03 |
| XJ | Dijkrecht 13 9936GJ Farmsum | 1:03 |
| XK | Dijkrecht 15 9936GJ Farmsum | 1:04 |
| XL | Dijkrecht 17 9936GJ Farmsum | 1:06 |
| XM | Dijkrecht 19 9936GJ Farmsum | 1:08 |
| XN | Dijkrecht 21 9936GJ Farmsum | 1:11 |
| XO | Schepperij 6 9936GN Farmsum | 0:57 |
| XP | Schepperij 8 9936GN Farmsum | 0:58 |
| XQ | Schepperij 10 9936GN Farmsum | 1:00 |
| XR | Schepperij 12 9936GN Farmsum | 1:01 |

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# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer 3 februari 2017

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| XS | Schepperij 14 9936GN Farmsum | 1:03 |
| XT | Schepperij 16 9936GN Farmsum | 1:05 |
| XU | Olderman 2 9936GT Farmsum | 1:20 |
| XV | Olderman 4 9936GT Farmsum | 1:22 |
| XW | Olderman 6 9936GT Farmsum | 1:21 |
| XX | Olderman 8 9936GT Farmsum | 1:20 |
| XY | Olderman 10 9936GT Farmsum | 1:22 |
| XZ | Olderman 12 9936GT Farmsum | 1:21 |
| Y | Hoofdweg 20 9945PG Wagenborgen | 0:00 |
| YA | Olderman 14 9936GT Farmsum | 1:22 |
| YB | Dijkrecht 23 9936GJ Farmsum | 1:32 |
| YC | Dijkrecht 25 9936GJ Farmsum | 1:35 |
| YD | Dijkrecht 27 9936GJ Farmsum | 1:35 |
| YE | Dijkrecht 29 9936GJ Farmsum | 1:35 |
| YF | Dijkrecht 31 9936GJ Farmsum | 1:34 |
| YG | Dijkrecht 33 9936GJ Farmsum | 1:36 |
| YH | Dijkrecht 35 9936GJ Farmsum | 1:35 |
| YI | Dijkrecht 37 9936GJ Farmsum | 1:42 |
| YJ | Dijkrecht 39 9936GJ Farmsum | 1:43 |
| YK | Dijkrecht 41 9936GJ Farmsum | 1:43 |
| YL | Dijkrecht 43 9936GJ Farmsum | 1:45 |
| YM | Olderman 1 9936GS Farmsum | 1:12 |
| YN | Olderman 3 9936GS Farmsum | 1:11 |
| YO | Olderman 5 9936GS Farmsum | 1:11 |
| YP | Olderman 7 9936GS Farmsum | 1:13 |
| YQ | Schepperij 37 9936GM Farmsum | 2:13 |
| YR | Schepperij 41 9936GM Farmsum | 2:16 |
| YS | Schepperij 45 9936GM Farmsum | 2:20 |
| YT | Schepperij 47 9936GM Farmsum | 2:20 |
| YU | Schepperij 49 9936GM Farmsum | 2:21 |
| YV | Olderman 18 9936GT Farmsum | 1:28 |
| YW | Olderman 20 9936GT Farmsum | 1:29 |
| YX | Olderman 22 9936GT Farmsum | 1:28 |
| YY | Olderman 24 9936GT Farmsum | 1:30 |
| YZ | Olderman 26 9936GT Farmsum | 1:30 |
| Z | Hoofdweg 22 9945PG Wagenborgen | 0:00 |
| ZA | Olderman 28 9936GT Farmsum | 1:31 |
| ZB | Olderman 30 9936GT Farmsum | 1:47 |
| ZC | Olderman 9 9936GS Farmsum | 1:20 |
| ZD | Olderman 11 9936GS Farmsum | 1:17 |
| ZE | Olderman 13 9936GS Farmsum | 1:19 |
| ZF | Proosdij 32 9936EX Farmsum | 0:33 |
| ZG | Proosdij 36 9936EX Farmsum | 0:36 |
| ZH | Proosdij 38 9936EX Farmsum | 0:37 |
| ZI | Proosdij 40 9936EX Farmsum | 0:41 |
| ZJ | Proosdij 27 9936EV Farmsum | 0:43 |
| ZK | Proosdij 25 9936EV Farmsum | 0:40 |
| ZL | Proosdij 23 9936EV Farmsum | 0:37 |
| ZM | Proosdij 21 9936EV Farmsum | 0:32 |
| ZN | Seendweg 5 9936GA Farmsum | 1:15 |
| ZO | Proosdij 29 9936EV Farmsum | 0:44 |
| ZP | Proosdij 31 9936EV Farmsum | 0:49 |
| ZQ | Proosdij 33 9936EV Farmsum | 1:13 |
| ZR | Proosdij 35 9936EV Farmsum | 1:30 |
| ZS | Proosdij 37 9936EV Farmsum | 1:38 |
| ZT | Proosdij 39 9936EV Farmsum | 1:38 |
| ZU | Proosdij 41 9936EV Farmsum | 1:40 |
| ZV | Proosdij 43 9936EV Farmsum | 1:41 |
| ZW | Proosdij 45 9936EV Farmsum | 1:40 |
| ZX | Proosdij 47 9936EV Farmsum | 1:40 |
| ZY | Olderman 15 9936GS Farmsum | 1:20 |
| ZZ | Rengersweg 97 9936GG Farmsum | 0:46 |

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# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer 3 februari 2017

Total amount of flickering on the shadow receptors caused by each WTG

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 1 | VESTAS V47 660 47.0 !O! hub: 40,0 m (TOT: 63,5 m) (1) | 501:30 | 97:39 |
| 2 | NORDEX N43 600-125 43.0 !O! hub: 40,0 m (TOT: 61,5 m) (2) | 191:36 | 41:39 |
| 3 | NORDEX N43 600-125 43.0 !O! hub: 40,0 m (TOT: 61,5 m) (3) | 1:26 | 0:19 |
| 4 | NORDEX N43 600-125 43.0 !O! hub: 40,0 m (TOT: 61,5 m) (4) | 40:29 | 7:50 |
| 5 | NORDEX N43 600-125 43.0 !O! hub: 40,0 m (TOT: 61,5 m) (5) | 258:37 | 44:16 |
| 6 | NORDEX N43 600-125 43.0 !O! hub: 40,0 m (TOT: 61,5 m) (6) | 372:41 | 81:10 |
| 7 | LAGERWEY 80 18.0 !O! hub: 31,0 m (TOT: 40,0 m) (7) | 0:00 | 0:00 |
| 8 | LAGERWEY 80 18.0 !O! hub: 31,0 m (TOT: 40,0 m) (8) | 0:00 | 0:00 |
| 9 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (9) | 17:07 | 3:38 |
| 10 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (10) | 40:28 | 8:08 |
| 11 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (11) | 60:57 | 9:12 |
| 12 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (12) | 24:24 | 3:46 |
| 13 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (13) | 5:26 | 0:59 |
| 14 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (14) | 167:16 | 24:32 |
| 15 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (15) | 0:00 | 0:00 |
| 16 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (16) | 0:00 | 0:00 |
| 17 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (17) | 0:00 | 0:00 |
| 18 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (18) | 23:25 | 3:39 |
| 19 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (19) | 0:00 | 0:00 |
| 20 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (20) | 0:46 | 0:09 |
| 21 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (21) | 40:19 | 9:13 |
| 22 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (22) | 0:49 | 0:12 |
| 23 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (23) | 0:00 | 0:00 |
| 24 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (24) | 0:00 | 0:00 |
| 25 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (25) | 7:08 | 1:36 |
| 26 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (26) | 1:50 | 0:23 |
| 27 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (27) | 0:00 | 0:00 |
| 28 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (28) | 0:00 | 0:00 |
| 29 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (29) | 1:46 | 0:17 |
| 30 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (30) | 6:55 | 1:32 |
| 31 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (31) | 0:00 | 0:00 |
| 32 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (32) | 0:00 | 0:00 |
| 33 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (33) | 0:33 | 0:07 |
| 34 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (34) | 0:12 | 0:02 |
| 35 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (35) | 3:03 | 0:40 |
| 36 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (36) | 0:00 | 0:00 |
| 37 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (37) | 6:32 | 1:03 |
| 38 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (38) | 0:08 | 0:01 |
| 39 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (39) | 8:23 | 0:47 |
| 40 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (40) | 3:23 | 0:41 |
| 41 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (41) | 205:27 | 45:10 |
| 42 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (42) | 95:47 | 12:22 |
| 43 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (43) | 25:14 | 5:47 |
| 44 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (44) | 31:20 | 7:25 |
| 45 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (45) | 23:49 | 5:38 |
| 46 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (46) | 3:15 | 0:47 |
| 47 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (47) | 0:00 | 0:00 |
| 48 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (48) | 0:00 | 0:00 |
| 49 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (49) | 0:00 | 0:00 |
| 50 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (50) | 0:00 | 0:00 |
| 51 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (51) | 0:00 | 0:00 |
| 52 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (52) | 0:00 | 0:00 |
| 53 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (53) | 0:00 | 0:00 |
| 54 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (54) | 0:00 | 0:00 |
| 55 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (55) | 0:00 | 0:00 |
| 56 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (56) | 0:00 | 0:00 |
| 57 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (57) | 0:00 | 0:00 |
| 58 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (58) | 0:00 | 0:00 |
| 59 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (59) | 0:00 | 0:00 |
| 60 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (60) | 0:00 | 0:00 |
| 61 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (61) | 0:00 | 0:00 |
| 62 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (62) | 0:00 | 0:00 |
| 63 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (63) | 0:00 | 0:00 |
| 64 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (64) | 0:00 | 0:00 |
| 65 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (65) | 0:00 | 0:00 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer 3 februari 2017

...continued from previous page

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 66 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (66) | 0:00 | 0:00 |
| 67 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (67) | 0:00 | 0:00 |
| 68 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (68) | 0:00 | 0:00 |
| 69 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (69) | 0:00 | 0:00 |
| 70 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (70) | 4:11 | 0:35 |
| 71 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (71) | 63:02 | 8:45 |
| 72 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (72) | 82:07 | 15:21 |
| 73 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (73) | 1:53 | 0:17 |
| 74 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (74) | 0:00 | 0:00 |
| 75 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (75) | 0:00 | 0:00 |
| 76 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (76) | 0:00 | 0:00 |
| 77 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (77) | 0:00 | 0:00 |
| 78 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (78) | 0:00 | 0:00 |
| 79 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (79) | 0:00 | 0:00 |
| 80 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (80) | 303:47 | 51:29 |
| 81 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (81) | 410:57 | 84:10 |
| 82 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (82) | 260:23 | 46:34 |
| 83 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (83) | 735:03 | 130:42 |
| 84 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (84) | 875:55 | 141:07 |
| 85 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (85) | 818:02 | 134:33 |
| 86 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (86) | 399:41 | 51:28 |
| 87 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (87) | 200:42 | 29:25 |
| 88 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (88) | 243:15 | 44:27 |
| 89 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (89) | 48:14 | 8:25 |
| 90 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (90) | 16:51 | 3:32 |
| 91 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (91) | 111:17 | 23:30 |
| 92 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (92) | 133:15 | 27:02 |
| 93 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (93) | 85:56 | 17:55 |
| 94 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (94) | 22:20 | 3:49 |
| 95 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (95) | 122:47 | 22:53 |

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# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer verblijfsobjecten later toegevoegd

### Assumptions for shadow calculations

Maximum distance for influence
Calculate only when more than 20 % of sun is covered by the blade
Please look in WTG table

| | |
|---|---|
| Minimum sun height over horizon for influence | 5 ° |
| Day step for calculation | 1 days |
| Time step for calculation | 1 minutes |

Sunshine probability S (Average daily sunshine hours) [EELDE]

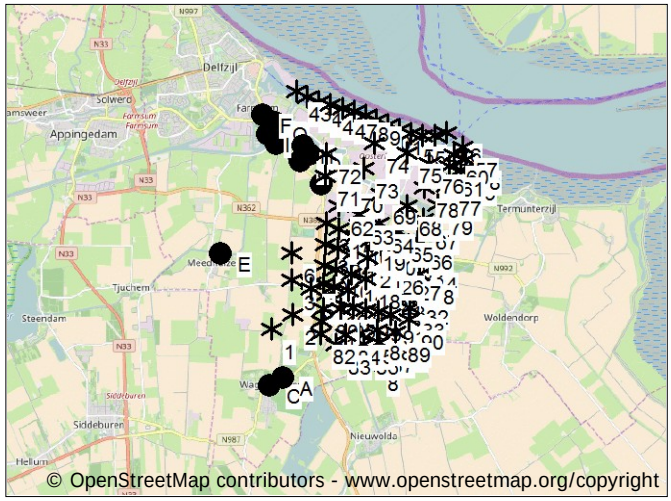
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

All coordinates are in
Dutch Stereo-RD/NAP 2008




Scale 1:200.000

Existing WTG  Shadow receptor

## WTGs

| | X (east) | Y (north) | Z | Row data/Description | WTG type Valid | Manufact. | Type-generator | Power, rated | Rotor diameter | Hub height | Shadow data Calculation distance | RPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [m] | | | | | [kW] | [m] | [m] | [m] | [RPM] |
| 1 | 258.206 | 588.157 | 0,0 | VESTAS V47 660 47.0 !O! hub:... | No | VESTAS | V47-660 | 660 | 47,0 | 40,0 | 881 | 28,5 |
| 2 | 258.763 | 588.539 | 0,0 | NORDEX N43 600-125 43.0 !O... | Yes | NORDEX | N43-600/125 | 600 | 43,0 | 40,0 | 803 | 27,2 |
| 3 | 258.735 | 589.472 | 0,0 | NORDEX N43 600-125 43.0 !O... | Yes | NORDEX | N43-600/125 | 600 | 43,0 | 40,0 | 803 | 27,2 |
| 4 | 259.229 | 589.409 | 0,0 | NORDEX N43 600-125 43.0 !O... | Yes | NORDEX | N43-600/125 | 600 | 43,0 | 40,0 | 803 | 27,2 |
| 5 | 259.231 | 589.244 | 0,0 | NORDEX N43 600-125 43.0 !O... | Yes | NORDEX | N43-600/125 | 600 | 43,0 | 40,0 | 803 | 27,2 |
| 6 | 258.720 | 590.178 | 0,0 | NORDEX N43 600-125 43.0 !O... | Yes | NORDEX | N43-600/125 | 600 | 43,0 | 40,0 | 803 | 27,2 |
| 7 | 261.738 | 588.022 | 0,0 | LAGERWEY 80 18.0 !O! hub: ... | No | LAGERWEY | -80 | 80 | 18,0 | 31,0 | 1.740 | 120,0 |
| 8 | 260.986 | 587.360 | 0,0 | LAGERWEY 80 18.0 !O! hub: ... | No | LAGERWEY | -80 | 80 | 18,0 | 31,0 | 1.740 | 120,0 |
| 9 | 259.587 | 589.858 | 0,0 | ENERCON E-70 E4 2000 71.0 !... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 10 | 259.890 | 589.770 | 0,0 | ENERCON E-70 E4 2000 71.0 !... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 11 | 259.863 | 589.300 | 0,0 | ENERCON E-70 E4 2000 71.0 !... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 12 | 259.845 | 588.985 | 0,0 | ENERCON E-70 E4 2000 71.0 !... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 13 | 260.245 | 589.206 | 0,0 | ENERCON E-70 E4 2000 71.0 !... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 14 | 260.295 | 589.652 | 0,0 | ENERCON E-70 E4 2000 71.0 !... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 15 | 259.952 | 590.853 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 16 | 260.412 | 590.685 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 17 | 260.358 | 590.202 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 18 | 260.680 | 589.539 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 19 | 260.789 | 590.548 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 20 | 261.086 | 590.440 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 21 | 260.740 | 590.089 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 22 | 261.353 | 590.343 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 23 | 261.840 | 590.166 | 0,0 | ENERCON E-70 E4 2000 71.0 !... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 24 | 262.200 | 590.035 | 0,0 | ENERCON E-70 E4 2000 71.0 !... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 25 | 261.031 | 590.003 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 26 | 261.292 | 589.926 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 27 | 261.764 | 589.785 | 0,0 | ENERCON E-70 E4 2000 71.0 !... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 28 | 262.111 | 589.683 | 0,0 | ENERCON E-70 E4 2000 71.0 !... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 29 | 261.212 | 589.384 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 30 | 261.584 | 588.876 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 31 | 261.660 | 589.255 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 32 | 261.980 | 589.161 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 33 | 261.889 | 588.801 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 34 | 259.922 | 590.332 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 35 | 259.601 | 590.427 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 36 | 259.614 | 590.976 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 37 | 260.962 | 589.457 | 0,0 | ENERCON E-70 E4 2000 71.0 !... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 38 | 260.634 | 589.110 | 0,0 | ENERCON E-70 E4 2000 71.0 !... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 39 | 260.909 | 589.042 | 0,0 | ENERCON E-70 E4 2000 71.0 !... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |

To be continued on next page...

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8-2-2017 11:27/3.0.654

# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer verblijfsobjecten later toegevoegd

...continued from previous page

| | X (east) | Y (north) | Z | Row data/Description | WTG type Valid | Manufact. | Type-generator | Power, rated | Rotor diameter | Hub height | Shadow data Calculation distance | RPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [m] | | | | | [kW] | [m] | [m] | [m] | [RPM] |
| 40 | 261.153 | 588.982 | 0,0 | ENERCON E-70 E4 2000 71.0 !... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 41 | 259.576 | 589.371 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 42 | 259.568 | 589.041 | 0,0 | ENERCON E-70 E4 2,3 MW 23... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 43 | 258.748 | 594.458 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 44 | 259.042 | 594.322 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 45 | 259.344 | 594.205 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 46 | 259.655 | 594.114 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 47 | 259.971 | 594.042 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 48 | 260.286 | 593.965 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 49 | 260.596 | 593.872 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 50 | 260.896 | 593.750 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 51 | 261.196 | 593.627 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 52 | 261.497 | 593.509 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 53 | 261.805 | 593.407 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 54 | 262.126 | 593.367 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 55 | 262.450 | 593.380 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 56 | 262.767 | 593.448 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 57 | 263.205 | 593.092 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 58 | 263.273 | 592.764 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 59 | 263.154 | 592.466 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 60 | 262.970 | 592.872 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 61 | 262.850 | 592.574 | 0,0 | NORDEX N100/3300 3300 99.... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 62 | 259.947 | 591.451 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 63 | 260.484 | 591.233 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 64 | 261.011 | 591.019 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 65 | 261.526 | 590.802 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 66 | 262.046 | 590.599 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 67 | 262.190 | 591.144 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 68 | 261.741 | 591.483 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 69 | 261.052 | 591.780 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 70 | 260.181 | 592.081 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 71 | 259.555 | 592.229 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 72 | 259.567 | 592.826 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 73 | 260.577 | 592.475 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 74 | 260.839 | 593.122 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 75 | 261.722 | 592.893 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 76 | 262.307 | 592.636 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 77 | 262.775 | 592.062 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 78 | 262.206 | 591.985 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 79 | 262.568 | 591.542 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 80 | 259.583 | 588.718 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 81 | 259.541 | 588.381 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 82 | 259.520 | 588.051 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 83 | 259.935 | 587.778 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 84 | 260.176 | 588.043 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 85 | 260.538 | 588.081 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 86 | 260.683 | 587.792 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 87 | 261.087 | 587.854 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 88 | 261.036 | 588.189 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 89 | 261.513 | 588.148 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 90 | 261.859 | 588.487 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 91 | 261.380 | 588.591 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 92 | 261.043 | 588.659 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 93 | 260.714 | 588.719 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 94 | 260.368 | 588.763 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 95 | 260.032 | 588.735 | 0,0 | ENERCON 145 as 145 rotor 42... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |

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Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:27/3.0.654

# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer verblijfsobjecten later toegevoegd

### Shadow receptor-Input

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| A | Familie Bronsweg 22 9945PS Wagenborgen | 258.549 | 586.857 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| B | Geefsweersterweg 1 9937TB Meedhuizen | 258.250 | 593.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| C | Hoofdweg 28 9945PG Wagenborgen | 258.194 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| D | Karspelpad 8 9936HP Farmsum | 259.130 | 592.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| E | Maarkampen 12 9937PL Meedhuizen | 256.818 | 590.108 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| F | Molenstraat 64 9936EE Farmsum | 257.875 | 593.798 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| G | Oosterlaan 9 9936HN Farmsum | 259.468 | 591.997 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| H | Schaappad 1 9936HT Farmsum | 258.946 | 593.010 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| I | Seendweg 8 9936GA Farmsum | 258.005 | 593.293 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| J | T.J. Jansenweg 11 9936HL Farmsum | 258.896 | 592.598 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| K | Waarman 1 9936GV Farmsum | 258.213 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| L | Waarman 11 9936GV Farmsum | 258.213 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| M | Waarman 3 9936GV Farmsum | 258.213 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| N | Waarman 5 9936GV Farmsum | 258.213 | 593.587 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| O | Waarman 7 9936GV Farmsum | 258.213 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| P | Waarman 9 9936GV Farmsum | 258.213 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Q | Zijlvest 20 9936GZ Farmsum | 258.233 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

### Calculation Results

Shadow receptor

| No. | Name | Shadow, expected values<br>Shadow hours per year<br>[h/year] |
|---|---|---|
| A | Familie Bronsweg 22 9945PS Wagenborgen | 1:47 |
| B | Geefsweersterweg 1 9937TB Meedhuizen | 2:10 |
| C | Hoofdweg 28 9945PG Wagenborgen | 0:00 |
| D | Karspelpad 8 9936HP Farmsum | 45:12 |
| E | Maarkampen 12 9937PL Meedhuizen | 0:00 |
| F | Molenstraat 64 9936EE Farmsum | 1:01 |
| G | Oosterlaan 9 9936HN Farmsum | 24:46 |
| H | Schaappad 1 9936HT Farmsum | 13:17 |
| I | Seendweg 8 9936GA Farmsum | 1:04 |
| J | T.J. Jansenweg 11 9936HL Farmsum | 26:46 |
| K | Waarman 1 9936GV Farmsum | 2:00 |
| L | Waarman 11 9936GV Farmsum | 2:24 |
| M | Waarman 3 9936GV Farmsum | 2:00 |
| N | Waarman 5 9936GV Farmsum | 2:01 |
| O | Waarman 7 9936GV Farmsum | 2:03 |
| P | Waarman 9 9936GV Farmsum | 2:24 |
| Q | Zijlvest 20 9936GZ Farmsum | 2:30 |

Total amount of flickering on the shadow receptors caused by each WTG

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 1 | VESTAS V47 660 47.0 !O! hub: 40,0 m (TOT: 63,5 m) (1) | 0:00 | 0:00 |
| 2 | NORDEX N43 600-125 43.0 !O! hub: 40,0 m (TOT: 61,5 m) (2) | 0:00 | 0:00 |
| 3 | NORDEX N43 600-125 43.0 !O! hub: 40,0 m (TOT: 61,5 m) (3) | 0:00 | 0:00 |
| 4 | NORDEX N43 600-125 43.0 !O! hub: 40,0 m (TOT: 61,5 m) (4) | 0:00 | 0:00 |
| 5 | NORDEX N43 600-125 43.0 !O! hub: 40,0 m (TOT: 61,5 m) (5) | 0:00 | 0:00 |
| 6 | NORDEX N43 600-125 43.0 !O! hub: 40,0 m (TOT: 61,5 m) (6) | 0:00 | 0:00 |
| 7 | LAGERWEY 80 18.0 !O! hub: 31,0 m (TOT: 40,0 m) (7) | 0:00 | 0:00 |
| 8 | LAGERWEY 80 18.0 !O! hub: 31,0 m (TOT: 40,0 m) (8) | 0:00 | 0:00 |
| 9 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (9) | 0:00 | 0:00 |
| 10 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (10) | 0:00 | 0:00 |
| 11 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (11) | 0:00 | 0:00 |
| 12 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (12) | 0:00 | 0:00 |
| 13 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (13) | 0:00 | 0:00 |
| 14 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (14) | 0:00 | 0:00 |
| 15 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (15) | 0:00 | 0:00 |
| 16 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (16) | 0:00 | 0:00 |
| 17 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (17) | 0:00 | 0:00 |

To be continued on next page...

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Calculated:
8-2-2017 11:27/3.0.654

# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer verblijfsobjecten later toegevoegd

...continued from previous page

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 18 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (18) | 0:00 | 0:00 |
| 19 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (19) | 0:00 | 0:00 |
| 20 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (20) | 0:00 | 0:00 |
| 21 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (21) | 0:00 | 0:00 |
| 22 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (22) | 0:00 | 0:00 |
| 23 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (23) | 0:00 | 0:00 |
| 24 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (24) | 0:00 | 0:00 |
| 25 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (25) | 0:00 | 0:00 |
| 26 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (26) | 0:00 | 0:00 |
| 27 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (27) | 0:00 | 0:00 |
| 28 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (28) | 0:00 | 0:00 |
| 29 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (29) | 0:00 | 0:00 |
| 30 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (30) | 0:00 | 0:00 |
| 31 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (31) | 0:00 | 0:00 |
| 32 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (32) | 0:00 | 0:00 |
| 33 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (33) | 0:00 | 0:00 |
| 34 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (34) | 0:00 | 0:00 |
| 35 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (35) | 0:00 | 0:00 |
| 36 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (36) | 0:00 | 0:00 |
| 37 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (37) | 0:00 | 0:00 |
| 38 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (38) | 0:00 | 0:00 |
| 39 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (39) | 0:00 | 0:00 |
| 40 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (40) | 0:00 | 0:00 |
| 41 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (41) | 0:00 | 0:00 |
| 42 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (42) | 0:00 | 0:00 |
| 43 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (43) | 0:22 | 0:04 |
| 44 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (44) | 3:17 | 0:49 |
| 45 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (45) | 11:24 | 2:40 |
| 46 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (46) | 1:20 | 0:19 |
| 47 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (47) | 0:00 | 0:00 |
| 48 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (48) | 0:00 | 0:00 |
| 49 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (49) | 0:00 | 0:00 |
| 50 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (50) | 0:00 | 0:00 |
| 51 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (51) | 0:00 | 0:00 |
| 52 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (52) | 0:00 | 0:00 |
| 53 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (53) | 0:00 | 0:00 |
| 54 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (54) | 0:00 | 0:00 |
| 55 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (55) | 0:00 | 0:00 |
| 56 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (56) | 0:00 | 0:00 |
| 57 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (57) | 0:00 | 0:00 |
| 58 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (58) | 0:00 | 0:00 |
| 59 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (59) | 0:00 | 0:00 |
| 60 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (60) | 0:00 | 0:00 |
| 61 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (61) | 0:00 | 0:00 |
| 62 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (62) | 63:40 | 7:11 |
| 63 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (63) | 12:29 | 1:36 |
| 64 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (64) | 2:38 | 0:21 |
| 65 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (65) | 0:00 | 0:00 |
| 66 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (66) | 0:00 | 0:00 |
| 67 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (67) | 0:00 | 0:00 |
| 68 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (68) | 0:00 | 0:00 |
| 69 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (69) | 4:06 | 0:41 |
| 70 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (70) | 67:58 | 13:38 |
| 71 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (71) | 129:14 | 15:08 |
| 72 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (72) | 302:43 | 63:47 |
| 73 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (73) | 32:21 | 6:56 |
| 74 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (74) | 4:58 | 1:03 |
| 75 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (75) | 0:00 | 0:00 |
| 76 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (76) | 0:00 | 0:00 |
| 77 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (77) | 0:00 | 0:00 |
| 78 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (78) | 0:00 | 0:00 |
| 79 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (79) | 0:00 | 0:00 |
| 80 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (80) | 0:00 | 0:00 |
| 81 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (81) | 0:00 | 0:00 |
| 82 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (82) | 0:00 | 0:00 |

To be continued on next page...

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+31 6 51 71 04 93
Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:27/3.0.654

# SHADOW - Main Result

## Calculation: Referentie situatie Geefsweer verblijfsobjecten later toegevoegd

...continued from previous page

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 83 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (83) | 8:10 | 1:47 |
| 84 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (84) | 0:00 | 0:00 |
| 85 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (85) | 0:00 | 0:00 |
| 86 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (86) | 0:00 | 0:00 |
| 87 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (87) | 0:00 | 0:00 |
| 88 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (88) | 0:00 | 0:00 |
| 89 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (89) | 0:00 | 0:00 |
| 90 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (90) | 0:00 | 0:00 |
| 91 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (91) | 0:00 | 0:00 |
| 92 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (92) | 0:00 | 0:00 |
| 93 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (93) | 0:00 | 0:00 |
| 94 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (94) | 0:00 | 0:00 |
| 95 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (95) | 0:00 | 0:00 |

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3-2-2017 11:29/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaudw Alternatief 1 Groot 1A zonder cumulatie

### Assumptions for shadow calculations

Maximum distance for influence
Calculate only when more than 20 % of sun is covered by the blade
Please look in WTG table

| | |
|---|---|
| Minimum sun height over horizon for influence | 5 ° |
| Day step for calculation | 1 days |
| Time step for calculation | 1 minutes |

Sunshine probability S (Average daily sunshine hours) [EELDE]

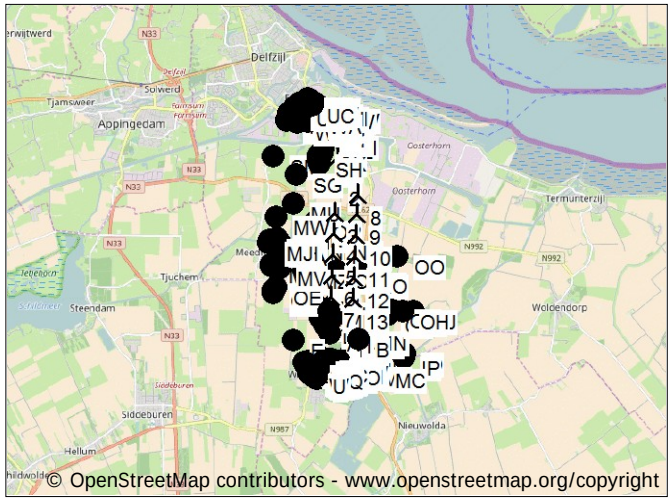
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

All coordinates are in
Dutch Stereo-RD/NAP 2008




Scale 1:200.000

New WTG  Shadow receptor

### WTGs

| | X (east) | Y (north) | Z | Row data/Description | WTG type Valid | Manufact. | Type-generator | Power, rated | Rotor diameter | Hub height | Shadow data Calculation distance | RPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [m] | | | | | [kW] | [m] | [m] | [m] | [RPM] |
| 1 | 258.610 | 592.416 | 0,0 | ENERCON 145 as 145 rotor 420... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 2 | 258.598 | 591.937 | 0,0 | ENERCON 145 as 145 rotor 420... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 3 | 258.572 | 590.942 | 0,0 | ENERCON 145 as 145 rotor 420... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 4 | 258.554 | 590.388 | 0,0 | ENERCON 145 as 145 rotor 420... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 5 | 258.542 | 589.830 | 0,0 | ENERCON 145 as 145 rotor 420... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 6 | 258.525 | 589.275 | 0,0 | ENERCON 145 as 145 rotor 420... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 7 | 258.509 | 588.721 | 0,0 | ENERCON 145 as 145 rotor 420... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 8 | 259.187 | 591.420 | 0,0 | ENERCON 145 as 145 rotor 420... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 9 | 259.174 | 590.910 | 0,0 | ENERCON 145 as 145 rotor 420... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 10 | 259.158 | 590.354 | 0,0 | ENERCON 145 as 145 rotor 420... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 11 | 259.144 | 589.798 | 0,0 | ENERCON 145 as 145 rotor 420... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 12 | 259.127 | 589.240 | 0,0 | ENERCON 145 as 145 rotor 420... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 13 | 259.112 | 588.683 | 0,0 | ENERCON 145 as 145 rotor 420... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 14 | 259.050 | 588.043 | 0,0 | ENERCON 145 as 145 rotor 420... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |

### Shadow receptor-Input

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| [A | Rengersweg 99 9936GG Farmsum | 258.006 | 593.455 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [B | Rengersweg 12 9936GH Farmsum | 258.034 | 593.437 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [C | Rengersweg 10 9936GH Farmsum | 258.034 | 593.444 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [D | Kluft 1 9936GP Farmsum | 258.040 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [E | Kluft 3 9936GP Farmsum | 258.047 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [F | Proosdij 46 9936EX Farmsum | 258.058 | 593.427 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [G | Proosdij 48 9936EX Farmsum | 258.062 | 593.433 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [H | Proosdij 50 9936EX Farmsum | 258.090 | 593.443 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [I | Proosdij 52 9936EX Farmsum | 258.090 | 593.430 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [J | Proosdij 54 9936EX Farmsum | 258.094 | 593.415 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [K | Proosdij 56 9936EX Farmsum | 258.108 | 593.416 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [L | Olderman 21 9936GS Farmsum | 258.128 | 593.420 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [M | Olderman 19 9936GS Farmsum | 258.126 | 593.434 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [N | Olderman 17 9936GS Farmsum | 258.125 | 593.448 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [O | Kluft 5 9936GP Farmsum | 258.060 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [P | Kluft 7 9936GP Farmsum | 258.067 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [Q | Kluft 9 9936GP Farmsum | 258.096 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [R | Kluft 11 9936GP Farmsum | 258.102 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [S | Kluft 17 9936GP Farmsum | 258.122 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
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# SHADOW - Main Result

## Calculation: Slagschaudw Alternatief 1 Groot 1A zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| [T | Zijlvest 8 9936GZ Farmsum | 258.202 | 593.424 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [U | Olderman 32 9936GT Farmsum | 258.151 | 593.480 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [V | Olderman 34 9936GT Farmsum | 258.151 | 593.474 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [W | Olderman 36 9936GT Farmsum | 258.153 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [X | Olderman 38 9936GT Farmsum | 258.153 | 593.453 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [Y | Olderman 40 9936GT Farmsum | 258.155 | 593.440 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [Z | Olderman 42 9936GT Farmsum | 258.155 | 593.434 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \A | Zijlvest 22 A 9936GZ Farmsum | 258.238 | 593.466 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \B | Zijlvest 18 A 9936GZ Farmsum | 258.229 | 593.451 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \C | Zijlvest 18 9936GZ Farmsum | 258.233 | 593.449 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \D | Zijlvest 14 9936GZ Farmsum | 258.229 | 593.441 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \E | Borgweg 1 9936EH Farmsum | 258.030 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \F | Borgweg 3 9936EH Farmsum | 258.031 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \G | Borgweg 5 9936EH Farmsum | 258.031 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \H | Borgweg 7 9936EH Farmsum | 258.031 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \I | Borgweg 9 9936EH Farmsum | 258.031 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \J | Borgweg 11 9936EH Farmsum | 258.031 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \K | Borgweg 13 9936EH Farmsum | 258.031 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \L | Borgweg 15 9936EH Farmsum | 258.033 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \M | Borgweg 17 9936EH Farmsum | 258.033 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \N | Borgweg 19 9936EH Farmsum | 258.033 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \O | Borgweg 21 9936EH Farmsum | 258.033 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \P | Borgweg 23 9936EH Farmsum | 258.033 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \Q | Borgweg 25 9936EH Farmsum | 258.033 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \R | Borgweg 27 9936EH Farmsum | 258.033 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \S | Borgweg 29 9936EJ Farmsum | 258.035 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \T | Borgweg 31 9936EJ Farmsum | 258.035 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \U | Borgweg 33 9936EJ Farmsum | 258.035 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \V | Borgweg 35 9936EJ Farmsum | 258.035 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \W | Borgweg 37 9936EJ Farmsum | 258.035 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \X | Borgweg 39 9936EJ Farmsum | 258.036 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \Y | Borgweg 41 9936EJ Farmsum | 258.036 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \Z | Borgweg 43 9936EJ Farmsum | 258.037 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]A | Borgweg 45 9936EJ Farmsum | 258.038 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]B | Borgweg 47 9936EJ Farmsum | 258.038 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]C | Borgweg 49 9936EJ Farmsum | 258.038 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]D | Borgweg 51 9936EJ Farmsum | 258.038 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]E | Borgweg 53 9936EJ Farmsum | 258.038 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]F | Borgweg 55 9936EJ Farmsum | 258.038 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]G | Borgweg 57 9936EK Farmsum | 258.003 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]H | Borgweg 59 9936EK Farmsum | 258.003 | 593.802 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]I | Borgweg 61 9936EK Farmsum | 258.003 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]J | Borgweg 63 9936EK Farmsum | 258.003 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]K | Borgweg 65 9936EK Farmsum | 258.003 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]L | Borgweg 67 9936EK Farmsum | 258.003 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]M | Borgweg 69 9936EK Farmsum | 258.003 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]N | Borgweg 71 9936EK Farmsum | 258.006 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]O | Borgweg 73 9936EK Farmsum | 258.006 | 593.802 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]P | Borgweg 75 9936EK Farmsum | 258.006 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]Q | Borgweg 77 9936EK Farmsum | 258.005 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]R | Borgweg 79 9936EK Farmsum | 258.005 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]S | Borgweg 81 9936EK Farmsum | 258.005 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]T | Borgweg 83 9936EK Farmsum | 258.005 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]U | Borgweg 85 9936EL Farmsum | 258.008 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]V | Borgweg 87 9936EL Farmsum | 258.008 | 593.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]W | Borgweg 89 9936EL Farmsum | 258.008 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]X | Borgweg 91 9936EL Farmsum | 258.008 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]Y | Borgweg 93 9936EL Farmsum | 258.008 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]Z | Borgweg 95 9936EL Farmsum | 258.008 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^A | Borgweg 97 9936EL Farmsum | 258.008 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^B | Borgweg 99 9936EL Farmsum | 258.010 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^C | Borgweg 101 9936EL Farmsum | 258.010 | 593.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^D | Borgweg 103 9936EL Farmsum | 258.010 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^E | Borgweg 105 9936EL Farmsum | 258.010 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
3-2-2017 11:29/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaudw Alternatief 1 Groot 1A zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| ^F | Borgweg 107 9936EL Farmsum | 258.010 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^G | Borgweg 109 9936EL Farmsum | 258.010 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^H | Borgweg 111 9936EL Farmsum | 258.010 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^I | Kluft 18 9936GR Farmsum | 258.043 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^J | Kluft 20 9936GR Farmsum | 258.050 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^K | Kluft 22 9936GR Farmsum | 258.057 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^L | Kluft 24 9936GR Farmsum | 258.064 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^M | Kluft 26 9936GR Farmsum | 258.071 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^N | Kluft 28 9936GR Farmsum | 258.078 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^O | Kluft 30 9936GR Farmsum | 258.085 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^P | Kluft 32 9936GR Farmsum | 258.092 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Q | Kluft 2 9936GR Farmsum | 258.043 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^R | Kluft 4 9936GR Farmsum | 258.050 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^S | Kluft 6 9936GR Farmsum | 258.057 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^T | Kluft 8 9936GR Farmsum | 258.064 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^U | Kluft 10 9936GR Farmsum | 258.071 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^V | Kluft 12 9936GR Farmsum | 258.078 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^W | Kluft 14 9936GR Farmsum | 258.085 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^X | Kluft 16 9936GR Farmsum | 258.092 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Y | ZijIvest 20 A 9936GZ Farmsum | 258.233 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Z | Schepperij 51 9936GM Farmsum | 258.194 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _A | Waarman 15 9936GV Farmsum | 258.223 | 593.543 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _B | Waarman 17 9936GV Farmsum | 258.223 | 593.537 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _C | Waarman 19 9936GV Farmsum | 258.223 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _D | Waarman 21 9936GV Farmsum | 258.223 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _E | Waarman 23 9936GV Farmsum | 258.223 | 593.518 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _F | Waarman 25 9936GV Farmsum | 258.223 | 593.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _G | Waarman 27 9936GV Farmsum | 258.223 | 593.506 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _H | Waarman 29 9936GV Farmsum | 258.222 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _I | Heemskesweg 5 9936HE Farmsum | 258.759 | 592.961 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _J | Geefsweersterweg 2 9937TC Meedhuizen | 258.288 | 593.033 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _K | Seendweg 12 9936GA Farmsum | 257.950 | 593.306 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _L | Schepperij 39 9936GM Farmsum | 258.194 | 593.537 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _M | Schepperij 43 9936GM Farmsum | 258.194 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _N | ZijIvest 14 A 9936GZ Farmsum | 258.222 | 593.445 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _O | ZijIvest 24 A 9936GZ Farmsum | 258.239 | 593.474 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| A | Familie Bronsweg 60 9945TA Wagenborgen | 258.511 | 587.742 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AA | Hoofdweg 26 9945PG Wagenborgen | 258.194 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AB | Hoofdweg 23 9945PA Wagenborgen | 258.227 | 586.683 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AC | Hoofdweg 25 9945PA Wagenborgen | 258.217 | 586.663 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AD | Hoofdweg 27 9945PA Wagenborgen | 258.213 | 586.652 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AE | Hoofdweg 29 9945PA Wagenborgen | 258.212 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AF | Hoofdweg 18 9945PG Wagenborgen | 258.219 | 586.709 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AG | Hoofdweg 14 9945PG Wagenborgen | 258.222 | 586.726 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AH | Hoofdweg 10 9945PG Wagenborgen | 258.236 | 586.722 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AI | Hoofdweg 8 9945PG Wagenborgen | 258.258 | 586.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AJ | Hoofdweg 6 9945PG Wagenborgen | 258.276 | 586.731 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AK | Hoofdweg 4 9945PG Wagenborgen | 258.298 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AL | Hoofdweg 21 9945PA Wagenborgen | 258.243 | 586.704 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AM | Hoofdweg 19 9945PA Wagenborgen | 258.272 | 586.709 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AN | Hoofdweg 2 9945PG Wagenborgen | 258.318 | 586.748 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AO | Hoofdweg 15 9945PA Wagenborgen | 258.311 | 586.705 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AP | Hoofdweg 9 9945PA Wagenborgen | 258.331 | 586.713 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AQ | Hoofdweg 11 9945PA Wagenborgen | 258.325 | 586.710 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AR | Hoofdweg 7 9945PA Wagenborgen | 258.338 | 586.725 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AS | Hoofdweg 5 9945PA Wagenborgen | 258.343 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AT | H.L. Emmensweg 17 9945PW Wagenborgen | 258.087 | 586.741 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AU | H.L. Emmensweg 18 9945PX Wagenborgen | 258.106 | 586.733 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AV | H.L. Emmensweg 20 9945PX Wagenborgen | 258.107 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AW | H.L. Emmensweg 22 9945PX Wagenborgen | 258.107 | 586.747 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AX | H.L. Emmensweg 24 9945PX Wagenborgen | 258.108 | 586.753 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AY | H.L. Emmensweg 26 9945PX Wagenborgen | 258.111 | 586.767 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AZ | H.L. Emmensweg 10 9945PX Wagenborgen | 258.103 | 586.698 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| B | Tolhek 4 9945TJ Wagenborgen | 259.289 | 587.610 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaudw Alternatief 1 Groot 1A zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| BA | H.L. Emmensweg 12 9945PX Wagenborgen | 258.103 | 586.704 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BB | H.L. Emmensweg 14 9945PX Wagenborgen | 258.104 | 586.711 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BC | H.L. Emmensweg 16 9945PX Wagenborgen | 258.105 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BD | H.L. Emmensweg 13 9945PW Wagenborgen | 258.085 | 586.719 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BE | H.L. Emmensweg 15 9945PW Wagenborgen | 258.086 | 586.725 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BF | H.L. Emmensweg 9 9945PW Wagenborgen | 258.083 | 586.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BG | H.L. Emmensweg 11 9945PW Wagenborgen | 258.084 | 586.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BH | H.L. Emmensweg 5 9945PW Wagenborgen | 258.081 | 586.681 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BI | H.L. Emmensweg 7 9945PW Wagenborgen | 258.082 | 586.687 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BJ | H.L. Emmensweg 4 9945PX Wagenborgen | 258.103 | 586.676 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BK | H.L. Emmensweg 2 9945PX Wagenborgen | 258.099 | 586.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BL | H.L. Emmensweg 1 9945PW Wagenborgen | 258.081 | 586.651 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BM | H.L. Emmensweg 3 9945PW Wagenborgen | 258.083 | 586.667 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BN | de Linden 4 9945PZ Wagenborgen | 258.042 | 586.733 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BO | de Linden 6 9945PZ Wagenborgen | 258.058 | 586.734 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BP | de Linden 10 9945PZ Wagenborgen | 258.040 | 586.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BQ | de Linden 12 9945PZ Wagenborgen | 258.021 | 586.721 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BR | de Linden 2 9945PZ Wagenborgen | 258.030 | 586.694 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BS | de Wilgen 12 9945RB Wagenborgen | 258.008 | 586.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BT | de Wilgen 10 9945RB Wagenborgen | 258.008 | 586.764 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BU | de Wilgen 8 9945RB Wagenborgen | 258.007 | 586.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BV | de Wilgen 2 9945RB Wagenborgen | 257.995 | 586.662 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BW | de Wilgen 4 9945RB Wagenborgen | 257.997 | 586.675 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BX | de Wilgen 6 9945RB Wagenborgen | 258.001 | 586.693 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BY | de Wilgen 6 A 9945RB Wagenborgen | 258.004 | 586.726 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BZ | de Wilgen 3 9945RB Wagenborgen | 257.975 | 586.694 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| C | Tolhek 1 9945TJ Wagenborgen | 259.114 | 587.301 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CA | de Wilgen 3 A 9945RB Wagenborgen | 257.977 | 586.713 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CB | de Wilgen 3 B 9945RB Wagenborgen | 257.977 | 586.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CC | de Wilgen 5 9945RB Wagenborgen | 257.973 | 586.766 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CD | de Wilgen 46 9945RB Wagenborgen | 258.036 | 586.921 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CE | de Wilgen 44 9945RB Wagenborgen | 258.036 | 586.927 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CF | de Wilgen 48 9945RB Wagenborgen | 258.034 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CG | de Wilgen 50 9945RB Wagenborgen | 258.034 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CH | de Wilgen 36 9945RB Wagenborgen | 258.060 | 586.908 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CI | de Wilgen 38 9945RB Wagenborgen | 258.059 | 586.915 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CJ | de Wilgen 40 9945RB Wagenborgen | 258.059 | 586.921 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CK | de Wilgen 42 9945RB Wagenborgen | 258.059 | 586.928 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CL | de Wilgen 28 9945RB Wagenborgen | 258.050 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CM | de Wilgen 30 9945RB Wagenborgen | 258.056 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CN | de Wilgen 32 9945RB Wagenborgen | 258.063 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CO | de Wilgen 34 9945RB Wagenborgen | 258.070 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CP | de Wilgen 24 9945TK Wagenborgen | 258.033 | 586.884 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CQ | de Wilgen 26 9945RB Wagenborgen | 258.039 | 586.886 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CR | de Wilgen 20 9945RB Wagenborgen | 258.019 | 586.866 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CS | de Wilgen 22 9945RB Wagenborgen | 258.019 | 586.872 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CT | de Wilgen 18 9945RB Wagenborgen | 258.016 | 586.853 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CU | de Wilgen 16 9945RB Wagenborgen | 258.015 | 586.837 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CV | de Wilgen 14 9945RB Wagenborgen | 258.014 | 586.813 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CW | de Wilgen 9 9945RB Wagenborgen | 257.970 | 586.829 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CX | de Wilgen 52 9945RB Wagenborgen | 258.167 | 587.083 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CY | Menterne 22 9945RA Wagenborgen | 257.891 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CZ | Menterne 18 9945RA Wagenborgen | 257.856 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| D | Familie Bronsweg 62 9945TA Wagenborgen | 258.389 | 587.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DA | Menterne 21 9945RA Wagenborgen | 257.884 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DB | Menterne 19 9945RA Wagenborgen | 257.863 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DC | Menterne 20 9945RA Wagenborgen | 257.876 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DD | Menterne 17 9945RA Wagenborgen | 257.849 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DE | Menterne 7 9945RA Wagenborgen | 257.896 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DF | Menterne 8 9945RA Wagenborgen | 257.889 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DG | Menterne 9 9945RA Wagenborgen | 257.882 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DH | Menterne 10 9945RA Wagenborgen | 257.875 | 586.913 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DI | Menterne 11 9945RA Wagenborgen | 257.893 | 586.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DJ | Menterne 12 9945RA Wagenborgen | 257.893 | 586.932 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaudw Alternatief 1 Groot 1A zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| DK | Menterne 13 9945RA Wagenborgen | 257.893 | 586.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DL | Menterne 14 9945RA Wagenborgen | 257.893 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DM | Menterne 1 9945RA Wagenborgen | 257.930 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DN | Menterne 2 9945RA Wagenborgen | 257.924 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DO | Menterne 3 9945RA Wagenborgen | 257.917 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DP | Menterne 4 9945RA Wagenborgen | 257.910 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DQ | Menterne 5 9945RA Wagenborgen | 257.899 | 586.883 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DR | Menterne 6 9945RA Wagenborgen | 257.899 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DS | Menterne 15 9945RA Wagenborgen | 257.866 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DT | Menterne 16 9945RA Wagenborgen | 257.866 | 586.952 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DU | de Berken 6 9945PT Wagenborgen | 258.085 | 586.768 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DV | de Berken 2 9945PT Wagenborgen | 258.040 | 586.782 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DW | de Berken 4 9945PT Wagenborgen | 258.061 | 586.783 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DX | de Berken 1 9945PT Wagenborgen | 258.038 | 586.808 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DY | de Berken 5 9945PT Wagenborgen | 258.087 | 586.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DZ | de Berken 7 9945PT Wagenborgen | 258.102 | 586.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| E | Meerweg 3 9945RC Wagenborgen | 257.540 | 587.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EA | de Berken 9 9945PT Wagenborgen | 258.109 | 586.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EB | de Eiken 14 9945VA Wagenborgen | 258.037 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EC | de Eiken 16 9945VA Wagenborgen | 258.044 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ED | de Eiken 2 9945VA Wagenborgen | 258.061 | 586.829 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EE | de Eiken 4 9945VA Wagenborgen | 258.061 | 586.836 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EF | de Eiken 6 9945VA Wagenborgen | 258.061 | 586.842 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EG | de Eiken 8 9945VA Wagenborgen | 258.062 | 586.853 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EH | de Eiken 10 9945VA Wagenborgen | 258.061 | 586.859 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EI | de Eiken 12 9945VA Wagenborgen | 258.061 | 586.866 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EJ | de Eiken 2 A 9945VA Wagenborgen | 258.065 | 586.807 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EK | Troostlaan 7 9945PV Wagenborgen | 258.200 | 586.801 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EL | Troostlaan 8 9945PV Wagenborgen | 258.187 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EM | Troostlaan 9 9945PV Wagenborgen | 258.172 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EN | Troostlaan 10 9945PV Wagenborgen | 258.153 | 586.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EO | Troostlaan 11 9945PV Wagenborgen | 258.142 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EP | Troostlaan 1 9945PV Wagenborgen | 258.204 | 586.736 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EQ | Troostlaan 2 9945PV Wagenborgen | 258.204 | 586.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ER | Troostlaan 3 9945PV Wagenborgen | 258.205 | 586.772 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ES | Troostlaan 2 A 9945PV Wagenborgen | 258.221 | 586.769 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ET | Troostlaan 4 9945PV Wagenborgen | 258.228 | 586.858 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EU | Troostlaan 14 9945PV Wagenborgen | 258.132 | 586.686 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EV | Troostlaan 22 9945PV Wagenborgen | 258.177 | 586.707 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EW | Troostlaan 20 9945PV Wagenborgen | 258.155 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EX | Troostlaan 21 9945PV Wagenborgen | 258.162 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EY | Troostlaan 18 9945PV Wagenborgen | 258.132 | 586.718 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EZ | Troostlaan 19 9945PV Wagenborgen | 258.139 | 586.718 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| F | G. Boelmanweg 2 9945RJ Wagenborgen | 258.181 | 586.579 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FA | Familie Bronsweg 40 9945PS Wagenborgen | 258.373 | 586.856 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FB | Familie Bronsweg 44 9945PS Wagenborgen | 258.373 | 586.900 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FC | Familie Bronsweg 46 9945PS Wagenborgen | 258.373 | 586.905 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FD | Familie Bronsweg 48 9945PS Wagenborgen | 258.375 | 586.919 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FE | Familie Bronsweg 50 9945PS Wagenborgen | 258.376 | 586.924 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FF | Familie Bronsweg 79 9945PP Wagenborgen | 258.360 | 586.991 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FG | Familie Bronsweg 81 9945PP Wagenborgen | 258.361 | 586.997 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FH | Familie Bronsweg 36 9945PS Wagenborgen | 258.377 | 586.815 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FI | Familie Bronsweg 38 9945PS Wagenborgen | 258.365 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FJ | Familie Bronsweg 42 9945PS Wagenborgen | 258.371 | 586.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FK | Familie Bronsweg 54 9945PS Wagenborgen | 258.390 | 587.021 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FL | Familie Bronsweg 52 9945PS Wagenborgen | 258.387 | 586.987 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FM | Familie Bronsweg 50 B 9945PS Wagenborgen | 258.384 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FN | Familie Bronsweg 50 A 9945PS Wagenborgen | 258.381 | 586.949 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FO | Familie Bronsweg 75 9945PP Wagenborgen | 258.353 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FP | Familie Bronsweg 75 A 9945PP Wagenborgen | 258.355 | 586.957 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FQ | Familie Bronsweg 75 B 9945PP Wagenborgen | 258.357 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FR | Familie Bronsweg 71 9945PP Wagenborgen | 258.349 | 586.917 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FS | Familie Bronsweg 69 A 9945PP Wagenborgen | 258.347 | 586.902 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FT | Familie Bronsweg 69 9945PP Wagenborgen | 258.344 | 586.888 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
3-2-2017 11:29/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaudw Alternatief 1 Groot 1A zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| FU | Familie Bronsweg 67 9945PP Wagenborgen | 258.342 | 586.873 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FV | Familie Bronsweg 65 9945PP Wagenborgen | 258.341 | 586.863 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FW | Familie Bronsweg 63 9945PP Wagenborgen | 258.338 | 586.850 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FX | Familie Bronsweg 61 9945PP Wagenborgen | 258.335 | 586.831 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FY | Familie Bronsweg 59 9945PP Wagenborgen | 258.334 | 586.816 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FZ | Familie Bronsweg 57 9945PP Wagenborgen | 258.332 | 586.805 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| G | G. Boelmanweg 3 9945RE Wagenborgen | 258.198 | 586.584 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GA | Familie Bronsweg 53 9945PP Wagenborgen | 258.332 | 586.793 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GB | Familie Bronsweg 73 9945PP Wagenborgen | 258.351 | 586.930 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GC | Familie Bronsweg 85 9945PP Wagenborgen | 258.372 | 587.065 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GD | Familie Bronsweg 83 9945PP Wagenborgen | 258.363 | 587.014 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GE | Familie Bronsweg 83 A 9945PP Wagenborgen | 258.365 | 587.034 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GF | Familie Bronsweg 77 9945PP Wagenborgen | 258.333 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GG | Familie Bronsweg 51 9945PP Wagenborgen | 258.389 | 586.776 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GH | Familie Bronsweg 2 9945PR Wagenborgen | 258.765 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GI | Familie Bronsweg 4 9945PR Wagenborgen | 258.743 | 586.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GJ | Familie Bronsweg 4 A 9945PR Wagenborgen | 258.723 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GK | Familie Bronsweg 6 9945PR Wagenborgen | 258.705 | 586.916 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GL | Familie Bronsweg 8 9945PR Wagenborgen | 258.677 | 586.901 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GM | Familie Bronsweg 10 9945PR Wagenborgen | 258.649 | 586.888 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GN | Familie Bronsweg 12 9945PR Wagenborgen | 258.620 | 586.864 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GO | Familie Bronsweg 14 9945PR Wagenborgen | 258.608 | 586.858 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GP | Familie Bronsweg 16 9945PR Wagenborgen | 258.597 | 586.852 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GQ | Familie Bronsweg 15 9945PN Wagenborgen | 258.511 | 586.783 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GR | Familie Bronsweg 17 9945PN Wagenborgen | 258.473 | 586.777 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GS | Familie Bronsweg 2 A 9945PR Wagenborgen | 258.786 | 587.001 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GT | Familie Bronsweg 2 B 9945PR Wagenborgen | 258.745 | 587.014 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GU | Familie Bronsweg 2 C 9945PR Wagenborgen | 258.710 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GV | Familie Bronsweg 2 D 9945PR Wagenborgen | 258.686 | 586.974 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GW | Familie Bronsweg 2 F 9945PR Wagenborgen | 258.671 | 586.991 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GX | Familie Bronsweg 2 G 9945PR Wagenborgen | 258.671 | 587.016 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GY | Familie Bronsweg 2 H 9945PR Wagenborgen | 258.696 | 587.012 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GZ | Familie Bronsweg 2 J 9945PR Wagenborgen | 258.717 | 587.009 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| H | G. Boelmanweg 5 9945RE Wagenborgen | 258.203 | 586.561 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HA | Akeleistraat 17 9945VD Wagenborgen | 258.515 | 587.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HB | Akeleistraat 19 9945VD Wagenborgen | 258.505 | 587.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HC | Akeleistraat 21 9945VD Wagenborgen | 258.486 | 587.050 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HD | Akeleistraat 23 9945VD Wagenborgen | 258.477 | 587.051 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HE | Akeleistraat 20 9945VD Wagenborgen | 258.448 | 587.022 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HF | Akeleistraat 22 9945VD Wagenborgen | 258.439 | 587.022 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HG | Akeleistraat 16 9945VD Wagenborgen | 258.477 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HH | Akeleistraat 18 9945VD Wagenborgen | 258.467 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HI | Akeleistraat 12 9945VD Wagenborgen | 258.506 | 587.013 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HJ | Akeleistraat 14 9945VD Wagenborgen | 258.496 | 587.013 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HK | Akeleistraat 10 9945VD Wagenborgen | 258.532 | 587.007 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HL | Akeleistraat 1 9945VD Wagenborgen | 258.634 | 587.024 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HM | Akeleistraat 3 9945VD Wagenborgen | 258.625 | 587.021 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HN | Akeleistraat 5 9945VD Wagenborgen | 258.604 | 587.023 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HO | Akeleistraat 7 9945VD Wagenborgen | 258.595 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HP | Akeleistraat 9 9945VD Wagenborgen | 258.574 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HQ | Akeleistraat 11 9945VD Wagenborgen | 258.565 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HR | Akeleistraat 2 9945VD Wagenborgen | 258.626 | 586.998 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HS | Akeleistraat 4 9945VD Wagenborgen | 258.617 | 586.995 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HT | Akeleistraat 6 9945VD Wagenborgen | 258.597 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HU | Akeleistraat 8 9945VD Wagenborgen | 258.588 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HV | Akeleistraat 15 9945VD Wagenborgen | 258.535 | 587.045 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HW | Bremstraat 6 9945VC Wagenborgen | 258.522 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HX | Bremstraat 2 9945VC Wagenborgen | 258.570 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HY | Bremstraat 4 9945VC Wagenborgen | 258.545 | 586.969 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HZ | Bremstraat 12 9945VC Wagenborgen | 258.448 | 586.982 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| I | G. Boelmanweg 4 9945RJ Wagenborgen | 258.168 | 586.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IA | Hibiscusstraat 30 9945VB Wagenborgen | 258.633 | 586.942 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IB | Hibiscusstraat 2 9945VB Wagenborgen | 258.428 | 586.818 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IC | Hibiscusstraat 4 9945VB Wagenborgen | 258.449 | 586.865 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Hans / Hans@boschenvanrijn.nl
Calculated:
3-2-2017 11:29/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaudw Alternatief 1 Groot 1A zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| ID | Hibiscusstraat 10 9945VB Wagenborgen | 258.426 | 586.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IE | Hibiscusstraat 16 9945VB Wagenborgen | 258.482 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IF | Bremstraat 14 9945VC Wagenborgen | 258.428 | 586.984 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IG | Hibiscusstraat 6 9945VB Wagenborgen | 258.417 | 586.860 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IH | Hibiscusstraat 26 9945VB Wagenborgen | 258.608 | 586.953 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| II | Kopaf 8 9945TE Wagenborgen | 259.518 | 587.109 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IJ | Kopaf 7 9945TE Wagenborgen | 259.555 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IK | Kopaf 6 9945TE Wagenborgen | 259.575 | 587.100 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IL | Kloosterlaan 27 9945TG Wagenborgen | 259.558 | 587.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IM | Kloosterlaan 25 9945TG Wagenborgen | 259.567 | 587.793 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IN | Kloosterlaan 23 9945TG Wagenborgen | 259.592 | 587.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IO | Scheve Klap 5 9945TD Wagenborgen | 260.522 | 587.264 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IP | Scheve Klap 4 9945TD Wagenborgen | 260.493 | 587.154 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IQ | Hibiscusstraat 8 9945VB Wagenborgen | 258.420 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IR | Hibiscusstraat 12 9945VB Wagenborgen | 258.431 | 586.945 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IS | Hibiscusstraat 18 9945VB Wagenborgen | 258.503 | 586.931 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IT | Hibiscusstraat 24 9945VB Wagenborgen | 258.612 | 586.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IU | Hibiscusstraat 22 9945VB Wagenborgen | 258.583 | 586.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IV | Troostlaan 15 9945PV Wagenborgen | 258.151 | 586.693 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IW | Bremstraat 10 9945VC Wagenborgen | 258.473 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IX | Hibiscusstraat 20 9945VB Wagenborgen | 258.529 | 586.931 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IY | Hibiscusstraat 28 9945VB Wagenborgen | 258.622 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IZ | Troostlaan 5 9945PV Wagenborgen | 258.189 | 586.911 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| J | G. Boelmanweg 7 9945RE Wagenborgen | 258.198 | 586.536 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JA | Troostlaan 6 9945PV Wagenborgen | 258.249 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JB | Boslaan 5 9945TM Wagenborgen | 259.413 | 587.123 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JC | Hoofdweg 33 A 9945PB Wagenborgen | 258.174 | 586.602 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JD | Akeleistraat 13 9945VD Wagenborgen | 258.569 | 587.057 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JE | Hoofdweg 42 9945PG Wagenborgen | 258.103 | 586.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JF | Familie Bronsweg 2 E 9945PR Wagenborgen | 258.670 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JG | Hibiscusstraat 14 9945VB Wagenborgen | 258.456 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JH | Bremstraat 8 9945VC Wagenborgen | 258.502 | 586.974 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JI | Menterne 23 003 9945RA Wagenborgen | 257.949 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JJ | Menterne 23 004 9945RA Wagenborgen | 257.949 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JK | Menterne 23 005 9945RA Wagenborgen | 257.948 | 586.990 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JL | Menterne 23 006 9945RA Wagenborgen | 257.948 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JM | Menterne 23 007 9945RA Wagenborgen | 257.960 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JN | Menterne 23 008 9945RA Wagenborgen | 257.960 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JO | Menterne 23 009 9945RA Wagenborgen | 257.960 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JP | Menterne 23 010 9945RA Wagenborgen | 257.961 | 586.988 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JQ | Menterne 23 017 9945RA Wagenborgen | 257.971 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JR | Menterne 23 030 9945RA Wagenborgen | 257.958 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JS | Menterne 23 103 9945RA Wagenborgen | 257.951 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JT | Menterne 23 104 9945RA Wagenborgen | 257.951 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JU | Menterne 23 105 9945RA Wagenborgen | 257.951 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JV | Menterne 23 106 9945RA Wagenborgen | 257.950 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JW | Menterne 23 107 9945RA Wagenborgen | 257.958 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JX | Menterne 23 108 9945RA Wagenborgen | 257.958 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JY | Menterne 23 109 9945RA Wagenborgen | 257.958 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JZ | Menterne 23 110 9945RA Wagenborgen | 257.958 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| K | G. Boelmanweg 6 9945RJ Wagenborgen | 258.176 | 586.541 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KA | Menterne 23 111 9945RA Wagenborgen | 257.959 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KB | Menterne 23 113 9945RA Wagenborgen | 257.967 | 586.972 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KC | Menterne 23 114 9945RA Wagenborgen | 257.967 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KD | Menterne 23 115 9945RA Wagenborgen | 257.967 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KE | Menterne 23 116 9945RA Wagenborgen | 257.968 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KF | Menterne 23 117 9945RA Wagenborgen | 257.968 | 586.957 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KG | Menterne 23 118 9945RA Wagenborgen | 257.968 | 586.953 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KH | Menterne 23 119 9945RA Wagenborgen | 257.967 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KI | Menterne 23 120 9945RA Wagenborgen | 257.968 | 586.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KJ | Menterne 23 121 9945RA Wagenborgen | 257.968 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KK | Menterne 23 122 9945RA Wagenborgen | 257.968 | 586.936 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KL | Menterne 23 123 9945RA Wagenborgen | 257.968 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KM | Menterne 23 124 9945RA Wagenborgen | 257.968 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
3-2-2017 11:29/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaudw Alternatief 1 Groot 1A zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| KN | Menterne 23 125 9945RA Wagenborgen | 257.956 | 586.930 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KO | Menterne 23 126 9945RA Wagenborgen | 257.956 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KP | Menterne 23 127 9945RA Wagenborgen | 257.956 | 586.937 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KQ | Menterne 23 128 9945RA Wagenborgen | 257.956 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KR | Menterne 23 129 9945RA Wagenborgen | 257.956 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KS | Menterne 23 130 9945RA Wagenborgen | 257.961 | 586.958 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KT | Menterne 23 131 9945RA Wagenborgen | 257.961 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KU | Menterne 23 132 9945RA Wagenborgen | 257.960 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KV | Menterne 23 201 9945RA Wagenborgen | 257.953 | 586.973 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KW | Menterne 23 202 9945RA Wagenborgen | 257.953 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KX | Menterne 23 203 9945RA Wagenborgen | 257.953 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KY | Menterne 23 204 9945RA Wagenborgen | 257.953 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KZ | Menterne 23 205 9945RA Wagenborgen | 257.953 | 586.990 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| L | Kokslaan 1 9945RD Wagenborgen | 258.257 | 586.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LA | Menterne 23 206 9945RA Wagenborgen | 257.953 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LB | Menterne 23 207 9945RA Wagenborgen | 257.956 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LC | Menterne 23 208 9945RA Wagenborgen | 257.956 | 586.995 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LD | Menterne 23 209 9945RA Wagenborgen | 257.956 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LE | Menterne 23 210 9945RA Wagenborgen | 257.956 | 586.988 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LF | Menterne 23 211 9945RA Wagenborgen | 257.957 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LG | Menterne 23 212 9945RA Wagenborgen | 257.957 | 586.981 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LH | Menterne 23 213 9945RA Wagenborgen | 257.964 | 586.972 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LI | Menterne 23 214 9945RA Wagenborgen | 257.965 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LJ | Menterne 23 215 9945RA Wagenborgen | 257.965 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LK | Menterne 23 216 9945RA Wagenborgen | 257.965 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LL | Menterne 23 217 9945RA Wagenborgen | 257.965 | 586.956 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LM | Menterne 23 218 9945RA Wagenborgen | 257.965 | 586.954 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LN | Menterne 23 219 9945RA Wagenborgen | 257.965 | 586.947 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LO | Menterne 23 220 9945RA Wagenborgen | 257.965 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LP | Menterne 23 221 9945RA Wagenborgen | 257.965 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LQ | Menterne 23 222 9945RA Wagenborgen | 257.965 | 586.937 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LR | Menterne 23 223 9945RA Wagenborgen | 257.965 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LS | Menterne 23 224 9945RA Wagenborgen | 257.966 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LT | Menterne 23 226 9945RA Wagenborgen | 257.959 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LU | Menterne 23 228 9945RA Wagenborgen | 257.958 | 586.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LV | Menterne 23 229 9945RA Wagenborgen | 257.958 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LW | Menterne 23 230 9945RA Wagenborgen | 257.962 | 586.958 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LX | Menterne 23 231 9945RA Wagenborgen | 257.962 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LY | Menterne 23 232 9945RA Wagenborgen | 257.962 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LZ | G. Boelmanweg 1 9945RE Wagenborgen | 258.213 | 586.607 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| M | Kokslaan 2 9945RD Wagenborgen | 258.279 | 586.598 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MA | Boslaan 7 9945TM Wagenborgen | 259.467 | 586.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MB | H.L. Emmensweg 23 9945PW Wagenborgen | 258.086 | 586.747 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MC | Kopaf 5 9944VA Nieuwolda | 259.816 | 586.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MD | Familie Bronsweg 68 9945TA Wagenborgen | 258.470 | 588.333 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ME | Maarkampen 26 9937PL Meedhuizen | 256.956 | 590.088 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MF | Maarkampen 24 9937PL Meedhuizen | 256.931 | 590.090 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MG | Maarkampen 22 9937PL Meedhuizen | 256.916 | 590.093 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MH | Maarkampen 20 9937PL Meedhuizen | 256.898 | 590.098 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MI | Maarkampen 18 9937PL Meedhuizen | 256.878 | 590.101 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MJ | Maarkampen 16 9937PL Meedhuizen | 256.858 | 590.104 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MK | Maarkampen 14 9937PL Meedhuizen | 256.838 | 590.106 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ML | Maarlaan 22 E 9937TH Meedhuizen | 256.932 | 590.173 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MM | Maarlaan 22 D 9937TH Meedhuizen | 256.877 | 590.178 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MN | Schaapbulterweg 8 9937TL Meedhuizen | 256.971 | 589.534 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MO | Schaapbulterweg 6 9937TL Meedhuizen | 256.919 | 589.544 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MP | Schaapbulterweg 29 9937TL Meedhuizen | 256.970 | 589.489 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MQ | Schaapbulterweg 27 9937TL Meedhuizen | 256.949 | 589.497 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MR | Schaapbulterweg 25 9937TL Meedhuizen | 256.935 | 589.503 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MS | Schaapbulterweg 23 9937TL Meedhuizen | 256.920 | 589.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MT | Schaapbulterweg 21 9937TL Meedhuizen | 256.908 | 589.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MU | Geefsweersterweg 11 9937TB Meedhuizen | 257.472 | 591.162 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MV | Schaapbulterweg 35 9937TL Meedhuizen | 257.159 | 589.455 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MW | Meedhuizerweg 20 9937TK Meedhuizen | 257.017 | 590.790 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
3-2-2017 11:29/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaudw Alternatief 1 Groot 1A zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| MX | Familie Bronsweg 66 9945TA Wagenborgen | 258.538 | 588.146 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MY | Familie Bronsweg 64 9945TA Wagenborgen | 258.518 | 588.056 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MZ | Ideweersterweg 10 9937TM Meedhuizen | 257.794 | 589.376 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| N | Kerkstraat 1 9945SB Wagenborgen | 258.120 | 586.579 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NA | Ideweersterweg 8 9937TM Meedhuizen | 257.916 | 589.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NB | Geefsweersterweg 20 9937TC Meedhuizen | 258.111 | 588.986 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NC | Geefsweersterweg 18 9937TC Meedhuizen | 258.066 | 589.025 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ND | Geefsweersterweg 29 9937TB Meedhuizen | 258.051 | 588.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NE | Geefsweersterweg 16 9937TC Meedhuizen | 258.011 | 589.140 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NF | Geefsweersterweg 23 9937TB Meedhuizen | 257.998 | 589.209 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NG | Geefsweersterweg 12 9937TC Meedhuizen | 258.033 | 589.285 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NH | Geefsweersterweg 14 9937TC Meedhuizen | 258.028 | 589.261 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NI | Geefsweersterweg 21 A 9937TB Meedhuizen | 258.002 | 589.266 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NJ | Geefsweersterweg 10 9937TC Meedhuizen | 258.042 | 589.339 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NK | Geefsweersterweg 21 9937TB Meedhuizen | 258.025 | 589.335 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NL | Geefsweersterweg 17 9937TB Meedhuizen | 258.035 | 589.424 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NM | Geefsweersterweg 19 9937TB Meedhuizen | 258.023 | 589.378 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NN | Ideweersterweg 2 9937TM Meedhuizen | 259.329 | 589.348 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NO | Ideweersterweg 1 9937TM Meedhuizen | 259.330 | 589.303 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NP | Geefsweersterweg 15 9937TB Meedhuizen | 257.994 | 590.149 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NQ | Westerlaan 6 9937TS Meedhuizen | 258.650 | 590.176 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NR | Familie Bronsweg 87 9945TA Wagenborgen | 258.255 | 588.149 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NS | Familie Bronsweg 89 9945TA Wagenborgen | 258.288 | 588.393 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NT | Westerlaan 10 9937TS Meedhuizen | 258.640 | 588.541 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NU | Geefsweersterweg 13 9937TB Meedhuizen | 257.998 | 590.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NV | Maarlaan 26 9937TH Meedhuizen | 257.044 | 590.228 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NW | Maarlaan 24 9937TH Meedhuizen | 256.988 | 590.171 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NX | Maarlaan 28 9937TH Meedhuizen | 257.042 | 590.160 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NY | Maarlaan 30 9937TH Meedhuizen | 257.109 | 590.155 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NZ | Kerklaan 3 9937PG Meedhuizen | 257.099 | 589.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| O | Hoofdweg 30 9945PG Wagenborgen | 258.190 | 586.634 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OA | Kerklaan 8 9937PG Meedhuizen | 257.192 | 589.983 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OB | Kerklaan 6 9937PG Meedhuizen | 257.151 | 590.090 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OC | Opmeedenlaan 6 9937TN Meedhuizen | 256.970 | 588.781 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OD | Opmeedenlaan 4 9937TN Meedhuizen | 256.988 | 588.863 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OE | Opmeedenlaan 2 9937TN Meedhuizen | 257.043 | 588.932 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OF | Kloosterlaan 26 9945TG Wagenborgen | 260.046 | 588.262 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OG | Zomerdijk 1 9945TH Wagenborgen | 260.153 | 588.395 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OH | Zomerdijk 3 9945TH Wagenborgen | 260.454 | 588.375 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OI | Zomerdijk 3 A 9945TH Wagenborgen | 260.560 | 588.321 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OJ | Zomerdijk 2 9945TH Wagenborgen | 260.721 | 588.388 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OK | Kloosterlaan 21 A 9945TG Wagenborgen | 259.991 | 588.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OL | Kloosterlaan 21 B 9945TG Wagenborgen | 259.957 | 588.308 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OM | Ideweersterweg 4 9937TM Meedhuizen | 258.658 | 589.400 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ON | Maarlaan 22 C 9937TH Meedhuizen | 256.840 | 590.186 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OO | Kloosterlaan 21 9936TE Farmsum | 260.253 | 589.832 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OP | Geefsweersterweg 8 A 9937TC Meedhuizen | 258.072 | 590.685 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OQ | Houtweg 20 9936BL Farmsum | 257.300 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OR | Houtweg 22 9936BL Farmsum | 257.298 | 593.542 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OS | Houtweg 24 9936BL Farmsum | 257.297 | 593.528 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OT | Houtweg 26 9936BL Farmsum | 257.296 | 593.515 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OU | Houtweg 28 9936BL Farmsum | 257.294 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OV | Rondeboslaan 6 9936BK Farmsum | 257.466 | 593.590 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OW | Proosdij 14 9936EW Farmsum | 257.893 | 593.570 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OX | Bredelaan 6 9936ER Farmsum | 257.806 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OY | Bredelaan 4 9936ER Farmsum | 257.804 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OZ | Bredelaan 2 A 9936ER Farmsum | 257.802 | 593.559 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| P | Hoofdweg 32 9945PG Wagenborgen | 258.177 | 586.629 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PA | Proosdij 24 9936EW Farmsum | 257.913 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PB | Proosdij 22 9936EW Farmsum | 257.910 | 593.522 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PC | Proosdij 20 9936EW Farmsum | 257.906 | 593.533 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PD | Proosdij 18 9936EW Farmsum | 257.901 | 593.549 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PE | Proosdij 16 9936EW Farmsum | 257.899 | 593.554 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PF | Trambaan 19 9936ES Farmsum | 257.863 | 593.507 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaudw Alternatief 1 Groot 1A zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| PG | Proosdij 17 9936ET Farmsum | 257.864 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PH | Proosdij 15 9936ET Farmsum | 257.862 | 593.560 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PI | Proosdij 13 9936ET Farmsum | 257.859 | 593.568 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PJ | Trambaan 17 9936ES Farmsum | 257.856 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PK | Trambaan 15 9936ES Farmsum | 257.849 | 593.520 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PL | Trambaan 13 9936ES Farmsum | 257.844 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PM | Trambaan 11 9936ES Farmsum | 257.839 | 593.530 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PN | Trambaan 9 9936ES Farmsum | 257.833 | 593.536 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PO | Trambaan 5 9936ES Farmsum | 257.825 | 593.544 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PP | Trambaan 3 9936ES Farmsum | 257.818 | 593.551 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PQ | Trambaan 1 9936ES Farmsum | 257.814 | 593.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PR | Proosdij 12 9936EW Farmsum | 257.888 | 593.590 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PS | Proosdij 8 9936EW Farmsum | 257.881 | 593.604 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PT | Proosdij 6 9936EW Farmsum | 257.876 | 593.616 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PU | Proosdij 4 9936EW Farmsum | 257.872 | 593.630 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PV | Proosdij 11 9936ET Farmsum | 257.856 | 593.577 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PW | Proosdij 9 9936ET Farmsum | 257.853 | 593.584 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PX | Proosdij 7 9936ET Farmsum | 257.849 | 593.596 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PY | Proosdij 5 9936ET Farmsum | 257.846 | 593.605 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PZ | Proosdij 1 9936ET Farmsum | 257.839 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Q | Hoofdweg 31 9945PA Wagenborgen | 258.210 | 586.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QA | Proosdij 3 9936ET Farmsum | 257.844 | 593.611 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QB | Farmsumerzijl 55 9936GC Farmsum | 257.821 | 593.640 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QC | Farmsumerzijl 57 9936GC Farmsum | 257.800 | 593.636 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QD | Rengersweg 4 9936GH Farmsum | 258.026 | 593.578 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QE | Rengersweg 2 9936GH Farmsum | 258.026 | 593.587 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QF | Schepperij 4 A 9936GN Farmsum | 258.046 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QG | Schepperij 2 A 9936GN Farmsum | 258.033 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QH | Schepperij 4 9936GN Farmsum | 258.040 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QI | Schepperij 2 9936GN Farmsum | 258.027 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QJ | Dijkrecht 4 9936GK Farmsum | 258.021 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QK | Dijkrecht 6 9936GK Farmsum | 258.035 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QL | Dijkrecht 10 9936GK Farmsum | 258.054 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QM | Dijkrecht 12 9936GK Farmsum | 258.061 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QN | Dijkrecht 14 9936GK Farmsum | 258.074 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QO | Dijkrecht 16 9936GK Farmsum | 258.081 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QP | Dijkrecht 18 9936GK Farmsum | 258.095 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QQ | Dijkrecht 20 9936GK Farmsum | 258.107 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QR | Dijkrecht 22 9936GK Farmsum | 258.123 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QS | Dijkrecht 24 9936GK Farmsum | 258.138 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QT | Dijkrecht 26 9936GK Farmsum | 258.159 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QU | Dijkrecht 28 9936GK Farmsum | 258.166 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QV | Dijkrecht 30 9936GK Farmsum | 258.186 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QW | Dijkrecht 32 9936GK Farmsum | 258.192 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QX | Dijkrecht 34 9936GK Farmsum | 258.206 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QY | Dijkrecht 36 9936GK Farmsum | 258.213 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QZ | Dijkrecht 40 9936GK Farmsum | 258.233 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| R | Hoofdweg 38 9945PG Wagenborgen | 258.142 | 586.621 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RA | Dijkrecht 38 9936GK Farmsum | 258.227 | 593.624 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RB | Schepperij 20 9936GN Farmsum | 258.190 | 593.563 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RC | Schepperij 18 9936GN Farmsum | 258.184 | 593.563 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RD | Waarman 12 9936GW Farmsum | 258.263 | 593.622 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RE | Waarman 10 9936GW Farmsum | 258.263 | 593.629 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RF | Waarman 8 9936GW Farmsum | 258.265 | 593.641 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RG | Waarman 6 9936GW Farmsum | 258.265 | 593.648 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RH | Farmsumerzijl 1 9936GB Farmsum | 258.234 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RI | Farmsumerzijl 3 9936GB Farmsum | 258.227 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RJ | Farmsumerzijl 5 9936GB Farmsum | 258.213 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RK | Farmsumerzijl 7 9936GB Farmsum | 258.207 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RL | Farmsumerzijl 13 9936GB Farmsum | 258.172 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RM | Farmsumerzijl 15 9936GB Farmsum | 258.166 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RN | Farmsumerzijl 17 9936GB Farmsum | 258.152 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RO | Farmsumerzijl 19 9936GB Farmsum | 258.146 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RP | Farmsumerzijl 25 9936GB Farmsum | 258.115 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaudw Alternatief 1 Groot 1A zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| RQ | Farmsumerzijl 27 9936GB Farmsum | 258.108 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RR | Farmsumerzijl 29 9936GB Farmsum | 258.096 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RS | Farmsumerzijl 31 9936GC Farmsum | 258.089 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RT | Farmsumerzijl 37 9936GC Farmsum | 258.057 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RU | Farmsumerzijl 39 9936GC Farmsum | 258.050 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RV | Farmsumerzijl 41 9936GC Farmsum | 258.037 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RW | Farmsumerzijl 43 9936GC Farmsum | 258.031 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RX | Schepperij 1 9936GL Farmsum | 258.054 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RY | Schepperij 3 9936GL Farmsum | 258.060 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RZ | Schepperij 5 9936GL Farmsum | 258.066 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| S | Hoofdweg 39 9945PB Wagenborgen | 258.126 | 586.603 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SA | Schepperij 7 9936GL Farmsum | 258.072 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SB | Schepperij 9 9936GL Farmsum | 258.078 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SC | Schepperij 11 9936GL Farmsum | 258.084 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SD | Schepperij 13 9936GL Farmsum | 258.090 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SE | Schepperij 15 9936GL Farmsum | 258.097 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SF | Dijkrecht 8 9936GK Farmsum | 258.041 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SG | Geefsweersterweg 9 9937TB Meedhuizen | 257.539 | 591.945 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SH | Geefsweersterweg 7 9937TB Meedhuizen | 258.115 | 592.341 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SI | Geefsweersterweg 8 9937TC Meedhuizen | 258.139 | 592.234 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SJ | Geefsweersterweg 3 9937TB Meedhuizen | 258.102 | 592.452 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SK | Geefsweersterweg 6 9937TC Meedhuizen | 258.202 | 592.502 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SL | Geefsweersterweg 4 9937TC Meedhuizen | 258.243 | 592.643 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SM | Meedhuizerweg 2 9937TK Meedhuizen | 256.911 | 592.415 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SN | Molenstraat 31 9936EB Farmsum | 257.786 | 593.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SO | Hindrik Jagerstraat 32 9936CV Farmsum | 257.573 | 593.810 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SP | Hindrik Jagerstraat 11 9936CT Farmsum | 257.561 | 593.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SQ | Hindrik Jagerstraat 13 9936CT Farmsum | 257.568 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SR | Hindrik Jagerstraat 15 9936CT Farmsum | 257.574 | 593.790 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SS | Hindrik Jagerstraat 34 9936CV Farmsum | 257.581 | 593.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ST | Hindrik Jagerstraat 36 9936CV Farmsum | 257.587 | 593.799 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SU | Borgshof 31 9936CR Farmsum | 257.617 | 593.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SV | Borgshof 33 9936CR Farmsum | 257.615 | 593.807 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SW | Borgshof 39 9936CR Farmsum | 257.605 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SX | Borgshof 35 9936CR Farmsum | 257.604 | 593.768 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SY | Molenstraat 20 9936EC Farmsum | 257.801 | 593.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SZ | Molenstraat 24 9936EC Farmsum | 257.812 | 593.926 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| T | Hoofdweg 35 9945PB Wagenborgen | 258.160 | 586.604 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TA | Molenstraat 28 9936EC Farmsum | 257.817 | 593.918 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TB | Molenstraat 41 9936EB Farmsum | 257.798 | 593.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TC | Molenstraat 43 9936EB Farmsum | 257.802 | 593.918 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TD | Molenstraat 45 9936EB Farmsum | 257.807 | 593.910 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TE | Molenstraat 32 9936EC Farmsum | 257.821 | 593.908 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TF | Achterweg 13 9936EG Farmsum | 257.848 | 593.913 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TG | Achterweg 11 9936EG Farmsum | 257.855 | 593.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TH | Achterweg 9 9936EG Farmsum | 257.861 | 593.915 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TI | Molenstraat 49 9936EB Farmsum | 257.809 | 593.905 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TJ | Molenstraat 51 9936EB Farmsum | 257.812 | 593.900 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TK | Molenstraat 53 9936EB Farmsum | 257.815 | 593.894 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TL | Molenstraat 57 9936EB Farmsum | 257.819 | 593.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TM | Molenstraat 61 9936EB Farmsum | 257.826 | 593.870 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TN | Molenstraat 63 9936EB Farmsum | 257.830 | 593.861 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TO | Molenstraat 34 9936ED Farmsum | 257.827 | 593.897 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TP | Molenstraat 38 9936ED Farmsum | 257.832 | 593.886 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TQ | Molenstraat 40 9936ED Farmsum | 257.835 | 593.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TR | Molenstraat 42 9936ED Farmsum | 257.837 | 593.870 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TS | Molenstraat 44 9936ED Farmsum | 257.842 | 593.859 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TT | Molenstraat 65 9936EB Farmsum | 257.834 | 593.850 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TU | Molenstraat 48 9936ED Farmsum | 257.847 | 593.847 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TV | Molenstraat 50 9936ED Farmsum | 257.850 | 593.837 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TW | Molenstraat 56 9936ED Farmsum | 257.851 | 593.824 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TX | Molenstraat 58 9936EE Farmsum | 257.863 | 593.810 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TY | Molenstraat 62 9936EE Farmsum | 257.858 | 593.798 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TZ | Molenstraat 72 9936EE Farmsum | 257.855 | 593.753 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaudw Alternatief 1 Groot 1A zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| U | Hoofdweg 37 9945PB Wagenborgen | 258.149 | 586.603 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UA | Molenstraat 70 9936EE Farmsum | 257.854 | 593.758 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UB | Molenstraat 68 9936EE Farmsum | 257.854 | 593.765 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UC | Molenstraat 66 9936EE Farmsum | 257.854 | 593.773 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UD | Achterweg 2 9936EG Farmsum | 257.886 | 593.882 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UE | Achterweg 12 9936EG Farmsum | 257.919 | 593.766 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UF | Achterweg 10 9936EG Farmsum | 257.918 | 593.779 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UG | Achterweg 8 9936EG Farmsum | 257.916 | 593.791 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UH | Hindrik Jagerstraat 17 9936CT Farmsum | 257.588 | 593.777 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UI | Molenstraat 30 9936EC Farmsum | 257.820 | 593.912 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UJ | Borgweg 141 9936EN Farmsum | 257.451 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UK | Borgweg 139 9936EN Farmsum | 257.466 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UL | Borgweg 137 9936EN Farmsum | 257.473 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UM | Borgweg 135 9936EN Farmsum | 257.487 | 593.708 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UN | Afwateringskanaal 109 9936AV Farmsum | 257.508 | 593.724 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UO | Borgweg 131 9936EM Farmsum | 257.636 | 593.714 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UP | Borgweg 133 9936EM Farmsum | 257.581 | 593.701 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UQ | Borgshof 41 9936CR Farmsum | 257.598 | 593.743 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UR | Borgshof 43 9936CR Farmsum | 257.595 | 593.730 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| US | Borgshof 45 9936CR Farmsum | 257.594 | 593.720 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UT | Molenstraat 74 9936EE Farmsum | 257.855 | 593.743 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UU | Molenstraat 76 9936EE Farmsum | 257.857 | 593.736 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UV | Molenstraat 78 9936EE Farmsum | 257.858 | 593.730 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UW | Molenstraat 82 9936EE Farmsum | 257.858 | 593.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UX | Molenstraat 84 9936EE Farmsum | 257.858 | 593.708 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UY | Borgweg 123 9936EM Farmsum | 257.927 | 593.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UZ | Borgweg 125 9936EM Farmsum | 257.917 | 593.698 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| V | Hoofdweg 44 9945PH Wagenborgen | 258.071 | 586.624 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VA | Borgweg 127 9936EM Farmsum | 257.906 | 593.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VB | Borgweg 129 9936EM Farmsum | 257.897 | 593.699 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VC | Farmsumerzijl 51 9936GC Farmsum | 257.925 | 593.665 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VD | Molenstraat 80 9936EE Farmsum | 257.858 | 593.723 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VE | Houtweg 30 9936BL Farmsum | 257.294 | 593.486 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VF | Houtweg 32 9936BL Farmsum | 257.292 | 593.473 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VG | Houtweg 34 9936BL Farmsum | 257.291 | 593.459 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VH | Houtweg 36 9936BL Farmsum | 257.289 | 593.446 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VI | Houtweg 38 9936BL Farmsum | 257.288 | 593.429 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VJ | Houtweg 40 9936BL Farmsum | 257.261 | 593.394 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VK | Houtweg 42 9936BL Farmsum | 257.257 | 593.387 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VL | Houtweg 44 9936BL Farmsum | 257.250 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VM | Houtweg 46 9936BL Farmsum | 257.248 | 593.372 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VN | Houtweg 48 9936BL Farmsum | 257.240 | 593.359 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VO | Rondeboslaan 26 9936BK Farmsum | 257.440 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VP | Rondeboslaan 28 9936BK Farmsum | 257.438 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VQ | Seendweg 32 9936GA Farmsum | 257.903 | 593.454 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VR | Trambaan 21 9936ES Farmsum | 257.870 | 593.499 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VS | Proosdij 19 9936ET Farmsum | 257.892 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VT | Bredelaan 14 9936ER Farmsum | 257.814 | 593.354 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VU | Bredelaan 10 9936ER Farmsum | 257.808 | 593.470 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VV | Bredelaan 8 9936ER Farmsum | 257.807 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VW | Seendweg 22 9936GA Farmsum | 257.897 | 593.364 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VX | Seendweg 28 9936GA Farmsum | 257.898 | 593.405 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VY | Proosdij 28 9936EW Farmsum | 257.922 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VZ | Proosdij 30 9936EX Farmsum | 257.932 | 593.484 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| W | Hoofdweg 48 9945PH Wagenborgen | 258.051 | 586.630 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WA | Proosdij 26 9936EW Farmsum | 257.919 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WB | Afwateringskanaal 107 9936AV Farmsum | 257.499 | 593.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WC | Rondeboslaan 22 A 9936BK Farmsum | 257.532 | 593.326 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WD | Rondeboslaan 22 B 9936BK Farmsum | 257.532 | 593.320 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WE | Rondeboslaan 2 A 9936BK Farmsum | 257.534 | 593.639 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WF | Rondeboslaan 2 B 9936BK Farmsum | 257.493 | 593.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WG | Seendweg 17 9936GA Farmsum | 257.931 | 593.394 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WH | Borgshof 29 9936CR Farmsum | 257.619 | 593.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WI | Molenstraat 22 9936EC Farmsum | 257.808 | 593.935 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
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# SHADOW - Main Result

## Calculation: Slagschaudw Alternatief 1 Groot 1A zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| WJ | Achterweg 7 A 9936EG Farmsum | 257.858 | 593.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WK | Molenstraat 26 9936EC Farmsum | 257.814 | 593.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WL | Borgweg 113 9936EM Farmsum | 257.957 | 593.782 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WM | Borgweg 115 9936EM Farmsum | 257.968 | 593.707 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WN | Borgweg 117 9936EM Farmsum | 257.959 | 593.705 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WO | Borgweg 119 9936EM Farmsum | 257.947 | 593.703 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WP | Borgweg 121 9936EM Farmsum | 257.938 | 593.701 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WQ | Farmsumerzijl 45 9936GC Farmsum | 257.966 | 593.671 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WR | Farmsumerzijl 47 9936GC Farmsum | 257.947 | 593.667 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WS | Farmsumerzijl 49 9936GC Farmsum | 257.933 | 593.666 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WT | Waarman 4 9936GW Farmsum | 258.267 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WU | Waarman 2 9936GW Farmsum | 258.267 | 593.668 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WV | Farmsumerzijl 9 9936GB Farmsum | 258.192 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WW | Farmsumerzijl 11 9936GB Farmsum | 258.186 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WX | Farmsumerzijl 21 9936GB Farmsum | 258.134 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WY | Farmsumerzijl 23 9936GB Farmsum | 258.126 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WZ | Farmsumerzijl 33 9936GC Farmsum | 258.076 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| X | Hoofdweg 41 9945PB Wagenborgen | 258.092 | 586.599 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XA | Farmsumerzijl 35 9936GC Farmsum | 258.070 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XB | Schepperij 17 9936GL Farmsum | 258.103 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XC | Schepperij 19 9936GL Farmsum | 258.109 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XD | Schepperij 21 9936GL Farmsum | 258.115 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XE | Dijkrecht 3 9936GJ Farmsum | 258.042 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XF | Dijkrecht 5 9936GJ Farmsum | 258.052 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XG | Dijkrecht 7 9936GJ Farmsum | 258.054 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XH | Dijkrecht 9 9936GJ Farmsum | 258.063 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XI | Dijkrecht 11 9936GJ Farmsum | 258.073 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XJ | Dijkrecht 13 9936GJ Farmsum | 258.079 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XK | Dijkrecht 15 9936GJ Farmsum | 258.085 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XL | Dijkrecht 17 9936GJ Farmsum | 258.092 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XM | Dijkrecht 19 9936GJ Farmsum | 258.098 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XN | Dijkrecht 21 9936GJ Farmsum | 258.104 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XO | Schepperij 6 9936GN Farmsum | 258.058 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XP | Schepperij 8 9936GN Farmsum | 258.064 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XQ | Schepperij 10 9936GN Farmsum | 258.070 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XR | Schepperij 12 9936GN Farmsum | 258.075 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XS | Schepperij 14 9936GN Farmsum | 258.081 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XT | Schepperij 16 9936GN Farmsum | 258.087 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XU | Olderman 2 9936GT Farmsum | 258.132 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XV | Olderman 4 9936GT Farmsum | 258.132 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XW | Olderman 6 9936GT Farmsum | 258.132 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XX | Olderman 8 9936GT Farmsum | 258.132 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XY | Olderman 10 9936GT Farmsum | 258.132 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XZ | Olderman 12 9936GT Farmsum | 258.132 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Y | Hoofdweg 20 9945PG Wagenborgen | 258.207 | 586.682 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YA | Olderman 14 9936GT Farmsum | 258.132 | 593.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YB | Dijkrecht 23 9936GJ Farmsum | 258.162 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YC | Dijkrecht 25 9936GJ Farmsum | 258.162 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YD | Dijkrecht 27 9936GJ Farmsum | 258.163 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YE | Dijkrecht 29 9936GJ Farmsum | 258.163 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YF | Dijkrecht 31 9936GJ Farmsum | 258.163 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YG | Dijkrecht 33 9936GJ Farmsum | 258.163 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YH | Dijkrecht 35 9936GJ Farmsum | 258.163 | 593.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YI | Dijkrecht 37 9936GJ Farmsum | 258.182 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YJ | Dijkrecht 39 9936GJ Farmsum | 258.182 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YK | Dijkrecht 41 9936GJ Farmsum | 258.182 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YL | Dijkrecht 43 9936GJ Farmsum | 258.182 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YM | Olderman 1 9936GS Farmsum | 258.107 | 593.574 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YN | Olderman 3 9936GS Farmsum | 258.107 | 593.567 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YO | Olderman 5 9936GS Farmsum | 258.108 | 593.561 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YP | Olderman 7 9936GS Farmsum | 258.108 | 593.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YQ | Schepperij 37 9936GM Farmsum | 258.194 | 593.543 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YR | Schepperij 41 9936GM Farmsum | 258.194 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YS | Schepperij 45 9936GM Farmsum | 258.194 | 593.518 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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3-2-2017 11:29/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaudw Alternatief 1 Groot 1A zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| YT | Schepperij 47 9936GM Farmsum | 258.194 | 593.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YU | Schepperij 49 9936GM Farmsum | 258.194 | 593.506 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YV | Olderman 18 9936GT Farmsum | 258.143 | 593.539 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YW | Olderman 20 9936GT Farmsum | 258.143 | 593.533 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YX | Olderman 22 9936GT Farmsum | 258.143 | 593.527 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YY | Olderman 24 9936GT Farmsum | 258.143 | 593.521 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YZ | Olderman 26 9936GT Farmsum | 258.143 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Z | Hoofdweg 22 9945PG Wagenborgen | 258.202 | 586.669 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZA | Olderman 28 9936GT Farmsum | 258.143 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZB | Olderman 30 9936GT Farmsum | 258.143 | 593.502 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZC | Olderman 9 9936GS Farmsum | 258.120 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZD | Olderman 11 9936GS Farmsum | 258.120 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZE | Olderman 13 9936GS Farmsum | 258.120 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZF | Proosdij 32 9936EX Farmsum | 257.941 | 593.479 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZG | Proosdij 36 9936EX Farmsum | 257.952 | 593.473 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZH | Proosdij 38 9936EX Farmsum | 257.963 | 593.468 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZI | Proosdij 40 9936EX Farmsum | 257.984 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZJ | Proosdij 27 9936EV Farmsum | 257.995 | 593.418 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZK | Proosdij 25 9936EV Farmsum | 257.979 | 593.425 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZL | Proosdij 23 9936EV Farmsum | 257.962 | 593.433 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZM | Proosdij 21 9936EV Farmsum | 257.941 | 593.443 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZN | Seendweg 5 9936GA Farmsum | 258.091 | 593.322 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZO | Proosdij 29 9936EV Farmsum | 258.005 | 593.413 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZP | Proosdij 31 9936EV Farmsum | 258.019 | 593.403 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZQ | Proosdij 33 9936EV Farmsum | 258.043 | 593.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZR | Proosdij 35 9936EV Farmsum | 258.067 | 593.376 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZS | Proosdij 37 9936EV Farmsum | 258.085 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZT | Proosdij 39 9936EV Farmsum | 258.092 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZU | Proosdij 41 9936EV Farmsum | 258.099 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZV | Proosdij 43 9936EV Farmsum | 258.106 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZW | Proosdij 45 9936EV Farmsum | 258.112 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZX | Proosdij 47 9936EV Farmsum | 258.119 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZY | Olderman 15 9936GS Farmsum | 258.118 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZZ | Rengersweg 97 9936GG Farmsum | 258.010 | 593.468 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

## Calculation Results

Shadow receptor

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| [A | Rengersweg 99 9936GG Farmsum | 1:18 |
| [B | Rengersweg 12 9936GH Farmsum | 1:19 |
| [C | Rengersweg 10 9936GH Farmsum | 1:15 |
| [D | Kluft 1 9936GP Farmsum | 0:58 |
| [E | Kluft 3 9936GP Farmsum | 0:55 |
| [F | Proosdij 46 9936EX Farmsum | 1:18 |
| [G | Proosdij 48 9936EX Farmsum | 1:13 |
| [H | Proosdij 50 9936EX Farmsum | 0:56 |
| [I | Proosdij 52 9936EX Farmsum | 1:05 |
| [J | Proosdij 54 9936EX Farmsum | 1:13 |
| [K | Proosdij 56 9936EX Farmsum | 1:08 |
| [L | Olderman 21 9936GS Farmsum | 0:58 |
| [M | Olderman 19 9936GS Farmsum | 0:49 |
| [N | Olderman 17 9936GS Farmsum | 0:40 |
| [O | Kluft 5 9936GP Farmsum | 0:51 |
| [P | Kluft 7 9936GP Farmsum | 0:48 |
| [Q | Kluft 9 9936GP Farmsum | 0:37 |
| [R | Kluft 11 9936GP Farmsum | 0:35 |
| [S | Kluft 17 9936GP Farmsum | 0:27 |
| [T | Zijlvest 8 9936GZ Farmsum | 0:27 |
| [U | Olderman 32 9936GT Farmsum | 0:10 |
| [V | Olderman 34 9936GT Farmsum | 0:14 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaudw Alternatief 1 Groot 1A zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| [W | Olderman 36 9936GT Farmsum | 0:22 |
| [X | Olderman 38 9936GT Farmsum | 0:26 |
| [Y | Olderman 40 9936GT Farmsum | 0:34 |
| [Z | Olderman 42 9936GT Farmsum | 0:38 |
| \A | ZijIvest 22 A 9936GZ Farmsum | 0:00 |
| \B | ZijIvest 18 A 9936GZ Farmsum | 0:01 |
| \C | ZijIvest 18 9936GZ Farmsum | 0:00 |
| \D | ZijIvest 14 9936GZ Farmsum | 0:07 |
| \E | Borgweg 1 9936EH Farmsum | 0:00 |
| \F | Borgweg 3 9936EH Farmsum | 0:00 |
| \G | Borgweg 5 9936EH Farmsum | 0:00 |
| \H | Borgweg 7 9936EH Farmsum | 0:00 |
| \I | Borgweg 9 9936EH Farmsum | 0:00 |
| \J | Borgweg 11 9936EH Farmsum | 0:00 |
| \K | Borgweg 13 9936EH Farmsum | 0:00 |
| \L | Borgweg 15 9936EH Farmsum | 0:00 |
| \M | Borgweg 17 9936EH Farmsum | 0:00 |
| \N | Borgweg 19 9936EH Farmsum | 0:00 |
| \O | Borgweg 21 9936EH Farmsum | 0:00 |
| \P | Borgweg 23 9936EH Farmsum | 0:00 |
| \Q | Borgweg 25 9936EH Farmsum | 0:00 |
| \R | Borgweg 27 9936EH Farmsum | 0:00 |
| \S | Borgweg 29 9936EJ Farmsum | 0:00 |
| \T | Borgweg 31 9936EJ Farmsum | 0:00 |
| \U | Borgweg 33 9936EJ Farmsum | 0:00 |
| \V | Borgweg 35 9936EJ Farmsum | 0:00 |
| \W | Borgweg 37 9936EJ Farmsum | 0:00 |
| \X | Borgweg 39 9936EJ Farmsum | 0:00 |
| \Y | Borgweg 41 9936EJ Farmsum | 0:00 |
| \Z | Borgweg 43 9936EJ Farmsum | 0:00 |
| ]A | Borgweg 45 9936EJ Farmsum | 0:00 |
| ]B | Borgweg 47 9936EJ Farmsum | 0:00 |
| ]C | Borgweg 49 9936EJ Farmsum | 0:00 |
| ]D | Borgweg 51 9936EJ Farmsum | 0:00 |
| ]E | Borgweg 53 9936EJ Farmsum | 0:00 |
| ]F | Borgweg 55 9936EJ Farmsum | 0:00 |
| ]G | Borgweg 57 9936EK Farmsum | 0:00 |
| ]H | Borgweg 59 9936EK Farmsum | 0:00 |
| ]I | Borgweg 61 9936EK Farmsum | 0:00 |
| ]J | Borgweg 63 9936EK Farmsum | 0:00 |
| ]K | Borgweg 65 9936EK Farmsum | 0:00 |
| ]L | Borgweg 67 9936EK Farmsum | 0:00 |
| ]M | Borgweg 69 9936EK Farmsum | 0:00 |
| ]N | Borgweg 71 9936EK Farmsum | 0:00 |
| ]O | Borgweg 73 9936EK Farmsum | 0:00 |
| ]P | Borgweg 75 9936EK Farmsum | 0:00 |
| ]Q | Borgweg 77 9936EK Farmsum | 0:00 |
| ]R | Borgweg 79 9936EK Farmsum | 0:00 |
| ]S | Borgweg 81 9936EK Farmsum | 0:00 |
| ]T | Borgweg 83 9936EK Farmsum | 0:00 |
| ]U | Borgweg 85 9936EL Farmsum | 0:00 |
| ]V | Borgweg 87 9936EL Farmsum | 0:00 |
| ]W | Borgweg 89 9936EL Farmsum | 0:00 |
| ]X | Borgweg 91 9936EL Farmsum | 0:00 |
| ]Y | Borgweg 93 9936EL Farmsum | 0:00 |
| ]Z | Borgweg 95 9936EL Farmsum | 0:00 |
| ^A | Borgweg 97 9936EL Farmsum | 0:00 |
| ^B | Borgweg 99 9936EL Farmsum | 0:00 |
| ^C | Borgweg 101 9936EL Farmsum | 0:00 |
| ^D | Borgweg 103 9936EL Farmsum | 0:00 |
| ^E | Borgweg 105 9936EL Farmsum | 0:00 |
| ^F | Borgweg 107 9936EL Farmsum | 0:00 |
| ^G | Borgweg 109 9936EL Farmsum | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaudw Alternatief 1 Groot 1A zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| ^H | Borgweg 111 9936EL Farmsum | 0:00 |
| ^I | Kluft 18 9936GR Farmsum | 0:38 |
| ^J | Kluft 20 9936GR Farmsum | 0:35 |
| ^K | Kluft 22 9936GR Farmsum | 0:32 |
| ^L | Kluft 24 9936GR Farmsum | 0:30 |
| ^M | Kluft 26 9936GR Farmsum | 0:27 |
| ^N | Kluft 28 9936GR Farmsum | 0:25 |
| ^O | Kluft 30 9936GR Farmsum | 0:22 |
| ^P | Kluft 32 9936GR Farmsum | 0:20 |
| ^Q | Kluft 2 9936GR Farmsum | 0:41 |
| ^R | Kluft 4 9936GR Farmsum | 0:38 |
| ^S | Kluft 6 9936GR Farmsum | 0:35 |
| ^T | Kluft 8 9936GR Farmsum | 0:33 |
| ^U | Kluft 10 9936GR Farmsum | 0:31 |
| ^V | Kluft 12 9936GR Farmsum | 0:27 |
| ^W | Kluft 14 9936GR Farmsum | 0:25 |
| ^X | Kluft 16 9936GR Farmsum | 0:23 |
| ^Y | Zijlvest 20 A 9936GZ Farmsum | 0:00 |
| ^Z | Schepperij 51 9936GM Farmsum | 0:00 |
| _A | Waarman 15 9936GV Farmsum | 0:00 |
| _B | Waarman 17 9936GV Farmsum | 0:00 |
| _C | Waarman 19 9936GV Farmsum | 0:00 |
| _D | Waarman 21 9936GV Farmsum | 0:00 |
| _E | Waarman 23 9936GV Farmsum | 0:00 |
| _F | Waarman 25 9936GV Farmsum | 0:00 |
| _G | Waarman 27 9936GV Farmsum | 0:00 |
| _H | Waarman 29 9936GV Farmsum | 0:00 |
| _I | Heemskesweg 5 9936HE Farmsum | 11:13 |
| _J | Geefsweersterweg 2 9937TC Meedhuizen | 7:16 |
| _K | Seendweg 12 9936GA Farmsum | 3:13 |
| _L | Schepperij 39 9936GM Farmsum | 0:00 |
| _M | Schepperij 43 9936GM Farmsum | 0:00 |
| _N | Zijlvest 14 A 9936GZ Farmsum | 0:06 |
| _O | Zijlvest 24 A 9936GZ Farmsum | 0:00 |
| A | Familie Bronsweg 60 9945TA Wagenborgen | 10:15 |
| AA | Hoofdweg 26 9945PG Wagenborgen | 0:00 |
| AB | Hoofdweg 23 9945PA Wagenborgen | 0:00 |
| AC | Hoofdweg 25 9945PA Wagenborgen | 0:00 |
| AD | Hoofdweg 27 9945PA Wagenborgen | 0:00 |
| AE | Hoofdweg 29 9945PA Wagenborgen | 0:00 |
| AF | Hoofdweg 18 9945PG Wagenborgen | 0:00 |
| AG | Hoofdweg 14 9945PG Wagenborgen | 0:00 |
| AH | Hoofdweg 10 9945PG Wagenborgen | 0:00 |
| AI | Hoofdweg 8 9945PG Wagenborgen | 0:00 |
| AJ | Hoofdweg 6 9945PG Wagenborgen | 0:00 |
| AK | Hoofdweg 4 9945PG Wagenborgen | 0:00 |
| AL | Hoofdweg 21 9945PA Wagenborgen | 0:00 |
| AM | Hoofdweg 19 9945PA Wagenborgen | 0:00 |
| AN | Hoofdweg 2 9945PG Wagenborgen | 0:00 |
| AO | Hoofdweg 15 9945PA Wagenborgen | 0:00 |
| AP | Hoofdweg 9 9945PA Wagenborgen | 0:00 |
| AQ | Hoofdweg 11 9945PA Wagenborgen | 0:00 |
| AR | Hoofdweg 7 9945PA Wagenborgen | 0:00 |
| AS | Hoofdweg 5 9945PA Wagenborgen | 0:00 |
| AT | H.L. Emmensweg 17 9945PW Wagenborgen | 0:00 |
| AU | H.L. Emmensweg 18 9945PX Wagenborgen | 0:00 |
| AV | H.L. Emmensweg 20 9945PX Wagenborgen | 0:00 |
| AW | H.L. Emmensweg 22 9945PX Wagenborgen | 0:00 |
| AX | H.L. Emmensweg 24 9945PX Wagenborgen | 0:00 |
| AY | H.L. Emmensweg 26 9945PX Wagenborgen | 0:00 |
| AZ | H.L. Emmensweg 10 9945PX Wagenborgen | 0:00 |
| B | Tolhek 4 9945TJ Wagenborgen | 0:00 |
| BA | H.L. Emmensweg 12 9945PX Wagenborgen | 0:00 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaudw Alternatief 1 Groot 1A zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| BB | H.L. Emmensweg 14 9945PX Wagenborgen | 0:00 |
| BC | H.L. Emmensweg 16 9945PX Wagenborgen | 0:00 |
| BD | H.L. Emmensweg 13 9945PW Wagenborgen | 0:00 |
| BE | H.L. Emmensweg 15 9945PW Wagenborgen | 0:00 |
| BF | H.L. Emmensweg 9 9945PW Wagenborgen | 0:00 |
| BG | H.L. Emmensweg 11 9945PW Wagenborgen | 0:00 |
| BH | H.L. Emmensweg 5 9945PW Wagenborgen | 0:00 |
| BI | H.L. Emmensweg 7 9945PW Wagenborgen | 0:00 |
| BJ | H.L. Emmensweg 4 9945PX Wagenborgen | 0:00 |
| BK | H.L. Emmensweg 2 9945PX Wagenborgen | 0:00 |
| BL | H.L. Emmensweg 1 9945PW Wagenborgen | 0:00 |
| BM | H.L. Emmensweg 3 9945PW Wagenborgen | 0:00 |
| BN | de Linden 4 9945PZ Wagenborgen | 0:00 |
| BO | de Linden 6 9945PZ Wagenborgen | 0:00 |
| BP | de Linden 10 9945PZ Wagenborgen | 0:00 |
| BQ | de Linden 12 9945PZ Wagenborgen | 0:00 |
| BR | de Linden 2 9945PZ Wagenborgen | 0:00 |
| BS | de Wilgen 12 9945RB Wagenborgen | 0:00 |
| BT | de Wilgen 10 9945RB Wagenborgen | 0:00 |
| BU | de Wilgen 8 9945RB Wagenborgen | 0:00 |
| BV | de Wilgen 2 9945RB Wagenborgen | 0:00 |
| BW | de Wilgen 4 9945RB Wagenborgen | 0:00 |
| BX | de Wilgen 6 9945RB Wagenborgen | 0:00 |
| BY | de Wilgen 6 A 9945RB Wagenborgen | 0:00 |
| BZ | de Wilgen 3 9945RB Wagenborgen | 0:00 |
| C | Tolhek 1 9945TJ Wagenborgen | 0:00 |
| CA | de Wilgen 3 A 9945RB Wagenborgen | 0:00 |
| CB | de Wilgen 3 B 9945RB Wagenborgen | 0:00 |
| CC | de Wilgen 5 9945RB Wagenborgen | 0:00 |
| CD | de Wilgen 46 9945RB Wagenborgen | 0:00 |
| CE | de Wilgen 44 9945RB Wagenborgen | 0:00 |
| CF | de Wilgen 48 9945RB Wagenborgen | 0:00 |
| CG | de Wilgen 50 9945RB Wagenborgen | 0:00 |
| CH | de Wilgen 36 9945RB Wagenborgen | 0:00 |
| CI | de Wilgen 38 9945RB Wagenborgen | 0:00 |
| CJ | de Wilgen 40 9945RB Wagenborgen | 0:00 |
| CK | de Wilgen 42 9945RB Wagenborgen | 0:00 |
| CL | de Wilgen 28 9945RB Wagenborgen | 0:00 |
| CM | de Wilgen 30 9945RB Wagenborgen | 0:00 |
| CN | de Wilgen 32 9945RB Wagenborgen | 0:00 |
| CO | de Wilgen 34 9945RB Wagenborgen | 0:00 |
| CP | de Wilgen 24 9945TK Wagenborgen | 0:00 |
| CQ | de Wilgen 26 9945RB Wagenborgen | 0:00 |
| CR | de Wilgen 20 9945RB Wagenborgen | 0:00 |
| CS | de Wilgen 22 9945RB Wagenborgen | 0:00 |
| CT | de Wilgen 18 9945RB Wagenborgen | 0:00 |
| CU | de Wilgen 16 9945RB Wagenborgen | 0:00 |
| CV | de Wilgen 14 9945RB Wagenborgen | 0:00 |
| CW | de Wilgen 9 9945RB Wagenborgen | 0:00 |
| CX | de Wilgen 52 9945RB Wagenborgen | 0:00 |
| CY | Menterne 22 9945RA Wagenborgen | 0:00 |
| CZ | Menterne 18 9945RA Wagenborgen | 0:00 |
| D | Familie Bronsweg 62 9945TA Wagenborgen | 13:32 |
| DA | Menterne 21 9945RA Wagenborgen | 0:00 |
| DB | Menterne 19 9945RA Wagenborgen | 0:00 |
| DC | Menterne 20 9945RA Wagenborgen | 0:00 |
| DD | Menterne 17 9945RA Wagenborgen | 0:00 |
| DE | Menterne 7 9945RA Wagenborgen | 0:00 |
| DF | Menterne 8 9945RA Wagenborgen | 0:00 |
| DG | Menterne 9 9945RA Wagenborgen | 0:00 |
| DH | Menterne 10 9945RA Wagenborgen | 0:00 |
| DI | Menterne 11 9945RA Wagenborgen | 0:00 |
| DJ | Menterne 12 9945RA Wagenborgen | 0:00 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaudw Alternatief 1 Groot 1A zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| DK | Menterne 13 9945RA Wagenborgen | 0:00 |
| DL | Menterne 14 9945RA Wagenborgen | 0:00 |
| DM | Menterne 1 9945RA Wagenborgen | 0:00 |
| DN | Menterne 2 9945RA Wagenborgen | 0:00 |
| DO | Menterne 3 9945RA Wagenborgen | 0:00 |
| DP | Menterne 4 9945RA Wagenborgen | 0:00 |
| DQ | Menterne 5 9945RA Wagenborgen | 0:00 |
| DR | Menterne 6 9945RA Wagenborgen | 0:00 |
| DS | Menterne 15 9945RA Wagenborgen | 0:00 |
| DT | Menterne 16 9945RA Wagenborgen | 0:00 |
| DU | de Berken 6 9945PT Wagenborgen | 0:00 |
| DV | de Berken 2 9945PT Wagenborgen | 0:00 |
| DW | de Berken 4 9945PT Wagenborgen | 0:00 |
| DX | de Berken 1 9945PT Wagenborgen | 0:00 |
| DY | de Berken 5 9945PT Wagenborgen | 0:00 |
| DZ | de Berken 7 9945PT Wagenborgen | 0:00 |
| E | Meerweg 3 9945RC Wagenborgen | 1:22 |
| EA | de Berken 9 9945PT Wagenborgen | 0:00 |
| EB | de Eiken 14 9945VA Wagenborgen | 0:00 |
| EC | de Eiken 16 9945VA Wagenborgen | 0:00 |
| ED | de Eiken 2 9945VA Wagenborgen | 0:00 |
| EE | de Eiken 4 9945VA Wagenborgen | 0:00 |
| EF | de Eiken 6 9945VA Wagenborgen | 0:00 |
| EG | de Eiken 8 9945VA Wagenborgen | 0:00 |
| EH | de Eiken 10 9945VA Wagenborgen | 0:00 |
| EI | de Eiken 12 9945VA Wagenborgen | 0:00 |
| EJ | de Eiken 2 A 9945VA Wagenborgen | 0:00 |
| EK | Troostlaan 7 9945PV Wagenborgen | 0:00 |
| EL | Troostlaan 8 9945PV Wagenborgen | 0:00 |
| EM | Troostlaan 9 9945PV Wagenborgen | 0:00 |
| EN | Troostlaan 10 9945PV Wagenborgen | 0:00 |
| EO | Troostlaan 11 9945PV Wagenborgen | 0:00 |
| EP | Troostlaan 1 9945PV Wagenborgen | 0:00 |
| EQ | Troostlaan 2 9945PV Wagenborgen | 0:00 |
| ER | Troostlaan 3 9945PV Wagenborgen | 0:00 |
| ES | Troostlaan 2 A 9945PV Wagenborgen | 0:00 |
| ET | Troostlaan 4 9945PV Wagenborgen | 0:00 |
| EU | Troostlaan 14 9945PV Wagenborgen | 0:00 |
| EV | Troostlaan 22 9945PV Wagenborgen | 0:00 |
| EW | Troostlaan 20 9945PV Wagenborgen | 0:00 |
| EX | Troostlaan 21 9945PV Wagenborgen | 0:00 |
| EY | Troostlaan 18 9945PV Wagenborgen | 0:00 |
| EZ | Troostlaan 19 9945PV Wagenborgen | 0:00 |
| F | G. Boelmanweg 2 9945RJ Wagenborgen | 0:00 |
| FA | Familie Bronsweg 40 9945PS Wagenborgen | 0:00 |
| FB | Familie Bronsweg 44 9945PS Wagenborgen | 0:00 |
| FC | Familie Bronsweg 46 9945PS Wagenborgen | 0:00 |
| FD | Familie Bronsweg 48 9945PS Wagenborgen | 0:00 |
| FE | Familie Bronsweg 50 9945PS Wagenborgen | 0:00 |
| FF | Familie Bronsweg 79 9945PP Wagenborgen | 0:00 |
| FG | Familie Bronsweg 81 9945PP Wagenborgen | 0:00 |
| FH | Familie Bronsweg 36 9945PS Wagenborgen | 0:00 |
| FI | Familie Bronsweg 38 9945PS Wagenborgen | 0:00 |
| FJ | Familie Bronsweg 42 9945PS Wagenborgen | 0:00 |
| FK | Familie Bronsweg 54 9945PS Wagenborgen | 0:00 |
| FL | Familie Bronsweg 52 9945PS Wagenborgen | 0:00 |
| FM | Familie Bronsweg 50 B 9945PS Wagenborgen | 0:00 |
| FN | Familie Bronsweg 50 A 9945PS Wagenborgen | 0:00 |
| FO | Familie Bronsweg 75 9945PP Wagenborgen | 0:00 |
| FP | Familie Bronsweg 75 A 9945PP Wagenborgen | 0:00 |
| FQ | Familie Bronsweg 75 B 9945PP Wagenborgen | 0:00 |
| FR | Familie Bronsweg 71 9945PP Wagenborgen | 0:00 |
| FS | Familie Bronsweg 69 A 9945PP Wagenborgen | 0:00 |

To be continued on next page...

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3-2-2017 11:29/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaudw Alternatief 1 Groot 1A zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| FT | Familie Bronsweg 69 9945PP Wagenborgen | 0:00 |
| FU | Familie Bronsweg 67 9945PP Wagenborgen | 0:00 |
| FV | Familie Bronsweg 65 9945PP Wagenborgen | 0:00 |
| FW | Familie Bronsweg 63 9945PP Wagenborgen | 0:00 |
| FX | Familie Bronsweg 61 9945PP Wagenborgen | 0:00 |
| FY | Familie Bronsweg 59 9945PP Wagenborgen | 0:00 |
| FZ | Familie Bronsweg 57 9945PP Wagenborgen | 0:00 |
| G | G. Boelmanweg 3 9945RE Wagenborgen | 0:00 |
| GA | Familie Bronsweg 53 9945PP Wagenborgen | 0:00 |
| GB | Familie Bronsweg 73 9945PP Wagenborgen | 0:00 |
| GC | Familie Bronsweg 85 9945PP Wagenborgen | 0:00 |
| GD | Familie Bronsweg 83 9945PP Wagenborgen | 0:00 |
| GE | Familie Bronsweg 83 A 9945PP Wagenborgen | 0:00 |
| GF | Familie Bronsweg 77 9945PP Wagenborgen | 0:00 |
| GG | Familie Bronsweg 51 9945PP Wagenborgen | 0:00 |
| GH | Familie Bronsweg 2 9945PR Wagenborgen | 0:00 |
| GI | Familie Bronsweg 4 9945PR Wagenborgen | 0:00 |
| GJ | Familie Bronsweg 4 A 9945PR Wagenborgen | 0:00 |
| GK | Familie Bronsweg 6 9945PR Wagenborgen | 0:00 |
| GL | Familie Bronsweg 8 9945PR Wagenborgen | 0:00 |
| GM | Familie Bronsweg 10 9945PR Wagenborgen | 0:00 |
| GN | Familie Bronsweg 12 9945PR Wagenborgen | 0:00 |
| GO | Familie Bronsweg 14 9945PR Wagenborgen | 0:00 |
| GP | Familie Bronsweg 16 9945PR Wagenborgen | 0:00 |
| GQ | Familie Bronsweg 15 9945PN Wagenborgen | 0:00 |
| GR | Familie Bronsweg 17 9945PN Wagenborgen | 0:00 |
| GS | Familie Bronsweg 2 A 9945PR Wagenborgen | 0:00 |
| GT | Familie Bronsweg 2 B 9945PR Wagenborgen | 0:00 |
| GU | Familie Bronsweg 2 C 9945PR Wagenborgen | 0:00 |
| GV | Familie Bronsweg 2 D 9945PR Wagenborgen | 0:00 |
| GW | Familie Bronsweg 2 F 9945PR Wagenborgen | 0:00 |
| GX | Familie Bronsweg 2 G 9945PR Wagenborgen | 0:00 |
| GY | Familie Bronsweg 2 H 9945PR Wagenborgen | 0:00 |
| GZ | Familie Bronsweg 2 J 9945PR Wagenborgen | 0:00 |
| H | G. Boelmanweg 5 9945RE Wagenborgen | 0:00 |
| HA | Akeleistraat 17 9945VD Wagenborgen | 0:00 |
| HB | Akeleistraat 19 9945VD Wagenborgen | 0:00 |
| HC | Akeleistraat 21 9945VD Wagenborgen | 0:00 |
| HD | Akeleistraat 23 9945VD Wagenborgen | 0:00 |
| HE | Akeleistraat 20 9945VD Wagenborgen | 0:00 |
| HF | Akeleistraat 22 9945VD Wagenborgen | 0:00 |
| HG | Akeleistraat 16 9945VD Wagenborgen | 0:00 |
| HH | Akeleistraat 18 9945VD Wagenborgen | 0:00 |
| HI | Akeleistraat 12 9945VD Wagenborgen | 0:00 |
| HJ | Akeleistraat 14 9945VD Wagenborgen | 0:00 |
| HK | Akeleistraat 10 9945VD Wagenborgen | 0:00 |
| HL | Akeleistraat 1 9945VD Wagenborgen | 0:00 |
| HM | Akeleistraat 3 9945VD Wagenborgen | 0:00 |
| HN | Akeleistraat 5 9945VD Wagenborgen | 0:00 |
| HO | Akeleistraat 7 9945VD Wagenborgen | 0:00 |
| HP | Akeleistraat 9 9945VD Wagenborgen | 0:00 |
| HQ | Akeleistraat 11 9945VD Wagenborgen | 0:00 |
| HR | Akeleistraat 2 9945VD Wagenborgen | 0:00 |
| HS | Akeleistraat 4 9945VD Wagenborgen | 0:00 |
| HT | Akeleistraat 6 9945VD Wagenborgen | 0:00 |
| HU | Akeleistraat 8 9945VD Wagenborgen | 0:00 |
| HV | Akeleistraat 15 9945VD Wagenborgen | 0:00 |
| HW | Bremstraat 6 9945VC Wagenborgen | 0:00 |
| HX | Bremstraat 2 9945VC Wagenborgen | 0:00 |
| HY | Bremstraat 4 9945VC Wagenborgen | 0:00 |
| HZ | Bremstraat 12 9945VC Wagenborgen | 0:00 |
| I | G. Boelmanweg 4 9945RJ Wagenborgen | 0:00 |
| IA | Hibiscusstraat 30 9945VB Wagenborgen | 0:00 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaudw Alternatief 1 Groot 1A zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| IB | Hibiscusstraat 2 9945VB Wagenborgen | 0:00 |
| IC | Hibiscusstraat 4 9945VB Wagenborgen | 0:00 |
| ID | Hibiscusstraat 10 9945VB Wagenborgen | 0:00 |
| IE | Hibiscusstraat 16 9945VB Wagenborgen | 0:00 |
| IF | Bremstraat 14 9945VC Wagenborgen | 0:00 |
| IG | Hibiscusstraat 6 9945VB Wagenborgen | 0:00 |
| IH | Hibiscusstraat 26 9945VB Wagenborgen | 0:00 |
| II | Kopaf 8 9945TE Wagenborgen | 0:00 |
| IJ | Kopaf 7 9945TE Wagenborgen | 0:00 |
| IK | Kopaf 6 9945TE Wagenborgen | 0:00 |
| IL | Kloosterlaan 27 9945TG Wagenborgen | 0:00 |
| IM | Kloosterlaan 25 9945TG Wagenborgen | 9:39 |
| IN | Kloosterlaan 23 9945TG Wagenborgen | 12:24 |
| IO | Scheve Klap 5 9945TD Wagenborgen | 2:27 |
| IP | Scheve Klap 4 9945TD Wagenborgen | 1:05 |
| IQ | Hibiscusstraat 8 9945VB Wagenborgen | 0:00 |
| IR | Hibiscusstraat 12 9945VB Wagenborgen | 0:00 |
| IS | Hibiscusstraat 18 9945VB Wagenborgen | 0:00 |
| IT | Hibiscusstraat 24 9945VB Wagenborgen | 0:00 |
| IU | Hibiscusstraat 22 9945VB Wagenborgen | 0:00 |
| IV | Troostlaan 15 9945PV Wagenborgen | 0:00 |
| IW | Bremstraat 10 9945VC Wagenborgen | 0:00 |
| IX | Hibiscusstraat 20 9945VB Wagenborgen | 0:00 |
| IY | Hibiscusstraat 28 9945VB Wagenborgen | 0:00 |
| IZ | Troostlaan 5 9945PV Wagenborgen | 0:00 |
| J | G. Boelmanweg 7 9945RE Wagenborgen | 0:00 |
| JA | Troostlaan 6 9945PV Wagenborgen | 0:00 |
| JB | Boslaan 5 9945TM Wagenborgen | 0:00 |
| JC | Hoofdweg 33 A 9945PB Wagenborgen | 0:00 |
| JD | Akeleistraat 13 9945VD Wagenborgen | 0:00 |
| JE | Hoofdweg 42 9945PG Wagenborgen | 0:00 |
| JF | Familie Bronsweg 2 E 9945PR Wagenborgen | 0:00 |
| JG | Hibiscusstraat 14 9945VB Wagenborgen | 0:00 |
| JH | Bremstraat 8 9945VC Wagenborgen | 0:00 |
| JI | Menterne 23 003 9945RA Wagenborgen | 0:00 |
| JJ | Menterne 23 004 9945RA Wagenborgen | 0:00 |
| JK | Menterne 23 005 9945RA Wagenborgen | 0:00 |
| JL | Menterne 23 006 9945RA Wagenborgen | 0:00 |
| JM | Menterne 23 007 9945RA Wagenborgen | 0:00 |
| JN | Menterne 23 008 9945RA Wagenborgen | 0:00 |
| JO | Menterne 23 009 9945RA Wagenborgen | 0:00 |
| JP | Menterne 23 010 9945RA Wagenborgen | 0:00 |
| JQ | Menterne 23 017 9945RA Wagenborgen | 0:00 |
| JR | Menterne 23 030 9945RA Wagenborgen | 0:00 |
| JS | Menterne 23 103 9945RA Wagenborgen | 0:00 |
| JT | Menterne 23 104 9945RA Wagenborgen | 0:00 |
| JU | Menterne 23 105 9945RA Wagenborgen | 0:00 |
| JV | Menterne 23 106 9945RA Wagenborgen | 0:00 |
| JW | Menterne 23 107 9945RA Wagenborgen | 0:00 |
| JX | Menterne 23 108 9945RA Wagenborgen | 0:00 |
| JY | Menterne 23 109 9945RA Wagenborgen | 0:00 |
| JZ | Menterne 23 110 9945RA Wagenborgen | 0:00 |
| K | G. Boelmanweg 6 9945RJ Wagenborgen | 0:00 |
| KA | Menterne 23 111 9945RA Wagenborgen | 0:00 |
| KB | Menterne 23 113 9945RA Wagenborgen | 0:00 |
| KC | Menterne 23 114 9945RA Wagenborgen | 0:00 |
| KD | Menterne 23 115 9945RA Wagenborgen | 0:00 |
| KE | Menterne 23 116 9945RA Wagenborgen | 0:00 |
| KF | Menterne 23 117 9945RA Wagenborgen | 0:00 |
| KG | Menterne 23 118 9945RA Wagenborgen | 0:00 |
| KH | Menterne 23 119 9945RA Wagenborgen | 0:00 |
| KI | Menterne 23 120 9945RA Wagenborgen | 0:00 |
| KJ | Menterne 23 121 9945RA Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaudw Alternatief 1 Groot 1A zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| KK | Menterne 23 122 9945RA Wagenborgen | 0:00 |
| KL | Menterne 23 123 9945RA Wagenborgen | 0:00 |
| KM | Menterne 23 124 9945RA Wagenborgen | 0:00 |
| KN | Menterne 23 125 9945RA Wagenborgen | 0:00 |
| KO | Menterne 23 126 9945RA Wagenborgen | 0:00 |
| KP | Menterne 23 127 9945RA Wagenborgen | 0:00 |
| KQ | Menterne 23 128 9945RA Wagenborgen | 0:00 |
| KR | Menterne 23 129 9945RA Wagenborgen | 0:00 |
| KS | Menterne 23 130 9945RA Wagenborgen | 0:00 |
| KT | Menterne 23 131 9945RA Wagenborgen | 0:00 |
| KU | Menterne 23 132 9945RA Wagenborgen | 0:00 |
| KV | Menterne 23 201 9945RA Wagenborgen | 0:00 |
| KW | Menterne 23 202 9945RA Wagenborgen | 0:00 |
| KX | Menterne 23 203 9945RA Wagenborgen | 0:00 |
| KY | Menterne 23 204 9945RA Wagenborgen | 0:00 |
| KZ | Menterne 23 205 9945RA Wagenborgen | 0:00 |
| L | Kokslaan 1 9945RD Wagenborgen | 0:00 |
| LA | Menterne 23 206 9945RA Wagenborgen | 0:00 |
| LB | Menterne 23 207 9945RA Wagenborgen | 0:00 |
| LC | Menterne 23 208 9945RA Wagenborgen | 0:00 |
| LD | Menterne 23 209 9945RA Wagenborgen | 0:00 |
| LE | Menterne 23 210 9945RA Wagenborgen | 0:00 |
| LF | Menterne 23 211 9945RA Wagenborgen | 0:00 |
| LG | Menterne 23 212 9945RA Wagenborgen | 0:00 |
| LH | Menterne 23 213 9945RA Wagenborgen | 0:00 |
| LI | Menterne 23 214 9945RA Wagenborgen | 0:00 |
| LJ | Menterne 23 215 9945RA Wagenborgen | 0:00 |
| LK | Menterne 23 216 9945RA Wagenborgen | 0:00 |
| LL | Menterne 23 217 9945RA Wagenborgen | 0:00 |
| LM | Menterne 23 218 9945RA Wagenborgen | 0:00 |
| LN | Menterne 23 219 9945RA Wagenborgen | 0:00 |
| LO | Menterne 23 220 9945RA Wagenborgen | 0:00 |
| LP | Menterne 23 221 9945RA Wagenborgen | 0:00 |
| LQ | Menterne 23 222 9945RA Wagenborgen | 0:00 |
| LR | Menterne 23 223 9945RA Wagenborgen | 0:00 |
| LS | Menterne 23 224 9945RA Wagenborgen | 0:00 |
| LT | Menterne 23 226 9945RA Wagenborgen | 0:00 |
| LU | Menterne 23 228 9945RA Wagenborgen | 0:00 |
| LV | Menterne 23 229 9945RA Wagenborgen | 0:00 |
| LW | Menterne 23 230 9945RA Wagenborgen | 0:00 |
| LX | Menterne 23 231 9945RA Wagenborgen | 0:00 |
| LY | Menterne 23 232 9945RA Wagenborgen | 0:00 |
| LZ | G. Boelmanweg 1 9945RE Wagenborgen | 0:00 |
| M | Kokslaan 2 9945RD Wagenborgen | 0:00 |
| MA | Boslaan 7 9945TM Wagenborgen | 0:00 |
| MB | H.L. Emmensweg 23 9945PW Wagenborgen | 0:00 |
| MC | Kopaf 5 9944VA Nieuwolda | 0:00 |
| MD | Familie Bronsweg 68 9945TA Wagenborgen | 18:35 |
| ME | Maarkampen 26 9937PL Meedhuizen | 3:13 |
| MF | Maarkampen 24 9937PL Meedhuizen | 2:58 |
| MG | Maarkampen 22 9937PL Meedhuizen | 2:49 |
| MH | Maarkampen 20 9937PL Meedhuizen | 2:39 |
| MI | Maarkampen 18 9937PL Meedhuizen | 2:28 |
| MJ | Maarkampen 16 9937PL Meedhuizen | 1:35 |
| MK | Maarkampen 14 9937PL Meedhuizen | 1:29 |
| ML | Maarlaan 22 E 9937TH Meedhuizen | 2:49 |
| MM | Maarlaan 22 D 9937TH Meedhuizen | 2:21 |
| MN | Schaapbulterweg 8 9937TL Meedhuizen | 3:35 |
| MO | Schaapbulterweg 6 9937TL Meedhuizen | 2:59 |
| MP | Schaapbulterweg 29 9937TL Meedhuizen | 3:41 |
| MQ | Schaapbulterweg 27 9937TL Meedhuizen | 3:24 |
| MR | Schaapbulterweg 25 9937TL Meedhuizen | 3:13 |
| MS | Schaapbulterweg 23 9937TL Meedhuizen | 3:05 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaudw Alternatief 1 Groot 1A zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| MT | Schaapbulterweg 21 9937TL Meedhuizen | 2:56 |
| MU | Geefsweersterweg 11 9937TB Meedhuizen | 7:23 |
| MV | Schaapbulterweg 35 9937TL Meedhuizen | 5:32 |
| MW | Meedhuizerweg 20 9937TK Meedhuizen | 2:05 |
| MX | Familie Bronsweg 66 9945TA Wagenborgen | 12:48 |
| MY | Familie Bronsweg 64 9945TA Wagenborgen | 16:26 |
| MZ | Ideweersterweg 10 9937TM Meedhuizen | 20:58 |
| N | Kerkstraat 1 9945SB Wagenborgen | 0:00 |
| NA | Ideweersterweg 8 9937TM Meedhuizen | 20:27 |
| NB | Geefsweersterweg 20 9937TC Meedhuizen | 21:52 |
| NC | Geefsweersterweg 18 9937TC Meedhuizen | 29:20 |
| ND | Geefsweersterweg 29 9937TB Meedhuizen | 21:57 |
| NE | Geefsweersterweg 16 9937TC Meedhuizen | 46:05 |
| NF | Geefsweersterweg 23 9937TB Meedhuizen | 40:29 |
| NG | Geefsweersterweg 12 9937TC Meedhuizen | 35:38 |
| NH | Geefsweersterweg 14 9937TC Meedhuizen | 37:46 |
| NI | Geefsweersterweg 21 A 9937TB Meedhuizen | 33:05 |
| NJ | Geefsweersterweg 10 9937TC Meedhuizen | 31:36 |
| NK | Geefsweersterweg 21 9937TB Meedhuizen | 30:03 |
| NL | Geefsweersterweg 17 9937TB Meedhuizen | 25:45 |
| NM | Geefsweersterweg 19 9937TB Meedhuizen | 26:59 |
| NN | Ideweersterweg 2 9937TM Meedhuizen | 96:59 |
| NO | Ideweersterweg 1 9937TM Meedhuizen | 100:29 |
| NP | Geefsweersterweg 15 9937TB Meedhuizen | 38:22 |
| NQ | Westerlaan 6 9937TS Meedhuizen | 62:06 |
| NR | Familie Bronsweg 87 9945TA Wagenborgen | 11:23 |
| NS | Familie Bronsweg 89 9945TA Wagenborgen | 15:34 |
| NT | Westerlaan 10 9937TS Meedhuizen | 35:38 |
| NU | Geefsweersterweg 13 9937TB Meedhuizen | 23:17 |
| NV | Maarlaan 26 9937TH Meedhuizen | 3:44 |
| NW | Maarlaan 24 9937TH Meedhuizen | 3:22 |
| NX | Maarlaan 28 9937TH Meedhuizen | 4:00 |
| NY | Maarlaan 30 9937TH Meedhuizen | 4:57 |
| NZ | Kerklaan 3 9937PG Meedhuizen | 4:49 |
| O | Hoofdweg 30 9945PG Wagenborgen | 0:00 |
| OA | Kerklaan 8 9937PG Meedhuizen | 5:33 |
| OB | Kerklaan 6 9937PG Meedhuizen | 6:35 |
| OC | Opmeedenlaan 6 9937TN Meedhuizen | 3:12 |
| OD | Opmeedenlaan 4 9937TN Meedhuizen | 4:12 |
| OE | Opmeedenlaan 2 9937TN Meedhuizen | 4:50 |
| OF | Kloosterlaan 26 9945TG Wagenborgen | 13:05 |
| OG | Zomerdijk 1 9945TH Wagenborgen | 8:38 |
| OH | Zomerdijk 3 9945TH Wagenborgen | 3:30 |
| OI | Zomerdijk 3 A 9945TH Wagenborgen | 2:53 |
| OJ | Zomerdijk 2 9945TH Wagenborgen | 2:50 |
| OK | Kloosterlaan 21 A 9945TG Wagenborgen | 15:36 |
| OL | Kloosterlaan 21 B 9945TG Wagenborgen | 15:21 |
| OM | Ideweersterweg 4 9937TM Meedhuizen | 120:13 |
| ON | Maarlaan 22 C 9937TH Meedhuizen | 1:48 |
| OO | Kloosterlaan 21 9936TE Farmsum | 12:59 |
| OP | Geefsweersterweg 8 A 9937TC Meedhuizen | 35:17 |
| OQ | Houtweg 20 9936BL Farmsum | 0:28 |
| OR | Houtweg 22 9936BL Farmsum | 0:28 |
| OS | Houtweg 24 9936BL Farmsum | 0:29 |
| OT | Houtweg 26 9936BL Farmsum | 0:29 |
| OU | Houtweg 28 9936BL Farmsum | 0:30 |
| OV | Rondeboslaan 6 9936BK Farmsum | 0:46 |
| OW | Proosdij 14 9936EW Farmsum | 0:50 |
| OX | Bredelaan 6 9936ER Farmsum | 1:47 |
| OY | Bredelaan 4 9936ER Farmsum | 1:35 |
| OZ | Bredelaan 2 A 9936ER Farmsum | 1:22 |
| P | Hoofdweg 32 9945PG Wagenborgen | 0:00 |
| PA | Proosdij 24 9936EW Farmsum | 1:13 |

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# SHADOW - Main Result

## Calculation: Slagschaudw Alternatief 1 Groot 1A zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| PB | Proosdij 22 9936EW Farmsum | 1:10 |
| PC | Proosdij 20 9936EW Farmsum | 1:05 |
| PD | Proosdij 18 9936EW Farmsum | 0:58 |
| PE | Proosdij 16 9936EW Farmsum | 0:57 |
| PF | Trambaan 19 9936ES Farmsum | 1:33 |
| PG | Proosdij 17 9936ET Farmsum | 1:07 |
| PH | Proosdij 15 9936ET Farmsum | 1:04 |
| PI | Proosdij 13 9936ET Farmsum | 1:02 |
| PJ | Trambaan 17 9936ES Farmsum | 1:31 |
| PK | Trambaan 15 9936ES Farmsum | 1:30 |
| PL | Trambaan 13 9936ES Farmsum | 1:28 |
| PM | Trambaan 11 9936ES Farmsum | 1:27 |
| PN | Trambaan 9 9936ES Farmsum | 1:25 |
| PO | Trambaan 5 9936ES Farmsum | 1:23 |
| PP | Trambaan 3 9936ES Farmsum | 1:22 |
| PQ | Trambaan 1 9936ES Farmsum | 1:21 |
| PR | Proosdij 12 9936EW Farmsum | 0:42 |
| PS | Proosdij 8 9936EW Farmsum | 0:37 |
| PT | Proosdij 6 9936EW Farmsum | 0:32 |
| PU | Proosdij 4 9936EW Farmsum | 0:27 |
| PV | Proosdij 11 9936ET Farmsum | 0:58 |
| PW | Proosdij 9 9936ET Farmsum | 0:55 |
| PX | Proosdij 7 9936ET Farmsum | 0:51 |
| PY | Proosdij 5 9936ET Farmsum | 0:47 |
| PZ | Proosdij 1 9936ET Farmsum | 0:40 |
| Q | Hoofdweg 31 9945PA Wagenborgen | 0:00 |
| QA | Proosdij 3 9936ET Farmsum | 0:45 |
| QB | Farmsumerzijl 55 9936GC Farmsum | 0:39 |
| QC | Farmsumerzijl 57 9936GC Farmsum | 0:47 |
| QD | Rengersweg 4 9936GH Farmsum | 0:01 |
| QE | Rengersweg 2 9936GH Farmsum | 0:00 |
| QF | Schepperij 4 A 9936GN Farmsum | 0:07 |
| QG | Schepperij 2 A 9936GN Farmsum | 0:11 |
| QH | Schepperij 4 9936GN Farmsum | 0:09 |
| QI | Schepperij 2 9936GN Farmsum | 0:13 |
| QJ | Dijkrecht 4 9936GK Farmsum | 0:00 |
| QK | Dijkrecht 6 9936GK Farmsum | 0:00 |
| QL | Dijkrecht 10 9936GK Farmsum | 0:00 |
| QM | Dijkrecht 12 9936GK Farmsum | 0:00 |
| QN | Dijkrecht 14 9936GK Farmsum | 0:00 |
| QO | Dijkrecht 16 9936GK Farmsum | 0:00 |
| QP | Dijkrecht 18 9936GK Farmsum | 0:00 |
| QQ | Dijkrecht 20 9936GK Farmsum | 0:00 |
| QR | Dijkrecht 22 9936GK Farmsum | 0:00 |
| QS | Dijkrecht 24 9936GK Farmsum | 0:00 |
| QT | Dijkrecht 26 9936GK Farmsum | 0:00 |
| QU | Dijkrecht 28 9936GK Farmsum | 0:00 |
| QV | Dijkrecht 30 9936GK Farmsum | 0:00 |
| QW | Dijkrecht 32 9936GK Farmsum | 0:00 |
| QX | Dijkrecht 34 9936GK Farmsum | 0:00 |
| QY | Dijkrecht 36 9936GK Farmsum | 0:00 |
| QZ | Dijkrecht 40 9936GK Farmsum | 0:00 |
| R | Hoofdweg 38 9945PG Wagenborgen | 0:00 |
| RA | Dijkrecht 38 9936GK Farmsum | 0:00 |
| RB | Schepperij 20 9936GN Farmsum | 0:00 |
| RC | Schepperij 18 9936GN Farmsum | 0:00 |
| RD | Waarman 12 9936GW Farmsum | 0:00 |
| RE | Waarman 10 9936GW Farmsum | 0:00 |
| RF | Waarman 8 9936GW Farmsum | 0:00 |
| RG | Waarman 6 9936GW Farmsum | 0:00 |
| RH | Farmsumerzijl 1 9936GB Farmsum | 0:00 |
| RI | Farmsumerzijl 3 9936GB Farmsum | 0:00 |
| RJ | Farmsumerzijl 5 9936GB Farmsum | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaudw Alternatief 1 Groot 1A zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| RK | Farmsumerzijl 7 9936GB Farmsum | 0:00 |
| RL | Farmsumerzijl 13 9936GB Farmsum | 0:00 |
| RM | Farmsumerzijl 15 9936GB Farmsum | 0:00 |
| RN | Farmsumerzijl 17 9936GB Farmsum | 0:00 |
| RO | Farmsumerzijl 19 9936GB Farmsum | 0:00 |
| RP | Farmsumerzijl 25 9936GB Farmsum | 0:00 |
| RQ | Farmsumerzijl 27 9936GB Farmsum | 0:00 |
| RR | Farmsumerzijl 29 9936GB Farmsum | 0:00 |
| RS | Farmsumerzijl 31 9936GC Farmsum | 0:00 |
| RT | Farmsumerzijl 37 9936GC Farmsum | 0:00 |
| RU | Farmsumerzijl 39 9936GC Farmsum | 0:00 |
| RV | Farmsumerzijl 41 9936GC Farmsum | 0:00 |
| RW | Farmsumerzijl 43 9936GC Farmsum | 0:00 |
| RX | Schepperij 1 9936GL Farmsum | 0:15 |
| RY | Schepperij 3 9936GL Farmsum | 0:13 |
| RZ | Schepperij 5 9936GL Farmsum | 0:11 |
| S | Hoofdweg 39 9945PB Wagenborgen | 0:00 |
| SA | Schepperij 7 9936GL Farmsum | 0:09 |
| SB | Schepperij 9 9936GL Farmsum | 0:07 |
| SC | Schepperij 11 9936GL Farmsum | 0:04 |
| SD | Schepperij 13 9936GL Farmsum | 0:02 |
| SE | Schepperij 15 9936GL Farmsum | 0:00 |
| SF | Dijkrecht 8 9936GK Farmsum | 0:00 |
| SG | Geefsweersterweg 9 9937TB Meedhuizen | 10:32 |
| SH | Geefsweersterweg 7 9937TB Meedhuizen | 38:10 |
| SI | Geefsweersterweg 8 9937TC Meedhuizen | 34:02 |
| SJ | Geefsweersterweg 3 9937TB Meedhuizen | 23:41 |
| SK | Geefsweersterweg 6 9937TC Meedhuizen | 30:44 |
| SL | Geefsweersterweg 4 9937TC Meedhuizen | 22:06 |
| SM | Meedhuizerweg 2 9937TK Meedhuizen | 1:01 |
| SN | Molenstraat 31 9936EB Farmsum | 0:00 |
| SO | Hindrik Jagerstraat 32 9936CV Farmsum | 0:37 |
| SP | Hindrik Jagerstraat 11 9936CT Farmsum | 0:43 |
| SQ | Hindrik Jagerstraat 13 9936CT Farmsum | 0:43 |
| SR | Hindrik Jagerstraat 15 9936CT Farmsum | 0:44 |
| SS | Hindrik Jagerstraat 34 9936CV Farmsum | 0:37 |
| ST | Hindrik Jagerstraat 36 9936CV Farmsum | 0:38 |
| SU | Borgshof 31 9936CR Farmsum | 0:22 |
| SV | Borgshof 33 9936CR Farmsum | 0:28 |
| SW | Borgshof 39 9936CR Farmsum | 0:49 |
| SX | Borgshof 35 9936CR Farmsum | 0:45 |
| SY | Molenstraat 20 9936EC Farmsum | 0:00 |
| SZ | Molenstraat 24 9936EC Farmsum | 0:00 |
| T | Hoofdweg 35 9945PB Wagenborgen | 0:00 |
| TA | Molenstraat 28 9936EC Farmsum | 0:00 |
| TB | Molenstraat 41 9936EB Farmsum | 0:00 |
| TC | Molenstraat 43 9936EB Farmsum | 0:00 |
| TD | Molenstraat 45 9936EB Farmsum | 0:00 |
| TE | Molenstraat 32 9936EC Farmsum | 0:00 |
| TF | Achterweg 13 9936EG Farmsum | 0:00 |
| TG | Achterweg 11 9936EG Farmsum | 0:00 |
| TH | Achterweg 9 9936EG Farmsum | 0:00 |
| TI | Molenstraat 49 9936EB Farmsum | 0:00 |
| TJ | Molenstraat 51 9936EB Farmsum | 0:00 |
| TK | Molenstraat 53 9936EB Farmsum | 0:00 |
| TL | Molenstraat 57 9936EB Farmsum | 0:00 |
| TM | Molenstraat 61 9936EB Farmsum | 0:00 |
| TN | Molenstraat 63 9936EB Farmsum | 0:00 |
| TO | Molenstraat 34 9936ED Farmsum | 0:00 |
| TP | Molenstraat 38 9936ED Farmsum | 0:00 |
| TQ | Molenstraat 40 9936ED Farmsum | 0:00 |
| TR | Molenstraat 42 9936ED Farmsum | 0:00 |
| TS | Molenstraat 44 9936ED Farmsum | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaudw Alternatief 1 Groot 1A zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| TT | Molenstraat 65 9936EB Farmsum | 0:00 |
| TU | Molenstraat 48 9936ED Farmsum | 0:00 |
| TV | Molenstraat 50 9936ED Farmsum | 0:00 |
| TW | Molenstraat 56 9936ED Farmsum | 0:00 |
| TX | Molenstraat 58 9936EE Farmsum | 0:00 |
| TY | Molenstraat 62 9936EE Farmsum | 0:00 |
| TZ | Molenstraat 72 9936EE Farmsum | 0:00 |
| U | Hoofdweg 37 9945PB Wagenborgen | 0:00 |
| UA | Molenstraat 70 9936EE Farmsum | 0:00 |
| UB | Molenstraat 68 9936EE Farmsum | 0:00 |
| UC | Molenstraat 66 9936EE Farmsum | 0:00 |
| UD | Achterweg 2 9936EG Farmsum | 0:00 |
| UE | Achterweg 12 9936EG Farmsum | 0:00 |
| UF | Achterweg 10 9936EG Farmsum | 0:00 |
| UG | Achterweg 8 9936EG Farmsum | 0:00 |
| UH | Hindrik Jagerstraat 17 9936CT Farmsum | 0:45 |
| UI | Molenstraat 30 9936EC Farmsum | 0:00 |
| UJ | Borgweg 141 9936EN Farmsum | 0:43 |
| UK | Borgweg 139 9936EN Farmsum | 0:46 |
| UL | Borgweg 137 9936EN Farmsum | 0:48 |
| UM | Borgweg 135 9936EN Farmsum | 0:51 |
| UN | Afwateringskanaal 109 9936AV Farmsum | 0:53 |
| UO | Borgweg 131 9936EM Farmsum | 0:57 |
| UP | Borgweg 133 9936EM Farmsum | 1:02 |
| UQ | Borgshof 41 9936CR Farmsum | 0:53 |
| UR | Borgshof 43 9936CR Farmsum | 0:56 |
| US | Borgshof 45 9936CR Farmsum | 0:58 |
| UT | Molenstraat 74 9936EE Farmsum | 0:00 |
| UU | Molenstraat 76 9936EE Farmsum | 0:00 |
| UV | Molenstraat 78 9936EE Farmsum | 0:00 |
| UW | Molenstraat 82 9936EE Farmsum | 0:00 |
| UX | Molenstraat 84 9936EE Farmsum | 0:00 |
| UY | Borgweg 123 9936EM Farmsum | 0:00 |
| UZ | Borgweg 125 9936EM Farmsum | 0:00 |
| V | Hoofdweg 44 9945PH Wagenborgen | 0:00 |
| VA | Borgweg 127 9936EM Farmsum | 0:00 |
| VB | Borgweg 129 9936EM Farmsum | 0:00 |
| VC | Farmsumerzijl 51 9936GC Farmsum | 0:00 |
| VD | Molenstraat 80 9936EE Farmsum | 0:00 |
| VE | Houtweg 30 9936BL Farmsum | 0:31 |
| VF | Houtweg 32 9936BL Farmsum | 0:32 |
| VG | Houtweg 34 9936BL Farmsum | 0:33 |
| VH | Houtweg 36 9936BL Farmsum | 0:33 |
| VI | Houtweg 38 9936BL Farmsum | 0:34 |
| VJ | Houtweg 40 9936BL Farmsum | 0:34 |
| VK | Houtweg 42 9936BL Farmsum | 0:34 |
| VL | Houtweg 44 9936BL Farmsum | 0:35 |
| VM | Houtweg 46 9936BL Farmsum | 0:34 |
| VN | Houtweg 48 9936BL Farmsum | 0:35 |
| VO | Rondeboslaan 26 9936BK Farmsum | 0:43 |
| VP | Rondeboslaan 28 9936BK Farmsum | 0:43 |
| VQ | Seendweg 32 9936GA Farmsum | 1:52 |
| VR | Trambaan 21 9936ES Farmsum | 1:35 |
| VS | Proosdij 19 9936ET Farmsum | 1:39 |
| VT | Bredelaan 14 9936ER Farmsum | 2:29 |
| VU | Bredelaan 10 9936ER Farmsum | 2:03 |
| VV | Bredelaan 8 9936ER Farmsum | 1:59 |
| VW | Seendweg 22 9936GA Farmsum | 2:45 |
| VX | Seendweg 28 9936GA Farmsum | 2:23 |
| VY | Proosdij 28 9936EW Farmsum | 1:21 |
| VZ | Proosdij 30 9936EX Farmsum | 1:24 |
| W | Hoofdweg 48 9945PH Wagenborgen | 0:00 |
| WA | Proosdij 26 9936EW Farmsum | 1:19 |

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# SHADOW - Main Result

## Calculation: Slagschaudw Alternatief 1 Groot 1A zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| WB | Afwateringskanaal 107 9936AV Farmsum | 0:51 |
| WC | Rondeboslaan 22 A 9936BK Farmsum | 1:51 |
| WD | Rondeboslaan 22 B 9936BK Farmsum | 1:53 |
| WE | Rondeboslaan 2 A 9936BK Farmsum | 1:01 |
| WF | Rondeboslaan 2 B 9936BK Farmsum | 0:50 |
| WG | Seendweg 17 9936GA Farmsum | 2:21 |
| WH | Borgshof 29 9936CR Farmsum | 0:14 |
| WI | Molenstraat 22 9936EC Farmsum | 0:00 |
| WJ | Achterweg 7 A 9936EG Farmsum | 0:00 |
| WK | Molenstraat 26 9936EC Farmsum | 0:00 |
| WL | Borgweg 113 9936EM Farmsum | 0:00 |
| WM | Borgweg 115 9936EM Farmsum | 0:00 |
| WN | Borgweg 117 9936EM Farmsum | 0:00 |
| WO | Borgweg 119 9936EM Farmsum | 0:00 |
| WP | Borgweg 121 9936EM Farmsum | 0:00 |
| WQ | Farmsumerzijl 45 9936GC Farmsum | 0:00 |
| WR | Farmsumerzijl 47 9936GC Farmsum | 0:00 |
| WS | Farmsumerzijl 49 9936GC Farmsum | 0:00 |
| WT | Waarman 4 9936GW Farmsum | 0:00 |
| WU | Waarman 2 9936GW Farmsum | 0:00 |
| WV | Farmsumerzijl 9 9936GB Farmsum | 0:00 |
| WW | Farmsumerzijl 11 9936GB Farmsum | 0:00 |
| WX | Farmsumerzijl 21 9936GB Farmsum | 0:00 |
| WY | Farmsumerzijl 23 9936GB Farmsum | 0:00 |
| WZ | Farmsumerzijl 33 9936GC Farmsum | 0:00 |
| X | Hoofdweg 41 9945PB Wagenborgen | 0:00 |
| XA | Farmsumerzijl 35 9936GC Farmsum | 0:00 |
| XB | Schepperij 17 9936GL Farmsum | 0:00 |
| XC | Schepperij 19 9936GL Farmsum | 0:00 |
| XD | Schepperij 21 9936GL Farmsum | 0:00 |
| XE | Dijkrecht 3 9936GJ Farmsum | 0:00 |
| XF | Dijkrecht 5 9936GJ Farmsum | 0:00 |
| XG | Dijkrecht 7 9936GJ Farmsum | 0:00 |
| XH | Dijkrecht 9 9936GJ Farmsum | 0:00 |
| XI | Dijkrecht 11 9936GJ Farmsum | 0:00 |
| XJ | Dijkrecht 13 9936GJ Farmsum | 0:00 |
| XK | Dijkrecht 15 9936GJ Farmsum | 0:00 |
| XL | Dijkrecht 17 9936GJ Farmsum | 0:00 |
| XM | Dijkrecht 19 9936GJ Farmsum | 0:00 |
| XN | Dijkrecht 21 9936GJ Farmsum | 0:00 |
| XO | Schepperij 6 9936GN Farmsum | 0:01 |
| XP | Schepperij 8 9936GN Farmsum | 0:00 |
| XQ | Schepperij 10 9936GN Farmsum | 0:00 |
| XR | Schepperij 12 9936GN Farmsum | 0:00 |
| XS | Schepperij 14 9936GN Farmsum | 0:00 |
| XT | Schepperij 16 9936GN Farmsum | 0:00 |
| XU | Olderman 2 9936GT Farmsum | 0:00 |
| XV | Olderman 4 9936GT Farmsum | 0:00 |
| XW | Olderman 6 9936GT Farmsum | 0:00 |
| XX | Olderman 8 9936GT Farmsum | 0:00 |
| XY | Olderman 10 9936GT Farmsum | 0:00 |
| XZ | Olderman 12 9936GT Farmsum | 0:00 |
| Y | Hoofdweg 20 9945PG Wagenborgen | 0:00 |
| YA | Olderman 14 9936GT Farmsum | 0:00 |
| YB | Dijkrecht 23 9936GJ Farmsum | 0:00 |
| YC | Dijkrecht 25 9936GJ Farmsum | 0:00 |
| YD | Dijkrecht 27 9936GJ Farmsum | 0:00 |
| YE | Dijkrecht 29 9936GJ Farmsum | 0:00 |
| YF | Dijkrecht 31 9936GJ Farmsum | 0:00 |
| YG | Dijkrecht 33 9936GJ Farmsum | 0:00 |
| YH | Dijkrecht 35 9936GJ Farmsum | 0:00 |
| YI | Dijkrecht 37 9936GJ Farmsum | 0:00 |
| YJ | Dijkrecht 39 9936GJ Farmsum | 0:00 |

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3-2-2017 11:29/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaudw Alternatief 1 Groot 1A zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| YK | Dijkrecht 41 9936GJ Farmsum | 0:00 |
| YL | Dijkrecht 43 9936GJ Farmsum | 0:00 |
| YM | Olderman 1 9936GS Farmsum | 0:00 |
| YN | Olderman 3 9936GS Farmsum | 0:00 |
| YO | Olderman 5 9936GS Farmsum | 0:00 |
| YP | Olderman 7 9936GS Farmsum | 0:00 |
| YQ | Schepperij 37 9936GM Farmsum | 0:00 |
| YR | Schepperij 41 9936GM Farmsum | 0:00 |
| YS | Schepperij 45 9936GM Farmsum | 0:00 |
| YT | Schepperij 47 9936GM Farmsum | 0:00 |
| YU | Schepperij 49 9936GM Farmsum | 0:00 |
| YV | Olderman 18 9936GT Farmsum | 0:00 |
| YW | Olderman 20 9936GT Farmsum | 0:00 |
| YX | Olderman 22 9936GT Farmsum | 0:00 |
| YY | Olderman 24 9936GT Farmsum | 0:00 |
| YZ | Olderman 26 9936GT Farmsum | 0:00 |
| Z | Hoofdweg 22 9945PG Wagenborgen | 0:00 |
| ZA | Olderman 28 9936GT Farmsum | 0:00 |
| ZB | Olderman 30 9936GT Farmsum | 0:00 |
| ZC | Olderman 9 9936GS Farmsum | 0:02 |
| ZD | Olderman 11 9936GS Farmsum | 0:05 |
| ZE | Olderman 13 9936GS Farmsum | 0:09 |
| ZF | Proosdij 32 9936EX Farmsum | 1:25 |
| ZG | Proosdij 36 9936EX Farmsum | 1:24 |
| ZH | Proosdij 38 9936EX Farmsum | 1:24 |
| ZI | Proosdij 40 9936EX Farmsum | 1:22 |
| ZJ | Proosdij 27 9936EV Farmsum | 1:46 |
| ZK | Proosdij 25 9936EV Farmsum | 1:47 |
| ZL | Proosdij 23 9936EV Farmsum | 1:47 |
| ZM | Proosdij 21 9936EV Farmsum | 1:48 |
| ZN | Seendweg 5 9936GA Farmsum | 2:27 |
| ZO | Proosdij 29 9936EV Farmsum | 1:46 |
| ZP | Proosdij 31 9936EV Farmsum | 1:48 |
| ZQ | Proosdij 33 9936EV Farmsum | 1:58 |
| ZR | Proosdij 35 9936EV Farmsum | 1:52 |
| ZS | Proosdij 37 9936EV Farmsum | 1:44 |
| ZT | Proosdij 39 9936EV Farmsum | 1:42 |
| ZU | Proosdij 41 9936EV Farmsum | 1:38 |
| ZV | Proosdij 43 9936EV Farmsum | 1:37 |
| ZW | Proosdij 45 9936EV Farmsum | 1:34 |
| ZX | Proosdij 47 9936EV Farmsum | 1:32 |
| ZY | Olderman 15 9936GS Farmsum | 0:13 |
| ZZ | Rengersweg 97 9936GG Farmsum | 1:09 |

Total amount of flickering on the shadow receptors caused by each WTG

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 1 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (4) | 687:44 | 115:03 |
| 2 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (5) | 272:00 | 34:26 |
| 3 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (6) | 110:38 | 22:53 |
| 4 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (7) | 257:06 | 50:22 |
| 5 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (8) | 418:27 | 60:41 |
| 6 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (9) | 892:00 | 190:09 |
| 7 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (10) | 354:41 | 46:16 |
| 8 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (11) | 65:23 | 8:37 |
| 9 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (12) | 61:45 | 12:01 |
| 10 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (13) | 179:04 | 37:39 |
| 11 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (14) | 162:53 | 31:05 |
| 12 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (15) | 651:06 | 135:59 |
| 13 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (16) | 470:51 | 82:55 |
| 14 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (17) | 501:37 | 90:25 |

Project:
17002 - Geefsweer V2

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Calculated:
8-2-2017 11:32/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaudw Alternatief 1 Groot 1A zonder cumulatie verblijfsobjecten later toegevoegd

### Assumptions for shadow calculations

Maximum distance for influence
Calculate only when more than 20 % of sun is covered by the blade
Please look in WTG table

| | |
|---|---|
| Minimum sun height over horizon for influence | 5 ° |
| Day step for calculation | 1 days |
| Time step for calculation | 1 minutes |

Sunshine probability S (Average daily sunshine hours) [EELDE]

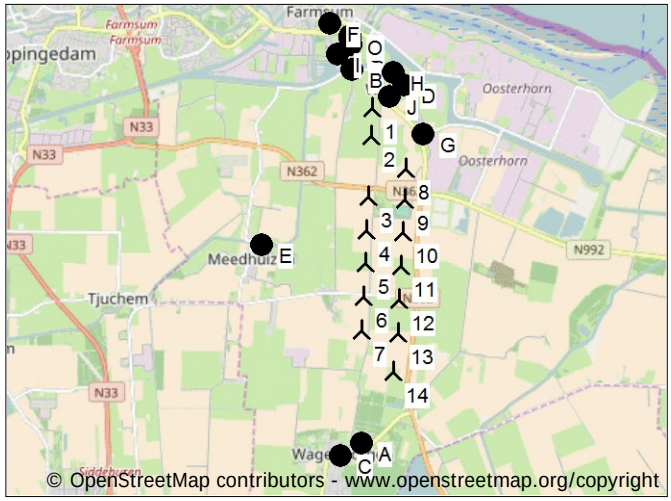
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

All coordinates are in
Dutch Stereo-RD/NAP 2008




Scale 1:125.000

New WTG  Shadow receptor

## WTGs

| | X (east) | Y (north) | Z | Row data/Description | WTG type Valid | Manufact. | Type-generator | Power, rated | Rotor diameter | Hub height | Shadow data Calculation distance | RPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [m] | | | | | [kW] | [m] | [m] | [m] | [RPM] |
| 1 | 258.610 | 592.416 | 0,0 | ENERCON 145 as 145 rotor 420... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 2 | 258.598 | 591.937 | 0,0 | ENERCON 145 as 145 rotor 420... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 3 | 258.572 | 590.942 | 0,0 | ENERCON 145 as 145 rotor 420... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 4 | 258.554 | 590.388 | 0,0 | ENERCON 145 as 145 rotor 420... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 5 | 258.542 | 589.830 | 0,0 | ENERCON 145 as 145 rotor 420... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 6 | 258.525 | 589.275 | 0,0 | ENERCON 145 as 145 rotor 420... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 7 | 258.509 | 588.721 | 0,0 | ENERCON 145 as 145 rotor 420... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 8 | 259.187 | 591.420 | 0,0 | ENERCON 145 as 145 rotor 420... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 9 | 259.174 | 590.910 | 0,0 | ENERCON 145 as 145 rotor 420... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 10 | 259.158 | 590.354 | 0,0 | ENERCON 145 as 145 rotor 420... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 11 | 259.144 | 589.798 | 0,0 | ENERCON 145 as 145 rotor 420... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 12 | 259.127 | 589.240 | 0,0 | ENERCON 145 as 145 rotor 420... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 13 | 259.112 | 588.683 | 0,0 | ENERCON 145 as 145 rotor 420... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 14 | 259.050 | 588.043 | 0,0 | ENERCON 145 as 145 rotor 420... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |

## Shadow receptor-Input

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| A | Familie Bronsweg 22 9945PS Wagenborgen | 258.549 | 586.857 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| B | Geefsweersterweg 1 9937TB Meedhuizen | 258.250 | 593.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| C | Hoofdweg 28 9945PG Wagenborgen | 258.194 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| D | Karspelpad 8 9936HP Farmsum | 259.130 | 592.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| E | Maarkampen 12 9937PL Meedhuizen | 256.818 | 590.108 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| F | Molenstraat 64 9936EE Farmsum | 257.875 | 593.798 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| G | Oosterlaan 9 9936HN Farmsum | 259.468 | 591.997 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| H | Schaappad 1 9936HT Farmsum | 258.946 | 593.010 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| I | Seendweg 8 9936GA Farmsum | 258.005 | 593.293 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| J | T.J. Jansenweg 11 9936HL Farmsum | 258.896 | 592.598 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| K | Waarman 1 9936GV Farmsum | 258.213 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| L | Waarman 11 9936GV Farmsum | 258.213 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| M | Waarman 3 9936GV Farmsum | 258.213 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| N | Waarman 5 9936GV Farmsum | 258.213 | 593.587 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| O | Waarman 7 9936GV Farmsum | 258.213 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| P | Waarman 9 9936GV Farmsum | 258.213 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Q | Zijlvest 20 9936GZ Farmsum | 258.233 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

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Calculated:
8-2-2017 11:32/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaudw Alternatief 1 Groot 1A zonder cumulatie verblijfsobjecten later toegevoegd

### Calculation Results

Shadow receptor

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| A | Familie Bronsweg 22 9945PS Wagenborgen | 0:00 |
| B | Geefsweersterweg 1 9937TB Meedhuizen | 6:55 |
| C | Hoofdweg 28 9945PG Wagenborgen | 0:00 |
| D | Karspelpad 8 9936HP Farmsum | 13:27 |
| E | Maarkampen 12 9937PL Meedhuizen | 1:23 |
| F | Molenstraat 64 9936EE Farmsum | 0:00 |
| G | Oosterlaan 9 9936HN Farmsum | 26:34 |
| H | Schaappad 1 9936HT Farmsum | 9:38 |
| I | Seendweg 8 9936GA Farmsum | 3:14 |
| J | T.J. Jansenweg 11 9936HL Farmsum | 37:32 |
| K | Waarman 1 9936GV Farmsum | 0:00 |
| L | Waarman 11 9936GV Farmsum | 0:00 |
| M | Waarman 3 9936GV Farmsum | 0:00 |
| N | Waarman 5 9936GV Farmsum | 0:00 |
| O | Waarman 7 9936GV Farmsum | 0:00 |
| P | Waarman 9 9936GV Farmsum | 0:00 |
| Q | Zijlvest 20 9936GZ Farmsum | 0:00 |

Total amount of flickering on the shadow receptors caused by each WTG

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 1 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (4) | 386:01 | 61:13 |
| 2 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (5) | 125:02 | 16:06 |
| 3 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (6) | 15:29 | 1:51 |
| 4 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (7) | 2:58 | 0:39 |
| 5 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (8) | 2:44 | 0:27 |
| 6 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (9) | 1:53 | 0:17 |
| 7 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (10) | 0:00 | 0:00 |
| 8 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (11) | 87:37 | 10:17 |
| 9 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (12) | 0:00 | 0:00 |
| 10 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (13) | 0:00 | 0:00 |
| 11 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (14) | 0:00 | 0:00 |
| 12 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (15) | 0:00 | 0:00 |
| 13 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (16) | 0:00 | 0:00 |
| 14 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (17) | 0:00 | 0:00 |

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Calculated:
3-2-2017 20:20/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1a Groot

### Assumptions for shadow calculations

Maximum distance for influence
Calculate only when more than 20 % of sun is covered by the blade
Please look in WTG table

| | |
|---|---|
| Minimum sun height over horizon for influence | 5 ° |
| Day step for calculation | 1 days |
| Time step for calculation | 1 minutes |

Sunshine probability S (Average daily sunshine hours) [EELDE]

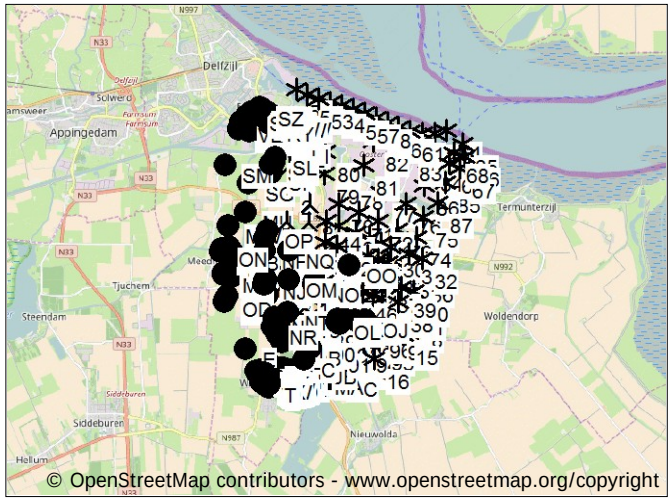
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

All coordinates are in
Dutch Stereo-RD/NAP 2008




Scale 1:200.000
New WTG
Existing WTG
Shadow receptor

## WTGs

| | X (east) | Y (north) | Z | Row data/Description | WTG type Valid | Manufact. | Type-generator | Power, rated | Rotor diameter | Hub height | Shadow data Calculation distance | RPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [m] | | | | | [kW] | [m] | [m] | [m] | [RPM] |
| 1 | 258.610 | 592.416 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 2 | 258.598 | 591.937 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 3 | 258.572 | 590.942 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 4 | 258.554 | 590.388 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 5 | 258.542 | 589.830 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 6 | 258.525 | 589.275 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 7 | 258.509 | 588.721 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 8 | 259.187 | 591.420 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 9 | 259.174 | 590.910 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 10 | 259.158 | 590.354 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 11 | 259.144 | 589.798 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 12 | 259.127 | 589.240 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 13 | 259.112 | 588.683 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 14 | 259.050 | 588.043 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 15 | 261.738 | 588.022 | 0,0 | LAGERWEY 80 18.0 !O! hub:... | No | LAGERWEY | -80 | 80 | 18,0 | 31,0 | 1.740 | 120,0 |
| 16 | 260.986 | 587.360 | 0,0 | LAGERWEY 80 18.0 !O! hub:... | No | LAGERWEY | -80 | 80 | 18,0 | 31,0 | 1.740 | 120,0 |
| 17 | 259.587 | 589.858 | 0,0 | ENERCON E-70 E4 2000 71.0... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 18 | 259.890 | 589.770 | 0,0 | ENERCON E-70 E4 2000 71.0... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 19 | 259.863 | 589.300 | 0,0 | ENERCON E-70 E4 2000 71.0... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 20 | 259.845 | 588.985 | 0,0 | ENERCON E-70 E4 2000 71.0... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 21 | 260.245 | 589.206 | 0,0 | ENERCON E-70 E4 2000 71.0... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 22 | 260.295 | 589.652 | 0,0 | ENERCON E-70 E4 2000 71.0... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 23 | 259.952 | 590.853 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 24 | 260.412 | 590.685 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 25 | 260.358 | 590.202 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 26 | 260.680 | 589.539 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 27 | 260.789 | 590.548 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 28 | 261.086 | 590.440 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 29 | 260.740 | 590.089 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 30 | 261.353 | 590.343 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 31 | 261.840 | 590.166 | 0,0 | ENERCON E-70 E4 2000 71.0... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 32 | 262.200 | 590.035 | 0,0 | ENERCON E-70 E4 2000 71.0... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 33 | 261.031 | 590.003 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 34 | 261.292 | 589.926 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 35 | 261.764 | 589.785 | 0,0 | ENERCON E-70 E4 2000 71.0... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 36 | 262.111 | 589.683 | 0,0 | ENERCON E-70 E4 2000 71.0... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 37 | 261.212 | 589.384 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 38 | 261.584 | 588.876 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 39 | 261.660 | 589.255 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |

To be continued on next page...

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Calculated:
3-2-2017 20:20/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1a Groot

...continued from previous page

| | | | | | WTG type | | | | | | | Shadow data | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | X (east) | Y (north) | Z | Row data/Description | Valid | Manufact. | Type-generator | Power, rated | Rotor diameter | Hub height | Calculation distance | RPM |
| | | | [m] | | | | | [kW] | [m] | [m] | [m] | [RPM] |
| 40 | 261.980 | 589.161 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 41 | 261.889 | 588.801 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 42 | 259.922 | 590.332 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 43 | 259.601 | 590.427 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 44 | 259.614 | 590.976 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 45 | 260.962 | 589.457 | 0,0 | ENERCON E-70 E4 2000 71.0... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 46 | 260.634 | 589.110 | 0,0 | ENERCON E-70 E4 2000 71.0... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 47 | 260.909 | 589.042 | 0,0 | ENERCON E-70 E4 2000 71.0... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 48 | 261.153 | 588.982 | 0,0 | ENERCON E-70 E4 2000 71.0... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 49 | 259.576 | 589.371 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 50 | 259.568 | 589.041 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 51 | 258.748 | 594.458 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 52 | 259.042 | 594.322 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 53 | 259.344 | 594.205 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 54 | 259.655 | 594.114 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 55 | 259.971 | 594.042 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 56 | 260.286 | 593.965 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 57 | 260.596 | 593.872 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 58 | 260.896 | 593.750 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 59 | 261.196 | 593.627 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 60 | 261.497 | 593.509 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 61 | 261.805 | 593.407 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 62 | 262.126 | 593.367 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 63 | 262.450 | 593.380 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 64 | 262.767 | 593.448 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 65 | 263.205 | 593.092 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 66 | 263.273 | 592.764 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 67 | 263.154 | 592.466 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 68 | 262.970 | 592.872 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 69 | 262.850 | 592.574 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 70 | 259.947 | 591.451 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 71 | 260.484 | 591.233 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 72 | 261.011 | 591.019 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 73 | 261.526 | 590.802 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 74 | 262.046 | 590.599 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 75 | 262.190 | 591.144 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 76 | 261.741 | 591.483 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 77 | 261.052 | 591.780 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 78 | 260.181 | 592.081 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 79 | 259.555 | 592.229 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 80 | 259.567 | 592.826 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 81 | 260.577 | 592.475 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 82 | 260.839 | 593.122 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 83 | 261.722 | 592.893 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 84 | 262.307 | 592.636 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 85 | 262.775 | 592.062 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 86 | 262.206 | 591.985 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 87 | 262.568 | 591.542 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 88 | 259.583 | 588.718 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 89 | 259.541 | 588.381 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 90 | 259.520 | 588.051 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 91 | 259.935 | 587.778 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 92 | 260.176 | 588.043 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 93 | 260.538 | 588.081 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 94 | 260.683 | 587.792 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 95 | 261.087 | 587.854 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 96 | 261.036 | 588.189 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 97 | 261.513 | 588.148 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 98 | 261.859 | 588.487 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 99 | 261.380 | 588.591 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 100 | 261.043 | 588.659 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 101 | 260.714 | 588.719 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 102 | 260.368 | 588.763 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 103 | 260.032 | 588.735 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |

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Calculated:
3-2-2017 20:20/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1a Groot

### Shadow receptor-Input

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| [A | Rengersweg 99 9936GG Farmsum | 258.006 | 593.455 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [B | Rengersweg 12 9936GH Farmsum | 258.034 | 593.437 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [C | Rengersweg 10 9936GH Farmsum | 258.034 | 593.444 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [D | Kluft 1 9936GP Farmsum | 258.040 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [E | Kluft 3 9936GP Farmsum | 258.047 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [F | Proosdij 46 9936EX Farmsum | 258.058 | 593.427 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [G | Proosdij 48 9936EX Farmsum | 258.062 | 593.433 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [H | Proosdij 50 9936EX Farmsum | 258.090 | 593.443 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [I | Proosdij 52 9936EX Farmsum | 258.090 | 593.430 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [J | Proosdij 54 9936EX Farmsum | 258.094 | 593.415 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [K | Proosdij 56 9936EX Farmsum | 258.108 | 593.416 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [L | Olderman 21 9936GS Farmsum | 258.128 | 593.420 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [M | Olderman 19 9936GS Farmsum | 258.126 | 593.434 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [N | Olderman 17 9936GS Farmsum | 258.125 | 593.448 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [O | Kluft 5 9936GP Farmsum | 258.060 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [P | Kluft 7 9936GP Farmsum | 258.067 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [Q | Kluft 9 9936GP Farmsum | 258.096 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [R | Kluft 11 9936GP Farmsum | 258.102 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [S | Kluft 17 9936GP Farmsum | 258.122 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [T | Zijlvest 8 9936GZ Farmsum | 258.202 | 593.424 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [U | Olderman 32 9936GT Farmsum | 258.151 | 593.480 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [V | Olderman 34 9936GT Farmsum | 258.151 | 593.474 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [W | Olderman 36 9936GT Farmsum | 258.153 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [X | Olderman 38 9936GT Farmsum | 258.153 | 593.453 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [Y | Olderman 40 9936GT Farmsum | 258.155 | 593.440 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [Z | Olderman 42 9936GT Farmsum | 258.155 | 593.434 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \A | Zijlvest 22 A 9936GZ Farmsum | 258.238 | 593.466 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \B | Zijlvest 18 A 9936GZ Farmsum | 258.229 | 593.451 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \C | Zijlvest 18 9936GZ Farmsum | 258.233 | 593.449 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \D | Zijlvest 14 9936GZ Farmsum | 258.229 | 593.441 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \E | Borgweg 1 9936EH Farmsum | 258.030 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \F | Borgweg 3 9936EH Farmsum | 258.031 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \G | Borgweg 5 9936EH Farmsum | 258.031 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \H | Borgweg 7 9936EH Farmsum | 258.031 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \I | Borgweg 9 9936EH Farmsum | 258.031 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \J | Borgweg 11 9936EH Farmsum | 258.031 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \K | Borgweg 13 9936EH Farmsum | 258.031 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \L | Borgweg 15 9936EH Farmsum | 258.033 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \M | Borgweg 17 9936EH Farmsum | 258.033 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \N | Borgweg 19 9936EH Farmsum | 258.033 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \O | Borgweg 21 9936EH Farmsum | 258.033 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \P | Borgweg 23 9936EH Farmsum | 258.033 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \Q | Borgweg 25 9936EH Farmsum | 258.033 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \R | Borgweg 27 9936EH Farmsum | 258.033 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \S | Borgweg 29 9936EJ Farmsum | 258.035 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \T | Borgweg 31 9936EJ Farmsum | 258.035 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \U | Borgweg 33 9936EJ Farmsum | 258.035 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \V | Borgweg 35 9936EJ Farmsum | 258.035 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \W | Borgweg 37 9936EJ Farmsum | 258.035 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \X | Borgweg 39 9936EJ Farmsum | 258.036 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \Y | Borgweg 41 9936EJ Farmsum | 258.036 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \Z | Borgweg 43 9936EJ Farmsum | 258.037 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]A | Borgweg 45 9936EJ Farmsum | 258.038 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]B | Borgweg 47 9936EJ Farmsum | 258.038 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]C | Borgweg 49 9936EJ Farmsum | 258.038 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]D | Borgweg 51 9936EJ Farmsum | 258.038 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]E | Borgweg 53 9936EJ Farmsum | 258.038 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]F | Borgweg 55 9936EJ Farmsum | 258.038 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]G | Borgweg 57 9936EK Farmsum | 258.003 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]H | Borgweg 59 9936EK Farmsum | 258.003 | 593.802 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]I | Borgweg 61 9936EK Farmsum | 258.003 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]J | Borgweg 63 9936EK Farmsum | 258.003 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]K | Borgweg 65 9936EK Farmsum | 258.003 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]L | Borgweg 67 9936EK Farmsum | 258.003 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
3-2-2017 20:20/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1a Groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| ]M | Borgweg 69 9936EK Farmsum | 258.003 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]N | Borgweg 71 9936EK Farmsum | 258.006 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]O | Borgweg 73 9936EK Farmsum | 258.006 | 593.802 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]P | Borgweg 75 9936EK Farmsum | 258.006 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]Q | Borgweg 77 9936EK Farmsum | 258.005 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]R | Borgweg 79 9936EK Farmsum | 258.005 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]S | Borgweg 81 9936EK Farmsum | 258.005 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]T | Borgweg 83 9936EK Farmsum | 258.005 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]U | Borgweg 85 9936EL Farmsum | 258.008 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]V | Borgweg 87 9936EL Farmsum | 258.008 | 593.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]W | Borgweg 89 9936EL Farmsum | 258.008 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]X | Borgweg 91 9936EL Farmsum | 258.008 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]Y | Borgweg 93 9936EL Farmsum | 258.008 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]Z | Borgweg 95 9936EL Farmsum | 258.008 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^A | Borgweg 97 9936EL Farmsum | 258.008 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^B | Borgweg 99 9936EL Farmsum | 258.010 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^C | Borgweg 101 9936EL Farmsum | 258.010 | 593.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^D | Borgweg 103 9936EL Farmsum | 258.010 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^E | Borgweg 105 9936EL Farmsum | 258.010 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^F | Borgweg 107 9936EL Farmsum | 258.010 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^G | Borgweg 109 9936EL Farmsum | 258.010 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^H | Borgweg 111 9936EL Farmsum | 258.010 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^I | Kluft 18 9936GR Farmsum | 258.043 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^J | Kluft 20 9936GR Farmsum | 258.050 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^K | Kluft 22 9936GR Farmsum | 258.057 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^L | Kluft 24 9936GR Farmsum | 258.064 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^M | Kluft 26 9936GR Farmsum | 258.071 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^N | Kluft 28 9936GR Farmsum | 258.078 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^O | Kluft 30 9936GR Farmsum | 258.085 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^P | Kluft 32 9936GR Farmsum | 258.092 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Q | Kluft 2 9936GR Farmsum | 258.043 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^R | Kluft 4 9936GR Farmsum | 258.050 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^S | Kluft 6 9936GR Farmsum | 258.057 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^T | Kluft 8 9936GR Farmsum | 258.064 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^U | Kluft 10 9936GR Farmsum | 258.071 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^V | Kluft 12 9936GR Farmsum | 258.078 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^W | Kluft 14 9936GR Farmsum | 258.085 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^X | Kluft 16 9936GR Farmsum | 258.092 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Y | Zijlvest 20 A 9936GZ Farmsum | 258.233 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Z | Schepperij 51 9936GM Farmsum | 258.194 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _A | Waarman 15 9936GV Farmsum | 258.223 | 593.543 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _B | Waarman 17 9936GV Farmsum | 258.223 | 593.537 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _C | Waarman 19 9936GV Farmsum | 258.223 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _D | Waarman 21 9936GV Farmsum | 258.223 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _E | Waarman 23 9936GV Farmsum | 258.223 | 593.518 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _F | Waarman 25 9936GV Farmsum | 258.223 | 593.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _G | Waarman 27 9936GV Farmsum | 258.223 | 593.506 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _H | Waarman 29 9936GV Farmsum | 258.222 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _I | Heemskesweg 5 9936HE Farmsum | 258.759 | 592.961 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _J | Geefsweersterweg 2 9937TC Meedhuizen | 258.288 | 593.033 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _K | Seendweg 12 9936GA Farmsum | 257.950 | 593.306 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _L | Schepperij 39 9936GM Farmsum | 258.194 | 593.537 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _M | Schepperij 43 9936GM Farmsum | 258.194 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _N | Zijlvest 14 A 9936GZ Farmsum | 258.222 | 593.445 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _O | Zijlvest 24 A 9936GZ Farmsum | 258.239 | 593.474 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| A | Familie Bronsweg 60 9945TA Wagenborgen | 258.511 | 587.742 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AA | Hoofdweg 26 9945PG Wagenborgen | 258.194 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AB | Hoofdweg 23 9945PA Wagenborgen | 258.227 | 586.683 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AC | Hoofdweg 25 9945PA Wagenborgen | 258.217 | 586.663 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AD | Hoofdweg 27 9945PA Wagenborgen | 258.213 | 586.652 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AE | Hoofdweg 29 9945PA Wagenborgen | 258.212 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AF | Hoofdweg 18 9945PG Wagenborgen | 258.219 | 586.709 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AG | Hoofdweg 14 9945PG Wagenborgen | 258.222 | 586.726 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AH | Hoofdweg 10 9945PG Wagenborgen | 258.236 | 586.722 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1a Groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| AI | Hoofdweg 8 9945PG Wagenborgen | 258.258 | 586.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AJ | Hoofdweg 6 9945PG Wagenborgen | 258.276 | 586.731 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AK | Hoofdweg 4 9945PG Wagenborgen | 258.298 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AL | Hoofdweg 21 9945PA Wagenborgen | 258.243 | 586.704 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AM | Hoofdweg 19 9945PA Wagenborgen | 258.272 | 586.709 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AN | Hoofdweg 2 9945PG Wagenborgen | 258.318 | 586.748 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AO | Hoofdweg 15 9945PA Wagenborgen | 258.311 | 586.705 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AP | Hoofdweg 9 9945PA Wagenborgen | 258.331 | 586.713 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AQ | Hoofdweg 11 9945PA Wagenborgen | 258.325 | 586.710 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AR | Hoofdweg 7 9945PA Wagenborgen | 258.338 | 586.725 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AS | Hoofdweg 5 9945PA Wagenborgen | 258.343 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AT | H.L. Emmensweg 17 9945PW Wagenborgen | 258.087 | 586.741 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AU | H.L. Emmensweg 18 9945PX Wagenborgen | 258.106 | 586.733 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AV | H.L. Emmensweg 20 9945PX Wagenborgen | 258.107 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AW | H.L. Emmensweg 22 9945PX Wagenborgen | 258.107 | 586.747 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AX | H.L. Emmensweg 24 9945PX Wagenborgen | 258.108 | 586.753 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AY | H.L. Emmensweg 26 9945PX Wagenborgen | 258.111 | 586.767 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AZ | H.L. Emmensweg 10 9945PX Wagenborgen | 258.103 | 586.698 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| B | Tolhek 4 9945TJ Wagenborgen | 259.289 | 587.610 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BA | H.L. Emmensweg 12 9945PX Wagenborgen | 258.103 | 586.704 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BB | H.L. Emmensweg 14 9945PX Wagenborgen | 258.104 | 586.711 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BC | H.L. Emmensweg 16 9945PX Wagenborgen | 258.105 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BD | H.L. Emmensweg 13 9945PW Wagenborgen | 258.085 | 586.719 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BE | H.L. Emmensweg 15 9945PW Wagenborgen | 258.086 | 586.725 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BF | H.L. Emmensweg 9 9945PW Wagenborgen | 258.083 | 586.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BG | H.L. Emmensweg 11 9945PW Wagenborgen | 258.084 | 586.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BH | H.L. Emmensweg 5 9945PW Wagenborgen | 258.081 | 586.681 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BI | H.L. Emmensweg 7 9945PW Wagenborgen | 258.082 | 586.687 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BJ | H.L. Emmensweg 4 9945PX Wagenborgen | 258.103 | 586.676 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BK | H.L. Emmensweg 2 9945PX Wagenborgen | 258.099 | 586.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BL | H.L. Emmensweg 1 9945PW Wagenborgen | 258.081 | 586.651 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BM | H.L. Emmensweg 3 9945PW Wagenborgen | 258.083 | 586.667 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BN | de Linden 4 9945PZ Wagenborgen | 258.042 | 586.733 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BO | de Linden 6 9945PZ Wagenborgen | 258.058 | 586.734 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BP | de Linden 10 9945PZ Wagenborgen | 258.040 | 586.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BQ | de Linden 12 9945PZ Wagenborgen | 258.021 | 586.721 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BR | de Linden 2 9945PZ Wagenborgen | 258.030 | 586.694 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BS | de Wilgen 12 9945RB Wagenborgen | 258.008 | 586.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BT | de Wilgen 10 9945RB Wagenborgen | 258.008 | 586.764 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BU | de Wilgen 8 9945RB Wagenborgen | 258.007 | 586.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BV | de Wilgen 2 9945RB Wagenborgen | 257.995 | 586.662 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BW | de Wilgen 4 9945RB Wagenborgen | 257.997 | 586.675 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BX | de Wilgen 6 9945RB Wagenborgen | 258.001 | 586.693 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BY | de Wilgen 6 A 9945RB Wagenborgen | 258.004 | 586.726 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BZ | de Wilgen 3 9945RB Wagenborgen | 257.975 | 586.694 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| C | Tolhek 1 9945TJ Wagenborgen | 259.114 | 587.301 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CA | de Wilgen 3 A 9945RB Wagenborgen | 257.977 | 586.713 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CB | de Wilgen 3 B 9945RB Wagenborgen | 257.977 | 586.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CC | de Wilgen 5 9945RB Wagenborgen | 257.973 | 586.766 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CD | de Wilgen 46 9945RB Wagenborgen | 258.036 | 586.921 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CE | de Wilgen 44 9945RB Wagenborgen | 258.036 | 586.927 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CF | de Wilgen 48 9945RB Wagenborgen | 258.034 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CG | de Wilgen 50 9945RB Wagenborgen | 258.034 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CH | de Wilgen 36 9945RB Wagenborgen | 258.060 | 586.908 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CI | de Wilgen 38 9945RB Wagenborgen | 258.059 | 586.915 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CJ | de Wilgen 40 9945RB Wagenborgen | 258.059 | 586.921 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CK | de Wilgen 42 9945RB Wagenborgen | 258.059 | 586.928 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CL | de Wilgen 28 9945RB Wagenborgen | 258.050 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CM | de Wilgen 30 9945RB Wagenborgen | 258.056 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CN | de Wilgen 32 9945RB Wagenborgen | 258.063 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CO | de Wilgen 34 9945RB Wagenborgen | 258.070 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CP | de Wilgen 24 9945TK Wagenborgen | 258.033 | 586.884 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CQ | de Wilgen 26 9945RB Wagenborgen | 258.039 | 586.886 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CR | de Wilgen 20 9945RB Wagenborgen | 258.019 | 586.866 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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3-2-2017 20:20/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1a Groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| CS | de Wilgen 22 9945RB Wagenborgen | 258.019 | 586.872 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CT | de Wilgen 18 9945RB Wagenborgen | 258.016 | 586.853 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CU | de Wilgen 16 9945RB Wagenborgen | 258.015 | 586.837 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CV | de Wilgen 14 9945RB Wagenborgen | 258.014 | 586.813 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CW | de Wilgen 9 9945RB Wagenborgen | 257.970 | 586.829 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CX | de Wilgen 52 9945RB Wagenborgen | 258.167 | 587.083 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CY | Menterne 22 9945RA Wagenborgen | 257.891 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CZ | Menterne 18 9945RA Wagenborgen | 257.856 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| D | Familie Bronsweg 62 9945TA Wagenborgen | 258.389 | 587.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DA | Menterne 21 9945RA Wagenborgen | 257.884 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DB | Menterne 19 9945RA Wagenborgen | 257.863 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DC | Menterne 20 9945RA Wagenborgen | 257.876 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DD | Menterne 17 9945RA Wagenborgen | 257.849 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DE | Menterne 7 9945RA Wagenborgen | 257.896 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DF | Menterne 8 9945RA Wagenborgen | 257.889 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DG | Menterne 9 9945RA Wagenborgen | 257.882 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DH | Menterne 10 9945RA Wagenborgen | 257.875 | 586.913 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DI | Menterne 11 9945RA Wagenborgen | 257.893 | 586.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DJ | Menterne 12 9945RA Wagenborgen | 257.893 | 586.932 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DK | Menterne 13 9945RA Wagenborgen | 257.893 | 586.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DL | Menterne 14 9945RA Wagenborgen | 257.893 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DM | Menterne 1 9945RA Wagenborgen | 257.930 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DN | Menterne 2 9945RA Wagenborgen | 257.924 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DO | Menterne 3 9945RA Wagenborgen | 257.917 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DP | Menterne 4 9945RA Wagenborgen | 257.910 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DQ | Menterne 5 9945RA Wagenborgen | 257.899 | 586.883 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DR | Menterne 6 9945RA Wagenborgen | 257.899 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DS | Menterne 15 9945RA Wagenborgen | 257.866 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DT | Menterne 16 9945RA Wagenborgen | 257.866 | 586.952 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DU | de Berken 6 9945PT Wagenborgen | 258.085 | 586.768 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DV | de Berken 2 9945PT Wagenborgen | 258.040 | 586.782 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DW | de Berken 4 9945PT Wagenborgen | 258.061 | 586.783 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DX | de Berken 1 9945PT Wagenborgen | 258.038 | 586.808 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DY | de Berken 5 9945PT Wagenborgen | 258.087 | 586.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DZ | de Berken 7 9945PT Wagenborgen | 258.102 | 586.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| E | Meerweg 3 9945RC Wagenborgen | 257.540 | 587.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EA | de Berken 9 9945PT Wagenborgen | 258.109 | 586.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EB | de Eiken 14 9945VA Wagenborgen | 258.037 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EC | de Eiken 16 9945VA Wagenborgen | 258.044 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ED | de Eiken 2 9945VA Wagenborgen | 258.061 | 586.829 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EE | de Eiken 4 9945VA Wagenborgen | 258.061 | 586.836 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EF | de Eiken 6 9945VA Wagenborgen | 258.061 | 586.842 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EG | de Eiken 8 9945VA Wagenborgen | 258.062 | 586.853 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EH | de Eiken 10 9945VA Wagenborgen | 258.061 | 586.859 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EI | de Eiken 12 9945VA Wagenborgen | 258.061 | 586.866 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EJ | de Eiken 2 A 9945VA Wagenborgen | 258.065 | 586.807 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EK | Troostlaan 7 9945PV Wagenborgen | 258.200 | 586.801 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EL | Troostlaan 8 9945PV Wagenborgen | 258.187 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EM | Troostlaan 9 9945PV Wagenborgen | 258.172 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EN | Troostlaan 10 9945PV Wagenborgen | 258.153 | 586.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EO | Troostlaan 11 9945PV Wagenborgen | 258.142 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EP | Troostlaan 1 9945PV Wagenborgen | 258.204 | 586.736 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EQ | Troostlaan 2 9945PV Wagenborgen | 258.204 | 586.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ER | Troostlaan 3 9945PV Wagenborgen | 258.205 | 586.772 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ES | Troostlaan 2 A 9945PV Wagenborgen | 258.221 | 586.769 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ET | Troostlaan 4 9945PV Wagenborgen | 258.228 | 586.858 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EU | Troostlaan 14 9945PV Wagenborgen | 258.132 | 586.686 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EV | Troostlaan 22 9945PV Wagenborgen | 258.177 | 586.707 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EW | Troostlaan 20 9945PV Wagenborgen | 258.155 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EX | Troostlaan 21 9945PV Wagenborgen | 258.162 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EY | Troostlaan 18 9945PV Wagenborgen | 258.132 | 586.718 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EZ | Troostlaan 19 9945PV Wagenborgen | 258.139 | 586.718 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| F | G. Boelmanweg 2 9945RJ Wagenborgen | 258.181 | 586.579 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FA | Familie Bronsweg 40 9945PS Wagenborgen | 258.373 | 586.856 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
3-2-2017 20:20/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1a Groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| FB | Familie Bronsweg 44 9945PS Wagenborgen | 258.373 | 586.900 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FC | Familie Bronsweg 46 9945PS Wagenborgen | 258.373 | 586.905 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FD | Familie Bronsweg 48 9945PS Wagenborgen | 258.375 | 586.919 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FE | Familie Bronsweg 50 9945PS Wagenborgen | 258.376 | 586.924 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FF | Familie Bronsweg 79 9945PP Wagenborgen | 258.360 | 586.991 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FG | Familie Bronsweg 81 9945PP Wagenborgen | 258.361 | 586.997 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FH | Familie Bronsweg 36 9945PS Wagenborgen | 258.377 | 586.815 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FI | Familie Bronsweg 38 9945PS Wagenborgen | 258.365 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FJ | Familie Bronsweg 42 9945PS Wagenborgen | 258.371 | 586.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FK | Familie Bronsweg 54 9945PS Wagenborgen | 258.390 | 587.021 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FL | Familie Bronsweg 52 9945PS Wagenborgen | 258.387 | 586.987 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FM | Familie Bronsweg 50 B 9945PS Wagenborgen | 258.384 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FN | Familie Bronsweg 50 A 9945PS Wagenborgen | 258.381 | 586.949 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FO | Familie Bronsweg 75 9945PP Wagenborgen | 258.353 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FP | Familie Bronsweg 75 A 9945PP Wagenborgen | 258.355 | 586.957 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FQ | Familie Bronsweg 75 B 9945PP Wagenborgen | 258.357 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FR | Familie Bronsweg 71 9945PP Wagenborgen | 258.349 | 586.917 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FS | Familie Bronsweg 69 A 9945PP Wagenborgen | 258.347 | 586.902 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FT | Familie Bronsweg 69 9945PP Wagenborgen | 258.344 | 586.888 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FU | Familie Bronsweg 67 9945PP Wagenborgen | 258.342 | 586.873 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FV | Familie Bronsweg 65 9945PP Wagenborgen | 258.341 | 586.863 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FW | Familie Bronsweg 63 9945PP Wagenborgen | 258.338 | 586.850 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FX | Familie Bronsweg 61 9945PP Wagenborgen | 258.335 | 586.831 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FY | Familie Bronsweg 59 9945PP Wagenborgen | 258.334 | 586.816 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FZ | Familie Bronsweg 57 9945PP Wagenborgen | 258.332 | 586.805 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| G | G. Boelmanweg 3 9945RE Wagenborgen | 258.198 | 586.584 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GA | Familie Bronsweg 53 9945PP Wagenborgen | 258.332 | 586.793 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GB | Familie Bronsweg 73 9945PP Wagenborgen | 258.351 | 586.930 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GC | Familie Bronsweg 85 9945PP Wagenborgen | 258.372 | 587.065 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GD | Familie Bronsweg 83 9945PP Wagenborgen | 258.363 | 587.014 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GE | Familie Bronsweg 83 A 9945PP Wagenborgen | 258.365 | 587.034 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GF | Familie Bronsweg 77 9945PP Wagenborgen | 258.333 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GG | Familie Bronsweg 51 9945PP Wagenborgen | 258.389 | 586.776 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GH | Familie Bronsweg 2 9945PR Wagenborgen | 258.765 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GI | Familie Bronsweg 4 9945PR Wagenborgen | 258.743 | 586.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GJ | Familie Bronsweg 4 A 9945PR Wagenborgen | 258.723 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GK | Familie Bronsweg 6 9945PR Wagenborgen | 258.705 | 586.916 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GL | Familie Bronsweg 8 9945PR Wagenborgen | 258.677 | 586.901 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GM | Familie Bronsweg 10 9945PR Wagenborgen | 258.649 | 586.888 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GN | Familie Bronsweg 12 9945PR Wagenborgen | 258.620 | 586.864 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GO | Familie Bronsweg 14 9945PR Wagenborgen | 258.608 | 586.858 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GP | Familie Bronsweg 16 9945PR Wagenborgen | 258.597 | 586.852 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GQ | Familie Bronsweg 15 9945PN Wagenborgen | 258.511 | 586.783 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GR | Familie Bronsweg 17 9945PN Wagenborgen | 258.473 | 586.777 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GS | Familie Bronsweg 2 A 9945PR Wagenborgen | 258.786 | 587.001 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GT | Familie Bronsweg 2 B 9945PR Wagenborgen | 258.745 | 587.014 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GU | Familie Bronsweg 2 C 9945PR Wagenborgen | 258.710 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GV | Familie Bronsweg 2 D 9945PR Wagenborgen | 258.686 | 586.974 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GW | Familie Bronsweg 2 F 9945PR Wagenborgen | 258.671 | 586.991 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GX | Familie Bronsweg 2 G 9945PR Wagenborgen | 258.671 | 587.016 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GY | Familie Bronsweg 2 H 9945PR Wagenborgen | 258.696 | 587.012 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GZ | Familie Bronsweg 2 J 9945PR Wagenborgen | 258.717 | 587.009 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| H | G. Boelmanweg 5 9945RE Wagenborgen | 258.203 | 586.561 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HA | Akeleistraat 17 9945VD Wagenborgen | 258.515 | 587.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HB | Akeleistraat 19 9945VD Wagenborgen | 258.505 | 587.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HC | Akeleistraat 21 9945VD Wagenborgen | 258.486 | 587.050 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HD | Akeleistraat 23 9945VD Wagenborgen | 258.477 | 587.051 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HE | Akeleistraat 20 9945VD Wagenborgen | 258.448 | 587.022 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HF | Akeleistraat 22 9945VD Wagenborgen | 258.439 | 587.022 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HG | Akeleistraat 16 9945VD Wagenborgen | 258.477 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HH | Akeleistraat 18 9945VD Wagenborgen | 258.467 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HI | Akeleistraat 12 9945VD Wagenborgen | 258.506 | 587.013 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HJ | Akeleistraat 14 9945VD Wagenborgen | 258.496 | 587.013 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HK | Akeleistraat 10 9945VD Wagenborgen | 258.532 | 587.007 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Hans / Hans@boschenvanrijn.nl
Calculated:
3-2-2017 20:20/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1a Groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| HL | Akeleistraat 1 9945VD Wagenborgen | 258.634 | 587.024 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HM | Akeleistraat 3 9945VD Wagenborgen | 258.625 | 587.021 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HN | Akeleistraat 5 9945VD Wagenborgen | 258.604 | 587.023 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HO | Akeleistraat 7 9945VD Wagenborgen | 258.595 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HP | Akeleistraat 9 9945VD Wagenborgen | 258.574 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HQ | Akeleistraat 11 9945VD Wagenborgen | 258.565 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HR | Akeleistraat 2 9945VD Wagenborgen | 258.626 | 586.998 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HS | Akeleistraat 4 9945VD Wagenborgen | 258.617 | 586.995 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HT | Akeleistraat 6 9945VD Wagenborgen | 258.597 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HU | Akeleistraat 8 9945VD Wagenborgen | 258.588 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HV | Akeleistraat 15 9945VD Wagenborgen | 258.535 | 587.045 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HW | Bremstraat 6 9945VC Wagenborgen | 258.522 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HX | Bremstraat 2 9945VC Wagenborgen | 258.570 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HY | Bremstraat 4 9945VC Wagenborgen | 258.545 | 586.969 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HZ | Bremstraat 12 9945VC Wagenborgen | 258.448 | 586.982 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| I | G. Boelmanweg 4 9945RJ Wagenborgen | 258.168 | 586.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IA | Hibiscusstraat 30 9945VB Wagenborgen | 258.633 | 586.942 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IB | Hibiscusstraat 2 9945VB Wagenborgen | 258.428 | 586.818 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IC | Hibiscusstraat 4 9945VB Wagenborgen | 258.449 | 586.865 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ID | Hibiscusstraat 10 9945VB Wagenborgen | 258.426 | 586.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IE | Hibiscusstraat 16 9945VB Wagenborgen | 258.482 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IF | Bremstraat 14 9945VC Wagenborgen | 258.428 | 586.984 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IG | Hibiscusstraat 6 9945VB Wagenborgen | 258.417 | 586.860 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IH | Hibiscusstraat 26 9945VB Wagenborgen | 258.608 | 586.953 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| II | Kopaf 8 9945TE Wagenborgen | 259.518 | 587.109 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IJ | Kopaf 7 9945TE Wagenborgen | 259.555 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IK | Kopaf 6 9945TE Wagenborgen | 259.575 | 587.100 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IL | Kloosterlaan 27 9945TG Wagenborgen | 259.558 | 587.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IM | Kloosterlaan 25 9945TG Wagenborgen | 259.567 | 587.793 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IN | Kloosterlaan 23 9945TG Wagenborgen | 259.592 | 587.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IO | Scheve Klap 5 9945TD Wagenborgen | 260.522 | 587.264 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IP | Scheve Klap 4 9945TD Wagenborgen | 260.493 | 587.154 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IQ | Hibiscusstraat 8 9945VB Wagenborgen | 258.420 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IR | Hibiscusstraat 12 9945VB Wagenborgen | 258.431 | 586.945 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IS | Hibiscusstraat 18 9945VB Wagenborgen | 258.503 | 586.931 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IT | Hibiscusstraat 24 9945VB Wagenborgen | 258.612 | 586.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IU | Hibiscusstraat 22 9945VB Wagenborgen | 258.583 | 586.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IV | Troostlaan 15 9945PV Wagenborgen | 258.151 | 586.693 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IW | Bremstraat 10 9945VC Wagenborgen | 258.473 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IX | Hibiscusstraat 20 9945VB Wagenborgen | 258.529 | 586.931 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IY | Hibiscusstraat 28 9945VB Wagenborgen | 258.622 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IZ | Troostlaan 5 9945PV Wagenborgen | 258.189 | 586.911 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| J | G. Boelmanweg 7 9945RE Wagenborgen | 258.198 | 586.536 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JA | Troostlaan 6 9945PV Wagenborgen | 258.249 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JB | Boslaan 5 9945TM Wagenborgen | 259.413 | 587.123 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JC | Hoofdweg 33 A 9945PB Wagenborgen | 258.174 | 586.602 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JD | Akeleistraat 13 9945VD Wagenborgen | 258.569 | 587.057 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JE | Hoofdweg 42 9945PG Wagenborgen | 258.103 | 586.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JF | Familie Bronsweg 2 E 9945PR Wagenborgen | 258.670 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JG | Hibiscusstraat 14 9945VB Wagenborgen | 258.456 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JH | Bremstraat 8 9945VC Wagenborgen | 258.502 | 586.974 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JI | Menterne 23 003 9945RA Wagenborgen | 257.949 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JJ | Menterne 23 004 9945RA Wagenborgen | 257.949 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JK | Menterne 23 005 9945RA Wagenborgen | 257.948 | 586.990 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JL | Menterne 23 006 9945RA Wagenborgen | 257.948 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JM | Menterne 23 007 9945RA Wagenborgen | 257.960 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JN | Menterne 23 008 9945RA Wagenborgen | 257.960 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JO | Menterne 23 009 9945RA Wagenborgen | 257.960 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JP | Menterne 23 010 9945RA Wagenborgen | 257.961 | 586.988 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JQ | Menterne 23 017 9945RA Wagenborgen | 257.971 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JR | Menterne 23 030 9945RA Wagenborgen | 257.958 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JS | Menterne 23 103 9945RA Wagenborgen | 257.951 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JT | Menterne 23 104 9945RA Wagenborgen | 257.951 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JU | Menterne 23 105 9945RA Wagenborgen | 257.951 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
3-2-2017 20:20/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1a Groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| JV | Menterne 23 106 9945RA Wagenborgen | 257.950 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JW | Menterne 23 107 9945RA Wagenborgen | 257.958 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JX | Menterne 23 108 9945RA Wagenborgen | 257.958 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JY | Menterne 23 109 9945RA Wagenborgen | 257.958 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JZ | Menterne 23 110 9945RA Wagenborgen | 257.958 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| K | G. Boelmanweg 6 9945RJ Wagenborgen | 258.176 | 586.541 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KA | Menterne 23 111 9945RA Wagenborgen | 257.959 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KB | Menterne 23 113 9945RA Wagenborgen | 257.967 | 586.972 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KC | Menterne 23 114 9945RA Wagenborgen | 257.967 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KD | Menterne 23 115 9945RA Wagenborgen | 257.967 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KE | Menterne 23 116 9945RA Wagenborgen | 257.968 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KF | Menterne 23 117 9945RA Wagenborgen | 257.968 | 586.957 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KG | Menterne 23 118 9945RA Wagenborgen | 257.968 | 586.953 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KH | Menterne 23 119 9945RA Wagenborgen | 257.967 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KI | Menterne 23 120 9945RA Wagenborgen | 257.968 | 586.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KJ | Menterne 23 121 9945RA Wagenborgen | 257.968 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KK | Menterne 23 122 9945RA Wagenborgen | 257.968 | 586.936 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KL | Menterne 23 123 9945RA Wagenborgen | 257.968 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KM | Menterne 23 124 9945RA Wagenborgen | 257.968 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KN | Menterne 23 125 9945RA Wagenborgen | 257.956 | 586.930 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KO | Menterne 23 126 9945RA Wagenborgen | 257.956 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KP | Menterne 23 127 9945RA Wagenborgen | 257.956 | 586.937 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KQ | Menterne 23 128 9945RA Wagenborgen | 257.956 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KR | Menterne 23 129 9945RA Wagenborgen | 257.956 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KS | Menterne 23 130 9945RA Wagenborgen | 257.961 | 586.958 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KT | Menterne 23 131 9945RA Wagenborgen | 257.961 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KU | Menterne 23 132 9945RA Wagenborgen | 257.960 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KV | Menterne 23 201 9945RA Wagenborgen | 257.953 | 586.973 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KW | Menterne 23 202 9945RA Wagenborgen | 257.953 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KX | Menterne 23 203 9945RA Wagenborgen | 257.953 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KY | Menterne 23 204 9945RA Wagenborgen | 257.953 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KZ | Menterne 23 205 9945RA Wagenborgen | 257.953 | 586.990 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| L | Kokslaan 1 9945RD Wagenborgen | 258.257 | 586.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LA | Menterne 23 206 9945RA Wagenborgen | 257.953 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LB | Menterne 23 207 9945RA Wagenborgen | 257.956 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LC | Menterne 23 208 9945RA Wagenborgen | 257.956 | 586.995 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LD | Menterne 23 209 9945RA Wagenborgen | 257.956 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LE | Menterne 23 210 9945RA Wagenborgen | 257.956 | 586.988 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LF | Menterne 23 211 9945RA Wagenborgen | 257.957 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LG | Menterne 23 212 9945RA Wagenborgen | 257.957 | 586.981 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LH | Menterne 23 213 9945RA Wagenborgen | 257.964 | 586.972 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LI | Menterne 23 214 9945RA Wagenborgen | 257.965 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LJ | Menterne 23 215 9945RA Wagenborgen | 257.965 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LK | Menterne 23 216 9945RA Wagenborgen | 257.965 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LL | Menterne 23 217 9945RA Wagenborgen | 257.965 | 586.956 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LM | Menterne 23 218 9945RA Wagenborgen | 257.965 | 586.954 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LN | Menterne 23 219 9945RA Wagenborgen | 257.965 | 586.947 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LO | Menterne 23 220 9945RA Wagenborgen | 257.965 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LP | Menterne 23 221 9945RA Wagenborgen | 257.965 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LQ | Menterne 23 222 9945RA Wagenborgen | 257.965 | 586.937 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LR | Menterne 23 223 9945RA Wagenborgen | 257.965 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LS | Menterne 23 224 9945RA Wagenborgen | 257.966 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LT | Menterne 23 226 9945RA Wagenborgen | 257.959 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LU | Menterne 23 228 9945RA Wagenborgen | 257.958 | 586.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LV | Menterne 23 229 9945RA Wagenborgen | 257.958 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LW | Menterne 23 230 9945RA Wagenborgen | 257.962 | 586.958 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LX | Menterne 23 231 9945RA Wagenborgen | 257.962 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LY | Menterne 23 232 9945RA Wagenborgen | 257.962 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LZ | G. Boelmanweg 1 9945RE Wagenborgen | 258.213 | 586.607 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| M | Kokslaan 2 9945RD Wagenborgen | 258.279 | 586.598 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MA | Boslaan 7 9945TM Wagenborgen | 259.467 | 586.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MB | H.L. Emmensweg 23 9945PW Wagenborgen | 258.086 | 586.747 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MC | Kopaf 5 9944VA Nieuwolda | 259.816 | 586.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MD | Familie Bronsweg 68 9945TA Wagenborgen | 258.470 | 588.333 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
3-2-2017 20:20/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1a Groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| ME | Maarkampen 26 9937PL Meedhuizen | 256.956 | 590.088 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MF | Maarkampen 24 9937PL Meedhuizen | 256.931 | 590.090 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MG | Maarkampen 22 9937PL Meedhuizen | 256.916 | 590.093 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MH | Maarkampen 20 9937PL Meedhuizen | 256.898 | 590.098 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MI | Maarkampen 18 9937PL Meedhuizen | 256.878 | 590.101 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MJ | Maarkampen 16 9937PL Meedhuizen | 256.858 | 590.104 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MK | Maarkampen 14 9937PL Meedhuizen | 256.838 | 590.106 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ML | Maarlaan 22 E 9937TH Meedhuizen | 256.932 | 590.173 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MM | Maarlaan 22 D 9937TH Meedhuizen | 256.877 | 590.178 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MN | Schaapbulterweg 8 9937TL Meedhuizen | 256.971 | 589.534 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MO | Schaapbulterweg 6 9937TL Meedhuizen | 256.919 | 589.544 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MP | Schaapbulterweg 29 9937TL Meedhuizen | 256.970 | 589.489 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MQ | Schaapbulterweg 27 9937TL Meedhuizen | 256.949 | 589.497 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MR | Schaapbulterweg 25 9937TL Meedhuizen | 256.935 | 589.503 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MS | Schaapbulterweg 23 9937TL Meedhuizen | 256.920 | 589.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MT | Schaapbulterweg 21 9937TL Meedhuizen | 256.908 | 589.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MU | Geefsweersterweg 11 9937TB Meedhuizen | 257.472 | 591.162 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MV | Schaapbulterweg 35 9937TL Meedhuizen | 257.159 | 589.455 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MW | Meedhuizerweg 20 9937TK Meedhuizen | 257.017 | 590.790 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MX | Familie Bronsweg 66 9945TA Wagenborgen | 258.538 | 588.146 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MY | Familie Bronsweg 64 9945TA Wagenborgen | 258.518 | 588.056 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MZ | Ideweersterweg 10 9937TM Meedhuizen | 257.794 | 589.376 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| N | Kerkstraat 1 9945SB Wagenborgen | 258.120 | 586.579 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NA | Ideweersterweg 8 9937TM Meedhuizen | 257.916 | 589.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NB | Geefsweersterweg 20 9937TC Meedhuizen | 258.111 | 588.986 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NC | Geefsweersterweg 18 9937TC Meedhuizen | 258.066 | 589.025 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ND | Geefsweersterweg 29 9937TB Meedhuizen | 258.051 | 588.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NE | Geefsweersterweg 16 9937TC Meedhuizen | 258.011 | 589.140 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NF | Geefsweersterweg 23 9937TB Meedhuizen | 257.998 | 589.209 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NG | Geefsweersterweg 12 9937TC Meedhuizen | 258.033 | 589.285 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NH | Geefsweersterweg 14 9937TC Meedhuizen | 258.028 | 589.261 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NI | Geefsweersterweg 21 A 9937TB Meedhuizen | 258.002 | 589.266 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NJ | Geefsweersterweg 10 9937TC Meedhuizen | 258.042 | 589.339 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NK | Geefsweersterweg 21 9937TB Meedhuizen | 258.025 | 589.335 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NL | Geefsweersterweg 17 9937TB Meedhuizen | 258.035 | 589.424 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NM | Geefsweersterweg 19 9937TB Meedhuizen | 258.023 | 589.378 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NN | Ideweersterweg 2 9937TM Meedhuizen | 259.329 | 589.348 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NO | Ideweersterweg 1 9937TM Meedhuizen | 259.330 | 589.303 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NP | Geefsweersterweg 15 9937TB Meedhuizen | 257.994 | 590.149 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NQ | Westerlaan 6 9937TS Meedhuizen | 258.650 | 590.176 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NR | Familie Bronsweg 87 9945TA Wagenborgen | 258.255 | 588.149 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NS | Familie Bronsweg 89 9945TA Wagenborgen | 258.288 | 588.393 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NT | Westerlaan 10 9937TS Meedhuizen | 258.640 | 588.541 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NU | Geefsweersterweg 13 9937TB Meedhuizen | 257.998 | 590.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NV | Maarlaan 26 9937TH Meedhuizen | 257.044 | 590.228 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NW | Maarlaan 24 9937TH Meedhuizen | 256.988 | 590.171 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NX | Maarlaan 28 9937TH Meedhuizen | 257.042 | 590.160 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NY | Maarlaan 30 9937TH Meedhuizen | 257.109 | 590.155 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NZ | Kerklaan 3 9937PG Meedhuizen | 257.099 | 589.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| O | Hoofdweg 30 9945PG Wagenborgen | 258.190 | 586.634 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OA | Kerklaan 8 9937PG Meedhuizen | 257.192 | 589.983 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OB | Kerklaan 6 9937PG Meedhuizen | 257.151 | 590.090 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OC | Opmeedenlaan 6 9937TN Meedhuizen | 256.970 | 588.781 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OD | Opmeedenlaan 4 9937TN Meedhuizen | 256.988 | 588.863 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OE | Opmeedenlaan 2 9937TN Meedhuizen | 257.043 | 588.932 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OF | Kloosterlaan 26 9945TG Wagenborgen | 260.046 | 588.262 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OG | Zomerdijk 1 9945TH Wagenborgen | 260.153 | 588.395 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OH | Zomerdijk 3 9945TH Wagenborgen | 260.454 | 588.375 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OI | Zomerdijk 3 A 9945TH Wagenborgen | 260.560 | 588.321 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OJ | Zomerdijk 2 9945TH Wagenborgen | 260.721 | 588.388 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OK | Kloosterlaan 21 A 9945TG Wagenborgen | 259.991 | 588.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OL | Kloosterlaan 21 B 9945TG Wagenborgen | 259.957 | 588.308 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OM | Ideweersterweg 4 9937TM Meedhuizen | 258.658 | 589.400 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ON | Maarlaan 22 C 9937TH Meedhuizen | 256.840 | 590.186 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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3-2-2017 20:20/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1a Groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| OO | Kloosterlaan 21 9936TE Farmsum | 260.253 | 589.832 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OP | Geefsweersterweg 8 A 9937TC Meedhuizen | 258.072 | 590.685 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OQ | Houtweg 20 9936BL Farmsum | 257.300 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OR | Houtweg 22 9936BL Farmsum | 257.298 | 593.542 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OS | Houtweg 24 9936BL Farmsum | 257.297 | 593.528 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OT | Houtweg 26 9936BL Farmsum | 257.296 | 593.515 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OU | Houtweg 28 9936BL Farmsum | 257.294 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OV | Rondeboslaan 6 9936BK Farmsum | 257.466 | 593.590 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OW | Proosdij 14 9936EW Farmsum | 257.893 | 593.570 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OX | Bredelaan 6 9936ER Farmsum | 257.806 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OY | Bredelaan 4 9936ER Farmsum | 257.804 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OZ | Bredelaan 2 A 9936ER Farmsum | 257.802 | 593.559 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| P | Hoofdweg 32 9945PG Wagenborgen | 258.177 | 586.629 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PA | Proosdij 24 9936EW Farmsum | 257.913 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PB | Proosdij 22 9936EW Farmsum | 257.910 | 593.522 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PC | Proosdij 20 9936EW Farmsum | 257.906 | 593.533 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PD | Proosdij 18 9936EW Farmsum | 257.901 | 593.549 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PE | Proosdij 16 9936EW Farmsum | 257.899 | 593.554 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PF | Trambaan 19 9936ES Farmsum | 257.863 | 593.507 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PG | Proosdij 17 9936ET Farmsum | 257.864 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PH | Proosdij 15 9936ET Farmsum | 257.862 | 593.560 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PI | Proosdij 13 9936ET Farmsum | 257.859 | 593.568 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PJ | Trambaan 17 9936ES Farmsum | 257.856 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PK | Trambaan 15 9936ES Farmsum | 257.849 | 593.520 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PL | Trambaan 13 9936ES Farmsum | 257.844 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PM | Trambaan 11 9936ES Farmsum | 257.839 | 593.530 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PN | Trambaan 9 9936ES Farmsum | 257.833 | 593.536 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PO | Trambaan 5 9936ES Farmsum | 257.825 | 593.544 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PP | Trambaan 3 9936ES Farmsum | 257.818 | 593.551 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PQ | Trambaan 1 9936ES Farmsum | 257.814 | 593.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PR | Proosdij 12 9936EW Farmsum | 257.888 | 593.590 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PS | Proosdij 8 9936EW Farmsum | 257.881 | 593.604 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PT | Proosdij 6 9936EW Farmsum | 257.876 | 593.616 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PU | Proosdij 4 9936EW Farmsum | 257.872 | 593.630 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PV | Proosdij 11 9936ET Farmsum | 257.856 | 593.577 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PW | Proosdij 9 9936ET Farmsum | 257.853 | 593.584 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PX | Proosdij 7 9936ET Farmsum | 257.849 | 593.596 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PY | Proosdij 5 9936ET Farmsum | 257.846 | 593.605 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PZ | Proosdij 1 9936ET Farmsum | 257.839 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Q | Hoofdweg 31 9945PA Wagenborgen | 258.210 | 586.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QA | Proosdij 3 9936ET Farmsum | 257.844 | 593.611 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QB | Farmsumerzijl 55 9936GC Farmsum | 257.821 | 593.640 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QC | Farmsumerzijl 57 9936GC Farmsum | 257.800 | 593.636 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QD | Rengersweg 4 9936GH Farmsum | 258.026 | 593.578 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QE | Rengersweg 2 9936GH Farmsum | 258.026 | 593.587 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QF | Schepperij 4 A 9936GN Farmsum | 258.046 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QG | Schepperij 2 A 9936GN Farmsum | 258.033 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QH | Schepperij 4 9936GN Farmsum | 258.040 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QI | Schepperij 2 9936GN Farmsum | 258.027 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QJ | Dijkrecht 4 9936GK Farmsum | 258.021 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QK | Dijkrecht 6 9936GK Farmsum | 258.035 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QL | Dijkrecht 10 9936GK Farmsum | 258.054 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QM | Dijkrecht 12 9936GK Farmsum | 258.061 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QN | Dijkrecht 14 9936GK Farmsum | 258.074 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QO | Dijkrecht 16 9936GK Farmsum | 258.081 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QP | Dijkrecht 18 9936GK Farmsum | 258.095 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QQ | Dijkrecht 20 9936GK Farmsum | 258.107 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QR | Dijkrecht 22 9936GK Farmsum | 258.123 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QS | Dijkrecht 24 9936GK Farmsum | 258.138 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QT | Dijkrecht 26 9936GK Farmsum | 258.159 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QU | Dijkrecht 28 9936GK Farmsum | 258.166 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QV | Dijkrecht 30 9936GK Farmsum | 258.186 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QW | Dijkrecht 32 9936GK Farmsum | 258.192 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QX | Dijkrecht 34 9936GK Farmsum | 258.206 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1a Groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| QY | Dijkrecht 36 9936GK Farmsum | 258.213 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QZ | Dijkrecht 40 9936GK Farmsum | 258.233 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| R | Hoofdweg 38 9945PG Wagenborgen | 258.142 | 586.621 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RA | Dijkrecht 38 9936GK Farmsum | 258.227 | 593.624 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RB | Schepperij 20 9936GN Farmsum | 258.190 | 593.563 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RC | Schepperij 18 9936GN Farmsum | 258.184 | 593.563 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RD | Waarman 12 9936GW Farmsum | 258.263 | 593.622 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RE | Waarman 10 9936GW Farmsum | 258.263 | 593.629 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RF | Waarman 8 9936GW Farmsum | 258.265 | 593.641 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RG | Waarman 6 9936GW Farmsum | 258.265 | 593.648 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RH | Farmsumerzijl 1 9936GB Farmsum | 258.234 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RI | Farmsumerzijl 3 9936GB Farmsum | 258.227 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RJ | Farmsumerzijl 5 9936GB Farmsum | 258.213 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RK | Farmsumerzijl 7 9936GB Farmsum | 258.207 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RL | Farmsumerzijl 13 9936GB Farmsum | 258.172 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RM | Farmsumerzijl 15 9936GB Farmsum | 258.166 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RN | Farmsumerzijl 17 9936GB Farmsum | 258.152 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RO | Farmsumerzijl 19 9936GB Farmsum | 258.146 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RP | Farmsumerzijl 25 9936GB Farmsum | 258.115 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RQ | Farmsumerzijl 27 9936GB Farmsum | 258.108 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RR | Farmsumerzijl 29 9936GB Farmsum | 258.096 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RS | Farmsumerzijl 31 9936GC Farmsum | 258.089 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RT | Farmsumerzijl 37 9936GC Farmsum | 258.057 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RU | Farmsumerzijl 39 9936GC Farmsum | 258.050 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RV | Farmsumerzijl 41 9936GC Farmsum | 258.037 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RW | Farmsumerzijl 43 9936GC Farmsum | 258.031 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RX | Schepperij 1 9936GL Farmsum | 258.054 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RY | Schepperij 3 9936GL Farmsum | 258.060 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RZ | Schepperij 5 9936GL Farmsum | 258.066 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| S | Hoofdweg 39 9945PB Wagenborgen | 258.126 | 586.603 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SA | Schepperij 7 9936GL Farmsum | 258.072 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SB | Schepperij 9 9936GL Farmsum | 258.078 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SC | Schepperij 11 9936GL Farmsum | 258.084 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SD | Schepperij 13 9936GL Farmsum | 258.090 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SE | Schepperij 15 9936GL Farmsum | 258.097 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SF | Dijkrecht 8 9936GK Farmsum | 258.041 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SG | Geefsweersterweg 9 9937TB Meedhuizen | 257.539 | 591.945 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SH | Geefsweersterweg 7 9937TB Meedhuizen | 258.115 | 592.341 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SI | Geefsweersterweg 8 9937TC Meedhuizen | 258.139 | 592.234 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SJ | Geefsweersterweg 3 9937TB Meedhuizen | 258.102 | 592.452 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SK | Geefsweersterweg 6 9937TC Meedhuizen | 258.202 | 592.502 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SL | Geefsweersterweg 4 9937TC Meedhuizen | 258.243 | 592.643 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SM | Meedhuizerweg 2 9937TK Meedhuizen | 256.911 | 592.415 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SN | Molenstraat 31 9936EB Farmsum | 257.786 | 593.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SO | Hindrik Jagerstraat 32 9936CV Farmsum | 257.573 | 593.810 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SP | Hindrik Jagerstraat 11 9936CT Farmsum | 257.561 | 593.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SQ | Hindrik Jagerstraat 13 9936CT Farmsum | 257.568 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SR | Hindrik Jagerstraat 15 9936CT Farmsum | 257.574 | 593.790 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SS | Hindrik Jagerstraat 34 9936CV Farmsum | 257.581 | 593.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ST | Hindrik Jagerstraat 36 9936CV Farmsum | 257.587 | 593.799 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SU | Borgshof 31 9936CR Farmsum | 257.617 | 593.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SV | Borgshof 33 9936CR Farmsum | 257.615 | 593.807 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SW | Borgshof 39 9936CR Farmsum | 257.605 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SX | Borgshof 35 9936CR Farmsum | 257.604 | 593.768 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SY | Molenstraat 20 9936EC Farmsum | 257.801 | 593.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SZ | Molenstraat 24 9936EC Farmsum | 257.812 | 593.926 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| T | Hoofdweg 35 9945PB Wagenborgen | 258.160 | 586.604 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TA | Molenstraat 28 9936EC Farmsum | 257.817 | 593.918 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TB | Molenstraat 41 9936EB Farmsum | 257.798 | 593.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TC | Molenstraat 43 9936EB Farmsum | 257.802 | 593.918 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TD | Molenstraat 45 9936EB Farmsum | 257.807 | 593.910 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TE | Molenstraat 32 9936EC Farmsum | 257.821 | 593.908 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TF | Achterweg 13 9936EG Farmsum | 257.848 | 593.913 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TG | Achterweg 11 9936EG Farmsum | 257.855 | 593.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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3-2-2017 20:20/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1a Groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| TH | Achterweg 9 9936EG Farmsum | 257.861 | 593.915 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TI | Molenstraat 49 9936EB Farmsum | 257.809 | 593.905 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TJ | Molenstraat 51 9936EB Farmsum | 257.812 | 593.900 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TK | Molenstraat 53 9936EB Farmsum | 257.815 | 593.894 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TL | Molenstraat 57 9936EB Farmsum | 257.819 | 593.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TM | Molenstraat 61 9936EB Farmsum | 257.826 | 593.870 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TN | Molenstraat 63 9936EB Farmsum | 257.830 | 593.861 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TO | Molenstraat 34 9936ED Farmsum | 257.827 | 593.897 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TP | Molenstraat 38 9936ED Farmsum | 257.832 | 593.886 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TQ | Molenstraat 40 9936ED Farmsum | 257.835 | 593.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TR | Molenstraat 42 9936ED Farmsum | 257.837 | 593.870 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TS | Molenstraat 44 9936ED Farmsum | 257.842 | 593.859 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TT | Molenstraat 65 9936EB Farmsum | 257.834 | 593.850 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TU | Molenstraat 48 9936ED Farmsum | 257.847 | 593.847 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TV | Molenstraat 50 9936ED Farmsum | 257.850 | 593.837 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TW | Molenstraat 56 9936ED Farmsum | 257.851 | 593.824 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TX | Molenstraat 58 9936EE Farmsum | 257.863 | 593.810 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TY | Molenstraat 62 9936EE Farmsum | 257.858 | 593.798 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TZ | Molenstraat 72 9936EE Farmsum | 257.855 | 593.753 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| U | Hoofdweg 37 9945PB Wagenborgen | 258.149 | 586.603 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UA | Molenstraat 70 9936EE Farmsum | 257.854 | 593.758 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UB | Molenstraat 68 9936EE Farmsum | 257.854 | 593.765 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UC | Molenstraat 66 9936EE Farmsum | 257.854 | 593.773 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UD | Achterweg 2 9936EG Farmsum | 257.886 | 593.882 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UE | Achterweg 12 9936EG Farmsum | 257.919 | 593.766 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UF | Achterweg 10 9936EG Farmsum | 257.918 | 593.779 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UG | Achterweg 8 9936EG Farmsum | 257.916 | 593.791 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UH | Hindrik Jagerstraat 17 9936CT Farmsum | 257.588 | 593.777 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UI | Molenstraat 30 9936EC Farmsum | 257.820 | 593.912 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UJ | Borgweg 141 9936EN Farmsum | 257.451 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UK | Borgweg 139 9936EN Farmsum | 257.466 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UL | Borgweg 137 9936EN Farmsum | 257.473 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UM | Borgweg 135 9936EN Farmsum | 257.487 | 593.708 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UN | Afwateringskanaal 109 9936AV Farmsum | 257.508 | 593.724 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UO | Borgweg 131 9936EM Farmsum | 257.636 | 593.714 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UP | Borgweg 133 9936EM Farmsum | 257.581 | 593.701 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UQ | Borgshof 41 9936CR Farmsum | 257.598 | 593.743 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UR | Borgshof 43 9936CR Farmsum | 257.595 | 593.730 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| US | Borgshof 45 9936CR Farmsum | 257.594 | 593.720 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UT | Molenstraat 74 9936EE Farmsum | 257.855 | 593.743 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UU | Molenstraat 76 9936EE Farmsum | 257.857 | 593.736 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UV | Molenstraat 78 9936EE Farmsum | 257.858 | 593.730 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UW | Molenstraat 82 9936EE Farmsum | 257.858 | 593.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UX | Molenstraat 84 9936EE Farmsum | 257.858 | 593.708 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UY | Borgweg 123 9936EM Farmsum | 257.927 | 593.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UZ | Borgweg 125 9936EM Farmsum | 257.917 | 593.698 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| V | Hoofdweg 44 9945PH Wagenborgen | 258.071 | 586.624 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VA | Borgweg 127 9936EM Farmsum | 257.906 | 593.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VB | Borgweg 129 9936EM Farmsum | 257.897 | 593.699 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VC | Farmsumerzijl 51 9936GC Farmsum | 257.925 | 593.665 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VD | Molenstraat 80 9936EE Farmsum | 257.858 | 593.723 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VE | Houtweg 30 9936BL Farmsum | 257.294 | 593.486 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VF | Houtweg 32 9936BL Farmsum | 257.292 | 593.473 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VG | Houtweg 34 9936BL Farmsum | 257.291 | 593.459 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VH | Houtweg 36 9936BL Farmsum | 257.289 | 593.446 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VI | Houtweg 38 9936BL Farmsum | 257.288 | 593.429 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VJ | Houtweg 40 9936BL Farmsum | 257.261 | 593.394 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VK | Houtweg 42 9936BL Farmsum | 257.257 | 593.387 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VL | Houtweg 44 9936BL Farmsum | 257.250 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VM | Houtweg 46 9936BL Farmsum | 257.248 | 593.372 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VN | Houtweg 48 9936BL Farmsum | 257.240 | 593.359 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VO | Rondeboslaan 26 9936BK Farmsum | 257.440 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VP | Rondeboslaan 28 9936BK Farmsum | 257.438 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VQ | Seendweg 32 9936GA Farmsum | 257.903 | 593.454 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1a Groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| VR | Trambaan 21 9936ES Farmsum | 257.870 | 593.499 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VS | Proosdij 19 9936ET Farmsum | 257.892 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VT | Bredelaan 14 9936ER Farmsum | 257.814 | 593.354 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VU | Bredelaan 10 9936ER Farmsum | 257.808 | 593.470 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VV | Bredelaan 8 9936ER Farmsum | 257.807 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VW | Seendweg 22 9936GA Farmsum | 257.897 | 593.364 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VX | Seendweg 28 9936GA Farmsum | 257.898 | 593.405 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VY | Proosdij 28 9936EW Farmsum | 257.922 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VZ | Proosdij 30 9936EX Farmsum | 257.932 | 593.484 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| W | Hoofdweg 48 9945PH Wagenborgen | 258.051 | 586.630 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WA | Proosdij 26 9936EW Farmsum | 257.919 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WB | Afwateringskanaal 107 9936AV Farmsum | 257.499 | 593.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WC | Rondeboslaan 22 A 9936BK Farmsum | 257.532 | 593.326 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WD | Rondeboslaan 22 B 9936BK Farmsum | 257.532 | 593.320 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WE | Rondeboslaan 2 A 9936BK Farmsum | 257.534 | 593.639 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WF | Rondeboslaan 2 B 9936BK Farmsum | 257.493 | 593.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WG | Seendweg 17 9936GA Farmsum | 257.931 | 593.394 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WH | Borgshof 29 9936CR Farmsum | 257.619 | 593.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WI | Molenstraat 22 9936EC Farmsum | 257.808 | 593.935 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WJ | Achterweg 7 A 9936EG Farmsum | 257.858 | 593.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WK | Molenstraat 26 9936EC Farmsum | 257.814 | 593.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WL | Borgweg 113 9936EM Farmsum | 257.957 | 593.782 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WM | Borgweg 115 9936EM Farmsum | 257.968 | 593.707 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WN | Borgweg 117 9936EM Farmsum | 257.959 | 593.705 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WO | Borgweg 119 9936EM Farmsum | 257.947 | 593.703 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WP | Borgweg 121 9936EM Farmsum | 257.938 | 593.701 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WQ | Farmsumerzijl 45 9936GC Farmsum | 257.966 | 593.671 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WR | Farmsumerzijl 47 9936GC Farmsum | 257.947 | 593.667 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WS | Farmsumerzijl 49 9936GC Farmsum | 257.933 | 593.666 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WT | Waarman 4 9936GW Farmsum | 258.267 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WU | Waarman 2 9936GW Farmsum | 258.267 | 593.668 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WV | Farmsumerzijl 9 9936GB Farmsum | 258.192 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WW | Farmsumerzijl 11 9936GB Farmsum | 258.186 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WX | Farmsumerzijl 21 9936GB Farmsum | 258.134 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WY | Farmsumerzijl 23 9936GB Farmsum | 258.126 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WZ | Farmsumerzijl 33 9936GC Farmsum | 258.076 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| X | Hoofdweg 41 9945PB Wagenborgen | 258.092 | 586.599 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XA | Farmsumerzijl 35 9936GC Farmsum | 258.070 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XB | Schepperij 17 9936GL Farmsum | 258.103 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XC | Schepperij 19 9936GL Farmsum | 258.109 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XD | Schepperij 21 9936GL Farmsum | 258.115 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XE | Dijkrecht 3 9936GJ Farmsum | 258.042 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XF | Dijkrecht 5 9936GJ Farmsum | 258.052 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XG | Dijkrecht 7 9936GJ Farmsum | 258.054 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XH | Dijkrecht 9 9936GJ Farmsum | 258.063 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XI | Dijkrecht 11 9936GJ Farmsum | 258.073 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XJ | Dijkrecht 13 9936GJ Farmsum | 258.079 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XK | Dijkrecht 15 9936GJ Farmsum | 258.085 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XL | Dijkrecht 17 9936GJ Farmsum | 258.092 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XM | Dijkrecht 19 9936GJ Farmsum | 258.098 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XN | Dijkrecht 21 9936GJ Farmsum | 258.104 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XO | Schepperij 6 9936GN Farmsum | 258.058 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XP | Schepperij 8 9936GN Farmsum | 258.064 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XQ | Schepperij 10 9936GN Farmsum | 258.070 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XR | Schepperij 12 9936GN Farmsum | 258.075 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XS | Schepperij 14 9936GN Farmsum | 258.081 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XT | Schepperij 16 9936GN Farmsum | 258.087 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XU | Olderman 2 9936GT Farmsum | 258.132 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XV | Olderman 4 9936GT Farmsum | 258.132 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XW | Olderman 6 9936GT Farmsum | 258.132 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XX | Olderman 8 9936GT Farmsum | 258.132 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XY | Olderman 10 9936GT Farmsum | 258.132 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XZ | Olderman 12 9936GT Farmsum | 258.132 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Y | Hoofdweg 20 9945PG Wagenborgen | 258.207 | 586.682 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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3-2-2017 20:20/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1a Groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| YA | Olderman 14 9936GT Farmsum | 258.132 | 593.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YB | Dijkrecht 23 9936GJ Farmsum | 258.162 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YC | Dijkrecht 25 9936GJ Farmsum | 258.162 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YD | Dijkrecht 27 9936GJ Farmsum | 258.163 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YE | Dijkrecht 29 9936GJ Farmsum | 258.163 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YF | Dijkrecht 31 9936GJ Farmsum | 258.163 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YG | Dijkrecht 33 9936GJ Farmsum | 258.163 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YH | Dijkrecht 35 9936GJ Farmsum | 258.163 | 593.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YI | Dijkrecht 37 9936GJ Farmsum | 258.182 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YJ | Dijkrecht 39 9936GJ Farmsum | 258.182 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YK | Dijkrecht 41 9936GJ Farmsum | 258.182 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YL | Dijkrecht 43 9936GJ Farmsum | 258.182 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YM | Olderman 1 9936GS Farmsum | 258.107 | 593.574 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YN | Olderman 3 9936GS Farmsum | 258.107 | 593.567 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YO | Olderman 5 9936GS Farmsum | 258.108 | 593.561 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YP | Olderman 7 9936GS Farmsum | 258.108 | 593.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YQ | Schepperij 37 9936GM Farmsum | 258.194 | 593.543 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YR | Schepperij 41 9936GM Farmsum | 258.194 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YS | Schepperij 45 9936GM Farmsum | 258.194 | 593.518 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YT | Schepperij 47 9936GM Farmsum | 258.194 | 593.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YU | Schepperij 49 9936GM Farmsum | 258.194 | 593.506 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YV | Olderman 18 9936GT Farmsum | 258.143 | 593.539 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YW | Olderman 20 9936GT Farmsum | 258.143 | 593.533 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YX | Olderman 22 9936GT Farmsum | 258.143 | 593.527 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YY | Olderman 24 9936GT Farmsum | 258.143 | 593.521 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YZ | Olderman 26 9936GT Farmsum | 258.143 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Z | Hoofdweg 22 9945PG Wagenborgen | 258.202 | 586.669 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZA | Olderman 28 9936GT Farmsum | 258.143 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZB | Olderman 30 9936GT Farmsum | 258.143 | 593.502 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZC | Olderman 9 9936GS Farmsum | 258.120 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZD | Olderman 11 9936GS Farmsum | 258.120 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZE | Olderman 13 9936GS Farmsum | 258.120 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZF | Proosdij 32 9936EX Farmsum | 257.941 | 593.479 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZG | Proosdij 36 9936EX Farmsum | 257.952 | 593.473 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZH | Proosdij 38 9936EX Farmsum | 257.963 | 593.468 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZI | Proosdij 40 9936EX Farmsum | 257.984 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZJ | Proosdij 27 9936EV Farmsum | 257.995 | 593.418 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZK | Proosdij 25 9936EV Farmsum | 257.979 | 593.425 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZL | Proosdij 23 9936EV Farmsum | 257.962 | 593.433 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZM | Proosdij 21 9936EV Farmsum | 257.941 | 593.443 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZN | Seendweg 5 9936GA Farmsum | 258.091 | 593.322 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZO | Proosdij 29 9936EV Farmsum | 258.005 | 593.413 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZP | Proosdij 31 9936EV Farmsum | 258.019 | 593.403 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZQ | Proosdij 33 9936EV Farmsum | 258.043 | 593.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZR | Proosdij 35 9936EV Farmsum | 258.067 | 593.376 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZS | Proosdij 37 9936EV Farmsum | 258.085 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZT | Proosdij 39 9936EV Farmsum | 258.092 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZU | Proosdij 41 9936EV Farmsum | 258.099 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZV | Proosdij 43 9936EV Farmsum | 258.106 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZW | Proosdij 45 9936EV Farmsum | 258.112 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZX | Proosdij 47 9936EV Farmsum | 258.119 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZY | Olderman 15 9936GS Farmsum | 258.118 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZZ | Rengersweg 97 9936GG Farmsum | 258.010 | 593.468 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

## Calculation Results

Shadow receptor

| No. | Name | Shadow, expected values<br>Shadow hours per year<br>[h/year] |
|---|---|---|
| [A | Rengersweg 99 9936GG Farmsum | 2:04 |
| [B | Rengersweg 12 9936GH Farmsum | 2:13 |
| [C | Rengersweg 10 9936GH Farmsum | 2:08 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1a Groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| [D | Kluft 1 9936GP Farmsum | 1:51 |
| [E | Kluft 3 9936GP Farmsum | 1:50 |
| [F | Proosdij 46 9936EX Farmsum | 2:17 |
| [G | Proosdij 48 9936EX Farmsum | 2:14 |
| [H | Proosdij 50 9936EX Farmsum | 2:22 |
| [I | Proosdij 52 9936EX Farmsum | 2:32 |
| [J | Proosdij 54 9936EX Farmsum | 2:46 |
| [K | Proosdij 56 9936EX Farmsum | 2:51 |
| [L | Olderman 21 9936GS Farmsum | 3:02 |
| [M | Olderman 19 9936GS Farmsum | 2:40 |
| [N | Olderman 17 9936GS Farmsum | 2:23 |
| [O | Kluft 5 9936GP Farmsum | 1:51 |
| [P | Kluft 7 9936GP Farmsum | 1:49 |
| [Q | Kluft 9 9936GP Farmsum | 1:49 |
| [R | Kluft 11 9936GP Farmsum | 1:49 |
| [S | Kluft 17 9936GP Farmsum | 2:06 |
| [T | Zijlvest 8 9936GZ Farmsum | 2:31 |
| [U | Olderman 32 9936GT Farmsum | 2:05 |
| [V | Olderman 34 9936GT Farmsum | 2:11 |
| [W | Olderman 36 9936GT Farmsum | 2:24 |
| [X | Olderman 38 9936GT Farmsum | 2:36 |
| [Y | Olderman 40 9936GT Farmsum | 2:52 |
| [Z | Olderman 42 9936GT Farmsum | 2:52 |
| \A | Zijlvest 22 A 9936GZ Farmsum | 2:36 |
| \B | Zijlvest 18 A 9936GZ Farmsum | 2:23 |
| \C | Zijlvest 18 9936GZ Farmsum | 2:20 |
| \D | Zijlvest 14 9936GZ Farmsum | 2:21 |
| \E | Borgweg 1 9936EH Farmsum | 2:47 |
| \F | Borgweg 3 9936EH Farmsum | 2:51 |
| \G | Borgweg 5 9936EH Farmsum | 2:53 |
| \H | Borgweg 7 9936EH Farmsum | 3:00 |
| \I | Borgweg 9 9936EH Farmsum | 3:07 |
| \J | Borgweg 11 9936EH Farmsum | 3:15 |
| \K | Borgweg 13 9936EH Farmsum | 3:33 |
| \L | Borgweg 15 9936EH Farmsum | 2:50 |
| \M | Borgweg 17 9936EH Farmsum | 2:53 |
| \N | Borgweg 19 9936EH Farmsum | 2:56 |
| \O | Borgweg 21 9936EH Farmsum | 3:03 |
| \P | Borgweg 23 9936EH Farmsum | 3:08 |
| \Q | Borgweg 25 9936EH Farmsum | 3:17 |
| \R | Borgweg 27 9936EH Farmsum | 3:36 |
| \S | Borgweg 29 9936EJ Farmsum | 2:53 |
| \T | Borgweg 31 9936EJ Farmsum | 2:57 |
| \U | Borgweg 33 9936EJ Farmsum | 2:59 |
| \V | Borgweg 35 9936EJ Farmsum | 3:04 |
| \W | Borgweg 37 9936EJ Farmsum | 3:11 |
| \X | Borgweg 39 9936EJ Farmsum | 3:25 |
| \Y | Borgweg 41 9936EJ Farmsum | 3:43 |
| \Z | Borgweg 43 9936EJ Farmsum | 2:54 |
| ]A | Borgweg 45 9936EJ Farmsum | 3:00 |
| ]B | Borgweg 47 9936EJ Farmsum | 3:03 |
| ]C | Borgweg 49 9936EJ Farmsum | 3:09 |
| ]D | Borgweg 51 9936EJ Farmsum | 3:16 |
| ]E | Borgweg 53 9936EJ Farmsum | 3:32 |
| ]F | Borgweg 55 9936EJ Farmsum | 3:45 |
| ]G | Borgweg 57 9936EK Farmsum | 2:20 |
| ]H | Borgweg 59 9936EK Farmsum | 2:18 |
| ]I | Borgweg 61 9936EK Farmsum | 2:16 |
| ]J | Borgweg 63 9936EK Farmsum | 2:16 |
| ]K | Borgweg 65 9936EK Farmsum | 2:13 |
| ]L | Borgweg 67 9936EK Farmsum | 2:13 |
| ]M | Borgweg 69 9936EK Farmsum | 2:12 |
| ]N | Borgweg 71 9936EK Farmsum | 2:23 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1a Groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| ]O | Borgweg 73 9936EK Farmsum | 2:21 |
| ]P | Borgweg 75 9936EK Farmsum | 2:18 |
| ]Q | Borgweg 77 9936EK Farmsum | 2:16 |
| ]R | Borgweg 79 9936EK Farmsum | 2:14 |
| ]S | Borgweg 81 9936EK Farmsum | 2:15 |
| ]T | Borgweg 83 9936EK Farmsum | 2:13 |
| ]U | Borgweg 85 9936EL Farmsum | 2:24 |
| ]V | Borgweg 87 9936EL Farmsum | 2:23 |
| ]W | Borgweg 89 9936EL Farmsum | 2:22 |
| ]X | Borgweg 91 9936EL Farmsum | 2:20 |
| ]Y | Borgweg 93 9936EL Farmsum | 2:18 |
| ]Z | Borgweg 95 9936EL Farmsum | 2:16 |
| ^A | Borgweg 97 9936EL Farmsum | 2:15 |
| ^B | Borgweg 99 9936EL Farmsum | 2:26 |
| ^C | Borgweg 101 9936EL Farmsum | 2:23 |
| ^D | Borgweg 103 9936EL Farmsum | 2:21 |
| ^E | Borgweg 105 9936EL Farmsum | 2:20 |
| ^F | Borgweg 107 9936EL Farmsum | 2:18 |
| ^G | Borgweg 109 9936EL Farmsum | 2:17 |
| ^H | Borgweg 111 9936EL Farmsum | 2:16 |
| ^I | Kluft 18 9936GR Farmsum | 1:32 |
| ^J | Kluft 20 9936GR Farmsum | 1:31 |
| ^K | Kluft 22 9936GR Farmsum | 1:29 |
| ^L | Kluft 24 9936GR Farmsum | 1:30 |
| ^M | Kluft 26 9936GR Farmsum | 1:28 |
| ^N | Kluft 28 9936GR Farmsum | 1:28 |
| ^O | Kluft 30 9936GR Farmsum | 1:29 |
| ^P | Kluft 32 9936GR Farmsum | 1:29 |
| ^Q | Kluft 2 9936GR Farmsum | 1:36 |
| ^R | Kluft 4 9936GR Farmsum | 1:35 |
| ^S | Kluft 6 9936GR Farmsum | 1:33 |
| ^T | Kluft 8 9936GR Farmsum | 1:32 |
| ^U | Kluft 10 9936GR Farmsum | 1:33 |
| ^V | Kluft 12 9936GR Farmsum | 1:32 |
| ^W | Kluft 14 9936GR Farmsum | 1:30 |
| ^X | Kluft 16 9936GR Farmsum | 1:32 |
| ^Y | Zijlvest 20 A 9936GZ Farmsum | 2:30 |
| ^Z | Schepperij 51 9936GM Farmsum | 2:27 |
| _A | Waarman 15 9936GV Farmsum | 2:37 |
| _B | Waarman 17 9936GV Farmsum | 2:40 |
| _C | Waarman 19 9936GV Farmsum | 2:43 |
| _D | Waarman 21 9936GV Farmsum | 2:47 |
| _E | Waarman 23 9936GV Farmsum | 2:54 |
| _F | Waarman 25 9936GV Farmsum | 3:05 |
| _G | Waarman 27 9936GV Farmsum | 3:05 |
| _H | Waarman 29 9936GV Farmsum | 3:04 |
| _I | Heemskesweg 5 9936HE Farmsum | 20:00 |
| _J | Geefsweersterweg 2 9937TC Meedhuizen | 9:42 |
| _K | Seendweg 12 9936GA Farmsum | 3:46 |
| _L | Schepperij 39 9936GM Farmsum | 2:14 |
| _M | Schepperij 43 9936GM Farmsum | 2:17 |
| _N | Zijlvest 14 A 9936GZ Farmsum | 2:24 |
| _O | Zijlvest 24 A 9936GZ Farmsum | 2:44 |
| A | Familie Bronsweg 60 9945TA Wagenborgen | 20:23 |
| AA | Hoofdweg 26 9945PG Wagenborgen | 0:00 |
| AB | Hoofdweg 23 9945PA Wagenborgen | 0:00 |
| AC | Hoofdweg 25 9945PA Wagenborgen | 0:00 |
| AD | Hoofdweg 27 9945PA Wagenborgen | 0:00 |
| AE | Hoofdweg 29 9945PA Wagenborgen | 0:00 |
| AF | Hoofdweg 18 9945PG Wagenborgen | 0:00 |
| AG | Hoofdweg 14 9945PG Wagenborgen | 0:00 |
| AH | Hoofdweg 10 9945PG Wagenborgen | 0:00 |
| AI | Hoofdweg 8 9945PG Wagenborgen | 0:00 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1a Groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| AJ | Hoofdweg 6 9945PG Wagenborgen | 0:00 |
| AK | Hoofdweg 4 9945PG Wagenborgen | 0:00 |
| AL | Hoofdweg 21 9945PA Wagenborgen | 0:00 |
| AM | Hoofdweg 19 9945PA Wagenborgen | 0:00 |
| AN | Hoofdweg 2 9945PG Wagenborgen | 0:00 |
| AO | Hoofdweg 15 9945PA Wagenborgen | 0:00 |
| AP | Hoofdweg 9 9945PA Wagenborgen | 0:00 |
| AQ | Hoofdweg 11 9945PA Wagenborgen | 0:00 |
| AR | Hoofdweg 7 9945PA Wagenborgen | 0:00 |
| AS | Hoofdweg 5 9945PA Wagenborgen | 1:26 |
| AT | H.L. Emmensweg 17 9945PW Wagenborgen | 0:00 |
| AU | H.L. Emmensweg 18 9945PX Wagenborgen | 0:00 |
| AV | H.L. Emmensweg 20 9945PX Wagenborgen | 0:00 |
| AW | H.L. Emmensweg 22 9945PX Wagenborgen | 0:00 |
| AX | H.L. Emmensweg 24 9945PX Wagenborgen | 0:00 |
| AY | H.L. Emmensweg 26 9945PX Wagenborgen | 0:00 |
| AZ | H.L. Emmensweg 10 9945PX Wagenborgen | 0:00 |
| B | Tolhek 4 9945TJ Wagenborgen | 33:24 |
| BA | H.L. Emmensweg 12 9945PX Wagenborgen | 0:00 |
| BB | H.L. Emmensweg 14 9945PX Wagenborgen | 0:00 |
| BC | H.L. Emmensweg 16 9945PX Wagenborgen | 0:00 |
| BD | H.L. Emmensweg 13 9945PW Wagenborgen | 0:00 |
| BE | H.L. Emmensweg 15 9945PW Wagenborgen | 0:00 |
| BF | H.L. Emmensweg 9 9945PW Wagenborgen | 0:00 |
| BG | H.L. Emmensweg 11 9945PW Wagenborgen | 0:00 |
| BH | H.L. Emmensweg 5 9945PW Wagenborgen | 0:00 |
| BI | H.L. Emmensweg 7 9945PW Wagenborgen | 0:00 |
| BJ | H.L. Emmensweg 4 9945PX Wagenborgen | 0:00 |
| BK | H.L. Emmensweg 2 9945PX Wagenborgen | 0:00 |
| BL | H.L. Emmensweg 1 9945PW Wagenborgen | 0:00 |
| BM | H.L. Emmensweg 3 9945PW Wagenborgen | 0:00 |
| BN | de Linden 4 9945PZ Wagenborgen | 0:00 |
| BO | de Linden 6 9945PZ Wagenborgen | 0:00 |
| BP | de Linden 10 9945PZ Wagenborgen | 0:00 |
| BQ | de Linden 12 9945PZ Wagenborgen | 0:00 |
| BR | de Linden 2 9945PZ Wagenborgen | 0:00 |
| BS | de Wilgen 12 9945RB Wagenborgen | 0:00 |
| BT | de Wilgen 10 9945RB Wagenborgen | 0:00 |
| BU | de Wilgen 8 9945RB Wagenborgen | 0:00 |
| BV | de Wilgen 2 9945RB Wagenborgen | 0:00 |
| BW | de Wilgen 4 9945RB Wagenborgen | 0:00 |
| BX | de Wilgen 6 9945RB Wagenborgen | 0:00 |
| BY | de Wilgen 6 A 9945RB Wagenborgen | 0:00 |
| BZ | de Wilgen 3 9945RB Wagenborgen | 0:00 |
| C | Tolhek 1 9945TJ Wagenborgen | 9:56 |
| CA | de Wilgen 3 A 9945RB Wagenborgen | 0:00 |
| CB | de Wilgen 3 B 9945RB Wagenborgen | 0:00 |
| CC | de Wilgen 5 9945RB Wagenborgen | 0:00 |
| CD | de Wilgen 46 9945RB Wagenborgen | 0:00 |
| CE | de Wilgen 44 9945RB Wagenborgen | 0:00 |
| CF | de Wilgen 48 9945RB Wagenborgen | 0:00 |
| CG | de Wilgen 50 9945RB Wagenborgen | 0:00 |
| CH | de Wilgen 36 9945RB Wagenborgen | 0:00 |
| CI | de Wilgen 38 9945RB Wagenborgen | 0:00 |
| CJ | de Wilgen 40 9945RB Wagenborgen | 0:00 |
| CK | de Wilgen 42 9945RB Wagenborgen | 0:00 |
| CL | de Wilgen 28 9945RB Wagenborgen | 0:00 |
| CM | de Wilgen 30 9945RB Wagenborgen | 0:00 |
| CN | de Wilgen 32 9945RB Wagenborgen | 0:00 |
| CO | de Wilgen 34 9945RB Wagenborgen | 0:00 |
| CP | de Wilgen 24 9945TK Wagenborgen | 0:00 |
| CQ | de Wilgen 26 9945RB Wagenborgen | 0:00 |
| CR | de Wilgen 20 9945RB Wagenborgen | 0:00 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1a Groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| CS | de Wilgen 22 9945RB Wagenborgen | 0:00 |
| CT | de Wilgen 18 9945RB Wagenborgen | 0:00 |
| CU | de Wilgen 16 9945RB Wagenborgen | 0:00 |
| CV | de Wilgen 14 9945RB Wagenborgen | 0:00 |
| CW | de Wilgen 9 9945RB Wagenborgen | 0:00 |
| CX | de Wilgen 52 9945RB Wagenborgen | 1:15 |
| CY | Menterne 22 9945RA Wagenborgen | 0:00 |
| CZ | Menterne 18 9945RA Wagenborgen | 0:00 |
| D | Familie Bronsweg 62 9945TA Wagenborgen | 23:16 |
| DA | Menterne 21 9945RA Wagenborgen | 0:00 |
| DB | Menterne 19 9945RA Wagenborgen | 0:00 |
| DC | Menterne 20 9945RA Wagenborgen | 0:00 |
| DD | Menterne 17 9945RA Wagenborgen | 0:00 |
| DE | Menterne 7 9945RA Wagenborgen | 0:00 |
| DF | Menterne 8 9945RA Wagenborgen | 0:00 |
| DG | Menterne 9 9945RA Wagenborgen | 0:00 |
| DH | Menterne 10 9945RA Wagenborgen | 0:00 |
| DI | Menterne 11 9945RA Wagenborgen | 0:00 |
| DJ | Menterne 12 9945RA Wagenborgen | 0:00 |
| DK | Menterne 13 9945RA Wagenborgen | 0:00 |
| DL | Menterne 14 9945RA Wagenborgen | 0:00 |
| DM | Menterne 1 9945RA Wagenborgen | 0:00 |
| DN | Menterne 2 9945RA Wagenborgen | 0:00 |
| DO | Menterne 3 9945RA Wagenborgen | 0:00 |
| DP | Menterne 4 9945RA Wagenborgen | 0:00 |
| DQ | Menterne 5 9945RA Wagenborgen | 0:00 |
| DR | Menterne 6 9945RA Wagenborgen | 0:00 |
| DS | Menterne 15 9945RA Wagenborgen | 0:00 |
| DT | Menterne 16 9945RA Wagenborgen | 0:00 |
| DU | de Berken 6 9945PT Wagenborgen | 0:00 |
| DV | de Berken 2 9945PT Wagenborgen | 0:00 |
| DW | de Berken 4 9945PT Wagenborgen | 0:00 |
| DX | de Berken 1 9945PT Wagenborgen | 0:00 |
| DY | de Berken 5 9945PT Wagenborgen | 0:00 |
| DZ | de Berken 7 9945PT Wagenborgen | 0:00 |
| E | Meerweg 3 9945RC Wagenborgen | 1:22 |
| EA | de Berken 9 9945PT Wagenborgen | 0:00 |
| EB | de Eiken 14 9945VA Wagenborgen | 0:00 |
| EC | de Eiken 16 9945VA Wagenborgen | 0:00 |
| ED | de Eiken 2 9945VA Wagenborgen | 0:00 |
| EE | de Eiken 4 9945VA Wagenborgen | 0:00 |
| EF | de Eiken 6 9945VA Wagenborgen | 0:00 |
| EG | de Eiken 8 9945VA Wagenborgen | 0:00 |
| EH | de Eiken 10 9945VA Wagenborgen | 0:00 |
| EI | de Eiken 12 9945VA Wagenborgen | 0:00 |
| EJ | de Eiken 2 A 9945VA Wagenborgen | 0:00 |
| EK | Troostlaan 7 9945PV Wagenborgen | 0:00 |
| EL | Troostlaan 8 9945PV Wagenborgen | 0:00 |
| EM | Troostlaan 9 9945PV Wagenborgen | 0:00 |
| EN | Troostlaan 10 9945PV Wagenborgen | 0:00 |
| EO | Troostlaan 11 9945PV Wagenborgen | 0:00 |
| EP | Troostlaan 1 9945PV Wagenborgen | 0:00 |
| EQ | Troostlaan 2 9945PV Wagenborgen | 0:00 |
| ER | Troostlaan 3 9945PV Wagenborgen | 0:00 |
| ES | Troostlaan 2 A 9945PV Wagenborgen | 0:00 |
| ET | Troostlaan 4 9945PV Wagenborgen | 0:00 |
| EU | Troostlaan 14 9945PV Wagenborgen | 0:00 |
| EV | Troostlaan 22 9945PV Wagenborgen | 0:00 |
| EW | Troostlaan 20 9945PV Wagenborgen | 0:00 |
| EX | Troostlaan 21 9945PV Wagenborgen | 0:00 |
| EY | Troostlaan 18 9945PV Wagenborgen | 0:00 |
| EZ | Troostlaan 19 9945PV Wagenborgen | 0:00 |
| F | G. Boelmanweg 2 9945RJ Wagenborgen | 0:00 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1a Groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| FA | Familie Bronsweg 40 9945PS Wagenborgen | 1:40 |
| FB | Familie Bronsweg 44 9945PS Wagenborgen | 1:31 |
| FC | Familie Bronsweg 46 9945PS Wagenborgen | 1:30 |
| FD | Familie Bronsweg 48 9945PS Wagenborgen | 1:30 |
| FE | Familie Bronsweg 50 9945PS Wagenborgen | 1:29 |
| FF | Familie Bronsweg 79 9945PP Wagenborgen | 1:17 |
| FG | Familie Bronsweg 81 9945PP Wagenborgen | 1:17 |
| FH | Familie Bronsweg 36 9945PS Wagenborgen | 2:10 |
| FI | Familie Bronsweg 38 9945PS Wagenborgen | 1:44 |
| FJ | Familie Bronsweg 42 9945PS Wagenborgen | 1:31 |
| FK | Familie Bronsweg 54 9945PS Wagenborgen | 1:24 |
| FL | Familie Bronsweg 52 9945PS Wagenborgen | 1:25 |
| FM | Familie Bronsweg 50 B 9945PS Wagenborgen | 1:27 |
| FN | Familie Bronsweg 50 A 9945PS Wagenborgen | 1:27 |
| FO | Familie Bronsweg 75 9945PP Wagenborgen | 1:18 |
| FP | Familie Bronsweg 75 A 9945PP Wagenborgen | 1:17 |
| FQ | Familie Bronsweg 75 B 9945PP Wagenborgen | 1:17 |
| FR | Familie Bronsweg 71 9945PP Wagenborgen | 1:19 |
| FS | Familie Bronsweg 69 A 9945PP Wagenborgen | 1:21 |
| FT | Familie Bronsweg 69 9945PP Wagenborgen | 1:20 |
| FU | Familie Bronsweg 67 9945PP Wagenborgen | 1:21 |
| FV | Familie Bronsweg 65 9945PP Wagenborgen | 1:21 |
| FW | Familie Bronsweg 63 9945PP Wagenborgen | 1:23 |
| FX | Familie Bronsweg 61 9945PP Wagenborgen | 1:25 |
| FY | Familie Bronsweg 59 9945PP Wagenborgen | 1:31 |
| FZ | Familie Bronsweg 57 9945PP Wagenborgen | 1:34 |
| G | G. Boelmanweg 3 9945RE Wagenborgen | 0:00 |
| GA | Familie Bronsweg 53 9945PP Wagenborgen | 1:48 |
| GB | Familie Bronsweg 73 9945PP Wagenborgen | 1:19 |
| GC | Familie Bronsweg 85 9945PP Wagenborgen | 1:16 |
| GD | Familie Bronsweg 83 9945PP Wagenborgen | 1:17 |
| GE | Familie Bronsweg 83 A 9945PP Wagenborgen | 1:16 |
| GF | Familie Bronsweg 77 9945PP Wagenborgen | 1:08 |
| GG | Familie Bronsweg 51 9945PP Wagenborgen | 1:43 |
| GH | Familie Bronsweg 2 9945PR Wagenborgen | 1:21 |
| GI | Familie Bronsweg 4 9945PR Wagenborgen | 1:18 |
| GJ | Familie Bronsweg 4 A 9945PR Wagenborgen | 1:14 |
| GK | Familie Bronsweg 6 9945PR Wagenborgen | 1:12 |
| GL | Familie Bronsweg 8 9945PR Wagenborgen | 1:14 |
| GM | Familie Bronsweg 10 9945PR Wagenborgen | 1:17 |
| GN | Familie Bronsweg 12 9945PR Wagenborgen | 1:08 |
| GO | Familie Bronsweg 14 9945PR Wagenborgen | 1:10 |
| GP | Familie Bronsweg 16 9945PR Wagenborgen | 1:10 |
| GQ | Familie Bronsweg 15 9945PN Wagenborgen | 0:50 |
| GR | Familie Bronsweg 17 9945PN Wagenborgen | 1:03 |
| GS | Familie Bronsweg 2 A 9945PR Wagenborgen | 2:09 |
| GT | Familie Bronsweg 2 B 9945PR Wagenborgen | 3:15 |
| GU | Familie Bronsweg 2 C 9945PR Wagenborgen | 3:02 |
| GV | Familie Bronsweg 2 D 9945PR Wagenborgen | 2:57 |
| GW | Familie Bronsweg 2 F 9945PR Wagenborgen | 3:37 |
| GX | Familie Bronsweg 2 G 9945PR Wagenborgen | 4:21 |
| GY | Familie Bronsweg 2 H 9945PR Wagenborgen | 3:55 |
| GZ | Familie Bronsweg 2 J 9945PR Wagenborgen | 3:31 |
| H | G. Boelmanweg 5 9945RE Wagenborgen | 0:00 |
| HA | Akeleistraat 17 9945VD Wagenborgen | 2:14 |
| HB | Akeleistraat 19 9945VD Wagenborgen | 2:07 |
| HC | Akeleistraat 21 9945VD Wagenborgen | 1:59 |
| HD | Akeleistraat 23 9945VD Wagenborgen | 1:54 |
| HE | Akeleistraat 20 9945VD Wagenborgen | 1:45 |
| HF | Akeleistraat 22 9945VD Wagenborgen | 1:42 |
| HG | Akeleistraat 16 9945VD Wagenborgen | 2:00 |
| HH | Akeleistraat 18 9945VD Wagenborgen | 1:56 |
| HI | Akeleistraat 12 9945VD Wagenborgen | 2:17 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1a Groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| HJ | Akeleistraat 14 9945VD Wagenborgen | 2:13 |
| HK | Akeleistraat 10 9945VD Wagenborgen | 2:38 |
| HL | Akeleistraat 1 9945VD Wagenborgen | 4:57 |
| HM | Akeleistraat 3 9945VD Wagenborgen | 4:58 |
| HN | Akeleistraat 5 9945VD Wagenborgen | 5:06 |
| HO | Akeleistraat 7 9945VD Wagenborgen | 5:00 |
| HP | Akeleistraat 9 9945VD Wagenborgen | 4:38 |
| HQ | Akeleistraat 11 9945VD Wagenborgen | 3:04 |
| HR | Akeleistraat 2 9945VD Wagenborgen | 4:22 |
| HS | Akeleistraat 4 9945VD Wagenborgen | 4:21 |
| HT | Akeleistraat 6 9945VD Wagenborgen | 3:50 |
| HU | Akeleistraat 8 9945VD Wagenborgen | 3:46 |
| HV | Akeleistraat 15 9945VD Wagenborgen | 2:26 |
| HW | Bremstraat 6 9945VC Wagenborgen | 2:53 |
| HX | Bremstraat 2 9945VC Wagenborgen | 3:34 |
| HY | Bremstraat 4 9945VC Wagenborgen | 3:26 |
| HZ | Bremstraat 12 9945VC Wagenborgen | 1:52 |
| I | G. Boelmanweg 4 9945RJ Wagenborgen | 0:00 |
| IA | Hibiscusstraat 30 9945VB Wagenborgen | 2:46 |
| IB | Hibiscusstraat 2 9945VB Wagenborgen | 2:08 |
| IC | Hibiscusstraat 4 9945VB Wagenborgen | 2:37 |
| ID | Hibiscusstraat 10 9945VB Wagenborgen | 1:52 |
| IE | Hibiscusstraat 16 9945VB Wagenborgen | 2:39 |
| IF | Bremstraat 14 9945VC Wagenborgen | 1:43 |
| IG | Hibiscusstraat 6 9945VB Wagenborgen | 2:24 |
| IH | Hibiscusstraat 26 9945VB Wagenborgen | 3:21 |
| II | Kopaf 8 9945TE Wagenborgen | 6:47 |
| IJ | Kopaf 7 9945TE Wagenborgen | 3:37 |
| IK | Kopaf 6 9945TE Wagenborgen | 5:53 |
| IL | Kloosterlaan 27 9945TG Wagenborgen | 62:33 |
| IM | Kloosterlaan 25 9945TG Wagenborgen | 78:53 |
| IN | Kloosterlaan 23 9945TG Wagenborgen | 86:35 |
| IO | Scheve Klap 5 9945TD Wagenborgen | 2:27 |
| IP | Scheve Klap 4 9945TD Wagenborgen | 1:05 |
| IQ | Hibiscusstraat 8 9945VB Wagenborgen | 2:02 |
| IR | Hibiscusstraat 12 9945VB Wagenborgen | 1:50 |
| IS | Hibiscusstraat 18 9945VB Wagenborgen | 3:06 |
| IT | Hibiscusstraat 24 9945VB Wagenborgen | 2:33 |
| IU | Hibiscusstraat 22 9945VB Wagenborgen | 2:53 |
| IV | Troostlaan 15 9945PV Wagenborgen | 0:00 |
| IW | Bremstraat 10 9945VC Wagenborgen | 2:06 |
| IX | Hibiscusstraat 20 9945VB Wagenborgen | 3:17 |
| IY | Hibiscusstraat 28 9945VB Wagenborgen | 3:31 |
| IZ | Troostlaan 5 9945PV Wagenborgen | 0:00 |
| J | G. Boelmanweg 7 9945RE Wagenborgen | 0:00 |
| JA | Troostlaan 6 9945PV Wagenborgen | 0:00 |
| JB | Boslaan 5 9945TM Wagenborgen | 4:37 |
| JC | Hoofdweg 33 A 9945PB Wagenborgen | 0:00 |
| JD | Akeleistraat 13 9945VD Wagenborgen | 4:16 |
| JE | Hoofdweg 42 9945PG Wagenborgen | 0:00 |
| JF | Familie Bronsweg 2 E 9945PR Wagenborgen | 3:13 |
| JG | Hibiscusstraat 14 9945VB Wagenborgen | 2:07 |
| JH | Bremstraat 8 9945VC Wagenborgen | 2:27 |
| JI | Menterne 23 003 9945RA Wagenborgen | 0:54 |
| JJ | Menterne 23 004 9945RA Wagenborgen | 0:57 |
| JK | Menterne 23 005 9945RA Wagenborgen | 1:02 |
| JL | Menterne 23 006 9945RA Wagenborgen | 1:05 |
| JM | Menterne 23 007 9945RA Wagenborgen | 1:04 |
| JN | Menterne 23 008 9945RA Wagenborgen | 1:02 |
| JO | Menterne 23 009 9945RA Wagenborgen | 0:57 |
| JP | Menterne 23 010 9945RA Wagenborgen | 0:56 |
| JQ | Menterne 23 017 9945RA Wagenborgen | 0:33 |
| JR | Menterne 23 030 9945RA Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1a Groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| JS | Menterne 23 103 9945RA Wagenborgen | 0:53 |
| JT | Menterne 23 104 9945RA Wagenborgen | 0:57 |
| JU | Menterne 23 105 9945RA Wagenborgen | 1:01 |
| JV | Menterne 23 106 9945RA Wagenborgen | 1:05 |
| JW | Menterne 23 107 9945RA Wagenborgen | 1:05 |
| JX | Menterne 23 108 9945RA Wagenborgen | 1:03 |
| JY | Menterne 23 109 9945RA Wagenborgen | 0:58 |
| JZ | Menterne 23 110 9945RA Wagenborgen | 0:57 |
| K | G. Boelmanweg 6 9945RJ Wagenborgen | 0:00 |
| KA | Menterne 23 111 9945RA Wagenborgen | 0:54 |
| KB | Menterne 23 113 9945RA Wagenborgen | 0:41 |
| KC | Menterne 23 114 9945RA Wagenborgen | 0:37 |
| KD | Menterne 23 115 9945RA Wagenborgen | 0:34 |
| KE | Menterne 23 116 9945RA Wagenborgen | 0:31 |
| KF | Menterne 23 117 9945RA Wagenborgen | 0:29 |
| KG | Menterne 23 118 9945RA Wagenborgen | 0:27 |
| KH | Menterne 23 119 9945RA Wagenborgen | 0:00 |
| KI | Menterne 23 120 9945RA Wagenborgen | 0:00 |
| KJ | Menterne 23 121 9945RA Wagenborgen | 0:00 |
| KK | Menterne 23 122 9945RA Wagenborgen | 0:00 |
| KL | Menterne 23 123 9945RA Wagenborgen | 0:00 |
| KM | Menterne 23 124 9945RA Wagenborgen | 0:00 |
| KN | Menterne 23 125 9945RA Wagenborgen | 0:00 |
| KO | Menterne 23 126 9945RA Wagenborgen | 0:00 |
| KP | Menterne 23 127 9945RA Wagenborgen | 0:00 |
| KQ | Menterne 23 128 9945RA Wagenborgen | 0:00 |
| KR | Menterne 23 129 9945RA Wagenborgen | 0:00 |
| KS | Menterne 23 130 9945RA Wagenborgen | 0:00 |
| KT | Menterne 23 131 9945RA Wagenborgen | 0:36 |
| KU | Menterne 23 132 9945RA Wagenborgen | 0:38 |
| KV | Menterne 23 201 9945RA Wagenborgen | 0:47 |
| KW | Menterne 23 202 9945RA Wagenborgen | 0:49 |
| KX | Menterne 23 203 9945RA Wagenborgen | 0:52 |
| KY | Menterne 23 204 9945RA Wagenborgen | 0:56 |
| KZ | Menterne 23 205 9945RA Wagenborgen | 0:59 |
| L | Kokslaan 1 9945RD Wagenborgen | 0:00 |
| LA | Menterne 23 206 9945RA Wagenborgen | 1:03 |
| LB | Menterne 23 207 9945RA Wagenborgen | 1:05 |
| LC | Menterne 23 208 9945RA Wagenborgen | 1:03 |
| LD | Menterne 23 209 9945RA Wagenborgen | 1:01 |
| LE | Menterne 23 210 9945RA Wagenborgen | 0:57 |
| LF | Menterne 23 211 9945RA Wagenborgen | 0:54 |
| LG | Menterne 23 212 9945RA Wagenborgen | 0:51 |
| LH | Menterne 23 213 9945RA Wagenborgen | 0:42 |
| LI | Menterne 23 214 9945RA Wagenborgen | 0:38 |
| LJ | Menterne 23 215 9945RA Wagenborgen | 0:35 |
| LK | Menterne 23 216 9945RA Wagenborgen | 0:32 |
| LL | Menterne 23 217 9945RA Wagenborgen | 0:30 |
| LM | Menterne 23 218 9945RA Wagenborgen | 0:00 |
| LN | Menterne 23 219 9945RA Wagenborgen | 0:00 |
| LO | Menterne 23 220 9945RA Wagenborgen | 0:00 |
| LP | Menterne 23 221 9945RA Wagenborgen | 0:00 |
| LQ | Menterne 23 222 9945RA Wagenborgen | 0:00 |
| LR | Menterne 23 223 9945RA Wagenborgen | 0:00 |
| LS | Menterne 23 224 9945RA Wagenborgen | 0:00 |
| LT | Menterne 23 226 9945RA Wagenborgen | 0:00 |
| LU | Menterne 23 228 9945RA Wagenborgen | 0:00 |
| LV | Menterne 23 229 9945RA Wagenborgen | 0:00 |
| LW | Menterne 23 230 9945RA Wagenborgen | 0:00 |
| LX | Menterne 23 231 9945RA Wagenborgen | 0:36 |
| LY | Menterne 23 232 9945RA Wagenborgen | 0:37 |
| LZ | G. Boelmanweg 1 9945RE Wagenborgen | 0:00 |
| M | Kokslaan 2 9945RD Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1a Groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| MA | Boslaan 7 9945TM Wagenborgen | 0:00 |
| MB | H.L. Emmensweg 23 9945PW Wagenborgen | 0:00 |
| MC | Kopaf 5 9944VA Nieuwolda | 0:00 |
| MD | Familie Bronsweg 68 9945TA Wagenborgen | 30:35 |
| ME | Maarkampen 26 9937PL Meedhuizen | 3:13 |
| MF | Maarkampen 24 9937PL Meedhuizen | 2:58 |
| MG | Maarkampen 22 9937PL Meedhuizen | 2:49 |
| MH | Maarkampen 20 9937PL Meedhuizen | 2:39 |
| MI | Maarkampen 18 9937PL Meedhuizen | 2:28 |
| MJ | Maarkampen 16 9937PL Meedhuizen | 1:35 |
| MK | Maarkampen 14 9937PL Meedhuizen | 1:29 |
| ML | Maarlaan 22 E 9937TH Meedhuizen | 2:49 |
| MM | Maarlaan 22 D 9937TH Meedhuizen | 2:21 |
| MN | Schaapbulterweg 8 9937TL Meedhuizen | 3:35 |
| MO | Schaapbulterweg 6 9937TL Meedhuizen | 2:59 |
| MP | Schaapbulterweg 29 9937TL Meedhuizen | 3:41 |
| MQ | Schaapbulterweg 27 9937TL Meedhuizen | 3:24 |
| MR | Schaapbulterweg 25 9937TL Meedhuizen | 3:13 |
| MS | Schaapbulterweg 23 9937TL Meedhuizen | 3:05 |
| MT | Schaapbulterweg 21 9937TL Meedhuizen | 2:56 |
| MU | Geefsweersterweg 11 9937TB Meedhuizen | 7:23 |
| MV | Schaapbulterweg 35 9937TL Meedhuizen | 5:32 |
| MW | Meedhuizerweg 20 9937TK Meedhuizen | 2:05 |
| MX | Familie Bronsweg 66 9945TA Wagenborgen | 29:55 |
| MY | Familie Bronsweg 64 9945TA Wagenborgen | 30:21 |
| MZ | Ideweersterweg 10 9937TM Meedhuizen | 20:58 |
| N | Kerkstraat 1 9945SB Wagenborgen | 0:00 |
| NA | Ideweersterweg 8 9937TM Meedhuizen | 20:50 |
| NB | Geefsweersterweg 20 9937TC Meedhuizen | 24:00 |
| NC | Geefsweersterweg 18 9937TC Meedhuizen | 31:06 |
| ND | Geefsweersterweg 29 9937TB Meedhuizen | 23:48 |
| NE | Geefsweersterweg 16 9937TC Meedhuizen | 47:17 |
| NF | Geefsweersterweg 23 9937TB Meedhuizen | 41:12 |
| NG | Geefsweersterweg 12 9937TC Meedhuizen | 36:15 |
| NH | Geefsweersterweg 14 9937TC Meedhuizen | 38:25 |
| NI | Geefsweersterweg 21 A 9937TB Meedhuizen | 33:41 |
| NJ | Geefsweersterweg 10 9937TC Meedhuizen | 32:09 |
| NK | Geefsweersterweg 21 9937TB Meedhuizen | 30:37 |
| NL | Geefsweersterweg 17 9937TB Meedhuizen | 26:16 |
| NM | Geefsweersterweg 19 9937TB Meedhuizen | 27:31 |
| NN | Ideweersterweg 2 9937TM Meedhuizen | 152:40 |
| NO | Ideweersterweg 1 9937TM Meedhuizen | 155:01 |
| NP | Geefsweersterweg 15 9937TB Meedhuizen | 38:22 |
| NQ | Westerlaan 6 9937TS Meedhuizen | 63:18 |
| NR | Familie Bronsweg 87 9945TA Wagenborgen | 17:38 |
| NS | Familie Bronsweg 89 9945TA Wagenborgen | 20:55 |
| NT | Westerlaan 10 9937TS Meedhuizen | 48:04 |
| NU | Geefsweersterweg 13 9937TB Meedhuizen | 23:17 |
| NV | Maarlaan 26 9937TH Meedhuizen | 3:44 |
| NW | Maarlaan 24 9937TH Meedhuizen | 3:22 |
| NX | Maarlaan 28 9937TH Meedhuizen | 4:00 |
| NY | Maarlaan 30 9937TH Meedhuizen | 4:57 |
| NZ | Kerklaan 3 9937PG Meedhuizen | 4:49 |
| O | Hoofdweg 30 9945PG Wagenborgen | 0:00 |
| OA | Kerklaan 8 9937PG Meedhuizen | 5:33 |
| OB | Kerklaan 6 9937PG Meedhuizen | 6:35 |
| OC | Opmeedenlaan 6 9937TN Meedhuizen | 3:12 |
| OD | Opmeedenlaan 4 9937TN Meedhuizen | 4:12 |
| OE | Opmeedenlaan 2 9937TN Meedhuizen | 4:50 |
| OF | Kloosterlaan 26 9945TG Wagenborgen | 136:14 |
| OG | Zomerdijk 1 9945TH Wagenborgen | 113:58 |
| OH | Zomerdijk 3 9945TH Wagenborgen | 118:04 |
| OI | Zomerdijk 3 A 9945TH Wagenborgen | 128:49 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1a Groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| OJ | Zomerdijk 2 9945TH Wagenborgen | 123:30 |
| OK | Kloosterlaan 21 A 9945TG Wagenborgen | 124:12 |
| OL | Kloosterlaan 21 B 9945TG Wagenborgen | 127:39 |
| OM | Ideweersterweg 4 9937TM Meedhuizen | 126:47 |
| ON | Maarlaan 22 C 9937TH Meedhuizen | 1:48 |
| OO | Kloosterlaan 21 9936TE Farmsum | 70:06 |
| OP | Geefsweersterweg 8 A 9937TC Meedhuizen | 35:17 |
| OQ | Houtweg 20 9936BL Farmsum | 0:28 |
| OR | Houtweg 22 9936BL Farmsum | 0:28 |
| OS | Houtweg 24 9936BL Farmsum | 0:29 |
| OT | Houtweg 26 9936BL Farmsum | 0:29 |
| OU | Houtweg 28 9936BL Farmsum | 0:30 |
| OV | Rondeboslaan 6 9936BK Farmsum | 1:08 |
| OW | Proosdij 14 9936EW Farmsum | 2:27 |
| OX | Bredelaan 6 9936ER Farmsum | 2:47 |
| OY | Bredelaan 4 9936ER Farmsum | 2:31 |
| OZ | Bredelaan 2 A 9936ER Farmsum | 1:56 |
| P | Hoofdweg 32 9945PG Wagenborgen | 0:00 |
| PA | Proosdij 24 9936EW Farmsum | 1:57 |
| PB | Proosdij 22 9936EW Farmsum | 2:01 |
| PC | Proosdij 20 9936EW Farmsum | 2:04 |
| PD | Proosdij 18 9936EW Farmsum | 2:14 |
| PE | Proosdij 16 9936EW Farmsum | 2:19 |
| PF | Trambaan 19 9936ES Farmsum | 2:24 |
| PG | Proosdij 17 9936ET Farmsum | 2:33 |
| PH | Proosdij 15 9936ET Farmsum | 2:37 |
| PI | Proosdij 13 9936ET Farmsum | 2:36 |
| PJ | Trambaan 17 9936ES Farmsum | 2:28 |
| PK | Trambaan 15 9936ES Farmsum | 2:34 |
| PL | Trambaan 13 9936ES Farmsum | 2:36 |
| PM | Trambaan 11 9936ES Farmsum | 2:38 |
| PN | Trambaan 9 9936ES Farmsum | 2:40 |
| PO | Trambaan 5 9936ES Farmsum | 2:38 |
| PP | Trambaan 3 9936ES Farmsum | 2:22 |
| PQ | Trambaan 1 9936ES Farmsum | 2:18 |
| PR | Proosdij 12 9936EW Farmsum | 2:35 |
| PS | Proosdij 8 9936EW Farmsum | 2:10 |
| PT | Proosdij 6 9936EW Farmsum | 1:55 |
| PU | Proosdij 4 9936EW Farmsum | 1:44 |
| PV | Proosdij 11 9936ET Farmsum | 2:22 |
| PW | Proosdij 9 9936ET Farmsum | 2:12 |
| PX | Proosdij 7 9936ET Farmsum | 2:01 |
| PY | Proosdij 5 9936ET Farmsum | 1:55 |
| PZ | Proosdij 1 9936ET Farmsum | 1:25 |
| Q | Hoofdweg 31 9945PA Wagenborgen | 0:00 |
| QA | Proosdij 3 9936ET Farmsum | 1:50 |
| QB | Farmsumerzijl 55 9936GC Farmsum | 1:17 |
| QC | Farmsumerzijl 57 9936GC Farmsum | 1:19 |
| QD | Rengersweg 4 9936GH Farmsum | 1:02 |
| QE | Rengersweg 2 9936GH Farmsum | 1:08 |
| QF | Schepperij 4 A 9936GN Farmsum | 1:01 |
| QG | Schepperij 2 A 9936GN Farmsum | 1:03 |
| QH | Schepperij 4 9936GN Farmsum | 1:01 |
| QI | Schepperij 2 9936GN Farmsum | 1:03 |
| QJ | Dijkrecht 4 9936GK Farmsum | 1:53 |
| QK | Dijkrecht 6 9936GK Farmsum | 1:43 |
| QL | Dijkrecht 10 9936GK Farmsum | 1:32 |
| QM | Dijkrecht 12 9936GK Farmsum | 1:31 |
| QN | Dijkrecht 14 9936GK Farmsum | 1:28 |
| QO | Dijkrecht 16 9936GK Farmsum | 1:25 |
| QP | Dijkrecht 18 9936GK Farmsum | 1:21 |
| QQ | Dijkrecht 20 9936GK Farmsum | 1:17 |
| QR | Dijkrecht 22 9936GK Farmsum | 1:16 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1a Groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| QS | Dijkrecht 24 9936GK Farmsum | 1:21 |
| QT | Dijkrecht 26 9936GK Farmsum | 1:31 |
| QU | Dijkrecht 28 9936GK Farmsum | 1:34 |
| QV | Dijkrecht 30 9936GK Farmsum | 1:43 |
| QW | Dijkrecht 32 9936GK Farmsum | 1:46 |
| QX | Dijkrecht 34 9936GK Farmsum | 1:52 |
| QY | Dijkrecht 36 9936GK Farmsum | 1:57 |
| QZ | Dijkrecht 40 9936GK Farmsum | 2:09 |
| R | Hoofdweg 38 9945PG Wagenborgen | 0:00 |
| RA | Dijkrecht 38 9936GK Farmsum | 2:04 |
| RB | Schepperij 20 9936GN Farmsum | 1:50 |
| RC | Schepperij 18 9936GN Farmsum | 1:49 |
| RD | Waarman 12 9936GW Farmsum | 2:50 |
| RE | Waarman 10 9936GW Farmsum | 2:28 |
| RF | Waarman 8 9936GW Farmsum | 2:25 |
| RG | Waarman 6 9936GW Farmsum | 2:25 |
| RH | Farmsumerzijl 1 9936GB Farmsum | 2:04 |
| RI | Farmsumerzijl 3 9936GB Farmsum | 2:01 |
| RJ | Farmsumerzijl 5 9936GB Farmsum | 1:50 |
| RK | Farmsumerzijl 7 9936GB Farmsum | 1:49 |
| RL | Farmsumerzijl 13 9936GB Farmsum | 1:33 |
| RM | Farmsumerzijl 15 9936GB Farmsum | 1:34 |
| RN | Farmsumerzijl 17 9936GB Farmsum | 1:37 |
| RO | Farmsumerzijl 19 9936GB Farmsum | 1:38 |
| RP | Farmsumerzijl 25 9936GB Farmsum | 1:51 |
| RQ | Farmsumerzijl 27 9936GB Farmsum | 1:53 |
| RR | Farmsumerzijl 29 9936GB Farmsum | 2:04 |
| RS | Farmsumerzijl 31 9936GC Farmsum | 2:07 |
| RT | Farmsumerzijl 37 9936GC Farmsum | 2:22 |
| RU | Farmsumerzijl 39 9936GC Farmsum | 2:25 |
| RV | Farmsumerzijl 41 9936GC Farmsum | 2:36 |
| RW | Farmsumerzijl 43 9936GC Farmsum | 2:39 |
| RX | Schepperij 1 9936GL Farmsum | 1:11 |
| RY | Schepperij 3 9936GL Farmsum | 1:12 |
| RZ | Schepperij 5 9936GL Farmsum | 1:11 |
| S | Hoofdweg 39 9945PB Wagenborgen | 0:00 |
| SA | Schepperij 7 9936GL Farmsum | 1:10 |
| SB | Schepperij 9 9936GL Farmsum | 1:10 |
| SC | Schepperij 11 9936GL Farmsum | 1:09 |
| SD | Schepperij 13 9936GL Farmsum | 1:10 |
| SE | Schepperij 15 9936GL Farmsum | 1:09 |
| SF | Dijkrecht 8 9936GK Farmsum | 1:39 |
| SG | Geefsweersterweg 9 9937TB Meedhuizen | 10:32 |
| SH | Geefsweersterweg 7 9937TB Meedhuizen | 40:51 |
| SI | Geefsweersterweg 8 9937TC Meedhuizen | 37:06 |
| SJ | Geefsweersterweg 3 9937TB Meedhuizen | 26:03 |
| SK | Geefsweersterweg 6 9937TC Meedhuizen | 33:42 |
| SL | Geefsweersterweg 4 9937TC Meedhuizen | 25:10 |
| SM | Meedhuizerweg 2 9937TK Meedhuizen | 1:01 |
| SN | Molenstraat 31 9936EB Farmsum | 3:10 |
| SO | Hindrik Jagerstraat 32 9936CV Farmsum | 1:30 |
| SP | Hindrik Jagerstraat 11 9936CT Farmsum | 1:33 |
| SQ | Hindrik Jagerstraat 13 9936CT Farmsum | 1:38 |
| SR | Hindrik Jagerstraat 15 9936CT Farmsum | 1:39 |
| SS | Hindrik Jagerstraat 34 9936CV Farmsum | 1:36 |
| ST | Hindrik Jagerstraat 36 9936CV Farmsum | 1:40 |
| SU | Borgshof 31 9936CR Farmsum | 1:37 |
| SV | Borgshof 33 9936CR Farmsum | 1:42 |
| SW | Borgshof 39 9936CR Farmsum | 2:13 |
| SX | Borgshof 35 9936CR Farmsum | 2:00 |
| SY | Molenstraat 20 9936EC Farmsum | 3:32 |
| SZ | Molenstraat 24 9936EC Farmsum | 4:26 |
| T | Hoofdweg 35 9945PB Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1a Groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| TA | Molenstraat 28 9936EC Farmsum | 4:36 |
| TB | Molenstraat 41 9936EB Farmsum | 3:49 |
| TC | Molenstraat 43 9936EB Farmsum | 4:14 |
| TD | Molenstraat 45 9936EB Farmsum | 4:26 |
| TE | Molenstraat 32 9936EC Farmsum | 4:36 |
| TF | Achterweg 13 9936EG Farmsum | 4:48 |
| TG | Achterweg 11 9936EG Farmsum | 4:49 |
| TH | Achterweg 9 9936EG Farmsum | 4:50 |
| TI | Molenstraat 49 9936EB Farmsum | 4:25 |
| TJ | Molenstraat 51 9936EB Farmsum | 4:27 |
| TK | Molenstraat 53 9936EB Farmsum | 4:22 |
| TL | Molenstraat 57 9936EB Farmsum | 4:01 |
| TM | Molenstraat 61 9936EB Farmsum | 3:36 |
| TN | Molenstraat 63 9936EB Farmsum | 3:14 |
| TO | Molenstraat 34 9936ED Farmsum | 4:27 |
| TP | Molenstraat 38 9936ED Farmsum | 4:06 |
| TQ | Molenstraat 40 9936ED Farmsum | 3:51 |
| TR | Molenstraat 42 9936ED Farmsum | 3:28 |
| TS | Molenstraat 44 9936ED Farmsum | 3:02 |
| TT | Molenstraat 65 9936EB Farmsum | 2:49 |
| TU | Molenstraat 48 9936ED Farmsum | 2:33 |
| TV | Molenstraat 50 9936ED Farmsum | 2:11 |
| TW | Molenstraat 56 9936ED Farmsum | 1:47 |
| TX | Molenstraat 58 9936EE Farmsum | 1:20 |
| TY | Molenstraat 62 9936EE Farmsum | 1:08 |
| TZ | Molenstraat 72 9936EE Farmsum | 0:50 |
| U | Hoofdweg 37 9945PB Wagenborgen | 0:00 |
| UA | Molenstraat 70 9936EE Farmsum | 0:50 |
| UB | Molenstraat 68 9936EE Farmsum | 0:50 |
| UC | Molenstraat 66 9936EE Farmsum | 0:48 |
| UD | Achterweg 2 9936EG Farmsum | 3:13 |
| UE | Achterweg 12 9936EG Farmsum | 1:33 |
| UF | Achterweg 10 9936EG Farmsum | 1:12 |
| UG | Achterweg 8 9936EG Farmsum | 1:14 |
| UH | Hindrik Jagerstraat 17 9936CT Farmsum | 1:48 |
| UI | Molenstraat 30 9936EC Farmsum | 4:37 |
| UJ | Borgweg 141 9936EN Farmsum | 1:02 |
| UK | Borgweg 139 9936EN Farmsum | 1:08 |
| UL | Borgweg 137 9936EN Farmsum | 1:12 |
| UM | Borgweg 135 9936EN Farmsum | 1:17 |
| UN | Afwateringskanaal 109 9936AV Farmsum | 1:27 |
| UO | Borgweg 131 9936EM Farmsum | 2:08 |
| UP | Borgweg 133 9936EM Farmsum | 2:17 |
| UQ | Borgshof 41 9936CR Farmsum | 2:18 |
| UR | Borgshof 43 9936CR Farmsum | 2:29 |
| US | Borgshof 45 9936CR Farmsum | 2:28 |
| UT | Molenstraat 74 9936EE Farmsum | 0:49 |
| UU | Molenstraat 76 9936EE Farmsum | 0:50 |
| UV | Molenstraat 78 9936EE Farmsum | 0:52 |
| UW | Molenstraat 82 9936EE Farmsum | 0:51 |
| UX | Molenstraat 84 9936EE Farmsum | 0:50 |
| UY | Borgweg 123 9936EM Farmsum | 1:43 |
| UZ | Borgweg 125 9936EM Farmsum | 1:36 |
| V | Hoofdweg 44 9945PH Wagenborgen | 0:00 |
| VA | Borgweg 127 9936EM Farmsum | 1:32 |
| VB | Borgweg 129 9936EM Farmsum | 1:27 |
| VC | Farmsumerzijl 51 9936GC Farmsum | 1:49 |
| VD | Molenstraat 80 9936EE Farmsum | 0:52 |
| VE | Houtweg 30 9936BL Farmsum | 0:31 |
| VF | Houtweg 32 9936BL Farmsum | 0:32 |
| VG | Houtweg 34 9936BL Farmsum | 0:33 |
| VH | Houtweg 36 9936BL Farmsum | 0:33 |
| VI | Houtweg 38 9936BL Farmsum | 0:34 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1a Groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| VJ | Houtweg 40 9936BL Farmsum | 0:34 |
| VK | Houtweg 42 9936BL Farmsum | 0:34 |
| VL | Houtweg 44 9936BL Farmsum | 0:35 |
| VM | Houtweg 46 9936BL Farmsum | 0:34 |
| VN | Houtweg 48 9936BL Farmsum | 0:35 |
| VO | Rondeboslaan 26 9936BK Farmsum | 0:43 |
| VP | Rondeboslaan 28 9936BK Farmsum | 0:43 |
| VQ | Seendweg 32 9936GA Farmsum | 2:20 |
| VR | Trambaan 21 9936ES Farmsum | 2:19 |
| VS | Proosdij 19 9936ET Farmsum | 2:09 |
| VT | Bredelaan 14 9936ER Farmsum | 2:49 |
| VU | Bredelaan 10 9936ER Farmsum | 2:42 |
| VV | Bredelaan 8 9936ER Farmsum | 2:45 |
| VW | Seendweg 22 9936GA Farmsum | 3:11 |
| VX | Seendweg 28 9936GA Farmsum | 2:50 |
| VY | Proosdij 28 9936EW Farmsum | 1:54 |
| VZ | Proosdij 30 9936EX Farmsum | 1:57 |
| W | Hoofdweg 48 9945PH Wagenborgen | 0:00 |
| WA | Proosdij 26 9936EW Farmsum | 1:54 |
| WB | Afwateringskanaal 107 9936AV Farmsum | 1:21 |
| WC | Rondeboslaan 22 A 9936BK Farmsum | 1:51 |
| WD | Rondeboslaan 22 B 9936BK Farmsum | 1:53 |
| WE | Rondeboslaan 2 A 9936BK Farmsum | 1:38 |
| WF | Rondeboslaan 2 B 9936BK Farmsum | 1:34 |
| WG | Seendweg 17 9936GA Farmsum | 2:54 |
| WH | Borgshof 29 9936CR Farmsum | 1:29 |
| WI | Molenstraat 22 9936EC Farmsum | 3:58 |
| WJ | Achterweg 7 A 9936EG Farmsum | 5:17 |
| WK | Molenstraat 26 9936EC Farmsum | 4:33 |
| WL | Borgweg 113 9936EM Farmsum | 1:51 |
| WM | Borgweg 115 9936EM Farmsum | 2:14 |
| WN | Borgweg 117 9936EM Farmsum | 2:04 |
| WO | Borgweg 119 9936EM Farmsum | 1:57 |
| WP | Borgweg 121 9936EM Farmsum | 1:51 |
| WQ | Farmsumerzijl 45 9936GC Farmsum | 2:41 |
| WR | Farmsumerzijl 47 9936GC Farmsum | 2:10 |
| WS | Farmsumerzijl 49 9936GC Farmsum | 1:56 |
| WT | Waarman 4 9936GW Farmsum | 2:24 |
| WU | Waarman 2 9936GW Farmsum | 2:22 |
| WV | Farmsumerzijl 9 9936GB Farmsum | 1:41 |
| WW | Farmsumerzijl 11 9936GB Farmsum | 1:39 |
| WX | Farmsumerzijl 21 9936GB Farmsum | 1:44 |
| WY | Farmsumerzijl 23 9936GB Farmsum | 1:50 |
| WZ | Farmsumerzijl 33 9936GC Farmsum | 2:16 |
| X | Hoofdweg 41 9945PB Wagenborgen | 0:00 |
| XA | Farmsumerzijl 35 9936GC Farmsum | 2:20 |
| XB | Schepperij 17 9936GL Farmsum | 1:12 |
| XC | Schepperij 19 9936GL Farmsum | 1:12 |
| XD | Schepperij 21 9936GL Farmsum | 1:16 |
| XE | Dijkrecht 3 9936GJ Farmsum | 1:08 |
| XF | Dijkrecht 5 9936GJ Farmsum | 1:05 |
| XG | Dijkrecht 7 9936GJ Farmsum | 1:04 |
| XH | Dijkrecht 9 9936GJ Farmsum | 1:02 |
| XI | Dijkrecht 11 9936GJ Farmsum | 1:03 |
| XJ | Dijkrecht 13 9936GJ Farmsum | 1:03 |
| XK | Dijkrecht 15 9936GJ Farmsum | 1:04 |
| XL | Dijkrecht 17 9936GJ Farmsum | 1:06 |
| XM | Dijkrecht 19 9936GJ Farmsum | 1:08 |
| XN | Dijkrecht 21 9936GJ Farmsum | 1:11 |
| XO | Schepperij 6 9936GN Farmsum | 0:58 |
| XP | Schepperij 8 9936GN Farmsum | 0:58 |
| XQ | Schepperij 10 9936GN Farmsum | 1:00 |
| XR | Schepperij 12 9936GN Farmsum | 1:01 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1a Groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| XS | Schepperij 14 9936GN Farmsum | 1:03 |
| XT | Schepperij 16 9936GN Farmsum | 1:05 |
| XU | Olderman 2 9936GT Farmsum | 1:20 |
| XV | Olderman 4 9936GT Farmsum | 1:22 |
| XW | Olderman 6 9936GT Farmsum | 1:21 |
| XX | Olderman 8 9936GT Farmsum | 1:20 |
| XY | Olderman 10 9936GT Farmsum | 1:22 |
| XZ | Olderman 12 9936GT Farmsum | 1:21 |
| Y | Hoofdweg 20 9945PG Wagenborgen | 0:00 |
| YA | Olderman 14 9936GT Farmsum | 1:22 |
| YB | Dijkrecht 23 9936GJ Farmsum | 1:32 |
| YC | Dijkrecht 25 9936GJ Farmsum | 1:35 |
| YD | Dijkrecht 27 9936GJ Farmsum | 1:35 |
| YE | Dijkrecht 29 9936GJ Farmsum | 1:35 |
| YF | Dijkrecht 31 9936GJ Farmsum | 1:34 |
| YG | Dijkrecht 33 9936GJ Farmsum | 1:36 |
| YH | Dijkrecht 35 9936GJ Farmsum | 1:35 |
| YI | Dijkrecht 37 9936GJ Farmsum | 1:42 |
| YJ | Dijkrecht 39 9936GJ Farmsum | 1:43 |
| YK | Dijkrecht 41 9936GJ Farmsum | 1:43 |
| YL | Dijkrecht 43 9936GJ Farmsum | 1:45 |
| YM | Olderman 1 9936GS Farmsum | 1:12 |
| YN | Olderman 3 9936GS Farmsum | 1:11 |
| YO | Olderman 5 9936GS Farmsum | 1:11 |
| YP | Olderman 7 9936GS Farmsum | 1:13 |
| YQ | Schepperij 37 9936GM Farmsum | 2:13 |
| YR | Schepperij 41 9936GM Farmsum | 2:16 |
| YS | Schepperij 45 9936GM Farmsum | 2:20 |
| YT | Schepperij 47 9936GM Farmsum | 2:20 |
| YU | Schepperij 49 9936GM Farmsum | 2:21 |
| YV | Olderman 18 9936GT Farmsum | 1:28 |
| YW | Olderman 20 9936GT Farmsum | 1:29 |
| YX | Olderman 22 9936GT Farmsum | 1:28 |
| YY | Olderman 24 9936GT Farmsum | 1:30 |
| YZ | Olderman 26 9936GT Farmsum | 1:30 |
| Z | Hoofdweg 22 9945PG Wagenborgen | 0:00 |
| ZA | Olderman 28 9936GT Farmsum | 1:31 |
| ZB | Olderman 30 9936GT Farmsum | 1:48 |
| ZC | Olderman 9 9936GS Farmsum | 1:22 |
| ZD | Olderman 11 9936GS Farmsum | 1:23 |
| ZE | Olderman 13 9936GS Farmsum | 1:29 |
| ZF | Proosdij 32 9936EX Farmsum | 1:59 |
| ZG | Proosdij 36 9936EX Farmsum | 2:01 |
| ZH | Proosdij 38 9936EX Farmsum | 2:02 |
| ZI | Proosdij 40 9936EX Farmsum | 2:04 |
| ZJ | Proosdij 27 9936EV Farmsum | 2:30 |
| ZK | Proosdij 25 9936EV Farmsum | 2:28 |
| ZL | Proosdij 23 9936EV Farmsum | 2:25 |
| ZM | Proosdij 21 9936EV Farmsum | 2:21 |
| ZN | Seendweg 5 9936GA Farmsum | 3:44 |
| ZO | Proosdij 29 9936EV Farmsum | 2:31 |
| ZP | Proosdij 31 9936EV Farmsum | 2:38 |
| ZQ | Proosdij 33 9936EV Farmsum | 3:13 |
| ZR | Proosdij 35 9936EV Farmsum | 3:23 |
| ZS | Proosdij 37 9936EV Farmsum | 3:23 |
| ZT | Proosdij 39 9936EV Farmsum | 3:21 |
| ZU | Proosdij 41 9936EV Farmsum | 3:20 |
| ZV | Proosdij 43 9936EV Farmsum | 3:18 |
| ZW | Proosdij 45 9936EV Farmsum | 3:16 |
| ZX | Proosdij 47 9936EV Farmsum | 3:13 |
| ZY | Olderman 15 9936GS Farmsum | 1:34 |
| ZZ | Rengersweg 97 9936GG Farmsum | 1:56 |

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Calculated:
3-2-2017 20:20/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1a Groot

Total amount of flickering on the shadow receptors caused by each WTG

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 1 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (4) | 687:44 | 114:49 |
| 2 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (5) | 272:00 | 34:26 |
| 3 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (6) | 110:38 | 22:53 |
| 4 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (7) | 257:06 | 50:22 |
| 5 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (8) | 418:27 | 60:37 |
| 6 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (9) | 892:00 | 190:11 |
| 7 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (10) | 354:41 | 45:45 |
| 8 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (11) | 65:23 | 8:37 |
| 9 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (12) | 61:45 | 12:01 |
| 10 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (13) | 179:04 | 38:16 |
| 11 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (14) | 162:53 | 31:06 |
| 12 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (15) | 651:06 | 134:52 |
| 13 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (16) | 470:51 | 83:06 |
| 14 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (17) | 501:37 | 91:31 |
| 15 | LAGERWEY 80 18.0 !O! hub: 31,0 m (TOT: 40,0 m) (7) | 0:00 | 0:00 |
| 16 | LAGERWEY 80 18.0 !O! hub: 31,0 m (TOT: 40,0 m) (8) | 0:00 | 0:00 |
| 17 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (9) | 17:07 | 3:42 |
| 18 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (10) | 40:28 | 8:08 |
| 19 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (11) | 60:57 | 9:19 |
| 20 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (12) | 24:24 | 3:41 |
| 21 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (13) | 5:26 | 0:59 |
| 22 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (14) | 167:16 | 24:42 |
| 23 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (15) | 0:00 | 0:00 |
| 24 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (16) | 0:00 | 0:00 |
| 25 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (17) | 0:00 | 0:00 |
| 26 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (18) | 23:25 | 3:40 |
| 27 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (19) | 0:00 | 0:00 |
| 28 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (20) | 0:46 | 0:09 |
| 29 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (21) | 40:19 | 8:38 |
| 30 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (22) | 0:49 | 0:11 |
| 31 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (23) | 0:00 | 0:00 |
| 32 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (24) | 0:00 | 0:00 |
| 33 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (25) | 7:08 | 1:36 |
| 34 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (26) | 1:50 | 0:23 |
| 35 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (27) | 0:00 | 0:00 |
| 36 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (28) | 0:00 | 0:00 |
| 37 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (29) | 1:46 | 0:17 |
| 38 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (30) | 6:55 | 1:32 |
| 39 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (31) | 0:00 | 0:00 |
| 40 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (32) | 0:00 | 0:00 |
| 41 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (33) | 0:33 | 0:07 |
| 42 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (34) | 0:12 | 0:02 |
| 43 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (35) | 3:03 | 0:41 |
| 44 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (36) | 0:00 | 0:00 |
| 45 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (37) | 6:32 | 1:04 |
| 46 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (38) | 0:08 | 0:01 |
| 47 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (39) | 8:23 | 0:47 |
| 48 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (40) | 3:23 | 0:41 |
| 49 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (41) | 205:27 | 46:21 |
| 50 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (42) | 95:47 | 12:29 |
| 51 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (43) | 25:14 | 5:47 |
| 52 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (44) | 31:20 | 7:25 |
| 53 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (45) | 23:49 | 5:38 |
| 54 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (46) | 3:15 | 0:47 |
| 55 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (47) | 0:00 | 0:00 |
| 56 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (48) | 0:00 | 0:00 |
| 57 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (49) | 0:00 | 0:00 |
| 58 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (50) | 0:00 | 0:00 |
| 59 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (51) | 0:00 | 0:00 |
| 60 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (52) | 0:00 | 0:00 |
| 61 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (53) | 0:00 | 0:00 |
| 62 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (54) | 0:00 | 0:00 |
| 63 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (55) | 0:00 | 0:00 |
| 64 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (56) | 0:00 | 0:00 |
| 65 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (57) | 0:00 | 0:00 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1a Groot

...continued from previous page

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 66 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (58) | 0:00 | 0:00 |
| 67 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (59) | 0:00 | 0:00 |
| 68 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (60) | 0:00 | 0:00 |
| 69 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (61) | 0:00 | 0:00 |
| 70 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (62) | 0:00 | 0:00 |
| 71 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (63) | 0:00 | 0:00 |
| 72 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (64) | 0:00 | 0:00 |
| 73 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (65) | 0:00 | 0:00 |
| 74 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (66) | 0:00 | 0:00 |
| 75 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (67) | 0:00 | 0:00 |
| 76 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (68) | 0:00 | 0:00 |
| 77 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (69) | 0:00 | 0:00 |
| 78 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (70) | 4:11 | 0:36 |
| 79 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (71) | 63:02 | 8:52 |
| 80 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (72) | 82:07 | 15:11 |
| 81 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (73) | 1:53 | 0:17 |
| 82 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (74) | 0:00 | 0:00 |
| 83 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (75) | 0:00 | 0:00 |
| 84 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (76) | 0:00 | 0:00 |
| 85 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (77) | 0:00 | 0:00 |
| 86 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (78) | 0:00 | 0:00 |
| 87 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (79) | 0:00 | 0:00 |
| 88 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (80) | 303:47 | 52:13 |
| 89 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (81) | 410:57 | 83:38 |
| 90 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (82) | 260:23 | 46:37 |
| 91 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (83) | 735:03 | 130:28 |
| 92 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (84) | 875:55 | 141:09 |
| 93 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (85) | 818:02 | 134:40 |
| 94 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (86) | 399:41 | 51:28 |
| 95 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (87) | 200:42 | 29:25 |
| 96 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (88) | 243:15 | 44:31 |
| 97 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (89) | 48:14 | 8:27 |
| 98 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (90) | 16:51 | 3:32 |
| 99 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (91) | 111:17 | 23:24 |
| 100 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (92) | 133:15 | 26:44 |
| 101 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (93) | 85:56 | 17:33 |
| 102 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (94) | 22:20 | 3:43 |
| 103 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (95) | 122:47 | 22:58 |

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Calculated:
8-2-2017 11:53/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1a Groot verblijfsobjecten later toegevoegd

### Assumptions for shadow calculations

Maximum distance for influence
Calculate only when more than 20 % of sun is covered by the blade
Please look in WTG table

| | |
|---|---|
| Minimum sun height over horizon for influence | 5 ° |
| Day step for calculation | 1 days |
| Time step for calculation | 1 minutes |

Sunshine probability S (Average daily sunshine hours) [EELDE]

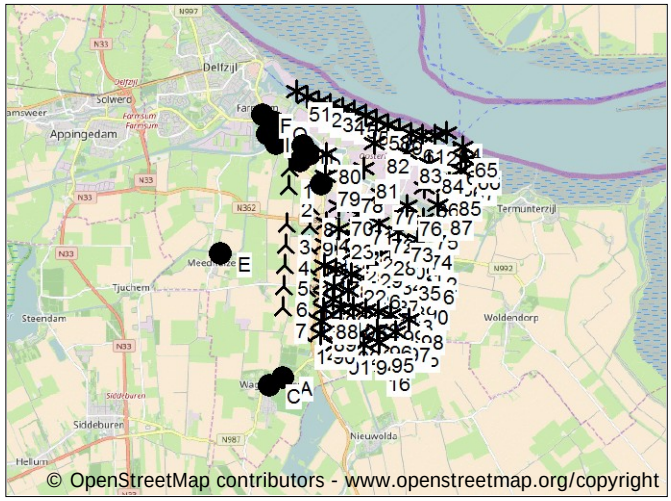
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

All coordinates are in
Dutch Stereo-RD/NAP 2008




Scale 1:200.000
New WTG
Existing WTG
Shadow receptor

### WTGs

| | X (east) | Y (north) | Z | Row data/Description | WTG type Valid | Manufact. | Type-generator | Power, rated | Rotor diameter | Hub height | Shadow data Calculation distance | RPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [m] | | | | | [kW] | [m] | [m] | [m] | [RPM] |
| 1 | 258.610 | 592.416 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 2 | 258.598 | 591.937 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 3 | 258.572 | 590.942 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 4 | 258.554 | 590.388 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 5 | 258.542 | 589.830 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 6 | 258.525 | 589.275 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 7 | 258.509 | 588.721 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 8 | 259.187 | 591.420 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 9 | 259.174 | 590.910 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 10 | 259.158 | 590.354 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 11 | 259.144 | 589.798 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 12 | 259.127 | 589.240 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 13 | 259.112 | 588.683 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 14 | 259.050 | 588.043 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 15 | 261.738 | 588.022 | 0,0 | LAGERWEY 80 18.0 !O! hub:... | No | LAGERWEY | -80 | 80 | 18,0 | 31,0 | 1.740 | 120,0 |
| 16 | 260.986 | 587.360 | 0,0 | LAGERWEY 80 18.0 !O! hub:... | No | LAGERWEY | -80 | 80 | 18,0 | 31,0 | 1.740 | 120,0 |
| 17 | 259.587 | 589.858 | 0,0 | ENERCON E-70 E4 2000 71.0... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 18 | 259.890 | 589.770 | 0,0 | ENERCON E-70 E4 2000 71.0... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 19 | 259.863 | 589.300 | 0,0 | ENERCON E-70 E4 2000 71.0... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 20 | 259.845 | 588.985 | 0,0 | ENERCON E-70 E4 2000 71.0... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 21 | 260.245 | 589.206 | 0,0 | ENERCON E-70 E4 2000 71.0... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 22 | 260.295 | 589.652 | 0,0 | ENERCON E-70 E4 2000 71.0... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 23 | 259.952 | 590.853 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 24 | 260.412 | 590.685 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 25 | 260.358 | 590.202 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 26 | 260.680 | 589.539 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 27 | 260.789 | 590.548 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 28 | 261.086 | 590.440 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 29 | 260.740 | 590.089 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 30 | 261.353 | 590.343 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 31 | 261.840 | 590.166 | 0,0 | ENERCON E-70 E4 2000 71.0... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 32 | 262.200 | 590.035 | 0,0 | ENERCON E-70 E4 2000 71.0... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 33 | 261.031 | 590.003 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 34 | 261.292 | 589.926 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 35 | 261.764 | 589.785 | 0,0 | ENERCON E-70 E4 2000 71.0... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 36 | 262.111 | 589.683 | 0,0 | ENERCON E-70 E4 2000 71.0... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 37 | 261.212 | 589.384 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 38 | 261.584 | 588.876 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 39 | 261.660 | 589.255 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |

To be continued on next page...

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Calculated:
8-2-2017 11:53/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1a Groot verblijfsobjecten later toegevoegd

...continued from previous page

| | | | | | WTG type | | | | | | | Shadow data | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | X (east) | Y (north) | Z | Row data/Description | Valid | Manufact. | Type-generator | Power, rated | Rotor diameter | Hub height | Calculation distance | RPM |
| | | | [m] | | | | | [kW] | [m] | [m] | [m] | [RPM] |
| 40 | 261.980 | 589.161 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 41 | 261.889 | 588.801 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 42 | 259.922 | 590.332 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 43 | 259.601 | 590.427 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 44 | 259.614 | 590.976 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 45 | 260.962 | 589.457 | 0,0 | ENERCON E-70 E4 2000 71.0... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 46 | 260.634 | 589.110 | 0,0 | ENERCON E-70 E4 2000 71.0... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 47 | 260.909 | 589.042 | 0,0 | ENERCON E-70 E4 2000 71.0... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 48 | 261.153 | 588.982 | 0,0 | ENERCON E-70 E4 2000 71.0... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 49 | 259.576 | 589.371 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 50 | 259.568 | 589.041 | 0,0 | ENERCON E-70 E4 2,3 MW 2... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 51 | 258.748 | 594.458 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 52 | 259.042 | 594.322 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 53 | 259.344 | 594.205 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 54 | 259.655 | 594.114 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 55 | 259.971 | 594.042 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 56 | 260.286 | 593.965 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 57 | 260.596 | 593.872 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 58 | 260.896 | 593.750 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 59 | 261.196 | 593.627 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 60 | 261.497 | 593.509 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 61 | 261.805 | 593.407 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 62 | 262.126 | 593.367 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 63 | 262.450 | 593.380 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 64 | 262.767 | 593.448 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 65 | 263.205 | 593.092 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 66 | 263.273 | 592.764 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 67 | 263.154 | 592.466 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 68 | 262.970 | 592.872 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 69 | 262.850 | 592.574 | 0,0 | NORDEX N100/3300 3300 99... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 70 | 259.947 | 591.451 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 71 | 260.484 | 591.233 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 72 | 261.011 | 591.019 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 73 | 261.526 | 590.802 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 74 | 262.046 | 590.599 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 75 | 262.190 | 591.144 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 76 | 261.741 | 591.483 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 77 | 261.052 | 591.780 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 78 | 260.181 | 592.081 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 79 | 259.555 | 592.229 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 80 | 259.567 | 592.826 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 81 | 260.577 | 592.475 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 82 | 260.839 | 593.122 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 83 | 261.722 | 592.893 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 84 | 262.307 | 592.636 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 85 | 262.775 | 592.062 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 86 | 262.206 | 591.985 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 87 | 262.568 | 591.542 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 88 | 259.583 | 588.718 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 89 | 259.541 | 588.381 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 90 | 259.520 | 588.051 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 91 | 259.935 | 587.778 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 92 | 260.176 | 588.043 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 93 | 260.538 | 588.081 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 94 | 260.683 | 587.792 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 95 | 261.087 | 587.854 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 96 | 261.036 | 588.189 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 97 | 261.513 | 588.148 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 98 | 261.859 | 588.487 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 99 | 261.380 | 588.591 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 100 | 261.043 | 588.659 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 101 | 260.714 | 588.719 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 102 | 260.368 | 588.763 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 103 | 260.032 | 588.735 | 0,0 | ENERCON 145 as 145 rotor 4... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |

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8-2-2017 11:53/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1a Groot verblijfsobjecten later toegevoegd

### Shadow receptor-Input

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| A | Familie Bronsweg 22 9945PS Wagenborgen | 258.549 | 586.857 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| B | Geefsweersterweg 1 9937TB Meedhuizen | 258.250 | 593.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| C | Hoofdweg 28 9945PG Wagenborgen | 258.194 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| D | Karspelpad 8 9936HP Farmsum | 259.130 | 592.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| E | Maarkampen 12 9937PL Meedhuizen | 256.818 | 590.108 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| F | Molenstraat 64 9936EE Farmsum | 257.875 | 593.798 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| G | Oosterlaan 9 9936HN Farmsum | 259.468 | 591.997 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| H | Schaappad 1 9936HT Farmsum | 258.946 | 593.010 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| I | Seendweg 8 9936GA Farmsum | 258.005 | 593.293 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| J | T.J. Jansenweg 11 9936HL Farmsum | 258.896 | 592.598 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| K | Waarman 1 9936GV Farmsum | 258.213 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| L | Waarman 11 9936GV Farmsum | 258.213 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| M | Waarman 3 9936GV Farmsum | 258.213 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| N | Waarman 5 9936GV Farmsum | 258.213 | 593.587 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| O | Waarman 7 9936GV Farmsum | 258.213 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| P | Waarman 9 9936GV Farmsum | 258.213 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Q | Zijlvest 20 9936GZ Farmsum | 258.233 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

### Calculation Results

Shadow receptor

| No. | Name | Shadow, expected values<br>Shadow hours per year<br>[h/year] |
|---|---|---|
| A | Familie Bronsweg 22 9945PS Wagenborgen | 1:47 |
| B | Geefsweersterweg 1 9937TB Meedhuizen | 9:08 |
| C | Hoofdweg 28 9945PG Wagenborgen | 0:00 |
| D | Karspelpad 8 9936HP Farmsum | 59:08 |
| E | Maarkampen 12 9937PL Meedhuizen | 1:23 |
| F | Molenstraat 64 9936EE Farmsum | 1:01 |
| G | Oosterlaan 9 9936HN Farmsum | 51:32 |
| H | Schaappad 1 9936HT Farmsum | 23:15 |
| I | Seendweg 8 9936GA Farmsum | 4:18 |
| J | T.J. Jansenweg 11 9936HL Farmsum | 64:41 |
| K | Waarman 1 9936GV Farmsum | 2:00 |
| L | Waarman 11 9936GV Farmsum | 2:24 |
| M | Waarman 3 9936GV Farmsum | 2:00 |
| N | Waarman 5 9936GV Farmsum | 2:01 |
| O | Waarman 7 9936GV Farmsum | 2:03 |
| P | Waarman 9 9936GV Farmsum | 2:24 |
| Q | Zijlvest 20 9936GZ Farmsum | 2:30 |

Total amount of flickering on the shadow receptors caused by each WTG

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 1 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (4) | 386:01 | 60:07 |
| 2 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (5) | 125:02 | 15:37 |
| 3 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (6) | 15:29 | 1:44 |
| 4 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (7) | 2:58 | 0:39 |
| 5 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (8) | 2:44 | 0:27 |
| 6 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (9) | 1:53 | 0:17 |
| 7 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (10) | 0:00 | 0:00 |
| 8 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (11) | 87:37 | 9:36 |
| 9 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (12) | 0:00 | 0:00 |
| 10 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (13) | 0:00 | 0:00 |
| 11 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (14) | 0:00 | 0:00 |
| 12 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (15) | 0:00 | 0:00 |
| 13 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (16) | 0:00 | 0:00 |
| 14 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (17) | 0:00 | 0:00 |
| 15 | LAGERWEY 80 18.0 !O! hub: 31,0 m (TOT: 40,0 m) (7) | 0:00 | 0:00 |
| 16 | LAGERWEY 80 18.0 !O! hub: 31,0 m (TOT: 40,0 m) (8) | 0:00 | 0:00 |
| 17 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (9) | 0:00 | 0:00 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1a Groot verblijfsobjecten later toegevoegd

...continued from previous page

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 18 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (10) | 0:00 | 0:00 |
| 19 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (11) | 0:00 | 0:00 |
| 20 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (12) | 0:00 | 0:00 |
| 21 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (13) | 0:00 | 0:00 |
| 22 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (14) | 0:00 | 0:00 |
| 23 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (15) | 0:00 | 0:00 |
| 24 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (16) | 0:00 | 0:00 |
| 25 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (17) | 0:00 | 0:00 |
| 26 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (18) | 0:00 | 0:00 |
| 27 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (19) | 0:00 | 0:00 |
| 28 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (20) | 0:00 | 0:00 |
| 29 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (21) | 0:00 | 0:00 |
| 30 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (22) | 0:00 | 0:00 |
| 31 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (23) | 0:00 | 0:00 |
| 32 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (24) | 0:00 | 0:00 |
| 33 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (25) | 0:00 | 0:00 |
| 34 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (26) | 0:00 | 0:00 |
| 35 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (27) | 0:00 | 0:00 |
| 36 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (28) | 0:00 | 0:00 |
| 37 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (29) | 0:00 | 0:00 |
| 38 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (30) | 0:00 | 0:00 |
| 39 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (31) | 0:00 | 0:00 |
| 40 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (32) | 0:00 | 0:00 |
| 41 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (33) | 0:00 | 0:00 |
| 42 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (34) | 0:00 | 0:00 |
| 43 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (35) | 0:00 | 0:00 |
| 44 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (36) | 0:00 | 0:00 |
| 45 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (37) | 0:00 | 0:00 |
| 46 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (38) | 0:00 | 0:00 |
| 47 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (39) | 0:00 | 0:00 |
| 48 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (40) | 0:00 | 0:00 |
| 49 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (41) | 0:00 | 0:00 |
| 50 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (42) | 0:00 | 0:00 |
| 51 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (43) | 0:22 | 0:04 |
| 52 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (44) | 3:17 | 0:49 |
| 53 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (45) | 11:24 | 2:40 |
| 54 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (46) | 1:20 | 0:19 |
| 55 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (47) | 0:00 | 0:00 |
| 56 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (48) | 0:00 | 0:00 |
| 57 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (49) | 0:00 | 0:00 |
| 58 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (50) | 0:00 | 0:00 |
| 59 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (51) | 0:00 | 0:00 |
| 60 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (52) | 0:00 | 0:00 |
| 61 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (53) | 0:00 | 0:00 |
| 62 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (54) | 0:00 | 0:00 |
| 63 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (55) | 0:00 | 0:00 |
| 64 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (56) | 0:00 | 0:00 |
| 65 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (57) | 0:00 | 0:00 |
| 66 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (58) | 0:00 | 0:00 |
| 67 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (59) | 0:00 | 0:00 |
| 68 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (60) | 0:00 | 0:00 |
| 69 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (61) | 0:00 | 0:00 |
| 70 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (62) | 63:40 | 7:54 |
| 71 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (63) | 12:29 | 1:43 |
| 72 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (64) | 2:38 | 0:22 |
| 73 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (65) | 0:00 | 0:00 |
| 74 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (66) | 0:00 | 0:00 |
| 75 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (67) | 0:00 | 0:00 |
| 76 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (68) | 0:00 | 0:00 |
| 77 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (69) | 4:06 | 0:41 |
| 78 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (70) | 67:58 | 13:56 |
| 79 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (71) | 129:14 | 16:12 |
| 80 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (72) | 302:43 | 63:47 |
| 81 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (73) | 32:21 | 6:51 |
| 82 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (74) | 4:58 | 1:03 |

To be continued on next page...

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## SHADOW - Main Result

Calculation: Slagschaduw cumulatie Alternatief 1a Groot verblijfsobjecten later toegevoegd

...continued from previous page

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 83 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (75) | 0:00 | 0:00 |
| 84 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (76) | 0:00 | 0:00 |
| 85 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (77) | 0:00 | 0:00 |
| 86 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (78) | 0:00 | 0:00 |
| 87 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (79) | 0:00 | 0:00 |
| 88 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (80) | 0:00 | 0:00 |
| 89 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (81) | 0:00 | 0:00 |
| 90 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (82) | 0:00 | 0:00 |
| 91 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (83) | 8:10 | 1:47 |
| 92 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (84) | 0:00 | 0:00 |
| 93 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (85) | 0:00 | 0:00 |
| 94 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (86) | 0:00 | 0:00 |
| 95 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (87) | 0:00 | 0:00 |
| 96 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (88) | 0:00 | 0:00 |
| 97 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (89) | 0:00 | 0:00 |
| 98 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (90) | 0:00 | 0:00 |
| 99 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (91) | 0:00 | 0:00 |
| 100 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (92) | 0:00 | 0:00 |
| 101 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (93) | 0:00 | 0:00 |
| 102 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (94) | 0:00 | 0:00 |
| 103 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (95) | 0:00 | 0:00 |

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Calculated:
3-2-2017 13:05/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie

### Assumptions for shadow calculations

Maximum distance for influence
Calculate only when more than 20 % of sun is covered by the blade
Please look in WTG table

| | |
|---|---|
| Minimum sun height over horizon for influence | 5 ° |
| Day step for calculation | 1 days |
| Time step for calculation | 1 minutes |

Sunshine probability S (Average daily sunshine hours) [EELDE]

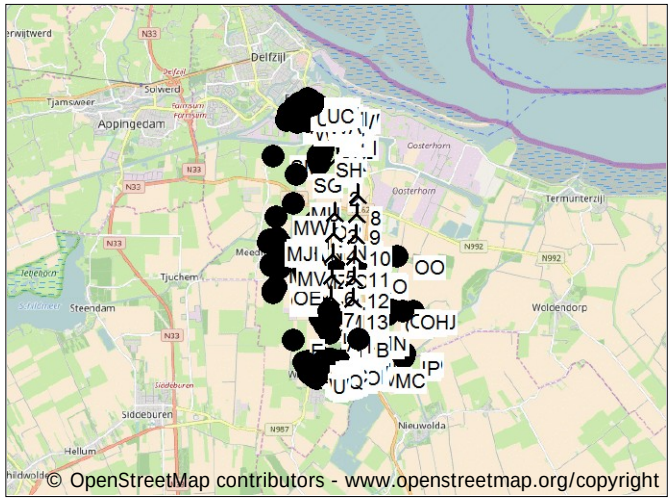
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

All coordinates are in
Dutch Stereo-RD/NAP 2008




Scale 1:200.000

New WTG  Shadow receptor

### WTGs

| | X (east) | Y (north) | Z | Row data/Description | WTG type Valid | Manufact. | Type-generator | Power, rated | Rotor diameter | Hub height | Shadow data Calculation distance | RPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [m] | | | | | [kW] | [m] | [m] | [m] | [RPM] |
| 1 | 258.610 | 592.416 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 2 | 258.598 | 591.937 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 3 | 258.572 | 590.942 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 4 | 258.554 | 590.388 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 5 | 258.542 | 589.830 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 6 | 258.525 | 589.275 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 7 | 258.509 | 588.721 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 8 | 259.187 | 591.420 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 9 | 259.174 | 590.910 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 10 | 259.158 | 590.354 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 11 | 259.144 | 589.798 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 12 | 259.127 | 589.240 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 13 | 259.112 | 588.683 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 14 | 259.050 | 588.043 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |

### Shadow receptor-Input

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| [A | Rengersweg 99 9936GG Farmsum | 258.006 | 593.455 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [B | Rengersweg 12 9936GH Farmsum | 258.034 | 593.437 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [C | Rengersweg 10 9936GH Farmsum | 258.034 | 593.444 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [D | Kluft 1 9936GP Farmsum | 258.040 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [E | Kluft 3 9936GP Farmsum | 258.047 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [F | Proosdij 46 9936EX Farmsum | 258.058 | 593.427 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [G | Proosdij 48 9936EX Farmsum | 258.062 | 593.433 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [H | Proosdij 50 9936EX Farmsum | 258.090 | 593.443 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [I | Proosdij 52 9936EX Farmsum | 258.090 | 593.430 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [J | Proosdij 54 9936EX Farmsum | 258.094 | 593.415 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [K | Proosdij 56 9936EX Farmsum | 258.108 | 593.416 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [L | Olderman 21 9936GS Farmsum | 258.128 | 593.420 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [M | Olderman 19 9936GS Farmsum | 258.126 | 593.434 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [N | Olderman 17 9936GS Farmsum | 258.125 | 593.448 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [O | Kluft 5 9936GP Farmsum | 258.060 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [P | Kluft 7 9936GP Farmsum | 258.067 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [Q | Kluft 9 9936GP Farmsum | 258.096 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [R | Kluft 11 9936GP Farmsum | 258.102 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [S | Kluft 17 9936GP Farmsum | 258.122 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| [T | Zijlvest 8 9936GZ Farmsum | 258.202 | 593.424 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [U | Olderman 32 9936GT Farmsum | 258.151 | 593.480 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [V | Olderman 34 9936GT Farmsum | 258.151 | 593.474 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [W | Olderman 36 9936GT Farmsum | 258.153 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [X | Olderman 38 9936GT Farmsum | 258.153 | 593.453 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [Y | Olderman 40 9936GT Farmsum | 258.155 | 593.440 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [Z | Olderman 42 9936GT Farmsum | 258.155 | 593.434 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \A | Zijlvest 22 A 9936GZ Farmsum | 258.238 | 593.466 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \B | Zijlvest 18 A 9936GZ Farmsum | 258.229 | 593.451 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \C | Zijlvest 18 9936GZ Farmsum | 258.233 | 593.449 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \D | Zijlvest 14 9936GZ Farmsum | 258.229 | 593.441 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \E | Borgweg 1 9936EH Farmsum | 258.030 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \F | Borgweg 3 9936EH Farmsum | 258.031 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \G | Borgweg 5 9936EH Farmsum | 258.031 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \H | Borgweg 7 9936EH Farmsum | 258.031 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \I | Borgweg 9 9936EH Farmsum | 258.031 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \J | Borgweg 11 9936EH Farmsum | 258.031 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \K | Borgweg 13 9936EH Farmsum | 258.031 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \L | Borgweg 15 9936EH Farmsum | 258.033 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \M | Borgweg 17 9936EH Farmsum | 258.033 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \N | Borgweg 19 9936EH Farmsum | 258.033 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \O | Borgweg 21 9936EH Farmsum | 258.033 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \P | Borgweg 23 9936EH Farmsum | 258.033 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \Q | Borgweg 25 9936EH Farmsum | 258.033 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \R | Borgweg 27 9936EH Farmsum | 258.033 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \S | Borgweg 29 9936EJ Farmsum | 258.035 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \T | Borgweg 31 9936EJ Farmsum | 258.035 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \U | Borgweg 33 9936EJ Farmsum | 258.035 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \V | Borgweg 35 9936EJ Farmsum | 258.035 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \W | Borgweg 37 9936EJ Farmsum | 258.035 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \X | Borgweg 39 9936EJ Farmsum | 258.036 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \Y | Borgweg 41 9936EJ Farmsum | 258.036 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \Z | Borgweg 43 9936EJ Farmsum | 258.037 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]A | Borgweg 45 9936EJ Farmsum | 258.038 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]B | Borgweg 47 9936EJ Farmsum | 258.038 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]C | Borgweg 49 9936EJ Farmsum | 258.038 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]D | Borgweg 51 9936EJ Farmsum | 258.038 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]E | Borgweg 53 9936EJ Farmsum | 258.038 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]F | Borgweg 55 9936EJ Farmsum | 258.038 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]G | Borgweg 57 9936EK Farmsum | 258.003 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]H | Borgweg 59 9936EK Farmsum | 258.003 | 593.802 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]I | Borgweg 61 9936EK Farmsum | 258.003 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]J | Borgweg 63 9936EK Farmsum | 258.003 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]K | Borgweg 65 9936EK Farmsum | 258.003 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]L | Borgweg 67 9936EK Farmsum | 258.003 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]M | Borgweg 69 9936EK Farmsum | 258.003 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]N | Borgweg 71 9936EK Farmsum | 258.006 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]O | Borgweg 73 9936EK Farmsum | 258.006 | 593.802 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]P | Borgweg 75 9936EK Farmsum | 258.006 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]Q | Borgweg 77 9936EK Farmsum | 258.005 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]R | Borgweg 79 9936EK Farmsum | 258.005 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]S | Borgweg 81 9936EK Farmsum | 258.005 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]T | Borgweg 83 9936EK Farmsum | 258.005 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]U | Borgweg 85 9936EL Farmsum | 258.008 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]V | Borgweg 87 9936EL Farmsum | 258.008 | 593.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]W | Borgweg 89 9936EL Farmsum | 258.008 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]X | Borgweg 91 9936EL Farmsum | 258.008 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]Y | Borgweg 93 9936EL Farmsum | 258.008 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]Z | Borgweg 95 9936EL Farmsum | 258.008 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^A | Borgweg 97 9936EL Farmsum | 258.008 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^B | Borgweg 99 9936EL Farmsum | 258.010 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^C | Borgweg 101 9936EL Farmsum | 258.010 | 593.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^D | Borgweg 103 9936EL Farmsum | 258.010 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^E | Borgweg 105 9936EL Farmsum | 258.010 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
3-2-2017 13:05/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| ^F | Borgweg 107 9936EL Farmsum | 258.010 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^G | Borgweg 109 9936EL Farmsum | 258.010 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^H | Borgweg 111 9936EL Farmsum | 258.010 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^I | Kluft 18 9936GR Farmsum | 258.043 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^J | Kluft 20 9936GR Farmsum | 258.050 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^K | Kluft 22 9936GR Farmsum | 258.057 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^L | Kluft 24 9936GR Farmsum | 258.064 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^M | Kluft 26 9936GR Farmsum | 258.071 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^N | Kluft 28 9936GR Farmsum | 258.078 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^O | Kluft 30 9936GR Farmsum | 258.085 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^P | Kluft 32 9936GR Farmsum | 258.092 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Q | Kluft 2 9936GR Farmsum | 258.043 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^R | Kluft 4 9936GR Farmsum | 258.050 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^S | Kluft 6 9936GR Farmsum | 258.057 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^T | Kluft 8 9936GR Farmsum | 258.064 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^U | Kluft 10 9936GR Farmsum | 258.071 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^V | Kluft 12 9936GR Farmsum | 258.078 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^W | Kluft 14 9936GR Farmsum | 258.085 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^X | Kluft 16 9936GR Farmsum | 258.092 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Y | ZijIvest 20 A 9936GZ Farmsum | 258.233 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Z | Schepperij 51 9936GM Farmsum | 258.194 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _A | Waarman 15 9936GV Farmsum | 258.223 | 593.543 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _B | Waarman 17 9936GV Farmsum | 258.223 | 593.537 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _C | Waarman 19 9936GV Farmsum | 258.223 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _D | Waarman 21 9936GV Farmsum | 258.223 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _E | Waarman 23 9936GV Farmsum | 258.223 | 593.518 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _F | Waarman 25 9936GV Farmsum | 258.223 | 593.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _G | Waarman 27 9936GV Farmsum | 258.223 | 593.506 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _H | Waarman 29 9936GV Farmsum | 258.222 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _I | Heemskesweg 5 9936HE Farmsum | 258.759 | 592.961 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _J | Geefsweersterweg 2 9937TC Meedhuizen | 258.288 | 593.033 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _K | Seendweg 12 9936GA Farmsum | 257.950 | 593.306 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _L | Schepperij 39 9936GM Farmsum | 258.194 | 593.537 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _M | Schepperij 43 9936GM Farmsum | 258.194 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _N | ZijIvest 14 A 9936GZ Farmsum | 258.222 | 593.445 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _O | ZijIvest 24 A 9936GZ Farmsum | 258.239 | 593.474 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| A | Familie Bronsweg 60 9945TA Wagenborgen | 258.511 | 587.742 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AA | Hoofdweg 26 9945PG Wagenborgen | 258.194 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AB | Hoofdweg 23 9945PA Wagenborgen | 258.227 | 586.683 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AC | Hoofdweg 25 9945PA Wagenborgen | 258.217 | 586.663 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AD | Hoofdweg 27 9945PA Wagenborgen | 258.213 | 586.652 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AE | Hoofdweg 29 9945PA Wagenborgen | 258.212 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AF | Hoofdweg 18 9945PG Wagenborgen | 258.219 | 586.709 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AG | Hoofdweg 14 9945PG Wagenborgen | 258.222 | 586.726 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AH | Hoofdweg 10 9945PG Wagenborgen | 258.236 | 586.722 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AI | Hoofdweg 8 9945PG Wagenborgen | 258.258 | 586.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AJ | Hoofdweg 6 9945PG Wagenborgen | 258.276 | 586.731 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AK | Hoofdweg 4 9945PG Wagenborgen | 258.298 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AL | Hoofdweg 21 9945PA Wagenborgen | 258.243 | 586.704 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AM | Hoofdweg 19 9945PA Wagenborgen | 258.272 | 586.709 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AN | Hoofdweg 2 9945PG Wagenborgen | 258.318 | 586.748 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AO | Hoofdweg 15 9945PA Wagenborgen | 258.311 | 586.705 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AP | Hoofdweg 9 9945PA Wagenborgen | 258.331 | 586.713 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AQ | Hoofdweg 11 9945PA Wagenborgen | 258.325 | 586.710 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AR | Hoofdweg 7 9945PA Wagenborgen | 258.338 | 586.725 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AS | Hoofdweg 5 9945PA Wagenborgen | 258.343 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AT | H.L. Emmensweg 17 9945PW Wagenborgen | 258.087 | 586.741 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AU | H.L. Emmensweg 18 9945PX Wagenborgen | 258.106 | 586.733 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AV | H.L. Emmensweg 20 9945PX Wagenborgen | 258.107 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AW | H.L. Emmensweg 22 9945PX Wagenborgen | 258.107 | 586.747 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AX | H.L. Emmensweg 24 9945PX Wagenborgen | 258.108 | 586.753 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AY | H.L. Emmensweg 26 9945PX Wagenborgen | 258.111 | 586.767 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AZ | H.L. Emmensweg 10 9945PX Wagenborgen | 258.103 | 586.698 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| B | Tolhek 4 9945TJ Wagenborgen | 259.289 | 587.610 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
3-2-2017 13:05/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| BA | H.L. Emmensweg 12 9945PX Wagenborgen | 258.103 | 586.704 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BB | H.L. Emmensweg 14 9945PX Wagenborgen | 258.104 | 586.711 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BC | H.L. Emmensweg 16 9945PX Wagenborgen | 258.105 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BD | H.L. Emmensweg 13 9945PW Wagenborgen | 258.085 | 586.719 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BE | H.L. Emmensweg 15 9945PW Wagenborgen | 258.086 | 586.725 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BF | H.L. Emmensweg 9 9945PW Wagenborgen | 258.083 | 586.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BG | H.L. Emmensweg 11 9945PW Wagenborgen | 258.084 | 586.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BH | H.L. Emmensweg 5 9945PW Wagenborgen | 258.081 | 586.681 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BI | H.L. Emmensweg 7 9945PW Wagenborgen | 258.082 | 586.687 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BJ | H.L. Emmensweg 4 9945PX Wagenborgen | 258.103 | 586.676 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BK | H.L. Emmensweg 2 9945PX Wagenborgen | 258.099 | 586.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BL | H.L. Emmensweg 1 9945PW Wagenborgen | 258.081 | 586.651 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BM | H.L. Emmensweg 3 9945PW Wagenborgen | 258.083 | 586.667 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BN | de Linden 4 9945PZ Wagenborgen | 258.042 | 586.733 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BO | de Linden 6 9945PZ Wagenborgen | 258.058 | 586.734 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BP | de Linden 10 9945PZ Wagenborgen | 258.040 | 586.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BQ | de Linden 12 9945PZ Wagenborgen | 258.021 | 586.721 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BR | de Linden 2 9945PZ Wagenborgen | 258.030 | 586.694 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BS | de Wilgen 12 9945RB Wagenborgen | 258.008 | 586.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BT | de Wilgen 10 9945RB Wagenborgen | 258.008 | 586.764 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BU | de Wilgen 8 9945RB Wagenborgen | 258.007 | 586.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BV | de Wilgen 2 9945RB Wagenborgen | 257.995 | 586.662 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BW | de Wilgen 4 9945RB Wagenborgen | 257.997 | 586.675 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BX | de Wilgen 6 9945RB Wagenborgen | 258.001 | 586.693 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BY | de Wilgen 6 A 9945RB Wagenborgen | 258.004 | 586.726 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BZ | de Wilgen 3 9945RB Wagenborgen | 257.975 | 586.694 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| C | Tolhek 1 9945TJ Wagenborgen | 259.114 | 587.301 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CA | de Wilgen 3 A 9945RB Wagenborgen | 257.977 | 586.713 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CB | de Wilgen 3 B 9945RB Wagenborgen | 257.977 | 586.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CC | de Wilgen 5 9945RB Wagenborgen | 257.973 | 586.766 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CD | de Wilgen 46 9945RB Wagenborgen | 258.036 | 586.921 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CE | de Wilgen 44 9945RB Wagenborgen | 258.036 | 586.927 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CF | de Wilgen 48 9945RB Wagenborgen | 258.034 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CG | de Wilgen 50 9945RB Wagenborgen | 258.034 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CH | de Wilgen 36 9945RB Wagenborgen | 258.060 | 586.908 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CI | de Wilgen 38 9945RB Wagenborgen | 258.059 | 586.915 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CJ | de Wilgen 40 9945RB Wagenborgen | 258.059 | 586.921 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CK | de Wilgen 42 9945RB Wagenborgen | 258.059 | 586.928 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CL | de Wilgen 28 9945RB Wagenborgen | 258.050 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CM | de Wilgen 30 9945RB Wagenborgen | 258.056 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CN | de Wilgen 32 9945RB Wagenborgen | 258.063 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CO | de Wilgen 34 9945RB Wagenborgen | 258.070 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CP | de Wilgen 24 9945TK Wagenborgen | 258.033 | 586.884 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CQ | de Wilgen 26 9945RB Wagenborgen | 258.039 | 586.886 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CR | de Wilgen 20 9945RB Wagenborgen | 258.019 | 586.866 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CS | de Wilgen 22 9945RB Wagenborgen | 258.019 | 586.872 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CT | de Wilgen 18 9945RB Wagenborgen | 258.016 | 586.853 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CU | de Wilgen 16 9945RB Wagenborgen | 258.015 | 586.837 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CV | de Wilgen 14 9945RB Wagenborgen | 258.014 | 586.813 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CW | de Wilgen 9 9945RB Wagenborgen | 257.970 | 586.829 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CX | de Wilgen 52 9945RB Wagenborgen | 258.167 | 587.083 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CY | Menterne 22 9945RA Wagenborgen | 257.891 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CZ | Menterne 18 9945RA Wagenborgen | 257.856 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| D | Familie Bronsweg 62 9945TA Wagenborgen | 258.389 | 587.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DA | Menterne 21 9945RA Wagenborgen | 257.884 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DB | Menterne 19 9945RA Wagenborgen | 257.863 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DC | Menterne 20 9945RA Wagenborgen | 257.876 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DD | Menterne 17 9945RA Wagenborgen | 257.849 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DE | Menterne 7 9945RA Wagenborgen | 257.896 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DF | Menterne 8 9945RA Wagenborgen | 257.889 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DG | Menterne 9 9945RA Wagenborgen | 257.882 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DH | Menterne 10 9945RA Wagenborgen | 257.875 | 586.913 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DI | Menterne 11 9945RA Wagenborgen | 257.893 | 586.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DJ | Menterne 12 9945RA Wagenborgen | 257.893 | 586.932 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
3-2-2017 13:05/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| DK | Menterne 13 9945RA Wagenborgen | 257.893 | 586.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DL | Menterne 14 9945RA Wagenborgen | 257.893 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DM | Menterne 1 9945RA Wagenborgen | 257.930 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DN | Menterne 2 9945RA Wagenborgen | 257.924 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DO | Menterne 3 9945RA Wagenborgen | 257.917 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DP | Menterne 4 9945RA Wagenborgen | 257.910 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DQ | Menterne 5 9945RA Wagenborgen | 257.899 | 586.883 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DR | Menterne 6 9945RA Wagenborgen | 257.899 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DS | Menterne 15 9945RA Wagenborgen | 257.866 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DT | Menterne 16 9945RA Wagenborgen | 257.866 | 586.952 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DU | de Berken 6 9945PT Wagenborgen | 258.085 | 586.768 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DV | de Berken 2 9945PT Wagenborgen | 258.040 | 586.782 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DW | de Berken 4 9945PT Wagenborgen | 258.061 | 586.783 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DX | de Berken 1 9945PT Wagenborgen | 258.038 | 586.808 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DY | de Berken 5 9945PT Wagenborgen | 258.087 | 586.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DZ | de Berken 7 9945PT Wagenborgen | 258.102 | 586.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| E | Meerweg 3 9945RC Wagenborgen | 257.540 | 587.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EA | de Berken 9 9945PT Wagenborgen | 258.109 | 586.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EB | de Eiken 14 9945VA Wagenborgen | 258.037 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EC | de Eiken 16 9945VA Wagenborgen | 258.044 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ED | de Eiken 2 9945VA Wagenborgen | 258.061 | 586.829 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EE | de Eiken 4 9945VA Wagenborgen | 258.061 | 586.836 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EF | de Eiken 6 9945VA Wagenborgen | 258.061 | 586.842 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EG | de Eiken 8 9945VA Wagenborgen | 258.062 | 586.853 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EH | de Eiken 10 9945VA Wagenborgen | 258.061 | 586.859 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EI | de Eiken 12 9945VA Wagenborgen | 258.061 | 586.866 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EJ | de Eiken 2 A 9945VA Wagenborgen | 258.065 | 586.807 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EK | Troostlaan 7 9945PV Wagenborgen | 258.200 | 586.801 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EL | Troostlaan 8 9945PV Wagenborgen | 258.187 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EM | Troostlaan 9 9945PV Wagenborgen | 258.172 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EN | Troostlaan 10 9945PV Wagenborgen | 258.153 | 586.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EO | Troostlaan 11 9945PV Wagenborgen | 258.142 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EP | Troostlaan 1 9945PV Wagenborgen | 258.204 | 586.736 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EQ | Troostlaan 2 9945PV Wagenborgen | 258.204 | 586.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ER | Troostlaan 3 9945PV Wagenborgen | 258.205 | 586.772 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ES | Troostlaan 2 A 9945PV Wagenborgen | 258.221 | 586.769 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ET | Troostlaan 4 9945PV Wagenborgen | 258.228 | 586.858 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EU | Troostlaan 14 9945PV Wagenborgen | 258.132 | 586.686 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EV | Troostlaan 22 9945PV Wagenborgen | 258.177 | 586.707 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EW | Troostlaan 20 9945PV Wagenborgen | 258.155 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EX | Troostlaan 21 9945PV Wagenborgen | 258.162 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EY | Troostlaan 18 9945PV Wagenborgen | 258.132 | 586.718 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EZ | Troostlaan 19 9945PV Wagenborgen | 258.139 | 586.718 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| F | G. Boelmanweg 2 9945RJ Wagenborgen | 258.181 | 586.579 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FA | Familie Bronsweg 40 9945PS Wagenborgen | 258.373 | 586.856 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FB | Familie Bronsweg 44 9945PS Wagenborgen | 258.373 | 586.900 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FC | Familie Bronsweg 46 9945PS Wagenborgen | 258.373 | 586.905 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FD | Familie Bronsweg 48 9945PS Wagenborgen | 258.375 | 586.919 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FE | Familie Bronsweg 50 9945PS Wagenborgen | 258.376 | 586.924 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FF | Familie Bronsweg 79 9945PP Wagenborgen | 258.360 | 586.991 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FG | Familie Bronsweg 81 9945PP Wagenborgen | 258.361 | 586.997 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FH | Familie Bronsweg 36 9945PS Wagenborgen | 258.377 | 586.815 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FI | Familie Bronsweg 38 9945PS Wagenborgen | 258.365 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FJ | Familie Bronsweg 42 9945PS Wagenborgen | 258.371 | 586.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FK | Familie Bronsweg 54 9945PS Wagenborgen | 258.390 | 587.021 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FL | Familie Bronsweg 52 9945PS Wagenborgen | 258.387 | 586.987 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FM | Familie Bronsweg 50 B 9945PS Wagenborgen | 258.384 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FN | Familie Bronsweg 50 A 9945PS Wagenborgen | 258.381 | 586.949 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FO | Familie Bronsweg 75 9945PP Wagenborgen | 258.353 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FP | Familie Bronsweg 75 A 9945PP Wagenborgen | 258.355 | 586.957 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FQ | Familie Bronsweg 75 B 9945PP Wagenborgen | 258.357 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FR | Familie Bronsweg 71 9945PP Wagenborgen | 258.349 | 586.917 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FS | Familie Bronsweg 69 A 9945PP Wagenborgen | 258.347 | 586.902 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FT | Familie Bronsweg 69 9945PP Wagenborgen | 258.344 | 586.888 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| FU | Familie Bronsweg 67 9945PP Wagenborgen | 258.342 | 586.873 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FV | Familie Bronsweg 65 9945PP Wagenborgen | 258.341 | 586.863 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FW | Familie Bronsweg 63 9945PP Wagenborgen | 258.338 | 586.850 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FX | Familie Bronsweg 61 9945PP Wagenborgen | 258.335 | 586.831 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FY | Familie Bronsweg 59 9945PP Wagenborgen | 258.334 | 586.816 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FZ | Familie Bronsweg 57 9945PP Wagenborgen | 258.332 | 586.805 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| G | G. Boelmanweg 3 9945RE Wagenborgen | 258.198 | 586.584 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GA | Familie Bronsweg 53 9945PP Wagenborgen | 258.332 | 586.793 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GB | Familie Bronsweg 73 9945PP Wagenborgen | 258.351 | 586.930 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GC | Familie Bronsweg 85 9945PP Wagenborgen | 258.372 | 587.065 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GD | Familie Bronsweg 83 9945PP Wagenborgen | 258.363 | 587.014 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GE | Familie Bronsweg 83 A 9945PP Wagenborgen | 258.365 | 587.034 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GF | Familie Bronsweg 77 9945PP Wagenborgen | 258.333 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GG | Familie Bronsweg 51 9945PP Wagenborgen | 258.389 | 586.776 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GH | Familie Bronsweg 2 9945PR Wagenborgen | 258.765 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GI | Familie Bronsweg 4 9945PR Wagenborgen | 258.743 | 586.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GJ | Familie Bronsweg 4 A 9945PR Wagenborgen | 258.723 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GK | Familie Bronsweg 6 9945PR Wagenborgen | 258.705 | 586.916 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GL | Familie Bronsweg 8 9945PR Wagenborgen | 258.677 | 586.901 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GM | Familie Bronsweg 10 9945PR Wagenborgen | 258.649 | 586.888 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GN | Familie Bronsweg 12 9945PR Wagenborgen | 258.620 | 586.864 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GO | Familie Bronsweg 14 9945PR Wagenborgen | 258.608 | 586.858 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GP | Familie Bronsweg 16 9945PR Wagenborgen | 258.597 | 586.852 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GQ | Familie Bronsweg 15 9945PN Wagenborgen | 258.511 | 586.783 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GR | Familie Bronsweg 17 9945PN Wagenborgen | 258.473 | 586.777 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GS | Familie Bronsweg 2 A 9945PR Wagenborgen | 258.786 | 587.001 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GT | Familie Bronsweg 2 B 9945PR Wagenborgen | 258.745 | 587.014 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GU | Familie Bronsweg 2 C 9945PR Wagenborgen | 258.710 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GV | Familie Bronsweg 2 D 9945PR Wagenborgen | 258.686 | 586.974 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GW | Familie Bronsweg 2 F 9945PR Wagenborgen | 258.671 | 586.991 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GX | Familie Bronsweg 2 G 9945PR Wagenborgen | 258.671 | 587.016 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GY | Familie Bronsweg 2 H 9945PR Wagenborgen | 258.696 | 587.012 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GZ | Familie Bronsweg 2 J 9945PR Wagenborgen | 258.717 | 587.009 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| H | G. Boelmanweg 5 9945RE Wagenborgen | 258.203 | 586.561 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HA | Akeleistraat 17 9945VD Wagenborgen | 258.515 | 587.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HB | Akeleistraat 19 9945VD Wagenborgen | 258.505 | 587.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HC | Akeleistraat 21 9945VD Wagenborgen | 258.486 | 587.050 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HD | Akeleistraat 23 9945VD Wagenborgen | 258.477 | 587.051 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HE | Akeleistraat 20 9945VD Wagenborgen | 258.448 | 587.022 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HF | Akeleistraat 22 9945VD Wagenborgen | 258.439 | 587.022 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HG | Akeleistraat 16 9945VD Wagenborgen | 258.477 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HH | Akeleistraat 18 9945VD Wagenborgen | 258.467 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HI | Akeleistraat 12 9945VD Wagenborgen | 258.506 | 587.013 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HJ | Akeleistraat 14 9945VD Wagenborgen | 258.496 | 587.013 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HK | Akeleistraat 10 9945VD Wagenborgen | 258.532 | 587.007 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HL | Akeleistraat 1 9945VD Wagenborgen | 258.634 | 587.024 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HM | Akeleistraat 3 9945VD Wagenborgen | 258.625 | 587.021 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HN | Akeleistraat 5 9945VD Wagenborgen | 258.604 | 587.023 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HO | Akeleistraat 7 9945VD Wagenborgen | 258.595 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HP | Akeleistraat 9 9945VD Wagenborgen | 258.574 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HQ | Akeleistraat 11 9945VD Wagenborgen | 258.565 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HR | Akeleistraat 2 9945VD Wagenborgen | 258.626 | 586.998 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HS | Akeleistraat 4 9945VD Wagenborgen | 258.617 | 586.995 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HT | Akeleistraat 6 9945VD Wagenborgen | 258.597 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HU | Akeleistraat 8 9945VD Wagenborgen | 258.588 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HV | Akeleistraat 15 9945VD Wagenborgen | 258.535 | 587.045 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HW | Bremstraat 6 9945VC Wagenborgen | 258.522 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HX | Bremstraat 2 9945VC Wagenborgen | 258.570 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HY | Bremstraat 4 9945VC Wagenborgen | 258.545 | 586.969 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HZ | Bremstraat 12 9945VC Wagenborgen | 258.448 | 586.982 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| I | G. Boelmanweg 4 9945RJ Wagenborgen | 258.168 | 586.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IA | Hibiscusstraat 30 9945VB Wagenborgen | 258.633 | 586.942 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IB | Hibiscusstraat 2 9945VB Wagenborgen | 258.428 | 586.818 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IC | Hibiscusstraat 4 9945VB Wagenborgen | 258.449 | 586.865 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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3-2-2017 13:05/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| ID | Hibiscusstraat 10 9945VB Wagenborgen | 258.426 | 586.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IE | Hibiscusstraat 16 9945VB Wagenborgen | 258.482 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IF | Bremstraat 14 9945VC Wagenborgen | 258.428 | 586.984 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IG | Hibiscusstraat 6 9945VB Wagenborgen | 258.417 | 586.860 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IH | Hibiscusstraat 26 9945VB Wagenborgen | 258.608 | 586.953 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| II | Kopaf 8 9945TE Wagenborgen | 259.518 | 587.109 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IJ | Kopaf 7 9945TE Wagenborgen | 259.555 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IK | Kopaf 6 9945TE Wagenborgen | 259.575 | 587.100 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IL | Kloosterlaan 27 9945TG Wagenborgen | 259.558 | 587.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IM | Kloosterlaan 25 9945TG Wagenborgen | 259.567 | 587.793 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IN | Kloosterlaan 23 9945TG Wagenborgen | 259.592 | 587.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IO | Scheve Klap 5 9945TD Wagenborgen | 260.522 | 587.264 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IP | Scheve Klap 4 9945TD Wagenborgen | 260.493 | 587.154 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IQ | Hibiscusstraat 8 9945VB Wagenborgen | 258.420 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IR | Hibiscusstraat 12 9945VB Wagenborgen | 258.431 | 586.945 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IS | Hibiscusstraat 18 9945VB Wagenborgen | 258.503 | 586.931 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IT | Hibiscusstraat 24 9945VB Wagenborgen | 258.612 | 586.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IU | Hibiscusstraat 22 9945VB Wagenborgen | 258.583 | 586.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IV | Troostlaan 15 9945PV Wagenborgen | 258.151 | 586.693 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IW | Bremstraat 10 9945VC Wagenborgen | 258.473 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IX | Hibiscusstraat 20 9945VB Wagenborgen | 258.529 | 586.931 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IY | Hibiscusstraat 28 9945VB Wagenborgen | 258.622 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IZ | Troostlaan 5 9945PV Wagenborgen | 258.189 | 586.911 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| J | G. Boelmanweg 7 9945RE Wagenborgen | 258.198 | 586.536 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JA | Troostlaan 6 9945PV Wagenborgen | 258.249 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JB | Boslaan 5 9945TM Wagenborgen | 259.413 | 587.123 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JC | Hoofdweg 33 A 9945PB Wagenborgen | 258.174 | 586.602 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JD | Akeleistraat 13 9945VD Wagenborgen | 258.569 | 587.057 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JE | Hoofdweg 42 9945PG Wagenborgen | 258.103 | 586.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JF | Familie Bronsweg 2 E 9945PR Wagenborgen | 258.670 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JG | Hibiscusstraat 14 9945VB Wagenborgen | 258.456 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JH | Bremstraat 8 9945VC Wagenborgen | 258.502 | 586.974 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JI | Menterne 23 003 9945RA Wagenborgen | 257.949 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JJ | Menterne 23 004 9945RA Wagenborgen | 257.949 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JK | Menterne 23 005 9945RA Wagenborgen | 257.948 | 586.990 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JL | Menterne 23 006 9945RA Wagenborgen | 257.948 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JM | Menterne 23 007 9945RA Wagenborgen | 257.960 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JN | Menterne 23 008 9945RA Wagenborgen | 257.960 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JO | Menterne 23 009 9945RA Wagenborgen | 257.960 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JP | Menterne 23 010 9945RA Wagenborgen | 257.961 | 586.988 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JQ | Menterne 23 017 9945RA Wagenborgen | 257.971 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JR | Menterne 23 030 9945RA Wagenborgen | 257.958 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JS | Menterne 23 103 9945RA Wagenborgen | 257.951 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JT | Menterne 23 104 9945RA Wagenborgen | 257.951 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JU | Menterne 23 105 9945RA Wagenborgen | 257.951 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JV | Menterne 23 106 9945RA Wagenborgen | 257.950 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JW | Menterne 23 107 9945RA Wagenborgen | 257.958 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JX | Menterne 23 108 9945RA Wagenborgen | 257.958 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JY | Menterne 23 109 9945RA Wagenborgen | 257.958 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JZ | Menterne 23 110 9945RA Wagenborgen | 257.958 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| K | G. Boelmanweg 6 9945RJ Wagenborgen | 258.176 | 586.541 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KA | Menterne 23 111 9945RA Wagenborgen | 257.959 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KB | Menterne 23 113 9945RA Wagenborgen | 257.967 | 586.972 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KC | Menterne 23 114 9945RA Wagenborgen | 257.967 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KD | Menterne 23 115 9945RA Wagenborgen | 257.967 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KE | Menterne 23 116 9945RA Wagenborgen | 257.968 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KF | Menterne 23 117 9945RA Wagenborgen | 257.968 | 586.957 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KG | Menterne 23 118 9945RA Wagenborgen | 257.968 | 586.953 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KH | Menterne 23 119 9945RA Wagenborgen | 257.967 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KI | Menterne 23 120 9945RA Wagenborgen | 257.968 | 586.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KJ | Menterne 23 121 9945RA Wagenborgen | 257.968 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KK | Menterne 23 122 9945RA Wagenborgen | 257.968 | 586.936 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KL | Menterne 23 123 9945RA Wagenborgen | 257.968 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KM | Menterne 23 124 9945RA Wagenborgen | 257.968 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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3-2-2017 13:05/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| KN | Menterne 23 125 9945RA Wagenborgen | 257.956 | 586.930 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KO | Menterne 23 126 9945RA Wagenborgen | 257.956 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KP | Menterne 23 127 9945RA Wagenborgen | 257.956 | 586.937 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KQ | Menterne 23 128 9945RA Wagenborgen | 257.956 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KR | Menterne 23 129 9945RA Wagenborgen | 257.956 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KS | Menterne 23 130 9945RA Wagenborgen | 257.961 | 586.958 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KT | Menterne 23 131 9945RA Wagenborgen | 257.961 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KU | Menterne 23 132 9945RA Wagenborgen | 257.960 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KV | Menterne 23 201 9945RA Wagenborgen | 257.953 | 586.973 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KW | Menterne 23 202 9945RA Wagenborgen | 257.953 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KX | Menterne 23 203 9945RA Wagenborgen | 257.953 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KY | Menterne 23 204 9945RA Wagenborgen | 257.953 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KZ | Menterne 23 205 9945RA Wagenborgen | 257.953 | 586.990 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| L | Kokslaan 1 9945RD Wagenborgen | 258.257 | 586.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LA | Menterne 23 206 9945RA Wagenborgen | 257.953 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LB | Menterne 23 207 9945RA Wagenborgen | 257.956 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LC | Menterne 23 208 9945RA Wagenborgen | 257.956 | 586.995 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LD | Menterne 23 209 9945RA Wagenborgen | 257.956 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LE | Menterne 23 210 9945RA Wagenborgen | 257.956 | 586.988 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LF | Menterne 23 211 9945RA Wagenborgen | 257.957 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LG | Menterne 23 212 9945RA Wagenborgen | 257.957 | 586.981 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LH | Menterne 23 213 9945RA Wagenborgen | 257.964 | 586.972 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LI | Menterne 23 214 9945RA Wagenborgen | 257.965 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LJ | Menterne 23 215 9945RA Wagenborgen | 257.965 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LK | Menterne 23 216 9945RA Wagenborgen | 257.965 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LL | Menterne 23 217 9945RA Wagenborgen | 257.965 | 586.956 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LM | Menterne 23 218 9945RA Wagenborgen | 257.965 | 586.954 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LN | Menterne 23 219 9945RA Wagenborgen | 257.965 | 586.947 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LO | Menterne 23 220 9945RA Wagenborgen | 257.965 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LP | Menterne 23 221 9945RA Wagenborgen | 257.965 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LQ | Menterne 23 222 9945RA Wagenborgen | 257.965 | 586.937 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LR | Menterne 23 223 9945RA Wagenborgen | 257.965 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LS | Menterne 23 224 9945RA Wagenborgen | 257.966 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LT | Menterne 23 226 9945RA Wagenborgen | 257.959 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LU | Menterne 23 228 9945RA Wagenborgen | 257.958 | 586.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LV | Menterne 23 229 9945RA Wagenborgen | 257.958 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LW | Menterne 23 230 9945RA Wagenborgen | 257.962 | 586.958 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LX | Menterne 23 231 9945RA Wagenborgen | 257.962 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LY | Menterne 23 232 9945RA Wagenborgen | 257.962 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LZ | G. Boelmanweg 1 9945RE Wagenborgen | 258.213 | 586.607 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| M | Kokslaan 2 9945RD Wagenborgen | 258.279 | 586.598 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MA | Boslaan 7 9945TM Wagenborgen | 259.467 | 586.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MB | H.L. Emmensweg 23 9945PW Wagenborgen | 258.086 | 586.747 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MC | Kopaf 5 9944VA Nieuwolda | 259.816 | 586.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MD | Familie Bronsweg 68 9945TA Wagenborgen | 258.470 | 588.333 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ME | Maarkampen 26 9937PL Meedhuizen | 256.956 | 590.088 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MF | Maarkampen 24 9937PL Meedhuizen | 256.931 | 590.090 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MG | Maarkampen 22 9937PL Meedhuizen | 256.916 | 590.093 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MH | Maarkampen 20 9937PL Meedhuizen | 256.898 | 590.098 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MI | Maarkampen 18 9937PL Meedhuizen | 256.878 | 590.101 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MJ | Maarkampen 16 9937PL Meedhuizen | 256.858 | 590.104 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MK | Maarkampen 14 9937PL Meedhuizen | 256.838 | 590.106 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ML | Maarlaan 22 E 9937TH Meedhuizen | 256.932 | 590.173 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MM | Maarlaan 22 D 9937TH Meedhuizen | 256.877 | 590.178 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MN | Schaapbulterweg 8 9937TL Meedhuizen | 256.971 | 589.534 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MO | Schaapbulterweg 6 9937TL Meedhuizen | 256.919 | 589.544 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MP | Schaapbulterweg 29 9937TL Meedhuizen | 256.970 | 589.489 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MQ | Schaapbulterweg 27 9937TL Meedhuizen | 256.949 | 589.497 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MR | Schaapbulterweg 25 9937TL Meedhuizen | 256.935 | 589.503 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MS | Schaapbulterweg 23 9937TL Meedhuizen | 256.920 | 589.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MT | Schaapbulterweg 21 9937TL Meedhuizen | 256.908 | 589.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MU | Geefsweersterweg 11 9937TB Meedhuizen | 257.472 | 591.162 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MV | Schaapbulterweg 35 9937TL Meedhuizen | 257.159 | 589.455 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MW | Meedhuizerweg 20 9937TK Meedhuizen | 257.017 | 590.790 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
3-2-2017 13:05/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| MX | Familie Bronsweg 66 9945TA Wagenborgen | 258.538 | 588.146 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MY | Familie Bronsweg 64 9945TA Wagenborgen | 258.518 | 588.056 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MZ | Ideweersterweg 10 9937TM Meedhuizen | 257.794 | 589.376 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| N | Kerkstraat 1 9945SB Wagenborgen | 258.120 | 586.579 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NA | Ideweersterweg 8 9937TM Meedhuizen | 257.916 | 589.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NB | Geefsweersterweg 20 9937TC Meedhuizen | 258.111 | 588.986 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NC | Geefsweersterweg 18 9937TC Meedhuizen | 258.066 | 589.025 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ND | Geefsweersterweg 29 9937TB Meedhuizen | 258.051 | 588.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NE | Geefsweersterweg 16 9937TC Meedhuizen | 258.011 | 589.140 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NF | Geefsweersterweg 23 9937TB Meedhuizen | 257.998 | 589.209 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NG | Geefsweersterweg 12 9937TC Meedhuizen | 258.033 | 589.285 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NH | Geefsweersterweg 14 9937TC Meedhuizen | 258.028 | 589.261 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NI | Geefsweersterweg 21 A 9937TB Meedhuizen | 258.002 | 589.266 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NJ | Geefsweersterweg 10 9937TC Meedhuizen | 258.042 | 589.339 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NK | Geefsweersterweg 21 9937TB Meedhuizen | 258.025 | 589.335 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NL | Geefsweersterweg 17 9937TB Meedhuizen | 258.035 | 589.424 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NM | Geefsweersterweg 19 9937TB Meedhuizen | 258.023 | 589.378 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NN | Ideweersterweg 2 9937TM Meedhuizen | 259.329 | 589.348 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NO | Ideweersterweg 1 9937TM Meedhuizen | 259.330 | 589.303 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NP | Geefsweersterweg 15 9937TB Meedhuizen | 257.994 | 590.149 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NQ | Westerlaan 6 9937TS Meedhuizen | 258.650 | 590.176 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NR | Familie Bronsweg 87 9945TA Wagenborgen | 258.255 | 588.149 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NS | Familie Bronsweg 89 9945TA Wagenborgen | 258.288 | 588.393 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NT | Westerlaan 10 9937TS Meedhuizen | 258.640 | 588.541 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NU | Geefsweersterweg 13 9937TB Meedhuizen | 257.998 | 590.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NV | Maarlaan 26 9937TH Meedhuizen | 257.044 | 590.228 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NW | Maarlaan 24 9937TH Meedhuizen | 256.988 | 590.171 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NX | Maarlaan 28 9937TH Meedhuizen | 257.042 | 590.160 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NY | Maarlaan 30 9937TH Meedhuizen | 257.109 | 590.155 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NZ | Kerklaan 3 9937PG Meedhuizen | 257.099 | 589.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| O | Hoofdweg 30 9945PG Wagenborgen | 258.190 | 586.634 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OA | Kerklaan 8 9937PG Meedhuizen | 257.192 | 589.983 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OB | Kerklaan 6 9937PG Meedhuizen | 257.151 | 590.090 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OC | Opmeedenlaan 6 9937TN Meedhuizen | 256.970 | 588.781 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OD | Opmeedenlaan 4 9937TN Meedhuizen | 256.988 | 588.863 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OE | Opmeedenlaan 2 9937TN Meedhuizen | 257.043 | 588.932 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OF | Kloosterlaan 26 9945TG Wagenborgen | 260.046 | 588.262 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OG | Zomerdijk 1 9945TH Wagenborgen | 260.153 | 588.395 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OH | Zomerdijk 3 9945TH Wagenborgen | 260.454 | 588.375 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OI | Zomerdijk 3 A 9945TH Wagenborgen | 260.560 | 588.321 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OJ | Zomerdijk 2 9945TH Wagenborgen | 260.721 | 588.388 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OK | Kloosterlaan 21 A 9945TG Wagenborgen | 259.991 | 588.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OL | Kloosterlaan 21 B 9945TG Wagenborgen | 259.957 | 588.308 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OM | Ideweersterweg 4 9937TM Meedhuizen | 258.658 | 589.400 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ON | Maarlaan 22 C 9937TH Meedhuizen | 256.840 | 590.186 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OO | Kloosterlaan 21 9936TE Farmsum | 260.253 | 589.832 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OP | Geefsweersterweg 8 A 9937TC Meedhuizen | 258.072 | 590.685 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OQ | Houtweg 20 9936BL Farmsum | 257.300 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OR | Houtweg 22 9936BL Farmsum | 257.298 | 593.542 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OS | Houtweg 24 9936BL Farmsum | 257.297 | 593.528 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OT | Houtweg 26 9936BL Farmsum | 257.296 | 593.515 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OU | Houtweg 28 9936BL Farmsum | 257.294 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OV | Rondeboslaan 6 9936BK Farmsum | 257.466 | 593.590 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OW | Proosdij 14 9936EW Farmsum | 257.893 | 593.570 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OX | Bredelaan 6 9936ER Farmsum | 257.806 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OY | Bredelaan 4 9936ER Farmsum | 257.804 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OZ | Bredelaan 2 A 9936ER Farmsum | 257.802 | 593.559 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| P | Hoofdweg 32 9945PG Wagenborgen | 258.177 | 586.629 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PA | Proosdij 24 9936EW Farmsum | 257.913 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PB | Proosdij 22 9936EW Farmsum | 257.910 | 593.522 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PC | Proosdij 20 9936EW Farmsum | 257.906 | 593.533 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PD | Proosdij 18 9936EW Farmsum | 257.901 | 593.549 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PE | Proosdij 16 9936EW Farmsum | 257.899 | 593.554 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PF | Trambaan 19 9936ES Farmsum | 257.863 | 593.507 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| PG | Proosdij 17 9936ET Farmsum | 257.864 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PH | Proosdij 15 9936ET Farmsum | 257.862 | 593.560 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PI | Proosdij 13 9936ET Farmsum | 257.859 | 593.568 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PJ | Trambaan 17 9936ES Farmsum | 257.856 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PK | Trambaan 15 9936ES Farmsum | 257.849 | 593.520 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PL | Trambaan 13 9936ES Farmsum | 257.844 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PM | Trambaan 11 9936ES Farmsum | 257.839 | 593.530 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PN | Trambaan 9 9936ES Farmsum | 257.833 | 593.536 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PO | Trambaan 5 9936ES Farmsum | 257.825 | 593.544 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PP | Trambaan 3 9936ES Farmsum | 257.818 | 593.551 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PQ | Trambaan 1 9936ES Farmsum | 257.814 | 593.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PR | Proosdij 12 9936EW Farmsum | 257.888 | 593.590 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PS | Proosdij 8 9936EW Farmsum | 257.881 | 593.604 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PT | Proosdij 6 9936EW Farmsum | 257.876 | 593.616 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PU | Proosdij 4 9936EW Farmsum | 257.872 | 593.630 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PV | Proosdij 11 9936ET Farmsum | 257.856 | 593.577 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PW | Proosdij 9 9936ET Farmsum | 257.853 | 593.584 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PX | Proosdij 7 9936ET Farmsum | 257.849 | 593.596 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PY | Proosdij 5 9936ET Farmsum | 257.846 | 593.605 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PZ | Proosdij 1 9936ET Farmsum | 257.839 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Q | Hoofdweg 31 9945PA Wagenborgen | 258.210 | 586.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QA | Proosdij 3 9936ET Farmsum | 257.844 | 593.611 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QB | Farmsumerzijl 55 9936GC Farmsum | 257.821 | 593.640 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QC | Farmsumerzijl 57 9936GC Farmsum | 257.800 | 593.636 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QD | Rengersweg 4 9936GH Farmsum | 258.026 | 593.578 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QE | Rengersweg 2 9936GH Farmsum | 258.026 | 593.587 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QF | Schepperij 4 A 9936GN Farmsum | 258.046 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QG | Schepperij 2 A 9936GN Farmsum | 258.033 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QH | Schepperij 4 9936GN Farmsum | 258.040 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QI | Schepperij 2 9936GN Farmsum | 258.027 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QJ | Dijkrecht 4 9936GK Farmsum | 258.021 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QK | Dijkrecht 6 9936GK Farmsum | 258.035 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QL | Dijkrecht 10 9936GK Farmsum | 258.054 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QM | Dijkrecht 12 9936GK Farmsum | 258.061 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QN | Dijkrecht 14 9936GK Farmsum | 258.074 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QO | Dijkrecht 16 9936GK Farmsum | 258.081 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QP | Dijkrecht 18 9936GK Farmsum | 258.095 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QQ | Dijkrecht 20 9936GK Farmsum | 258.107 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QR | Dijkrecht 22 9936GK Farmsum | 258.123 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QS | Dijkrecht 24 9936GK Farmsum | 258.138 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QT | Dijkrecht 26 9936GK Farmsum | 258.159 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QU | Dijkrecht 28 9936GK Farmsum | 258.166 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QV | Dijkrecht 30 9936GK Farmsum | 258.186 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QW | Dijkrecht 32 9936GK Farmsum | 258.192 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QX | Dijkrecht 34 9936GK Farmsum | 258.206 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QY | Dijkrecht 36 9936GK Farmsum | 258.213 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QZ | Dijkrecht 40 9936GK Farmsum | 258.233 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| R | Hoofdweg 38 9945PG Wagenborgen | 258.142 | 586.621 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RA | Dijkrecht 38 9936GK Farmsum | 258.227 | 593.624 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RB | Schepperij 20 9936GN Farmsum | 258.190 | 593.563 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RC | Schepperij 18 9936GN Farmsum | 258.184 | 593.563 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RD | Waarman 12 9936GW Farmsum | 258.263 | 593.622 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RE | Waarman 10 9936GW Farmsum | 258.263 | 593.629 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RF | Waarman 8 9936GW Farmsum | 258.265 | 593.641 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RG | Waarman 6 9936GW Farmsum | 258.265 | 593.648 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RH | Farmsumerzijl 1 9936GB Farmsum | 258.234 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RI | Farmsumerzijl 3 9936GB Farmsum | 258.227 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RJ | Farmsumerzijl 5 9936GB Farmsum | 258.213 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RK | Farmsumerzijl 7 9936GB Farmsum | 258.207 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RL | Farmsumerzijl 13 9936GB Farmsum | 258.172 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RM | Farmsumerzijl 15 9936GB Farmsum | 258.166 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RN | Farmsumerzijl 17 9936GB Farmsum | 258.152 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RO | Farmsumerzijl 19 9936GB Farmsum | 258.146 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RP | Farmsumerzijl 25 9936GB Farmsum | 258.115 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
3-2-2017 13:05/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| RQ | Farmsumerzijl 27 9936GB Farmsum | 258.108 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RR | Farmsumerzijl 29 9936GB Farmsum | 258.096 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RS | Farmsumerzijl 31 9936GC Farmsum | 258.089 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RT | Farmsumerzijl 37 9936GC Farmsum | 258.057 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RU | Farmsumerzijl 39 9936GC Farmsum | 258.050 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RV | Farmsumerzijl 41 9936GC Farmsum | 258.037 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RW | Farmsumerzijl 43 9936GC Farmsum | 258.031 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RX | Schepperij 1 9936GL Farmsum | 258.054 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RY | Schepperij 3 9936GL Farmsum | 258.060 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RZ | Schepperij 5 9936GL Farmsum | 258.066 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| S | Hoofdweg 39 9945PB Wagenborgen | 258.126 | 586.603 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SA | Schepperij 7 9936GL Farmsum | 258.072 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SB | Schepperij 9 9936GL Farmsum | 258.078 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SC | Schepperij 11 9936GL Farmsum | 258.084 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SD | Schepperij 13 9936GL Farmsum | 258.090 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SE | Schepperij 15 9936GL Farmsum | 258.097 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SF | Dijkrecht 8 9936GK Farmsum | 258.041 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SG | Geefsweersterweg 9 9937TB Meedhuizen | 257.539 | 591.945 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SH | Geefsweersterweg 7 9937TB Meedhuizen | 258.115 | 592.341 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SI | Geefsweersterweg 8 9937TC Meedhuizen | 258.139 | 592.234 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SJ | Geefsweersterweg 3 9937TB Meedhuizen | 258.102 | 592.452 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SK | Geefsweersterweg 6 9937TC Meedhuizen | 258.202 | 592.502 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SL | Geefsweersterweg 4 9937TC Meedhuizen | 258.243 | 592.643 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SM | Meedhuizerweg 2 9937TK Meedhuizen | 256.911 | 592.415 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SN | Molenstraat 31 9936EB Farmsum | 257.786 | 593.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SO | Hindrik Jagerstraat 32 9936CV Farmsum | 257.573 | 593.810 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SP | Hindrik Jagerstraat 11 9936CT Farmsum | 257.561 | 593.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SQ | Hindrik Jagerstraat 13 9936CT Farmsum | 257.568 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SR | Hindrik Jagerstraat 15 9936CT Farmsum | 257.574 | 593.790 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SS | Hindrik Jagerstraat 34 9936CV Farmsum | 257.581 | 593.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ST | Hindrik Jagerstraat 36 9936CV Farmsum | 257.587 | 593.799 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SU | Borgshof 31 9936CR Farmsum | 257.617 | 593.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SV | Borgshof 33 9936CR Farmsum | 257.615 | 593.807 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SW | Borgshof 39 9936CR Farmsum | 257.605 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SX | Borgshof 35 9936CR Farmsum | 257.604 | 593.768 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SY | Molenstraat 20 9936EC Farmsum | 257.801 | 593.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SZ | Molenstraat 24 9936EC Farmsum | 257.812 | 593.926 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| T | Hoofdweg 35 9945PB Wagenborgen | 258.160 | 586.604 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TA | Molenstraat 28 9936EC Farmsum | 257.817 | 593.918 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TB | Molenstraat 41 9936EB Farmsum | 257.798 | 593.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TC | Molenstraat 43 9936EB Farmsum | 257.802 | 593.918 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TD | Molenstraat 45 9936EB Farmsum | 257.807 | 593.910 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TE | Molenstraat 32 9936EC Farmsum | 257.821 | 593.908 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TF | Achterweg 13 9936EG Farmsum | 257.848 | 593.913 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TG | Achterweg 11 9936EG Farmsum | 257.855 | 593.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TH | Achterweg 9 9936EG Farmsum | 257.861 | 593.915 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TI | Molenstraat 49 9936EB Farmsum | 257.809 | 593.905 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TJ | Molenstraat 51 9936EB Farmsum | 257.812 | 593.900 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TK | Molenstraat 53 9936EB Farmsum | 257.815 | 593.894 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TL | Molenstraat 57 9936EB Farmsum | 257.819 | 593.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TM | Molenstraat 61 9936EB Farmsum | 257.826 | 593.870 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TN | Molenstraat 63 9936EB Farmsum | 257.830 | 593.861 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TO | Molenstraat 34 9936ED Farmsum | 257.827 | 593.897 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TP | Molenstraat 38 9936ED Farmsum | 257.832 | 593.886 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TQ | Molenstraat 40 9936ED Farmsum | 257.835 | 593.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TR | Molenstraat 42 9936ED Farmsum | 257.837 | 593.870 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TS | Molenstraat 44 9936ED Farmsum | 257.842 | 593.859 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TT | Molenstraat 65 9936EB Farmsum | 257.834 | 593.850 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TU | Molenstraat 48 9936ED Farmsum | 257.847 | 593.847 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TV | Molenstraat 50 9936ED Farmsum | 257.850 | 593.837 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TW | Molenstraat 56 9936ED Farmsum | 257.851 | 593.824 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TX | Molenstraat 58 9936EE Farmsum | 257.863 | 593.810 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TY | Molenstraat 62 9936EE Farmsum | 257.858 | 593.798 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TZ | Molenstraat 72 9936EE Farmsum | 257.855 | 593.753 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
3-2-2017 13:05/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| U | Hoofdweg 37 9945PB Wagenborgen | 258.149 | 586.603 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UA | Molenstraat 70 9936EE Farmsum | 257.854 | 593.758 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UB | Molenstraat 68 9936EE Farmsum | 257.854 | 593.765 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UC | Molenstraat 66 9936EE Farmsum | 257.854 | 593.773 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UD | Achterweg 2 9936EG Farmsum | 257.886 | 593.882 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UE | Achterweg 12 9936EG Farmsum | 257.919 | 593.766 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UF | Achterweg 10 9936EG Farmsum | 257.918 | 593.779 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UG | Achterweg 8 9936EG Farmsum | 257.916 | 593.791 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UH | Hindrik Jagerstraat 17 9936CT Farmsum | 257.588 | 593.777 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UI | Molenstraat 30 9936EC Farmsum | 257.820 | 593.912 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UJ | Borgweg 141 9936EN Farmsum | 257.451 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UK | Borgweg 139 9936EN Farmsum | 257.466 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UL | Borgweg 137 9936EN Farmsum | 257.473 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UM | Borgweg 135 9936EN Farmsum | 257.487 | 593.708 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UN | Afwateringskanaal 109 9936AV Farmsum | 257.508 | 593.724 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UO | Borgweg 131 9936EM Farmsum | 257.636 | 593.714 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UP | Borgweg 133 9936EM Farmsum | 257.581 | 593.701 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UQ | Borgshof 41 9936CR Farmsum | 257.598 | 593.743 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UR | Borgshof 43 9936CR Farmsum | 257.595 | 593.730 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| US | Borgshof 45 9936CR Farmsum | 257.594 | 593.720 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UT | Molenstraat 74 9936EE Farmsum | 257.855 | 593.743 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UU | Molenstraat 76 9936EE Farmsum | 257.857 | 593.736 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UV | Molenstraat 78 9936EE Farmsum | 257.858 | 593.730 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UW | Molenstraat 82 9936EE Farmsum | 257.858 | 593.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UX | Molenstraat 84 9936EE Farmsum | 257.858 | 593.708 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UY | Borgweg 123 9936EM Farmsum | 257.927 | 593.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UZ | Borgweg 125 9936EM Farmsum | 257.917 | 593.698 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| V | Hoofdweg 44 9945PH Wagenborgen | 258.071 | 586.624 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VA | Borgweg 127 9936EM Farmsum | 257.906 | 593.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VB | Borgweg 129 9936EM Farmsum | 257.897 | 593.699 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VC | Farmsumerzijl 51 9936GC Farmsum | 257.925 | 593.665 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VD | Molenstraat 80 9936EE Farmsum | 257.858 | 593.723 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VE | Houtweg 30 9936BL Farmsum | 257.294 | 593.486 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VF | Houtweg 32 9936BL Farmsum | 257.292 | 593.473 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VG | Houtweg 34 9936BL Farmsum | 257.291 | 593.459 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VH | Houtweg 36 9936BL Farmsum | 257.289 | 593.446 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VI | Houtweg 38 9936BL Farmsum | 257.288 | 593.429 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VJ | Houtweg 40 9936BL Farmsum | 257.261 | 593.394 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VK | Houtweg 42 9936BL Farmsum | 257.257 | 593.387 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VL | Houtweg 44 9936BL Farmsum | 257.250 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VM | Houtweg 46 9936BL Farmsum | 257.248 | 593.372 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VN | Houtweg 48 9936BL Farmsum | 257.240 | 593.359 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VO | Rondeboslaan 26 9936BK Farmsum | 257.440 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VP | Rondeboslaan 28 9936BK Farmsum | 257.438 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VQ | Seendweg 32 9936GA Farmsum | 257.903 | 593.454 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VR | Trambaan 21 9936ES Farmsum | 257.870 | 593.499 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VS | Proosdij 19 9936ET Farmsum | 257.892 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VT | Bredelaan 14 9936ER Farmsum | 257.814 | 593.354 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VU | Bredelaan 10 9936ER Farmsum | 257.808 | 593.470 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VV | Bredelaan 8 9936ER Farmsum | 257.807 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VW | Seendweg 22 9936GA Farmsum | 257.897 | 593.364 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VX | Seendweg 28 9936GA Farmsum | 257.898 | 593.405 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VY | Proosdij 28 9936EW Farmsum | 257.922 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VZ | Proosdij 30 9936EX Farmsum | 257.932 | 593.484 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| W | Hoofdweg 48 9945PH Wagenborgen | 258.051 | 586.630 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WA | Proosdij 26 9936EW Farmsum | 257.919 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WB | Afwateringskanaal 107 9936AV Farmsum | 257.499 | 593.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WC | Rondeboslaan 22 A 9936BK Farmsum | 257.532 | 593.326 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WD | Rondeboslaan 22 B 9936BK Farmsum | 257.532 | 593.320 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WE | Rondeboslaan 2 A 9936BK Farmsum | 257.534 | 593.639 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WF | Rondeboslaan 2 B 9936BK Farmsum | 257.493 | 593.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WG | Seendweg 17 9936GA Farmsum | 257.931 | 593.394 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WH | Borgshof 29 9936CR Farmsum | 257.619 | 593.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WI | Molenstraat 22 9936EC Farmsum | 257.808 | 593.935 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
3-2-2017 13:05/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| WJ | Achterweg 7 A 9936EG Farmsum | 257.858 | 593.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WK | Molenstraat 26 9936EC Farmsum | 257.814 | 593.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WL | Borgweg 113 9936EM Farmsum | 257.957 | 593.782 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WM | Borgweg 115 9936EM Farmsum | 257.968 | 593.707 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WN | Borgweg 117 9936EM Farmsum | 257.959 | 593.705 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WO | Borgweg 119 9936EM Farmsum | 257.947 | 593.703 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WP | Borgweg 121 9936EM Farmsum | 257.938 | 593.701 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WQ | Farmsumerzijl 45 9936GC Farmsum | 257.966 | 593.671 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WR | Farmsumerzijl 47 9936GC Farmsum | 257.947 | 593.667 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WS | Farmsumerzijl 49 9936GC Farmsum | 257.933 | 593.666 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WT | Waarman 4 9936GW Farmsum | 258.267 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WU | Waarman 2 9936GW Farmsum | 258.267 | 593.668 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WV | Farmsumerzijl 9 9936GB Farmsum | 258.192 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WW | Farmsumerzijl 11 9936GB Farmsum | 258.186 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WX | Farmsumerzijl 21 9936GB Farmsum | 258.134 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WY | Farmsumerzijl 23 9936GB Farmsum | 258.126 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WZ | Farmsumerzijl 33 9936GC Farmsum | 258.076 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| X | Hoofdweg 41 9945PB Wagenborgen | 258.092 | 586.599 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XA | Farmsumerzijl 35 9936GC Farmsum | 258.070 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XB | Schepperij 17 9936GL Farmsum | 258.103 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XC | Schepperij 19 9936GL Farmsum | 258.109 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XD | Schepperij 21 9936GL Farmsum | 258.115 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XE | Dijkrecht 3 9936GJ Farmsum | 258.042 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XF | Dijkrecht 5 9936GJ Farmsum | 258.052 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XG | Dijkrecht 7 9936GJ Farmsum | 258.054 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XH | Dijkrecht 9 9936GJ Farmsum | 258.063 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XI | Dijkrecht 11 9936GJ Farmsum | 258.073 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XJ | Dijkrecht 13 9936GJ Farmsum | 258.079 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XK | Dijkrecht 15 9936GJ Farmsum | 258.085 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XL | Dijkrecht 17 9936GJ Farmsum | 258.092 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XM | Dijkrecht 19 9936GJ Farmsum | 258.098 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XN | Dijkrecht 21 9936GJ Farmsum | 258.104 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XO | Schepperij 6 9936GN Farmsum | 258.058 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XP | Schepperij 8 9936GN Farmsum | 258.064 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XQ | Schepperij 10 9936GN Farmsum | 258.070 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XR | Schepperij 12 9936GN Farmsum | 258.075 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XS | Schepperij 14 9936GN Farmsum | 258.081 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XT | Schepperij 16 9936GN Farmsum | 258.087 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XU | Olderman 2 9936GT Farmsum | 258.132 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XV | Olderman 4 9936GT Farmsum | 258.132 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XW | Olderman 6 9936GT Farmsum | 258.132 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XX | Olderman 8 9936GT Farmsum | 258.132 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XY | Olderman 10 9936GT Farmsum | 258.132 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XZ | Olderman 12 9936GT Farmsum | 258.132 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Y | Hoofdweg 20 9945PG Wagenborgen | 258.207 | 586.682 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YA | Olderman 14 9936GT Farmsum | 258.132 | 593.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YB | Dijkrecht 23 9936GJ Farmsum | 258.162 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YC | Dijkrecht 25 9936GJ Farmsum | 258.162 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YD | Dijkrecht 27 9936GJ Farmsum | 258.163 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YE | Dijkrecht 29 9936GJ Farmsum | 258.163 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YF | Dijkrecht 31 9936GJ Farmsum | 258.163 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YG | Dijkrecht 33 9936GJ Farmsum | 258.163 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YH | Dijkrecht 35 9936GJ Farmsum | 258.163 | 593.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YI | Dijkrecht 37 9936GJ Farmsum | 258.182 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YJ | Dijkrecht 39 9936GJ Farmsum | 258.182 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YK | Dijkrecht 41 9936GJ Farmsum | 258.182 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YL | Dijkrecht 43 9936GJ Farmsum | 258.182 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YM | Olderman 1 9936GS Farmsum | 258.107 | 593.574 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YN | Olderman 3 9936GS Farmsum | 258.107 | 593.567 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YO | Olderman 5 9936GS Farmsum | 258.108 | 593.561 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YP | Olderman 7 9936GS Farmsum | 258.108 | 593.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YQ | Schepperij 37 9936GM Farmsum | 258.194 | 593.543 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YR | Schepperij 41 9936GM Farmsum | 258.194 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YS | Schepperij 45 9936GM Farmsum | 258.194 | 593.518 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
3-2-2017 13:05/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| YT | Schepperij 47 9936GM Farmsum | 258.194 | 593.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YU | Schepperij 49 9936GM Farmsum | 258.194 | 593.506 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YV | Olderman 18 9936GT Farmsum | 258.143 | 593.539 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YW | Olderman 20 9936GT Farmsum | 258.143 | 593.533 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YX | Olderman 22 9936GT Farmsum | 258.143 | 593.527 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YY | Olderman 24 9936GT Farmsum | 258.143 | 593.521 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YZ | Olderman 26 9936GT Farmsum | 258.143 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Z | Hoofdweg 22 9945PG Wagenborgen | 258.202 | 586.669 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZA | Olderman 28 9936GT Farmsum | 258.143 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZB | Olderman 30 9936GT Farmsum | 258.143 | 593.502 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZC | Olderman 9 9936GS Farmsum | 258.120 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZD | Olderman 11 9936GS Farmsum | 258.120 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZE | Olderman 13 9936GS Farmsum | 258.120 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZF | Proosdij 32 9936EX Farmsum | 257.941 | 593.479 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZG | Proosdij 36 9936EX Farmsum | 257.952 | 593.473 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZH | Proosdij 38 9936EX Farmsum | 257.963 | 593.468 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZI | Proosdij 40 9936EX Farmsum | 257.984 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZJ | Proosdij 27 9936EV Farmsum | 257.995 | 593.418 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZK | Proosdij 25 9936EV Farmsum | 257.979 | 593.425 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZL | Proosdij 23 9936EV Farmsum | 257.962 | 593.433 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZM | Proosdij 21 9936EV Farmsum | 257.941 | 593.443 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZN | Seendweg 5 9936GA Farmsum | 258.091 | 593.322 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZO | Proosdij 29 9936EV Farmsum | 258.005 | 593.413 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZP | Proosdij 31 9936EV Farmsum | 258.019 | 593.403 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZQ | Proosdij 33 9936EV Farmsum | 258.043 | 593.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZR | Proosdij 35 9936EV Farmsum | 258.067 | 593.376 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZS | Proosdij 37 9936EV Farmsum | 258.085 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZT | Proosdij 39 9936EV Farmsum | 258.092 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZU | Proosdij 41 9936EV Farmsum | 258.099 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZV | Proosdij 43 9936EV Farmsum | 258.106 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZW | Proosdij 45 9936EV Farmsum | 258.112 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZX | Proosdij 47 9936EV Farmsum | 258.119 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZY | Olderman 15 9936GS Farmsum | 258.118 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZZ | Rengersweg 97 9936GG Farmsum | 258.010 | 593.468 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

## Calculation Results

Shadow receptor

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| [A | Rengersweg 99 9936GG Farmsum | 0:15 |
| [B | Rengersweg 12 9936GH Farmsum | 0:14 |
| [C | Rengersweg 10 9936GH Farmsum | 0:10 |
| [D | Kluft 1 9936GP Farmsum | 0:00 |
| [E | Kluft 3 9936GP Farmsum | 0:00 |
| [F | Proosdij 46 9936EX Farmsum | 0:10 |
| [G | Proosdij 48 9936EX Farmsum | 0:05 |
| [H | Proosdij 50 9936EX Farmsum | 0:00 |
| [I | Proosdij 52 9936EX Farmsum | 0:00 |
| [J | Proosdij 54 9936EX Farmsum | 0:03 |
| [K | Proosdij 56 9936EX Farmsum | 0:00 |
| [L | Olderman 21 9936GS Farmsum | 0:00 |
| [M | Olderman 19 9936GS Farmsum | 0:00 |
| [N | Olderman 17 9936GS Farmsum | 0:00 |
| [O | Kluft 5 9936GP Farmsum | 0:00 |
| [P | Kluft 7 9936GP Farmsum | 0:00 |
| [Q | Kluft 9 9936GP Farmsum | 0:00 |
| [R | Kluft 11 9936GP Farmsum | 0:00 |
| [S | Kluft 17 9936GP Farmsum | 0:00 |
| [T | Zijlvest 8 9936GZ Farmsum | 0:00 |
| [U | Olderman 32 9936GT Farmsum | 0:00 |
| [V | Olderman 34 9936GT Farmsum | 0:00 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| [W | Olderman 36 9936GT Farmsum | 0:00 |
| [X | Olderman 38 9936GT Farmsum | 0:00 |
| [Y | Olderman 40 9936GT Farmsum | 0:00 |
| [Z | Olderman 42 9936GT Farmsum | 0:00 |
| \A | Zijlvest 22 A 9936GZ Farmsum | 0:00 |
| \B | Zijlvest 18 A 9936GZ Farmsum | 0:00 |
| \C | Zijlvest 18 9936GZ Farmsum | 0:00 |
| \D | Zijlvest 14 9936GZ Farmsum | 0:00 |
| \E | Borgweg 1 9936EH Farmsum | 0:00 |
| \F | Borgweg 3 9936EH Farmsum | 0:00 |
| \G | Borgweg 5 9936EH Farmsum | 0:00 |
| \H | Borgweg 7 9936EH Farmsum | 0:00 |
| \I | Borgweg 9 9936EH Farmsum | 0:00 |
| \J | Borgweg 11 9936EH Farmsum | 0:00 |
| \K | Borgweg 13 9936EH Farmsum | 0:00 |
| \L | Borgweg 15 9936EH Farmsum | 0:00 |
| \M | Borgweg 17 9936EH Farmsum | 0:00 |
| \N | Borgweg 19 9936EH Farmsum | 0:00 |
| \O | Borgweg 21 9936EH Farmsum | 0:00 |
| \P | Borgweg 23 9936EH Farmsum | 0:00 |
| \Q | Borgweg 25 9936EH Farmsum | 0:00 |
| \R | Borgweg 27 9936EH Farmsum | 0:00 |
| \S | Borgweg 29 9936EJ Farmsum | 0:00 |
| \T | Borgweg 31 9936EJ Farmsum | 0:00 |
| \U | Borgweg 33 9936EJ Farmsum | 0:00 |
| \V | Borgweg 35 9936EJ Farmsum | 0:00 |
| \W | Borgweg 37 9936EJ Farmsum | 0:00 |
| \X | Borgweg 39 9936EJ Farmsum | 0:00 |
| \Y | Borgweg 41 9936EJ Farmsum | 0:00 |
| \Z | Borgweg 43 9936EJ Farmsum | 0:00 |
| ]A | Borgweg 45 9936EJ Farmsum | 0:00 |
| ]B | Borgweg 47 9936EJ Farmsum | 0:00 |
| ]C | Borgweg 49 9936EJ Farmsum | 0:00 |
| ]D | Borgweg 51 9936EJ Farmsum | 0:00 |
| ]E | Borgweg 53 9936EJ Farmsum | 0:00 |
| ]F | Borgweg 55 9936EJ Farmsum | 0:00 |
| ]G | Borgweg 57 9936EK Farmsum | 0:00 |
| ]H | Borgweg 59 9936EK Farmsum | 0:00 |
| ]I | Borgweg 61 9936EK Farmsum | 0:00 |
| ]J | Borgweg 63 9936EK Farmsum | 0:00 |
| ]K | Borgweg 65 9936EK Farmsum | 0:00 |
| ]L | Borgweg 67 9936EK Farmsum | 0:00 |
| ]M | Borgweg 69 9936EK Farmsum | 0:00 |
| ]N | Borgweg 71 9936EK Farmsum | 0:00 |
| ]O | Borgweg 73 9936EK Farmsum | 0:00 |
| ]P | Borgweg 75 9936EK Farmsum | 0:00 |
| ]Q | Borgweg 77 9936EK Farmsum | 0:00 |
| ]R | Borgweg 79 9936EK Farmsum | 0:00 |
| ]S | Borgweg 81 9936EK Farmsum | 0:00 |
| ]T | Borgweg 83 9936EK Farmsum | 0:00 |
| ]U | Borgweg 85 9936EL Farmsum | 0:00 |
| ]V | Borgweg 87 9936EL Farmsum | 0:00 |
| ]W | Borgweg 89 9936EL Farmsum | 0:00 |
| ]X | Borgweg 91 9936EL Farmsum | 0:00 |
| ]Y | Borgweg 93 9936EL Farmsum | 0:00 |
| ]Z | Borgweg 95 9936EL Farmsum | 0:00 |
| ^A | Borgweg 97 9936EL Farmsum | 0:00 |
| ^B | Borgweg 99 9936EL Farmsum | 0:00 |
| ^C | Borgweg 101 9936EL Farmsum | 0:00 |
| ^D | Borgweg 103 9936EL Farmsum | 0:00 |
| ^E | Borgweg 105 9936EL Farmsum | 0:00 |
| ^F | Borgweg 107 9936EL Farmsum | 0:00 |
| ^G | Borgweg 109 9936EL Farmsum | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| ^H | Borgweg 111 9936EL Farmsum | 0:00 |
| ^I | Kluft 18 9936GR Farmsum | 0:00 |
| ^J | Kluft 20 9936GR Farmsum | 0:00 |
| ^K | Kluft 22 9936GR Farmsum | 0:00 |
| ^L | Kluft 24 9936GR Farmsum | 0:00 |
| ^M | Kluft 26 9936GR Farmsum | 0:00 |
| ^N | Kluft 28 9936GR Farmsum | 0:00 |
| ^O | Kluft 30 9936GR Farmsum | 0:00 |
| ^P | Kluft 32 9936GR Farmsum | 0:00 |
| ^Q | Kluft 2 9936GR Farmsum | 0:00 |
| ^R | Kluft 4 9936GR Farmsum | 0:00 |
| ^S | Kluft 6 9936GR Farmsum | 0:00 |
| ^T | Kluft 8 9936GR Farmsum | 0:00 |
| ^U | Kluft 10 9936GR Farmsum | 0:00 |
| ^V | Kluft 12 9936GR Farmsum | 0:00 |
| ^W | Kluft 14 9936GR Farmsum | 0:00 |
| ^X | Kluft 16 9936GR Farmsum | 0:00 |
| ^Y | Zijlvest 20 A 9936GZ Farmsum | 0:00 |
| ^Z | Schepperij 51 9936GM Farmsum | 0:00 |
| _A | Waarman 15 9936GV Farmsum | 0:00 |
| _B | Waarman 17 9936GV Farmsum | 0:00 |
| _C | Waarman 19 9936GV Farmsum | 0:00 |
| _D | Waarman 21 9936GV Farmsum | 0:00 |
| _E | Waarman 23 9936GV Farmsum | 0:00 |
| _F | Waarman 25 9936GV Farmsum | 0:00 |
| _G | Waarman 27 9936GV Farmsum | 0:00 |
| _H | Waarman 29 9936GV Farmsum | 0:00 |
| _I | Heemskesweg 5 9936HE Farmsum | 7:37 |
| _J | Geefsweersterweg 2 9937TC Meedhuizen | 5:03 |
| _K | Seendweg 12 9936GA Farmsum | 2:10 |
| _L | Schepperij 39 9936GM Farmsum | 0:00 |
| _M | Schepperij 43 9936GM Farmsum | 0:00 |
| _N | Zijlvest 14 A 9936GZ Farmsum | 0:00 |
| _O | Zijlvest 24 A 9936GZ Farmsum | 0:00 |
| A | Familie Bronsweg 60 9945TA Wagenborgen | 12:19 |
| AA | Hoofdweg 26 9945PG Wagenborgen | 0:00 |
| AB | Hoofdweg 23 9945PA Wagenborgen | 0:00 |
| AC | Hoofdweg 25 9945PA Wagenborgen | 0:00 |
| AD | Hoofdweg 27 9945PA Wagenborgen | 0:00 |
| AE | Hoofdweg 29 9945PA Wagenborgen | 0:00 |
| AF | Hoofdweg 18 9945PG Wagenborgen | 0:00 |
| AG | Hoofdweg 14 9945PG Wagenborgen | 0:00 |
| AH | Hoofdweg 10 9945PG Wagenborgen | 0:00 |
| AI | Hoofdweg 8 9945PG Wagenborgen | 0:00 |
| AJ | Hoofdweg 6 9945PG Wagenborgen | 0:00 |
| AK | Hoofdweg 4 9945PG Wagenborgen | 0:00 |
| AL | Hoofdweg 21 9945PA Wagenborgen | 0:00 |
| AM | Hoofdweg 19 9945PA Wagenborgen | 0:00 |
| AN | Hoofdweg 2 9945PG Wagenborgen | 0:00 |
| AO | Hoofdweg 15 9945PA Wagenborgen | 0:00 |
| AP | Hoofdweg 9 9945PA Wagenborgen | 0:00 |
| AQ | Hoofdweg 11 9945PA Wagenborgen | 0:00 |
| AR | Hoofdweg 7 9945PA Wagenborgen | 0:00 |
| AS | Hoofdweg 5 9945PA Wagenborgen | 0:00 |
| AT | H.L. Emmensweg 17 9945PW Wagenborgen | 0:00 |
| AU | H.L. Emmensweg 18 9945PX Wagenborgen | 0:00 |
| AV | H.L. Emmensweg 20 9945PX Wagenborgen | 0:00 |
| AW | H.L. Emmensweg 22 9945PX Wagenborgen | 0:00 |
| AX | H.L. Emmensweg 24 9945PX Wagenborgen | 0:00 |
| AY | H.L. Emmensweg 26 9945PX Wagenborgen | 0:00 |
| AZ | H.L. Emmensweg 10 9945PX Wagenborgen | 0:00 |
| B | Tolhek 4 9945TJ Wagenborgen | 0:00 |
| BA | H.L. Emmensweg 12 9945PX Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| BB | H.L. Emmensweg 14 9945PX Wagenborgen | 0:00 |
| BC | H.L. Emmensweg 16 9945PX Wagenborgen | 0:00 |
| BD | H.L. Emmensweg 13 9945PW Wagenborgen | 0:00 |
| BE | H.L. Emmensweg 15 9945PW Wagenborgen | 0:00 |
| BF | H.L. Emmensweg 9 9945PW Wagenborgen | 0:00 |
| BG | H.L. Emmensweg 11 9945PW Wagenborgen | 0:00 |
| BH | H.L. Emmensweg 5 9945PW Wagenborgen | 0:00 |
| BI | H.L. Emmensweg 7 9945PW Wagenborgen | 0:00 |
| BJ | H.L. Emmensweg 4 9945PX Wagenborgen | 0:00 |
| BK | H.L. Emmensweg 2 9945PX Wagenborgen | 0:00 |
| BL | H.L. Emmensweg 1 9945PW Wagenborgen | 0:00 |
| BM | H.L. Emmensweg 3 9945PW Wagenborgen | 0:00 |
| BN | de Linden 4 9945PZ Wagenborgen | 0:00 |
| BO | de Linden 6 9945PZ Wagenborgen | 0:00 |
| BP | de Linden 10 9945PZ Wagenborgen | 0:00 |
| BQ | de Linden 12 9945PZ Wagenborgen | 0:00 |
| BR | de Linden 2 9945PZ Wagenborgen | 0:00 |
| BS | de Wilgen 12 9945RB Wagenborgen | 0:00 |
| BT | de Wilgen 10 9945RB Wagenborgen | 0:00 |
| BU | de Wilgen 8 9945RB Wagenborgen | 0:00 |
| BV | de Wilgen 2 9945RB Wagenborgen | 0:00 |
| BW | de Wilgen 4 9945RB Wagenborgen | 0:00 |
| BX | de Wilgen 6 9945RB Wagenborgen | 0:00 |
| BY | de Wilgen 6 A 9945RB Wagenborgen | 0:00 |
| BZ | de Wilgen 3 9945RB Wagenborgen | 0:00 |
| C | Tolhek 1 9945TJ Wagenborgen | 0:00 |
| CA | de Wilgen 3 A 9945RB Wagenborgen | 0:00 |
| CB | de Wilgen 3 B 9945RB Wagenborgen | 0:00 |
| CC | de Wilgen 5 9945RB Wagenborgen | 0:00 |
| CD | de Wilgen 46 9945RB Wagenborgen | 0:00 |
| CE | de Wilgen 44 9945RB Wagenborgen | 0:00 |
| CF | de Wilgen 48 9945RB Wagenborgen | 0:00 |
| CG | de Wilgen 50 9945RB Wagenborgen | 0:00 |
| CH | de Wilgen 36 9945RB Wagenborgen | 0:00 |
| CI | de Wilgen 38 9945RB Wagenborgen | 0:00 |
| CJ | de Wilgen 40 9945RB Wagenborgen | 0:00 |
| CK | de Wilgen 42 9945RB Wagenborgen | 0:00 |
| CL | de Wilgen 28 9945RB Wagenborgen | 0:00 |
| CM | de Wilgen 30 9945RB Wagenborgen | 0:00 |
| CN | de Wilgen 32 9945RB Wagenborgen | 0:00 |
| CO | de Wilgen 34 9945RB Wagenborgen | 0:00 |
| CP | de Wilgen 24 9945TK Wagenborgen | 0:00 |
| CQ | de Wilgen 26 9945RB Wagenborgen | 0:00 |
| CR | de Wilgen 20 9945RB Wagenborgen | 0:00 |
| CS | de Wilgen 22 9945RB Wagenborgen | 0:00 |
| CT | de Wilgen 18 9945RB Wagenborgen | 0:00 |
| CU | de Wilgen 16 9945RB Wagenborgen | 0:00 |
| CV | de Wilgen 14 9945RB Wagenborgen | 0:00 |
| CW | de Wilgen 9 9945RB Wagenborgen | 0:00 |
| CX | de Wilgen 52 9945RB Wagenborgen | 0:00 |
| CY | Menterne 22 9945RA Wagenborgen | 0:00 |
| CZ | Menterne 18 9945RA Wagenborgen | 0:00 |
| D | Familie Bronsweg 62 9945TA Wagenborgen | 9:55 |
| DA | Menterne 21 9945RA Wagenborgen | 0:00 |
| DB | Menterne 19 9945RA Wagenborgen | 0:00 |
| DC | Menterne 20 9945RA Wagenborgen | 0:00 |
| DD | Menterne 17 9945RA Wagenborgen | 0:00 |
| DE | Menterne 7 9945RA Wagenborgen | 0:00 |
| DF | Menterne 8 9945RA Wagenborgen | 0:00 |
| DG | Menterne 9 9945RA Wagenborgen | 0:00 |
| DH | Menterne 10 9945RA Wagenborgen | 0:00 |
| DI | Menterne 11 9945RA Wagenborgen | 0:00 |
| DJ | Menterne 12 9945RA Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| DK | Menterne 13 9945RA Wagenborgen | 0:00 |
| DL | Menterne 14 9945RA Wagenborgen | 0:00 |
| DM | Menterne 1 9945RA Wagenborgen | 0:00 |
| DN | Menterne 2 9945RA Wagenborgen | 0:00 |
| DO | Menterne 3 9945RA Wagenborgen | 0:00 |
| DP | Menterne 4 9945RA Wagenborgen | 0:00 |
| DQ | Menterne 5 9945RA Wagenborgen | 0:00 |
| DR | Menterne 6 9945RA Wagenborgen | 0:00 |
| DS | Menterne 15 9945RA Wagenborgen | 0:00 |
| DT | Menterne 16 9945RA Wagenborgen | 0:00 |
| DU | de Berken 6 9945PT Wagenborgen | 0:00 |
| DV | de Berken 2 9945PT Wagenborgen | 0:00 |
| DW | de Berken 4 9945PT Wagenborgen | 0:00 |
| DX | de Berken 1 9945PT Wagenborgen | 0:00 |
| DY | de Berken 5 9945PT Wagenborgen | 0:00 |
| DZ | de Berken 7 9945PT Wagenborgen | 0:00 |
| E | Meerweg 3 9945RC Wagenborgen | 0:36 |
| EA | de Berken 9 9945PT Wagenborgen | 0:00 |
| EB | de Eiken 14 9945VA Wagenborgen | 0:00 |
| EC | de Eiken 16 9945VA Wagenborgen | 0:00 |
| ED | de Eiken 2 9945VA Wagenborgen | 0:00 |
| EE | de Eiken 4 9945VA Wagenborgen | 0:00 |
| EF | de Eiken 6 9945VA Wagenborgen | 0:00 |
| EG | de Eiken 8 9945VA Wagenborgen | 0:00 |
| EH | de Eiken 10 9945VA Wagenborgen | 0:00 |
| EI | de Eiken 12 9945VA Wagenborgen | 0:00 |
| EJ | de Eiken 2 A 9945VA Wagenborgen | 0:00 |
| EK | Troostlaan 7 9945PV Wagenborgen | 0:00 |
| EL | Troostlaan 8 9945PV Wagenborgen | 0:00 |
| EM | Troostlaan 9 9945PV Wagenborgen | 0:00 |
| EN | Troostlaan 10 9945PV Wagenborgen | 0:00 |
| EO | Troostlaan 11 9945PV Wagenborgen | 0:00 |
| EP | Troostlaan 1 9945PV Wagenborgen | 0:00 |
| EQ | Troostlaan 2 9945PV Wagenborgen | 0:00 |
| ER | Troostlaan 3 9945PV Wagenborgen | 0:00 |
| ES | Troostlaan 2 A 9945PV Wagenborgen | 0:00 |
| ET | Troostlaan 4 9945PV Wagenborgen | 0:00 |
| EU | Troostlaan 14 9945PV Wagenborgen | 0:00 |
| EV | Troostlaan 22 9945PV Wagenborgen | 0:00 |
| EW | Troostlaan 20 9945PV Wagenborgen | 0:00 |
| EX | Troostlaan 21 9945PV Wagenborgen | 0:00 |
| EY | Troostlaan 18 9945PV Wagenborgen | 0:00 |
| EZ | Troostlaan 19 9945PV Wagenborgen | 0:00 |
| F | G. Boelmanweg 2 9945RJ Wagenborgen | 0:00 |
| FA | Familie Bronsweg 40 9945PS Wagenborgen | 0:00 |
| FB | Familie Bronsweg 44 9945PS Wagenborgen | 0:00 |
| FC | Familie Bronsweg 46 9945PS Wagenborgen | 0:00 |
| FD | Familie Bronsweg 48 9945PS Wagenborgen | 0:00 |
| FE | Familie Bronsweg 50 9945PS Wagenborgen | 0:00 |
| FF | Familie Bronsweg 79 9945PP Wagenborgen | 0:00 |
| FG | Familie Bronsweg 81 9945PP Wagenborgen | 0:00 |
| FH | Familie Bronsweg 36 9945PS Wagenborgen | 0:00 |
| FI | Familie Bronsweg 38 9945PS Wagenborgen | 0:00 |
| FJ | Familie Bronsweg 42 9945PS Wagenborgen | 0:00 |
| FK | Familie Bronsweg 54 9945PS Wagenborgen | 0:00 |
| FL | Familie Bronsweg 52 9945PS Wagenborgen | 0:00 |
| FM | Familie Bronsweg 50 B 9945PS Wagenborgen | 0:00 |
| FN | Familie Bronsweg 50 A 9945PS Wagenborgen | 0:00 |
| FO | Familie Bronsweg 75 9945PP Wagenborgen | 0:00 |
| FP | Familie Bronsweg 75 A 9945PP Wagenborgen | 0:00 |
| FQ | Familie Bronsweg 75 B 9945PP Wagenborgen | 0:00 |
| FR | Familie Bronsweg 71 9945PP Wagenborgen | 0:00 |
| FS | Familie Bronsweg 69 A 9945PP Wagenborgen | 0:00 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| FT | Familie Bronsweg 69 9945PP Wagenborgen | 0:00 |
| FU | Familie Bronsweg 67 9945PP Wagenborgen | 0:00 |
| FV | Familie Bronsweg 65 9945PP Wagenborgen | 0:00 |
| FW | Familie Bronsweg 63 9945PP Wagenborgen | 0:00 |
| FX | Familie Bronsweg 61 9945PP Wagenborgen | 0:00 |
| FY | Familie Bronsweg 59 9945PP Wagenborgen | 0:00 |
| FZ | Familie Bronsweg 57 9945PP Wagenborgen | 0:00 |
| G | G. Boelmanweg 3 9945RE Wagenborgen | 0:00 |
| GA | Familie Bronsweg 53 9945PP Wagenborgen | 0:00 |
| GB | Familie Bronsweg 73 9945PP Wagenborgen | 0:00 |
| GC | Familie Bronsweg 85 9945PP Wagenborgen | 0:00 |
| GD | Familie Bronsweg 83 9945PP Wagenborgen | 0:00 |
| GE | Familie Bronsweg 83 A 9945PP Wagenborgen | 0:00 |
| GF | Familie Bronsweg 77 9945PP Wagenborgen | 0:00 |
| GG | Familie Bronsweg 51 9945PP Wagenborgen | 0:00 |
| GH | Familie Bronsweg 2 9945PR Wagenborgen | 0:00 |
| GI | Familie Bronsweg 4 9945PR Wagenborgen | 0:00 |
| GJ | Familie Bronsweg 4 A 9945PR Wagenborgen | 0:00 |
| GK | Familie Bronsweg 6 9945PR Wagenborgen | 0:00 |
| GL | Familie Bronsweg 8 9945PR Wagenborgen | 0:00 |
| GM | Familie Bronsweg 10 9945PR Wagenborgen | 0:00 |
| GN | Familie Bronsweg 12 9945PR Wagenborgen | 0:00 |
| GO | Familie Bronsweg 14 9945PR Wagenborgen | 0:00 |
| GP | Familie Bronsweg 16 9945PR Wagenborgen | 0:00 |
| GQ | Familie Bronsweg 15 9945PN Wagenborgen | 0:00 |
| GR | Familie Bronsweg 17 9945PN Wagenborgen | 0:00 |
| GS | Familie Bronsweg 2 A 9945PR Wagenborgen | 0:00 |
| GT | Familie Bronsweg 2 B 9945PR Wagenborgen | 0:00 |
| GU | Familie Bronsweg 2 C 9945PR Wagenborgen | 0:00 |
| GV | Familie Bronsweg 2 D 9945PR Wagenborgen | 0:00 |
| GW | Familie Bronsweg 2 F 9945PR Wagenborgen | 0:00 |
| GX | Familie Bronsweg 2 G 9945PR Wagenborgen | 0:00 |
| GY | Familie Bronsweg 2 H 9945PR Wagenborgen | 0:00 |
| GZ | Familie Bronsweg 2 J 9945PR Wagenborgen | 0:00 |
| H | G. Boelmanweg 5 9945RE Wagenborgen | 0:00 |
| HA | Akeleistraat 17 9945VD Wagenborgen | 0:00 |
| HB | Akeleistraat 19 9945VD Wagenborgen | 0:00 |
| HC | Akeleistraat 21 9945VD Wagenborgen | 0:00 |
| HD | Akeleistraat 23 9945VD Wagenborgen | 0:00 |
| HE | Akeleistraat 20 9945VD Wagenborgen | 0:00 |
| HF | Akeleistraat 22 9945VD Wagenborgen | 0:00 |
| HG | Akeleistraat 16 9945VD Wagenborgen | 0:00 |
| HH | Akeleistraat 18 9945VD Wagenborgen | 0:00 |
| HI | Akeleistraat 12 9945VD Wagenborgen | 0:00 |
| HJ | Akeleistraat 14 9945VD Wagenborgen | 0:00 |
| HK | Akeleistraat 10 9945VD Wagenborgen | 0:00 |
| HL | Akeleistraat 1 9945VD Wagenborgen | 0:00 |
| HM | Akeleistraat 3 9945VD Wagenborgen | 0:00 |
| HN | Akeleistraat 5 9945VD Wagenborgen | 0:00 |
| HO | Akeleistraat 7 9945VD Wagenborgen | 0:00 |
| HP | Akeleistraat 9 9945VD Wagenborgen | 0:00 |
| HQ | Akeleistraat 11 9945VD Wagenborgen | 0:00 |
| HR | Akeleistraat 2 9945VD Wagenborgen | 0:00 |
| HS | Akeleistraat 4 9945VD Wagenborgen | 0:00 |
| HT | Akeleistraat 6 9945VD Wagenborgen | 0:00 |
| HU | Akeleistraat 8 9945VD Wagenborgen | 0:00 |
| HV | Akeleistraat 15 9945VD Wagenborgen | 0:00 |
| HW | Bremstraat 6 9945VC Wagenborgen | 0:00 |
| HX | Bremstraat 2 9945VC Wagenborgen | 0:00 |
| HY | Bremstraat 4 9945VC Wagenborgen | 0:00 |
| HZ | Bremstraat 12 9945VC Wagenborgen | 0:00 |
| I | G. Boelmanweg 4 9945RJ Wagenborgen | 0:00 |
| IA | Hibiscusstraat 30 9945VB Wagenborgen | 0:00 |

To be continued on next page...

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3-2-2017 13:05/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| IB | Hibiscusstraat 2 9945VB Wagenborgen | 0:00 |
| IC | Hibiscusstraat 4 9945VB Wagenborgen | 0:00 |
| ID | Hibiscusstraat 10 9945VB Wagenborgen | 0:00 |
| IE | Hibiscusstraat 16 9945VB Wagenborgen | 0:00 |
| IF | Bremstraat 14 9945VC Wagenborgen | 0:00 |
| IG | Hibiscusstraat 6 9945VB Wagenborgen | 0:00 |
| IH | Hibiscusstraat 26 9945VB Wagenborgen | 0:00 |
| II | Kopaf 8 9945TE Wagenborgen | 0:00 |
| IJ | Kopaf 7 9945TE Wagenborgen | 0:00 |
| IK | Kopaf 6 9945TE Wagenborgen | 0:00 |
| IL | Kloosterlaan 27 9945TG Wagenborgen | 2:35 |
| IM | Kloosterlaan 25 9945TG Wagenborgen | 11:52 |
| IN | Kloosterlaan 23 9945TG Wagenborgen | 13:48 |
| IO | Scheve Klap 5 9945TD Wagenborgen | 0:46 |
| IP | Scheve Klap 4 9945TD Wagenborgen | 0:38 |
| IQ | Hibiscusstraat 8 9945VB Wagenborgen | 0:00 |
| IR | Hibiscusstraat 12 9945VB Wagenborgen | 0:00 |
| IS | Hibiscusstraat 18 9945VB Wagenborgen | 0:00 |
| IT | Hibiscusstraat 24 9945VB Wagenborgen | 0:00 |
| IU | Hibiscusstraat 22 9945VB Wagenborgen | 0:00 |
| IV | Troostlaan 15 9945PV Wagenborgen | 0:00 |
| IW | Bremstraat 10 9945VC Wagenborgen | 0:00 |
| IX | Hibiscusstraat 20 9945VB Wagenborgen | 0:00 |
| IY | Hibiscusstraat 28 9945VB Wagenborgen | 0:00 |
| IZ | Troostlaan 5 9945PV Wagenborgen | 0:00 |
| J | G. Boelmanweg 7 9945RE Wagenborgen | 0:00 |
| JA | Troostlaan 6 9945PV Wagenborgen | 0:00 |
| JB | Boslaan 5 9945TM Wagenborgen | 0:00 |
| JC | Hoofdweg 33 A 9945PB Wagenborgen | 0:00 |
| JD | Akeleistraat 13 9945VD Wagenborgen | 0:00 |
| JE | Hoofdweg 42 9945PG Wagenborgen | 0:00 |
| JF | Familie Bronsweg 2 E 9945PR Wagenborgen | 0:00 |
| JG | Hibiscusstraat 14 9945VB Wagenborgen | 0:00 |
| JH | Bremstraat 8 9945VC Wagenborgen | 0:00 |
| JI | Menterne 23 003 9945RA Wagenborgen | 0:00 |
| JJ | Menterne 23 004 9945RA Wagenborgen | 0:00 |
| JK | Menterne 23 005 9945RA Wagenborgen | 0:00 |
| JL | Menterne 23 006 9945RA Wagenborgen | 0:00 |
| JM | Menterne 23 007 9945RA Wagenborgen | 0:00 |
| JN | Menterne 23 008 9945RA Wagenborgen | 0:00 |
| JO | Menterne 23 009 9945RA Wagenborgen | 0:00 |
| JP | Menterne 23 010 9945RA Wagenborgen | 0:00 |
| JQ | Menterne 23 017 9945RA Wagenborgen | 0:00 |
| JR | Menterne 23 030 9945RA Wagenborgen | 0:00 |
| JS | Menterne 23 103 9945RA Wagenborgen | 0:00 |
| JT | Menterne 23 104 9945RA Wagenborgen | 0:00 |
| JU | Menterne 23 105 9945RA Wagenborgen | 0:00 |
| JV | Menterne 23 106 9945RA Wagenborgen | 0:00 |
| JW | Menterne 23 107 9945RA Wagenborgen | 0:00 |
| JX | Menterne 23 108 9945RA Wagenborgen | 0:00 |
| JY | Menterne 23 109 9945RA Wagenborgen | 0:00 |
| JZ | Menterne 23 110 9945RA Wagenborgen | 0:00 |
| K | G. Boelmanweg 6 9945RJ Wagenborgen | 0:00 |
| KA | Menterne 23 111 9945RA Wagenborgen | 0:00 |
| KB | Menterne 23 113 9945RA Wagenborgen | 0:00 |
| KC | Menterne 23 114 9945RA Wagenborgen | 0:00 |
| KD | Menterne 23 115 9945RA Wagenborgen | 0:00 |
| KE | Menterne 23 116 9945RA Wagenborgen | 0:00 |
| KF | Menterne 23 117 9945RA Wagenborgen | 0:00 |
| KG | Menterne 23 118 9945RA Wagenborgen | 0:00 |
| KH | Menterne 23 119 9945RA Wagenborgen | 0:00 |
| KI | Menterne 23 120 9945RA Wagenborgen | 0:00 |
| KJ | Menterne 23 121 9945RA Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| KK | Menterne 23 122 9945RA Wagenborgen | 0:00 |
| KL | Menterne 23 123 9945RA Wagenborgen | 0:00 |
| KM | Menterne 23 124 9945RA Wagenborgen | 0:00 |
| KN | Menterne 23 125 9945RA Wagenborgen | 0:00 |
| KO | Menterne 23 126 9945RA Wagenborgen | 0:00 |
| KP | Menterne 23 127 9945RA Wagenborgen | 0:00 |
| KQ | Menterne 23 128 9945RA Wagenborgen | 0:00 |
| KR | Menterne 23 129 9945RA Wagenborgen | 0:00 |
| KS | Menterne 23 130 9945RA Wagenborgen | 0:00 |
| KT | Menterne 23 131 9945RA Wagenborgen | 0:00 |
| KU | Menterne 23 132 9945RA Wagenborgen | 0:00 |
| KV | Menterne 23 201 9945RA Wagenborgen | 0:00 |
| KW | Menterne 23 202 9945RA Wagenborgen | 0:00 |
| KX | Menterne 23 203 9945RA Wagenborgen | 0:00 |
| KY | Menterne 23 204 9945RA Wagenborgen | 0:00 |
| KZ | Menterne 23 205 9945RA Wagenborgen | 0:00 |
| L | Kokslaan 1 9945RD Wagenborgen | 0:00 |
| LA | Menterne 23 206 9945RA Wagenborgen | 0:00 |
| LB | Menterne 23 207 9945RA Wagenborgen | 0:00 |
| LC | Menterne 23 208 9945RA Wagenborgen | 0:00 |
| LD | Menterne 23 209 9945RA Wagenborgen | 0:00 |
| LE | Menterne 23 210 9945RA Wagenborgen | 0:00 |
| LF | Menterne 23 211 9945RA Wagenborgen | 0:00 |
| LG | Menterne 23 212 9945RA Wagenborgen | 0:00 |
| LH | Menterne 23 213 9945RA Wagenborgen | 0:00 |
| LI | Menterne 23 214 9945RA Wagenborgen | 0:00 |
| LJ | Menterne 23 215 9945RA Wagenborgen | 0:00 |
| LK | Menterne 23 216 9945RA Wagenborgen | 0:00 |
| LL | Menterne 23 217 9945RA Wagenborgen | 0:00 |
| LM | Menterne 23 218 9945RA Wagenborgen | 0:00 |
| LN | Menterne 23 219 9945RA Wagenborgen | 0:00 |
| LO | Menterne 23 220 9945RA Wagenborgen | 0:00 |
| LP | Menterne 23 221 9945RA Wagenborgen | 0:00 |
| LQ | Menterne 23 222 9945RA Wagenborgen | 0:00 |
| LR | Menterne 23 223 9945RA Wagenborgen | 0:00 |
| LS | Menterne 23 224 9945RA Wagenborgen | 0:00 |
| LT | Menterne 23 226 9945RA Wagenborgen | 0:00 |
| LU | Menterne 23 228 9945RA Wagenborgen | 0:00 |
| LV | Menterne 23 229 9945RA Wagenborgen | 0:00 |
| LW | Menterne 23 230 9945RA Wagenborgen | 0:00 |
| LX | Menterne 23 231 9945RA Wagenborgen | 0:00 |
| LY | Menterne 23 232 9945RA Wagenborgen | 0:00 |
| LZ | G. Boelmanweg 1 9945RE Wagenborgen | 0:00 |
| M | Kokslaan 2 9945RD Wagenborgen | 0:00 |
| MA | Boslaan 7 9945TM Wagenborgen | 0:00 |
| MB | H.L. Emmensweg 23 9945PW Wagenborgen | 0:00 |
| MC | Kopaf 5 9944VA Nieuwolda | 0:00 |
| MD | Familie Bronsweg 68 9945TA Wagenborgen | 17:27 |
| ME | Maarkampen 26 9937PL Meedhuizen | 0:43 |
| MF | Maarkampen 24 9937PL Meedhuizen | 0:39 |
| MG | Maarkampen 22 9937PL Meedhuizen | 0:37 |
| MH | Maarkampen 20 9937PL Meedhuizen | 0:34 |
| MI | Maarkampen 18 9937PL Meedhuizen | 0:31 |
| MJ | Maarkampen 16 9937PL Meedhuizen | 0:28 |
| MK | Maarkampen 14 9937PL Meedhuizen | 0:26 |
| ML | Maarlaan 22 E 9937TH Meedhuizen | 0:38 |
| MM | Maarlaan 22 D 9937TH Meedhuizen | 0:29 |
| MN | Schaapbulterweg 8 9937TL Meedhuizen | 0:59 |
| MO | Schaapbulterweg 6 9937TL Meedhuizen | 0:40 |
| MP | Schaapbulterweg 29 9937TL Meedhuizen | 1:01 |
| MQ | Schaapbulterweg 27 9937TL Meedhuizen | 0:46 |
| MR | Schaapbulterweg 25 9937TL Meedhuizen | 0:43 |
| MS | Schaapbulterweg 23 9937TL Meedhuizen | 0:40 |

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| MT | Schaapbulterweg 21 9937TL Meedhuizen | 0:38 |
| MU | Geefsweersterweg 11 9937TB Meedhuizen | 4:14 |
| MV | Schaapbulterweg 35 9937TL Meedhuizen | 3:04 |
| MW | Meedhuizerweg 20 9937TK Meedhuizen | 0:46 |
| MX | Familie Bronsweg 66 9945TA Wagenborgen | 10:06 |
| MY | Familie Bronsweg 64 9945TA Wagenborgen | 12:38 |
| MZ | Ideweersterweg 10 9937TM Meedhuizen | 15:37 |
| N | Kerkstraat 1 9945SB Wagenborgen | 0:00 |
| NA | Ideweersterweg 8 9937TM Meedhuizen | 15:39 |
| NB | Geefsweersterweg 20 9937TC Meedhuizen | 19:23 |
| NC | Geefsweersterweg 18 9937TC Meedhuizen | 28:07 |
| ND | Geefsweersterweg 29 9937TB Meedhuizen | 20:56 |
| NE | Geefsweersterweg 16 9937TC Meedhuizen | 37:54 |
| NF | Geefsweersterweg 23 9937TB Meedhuizen | 27:07 |
| NG | Geefsweersterweg 12 9937TC Meedhuizen | 25:19 |
| NH | Geefsweersterweg 14 9937TC Meedhuizen | 26:32 |
| NI | Geefsweersterweg 21 A 9937TB Meedhuizen | 23:13 |
| NJ | Geefsweersterweg 10 9937TC Meedhuizen | 22:43 |
| NK | Geefsweersterweg 21 9937TB Meedhuizen | 21:37 |
| NL | Geefsweersterweg 17 9937TB Meedhuizen | 18:35 |
| NM | Geefsweersterweg 19 9937TB Meedhuizen | 19:28 |
| NN | Ideweersterweg 2 9937TM Meedhuizen | 71:53 |
| NO | Ideweersterweg 1 9937TM Meedhuizen | 92:03 |
| NP | Geefsweersterweg 15 9937TB Meedhuizen | 32:28 |
| NQ | Westerlaan 6 9937TS Meedhuizen | 54:03 |
| NR | Familie Bronsweg 87 9945TA Wagenborgen | 9:07 |
| NS | Familie Bronsweg 89 9945TA Wagenborgen | 10:20 |
| NT | Westerlaan 10 9937TS Meedhuizen | 33:47 |
| NU | Geefsweersterweg 13 9937TB Meedhuizen | 16:38 |
| NV | Maarlaan 26 9937TH Meedhuizen | 1:28 |
| NW | Maarlaan 24 9937TH Meedhuizen | 0:47 |
| NX | Maarlaan 28 9937TH Meedhuizen | 1:41 |
| NY | Maarlaan 30 9937TH Meedhuizen | 2:15 |
| NZ | Kerklaan 3 9937PG Meedhuizen | 1:39 |
| O | Hoofdweg 30 9945PG Wagenborgen | 0:00 |
| OA | Kerklaan 8 9937PG Meedhuizen | 2:50 |
| OB | Kerklaan 6 9937PG Meedhuizen | 2:54 |
| OC | Opmeedenlaan 6 9937TN Meedhuizen | 0:54 |
| OD | Opmeedenlaan 4 9937TN Meedhuizen | 0:57 |
| OE | Opmeedenlaan 2 9937TN Meedhuizen | 1:09 |
| OF | Kloosterlaan 26 9945TG Wagenborgen | 9:12 |
| OG | Zomerdijk 1 9945TH Wagenborgen | 4:32 |
| OH | Zomerdijk 3 9945TH Wagenborgen | 1:52 |
| OI | Zomerdijk 3 A 9945TH Wagenborgen | 1:24 |
| OJ | Zomerdijk 2 9945TH Wagenborgen | 0:34 |
| OK | Kloosterlaan 21 A 9945TG Wagenborgen | 9:19 |
| OL | Kloosterlaan 21 B 9945TG Wagenborgen | 11:38 |
| OM | Ideweersterweg 4 9937TM Meedhuizen | 93:48 |
| ON | Maarlaan 22 C 9937TH Meedhuizen | 0:23 |
| OO | Kloosterlaan 21 9936TE Farmsum | 7:11 |
| OP | Geefsweersterweg 8 A 9937TC Meedhuizen | 30:50 |
| OQ | Houtweg 20 9936BL Farmsum | 0:10 |
| OR | Houtweg 22 9936BL Farmsum | 0:11 |
| OS | Houtweg 24 9936BL Farmsum | 0:11 |
| OT | Houtweg 26 9936BL Farmsum | 0:11 |
| OU | Houtweg 28 9936BL Farmsum | 0:11 |
| OV | Rondeboslaan 6 9936BK Farmsum | 0:21 |
| OW | Proosdij 14 9936EW Farmsum | 0:00 |
| OX | Bredelaan 6 9936ER Farmsum | 0:58 |
| OY | Bredelaan 4 9936ER Farmsum | 0:47 |
| OZ | Bredelaan 2 A 9936ER Farmsum | 0:35 |
| P | Hoofdweg 32 9945PG Wagenborgen | 0:00 |
| PA | Proosdij 24 9936EW Farmsum | 0:19 |

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| PB | Proosdij 22 9936EW Farmsum | 0:16 |
| PC | Proosdij 20 9936EW Farmsum | 0:12 |
| PD | Proosdij 18 9936EW Farmsum | 0:06 |
| PE | Proosdij 16 9936EW Farmsum | 0:04 |
| PF | Trambaan 19 9936ES Farmsum | 0:40 |
| PG | Proosdij 17 9936ET Farmsum | 0:17 |
| PH | Proosdij 15 9936ET Farmsum | 0:14 |
| PI | Proosdij 13 9936ET Farmsum | 0:12 |
| PJ | Trambaan 17 9936ES Farmsum | 0:39 |
| PK | Trambaan 15 9936ES Farmsum | 0:39 |
| PL | Trambaan 13 9936ES Farmsum | 0:38 |
| PM | Trambaan 11 9936ES Farmsum | 0:37 |
| PN | Trambaan 9 9936ES Farmsum | 0:36 |
| PO | Trambaan 5 9936ES Farmsum | 0:35 |
| PP | Trambaan 3 9936ES Farmsum | 0:33 |
| PQ | Trambaan 1 9936ES Farmsum | 0:33 |
| PR | Proosdij 12 9936EW Farmsum | 0:00 |
| PS | Proosdij 8 9936EW Farmsum | 0:00 |
| PT | Proosdij 6 9936EW Farmsum | 0:00 |
| PU | Proosdij 4 9936EW Farmsum | 0:00 |
| PV | Proosdij 11 9936ET Farmsum | 0:08 |
| PW | Proosdij 9 9936ET Farmsum | 0:06 |
| PX | Proosdij 7 9936ET Farmsum | 0:02 |
| PY | Proosdij 5 9936ET Farmsum | 0:00 |
| PZ | Proosdij 1 9936ET Farmsum | 0:00 |
| Q | Hoofdweg 31 9945PA Wagenborgen | 0:00 |
| QA | Proosdij 3 9936ET Farmsum | 0:00 |
| QB | Farmsumerzijl 55 9936GC Farmsum | 0:00 |
| QC | Farmsumerzijl 57 9936GC Farmsum | 0:01 |
| QD | Rengersweg 4 9936GH Farmsum | 0:00 |
| QE | Rengersweg 2 9936GH Farmsum | 0:00 |
| QF | Schepperij 4 A 9936GN Farmsum | 0:00 |
| QG | Schepperij 2 A 9936GN Farmsum | 0:00 |
| QH | Schepperij 4 9936GN Farmsum | 0:00 |
| QI | Schepperij 2 9936GN Farmsum | 0:00 |
| QJ | Dijkrecht 4 9936GK Farmsum | 0:00 |
| QK | Dijkrecht 6 9936GK Farmsum | 0:00 |
| QL | Dijkrecht 10 9936GK Farmsum | 0:00 |
| QM | Dijkrecht 12 9936GK Farmsum | 0:00 |
| QN | Dijkrecht 14 9936GK Farmsum | 0:00 |
| QO | Dijkrecht 16 9936GK Farmsum | 0:00 |
| QP | Dijkrecht 18 9936GK Farmsum | 0:00 |
| QQ | Dijkrecht 20 9936GK Farmsum | 0:00 |
| QR | Dijkrecht 22 9936GK Farmsum | 0:00 |
| QS | Dijkrecht 24 9936GK Farmsum | 0:00 |
| QT | Dijkrecht 26 9936GK Farmsum | 0:00 |
| QU | Dijkrecht 28 9936GK Farmsum | 0:00 |
| QV | Dijkrecht 30 9936GK Farmsum | 0:00 |
| QW | Dijkrecht 32 9936GK Farmsum | 0:00 |
| QX | Dijkrecht 34 9936GK Farmsum | 0:00 |
| QY | Dijkrecht 36 9936GK Farmsum | 0:00 |
| QZ | Dijkrecht 40 9936GK Farmsum | 0:00 |
| R | Hoofdweg 38 9945PG Wagenborgen | 0:00 |
| RA | Dijkrecht 38 9936GK Farmsum | 0:00 |
| RB | Schepperij 20 9936GN Farmsum | 0:00 |
| RC | Schepperij 18 9936GN Farmsum | 0:00 |
| RD | Waarman 12 9936GW Farmsum | 0:00 |
| RE | Waarman 10 9936GW Farmsum | 0:00 |
| RF | Waarman 8 9936GW Farmsum | 0:00 |
| RG | Waarman 6 9936GW Farmsum | 0:00 |
| RH | Farmsumerzijl 1 9936GB Farmsum | 0:00 |
| RI | Farmsumerzijl 3 9936GB Farmsum | 0:00 |
| RJ | Farmsumerzijl 5 9936GB Farmsum | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| RK | Farmsumerzijl 7 9936GB Farmsum | 0:00 |
| RL | Farmsumerzijl 13 9936GB Farmsum | 0:00 |
| RM | Farmsumerzijl 15 9936GB Farmsum | 0:00 |
| RN | Farmsumerzijl 17 9936GB Farmsum | 0:00 |
| RO | Farmsumerzijl 19 9936GB Farmsum | 0:00 |
| RP | Farmsumerzijl 25 9936GB Farmsum | 0:00 |
| RQ | Farmsumerzijl 27 9936GB Farmsum | 0:00 |
| RR | Farmsumerzijl 29 9936GB Farmsum | 0:00 |
| RS | Farmsumerzijl 31 9936GC Farmsum | 0:00 |
| RT | Farmsumerzijl 37 9936GC Farmsum | 0:00 |
| RU | Farmsumerzijl 39 9936GC Farmsum | 0:00 |
| RV | Farmsumerzijl 41 9936GC Farmsum | 0:00 |
| RW | Farmsumerzijl 43 9936GC Farmsum | 0:00 |
| RX | Schepperij 1 9936GL Farmsum | 0:00 |
| RY | Schepperij 3 9936GL Farmsum | 0:00 |
| RZ | Schepperij 5 9936GL Farmsum | 0:00 |
| S | Hoofdweg 39 9945PB Wagenborgen | 0:00 |
| SA | Schepperij 7 9936GL Farmsum | 0:00 |
| SB | Schepperij 9 9936GL Farmsum | 0:00 |
| SC | Schepperij 11 9936GL Farmsum | 0:00 |
| SD | Schepperij 13 9936GL Farmsum | 0:00 |
| SE | Schepperij 15 9936GL Farmsum | 0:00 |
| SF | Dijkrecht 8 9936GK Farmsum | 0:00 |
| SG | Geefsweersterweg 9 9937TB Meedhuizen | 6:15 |
| SH | Geefsweersterweg 7 9937TB Meedhuizen | 27:15 |
| SI | Geefsweersterweg 8 9937TC Meedhuizen | 32:34 |
| SJ | Geefsweersterweg 3 9937TB Meedhuizen | 18:18 |
| SK | Geefsweersterweg 6 9937TC Meedhuizen | 23:46 |
| SL | Geefsweersterweg 4 9937TC Meedhuizen | 17:14 |
| SM | Meedhuizerweg 2 9937TK Meedhuizen | 0:13 |
| SN | Molenstraat 31 9936EB Farmsum | 0:00 |
| SO | Hindrik Jagerstraat 32 9936CV Farmsum | 0:03 |
| SP | Hindrik Jagerstraat 11 9936CT Farmsum | 0:09 |
| SQ | Hindrik Jagerstraat 13 9936CT Farmsum | 0:09 |
| SR | Hindrik Jagerstraat 15 9936CT Farmsum | 0:09 |
| SS | Hindrik Jagerstraat 34 9936CV Farmsum | 0:03 |
| ST | Hindrik Jagerstraat 36 9936CV Farmsum | 0:02 |
| SU | Borgshof 31 9936CR Farmsum | 0:00 |
| SV | Borgshof 33 9936CR Farmsum | 0:00 |
| SW | Borgshof 39 9936CR Farmsum | 0:13 |
| SX | Borgshof 35 9936CR Farmsum | 0:09 |
| SY | Molenstraat 20 9936EC Farmsum | 0:00 |
| SZ | Molenstraat 24 9936EC Farmsum | 0:00 |
| T | Hoofdweg 35 9945PB Wagenborgen | 0:00 |
| TA | Molenstraat 28 9936EC Farmsum | 0:00 |
| TB | Molenstraat 41 9936EB Farmsum | 0:00 |
| TC | Molenstraat 43 9936EB Farmsum | 0:00 |
| TD | Molenstraat 45 9936EB Farmsum | 0:00 |
| TE | Molenstraat 32 9936EC Farmsum | 0:00 |
| TF | Achterweg 13 9936EG Farmsum | 0:00 |
| TG | Achterweg 11 9936EG Farmsum | 0:00 |
| TH | Achterweg 9 9936EG Farmsum | 0:00 |
| TI | Molenstraat 49 9936EB Farmsum | 0:00 |
| TJ | Molenstraat 51 9936EB Farmsum | 0:00 |
| TK | Molenstraat 53 9936EB Farmsum | 0:00 |
| TL | Molenstraat 57 9936EB Farmsum | 0:00 |
| TM | Molenstraat 61 9936EB Farmsum | 0:00 |
| TN | Molenstraat 63 9936EB Farmsum | 0:00 |
| TO | Molenstraat 34 9936ED Farmsum | 0:00 |
| TP | Molenstraat 38 9936ED Farmsum | 0:00 |
| TQ | Molenstraat 40 9936ED Farmsum | 0:00 |
| TR | Molenstraat 42 9936ED Farmsum | 0:00 |
| TS | Molenstraat 44 9936ED Farmsum | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| TT | Molenstraat 65 9936EB Farmsum | 0:00 |
| TU | Molenstraat 48 9936ED Farmsum | 0:00 |
| TV | Molenstraat 50 9936ED Farmsum | 0:00 |
| TW | Molenstraat 56 9936ED Farmsum | 0:00 |
| TX | Molenstraat 58 9936EE Farmsum | 0:00 |
| TY | Molenstraat 62 9936EE Farmsum | 0:00 |
| TZ | Molenstraat 72 9936EE Farmsum | 0:00 |
| U | Hoofdweg 37 9945PB Wagenborgen | 0:00 |
| UA | Molenstraat 70 9936EE Farmsum | 0:00 |
| UB | Molenstraat 68 9936EE Farmsum | 0:00 |
| UC | Molenstraat 66 9936EE Farmsum | 0:00 |
| UD | Achterweg 2 9936EG Farmsum | 0:00 |
| UE | Achterweg 12 9936EG Farmsum | 0:00 |
| UF | Achterweg 10 9936EG Farmsum | 0:00 |
| UG | Achterweg 8 9936EG Farmsum | 0:00 |
| UH | Hindrik Jagerstraat 17 9936CT Farmsum | 0:10 |
| UI | Molenstraat 30 9936EC Farmsum | 0:00 |
| UJ | Borgweg 141 9936EN Farmsum | 0:16 |
| UK | Borgweg 139 9936EN Farmsum | 0:18 |
| UL | Borgweg 137 9936EN Farmsum | 0:19 |
| UM | Borgweg 135 9936EN Farmsum | 0:21 |
| UN | Afwateringskanaal 109 9936AV Farmsum | 0:24 |
| UO | Borgweg 131 9936EM Farmsum | 0:19 |
| UP | Borgweg 133 9936EM Farmsum | 0:30 |
| UQ | Borgshof 41 9936CR Farmsum | 0:19 |
| UR | Borgshof 43 9936CR Farmsum | 0:23 |
| US | Borgshof 45 9936CR Farmsum | 0:26 |
| UT | Molenstraat 74 9936EE Farmsum | 0:00 |
| UU | Molenstraat 76 9936EE Farmsum | 0:00 |
| UV | Molenstraat 78 9936EE Farmsum | 0:00 |
| UW | Molenstraat 82 9936EE Farmsum | 0:00 |
| UX | Molenstraat 84 9936EE Farmsum | 0:00 |
| UY | Borgweg 123 9936EM Farmsum | 0:00 |
| UZ | Borgweg 125 9936EM Farmsum | 0:00 |
| V | Hoofdweg 44 9945PH Wagenborgen | 0:00 |
| VA | Borgweg 127 9936EM Farmsum | 0:00 |
| VB | Borgweg 129 9936EM Farmsum | 0:00 |
| VC | Farmsumerzijl 51 9936GC Farmsum | 0:00 |
| VD | Molenstraat 80 9936EE Farmsum | 0:00 |
| VE | Houtweg 30 9936BL Farmsum | 0:12 |
| VF | Houtweg 32 9936BL Farmsum | 0:12 |
| VG | Houtweg 34 9936BL Farmsum | 0:13 |
| VH | Houtweg 36 9936BL Farmsum | 0:14 |
| VI | Houtweg 38 9936BL Farmsum | 0:15 |
| VJ | Houtweg 40 9936BL Farmsum | 0:14 |
| VK | Houtweg 42 9936BL Farmsum | 0:15 |
| VL | Houtweg 44 9936BL Farmsum | 0:15 |
| VM | Houtweg 46 9936BL Farmsum | 0:15 |
| VN | Houtweg 48 9936BL Farmsum | 0:15 |
| VO | Rondeboslaan 26 9936BK Farmsum | 0:20 |
| VP | Rondeboslaan 28 9936BK Farmsum | 0:21 |
| VQ | Seendweg 32 9936GA Farmsum | 0:55 |
| VR | Trambaan 21 9936ES Farmsum | 0:42 |
| VS | Proosdij 19 9936ET Farmsum | 0:44 |
| VT | Bredelaan 14 9936ER Farmsum | 1:41 |
| VU | Bredelaan 10 9936ER Farmsum | 1:13 |
| VV | Bredelaan 8 9936ER Farmsum | 1:09 |
| VW | Seendweg 22 9936GA Farmsum | 1:47 |
| VX | Seendweg 28 9936GA Farmsum | 1:25 |
| VY | Proosdij 28 9936EW Farmsum | 0:25 |
| VZ | Proosdij 30 9936EX Farmsum | 0:27 |
| W | Hoofdweg 48 9945PH Wagenborgen | 0:00 |
| WA | Proosdij 26 9936EW Farmsum | 0:24 |

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| WB | Afwateringskanaal 107 9936AV Farmsum | 0:22 |
| WC | Rondeboslaan 22 A 9936BK Farmsum | 0:35 |
| WD | Rondeboslaan 22 B 9936BK Farmsum | 0:37 |
| WE | Rondeboslaan 2 A 9936BK Farmsum | 0:29 |
| WF | Rondeboslaan 2 B 9936BK Farmsum | 0:22 |
| WG | Seendweg 17 9936GA Farmsum | 1:20 |
| WH | Borgshof 29 9936CR Farmsum | 0:00 |
| WI | Molenstraat 22 9936EC Farmsum | 0:00 |
| WJ | Achterweg 7 A 9936EG Farmsum | 0:00 |
| WK | Molenstraat 26 9936EC Farmsum | 0:00 |
| WL | Borgweg 113 9936EM Farmsum | 0:00 |
| WM | Borgweg 115 9936EM Farmsum | 0:00 |
| WN | Borgweg 117 9936EM Farmsum | 0:00 |
| WO | Borgweg 119 9936EM Farmsum | 0:00 |
| WP | Borgweg 121 9936EM Farmsum | 0:00 |
| WQ | Farmsumerzijl 45 9936GC Farmsum | 0:00 |
| WR | Farmsumerzijl 47 9936GC Farmsum | 0:00 |
| WS | Farmsumerzijl 49 9936GC Farmsum | 0:00 |
| WT | Waarman 4 9936GW Farmsum | 0:00 |
| WU | Waarman 2 9936GW Farmsum | 0:00 |
| WV | Farmsumerzijl 9 9936GB Farmsum | 0:00 |
| WW | Farmsumerzijl 11 9936GB Farmsum | 0:00 |
| WX | Farmsumerzijl 21 9936GB Farmsum | 0:00 |
| WY | Farmsumerzijl 23 9936GB Farmsum | 0:00 |
| WZ | Farmsumerzijl 33 9936GC Farmsum | 0:00 |
| X | Hoofdweg 41 9945PB Wagenborgen | 0:00 |
| XA | Farmsumerzijl 35 9936GC Farmsum | 0:00 |
| XB | Schepperij 17 9936GL Farmsum | 0:00 |
| XC | Schepperij 19 9936GL Farmsum | 0:00 |
| XD | Schepperij 21 9936GL Farmsum | 0:00 |
| XE | Dijkrecht 3 9936GJ Farmsum | 0:00 |
| XF | Dijkrecht 5 9936GJ Farmsum | 0:00 |
| XG | Dijkrecht 7 9936GJ Farmsum | 0:00 |
| XH | Dijkrecht 9 9936GJ Farmsum | 0:00 |
| XI | Dijkrecht 11 9936GJ Farmsum | 0:00 |
| XJ | Dijkrecht 13 9936GJ Farmsum | 0:00 |
| XK | Dijkrecht 15 9936GJ Farmsum | 0:00 |
| XL | Dijkrecht 17 9936GJ Farmsum | 0:00 |
| XM | Dijkrecht 19 9936GJ Farmsum | 0:00 |
| XN | Dijkrecht 21 9936GJ Farmsum | 0:00 |
| XO | Schepperij 6 9936GN Farmsum | 0:00 |
| XP | Schepperij 8 9936GN Farmsum | 0:00 |
| XQ | Schepperij 10 9936GN Farmsum | 0:00 |
| XR | Schepperij 12 9936GN Farmsum | 0:00 |
| XS | Schepperij 14 9936GN Farmsum | 0:00 |
| XT | Schepperij 16 9936GN Farmsum | 0:00 |
| XU | Olderman 2 9936GT Farmsum | 0:00 |
| XV | Olderman 4 9936GT Farmsum | 0:00 |
| XW | Olderman 6 9936GT Farmsum | 0:00 |
| XX | Olderman 8 9936GT Farmsum | 0:00 |
| XY | Olderman 10 9936GT Farmsum | 0:00 |
| XZ | Olderman 12 9936GT Farmsum | 0:00 |
| Y | Hoofdweg 20 9945PG Wagenborgen | 0:00 |
| YA | Olderman 14 9936GT Farmsum | 0:00 |
| YB | Dijkrecht 23 9936GJ Farmsum | 0:00 |
| YC | Dijkrecht 25 9936GJ Farmsum | 0:00 |
| YD | Dijkrecht 27 9936GJ Farmsum | 0:00 |
| YE | Dijkrecht 29 9936GJ Farmsum | 0:00 |
| YF | Dijkrecht 31 9936GJ Farmsum | 0:00 |
| YG | Dijkrecht 33 9936GJ Farmsum | 0:00 |
| YH | Dijkrecht 35 9936GJ Farmsum | 0:00 |
| YI | Dijkrecht 37 9936GJ Farmsum | 0:00 |
| YJ | Dijkrecht 39 9936GJ Farmsum | 0:00 |

To be continued on next page...

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3-2-2017 13:05/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| YK | Dijkrecht 41 9936GJ Farmsum | 0:00 |
| YL | Dijkrecht 43 9936GJ Farmsum | 0:00 |
| YM | Olderman 1 9936GS Farmsum | 0:00 |
| YN | Olderman 3 9936GS Farmsum | 0:00 |
| YO | Olderman 5 9936GS Farmsum | 0:00 |
| YP | Olderman 7 9936GS Farmsum | 0:00 |
| YQ | Schepperij 37 9936GM Farmsum | 0:00 |
| YR | Schepperij 41 9936GM Farmsum | 0:00 |
| YS | Schepperij 45 9936GM Farmsum | 0:00 |
| YT | Schepperij 47 9936GM Farmsum | 0:00 |
| YU | Schepperij 49 9936GM Farmsum | 0:00 |
| YV | Olderman 18 9936GT Farmsum | 0:00 |
| YW | Olderman 20 9936GT Farmsum | 0:00 |
| YX | Olderman 22 9936GT Farmsum | 0:00 |
| YY | Olderman 24 9936GT Farmsum | 0:00 |
| YZ | Olderman 26 9936GT Farmsum | 0:00 |
| Z | Hoofdweg 22 9945PG Wagenborgen | 0:00 |
| ZA | Olderman 28 9936GT Farmsum | 0:00 |
| ZB | Olderman 30 9936GT Farmsum | 0:00 |
| ZC | Olderman 9 9936GS Farmsum | 0:00 |
| ZD | Olderman 11 9936GS Farmsum | 0:00 |
| ZE | Olderman 13 9936GS Farmsum | 0:00 |
| ZF | Proosdij 32 9936EX Farmsum | 0:27 |
| ZG | Proosdij 36 9936EX Farmsum | 0:26 |
| ZH | Proosdij 38 9936EX Farmsum | 0:24 |
| ZI | Proosdij 40 9936EX Farmsum | 0:21 |
| ZJ | Proosdij 27 9936EV Farmsum | 0:42 |
| ZK | Proosdij 25 9936EV Farmsum | 0:44 |
| ZL | Proosdij 23 9936EV Farmsum | 0:46 |
| ZM | Proosdij 21 9936EV Farmsum | 0:48 |
| ZN | Seendweg 5 9936GA Farmsum | 1:07 |
| ZO | Proosdij 29 9936EV Farmsum | 0:41 |
| ZP | Proosdij 31 9936EV Farmsum | 0:42 |
| ZQ | Proosdij 33 9936EV Farmsum | 0:48 |
| ZR | Proosdij 35 9936EV Farmsum | 0:39 |
| ZS | Proosdij 37 9936EV Farmsum | 0:31 |
| ZT | Proosdij 39 9936EV Farmsum | 0:28 |
| ZU | Proosdij 41 9936EV Farmsum | 0:24 |
| ZV | Proosdij 43 9936EV Farmsum | 0:21 |
| ZW | Proosdij 45 9936EV Farmsum | 0:19 |
| ZX | Proosdij 47 9936EV Farmsum | 0:16 |
| ZY | Olderman 15 9936GS Farmsum | 0:00 |
| ZZ | Rengersweg 97 9936GG Farmsum | 0:06 |

Total amount of flickering on the shadow receptors caused by each WTG

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 1 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (18) | 564:13 | 94:45 |
| 2 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (19) | 224:43 | 27:17 |
| 3 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (20) | 92:05 | 19:39 |
| 4 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (21) | 207:36 | 40:20 |
| 5 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (22) | 346:43 | 47:56 |
| 6 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (23) | 748:25 | 157:50 |
| 7 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (24) | 270:15 | 34:11 |
| 8 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (25) | 41:26 | 5:29 |
| 9 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (26) | 36:43 | 7:28 |
| 10 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (27) | 146:50 | 31:46 |
| 11 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (28) | 117:34 | 22:10 |
| 12 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (29) | 568:07 | 119:56 |
| 13 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (30) | 373:17 | 68:13 |
| 14 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (31) | 432:53 | 77:30 |

Project:
17002 - Geefsweer V2

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegd

### Assumptions for shadow calculations

Maximum distance for influence
Calculate only when more than 20 % of sun is covered by the blade
Please look in WTG table

| | |
|---|---|
| Minimum sun height over horizon for influence | 5 ° |
| Day step for calculation | 1 days |
| Time step for calculation | 1 minutes |

Sunshine probability S (Average daily sunshine hours) [EELDE]

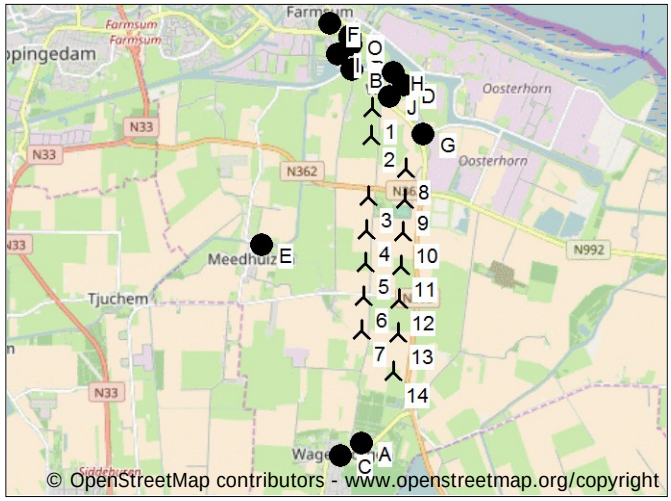
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

All coordinates are in
Dutch Stereo-RD/NAP 2008




Scale 1:125.000

New WTG  Shadow receptor

### WTGs

| | X (east) | Y (north) | Z | Row data/Description | WTG type Valid | Manufact. | Type-generator | Power, rated | Rotor diameter | Hub height | Shadow data Calculation distance | RPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [m] | | | | | [kW] | [m] | [m] | [m] | [RPM] |
| 1 | 258.610 | 592.416 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 2 | 258.598 | 591.937 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 3 | 258.572 | 590.942 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 4 | 258.554 | 590.388 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 5 | 258.542 | 589.830 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 6 | 258.525 | 589.275 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 7 | 258.509 | 588.721 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 8 | 259.187 | 591.420 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 9 | 259.174 | 590.910 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 10 | 259.158 | 590.354 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 11 | 259.144 | 589.798 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 12 | 259.127 | 589.240 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 13 | 259.112 | 588.683 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 14 | 259.050 | 588.043 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |

### Shadow receptor-Input

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| A | Familie Bronsweg 22 9945PS Wagenborgen | 258.549 | 586.857 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| B | Geefsweersterweg 1 9937TB Meedhuizen | 258.250 | 593.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| C | Hoofdweg 28 9945PG Wagenborgen | 258.194 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| D | Karspelpad 8 9936HP Farmsum | 259.130 | 592.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| E | Maarkampen 12 9937PL Meedhuizen | 256.818 | 590.108 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| F | Molenstraat 64 9936EE Farmsum | 257.875 | 593.798 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| G | Oosterlaan 9 9936HN Farmsum | 259.468 | 591.997 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| H | Schaappad 1 9936HT Farmsum | 258.946 | 593.010 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| I | Seendweg 8 9936GA Farmsum | 258.005 | 593.293 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| J | T.J. Jansenweg 11 9936HL Farmsum | 258.896 | 592.598 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| K | Waarman 1 9936GV Farmsum | 258.213 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| L | Waarman 11 9936GV Farmsum | 258.213 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| M | Waarman 3 9936GV Farmsum | 258.213 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| N | Waarman 5 9936GV Farmsum | 258.213 | 593.587 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| O | Waarman 7 9936GV Farmsum | 258.213 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| P | Waarman 9 9936GV Farmsum | 258.213 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Q | Zijlvest 20 9936GZ Farmsum | 258.233 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegd

### Calculation Results

Shadow receptor

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| A | Familie Bronsweg 22 9945PS Wagenborgen | 0:00 |
| B | Geefsweersterweg 1 9937TB Meedhuizen | 4:55 |
| C | Hoofdweg 28 9945PG Wagenborgen | 0:00 |
| D | Karspelpad 8 9936HP Farmsum | 10:20 |
| E | Maarkampen 12 9937PL Meedhuizen | 0:00 |
| F | Molenstraat 64 9936EE Farmsum | 0:00 |
| G | Oosterlaan 9 9936HN Farmsum | 20:14 |
| H | Schaappad 1 9936HT Farmsum | 7:15 |
| I | Seendweg 8 9936GA Farmsum | 2:03 |
| J | T.J. Jansenweg 11 9936HL Farmsum | 29:53 |
| K | Waarman 1 9936GV Farmsum | 0:00 |
| L | Waarman 11 9936GV Farmsum | 0:00 |
| M | Waarman 3 9936GV Farmsum | 0:00 |
| N | Waarman 5 9936GV Farmsum | 0:00 |
| O | Waarman 7 9936GV Farmsum | 0:00 |
| P | Waarman 9 9936GV Farmsum | 0:00 |
| Q | Zijlvest 20 9936GZ Farmsum | 0:00 |

Total amount of flickering on the shadow receptors caused by each WTG

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 1 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (18) | 315:37 | 48:33 |
| 2 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (19) | 91:07 | 11:10 |
| 3 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (20) | 9:16 | 1:05 |
| 4 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (21) | 0:00 | 0:00 |
| 5 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (22) | 0:00 | 0:00 |
| 6 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (23) | 0:00 | 0:00 |
| 7 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (24) | 0:00 | 0:00 |
| 8 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (25) | 68:36 | 7:30 |
| 9 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (26) | 0:00 | 0:00 |
| 10 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (27) | 0:00 | 0:00 |
| 11 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (28) | 0:00 | 0:00 |
| 12 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (29) | 0:00 | 0:00 |
| 13 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (30) | 0:00 | 0:00 |
| 14 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (31) | 0:00 | 0:00 |

Licensed user:
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Calculated:
8-2-2017 11:38/3.0.654

# SHADOW - Calendar

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegd Shadow receptor: A - Familie Bronsweg 22 9945PS Wagenborgen

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 08:46 | 08:17 | 07:21 | 07:07 | 05:59 | 05:11 | 05:07 | 05:45 | 06:38 | 07:30 | 07:27 | 08:21 |
| | 16:22 | 17:12 | 18:07 | 20:04 | 20:58 | 21:47 | 22:02 | 21:28 | 20:23 | 19:10 | 17:01 | 16:18 |
| 2 | 08:46 | 08:15 | 07:19 | 07:05 | 05:57 | 05:10 | 05:08 | 05:47 | 06:40 | 07:32 | 07:29 | 08:22 |
| | 16:23 | 17:14 | 18:09 | 20:06 | 21:00 | 21:48 | 22:01 | 21:26 | 20:20 | 19:08 | 16:59 | 16:17 |
| 3 | 08:45 | 08:14 | 07:16 | 07:02 | 05:55 | 05:09 | 05:08 | 05:49 | 06:42 | 07:34 | 07:31 | 08:24 |
| | 16:25 | 17:16 | 18:11 | 20:07 | 21:01 | 21:49 | 22:01 | 21:24 | 20:18 | 19:06 | 16:57 | 16:16 |
| 4 | 08:45 | 08:12 | 07:14 | 07:00 | 05:53 | 05:08 | 05:09 | 05:50 | 06:43 | 07:36 | 07:33 | 08:25 |
| | 16:26 | 17:18 | 18:12 | 20:09 | 21:03 | 21:50 | 22:00 | 21:22 | 20:16 | 19:03 | 16:55 | 16:16 |
| 5 | 08:45 | 08:10 | 07:12 | 06:58 | 05:51 | 05:08 | 05:10 | 05:52 | 06:45 | 07:37 | 07:35 | 08:27 |
| | 16:27 | 17:20 | 18:14 | 20:11 | 21:05 | 21:51 | 22:00 | 21:21 | 20:13 | 19:01 | 16:53 | 16:15 |
| 6 | 08:45 | 08:08 | 07:09 | 06:55 | 05:49 | 05:07 | 05:11 | 05:54 | 06:47 | 07:39 | 07:36 | 08:28 |
| | 16:28 | 17:22 | 18:16 | 20:13 | 21:07 | 21:52 | 21:59 | 21:19 | 20:11 | 18:58 | 16:52 | 16:14 |
| 7 | 08:44 | 08:07 | 07:07 | 06:53 | 05:48 | 05:06 | 05:12 | 05:55 | 06:49 | 07:41 | 07:38 | 08:29 |
| | 16:30 | 17:24 | 18:18 | 20:15 | 21:08 | 21:53 | 21:59 | 21:17 | 20:09 | 18:56 | 16:50 | 16:14 |
| 8 | 08:44 | 08:05 | 07:05 | 06:51 | 05:46 | 05:06 | 05:13 | 05:57 | 06:50 | 07:43 | 07:40 | 08:31 |
| | 16:31 | 17:26 | 18:20 | 20:17 | 21:10 | 21:54 | 21:58 | 21:15 | 20:06 | 18:54 | 16:48 | 16:14 |
| 9 | 08:43 | 08:03 | 07:02 | 06:48 | 05:44 | 05:05 | 05:14 | 05:59 | 06:52 | 07:44 | 07:42 | 08:32 |
| | 16:32 | 17:28 | 18:22 | 20:18 | 21:12 | 21:55 | 21:57 | 21:13 | 20:04 | 18:51 | 16:46 | 16:13 |
| 10 | 08:43 | 08:01 | 07:00 | 06:46 | 05:42 | 05:05 | 05:15 | 06:00 | 06:54 | 07:46 | 07:44 | 08:33 |
| | 16:34 | 17:30 | 18:24 | 20:20 | 21:14 | 21:56 | 21:57 | 21:11 | 20:01 | 18:49 | 16:44 | 16:13 |
| 11 | 08:42 | 07:59 | 06:58 | 06:43 | 05:40 | 05:04 | 05:16 | 06:02 | 06:55 | 07:48 | 07:46 | 08:34 |
| | 16:35 | 17:32 | 18:26 | 20:22 | 21:15 | 21:57 | 21:56 | 21:09 | 19:59 | 18:47 | 16:43 | 16:13 |
| 12 | 08:41 | 07:57 | 06:55 | 06:41 | 05:38 | 05:04 | 05:17 | 06:04 | 06:57 | 07:50 | 07:48 | 08:35 |
| | 16:37 | 17:34 | 18:27 | 20:24 | 21:17 | 21:57 | 21:55 | 21:07 | 19:56 | 18:44 | 16:41 | 16:13 |
| 13 | 08:40 | 07:55 | 06:53 | 06:39 | 05:37 | 05:03 | 05:18 | 06:06 | 06:59 | 07:52 | 07:50 | 08:36 |
| | 16:38 | 17:36 | 18:29 | 20:26 | 21:19 | 21:58 | 21:54 | 21:05 | 19:54 | 18:42 | 16:40 | 16:12 |
| 14 | 08:40 | 07:53 | 06:51 | 06:37 | 05:35 | 05:03 | 05:19 | 06:07 | 07:01 | 07:53 | 07:52 | 08:37 |
| | 16:40 | 17:38 | 18:31 | 20:27 | 21:20 | 21:59 | 21:53 | 21:03 | 19:52 | 18:40 | 16:38 | 16:12 |
| 15 | 08:39 | 07:51 | 06:48 | 06:34 | 05:33 | 05:03 | 05:21 | 06:09 | 07:02 | 07:55 | 07:53 | 08:38 |
| | 16:41 | 17:40 | 18:33 | 20:29 | 21:22 | 21:59 | 21:52 | 21:01 | 19:49 | 18:37 | 16:36 | 16:12 |
| 16 | 08:38 | 07:49 | 06:46 | 06:32 | 05:32 | 05:03 | 05:22 | 06:11 | 07:04 | 07:57 | 07:55 | 08:39 |
| | 16:43 | 17:42 | 18:35 | 20:31 | 21:24 | 22:00 | 21:51 | 20:59 | 19:47 | 18:35 | 16:35 | 16:13 |
| 17 | 08:37 | 07:47 | 06:43 | 06:30 | 05:30 | 05:03 | 05:23 | 06:12 | 07:06 | 07:59 | 07:57 | 08:40 |
| | 16:45 | 17:44 | 18:37 | 20:33 | 21:25 | 22:00 | 21:50 | 20:57 | 19:44 | 18:33 | 16:33 | 16:13 |
| 18 | 08:36 | 07:45 | 06:41 | 06:27 | 05:29 | 05:03 | 05:24 | 06:14 | 07:08 | 08:01 | 07:59 | 08:41 |
| | 16:46 | 17:46 | 18:38 | 20:35 | 21:27 | 22:01 | 21:48 | 20:54 | 19:42 | 18:31 | 16:32 | 16:13 |
| 19 | 08:35 | 07:43 | 06:39 | 06:25 | 05:27 | 05:03 | 05:26 | 06:16 | 07:09 | 08:03 | 08:01 | 08:42 |
| | 16:48 | 17:47 | 18:40 | 20:36 | 21:28 | 22:01 | 21:47 | 20:52 | 19:39 | 18:28 | 16:31 | 16:13 |
| 20 | 08:34 | 07:41 | 06:36 | 06:23 | 05:25 | 05:03 | 05:27 | 06:18 | 07:11 | 08:04 | 08:02 | 08:42 |
| | 16:50 | 17:49 | 18:42 | 20:38 | 21:30 | 22:02 | 21:46 | 20:50 | 19:37 | 18:26 | 16:29 | 16:13 |
| 21 | 08:33 | 07:39 | 06:34 | 06:21 | 05:24 | 05:03 | 05:29 | 06:19 | 07:13 | 08:06 | 08:04 | 08:43 |
| | 16:52 | 17:51 | 18:44 | 20:40 | 21:32 | 22:02 | 21:45 | 20:48 | 19:35 | 18:24 | 16:28 | 16:14 |
| 22 | 08:31 | 07:36 | 06:31 | 06:18 | 05:23 | 05:03 | 05:30 | 06:21 | 07:14 | 08:08 | 08:06 | 08:43 |
| | 16:53 | 17:53 | 18:46 | 20:42 | 21:33 | 22:02 | 21:43 | 20:46 | 19:32 | 18:22 | 16:27 | 16:14 |
| 23 | 08:30 | 07:34 | 06:29 | 06:16 | 05:21 | 05:03 | 05:32 | 06:23 | 07:16 | 08:10 | 08:08 | 08:44 |
| | 16:55 | 17:55 | 18:48 | 20:44 | 21:35 | 22:02 | 21:42 | 20:43 | 19:30 | 18:20 | 16:26 | 16:15 |
| 24 | 08:29 | 07:32 | 06:26 | 06:14 | 05:20 | 05:03 | 05:33 | 06:24 | 07:18 | 08:12 | 08:09 | 08:44 |
| | 16:57 | 17:57 | 18:49 | 20:45 | 21:36 | 22:02 | 21:41 | 20:41 | 19:27 | 18:17 | 16:24 | 16:15 |
| 25 | 08:27 | 07:30 | 06:24 | 06:12 | 05:19 | 05:04 | 05:34 | 06:26 | 07:20 | 08:14 | 08:11 | 08:45 |
| | 16:59 | 17:59 | 18:51 | 20:47 | 21:37 | 22:02 | 21:39 | 20:39 | 19:25 | 18:15 | 16:23 | 16:16 |
| 26 | 08:26 | 07:28 | 07:22 | 06:10 | 05:17 | 05:04 | 05:36 | 06:28 | 07:21 | 08:16 | 08:13 | 08:45 |
| | 17:01 | 18:01 | 19:53 | 20:49 | 21:39 | 22:02 | 21:38 | 20:37 | 19:22 | 18:13 | 16:22 | 16:17 |
| 27 | 08:25 | 07:25 | 07:19 | 06:08 | 05:16 | 05:05 | 05:38 | 06:30 | 07:23 | 08:18 | 08:14 | 08:45 |
| | 17:03 | 18:03 | 19:55 | 20:51 | 21:40 | 22:02 | 21:36 | 20:34 | 19:20 | 18:11 | 16:21 | 16:17 |
| 28 | 08:23 | 07:23 | 07:17 | 06:06 | 05:15 | 05:05 | 05:39 | 06:31 | 07:25 | 08:19 | 08:16 | 08:46 |
| | 17:05 | 18:05 | 19:57 | 20:53 | 21:42 | 22:02 | 21:34 | 20:32 | 19:18 | 18:09 | 16:20 | 16:18 |
| 29 | 08:22 | | 07:14 | 06:03 | 05:14 | 05:06 | 05:41 | 06:33 | 07:27 | 07:21 | 08:18 | 08:46 |
| | 17:07 | | 19:58 | 20:54 | 21:43 | 22:02 | 21:33 | 20:30 | 19:15 | 17:07 | 16:19 | 16:19 |
| 30 | 08:20 | | 07:12 | 06:01 | 05:13 | 05:06 | 05:42 | 06:35 | 07:28 | 07:23 | 08:19 | 08:46 |
| | 17:08 | | 20:00 | 20:56 | 21:44 | 22:02 | 21:31 | 20:27 | 19:13 | 17:05 | 16:18 | 16:20 |
| 31 | 08:19 | | 07:10 | | 05:12 | | 05:44 | 06:37 | | 07:25 | | 08:46 |
| | 17:10 | | 20:02 | | 21:45 | | 21:29 | 20:25 | | 17:03 | | 16:21 |
| Potential sun hours | 252 | 274 | 366 | 418 | 491 | 506 | 509 | 458 | 382 | 330 | 262 | 237 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|---|---|---|---|---|
| | Sun set (hh:mm) | Minutes with flicker | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

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Calculated:
8-2-2017 11:38/3.0.654

# SHADOW - Calendar

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegdShadow receptor: B - Geefsweersterweg 1 9937TB Meedhuizen

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | January | | | February | March | April | May | June | July | August | September | October | November | | | December | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 08:46 | | 10:08 (1) | 08:17 | 07:21 | 07:07 | 05:59 | 05:11 | 05:07 | 05:45 | 06:38 | 07:30 | 07:27 | | | 08:21 | | 09:55 (1) |
| | 16:22 | 47 | 10:55 (1) | 17:12 | 18:07 | 20:04 | 20:58 | 21:47 | 22:02 | 21:28 | 20:23 | 19:10 | 17:01 | | | 16:17 | 45 | 10:40 (1) |
| 2 | 08:46 | | 10:08 (1) | 08:15 | 07:19 | 07:05 | 05:57 | 05:10 | 05:07 | 05:47 | 06:40 | 07:32 | 07:29 | | | 08:23 | | 09:55 (1) |
| | 16:23 | 47 | 10:55 (1) | 17:14 | 18:09 | 20:06 | 21:00 | 21:48 | 22:02 | 21:26 | 20:20 | 19:08 | 16:59 | | | 16:17 | 46 | 10:41 (1) |
| 3 | 08:46 | | 10:09 (1) | 08:14 | 07:16 | 07:02 | 05:55 | 05:09 | 05:08 | 05:48 | 06:42 | 07:34 | 07:31 | | | 08:24 | | 09:56 (1) |
| | 16:24 | 47 | 10:56 (1) | 17:16 | 18:10 | 20:08 | 21:02 | 21:49 | 22:01 | 21:24 | 20:18 | 19:06 | 16:57 | | | 16:16 | 46 | 10:42 (1) |
| 4 | 08:46 | | 10:09 (1) | 08:12 | 07:14 | 07:00 | 05:53 | 05:08 | 05:09 | 05:50 | 06:43 | 07:36 | 07:33 | | | 08:26 | | 09:55 (1) |
| | 16:25 | 47 | 10:56 (1) | 17:18 | 18:12 | 20:09 | 21:03 | 21:50 | 22:01 | 21:23 | 20:16 | 19:03 | 16:55 | | | 16:15 | 47 | 10:42 (1) |
| 5 | 08:45 | | 10:10 (1) | 08:10 | 07:12 | 06:58 | 05:51 | 05:07 | 05:10 | 05:52 | 06:45 | 07:37 | 07:35 | | | 08:27 | | 09:56 (1) |
| | 16:27 | 47 | 10:57 (1) | 17:20 | 18:14 | 20:11 | 21:05 | 21:52 | 22:00 | 21:21 | 20:13 | 19:01 | 16:53 | | | 16:15 | 47 | 10:43 (1) |
| 6 | 08:45 | | 10:10 (1) | 08:09 | 07:09 | 06:55 | 05:49 | 05:07 | 05:11 | 05:53 | 06:47 | 07:39 | 07:37 | | | 08:28 | | 09:57 (1) |
| | 16:28 | 47 | 10:57 (1) | 17:22 | 18:16 | 20:13 | 21:07 | 21:53 | 22:00 | 21:19 | 20:11 | 18:58 | 16:51 | | | 16:14 | 47 | 10:44 (1) |
| 7 | 08:44 | | 10:11 (1) | 08:07 | 07:07 | 06:53 | 05:47 | 05:06 | 05:11 | 05:55 | 06:49 | 07:41 | 07:39 | | | 08:30 | | 09:57 (1) |
| | 16:29 | 47 | 10:58 (1) | 17:24 | 18:18 | 20:15 | 21:09 | 21:54 | 21:59 | 21:17 | 20:09 | 18:56 | 16:50 | | | 16:14 | 47 | 10:44 (1) |
| 8 | 08:44 | | 10:12 (1) | 08:05 | 07:05 | 06:50 | 05:45 | 05:05 | 05:12 | 05:57 | 06:50 | 07:43 | 07:40 | | | 08:31 | | 09:58 (1) |
| | 16:31 | 46 | 10:58 (1) | 17:26 | 18:20 | 20:17 | 21:10 | 21:55 | 21:58 | 21:15 | 20:06 | 18:54 | 16:48 | | | 16:13 | 47 | 10:45 (1) |
| 9 | 08:43 | | 10:12 (1) | 08:03 | 07:02 | 06:48 | 05:44 | 05:05 | 05:13 | 05:59 | 06:52 | 07:44 | 07:42 | | | 08:32 | | 09:58 (1) |
| | 16:32 | 46 | 10:58 (1) | 17:28 | 18:22 | 20:18 | 21:12 | 21:55 | 21:58 | 21:13 | 20:04 | 18:51 | 16:46 | | | 16:13 | 47 | 10:45 (1) |
| 10 | 08:43 | | 10:13 (1) | 08:01 | 07:00 | 06:46 | 05:42 | 05:04 | 05:14 | 06:00 | 06:54 | 07:46 | 07:44 | | | 08:33 | | 09:58 (1) |
| | 16:33 | 46 | 10:59 (1) | 17:30 | 18:24 | 20:20 | 21:14 | 21:56 | 21:57 | 21:11 | 20:01 | 18:49 | 16:44 | | | 16:13 | 47 | 10:45 (1) |
| 11 | 08:42 | | 10:13 (1) | 07:59 | 06:58 | 06:43 | 05:40 | 05:04 | 05:16 | 06:02 | 06:55 | 07:48 | 07:46 | | | 08:34 | | 09:59 (1) |
| | 16:35 | 46 | 10:59 (1) | 17:32 | 18:26 | 20:22 | 21:16 | 21:57 | 21:56 | 21:09 | 19:59 | 18:47 | 16:43 | | | 16:12 | 47 | 10:46 (1) |
| 12 | 08:41 | | 10:14 (1) | 07:57 | 06:55 | 06:41 | 05:38 | 05:03 | 05:17 | 06:04 | 06:57 | 07:50 | 07:48 | | | 08:36 | | 09:59 (1) |
| | 16:36 | 45 | 10:59 (1) | 17:34 | 18:27 | 20:24 | 21:17 | 21:58 | 21:55 | 21:07 | 19:57 | 18:44 | 16:41 | | | 16:12 | 47 | 10:46 (1) |
| 13 | 08:41 | | 10:14 (1) | 07:55 | 06:53 | 06:39 | 05:36 | 05:03 | 05:18 | 06:05 | 06:59 | 07:52 | 07:50 | | 10:08 (1) | 08:37 | | 09:59 (1) |
| | 16:38 | 45 | 10:59 (1) | 17:36 | 18:29 | 20:26 | 21:19 | 21:59 | 21:54 | 21:05 | 19:54 | 18:42 | 16:39 | 8 | 10:16 (1) | 16:12 | 47 | 10:46 (1) |
| 14 | 08:40 | | 10:15 (1) | 07:53 | 06:51 | 06:36 | 05:35 | 05:03 | 05:19 | 06:07 | 07:01 | 07:54 | 07:52 | | 10:04 (1) | 08:38 | | 10:00 (1) |
| | 16:40 | 44 | 10:59 (1) | 17:38 | 18:31 | 20:27 | 21:21 | 21:59 | 21:53 | 21:03 | 19:52 | 18:40 | 16:38 | 16 | 10:20 (1) | 16:12 | 47 | 10:47 (1) |
| 15 | 08:39 | | 10:16 (1) | 07:51 | 06:48 | 06:34 | 05:33 | 05:03 | 05:20 | 06:09 | 07:02 | 07:55 | 07:54 | | 10:01 (1) | 08:39 | | 10:00 (1) |
| | 16:41 | 44 | 11:00 (1) | 17:40 | 18:33 | 20:29 | 21:22 | 22:00 | 21:52 | 21:01 | 19:49 | 18:37 | 16:36 | 22 | 10:23 (1) | 16:12 | 47 | 10:47 (1) |
| 16 | 08:38 | | 10:16 (1) | 07:49 | 06:46 | 06:32 | 05:31 | 05:02 | 05:22 | 06:10 | 07:04 | 07:57 | 07:55 | | 10:00 (1) | 08:39 | | 10:01 (1) |
| | 16:43 | 43 | 10:59 (1) | 17:41 | 18:35 | 20:31 | 21:24 | 22:00 | 21:51 | 20:59 | 19:47 | 18:35 | 16:35 | 26 | 10:26 (1) | 16:12 | 47 | 10:48 (1) |
| 17 | 08:37 | | 10:17 (1) | 07:47 | 06:43 | 06:30 | 05:30 | 05:02 | 05:23 | 06:12 | 07:06 | 07:59 | 07:57 | | 09:58 (1) | 08:40 | | 10:01 (1) |
| | 16:45 | 42 | 10:59 (1) | 17:43 | 18:37 | 20:33 | 21:25 | 22:01 | 21:50 | 20:57 | 19:44 | 18:33 | 16:33 | 29 | 10:27 (1) | 16:12 | 47 | 10:48 (1) |
| 18 | 08:36 | | 10:18 (1) | 07:45 | 06:41 | 06:27 | 05:28 | 05:02 | 05:24 | 06:14 | 07:08 | 08:01 | 07:59 | | 09:58 (1) | 08:41 | | 10:02 (1) |
| | 16:46 | 41 | 10:59 (1) | 17:45 | 18:38 | 20:35 | 21:27 | 22:01 | 21:49 | 20:55 | 19:42 | 18:31 | 16:32 | 32 | 10:30 (1) | 16:13 | 47 | 10:49 (1) |
| 19 | 08:35 | | 10:18 (1) | 07:43 | 06:39 | 06:25 | 05:27 | 05:02 | 05:26 | 06:16 | 07:09 | 08:03 | 08:01 | | 09:57 (1) | 08:42 | | 10:02 (1) |
| | 16:48 | 41 | 10:59 (1) | 17:47 | 18:40 | 20:36 | 21:29 | 22:02 | 21:48 | 20:52 | 19:39 | 18:28 | 16:30 | 34 | 10:31 (1) | 16:13 | 47 | 10:49 (1) |
| 20 | 08:34 | | 10:19 (1) | 07:41 | 06:36 | 06:23 | 05:25 | 05:02 | 05:27 | 06:17 | 07:11 | 08:05 | 08:03 | | 09:57 (1) | 08:43 | | 10:02 (1) |
| | 16:50 | 40 | 10:59 (1) | 17:49 | 18:42 | 20:38 | 21:30 | 22:02 | 21:46 | 20:50 | 19:37 | 18:26 | 16:29 | 35 | 10:32 (1) | 16:13 | 47 | 10:49 (1) |
| 21 | 08:33 | | 10:20 (1) | 07:39 | 06:34 | 06:21 | 05:24 | 05:02 | 05:28 | 06:19 | 07:13 | 08:06 | 08:05 | | 09:56 (1) | 08:43 | | 10:03 (1) |
| | 16:51 | 38 | 10:58 (1) | 17:51 | 18:44 | 20:40 | 21:32 | 22:02 | 21:45 | 20:48 | 19:35 | 18:24 | 16:28 | 37 | 10:33 (1) | 16:14 | 47 | 10:50 (1) |
| 22 | 08:32 | | 10:21 (1) | 07:37 | 06:31 | 06:18 | 05:22 | 05:03 | 05:30 | 06:21 | 07:14 | 08:08 | 08:06 | | 09:56 (1) | 08:44 | | 10:03 (1) |
| | 16:53 | 37 | 10:58 (1) | 17:53 | 18:46 | 20:42 | 21:33 | 22:03 | 21:44 | 20:46 | 19:32 | 18:22 | 16:27 | 38 | 10:34 (1) | 16:14 | 47 | 10:50 (1) |
| 23 | 08:30 | | 10:22 (1) | 07:34 | 06:29 | 06:16 | 05:21 | 05:03 | 05:31 | 06:23 | 07:16 | 08:10 | 08:08 | | 09:55 (1) | 08:44 | | 10:04 (1) |
| | 16:55 | 35 | 10:57 (1) | 17:55 | 18:48 | 20:44 | 21:35 | 22:03 | 21:42 | 20:44 | 19:30 | 18:20 | 16:25 | 40 | 10:35 (1) | 16:15 | 47 | 10:51 (1) |
| 24 | 08:29 | | 10:24 (1) | 07:32 | 06:26 | 06:14 | 05:20 | 05:03 | 05:33 | 06:24 | 07:18 | 08:12 | 08:10 | | 09:55 (1) | 08:45 | | 10:04 (1) |
| | 16:57 | 33 | 10:57 (1) | 17:57 | 18:49 | 20:46 | 21:36 | 22:03 | 21:41 | 20:41 | 19:27 | 18:17 | 16:24 | 41 | 10:36 (1) | 16:15 | 47 | 10:51 (1) |
| 25 | 08:28 | | 10:25 (1) | 07:30 | 06:24 | 06:12 | 05:18 | 05:03 | 05:34 | 06:26 | 07:20 | 08:14 | 08:11 | | 09:55 (1) | 08:45 | | 10:05 (1) |
| | 16:59 | 30 | 10:55 (1) | 17:59 | 18:51 | 20:47 | 21:38 | 22:03 | 21:39 | 20:39 | 19:25 | 18:15 | 16:23 | 42 | 10:37 (1) | 16:16 | 47 | 10:52 (1) |
| 26 | 08:26 | | 10:26 (1) | 07:28 | 07:22 | 06:10 | 05:17 | 05:04 | 05:36 | 06:28 | 07:21 | 08:16 | 08:13 | | 09:55 (1) | 08:45 | | 10:05 (1) |
| | 17:01 | 28 | 10:54 (1) | 18:01 | 19:53 | 20:49 | 21:39 | 22:03 | 21:38 | 20:37 | 19:22 | 18:13 | 16:22 | 43 | 10:38 (1) | 16:16 | 47 | 10:52 (1) |
| 27 | 08:25 | | 10:28 (1) | 07:25 | 07:19 | 06:07 | 05:16 | 05:04 | 05:37 | 06:30 | 07:23 | 08:18 | 08:15 | | 09:55 (1) | 08:46 | | 10:05 (1) |
| | 17:03 | 23 | 10:51 (1) | 18:03 | 19:55 | 20:51 | 21:41 | 22:03 | 21:36 | 20:34 | 19:20 | 18:11 | 16:21 | 43 | 10:38 (1) | 16:17 | 47 | 10:52 (1) |
| 28 | 08:23 | | 10:31 (1) | 07:23 | 07:17 | 06:05 | 05:15 | 05:05 | 05:39 | 06:31 | 07:25 | 08:20 | 08:16 | | 09:55 (1) | 08:46 | | 10:07 (1) |
| | 17:04 | 19 | 10:50 (1) | 18:05 | 19:57 | 20:53 | 21:42 | 22:03 | 21:35 | 20:32 | 19:18 | 18:09 | 16:20 | 44 | 10:39 (1) | 16:18 | 47 | 10:54 (1) |
| 29 | 08:22 | | 10:34 (1) | | 07:14 | 06:03 | 05:14 | 05:05 | 05:40 | 06:33 | 07:27 | 07:22 | 08:18 | | 09:55 (1) | 08:46 | | 10:06 (1) |
| | 17:06 | 12 | 10:46 (1) | | 19:59 | 20:55 | 21:43 | 22:02 | 21:33 | 20:30 | 19:15 | 17:07 | 16:19 | 45 | 10:40 (1) | 16:19 | 47 | 10:53 (1) |
| 30 | 08:20 | | | | 07:12 | 06:01 | 05:13 | 05:06 | 05:42 | 06:35 | 07:28 | 07:23 | 08:20 | | 09:56 (1) | 08:46 | | 10:07 (1) |
| | 17:08 | | | | 20:00 | 20:56 | 21:45 | 22:02 | 21:31 | 20:28 | 19:13 | 17:05 | 16:18 | 45 | 10:41 (1) | 16:20 | 47 | 10:54 (1) |
| 31 | 08:19 | | | | 07:10 | | 05:12 | | 05:44 | 06:36 | | 07:25 | | | | 08:46 | | 10:07 (1) |
| | 17:10 | | | | 20:02 | | 21:46 | | 21:30 | 20:25 | | 17:03 | | | | 16:21 | 48 | 10:55 (1) |
| Potential sun hours | 252 | | | 274 | 366 | 418 | 491 | 507 | 510 | 459 | 382 | 330 | 261 | | | 236 | | |
| Total, worst case | | 1153 | | | | | | | | | | | | 620 | | | 1454 | |
| Sun reduction | | 0,17 | | | | | | | | | | | | 0,21 | | | 0,13 | |
| Oper. time red. | | 0,96 | | | | | | | | | | | | 0,96 | | | 0,96 | |
| Wind dir. red. | | 0,61 | | | | | | | | | | | | 0,61 | | | 0,61 | |
| Total reduction | | 0,10 | | | | | | | | | | | | 0,12 | | | 0,07 | |
| Total, real | | 112 | | | | | | | | | | | | 76 | | | 107 | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm)<br>Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker<br>Last time (hh:mm) with flicker | (WTG causing flicker first time)<br>(WTG causing flicker last time) |
|---|---|---|---|---|

Licensed user:
Bosch & Van Rijn
Groenmarktstraat 56
NL-3521 AV Utrecht
+31 6 51 71 04 93
Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

# SHADOW - Calendar

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegdShadow receptor: C - Hoofdweg 28 9945PG Wagenborgen

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 08:46 | 08:17 | 07:21 | 07:07 | 05:59 | 05:11 | 05:07 | 05:45 | 06:38 | 07:30 | 07:27 | 08:21 |
| | 16:22 | 17:12 | 18:07 | 20:04 | 20:58 | 21:47 | 22:02 | 21:28 | 20:23 | 19:10 | 17:01 | 16:18 |
| 2 | 08:46 | 08:15 | 07:19 | 07:05 | 05:57 | 05:10 | 05:08 | 05:47 | 06:40 | 07:32 | 07:29 | 08:22 |
| | 16:23 | 17:14 | 18:09 | 20:06 | 21:00 | 21:48 | 22:01 | 21:26 | 20:20 | 19:08 | 16:59 | 16:17 |
| 3 | 08:45 | 08:14 | 07:16 | 07:02 | 05:55 | 05:09 | 05:08 | 05:49 | 06:42 | 07:34 | 07:31 | 08:24 |
| | 16:25 | 17:16 | 18:11 | 20:08 | 21:01 | 21:49 | 22:01 | 21:24 | 20:18 | 19:06 | 16:57 | 16:16 |
| 4 | 08:45 | 08:12 | 07:14 | 07:00 | 05:53 | 05:08 | 05:09 | 05:50 | 06:43 | 07:36 | 07:33 | 08:25 |
| | 16:26 | 17:18 | 18:12 | 20:09 | 21:03 | 21:50 | 22:00 | 21:22 | 20:16 | 19:03 | 16:55 | 16:16 |
| 5 | 08:45 | 08:10 | 07:12 | 06:58 | 05:51 | 05:08 | 05:10 | 05:52 | 06:45 | 07:37 | 07:35 | 08:27 |
| | 16:27 | 17:20 | 18:14 | 20:11 | 21:05 | 21:51 | 22:00 | 21:21 | 20:13 | 19:01 | 16:53 | 16:15 |
| 6 | 08:45 | 08:08 | 07:09 | 06:55 | 05:49 | 05:07 | 05:11 | 05:54 | 06:47 | 07:39 | 07:37 | 08:28 |
| | 16:28 | 17:22 | 18:16 | 20:13 | 21:07 | 21:52 | 21:59 | 21:19 | 20:11 | 18:58 | 16:52 | 16:15 |
| 7 | 08:44 | 08:07 | 07:07 | 06:53 | 05:48 | 05:06 | 05:12 | 05:55 | 06:49 | 07:41 | 07:38 | 08:29 |
| | 16:30 | 17:24 | 18:18 | 20:15 | 21:08 | 21:53 | 21:59 | 21:17 | 20:09 | 18:56 | 16:50 | 16:14 |
| 8 | 08:44 | 08:05 | 07:05 | 06:51 | 05:46 | 05:06 | 05:13 | 05:57 | 06:50 | 07:43 | 07:40 | 08:31 |
| | 16:31 | 17:26 | 18:20 | 20:17 | 21:10 | 21:54 | 21:58 | 21:15 | 20:06 | 18:54 | 16:48 | 16:14 |
| 9 | 08:43 | 08:03 | 07:02 | 06:48 | 05:44 | 05:05 | 05:14 | 05:59 | 06:52 | 07:44 | 07:42 | 08:32 |
| | 16:32 | 17:28 | 18:22 | 20:18 | 21:12 | 21:55 | 21:57 | 21:13 | 20:04 | 18:51 | 16:46 | 16:13 |
| 10 | 08:43 | 08:01 | 07:00 | 06:46 | 05:42 | 05:05 | 05:15 | 06:00 | 06:54 | 07:46 | 07:44 | 08:33 |
| | 16:34 | 17:30 | 18:24 | 20:20 | 21:14 | 21:56 | 21:57 | 21:11 | 20:01 | 18:49 | 16:45 | 16:13 |
| 11 | 08:42 | 07:59 | 06:58 | 06:44 | 05:40 | 05:04 | 05:16 | 06:02 | 06:56 | 07:48 | 07:46 | 08:34 |
| | 16:35 | 17:32 | 18:26 | 20:22 | 21:15 | 21:57 | 21:56 | 21:09 | 19:59 | 18:47 | 16:43 | 16:13 |
| 12 | 08:41 | 07:57 | 06:55 | 06:41 | 05:38 | 05:04 | 05:17 | 06:04 | 06:57 | 07:50 | 07:48 | 08:35 |
| | 16:37 | 17:34 | 18:27 | 20:24 | 21:17 | 21:57 | 21:55 | 21:07 | 19:56 | 18:44 | 16:41 | 16:13 |
| 13 | 08:40 | 07:55 | 06:53 | 06:39 | 05:37 | 05:03 | 05:18 | 06:06 | 06:59 | 07:52 | 07:50 | 08:36 |
| | 16:38 | 17:36 | 18:29 | 20:26 | 21:19 | 21:58 | 21:54 | 21:05 | 19:54 | 18:42 | 16:40 | 16:12 |
| 14 | 08:40 | 07:53 | 06:51 | 06:37 | 05:35 | 05:03 | 05:19 | 06:07 | 07:01 | 07:53 | 07:52 | 08:37 |
| | 16:40 | 17:38 | 18:31 | 20:27 | 21:20 | 21:59 | 21:53 | 21:03 | 19:52 | 18:40 | 16:38 | 16:12 |
| 15 | 08:39 | 07:51 | 06:48 | 06:34 | 05:33 | 05:03 | 05:21 | 06:09 | 07:02 | 07:55 | 07:53 | 08:38 |
| | 16:41 | 17:40 | 18:33 | 20:29 | 21:22 | 21:59 | 21:52 | 21:01 | 19:49 | 18:37 | 16:36 | 16:12 |
| 16 | 08:38 | 07:49 | 06:46 | 06:32 | 05:32 | 05:03 | 05:22 | 06:11 | 07:04 | 07:57 | 07:55 | 08:39 |
| | 16:43 | 17:42 | 18:35 | 20:31 | 21:24 | 22:00 | 21:51 | 20:59 | 19:47 | 18:35 | 16:35 | 16:13 |
| 17 | 08:37 | 07:47 | 06:43 | 06:30 | 05:30 | 05:03 | 05:23 | 06:12 | 07:06 | 07:59 | 07:57 | 08:40 |
| | 16:45 | 17:44 | 18:37 | 20:33 | 21:25 | 22:00 | 21:50 | 20:57 | 19:44 | 18:33 | 16:33 | 16:13 |
| 18 | 08:36 | 07:45 | 06:41 | 06:27 | 05:29 | 05:03 | 05:25 | 06:14 | 07:08 | 08:01 | 07:59 | 08:41 |
| | 16:46 | 17:46 | 18:38 | 20:35 | 21:27 | 22:01 | 21:48 | 20:54 | 19:42 | 18:31 | 16:32 | 16:13 |
| 19 | 08:35 | 07:43 | 06:39 | 06:25 | 05:27 | 05:03 | 05:26 | 06:16 | 07:09 | 08:03 | 08:01 | 08:42 |
| | 16:48 | 17:48 | 18:40 | 20:36 | 21:28 | 22:01 | 21:47 | 20:52 | 19:39 | 18:28 | 16:31 | 16:13 |
| 20 | 08:34 | 07:41 | 06:36 | 06:23 | 05:26 | 05:03 | 05:27 | 06:18 | 07:11 | 08:04 | 08:02 | 08:42 |
| | 16:50 | 17:49 | 18:42 | 20:38 | 21:30 | 22:02 | 21:46 | 20:50 | 19:37 | 18:26 | 16:29 | 16:13 |
| 21 | 08:33 | 07:39 | 06:34 | 06:21 | 05:24 | 05:03 | 05:29 | 06:19 | 07:13 | 08:06 | 08:04 | 08:43 |
| | 16:52 | 17:51 | 18:44 | 20:40 | 21:32 | 22:02 | 21:45 | 20:48 | 19:35 | 18:24 | 16:28 | 16:14 |
| 22 | 08:31 | 07:36 | 06:31 | 06:18 | 05:23 | 05:03 | 05:30 | 06:21 | 07:15 | 08:08 | 08:06 | 08:43 |
| | 16:54 | 17:53 | 18:46 | 20:42 | 21:33 | 22:02 | 21:43 | 20:46 | 19:32 | 18:22 | 16:27 | 16:14 |
| 23 | 08:30 | 07:34 | 06:29 | 06:16 | 05:21 | 05:03 | 05:32 | 06:23 | 07:16 | 08:10 | 08:08 | 08:44 |
| | 16:55 | 17:55 | 18:48 | 20:44 | 21:35 | 22:02 | 21:42 | 20:43 | 19:30 | 18:20 | 16:26 | 16:15 |
| 24 | 08:29 | 07:32 | 06:26 | 06:14 | 05:20 | 05:03 | 05:33 | 06:24 | 07:18 | 08:12 | 08:09 | 08:44 |
| | 16:57 | 17:57 | 18:49 | 20:45 | 21:36 | 22:02 | 21:41 | 20:41 | 19:27 | 18:17 | 16:24 | 16:15 |
| 25 | 08:27 | 07:30 | 06:24 | 06:12 | 05:19 | 05:04 | 05:35 | 06:26 | 07:20 | 08:14 | 08:11 | 08:45 |
| | 16:59 | 17:59 | 18:51 | 20:47 | 21:37 | 22:02 | 21:39 | 20:39 | 19:25 | 18:15 | 16:23 | 16:16 |
| 26 | 08:26 | 07:28 | 07:22 | 06:10 | 05:17 | 05:04 | 05:36 | 06:28 | 07:21 | 08:16 | 08:13 | 08:45 |
| | 17:01 | 18:01 | 19:53 | 20:49 | 21:39 | 22:02 | 21:38 | 20:37 | 19:22 | 18:13 | 16:22 | 16:17 |
| 27 | 08:25 | 07:25 | 07:19 | 06:08 | 05:16 | 05:05 | 05:38 | 06:30 | 07:23 | 08:18 | 08:15 | 08:45 |
| | 17:03 | 18:03 | 19:55 | 20:51 | 21:40 | 22:02 | 21:36 | 20:34 | 19:20 | 18:11 | 16:21 | 16:17 |
| 28 | 08:23 | 07:23 | 07:17 | 06:06 | 05:15 | 05:05 | 05:39 | 06:31 | 07:25 | 08:19 | 08:16 | 08:46 |
| | 17:05 | 18:05 | 19:57 | 20:53 | 21:42 | 22:02 | 21:34 | 20:32 | 19:18 | 18:09 | 16:20 | 16:18 |
| 29 | 08:22 | | 07:14 | 06:03 | 05:14 | 05:06 | 05:41 | 06:33 | 07:27 | 07:21 | 08:18 | 08:46 |
| | 17:07 | | 19:58 | 20:54 | 21:43 | 22:02 | 21:33 | 20:30 | 19:15 | 17:07 | 16:19 | 16:19 |
| 30 | 08:20 | | 07:12 | 06:01 | 05:13 | 05:06 | 05:42 | 06:35 | 07:28 | 07:23 | 08:19 | 08:46 |
| | 17:08 | | 20:00 | 20:56 | 21:44 | 22:02 | 21:31 | 20:27 | 19:13 | 17:05 | 16:19 | 16:20 |
| 31 | 08:19 | | 07:10 | | 05:12 | | 05:44 | 06:37 | | 07:25 | | 08:46 |
| | 17:10 | | 20:02 | | 21:45 | | 21:29 | 20:25 | | 17:03 | | 16:21 |
| Potential sun hours | 252 | 274 | 366 | 418 | 491 | 506 | 509 | 458 | 382 | 330 | 262 | 237 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|---|---|---|---|---|
| | Sun set (hh:mm) | Minutes with flicker | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Licensed user:
Bosch & Van Rijn
Groenmarktstraat 56
NL-3521 AV Utrecht
+31 6 51 71 04 93
Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

# SHADOW - Calendar

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegdShadow receptor: D - Karspelpad 8 9936HP Farmsum

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | January | | February | | March | | April | May | June |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 08:46 | 14:43 (2) | 08:17 | 16:19 (1) | 07:21 | 16:06 (1) | 07:07 | 05:59 | 05:11 |
| | 16:22 | 33 15:16 (2) | 17:12 | 7 16:26 (1) | 18:07 | 38 16:44 (1) | 20:04 | 20:58 | 21:47 |
| 2 | 08:46 | 14:43 (2) | 08:15 | 16:15 (1) | 07:19 | 16:08 (1) | 07:05 | 05:57 | 05:10 |
| | 16:23 | 33 15:16 (2) | 17:14 | 13 16:28 (1) | 18:09 | 35 16:43 (1) | 20:06 | 21:00 | 21:48 |
| 3 | 08:46 | 14:44 (2) | 08:14 | 16:13 (1) | 07:16 | 16:09 (1) | 07:02 | 05:55 | 05:09 |
| | 16:24 | 33 15:17 (2) | 17:16 | 17 16:30 (1) | 18:10 | 32 16:41 (1) | 20:08 | 21:02 | 21:49 |
| 4 | 08:45 | 14:44 (2) | 08:12 | 16:11 (1) | 07:14 | 16:12 (1) | 07:00 | 05:53 | 05:08 |
| | 16:25 | 32 15:16 (2) | 17:18 | 22 16:33 (1) | 18:12 | 27 16:39 (1) | 20:09 | 21:03 | 21:50 |
| 5 | 08:45 | 14:45 (2) | 08:10 | 16:10 (1) | 07:12 | 16:15 (1) | 06:58 | 05:51 | 05:07 |
| | 16:27 | 32 15:17 (2) | 17:20 | 25 16:35 (1) | 18:14 | 22 16:37 (1) | 20:11 | 21:05 | 21:51 |
| 6 | 08:45 | 14:46 (2) | 08:08 | 16:08 (1) | 07:09 | 16:18 (1) | 06:55 | 05:49 | 05:06 |
| | 16:28 | 31 15:17 (2) | 17:22 | 29 16:37 (1) | 18:16 | 15 16:33 (1) | 20:13 | 21:07 | 21:53 |
| 7 | 08:44 | 14:46 (2) | 08:07 | 16:07 (1) | 07:07 | | 06:53 | 05:47 | 05:06 |
| | 16:29 | 31 15:17 (2) | 17:24 | 33 16:40 (1) | 18:18 | | 20:15 | 21:09 | 21:54 |
| 8 | 08:44 | 14:47 (2) | 08:05 | 16:06 (1) | 07:05 | | 06:50 | 05:45 | 05:05 |
| | 16:31 | 31 15:18 (2) | 17:26 | 36 16:42 (1) | 18:20 | | 20:17 | 21:10 | 21:54 |
| 9 | 08:43 | 14:48 (2) | 08:03 | 16:06 (1) | 07:02 | | 06:48 | 05:44 | 05:05 |
| | 16:32 | 30 15:18 (2) | 17:28 | 38 16:44 (1) | 18:22 | | 20:18 | 21:12 | 21:55 |
| 10 | 08:43 | 14:49 (2) | 08:01 | 16:05 (1) | 07:00 | | 06:46 | 05:42 | 05:04 |
| | 16:33 | 29 15:18 (2) | 17:30 | 42 16:47 (1) | 18:24 | | 20:20 | 21:14 | 21:56 |
| 11 | 08:42 | 14:50 (2) | 07:59 | 16:05 (1) | 06:58 | | 06:43 | 05:40 | 05:04 |
| | 16:35 | 28 15:18 (2) | 17:32 | 43 16:48 (1) | 18:25 | | 20:22 | 21:15 | 21:57 |
| 12 | 08:41 | 14:51 (2) | 07:57 | 16:03 (1) | 06:55 | | 06:41 | 05:38 | 05:03 |
| | 16:36 | 27 15:18 (2) | 17:34 | 45 16:48 (1) | 18:27 | | 20:24 | 21:17 | 21:58 |
| 13 | 08:41 | 14:52 (2) | 07:55 | 16:03 (1) | 06:53 | | 06:39 | 05:36 | 05:03 |
| | 16:38 | 26 15:18 (2) | 17:36 | 46 16:49 (1) | 18:29 | | 20:26 | 21:19 | 21:58 |
| 14 | 08:40 | 14:53 (2) | 07:53 | 16:03 (1) | 06:50 | | 06:36 | 05:35 | 05:03 |
| | 16:40 | 25 15:18 (2) | 17:38 | 47 16:50 (1) | 18:31 | | 20:27 | 21:21 | 21:59 |
| 15 | 08:39 | 14:54 (2) | 07:51 | 16:02 (1) | 06:48 | | 06:34 | 05:33 | 05:02 |
| | 16:41 | 23 15:17 (2) | 17:39 | 48 16:50 (1) | 18:33 | | 20:29 | 21:22 | 22:00 |
| 16 | 08:38 | 14:55 (2) | 07:49 | 16:02 (1) | 06:46 | | 06:32 | 05:31 | 05:02 |
| | 16:43 | 21 15:16 (2) | 17:41 | 49 16:51 (1) | 18:35 | | 20:31 | 21:24 | 22:00 |
| 17 | 08:37 | 14:57 (2) | 07:47 | 16:01 (1) | 06:43 | | 06:29 | 05:30 | 05:02 |
| | 16:44 | 19 15:16 (2) | 17:43 | 49 16:50 (1) | 18:37 | | 20:33 | 21:25 | 22:01 |
| 18 | 08:36 | 15:00 (2) | 07:45 | 16:01 (1) | 06:41 | | 06:27 | 05:28 | 05:02 |
| | 16:46 | 15 15:15 (2) | 17:45 | 50 16:51 (1) | 18:38 | | 20:35 | 21:27 | 22:01 |
| 19 | 08:35 | 15:02 (2) | 07:43 | 16:02 (1) | 06:38 | | 06:25 | 05:27 | 05:02 |
| | 16:48 | 11 15:13 (2) | 17:47 | 49 16:51 (1) | 18:40 | | 20:36 | 21:29 | 22:02 |
| 20 | 08:34 | 15:07 (2) | 07:41 | 16:02 (1) | 06:36 | | 06:23 | 05:25 | 05:02 |
| | 16:50 | 2 15:09 (2) | 17:49 | 49 16:51 (1) | 18:42 | | 20:38 | 21:30 | 22:02 |
| 21 | 08:33 | | 07:39 | 16:01 (1) | 06:34 | | 06:20 | 05:24 | 05:02 |
| | 16:51 | | 17:51 | 49 16:50 (1) | 18:44 | | 20:40 | 21:32 | 22:02 |
| 22 | 08:31 | | 07:36 | 16:02 (1) | 06:31 | | 06:18 | 05:22 | 05:03 |
| | 16:53 | | 17:53 | 48 16:50 (1) | 18:46 | | 20:42 | 21:33 | 22:02 |
| 23 | 08:30 | | 07:34 | 16:03 (1) | 06:29 | | 06:16 | 05:21 | 05:03 |
| | 16:55 | | 17:55 | 47 16:50 (1) | 18:48 | | 20:44 | 21:35 | 22:03 |
| 24 | 08:29 | | 07:32 | 16:02 (1) | 06:26 | | 06:14 | 05:20 | 05:03 |
| | 16:57 | | 17:57 | 47 16:49 (1) | 18:49 | | 20:45 | 21:36 | 22:03 |
| 25 | 08:28 | | 07:30 | 16:03 (1) | 06:24 | | 06:12 | 05:18 | 05:03 |
| | 16:59 | | 17:59 | 46 16:49 (1) | 18:51 | | 20:47 | 21:38 | 22:03 |
| 26 | 08:26 | | 07:28 | 16:03 (1) | 07:22 | | 06:10 | 05:17 | 05:04 |
| | 17:01 | | 18:01 | 44 16:47 (1) | 19:53 | | 20:49 | 21:39 | 22:03 |
| 27 | 08:25 | | 07:25 | 16:04 (1) | 07:19 | | 06:07 | 05:16 | 05:04 |
| | 17:02 | | 18:03 | 43 16:47 (1) | 19:55 | | 20:51 | 21:40 | 22:03 |
| 28 | 08:23 | | 07:23 | 16:06 (1) | 07:17 | | 06:05 | 05:15 | 05:05 |
| | 17:04 | | 18:05 | 40 16:46 (1) | 19:57 | | 20:53 | 21:42 | 22:03 |
| 29 | 08:22 | | | | 07:14 | | 06:03 | 05:14 | 05:05 |
| | 17:06 | | | | 19:58 | | 20:54 | 21:43 | 22:02 |
| 30 | 08:20 | | | | 07:12 | | 06:01 | 05:13 | 05:06 |
| | 17:08 | | | | 20:00 | | 20:56 | 21:44 | 22:02 |
| 31 | 08:19 | | | | 07:10 | | | 05:12 | |
| | 17:10 | | | | 20:02 | | | 21:46 | |
| Potential sun hours | 252 | | 274 | | 366 | | 418 | 491 | 507 |
| Total, worst case | | 512 | | 1101 | | 169 | | | |
| Sun reduction | | 0,17 | | 0,26 | | 0,27 | | | |
| Oper. time red. | | 0,96 | | 0,96 | | 0,96 | | | |
| Wind dir. red. | | 0,71 | | 0,69 | | 0,69 | | | |
| Total reduction | | 0,11 | | 0,17 | | 0,18 | | | |
| Total, real | | 58 | | 188 | | 30 | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|---|---|---|---|---|
| | Sun set (hh:mm) | Minutes with flicker | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Licensed user:
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Groenmarktstraat 56
NL-3521 AV Utrecht
+31 6 51 71 04 93
Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

# SHADOW - Calendar

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegdShadow receptor: D - Karspelpad 8 9936HP Farmsum

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | | November | | December | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 05:07 | 05:45 | 06:38 | 07:30 | | 07:27 | | 15:35 (1) | 08:21 | 14:32 (2) |
| | 22:02 | 21:28 | 20:23 | 19:10 | | 17:01 | 42 | 16:17 (1) | 16:17 | 27 14:59 (2) |
| 2 | 05:07 | 05:47 | 06:40 | 07:32 | | 07:29 | | 15:35 (1) | 08:23 | 14:32 (2) |
| | 22:02 | 21:26 | 20:20 | 19:08 | | 16:59 | 40 | 16:15 (1) | 16:17 | 28 15:00 (2) |
| 3 | 05:08 | 05:48 | 06:42 | 07:34 | | 07:31 | | 15:36 (1) | 08:24 | 14:32 (2) |
| | 22:01 | 21:24 | 20:18 | 19:05 | | 16:57 | 36 | 16:12 (1) | 16:16 | 29 15:01 (2) |
| 4 | 05:09 | 05:50 | 06:43 | 07:35 | | 07:33 | | 15:37 (1) | 08:25 | 14:31 (2) |
| | 22:01 | 21:23 | 20:16 | 19:03 | | 16:55 | 33 | 16:10 (1) | 16:15 | 30 15:01 (2) |
| 5 | 05:10 | 05:52 | 06:45 | 07:37 | | 07:35 | | 15:38 (1) | 08:27 | 14:32 (2) |
| | 22:00 | 21:21 | 20:13 | 19:01 | | 16:53 | 30 | 16:08 (1) | 16:15 | 30 15:02 (2) |
| 6 | 05:10 | 05:53 | 06:47 | 07:39 | | 07:37 | | 15:40 (1) | 08:28 | 14:32 (2) |
| | 22:00 | 21:19 | 20:11 | 18:58 | | 16:51 | 26 | 16:06 (1) | 16:14 | 31 15:03 (2) |
| 7 | 05:11 | 05:55 | 06:49 | 07:41 | | 07:39 | | 15:41 (1) | 08:30 | 14:32 (2) |
| | 21:59 | 21:17 | 20:09 | 18:56 | | 16:50 | 23 | 16:04 (1) | 16:14 | 32 15:04 (2) |
| 8 | 05:12 | 05:57 | 06:50 | 07:43 | 16:53 (1) | 07:40 | | 15:43 (1) | 08:31 | 14:33 (2) |
| | 21:58 | 21:15 | 20:06 | 18:54 | 16 17:09 (1) | 16:48 | 19 | 16:02 (1) | 16:13 | 32 15:05 (2) |
| 9 | 05:13 | 05:58 | 06:52 | 07:44 | 16:50 (1) | 07:42 | | 15:45 (1) | 08:32 | 14:33 (2) |
| | 21:58 | 21:13 | 20:04 | 18:51 | 22 17:12 (1) | 16:46 | 15 | 16:00 (1) | 16:13 | 32 15:05 (2) |
| 10 | 05:14 | 06:00 | 06:54 | 07:46 | 16:47 (1) | 07:44 | | 15:48 (1) | 08:33 | 14:33 (2) |
| | 21:57 | 21:11 | 20:01 | 18:49 | 27 17:14 (1) | 16:44 | 10 | 15:58 (1) | 16:13 | 32 15:05 (2) |
| 11 | 05:16 | 06:02 | 06:55 | 07:48 | 16:43 (1) | 07:46 | | | 08:34 | 14:34 (2) |
| | 21:56 | 21:09 | 19:59 | 18:47 | 32 17:15 (1) | 16:43 | | | 16:12 | 32 15:06 (2) |
| 12 | 05:17 | 06:04 | 06:57 | 07:50 | 16:41 (1) | 07:48 | | | 08:35 | 14:34 (2) |
| | 21:55 | 21:07 | 19:56 | 18:44 | 35 17:16 (1) | 16:41 | | | 16:12 | 33 15:07 (2) |
| 13 | 05:18 | 06:05 | 06:59 | 07:52 | 16:39 (1) | 07:50 | | | 08:37 | 14:34 (2) |
| | 21:54 | 21:05 | 19:54 | 18:42 | 38 17:17 (1) | 16:39 | | | 16:12 | 33 15:07 (2) |
| 14 | 05:19 | 06:07 | 07:01 | 07:53 | 16:38 (1) | 07:52 | | | 08:38 | 14:34 (2) |
| | 21:53 | 21:03 | 19:52 | 18:40 | 40 17:18 (1) | 16:38 | | | 16:12 | 34 15:08 (2) |
| 15 | 05:20 | 06:09 | 07:02 | 07:55 | 16:37 (1) | 07:54 | | | 08:39 | 14:35 (2) |
| | 21:52 | 21:01 | 19:49 | 18:37 | 42 17:19 (1) | 16:36 | | | 16:12 | 33 15:08 (2) |
| 16 | 05:22 | 06:10 | 07:04 | 07:57 | 16:35 (1) | 07:55 | | | 08:39 | 14:35 (2) |
| | 21:51 | 20:59 | 19:47 | 18:35 | 44 17:19 (1) | 16:35 | | | 16:12 | 34 15:09 (2) |
| 17 | 05:23 | 06:12 | 07:06 | 07:59 | 16:34 (1) | 07:57 | | | 08:40 | 14:36 (2) |
| | 21:50 | 20:57 | 19:44 | 18:33 | 46 17:20 (1) | 16:33 | | | 16:12 | 33 15:09 (2) |
| 18 | 05:24 | 06:14 | 07:07 | 08:01 | 16:34 (1) | 07:59 | | | 08:41 | 14:36 (2) |
| | 21:49 | 20:54 | 19:42 | 18:30 | 46 17:20 (1) | 16:32 | | | 16:13 | 34 15:10 (2) |
| 19 | 05:26 | 06:16 | 07:09 | 08:03 | 16:33 (1) | 08:01 | | | 08:42 | 14:36 (2) |
| | 21:47 | 20:52 | 19:39 | 18:28 | 48 17:21 (1) | 16:30 | | | 16:13 | 34 15:10 (2) |
| 20 | 05:27 | 06:17 | 07:11 | 08:05 | 16:32 (1) | 08:03 | | | 08:42 | 14:37 (2) |
| | 21:46 | 20:50 | 19:37 | 18:26 | 49 17:21 (1) | 16:29 | | | 16:13 | 34 15:11 (2) |
| 21 | 05:28 | 06:19 | 07:13 | 08:06 | 16:32 (1) | 08:04 | | | 08:43 | 14:38 (2) |
| | 21:45 | 20:48 | 19:35 | 18:24 | 49 17:21 (1) | 16:28 | | | 16:14 | 33 15:11 (2) |
| 22 | 05:30 | 06:21 | 07:14 | 08:08 | 16:31 (1) | 08:06 | | | 08:44 | 14:38 (2) |
| | 21:44 | 20:46 | 19:32 | 18:22 | 50 17:21 (1) | 16:26 | | | 16:14 | 33 15:11 (2) |
| 23 | 05:31 | 06:23 | 07:16 | 08:10 | 16:32 (1) | 08:08 | | 14:40 (2) | 08:44 | 14:39 (2) |
| | 21:42 | 20:43 | 19:30 | 18:19 | 49 17:21 (1) | 16:25 | 8 | 14:48 (2) | 16:14 | 33 15:12 (2) |
| 24 | 05:33 | 06:24 | 07:18 | 08:12 | 16:32 (1) | 08:10 | | 14:38 (2) | 08:45 | 14:39 (2) |
| | 21:41 | 20:41 | 19:27 | 18:17 | 49 17:21 (1) | 16:24 | 13 | 14:51 (2) | 16:15 | 34 15:13 (2) |
| 25 | 05:34 | 06:26 | 07:20 | 08:14 | 16:32 (1) | 08:11 | | 14:36 (2) | 08:45 | 14:39 (2) |
| | 21:39 | 20:39 | 19:25 | 18:15 | 49 17:21 (1) | 16:23 | 17 | 14:53 (2) | 16:16 | 34 15:13 (2) |
| 26 | 05:36 | 06:28 | 07:21 | 08:16 | 16:32 (1) | 08:13 | | 14:35 (2) | 08:45 | 14:39 (2) |
| | 21:38 | 20:37 | 19:22 | 18:13 | 49 17:21 (1) | 16:22 | 19 | 14:54 (2) | 16:16 | 34 15:13 (2) |
| 27 | 05:37 | 06:29 | 07:23 | 08:18 | 16:32 (1) | 08:15 | | 14:34 (2) | 08:46 | 14:40 (2) |
| | 21:36 | 20:34 | 19:20 | 18:11 | 48 17:20 (1) | 16:21 | 22 | 14:56 (2) | 16:17 | 33 15:13 (2) |
| 28 | 05:39 | 06:31 | 07:25 | 08:20 | 16:32 (1) | 08:16 | | 14:33 (2) | 08:46 | 14:40 (2) |
| | 21:35 | 20:32 | 19:18 | 18:09 | 47 17:19 (1) | 16:20 | 24 | 14:57 (2) | 16:18 | 34 15:14 (2) |
| 29 | 05:40 | 06:33 | 07:27 | 07:21 | 15:32 (1) | 08:18 | | 14:33 (2) | 08:46 | 14:41 (2) |
| | 21:33 | 20:30 | 19:15 | 17:07 | 47 16:19 (1) | 16:19 | 25 | 14:58 (2) | 16:19 | 33 15:14 (2) |
| 30 | 05:42 | 06:35 | 07:28 | 07:23 | 15:33 (1) | 08:20 | | 14:32 (2) | 08:46 | 14:41 (2) |
| | 21:31 | 20:27 | 19:13 | 17:05 | 45 16:18 (1) | 16:18 | 26 | 14:58 (2) | 16:20 | 34 15:15 (2) |
| 31 | 05:44 | 06:36 | | 07:25 | 15:33 (1) | | | | 08:46 | 14:42 (2) |
| | 21:30 | 20:25 | | 17:03 | 44 16:17 (1) | | | | 16:21 | 33 15:15 (2) |
| Potential sun hours | 510 | 458 | 382 | 330 | | 261 | | | 236 | |
| Total, worst case | | | | | 1011 | | 428 | | | 1005 |
| Sun reduction | | | | | 0,29 | | 0,21 | | | 0,13 |
| Oper. time red. | | | | | 0,96 | | 0,96 | | | 0,96 |
| Wind dir. red. | | | | | 0,69 | | 0,70 | | | 0,71 |
| Total reduction | | | | | 0,20 | | 0,14 | | | 0,09 |
| Total, real | | | | | 198 | | 60 | | | 86 |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|---|---|---|---|---|
| | Sun set (hh:mm) | Minutes with flicker | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Licensed user:
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NL-3521 AV Utrecht
+31 6 51 71 04 93
Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

# SHADOW - Calendar

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegdShadow receptor: E - Maarkampen 12 9937PL Meedhuizen

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 08:46 | 08:17 | 07:21 | 07:07 | 05:59 | 05:11 | 05:07 | 05:45 | 06:38 | 07:30 | 07:27 | 08:21 |
| | 16:22 | 17:12 | 18:07 | 20:04 | 20:58 | 21:47 | 22:02 | 21:28 | 20:23 | 19:10 | 17:01 | 16:18 |
| 2 | 08:46 | 08:15 | 07:19 | 07:05 | 05:57 | 05:10 | 05:07 | 05:47 | 06:40 | 07:32 | 07:29 | 08:23 |
| | 16:23 | 17:14 | 18:09 | 20:06 | 21:00 | 21:48 | 22:02 | 21:26 | 20:21 | 19:08 | 16:59 | 16:17 |
| 3 | 08:46 | 08:14 | 07:16 | 07:02 | 05:55 | 05:09 | 05:08 | 05:49 | 06:42 | 07:34 | 07:31 | 08:24 |
| | 16:24 | 17:16 | 18:11 | 20:08 | 21:02 | 21:49 | 22:01 | 21:24 | 20:18 | 19:06 | 16:57 | 16:16 |
| 4 | 08:45 | 08:12 | 07:14 | 07:00 | 05:53 | 05:08 | 05:09 | 05:50 | 06:44 | 07:36 | 07:33 | 08:25 |
| | 16:26 | 17:18 | 18:13 | 20:09 | 21:03 | 21:50 | 22:01 | 21:23 | 20:16 | 19:03 | 16:55 | 16:16 |
| 5 | 08:45 | 08:10 | 07:12 | 06:58 | 05:51 | 05:07 | 05:10 | 05:52 | 06:45 | 07:37 | 07:35 | 08:27 |
| | 16:27 | 17:20 | 18:14 | 20:11 | 21:05 | 21:51 | 22:00 | 21:21 | 20:13 | 19:01 | 16:53 | 16:15 |
| 6 | 08:45 | 08:09 | 07:10 | 06:55 | 05:49 | 05:07 | 05:11 | 05:54 | 06:47 | 07:39 | 07:37 | 08:28 |
| | 16:28 | 17:22 | 18:16 | 20:13 | 21:07 | 21:53 | 22:00 | 21:19 | 20:11 | 18:58 | 16:52 | 16:14 |
| 7 | 08:44 | 08:07 | 07:07 | 06:53 | 05:47 | 05:06 | 05:12 | 05:55 | 06:49 | 07:41 | 07:39 | 08:30 |
| | 16:29 | 17:24 | 18:18 | 20:15 | 21:09 | 21:54 | 21:59 | 21:17 | 20:09 | 18:56 | 16:50 | 16:14 |
| 8 | 08:44 | 08:05 | 07:05 | 06:51 | 05:46 | 05:05 | 05:13 | 05:57 | 06:50 | 07:43 | 07:40 | 08:31 |
| | 16:31 | 17:26 | 18:20 | 20:17 | 21:10 | 21:54 | 21:58 | 21:15 | 20:06 | 18:54 | 16:48 | 16:14 |
| 9 | 08:43 | 08:03 | 07:02 | 06:48 | 05:44 | 05:05 | 05:14 | 05:59 | 06:52 | 07:45 | 07:42 | 08:32 |
| | 16:32 | 17:28 | 18:22 | 20:18 | 21:12 | 21:55 | 21:58 | 21:13 | 20:04 | 18:51 | 16:46 | 16:13 |
| 10 | 08:43 | 08:01 | 07:00 | 06:46 | 05:42 | 05:04 | 05:15 | 06:00 | 06:54 | 07:46 | 07:44 | 08:33 |
| | 16:34 | 17:30 | 18:24 | 20:20 | 21:14 | 21:56 | 21:57 | 21:11 | 20:01 | 18:49 | 16:44 | 16:13 |
| 11 | 08:42 | 07:59 | 06:58 | 06:44 | 05:40 | 05:04 | 05:16 | 06:02 | 06:56 | 07:48 | 07:46 | 08:34 |
| | 16:35 | 17:32 | 18:26 | 20:22 | 21:16 | 21:57 | 21:56 | 21:09 | 19:59 | 18:47 | 16:43 | 16:13 |
| 12 | 08:41 | 07:57 | 06:55 | 06:41 | 05:38 | 05:04 | 05:17 | 06:04 | 06:57 | 07:50 | 07:48 | 08:36 |
| | 16:37 | 17:34 | 18:27 | 20:24 | 21:17 | 21:58 | 21:55 | 21:07 | 19:57 | 18:44 | 16:41 | 16:13 |
| 13 | 08:41 | 07:55 | 06:53 | 06:39 | 05:37 | 05:03 | 05:18 | 06:06 | 06:59 | 07:52 | 07:50 | 08:37 |
| | 16:38 | 17:36 | 18:29 | 20:26 | 21:19 | 21:58 | 21:54 | 21:05 | 19:54 | 18:42 | 16:40 | 16:12 |
| 14 | 08:40 | 07:53 | 06:51 | 06:37 | 05:35 | 05:03 | 05:19 | 06:07 | 07:01 | 07:54 | 07:52 | 08:38 |
| | 16:40 | 17:38 | 18:31 | 20:27 | 21:21 | 21:59 | 21:53 | 21:03 | 19:52 | 18:40 | 16:38 | 16:12 |
| 15 | 08:39 | 07:51 | 06:48 | 06:34 | 05:33 | 05:03 | 05:21 | 06:09 | 07:02 | 07:55 | 07:54 | 08:39 |
| | 16:41 | 17:40 | 18:33 | 20:29 | 21:22 | 22:00 | 21:52 | 21:01 | 19:49 | 18:37 | 16:36 | 16:12 |
| 16 | 08:38 | 07:49 | 06:46 | 06:32 | 05:32 | 05:03 | 05:22 | 06:11 | 07:04 | 07:57 | 07:55 | 08:39 |
| | 16:43 | 17:42 | 18:35 | 20:31 | 21:24 | 22:00 | 21:51 | 20:59 | 19:47 | 18:35 | 16:35 | 16:12 |
| 17 | 08:37 | 07:47 | 06:43 | 06:30 | 05:30 | 05:03 | 05:23 | 06:12 | 07:06 | 07:59 | 07:57 | 08:40 |
| | 16:45 | 17:44 | 18:37 | 20:33 | 21:25 | 22:01 | 21:50 | 20:57 | 19:44 | 18:33 | 16:33 | 16:13 |
| 18 | 08:36 | 07:45 | 06:41 | 06:27 | 05:28 | 05:02 | 05:24 | 06:14 | 07:08 | 08:01 | 07:59 | 08:41 |
| | 16:46 | 17:46 | 18:39 | 20:35 | 21:27 | 22:01 | 21:49 | 20:55 | 19:42 | 18:31 | 16:32 | 16:13 |
| 19 | 08:35 | 07:43 | 06:39 | 06:25 | 05:27 | 05:02 | 05:26 | 06:16 | 07:09 | 08:03 | 08:01 | 08:42 |
| | 16:48 | 17:48 | 18:40 | 20:37 | 21:29 | 22:02 | 21:47 | 20:52 | 19:40 | 18:28 | 16:31 | 16:13 |
| 20 | 08:34 | 07:41 | 06:36 | 06:23 | 05:25 | 05:03 | 05:27 | 06:18 | 07:11 | 08:05 | 08:03 | 08:42 |
| | 16:50 | 17:49 | 18:42 | 20:38 | 21:30 | 22:02 | 21:46 | 20:50 | 19:37 | 18:26 | 16:29 | 16:13 |
| 21 | 08:33 | 07:39 | 06:34 | 06:21 | 05:24 | 05:03 | 05:29 | 06:19 | 07:13 | 08:06 | 08:04 | 08:43 |
| | 16:52 | 17:51 | 18:44 | 20:40 | 21:32 | 22:02 | 21:45 | 20:48 | 19:35 | 18:24 | 16:28 | 16:14 |
| 22 | 08:32 | 07:37 | 06:31 | 06:18 | 05:23 | 05:03 | 05:30 | 06:21 | 07:15 | 08:08 | 08:06 | 08:44 |
| | 16:53 | 17:53 | 18:46 | 20:42 | 21:33 | 22:02 | 21:44 | 20:46 | 19:32 | 18:22 | 16:27 | 16:14 |
| 23 | 08:30 | 07:34 | 06:29 | 06:16 | 05:21 | 05:03 | 05:31 | 06:23 | 07:16 | 08:10 | 08:08 | 08:44 |
| | 16:55 | 17:55 | 18:48 | 20:44 | 21:35 | 22:03 | 21:42 | 20:44 | 19:30 | 18:20 | 16:26 | 16:15 |
| 24 | 08:29 | 07:32 | 06:27 | 06:14 | 05:20 | 05:03 | 05:33 | 06:24 | 07:18 | 08:12 | 08:10 | 08:45 |
| | 16:57 | 17:57 | 18:49 | 20:46 | 21:36 | 22:03 | 21:41 | 20:41 | 19:27 | 18:18 | 16:24 | 16:15 |
| 25 | 08:28 | 07:30 | 06:24 | 06:12 | 05:19 | 05:04 | 05:34 | 06:26 | 07:20 | 08:14 | 08:11 | 08:45 |
| | 16:59 | 17:59 | 18:51 | 20:47 | 21:38 | 22:03 | 21:39 | 20:39 | 19:25 | 18:15 | 16:23 | 16:16 |
| 26 | 08:26 | 07:28 | 07:22 | 06:10 | 05:17 | 05:04 | 05:36 | 06:28 | 07:22 | 08:16 | 08:13 | 08:45 |
| | 17:01 | 18:01 | 19:53 | 20:49 | 21:39 | 22:03 | 21:38 | 20:37 | 19:23 | 18:13 | 16:22 | 16:17 |
| 27 | 08:25 | 07:26 | 07:19 | 06:08 | 05:16 | 05:05 | 05:37 | 06:30 | 07:23 | 08:18 | 08:15 | 08:46 |
| | 17:03 | 18:03 | 19:55 | 20:51 | 21:41 | 22:03 | 21:36 | 20:35 | 19:20 | 18:11 | 16:21 | 16:17 |
| 28 | 08:23 | 07:23 | 07:17 | 06:06 | 05:15 | 05:05 | 05:39 | 06:31 | 07:25 | 08:20 | 08:16 | 08:46 |
| | 17:05 | 18:05 | 19:57 | 20:53 | 21:42 | 22:03 | 21:35 | 20:32 | 19:18 | 18:09 | 16:20 | 16:18 |
| 29 | 08:22 | | 07:15 | 06:03 | 05:14 | 05:06 | 05:41 | 06:33 | 07:27 | 07:22 | 08:18 | 08:46 |
| | 17:07 | | 19:59 | 20:55 | 21:43 | 22:02 | 21:33 | 20:30 | 19:15 | 17:07 | 16:19 | 16:19 |
| 30 | 08:20 | | 07:12 | 06:01 | 05:13 | 05:06 | 05:42 | 06:35 | 07:29 | 07:23 | 08:20 | 08:46 |
| | 17:08 | | 20:00 | 20:56 | 21:44 | 22:02 | 21:31 | 20:28 | 19:13 | 17:05 | 16:18 | 16:20 |
| 31 | 08:19 | | 07:10 | | 05:12 | | 05:44 | 06:37 | | 07:25 | | 08:46 |
| | 17:10 | | 20:02 | | 21:46 | | 21:30 | 20:25 | | 17:03 | | 16:21 |
| Potential sun hours | 252 | 274 | 366 | 418 | 491 | 507 | 509 | 458 | 382 | 330 | 261 | 236 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|---|---|---|---|---|
| | Sun set (hh:mm) | Minutes with flicker | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Licensed user:
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NL-3521 AV Utrecht
+31 6 51 71 04 93
Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

# SHADOW - Calendar

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegdShadow receptor: F - Molenstraat 64 9936EE Farmsum

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 08:46 | 08:17 | 07:21 | 07:07 | 05:59 | 05:11 | 05:07 | 05:45 | 06:38 | 07:30 | 07:27 | 08:21 |
| | 16:22 | 17:12 | 18:07 | 20:04 | 20:58 | 21:47 | 22:02 | 21:28 | 20:23 | 19:10 | 17:01 | 16:17 |
| 2 | 08:46 | 08:16 | 07:19 | 07:05 | 05:57 | 05:10 | 05:07 | 05:47 | 06:40 | 07:32 | 07:29 | 08:23 |
| | 16:23 | 17:14 | 18:09 | 20:06 | 21:00 | 21:48 | 22:02 | 21:26 | 20:21 | 19:08 | 16:59 | 16:17 |
| 3 | 08:46 | 08:14 | 07:16 | 07:02 | 05:55 | 05:09 | 05:08 | 05:48 | 06:42 | 07:34 | 07:31 | 08:24 |
| | 16:24 | 17:16 | 18:11 | 20:08 | 21:02 | 21:49 | 22:01 | 21:25 | 20:18 | 19:06 | 16:57 | 16:16 |
| 4 | 08:46 | 08:12 | 07:14 | 07:00 | 05:53 | 05:08 | 05:09 | 05:50 | 06:43 | 07:36 | 07:33 | 08:26 |
| | 16:25 | 17:18 | 18:12 | 20:09 | 21:03 | 21:51 | 22:01 | 21:23 | 20:16 | 19:03 | 16:55 | 16:15 |
| 5 | 08:45 | 08:10 | 07:12 | 06:58 | 05:51 | 05:07 | 05:10 | 05:52 | 06:45 | 07:37 | 07:35 | 08:27 |
| | 16:27 | 17:20 | 18:14 | 20:11 | 21:05 | 21:52 | 22:00 | 21:21 | 20:13 | 19:01 | 16:53 | 16:15 |
| 6 | 08:45 | 08:09 | 07:09 | 06:55 | 05:49 | 05:06 | 05:10 | 05:53 | 06:47 | 07:39 | 07:37 | 08:28 |
| | 16:28 | 17:22 | 18:16 | 20:13 | 21:07 | 21:53 | 22:00 | 21:19 | 20:11 | 18:58 | 16:51 | 16:14 |
| 7 | 08:44 | 08:07 | 07:07 | 06:53 | 05:47 | 05:06 | 05:11 | 05:55 | 06:49 | 07:41 | 07:39 | 08:30 |
| | 16:29 | 17:24 | 18:18 | 20:15 | 21:09 | 21:54 | 21:59 | 21:17 | 20:09 | 18:56 | 16:50 | 16:14 |
| 8 | 08:44 | 08:05 | 07:05 | 06:50 | 05:45 | 05:05 | 05:12 | 05:57 | 06:50 | 07:43 | 07:41 | 08:31 |
| | 16:31 | 17:26 | 18:20 | 20:17 | 21:10 | 21:55 | 21:58 | 21:15 | 20:06 | 18:54 | 16:48 | 16:13 |
| 9 | 08:43 | 08:03 | 07:02 | 06:48 | 05:44 | 05:05 | 05:13 | 05:59 | 06:52 | 07:45 | 07:42 | 08:32 |
| | 16:32 | 17:28 | 18:22 | 20:18 | 21:12 | 21:55 | 21:58 | 21:13 | 20:04 | 18:51 | 16:46 | 16:13 |
| 10 | 08:43 | 08:01 | 07:00 | 06:46 | 05:42 | 05:04 | 05:14 | 06:00 | 06:54 | 07:46 | 07:44 | 08:33 |
| | 16:33 | 17:30 | 18:24 | 20:20 | 21:14 | 21:56 | 21:57 | 21:11 | 20:01 | 18:49 | 16:44 | 16:13 |
| 11 | 08:42 | 07:59 | 06:58 | 06:43 | 05:40 | 05:04 | 05:16 | 06:02 | 06:55 | 07:48 | 07:46 | 08:35 |
| | 16:35 | 17:32 | 18:26 | 20:22 | 21:16 | 21:57 | 21:56 | 21:09 | 19:59 | 18:47 | 16:43 | 16:12 |
| 12 | 08:42 | 07:57 | 06:55 | 06:41 | 05:38 | 05:03 | 05:17 | 06:04 | 06:57 | 07:50 | 07:48 | 08:36 |
| | 16:36 | 17:34 | 18:27 | 20:24 | 21:17 | 21:58 | 21:55 | 21:07 | 19:57 | 18:44 | 16:41 | 16:12 |
| 13 | 08:41 | 07:55 | 06:53 | 06:39 | 05:36 | 05:03 | 05:18 | 06:05 | 06:59 | 07:52 | 07:50 | 08:37 |
| | 16:38 | 17:36 | 18:29 | 20:26 | 21:19 | 21:59 | 21:54 | 21:05 | 19:54 | 18:42 | 16:39 | 16:12 |
| 14 | 08:40 | 07:53 | 06:51 | 06:36 | 05:35 | 05:03 | 05:19 | 06:07 | 07:01 | 07:54 | 07:52 | 08:38 |
| | 16:40 | 17:38 | 18:31 | 20:27 | 21:21 | 21:59 | 21:53 | 21:03 | 19:52 | 18:40 | 16:38 | 16:12 |
| 15 | 08:39 | 07:51 | 06:48 | 06:34 | 05:33 | 05:03 | 05:20 | 06:09 | 07:02 | 07:55 | 07:54 | 08:39 |
| | 16:41 | 17:40 | 18:33 | 20:29 | 21:22 | 22:00 | 21:52 | 21:01 | 19:49 | 18:37 | 16:36 | 16:12 |
| 16 | 08:38 | 07:49 | 06:46 | 06:32 | 05:31 | 05:02 | 05:22 | 06:10 | 07:04 | 07:57 | 07:56 | 08:40 |
| | 16:43 | 17:41 | 18:35 | 20:31 | 21:24 | 22:00 | 21:51 | 20:59 | 19:47 | 18:35 | 16:35 | 16:12 |
| 17 | 08:37 | 07:47 | 06:43 | 06:30 | 05:30 | 05:02 | 05:23 | 06:12 | 07:06 | 07:59 | 07:57 | 08:40 |
| | 16:45 | 17:43 | 18:37 | 20:33 | 21:26 | 22:01 | 21:50 | 20:57 | 19:44 | 18:33 | 16:33 | 16:12 |
| 18 | 08:36 | 07:45 | 06:41 | 06:27 | 05:28 | 05:02 | 05:24 | 06:14 | 07:08 | 08:01 | 07:59 | 08:41 |
| | 16:46 | 17:45 | 18:38 | 20:35 | 21:27 | 22:01 | 21:49 | 20:55 | 19:42 | 18:31 | 16:32 | 16:13 |
| 19 | 08:35 | 07:43 | 06:39 | 06:25 | 05:27 | 05:02 | 05:26 | 06:16 | 07:09 | 08:03 | 08:01 | 08:42 |
| | 16:48 | 17:47 | 18:40 | 20:37 | 21:29 | 22:02 | 21:48 | 20:52 | 19:40 | 18:28 | 16:30 | 16:13 |
| 20 | 08:34 | 07:41 | 06:36 | 06:23 | 05:25 | 05:02 | 05:27 | 06:17 | 07:11 | 08:05 | 08:03 | 08:43 |
| | 16:50 | 17:49 | 18:42 | 20:38 | 21:30 | 22:02 | 21:46 | 20:50 | 19:37 | 18:26 | 16:29 | 16:13 |
| 21 | 08:33 | 07:39 | 06:34 | 06:21 | 05:24 | 05:02 | 05:28 | 06:19 | 07:13 | 08:06 | 08:05 | 08:43 |
| | 16:51 | 17:51 | 18:44 | 20:40 | 21:32 | 22:02 | 21:45 | 20:48 | 19:35 | 18:24 | 16:28 | 16:14 |
| 22 | 08:32 | 07:37 | 06:31 | 06:18 | 05:22 | 05:03 | 05:30 | 06:21 | 07:15 | 08:08 | 08:06 | 08:44 |
| | 16:53 | 17:53 | 18:46 | 20:42 | 21:33 | 22:03 | 21:44 | 20:46 | 19:32 | 18:22 | 16:27 | 16:14 |
| 23 | 08:30 | 07:34 | 06:29 | 06:16 | 05:21 | 05:03 | 05:31 | 06:23 | 07:16 | 08:10 | 08:08 | 08:44 |
| | 16:55 | 17:55 | 18:48 | 20:44 | 21:35 | 22:03 | 21:42 | 20:44 | 19:30 | 18:20 | 16:25 | 16:14 |
| 24 | 08:29 | 07:32 | 06:26 | 06:14 | 05:20 | 05:03 | 05:33 | 06:24 | 07:18 | 08:12 | 08:10 | 08:45 |
| | 16:57 | 17:57 | 18:49 | 20:46 | 21:36 | 22:03 | 21:41 | 20:41 | 19:27 | 18:17 | 16:24 | 16:15 |
| 25 | 08:28 | 07:30 | 06:24 | 06:12 | 05:18 | 05:03 | 05:34 | 06:26 | 07:20 | 08:14 | 08:11 | 08:45 |
| | 16:59 | 17:59 | 18:51 | 20:47 | 21:38 | 22:03 | 21:39 | 20:39 | 19:25 | 18:15 | 16:23 | 16:16 |
| 26 | 08:26 | 07:28 | 07:22 | 06:10 | 05:17 | 05:04 | 05:36 | 06:28 | 07:21 | 08:16 | 08:13 | 08:45 |
| | 17:01 | 18:01 | 19:53 | 20:49 | 21:39 | 22:03 | 21:38 | 20:37 | 19:22 | 18:13 | 16:22 | 16:16 |
| 27 | 08:25 | 07:26 | 07:19 | 06:07 | 05:16 | 05:04 | 05:37 | 06:30 | 07:23 | 08:18 | 08:15 | 08:46 |
| | 17:03 | 18:03 | 19:55 | 20:51 | 21:41 | 22:03 | 21:36 | 20:35 | 19:20 | 18:11 | 16:21 | 16:17 |
| 28 | 08:23 | 07:23 | 07:17 | 06:05 | 05:15 | 05:05 | 05:39 | 06:31 | 07:25 | 08:20 | 08:16 | 08:46 |
| | 17:04 | 18:05 | 19:57 | 20:53 | 21:42 | 22:03 | 21:35 | 20:32 | 19:18 | 18:09 | 16:20 | 16:18 |
| 29 | 08:22 | | 07:14 | 06:03 | 05:14 | 05:05 | 05:40 | 06:33 | 07:27 | 07:22 | 08:18 | 08:46 |
| | 17:06 | | 19:59 | 20:55 | 21:43 | 22:03 | 21:33 | 20:30 | 19:15 | 17:07 | 16:19 | 16:19 |
| 30 | 08:20 | | 07:12 | 06:01 | 05:13 | 05:06 | 05:42 | 06:35 | 07:29 | 07:23 | 08:20 | 08:46 |
| | 17:08 | | 20:00 | 20:56 | 21:45 | 22:02 | 21:31 | 20:28 | 19:13 | 17:05 | 16:18 | 16:20 |
| 31 | 08:19 | | 07:10 | | 05:12 | | 05:44 | 06:36 | | 07:25 | | 08:46 |
| | 17:10 | | 20:02 | | 21:46 | | 21:30 | 20:25 | | 17:03 | | 16:21 |
| Potential sun hours | 252 | 274 | 366 | 418 | 491 | 507 | 510 | 459 | 382 | 330 | 261 | 236 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| | | | | |
|---|---|---|---|---|
| Day in month | Sun rise (hh:mm) | | First time (hh:mm) with flicker | (WTG causing flicker first time) |
| | Sun set (hh:mm) | Minutes with flicker | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Licensed user:
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Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

# SHADOW - Calendar

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegdShadow receptor: G - Oosterlaan 9 9936HN Farmsum

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | January | | | February | | | March | | | April | | | May | | | June | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 08:46 | | 14:05 (8) | 08:17 | | 14:30 (8) | 07:21 | | | 07:07 | | 18:51 (2) | 05:59 | | | 05:11 | | 20:24 (1) |
| | 16:22 | 55 | 15:27 (3) | 17:12 | 25 | 14:55 (8) | 18:07 | | | 20:04 | 35 | 19:26 (2) | 20:58 | | | 21:47 | 35 | 20:59 (1) |
| 2 | 08:46 | | 14:05 (8) | 08:15 | | 14:33 (8) | 07:19 | | | 07:05 | | 18:50 (2) | 05:57 | | | 05:10 | | 20:25 (1) |
| | 16:23 | 55 | 15:28 (3) | 17:14 | 19 | 14:52 (8) | 18:09 | | | 20:06 | 37 | 19:27 (2) | 21:00 | | | 21:48 | 35 | 21:00 (1) |
| 3 | 08:46 | | 14:06 (8) | 08:14 | | 14:37 (8) | 07:16 | | | 07:02 | | 18:51 (2) | 05:55 | | | 05:09 | | 20:25 (1) |
| | 16:24 | 56 | 15:30 (3) | 17:16 | 12 | 14:49 (8) | 18:10 | | | 20:07 | 36 | 19:27 (2) | 21:02 | | | 21:49 | 35 | 21:00 (1) |
| 4 | 08:45 | | 14:05 (8) | 08:12 | | | 07:14 | | | 07:00 | | 18:51 (2) | 05:53 | | | 05:08 | | 20:25 (1) |
| | 16:25 | 58 | 15:31 (3) | 17:18 | | | 18:12 | | | 20:09 | 35 | 19:26 (2) | 21:03 | | | 21:50 | 35 | 21:00 (1) |
| 5 | 08:45 | | 14:06 (8) | 08:10 | | | 07:12 | | | 06:58 | | 18:51 (2) | 05:51 | | | 05:07 | | 20:26 (1) |
| | 16:27 | 59 | 15:33 (3) | 17:20 | | | 18:14 | | | 20:11 | 34 | 19:25 (2) | 21:05 | | | 21:51 | 35 | 21:01 (1) |
| 6 | 08:45 | | 14:07 (8) | 08:08 | | | 07:09 | | | 06:55 | | 18:51 (2) | 05:49 | | | 05:07 | | 20:26 (1) |
| | 16:28 | 59 | 15:34 (3) | 17:22 | | | 18:16 | | | 20:13 | 33 | 19:24 (2) | 21:07 | | | 21:52 | 34 | 21:00 (1) |
| 7 | 08:44 | | 14:07 (8) | 08:07 | | | 07:07 | | | 06:53 | | 18:52 (2) | 05:47 | | | 05:06 | | 20:26 (1) |
| | 16:29 | 61 | 15:35 (3) | 17:24 | | | 18:18 | | | 20:15 | 32 | 19:24 (2) | 21:09 | | | 21:53 | 35 | 21:01 (1) |
| 8 | 08:44 | | 14:08 (8) | 08:05 | | | 07:05 | | | 06:50 | | 18:53 (2) | 05:45 | | | 05:05 | | 20:26 (1) |
| | 16:31 | 62 | 15:37 (3) | 17:26 | | | 18:20 | | | 20:17 | 29 | 19:22 (2) | 21:10 | | | 21:54 | 34 | 21:00 (1) |
| 9 | 08:43 | | 14:08 (8) | 08:03 | | | 07:02 | | | 06:48 | | 18:54 (2) | 05:44 | | | 05:05 | | 20:27 (1) |
| | 16:32 | 64 | 15:39 (3) | 17:28 | | | 18:22 | | | 20:18 | 26 | 19:20 (2) | 21:12 | | | 21:55 | 34 | 21:01 (1) |
| 10 | 08:43 | | 14:08 (8) | 08:01 | | | 07:00 | | | 06:46 | | 18:56 (2) | 05:42 | | | 05:04 | | 20:27 (1) |
| | 16:33 | 65 | 15:41 (3) | 17:30 | | | 18:24 | | | 20:20 | 23 | 19:19 (2) | 21:14 | | | 21:56 | 34 | 21:01 (1) |
| 11 | 08:42 | | 14:09 (8) | 07:59 | | | 06:58 | | | 06:43 | | 18:57 (2) | 05:40 | | | 05:04 | | 20:27 (1) |
| | 16:35 | 65 | 15:42 (3) | 17:32 | | | 18:25 | | | 20:22 | 19 | 19:16 (2) | 21:15 | | | 21:57 | 34 | 21:01 (1) |
| 12 | 08:41 | | 14:09 (8) | 07:57 | | | 06:55 | | | 06:41 | | 18:59 (2) | 05:38 | | 20:32 (1) | 05:03 | | 20:28 (1) |
| | 16:36 | 67 | 15:44 (3) | 17:34 | | | 18:27 | | | 20:24 | 15 | 19:14 (2) | 21:17 | 2 | 20:34 (1) | 21:58 | 33 | 21:01 (1) |
| 13 | 08:41 | | 14:10 (8) | 07:55 | | | 06:53 | | | 06:39 | | 19:04 (2) | 05:36 | | 20:30 (1) | 05:03 | | 20:28 (1) |
| | 16:38 | 68 | 15:46 (3) | 17:36 | | | 18:29 | | | 20:26 | 5 | 19:09 (2) | 21:19 | 5 | 20:35 (1) | 21:58 | 33 | 21:01 (1) |
| 14 | 08:40 | | 14:11 (8) | 07:53 | | | 06:50 | | | 06:36 | | | 05:35 | | 20:29 (1) | 05:03 | | 20:29 (1) |
| | 16:40 | 69 | 15:48 (3) | 17:38 | | | 18:31 | | | 20:27 | | | 21:20 | 8 | 20:37 (1) | 21:59 | 32 | 21:01 (1) |
| 15 | 08:39 | | 14:10 (8) | 07:51 | | | 06:48 | | | 06:34 | | | 05:33 | | 20:28 (1) | 05:03 | | 20:29 (1) |
| | 16:41 | 70 | 15:49 (3) | 17:39 | | | 18:33 | | | 20:29 | | | 21:22 | 9 | 20:37 (1) | 22:00 | 33 | 21:02 (1) |
| 16 | 08:38 | | 14:11 (8) | 07:49 | | | 06:46 | | | 06:32 | | | 05:31 | | 20:27 (1) | 05:02 | | 20:29 (1) |
| | 16:43 | 70 | 15:51 (3) | 17:41 | | | 18:35 | | | 20:31 | | | 21:24 | 12 | 20:39 (1) | 22:00 | 33 | 21:02 (1) |
| 17 | 08:37 | | 14:12 (8) | 07:47 | | | 06:43 | | | 06:29 | | | 05:30 | | 20:26 (1) | 05:02 | | 20:30 (1) |
| | 16:44 | 72 | 15:54 (3) | 17:43 | | | 18:37 | | | 20:33 | | | 21:25 | 14 | 20:40 (1) | 22:01 | 32 | 21:02 (1) |
| 18 | 08:36 | | 14:13 (8) | 07:45 | | | 06:41 | | | 06:27 | | | 05:28 | | 20:26 (1) | 05:02 | | 20:30 (1) |
| | 16:46 | 70 | 15:54 (3) | 17:45 | | | 18:38 | | | 20:35 | | | 21:27 | 16 | 20:42 (1) | 22:01 | 32 | 21:02 (1) |
| 19 | 08:35 | | 14:13 (8) | 07:43 | | | 06:38 | | | 06:25 | | | 05:27 | | 20:26 (1) | 05:02 | | 20:30 (1) |
| | 16:48 | 68 | 15:53 (3) | 17:47 | | | 18:40 | | | 20:36 | | | 21:29 | 18 | 20:44 (1) | 22:02 | 32 | 21:02 (1) |
| 20 | 08:34 | | 14:14 (8) | 07:41 | | | 06:36 | | | 06:23 | | | 05:25 | | 20:25 (1) | 05:02 | | 20:30 (1) |
| | 16:50 | 66 | 15:53 (3) | 17:49 | | | 18:42 | | | 20:38 | | | 21:30 | 20 | 20:45 (1) | 22:02 | 32 | 21:02 (1) |
| 21 | 08:33 | | 14:14 (8) | 07:39 | | | 06:34 | | | 06:20 | | | 05:24 | | 20:24 (1) | 05:02 | | 20:30 (1) |
| | 16:51 | 63 | 15:52 (3) | 17:51 | | | 18:44 | | | 20:40 | | | 21:32 | 22 | 20:46 (1) | 22:02 | 32 | 21:02 (1) |
| 22 | 08:31 | | 14:16 (8) | 07:36 | | | 06:31 | | 18:04 (2) | 06:18 | | | 05:22 | | 20:24 (1) | 05:03 | | 20:30 (1) |
| | 16:53 | 59 | 15:52 (3) | 17:53 | | | 18:46 | 4 | 18:08 (2) | 20:42 | | | 21:33 | 23 | 20:47 (1) | 22:02 | 32 | 21:02 (1) |
| 23 | 08:30 | | 14:16 (8) | 07:34 | | | 06:29 | | 18:02 (2) | 06:16 | | | 05:21 | | 20:24 (1) | 05:03 | | 20:30 (1) |
| | 16:55 | 53 | 15:49 (3) | 17:55 | | | 18:48 | 8 | 18:10 (2) | 20:44 | | | 21:35 | 25 | 20:49 (1) | 22:03 | 32 | 21:02 (1) |
| 24 | 08:29 | | 14:17 (8) | 07:32 | | | 06:26 | | 17:59 (2) | 06:14 | | | 05:20 | | 20:24 (1) | 05:03 | | 20:31 (1) |
| | 16:57 | 45 | 15:02 (8) | 17:57 | | | 18:49 | 13 | 18:12 (2) | 20:45 | | | 21:36 | 26 | 20:50 (1) | 22:03 | 32 | 21:03 (1) |
| 25 | 08:28 | | 14:18 (8) | 07:30 | | | 06:24 | | 17:58 (2) | 06:12 | | | 05:18 | | 20:24 (1) | 05:03 | | 20:31 (1) |
| | 16:59 | 44 | 15:02 (8) | 17:59 | | | 18:51 | 16 | 18:14 (2) | 20:47 | | | 21:38 | 27 | 20:51 (1) | 22:03 | 32 | 21:03 (1) |
| 26 | 08:26 | | 14:19 (8) | 07:28 | | | 07:22 | | 18:56 (2) | 06:10 | | | 05:17 | | 20:24 (1) | 05:04 | | 20:32 (1) |
| | 17:01 | 42 | 15:01 (8) | 18:01 | | | 19:53 | 19 | 19:15 (2) | 20:49 | | | 21:39 | 29 | 20:53 (1) | 22:03 | 32 | 21:04 (1) |
| 27 | 08:25 | | 14:20 (8) | 07:25 | | | 07:19 | | 18:55 (2) | 06:07 | | | 05:16 | | 20:24 (1) | 05:04 | | 20:31 (1) |
| | 17:02 | 40 | 15:00 (8) | 18:03 | | | 19:55 | 22 | 19:17 (2) | 20:51 | | | 21:40 | 30 | 20:54 (1) | 22:03 | 33 | 21:04 (1) |
| 28 | 08:23 | | 14:22 (8) | 07:23 | | | 07:17 | | 18:53 (2) | 06:05 | | | 05:15 | | 20:24 (1) | 05:05 | | 20:31 (1) |
| | 17:04 | 38 | 15:00 (8) | 18:05 | | | 19:57 | 26 | 19:19 (2) | 20:53 | | | 21:42 | 31 | 20:55 (1) | 22:03 | 33 | 21:04 (1) |
| 29 | 08:22 | | 14:24 (8) | | | | 07:14 | | 18:53 (2) | 06:03 | | | 05:14 | | 20:24 (1) | 05:05 | | 20:32 (1) |
| | 17:06 | 35 | 14:59 (8) | | | | 19:58 | 28 | 19:21 (2) | 20:54 | | | 21:43 | 32 | 20:56 (1) | 22:02 | 32 | 21:04 (1) |
| 30 | 08:20 | | 14:25 (8) | | | | 07:12 | | 18:52 (2) | 06:01 | | | 05:13 | | 20:24 (1) | 05:06 | | 20:32 (1) |
| | 17:08 | 33 | 14:58 (8) | | | | 20:00 | 31 | 19:23 (2) | 20:56 | | | 21:44 | 33 | 20:57 (1) | 22:02 | 33 | 21:05 (1) |
| 31 | 08:19 | | 14:27 (8) | | | | 07:10 | | 18:51 (2) | | | | 05:12 | | 20:24 (1) | | | |
| | 17:10 | 30 | 14:57 (8) | | | | 20:02 | 33 | 19:24 (2) | | | | 21:46 | 34 | 20:58 (1) | | | |
| Potential sun hours | 252 | | | 274 | | | 366 | | | 418 | | | 491 | | | 507 | | |
| Total, worst case | | 1761 | | | 56 | | | 200 | | | 359 | | | 416 | | | 995 | |
| Sun reduction | | 0,17 | | | 0,26 | | | 0,27 | | | 0,37 | | | 0,43 | | | 0,32 | |
| Oper. time red. | | 0,96 | | | 0,96 | | | 0,96 | | | 0,96 | | | 0,96 | | | 0,96 | |
| Wind dir. red. | | 0,70 | | | 0,71 | | | 0,63 | | | 0,63 | | | 0,58 | | | 0,58 | |
| Total reduction | | 0,12 | | | 0,18 | | | 0,16 | | | 0,23 | | | 0,25 | | | 0,19 | |
| Total, real | | 206 | | | 10 | | | 33 | | | 82 | | | 102 | | | 185 | |

Table layout: For each day in each month the following matrix apply

| | | | | |
|---|---|---|---|---|
| Day in month | Sun rise (hh:mm) | | First time (hh:mm) with flicker | (WTG causing flicker first time) |
| | Sun set (hh:mm) | Minutes with flicker | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Licensed user:
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NL-3521 AV Utrecht
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Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

# SHADOW - Calendar

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegdShadow receptor: G - Oosterlaan 9 9936HN Farmsum

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | July | | | August | | | September | | | October | November | | | December | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 05:07 | | 20:32 (1) | 05:45 | | 20:42 (1) | 06:38 | | 18:57 (2) | 07:30 | 07:27 | | | 08:21 | | 13:51 (8) |
| | 22:02 | 33 | 21:05 (1) | 21:28 | 2 | 20:44 (1) | 20:23 | 18 | 19:15 (2) | 19:10 | 17:01 | | | 16:17 | 66 | 15:25 (3) |
| 2 | 05:07 | | 20:32 (1) | 05:47 | | | 06:40 | | 18:54 (2) | 07:32 | 07:29 | | | 08:22 | | 13:51 (8) |
| | 22:01 | 33 | 21:05 (1) | 21:26 | | | 20:20 | 22 | 19:16 (2) | 19:08 | 16:59 | | | 16:17 | 66 | 15:24 (3) |
| 3 | 05:08 | | 20:32 (1) | 05:48 | | | 06:42 | | 18:53 (2) | 07:34 | 07:31 | | | 08:24 | | 13:52 (8) |
| | 22:01 | 34 | 21:06 (1) | 21:24 | | | 20:18 | 25 | 19:18 (2) | 19:05 | 16:57 | | | 16:16 | 64 | 15:23 (3) |
| 4 | 05:09 | | 20:32 (1) | 05:50 | | | 06:43 | | 18:51 (2) | 07:35 | 07:33 | | | 08:25 | | 13:52 (8) |
| | 22:01 | 34 | 21:06 (1) | 21:23 | | | 20:16 | 28 | 19:19 (2) | 19:03 | 16:55 | | | 16:15 | 62 | 15:22 (3) |
| 5 | 05:10 | | 20:32 (1) | 05:52 | | | 06:45 | | 18:49 (2) | 07:37 | 07:35 | | | 08:27 | | 13:52 (8) |
| | 22:00 | 34 | 21:06 (1) | 21:21 | | | 20:13 | 30 | 19:19 (2) | 19:01 | 16:53 | | | 16:15 | 62 | 15:21 (3) |
| 6 | 05:11 | | 20:32 (1) | 05:53 | | | 06:47 | | 18:48 (2) | 07:39 | 07:37 | | | 08:28 | | 13:53 (8) |
| | 22:00 | 35 | 21:07 (1) | 21:19 | | | 20:11 | 32 | 19:20 (2) | 18:58 | 16:51 | | | 16:14 | 61 | 15:21 (3) |
| 7 | 05:11 | | 20:32 (1) | 05:55 | | | 06:48 | | 18:46 (2) | 07:41 | 07:38 | | | 08:29 | | 13:53 (8) |
| | 21:59 | 35 | 21:07 (1) | 21:17 | | | 20:09 | 34 | 19:20 (2) | 18:56 | 16:50 | | | 16:14 | 60 | 15:20 (3) |
| 8 | 05:12 | | 20:33 (1) | 05:57 | | | 06:50 | | 18:45 (2) | 07:43 | 07:40 | | 14:11 (8) | 08:31 | | 13:53 (8) |
| | 21:58 | 34 | 21:07 (1) | 21:15 | | | 20:06 | 35 | 19:20 (2) | 18:54 | 16:48 | 6 | 14:17 (8) | 16:13 | 59 | 15:19 (3) |
| 9 | 05:13 | | 20:33 (1) | 05:58 | | | 06:52 | | 18:45 (2) | 07:44 | 07:42 | | 14:05 (8) | 08:32 | | 13:54 (8) |
| | 21:57 | 35 | 21:08 (1) | 21:13 | | | 20:04 | 36 | 19:21 (2) | 18:51 | 16:46 | 17 | 14:22 (8) | 16:13 | 58 | 15:19 (3) |
| 10 | 05:14 | | 20:32 (1) | 06:00 | | | 06:54 | | 18:44 (2) | 07:46 | 07:44 | | 14:01 (8) | 08:33 | | 13:54 (8) |
| | 21:57 | 35 | 21:07 (1) | 21:11 | | | 20:01 | 36 | 19:20 (2) | 18:49 | 16:44 | 24 | 14:25 (8) | 16:13 | 56 | 15:18 (3) |
| 11 | 05:16 | | 20:32 (1) | 06:02 | | | 06:55 | | 18:44 (2) | 07:48 | 07:46 | | 13:59 (8) | 08:34 | | 13:54 (8) |
| | 21:56 | 35 | 21:07 (1) | 21:09 | | | 19:59 | 36 | 19:20 (2) | 18:46 | 16:43 | 28 | 14:27 (8) | 16:12 | 55 | 15:17 (3) |
| 12 | 05:17 | | 20:33 (1) | 06:04 | | | 06:57 | | 18:43 (2) | 07:50 | 07:48 | | 13:58 (8) | 08:35 | | 13:56 (8) |
| | 21:55 | 35 | 21:08 (1) | 21:07 | | | 19:56 | 34 | 19:17 (2) | 18:44 | 16:41 | 31 | 14:29 (8) | 16:12 | 54 | 15:18 (3) |
| 13 | 05:18 | | 20:33 (1) | 06:05 | | | 06:59 | | 18:43 (2) | 07:52 | 07:50 | | 13:56 (8) | 08:36 | | 13:56 (8) |
| | 21:54 | 34 | 21:07 (1) | 21:05 | | | 19:54 | 31 | 19:14 (2) | 18:42 | 16:39 | 35 | 14:31 (8) | 16:12 | 52 | 14:48 (8) |
| 14 | 05:19 | | 20:33 (1) | 06:07 | | | 07:01 | | 18:43 (2) | 07:53 | 07:52 | | 13:55 (8) | 08:37 | | 13:56 (8) |
| | 21:53 | 33 | 21:06 (1) | 21:03 | | | 19:52 | 29 | 19:12 (2) | 18:40 | 16:38 | 37 | 14:32 (8) | 16:12 | 53 | 14:49 (8) |
| 15 | 05:20 | | 20:33 (1) | 06:09 | | | 07:02 | | 18:43 (2) | 07:55 | 07:54 | | 13:53 (8) | 08:38 | | 13:57 (8) |
| | 21:52 | 32 | 21:05 (1) | 21:01 | | | 19:49 | 27 | 19:10 (2) | 18:37 | 16:36 | 40 | 14:33 (8) | 16:12 | 52 | 14:49 (8) |
| 16 | 05:22 | | 20:33 (1) | 06:10 | | | 07:04 | | 18:43 (2) | 07:57 | 07:55 | | 13:52 (8) | 08:39 | | 13:57 (8) |
| | 21:51 | 31 | 21:04 (1) | 20:59 | | | 19:47 | 24 | 19:07 (2) | 18:35 | 16:35 | 42 | 14:34 (8) | 16:12 | 53 | 14:50 (8) |
| 17 | 05:23 | | 20:33 (1) | 06:12 | | | 07:06 | | 18:43 (2) | 07:59 | 07:57 | | 13:52 (8) | 08:40 | | 13:58 (8) |
| | 21:50 | 30 | 21:03 (1) | 20:57 | | | 19:44 | 22 | 19:05 (2) | 18:33 | 16:33 | 43 | 14:35 (8) | 16:12 | 52 | 14:50 (8) |
| 18 | 05:24 | | 20:33 (1) | 06:14 | | | 07:07 | | 18:44 (2) | 08:01 | 07:59 | | 13:51 (8) | 08:41 | | 13:59 (8) |
| | 21:49 | 29 | 21:02 (1) | 20:54 | | | 19:42 | 19 | 19:03 (2) | 18:30 | 16:32 | 44 | 14:35 (8) | 16:13 | 52 | 14:51 (8) |
| 19 | 05:26 | | 20:33 (1) | 06:16 | | | 07:09 | | 18:45 (2) | 08:03 | 08:01 | | 13:51 (8) | 08:42 | | 13:58 (8) |
| | 21:47 | 27 | 21:00 (1) | 20:52 | | | 19:39 | 16 | 19:01 (2) | 18:28 | 16:30 | 49 | 15:22 (3) | 16:13 | 53 | 14:51 (8) |
| 20 | 05:27 | | 20:34 (1) | 06:17 | | | 07:11 | | 18:46 (2) | 08:05 | 08:03 | | 13:51 (8) | 08:42 | | 13:59 (8) |
| | 21:46 | 26 | 21:00 (1) | 20:50 | | | 19:37 | 11 | 18:57 (2) | 18:26 | 16:29 | 57 | 15:26 (3) | 16:13 | 52 | 14:51 (8) |
| 21 | 05:28 | | 20:34 (1) | 06:19 | | | 07:13 | | 18:48 (2) | 08:06 | 08:04 | | 13:50 (8) | 08:43 | | 14:00 (8) |
| | 21:45 | 25 | 20:59 (1) | 20:48 | | | 19:35 | 7 | 18:55 (2) | 18:24 | 16:28 | 61 | 15:27 (3) | 16:14 | 52 | 14:52 (8) |
| 22 | 05:30 | | 20:34 (1) | 06:21 | | | 07:14 | | 18:50 (2) | 08:08 | 08:06 | | 13:50 (8) | 08:44 | | 14:00 (8) |
| | 21:44 | 23 | 20:57 (1) | 20:46 | | | 19:32 | 3 | 18:53 (2) | 18:22 | 16:26 | 65 | 15:29 (3) | 16:14 | 52 | 14:52 (8) |
| 23 | 05:31 | | 20:35 (1) | 06:23 | | | 07:16 | | | 08:10 | 08:08 | | 13:50 (8) | 08:44 | | 14:00 (8) |
| | 21:42 | 22 | 20:57 (1) | 20:43 | | | 19:30 | | | 18:19 | 16:25 | 67 | 15:30 (3) | 16:14 | 52 | 14:52 (8) |
| 24 | 05:33 | | 20:35 (1) | 06:24 | | | 07:18 | | | 08:12 | 08:10 | | 13:50 (8) | 08:45 | | 14:01 (8) |
| | 21:41 | 20 | 20:55 (1) | 20:41 | | | 19:27 | | | 18:17 | 16:24 | 70 | 15:31 (3) | 16:15 | 52 | 14:53 (8) |
| 25 | 05:34 | | 20:36 (1) | 06:26 | | | 07:20 | | | 08:14 | 08:11 | | 13:50 (8) | 08:45 | | 14:02 (8) |
| | 21:39 | 18 | 20:54 (1) | 20:39 | | | 19:25 | | | 18:15 | 16:23 | 71 | 15:32 (3) | 16:16 | 52 | 14:54 (8) |
| 26 | 05:36 | | 20:37 (1) | 06:28 | | | 07:21 | | | 08:16 | 08:13 | | 13:50 (8) | 08:45 | | 14:02 (8) |
| | 21:38 | 16 | 20:53 (1) | 20:37 | | | 19:22 | | | 18:13 | 16:22 | 71 | 15:31 (3) | 16:16 | 52 | 14:54 (8) |
| 27 | 05:37 | | 20:37 (1) | 06:29 | | | 07:23 | | | 08:18 | 08:15 | | 13:50 (8) | 08:46 | | 14:02 (8) |
| | 21:36 | 14 | 20:51 (1) | 20:34 | | | 19:20 | | | 18:11 | 16:21 | 71 | 15:30 (3) | 16:17 | 52 | 14:54 (8) |
| 28 | 05:39 | | 20:38 (1) | 06:31 | | | 07:25 | | | 08:20 | 08:16 | | 13:50 (8) | 08:46 | | 14:02 (8) |
| | 21:35 | 11 | 20:49 (1) | 20:32 | | | 19:18 | | | 18:09 | 16:20 | 70 | 15:29 (3) | 16:18 | 53 | 14:55 (8) |
| 29 | 05:40 | | 20:39 (1) | 06:33 | | | 07:27 | | | 07:21 | 08:18 | | 13:51 (8) | 08:46 | | 14:03 (8) |
| | 21:33 | 10 | 20:49 (1) | 20:30 | | | 19:15 | | | 17:07 | 16:19 | 69 | 15:28 (3) | 16:19 | 52 | 14:55 (8) |
| 30 | 05:42 | | 20:39 (1) | 06:35 | | | 07:28 | | | 07:23 | 08:19 | | 13:50 (8) | 08:46 | | 14:03 (8) |
| | 21:31 | 8 | 20:47 (1) | 20:27 | | | 19:13 | | | 17:05 | 16:18 | 69 | 15:26 (3) | 16:20 | 53 | 14:56 (8) |
| 31 | 05:44 | | 20:41 (1) | 06:36 | | 19:00 (2) | | | | 07:25 | | | | 08:46 | | 14:04 (8) |
| | 21:30 | 5 | 20:46 (1) | 20:25 | 12 | 19:12 (2) | | | | 17:03 | | | | 16:21 | 54 | 15:26 (3) |
| Potential sun hours | 510 | | | 458 | | | 382 | | | 330 | 261 | | | 236 | | |
| Total, worst case | | 826 | | | 14 | | | 555 | | | | 1137 | | | 1718 | |
| Sun reduction | | 0,34 | | | 0,37 | | | 0,33 | | | | 0,21 | | | 0,13 | |
| Oper. time red. | | 0,96 | | | 0,96 | | | 0,96 | | | | 0,96 | | | 0,96 | |
| Wind dir. red. | | 0,58 | | | 0,62 | | | 0,63 | | | | 0,70 | | | 0,71 | |
| Total reduction | | 0,20 | | | 0,23 | | | 0,21 | | | | 0,15 | | | 0,09 | |
| Total, real | | 162 | | | 3 | | | 115 | | | | 166 | | | 151 | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|---|---|---|---|---|
| | Sun set (hh:mm) | Minutes with flicker | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Licensed user:
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+31 6 51 71 04 93
Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

# SHADOW - Calendar

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegdShadow receptor: H - Schaappad 1 9936HT Farmsum

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | January | | | February | | | March | April | May | June | July | August | September | October | November | | | December | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 08:46 | | 14:22 (1) | 08:17 | | 14:43 (1) | 07:21 | 07:07 | 05:59 | 05:11 | 05:07 | 05:45 | 06:38 | 07:30 | 07:27 | | | 08:21 | | 14:07 (1) |
| | 16:22 | 49 | 15:11 (1) | 17:12 | 28 | 15:11 (1) | 18:07 | 20:04 | 20:58 | 21:47 | 22:02 | 21:28 | 20:23 | 19:10 | 17:01 | | | 16:17 | 50 | 14:57 (1) |
| 2 | 08:46 | | 14:22 (1) | 08:15 | | 14:46 (1) | 07:19 | 07:05 | 05:57 | 05:10 | 05:07 | 05:47 | 06:40 | 07:32 | 07:29 | | | 08:23 | | 14:08 (1) |
| | 16:23 | 49 | 15:11 (1) | 17:14 | 23 | 15:09 (1) | 18:09 | 20:06 | 21:00 | 21:48 | 22:02 | 21:26 | 20:20 | 19:08 | 16:59 | | | 16:17 | 49 | 14:57 (1) |
| 3 | 08:46 | | 14:23 (1) | 08:14 | | 14:50 (1) | 07:16 | 07:02 | 05:55 | 05:09 | 05:08 | 05:48 | 06:42 | 07:34 | 07:31 | | | 08:24 | | 14:09 (1) |
| | 16:24 | 48 | 15:11 (1) | 17:16 | 16 | 15:06 (1) | 18:10 | 20:08 | 21:02 | 21:49 | 22:01 | 21:24 | 20:18 | 19:05 | 16:57 | | | 16:16 | 49 | 14:58 (1) |
| 4 | 08:45 | | 14:23 (1) | 08:12 | | 14:55 (1) | 07:14 | 07:00 | 05:53 | 05:08 | 05:09 | 05:50 | 06:43 | 07:36 | 07:33 | | | 08:25 | | 14:08 (1) |
| | 16:25 | 48 | 15:11 (1) | 17:18 | 7 | 15:02 (1) | 18:12 | 20:09 | 21:03 | 21:50 | 22:01 | 21:23 | 20:16 | 19:03 | 16:55 | | | 16:15 | 50 | 14:58 (1) |
| 5 | 08:45 | | 14:23 (1) | 08:10 | | | 07:12 | 06:58 | 05:51 | 05:07 | 05:10 | 05:52 | 06:45 | 07:37 | 07:35 | | | 08:27 | | 14:09 (1) |
| | 16:27 | 50 | 15:13 (1) | 17:20 | | | 18:14 | 20:11 | 21:05 | 21:52 | 22:00 | 21:21 | 20:13 | 19:01 | 16:53 | | | 16:15 | 50 | 14:59 (1) |
| 6 | 08:45 | | 14:23 (1) | 08:09 | | | 07:09 | 06:55 | 05:49 | 05:06 | 05:10 | 05:53 | 06:47 | 07:39 | 07:37 | | | 08:28 | | 14:10 (1) |
| | 16:28 | 50 | 15:13 (1) | 17:22 | | | 18:16 | 20:13 | 21:07 | 21:53 | 22:00 | 21:19 | 20:11 | 18:58 | 16:51 | | | 16:14 | 49 | 14:59 (1) |
| 7 | 08:44 | | 14:25 (1) | 08:07 | | | 07:07 | 06:53 | 05:47 | 05:06 | 05:11 | 05:55 | 06:49 | 07:41 | 07:39 | | | 08:30 | | 14:10 (1) |
| | 16:29 | 49 | 15:14 (1) | 17:24 | | | 18:18 | 20:15 | 21:09 | 21:54 | 21:59 | 21:17 | 20:09 | 18:56 | 16:50 | | | 16:14 | 49 | 14:59 (1) |
| 8 | 08:44 | | 14:25 (1) | 08:05 | | | 07:05 | 06:50 | 05:45 | 05:05 | 05:12 | 05:57 | 06:50 | 07:43 | 07:40 | | 14:22 (1) | 08:31 | | 14:11 (1) |
| | 16:31 | 49 | 15:14 (1) | 17:26 | | | 18:20 | 20:17 | 21:10 | 21:54 | 21:58 | 21:15 | 20:06 | 18:54 | 16:48 | 14 | 14:36 (1) | 16:13 | 49 | 15:00 (1) |
| 9 | 08:43 | | 14:25 (1) | 08:03 | | | 07:02 | 06:48 | 05:44 | 05:05 | 05:13 | 05:58 | 06:52 | 07:44 | 07:42 | | 14:18 (1) | 08:32 | | 14:11 (1) |
| | 16:32 | 49 | 15:14 (1) | 17:28 | | | 18:22 | 20:18 | 21:12 | 21:55 | 21:58 | 21:13 | 20:04 | 18:51 | 16:46 | 21 | 14:39 (1) | 16:13 | 49 | 15:00 (1) |
| 10 | 08:43 | | 14:25 (1) | 08:01 | | | 07:00 | 06:46 | 05:42 | 05:04 | 05:14 | 06:00 | 06:54 | 07:46 | 07:44 | | 14:15 (1) | 08:33 | | 14:11 (1) |
| | 16:33 | 50 | 15:15 (1) | 17:30 | | | 18:24 | 20:20 | 21:14 | 21:56 | 21:57 | 21:11 | 20:01 | 18:49 | 16:44 | 26 | 14:41 (1) | 16:13 | 49 | 15:00 (1) |
| 11 | 08:42 | | 14:26 (1) | 07:59 | | | 06:58 | 06:43 | 05:40 | 05:04 | 05:16 | 06:02 | 06:55 | 07:48 | 07:46 | | 14:13 (1) | 08:34 | | 14:13 (1) |
| | 16:35 | 49 | 15:15 (1) | 17:32 | | | 18:25 | 20:22 | 21:16 | 21:57 | 21:56 | 21:09 | 19:59 | 18:47 | 16:43 | 29 | 14:42 (1) | 16:12 | 48 | 15:01 (1) |
| 12 | 08:41 | | 14:26 (1) | 07:57 | | | 06:55 | 06:41 | 05:38 | 05:03 | 05:17 | 06:04 | 06:57 | 07:50 | 07:48 | | 14:12 (1) | 08:36 | | 14:13 (1) |
| | 16:36 | 50 | 15:16 (1) | 17:34 | | | 18:27 | 20:24 | 21:17 | 21:58 | 21:55 | 21:07 | 19:56 | 18:44 | 16:41 | 33 | 14:45 (1) | 16:12 | 48 | 15:01 (1) |
| 13 | 08:41 | | 14:26 (1) | 07:55 | | | 06:53 | 06:39 | 05:36 | 05:03 | 05:18 | 06:05 | 06:59 | 07:52 | 07:50 | | 14:11 (1) | 08:37 | | 14:13 (1) |
| | 16:38 | 50 | 15:16 (1) | 17:36 | | | 18:29 | 20:26 | 21:19 | 21:58 | 21:54 | 21:05 | 19:54 | 18:42 | 16:39 | 35 | 14:46 (1) | 16:12 | 49 | 15:02 (1) |
| 14 | 08:40 | | 14:27 (1) | 07:53 | | | 06:51 | 06:36 | 05:35 | 05:03 | 05:19 | 06:07 | 07:01 | 07:53 | 07:52 | | 14:10 (1) | 08:38 | | 14:14 (1) |
| | 16:40 | 49 | 15:16 (1) | 17:38 | | | 18:31 | 20:27 | 21:21 | 21:59 | 21:53 | 21:03 | 19:52 | 18:40 | 16:38 | 37 | 14:47 (1) | 16:12 | 48 | 15:02 (1) |
| 15 | 08:39 | | 14:28 (1) | 07:51 | | | 06:48 | 06:34 | 05:33 | 05:02 | 05:20 | 06:09 | 07:02 | 07:55 | 07:54 | | 14:09 (1) | 08:39 | | 14:14 (1) |
| | 16:41 | 49 | 15:17 (1) | 17:39 | | | 18:33 | 20:29 | 21:22 | 22:00 | 21:52 | 21:01 | 19:49 | 18:37 | 16:36 | 39 | 14:48 (1) | 16:12 | 48 | 15:02 (1) |
| 16 | 08:38 | | 14:27 (1) | 07:49 | | | 06:46 | 06:32 | 05:31 | 05:02 | 05:22 | 06:10 | 07:04 | 07:57 | 07:55 | | 14:08 (1) | 08:39 | | 14:15 (1) |
| | 16:43 | 49 | 15:16 (1) | 17:41 | | | 18:35 | 20:31 | 21:24 | 22:00 | 21:51 | 20:59 | 19:47 | 18:35 | 16:35 | 40 | 14:48 (1) | 16:12 | 48 | 15:03 (1) |
| 17 | 08:37 | | 14:28 (1) | 07:47 | | | 06:43 | 06:29 | 05:30 | 05:02 | 05:23 | 06:12 | 07:06 | 07:59 | 07:57 | | 14:07 (1) | 08:40 | | 14:15 (1) |
| | 16:44 | 49 | 15:17 (1) | 17:43 | | | 18:37 | 20:33 | 21:25 | 22:01 | 21:50 | 20:57 | 19:44 | 18:33 | 16:33 | 42 | 14:49 (1) | 16:12 | 48 | 15:03 (1) |
| 18 | 08:36 | | 14:29 (1) | 07:45 | | | 06:41 | 06:27 | 05:28 | 05:02 | 05:24 | 06:14 | 07:08 | 08:01 | 07:59 | | 14:07 (1) | 08:41 | | 14:16 (1) |
| | 16:46 | 48 | 15:17 (1) | 17:45 | | | 18:38 | 20:35 | 21:27 | 22:01 | 21:49 | 20:55 | 19:42 | 18:30 | 16:32 | 44 | 14:51 (1) | 16:13 | 48 | 15:04 (1) |
| 19 | 08:35 | | 14:29 (1) | 07:43 | | | 06:38 | 06:25 | 05:27 | 05:02 | 05:26 | 06:16 | 07:09 | 08:03 | 08:01 | | 14:07 (1) | 08:42 | | 14:16 (1) |
| | 16:48 | 48 | 15:17 (1) | 17:47 | | | 18:40 | 20:36 | 21:29 | 22:02 | 21:47 | 20:52 | 19:39 | 18:28 | 16:30 | 44 | 14:51 (1) | 16:13 | 47 | 15:03 (1) |
| 20 | 08:34 | | 14:30 (1) | 07:41 | | | 06:36 | 06:23 | 05:25 | 05:02 | 05:27 | 06:17 | 07:11 | 08:05 | 08:03 | | 14:07 (1) | 08:42 | | 14:17 (1) |
| | 16:50 | 47 | 15:17 (1) | 17:49 | | | 18:42 | 20:38 | 21:30 | 22:02 | 21:46 | 20:50 | 19:37 | 18:26 | 16:29 | 45 | 14:52 (1) | 16:13 | 47 | 15:04 (1) |
| 21 | 08:33 | | 14:30 (1) | 07:39 | | | 06:34 | 06:20 | 05:24 | 05:02 | 05:28 | 06:19 | 07:13 | 08:06 | 08:04 | | 14:06 (1) | 08:43 | | 14:18 (1) |
| | 16:51 | 47 | 15:17 (1) | 17:51 | | | 18:44 | 20:40 | 21:32 | 22:02 | 21:45 | 20:48 | 19:35 | 18:24 | 16:28 | 46 | 14:52 (1) | 16:14 | 47 | 15:05 (1) |
| 22 | 08:32 | | 14:32 (1) | 07:36 | | | 06:31 | 06:18 | 05:22 | 05:03 | 05:30 | 06:21 | 07:14 | 08:08 | 08:06 | | 14:06 (1) | 08:44 | | 14:18 (1) |
| | 16:53 | 45 | 15:17 (1) | 17:53 | | | 18:46 | 20:42 | 21:33 | 22:02 | 21:44 | 20:46 | 19:32 | 18:22 | 16:26 | 47 | 14:53 (1) | 16:14 | 47 | 15:05 (1) |
| 23 | 08:30 | | 14:32 (1) | 07:34 | | | 06:29 | 06:16 | 05:21 | 05:03 | 05:31 | 06:23 | 07:16 | 08:10 | 08:08 | | 14:06 (1) | 08:44 | | 14:19 (1) |
| | 16:55 | 45 | 15:17 (1) | 17:55 | | | 18:48 | 20:44 | 21:35 | 22:03 | 21:42 | 20:44 | 19:30 | 18:19 | 16:25 | 48 | 14:54 (1) | 16:14 | 47 | 15:06 (1) |
| 24 | 08:29 | | 14:32 (1) | 07:32 | | | 06:26 | 06:14 | 05:20 | 05:03 | 05:33 | 06:24 | 07:18 | 08:12 | 08:10 | | 14:06 (1) | 08:45 | | 14:19 (1) |
| | 16:57 | 44 | 15:16 (1) | 17:57 | | | 18:49 | 20:45 | 21:36 | 22:03 | 21:41 | 20:41 | 19:27 | 18:17 | 16:24 | 48 | 14:54 (1) | 16:15 | 47 | 15:06 (1) |
| 25 | 08:28 | | 14:34 (1) | 07:30 | | | 06:24 | 06:12 | 05:18 | 05:03 | 05:34 | 06:26 | 07:20 | 08:14 | 08:11 | | 14:06 (1) | 08:45 | | 14:19 (1) |
| | 16:59 | 43 | 15:17 (1) | 17:59 | | | 18:51 | 20:47 | 21:38 | 22:03 | 21:39 | 20:39 | 19:25 | 18:15 | 16:23 | 49 | 14:55 (1) | 16:16 | 48 | 15:07 (1) |
| 26 | 08:26 | | 14:35 (1) | 07:28 | | | 07:22 | 06:10 | 05:17 | 05:04 | 05:36 | 06:28 | 07:21 | 08:16 | 08:13 | | 14:06 (1) | 08:45 | | 14:19 (1) |
| | 17:01 | 41 | 15:16 (1) | 18:01 | | | 19:53 | 20:49 | 21:39 | 22:03 | 21:38 | 20:37 | 19:22 | 18:13 | 16:22 | 49 | 14:55 (1) | 16:16 | 48 | 15:07 (1) |
| 27 | 08:25 | | 14:35 (1) | 07:25 | | | 07:19 | 06:07 | 05:16 | 05:04 | 05:37 | 06:29 | 07:23 | 08:18 | 08:15 | | 14:07 (1) | 08:46 | | 14:19 (1) |
| | 17:02 | 40 | 15:15 (1) | 18:03 | | | 19:55 | 20:51 | 21:41 | 22:03 | 21:36 | 20:34 | 19:20 | 18:11 | 16:21 | 49 | 14:56 (1) | 16:17 | 48 | 15:07 (1) |
| 28 | 08:23 | | 14:37 (1) | 07:23 | | | 07:17 | 06:05 | 05:15 | 05:05 | 05:39 | 06:31 | 07:25 | 08:20 | 08:16 | | 14:07 (1) | 08:46 | | 14:20 (1) |
| | 17:04 | 38 | 15:15 (1) | 18:05 | | | 19:57 | 20:53 | 21:42 | 22:03 | 21:35 | 20:32 | 19:18 | 18:09 | 16:20 | 49 | 14:56 (1) | 16:18 | 48 | 15:08 (1) |
| 29 | 08:22 | | 14:38 (1) | | | | 07:14 | 06:03 | 05:14 | 05:05 | 05:40 | 06:33 | 07:27 | 07:21 | 08:18 | | 14:07 (1) | 08:46 | | 14:20 (1) |
| | 17:06 | 36 | 15:14 (1) | | | | 19:58 | 20:54 | 21:43 | 22:02 | 21:33 | 20:30 | 19:15 | 17:07 | 16:19 | 50 | 14:57 (1) | 16:19 | 48 | 15:08 (1) |
| 30 | 08:20 | | 14:40 (1) | | | | 07:12 | 06:01 | 05:13 | 05:06 | 05:42 | 06:35 | 07:28 | 07:23 | 08:20 | | 14:08 (1) | 08:46 | | 14:21 (1) |
| | 17:08 | 33 | 15:13 (1) | | | | 20:00 | 20:56 | 21:44 | 22:02 | 21:31 | 20:27 | 19:13 | 17:05 | 16:18 | 49 | 14:57 (1) | 16:20 | 48 | 15:09 (1) |
| 31 | 08:19 | | 14:41 (1) | | | | 07:10 | | 05:12 | | 05:44 | 06:36 | | 07:25 | | | | 08:46 | | 14:21 (1) |
| | 17:10 | 31 | 15:12 (1) | | | | 20:02 | | 21:46 | | 21:30 | 20:25 | | 17:03 | | | | 16:21 | 49 | 15:10 (1) |
| Potential sun hours | 252 | | | 274 | | | 366 | 418 | 491 | 507 | 510 | 459 | 382 | 330 | 261 | | | 236 | | |
| Total, worst case | | 1422 | | | 74 | | | | | | | | | | | 933 | | | 1497 | |
| Sun reduction | | 0,17 | | | 0,26 | | | | | | | | | | | 0,21 | | | 0,13 | |
| Oper. time red. | | 0,96 | | | 0,96 | | | | | | | | | | | 0,96 | | | 0,96 | |
| Wind dir. red. | | 0,71 | | | 0,71 | | | | | | | | | | | 0,71 | | | 0,71 | |
| Total reduction | | 0,11 | | | 0,17 | | | | | | | | | | | 0,14 | | | 0,09 | |
| Total, real | | 161 | | | 13 | | | | | | | | | | | 133 | | | 128 | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm)<br>Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker<br>Last time (hh:mm) with flicker | (WTG causing flicker first time)<br>(WTG causing flicker last time) |
|---|---|---|---|---|

Licensed user:
Bosch & Van Rijn
Groenmarktstraat 56
NL-3521 AV Utrecht
+31 6 51 71 04 93
Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

# SHADOW - Calendar

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegd Shadow receptor: I - Seendweg 8 9936GA Farmsum

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | January | | February | March | April | May | June | July | August | September | October | November | | December | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 08:46 | 09:52 (1) | 08:17 | 07:21 | 07:07 | 05:59 | 05:11 | 05:07 | 05:45 | 06:38 | 07:30 | 07:27 | | 08:21 | 09:41 (1) |
| | 16:22 31 | 10:23 (1) | 17:12 | 18:07 | 20:04 | 20:58 | 21:47 | 22:02 | 21:28 | 20:23 | 19:10 | 17:01 | | 16:17 25 | 10:06 (1) |
| 2 | 08:46 | 09:52 (1) | 08:16 | 07:19 | 07:05 | 05:57 | 05:10 | 05:07 | 05:47 | 06:40 | 07:32 | 07:29 | | 08:23 | 09:41 (1) |
| | 16:23 31 | 10:23 (1) | 17:14 | 18:09 | 20:06 | 21:00 | 21:48 | 22:02 | 21:26 | 20:21 | 19:08 | 16:59 | | 16:17 26 | 10:07 (1) |
| 3 | 08:46 | 09:53 (1) | 08:14 | 07:16 | 07:02 | 05:55 | 05:09 | 05:08 | 05:48 | 06:42 | 07:34 | 07:31 | | 08:24 | 09:41 (1) |
| | 16:24 31 | 10:24 (1) | 17:16 | 18:11 | 20:08 | 21:02 | 21:49 | 22:01 | 21:24 | 20:18 | 19:06 | 16:57 | | 16:16 27 | 10:08 (1) |
| 4 | 08:46 | 09:55 (1) | 08:12 | 07:14 | 07:00 | 05:53 | 05:08 | 05:09 | 05:50 | 06:43 | 07:36 | 07:33 | | 08:26 | 09:42 (1) |
| | 16:25 29 | 10:24 (1) | 17:18 | 18:12 | 20:09 | 21:03 | 21:51 | 22:01 | 21:23 | 20:16 | 19:03 | 16:55 | | 16:15 27 | 10:09 (1) |
| 5 | 08:45 | 09:55 (1) | 08:10 | 07:12 | 06:58 | 05:51 | 05:07 | 05:10 | 05:52 | 06:45 | 07:37 | 07:35 | | 08:27 | 09:41 (1) |
| | 16:27 29 | 10:24 (1) | 17:20 | 18:14 | 20:11 | 21:05 | 21:52 | 22:00 | 21:21 | 20:13 | 19:01 | 16:53 | | 16:15 28 | 10:09 (1) |
| 6 | 08:45 | 09:55 (1) | 08:09 | 07:09 | 06:55 | 05:49 | 05:07 | 05:11 | 05:53 | 06:47 | 07:39 | 07:37 | | 08:28 | 09:42 (1) |
| | 16:28 29 | 10:24 (1) | 17:22 | 18:16 | 20:13 | 21:07 | 21:53 | 22:00 | 21:19 | 20:11 | 18:58 | 16:51 | | 16:14 29 | 10:11 (1) |
| 7 | 08:44 | 09:56 (1) | 08:07 | 07:07 | 06:53 | 05:47 | 05:06 | 05:11 | 05:55 | 06:49 | 07:41 | 07:39 | | 08:30 | 09:41 (1) |
| | 16:29 29 | 10:25 (1) | 17:24 | 18:18 | 20:15 | 21:09 | 21:54 | 21:59 | 21:17 | 20:09 | 18:56 | 16:50 | | 16:14 30 | 10:11 (1) |
| 8 | 08:44 | 09:57 (1) | 08:05 | 07:05 | 06:50 | 05:45 | 05:05 | 05:12 | 05:57 | 06:50 | 07:43 | 07:40 | | 08:31 | 09:42 (1) |
| | 16:31 28 | 10:25 (1) | 17:26 | 18:20 | 20:17 | 21:10 | 21:55 | 21:58 | 21:15 | 20:06 | 18:54 | 16:48 | | 16:13 30 | 10:12 (1) |
| 9 | 08:43 | 09:57 (1) | 08:03 | 07:02 | 06:48 | 05:44 | 05:05 | 05:13 | 05:59 | 06:52 | 07:44 | 07:42 | | 08:32 | 09:42 (1) |
| | 16:32 28 | 10:25 (1) | 17:28 | 18:22 | 20:18 | 21:12 | 21:55 | 21:58 | 21:13 | 20:04 | 18:51 | 16:46 | | 16:13 30 | 10:12 (1) |
| 10 | 08:43 | 09:58 (1) | 08:01 | 07:00 | 06:46 | 05:42 | 05:04 | 05:14 | 06:00 | 06:54 | 07:46 | 07:44 | | 08:33 | 09:42 (1) |
| | 16:33 26 | 10:24 (1) | 17:30 | 18:24 | 20:20 | 21:14 | 21:56 | 21:57 | 21:11 | 20:01 | 18:49 | 16:44 | | 16:13 30 | 10:12 (1) |
| 11 | 08:42 | 09:59 (1) | 07:59 | 06:58 | 06:43 | 05:40 | 05:04 | 05:16 | 06:02 | 06:55 | 07:48 | 07:46 | | 08:34 | 09:43 (1) |
| | 16:35 25 | 10:24 (1) | 17:32 | 18:26 | 20:22 | 21:16 | 21:57 | 21:56 | 21:09 | 19:59 | 18:47 | 16:43 | | 16:12 31 | 10:14 (1) |
| 12 | 08:41 | 10:00 (1) | 07:57 | 06:55 | 06:41 | 05:38 | 05:03 | 05:17 | 06:04 | 06:57 | 07:50 | 07:48 | | 08:36 | 09:43 (1) |
| | 16:36 24 | 10:24 (1) | 17:34 | 18:27 | 20:24 | 21:17 | 21:58 | 21:55 | 21:07 | 19:57 | 18:44 | 16:41 | | 16:12 31 | 10:14 (1) |
| 13 | 08:41 | 10:01 (1) | 07:55 | 06:53 | 06:39 | 05:36 | 05:03 | 05:18 | 06:05 | 06:59 | 07:52 | 07:50 | | 08:37 | 09:43 (1) |
| | 16:38 23 | 10:24 (1) | 17:36 | 18:29 | 20:26 | 21:19 | 21:59 | 21:54 | 21:05 | 19:54 | 18:42 | 16:39 | | 16:12 31 | 10:14 (1) |
| 14 | 08:40 | 10:02 (1) | 07:53 | 06:51 | 06:36 | 05:35 | 05:03 | 05:19 | 06:07 | 07:01 | 07:54 | 07:52 | | 08:38 | 09:43 (1) |
| | 16:40 21 | 10:23 (1) | 17:38 | 18:31 | 20:27 | 21:21 | 21:59 | 21:53 | 21:03 | 19:52 | 18:40 | 16:38 | | 16:12 32 | 10:15 (1) |
| 15 | 08:39 | 10:04 (1) | 07:51 | 06:48 | 06:34 | 05:33 | 05:03 | 05:20 | 06:09 | 07:02 | 07:55 | 07:54 | | 08:39 | 09:44 (1) |
| | 16:41 19 | 10:23 (1) | 17:40 | 18:33 | 20:29 | 21:22 | 22:00 | 21:52 | 21:01 | 19:49 | 18:37 | 16:36 | | 16:12 31 | 10:15 (1) |
| 16 | 08:38 | 10:05 (1) | 07:49 | 06:46 | 06:32 | 05:31 | 05:02 | 05:22 | 06:10 | 07:04 | 07:57 | 07:55 | | 08:39 | 09:44 (1) |
| | 16:43 16 | 10:21 (1) | 17:42 | 18:35 | 20:31 | 21:24 | 22:00 | 21:51 | 20:59 | 19:47 | 18:35 | 16:35 | | 16:12 32 | 10:16 (1) |
| 17 | 08:37 | 10:07 (1) | 07:47 | 06:43 | 06:30 | 05:30 | 05:02 | 05:23 | 06:12 | 07:06 | 07:59 | 07:57 | | 08:40 | 09:45 (1) |
| | 16:45 12 | 10:19 (1) | 17:43 | 18:37 | 20:33 | 21:26 | 22:01 | 21:50 | 20:57 | 19:44 | 18:33 | 16:33 | | 16:12 32 | 10:17 (1) |
| 18 | 08:36 | 10:10 (1) | 07:45 | 06:41 | 06:27 | 05:28 | 05:02 | 05:24 | 06:14 | 07:08 | 08:01 | 07:59 | | 08:41 | 09:45 (1) |
| | 16:46 8 | 10:18 (1) | 17:45 | 18:38 | 20:35 | 21:27 | 22:01 | 21:49 | 20:55 | 19:42 | 18:31 | 16:32 | | 16:13 32 | 10:17 (1) |
| 19 | 08:35 | | 07:43 | 06:39 | 06:25 | 05:27 | 05:02 | 05:26 | 06:16 | 07:09 | 08:03 | 08:01 | | 08:42 | 09:45 (1) |
| | 16:48 | | 17:47 | 18:40 | 20:37 | 21:29 | 22:02 | 21:48 | 20:52 | 19:40 | 18:28 | 16:30 | | 16:13 32 | 10:17 (1) |
| 20 | 08:34 | | 07:41 | 06:36 | 06:23 | 05:25 | 05:02 | 05:27 | 06:17 | 07:11 | 08:05 | 08:03 | | 08:43 | 09:46 (1) |
| | 16:50 | | 17:49 | 18:42 | 20:38 | 21:30 | 22:02 | 21:46 | 20:50 | 19:37 | 18:26 | 16:29 | | 16:13 32 | 10:18 (1) |
| 21 | 08:33 | | 07:39 | 06:34 | 06:21 | 05:24 | 05:02 | 05:28 | 06:19 | 07:13 | 08:06 | 08:05 | | 08:43 | 09:47 (1) |
| | 16:51 | | 17:51 | 18:44 | 20:40 | 21:32 | 22:02 | 21:45 | 20:48 | 19:35 | 18:24 | 16:28 | | 16:14 32 | 10:19 (1) |
| 22 | 08:32 | | 07:37 | 06:31 | 06:18 | 05:22 | 05:03 | 05:30 | 06:21 | 07:14 | 08:08 | 08:06 | | 08:44 | 09:47 (1) |
| | 16:53 | | 17:53 | 18:46 | 20:42 | 21:33 | 22:03 | 21:44 | 20:46 | 19:32 | 18:22 | 16:27 | | 16:14 32 | 10:19 (1) |
| 23 | 08:30 | | 07:34 | 06:29 | 06:16 | 05:21 | 05:03 | 05:31 | 06:23 | 07:16 | 08:10 | 08:08 | | 08:44 | 09:48 (1) |
| | 16:55 | | 17:55 | 18:48 | 20:44 | 21:35 | 22:03 | 21:42 | 20:44 | 19:30 | 18:20 | 16:25 | | 16:15 32 | 10:20 (1) |
| 24 | 08:29 | | 07:32 | 06:26 | 06:14 | 05:20 | 05:03 | 05:33 | 06:24 | 07:18 | 08:12 | 08:10 | 09:50 (1) | 08:45 | 09:48 (1) |
| | 16:57 | | 17:57 | 18:49 | 20:46 | 21:36 | 22:03 | 21:41 | 20:41 | 19:27 | 18:17 | 16:24 2 | 09:52 (1) | 16:15 32 | 10:20 (1) |
| 25 | 08:28 | | 07:30 | 06:24 | 06:12 | 05:18 | 05:03 | 05:34 | 06:26 | 07:20 | 08:14 | 08:11 | 09:46 (1) | 08:45 | 09:48 (1) |
| | 16:59 | | 17:59 | 18:51 | 20:47 | 21:38 | 22:03 | 21:39 | 20:39 | 19:25 | 18:15 | 16:23 10 | 09:56 (1) | 16:16 32 | 10:20 (1) |
| 26 | 08:26 | | 07:28 | 07:22 | 06:10 | 05:17 | 05:04 | 05:36 | 06:28 | 07:21 | 08:16 | 08:13 | 09:44 (1) | 08:45 | 09:48 (1) |
| | 17:01 | | 18:01 | 19:53 | 20:49 | 21:39 | 22:03 | 21:38 | 20:37 | 19:22 | 18:13 | 16:22 15 | 09:59 (1) | 16:16 32 | 10:20 (1) |
| 27 | 08:25 | | 07:25 | 07:19 | 06:07 | 05:16 | 05:04 | 05:37 | 06:30 | 07:23 | 08:18 | 08:15 | 09:43 (1) | 08:46 | 09:50 (1) |
| | 17:03 | | 18:03 | 19:55 | 20:51 | 21:41 | 22:03 | 21:36 | 20:34 | 19:20 | 18:11 | 16:21 18 | 10:01 (1) | 16:17 32 | 10:22 (1) |
| 28 | 08:23 | | 07:23 | 07:17 | 06:05 | 05:15 | 05:05 | 05:39 | 06:31 | 07:25 | 08:20 | 08:16 | 09:43 (1) | 08:46 | 09:50 (1) |
| | 17:04 | | 18:05 | 19:57 | 20:53 | 21:42 | 22:03 | 21:35 | 20:32 | 19:18 | 18:09 | 16:20 20 | 10:03 (1) | 16:18 32 | 10:22 (1) |
| 29 | 08:22 | | | 07:14 | 06:03 | 05:14 | 05:05 | 05:40 | 06:33 | 07:27 | 07:22 | 08:18 | 09:42 (1) | 08:46 | 09:51 (1) |
| | 17:06 | | | 19:59 | 20:55 | 21:43 | 22:03 | 21:33 | 20:30 | 19:15 | 17:07 | 16:19 22 | 10:04 (1) | 16:19 31 | 10:22 (1) |
| 30 | 08:20 | | | 07:12 | 06:01 | 05:13 | 05:06 | 05:42 | 06:35 | 07:28 | 07:23 | 08:20 | 09:42 (1) | 08:46 | 09:51 (1) |
| | 17:08 | | | 20:00 | 20:56 | 21:45 | 22:02 | 21:31 | 20:28 | 19:13 | 17:05 | 16:18 23 | 10:05 (1) | 16:20 31 | 10:22 (1) |
| 31 | 08:19 | | | 07:10 | | 05:12 | | 05:44 | 06:36 | | 07:25 | | | 08:46 | 09:51 (1) |
| | 17:10 | | | 20:02 | | 21:46 | | 21:30 | 20:25 | | 17:03 | | | 16:21 31 | 10:22 (1) |
| Potential sun hours | 252 | | 274 | 366 | 418 | 491 | 507 | 510 | 459 | 382 | 330 | 261 | | 236 | |
| Total, worst case | | 439 | | | | | | | | | | | 110 | | 947 |
| Sun reduction | | 0,17 | | | | | | | | | | | 0,21 | | 0,13 |
| Oper. time red. | | 0,96 | | | | | | | | | | | 0,96 | | 0,96 |
| Wind dir. red. | | 0,60 | | | | | | | | | | | 0,60 | | 0,60 |
| Total reduction | | 0,10 | | | | | | | | | | | 0,12 | | 0,07 |
| Total, real | | 42 | | | | | | | | | | | 13 | | 69 |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|---|---|---|---|---|
| | Sun set (hh:mm) | Minutes with flicker | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

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+31 6 51 71 04 93
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Calculated:
8-2-2017 11:38/3.0.654

# SHADOW - Calendar

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegdShadow receptor: J - T.J. Jansenweg 11 9936HL Farmsum

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | January | | | February | | | March | | | April | | | May | June |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 08:46 | | 14:02 (2) | 08:17 | | | 07:21 | | 15:42 (1) | 07:07 | | 16:42 (1) | 05:59 | 05:11 |
| | 16:22 | 47 | 14:49 (2) | 17:12 | | | 18:07 | 75 | 16:57 (1) | 20:04 | 67 | 17:49 (1) | 20:58 | 21:47 |
| 2 | 08:46 | | 14:02 (2) | 08:15 | | | 07:19 | | 15:42 (1) | 07:05 | | 16:43 (1) | 05:57 | 05:10 |
| | 16:23 | 47 | 14:49 (2) | 17:14 | | | 18:09 | 77 | 16:59 (1) | 20:06 | 64 | 17:47 (1) | 21:00 | 21:48 |
| 3 | 08:46 | | 14:03 (2) | 08:14 | | | 07:16 | | 15:40 (1) | 07:02 | | 16:45 (1) | 05:55 | 05:09 |
| | 16:24 | 46 | 14:49 (2) | 17:16 | | | 18:10 | 79 | 16:59 (1) | 20:08 | 61 | 17:46 (1) | 21:02 | 21:49 |
| 4 | 08:45 | | 14:03 (2) | 08:12 | | | 07:14 | | 15:40 (1) | 07:00 | | 16:47 (1) | 05:53 | 05:08 |
| | 16:25 | 46 | 14:49 (2) | 17:18 | | | 18:12 | 80 | 17:00 (1) | 20:09 | 57 | 17:44 (1) | 21:03 | 21:50 |
| 5 | 08:45 | | 14:04 (2) | 08:10 | | | 07:12 | | 15:39 (1) | 06:58 | | 16:48 (1) | 05:51 | 05:07 |
| | 16:27 | 46 | 14:50 (2) | 17:20 | | | 18:14 | 82 | 17:01 (1) | 20:11 | 54 | 17:42 (1) | 21:05 | 21:51 |
| 6 | 08:45 | | 14:05 (2) | 08:08 | | | 07:09 | | 15:38 (1) | 06:55 | | 16:51 (1) | 05:49 | 05:07 |
| | 16:28 | 45 | 14:50 (2) | 17:22 | | | 18:16 | 83 | 17:01 (1) | 20:13 | 49 | 17:40 (1) | 21:07 | 21:53 |
| 7 | 08:44 | | 14:05 (2) | 08:07 | | | 07:07 | | 15:37 (1) | 06:53 | | 16:54 (1) | 05:47 | 05:06 |
| | 16:29 | 45 | 14:50 (2) | 17:24 | | | 18:18 | 84 | 17:01 (1) | 20:15 | 45 | 17:39 (1) | 21:09 | 21:54 |
| 8 | 08:44 | | 14:06 (2) | 08:05 | | | 07:05 | | 15:36 (1) | 06:50 | | 16:55 (1) | 05:45 | 05:05 |
| | 16:31 | 45 | 14:51 (2) | 17:26 | | | 18:20 | 85 | 17:01 (1) | 20:17 | 40 | 17:35 (1) | 21:10 | 21:54 |
| 9 | 08:43 | | 14:07 (2) | 08:03 | | | 07:02 | | 15:36 (1) | 06:48 | | 16:59 (1) | 05:44 | 05:05 |
| | 16:32 | 44 | 14:51 (2) | 17:28 | | | 18:22 | 86 | 17:02 (1) | 20:18 | 34 | 17:33 (1) | 21:12 | 21:55 |
| 10 | 08:43 | | 14:07 (2) | 08:01 | | | 07:00 | | 15:35 (1) | 06:46 | | 17:02 (1) | 05:42 | 05:04 |
| | 16:33 | 44 | 14:51 (2) | 17:30 | | | 18:24 | 86 | 17:01 (1) | 20:20 | 28 | 17:30 (1) | 21:14 | 21:56 |
| 11 | 08:42 | | 14:08 (2) | 07:59 | | | 06:58 | | 15:35 (1) | 06:43 | | 17:07 (1) | 05:40 | 05:04 |
| | 16:35 | 43 | 14:51 (2) | 17:32 | | | 18:25 | 87 | 17:02 (1) | 20:22 | 17 | 17:24 (1) | 21:15 | 21:57 |
| 12 | 08:41 | | 14:09 (2) | 07:57 | | | 06:55 | | 15:35 (1) | 06:41 | | | 05:38 | 05:03 |
| | 16:36 | 43 | 14:52 (2) | 17:34 | | | 18:27 | 87 | 17:02 (1) | 20:24 | | | 21:17 | 21:58 |
| 13 | 08:41 | | 14:09 (2) | 07:55 | | | 06:53 | | 15:34 (1) | 06:39 | | | 05:36 | 05:03 |
| | 16:38 | 43 | 14:52 (2) | 17:36 | | | 18:29 | 88 | 17:02 (1) | 20:26 | | | 21:19 | 21:58 |
| 14 | 08:40 | | 14:10 (2) | 07:53 | | | 06:51 | | 15:34 (1) | 06:36 | | | 05:35 | 05:03 |
| | 16:40 | 42 | 14:52 (2) | 17:38 | | | 18:31 | 88 | 17:02 (1) | 20:27 | | | 21:21 | 21:59 |
| 15 | 08:39 | | 14:12 (2) | 07:51 | | 16:16 (1) | 06:48 | | 15:33 (1) | 06:34 | | | 05:33 | 05:03 |
| | 16:41 | 40 | 14:52 (2) | 17:40 | 9 | 16:25 (1) | 18:33 | 88 | 17:01 (1) | 20:29 | | | 21:22 | 22:00 |
| 16 | 08:38 | | 14:12 (2) | 07:49 | | 16:09 (1) | 06:46 | | 15:33 (1) | 06:32 | | | 05:31 | 05:02 |
| | 16:43 | 39 | 14:51 (2) | 17:41 | 23 | 16:32 (1) | 18:35 | 89 | 17:02 (1) | 20:31 | | | 21:24 | 22:00 |
| 17 | 08:37 | | 14:13 (2) | 07:47 | | 16:04 (1) | 06:43 | | 15:33 (1) | 06:29 | | | 05:30 | 05:02 |
| | 16:44 | 38 | 14:51 (2) | 17:43 | 32 | 16:36 (1) | 18:37 | 88 | 17:01 (1) | 20:33 | | | 21:25 | 22:01 |
| 18 | 08:36 | | 14:14 (2) | 07:45 | | 16:01 (1) | 06:41 | | 15:33 (1) | 06:27 | | | 05:28 | 05:02 |
| | 16:46 | 37 | 14:51 (2) | 17:45 | 38 | 16:39 (1) | 18:38 | 88 | 17:01 (1) | 20:35 | | | 21:27 | 22:01 |
| 19 | 08:35 | | 14:15 (2) | 07:43 | | 15:59 (1) | 06:39 | | 15:33 (1) | 06:25 | | | 05:27 | 05:02 |
| | 16:48 | 35 | 14:50 (2) | 17:47 | 43 | 16:42 (1) | 18:40 | 87 | 17:00 (1) | 20:36 | | | 21:29 | 22:02 |
| 20 | 08:34 | | 14:17 (2) | 07:41 | | 15:57 (1) | 06:36 | | 15:33 (1) | 06:23 | | | 05:25 | 05:02 |
| | 16:50 | 33 | 14:50 (2) | 17:49 | 47 | 16:44 (1) | 18:42 | 87 | 17:00 (1) | 20:38 | | | 21:30 | 22:02 |
| 21 | 08:33 | | 14:18 (2) | 07:39 | | 15:54 (1) | 06:34 | | 15:33 (1) | 06:20 | | | 05:24 | 05:02 |
| | 16:51 | 31 | 14:49 (2) | 17:51 | 52 | 16:46 (1) | 18:44 | 86 | 16:59 (1) | 20:40 | | | 21:32 | 22:02 |
| 22 | 08:31 | | 14:20 (2) | 07:36 | | 15:52 (1) | 06:31 | | 15:34 (1) | 06:18 | | | 05:22 | 05:03 |
| | 16:53 | 29 | 14:49 (2) | 17:53 | 56 | 16:48 (1) | 18:46 | 85 | 16:59 (1) | 20:42 | | | 21:33 | 22:02 |
| 23 | 08:30 | | 14:21 (2) | 07:34 | | 15:51 (1) | 06:29 | | 15:35 (1) | 06:16 | | | 05:21 | 05:03 |
| | 16:55 | 26 | 14:47 (2) | 17:55 | 60 | 16:51 (1) | 18:48 | 83 | 16:58 (1) | 20:44 | | | 21:35 | 22:03 |
| 24 | 08:29 | | 14:23 (2) | 07:32 | | 15:49 (1) | 06:26 | | 15:34 (1) | 06:14 | | | 05:20 | 05:03 |
| | 16:57 | 22 | 14:45 (2) | 17:57 | 63 | 16:52 (1) | 18:49 | 83 | 16:57 (1) | 20:45 | | | 21:36 | 22:03 |
| 25 | 08:28 | | 14:27 (2) | 07:30 | | 15:48 (1) | 06:24 | | 15:35 (1) | 06:12 | | | 05:18 | 05:03 |
| | 16:59 | 17 | 14:44 (2) | 17:59 | 65 | 16:53 (1) | 18:51 | 82 | 16:57 (1) | 20:47 | | | 21:38 | 22:03 |
| 26 | 08:26 | | 14:31 (2) | 07:28 | | 15:46 (1) | 07:22 | | 16:35 (1) | 06:10 | | | 05:17 | 05:04 |
| | 17:01 | 10 | 14:41 (2) | 18:01 | 68 | 16:54 (1) | 19:53 | 80 | 17:55 (1) | 20:49 | | | 21:39 | 22:03 |
| 27 | 08:25 | | | 07:25 | | 15:45 (1) | 07:19 | | 16:37 (1) | 06:07 | | | 05:16 | 05:04 |
| | 17:02 | | | 18:03 | 71 | 16:56 (1) | 19:55 | 78 | 17:55 (1) | 20:51 | | | 21:40 | 22:03 |
| 28 | 08:23 | | | 07:23 | | 15:44 (1) | 07:17 | | 16:37 (1) | 06:05 | | | 05:15 | 05:05 |
| | 17:04 | | | 18:05 | 73 | 16:57 (1) | 19:57 | 76 | 17:53 (1) | 20:53 | | | 21:42 | 22:03 |
| 29 | 08:22 | | | | | | 07:14 | | 16:38 (1) | 06:03 | | | 05:14 | 05:05 |
| | 17:06 | | | | | | 19:58 | 74 | 17:52 (1) | 20:54 | | | 21:43 | 22:02 |
| 30 | 08:20 | | | | | | 07:12 | | 16:40 (1) | 06:01 | | | 05:13 | 05:06 |
| | 17:08 | | | | | | 20:00 | 72 | 17:52 (1) | 20:56 | | | 21:44 | 22:02 |
| 31 | 08:19 | | | | | | 07:10 | | 16:40 (1) | | | | 05:12 | |
| | 17:10 | | | | | | 20:02 | 70 | 17:50 (1) | | | | 21:46 | |
| Potential sun hours | 252 | | | 274 | | | 366 | | | 418 | | | 491 | 507 |
| Total, worst case | | 983 | | | 700 | | | 2563 | | | 516 | | | |
| Sun reduction | | 0,17 | | | 0,26 | | | 0,27 | | | 0,37 | | | |
| Oper. time red. | | 0,96 | | | 0,96 | | | 0,96 | | | 0,96 | | | |
| Wind dir. red. | | 0,70 | | | 0,69 | | | 0,69 | | | 0,69 | | | |
| Total reduction | | 0,11 | | | 0,17 | | | 0,18 | | | 0,24 | | | |
| Total, real | | 111 | | | 119 | | | 451 | | | 125 | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm)<br>Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker<br>Last time (hh:mm) with flicker | (WTG causing flicker first time)<br>(WTG causing flicker last time) |
|---|---|---|---|---|

Licensed user:
Bosch & Van Rijn
Groenmarktstraat 56
NL-3521 AV Utrecht
+31 6 51 71 04 93
Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

# SHADOW - Calendar

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegdShadow receptor: J - T.J. Jansenweg 11 9936HL Farmsum

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | July | | August | | September | | | October | | | November | | | December | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 05:07 | | 05:45 | | 06:38 | | 17:10 (1) | 07:30 | | 16:14 (1) | 07:27 | | | 08:21 | | 13:50 (2) |
| | 22:02 | | 21:28 | | 20:23 | 10 | 17:20 (1) | 19:10 | 88 | 17:42 (1) | 17:01 | | | 16:17 | 43 | 14:33 (2) |
| 2 | 05:07 | | 05:47 | | 06:40 | | 17:02 (1) | 07:32 | | 16:13 (1) | 07:29 | | | 08:23 | | 13:50 (2) |
| | 22:02 | | 21:26 | | 20:20 | 24 | 17:26 (1) | 19:08 | 88 | 17:41 (1) | 16:59 | | | 16:17 | 44 | 14:34 (2) |
| 3 | 05:08 | | 05:48 | | 06:42 | | 16:58 (1) | 07:34 | | 16:13 (1) | 07:31 | | | 08:24 | | 13:51 (2) |
| | 22:01 | | 21:24 | | 20:18 | 31 | 17:29 (1) | 19:05 | 87 | 17:40 (1) | 16:57 | | | 16:16 | 44 | 14:35 (2) |
| 4 | 05:09 | | 05:50 | | 06:43 | | 16:55 (1) | 07:36 | | 16:13 (1) | 07:33 | | | 08:25 | | 13:50 (2) |
| | 22:01 | | 21:23 | | 20:16 | 37 | 17:32 (1) | 19:03 | 86 | 17:39 (1) | 16:55 | | | 16:15 | 45 | 14:35 (2) |
| 5 | 05:10 | | 05:52 | | 06:45 | | 16:51 (1) | 07:37 | | 16:13 (1) | 07:35 | | | 08:27 | | 13:51 (2) |
| | 22:00 | | 21:21 | | 20:13 | 43 | 17:34 (1) | 19:01 | 86 | 17:39 (1) | 16:53 | | | 16:15 | 45 | 14:36 (2) |
| 6 | 05:11 | | 05:53 | | 06:47 | | 16:48 (1) | 07:39 | | 16:13 (1) | 07:37 | | | 08:28 | | 13:51 (2) |
| | 22:00 | | 21:19 | | 20:11 | 48 | 17:36 (1) | 18:58 | 85 | 17:38 (1) | 16:51 | | | 16:14 | 46 | 14:37 (2) |
| 7 | 05:11 | | 05:55 | | 06:49 | | 16:45 (1) | 07:41 | | 16:13 (1) | 07:39 | | | 08:30 | | 13:51 (2) |
| | 21:59 | | 21:17 | | 20:09 | 51 | 17:36 (1) | 18:56 | 84 | 17:37 (1) | 16:50 | | | 16:14 | 46 | 14:37 (2) |
| 8 | 05:12 | | 05:57 | | 06:50 | | 16:42 (1) | 07:43 | | 16:14 (1) | 07:40 | | | 08:31 | | 13:52 (2) |
| | 21:58 | | 21:15 | | 20:06 | 56 | 17:38 (1) | 18:54 | 82 | 17:36 (1) | 16:48 | | | 16:13 | 46 | 14:38 (2) |
| 9 | 05:13 | | 05:58 | | 06:52 | | 16:40 (1) | 07:44 | | 16:14 (1) | 07:42 | | | 08:32 | | 13:52 (2) |
| | 21:58 | | 21:13 | | 20:04 | 59 | 17:39 (1) | 18:51 | 82 | 17:36 (1) | 16:46 | | | 16:13 | 46 | 14:38 (2) |
| 10 | 05:14 | | 06:00 | | 06:54 | | 16:37 (1) | 07:46 | | 16:15 (1) | 07:44 | | | 08:33 | | 13:52 (2) |
| | 21:57 | | 21:11 | | 20:01 | 62 | 17:39 (1) | 18:49 | 80 | 17:35 (1) | 16:44 | | | 16:13 | 46 | 14:38 (2) |
| 11 | 05:16 | | 06:02 | | 06:55 | | 16:35 (1) | 07:48 | | 16:14 (1) | 07:46 | | | 08:34 | | 13:53 (2) |
| | 21:56 | | 21:09 | | 19:59 | 65 | 17:40 (1) | 18:47 | 79 | 17:33 (1) | 16:43 | | | 16:12 | 46 | 14:39 (2) |
| 12 | 05:17 | | 06:04 | | 06:57 | | 16:33 (1) | 07:50 | | 16:15 (1) | 07:48 | | | 08:36 | | 13:53 (2) |
| | 21:55 | | 21:07 | | 19:56 | 68 | 17:41 (1) | 18:44 | 77 | 17:32 (1) | 16:41 | | | 16:12 | 47 | 14:40 (2) |
| 13 | 05:18 | | 06:05 | | 06:59 | | 16:31 (1) | 07:52 | | 16:15 (1) | 07:50 | | | 08:37 | | 13:53 (2) |
| | 21:54 | | 21:05 | | 19:54 | 70 | 17:41 (1) | 18:42 | 75 | 17:30 (1) | 16:39 | | | 16:12 | 47 | 14:40 (2) |
| 14 | 05:19 | | 06:07 | | 07:01 | | 16:29 (1) | 07:53 | | 16:16 (1) | 07:52 | | | 08:38 | | 13:53 (2) |
| | 21:53 | | 21:03 | | 19:52 | 73 | 17:42 (1) | 18:40 | 73 | 17:29 (1) | 16:38 | | | 16:12 | 47 | 14:40 (2) |
| 15 | 05:20 | | 06:09 | | 07:02 | | 16:28 (1) | 07:55 | | 16:17 (1) | 07:54 | | | 08:39 | | 13:54 (2) |
| | 21:52 | | 21:01 | | 19:49 | 75 | 17:43 (1) | 18:37 | 71 | 17:28 (1) | 16:36 | | | 16:12 | 47 | 14:41 (2) |
| 16 | 05:22 | | 06:10 | | 07:04 | | 16:27 (1) | 07:57 | | 16:18 (1) | 07:55 | | 14:07 (2) | 08:39 | | 13:54 (2) |
| | 21:51 | | 20:59 | | 19:47 | 77 | 17:44 (1) | 18:35 | 68 | 17:26 (1) | 16:35 | 3 | 14:10 (2) | 16:12 | 47 | 14:41 (2) |
| 17 | 05:23 | | 06:12 | | 07:06 | | 16:25 (1) | 07:59 | | 16:19 (1) | 07:57 | | 14:02 (2) | 08:40 | | 13:55 (2) |
| | 21:50 | | 20:57 | | 19:44 | 78 | 17:43 (1) | 18:33 | 66 | 17:25 (1) | 16:33 | 14 | 14:16 (2) | 16:12 | 47 | 14:42 (2) |
| 18 | 05:24 | | 06:14 | | 07:08 | | 16:23 (1) | 08:01 | | 16:20 (1) | 07:59 | | 13:59 (2) | 08:41 | | 13:56 (2) |
| | 21:49 | | 20:54 | | 19:42 | 81 | 17:44 (1) | 18:30 | 63 | 17:23 (1) | 16:32 | 20 | 14:19 (2) | 16:13 | 47 | 14:43 (2) |
| 19 | 05:26 | | 06:16 | | 07:09 | | 16:22 (1) | 08:03 | | 16:21 (1) | 08:01 | | 13:57 (2) | 08:42 | | 13:55 (2) |
| | 21:47 | | 20:52 | | 19:39 | 82 | 17:44 (1) | 18:28 | 60 | 17:21 (1) | 16:30 | 24 | 14:21 (2) | 16:13 | 48 | 14:43 (2) |
| 20 | 05:27 | | 06:17 | | 07:11 | | 16:21 (1) | 08:05 | | 16:23 (1) | 08:03 | | 13:55 (2) | 08:42 | | 13:56 (2) |
| | 21:46 | | 20:50 | | 19:37 | 83 | 17:44 (1) | 18:26 | 56 | 17:19 (1) | 16:29 | 28 | 14:23 (2) | 16:13 | 47 | 14:43 (2) |
| 21 | 05:28 | | 06:19 | | 07:13 | | 16:20 (1) | 08:06 | | 16:24 (1) | 08:04 | | 13:54 (2) | 08:43 | | 13:57 (2) |
| | 21:45 | | 20:48 | | 19:35 | 84 | 17:44 (1) | 18:24 | 53 | 17:17 (1) | 16:28 | 30 | 14:24 (2) | 16:14 | 47 | 14:44 (2) |
| 22 | 05:30 | | 06:21 | | 07:14 | | 16:19 (1) | 08:08 | | 16:26 (1) | 08:06 | | 13:53 (2) | 08:44 | | 13:57 (2) |
| | 21:44 | | 20:46 | | 19:32 | 85 | 17:44 (1) | 18:22 | 48 | 17:14 (1) | 16:27 | 33 | 14:26 (2) | 16:14 | 47 | 14:44 (2) |
| 23 | 05:31 | | 06:23 | | 07:16 | | 16:18 (1) | 08:10 | | 16:29 (1) | 08:08 | | 13:52 (2) | 08:44 | | 13:58 (2) |
| | 21:42 | | 20:43 | | 19:30 | 86 | 17:44 (1) | 18:19 | 44 | 17:13 (1) | 16:25 | 35 | 14:27 (2) | 16:14 | 47 | 14:45 (2) |
| 24 | 05:33 | | 06:24 | | 07:18 | | 16:17 (1) | 08:12 | | 16:31 (1) | 08:10 | | 13:52 (2) | 08:45 | | 13:58 (2) |
| | 21:41 | | 20:41 | | 19:27 | 86 | 17:43 (1) | 18:17 | 39 | 17:10 (1) | 16:24 | 36 | 14:28 (2) | 16:15 | 47 | 14:45 (2) |
| 25 | 05:34 | | 06:26 | | 07:20 | | 16:16 (1) | 08:14 | | 16:34 (1) | 08:11 | | 13:51 (2) | 08:45 | | 13:58 (2) |
| | 21:39 | | 20:39 | | 19:25 | 88 | 17:44 (1) | 18:15 | 33 | 17:07 (1) | 16:23 | 38 | 14:29 (2) | 16:16 | 48 | 14:46 (2) |
| 26 | 05:36 | | 06:28 | | 07:21 | | 16:16 (1) | 08:16 | | 16:38 (1) | 08:13 | | 13:51 (2) | 08:45 | | 13:59 (2) |
| | 21:38 | | 20:37 | | 19:22 | 87 | 17:43 (1) | 18:13 | 25 | 17:03 (1) | 16:22 | 39 | 14:30 (2) | 16:16 | 47 | 14:46 (2) |
| 27 | 05:37 | | 06:30 | | 07:23 | | 16:15 (1) | 08:18 | | 16:43 (1) | 08:15 | | 13:51 (2) | 08:46 | | 13:59 (2) |
| | 21:36 | | 20:34 | | 19:20 | 88 | 17:43 (1) | 18:11 | 14 | 16:57 (1) | 16:21 | 40 | 14:31 (2) | 16:17 | 47 | 14:46 (2) |
| 28 | 05:39 | | 06:31 | | 07:25 | | 16:14 (1) | 08:20 | | | 08:16 | | 13:51 (2) | 08:46 | | 13:59 (2) |
| | 21:35 | | 20:32 | | 19:18 | 88 | 17:42 (1) | 18:09 | | | 16:20 | 40 | 14:31 (2) | 16:18 | 48 | 14:47 (2) |
| 29 | 05:40 | | 06:33 | | 07:27 | | 16:14 (1) | 07:21 | | | 08:18 | | 13:51 (2) | 08:46 | | 14:00 (2) |
| | 21:33 | | 20:30 | | 19:15 | 88 | 17:42 (1) | 17:07 | | | 16:19 | 41 | 14:32 (2) | 16:19 | 47 | 14:47 (2) |
| 30 | 05:42 | | 06:35 | | 07:28 | | 16:14 (1) | 07:23 | | | 08:20 | | 13:50 (2) | 08:46 | | 14:01 (2) |
| | 21:31 | | 20:27 | | 19:13 | 88 | 17:42 (1) | 17:05 | | | 16:18 | 42 | 14:32 (2) | 16:20 | 47 | 14:48 (2) |
| 31 | 05:44 | | 06:36 | | | | | 07:25 | | | | | | 08:46 | | 14:01 (2) |
| | 21:30 | | 20:25 | | | | | 17:03 | | | | | | 16:21 | 47 | 14:48 (2) |
| Potential sun hours | 510 | | 458 | | 382 | | | 330 | | | 261 | | | 236 | | |
| Total, worst case | | | | | | 2041 | | | 1792 | | | 463 | | | 1440 | |
| Sun reduction | | | | | | 0,33 | | | 0,29 | | | 0,21 | | | 0,13 | |
| Oper. time red. | | | | | | 0,96 | | | 0,96 | | | 0,96 | | | 0,96 | |
| Wind dir. red. | | | | | | 0,69 | | | 0,69 | | | 0,70 | | | 0,70 | |
| Total reduction | | | | | | 0,22 | | | 0,19 | | | 0,14 | | | 0,09 | |
| Total, real | | | | | | 450 | | | 349 | | | 66 | | | 123 | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm)<br>Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker<br>Last time (hh:mm) with flicker | (WTG causing flicker first time)<br>(WTG causing flicker last time) |
|---|---|---|---|---|

Licensed user:
Bosch & Van Rijn
Groenmarktstraat 56
NL-3521 AV Utrecht
+31 6 51 71 04 93
Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

# SHADOW - Calendar

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegd Shadow receptor: K - Waarman 1 9936GV Farmsum

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 08:46 | 08:17 | 07:21 | 07:07 | 05:59 | 05:11 | 05:07 | 05:45 | 06:38 | 07:30 | 07:27 | 08:21 |
| | 16:22 | 17:12 | 18:07 | 20:04 | 20:58 | 21:47 | 22:02 | 21:28 | 20:23 | 19:10 | 17:01 | 16:17 |
| 2 | 08:46 | 08:15 | 07:19 | 07:05 | 05:57 | 05:10 | 05:07 | 05:47 | 06:40 | 07:32 | 07:29 | 08:23 |
| | 16:23 | 17:14 | 18:09 | 20:06 | 21:00 | 21:48 | 22:02 | 21:26 | 20:21 | 19:08 | 16:59 | 16:17 |
| 3 | 08:46 | 08:14 | 07:16 | 07:02 | 05:55 | 05:09 | 05:08 | 05:48 | 06:42 | 07:34 | 07:31 | 08:24 |
| | 16:24 | 17:16 | 18:10 | 20:08 | 21:02 | 21:49 | 22:01 | 21:24 | 20:18 | 19:06 | 16:57 | 16:16 |
| 4 | 08:46 | 08:12 | 07:14 | 07:00 | 05:53 | 05:08 | 05:09 | 05:50 | 06:43 | 07:36 | 07:33 | 08:26 |
| | 16:25 | 17:18 | 18:12 | 20:09 | 21:03 | 21:51 | 22:01 | 21:23 | 20:16 | 19:03 | 16:55 | 16:15 |
| 5 | 08:45 | 08:10 | 07:12 | 06:58 | 05:51 | 05:07 | 05:10 | 05:52 | 06:45 | 07:37 | 07:35 | 08:27 |
| | 16:27 | 17:20 | 18:14 | 20:11 | 21:05 | 21:52 | 22:00 | 21:21 | 20:13 | 19:01 | 16:53 | 16:15 |
| 6 | 08:45 | 08:09 | 07:09 | 06:55 | 05:49 | 05:06 | 05:10 | 05:53 | 06:47 | 07:39 | 07:37 | 08:28 |
| | 16:28 | 17:22 | 18:16 | 20:13 | 21:07 | 21:53 | 22:00 | 21:19 | 20:11 | 18:58 | 16:51 | 16:14 |
| 7 | 08:44 | 08:07 | 07:07 | 06:53 | 05:47 | 05:06 | 05:11 | 05:55 | 06:49 | 07:41 | 07:39 | 08:30 |
| | 16:29 | 17:24 | 18:18 | 20:15 | 21:09 | 21:54 | 21:59 | 21:17 | 20:09 | 18:56 | 16:50 | 16:14 |
| 8 | 08:44 | 08:05 | 07:05 | 06:50 | 05:45 | 05:05 | 05:12 | 05:57 | 06:50 | 07:43 | 07:40 | 08:31 |
| | 16:31 | 17:26 | 18:20 | 20:17 | 21:10 | 21:55 | 21:58 | 21:15 | 20:06 | 18:54 | 16:48 | 16:13 |
| 9 | 08:43 | 08:03 | 07:02 | 06:48 | 05:44 | 05:05 | 05:13 | 05:58 | 06:52 | 07:44 | 07:42 | 08:32 |
| | 16:32 | 17:28 | 18:22 | 20:18 | 21:12 | 21:55 | 21:58 | 21:13 | 20:04 | 18:51 | 16:46 | 16:13 |
| 10 | 08:43 | 08:01 | 07:00 | 06:46 | 05:42 | 05:04 | 05:14 | 06:00 | 06:54 | 07:46 | 07:44 | 08:33 |
| | 16:33 | 17:30 | 18:24 | 20:20 | 21:14 | 21:56 | 21:57 | 21:11 | 20:01 | 18:49 | 16:44 | 16:13 |
| 11 | 08:42 | 07:59 | 06:58 | 06:43 | 05:40 | 05:04 | 05:16 | 06:02 | 06:55 | 07:48 | 07:46 | 08:34 |
| | 16:35 | 17:32 | 18:26 | 20:22 | 21:16 | 21:57 | 21:56 | 21:09 | 19:59 | 18:47 | 16:43 | 16:12 |
| 12 | 08:41 | 07:57 | 06:55 | 06:41 | 05:38 | 05:03 | 05:17 | 06:04 | 06:57 | 07:50 | 07:48 | 08:36 |
| | 16:36 | 17:34 | 18:27 | 20:24 | 21:17 | 21:58 | 21:55 | 21:07 | 19:57 | 18:44 | 16:41 | 16:12 |
| 13 | 08:41 | 07:55 | 06:53 | 06:39 | 05:36 | 05:03 | 05:18 | 06:05 | 06:59 | 07:52 | 07:50 | 08:37 |
| | 16:38 | 17:36 | 18:29 | 20:26 | 21:19 | 21:59 | 21:54 | 21:05 | 19:54 | 18:42 | 16:39 | 16:12 |
| 14 | 08:40 | 07:53 | 06:51 | 06:36 | 05:35 | 05:03 | 05:19 | 06:07 | 07:01 | 07:54 | 07:52 | 08:38 |
| | 16:40 | 17:38 | 18:31 | 20:27 | 21:21 | 21:59 | 21:53 | 21:03 | 19:52 | 18:40 | 16:38 | 16:12 |
| 15 | 08:39 | 07:51 | 06:48 | 06:34 | 05:33 | 05:02 | 05:20 | 06:09 | 07:02 | 07:55 | 07:54 | 08:39 |
| | 16:41 | 17:40 | 18:33 | 20:29 | 21:22 | 22:00 | 21:52 | 21:01 | 19:49 | 18:37 | 16:36 | 16:12 |
| 16 | 08:38 | 07:49 | 06:46 | 06:32 | 05:31 | 05:02 | 05:22 | 06:10 | 07:04 | 07:57 | 07:55 | 08:39 |
| | 16:43 | 17:41 | 18:35 | 20:31 | 21:24 | 22:00 | 21:51 | 20:59 | 19:47 | 18:35 | 16:35 | 16:12 |
| 17 | 08:37 | 07:47 | 06:43 | 06:30 | 05:30 | 05:02 | 05:23 | 06:12 | 07:06 | 07:59 | 07:57 | 08:40 |
| | 16:44 | 17:43 | 18:37 | 20:33 | 21:26 | 22:01 | 21:50 | 20:57 | 19:44 | 18:33 | 16:33 | 16:12 |
| 18 | 08:36 | 07:45 | 06:41 | 06:27 | 05:28 | 05:02 | 05:24 | 06:14 | 07:08 | 08:01 | 07:59 | 08:41 |
| | 16:46 | 17:45 | 18:38 | 20:35 | 21:27 | 22:01 | 21:49 | 20:55 | 19:42 | 18:31 | 16:32 | 16:13 |
| 19 | 08:35 | 07:43 | 06:39 | 06:25 | 05:27 | 05:02 | 05:26 | 06:16 | 07:09 | 08:03 | 08:01 | 08:42 |
| | 16:48 | 17:47 | 18:40 | 20:37 | 21:29 | 22:02 | 21:48 | 20:52 | 19:39 | 18:28 | 16:30 | 16:13 |
| 20 | 08:34 | 07:41 | 06:36 | 06:23 | 05:25 | 05:02 | 05:27 | 06:17 | 07:11 | 08:05 | 08:03 | 08:43 |
| | 16:50 | 17:49 | 18:42 | 20:38 | 21:30 | 22:02 | 21:46 | 20:50 | 19:37 | 18:26 | 16:29 | 16:13 |
| 21 | 08:33 | 07:39 | 06:34 | 06:20 | 05:24 | 05:02 | 05:28 | 06:19 | 07:13 | 08:06 | 08:05 | 08:43 |
| | 16:51 | 17:51 | 18:44 | 20:40 | 21:32 | 22:02 | 21:45 | 20:48 | 19:35 | 18:24 | 16:28 | 16:14 |
| 22 | 08:32 | 07:37 | 06:31 | 06:18 | 05:22 | 05:03 | 05:30 | 06:21 | 07:14 | 08:08 | 08:06 | 08:44 |
| | 16:53 | 17:53 | 18:46 | 20:42 | 21:33 | 22:03 | 21:44 | 20:46 | 19:32 | 18:22 | 16:27 | 16:14 |
| 23 | 08:30 | 07:34 | 06:29 | 06:16 | 05:21 | 05:03 | 05:31 | 06:23 | 07:16 | 08:10 | 08:08 | 08:44 |
| | 16:55 | 17:55 | 18:48 | 20:44 | 21:35 | 22:03 | 21:42 | 20:44 | 19:30 | 18:20 | 16:25 | 16:14 |
| 24 | 08:29 | 07:32 | 06:26 | 06:14 | 05:20 | 05:03 | 05:33 | 06:24 | 07:18 | 08:12 | 08:10 | 08:45 |
| | 16:57 | 17:57 | 18:49 | 20:46 | 21:36 | 22:03 | 21:41 | 20:41 | 19:27 | 18:17 | 16:24 | 16:15 |
| 25 | 08:28 | 07:30 | 06:24 | 06:12 | 05:18 | 05:03 | 05:34 | 06:26 | 07:20 | 08:14 | 08:11 | 08:45 |
| | 16:59 | 17:59 | 18:51 | 20:47 | 21:38 | 22:03 | 21:39 | 20:39 | 19:25 | 18:15 | 16:23 | 16:16 |
| 26 | 08:26 | 07:28 | 07:22 | 06:10 | 05:17 | 05:04 | 05:36 | 06:28 | 07:21 | 08:16 | 08:13 | 08:45 |
| | 17:01 | 18:01 | 19:53 | 20:49 | 21:39 | 22:03 | 21:38 | 20:37 | 19:22 | 18:13 | 16:22 | 16:16 |
| 27 | 08:25 | 07:25 | 07:19 | 06:07 | 05:16 | 05:04 | 05:37 | 06:30 | 07:23 | 08:18 | 08:15 | 08:46 |
| | 17:02 | 18:03 | 19:55 | 20:51 | 21:41 | 22:03 | 21:36 | 20:34 | 19:20 | 18:11 | 16:21 | 16:17 |
| 28 | 08:23 | 07:23 | 07:17 | 06:05 | 05:15 | 05:05 | 05:39 | 06:31 | 07:25 | 08:20 | 08:16 | 08:46 |
| | 17:04 | 18:05 | 19:57 | 20:53 | 21:42 | 22:03 | 21:35 | 20:32 | 19:18 | 18:09 | 16:20 | 16:18 |
| 29 | 08:22 | | 07:14 | 06:03 | 05:14 | 05:05 | 05:40 | 06:33 | 07:27 | 07:22 | 08:18 | 08:46 |
| | 17:06 | | 19:59 | 20:55 | 21:43 | 22:03 | 21:33 | 20:30 | 19:15 | 17:07 | 16:19 | 16:19 |
| 30 | 08:20 | | 07:12 | 06:01 | 05:13 | 05:06 | 05:42 | 06:35 | 07:28 | 07:23 | 08:20 | 08:46 |
| | 17:08 | | 20:00 | 20:56 | 21:45 | 22:02 | 21:31 | 20:28 | 19:13 | 17:05 | 16:18 | 16:20 |
| 31 | 08:19 | | 07:10 | | 05:12 | | 05:44 | 06:36 | | 07:25 | | 08:46 |
| | 17:10 | | 20:02 | | 21:46 | | 21:30 | 20:25 | | 17:03 | | 16:21 |
| Potential sun hours | 252 | 274 | 366 | 418 | 491 | 507 | 510 | 459 | 382 | 330 | 261 | 236 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|---|---|---|---|---|
| | Sun set (hh:mm) | Minutes with flicker | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Licensed user:
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Groenmarktstraat 56
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+31 6 51 71 04 93
Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

# SHADOW - Calendar

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegd Shadow receptor: L - Waarman 11 9936GV Farmsum

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 08:46 | 08:17 | 07:21 | 07:07 | 05:59 | 05:11 | 05:07 | 05:45 | 06:38 | 07:30 | 07:27 | 08:21 |
| | 16:22 | 17:12 | 18:07 | 20:04 | 20:58 | 21:47 | 22:02 | 21:28 | 20:23 | 19:10 | 17:01 | 16:17 |
| 2 | 08:46 | 08:15 | 07:19 | 07:05 | 05:57 | 05:10 | 05:07 | 05:47 | 06:40 | 07:32 | 07:29 | 08:23 |
| | 16:23 | 17:14 | 18:09 | 20:06 | 21:00 | 21:48 | 22:02 | 21:26 | 20:21 | 19:08 | 16:59 | 16:17 |
| 3 | 08:46 | 08:14 | 07:16 | 07:02 | 05:55 | 05:09 | 05:08 | 05:48 | 06:42 | 07:34 | 07:31 | 08:24 |
| | 16:24 | 17:16 | 18:10 | 20:08 | 21:02 | 21:49 | 22:01 | 21:24 | 20:18 | 19:06 | 16:57 | 16:16 |
| 4 | 08:46 | 08:12 | 07:14 | 07:00 | 05:53 | 05:08 | 05:09 | 05:50 | 06:43 | 07:36 | 07:33 | 08:26 |
| | 16:25 | 17:18 | 18:12 | 20:09 | 21:03 | 21:51 | 22:01 | 21:23 | 20:16 | 19:03 | 16:55 | 16:15 |
| 5 | 08:45 | 08:10 | 07:12 | 06:58 | 05:51 | 05:07 | 05:10 | 05:52 | 06:45 | 07:37 | 07:35 | 08:27 |
| | 16:27 | 17:20 | 18:14 | 20:11 | 21:05 | 21:52 | 22:00 | 21:21 | 20:13 | 19:01 | 16:53 | 16:15 |
| 6 | 08:45 | 08:09 | 07:09 | 06:55 | 05:49 | 05:06 | 05:10 | 05:53 | 06:47 | 07:39 | 07:37 | 08:28 |
| | 16:28 | 17:22 | 18:16 | 20:13 | 21:07 | 21:53 | 22:00 | 21:19 | 20:11 | 18:58 | 16:51 | 16:14 |
| 7 | 08:44 | 08:07 | 07:07 | 06:53 | 05:47 | 05:06 | 05:11 | 05:55 | 06:49 | 07:41 | 07:39 | 08:30 |
| | 16:29 | 17:24 | 18:18 | 20:15 | 21:09 | 21:54 | 21:59 | 21:17 | 20:09 | 18:56 | 16:50 | 16:14 |
| 8 | 08:44 | 08:05 | 07:05 | 06:50 | 05:45 | 05:05 | 05:12 | 05:57 | 06:50 | 07:43 | 07:40 | 08:31 |
| | 16:31 | 17:26 | 18:20 | 20:17 | 21:10 | 21:55 | 21:58 | 21:15 | 20:06 | 18:54 | 16:48 | 16:13 |
| 9 | 08:43 | 08:03 | 07:02 | 06:48 | 05:44 | 05:05 | 05:13 | 05:58 | 06:52 | 07:44 | 07:42 | 08:32 |
| | 16:32 | 17:28 | 18:22 | 20:18 | 21:12 | 21:55 | 21:58 | 21:13 | 20:04 | 18:51 | 16:46 | 16:13 |
| 10 | 08:43 | 08:01 | 07:00 | 06:46 | 05:42 | 05:04 | 05:14 | 06:00 | 06:54 | 07:46 | 07:44 | 08:33 |
| | 16:33 | 17:30 | 18:24 | 20:20 | 21:14 | 21:56 | 21:57 | 21:11 | 20:01 | 18:49 | 16:44 | 16:13 |
| 11 | 08:42 | 07:59 | 06:58 | 06:43 | 05:40 | 05:04 | 05:16 | 06:02 | 06:55 | 07:48 | 07:46 | 08:34 |
| | 16:35 | 17:32 | 18:26 | 20:22 | 21:16 | 21:57 | 21:56 | 21:09 | 19:59 | 18:47 | 16:43 | 16:12 |
| 12 | 08:41 | 07:57 | 06:55 | 06:41 | 05:38 | 05:03 | 05:17 | 06:04 | 06:57 | 07:50 | 07:48 | 08:36 |
| | 16:36 | 17:34 | 18:27 | 20:24 | 21:17 | 21:58 | 21:55 | 21:07 | 19:57 | 18:44 | 16:41 | 16:12 |
| 13 | 08:41 | 07:55 | 06:53 | 06:39 | 05:36 | 05:03 | 05:18 | 06:05 | 06:59 | 07:52 | 07:50 | 08:37 |
| | 16:38 | 17:36 | 18:29 | 20:26 | 21:19 | 21:59 | 21:54 | 21:05 | 19:54 | 18:42 | 16:39 | 16:12 |
| 14 | 08:40 | 07:53 | 06:51 | 06:36 | 05:35 | 05:03 | 05:19 | 06:07 | 07:01 | 07:54 | 07:52 | 08:38 |
| | 16:40 | 17:38 | 18:31 | 20:27 | 21:21 | 21:59 | 21:53 | 21:03 | 19:52 | 18:40 | 16:38 | 16:12 |
| 15 | 08:39 | 07:51 | 06:48 | 06:34 | 05:33 | 05:02 | 05:20 | 06:09 | 07:02 | 07:55 | 07:54 | 08:39 |
| | 16:41 | 17:40 | 18:33 | 20:29 | 21:22 | 22:00 | 21:52 | 21:01 | 19:49 | 18:37 | 16:36 | 16:12 |
| 16 | 08:38 | 07:49 | 06:46 | 06:32 | 05:31 | 05:02 | 05:22 | 06:10 | 07:04 | 07:57 | 07:55 | 08:39 |
| | 16:43 | 17:41 | 18:35 | 20:31 | 21:24 | 22:00 | 21:51 | 20:59 | 19:47 | 18:35 | 16:35 | 16:12 |
| 17 | 08:37 | 07:47 | 06:43 | 06:30 | 05:30 | 05:02 | 05:23 | 06:12 | 07:06 | 07:59 | 07:57 | 08:40 |
| | 16:44 | 17:43 | 18:37 | 20:33 | 21:26 | 22:01 | 21:50 | 20:57 | 19:44 | 18:33 | 16:33 | 16:12 |
| 18 | 08:36 | 07:45 | 06:41 | 06:27 | 05:28 | 05:02 | 05:24 | 06:14 | 07:08 | 08:01 | 07:59 | 08:41 |
| | 16:46 | 17:45 | 18:38 | 20:35 | 21:27 | 22:01 | 21:49 | 20:55 | 19:42 | 18:31 | 16:32 | 16:13 |
| 19 | 08:35 | 07:43 | 06:39 | 06:25 | 05:27 | 05:02 | 05:26 | 06:16 | 07:09 | 08:03 | 08:01 | 08:42 |
| | 16:48 | 17:47 | 18:40 | 20:37 | 21:29 | 22:02 | 21:48 | 20:52 | 19:39 | 18:28 | 16:30 | 16:13 |
| 20 | 08:34 | 07:41 | 06:36 | 06:23 | 05:25 | 05:02 | 05:27 | 06:17 | 07:11 | 08:05 | 08:03 | 08:43 |
| | 16:50 | 17:49 | 18:42 | 20:38 | 21:30 | 22:02 | 21:46 | 20:50 | 19:37 | 18:26 | 16:29 | 16:13 |
| 21 | 08:33 | 07:39 | 06:34 | 06:20 | 05:24 | 05:02 | 05:28 | 06:19 | 07:13 | 08:06 | 08:05 | 08:43 |
| | 16:51 | 17:51 | 18:44 | 20:40 | 21:32 | 22:02 | 21:45 | 20:48 | 19:35 | 18:24 | 16:28 | 16:14 |
| 22 | 08:32 | 07:37 | 06:31 | 06:18 | 05:22 | 05:03 | 05:30 | 06:21 | 07:14 | 08:08 | 08:06 | 08:44 |
| | 16:53 | 17:53 | 18:46 | 20:42 | 21:33 | 22:03 | 21:44 | 20:46 | 19:32 | 18:22 | 16:27 | 16:14 |
| 23 | 08:30 | 07:34 | 06:29 | 06:16 | 05:21 | 05:03 | 05:31 | 06:23 | 07:16 | 08:10 | 08:08 | 08:44 |
| | 16:55 | 17:55 | 18:48 | 20:44 | 21:35 | 22:03 | 21:42 | 20:44 | 19:30 | 18:20 | 16:25 | 16:14 |
| 24 | 08:29 | 07:32 | 06:26 | 06:14 | 05:20 | 05:03 | 05:33 | 06:24 | 07:18 | 08:12 | 08:10 | 08:45 |
| | 16:57 | 17:57 | 18:49 | 20:46 | 21:36 | 22:03 | 21:41 | 20:41 | 19:27 | 18:17 | 16:24 | 16:15 |
| 25 | 08:28 | 07:30 | 06:24 | 06:12 | 05:18 | 05:03 | 05:34 | 06:26 | 07:20 | 08:14 | 08:11 | 08:45 |
| | 16:59 | 17:59 | 18:51 | 20:47 | 21:38 | 22:03 | 21:39 | 20:39 | 19:25 | 18:15 | 16:23 | 16:16 |
| 26 | 08:26 | 07:28 | 07:22 | 06:10 | 05:17 | 05:04 | 05:36 | 06:28 | 07:21 | 08:16 | 08:13 | 08:45 |
| | 17:01 | 18:01 | 19:53 | 20:49 | 21:39 | 22:03 | 21:38 | 20:37 | 19:22 | 18:13 | 16:22 | 16:16 |
| 27 | 08:25 | 07:25 | 07:19 | 06:07 | 05:16 | 05:04 | 05:37 | 06:30 | 07:23 | 08:18 | 08:15 | 08:46 |
| | 17:02 | 18:03 | 19:55 | 20:51 | 21:41 | 22:03 | 21:36 | 20:34 | 19:20 | 18:11 | 16:21 | 16:17 |
| 28 | 08:23 | 07:23 | 07:17 | 06:05 | 05:15 | 05:05 | 05:39 | 06:31 | 07:25 | 08:20 | 08:16 | 08:46 |
| | 17:04 | 18:05 | 19:57 | 20:53 | 21:42 | 22:03 | 21:35 | 20:32 | 19:18 | 18:09 | 16:20 | 16:18 |
| 29 | 08:22 | | 07:14 | 06:03 | 05:14 | 05:05 | 05:40 | 06:33 | 07:27 | 07:22 | 08:18 | 08:46 |
| | 17:06 | | 19:59 | 20:55 | 21:43 | 22:03 | 21:33 | 20:30 | 19:15 | 17:07 | 16:19 | 16:19 |
| 30 | 08:20 | | 07:12 | 06:01 | 05:13 | 05:06 | 05:42 | 06:35 | 07:28 | 07:23 | 08:20 | 08:46 |
| | 17:08 | | 20:00 | 20:56 | 21:45 | 22:02 | 21:31 | 20:28 | 19:13 | 17:05 | 16:18 | 16:20 |
| 31 | 08:19 | | 07:10 | | 05:12 | | 05:44 | 06:36 | | 07:25 | | 08:46 |
| | 17:10 | | 20:02 | | 21:46 | | 21:30 | 20:25 | | 17:03 | | 16:21 |
| Potential sun hours | 252 | 274 | 366 | 418 | 491 | 507 | 510 | 459 | 382 | 330 | 261 | 236 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|---|---|---|---|---|
| | Sun set (hh:mm) | Minutes with flicker | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Licensed user:
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Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

# SHADOW - Calendar

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegd Shadow receptor: M - Waarman 3 9936GV Farmsum

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 08:46 | 08:17 | 07:21 | 07:07 | 05:59 | 05:11 | 05:07 | 05:45 | 06:38 | 07:30 | 07:27 | 08:21 |
| | 16:22 | 17:12 | 18:07 | 20:04 | 20:58 | 21:47 | 22:02 | 21:28 | 20:23 | 19:10 | 17:01 | 16:17 |
| 2 | 08:46 | 08:15 | 07:19 | 07:05 | 05:57 | 05:10 | 05:07 | 05:47 | 06:40 | 07:32 | 07:29 | 08:23 |
| | 16:23 | 17:14 | 18:09 | 20:06 | 21:00 | 21:48 | 22:02 | 21:26 | 20:21 | 19:08 | 16:59 | 16:17 |
| 3 | 08:46 | 08:14 | 07:16 | 07:02 | 05:55 | 05:09 | 05:08 | 05:48 | 06:42 | 07:34 | 07:31 | 08:24 |
| | 16:24 | 17:16 | 18:10 | 20:08 | 21:02 | 21:49 | 22:01 | 21:24 | 20:18 | 19:06 | 16:57 | 16:16 |
| 4 | 08:46 | 08:12 | 07:14 | 07:00 | 05:53 | 05:08 | 05:09 | 05:50 | 06:43 | 07:36 | 07:33 | 08:26 |
| | 16:25 | 17:18 | 18:12 | 20:09 | 21:03 | 21:51 | 22:01 | 21:23 | 20:16 | 19:03 | 16:55 | 16:15 |
| 5 | 08:45 | 08:10 | 07:12 | 06:58 | 05:51 | 05:07 | 05:10 | 05:52 | 06:45 | 07:37 | 07:35 | 08:27 |
| | 16:27 | 17:20 | 18:14 | 20:11 | 21:05 | 21:52 | 22:00 | 21:21 | 20:13 | 19:01 | 16:53 | 16:15 |
| 6 | 08:45 | 08:09 | 07:09 | 06:55 | 05:49 | 05:06 | 05:10 | 05:53 | 06:47 | 07:39 | 07:37 | 08:28 |
| | 16:28 | 17:22 | 18:16 | 20:13 | 21:07 | 21:53 | 22:00 | 21:19 | 20:11 | 18:58 | 16:51 | 16:14 |
| 7 | 08:44 | 08:07 | 07:07 | 06:53 | 05:47 | 05:06 | 05:11 | 05:55 | 06:49 | 07:41 | 07:39 | 08:30 |
| | 16:29 | 17:24 | 18:18 | 20:15 | 21:09 | 21:54 | 21:59 | 21:17 | 20:09 | 18:56 | 16:50 | 16:14 |
| 8 | 08:44 | 08:05 | 07:05 | 06:50 | 05:45 | 05:05 | 05:12 | 05:57 | 06:50 | 07:43 | 07:40 | 08:31 |
| | 16:31 | 17:26 | 18:20 | 20:17 | 21:10 | 21:55 | 21:58 | 21:15 | 20:06 | 18:54 | 16:48 | 16:13 |
| 9 | 08:43 | 08:03 | 07:02 | 06:48 | 05:44 | 05:05 | 05:13 | 05:58 | 06:52 | 07:44 | 07:42 | 08:32 |
| | 16:32 | 17:28 | 18:22 | 20:18 | 21:12 | 21:55 | 21:58 | 21:13 | 20:04 | 18:51 | 16:46 | 16:13 |
| 10 | 08:43 | 08:01 | 07:00 | 06:46 | 05:42 | 05:04 | 05:14 | 06:00 | 06:54 | 07:46 | 07:44 | 08:33 |
| | 16:33 | 17:30 | 18:24 | 20:20 | 21:14 | 21:56 | 21:57 | 21:11 | 20:01 | 18:49 | 16:44 | 16:13 |
| 11 | 08:42 | 07:59 | 06:58 | 06:43 | 05:40 | 05:04 | 05:16 | 06:02 | 06:55 | 07:48 | 07:46 | 08:34 |
| | 16:35 | 17:32 | 18:26 | 20:22 | 21:16 | 21:57 | 21:56 | 21:09 | 19:59 | 18:47 | 16:43 | 16:12 |
| 12 | 08:41 | 07:57 | 06:55 | 06:41 | 05:38 | 05:03 | 05:17 | 06:04 | 06:57 | 07:50 | 07:48 | 08:36 |
| | 16:36 | 17:34 | 18:27 | 20:24 | 21:17 | 21:58 | 21:55 | 21:07 | 19:57 | 18:44 | 16:41 | 16:12 |
| 13 | 08:41 | 07:55 | 06:53 | 06:39 | 05:36 | 05:03 | 05:18 | 06:05 | 06:59 | 07:52 | 07:50 | 08:37 |
| | 16:38 | 17:36 | 18:29 | 20:26 | 21:19 | 21:59 | 21:54 | 21:05 | 19:54 | 18:42 | 16:39 | 16:12 |
| 14 | 08:40 | 07:53 | 06:51 | 06:36 | 05:35 | 05:03 | 05:19 | 06:07 | 07:01 | 07:54 | 07:52 | 08:38 |
| | 16:40 | 17:38 | 18:31 | 20:27 | 21:21 | 21:59 | 21:53 | 21:03 | 19:52 | 18:40 | 16:38 | 16:12 |
| 15 | 08:39 | 07:51 | 06:48 | 06:34 | 05:33 | 05:02 | 05:20 | 06:09 | 07:02 | 07:55 | 07:54 | 08:39 |
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| 17 | 08:37 | 07:47 | 06:43 | 06:30 | 05:30 | 05:02 | 05:23 | 06:12 | 07:06 | 07:59 | 07:57 | 08:40 |
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| 21 | 08:33 | 07:39 | 06:34 | 06:20 | 05:24 | 05:02 | 05:28 | 06:19 | 07:13 | 08:06 | 08:05 | 08:43 |
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| | 16:53 | 17:53 | 18:46 | 20:42 | 21:33 | 22:03 | 21:44 | 20:46 | 19:32 | 18:22 | 16:27 | 16:14 |
| 23 | 08:30 | 07:34 | 06:29 | 06:16 | 05:21 | 05:03 | 05:31 | 06:23 | 07:16 | 08:10 | 08:08 | 08:44 |
| | 16:55 | 17:55 | 18:48 | 20:44 | 21:35 | 22:03 | 21:42 | 20:44 | 19:30 | 18:20 | 16:25 | 16:14 |
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| 31 | 08:19 | | 07:10 | | 05:12 | | 05:44 | 06:36 | | 07:25 | | 08:46 |
| | 17:10 | | 20:02 | | 21:46 | | 21:30 | 20:25 | | 17:03 | | 16:21 |
| Potential sun hours | 252 | 274 | 366 | 418 | 491 | 507 | 510 | 459 | 382 | 330 | 261 | 236 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|---|---|---|---|---|
| | Sun set (hh:mm) | Minutes with flicker | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Licensed user:
Bosch & Van Rijn
Groenmarktstraat 56
NL-3521 AV Utrecht
+31 6 51 71 04 93
Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

# SHADOW - Calendar

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegd Shadow receptor: N - Waarman 5 9936GV Farmsum

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|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
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| | 16:25 | 17:18 | 18:12 | 20:09 | 21:03 | 21:51 | 22:01 | 21:23 | 20:16 | 19:03 | 16:55 | 16:15 |
| 5 | 08:45 | 08:10 | 07:12 | 06:58 | 05:51 | 05:07 | 05:10 | 05:52 | 06:45 | 07:37 | 07:35 | 08:27 |
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| | 16:28 | 17:22 | 18:16 | 20:13 | 21:07 | 21:53 | 22:00 | 21:19 | 20:11 | 18:58 | 16:51 | 16:14 |
| 7 | 08:44 | 08:07 | 07:07 | 06:53 | 05:47 | 05:06 | 05:11 | 05:55 | 06:49 | 07:41 | 07:39 | 08:30 |
| | 16:29 | 17:24 | 18:18 | 20:15 | 21:09 | 21:54 | 21:59 | 21:17 | 20:09 | 18:56 | 16:50 | 16:14 |
| 8 | 08:44 | 08:05 | 07:05 | 06:50 | 05:45 | 05:05 | 05:12 | 05:57 | 06:50 | 07:43 | 07:40 | 08:31 |
| | 16:31 | 17:26 | 18:20 | 20:17 | 21:10 | 21:55 | 21:58 | 21:15 | 20:06 | 18:54 | 16:48 | 16:13 |
| 9 | 08:43 | 08:03 | 07:02 | 06:48 | 05:44 | 05:05 | 05:13 | 05:58 | 06:52 | 07:44 | 07:42 | 08:32 |
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| 15 | 08:39 | 07:51 | 06:48 | 06:34 | 05:33 | 05:02 | 05:20 | 06:09 | 07:02 | 07:55 | 07:54 | 08:39 |
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| | 16:55 | 17:55 | 18:48 | 20:44 | 21:35 | 22:03 | 21:42 | 20:44 | 19:30 | 18:20 | 16:25 | 16:14 |
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| | 17:10 | | 20:02 | | 21:46 | | 21:30 | 20:25 | | 17:03 | | 16:21 |
| Potential sun hours | 252 | 274 | 366 | 418 | 491 | 507 | 510 | 459 | 382 | 330 | 261 | 236 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm)<br>Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker<br>Last time (hh:mm) with flicker | (WTG causing flicker first time)<br>(WTG causing flicker last time) |
|---|---|---|---|---|

Licensed user:
Bosch & Van Rijn
Groenmarktstraat 56
NL-3521 AV Utrecht
+31 6 51 71 04 93
Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

# SHADOW - Calendar

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegd Shadow receptor: O - Waarman 7 9936GV Farmsum

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 08:46 | 08:17 | 07:21 | 07:07 | 05:59 | 05:11 | 05:07 | 05:45 | 06:38 | 07:30 | 07:27 | 08:21 |
| | 16:22 | 17:12 | 18:07 | 20:04 | 20:58 | 21:47 | 22:02 | 21:28 | 20:23 | 19:10 | 17:01 | 16:17 |
| 2 | 08:46 | 08:15 | 07:19 | 07:05 | 05:57 | 05:10 | 05:07 | 05:47 | 06:40 | 07:32 | 07:29 | 08:23 |
| | 16:23 | 17:14 | 18:09 | 20:06 | 21:00 | 21:48 | 22:02 | 21:26 | 20:21 | 19:08 | 16:59 | 16:17 |
| 3 | 08:46 | 08:14 | 07:16 | 07:02 | 05:55 | 05:09 | 05:08 | 05:48 | 06:42 | 07:34 | 07:31 | 08:24 |
| | 16:24 | 17:16 | 18:10 | 20:08 | 21:02 | 21:49 | 22:01 | 21:24 | 20:18 | 19:06 | 16:57 | 16:16 |
| 4 | 08:46 | 08:12 | 07:14 | 07:00 | 05:53 | 05:08 | 05:09 | 05:50 | 06:43 | 07:36 | 07:33 | 08:26 |
| | 16:25 | 17:18 | 18:12 | 20:09 | 21:03 | 21:51 | 22:01 | 21:23 | 20:16 | 19:03 | 16:55 | 16:15 |
| 5 | 08:45 | 08:10 | 07:12 | 06:58 | 05:51 | 05:07 | 05:10 | 05:52 | 06:45 | 07:37 | 07:35 | 08:27 |
| | 16:27 | 17:20 | 18:14 | 20:11 | 21:05 | 21:52 | 22:00 | 21:21 | 20:13 | 19:01 | 16:53 | 16:15 |
| 6 | 08:45 | 08:09 | 07:09 | 06:55 | 05:49 | 05:06 | 05:10 | 05:53 | 06:47 | 07:39 | 07:37 | 08:28 |
| | 16:28 | 17:22 | 18:16 | 20:13 | 21:07 | 21:53 | 22:00 | 21:19 | 20:11 | 18:58 | 16:51 | 16:14 |
| 7 | 08:44 | 08:07 | 07:07 | 06:53 | 05:47 | 05:06 | 05:11 | 05:55 | 06:49 | 07:41 | 07:39 | 08:30 |
| | 16:29 | 17:24 | 18:18 | 20:15 | 21:09 | 21:54 | 21:59 | 21:17 | 20:09 | 18:56 | 16:50 | 16:14 |
| 8 | 08:44 | 08:05 | 07:05 | 06:50 | 05:45 | 05:05 | 05:12 | 05:57 | 06:50 | 07:43 | 07:40 | 08:31 |
| | 16:31 | 17:26 | 18:20 | 20:17 | 21:10 | 21:55 | 21:58 | 21:15 | 20:06 | 18:54 | 16:48 | 16:13 |
| 9 | 08:43 | 08:03 | 07:02 | 06:48 | 05:44 | 05:05 | 05:13 | 05:58 | 06:52 | 07:44 | 07:42 | 08:32 |
| | 16:32 | 17:28 | 18:22 | 20:18 | 21:12 | 21:55 | 21:58 | 21:13 | 20:04 | 18:51 | 16:46 | 16:13 |
| 10 | 08:43 | 08:01 | 07:00 | 06:46 | 05:42 | 05:04 | 05:14 | 06:00 | 06:54 | 07:46 | 07:44 | 08:33 |
| | 16:33 | 17:30 | 18:24 | 20:20 | 21:14 | 21:56 | 21:57 | 21:11 | 20:01 | 18:49 | 16:44 | 16:13 |
| 11 | 08:42 | 07:59 | 06:58 | 06:43 | 05:40 | 05:04 | 05:16 | 06:02 | 06:55 | 07:48 | 07:46 | 08:34 |
| | 16:35 | 17:32 | 18:26 | 20:22 | 21:16 | 21:57 | 21:56 | 21:09 | 19:59 | 18:47 | 16:43 | 16:12 |
| 12 | 08:41 | 07:57 | 06:55 | 06:41 | 05:38 | 05:03 | 05:17 | 06:04 | 06:57 | 07:50 | 07:48 | 08:36 |
| | 16:36 | 17:34 | 18:27 | 20:24 | 21:17 | 21:58 | 21:55 | 21:07 | 19:57 | 18:44 | 16:41 | 16:12 |
| 13 | 08:41 | 07:55 | 06:53 | 06:39 | 05:36 | 05:03 | 05:18 | 06:05 | 06:59 | 07:52 | 07:50 | 08:37 |
| | 16:38 | 17:36 | 18:29 | 20:26 | 21:19 | 21:59 | 21:54 | 21:05 | 19:54 | 18:42 | 16:39 | 16:12 |
| 14 | 08:40 | 07:53 | 06:51 | 06:36 | 05:35 | 05:03 | 05:19 | 06:07 | 07:01 | 07:54 | 07:52 | 08:38 |
| | 16:40 | 17:38 | 18:31 | 20:27 | 21:21 | 21:59 | 21:53 | 21:03 | 19:52 | 18:40 | 16:38 | 16:12 |
| 15 | 08:39 | 07:51 | 06:48 | 06:34 | 05:33 | 05:02 | 05:20 | 06:09 | 07:02 | 07:55 | 07:54 | 08:39 |
| | 16:41 | 17:40 | 18:33 | 20:29 | 21:22 | 22:00 | 21:52 | 21:01 | 19:49 | 18:37 | 16:36 | 16:12 |
| 16 | 08:38 | 07:49 | 06:46 | 06:32 | 05:31 | 05:02 | 05:22 | 06:10 | 07:04 | 07:57 | 07:55 | 08:39 |
| | 16:43 | 17:41 | 18:35 | 20:31 | 21:24 | 22:00 | 21:51 | 20:59 | 19:47 | 18:35 | 16:35 | 16:12 |
| 17 | 08:37 | 07:47 | 06:43 | 06:30 | 05:30 | 05:02 | 05:23 | 06:12 | 07:06 | 07:59 | 07:57 | 08:40 |
| | 16:44 | 17:43 | 18:37 | 20:33 | 21:26 | 22:01 | 21:50 | 20:57 | 19:44 | 18:33 | 16:33 | 16:12 |
| 18 | 08:36 | 07:45 | 06:41 | 06:27 | 05:28 | 05:02 | 05:24 | 06:14 | 07:08 | 08:01 | 07:59 | 08:41 |
| | 16:46 | 17:45 | 18:38 | 20:35 | 21:27 | 22:01 | 21:49 | 20:55 | 19:42 | 18:31 | 16:32 | 16:13 |
| 19 | 08:35 | 07:43 | 06:39 | 06:25 | 05:27 | 05:02 | 05:26 | 06:16 | 07:09 | 08:03 | 08:01 | 08:42 |
| | 16:48 | 17:47 | 18:40 | 20:37 | 21:29 | 22:02 | 21:48 | 20:52 | 19:39 | 18:28 | 16:30 | 16:13 |
| 20 | 08:34 | 07:41 | 06:36 | 06:23 | 05:25 | 05:02 | 05:27 | 06:17 | 07:11 | 08:05 | 08:03 | 08:43 |
| | 16:50 | 17:49 | 18:42 | 20:38 | 21:30 | 22:02 | 21:46 | 20:50 | 19:37 | 18:26 | 16:29 | 16:13 |
| 21 | 08:33 | 07:39 | 06:34 | 06:20 | 05:24 | 05:02 | 05:28 | 06:19 | 07:13 | 08:06 | 08:05 | 08:43 |
| | 16:51 | 17:51 | 18:44 | 20:40 | 21:32 | 22:02 | 21:45 | 20:48 | 19:35 | 18:24 | 16:28 | 16:14 |
| 22 | 08:32 | 07:37 | 06:31 | 06:18 | 05:22 | 05:03 | 05:30 | 06:21 | 07:14 | 08:08 | 08:06 | 08:44 |
| | 16:53 | 17:53 | 18:46 | 20:42 | 21:33 | 22:03 | 21:44 | 20:46 | 19:32 | 18:22 | 16:27 | 16:14 |
| 23 | 08:30 | 07:34 | 06:29 | 06:16 | 05:21 | 05:03 | 05:31 | 06:23 | 07:16 | 08:10 | 08:08 | 08:44 |
| | 16:55 | 17:55 | 18:48 | 20:44 | 21:35 | 22:03 | 21:42 | 20:44 | 19:30 | 18:20 | 16:25 | 16:14 |
| 24 | 08:29 | 07:32 | 06:26 | 06:14 | 05:20 | 05:03 | 05:33 | 06:24 | 07:18 | 08:12 | 08:10 | 08:45 |
| | 16:57 | 17:57 | 18:49 | 20:46 | 21:36 | 22:03 | 21:41 | 20:41 | 19:27 | 18:17 | 16:24 | 16:15 |
| 25 | 08:28 | 07:30 | 06:24 | 06:12 | 05:18 | 05:03 | 05:34 | 06:26 | 07:20 | 08:14 | 08:11 | 08:45 |
| | 16:59 | 17:59 | 18:51 | 20:47 | 21:38 | 22:03 | 21:39 | 20:39 | 19:25 | 18:15 | 16:23 | 16:16 |
| 26 | 08:26 | 07:28 | 07:22 | 06:10 | 05:17 | 05:04 | 05:36 | 06:28 | 07:21 | 08:16 | 08:13 | 08:45 |
| | 17:01 | 18:01 | 19:53 | 20:49 | 21:39 | 22:03 | 21:38 | 20:37 | 19:22 | 18:13 | 16:22 | 16:16 |
| 27 | 08:25 | 07:25 | 07:19 | 06:07 | 05:16 | 05:04 | 05:37 | 06:30 | 07:23 | 08:18 | 08:15 | 08:46 |
| | 17:02 | 18:03 | 19:55 | 20:51 | 21:41 | 22:03 | 21:36 | 20:34 | 19:20 | 18:11 | 16:21 | 16:17 |
| 28 | 08:23 | 07:23 | 07:17 | 06:05 | 05:15 | 05:05 | 05:39 | 06:31 | 07:25 | 08:20 | 08:16 | 08:46 |
| | 17:04 | 18:05 | 19:57 | 20:53 | 21:42 | 22:03 | 21:35 | 20:32 | 19:18 | 18:09 | 16:20 | 16:18 |
| 29 | 08:22 | | 07:14 | 06:03 | 05:14 | 05:05 | 05:40 | 06:33 | 07:27 | 07:22 | 08:18 | 08:46 |
| | 17:06 | | 19:59 | 20:55 | 21:43 | 22:03 | 21:33 | 20:30 | 19:15 | 17:07 | 16:19 | 16:19 |
| 30 | 08:20 | | 07:12 | 06:01 | 05:13 | 05:06 | 05:42 | 06:35 | 07:28 | 07:23 | 08:20 | 08:46 |
| | 17:08 | | 20:00 | 20:56 | 21:45 | 22:02 | 21:31 | 20:28 | 19:13 | 17:05 | 16:18 | 16:20 |
| 31 | 08:19 | | 07:10 | | 05:12 | | 05:44 | 06:36 | | 07:25 | | 08:46 |
| | 17:10 | | 20:02 | | 21:46 | | 21:30 | 20:25 | | 17:03 | | 16:21 |
| Potential sun hours | 252 | 274 | 366 | 418 | 491 | 507 | 510 | 459 | 382 | 330 | 261 | 236 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm)<br>Sun set (hh:mm) | Minutes with flicker | First time (hh:mm) with flicker<br>Last time (hh:mm) with flicker | (WTG causing flicker first time)<br>(WTG causing flicker last time) |
|---|---|---|---|---|

Licensed user:
Bosch & Van Rijn
Groenmarktstraat 56
NL-3521 AV Utrecht
+31 6 51 71 04 93
Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

# SHADOW - Calendar

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegd Shadow receptor: P - Waarman 9 9936GV Farmsum

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 08:46 | 08:17 | 07:21 | 07:07 | 05:59 | 05:11 | 05:07 | 05:45 | 06:38 | 07:30 | 07:27 | 08:21 |
| | 16:22 | 17:12 | 18:07 | 20:04 | 20:58 | 21:47 | 22:02 | 21:28 | 20:23 | 19:10 | 17:01 | 16:17 |
| 2 | 08:46 | 08:15 | 07:19 | 07:05 | 05:57 | 05:10 | 05:07 | 05:47 | 06:40 | 07:32 | 07:29 | 08:23 |
| | 16:23 | 17:14 | 18:09 | 20:06 | 21:00 | 21:48 | 22:02 | 21:26 | 20:21 | 19:08 | 16:59 | 16:17 |
| 3 | 08:46 | 08:14 | 07:16 | 07:02 | 05:55 | 05:09 | 05:08 | 05:48 | 06:42 | 07:34 | 07:31 | 08:24 |
| | 16:24 | 17:16 | 18:10 | 20:08 | 21:02 | 21:49 | 22:01 | 21:24 | 20:18 | 19:06 | 16:57 | 16:16 |
| 4 | 08:46 | 08:12 | 07:14 | 07:00 | 05:53 | 05:08 | 05:09 | 05:50 | 06:43 | 07:36 | 07:33 | 08:26 |
| | 16:25 | 17:18 | 18:12 | 20:09 | 21:03 | 21:51 | 22:01 | 21:23 | 20:16 | 19:03 | 16:55 | 16:15 |
| 5 | 08:45 | 08:10 | 07:12 | 06:58 | 05:51 | 05:07 | 05:10 | 05:52 | 06:45 | 07:37 | 07:35 | 08:27 |
| | 16:27 | 17:20 | 18:14 | 20:11 | 21:05 | 21:52 | 22:00 | 21:21 | 20:13 | 19:01 | 16:53 | 16:15 |
| 6 | 08:45 | 08:09 | 07:09 | 06:55 | 05:49 | 05:06 | 05:10 | 05:53 | 06:47 | 07:39 | 07:37 | 08:28 |
| | 16:28 | 17:22 | 18:16 | 20:13 | 21:07 | 21:53 | 22:00 | 21:19 | 20:11 | 18:58 | 16:51 | 16:14 |
| 7 | 08:44 | 08:07 | 07:07 | 06:53 | 05:47 | 05:06 | 05:11 | 05:55 | 06:49 | 07:41 | 07:39 | 08:30 |
| | 16:29 | 17:24 | 18:18 | 20:15 | 21:09 | 21:54 | 21:59 | 21:17 | 20:09 | 18:56 | 16:50 | 16:14 |
| 8 | 08:44 | 08:05 | 07:05 | 06:50 | 05:45 | 05:05 | 05:12 | 05:57 | 06:50 | 07:43 | 07:40 | 08:31 |
| | 16:31 | 17:26 | 18:20 | 20:17 | 21:10 | 21:55 | 21:58 | 21:15 | 20:06 | 18:54 | 16:48 | 16:13 |
| 9 | 08:43 | 08:03 | 07:02 | 06:48 | 05:44 | 05:05 | 05:13 | 05:58 | 06:52 | 07:44 | 07:42 | 08:32 |
| | 16:32 | 17:28 | 18:22 | 20:18 | 21:12 | 21:55 | 21:58 | 21:13 | 20:04 | 18:51 | 16:46 | 16:13 |
| 10 | 08:43 | 08:01 | 07:00 | 06:46 | 05:42 | 05:04 | 05:14 | 06:00 | 06:54 | 07:46 | 07:44 | 08:33 |
| | 16:33 | 17:30 | 18:24 | 20:20 | 21:14 | 21:56 | 21:57 | 21:11 | 20:01 | 18:49 | 16:44 | 16:13 |
| 11 | 08:42 | 07:59 | 06:58 | 06:43 | 05:40 | 05:04 | 05:16 | 06:02 | 06:55 | 07:48 | 07:46 | 08:34 |
| | 16:35 | 17:32 | 18:26 | 20:22 | 21:16 | 21:57 | 21:56 | 21:09 | 19:59 | 18:47 | 16:43 | 16:12 |
| 12 | 08:41 | 07:57 | 06:55 | 06:41 | 05:38 | 05:03 | 05:17 | 06:04 | 06:57 | 07:50 | 07:48 | 08:36 |
| | 16:36 | 17:34 | 18:27 | 20:24 | 21:17 | 21:58 | 21:55 | 21:07 | 19:57 | 18:44 | 16:41 | 16:12 |
| 13 | 08:41 | 07:55 | 06:53 | 06:39 | 05:36 | 05:03 | 05:18 | 06:05 | 06:59 | 07:52 | 07:50 | 08:37 |
| | 16:38 | 17:36 | 18:29 | 20:26 | 21:19 | 21:59 | 21:54 | 21:05 | 19:54 | 18:42 | 16:39 | 16:12 |
| 14 | 08:40 | 07:53 | 06:51 | 06:36 | 05:35 | 05:03 | 05:19 | 06:07 | 07:01 | 07:54 | 07:52 | 08:38 |
| | 16:40 | 17:38 | 18:31 | 20:27 | 21:21 | 21:59 | 21:53 | 21:03 | 19:52 | 18:40 | 16:38 | 16:12 |
| 15 | 08:39 | 07:51 | 06:48 | 06:34 | 05:33 | 05:02 | 05:20 | 06:09 | 07:02 | 07:55 | 07:54 | 08:39 |
| | 16:41 | 17:40 | 18:33 | 20:29 | 21:22 | 22:00 | 21:52 | 21:01 | 19:49 | 18:37 | 16:36 | 16:12 |
| 16 | 08:38 | 07:49 | 06:46 | 06:32 | 05:31 | 05:02 | 05:22 | 06:10 | 07:04 | 07:57 | 07:55 | 08:39 |
| | 16:43 | 17:41 | 18:35 | 20:31 | 21:24 | 22:00 | 21:51 | 20:59 | 19:47 | 18:35 | 16:35 | 16:12 |
| 17 | 08:37 | 07:47 | 06:43 | 06:30 | 05:30 | 05:02 | 05:23 | 06:12 | 07:06 | 07:59 | 07:57 | 08:40 |
| | 16:44 | 17:43 | 18:37 | 20:33 | 21:26 | 22:01 | 21:50 | 20:57 | 19:44 | 18:33 | 16:33 | 16:12 |
| 18 | 08:36 | 07:45 | 06:41 | 06:27 | 05:28 | 05:02 | 05:24 | 06:14 | 07:08 | 08:01 | 07:59 | 08:41 |
| | 16:46 | 17:45 | 18:38 | 20:35 | 21:27 | 22:01 | 21:49 | 20:55 | 19:42 | 18:31 | 16:32 | 16:13 |
| 19 | 08:35 | 07:43 | 06:39 | 06:25 | 05:27 | 05:02 | 05:26 | 06:16 | 07:09 | 08:03 | 08:01 | 08:42 |
| | 16:48 | 17:47 | 18:40 | 20:37 | 21:29 | 22:02 | 21:48 | 20:52 | 19:39 | 18:28 | 16:30 | 16:13 |
| 20 | 08:34 | 07:41 | 06:36 | 06:23 | 05:25 | 05:02 | 05:27 | 06:17 | 07:11 | 08:05 | 08:03 | 08:43 |
| | 16:50 | 17:49 | 18:42 | 20:38 | 21:30 | 22:02 | 21:46 | 20:50 | 19:37 | 18:26 | 16:29 | 16:13 |
| 21 | 08:33 | 07:39 | 06:34 | 06:20 | 05:24 | 05:02 | 05:28 | 06:19 | 07:13 | 08:06 | 08:05 | 08:43 |
| | 16:51 | 17:51 | 18:44 | 20:40 | 21:32 | 22:02 | 21:45 | 20:48 | 19:35 | 18:24 | 16:28 | 16:14 |
| 22 | 08:32 | 07:37 | 06:31 | 06:18 | 05:22 | 05:03 | 05:30 | 06:21 | 07:14 | 08:08 | 08:06 | 08:44 |
| | 16:53 | 17:53 | 18:46 | 20:42 | 21:33 | 22:03 | 21:44 | 20:46 | 19:32 | 18:22 | 16:27 | 16:14 |
| 23 | 08:30 | 07:34 | 06:29 | 06:16 | 05:21 | 05:03 | 05:31 | 06:23 | 07:16 | 08:10 | 08:08 | 08:44 |
| | 16:55 | 17:55 | 18:48 | 20:44 | 21:35 | 22:03 | 21:42 | 20:44 | 19:30 | 18:20 | 16:25 | 16:14 |
| 24 | 08:29 | 07:32 | 06:26 | 06:14 | 05:20 | 05:03 | 05:33 | 06:24 | 07:18 | 08:12 | 08:10 | 08:45 |
| | 16:57 | 17:57 | 18:49 | 20:46 | 21:36 | 22:03 | 21:41 | 20:41 | 19:27 | 18:17 | 16:24 | 16:15 |
| 25 | 08:28 | 07:30 | 06:24 | 06:12 | 05:18 | 05:03 | 05:34 | 06:26 | 07:20 | 08:14 | 08:11 | 08:45 |
| | 16:59 | 17:59 | 18:51 | 20:47 | 21:38 | 22:03 | 21:39 | 20:39 | 19:25 | 18:15 | 16:23 | 16:16 |
| 26 | 08:26 | 07:28 | 07:22 | 06:10 | 05:17 | 05:04 | 05:36 | 06:28 | 07:21 | 08:16 | 08:13 | 08:45 |
| | 17:01 | 18:01 | 19:53 | 20:49 | 21:39 | 22:03 | 21:38 | 20:37 | 19:22 | 18:13 | 16:22 | 16:16 |
| 27 | 08:25 | 07:25 | 07:19 | 06:07 | 05:16 | 05:04 | 05:37 | 06:30 | 07:23 | 08:18 | 08:15 | 08:46 |
| | 17:02 | 18:03 | 19:55 | 20:51 | 21:41 | 22:03 | 21:36 | 20:34 | 19:20 | 18:11 | 16:21 | 16:17 |
| 28 | 08:23 | 07:23 | 07:17 | 06:05 | 05:15 | 05:05 | 05:39 | 06:31 | 07:25 | 08:20 | 08:16 | 08:46 |
| | 17:04 | 18:05 | 19:57 | 20:53 | 21:42 | 22:03 | 21:35 | 20:32 | 19:18 | 18:09 | 16:20 | 16:18 |
| 29 | 08:22 | | 07:14 | 06:03 | 05:14 | 05:05 | 05:40 | 06:33 | 07:27 | 07:22 | 08:18 | 08:46 |
| | 17:06 | | 19:59 | 20:55 | 21:43 | 22:03 | 21:33 | 20:30 | 19:15 | 17:07 | 16:19 | 16:19 |
| 30 | 08:20 | | 07:12 | 06:01 | 05:13 | 05:06 | 05:42 | 06:35 | 07:28 | 07:23 | 08:20 | 08:46 |
| | 17:08 | | 20:00 | 20:56 | 21:45 | 22:02 | 21:31 | 20:28 | 19:13 | 17:05 | 16:18 | 16:20 |
| 31 | 08:19 | | 07:10 | | 05:12 | | 05:44 | 06:36 | | 07:25 | | 08:46 |
| | 17:10 | | 20:02 | | 21:46 | | 21:30 | 20:25 | | 17:03 | | 16:21 |
| Potential sun hours | 252 | 274 | 366 | 418 | 491 | 507 | 510 | 459 | 382 | 330 | 261 | 236 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

| Day in month | Sun rise (hh:mm) | | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|---|---|---|---|---|
| | Sun set (hh:mm) | Minutes with flicker | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

Licensed user:
Bosch & Van Rijn
Groenmarktstraat 56
NL-3521 AV Utrecht
+31 6 51 71 04 93
Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

# SHADOW - Calendar

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegdShadow receptor: Q - Zijlvest 20 9936GZ Farmsum

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 08:46 | 08:17 | 07:21 | 07:07 | 05:59 | 05:11 | 05:07 | 05:45 | 06:38 | 07:30 | 07:27 | 08:21 |
| | 16:22 | 17:12 | 18:07 | 20:04 | 20:58 | 21:47 | 22:02 | 21:28 | 20:23 | 19:10 | 17:01 | 16:17 |
| 2 | 08:46 | 08:15 | 07:19 | 07:05 | 05:57 | 05:10 | 05:07 | 05:47 | 06:40 | 07:32 | 07:29 | 08:23 |
| | 16:23 | 17:14 | 18:09 | 20:06 | 21:00 | 21:48 | 22:02 | 21:26 | 20:21 | 19:08 | 16:59 | 16:17 |
| 3 | 08:46 | 08:14 | 07:16 | 07:02 | 05:55 | 05:09 | 05:08 | 05:48 | 06:42 | 07:34 | 07:31 | 08:24 |
| | 16:24 | 17:16 | 18:10 | 20:08 | 21:02 | 21:49 | 22:01 | 21:24 | 20:18 | 19:06 | 16:57 | 16:16 |
| 4 | 08:46 | 08:12 | 07:14 | 07:00 | 05:53 | 05:08 | 05:09 | 05:50 | 06:43 | 07:36 | 07:33 | 08:26 |
| | 16:25 | 17:18 | 18:12 | 20:09 | 21:03 | 21:51 | 22:01 | 21:23 | 20:16 | 19:03 | 16:55 | 16:15 |
| 5 | 08:45 | 08:10 | 07:12 | 06:58 | 05:51 | 05:07 | 05:10 | 05:52 | 06:45 | 07:37 | 07:35 | 08:27 |
| | 16:27 | 17:20 | 18:14 | 20:11 | 21:05 | 21:52 | 22:00 | 21:21 | 20:13 | 19:01 | 16:53 | 16:15 |
| 6 | 08:45 | 08:09 | 07:09 | 06:55 | 05:49 | 05:06 | 05:10 | 05:53 | 06:47 | 07:39 | 07:37 | 08:28 |
| | 16:28 | 17:22 | 18:16 | 20:13 | 21:07 | 21:53 | 22:00 | 21:19 | 20:11 | 18:58 | 16:51 | 16:14 |
| 7 | 08:44 | 08:07 | 07:07 | 06:53 | 05:47 | 05:06 | 05:11 | 05:55 | 06:49 | 07:41 | 07:39 | 08:30 |
| | 16:29 | 17:24 | 18:18 | 20:15 | 21:09 | 21:54 | 21:59 | 21:17 | 20:09 | 18:56 | 16:50 | 16:14 |
| 8 | 08:44 | 08:05 | 07:05 | 06:50 | 05:45 | 05:05 | 05:12 | 05:57 | 06:50 | 07:43 | 07:40 | 08:31 |
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| 9 | 08:43 | 08:03 | 07:02 | 06:48 | 05:44 | 05:05 | 05:13 | 05:59 | 06:52 | 07:44 | 07:42 | 08:32 |
| | 16:32 | 17:28 | 18:22 | 20:18 | 21:12 | 21:55 | 21:58 | 21:13 | 20:04 | 18:51 | 16:46 | 16:13 |
| 10 | 08:43 | 08:01 | 07:00 | 06:46 | 05:42 | 05:04 | 05:14 | 06:00 | 06:54 | 07:46 | 07:44 | 08:33 |
| | 16:33 | 17:30 | 18:24 | 20:20 | 21:14 | 21:56 | 21:57 | 21:11 | 20:01 | 18:49 | 16:44 | 16:13 |
| 11 | 08:42 | 07:59 | 06:58 | 06:43 | 05:40 | 05:04 | 05:16 | 06:02 | 06:55 | 07:48 | 07:46 | 08:34 |
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| 13 | 08:41 | 07:55 | 06:53 | 06:39 | 05:36 | 05:03 | 05:18 | 06:05 | 06:59 | 07:52 | 07:50 | 08:37 |
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| | 16:48 | 17:47 | 18:40 | 20:36 | 21:29 | 22:02 | 21:48 | 20:52 | 19:39 | 18:28 | 16:30 | 16:13 |
| 20 | 08:34 | 07:41 | 06:36 | 06:23 | 05:25 | 05:02 | 05:27 | 06:17 | 07:11 | 08:05 | 08:03 | 08:43 |
| | 16:50 | 17:49 | 18:42 | 20:38 | 21:30 | 22:02 | 21:46 | 20:50 | 19:37 | 18:26 | 16:29 | 16:13 |
| 21 | 08:33 | 07:39 | 06:34 | 06:21 | 05:24 | 05:02 | 05:28 | 06:19 | 07:13 | 08:06 | 08:05 | 08:43 |
| | 16:51 | 17:51 | 18:44 | 20:40 | 21:32 | 22:02 | 21:45 | 20:48 | 19:35 | 18:24 | 16:28 | 16:14 |
| 22 | 08:32 | 07:37 | 06:31 | 06:18 | 05:22 | 05:03 | 05:30 | 06:21 | 07:14 | 08:08 | 08:06 | 08:44 |
| | 16:53 | 17:53 | 18:46 | 20:42 | 21:33 | 22:03 | 21:44 | 20:46 | 19:32 | 18:22 | 16:27 | 16:14 |
| 23 | 08:30 | 07:34 | 06:29 | 06:16 | 05:21 | 05:03 | 05:31 | 06:23 | 07:16 | 08:10 | 08:08 | 08:44 |
| | 16:55 | 17:55 | 18:48 | 20:44 | 21:35 | 22:03 | 21:42 | 20:44 | 19:30 | 18:20 | 16:25 | 16:14 |
| 24 | 08:29 | 07:32 | 06:26 | 06:14 | 05:20 | 05:03 | 05:33 | 06:24 | 07:18 | 08:12 | 08:10 | 08:45 |
| | 16:57 | 17:57 | 18:49 | 20:46 | 21:36 | 22:03 | 21:41 | 20:41 | 19:27 | 18:17 | 16:24 | 16:15 |
| 25 | 08:28 | 07:30 | 06:24 | 06:12 | 05:18 | 05:03 | 05:34 | 06:26 | 07:20 | 08:14 | 08:11 | 08:45 |
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| | 17:10 | | 20:02 | | 21:46 | | 21:30 | 20:25 | | 17:03 | | 16:21 |
| Potential sun hours | 252 | 274 | 366 | 418 | 491 | 507 | 510 | 459 | 382 | 330 | 261 | 236 |
| Total, worst case | | | | | | | | | | | | |
| Sun reduction | | | | | | | | | | | | |
| Oper. time red. | | | | | | | | | | | | |
| Wind dir. red. | | | | | | | | | | | | |
| Total reduction | | | | | | | | | | | | |
| Total, real | | | | | | | | | | | | |

Table layout: For each day in each month the following matrix apply

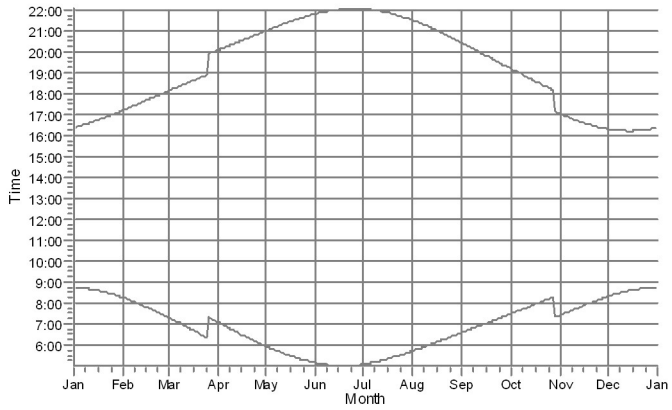
| Day in month | Sun rise (hh:mm) | | First time (hh:mm) with flicker | (WTG causing flicker first time) |
|---|---|---|---|---|
| | Sun set (hh:mm) | Minutes with flicker | Last time (hh:mm) with flicker | (WTG causing flicker last time) |

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+31 6 51 71 04 93
Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

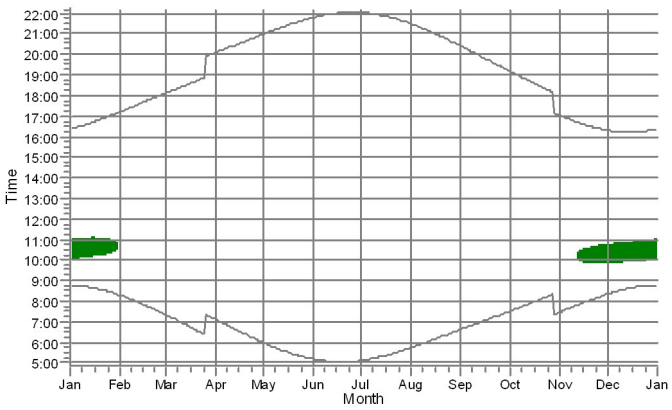
# SHADOW - Calendar, graphical

## Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegd

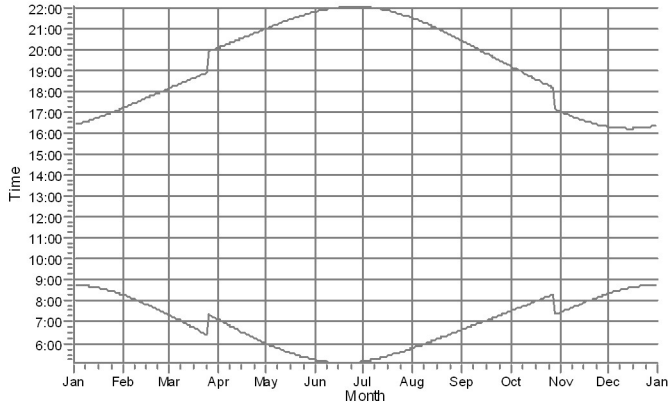
A: Familie Bronsw eg 22 9945PS Wagenborgen



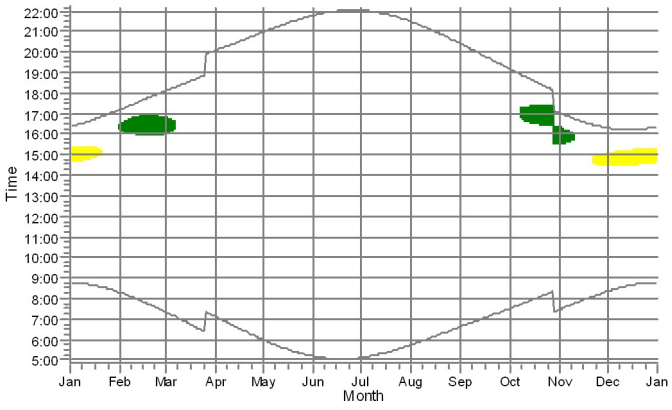

B: Geefsw eersterw eg 1 9937TB Meedhuizen



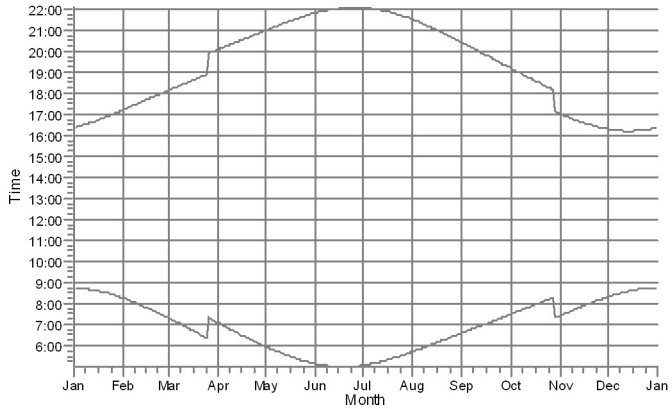

C: Hoofdw eg 28 9945PG Wagenborgen



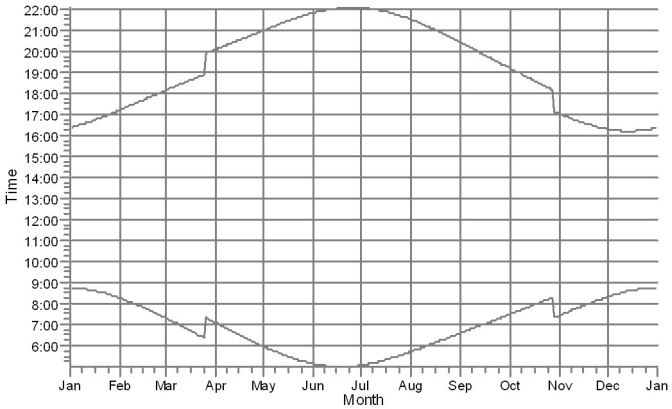

D: Karspelpad 8 9936HP Farmsum




E: Maarkampen 12 9937PL Meedhuizen




F: Molenstraat 64 9936EE Farmsum




WTGs

1: GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (18)

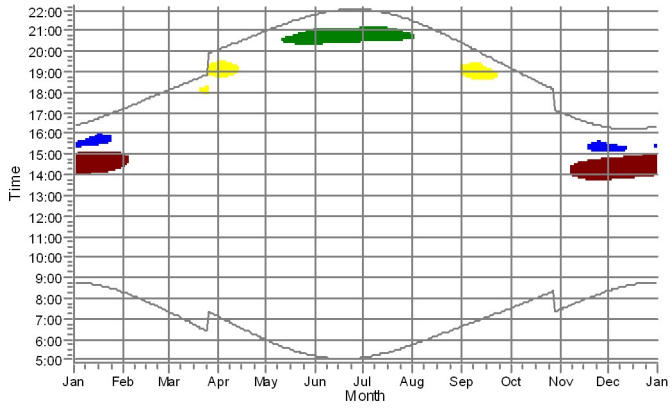
2: GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (19)

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NL-3521 AV Utrecht
+31 6 51 71 04 93
Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

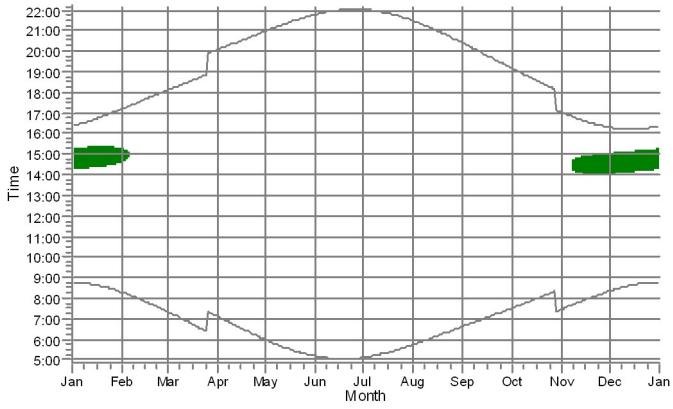
# SHADOW - Calendar, graphical

## Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegd

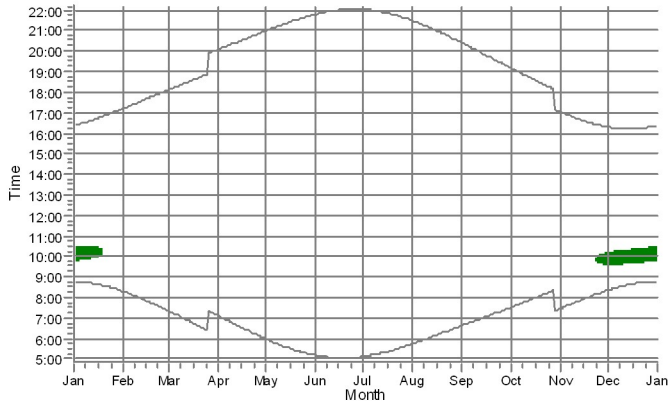
G: Oosterlaan 9 9936HN Farmsum



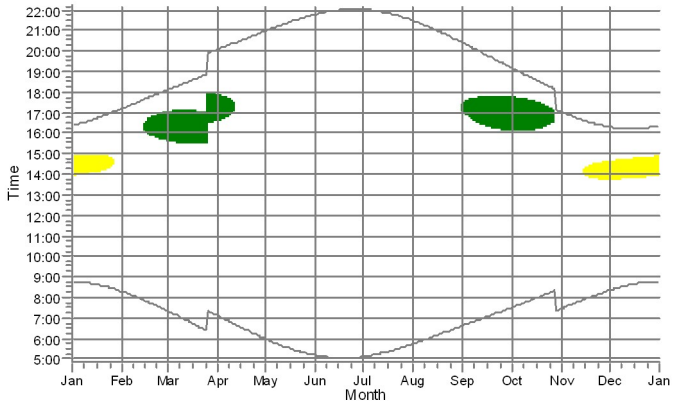

H: Schaappad 1 9936HT Farmsum



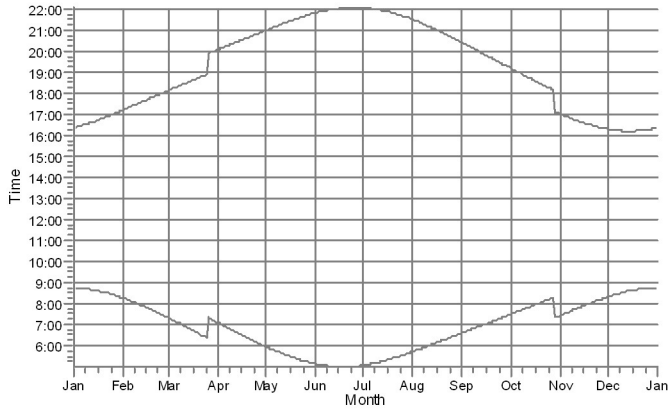

I: Seendw eg 8 9936GA Farmsum



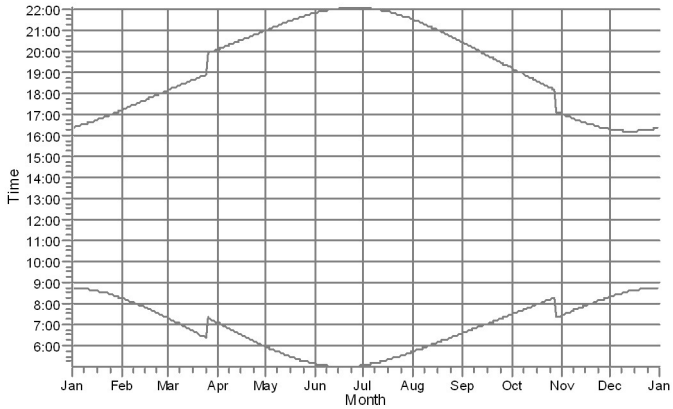

J: T.J. Jansenw eg 11 9936HL Farmsum




K: Waarman 1 9936GV Farmsum




L: Waarman 11 9936GV Farmsum




WTGs

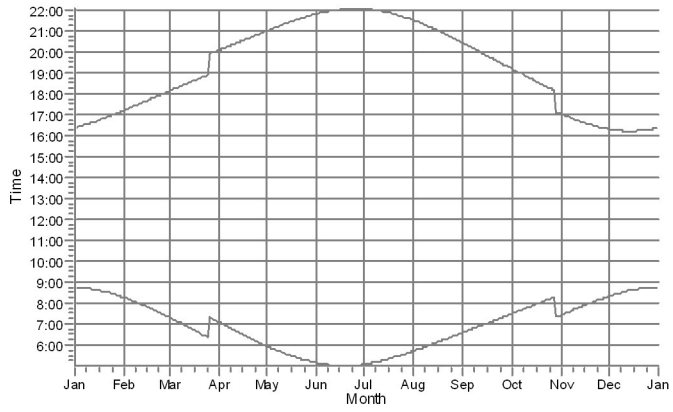
1: GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (18)
2: GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (19)
3: GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (20)
8: GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (25)

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Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

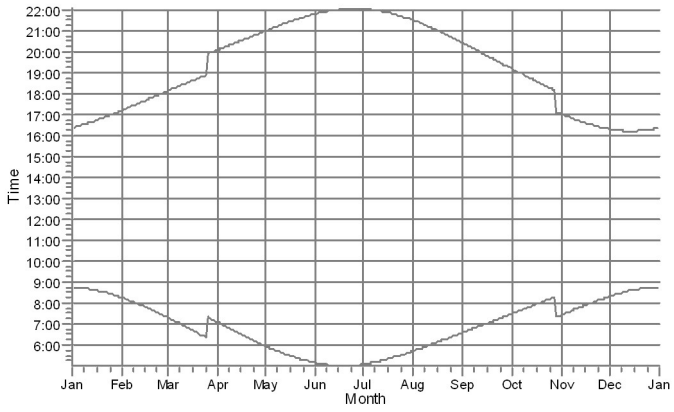
# SHADOW - Calendar, graphical

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegd

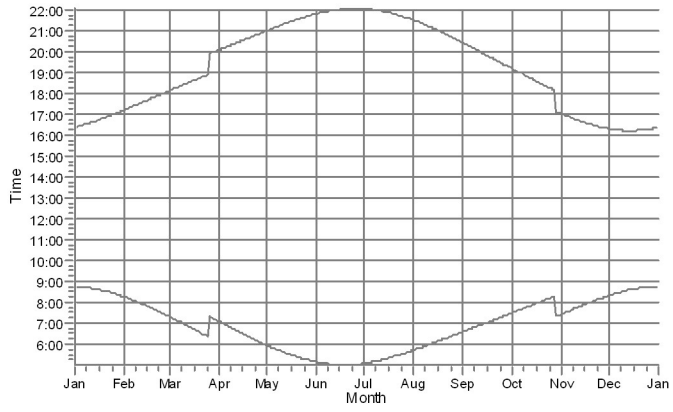
M: Waarman 3 9936GV Farmsum



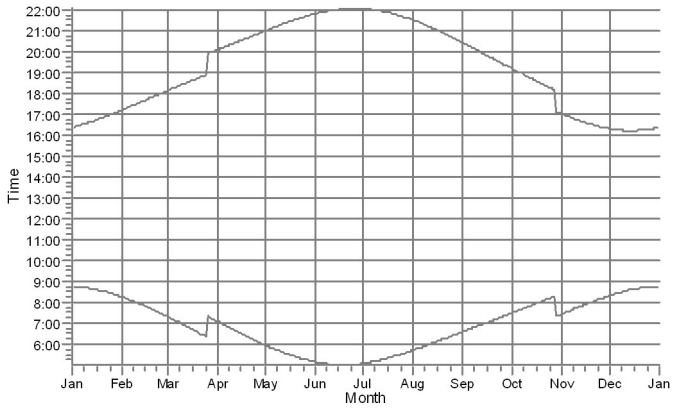

N: Waarman 5 9936GV Farmsum



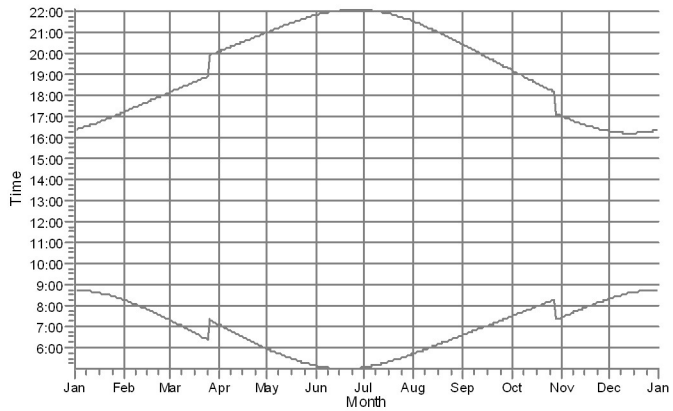

O: Waarman 7 9936GV Farmsum




P: Waarman 9 9936GV Farmsum




Q: Zijlvest 20 9936GZ Farmsum




WTGs

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+31 6 51 71 04 93
Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

# SHADOW - Calendar per WTG

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegdWTG: 1 - GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (18)

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June |
|---|---|---|---|---|---|---|
| 1 | 08:46 09:52-10:24/32 14:22-15:11/49<br>16:22 10:24-10:55/31 | 08:17 14:43-15:11/28<br>17:12 16:19-16:26/7 | 07:21 15:42-16:57/75<br>18:07 | 07:07 16:42-17:49/67<br>20:04 | 05:59<br>20:58 | 05:11 20:24-20:59/35<br>21:47 |
| 2 | 08:46 09:52-10:24/32 14:22-15:11/49<br>16:23 10:24-10:55/31 | 08:15 14:46-15:09/23<br>17:14 16:15-16:28/13 | 07:19 15:42-16:59/77<br>18:09 | 07:05 16:43-17:47/64<br>20:06 | 05:57<br>21:00 | 05:10 20:25-21:00/35<br>21:48 |
| 3 | 08:46 09:53-10:25/32 14:23-15:11/48<br>16:24 10:25-10:56/31 | 08:14 14:50-15:06/16<br>17:16 16:13-16:30/17 | 07:16 15:40-16:59/79<br>18:10 | 07:02 16:45-17:46/61<br>20:08 | 05:55<br>21:02 | 05:09 20:25-21:00/35<br>21:49 |
| 4 | 08:45 09:55-10:25/30 14:23-15:11/48<br>16:25 10:25-10:56/31 | 08:12 14:55-15:02/7<br>17:18 16:11-16:33/22 | 07:14 15:40-17:00/80<br>18:12 | 07:00 16:47-17:44/57<br>20:09 | 05:53<br>21:03 | 05:08 20:25-21:00/35<br>21:50 |
| 5 | 08:45 09:55-10:25/30 14:23-15:13/50<br>16:27 10:25-10:57/32 | 08:10 16:10-16:35/25<br>17:20 | 07:12 15:39-17:01/82<br>18:14 | 06:58 16:48-17:42/54<br>20:11 | 05:51<br>21:05 | 05:07 20:26-21:01/35<br>21:52 |
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| 7 | 08:44 09:56-10:26/30 14:25-15:14/49<br>16:29 10:26-10:58/32 | 08:07 16:07-16:40/33<br>17:24 | 07:07 15:37-17:01/84<br>18:18 | 06:53 16:54-17:39/45<br>20:15 | 05:47<br>21:09 | 05:06 20:26-21:01/35<br>21:54 |
| 8 | 08:44 09:57-10:26/29 14:25-15:14/49<br>16:31 10:26-10:58/32 | 08:05 16:06-16:42/36<br>17:26 | 07:05 15:36-17:01/85<br>18:20 | 06:50 16:55-17:35/40<br>20:17 | 05:45<br>21:10 | 05:05 20:26-21:00/34<br>21:54 |
| 9 | 08:43 09:57-10:26/29 14:25-15:14/49<br>16:32 10:26-10:58/32 | 08:03 16:06-16:44/38<br>17:28 | 07:02 15:36-17:02/86<br>18:22 | 06:48 16:59-17:33/34<br>20:18 | 05:44<br>21:12 | 05:05 20:27-21:01/34<br>21:55 |
| 10 | 08:43 09:58-10:25/27 14:25-15:15/50<br>16:33 10:25-10:59/34 | 08:01 16:05-16:47/42<br>17:30 | 07:00 15:35-17:01/86<br>18:24 | 06:46 17:02-17:30/28<br>20:20 | 05:42<br>21:14 | 05:04 20:27-21:01/34<br>21:56 |
| 11 | 08:42 09:59-10:25/26 14:26-15:15/49<br>16:35 10:25-10:59/34 | 07:59 16:05-16:48/43<br>17:32 | 06:58 15:35-17:02/87<br>18:26 | 06:43 17:07-17:24/17<br>20:22 | 05:40<br>21:16 | 05:04 20:27-21:01/34<br>21:57 |
| 12 | 08:41 10:00-10:25/25 14:26-15:16/50<br>16:36 10:25-10:59/34 | 07:57 16:03-16:48/45<br>17:34 | 06:55 15:35-17:02/87<br>18:27 | 06:41<br>20:24 | 05:38 20:32-20:34/2<br>21:17 | 05:03 20:28-21:01/33<br>21:58 |
| 13 | 08:41 10:01-10:25/24 14:26-15:16/50<br>16:38 10:25-10:59/34 | 07:55 16:03-16:49/46<br>17:36 | 06:53 15:34-17:02/88<br>18:29 | 06:39<br>20:26 | 05:36 20:30-20:35/5<br>21:19 | 05:03 20:28-21:01/33<br>21:58 |
| 14 | 08:40 10:02-10:24/22 14:27-15:16/49<br>16:40 10:24-10:59/35 | 07:53 16:03-16:50/47<br>17:38 | 06:51 15:34-17:02/88<br>18:31 | 06:36<br>20:27 | 05:35 20:29-20:37/8<br>21:21 | 05:03 20:29-21:01/32<br>21:59 |
| 15 | 08:39 10:04-10:24/20 14:28-15:17/49<br>16:41 10:24-11:00/36 | 07:51 16:02-16:26/24<br>17:40 16:26-16:50/24 | 06:48 15:33-17:01/88<br>18:33 | 06:34<br>20:29 | 05:33 20:28-20:37/9<br>21:22 | 05:03 20:29-21:02/33<br>22:00 |
| 16 | 08:38 10:05-10:22/17 14:27-15:16/49<br>16:43 10:22-10:59/37 | 07:49 16:02-16:33/31<br>17:41 16:33-16:51/18 | 06:46 15:33-17:02/89<br>18:35 | 06:32<br>20:31 | 05:31 20:27-20:39/12<br>21:24 | 05:02 20:29-21:02/33<br>22:00 |
| 17 | 08:37 10:07-10:20/13 14:28-15:17/49<br>16:45 10:20-10:59/39 | 07:47 16:01-16:37/36<br>17:43 16:37-16:50/13 | 06:43 15:33-17:01/88<br>18:37 | 06:30<br>20:33 | 05:30 20:26-20:40/14<br>21:25 | 05:02 20:30-21:02/32<br>22:01 |
| 18 | 08:36 10:10-10:19/9 14:29-15:17/48<br>16:46 10:19-10:59/40 | 07:45 16:01-16:40/39<br>17:45 16:40-16:51/11 | 06:41 15:33-17:01/88<br>18:38 | 06:27<br>20:35 | 05:28 20:26-20:42/16<br>21:27 | 05:02 20:30-21:02/32<br>22:01 |
| 19 | 08:35 10:18-10:59/41<br>16:48 14:29-15:17/48 | 07:43 15:59-16:43/44<br>17:47 16:43-16:51/8 | 06:39 15:33-17:00/87<br>18:40 | 06:25<br>20:36 | 05:27 20:26-20:44/18<br>21:29 | 05:02 20:30-21:02/32<br>22:02 |
| 20 | 08:34 10:19-10:59/40<br>16:50 14:30-15:17/47 | 07:41 15:57-16:45/48<br>17:49 16:45-16:51/6 | 06:36 15:33-17:00/87<br>18:42 | 06:23<br>20:38 | 05:25 20:25-20:45/20<br>21:30 | 05:02 20:30-21:02/32<br>22:02 |
| 21 | 08:33 10:20-10:58/38<br>16:51 14:30-15:17/47 | 07:39 15:54-16:47/53<br>17:51 16:47-16:50/3 | 06:34 15:33-16:59/86<br>18:44 | 06:21<br>20:40 | 05:24 20:24-20:46/22<br>21:32 | 05:02 20:30-21:02/32<br>22:02 |
| 22 | 08:32 10:21-10:58/37<br>16:53 14:32-15:17/45 | 07:36 15:52-16:49/57<br>17:53 16:49-16:50/1 | 06:31 15:34-16:59/85<br>18:46 | 06:18<br>20:42 | 05:22 20:24-20:47/23<br>21:33 | 05:03 20:30-21:02/32<br>22:02 |
| 23 | 08:30 10:22-10:57/35<br>16:55 14:32-15:17/45 | 07:34 15:51-16:51/60<br>17:55 | 06:29 15:35-16:58/83<br>18:48 | 06:16<br>20:44 | 05:21 20:24-20:49/25<br>21:35 | 05:03 20:30-21:02/32<br>22:03 |
| 24 | 08:29 10:24-10:57/33<br>16:57 14:32-15:16/44 | 07:32 15:49-16:52/63<br>17:57 | 06:26 15:34-16:57/83<br>18:49 | 06:14<br>20:45 | 05:20 20:24-20:50/26<br>21:36 | 05:03 20:31-21:03/32<br>22:03 |
| 25 | 08:28 10:25-10:55/30<br>16:59 14:34-15:17/43 | 07:30 15:48-16:53/65<br>17:59 | 06:24 15:35-16:57/82<br>18:51 | 06:12<br>20:47 | 05:18 20:24-20:51/27<br>21:38 | 05:03 20:31-21:03/32<br>22:03 |
| 26 | 08:26 10:26-10:54/28<br>17:01 14:35-15:16/41 | 07:28 15:46-16:54/68<br>18:01 | 07:22 16:35-17:55/80<br>19:53 | 06:10<br>20:49 | 05:17 20:24-20:53/29<br>21:39 | 05:04 20:32-21:04/32<br>22:03 |
| 27 | 08:25 10:28-10:51/23<br>17:03 14:35-15:15/40 | 07:25 15:45-16:56/71<br>18:03 | 07:19 16:37-17:55/78<br>19:55 | 06:07<br>20:51 | 05:16 20:24-20:54/30<br>21:40 | 05:04 20:31-21:04/33<br>22:03 |
| 28 | 08:23 10:31-10:50/19<br>17:04 14:37-15:15/38 | 07:23 15:44-16:57/73<br>18:05 | 07:17 16:37-17:53/76<br>19:57 | 06:05<br>20:53 | 05:15 20:24-20:55/31<br>21:42 | 05:05 20:31-21:04/33<br>22:03 |
| 29 | 08:22 10:34-10:46/12<br>17:06 14:38-15:14/36 | | 07:14 16:38-17:52/74<br>19:58 | 06:03<br>20:54 | 05:14 20:24-20:56/32<br>21:43 | 05:05 20:32-21:04/32<br>22:02 |
| 30 | 08:20 14:40-15:13/33<br>17:08 | | 07:12 16:40-17:52/72<br>20:00 | 06:01<br>20:56 | 05:13 20:24-20:57/33<br>21:44 | 05:06 20:32-21:05/33<br>22:02 |
| 31 | 08:19 14:41-15:12/31<br>17:10 | | 07:10 16:40-17:50/70<br>20:02 | | 05:12 20:24-20:58/34<br>21:46 | |
| Potential sun hours | 252 | 274 | 366 | 418 | 491 | 507 |
| Sum of minutes with flicker | 2822 | 1333 | 2563 | 516 | 416 | 995 |

Table layout: For each day in each month the following matrix apply

| | | |
|---|---|---|
| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker |
| | Sun set (hh:mm) | First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker |

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Calculated:
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# SHADOW - Calendar per WTG

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegdWTG: 1 - GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (18)

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | September | October | November | December |
|---|---|---|---|---|---|---|
| 1 | 05:07 20:32-21:05/33<br>22:02 | 05:45 20:42-20:44/2<br>21:28 | 06:38 17:10-17:20/10<br>20:23 | 07:30 16:14-17:42/88<br>19:10 | 07:27 15:35-16:17/42<br>17:01 | 08:21 09:41-10:07/26 14:07-14:57/50<br>16:17 10:07-10:40/33 |
| 2 | 05:07 20:32-21:05/33<br>22:02 | 05:47<br>21:26 | 06:40 17:02-17:26/24<br>20:20 | 07:32 16:13-17:41/88<br>19:08 | 07:29 15:35-16:15/40<br>16:59 | 08:23 09:41-10:08/27 14:08-14:57/49<br>16:17 10:08-10:41/33 |
| 3 | 05:08 20:32-21:06/34<br>22:01 | 05:48<br>21:24 | 06:42 16:58-17:29/31<br>20:18 | 07:34 16:13-17:40/87<br>19:05 | 07:31 15:36-16:12/36<br>16:57 | 08:24 09:41-10:09/28 14:09-14:58/49<br>16:16 10:09-10:42/33 |
| 4 | 05:09 20:32-21:06/34<br>22:01 | 05:50<br>21:23 | 06:43 16:55-17:32/37<br>20:16 | 07:36 16:13-17:39/86<br>19:03 | 07:33 15:37-16:10/33<br>16:55 | 08:25 09:42-10:10/28 14:08-14:58/50<br>16:15 10:10-10:42/32 |
| 5 | 05:10 20:32-21:06/34<br>22:00 | 05:52<br>21:21 | 06:45 16:51-17:34/43<br>20:13 | 07:37 16:13-17:39/86<br>19:01 | 07:35 15:38-16:08/30<br>16:53 | 08:27 09:41-10:10/29 14:09-14:59/50<br>16:15 10:10-10:43/33 |
| 6 | 05:11 20:32-21:07/35<br>22:00 | 05:53<br>21:19 | 06:47 16:48-17:36/48<br>20:11 | 07:39 16:13-17:38/85<br>18:58 | 07:37 15:40-16:06/26<br>16:51 | 08:28 09:42-10:12/30 14:10-14:59/49<br>16:14 10:12-10:44/32 |
| 7 | 05:11 20:32-21:07/35<br>21:59 | 05:55<br>21:17 | 06:49 16:45-17:36/51<br>20:09 | 07:41 16:13-17:37/84<br>18:56 | 07:39 15:41-16:04/23<br>16:50 | 08:30 09:41-10:12/31 14:10-14:59/49<br>16:14 10:12-10:44/32 |
| 8 | 05:12 20:33-21:07/34<br>21:58 | 05:57<br>21:15 | 06:50 16:42-17:38/56<br>20:06 | 07:43 16:14-17:36/82<br>18:54 | 07:40 14:22-14:36/14<br>16:48 15:43-16:02/19 | 08:31 09:42-10:13/31 14:11-15:00/49<br>16:13 10:13-10:45/32 |
| 9 | 05:13 20:33-21:08/35<br>21:58 | 05:59<br>21:13 | 06:52 16:40-17:39/59<br>20:04 | 07:44 16:14-17:36/82<br>18:51 | 07:42 14:18-14:39/21<br>16:46 15:45-16:00/15 | 08:32 09:42-10:13/31 14:11-15:00/49<br>16:13 10:13-10:45/32 |
| 10 | 05:14 20:32-21:07/35<br>21:57 | 06:00<br>21:11 | 06:54 16:37-17:39/62<br>20:01 | 07:46 16:15-17:35/80<br>18:49 | 07:44 14:15-14:41/26<br>16:44 15:48-15:58/10 | 08:33 09:42-10:13/31 14:11-15:00/49<br>16:13 10:13-10:45/32 |
| 11 | 05:16 20:32-21:07/35<br>21:56 | 06:02<br>21:09 | 06:55 16:35-17:40/65<br>19:59 | 07:48 16:14-17:33/79<br>18:47 | 07:46 14:13-14:42/29<br>16:43 | 08:34 09:43-10:15/32 14:13-15:01/48<br>16:12 10:15-10:46/31 |
| 12 | 05:17 20:33-21:08/35<br>21:55 | 06:04<br>21:07 | 06:57 16:33-17:41/68<br>19:57 | 07:50 16:15-17:32/77<br>18:44 | 07:48 14:12-14:45/33<br>16:41 | 08:36 09:43-10:15/32 14:13-15:01/48<br>16:12 10:15-10:46/31 |
| 13 | 05:18 20:33-21:07/34<br>21:54 | 06:05<br>21:05 | 06:59 16:31-17:41/70<br>19:54 | 07:52 16:15-17:30/75<br>18:42 | 07:50 10:08-10:16/8<br>16:39 14:11-14:46/35 | 08:37 09:43-10:15/32 14:13-15:02/49<br>16:12 10:15-10:46/31 |
| 14 | 05:19 20:33-21:06/33<br>21:53 | 06:07<br>21:03 | 07:01 16:29-17:42/73<br>19:52 | 07:54 16:16-17:29/73<br>18:40 | 07:52 10:04-10:20/16<br>16:38 14:10-14:47/37 | 08:38 09:43-10:16/33 14:14-15:02/48<br>16:12 10:16-10:47/31 |
| 15 | 05:20 20:33-21:05/32<br>21:52 | 06:09<br>21:01 | 07:02 16:28-17:43/75<br>19:49 | 07:55 16:17-17:28/71<br>18:37 | 07:54 10:01-10:23/22<br>16:36 14:09-14:48/39 | 08:39 09:44-10:16/32 14:14-15:02/48<br>16:12 10:16-10:47/31 |
| 16 | 05:22 20:33-21:04/31<br>21:51 | 06:10<br>20:59 | 07:04 16:27-17:44/77<br>19:47 | 07:57 16:18-17:26/68<br>18:35 | 07:55 10:00-10:26/26<br>16:35 14:08-14:48/40 | 08:39 09:44-10:17/33 14:15-15:03/48<br>16:12 10:17-10:48/31 |
| 17 | 05:23 20:33-21:03/30<br>21:50 | 06:12<br>20:57 | 07:06 16:25-17:43/78<br>19:44 | 07:59 16:19-17:25/66<br>18:33 | 07:57 09:58-10:27/29<br>16:33 14:07-14:49/42 | 08:40 09:45-10:18/33 14:15-15:03/48<br>16:12 10:18-10:48/30 |
| 18 | 05:24 20:33-21:02/29<br>21:49 | 06:14<br>20:55 | 07:08 16:23-17:44/81<br>19:42 | 08:01 16:20-17:23/63<br>18:31 | 07:59 09:58-10:30/32<br>16:32 14:07-14:51/44 | 08:41 09:45-10:18/33 14:16-15:04/48<br>16:13 10:18-10:49/31 |
| 19 | 05:26 20:33-21:00/27<br>21:47 | 06:16<br>20:52 | 07:09 16:22-17:44/82<br>19:39 | 08:03 16:21-17:21/60<br>18:28 | 08:01 09:57-10:31/34<br>16:30 14:07-14:51/44 | 08:42 09:45-10:18/33 14:16-15:03/47<br>16:13 10:18-10:49/31 |
| 20 | 05:27 20:34-21:00/26<br>21:46 | 06:17<br>20:50 | 07:11 16:21-17:44/83<br>19:37 | 08:05 16:23-17:20/57<br>18:26 17:20-17:21/1 | 08:03 09:57-10:32/35<br>16:29 14:07-14:52/45 | 08:42 09:46-10:19/33 14:17-15:04/47<br>16:13 10:19-10:49/30 |
| 21 | 05:28 20:34-20:59/25<br>21:45 | 06:19<br>20:48 | 07:13 16:20-17:44/84<br>19:35 | 08:06 16:24-17:18/54<br>18:24 17:18-17:21/3 | 08:04 09:56-10:33/37<br>16:28 14:06-14:52/46 | 08:43 09:47-10:20/33 14:18-15:05/47<br>16:14 10:20-10:50/30 |
| 22 | 05:30 20:34-20:57/23<br>21:44 | 06:21<br>20:46 | 07:14 16:19-17:44/85<br>19:32 | 08:08 16:26-17:15/49<br>18:22 17:15-17:21/6 | 08:06 09:56-10:34/38<br>16:27 14:06-14:53/47 | 08:44 09:47-10:20/33 14:18-15:05/47<br>16:14 10:20-10:50/30 |
| 23 | 05:31 20:35-20:57/22<br>21:42 | 06:23<br>20:44 | 07:16 16:18-17:44/86<br>19:30 | 08:10 16:29-17:14/45<br>18:20 17:14-17:21/7 | 08:08 09:55-10:35/40<br>16:25 14:06-14:54/48 | 08:44 09:48-10:21/33 14:19-15:06/47<br>16:15 10:21-10:51/30 |
| 24 | 05:33 20:35-20:55/20<br>21:41 | 06:24<br>20:41 | 07:18 16:17-17:43/86<br>19:27 | 08:12 16:31-17:11/40<br>18:17 17:11-17:21/10 | 08:10 09:50-09:52/2 14:06-14:54/48<br>16:24 09:55-10:36/41 | 08:45 09:48-10:21/33 14:19-15:06/47<br>16:15 10:21-10:51/30 |
| 25 | 05:34 20:36-20:54/18<br>21:39 | 06:26<br>20:39 | 07:20 16:16-17:44/88<br>19:25 | 08:14 16:32-17:08/36<br>18:15 17:08-17:21/13 | 08:11 09:46-09:57/11 14:06-14:55/49<br>16:23 09:57-10:37/40 | 08:45 09:48-10:21/33 14:19-15:07/48<br>16:16 10:21-10:52/31 |
| 26 | 05:36 20:37-20:53/16<br>21:38 | 06:28<br>20:37 | 07:21 16:16-17:43/87<br>19:22 | 08:16 16:32-17:04/32<br>18:13 17:04-17:21/17 | 08:13 09:44-10:00/16 14:06-14:55/49<br>16:22 10:00-10:38/38 | 08:45 09:48-10:21/33 14:19-15:07/48<br>16:16 10:21-10:52/31 |
| 27 | 05:37 20:37-20:51/14<br>21:36 | 06:30<br>20:34 | 07:23 16:15-17:43/88<br>19:20 | 08:18 16:32-16:58/26<br>18:11 16:58-17:20/22 | 08:15 09:43-10:02/19 14:07-14:56/49<br>16:21 10:02-10:38/36 | 08:46 09:50-10:23/33 14:19-15:07/48<br>16:17 10:23-10:52/29 |
| 28 | 05:39 20:38-20:49/11<br>21:35 | 06:31<br>20:32 | 07:25 16:14-17:42/88<br>19:18 | 08:20 16:32-17:19/47<br>18:09 | 08:16 09:43-10:04/21 14:07-14:56/49<br>16:20 10:04-10:39/35 | 08:46 09:50-10:23/33 14:20-15:08/48<br>16:18 10:23-10:54/31 |
| 29 | 05:40 20:39-20:49/10<br>21:33 | 06:33<br>20:30 | 07:27 16:14-17:42/88<br>19:15 | 07:21 15:32-16:19/47<br>17:07 | 08:18 09:42-10:05/23 14:07-14:57/50<br>16:19 10:05-10:40/35 | 08:46 09:51-10:23/32 14:20-15:08/48<br>16:19 10:23-10:53/30 |
| 30 | 05:42 20:39-20:47/8<br>21:31 | 06:35<br>20:28 | 07:28 16:14-17:42/88<br>19:13 | 07:23 15:33-16:18/45<br>17:05 | 08:20 09:42-10:06/24 14:08-14:57/49<br>16:18 10:06-10:41/35 | 08:46 09:51-10:23/32 14:21-15:09/48<br>16:20 10:23-10:54/31 |
| 31 | 05:44 20:41-20:46/5<br>21:30 | 06:36<br>20:25 | <br> | 07:25 15:33-16:17/44<br>17:03 | <br> | 08:46 09:51-10:23/32 14:21-15:10/49<br>16:21 10:23-10:55/32 |
| Potential sun hours | 510 | 458 | 382 | 330 | 261 | 236 |
| Sum of minutes with flicker | 826 | 2 | 2041 | 2081 | 1900 | 3442 |

Table layout: For each day in each month the following matrix apply

| | | |
|---|---|---|
| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker |
| | Sun set (hh:mm) | First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker |

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# SHADOW - Calendar per WTG

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegdWTG: 2 - GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (19)

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June |
|---|---|---|---|---|---|---|
| 1 | 08:46 14:02-14:50/48 | 08:17 | 07:21 | 07:07 18:51-19:26/35 | 05:59 | 05:11 |
| | 16:22 14:50-15:16/26 | 17:12 | 18:07 | 20:04 | 20:58 | 21:47 |
| 2 | 08:46 14:02-14:50/48 | 08:15 | 07:19 | 07:05 18:50-19:27/37 | 05:57 | 05:10 |
| | 16:23 14:50-15:16/26 | 17:14 | 18:09 | 20:06 | 21:00 | 21:48 |
| 3 | 08:46 14:03-14:50/47 | 08:14 | 07:16 | 07:02 18:51-19:27/36 | 05:55 | 05:09 |
| | 16:24 14:50-15:17/27 | 17:16 | 18:10 | 20:08 | 21:02 | 21:49 |
| 4 | 08:45 14:03-14:50/47 | 08:12 | 07:14 | 07:00 18:51-19:26/35 | 05:53 | 05:08 |
| | 16:25 14:50-15:16/26 | 17:18 | 18:12 | 20:09 | 21:03 | 21:50 |
| 5 | 08:45 14:04-14:51/47 | 08:10 | 07:12 | 06:58 18:51-19:25/34 | 05:51 | 05:07 |
| | 16:27 14:51-15:17/26 | 17:20 | 18:14 | 20:11 | 21:05 | 21:51 |
| 6 | 08:45 14:05-14:51/46 | 08:08 | 07:09 | 06:55 18:51-19:24/33 | 05:49 | 05:07 |
| | 16:28 14:51-15:17/26 | 17:22 | 18:16 | 20:13 | 21:07 | 21:53 |
| 7 | 08:44 14:05-14:51/46 | 08:07 | 07:07 | 06:53 18:52-19:24/32 | 05:47 | 05:06 |
| | 16:29 14:51-15:17/26 | 17:24 | 18:18 | 20:15 | 21:09 | 21:53 |
| 8 | 08:44 14:06-14:52/46 | 08:05 | 07:05 | 06:50 18:53-19:22/29 | 05:45 | 05:05 |
| | 16:31 14:52-15:18/26 | 17:26 | 18:20 | 20:17 | 21:10 | 21:54 |
| 9 | 08:43 14:07-14:52/45 | 08:03 | 07:02 | 06:48 18:54-19:20/26 | 05:44 | 05:05 |
| | 16:32 14:52-15:18/26 | 17:28 | 18:22 | 20:18 | 21:12 | 21:55 |
| 10 | 08:43 14:07-14:52/45 | 08:01 | 07:00 | 06:46 18:56-19:19/23 | 05:42 | 05:04 |
| | 16:33 14:52-15:18/26 | 17:30 | 18:24 | 20:20 | 21:14 | 21:56 |
| 11 | 08:42 14:08-14:52/44 | 07:59 | 06:58 | 06:43 18:57-19:16/19 | 05:40 | 05:04 |
| | 16:35 14:52-15:18/26 | 17:32 | 18:26 | 20:22 | 21:15 | 21:57 |
| 12 | 08:41 14:09-14:53/44 | 07:57 | 06:55 | 06:41 18:59-19:14/15 | 05:38 | 05:03 |
| | 16:36 14:53-15:18/25 | 17:34 | 18:27 | 20:24 | 21:17 | 21:58 |
| 13 | 08:41 14:09-14:53/44 | 07:55 | 06:53 | 06:39 19:04-19:09/5 | 05:36 | 05:03 |
| | 16:38 14:53-15:18/25 | 17:36 | 18:29 | 20:26 | 21:19 | 21:58 |
| 14 | 08:40 14:10-14:52/42 | 07:53 | 06:51 | 06:36 | 05:35 | 05:03 |
| | 16:40 14:53-15:18/25 | 17:38 | 18:31 | 20:27 | 21:21 | 21:59 |
| 15 | 08:39 14:12-14:52/40 | 07:51 | 06:48 | 06:34 | 05:33 | 05:03 |
| | 16:41 14:54-15:17/23 | 17:40 | 18:33 | 20:29 | 21:22 | 22:00 |
| 16 | 08:38 14:12-14:51/39 | 07:49 | 06:46 | 06:32 | 05:31 | 05:02 |
| | 16:43 14:55-15:16/21 | 17:41 | 18:35 | 20:31 | 21:24 | 22:00 |
| 17 | 08:37 14:13-14:51/38 | 07:47 | 06:43 | 06:30 | 05:30 | 05:02 |
| | 16:45 14:57-15:16/19 | 17:43 | 18:37 | 20:33 | 21:25 | 22:01 |
| 18 | 08:36 14:14-14:51/37 | 07:45 | 06:41 | 06:27 | 05:28 | 05:02 |
| | 16:46 15:00-15:15/15 | 17:45 | 18:38 | 20:35 | 21:27 | 22:01 |
| 19 | 08:35 14:15-14:50/35 | 07:43 | 06:39 | 06:25 | 05:27 | 05:02 |
| | 16:48 15:02-15:13/11 | 17:47 | 18:40 | 20:36 | 21:29 | 22:02 |
| 20 | 08:34 14:17-14:50/33 | 07:41 | 06:36 | 06:23 | 05:25 | 05:02 |
| | 16:50 15:07-15:09/2 | 17:49 | 18:42 | 20:38 | 21:30 | 22:02 |
| 21 | 08:33 14:18-14:49/31 | 07:39 | 06:34 | 06:21 | 05:24 | 05:02 |
| | 16:51 | 17:51 | 18:44 | 20:40 | 21:32 | 22:02 |
| 22 | 08:31 14:20-14:49/29 | 07:36 | 06:31 18:04-18:08/4 | 06:18 | 05:22 | 05:03 |
| | 16:53 | 17:53 | 18:46 | 20:42 | 21:33 | 22:02 |
| 23 | 08:30 14:21-14:47/26 | 07:34 | 06:29 18:02-18:10/8 | 06:16 | 05:21 | 05:03 |
| | 16:55 | 17:55 | 18:48 | 20:44 | 21:35 | 22:03 |
| 24 | 08:29 14:23-14:45/22 | 07:32 | 06:26 17:59-18:12/13 | 06:14 | 05:20 | 05:03 |
| | 16:57 | 17:57 | 18:49 | 20:45 | 21:36 | 22:03 |
| 25 | 08:28 14:27-14:44/17 | 07:30 | 06:24 17:58-18:14/16 | 06:12 | 05:18 | 05:03 |
| | 16:59 | 17:59 | 18:51 | 20:47 | 21:38 | 22:03 |
| 26 | 08:26 14:31-14:41/10 | 07:28 | 07:22 18:56-19:15/19 | 06:10 | 05:17 | 05:04 |
| | 17:01 | 18:01 | 19:53 | 20:49 | 21:39 | 22:03 |
| 27 | 08:25 | 07:25 | 07:19 18:55-19:17/22 | 06:07 | 05:16 | 05:04 |
| | 17:03 | 18:03 | 19:55 | 20:51 | 21:40 | 22:03 |
| 28 | 08:23 | 07:23 | 07:17 18:53-19:19/26 | 06:05 | 05:15 | 05:05 |
| | 17:04 | 18:05 | 19:57 | 20:53 | 21:42 | 22:03 |
| 29 | 08:22 | | 07:14 18:53-19:21/28 | 06:03 | 05:14 | 05:05 |
| | 17:06 | | 19:58 | 20:54 | 21:43 | 22:02 |
| 30 | 08:20 | | 07:12 18:52-19:23/31 | 06:01 | 05:13 | 05:06 |
| | 17:08 | | 20:00 | 20:56 | 21:44 | 22:02 |
| 31 | 08:19 | | 07:10 18:51-19:24/33 | | 05:12 | |
| | 17:10 | | 20:02 | | 21:46 | |
| Potential sun hours | 252 | 274 | 366 | 418 | 491 | 507 |
| Sum of minutes with flicker | 1449 | 0 | 200 | 359 | 0 | 0 |

Table layout: For each day in each month the following matrix apply

| | | |
|---|---|---|
| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker |
| | Sun set (hh:mm) | First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker |

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NL-3521 AV Utrecht
+31 6 51 71 04 93
Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

# SHADOW - Calendar per WTG

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegdWTG: 2 - GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (19)

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | July | August | | September | | October | November | | December | |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 05:07 | 05:45 | | 06:38 | 18:57-19:15/18 | 07:30 | 07:27 | | 08:21 | 13:50-14:34/44 |
| | 22:02 | 21:28 | | 20:23 | | 19:10 | 17:01 | | 16:17 | 14:34-14:59/25 |
| 2 | 05:07 | 05:47 | | 06:40 | 18:54-19:16/22 | 07:32 | 07:29 | | 08:23 | 13:50-14:35/45 |
| | 22:02 | 21:26 | | 20:20 | | 19:08 | 16:59 | | 16:17 | 14:35-15:00/25 |
| 3 | 05:08 | 05:49 | | 06:42 | 18:53-19:18/25 | 07:34 | 07:31 | | 08:24 | 13:51-14:36/45 |
| | 22:01 | 21:24 | | 20:18 | | 19:05 | 16:57 | | 16:16 | 14:36-15:01/25 |
| 4 | 05:09 | 05:50 | | 06:43 | 18:51-19:19/28 | 07:36 | 07:33 | | 08:25 | 13:50-14:36/46 |
| | 22:01 | 21:23 | | 20:16 | | 19:03 | 16:55 | | 16:15 | 14:36-15:01/25 |
| 5 | 05:10 | 05:52 | | 06:45 | 18:49-19:19/30 | 07:37 | 07:35 | | 08:27 | 13:51-14:37/46 |
| | 22:00 | 21:21 | | 20:13 | | 19:01 | 16:53 | | 16:15 | 14:37-15:02/25 |
| 6 | 05:11 | 05:53 | | 06:47 | 18:48-19:20/32 | 07:39 | 07:37 | | 08:28 | 13:51-14:38/47 |
| | 22:00 | 21:19 | | 20:11 | | 18:58 | 16:51 | | 16:14 | 14:38-15:03/25 |
| 7 | 05:11 | 05:55 | | 06:49 | 18:46-19:20/34 | 07:41 | 07:39 | | 08:30 | 13:51-14:38/47 |
| | 21:59 | 21:17 | | 20:09 | | 18:56 | 16:50 | | 16:14 | 14:38-15:04/26 |
| 8 | 05:12 | 05:57 | | 06:50 | 18:45-19:20/35 | 07:43 | 07:40 | | 08:31 | 13:52-14:39/47 |
| | 21:58 | 21:15 | | 20:06 | | 18:54 | 16:48 | | 16:13 | 14:39-15:05/26 |
| 9 | 05:13 | 05:59 | | 06:52 | 18:45-19:21/36 | 07:44 | 07:42 | | 08:32 | 13:52-14:39/47 |
| | 21:58 | 21:13 | | 20:04 | | 18:51 | 16:46 | | 16:13 | 14:39-15:05/26 |
| 10 | 05:15 | 06:00 | | 06:54 | 18:44-19:20/36 | 07:46 | 07:44 | | 08:33 | 13:52-14:39/47 |
| | 21:57 | 21:11 | | 20:01 | | 18:49 | 16:44 | | 16:13 | 14:39-15:05/26 |
| 11 | 05:16 | 06:02 | | 06:55 | 18:44-19:20/36 | 07:48 | 07:46 | | 08:34 | 13:53-14:40/47 |
| | 21:56 | 21:09 | | 19:59 | | 18:47 | 16:43 | | 16:12 | 14:40-15:06/26 |
| 12 | 05:17 | 06:04 | | 06:57 | 18:43-19:17/34 | 07:50 | 07:48 | | 08:35 | 13:53-14:41/48 |
| | 21:55 | 21:07 | | 19:56 | | 18:44 | 16:41 | | 16:12 | 14:41-15:07/26 |
| 13 | 05:18 | 06:05 | | 06:59 | 18:43-19:14/31 | 07:52 | 07:50 | | 08:37 | 13:53-14:41/48 |
| | 21:54 | 21:05 | | 19:54 | | 18:42 | 16:39 | | 16:12 | 14:41-15:07/26 |
| 14 | 05:19 | 06:07 | | 07:01 | 18:43-19:12/29 | 07:54 | 07:52 | | 08:38 | 13:53-14:41/48 |
| | 21:53 | 21:03 | | 19:52 | | 18:40 | 16:38 | | 16:12 | 14:41-15:08/27 |
| 15 | 05:20 | 06:09 | | 07:02 | 18:43-19:10/27 | 07:55 | 07:54 | | 08:38 | 13:54-14:42/48 |
| | 21:52 | 21:01 | | 19:49 | | 18:37 | 16:36 | | 16:12 | 14:42-15:08/26 |
| 16 | 05:22 | 06:10 | | 07:04 | 18:43-19:07/24 | 07:57 | 07:55 | 14:07-14:10/3 | 08:39 | 13:54-14:42/48 |
| | 21:51 | 20:59 | | 19:47 | | 18:35 | 16:35 | | 16:12 | 14:42-15:09/27 |
| 17 | 05:23 | 06:12 | | 07:06 | 18:43-19:05/22 | 07:59 | 07:57 | 14:02-14:16/14 | 08:40 | 13:55-14:43/48 |
| | 21:50 | 20:57 | | 19:44 | | 18:33 | 16:33 | | 16:12 | 14:43-15:09/26 |
| 18 | 05:24 | 06:14 | | 07:08 | 18:44-19:03/19 | 08:01 | 07:59 | 13:59-14:19/20 | 08:41 | 13:56-14:44/48 |
| | 21:49 | 20:54 | | 19:42 | | 18:31 | 16:32 | | 16:13 | 14:44-15:10/26 |
| 19 | 05:26 | 06:16 | | 07:09 | 18:45-19:01/16 | 08:03 | 08:01 | 13:57-14:21/24 | 08:42 | 13:55-14:44/49 |
| | 21:47 | 20:52 | | 19:39 | | 18:28 | 16:30 | | 16:13 | 14:44-15:10/26 |
| 20 | 05:27 | 06:17 | | 07:11 | 18:46-18:57/11 | 08:05 | 08:03 | 13:55-14:23/28 | 08:42 | 13:56-14:44/48 |
| | 21:46 | 20:50 | | 19:37 | | 18:26 | 16:29 | | 16:13 | 14:44-15:11/27 |
| 21 | 05:28 | 06:19 | | 07:13 | 18:48-18:55/7 | 08:06 | 08:04 | 13:54-14:24/30 | 08:43 | 13:57-14:45/48 |
| | 21:45 | 20:48 | | 19:35 | | 18:24 | 16:28 | | 16:14 | 14:45-15:11/26 |
| 22 | 05:30 | 06:21 | | 07:14 | 18:50-18:53/3 | 08:08 | 08:06 | 13:53-14:26/33 | 08:44 | 13:57-14:45/48 |
| | 21:44 | 20:46 | | 19:32 | | 18:22 | 16:27 | | 16:14 | 14:45-15:11/26 |
| 23 | 05:31 | 06:23 | | 07:16 | | 08:10 | 08:08 | 13:52-14:27/35 | 08:44 | 13:58-14:46/48 |
| | 21:42 | 20:44 | | 19:30 | | 18:20 | 16:25 | 14:40-14:48/8 | 16:15 | 14:46-15:12/26 |
| 24 | 05:33 | 06:24 | | 07:18 | | 08:12 | 08:10 | 13:52-14:28/36 | 08:45 | 13:58-14:46/48 |
| | 21:41 | 20:41 | | 19:27 | | 18:17 | 16:24 | 14:38-14:51/13 | 16:15 | 14:46-15:13/27 |
| 25 | 05:34 | 06:26 | | 07:20 | | 08:14 | 08:11 | 13:51-14:29/38 | 08:45 | 13:58-14:47/49 |
| | 21:39 | 20:39 | | 19:25 | | 18:15 | 16:23 | 14:36-14:53/17 | 16:16 | 14:47-15:13/26 |
| 26 | 05:36 | 06:28 | | 07:21 | | 08:16 | 08:13 | 13:51-14:30/39 | 08:45 | 13:59-14:47/48 |
| | 21:38 | 20:37 | | 19:22 | | 18:13 | 16:22 | 14:35-14:54/19 | 16:16 | 14:47-15:13/26 |
| 27 | 05:37 | 06:30 | | 07:23 | | 08:18 | 08:15 | 13:51-14:31/40 | 08:46 | 13:59-14:47/48 |
| | 21:36 | 20:34 | | 19:20 | | 18:11 | 16:21 | 14:34-14:56/22 | 16:17 | 14:47-15:13/26 |
| 28 | 05:39 | 06:31 | | 07:25 | | 08:20 | 08:16 | 13:51-14:31/40 | 08:46 | 13:59-14:48/49 |
| | 21:35 | 20:32 | | 19:18 | | 18:09 | 16:20 | 14:33-14:57/24 | 16:18 | 14:48-15:14/26 |
| 29 | 05:40 | 06:33 | | 07:27 | | 07:21 | 08:18 | 13:51-14:32/41 | 08:46 | 14:00-14:48/48 |
| | 21:33 | 20:30 | | 19:15 | | 17:07 | 16:19 | 14:33-14:58/25 | 16:19 | 14:48-15:14/26 |
| 30 | 05:42 | 06:35 | | 07:28 | | 07:23 | 08:19 | 13:50-14:33/43 | 08:46 | 14:01-14:49/48 |
| | 21:31 | 20:27 | | 19:13 | | 17:05 | 16:18 | 14:33-14:58/25 | 16:20 | 14:49-15:15/26 |
| 31 | 05:44 | 06:36 | 19:00-19:12/12 | | | 07:25 | | | 08:46 | 14:01-14:49/48 |
| | 21:30 | 20:25 | | | | 17:03 | | | 16:21 | 14:49-15:15/26 |
| Potential sun hours | 510 | 458 | | 382 | | 330 | 261 | | 236 | |
| Sum of minutes with flicker | 0 | 12 | | 555 | | 0 | 617 | | 2275 | |

Table layout: For each day in each month the following matrix apply

| | | |
|---|---|---|
| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker |
| | Sun set (hh:mm) | First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker |

Licensed user:
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Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

# SHADOW - Calendar per WTG

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegdWTG: 3 - GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (20)

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 08:46 15:25-15:27/2<br>16:22 | 08:17<br>17:12 | 07:21<br>18:07 | 07:07<br>20:04 | 05:59<br>20:58 | 05:11<br>21:47 | 05:07<br>22:02 | 05:45<br>21:28 | 06:38<br>20:23 | 07:30<br>19:10 | 07:27<br>17:01 | 08:21 15:11-15:25/14<br>16:17 |
| 2 | 08:46 15:25-15:28/3<br>16:23 | 08:15<br>17:14 | 07:19<br>18:09 | 07:05<br>20:06 | 05:57<br>21:00 | 05:10<br>21:48 | 05:07<br>22:01 | 05:47<br>21:26 | 06:40<br>20:20 | 07:32<br>19:08 | 07:29<br>16:59 | 08:22 15:11-15:24/13<br>16:17 |
| 3 | 08:46 15:26-15:30/4<br>16:24 | 08:14<br>17:16 | 07:16<br>18:11 | 07:02<br>20:08 | 05:55<br>21:02 | 05:09<br>21:49 | 05:08<br>22:01 | 05:49<br>21:24 | 06:42<br>20:18 | 07:34<br>19:06 | 07:31<br>16:57 | 08:24 15:12-15:23/11<br>16:16 |
| 4 | 08:45 15:26-15:31/5<br>16:26 | 08:12<br>17:18 | 07:14<br>18:12 | 07:00<br>20:09 | 05:53<br>21:03 | 05:08<br>21:50 | 05:09<br>22:01 | 05:50<br>21:23 | 06:43<br>20:16 | 07:36<br>19:03 | 07:33<br>16:55 | 08:25 15:12-15:22/10<br>16:15 |
| 5 | 08:45 15:27-15:33/6<br>16:27 | 08:10<br>17:20 | 07:12<br>18:14 | 06:58<br>20:11 | 05:51<br>21:05 | 05:07<br>21:51 | 05:10<br>22:00 | 05:52<br>21:21 | 06:45<br>20:13 | 07:37<br>19:01 | 07:35<br>16:53 | 08:27 15:12-15:21/9<br>16:15 |
| 6 | 08:45 15:27-15:34/7<br>16:28 | 08:08<br>17:22 | 07:09<br>18:16 | 06:55<br>20:13 | 05:49<br>21:07 | 05:07<br>21:52 | 05:11<br>22:00 | 05:54<br>21:19 | 06:47<br>20:11 | 07:39<br>18:58 | 07:37<br>16:51 | 08:28 15:13-15:21/8<br>16:14 |
| 7 | 08:44 15:27-15:35/8<br>16:29 | 08:07<br>17:24 | 07:07<br>18:18 | 06:53<br>20:15 | 05:47<br>21:09 | 05:06<br>21:53 | 05:12<br>21:59 | 05:55<br>21:17 | 06:49<br>20:09 | 07:41<br>18:56 | 07:39<br>16:50 | 08:29 15:13-15:20/7<br>16:14 |
| 8 | 08:44 15:28-15:37/9<br>16:31 | 08:05<br>17:26 | 07:05<br>18:20 | 06:50<br>20:17 | 05:45<br>21:10 | 05:05<br>21:54 | 05:13<br>21:58 | 05:57<br>21:15 | 06:50<br>20:06 | 07:43<br>18:54 | 07:40<br>16:48 | 08:31 15:13-15:19/6<br>16:13 |
| 9 | 08:43 15:28-15:39/11<br>16:32 | 08:03<br>17:28 | 07:02<br>18:22 | 06:48<br>20:18 | 05:44<br>21:12 | 05:05<br>21:55 | 05:14<br>21:57 | 05:59<br>21:13 | 06:52<br>20:04 | 07:44<br>18:51 | 07:42<br>16:46 | 08:32 15:14-15:19/5<br>16:13 |
| 10 | 08:43 15:29-15:41/12<br>16:34 | 08:01<br>17:30 | 07:00<br>18:24 | 06:46<br>20:20 | 05:42<br>21:14 | 05:04<br>21:56 | 05:15<br>21:57 | 06:00<br>21:11 | 06:54<br>20:01 | 07:46<br>18:49 | 07:44<br>16:44 | 08:33 15:15-15:18/3<br>16:13 |
| 11 | 08:42 15:29-15:42/13<br>16:35 | 07:59<br>17:32 | 06:58<br>18:26 | 06:43<br>20:22 | 05:40<br>21:15 | 05:04<br>21:57 | 05:16<br>21:56 | 06:02<br>21:09 | 06:55<br>19:59 | 07:48<br>18:47 | 07:46<br>16:43 | 08:34 15:15-15:17/2<br>16:13 |
| 12 | 08:41 15:30-15:44/14<br>16:37 | 07:57<br>17:34 | 06:55<br>18:27 | 06:41<br>20:24 | 05:38<br>21:17 | 05:03<br>21:58 | 05:17<br>21:55 | 06:04<br>21:07 | 06:57<br>19:56 | 07:50<br>18:44 | 07:48<br>16:41 | 08:35 15:16-15:18/2<br>16:12 |
| 13 | 08:41 15:30-15:46/16<br>16:38 | 07:55<br>17:36 | 06:53<br>18:29 | 06:39<br>20:26 | 05:37<br>21:19 | 05:03<br>21:58 | 05:18<br>21:54 | 06:05<br>21:05 | 06:59<br>19:54 | 07:52<br>18:42 | 07:50<br>16:39 | 08:36<br>16:12 |
| 14 | 08:40 15:31-15:48/17<br>16:40 | 07:53<br>17:38 | 06:51<br>18:31 | 06:36<br>20:27 | 05:35<br>21:20 | 05:03<br>21:59 | 05:19<br>21:53 | 06:07<br>21:03 | 07:01<br>19:52 | 07:53<br>18:40 | 07:52<br>16:38 | 08:37<br>16:12 |
| 15 | 08:39 15:31-15:49/18<br>16:41 | 07:51<br>17:40 | 06:48<br>18:33 | 06:34<br>20:29 | 05:33<br>21:22 | 05:03<br>22:00 | 05:20<br>21:52 | 06:09<br>21:01 | 07:02<br>19:49 | 07:55<br>18:37 | 07:54<br>16:36 | 08:38<br>16:12 |
| 16 | 08:38 15:32-15:51/19<br>16:43 | 07:49<br>17:42 | 06:46<br>18:35 | 06:32<br>20:31 | 05:31<br>21:24 | 05:02<br>22:00 | 05:22<br>21:51 | 06:11<br>20:59 | 07:04<br>19:47 | 07:57<br>18:35 | 07:55<br>16:35 | 08:39<br>16:12 |
| 17 | 08:37 15:33-15:54/21<br>16:45 | 07:47<br>17:43 | 06:43<br>18:37 | 06:30<br>20:33 | 05:30<br>21:25 | 05:02<br>22:01 | 05:23<br>21:50 | 06:12<br>20:57 | 07:06<br>19:44 | 07:59<br>18:33 | 07:57<br>16:33 | 08:40<br>16:12 |
| 18 | 08:36 15:34-15:54/20<br>16:46 | 07:45<br>17:45 | 06:41<br>18:38 | 06:27<br>20:35 | 05:28<br>21:27 | 05:02<br>22:01 | 05:24<br>21:49 | 06:14<br>20:54 | 07:08<br>19:42 | 08:01<br>18:31 | 07:59<br>16:32 | 08:41<br>16:13 |
| 19 | 08:35 15:35-15:53/18<br>16:48 | 07:43<br>17:47 | 06:39<br>18:40 | 06:25<br>20:36 | 05:27<br>21:29 | 05:02<br>22:02 | 05:26<br>21:47 | 06:16<br>20:52 | 07:09<br>19:39 | 08:03<br>18:28 | 08:01 15:19-15:22/3<br>16:30 | 08:42<br>16:13 |
| 20 | 08:34 15:36-15:53/17<br>16:50 | 07:41<br>17:49 | 06:36<br>18:42 | 06:23<br>20:38 | 05:25<br>21:30 | 05:02<br>22:02 | 05:27<br>21:46 | 06:17<br>20:50 | 07:11<br>19:37 | 08:05<br>18:26 | 08:03 15:16-15:26/10<br>16:29 | 08:42<br>16:13 |
| 21 | 08:33 15:37-15:52/15<br>16:52 | 07:39<br>17:51 | 06:34<br>18:44 | 06:21<br>20:40 | 05:24<br>21:32 | 05:02<br>22:02 | 05:28<br>21:45 | 06:19<br>20:48 | 07:13<br>19:35 | 08:06<br>18:24 | 08:04 15:14-15:27/13<br>16:28 | 08:43<br>16:14 |
| 22 | 08:31 15:40-15:52/12<br>16:53 | 07:36<br>17:53 | 06:31<br>18:46 | 06:18<br>20:42 | 05:22<br>21:33 | 05:03<br>22:02 | 05:30<br>21:44 | 06:21<br>20:46 | 07:14<br>19:32 | 08:08<br>18:22 | 08:06 15:13-15:29/16<br>16:27 | 08:44<br>16:14 |
| 23 | 08:30 15:42-15:49/7<br>16:55 | 07:34<br>17:55 | 06:29<br>18:48 | 06:16<br>20:44 | 05:21<br>21:35 | 05:03<br>22:03 | 05:31<br>21:42 | 06:23<br>20:43 | 07:16<br>19:30 | 08:10<br>18:20 | 08:08 15:12-15:30/18<br>16:25 | 08:44<br>16:15 |
| 24 | 08:29<br>16:57 | 07:32<br>17:57 | 06:26<br>18:49 | 06:14<br>20:45 | 05:20<br>21:36 | 05:03<br>22:03 | 05:33<br>21:41 | 06:24<br>20:41 | 07:18<br>19:27 | 08:12<br>18:17 | 08:10 15:11-15:31/20<br>16:24 | 08:45<br>16:15 |
| 25 | 08:28<br>16:59 | 07:30<br>17:59 | 06:24<br>18:51 | 06:12<br>20:47 | 05:18<br>21:38 | 05:04<br>22:03 | 05:34<br>21:39 | 06:26<br>20:39 | 07:20<br>19:25 | 08:14<br>18:15 | 08:11 15:11-15:32/21<br>16:23 | 08:45<br>16:16 |
| 26 | 08:26<br>17:01 | 07:28<br>18:01 | 07:22<br>19:53 | 06:10<br>20:49 | 05:17<br>21:39 | 05:04<br>22:03 | 05:36<br>21:38 | 06:28<br>20:37 | 07:21<br>19:22 | 08:16<br>18:13 | 08:13 15:11-15:31/20<br>16:22 | 08:45<br>16:16 |
| 27 | 08:25<br>17:03 | 07:25<br>18:03 | 07:19<br>19:55 | 06:08<br>20:51 | 05:16<br>21:40 | 05:04<br>22:03 | 05:37<br>21:36 | 06:30<br>20:34 | 07:23<br>19:20 | 08:18<br>18:11 | 08:15 15:11-15:30/19<br>16:21 | 08:46<br>16:17 |
| 28 | 08:23<br>17:04 | 07:23<br>18:05 | 07:17<br>19:57 | 06:05<br>20:53 | 05:15<br>21:42 | 05:05<br>22:03 | 05:39<br>21:35 | 06:31<br>20:32 | 07:25<br>19:18 | 08:20<br>18:09 | 08:16 15:11-15:29/18<br>16:20 | 08:46<br>16:18 |
| 29 | 08:22<br>17:06 | | 07:14<br>19:58 | 06:03<br>20:54 | 05:14<br>21:43 | 05:05<br>22:02 | 05:40<br>21:33 | 06:33<br>20:30 | 07:27<br>19:15 | 08:21<br>17:07 | 08:18 15:11-15:28/17<br>16:19 | 08:46<br>16:19 |
| 30 | 08:20<br>17:08 | | 07:12<br>20:00 | 06:01<br>20:56 | 05:13<br>21:44 | 05:06<br>22:02 | 05:42<br>21:31 | 06:35<br>20:27 | 07:28<br>19:13 | 07:23<br>17:05 | 08:19 15:10-15:26/16<br>16:18 | 08:46<br>16:20 |
| 31 | 08:19<br>17:10 | | 07:10<br>20:02 | | 05:12<br>21:46 | | 05:44<br>21:30 | 06:36<br>20:25 | | 07:25<br>17:03 | | 08:46 15:25-15:26/1<br>16:21 |
| Potential sun hours | 252 | 274 | 366 | 418 | 491 | 507 | 510 | 458 | 382 | 330 | 261 | 236 |
| Sum of minutes with flicker | 274 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 191 | 91 |

Table layout: For each day in each month the following matrix apply

| | | |
|---|---|---|
| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker |
| | Sun set (hh:mm) | First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker |

Licensed user:
Bosch & Van Rijn
Groenmarktstraat 56
NL-3521 AV Utrecht
+31 6 51 71 04 93
Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

# SHADOW - Calendar per WTG

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegdWTG: 4 - GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (21)

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 08:46 | 08:17 | 07:21 | 07:07 | 05:59 | 05:11 | 05:07 | 05:45 | 06:38 | 07:30 | 07:27 | 08:21 |
| | 16:22 | 17:12 | 18:07 | 20:04 | 20:58 | 21:47 | 22:02 | 21:28 | 20:23 | 19:10 | 17:01 | 16:18 |
| 2 | 08:46 | 08:15 | 07:19 | 07:05 | 05:57 | 05:10 | 05:07 | 05:47 | 06:40 | 07:32 | 07:29 | 08:22 |
| | 16:23 | 17:14 | 18:09 | 20:06 | 21:00 | 21:48 | 22:01 | 21:26 | 20:20 | 19:08 | 16:59 | 16:17 |
| 3 | 08:46 | 08:14 | 07:16 | 07:02 | 05:55 | 05:09 | 05:08 | 05:49 | 06:42 | 07:34 | 07:31 | 08:24 |
| | 16:24 | 17:16 | 18:11 | 20:08 | 21:02 | 21:49 | 22:01 | 21:24 | 20:18 | 19:06 | 16:57 | 16:16 |
| 4 | 08:45 | 08:12 | 07:14 | 07:00 | 05:53 | 05:08 | 05:09 | 05:50 | 06:43 | 07:36 | 07:33 | 08:25 |
| | 16:26 | 17:18 | 18:12 | 20:09 | 21:03 | 21:50 | 22:01 | 21:23 | 20:16 | 19:03 | 16:55 | 16:15 |
| 5 | 08:45 | 08:10 | 07:12 | 06:58 | 05:51 | 05:07 | 05:10 | 05:52 | 06:45 | 07:37 | 07:35 | 08:27 |
| | 16:27 | 17:20 | 18:14 | 20:11 | 21:05 | 21:51 | 22:00 | 21:21 | 20:13 | 19:01 | 16:53 | 16:15 |
| 6 | 08:45 | 08:08 | 07:09 | 06:55 | 05:49 | 05:07 | 05:11 | 05:54 | 06:47 | 07:39 | 07:37 | 08:28 |
| | 16:28 | 17:22 | 18:16 | 20:13 | 21:07 | 21:52 | 22:00 | 21:19 | 20:11 | 18:58 | 16:51 | 16:14 |
| 7 | 08:44 | 08:07 | 07:07 | 06:53 | 05:47 | 05:06 | 05:12 | 05:55 | 06:49 | 07:41 | 07:38 | 08:29 |
| | 16:29 | 17:24 | 18:18 | 20:15 | 21:09 | 21:53 | 21:59 | 21:17 | 20:09 | 18:56 | 16:50 | 16:14 |
| 8 | 08:44 | 08:05 | 07:05 | 06:50 | 05:45 | 05:05 | 05:13 | 05:57 | 06:50 | 07:43 | 07:40 | 08:31 |
| | 16:31 | 17:26 | 18:20 | 20:17 | 21:10 | 21:54 | 21:58 | 21:15 | 20:06 | 18:54 | 16:48 | 16:13 |
| 9 | 08:43 | 08:03 | 07:02 | 06:48 | 05:44 | 05:05 | 05:14 | 05:59 | 06:52 | 07:44 | 07:42 | 08:32 |
| | 16:32 | 17:28 | 18:22 | 20:18 | 21:12 | 21:55 | 21:57 | 21:13 | 20:04 | 18:51 | 16:46 | 16:13 |
| 10 | 08:43 | 08:01 | 07:00 | 06:46 | 05:42 | 05:04 | 05:15 | 06:00 | 06:54 | 07:46 | 07:44 | 08:33 |
| | 16:34 | 17:30 | 18:24 | 20:20 | 21:14 | 21:56 | 21:57 | 21:11 | 20:01 | 18:49 | 16:44 | 16:13 |
| 11 | 08:42 | 07:59 | 06:58 | 06:43 | 05:40 | 05:04 | 05:16 | 06:02 | 06:55 | 07:48 | 07:46 | 08:34 |
| | 16:35 | 17:32 | 18:26 | 20:22 | 21:15 | 21:57 | 21:56 | 21:09 | 19:59 | 18:47 | 16:43 | 16:13 |
| 12 | 08:41 | 07:57 | 06:55 | 06:41 | 05:38 | 05:03 | 05:17 | 06:04 | 06:57 | 07:50 | 07:48 | 08:35 |
| | 16:37 | 17:34 | 18:27 | 20:24 | 21:17 | 21:58 | 21:55 | 21:07 | 19:56 | 18:44 | 16:41 | 16:12 |
| 13 | 08:41 | 07:55 | 06:53 | 06:39 | 05:37 | 05:03 | 05:18 | 06:05 | 06:59 | 07:52 | 07:50 | 08:36 |
| | 16:38 | 17:36 | 18:29 | 20:26 | 21:19 | 21:58 | 21:54 | 21:05 | 19:54 | 18:42 | 16:39 | 16:12 |
| 14 | 08:40 | 07:53 | 06:51 | 06:36 | 05:35 | 05:03 | 05:19 | 06:07 | 07:01 | 07:53 | 07:52 | 08:37 |
| | 16:40 | 17:38 | 18:31 | 20:27 | 21:20 | 21:59 | 21:53 | 21:03 | 19:52 | 18:40 | 16:38 | 16:12 |
| 15 | 08:39 | 07:51 | 06:48 | 06:34 | 05:33 | 05:03 | 05:20 | 06:09 | 07:02 | 07:55 | 07:54 | 08:38 |
| | 16:41 | 17:40 | 18:33 | 20:29 | 21:22 | 22:00 | 21:52 | 21:01 | 19:49 | 18:37 | 16:36 | 16:12 |
| 16 | 08:38 | 07:49 | 06:46 | 06:32 | 05:32 | 05:02 | 05:22 | 06:11 | 07:04 | 07:57 | 07:55 | 08:39 |
| | 16:43 | 17:42 | 18:35 | 20:31 | 21:24 | 22:00 | 21:51 | 20:59 | 19:47 | 18:35 | 16:35 | 16:12 |
| 17 | 08:37 | 07:47 | 06:43 | 06:30 | 05:30 | 05:02 | 05:23 | 06:12 | 07:06 | 07:59 | 07:57 | 08:40 |
| | 16:45 | 17:43 | 18:37 | 20:33 | 21:25 | 22:01 | 21:50 | 20:57 | 19:44 | 18:33 | 16:33 | 16:12 |
| 18 | 08:36 | 07:45 | 06:41 | 06:27 | 05:28 | 05:02 | 05:24 | 06:14 | 07:08 | 08:01 | 07:59 | 08:41 |
| | 16:46 | 17:45 | 18:38 | 20:35 | 21:27 | 22:01 | 21:49 | 20:54 | 19:42 | 18:31 | 16:32 | 16:13 |
| 19 | 08:35 | 07:43 | 06:39 | 06:25 | 05:27 | 05:02 | 05:26 | 06:16 | 07:09 | 08:03 | 08:01 | 08:42 |
| | 16:48 | 17:47 | 18:40 | 20:36 | 21:29 | 22:01 | 21:47 | 20:52 | 19:39 | 18:28 | 16:31 | 16:13 |
| 20 | 08:34 | 07:41 | 06:36 | 06:23 | 05:25 | 05:02 | 05:27 | 06:17 | 07:11 | 08:05 | 08:03 | 08:42 |
| | 16:50 | 17:49 | 18:42 | 20:38 | 21:30 | 22:02 | 21:46 | 20:50 | 19:37 | 18:26 | 16:29 | 16:13 |
| 21 | 08:33 | 07:39 | 06:34 | 06:21 | 05:24 | 05:03 | 05:28 | 06:19 | 07:13 | 08:06 | 08:04 | 08:43 |
| | 16:52 | 17:51 | 18:44 | 20:40 | 21:32 | 22:02 | 21:45 | 20:48 | 19:35 | 18:24 | 16:28 | 16:14 |
| 22 | 08:31 | 07:36 | 06:31 | 06:18 | 05:22 | 05:03 | 05:30 | 06:21 | 07:14 | 08:08 | 08:06 | 08:44 |
| | 16:53 | 17:53 | 18:46 | 20:42 | 21:33 | 22:02 | 21:43 | 20:46 | 19:32 | 18:22 | 16:27 | 16:14 |
| 23 | 08:30 | 07:34 | 06:29 | 06:16 | 05:21 | 05:03 | 05:31 | 06:23 | 07:16 | 08:10 | 08:08 | 08:44 |
| | 16:55 | 17:55 | 18:48 | 20:44 | 21:35 | 22:03 | 21:42 | 20:43 | 19:30 | 18:20 | 16:25 | 16:15 |
| 24 | 08:29 | 07:32 | 06:26 | 06:14 | 05:20 | 05:03 | 05:33 | 06:24 | 07:18 | 08:12 | 08:10 | 08:45 |
| | 16:57 | 17:57 | 18:49 | 20:45 | 21:36 | 22:03 | 21:41 | 20:41 | 19:27 | 18:17 | 16:24 | 16:15 |
| 25 | 08:28 | 07:30 | 06:24 | 06:12 | 05:18 | 05:04 | 05:34 | 06:26 | 07:20 | 08:14 | 08:11 | 08:45 |
| | 16:59 | 17:59 | 18:51 | 20:47 | 21:38 | 22:03 | 21:39 | 20:39 | 19:25 | 18:15 | 16:23 | 16:16 |
| 26 | 08:26 | 07:28 | 07:22 | 06:10 | 05:17 | 05:04 | 05:36 | 06:28 | 07:21 | 08:16 | 08:13 | 08:45 |
| | 17:01 | 18:01 | 19:53 | 20:49 | 21:39 | 22:03 | 21:38 | 20:37 | 19:22 | 18:13 | 16:22 | 16:17 |
| 27 | 08:25 | 07:25 | 07:19 | 06:08 | 05:16 | 05:04 | 05:37 | 06:30 | 07:23 | 08:18 | 08:15 | 08:45 |
| | 17:03 | 18:03 | 19:55 | 20:51 | 21:40 | 22:03 | 21:36 | 20:34 | 19:20 | 18:11 | 16:21 | 16:17 |
| 28 | 08:23 | 07:23 | 07:17 | 06:05 | 05:15 | 05:05 | 05:39 | 06:31 | 07:25 | 08:20 | 08:16 | 08:46 |
| | 17:04 | 18:05 | 19:57 | 20:53 | 21:42 | 22:02 | 21:35 | 20:32 | 19:18 | 18:09 | 16:20 | 16:18 |
| 29 | 08:22 | | 07:14 | 06:03 | 05:14 | 05:05 | 05:41 | 06:33 | 07:27 | 07:21 | 08:18 | 08:46 |
| | 17:06 | | 19:58 | 20:54 | 21:43 | 22:02 | 21:33 | 20:30 | 19:15 | 17:07 | 16:19 | 16:19 |
| 30 | 08:20 | | 07:12 | 06:01 | 05:13 | 05:06 | 05:42 | 06:35 | 07:28 | 07:23 | 08:19 | 08:46 |
| | 17:08 | | 20:00 | 20:56 | 21:44 | 22:02 | 21:31 | 20:27 | 19:13 | 17:05 | 16:18 | 16:20 |
| 31 | 08:19 | | 07:10 | | 05:12 | | 05:44 | 06:36 | | 07:25 | | 08:46 |
| | 17:10 | | 20:02 | | 21:46 | | 21:30 | 20:25 | | 17:03 | | 16:21 |
| Potential sun hours | 252 | 274 | 366 | 418 | 491 | 507 | 510 | 458 | 382 | 330 | 261 | 236 |
| Sum of minutes with flicker | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table layout: For each day in each month the following matrix apply

| | | |
|---|---|---|
| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker |
| | Sun set (hh:mm) | First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker |

Licensed user:
Bosch & Van Rijn
Groenmarktstraat 56
NL-3521 AV Utrecht
+31 6 51 71 04 93
Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

# SHADOW - Calendar per WTG

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegdWTG: 5 - GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (22)

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 08:46 | 08:17 | 07:21 | 07:07 | 05:59 | 05:11 | 05:07 | 05:45 | 06:38 | 07:30 | 07:27 | 08:21 |
| | 16:22 | 17:12 | 18:07 | 20:04 | 20:58 | 21:47 | 22:02 | 21:28 | 20:23 | 19:10 | 17:01 | 16:18 |
| 2 | 08:46 | 08:15 | 07:19 | 07:05 | 05:57 | 05:10 | 05:07 | 05:47 | 06:40 | 07:32 | 07:29 | 08:22 |
| | 16:23 | 17:14 | 18:09 | 20:06 | 21:00 | 21:48 | 22:01 | 21:26 | 20:20 | 19:08 | 16:59 | 16:17 |
| 3 | 08:46 | 08:14 | 07:16 | 07:02 | 05:55 | 05:09 | 05:08 | 05:49 | 06:42 | 07:34 | 07:31 | 08:24 |
| | 16:24 | 17:16 | 18:11 | 20:08 | 21:02 | 21:49 | 22:01 | 21:24 | 20:18 | 19:06 | 16:57 | 16:16 |
| 4 | 08:45 | 08:12 | 07:14 | 07:00 | 05:53 | 05:08 | 05:09 | 05:50 | 06:43 | 07:36 | 07:33 | 08:25 |
| | 16:26 | 17:18 | 18:12 | 20:09 | 21:03 | 21:50 | 22:01 | 21:23 | 20:16 | 19:03 | 16:55 | 16:15 |
| 5 | 08:45 | 08:10 | 07:12 | 06:58 | 05:51 | 05:07 | 05:10 | 05:52 | 06:45 | 07:37 | 07:35 | 08:27 |
| | 16:27 | 17:20 | 18:14 | 20:11 | 21:05 | 21:51 | 22:00 | 21:21 | 20:13 | 19:01 | 16:53 | 16:15 |
| 6 | 08:45 | 08:08 | 07:09 | 06:55 | 05:49 | 05:07 | 05:11 | 05:54 | 06:47 | 07:39 | 07:37 | 08:28 |
| | 16:28 | 17:22 | 18:16 | 20:13 | 21:07 | 21:52 | 21:59 | 21:19 | 20:11 | 18:58 | 16:51 | 16:14 |
| 7 | 08:44 | 08:07 | 07:07 | 06:53 | 05:47 | 05:06 | 05:12 | 05:55 | 06:49 | 07:41 | 07:38 | 08:29 |
| | 16:29 | 17:24 | 18:18 | 20:15 | 21:09 | 21:53 | 21:59 | 21:17 | 20:09 | 18:56 | 16:50 | 16:14 |
| 8 | 08:44 | 08:05 | 07:05 | 06:50 | 05:46 | 05:05 | 05:13 | 05:57 | 06:50 | 07:43 | 07:40 | 08:31 |
| | 16:31 | 17:26 | 18:20 | 20:17 | 21:10 | 21:54 | 21:58 | 21:15 | 20:06 | 18:54 | 16:48 | 16:13 |
| 9 | 08:43 | 08:03 | 07:02 | 06:48 | 05:44 | 05:05 | 05:14 | 05:59 | 06:52 | 07:44 | 07:42 | 08:32 |
| | 16:32 | 17:28 | 18:22 | 20:18 | 21:12 | 21:55 | 21:57 | 21:13 | 20:04 | 18:51 | 16:46 | 16:13 |
| 10 | 08:43 | 08:01 | 07:00 | 06:46 | 05:42 | 05:04 | 05:15 | 06:00 | 06:54 | 07:46 | 07:44 | 08:33 |
| | 16:34 | 17:30 | 18:24 | 20:20 | 21:14 | 21:56 | 21:57 | 21:11 | 20:01 | 18:49 | 16:44 | 16:13 |
| 11 | 08:42 | 07:59 | 06:58 | 06:43 | 05:40 | 05:04 | 05:16 | 06:02 | 06:55 | 07:48 | 07:46 | 08:34 |
| | 16:35 | 17:32 | 18:26 | 20:22 | 21:15 | 21:57 | 21:56 | 21:09 | 19:59 | 18:47 | 16:43 | 16:13 |
| 12 | 08:41 | 07:57 | 06:55 | 06:41 | 05:38 | 05:04 | 05:17 | 06:04 | 06:57 | 07:50 | 07:48 | 08:35 |
| | 16:37 | 17:34 | 18:27 | 20:24 | 21:17 | 21:58 | 21:55 | 21:07 | 19:56 | 18:44 | 16:41 | 16:12 |
| 13 | 08:41 | 07:55 | 06:53 | 06:39 | 05:37 | 05:03 | 05:18 | 06:05 | 06:59 | 07:52 | 07:50 | 08:36 |
| | 16:38 | 17:36 | 18:29 | 20:26 | 21:19 | 21:58 | 21:54 | 21:05 | 19:54 | 18:42 | 16:39 | 16:12 |
| 14 | 08:40 | 07:53 | 06:51 | 06:36 | 05:35 | 05:03 | 05:19 | 06:07 | 07:01 | 07:53 | 07:52 | 08:37 |
| | 16:40 | 17:38 | 18:31 | 20:27 | 21:20 | 21:59 | 21:53 | 21:03 | 19:52 | 18:40 | 16:38 | 16:12 |
| 15 | 08:39 | 07:51 | 06:48 | 06:34 | 05:33 | 05:03 | 05:20 | 06:09 | 07:02 | 07:55 | 07:53 | 08:38 |
| | 16:41 | 17:40 | 18:33 | 20:29 | 21:22 | 22:00 | 21:52 | 21:01 | 19:49 | 18:37 | 16:36 | 16:12 |
| 16 | 08:38 | 07:49 | 06:46 | 06:32 | 05:32 | 05:03 | 05:22 | 06:11 | 07:04 | 07:57 | 07:55 | 08:39 |
| | 16:43 | 17:42 | 18:35 | 20:31 | 21:24 | 22:00 | 21:51 | 20:59 | 19:47 | 18:35 | 16:35 | 16:12 |
| 17 | 08:37 | 07:47 | 06:43 | 06:30 | 05:30 | 05:02 | 05:23 | 06:12 | 07:06 | 07:59 | 07:57 | 08:40 |
| | 16:45 | 17:44 | 18:37 | 20:33 | 21:25 | 22:01 | 21:50 | 20:57 | 19:44 | 18:33 | 16:33 | 16:13 |
| 18 | 08:36 | 07:45 | 06:41 | 06:27 | 05:28 | 05:02 | 05:24 | 06:14 | 07:08 | 08:01 | 07:59 | 08:41 |
| | 16:46 | 17:45 | 18:38 | 20:35 | 21:27 | 22:01 | 21:49 | 20:54 | 19:42 | 18:31 | 16:32 | 16:13 |
| 19 | 08:35 | 07:43 | 06:39 | 06:25 | 05:27 | 05:02 | 05:26 | 06:16 | 07:09 | 08:03 | 08:01 | 08:42 |
| | 16:48 | 17:47 | 18:40 | 20:36 | 21:29 | 22:01 | 21:47 | 20:52 | 19:39 | 18:28 | 16:31 | 16:13 |
| 20 | 08:34 | 07:41 | 06:36 | 06:23 | 05:25 | 05:02 | 05:27 | 06:17 | 07:11 | 08:05 | 08:03 | 08:42 |
| | 16:50 | 17:49 | 18:42 | 20:38 | 21:30 | 22:02 | 21:46 | 20:50 | 19:37 | 18:26 | 16:29 | 16:13 |
| 21 | 08:33 | 07:39 | 06:34 | 06:21 | 05:24 | 05:03 | 05:28 | 06:19 | 07:13 | 08:06 | 08:04 | 08:43 |
| | 16:52 | 17:51 | 18:44 | 20:40 | 21:32 | 22:02 | 21:45 | 20:48 | 19:35 | 18:24 | 16:28 | 16:14 |
| 22 | 08:31 | 07:36 | 06:31 | 06:18 | 05:22 | 05:03 | 05:30 | 06:21 | 07:14 | 08:08 | 08:06 | 08:44 |
| | 16:53 | 17:53 | 18:46 | 20:42 | 21:33 | 22:02 | 21:43 | 20:46 | 19:32 | 18:22 | 16:27 | 16:14 |
| 23 | 08:30 | 07:34 | 06:29 | 06:16 | 05:21 | 05:03 | 05:31 | 06:23 | 07:16 | 08:10 | 08:08 | 08:44 |
| | 16:55 | 17:55 | 18:48 | 20:44 | 21:35 | 22:02 | 21:42 | 20:43 | 19:30 | 18:20 | 16:25 | 16:15 |
| 24 | 08:29 | 07:32 | 06:26 | 06:14 | 05:20 | 05:03 | 05:33 | 06:24 | 07:18 | 08:12 | 08:10 | 08:44 |
| | 16:57 | 17:57 | 18:49 | 20:45 | 21:36 | 22:03 | 21:41 | 20:41 | 19:27 | 18:17 | 16:24 | 16:15 |
| 25 | 08:28 | 07:30 | 06:24 | 06:12 | 05:19 | 05:04 | 05:34 | 06:26 | 07:20 | 08:14 | 08:11 | 08:45 |
| | 16:59 | 17:59 | 18:51 | 20:47 | 21:38 | 22:03 | 21:39 | 20:39 | 19:25 | 18:15 | 16:23 | 16:16 |
| 26 | 08:26 | 07:28 | 07:22 | 06:10 | 05:17 | 05:04 | 05:36 | 06:28 | 07:21 | 08:16 | 08:13 | 08:45 |
| | 17:01 | 18:01 | 19:53 | 20:49 | 21:39 | 22:03 | 21:38 | 20:37 | 19:22 | 18:13 | 16:22 | 16:17 |
| 27 | 08:25 | 07:25 | 07:19 | 06:08 | 05:16 | 05:04 | 05:37 | 06:30 | 07:23 | 08:18 | 08:15 | 08:45 |
| | 17:03 | 18:03 | 19:55 | 20:51 | 21:40 | 22:03 | 21:36 | 20:34 | 19:20 | 18:11 | 16:21 | 16:17 |
| 28 | 08:23 | 07:23 | 07:17 | 06:05 | 05:15 | 05:05 | 05:39 | 06:31 | 07:25 | 08:20 | 08:16 | 08:46 |
| | 17:05 | 18:05 | 19:57 | 20:53 | 21:42 | 22:02 | 21:35 | 20:32 | 19:18 | 18:09 | 16:20 | 16:18 |
| 29 | 08:22 | | 07:14 | 06:03 | 05:14 | 05:05 | 05:41 | 06:33 | 07:27 | 07:21 | 08:18 | 08:46 |
| | 17:06 | | 19:58 | 20:54 | 21:43 | 22:02 | 21:33 | 20:30 | 19:15 | 17:07 | 16:19 | 16:19 |
| 30 | 08:20 | | 07:12 | 06:01 | 05:13 | 05:06 | 05:42 | 06:35 | 07:28 | 07:23 | 08:19 | 08:46 |
| | 17:08 | | 20:00 | 20:56 | 21:44 | 22:02 | 21:31 | 20:27 | 19:13 | 17:05 | 16:18 | 16:20 |
| 31 | 08:19 | | 07:10 | | 05:12 | | 05:44 | 06:37 | | 07:25 | | 08:46 |
| | 17:10 | | 20:02 | | 21:46 | | 21:30 | 20:25 | | 17:03 | | 16:21 |
| Potential sun hours | 252 | 274 | 366 | 418 | 491 | 507 | 509 | 458 | 382 | 330 | 262 | 236 |
| Sum of minutes with flicker | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table layout: For each day in each month the following matrix apply

| | | |
|---|---|---|
| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker |
| | Sun set (hh:mm) | First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker |

Licensed user:
Bosch & Van Rijn
Groenmarktstraat 56
NL-3521 AV Utrecht
+31 6 51 71 04 93
Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

# SHADOW - Calendar per WTG

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegdWTG: 6 - GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (23)

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 08:46 | 08:17 | 07:21 | 07:07 | 05:59 | 05:11 | 05:07 | 05:45 | 06:38 | 07:30 | 07:27 | 08:21 |
| | 16:22 | 17:12 | 18:07 | 20:04 | 20:58 | 21:47 | 22:02 | 21:28 | 20:23 | 19:10 | 17:01 | 16:18 |
| 2 | 08:46 | 08:15 | 07:19 | 07:05 | 05:57 | 05:10 | 05:07 | 05:47 | 06:40 | 07:32 | 07:29 | 08:22 |
| | 16:23 | 17:14 | 18:09 | 20:06 | 21:00 | 21:48 | 22:01 | 21:26 | 20:20 | 19:08 | 16:59 | 16:17 |
| 3 | 08:46 | 08:14 | 07:16 | 07:02 | 05:55 | 05:09 | 05:08 | 05:49 | 06:42 | 07:34 | 07:31 | 08:24 |
| | 16:24 | 17:16 | 18:11 | 20:08 | 21:02 | 21:49 | 22:01 | 21:24 | 20:18 | 19:06 | 16:57 | 16:16 |
| 4 | 08:45 | 08:12 | 07:14 | 07:00 | 05:53 | 05:08 | 05:09 | 05:50 | 06:43 | 07:36 | 07:33 | 08:25 |
| | 16:26 | 17:18 | 18:12 | 20:09 | 21:03 | 21:50 | 22:01 | 21:22 | 20:16 | 19:03 | 16:55 | 16:15 |
| 5 | 08:45 | 08:10 | 07:12 | 06:58 | 05:51 | 05:07 | 05:10 | 05:52 | 06:45 | 07:37 | 07:35 | 08:27 |
| | 16:27 | 17:20 | 18:14 | 20:11 | 21:05 | 21:51 | 22:00 | 21:21 | 20:13 | 19:01 | 16:53 | 16:15 |
| 6 | 08:45 | 08:08 | 07:09 | 06:55 | 05:49 | 05:07 | 05:11 | 05:54 | 06:47 | 07:39 | 07:37 | 08:28 |
| | 16:28 | 17:22 | 18:16 | 20:13 | 21:07 | 21:52 | 21:59 | 21:19 | 20:11 | 18:58 | 16:51 | 16:14 |
| 7 | 08:44 | 08:07 | 07:07 | 06:53 | 05:47 | 05:06 | 05:12 | 05:55 | 06:49 | 07:41 | 07:38 | 08:29 |
| | 16:29 | 17:24 | 18:18 | 20:15 | 21:09 | 21:53 | 21:59 | 21:17 | 20:09 | 18:56 | 16:50 | 16:14 |
| 8 | 08:44 | 08:05 | 07:05 | 06:50 | 05:46 | 05:05 | 05:13 | 05:57 | 06:50 | 07:43 | 07:40 | 08:31 |
| | 16:31 | 17:26 | 18:20 | 20:17 | 21:10 | 21:54 | 21:58 | 21:15 | 20:06 | 18:54 | 16:48 | 16:13 |
| 9 | 08:43 | 08:03 | 07:02 | 06:48 | 05:44 | 05:05 | 05:14 | 05:59 | 06:52 | 07:44 | 07:42 | 08:32 |
| | 16:32 | 17:28 | 18:22 | 20:18 | 21:12 | 21:55 | 21:57 | 21:13 | 20:04 | 18:51 | 16:46 | 16:13 |
| 10 | 08:43 | 08:01 | 07:00 | 06:46 | 05:42 | 05:04 | 05:15 | 06:00 | 06:54 | 07:46 | 07:44 | 08:33 |
| | 16:34 | 17:30 | 18:24 | 20:20 | 21:14 | 21:56 | 21:57 | 21:11 | 20:01 | 18:49 | 16:44 | 16:13 |
| 11 | 08:42 | 07:59 | 06:58 | 06:43 | 05:40 | 05:04 | 05:16 | 06:02 | 06:55 | 07:48 | 07:46 | 08:34 |
| | 16:35 | 17:32 | 18:26 | 20:22 | 21:15 | 21:57 | 21:56 | 21:09 | 19:59 | 18:47 | 16:43 | 16:13 |
| 12 | 08:41 | 07:57 | 06:55 | 06:41 | 05:38 | 05:04 | 05:17 | 06:04 | 06:57 | 07:50 | 07:48 | 08:35 |
| | 16:37 | 17:34 | 18:27 | 20:24 | 21:17 | 21:58 | 21:55 | 21:07 | 19:56 | 18:44 | 16:41 | 16:12 |
| 13 | 08:41 | 07:55 | 06:53 | 06:39 | 05:37 | 05:03 | 05:18 | 06:05 | 06:59 | 07:52 | 07:50 | 08:36 |
| | 16:38 | 17:36 | 18:29 | 20:26 | 21:19 | 21:58 | 21:54 | 21:05 | 19:54 | 18:42 | 16:39 | 16:12 |
| 14 | 08:40 | 07:53 | 06:51 | 06:36 | 05:35 | 05:03 | 05:19 | 06:07 | 07:01 | 07:53 | 07:52 | 08:37 |
| | 16:40 | 17:38 | 18:31 | 20:27 | 21:20 | 21:59 | 21:53 | 21:03 | 19:52 | 18:40 | 16:38 | 16:12 |
| 15 | 08:39 | 07:51 | 06:48 | 06:34 | 05:33 | 05:03 | 05:20 | 06:09 | 07:02 | 07:55 | 07:53 | 08:38 |
| | 16:41 | 17:40 | 18:33 | 20:29 | 21:22 | 22:00 | 21:52 | 21:01 | 19:49 | 18:37 | 16:36 | 16:12 |
| 16 | 08:38 | 07:49 | 06:46 | 06:32 | 05:32 | 05:03 | 05:22 | 06:11 | 07:04 | 07:57 | 07:55 | 08:39 |
| | 16:43 | 17:42 | 18:35 | 20:31 | 21:24 | 22:00 | 21:51 | 20:59 | 19:47 | 18:35 | 16:35 | 16:12 |
| 17 | 08:37 | 07:47 | 06:43 | 06:30 | 05:30 | 05:02 | 05:23 | 06:12 | 07:06 | 07:59 | 07:57 | 08:40 |
| | 16:45 | 17:44 | 18:37 | 20:33 | 21:25 | 22:01 | 21:50 | 20:57 | 19:44 | 18:33 | 16:33 | 16:13 |
| 18 | 08:36 | 07:45 | 06:41 | 06:27 | 05:28 | 05:02 | 05:24 | 06:14 | 07:08 | 08:01 | 07:59 | 08:41 |
| | 16:46 | 17:45 | 18:38 | 20:35 | 21:27 | 22:01 | 21:49 | 20:54 | 19:42 | 18:31 | 16:32 | 16:13 |
| 19 | 08:35 | 07:43 | 06:39 | 06:25 | 05:27 | 05:02 | 05:26 | 06:16 | 07:09 | 08:03 | 08:01 | 08:42 |
| | 16:48 | 17:47 | 18:40 | 20:36 | 21:29 | 22:01 | 21:47 | 20:52 | 19:39 | 18:28 | 16:31 | 16:13 |
| 20 | 08:34 | 07:41 | 06:36 | 06:23 | 05:25 | 05:02 | 05:27 | 06:17 | 07:11 | 08:05 | 08:03 | 08:42 |
| | 16:50 | 17:49 | 18:42 | 20:38 | 21:30 | 22:02 | 21:46 | 20:50 | 19:37 | 18:26 | 16:29 | 16:13 |
| 21 | 08:33 | 07:39 | 06:34 | 06:21 | 05:24 | 05:03 | 05:29 | 06:19 | 07:13 | 08:06 | 08:04 | 08:43 |
| | 16:52 | 17:51 | 18:44 | 20:40 | 21:32 | 22:02 | 21:45 | 20:48 | 19:35 | 18:24 | 16:28 | 16:14 |
| 22 | 08:31 | 07:36 | 06:31 | 06:18 | 05:23 | 05:03 | 05:30 | 06:21 | 07:14 | 08:08 | 08:06 | 08:44 |
| | 16:53 | 17:53 | 18:46 | 20:42 | 21:33 | 22:02 | 21:43 | 20:46 | 19:32 | 18:22 | 16:27 | 16:14 |
| 23 | 08:30 | 07:34 | 06:29 | 06:16 | 05:21 | 05:03 | 05:31 | 06:23 | 07:16 | 08:10 | 08:08 | 08:44 |
| | 16:55 | 17:55 | 18:48 | 20:44 | 21:35 | 22:02 | 21:42 | 20:43 | 19:30 | 18:20 | 16:25 | 16:15 |
| 24 | 08:29 | 07:32 | 06:26 | 06:14 | 05:20 | 05:03 | 05:33 | 06:24 | 07:18 | 08:12 | 08:10 | 08:44 |
| | 16:57 | 17:57 | 18:49 | 20:45 | 21:36 | 22:03 | 21:41 | 20:41 | 19:27 | 18:17 | 16:24 | 16:15 |
| 25 | 08:27 | 07:30 | 06:24 | 06:12 | 05:19 | 05:04 | 05:34 | 06:26 | 07:20 | 08:14 | 08:11 | 08:45 |
| | 16:59 | 17:59 | 18:51 | 20:47 | 21:38 | 22:03 | 21:39 | 20:39 | 19:25 | 18:15 | 16:23 | 16:16 |
| 26 | 08:26 | 07:28 | 07:22 | 06:10 | 05:17 | 05:04 | 05:36 | 06:28 | 07:21 | 08:16 | 08:13 | 08:45 |
| | 17:01 | 18:01 | 19:53 | 20:49 | 21:39 | 22:03 | 21:38 | 20:37 | 19:22 | 18:13 | 16:22 | 16:17 |
| 27 | 08:25 | 07:25 | 07:19 | 06:08 | 05:16 | 05:04 | 05:37 | 06:30 | 07:23 | 08:18 | 08:15 | 08:45 |
| | 17:03 | 18:03 | 19:55 | 20:51 | 21:40 | 22:03 | 21:36 | 20:34 | 19:20 | 18:11 | 16:21 | 16:17 |
| 28 | 08:23 | 07:23 | 07:17 | 06:05 | 05:15 | 05:05 | 05:39 | 06:31 | 07:25 | 08:20 | 08:16 | 08:46 |
| | 17:05 | 18:05 | 19:57 | 20:53 | 21:42 | 22:02 | 21:35 | 20:32 | 19:18 | 18:09 | 16:20 | 16:18 |
| 29 | 08:22 | | 07:14 | 06:03 | 05:14 | 05:05 | 05:41 | 06:33 | 07:27 | 07:21 | 08:18 | 08:46 |
| | 17:06 | | 19:58 | 20:54 | 21:43 | 22:02 | 21:33 | 20:30 | 19:15 | 17:07 | 16:19 | 16:19 |
| 30 | 08:20 | | 07:12 | 06:01 | 05:13 | 05:06 | 05:42 | 06:35 | 07:28 | 07:23 | 08:19 | 08:46 |
| | 17:08 | | 20:00 | 20:56 | 21:44 | 22:02 | 21:31 | 20:27 | 19:13 | 17:05 | 16:18 | 16:20 |
| 31 | 08:19 | | 07:10 | | 05:12 | | 05:44 | 06:37 | | 07:25 | | 08:46 |
| | 17:10 | | 20:02 | | 21:46 | | 21:30 | 20:25 | | 17:03 | | 16:21 |
| Potential sun hours | 252 | 274 | 366 | 418 | 491 | 507 | 509 | 458 | 382 | 330 | 262 | 236 |
| Sum of minutes with flicker | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table layout: For each day in each month the following matrix apply

| | | |
|---|---|---|
| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker |
| | Sun set (hh:mm) | First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker |

Licensed user:
Bosch & Van Rijn
Groenmarktstraat 56
NL-3521 AV Utrecht
+31 6 51 71 04 93
Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

# SHADOW - Calendar per WTG

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegdWTG: 7 - GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (24)

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 08:46 | 08:17 | 07:21 | 07:07 | 05:59 | 05:11 | 05:07 | 05:45 | 06:38 | 07:30 | 07:27 | 08:21 |
| | 16:22 | 17:12 | 18:07 | 20:04 | 20:58 | 21:47 | 22:02 | 21:28 | 20:23 | 19:10 | 17:01 | 16:18 |
| 2 | 08:46 | 08:15 | 07:19 | 07:05 | 05:57 | 05:10 | 05:07 | 05:47 | 06:40 | 07:32 | 07:29 | 08:22 |
| | 16:23 | 17:14 | 18:09 | 20:06 | 21:00 | 21:48 | 22:01 | 21:26 | 20:20 | 19:08 | 16:59 | 16:17 |
| 3 | 08:46 | 08:14 | 07:16 | 07:02 | 05:55 | 05:09 | 05:08 | 05:49 | 06:42 | 07:34 | 07:31 | 08:24 |
| | 16:24 | 17:16 | 18:11 | 20:08 | 21:01 | 21:49 | 22:01 | 21:24 | 20:18 | 19:06 | 16:57 | 16:16 |
| 4 | 08:45 | 08:12 | 07:14 | 07:00 | 05:53 | 05:08 | 05:09 | 05:50 | 06:43 | 07:36 | 07:33 | 08:25 |
| | 16:26 | 17:18 | 18:12 | 20:09 | 21:03 | 21:50 | 22:01 | 21:22 | 20:16 | 19:03 | 16:55 | 16:15 |
| 5 | 08:45 | 08:10 | 07:12 | 06:58 | 05:51 | 05:07 | 05:10 | 05:52 | 06:45 | 07:37 | 07:35 | 08:27 |
| | 16:27 | 17:20 | 18:14 | 20:11 | 21:05 | 21:51 | 22:00 | 21:21 | 20:13 | 19:01 | 16:53 | 16:15 |
| 6 | 08:45 | 08:08 | 07:09 | 06:55 | 05:49 | 05:07 | 05:11 | 05:54 | 06:47 | 07:39 | 07:37 | 08:28 |
| | 16:28 | 17:22 | 18:16 | 20:13 | 21:07 | 21:52 | 21:59 | 21:19 | 20:11 | 18:58 | 16:51 | 16:14 |
| 7 | 08:44 | 08:07 | 07:07 | 06:53 | 05:47 | 05:06 | 05:12 | 05:55 | 06:49 | 07:41 | 07:38 | 08:29 |
| | 16:29 | 17:24 | 18:18 | 20:15 | 21:09 | 21:53 | 21:59 | 21:17 | 20:09 | 18:56 | 16:50 | 16:14 |
| 8 | 08:44 | 08:05 | 07:05 | 06:51 | 05:46 | 05:05 | 05:13 | 05:57 | 06:50 | 07:43 | 07:40 | 08:31 |
| | 16:31 | 17:26 | 18:20 | 20:17 | 21:10 | 21:54 | 21:58 | 21:15 | 20:06 | 18:54 | 16:48 | 16:14 |
| 9 | 08:43 | 08:03 | 07:02 | 06:48 | 05:44 | 05:05 | 05:14 | 05:59 | 06:52 | 07:44 | 07:42 | 08:32 |
| | 16:32 | 17:28 | 18:22 | 20:18 | 21:12 | 21:55 | 21:57 | 21:13 | 20:04 | 18:51 | 16:46 | 16:13 |
| 10 | 08:43 | 08:01 | 07:00 | 06:46 | 05:42 | 05:04 | 05:15 | 06:00 | 06:54 | 07:46 | 07:44 | 08:33 |
| | 16:34 | 17:30 | 18:24 | 20:20 | 21:14 | 21:56 | 21:57 | 21:11 | 20:01 | 18:49 | 16:44 | 16:13 |
| 11 | 08:42 | 07:59 | 06:58 | 06:43 | 05:40 | 05:04 | 05:16 | 06:02 | 06:55 | 07:48 | 07:46 | 08:34 |
| | 16:35 | 17:32 | 18:26 | 20:22 | 21:15 | 21:57 | 21:56 | 21:09 | 19:59 | 18:47 | 16:43 | 16:13 |
| 12 | 08:41 | 07:57 | 06:55 | 06:41 | 05:38 | 05:04 | 05:17 | 06:04 | 06:57 | 07:50 | 07:48 | 08:35 |
| | 16:37 | 17:34 | 18:27 | 20:24 | 21:17 | 21:58 | 21:55 | 21:07 | 19:56 | 18:44 | 16:41 | 16:12 |
| 13 | 08:41 | 07:55 | 06:53 | 06:39 | 05:37 | 05:03 | 05:18 | 06:05 | 06:59 | 07:52 | 07:50 | 08:36 |
| | 16:38 | 17:36 | 18:29 | 20:26 | 21:19 | 21:58 | 21:54 | 21:05 | 19:54 | 18:42 | 16:39 | 16:12 |
| 14 | 08:40 | 07:53 | 06:51 | 06:36 | 05:35 | 05:03 | 05:19 | 06:07 | 07:01 | 07:53 | 07:52 | 08:37 |
| | 16:40 | 17:38 | 18:31 | 20:27 | 21:20 | 21:59 | 21:53 | 21:03 | 19:52 | 18:40 | 16:38 | 16:12 |
| 15 | 08:39 | 07:51 | 06:48 | 06:34 | 05:33 | 05:03 | 05:21 | 06:09 | 07:02 | 07:55 | 07:53 | 08:38 |
| | 16:41 | 17:40 | 18:33 | 20:29 | 21:22 | 22:00 | 21:52 | 21:01 | 19:49 | 18:37 | 16:36 | 16:12 |
| 16 | 08:38 | 07:49 | 06:46 | 06:32 | 05:32 | 05:03 | 05:22 | 06:11 | 07:04 | 07:57 | 07:55 | 08:39 |
| | 16:43 | 17:42 | 18:35 | 20:31 | 21:24 | 22:00 | 21:51 | 20:59 | 19:47 | 18:35 | 16:35 | 16:12 |
| 17 | 08:37 | 07:47 | 06:43 | 06:30 | 05:30 | 05:02 | 05:23 | 06:12 | 07:06 | 07:59 | 07:57 | 08:40 |
| | 16:45 | 17:44 | 18:37 | 20:33 | 21:25 | 22:01 | 21:50 | 20:57 | 19:44 | 18:33 | 16:33 | 16:13 |
| 18 | 08:36 | 07:45 | 06:41 | 06:27 | 05:28 | 05:02 | 05:24 | 06:14 | 07:08 | 08:01 | 07:59 | 08:41 |
| | 16:46 | 17:45 | 18:38 | 20:35 | 21:27 | 22:01 | 21:49 | 20:54 | 19:42 | 18:31 | 16:32 | 16:13 |
| 19 | 08:35 | 07:43 | 06:39 | 06:25 | 05:27 | 05:02 | 05:26 | 06:16 | 07:09 | 08:03 | 08:01 | 08:42 |
| | 16:48 | 17:47 | 18:40 | 20:36 | 21:28 | 22:01 | 21:47 | 20:52 | 19:39 | 18:28 | 16:31 | 16:13 |
| 20 | 08:34 | 07:41 | 06:36 | 06:23 | 05:25 | 05:02 | 05:27 | 06:17 | 07:11 | 08:05 | 08:03 | 08:42 |
| | 16:50 | 17:49 | 18:42 | 20:38 | 21:30 | 22:02 | 21:46 | 20:50 | 19:37 | 18:26 | 16:29 | 16:13 |
| 21 | 08:33 | 07:39 | 06:34 | 06:21 | 05:24 | 05:03 | 05:29 | 06:19 | 07:13 | 08:06 | 08:04 | 08:43 |
| | 16:52 | 17:51 | 18:44 | 20:40 | 21:32 | 22:02 | 21:45 | 20:48 | 19:35 | 18:24 | 16:28 | 16:14 |
| 22 | 08:31 | 07:36 | 06:31 | 06:18 | 05:23 | 05:03 | 05:30 | 06:21 | 07:14 | 08:08 | 08:06 | 08:43 |
| | 16:53 | 17:53 | 18:46 | 20:42 | 21:33 | 22:02 | 21:43 | 20:46 | 19:32 | 18:22 | 16:27 | 16:14 |
| 23 | 08:30 | 07:34 | 06:29 | 06:16 | 05:21 | 05:03 | 05:31 | 06:23 | 07:16 | 08:10 | 08:08 | 08:44 |
| | 16:55 | 17:55 | 18:48 | 20:44 | 21:35 | 22:02 | 21:42 | 20:43 | 19:30 | 18:20 | 16:25 | 16:15 |
| 24 | 08:29 | 07:32 | 06:26 | 06:14 | 05:20 | 05:03 | 05:33 | 06:24 | 07:18 | 08:12 | 08:10 | 08:44 |
| | 16:57 | 17:57 | 18:49 | 20:45 | 21:36 | 22:03 | 21:41 | 20:41 | 19:27 | 18:17 | 16:24 | 16:15 |
| 25 | 08:27 | 07:30 | 06:24 | 06:12 | 05:19 | 05:04 | 05:34 | 06:26 | 07:20 | 08:14 | 08:11 | 08:45 |
| | 16:59 | 17:59 | 18:51 | 20:47 | 21:38 | 22:03 | 21:39 | 20:39 | 19:25 | 18:15 | 16:23 | 16:16 |
| 26 | 08:26 | 07:28 | 07:22 | 06:10 | 05:17 | 05:04 | 05:36 | 06:28 | 07:21 | 08:16 | 08:13 | 08:45 |
| | 17:01 | 18:01 | 19:53 | 20:49 | 21:39 | 22:03 | 21:38 | 20:37 | 19:22 | 18:13 | 16:22 | 16:17 |
| 27 | 08:25 | 07:25 | 07:19 | 06:08 | 05:16 | 05:04 | 05:37 | 06:30 | 07:23 | 08:18 | 08:15 | 08:45 |
| | 17:03 | 18:03 | 19:55 | 20:51 | 21:40 | 22:03 | 21:36 | 20:34 | 19:20 | 18:11 | 16:21 | 16:17 |
| 28 | 08:23 | 07:23 | 07:17 | 06:05 | 05:15 | 05:05 | 05:39 | 06:31 | 07:25 | 08:20 | 08:16 | 08:46 |
| | 17:05 | 18:05 | 19:57 | 20:53 | 21:42 | 22:02 | 21:34 | 20:32 | 19:18 | 18:09 | 16:20 | 16:18 |
| 29 | 08:22 | | 07:14 | 06:03 | 05:14 | 05:06 | 05:41 | 06:33 | 07:27 | 07:21 | 08:18 | 08:46 |
| | 17:06 | | 19:58 | 20:54 | 21:43 | 22:02 | 21:33 | 20:30 | 19:15 | 17:07 | 16:19 | 16:19 |
| 30 | 08:20 | | 07:12 | 06:01 | 05:13 | 05:06 | 05:42 | 06:35 | 07:28 | 07:23 | 08:19 | 08:46 |
| | 17:08 | | 20:00 | 20:56 | 21:44 | 22:02 | 21:31 | 20:27 | 19:13 | 17:05 | 16:18 | 16:20 |
| 31 | 08:19 | | 07:10 | | 05:12 | | 05:44 | 06:37 | | 07:25 | | 08:46 |
| | 17:10 | | 20:02 | | 21:46 | | 21:30 | 20:25 | | 17:03 | | 16:21 |
| Potential sun hours | 252 | 274 | 366 | 418 | 491 | 507 | 509 | 458 | 382 | 330 | 262 | 236 |
| Sum of minutes with flicker | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table layout: For each day in each month the following matrix apply

| | | |
|---|---|---|
| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker |
| | Sun set (hh:mm) | First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker |

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Calculated:
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# SHADOW - Calendar per WTG

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegdWTG: 8 - GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (25)

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 08:46 14:05-14:58/53<br>16:22 | 08:17 14:30-14:55/25<br>17:12 | 07:21<br>18:07 | 07:07<br>20:04 | 05:59<br>20:58 | 05:11<br>21:47 | 05:07<br>22:02 | 05:45<br>21:28 | 06:38<br>20:23 | 07:30<br>19:10 | 07:27<br>17:01 | 08:21 13:51-14:43/52<br>16:17 |
| 2 | 08:46 14:05-14:57/52<br>16:23 | 08:15 14:33-14:52/19<br>17:14 | 07:19<br>18:09 | 07:05<br>20:06 | 05:57<br>21:00 | 05:10<br>21:48 | 05:07<br>22:01 | 05:47<br>21:26 | 06:40<br>20:20 | 07:32<br>19:08 | 07:29<br>16:59 | 08:22 13:51-14:44/53<br>16:17 |
| 3 | 08:46 14:06-14:58/52<br>16:24 | 08:14 14:37-14:49/12<br>17:16 | 07:16<br>18:10 | 07:02<br>20:07 | 05:55<br>21:02 | 05:09<br>21:49 | 05:08<br>22:01 | 05:48<br>21:24 | 06:42<br>20:18 | 07:34<br>19:05 | 07:31<br>16:57 | 08:24 13:52-14:45/53<br>16:16 |
| 4 | 08:45 14:05-14:58/53<br>16:25 | 08:12<br>17:18 | 07:14<br>18:12 | 07:00<br>20:09 | 05:53<br>21:03 | 05:08<br>21:50 | 05:09<br>22:01 | 05:50<br>21:23 | 06:43<br>20:16 | 07:35<br>19:03 | 07:33<br>16:55 | 08:25 13:52-14:44/52<br>16:15 |
| 5 | 08:45 14:06-14:59/53<br>16:27 | 08:10<br>17:20 | 07:12<br>18:14 | 06:58<br>20:11 | 05:51<br>21:05 | 05:07<br>21:51 | 05:10<br>22:00 | 05:52<br>21:21 | 06:45<br>20:13 | 07:37<br>19:01 | 07:35<br>16:53 | 08:27 13:52-14:45/53<br>16:15 |
| 6 | 08:45 14:07-14:59/52<br>16:28 | 08:08<br>17:22 | 07:09<br>18:16 | 06:55<br>20:13 | 05:49<br>21:07 | 05:07<br>21:52 | 05:11<br>22:00 | 05:53<br>21:19 | 06:47<br>20:11 | 07:39<br>18:58 | 07:37<br>16:51 | 08:28 13:53-14:46/53<br>16:14 |
| 7 | 08:44 14:07-15:00/53<br>16:29 | 08:07<br>17:24 | 07:07<br>18:18 | 06:53<br>20:15 | 05:47<br>21:09 | 05:06<br>21:53 | 05:11<br>21:59 | 05:55<br>21:17 | 06:49<br>20:09 | 07:41<br>18:56 | 07:38<br>16:50 | 08:29 13:53-14:46/53<br>16:14 |
| 8 | 08:44 14:08-15:01/53<br>16:31 | 08:05<br>17:26 | 07:05<br>18:20 | 06:50<br>20:17 | 05:45<br>21:10 | 05:05<br>21:54 | 05:12<br>21:58 | 05:57<br>21:15 | 06:50<br>20:06 | 07:43<br>18:54 | 07:40 14:11-14:17/6<br>16:48 | 08:31 13:53-14:46/53<br>16:13 |
| 9 | 08:43 14:08-15:01/53<br>16:32 | 08:03<br>17:28 | 07:02<br>18:22 | 06:48<br>20:18 | 05:44<br>21:12 | 05:05<br>21:55 | 05:13<br>21:57 | 05:59<br>21:13 | 06:52<br>20:04 | 07:44<br>18:51 | 07:42 14:05-14:22/17<br>16:46 | 08:32 13:54-14:47/53<br>16:13 |
| 10 | 08:43 14:08-15:01/53<br>16:33 | 08:01<br>17:30 | 07:00<br>18:24 | 06:46<br>20:20 | 05:42<br>21:14 | 05:04<br>21:56 | 05:15<br>21:57 | 06:00<br>21:11 | 06:54<br>20:01 | 07:46<br>18:49 | 07:44 14:01-14:25/24<br>16:44 | 08:33 13:54-14:47/53<br>16:13 |
| 11 | 08:42 14:09-15:01/52<br>16:35 | 07:59<br>17:32 | 06:58<br>18:25 | 06:43<br>20:22 | 05:40<br>21:15 | 05:04<br>21:57 | 05:16<br>21:56 | 06:02<br>21:09 | 06:55<br>19:59 | 07:48<br>18:47 | 07:46 13:59-14:27/28<br>16:43 | 08:34 13:54-14:47/53<br>16:12 |
| 12 | 08:41 14:09-15:02/53<br>16:36 | 07:57<br>17:34 | 06:55<br>18:27 | 06:41<br>20:24 | 05:38<br>21:17 | 05:03<br>21:58 | 05:17<br>21:55 | 06:04<br>21:07 | 06:57<br>19:56 | 07:50<br>18:44 | 07:48 13:58-14:29/31<br>16:41 | 08:35 13:56-14:48/52<br>16:12 |
| 13 | 08:41 14:10-15:02/52<br>16:38 | 07:55<br>17:36 | 06:53<br>18:29 | 06:39<br>20:26 | 05:36<br>21:19 | 05:03<br>21:58 | 05:18<br>21:54 | 06:05<br>21:05 | 06:59<br>19:54 | 07:52<br>18:42 | 07:50 13:56-14:31/35<br>16:39 | 08:36 13:56-14:48/52<br>16:12 |
| 14 | 08:40 14:11-15:03/52<br>16:40 | 07:53<br>17:38 | 06:50<br>18:31 | 06:36<br>20:27 | 05:35<br>21:20 | 05:03<br>21:59 | 05:19<br>21:53 | 06:07<br>21:03 | 07:01<br>19:52 | 07:53<br>18:40 | 07:52 13:55-14:32/37<br>16:38 | 08:37 13:56-14:49/53<br>16:12 |
| 15 | 08:39 14:10-15:02/52<br>16:41 | 07:51<br>17:40 | 06:48<br>18:33 | 06:34<br>20:29 | 05:33<br>21:22 | 05:03<br>22:00 | 05:20<br>21:52 | 06:09<br>21:01 | 07:02<br>19:49 | 07:55<br>18:37 | 07:53 13:53-14:33/40<br>16:36 | 08:38 13:57-14:49/52<br>16:12 |
| 16 | 08:38 14:11-15:02/51<br>16:43 | 07:49<br>17:41 | 06:46<br>18:35 | 06:32<br>20:31 | 05:31<br>21:24 | 05:02<br>22:00 | 05:22<br>21:51 | 06:10<br>20:59 | 07:04<br>19:47 | 07:57<br>18:35 | 07:55 13:52-14:34/42<br>16:35 | 08:39 13:57-14:50/53<br>16:12 |
| 17 | 08:37 14:12-15:03/51<br>16:45 | 07:47<br>17:43 | 06:43<br>18:37 | 06:29<br>20:33 | 05:30<br>21:25 | 05:02<br>22:01 | 05:23<br>21:50 | 06:12<br>20:57 | 07:06<br>19:44 | 07:59<br>18:33 | 07:57 13:52-14:35/43<br>16:33 | 08:40 13:58-14:50/52<br>16:12 |
| 18 | 08:36 14:13-15:03/50<br>16:46 | 07:45<br>17:45 | 06:41<br>18:38 | 06:27<br>20:35 | 05:28<br>21:27 | 05:02<br>22:01 | 05:24<br>21:49 | 06:14<br>20:54 | 07:07<br>19:42 | 08:01<br>18:30 | 07:59 13:51-14:35/44<br>16:32 | 08:41 13:59-14:51/52<br>16:13 |
| 19 | 08:35 14:13-15:03/50<br>16:48 | 07:43<br>17:47 | 06:38<br>18:40 | 06:25<br>20:36 | 05:27<br>21:29 | 05:02<br>22:02 | 05:26<br>21:47 | 06:16<br>20:52 | 07:09<br>19:39 | 08:03<br>18:28 | 08:01 13:51-14:37/46<br>16:30 | 08:42 13:58-14:51/53<br>16:13 |
| 20 | 08:34 14:14-15:03/49<br>16:50 | 07:41<br>17:49 | 06:36<br>18:42 | 06:23<br>20:38 | 05:25<br>21:30 | 05:02<br>22:02 | 05:27<br>21:46 | 06:17<br>20:50 | 07:11<br>19:37 | 08:05<br>18:26 | 08:03 13:51-14:38/47<br>16:29 | 08:42 13:59-14:51/52<br>16:13 |
| 21 | 08:33 14:14-15:02/48<br>16:51 | 07:39<br>17:51 | 06:34<br>18:44 | 06:20<br>20:40 | 05:24<br>21:32 | 05:02<br>22:02 | 05:28<br>21:45 | 06:19<br>20:48 | 07:13<br>19:35 | 08:06<br>18:24 | 08:04 13:50-14:38/48<br>16:28 | 08:43 14:00-14:52/52<br>16:14 |
| 22 | 08:31 14:16-15:03/47<br>16:53 | 07:36<br>17:53 | 06:31<br>18:46 | 06:18<br>20:42 | 05:22<br>21:33 | 05:03<br>22:02 | 05:30<br>21:43 | 06:21<br>20:46 | 07:14<br>19:32 | 08:08<br>18:22 | 08:06 13:50-14:39/49<br>16:27 | 08:44 14:00-14:52/52<br>16:14 |
| 23 | 08:30 14:16-15:02/46<br>16:55 | 07:34<br>17:55 | 06:29<br>18:48 | 06:16<br>20:44 | 05:21<br>21:35 | 05:03<br>22:03 | 05:31<br>21:42 | 06:23<br>20:43 | 07:16<br>19:30 | 08:10<br>18:19 | 08:08 13:50-14:39/49<br>16:25 | 08:44 14:00-14:52/52<br>16:15 |
| 24 | 08:29 14:17-15:02/45<br>16:57 | 07:32<br>17:57 | 06:26<br>18:49 | 06:14<br>20:45 | 05:20<br>21:36 | 05:03<br>22:03 | 05:33<br>21:41 | 06:24<br>20:41 | 07:18<br>19:27 | 08:12<br>18:17 | 08:10 13:50-14:40/50<br>16:24 | 08:45 14:01-14:53/52<br>16:15 |
| 25 | 08:28 14:18-15:02/44<br>16:59 | 07:30<br>17:59 | 06:24<br>18:51 | 06:12<br>20:47 | 05:18<br>21:38 | 05:03<br>22:03 | 05:34<br>21:39 | 06:26<br>20:39 | 07:20<br>19:25 | 08:14<br>18:15 | 08:11 13:50-14:40/50<br>16:23 | 08:45 14:02-14:54/52<br>16:16 |
| 26 | 08:26 14:19-15:01/42<br>17:01 | 07:28<br>18:01 | 07:22<br>19:53 | 06:10<br>20:49 | 05:17<br>21:39 | 05:04<br>22:03 | 05:36<br>21:38 | 06:28<br>20:37 | 07:21<br>19:22 | 08:16<br>18:13 | 08:13 13:50-14:41/51<br>16:22 | 08:45 14:02-14:54/52<br>16:16 |
| 27 | 08:25 14:20-15:00/40<br>17:03 | 07:25<br>18:03 | 07:19<br>19:55 | 06:07<br>20:51 | 05:16<br>21:40 | 05:04<br>22:03 | 05:37<br>21:36 | 06:30<br>20:34 | 07:23<br>19:20 | 08:18<br>18:11 | 08:15 13:50-14:42/52<br>16:21 | 08:45 14:02-14:54/52<br>16:17 |
| 28 | 08:23 14:22-15:00/38<br>17:04 | 07:23<br>18:05 | 07:17<br>19:57 | 06:05<br>20:53 | 05:15<br>21:42 | 05:05<br>22:03 | 05:39<br>21:35 | 06:31<br>20:32 | 07:25<br>19:18 | 08:20<br>18:09 | 08:16 13:50-14:42/52<br>16:20 | 08:46 14:02-14:55/53<br>16:18 |
| 29 | 08:22 14:24-14:59/35<br>17:06 | | 07:14<br>19:58 | 06:03<br>20:54 | 05:14<br>21:43 | 05:05<br>22:02 | 05:40<br>21:33 | 06:33<br>20:30 | 07:27<br>19:15 | 07:21<br>17:07 | 08:18 13:51-14:43/52<br>16:19 | 08:46 14:03-14:55/52<br>16:19 |
| 30 | 08:20 14:25-14:58/33<br>17:08 | | 07:12<br>20:00 | 06:01<br>20:56 | 05:13<br>21:44 | 05:06<br>22:02 | 05:42<br>21:31 | 06:35<br>20:27 | 07:28<br>19:13 | 07:23<br>17:05 | 08:19 13:50-14:43/53<br>16:18 | 08:46 14:03-14:56/53<br>16:20 |
| 31 | 08:19 14:27-14:57/30<br>17:10 | | 07:10<br>20:02 | | 05:12<br>21:46 | | 05:44<br>21:30 | 06:36<br>20:25 | | 07:25<br>17:03 | | 08:46 14:04-14:57/53<br>16:21 |
| Potential sun hours | 252 | 274 | 366 | 418 | 491 | 507 | 510 | 458 | 382 | 330 | 261 | 236 |
| Sum of minutes with flicker | 1487 | 56 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 946 | 1627 |

Table layout: For each day in each month the following matrix apply

| | | |
|---|---|---|
| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker |
| | Sun set (hh:mm) | First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker |

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Calculated:
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# SHADOW - Calendar per WTG

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegdWTG: 9 - GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (26)

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 08:46 | 08:17 | 07:21 | 07:07 | 05:59 | 05:11 | 05:07 | 05:45 | 06:38 | 07:30 | 07:27 | 08:21 |
| | 16:22 | 17:12 | 18:07 | 20:04 | 20:58 | 21:47 | 22:02 | 21:28 | 20:23 | 19:10 | 17:01 | 16:17 |
| 2 | 08:46 | 08:15 | 07:19 | 07:05 | 05:57 | 05:10 | 05:07 | 05:47 | 06:40 | 07:32 | 07:29 | 08:22 |
| | 16:23 | 17:14 | 18:09 | 20:06 | 21:00 | 21:48 | 22:01 | 21:26 | 20:20 | 19:08 | 16:59 | 16:17 |
| 3 | 08:46 | 08:14 | 07:16 | 07:02 | 05:55 | 05:09 | 05:08 | 05:49 | 06:42 | 07:34 | 07:31 | 08:24 |
| | 16:24 | 17:16 | 18:10 | 20:07 | 21:02 | 21:49 | 22:01 | 21:24 | 20:18 | 19:05 | 16:57 | 16:16 |
| 4 | 08:45 | 08:12 | 07:14 | 07:00 | 05:53 | 05:08 | 05:09 | 05:50 | 06:43 | 07:35 | 07:33 | 08:25 |
| | 16:25 | 17:18 | 18:12 | 20:09 | 21:03 | 21:50 | 22:01 | 21:23 | 20:16 | 19:03 | 16:55 | 16:15 |
| 5 | 08:45 | 08:10 | 07:12 | 06:58 | 05:51 | 05:07 | 05:10 | 05:52 | 06:45 | 07:37 | 07:35 | 08:27 |
| | 16:27 | 17:20 | 18:14 | 20:11 | 21:05 | 21:51 | 22:00 | 21:21 | 20:13 | 19:01 | 16:53 | 16:15 |
| 6 | 08:45 | 08:08 | 07:09 | 06:55 | 05:49 | 05:07 | 05:11 | 05:53 | 06:47 | 07:39 | 07:37 | 08:28 |
| | 16:28 | 17:22 | 18:16 | 20:13 | 21:07 | 21:52 | 21:59 | 21:19 | 20:11 | 18:58 | 16:51 | 16:14 |
| 7 | 08:44 | 08:07 | 07:07 | 06:53 | 05:47 | 05:06 | 05:12 | 05:55 | 06:49 | 07:41 | 07:38 | 08:29 |
| | 16:29 | 17:24 | 18:18 | 20:15 | 21:09 | 21:53 | 21:59 | 21:17 | 20:09 | 18:56 | 16:50 | 16:14 |
| 8 | 08:44 | 08:05 | 07:05 | 06:50 | 05:45 | 05:05 | 05:12 | 05:57 | 06:50 | 07:43 | 07:40 | 08:31 |
| | 16:31 | 17:26 | 18:20 | 20:17 | 21:10 | 21:54 | 21:58 | 21:15 | 20:06 | 18:54 | 16:48 | 16:13 |
| 9 | 08:43 | 08:03 | 07:02 | 06:48 | 05:44 | 05:05 | 05:13 | 05:59 | 06:52 | 07:44 | 07:42 | 08:32 |
| | 16:32 | 17:28 | 18:22 | 20:18 | 21:12 | 21:55 | 21:57 | 21:13 | 20:04 | 18:51 | 16:46 | 16:13 |
| 10 | 08:43 | 08:01 | 07:00 | 06:46 | 05:42 | 05:04 | 05:15 | 06:00 | 06:54 | 07:46 | 07:44 | 08:33 |
| | 16:33 | 17:30 | 18:24 | 20:20 | 21:14 | 21:56 | 21:57 | 21:11 | 20:01 | 18:49 | 16:44 | 16:13 |
| 11 | 08:42 | 07:59 | 06:58 | 06:43 | 05:40 | 05:04 | 05:16 | 06:02 | 06:55 | 07:48 | 07:46 | 08:34 |
| | 16:35 | 17:32 | 18:25 | 20:22 | 21:15 | 21:57 | 21:56 | 21:09 | 19:59 | 18:47 | 16:43 | 16:12 |
| 12 | 08:41 | 07:57 | 06:55 | 06:41 | 05:38 | 05:03 | 05:17 | 06:04 | 06:57 | 07:50 | 07:48 | 08:35 |
| | 16:36 | 17:34 | 18:27 | 20:24 | 21:17 | 21:58 | 21:55 | 21:07 | 19:56 | 18:44 | 16:41 | 16:12 |
| 13 | 08:41 | 07:55 | 06:53 | 06:39 | 05:36 | 05:03 | 05:18 | 06:05 | 06:59 | 07:52 | 07:50 | 08:36 |
| | 16:38 | 17:36 | 18:29 | 20:26 | 21:19 | 21:58 | 21:54 | 21:05 | 19:54 | 18:42 | 16:39 | 16:12 |
| 14 | 08:40 | 07:53 | 06:50 | 06:36 | 05:35 | 05:03 | 05:19 | 06:07 | 07:01 | 07:53 | 07:52 | 08:37 |
| | 16:40 | 17:38 | 18:31 | 20:27 | 21:20 | 21:59 | 21:53 | 21:03 | 19:52 | 18:40 | 16:38 | 16:12 |
| 15 | 08:39 | 07:51 | 06:48 | 06:34 | 05:33 | 05:03 | 05:20 | 06:09 | 07:02 | 07:55 | 07:53 | 08:38 |
| | 16:41 | 17:40 | 18:33 | 20:29 | 21:22 | 22:00 | 21:52 | 21:01 | 19:49 | 18:37 | 16:36 | 16:12 |
| 16 | 08:38 | 07:49 | 06:46 | 06:32 | 05:31 | 05:02 | 05:22 | 06:10 | 07:04 | 07:57 | 07:55 | 08:39 |
| | 16:43 | 17:41 | 18:35 | 20:31 | 21:24 | 22:00 | 21:51 | 20:59 | 19:47 | 18:35 | 16:35 | 16:12 |
| 17 | 08:37 | 07:47 | 06:43 | 06:30 | 05:30 | 05:02 | 05:23 | 06:12 | 07:06 | 07:59 | 07:57 | 08:40 |
| | 16:45 | 17:43 | 18:37 | 20:33 | 21:25 | 22:01 | 21:50 | 20:57 | 19:44 | 18:33 | 16:33 | 16:12 |
| 18 | 08:36 | 07:45 | 06:41 | 06:27 | 05:28 | 05:02 | 05:24 | 06:14 | 07:08 | 08:01 | 07:59 | 08:41 |
| | 16:46 | 17:45 | 18:38 | 20:35 | 21:27 | 22:01 | 21:49 | 20:54 | 19:42 | 18:31 | 16:32 | 16:13 |
| 19 | 08:35 | 07:43 | 06:38 | 06:25 | 05:27 | 05:02 | 05:26 | 06:16 | 07:09 | 08:03 | 08:01 | 08:42 |
| | 16:48 | 17:47 | 18:40 | 20:36 | 21:29 | 22:01 | 21:47 | 20:52 | 19:39 | 18:28 | 16:30 | 16:13 |
| 20 | 08:34 | 07:41 | 06:36 | 06:23 | 05:25 | 05:02 | 05:27 | 06:17 | 07:11 | 08:05 | 08:03 | 08:42 |
| | 16:50 | 17:49 | 18:42 | 20:38 | 21:30 | 22:02 | 21:46 | 20:50 | 19:37 | 18:26 | 16:29 | 16:13 |
| 21 | 08:33 | 07:39 | 06:34 | 06:21 | 05:24 | 05:02 | 05:28 | 06:19 | 07:13 | 08:06 | 08:04 | 08:43 |
| | 16:51 | 17:51 | 18:44 | 20:40 | 21:32 | 22:02 | 21:45 | 20:48 | 19:35 | 18:24 | 16:28 | 16:14 |
| 22 | 08:31 | 07:36 | 06:31 | 06:18 | 05:22 | 05:03 | 05:30 | 06:21 | 07:14 | 08:08 | 08:06 | 08:44 |
| | 16:53 | 17:53 | 18:46 | 20:42 | 21:33 | 22:02 | 21:43 | 20:46 | 19:32 | 18:22 | 16:27 | 16:14 |
| 23 | 08:30 | 07:34 | 06:29 | 06:16 | 05:21 | 05:03 | 05:31 | 06:23 | 07:16 | 08:10 | 08:08 | 08:44 |
| | 16:55 | 17:55 | 18:48 | 20:44 | 21:35 | 22:02 | 21:42 | 20:43 | 19:30 | 18:19 | 16:25 | 16:15 |
| 24 | 08:29 | 07:32 | 06:26 | 06:14 | 05:20 | 05:03 | 05:33 | 06:24 | 07:18 | 08:12 | 08:10 | 08:44 |
| | 16:57 | 17:57 | 18:49 | 20:45 | 21:36 | 22:03 | 21:41 | 20:41 | 19:27 | 18:17 | 16:24 | 16:15 |
| 25 | 08:28 | 07:30 | 06:24 | 06:12 | 05:18 | 05:03 | 05:34 | 06:26 | 07:20 | 08:14 | 08:11 | 08:45 |
| | 16:59 | 17:59 | 18:51 | 20:47 | 21:38 | 22:03 | 21:39 | 20:39 | 19:25 | 18:15 | 16:23 | 16:16 |
| 26 | 08:26 | 07:28 | 07:22 | 06:10 | 05:17 | 05:04 | 05:36 | 06:28 | 07:21 | 08:16 | 08:13 | 08:45 |
| | 17:01 | 18:01 | 19:53 | 20:49 | 21:39 | 22:03 | 21:38 | 20:37 | 19:22 | 18:13 | 16:22 | 16:16 |
| 27 | 08:25 | 07:25 | 07:19 | 06:07 | 05:16 | 05:04 | 05:37 | 06:30 | 07:23 | 08:18 | 08:15 | 08:45 |
| | 17:03 | 18:03 | 19:55 | 20:51 | 21:40 | 22:03 | 21:36 | 20:34 | 19:20 | 18:11 | 16:21 | 16:17 |
| 28 | 08:23 | 07:23 | 07:17 | 06:05 | 05:15 | 05:05 | 05:39 | 06:31 | 07:25 | 08:20 | 08:16 | 08:46 |
| | 17:04 | 18:05 | 19:57 | 20:53 | 21:42 | 22:02 | 21:35 | 20:32 | 19:18 | 18:09 | 16:20 | 16:18 |
| 29 | 08:22 | | 07:14 | 06:03 | 05:14 | 05:05 | 05:40 | 06:33 | 07:27 | 07:21 | 08:18 | 08:46 |
| | 17:06 | | 19:58 | 20:54 | 21:43 | 22:02 | 21:33 | 20:30 | 19:15 | 17:07 | 16:19 | 16:19 |
| 30 | 08:20 | | 07:12 | 06:01 | 05:13 | 05:06 | 05:42 | 06:35 | 07:28 | 07:23 | 08:19 | 08:46 |
| | 17:08 | | 20:00 | 20:56 | 21:44 | 22:02 | 21:31 | 20:27 | 19:13 | 17:05 | 16:18 | 16:20 |
| 31 | 08:19 | | 07:10 | | 05:12 | | 05:44 | 06:36 | | 07:25 | | 08:46 |
| | 17:10 | | 20:02 | | 21:46 | | 21:30 | 20:25 | | 17:03 | | 16:21 |
| Potential sun hours | 252 | 274 | 366 | 418 | 491 | 507 | 510 | 458 | 382 | 330 | 261 | 236 |
| Sum of minutes with flicker | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table layout: For each day in each month the following matrix apply

| | | |
|---|---|---|
| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker |
| | Sun set (hh:mm) | First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker |

Licensed user:
Bosch & Van Rijn
Groenmarktstraat 56
NL-3521 AV Utrecht
+31 6 51 71 04 93
Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

# SHADOW - Calendar per WTG

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegdWTG: 10 - GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (27)

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 08:46 | 08:17 | 07:21 | 07:07 | 05:59 | 05:11 | 05:07 | 05:45 | 06:38 | 07:30 | 07:27 | 08:21 |
| | 16:22 | 17:12 | 18:07 | 20:04 | 20:58 | 21:47 | 22:02 | 21:28 | 20:23 | 19:10 | 17:01 | 16:17 |
| 2 | 08:46 | 08:15 | 07:19 | 07:05 | 05:57 | 05:10 | 05:07 | 05:47 | 06:40 | 07:32 | 07:29 | 08:22 |
| | 16:23 | 17:14 | 18:09 | 20:06 | 21:00 | 21:48 | 22:01 | 21:26 | 20:20 | 19:08 | 16:59 | 16:17 |
| 3 | 08:46 | 08:14 | 07:16 | 07:02 | 05:55 | 05:09 | 05:08 | 05:49 | 06:42 | 07:34 | 07:31 | 08:24 |
| | 16:24 | 17:16 | 18:10 | 20:07 | 21:02 | 21:49 | 22:01 | 21:24 | 20:18 | 19:05 | 16:57 | 16:16 |
| 4 | 08:45 | 08:12 | 07:14 | 07:00 | 05:53 | 05:08 | 05:09 | 05:50 | 06:43 | 07:35 | 07:33 | 08:25 |
| | 16:26 | 17:18 | 18:12 | 20:09 | 21:03 | 21:50 | 22:01 | 21:22 | 20:16 | 19:03 | 16:55 | 16:15 |
| 5 | 08:45 | 08:10 | 07:12 | 06:58 | 05:51 | 05:07 | 05:10 | 05:52 | 06:45 | 07:37 | 07:35 | 08:27 |
| | 16:27 | 17:20 | 18:14 | 20:11 | 21:05 | 21:51 | 22:00 | 21:21 | 20:13 | 19:01 | 16:53 | 16:15 |
| 6 | 08:45 | 08:08 | 07:09 | 06:55 | 05:49 | 05:07 | 05:11 | 05:54 | 06:47 | 07:39 | 07:37 | 08:28 |
| | 16:28 | 17:22 | 18:16 | 20:13 | 21:07 | 21:52 | 21:59 | 21:19 | 20:11 | 18:58 | 16:51 | 16:14 |
| 7 | 08:44 | 08:07 | 07:07 | 06:53 | 05:47 | 05:06 | 05:12 | 05:55 | 06:49 | 07:41 | 07:38 | 08:29 |
| | 16:29 | 17:24 | 18:18 | 20:15 | 21:09 | 21:53 | 21:59 | 21:17 | 20:09 | 18:56 | 16:50 | 16:14 |
| 8 | 08:44 | 08:05 | 07:05 | 06:50 | 05:45 | 05:05 | 05:13 | 05:57 | 06:50 | 07:43 | 07:40 | 08:31 |
| | 16:31 | 17:26 | 18:20 | 20:17 | 21:10 | 21:54 | 21:58 | 21:15 | 20:06 | 18:54 | 16:48 | 16:13 |
| 9 | 08:43 | 08:03 | 07:02 | 06:48 | 05:44 | 05:05 | 05:14 | 05:59 | 06:52 | 07:44 | 07:42 | 08:32 |
| | 16:32 | 17:28 | 18:22 | 20:18 | 21:12 | 21:55 | 21:57 | 21:13 | 20:04 | 18:51 | 16:46 | 16:13 |
| 10 | 08:43 | 08:01 | 07:00 | 06:46 | 05:42 | 05:04 | 05:15 | 06:00 | 06:54 | 07:46 | 07:44 | 08:33 |
| | 16:34 | 17:30 | 18:24 | 20:20 | 21:14 | 21:56 | 21:57 | 21:11 | 20:01 | 18:49 | 16:44 | 16:13 |
| 11 | 08:42 | 07:59 | 06:58 | 06:43 | 05:40 | 05:04 | 05:16 | 06:02 | 06:55 | 07:48 | 07:46 | 08:34 |
| | 16:35 | 17:32 | 18:25 | 20:22 | 21:15 | 21:57 | 21:56 | 21:09 | 19:59 | 18:47 | 16:43 | 16:13 |
| 12 | 08:41 | 07:57 | 06:55 | 06:41 | 05:38 | 05:03 | 05:17 | 06:04 | 06:57 | 07:50 | 07:48 | 08:35 |
| | 16:37 | 17:34 | 18:27 | 20:24 | 21:17 | 21:58 | 21:55 | 21:07 | 19:56 | 18:44 | 16:41 | 16:12 |
| 13 | 08:41 | 07:55 | 06:53 | 06:39 | 05:36 | 05:03 | 05:18 | 06:05 | 06:59 | 07:52 | 07:50 | 08:36 |
| | 16:38 | 17:36 | 18:29 | 20:26 | 21:19 | 21:58 | 21:54 | 21:05 | 19:54 | 18:42 | 16:39 | 16:12 |
| 14 | 08:40 | 07:53 | 06:50 | 06:36 | 05:35 | 05:03 | 05:19 | 06:07 | 07:01 | 07:53 | 07:52 | 08:37 |
| | 16:40 | 17:38 | 18:31 | 20:27 | 21:20 | 21:59 | 21:53 | 21:03 | 19:52 | 18:40 | 16:38 | 16:12 |
| 15 | 08:39 | 07:51 | 06:48 | 06:34 | 05:33 | 05:03 | 05:20 | 06:09 | 07:02 | 07:55 | 07:53 | 08:38 |
| | 16:41 | 17:40 | 18:33 | 20:29 | 21:22 | 22:00 | 21:52 | 21:01 | 19:49 | 18:37 | 16:36 | 16:12 |
| 16 | 08:38 | 07:49 | 06:46 | 06:32 | 05:31 | 05:02 | 05:22 | 06:11 | 07:04 | 07:57 | 07:55 | 08:39 |
| | 16:43 | 17:42 | 18:35 | 20:31 | 21:24 | 22:00 | 21:51 | 20:59 | 19:47 | 18:35 | 16:35 | 16:12 |
| 17 | 08:37 | 07:47 | 06:43 | 06:30 | 05:30 | 05:02 | 05:23 | 06:12 | 07:06 | 07:59 | 07:57 | 08:40 |
| | 16:45 | 17:43 | 18:37 | 20:33 | 21:25 | 22:01 | 21:50 | 20:57 | 19:44 | 18:33 | 16:33 | 16:12 |
| 18 | 08:36 | 07:45 | 06:41 | 06:27 | 05:28 | 05:02 | 05:24 | 06:14 | 07:08 | 08:01 | 07:59 | 08:41 |
| | 16:46 | 17:45 | 18:38 | 20:35 | 21:27 | 22:01 | 21:49 | 20:54 | 19:42 | 18:31 | 16:32 | 16:13 |
| 19 | 08:35 | 07:43 | 06:38 | 06:25 | 05:27 | 05:02 | 05:26 | 06:16 | 07:09 | 08:03 | 08:01 | 08:42 |
| | 16:48 | 17:47 | 18:40 | 20:36 | 21:29 | 22:01 | 21:47 | 20:52 | 19:39 | 18:28 | 16:30 | 16:13 |
| 20 | 08:34 | 07:41 | 06:36 | 06:23 | 05:25 | 05:02 | 05:27 | 06:17 | 07:11 | 08:04 | 08:03 | 08:42 |
| | 16:50 | 17:49 | 18:42 | 20:38 | 21:30 | 22:02 | 21:46 | 20:50 | 19:37 | 18:26 | 16:29 | 16:13 |
| 21 | 08:33 | 07:39 | 06:34 | 06:21 | 05:24 | 05:02 | 05:28 | 06:19 | 07:13 | 08:06 | 08:04 | 08:43 |
| | 16:52 | 17:51 | 18:44 | 20:40 | 21:32 | 22:02 | 21:45 | 20:48 | 19:35 | 18:24 | 16:28 | 16:14 |
| 22 | 08:31 | 07:36 | 06:31 | 06:18 | 05:22 | 05:03 | 05:30 | 06:21 | 07:14 | 08:08 | 08:06 | 08:44 |
| | 16:53 | 17:53 | 18:46 | 20:42 | 21:33 | 22:02 | 21:43 | 20:46 | 19:32 | 18:22 | 16:27 | 16:14 |
| 23 | 08:30 | 07:34 | 06:29 | 06:16 | 05:21 | 05:03 | 05:31 | 06:23 | 07:16 | 08:10 | 08:08 | 08:44 |
| | 16:55 | 17:55 | 18:48 | 20:44 | 21:35 | 22:02 | 21:42 | 20:43 | 19:30 | 18:20 | 16:25 | 16:15 |
| 24 | 08:29 | 07:32 | 06:26 | 06:14 | 05:20 | 05:03 | 05:33 | 06:24 | 07:18 | 08:12 | 08:10 | 08:44 |
| | 16:57 | 17:57 | 18:49 | 20:45 | 21:36 | 22:03 | 21:41 | 20:41 | 19:27 | 18:17 | 16:24 | 16:15 |
| 25 | 08:27 | 07:30 | 06:24 | 06:12 | 05:18 | 05:04 | 05:34 | 06:26 | 07:20 | 08:14 | 08:11 | 08:45 |
| | 16:59 | 17:59 | 18:51 | 20:47 | 21:38 | 22:03 | 21:39 | 20:39 | 19:25 | 18:15 | 16:23 | 16:16 |
| 26 | 08:26 | 07:28 | 07:22 | 06:10 | 05:17 | 05:04 | 05:36 | 06:28 | 07:21 | 08:16 | 08:13 | 08:45 |
| | 17:01 | 18:01 | 19:53 | 20:49 | 21:39 | 22:03 | 21:38 | 20:37 | 19:22 | 18:13 | 16:22 | 16:16 |
| 27 | 08:25 | 07:25 | 07:19 | 06:07 | 05:16 | 05:04 | 05:37 | 06:30 | 07:23 | 08:18 | 08:15 | 08:45 |
| | 17:03 | 18:03 | 19:55 | 20:51 | 21:40 | 22:03 | 21:36 | 20:34 | 19:20 | 18:11 | 16:21 | 16:17 |
| 28 | 08:23 | 07:23 | 07:17 | 06:05 | 05:15 | 05:05 | 05:39 | 06:31 | 07:25 | 08:19 | 08:16 | 08:46 |
| | 17:04 | 18:05 | 19:57 | 20:53 | 21:42 | 22:02 | 21:35 | 20:32 | 19:18 | 18:09 | 16:20 | 16:18 |
| 29 | 08:22 | | 07:14 | 06:03 | 05:14 | 05:05 | 05:40 | 06:33 | 07:27 | 07:21 | 08:18 | 08:46 |
| | 17:06 | | 19:58 | 20:54 | 21:43 | 22:02 | 21:33 | 20:30 | 19:15 | 17:07 | 16:19 | 16:19 |
| 30 | 08:20 | | 07:12 | 06:01 | 05:13 | 05:06 | 05:42 | 06:35 | 07:28 | 07:23 | 08:19 | 08:46 |
| | 17:08 | | 20:00 | 20:56 | 21:44 | 22:02 | 21:31 | 20:27 | 19:13 | 17:05 | 16:18 | 16:20 |
| 31 | 08:19 | | 07:10 | | 05:12 | | 05:44 | 06:36 | | 07:25 | | 08:46 |
| | 17:10 | | 20:02 | | 21:46 | | 21:30 | 20:25 | | 17:03 | | 16:21 |
| Potential sun hours | 252 | 274 | 366 | 418 | 491 | 507 | 509 | 458 | 382 | 330 | 261 | 236 |
| Sum of minutes with flicker | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table layout: For each day in each month the following matrix apply

| | | |
|---|---|---|
| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker |
| | Sun set (hh:mm) | First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker |

Licensed user:
Bosch & Van Rijn
Groenmarktstraat 56
NL-3521 AV Utrecht
+31 6 51 71 04 93
Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

# SHADOW - Calendar per WTG

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegdWTG: 11 - GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (28)

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 08:46 | 08:17 | 07:21 | 07:07 | 05:59 | 05:11 | 05:07 | 05:45 | 06:38 | 07:30 | 07:27 | 08:21 |
| | 16:22 | 17:12 | 18:07 | 20:04 | 20:58 | 21:47 | 22:02 | 21:28 | 20:23 | 19:10 | 17:01 | 16:17 |
| 2 | 08:46 | 08:15 | 07:19 | 07:05 | 05:57 | 05:10 | 05:07 | 05:47 | 06:40 | 07:32 | 07:29 | 08:22 |
| | 16:23 | 17:14 | 18:09 | 20:06 | 21:00 | 21:48 | 22:01 | 21:26 | 20:20 | 19:08 | 16:59 | 16:17 |
| 3 | 08:46 | 08:14 | 07:16 | 07:02 | 05:55 | 05:09 | 05:08 | 05:49 | 06:42 | 07:34 | 07:31 | 08:24 |
| | 16:24 | 17:16 | 18:10 | 20:07 | 21:01 | 21:49 | 22:01 | 21:24 | 20:18 | 19:05 | 16:57 | 16:16 |
| 4 | 08:45 | 08:12 | 07:14 | 07:00 | 05:53 | 05:08 | 05:09 | 05:50 | 06:43 | 07:35 | 07:33 | 08:25 |
| | 16:26 | 17:18 | 18:12 | 20:09 | 21:03 | 21:50 | 22:01 | 21:22 | 20:16 | 19:03 | 16:55 | 16:15 |
| 5 | 08:45 | 08:10 | 07:12 | 06:58 | 05:51 | 05:07 | 05:10 | 05:52 | 06:45 | 07:37 | 07:35 | 08:27 |
| | 16:27 | 17:20 | 18:14 | 20:11 | 21:05 | 21:51 | 22:00 | 21:21 | 20:13 | 19:01 | 16:53 | 16:15 |
| 6 | 08:45 | 08:08 | 07:09 | 06:55 | 05:49 | 05:07 | 05:11 | 05:54 | 06:47 | 07:39 | 07:37 | 08:28 |
| | 16:28 | 17:22 | 18:16 | 20:13 | 21:07 | 21:52 | 21:59 | 21:19 | 20:11 | 18:58 | 16:51 | 16:14 |
| 7 | 08:44 | 08:07 | 07:07 | 06:53 | 05:47 | 05:06 | 05:12 | 05:55 | 06:49 | 07:41 | 07:38 | 08:29 |
| | 16:29 | 17:24 | 18:18 | 20:15 | 21:09 | 21:53 | 21:59 | 21:17 | 20:09 | 18:56 | 16:50 | 16:14 |
| 8 | 08:44 | 08:05 | 07:05 | 06:50 | 05:45 | 05:05 | 05:13 | 05:57 | 06:50 | 07:43 | 07:40 | 08:31 |
| | 16:31 | 17:26 | 18:20 | 20:17 | 21:10 | 21:54 | 21:58 | 21:15 | 20:06 | 18:54 | 16:48 | 16:13 |
| 9 | 08:43 | 08:03 | 07:02 | 06:48 | 05:44 | 05:05 | 05:14 | 05:59 | 06:52 | 07:44 | 07:42 | 08:32 |
| | 16:32 | 17:28 | 18:22 | 20:18 | 21:12 | 21:55 | 21:57 | 21:13 | 20:04 | 18:51 | 16:46 | 16:13 |
| 10 | 08:43 | 08:01 | 07:00 | 06:46 | 05:42 | 05:04 | 05:15 | 06:00 | 06:54 | 07:46 | 07:44 | 08:33 |
| | 16:34 | 17:30 | 18:24 | 20:20 | 21:14 | 21:56 | 21:57 | 21:11 | 20:01 | 18:49 | 16:44 | 16:13 |
| 11 | 08:42 | 07:59 | 06:58 | 06:43 | 05:40 | 05:04 | 05:16 | 06:02 | 06:55 | 07:48 | 07:46 | 08:34 |
| | 16:35 | 17:32 | 18:25 | 20:22 | 21:15 | 21:57 | 21:56 | 21:09 | 19:59 | 18:47 | 16:43 | 16:13 |
| 12 | 08:41 | 07:57 | 06:55 | 06:41 | 05:38 | 05:03 | 05:17 | 06:04 | 06:57 | 07:50 | 07:48 | 08:35 |
| | 16:37 | 17:34 | 18:27 | 20:24 | 21:17 | 21:58 | 21:55 | 21:07 | 19:56 | 18:44 | 16:41 | 16:12 |
| 13 | 08:41 | 07:55 | 06:53 | 06:39 | 05:37 | 05:03 | 05:18 | 06:05 | 06:59 | 07:52 | 07:50 | 08:36 |
| | 16:38 | 17:36 | 18:29 | 20:26 | 21:19 | 21:58 | 21:54 | 21:05 | 19:54 | 18:42 | 16:39 | 16:12 |
| 14 | 08:40 | 07:53 | 06:50 | 06:36 | 05:35 | 05:03 | 05:19 | 06:07 | 07:01 | 07:53 | 07:52 | 08:37 |
| | 16:40 | 17:38 | 18:31 | 20:27 | 21:20 | 21:59 | 21:53 | 21:03 | 19:52 | 18:40 | 16:38 | 16:12 |
| 15 | 08:39 | 07:51 | 06:48 | 06:34 | 05:33 | 05:03 | 05:20 | 06:09 | 07:02 | 07:55 | 07:53 | 08:38 |
| | 16:41 | 17:40 | 18:33 | 20:29 | 21:22 | 22:00 | 21:52 | 21:01 | 19:49 | 18:37 | 16:36 | 16:12 |
| 16 | 08:38 | 07:49 | 06:46 | 06:32 | 05:32 | 05:02 | 05:22 | 06:11 | 07:04 | 07:57 | 07:55 | 08:39 |
| | 16:43 | 17:42 | 18:35 | 20:31 | 21:24 | 22:00 | 21:51 | 20:59 | 19:47 | 18:35 | 16:35 | 16:12 |
| 17 | 08:37 | 07:47 | 06:43 | 06:30 | 05:30 | 05:02 | 05:23 | 06:12 | 07:06 | 07:59 | 07:57 | 08:40 |
| | 16:45 | 17:43 | 18:37 | 20:33 | 21:25 | 22:01 | 21:50 | 20:57 | 19:44 | 18:33 | 16:33 | 16:12 |
| 18 | 08:36 | 07:45 | 06:41 | 06:27 | 05:28 | 05:02 | 05:24 | 06:14 | 07:08 | 08:01 | 07:59 | 08:41 |
| | 16:46 | 17:45 | 18:38 | 20:35 | 21:27 | 22:01 | 21:49 | 20:54 | 19:42 | 18:31 | 16:32 | 16:13 |
| 19 | 08:35 | 07:43 | 06:38 | 06:25 | 05:27 | 05:02 | 05:26 | 06:16 | 07:09 | 08:03 | 08:01 | 08:42 |
| | 16:48 | 17:47 | 18:40 | 20:36 | 21:28 | 22:01 | 21:47 | 20:52 | 19:39 | 18:28 | 16:30 | 16:13 |
| 20 | 08:34 | 07:41 | 06:36 | 06:23 | 05:25 | 05:02 | 05:27 | 06:17 | 07:11 | 08:04 | 08:03 | 08:42 |
| | 16:50 | 17:49 | 18:42 | 20:38 | 21:30 | 22:02 | 21:46 | 20:50 | 19:37 | 18:26 | 16:29 | 16:13 |
| 21 | 08:33 | 07:39 | 06:34 | 06:21 | 05:24 | 05:03 | 05:28 | 06:19 | 07:13 | 08:06 | 08:04 | 08:43 |
| | 16:52 | 17:51 | 18:44 | 20:40 | 21:32 | 22:02 | 21:45 | 20:48 | 19:35 | 18:24 | 16:28 | 16:14 |
| 22 | 08:31 | 07:36 | 06:31 | 06:18 | 05:22 | 05:03 | 05:30 | 06:21 | 07:14 | 08:08 | 08:06 | 08:43 |
| | 16:53 | 17:53 | 18:46 | 20:42 | 21:33 | 22:02 | 21:43 | 20:46 | 19:32 | 18:22 | 16:27 | 16:14 |
| 23 | 08:30 | 07:34 | 06:29 | 06:16 | 05:21 | 05:03 | 05:31 | 06:23 | 07:16 | 08:10 | 08:08 | 08:44 |
| | 16:55 | 17:55 | 18:48 | 20:44 | 21:35 | 22:02 | 21:42 | 20:43 | 19:30 | 18:20 | 16:25 | 16:15 |
| 24 | 08:29 | 07:32 | 06:26 | 06:14 | 05:20 | 05:03 | 05:33 | 06:24 | 07:18 | 08:12 | 08:10 | 08:44 |
| | 16:57 | 17:57 | 18:49 | 20:45 | 21:36 | 22:03 | 21:41 | 20:41 | 19:27 | 18:17 | 16:24 | 16:15 |
| 25 | 08:27 | 07:30 | 06:24 | 06:12 | 05:18 | 05:04 | 05:34 | 06:26 | 07:20 | 08:14 | 08:11 | 08:45 |
| | 16:59 | 17:59 | 18:51 | 20:47 | 21:38 | 22:03 | 21:39 | 20:39 | 19:25 | 18:15 | 16:23 | 16:16 |
| 26 | 08:26 | 07:28 | 07:22 | 06:10 | 05:17 | 05:04 | 05:36 | 06:28 | 07:21 | 08:16 | 08:13 | 08:45 |
| | 17:01 | 18:01 | 19:53 | 20:49 | 21:39 | 22:03 | 21:38 | 20:37 | 19:22 | 18:13 | 16:22 | 16:17 |
| 27 | 08:25 | 07:25 | 07:19 | 06:07 | 05:16 | 05:04 | 05:37 | 06:30 | 07:23 | 08:18 | 08:15 | 08:45 |
| | 17:03 | 18:03 | 19:55 | 20:51 | 21:40 | 22:03 | 21:36 | 20:34 | 19:20 | 18:11 | 16:21 | 16:17 |
| 28 | 08:23 | 07:23 | 07:17 | 06:05 | 05:15 | 05:05 | 05:39 | 06:31 | 07:25 | 08:19 | 08:16 | 08:46 |
| | 17:04 | 18:05 | 19:57 | 20:53 | 21:42 | 22:02 | 21:35 | 20:32 | 19:18 | 18:09 | 16:20 | 16:18 |
| 29 | 08:22 | | 07:14 | 06:03 | 05:14 | 05:05 | 05:41 | 06:33 | 07:27 | 07:21 | 08:18 | 08:46 |
| | 17:06 | | 19:58 | 20:54 | 21:43 | 22:02 | 21:33 | 20:30 | 19:15 | 17:07 | 16:19 | 16:19 |
| 30 | 08:20 | | 07:12 | 06:01 | 05:13 | 05:06 | 05:42 | 06:35 | 07:28 | 07:23 | 08:19 | 08:46 |
| | 17:08 | | 20:00 | 20:56 | 21:44 | 22:02 | 21:31 | 20:27 | 19:13 | 17:05 | 16:18 | 16:20 |
| 31 | 08:19 | | 07:10 | | 05:12 | | 05:44 | 06:36 | | 07:25 | | 08:46 |
| | 17:10 | | 20:02 | | 21:46 | | 21:30 | 20:25 | | 17:03 | | 16:21 |
| Potential sun hours | 252 | 274 | 366 | 418 | 491 | 507 | 509 | 458 | 382 | 330 | 262 | 236 |
| Sum of minutes with flicker | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table layout: For each day in each month the following matrix apply

| | | |
|---|---|---|
| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker |
| | Sun set (hh:mm) | First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker |

Licensed user:
Bosch & Van Rijn
Groenmarktstraat 56
NL-3521 AV Utrecht
+31 6 51 71 04 93
Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

# SHADOW - Calendar per WTG

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegdWTG: 12 - GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (29)

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 08:46 | 08:17 | 07:21 | 07:07 | 05:59 | 05:11 | 05:07 | 05:45 | 06:38 | 07:30 | 07:27 | 08:21 |
| | 16:22 | 17:12 | 18:07 | 20:04 | 20:58 | 21:47 | 22:02 | 21:28 | 20:23 | 19:10 | 17:01 | 16:18 |
| 2 | 08:46 | 08:15 | 07:19 | 07:05 | 05:57 | 05:10 | 05:07 | 05:47 | 06:40 | 07:32 | 07:29 | 08:22 |
| | 16:23 | 17:14 | 18:09 | 20:06 | 21:00 | 21:48 | 22:01 | 21:26 | 20:20 | 19:08 | 16:59 | 16:17 |
| 3 | 08:46 | 08:14 | 07:16 | 07:02 | 05:55 | 05:09 | 05:08 | 05:49 | 06:42 | 07:34 | 07:31 | 08:24 |
| | 16:24 | 17:16 | 18:10 | 20:07 | 21:01 | 21:49 | 22:01 | 21:24 | 20:18 | 19:05 | 16:57 | 16:16 |
| 4 | 08:45 | 08:12 | 07:14 | 07:00 | 05:53 | 05:08 | 05:09 | 05:50 | 06:43 | 07:35 | 07:33 | 08:25 |
| | 16:26 | 17:18 | 18:12 | 20:09 | 21:03 | 21:50 | 22:00 | 21:22 | 20:16 | 19:03 | 16:55 | 16:15 |
| 5 | 08:45 | 08:10 | 07:12 | 06:58 | 05:51 | 05:07 | 05:10 | 05:52 | 06:45 | 07:37 | 07:35 | 08:27 |
| | 16:27 | 17:20 | 18:14 | 20:11 | 21:05 | 21:51 | 22:00 | 21:21 | 20:13 | 19:01 | 16:53 | 16:15 |
| 6 | 08:45 | 08:08 | 07:09 | 06:55 | 05:49 | 05:07 | 05:11 | 05:54 | 06:47 | 07:39 | 07:37 | 08:28 |
| | 16:28 | 17:22 | 18:16 | 20:13 | 21:07 | 21:52 | 21:59 | 21:19 | 20:11 | 18:58 | 16:51 | 16:14 |
| 7 | 08:44 | 08:07 | 07:07 | 06:53 | 05:47 | 05:06 | 05:12 | 05:55 | 06:49 | 07:41 | 07:38 | 08:29 |
| | 16:29 | 17:24 | 18:18 | 20:15 | 21:08 | 21:53 | 21:59 | 21:17 | 20:08 | 18:56 | 16:50 | 16:14 |
| 8 | 08:44 | 08:05 | 07:05 | 06:50 | 05:46 | 05:05 | 05:13 | 05:57 | 06:50 | 07:43 | 07:40 | 08:31 |
| | 16:31 | 17:26 | 18:20 | 20:17 | 21:10 | 21:54 | 21:58 | 21:15 | 20:06 | 18:54 | 16:48 | 16:13 |
| 9 | 08:43 | 08:03 | 07:02 | 06:48 | 05:44 | 05:05 | 05:14 | 05:59 | 06:52 | 07:44 | 07:42 | 08:32 |
| | 16:32 | 17:28 | 18:22 | 20:18 | 21:12 | 21:55 | 21:57 | 21:13 | 20:04 | 18:51 | 16:46 | 16:13 |
| 10 | 08:43 | 08:01 | 07:00 | 06:46 | 05:42 | 05:04 | 05:15 | 06:00 | 06:54 | 07:46 | 07:44 | 08:33 |
| | 16:34 | 17:30 | 18:24 | 20:20 | 21:14 | 21:56 | 21:57 | 21:11 | 20:01 | 18:49 | 16:44 | 16:13 |
| 11 | 08:42 | 07:59 | 06:58 | 06:43 | 05:40 | 05:04 | 05:16 | 06:02 | 06:55 | 07:48 | 07:46 | 08:34 |
| | 16:35 | 17:32 | 18:25 | 20:22 | 21:15 | 21:57 | 21:56 | 21:09 | 19:59 | 18:47 | 16:43 | 16:13 |
| 12 | 08:41 | 07:57 | 06:55 | 06:41 | 05:38 | 05:04 | 05:17 | 06:04 | 06:57 | 07:50 | 07:48 | 08:35 |
| | 16:37 | 17:34 | 18:27 | 20:24 | 21:17 | 21:58 | 21:55 | 21:07 | 19:56 | 18:44 | 16:41 | 16:12 |
| 13 | 08:40 | 07:55 | 06:53 | 06:39 | 05:37 | 05:03 | 05:18 | 06:05 | 06:59 | 07:52 | 07:50 | 08:36 |
| | 16:38 | 17:36 | 18:29 | 20:26 | 21:19 | 21:58 | 21:54 | 21:05 | 19:54 | 18:42 | 16:39 | 16:12 |
| 14 | 08:40 | 07:53 | 06:50 | 06:36 | 05:35 | 05:03 | 05:19 | 06:07 | 07:01 | 07:53 | 07:52 | 08:37 |
| | 16:40 | 17:38 | 18:31 | 20:27 | 21:20 | 21:59 | 21:53 | 21:03 | 19:52 | 18:40 | 16:38 | 16:12 |
| 15 | 08:39 | 07:51 | 06:48 | 06:34 | 05:33 | 05:03 | 05:20 | 06:09 | 07:02 | 07:55 | 07:53 | 08:38 |
| | 16:41 | 17:40 | 18:33 | 20:29 | 21:22 | 22:00 | 21:52 | 21:01 | 19:49 | 18:37 | 16:36 | 16:12 |
| 16 | 08:38 | 07:49 | 06:46 | 06:32 | 05:32 | 05:03 | 05:22 | 06:11 | 07:04 | 07:57 | 07:55 | 08:39 |
| | 16:43 | 17:42 | 18:35 | 20:31 | 21:24 | 22:00 | 21:51 | 20:59 | 19:47 | 18:35 | 16:35 | 16:12 |
| 17 | 08:37 | 07:47 | 06:43 | 06:30 | 05:30 | 05:02 | 05:23 | 06:12 | 07:06 | 07:59 | 07:57 | 08:40 |
| | 16:45 | 17:43 | 18:37 | 20:33 | 21:25 | 22:01 | 21:50 | 20:57 | 19:44 | 18:33 | 16:33 | 16:13 |
| 18 | 08:36 | 07:45 | 06:41 | 06:27 | 05:28 | 05:02 | 05:24 | 06:14 | 07:08 | 08:01 | 07:59 | 08:41 |
| | 16:46 | 17:45 | 18:38 | 20:35 | 21:27 | 22:01 | 21:49 | 20:54 | 19:42 | 18:31 | 16:32 | 16:13 |
| 19 | 08:35 | 07:43 | 06:38 | 06:25 | 05:27 | 05:02 | 05:26 | 06:16 | 07:09 | 08:03 | 08:01 | 08:42 |
| | 16:48 | 17:47 | 18:40 | 20:36 | 21:28 | 22:01 | 21:47 | 20:52 | 19:39 | 18:28 | 16:31 | 16:13 |
| 20 | 08:34 | 07:41 | 06:36 | 06:23 | 05:25 | 05:02 | 05:27 | 06:17 | 07:11 | 08:04 | 08:03 | 08:42 |
| | 16:50 | 17:49 | 18:42 | 20:38 | 21:30 | 22:02 | 21:46 | 20:50 | 19:37 | 18:26 | 16:29 | 16:13 |
| 21 | 08:33 | 07:39 | 06:34 | 06:21 | 05:24 | 05:03 | 05:28 | 06:19 | 07:13 | 08:06 | 08:04 | 08:43 |
| | 16:52 | 17:51 | 18:44 | 20:40 | 21:32 | 22:02 | 21:45 | 20:48 | 19:35 | 18:24 | 16:28 | 16:14 |
| 22 | 08:31 | 07:36 | 06:31 | 06:18 | 05:22 | 05:03 | 05:30 | 06:21 | 07:14 | 08:08 | 08:06 | 08:43 |
| | 16:53 | 17:53 | 18:46 | 20:42 | 21:33 | 22:02 | 21:43 | 20:46 | 19:32 | 18:22 | 16:27 | 16:14 |
| 23 | 08:30 | 07:34 | 06:29 | 06:16 | 05:21 | 05:03 | 05:31 | 06:23 | 07:16 | 08:10 | 08:08 | 08:44 |
| | 16:55 | 17:55 | 18:48 | 20:44 | 21:35 | 22:02 | 21:42 | 20:43 | 19:30 | 18:20 | 16:25 | 16:15 |
| 24 | 08:29 | 07:32 | 06:26 | 06:14 | 05:20 | 05:03 | 05:33 | 06:24 | 07:18 | 08:12 | 08:10 | 08:44 |
| | 16:57 | 17:57 | 18:49 | 20:45 | 21:36 | 22:03 | 21:41 | 20:41 | 19:27 | 18:17 | 16:24 | 16:15 |
| 25 | 08:27 | 07:30 | 06:24 | 06:12 | 05:18 | 05:04 | 05:34 | 06:26 | 07:20 | 08:14 | 08:11 | 08:45 |
| | 16:59 | 17:59 | 18:51 | 20:47 | 21:38 | 22:03 | 21:39 | 20:39 | 19:25 | 18:15 | 16:23 | 16:16 |
| 26 | 08:26 | 07:28 | 07:22 | 06:10 | 05:17 | 05:04 | 05:36 | 06:28 | 07:21 | 08:16 | 08:13 | 08:45 |
| | 17:01 | 18:01 | 19:53 | 20:49 | 21:39 | 22:03 | 21:38 | 20:37 | 19:22 | 18:13 | 16:22 | 16:17 |
| 27 | 08:25 | 07:25 | 07:19 | 06:08 | 05:16 | 05:04 | 05:37 | 06:30 | 07:23 | 08:18 | 08:15 | 08:45 |
| | 17:03 | 18:03 | 19:55 | 20:51 | 21:40 | 22:03 | 21:36 | 20:34 | 19:20 | 18:11 | 16:21 | 16:17 |
| 28 | 08:23 | 07:23 | 07:17 | 06:05 | 05:15 | 05:05 | 05:39 | 06:31 | 07:25 | 08:19 | 08:16 | 08:46 |
| | 17:04 | 18:05 | 19:57 | 20:53 | 21:42 | 22:02 | 21:34 | 20:32 | 19:18 | 18:09 | 16:20 | 16:18 |
| 29 | 08:22 | | 07:14 | 06:03 | 05:14 | 05:05 | 05:41 | 06:33 | 07:27 | 07:21 | 08:18 | 08:46 |
| | 17:06 | | 19:58 | 20:54 | 21:43 | 22:02 | 21:33 | 20:30 | 19:15 | 17:07 | 16:19 | 16:19 |
| 30 | 08:20 | | 07:12 | 06:01 | 05:13 | 05:06 | 05:42 | 06:35 | 07:28 | 07:23 | 08:19 | 08:46 |
| | 17:08 | | 20:00 | 20:56 | 21:44 | 22:02 | 21:31 | 20:27 | 19:13 | 17:05 | 16:18 | 16:20 |
| 31 | 08:19 | | 07:10 | | 05:12 | | 05:44 | 06:36 | | 07:25 | | 08:46 |
| | 17:10 | | 20:02 | | 21:46 | | 21:30 | 20:25 | | 17:03 | | 16:21 |
| Potential sun hours | 252 | 274 | 366 | 418 | 491 | 507 | 509 | 458 | 382 | 330 | 262 | 236 |
| Sum of minutes with flicker | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table layout: For each day in each month the following matrix apply

| | | |
|---|---|---|
| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker |
| | Sun set (hh:mm) | First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker |

Licensed user:
Bosch & Van Rijn
Groenmarktstraat 56
NL-3521 AV Utrecht
+31 6 51 71 04 93
Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

# SHADOW - Calendar per WTG

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegdWTG: 13 - GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (30)

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 08:46 | 08:17 | 07:21 | 07:07 | 05:59 | 05:11 | 05:07 | 05:45 | 06:38 | 07:30 | 07:27 | 08:21 |
| | 16:22 | 17:12 | 18:07 | 20:04 | 20:58 | 21:47 | 22:02 | 21:28 | 20:23 | 19:10 | 17:01 | 16:18 |
| 2 | 08:46 | 08:15 | 07:19 | 07:05 | 05:57 | 05:10 | 05:07 | 05:47 | 06:40 | 07:32 | 07:29 | 08:22 |
| | 16:23 | 17:14 | 18:09 | 20:06 | 21:00 | 21:48 | 22:01 | 21:26 | 20:20 | 19:08 | 16:59 | 16:17 |
| 3 | 08:45 | 08:14 | 07:16 | 07:02 | 05:55 | 05:09 | 05:08 | 05:49 | 06:42 | 07:34 | 07:31 | 08:24 |
| | 16:24 | 17:16 | 18:10 | 20:07 | 21:01 | 21:49 | 22:01 | 21:24 | 20:18 | 19:05 | 16:57 | 16:16 |
| 4 | 08:45 | 08:12 | 07:14 | 07:00 | 05:53 | 05:08 | 05:09 | 05:50 | 06:43 | 07:35 | 07:33 | 08:25 |
| | 16:26 | 17:18 | 18:12 | 20:09 | 21:03 | 21:50 | 22:00 | 21:22 | 20:16 | 19:03 | 16:55 | 16:15 |
| 5 | 08:45 | 08:10 | 07:12 | 06:58 | 05:51 | 05:07 | 05:10 | 05:52 | 06:45 | 07:37 | 07:35 | 08:27 |
| | 16:27 | 17:20 | 18:14 | 20:11 | 21:05 | 21:51 | 22:00 | 21:21 | 20:13 | 19:01 | 16:53 | 16:15 |
| 6 | 08:45 | 08:08 | 07:09 | 06:55 | 05:49 | 05:07 | 05:11 | 05:54 | 06:47 | 07:39 | 07:37 | 08:28 |
| | 16:28 | 17:22 | 18:16 | 20:13 | 21:07 | 21:52 | 21:59 | 21:19 | 20:11 | 18:58 | 16:51 | 16:14 |
| 7 | 08:44 | 08:07 | 07:07 | 06:53 | 05:47 | 05:06 | 05:12 | 05:55 | 06:49 | 07:41 | 07:38 | 08:29 |
| | 16:29 | 17:24 | 18:18 | 20:15 | 21:08 | 21:53 | 21:59 | 21:17 | 20:08 | 18:56 | 16:50 | 16:14 |
| 8 | 08:44 | 08:05 | 07:05 | 06:50 | 05:46 | 05:05 | 05:13 | 05:57 | 06:50 | 07:43 | 07:40 | 08:31 |
| | 16:31 | 17:26 | 18:20 | 20:17 | 21:10 | 21:54 | 21:58 | 21:15 | 20:06 | 18:54 | 16:48 | 16:13 |
| 9 | 08:43 | 08:03 | 07:02 | 06:48 | 05:44 | 05:05 | 05:14 | 05:59 | 06:52 | 07:44 | 07:42 | 08:32 |
| | 16:32 | 17:28 | 18:22 | 20:18 | 21:12 | 21:55 | 21:57 | 21:13 | 20:04 | 18:51 | 16:46 | 16:13 |
| 10 | 08:43 | 08:01 | 07:00 | 06:46 | 05:42 | 05:04 | 05:15 | 06:00 | 06:54 | 07:46 | 07:44 | 08:33 |
| | 16:34 | 17:30 | 18:24 | 20:20 | 21:14 | 21:56 | 21:57 | 21:11 | 20:01 | 18:49 | 16:44 | 16:13 |
| 11 | 08:42 | 07:59 | 06:58 | 06:43 | 05:40 | 05:04 | 05:16 | 06:02 | 06:55 | 07:48 | 07:46 | 08:34 |
| | 16:35 | 17:32 | 18:26 | 20:22 | 21:15 | 21:57 | 21:56 | 21:09 | 19:59 | 18:47 | 16:43 | 16:13 |
| 12 | 08:41 | 07:57 | 06:55 | 06:41 | 05:38 | 05:04 | 05:17 | 06:04 | 06:57 | 07:50 | 07:48 | 08:35 |
| | 16:37 | 17:34 | 18:27 | 20:24 | 21:17 | 21:58 | 21:55 | 21:07 | 19:56 | 18:44 | 16:41 | 16:12 |
| 13 | 08:40 | 07:55 | 06:53 | 06:39 | 05:37 | 05:03 | 05:18 | 06:05 | 06:59 | 07:52 | 07:50 | 08:36 |
| | 16:38 | 17:36 | 18:29 | 20:26 | 21:19 | 21:58 | 21:54 | 21:05 | 19:54 | 18:42 | 16:39 | 16:12 |
| 14 | 08:40 | 07:53 | 06:50 | 06:36 | 05:35 | 05:03 | 05:19 | 06:07 | 07:01 | 07:53 | 07:52 | 08:37 |
| | 16:40 | 17:38 | 18:31 | 20:27 | 21:20 | 21:59 | 21:53 | 21:03 | 19:52 | 18:40 | 16:38 | 16:12 |
| 15 | 08:39 | 07:51 | 06:48 | 06:34 | 05:33 | 05:03 | 05:20 | 06:09 | 07:02 | 07:55 | 07:53 | 08:38 |
| | 16:41 | 17:40 | 18:33 | 20:29 | 21:22 | 21:59 | 21:52 | 21:01 | 19:49 | 18:37 | 16:36 | 16:12 |
| 16 | 08:38 | 07:49 | 06:46 | 06:32 | 05:32 | 05:03 | 05:22 | 06:11 | 07:04 | 07:57 | 07:55 | 08:39 |
| | 16:43 | 17:42 | 18:35 | 20:31 | 21:24 | 22:00 | 21:51 | 20:59 | 19:47 | 18:35 | 16:35 | 16:12 |
| 17 | 08:37 | 07:47 | 06:43 | 06:30 | 05:30 | 05:02 | 05:23 | 06:12 | 07:06 | 07:59 | 07:57 | 08:40 |
| | 16:45 | 17:43 | 18:37 | 20:33 | 21:25 | 22:01 | 21:50 | 20:57 | 19:44 | 18:33 | 16:33 | 16:13 |
| 18 | 08:36 | 07:45 | 06:41 | 06:27 | 05:28 | 05:02 | 05:24 | 06:14 | 07:08 | 08:01 | 07:59 | 08:41 |
| | 16:46 | 17:45 | 18:38 | 20:35 | 21:27 | 22:01 | 21:49 | 20:54 | 19:42 | 18:31 | 16:32 | 16:13 |
| 19 | 08:35 | 07:43 | 06:38 | 06:25 | 05:27 | 05:02 | 05:26 | 06:16 | 07:09 | 08:03 | 08:01 | 08:42 |
| | 16:48 | 17:47 | 18:40 | 20:36 | 21:28 | 22:01 | 21:47 | 20:52 | 19:39 | 18:28 | 16:31 | 16:13 |
| 20 | 08:34 | 07:41 | 06:36 | 06:23 | 05:25 | 05:02 | 05:27 | 06:17 | 07:11 | 08:04 | 08:03 | 08:42 |
| | 16:50 | 17:49 | 18:42 | 20:38 | 21:30 | 22:02 | 21:46 | 20:50 | 19:37 | 18:26 | 16:29 | 16:13 |
| 21 | 08:33 | 07:39 | 06:34 | 06:21 | 05:24 | 05:03 | 05:29 | 06:19 | 07:13 | 08:06 | 08:04 | 08:43 |
| | 16:52 | 17:51 | 18:44 | 20:40 | 21:32 | 22:02 | 21:45 | 20:48 | 19:35 | 18:24 | 16:28 | 16:14 |
| 22 | 08:31 | 07:36 | 06:31 | 06:18 | 05:23 | 05:03 | 05:30 | 06:21 | 07:14 | 08:08 | 08:06 | 08:43 |
| | 16:53 | 17:53 | 18:46 | 20:42 | 21:33 | 22:02 | 21:43 | 20:46 | 19:32 | 18:22 | 16:27 | 16:14 |
| 23 | 08:30 | 07:34 | 06:29 | 06:16 | 05:21 | 05:03 | 05:31 | 06:23 | 07:16 | 08:10 | 08:08 | 08:44 |
| | 16:55 | 17:55 | 18:48 | 20:44 | 21:35 | 22:02 | 21:42 | 20:43 | 19:30 | 18:20 | 16:25 | 16:15 |
| 24 | 08:29 | 07:32 | 06:26 | 06:14 | 05:20 | 05:03 | 05:33 | 06:24 | 07:18 | 08:12 | 08:10 | 08:44 |
| | 16:57 | 17:57 | 18:49 | 20:45 | 21:36 | 22:02 | 21:41 | 20:41 | 19:27 | 18:17 | 16:24 | 16:15 |
| 25 | 08:27 | 07:30 | 06:24 | 06:12 | 05:19 | 05:04 | 05:34 | 06:26 | 07:20 | 08:14 | 08:11 | 08:45 |
| | 16:59 | 17:59 | 18:51 | 20:47 | 21:37 | 22:03 | 21:39 | 20:39 | 19:25 | 18:15 | 16:23 | 16:16 |
| 26 | 08:26 | 07:28 | 07:22 | 06:10 | 05:17 | 05:04 | 05:36 | 06:28 | 07:21 | 08:16 | 08:13 | 08:45 |
| | 17:01 | 18:01 | 19:53 | 20:49 | 21:39 | 22:03 | 21:38 | 20:37 | 19:22 | 18:13 | 16:22 | 16:17 |
| 27 | 08:25 | 07:25 | 07:19 | 06:08 | 05:16 | 05:04 | 05:37 | 06:30 | 07:23 | 08:18 | 08:15 | 08:45 |
| | 17:03 | 18:03 | 19:55 | 20:51 | 21:40 | 22:02 | 21:36 | 20:34 | 19:20 | 18:11 | 16:21 | 16:17 |
| 28 | 08:23 | 07:23 | 07:17 | 06:05 | 05:15 | 05:05 | 05:39 | 06:31 | 07:25 | 08:19 | 08:16 | 08:46 |
| | 17:05 | 18:05 | 19:57 | 20:53 | 21:42 | 22:02 | 21:34 | 20:32 | 19:18 | 18:09 | 16:20 | 16:18 |
| 29 | 08:22 | | 07:14 | 06:03 | 05:14 | 05:05 | 05:41 | 06:33 | 07:27 | 07:21 | 08:18 | 08:46 |
| | 17:06 | | 19:58 | 20:54 | 21:43 | 22:02 | 21:33 | 20:30 | 19:15 | 17:07 | 16:19 | 16:19 |
| 30 | 08:20 | | 07:12 | 06:01 | 05:13 | 05:06 | 05:42 | 06:35 | 07:28 | 07:23 | 08:19 | 08:46 |
| | 17:08 | | 20:00 | 20:56 | 21:44 | 22:02 | 21:31 | 20:27 | 19:13 | 17:05 | 16:18 | 16:20 |
| 31 | 08:19 | | 07:10 | | 05:12 | | 05:44 | 06:36 | | 07:25 | | 08:46 |
| | 17:10 | | 20:02 | | 21:46 | | 21:30 | 20:25 | | 17:03 | | 16:21 |
| Potential sun hours | 252 | 274 | 366 | 418 | 491 | 507 | 509 | 458 | 382 | 330 | 262 | 236 |
| Sum of minutes with flicker | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table layout: For each day in each month the following matrix apply

| | | |
|---|---|---|
| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker |
| | Sun set (hh:mm) | First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker |

Licensed user:
Bosch & Van Rijn
Groenmarktstraat 56
NL-3521 AV Utrecht
+31 6 51 71 04 93
Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

# SHADOW - Calendar per WTG

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegdWTG: 14 - GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (31)

## Assumptions for shadow calculations

Reference year for calendar 2017

Sunshine probability S (Average daily sunshine hours) [EELDE]

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

| | January | February | March | April | May | June | July | August | September | October | November | December |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 08:46 | 08:17 | 07:21 | 07:07 | 05:59 | 05:11 | 05:07 | 05:45 | 06:38 | 07:30 | 07:27 | 08:21 |
| | 16:22 | 17:12 | 18:07 | 20:04 | 20:58 | 21:47 | 22:02 | 21:28 | 20:23 | 19:10 | 17:01 | 16:18 |
| 2 | 08:46 | 08:15 | 07:19 | 07:05 | 05:57 | 05:10 | 05:07 | 05:47 | 06:40 | 07:32 | 07:29 | 08:22 |
| | 16:23 | 17:14 | 18:09 | 20:06 | 21:00 | 21:48 | 22:01 | 21:26 | 20:20 | 19:08 | 16:59 | 16:17 |
| 3 | 08:45 | 08:14 | 07:16 | 07:02 | 05:55 | 05:09 | 05:08 | 05:49 | 06:42 | 07:34 | 07:31 | 08:24 |
| | 16:24 | 17:16 | 18:11 | 20:07 | 21:01 | 21:49 | 22:01 | 21:24 | 20:18 | 19:05 | 16:57 | 16:16 |
| 4 | 08:45 | 08:12 | 07:14 | 07:00 | 05:53 | 05:08 | 05:09 | 05:50 | 06:43 | 07:35 | 07:33 | 08:25 |
| | 16:26 | 17:18 | 18:12 | 20:09 | 21:03 | 21:50 | 22:00 | 21:22 | 20:16 | 19:03 | 16:55 | 16:15 |
| 5 | 08:45 | 08:10 | 07:12 | 06:58 | 05:51 | 05:07 | 05:10 | 05:52 | 06:45 | 07:37 | 07:35 | 08:27 |
| | 16:27 | 17:20 | 18:14 | 20:11 | 21:05 | 21:51 | 22:00 | 21:21 | 20:13 | 19:01 | 16:53 | 16:15 |
| 6 | 08:45 | 08:08 | 07:09 | 06:55 | 05:49 | 05:07 | 05:11 | 05:54 | 06:47 | 07:39 | 07:36 | 08:28 |
| | 16:28 | 17:22 | 18:16 | 20:13 | 21:07 | 21:52 | 21:59 | 21:19 | 20:11 | 18:58 | 16:51 | 16:14 |
| 7 | 08:44 | 08:07 | 07:07 | 06:53 | 05:47 | 05:06 | 05:12 | 05:55 | 06:49 | 07:41 | 07:38 | 08:29 |
| | 16:29 | 17:24 | 18:18 | 20:15 | 21:08 | 21:53 | 21:59 | 21:17 | 20:08 | 18:56 | 16:50 | 16:14 |
| 8 | 08:44 | 08:05 | 07:05 | 06:50 | 05:46 | 05:05 | 05:13 | 05:57 | 06:50 | 07:43 | 07:40 | 08:31 |
| | 16:31 | 17:26 | 18:20 | 20:16 | 21:10 | 21:54 | 21:58 | 21:15 | 20:06 | 18:54 | 16:48 | 16:14 |
| 9 | 08:43 | 08:03 | 07:02 | 06:48 | 05:44 | 05:05 | 05:14 | 05:59 | 06:52 | 07:44 | 07:42 | 08:32 |
| | 16:32 | 17:28 | 18:22 | 20:18 | 21:12 | 21:55 | 21:57 | 21:13 | 20:04 | 18:51 | 16:46 | 16:13 |
| 10 | 08:43 | 08:01 | 07:00 | 06:46 | 05:42 | 05:04 | 05:15 | 06:00 | 06:54 | 07:46 | 07:44 | 08:33 |
| | 16:34 | 17:30 | 18:24 | 20:20 | 21:14 | 21:56 | 21:57 | 21:11 | 20:01 | 18:49 | 16:44 | 16:13 |
| 11 | 08:42 | 07:59 | 06:58 | 06:43 | 05:40 | 05:04 | 05:16 | 06:02 | 06:55 | 07:48 | 07:46 | 08:34 |
| | 16:35 | 17:32 | 18:26 | 20:22 | 21:15 | 21:57 | 21:56 | 21:09 | 19:59 | 18:47 | 16:43 | 16:13 |
| 12 | 08:41 | 07:57 | 06:55 | 06:41 | 05:38 | 05:04 | 05:17 | 06:04 | 06:57 | 07:50 | 07:48 | 08:35 |
| | 16:37 | 17:34 | 18:27 | 20:24 | 21:17 | 21:58 | 21:55 | 21:07 | 19:56 | 18:44 | 16:41 | 16:12 |
| 13 | 08:40 | 07:55 | 06:53 | 06:39 | 05:37 | 05:03 | 05:18 | 06:05 | 06:59 | 07:52 | 07:50 | 08:36 |
| | 16:38 | 17:36 | 18:29 | 20:26 | 21:19 | 21:58 | 21:54 | 21:05 | 19:54 | 18:42 | 16:39 | 16:12 |
| 14 | 08:40 | 07:53 | 06:50 | 06:36 | 05:35 | 05:03 | 05:19 | 06:07 | 07:01 | 07:53 | 07:52 | 08:37 |
| | 16:40 | 17:38 | 18:31 | 20:27 | 21:20 | 21:59 | 21:53 | 21:03 | 19:52 | 18:40 | 16:38 | 16:12 |
| 15 | 08:39 | 07:51 | 06:48 | 06:34 | 05:33 | 05:03 | 05:21 | 06:09 | 07:02 | 07:55 | 07:53 | 08:38 |
| | 16:41 | 17:40 | 18:33 | 20:29 | 21:22 | 21:59 | 21:52 | 21:01 | 19:49 | 18:37 | 16:36 | 16:12 |
| 16 | 08:38 | 07:49 | 06:46 | 06:32 | 05:32 | 05:03 | 05:22 | 06:11 | 07:04 | 07:57 | 07:55 | 08:39 |
| | 16:43 | 17:42 | 18:35 | 20:31 | 21:24 | 22:00 | 21:51 | 20:59 | 19:47 | 18:35 | 16:35 | 16:12 |
| 17 | 08:37 | 07:47 | 06:43 | 06:30 | 05:30 | 05:02 | 05:23 | 06:12 | 07:06 | 07:59 | 07:57 | 08:40 |
| | 16:45 | 17:44 | 18:37 | 20:33 | 21:25 | 22:01 | 21:50 | 20:57 | 19:44 | 18:33 | 16:33 | 16:13 |
| 18 | 08:36 | 07:45 | 06:41 | 06:27 | 05:28 | 05:02 | 05:24 | 06:14 | 07:08 | 08:01 | 07:59 | 08:41 |
| | 16:46 | 17:45 | 18:38 | 20:35 | 21:27 | 22:01 | 21:48 | 20:54 | 19:42 | 18:31 | 16:32 | 16:13 |
| 19 | 08:35 | 07:43 | 06:38 | 06:25 | 05:27 | 05:02 | 05:26 | 06:16 | 07:09 | 08:03 | 08:01 | 08:42 |
| | 16:48 | 17:47 | 18:40 | 20:36 | 21:28 | 22:01 | 21:47 | 20:52 | 19:39 | 18:28 | 16:31 | 16:13 |
| 20 | 08:34 | 07:41 | 06:36 | 06:23 | 05:25 | 05:03 | 05:27 | 06:17 | 07:11 | 08:04 | 08:02 | 08:42 |
| | 16:50 | 17:49 | 18:42 | 20:38 | 21:30 | 22:02 | 21:46 | 20:50 | 19:37 | 18:26 | 16:29 | 16:13 |
| 21 | 08:33 | 07:39 | 06:34 | 06:21 | 05:24 | 05:03 | 05:29 | 06:19 | 07:13 | 08:06 | 08:04 | 08:43 |
| | 16:52 | 17:51 | 18:44 | 20:40 | 21:32 | 22:02 | 21:45 | 20:48 | 19:35 | 18:24 | 16:28 | 16:14 |
| 22 | 08:31 | 07:36 | 06:31 | 06:18 | 05:23 | 05:03 | 05:30 | 06:21 | 07:14 | 08:08 | 08:06 | 08:43 |
| | 16:53 | 17:53 | 18:46 | 20:42 | 21:33 | 22:02 | 21:43 | 20:46 | 19:32 | 18:22 | 16:27 | 16:14 |
| 23 | 08:30 | 07:34 | 06:29 | 06:16 | 05:21 | 05:03 | 05:31 | 06:23 | 07:16 | 08:10 | 08:08 | 08:44 |
| | 16:55 | 17:55 | 18:48 | 20:44 | 21:35 | 22:02 | 21:42 | 20:43 | 19:30 | 18:20 | 16:25 | 16:15 |
| 24 | 08:29 | 07:32 | 06:26 | 06:14 | 05:20 | 05:03 | 05:33 | 06:24 | 07:18 | 08:12 | 08:09 | 08:44 |
| | 16:57 | 17:57 | 18:49 | 20:45 | 21:36 | 22:02 | 21:41 | 20:41 | 19:27 | 18:17 | 16:24 | 16:15 |
| 25 | 08:27 | 07:30 | 06:24 | 06:12 | 05:19 | 05:04 | 05:34 | 06:26 | 07:20 | 08:14 | 08:11 | 08:45 |
| | 16:59 | 17:59 | 18:51 | 20:47 | 21:37 | 22:03 | 21:39 | 20:39 | 19:25 | 18:15 | 16:23 | 16:16 |
| 26 | 08:26 | 07:28 | 07:22 | 06:10 | 05:17 | 05:04 | 05:36 | 06:28 | 07:21 | 08:16 | 08:13 | 08:45 |
| | 17:01 | 18:01 | 19:53 | 20:49 | 21:39 | 22:03 | 21:38 | 20:37 | 19:22 | 18:13 | 16:22 | 16:17 |
| 27 | 08:25 | 07:25 | 07:19 | 06:08 | 05:16 | 05:04 | 05:37 | 06:30 | 07:23 | 08:18 | 08:15 | 08:45 |
| | 17:03 | 18:03 | 19:55 | 20:51 | 21:40 | 22:02 | 21:36 | 20:34 | 19:20 | 18:11 | 16:21 | 16:17 |
| 28 | 08:23 | 07:23 | 07:17 | 06:05 | 05:15 | 05:05 | 05:39 | 06:31 | 07:25 | 08:19 | 08:16 | 08:46 |
| | 17:05 | 18:05 | 19:57 | 20:53 | 21:42 | 22:02 | 21:34 | 20:32 | 19:18 | 18:09 | 16:20 | 16:18 |
| 29 | 08:22 | | 07:14 | 06:03 | 05:14 | 05:06 | 05:41 | 06:33 | 07:27 | 07:21 | 08:18 | 08:46 |
| | 17:06 | | 19:58 | 20:54 | 21:43 | 22:02 | 21:33 | 20:30 | 19:15 | 17:07 | 16:19 | 16:19 |
| 30 | 08:20 | | 07:12 | 06:01 | 05:13 | 05:06 | 05:42 | 06:35 | 07:28 | 07:23 | 08:19 | 08:46 |
| | 17:08 | | 20:00 | 20:56 | 21:44 | 22:02 | 21:31 | 20:27 | 19:13 | 17:05 | 16:18 | 16:20 |
| 31 | 08:19 | | 07:10 | | 05:12 | | 05:44 | 06:37 | | 07:25 | | 08:46 |
| | 17:10 | | 20:02 | | 21:46 | | 21:29 | 20:25 | | 17:03 | | 16:21 |
| Potential sun hours | 252 | 274 | 366 | 418 | 491 | 507 | 509 | 458 | 382 | 330 | 262 | 237 |
| Sum of minutes with flicker | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table layout: For each day in each month the following matrix apply

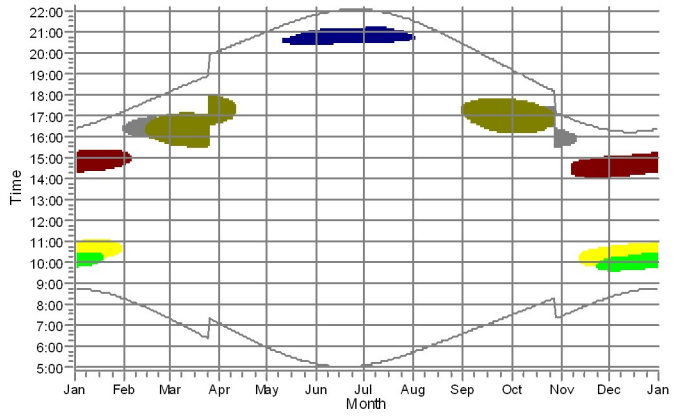
| | | |
|---|---|---|
| Day in month | Sun rise (hh:mm) | First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker |
| | Sun set (hh:mm) | First time (hh:mm) with flicker-Last time (hh:mm) with flicker/Minutes with flicker |

Licensed user:
Bosch & Van Rijn
Groenmarktstraat 56
NL-3521 AV Utrecht
+31 6 51 71 04 93
Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

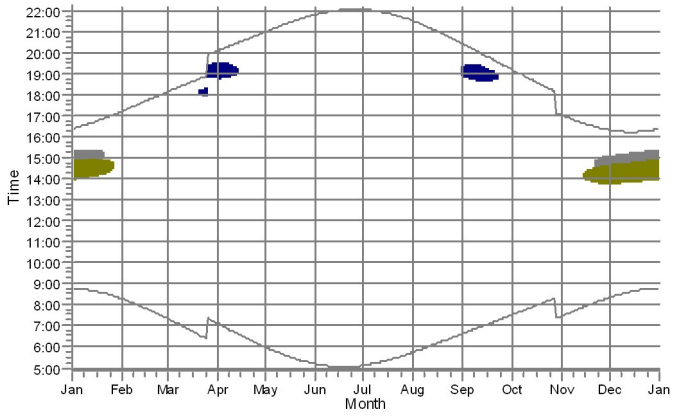
# SHADOW - Calendar per WTG, graphical

## Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegd

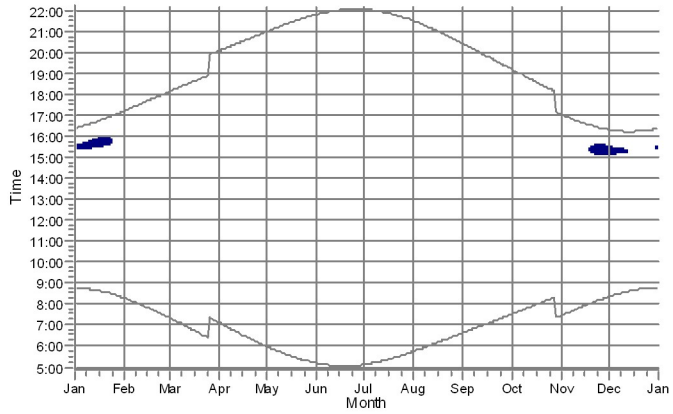
: GE WIND ENERGY 3.4-130 3430 130.0 H! hub: 120,0 m (TOT: 185,0 m) (18



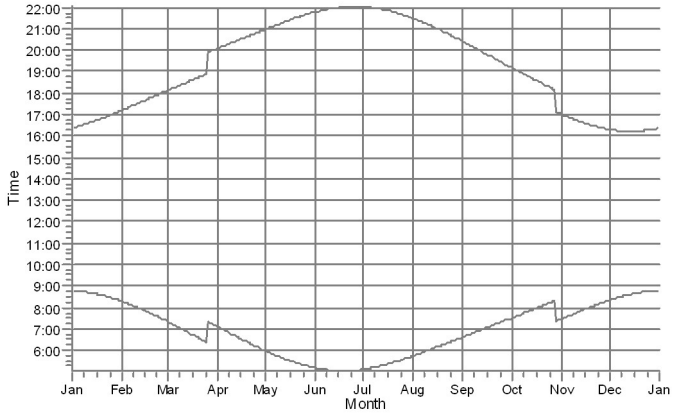

: GE WIND ENERGY 3.4-130 3430 130.0 H! hub: 120,0 m (TOT: 185,0 m) (19



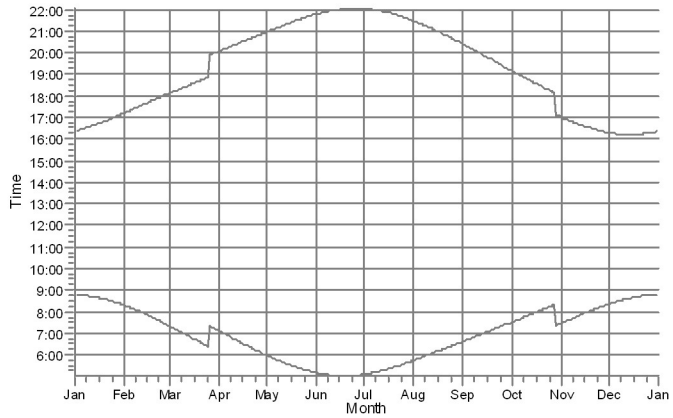

: GE WIND ENERGY 3.4-130 3430 130.0 H! hub: 120,0 m (TOT: 185,0 m) (20



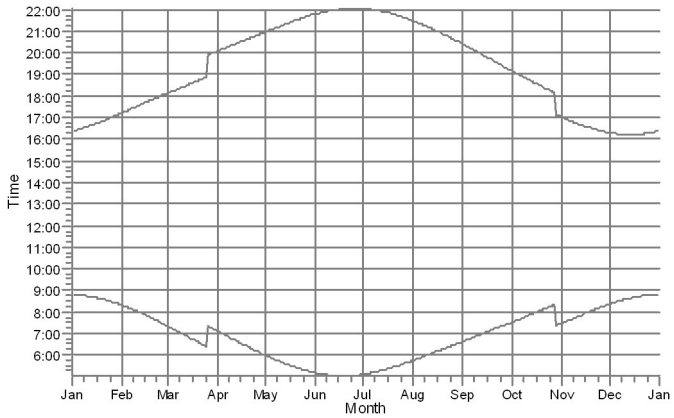

: GE WIND ENERGY 3.4-130 3430 130.0 H! hub: 120,0 m (TOT: 185,0 m) (21




: GE WIND ENERGY 3.4-130 3430 130.0 H! hub: 120,0 m (TOT: 185,0 m) (22




: GE WIND ENERGY 3.4-130 3430 130.0 H! hub: 120,0 m (TOT: 185,0 m) (23




Shadow receptors

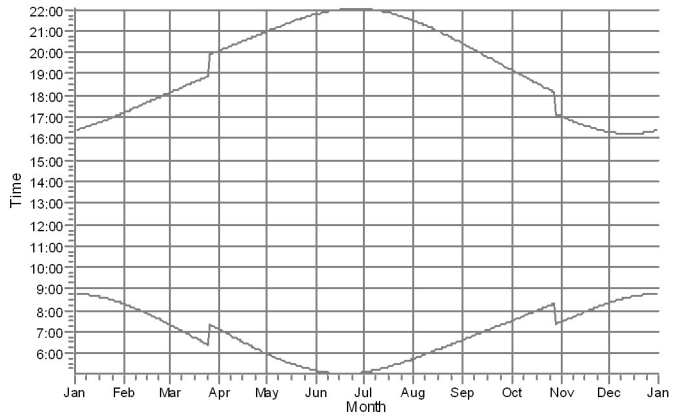
- B: Geefsweersterweg 1 9937TB Meedhuizen
- D: Karspelpad 8 9936HP Farmsum
- G: Oosterlaan 9 9936HN Farmsum
- H: Schaappad 1 9936HT Farmsum
- I: Seendweg 8 9936GA Farmsum
- J: T.J. Jansenweg 11 9936HL Farmsum

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Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

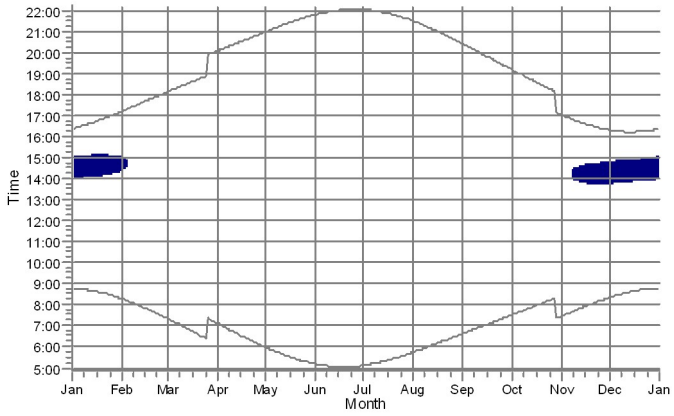
# SHADOW - Calendar per WTG, graphical

## Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegd

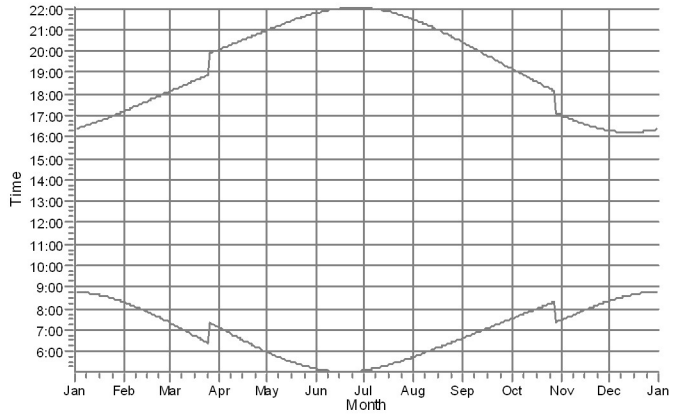
': GE WIND ENERGY 3.4-130 3430 130.0 ┣! hub: 120,0 m (TOT: 185,0 m) (24



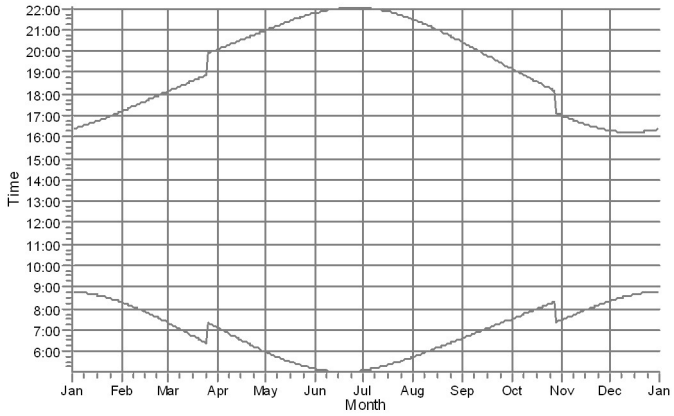

: GE WIND ENERGY 3.4-130 3430 130.0 ┣! hub: 120,0 m (TOT: 185,0 m) (25



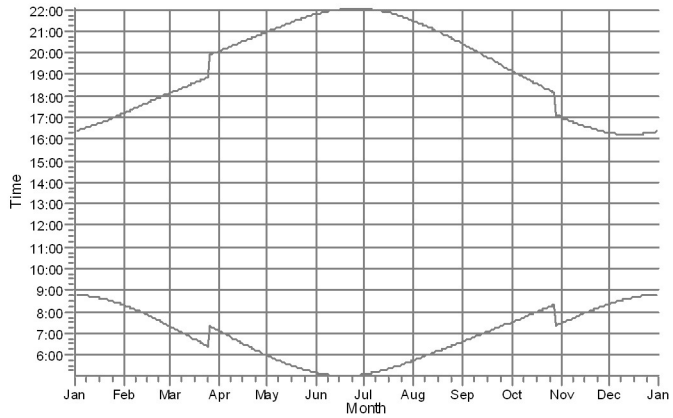

): GE WIND ENERGY 3.4-130 3430 130.0 ┣! hub: 120,0 m (TOT: 185,0 m) (260



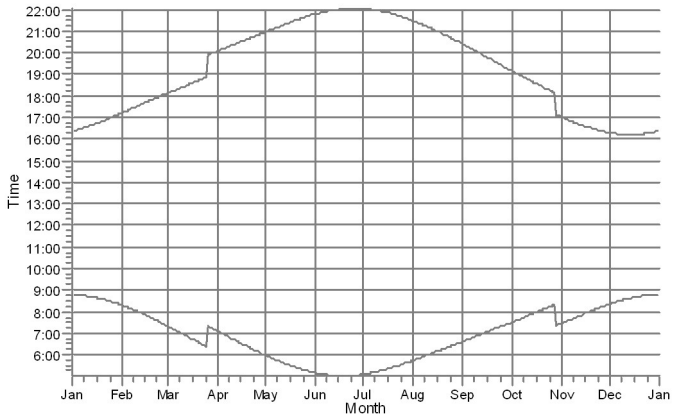

: GE WIND ENERGY 3.4-130 3430 130.0 ┣! hub: 120,0 m (TOT: 185,0 m) (27




1: GE WIND ENERGY 3.4-130 3430 130.0 ┣! hub: 120,0 m (TOT: 185,0 m) (282




: GE WIND ENERGY 3.4-130 3430 130.0 ┣! hub: 120,0 m (TOT: 185,0 m) (29




Shadow receptors

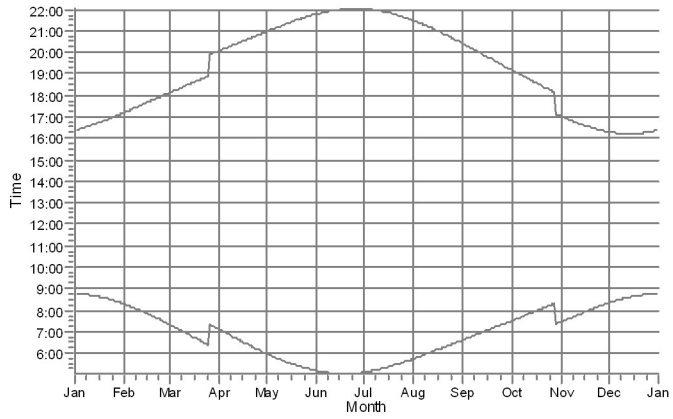
G: Oosterlaan 9 9936HN Farmsum

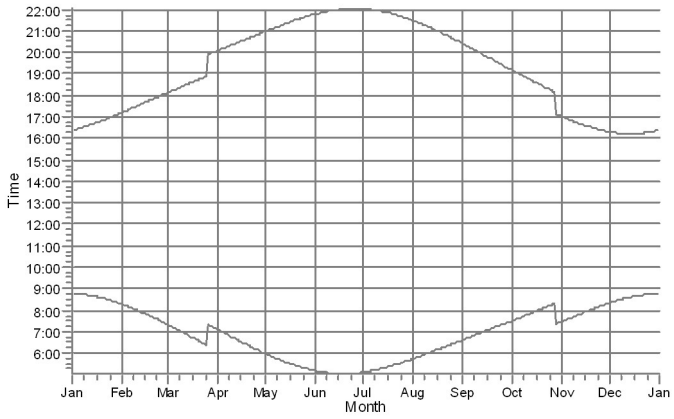
Licensed user:
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+31 6 51 71 04 93
Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

## SHADOW - Calendar per WTG, graphical

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegd

3: GE WIND ENERGY 3.4-130 3430 130.0 ┣! hub: 120,0 m (TOT: 185,0 m) (304: GE WIND ENERGY 3.4-130 3430 130.0 ┣! hub: 120,0 m (TOT: 185,0 m) (31



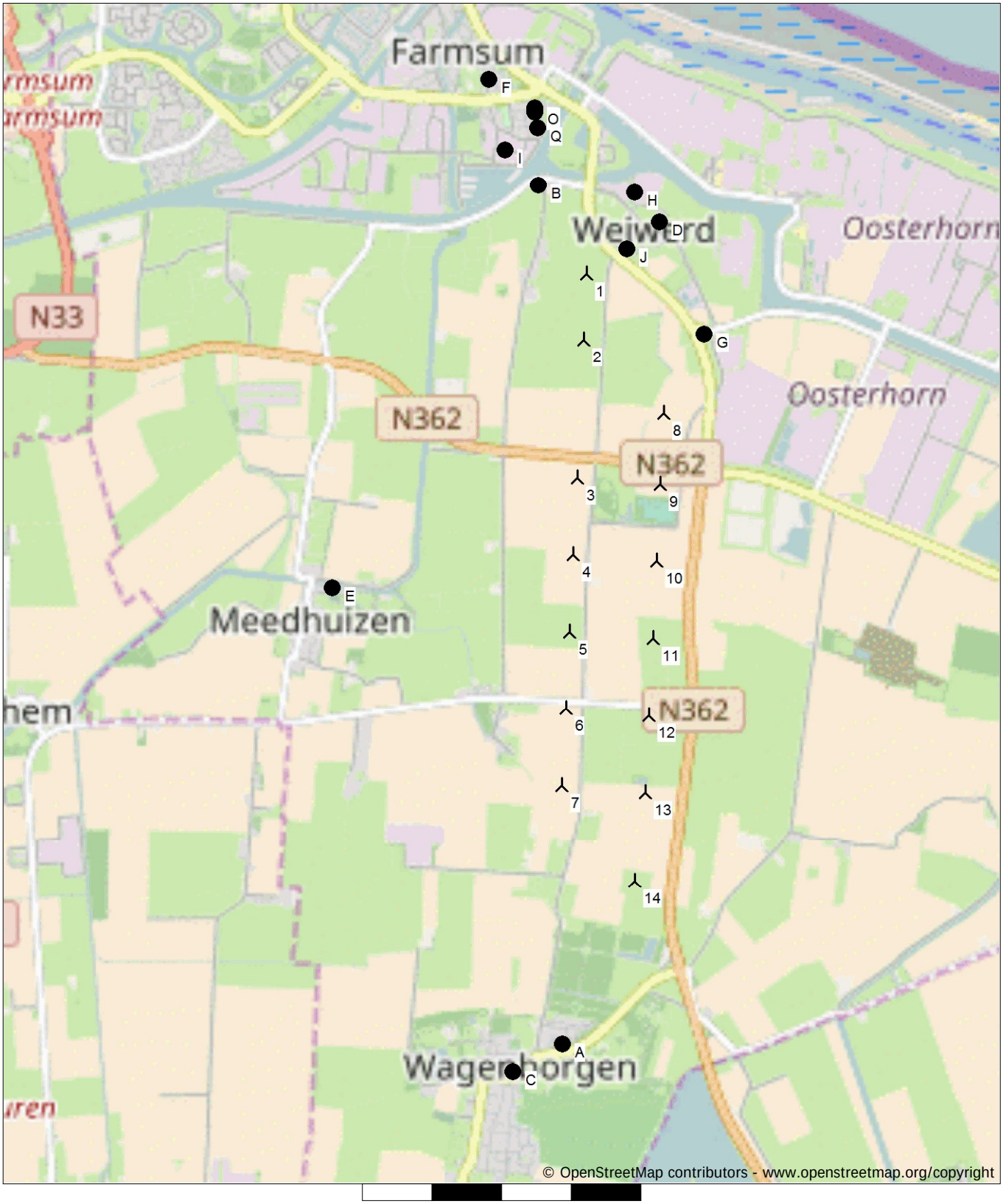




Shadow receptors

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Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:38/3.0.654

## SHADOW - Map

Calculation: Slagschaduw Alternatief 1C 2 lijnen zonder cumulatie verblijfsobjecten later toegevoegd




0 500 1000 1500 2000 m

Map: Open Street Map 001 , Print scale 1:40.000, Map center Dutch Stereo-RD/NAP 2008 East: 258.143 North: 590.222

New WTG  Shadow receptor

Flicker map level: 0 m above sea level

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Calculated:
6-2-2017 12:05/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot

### Assumptions for shadow calculations

Maximum distance for influence
Calculate only when more than 20 % of sun is covered by the blade
Please look in WTG table

| | |
|---|---|
| Minimum sun height over horizon for influence | 5 ° |
| Day step for calculation | 1 days |
| Time step for calculation | 1 minutes |

Sunshine probability S (Average daily sunshine hours) [EELDE]

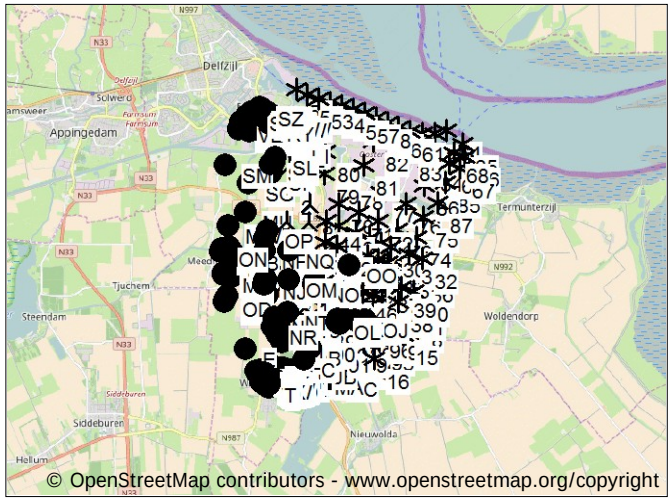
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

All coordinates are in
Dutch Stereo-RD/NAP 2008




Scale 1:200.000
New WTG
Existing WTG
Shadow receptor

## WTGs

| | X (east) | Y (north) | Z | Row data/Description | WTG type Valid | Manufact. | Type-generator | Power, rated | Rotor diameter | Hub height | Shadow data Calculation distance | RPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [m] | | | | | [kW] | [m] | [m] | [m] | [RPM] |
| 1 | 258.610 | 592.416 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 2 | 258.598 | 591.937 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 3 | 258.572 | 590.942 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 4 | 258.554 | 590.388 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 5 | 258.542 | 589.830 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 6 | 258.525 | 589.275 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 7 | 258.509 | 588.721 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 8 | 259.187 | 591.420 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 9 | 259.174 | 590.910 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 10 | 259.158 | 590.354 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 11 | 259.144 | 589.798 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 12 | 259.127 | 589.240 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 13 | 259.112 | 588.683 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 14 | 259.050 | 588.043 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 15 | 261.738 | 588.022 | 0,0 | LAGERWEY 80 18.0 !... | No | LAGERWEY | -80 | 80 | 18,0 | 31,0 | 1.740 | 120,0 |
| 16 | 260.986 | 587.360 | 0,0 | LAGERWEY 80 18.0 !... | No | LAGERWEY | -80 | 80 | 18,0 | 31,0 | 1.740 | 120,0 |
| 17 | 259.587 | 589.858 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 18 | 259.890 | 589.770 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 19 | 259.863 | 589.300 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 20 | 259.845 | 588.985 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 21 | 260.245 | 589.206 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 22 | 260.295 | 589.652 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 23 | 259.952 | 590.853 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 24 | 260.412 | 590.685 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 25 | 260.358 | 590.202 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 26 | 260.680 | 589.539 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 27 | 260.789 | 590.548 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 28 | 261.086 | 590.440 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 29 | 260.740 | 590.089 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 30 | 261.353 | 590.343 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 31 | 261.840 | 590.166 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 32 | 262.200 | 590.035 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 33 | 261.031 | 590.003 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 34 | 261.292 | 589.926 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 35 | 261.764 | 589.785 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 36 | 262.111 | 589.683 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 37 | 261.212 | 589.384 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 38 | 261.584 | 588.876 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 39 | 261.660 | 589.255 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |

To be continued on next page...

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+31 6 51 71 04 93
Hans / Hans@boschenvanrijn.nl
Calculated:
6-2-2017 12:05/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot

...continued from previous page

| | X (east) | Y (north) | Z | Row data/Description | WTG type Valid | WTG type Manufact. | Type-generator | Power, rated | Rotor diameter | Hub height | Shadow data Calculation distance | Shadow data RPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [m] | | | | | [kW] | [m] | [m] | [m] | [RPM] |
| 40 | 261.980 | 589.161 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 41 | 261.889 | 588.801 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 42 | 259.922 | 590.332 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 43 | 259.601 | 590.427 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 44 | 259.614 | 590.976 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 45 | 260.962 | 589.457 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 46 | 260.634 | 589.110 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 47 | 260.909 | 589.042 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 48 | 261.153 | 588.982 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 49 | 259.576 | 589.371 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 50 | 259.568 | 589.041 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 51 | 258.748 | 594.458 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 52 | 259.042 | 594.322 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 53 | 259.344 | 594.205 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 54 | 259.655 | 594.114 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 55 | 259.971 | 594.042 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 56 | 260.286 | 593.965 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 57 | 260.596 | 593.872 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 58 | 260.896 | 593.750 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 59 | 261.196 | 593.627 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 60 | 261.497 | 593.509 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 61 | 261.805 | 593.407 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 62 | 262.126 | 593.367 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 63 | 262.450 | 593.380 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 64 | 262.767 | 593.448 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 65 | 263.205 | 593.092 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 66 | 263.273 | 592.764 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 67 | 263.154 | 592.466 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 68 | 262.970 | 592.872 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 69 | 262.850 | 592.574 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 70 | 259.947 | 591.451 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 71 | 260.484 | 591.233 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 72 | 261.011 | 591.019 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 73 | 261.526 | 590.802 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 74 | 262.046 | 590.599 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 75 | 262.190 | 591.144 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 76 | 261.741 | 591.483 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 77 | 261.052 | 591.780 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 78 | 260.181 | 592.081 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 79 | 259.555 | 592.229 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 80 | 259.567 | 592.826 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 81 | 260.577 | 592.475 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 82 | 260.839 | 593.122 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 83 | 261.722 | 592.893 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 84 | 262.307 | 592.636 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 85 | 262.775 | 592.062 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 86 | 262.206 | 591.985 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 87 | 262.568 | 591.542 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 88 | 259.583 | 588.718 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 89 | 259.541 | 588.381 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 90 | 259.520 | 588.051 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 91 | 259.935 | 587.778 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 92 | 260.176 | 588.043 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 93 | 260.538 | 588.081 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 94 | 260.683 | 587.792 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 95 | 261.087 | 587.854 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 96 | 261.036 | 588.189 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 97 | 261.513 | 588.148 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 98 | 261.859 | 588.487 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 99 | 261.380 | 588.591 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 100 | 261.043 | 588.659 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 101 | 260.714 | 588.719 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 102 | 260.368 | 588.763 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 103 | 260.032 | 588.735 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |

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Calculated:
6-2-2017 12:05/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot

### Shadow receptor-Input

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| [A | Rengersweg 99 9936GG Farmsum | 258.006 | 593.455 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [B | Rengersweg 12 9936GH Farmsum | 258.034 | 593.437 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [C | Rengersweg 10 9936GH Farmsum | 258.034 | 593.444 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [D | Kluft 1 9936GP Farmsum | 258.040 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [E | Kluft 3 9936GP Farmsum | 258.047 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [F | Proosdij 46 9936EX Farmsum | 258.058 | 593.427 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [G | Proosdij 48 9936EX Farmsum | 258.062 | 593.433 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [H | Proosdij 50 9936EX Farmsum | 258.090 | 593.443 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [I | Proosdij 52 9936EX Farmsum | 258.090 | 593.430 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [J | Proosdij 54 9936EX Farmsum | 258.094 | 593.415 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [K | Proosdij 56 9936EX Farmsum | 258.108 | 593.416 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [L | Olderman 21 9936GS Farmsum | 258.128 | 593.420 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [M | Olderman 19 9936GS Farmsum | 258.126 | 593.434 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [N | Olderman 17 9936GS Farmsum | 258.125 | 593.448 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [O | Kluft 5 9936GP Farmsum | 258.060 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [P | Kluft 7 9936GP Farmsum | 258.067 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [Q | Kluft 9 9936GP Farmsum | 258.096 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [R | Kluft 11 9936GP Farmsum | 258.102 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [S | Kluft 17 9936GP Farmsum | 258.122 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [T | Zijlvest 8 9936GZ Farmsum | 258.202 | 593.424 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [U | Olderman 32 9936GT Farmsum | 258.151 | 593.480 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [V | Olderman 34 9936GT Farmsum | 258.151 | 593.474 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [W | Olderman 36 9936GT Farmsum | 258.153 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [X | Olderman 38 9936GT Farmsum | 258.153 | 593.453 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [Y | Olderman 40 9936GT Farmsum | 258.155 | 593.440 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [Z | Olderman 42 9936GT Farmsum | 258.155 | 593.434 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \A | Zijlvest 22 A 9936GZ Farmsum | 258.238 | 593.466 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \B | Zijlvest 18 A 9936GZ Farmsum | 258.229 | 593.451 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \C | Zijlvest 18 9936GZ Farmsum | 258.233 | 593.449 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \D | Zijlvest 14 9936GZ Farmsum | 258.229 | 593.441 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \E | Borgweg 1 9936EH Farmsum | 258.030 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \F | Borgweg 3 9936EH Farmsum | 258.031 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \G | Borgweg 5 9936EH Farmsum | 258.031 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \H | Borgweg 7 9936EH Farmsum | 258.031 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \I | Borgweg 9 9936EH Farmsum | 258.031 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \J | Borgweg 11 9936EH Farmsum | 258.031 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \K | Borgweg 13 9936EH Farmsum | 258.031 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \L | Borgweg 15 9936EH Farmsum | 258.033 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \M | Borgweg 17 9936EH Farmsum | 258.033 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \N | Borgweg 19 9936EH Farmsum | 258.033 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \O | Borgweg 21 9936EH Farmsum | 258.033 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \P | Borgweg 23 9936EH Farmsum | 258.033 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \Q | Borgweg 25 9936EH Farmsum | 258.033 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \R | Borgweg 27 9936EH Farmsum | 258.033 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \S | Borgweg 29 9936EJ Farmsum | 258.035 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \T | Borgweg 31 9936EJ Farmsum | 258.035 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \U | Borgweg 33 9936EJ Farmsum | 258.035 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \V | Borgweg 35 9936EJ Farmsum | 258.035 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \W | Borgweg 37 9936EJ Farmsum | 258.035 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \X | Borgweg 39 9936EJ Farmsum | 258.036 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \Y | Borgweg 41 9936EJ Farmsum | 258.036 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \Z | Borgweg 43 9936EJ Farmsum | 258.037 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]A | Borgweg 45 9936EJ Farmsum | 258.038 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]B | Borgweg 47 9936EJ Farmsum | 258.038 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]C | Borgweg 49 9936EJ Farmsum | 258.038 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]D | Borgweg 51 9936EJ Farmsum | 258.038 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]E | Borgweg 53 9936EJ Farmsum | 258.038 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]F | Borgweg 55 9936EJ Farmsum | 258.038 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]G | Borgweg 57 9936EK Farmsum | 258.003 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]H | Borgweg 59 9936EK Farmsum | 258.003 | 593.802 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]I | Borgweg 61 9936EK Farmsum | 258.003 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]J | Borgweg 63 9936EK Farmsum | 258.003 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]K | Borgweg 65 9936EK Farmsum | 258.003 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]L | Borgweg 67 9936EK Farmsum | 258.003 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| ]M | Borgweg 69 9936EK Farmsum | 258.003 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]N | Borgweg 71 9936EK Farmsum | 258.006 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]O | Borgweg 73 9936EK Farmsum | 258.006 | 593.802 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]P | Borgweg 75 9936EK Farmsum | 258.006 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]Q | Borgweg 77 9936EK Farmsum | 258.005 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]R | Borgweg 79 9936EK Farmsum | 258.005 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]S | Borgweg 81 9936EK Farmsum | 258.005 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]T | Borgweg 83 9936EK Farmsum | 258.005 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]U | Borgweg 85 9936EL Farmsum | 258.008 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]V | Borgweg 87 9936EL Farmsum | 258.008 | 593.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]W | Borgweg 89 9936EL Farmsum | 258.008 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]X | Borgweg 91 9936EL Farmsum | 258.008 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]Y | Borgweg 93 9936EL Farmsum | 258.008 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]Z | Borgweg 95 9936EL Farmsum | 258.008 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^A | Borgweg 97 9936EL Farmsum | 258.008 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^B | Borgweg 99 9936EL Farmsum | 258.010 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^C | Borgweg 101 9936EL Farmsum | 258.010 | 593.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^D | Borgweg 103 9936EL Farmsum | 258.010 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^E | Borgweg 105 9936EL Farmsum | 258.010 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^F | Borgweg 107 9936EL Farmsum | 258.010 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^G | Borgweg 109 9936EL Farmsum | 258.010 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^H | Borgweg 111 9936EL Farmsum | 258.010 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^I | Kluft 18 9936GR Farmsum | 258.043 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^J | Kluft 20 9936GR Farmsum | 258.050 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^K | Kluft 22 9936GR Farmsum | 258.057 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^L | Kluft 24 9936GR Farmsum | 258.064 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^M | Kluft 26 9936GR Farmsum | 258.071 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^N | Kluft 28 9936GR Farmsum | 258.078 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^O | Kluft 30 9936GR Farmsum | 258.085 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^P | Kluft 32 9936GR Farmsum | 258.092 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Q | Kluft 2 9936GR Farmsum | 258.043 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^R | Kluft 4 9936GR Farmsum | 258.050 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^S | Kluft 6 9936GR Farmsum | 258.057 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^T | Kluft 8 9936GR Farmsum | 258.064 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^U | Kluft 10 9936GR Farmsum | 258.071 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^V | Kluft 12 9936GR Farmsum | 258.078 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^W | Kluft 14 9936GR Farmsum | 258.085 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^X | Kluft 16 9936GR Farmsum | 258.092 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Y | Zijlvest 20 A 9936GZ Farmsum | 258.233 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Z | Schepperij 51 9936GM Farmsum | 258.194 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _A | Waarman 15 9936GV Farmsum | 258.223 | 593.543 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _B | Waarman 17 9936GV Farmsum | 258.223 | 593.537 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _C | Waarman 19 9936GV Farmsum | 258.223 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _D | Waarman 21 9936GV Farmsum | 258.223 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _E | Waarman 23 9936GV Farmsum | 258.223 | 593.518 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _F | Waarman 25 9936GV Farmsum | 258.223 | 593.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _G | Waarman 27 9936GV Farmsum | 258.223 | 593.506 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _H | Waarman 29 9936GV Farmsum | 258.222 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _I | Heemskesweg 5 9936HE Farmsum | 258.759 | 592.961 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _J | Geefsweersterweg 2 9937TC Meedhuizen | 258.288 | 593.033 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _K | Seendweg 12 9936GA Farmsum | 257.950 | 593.306 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _L | Schepperij 39 9936GM Farmsum | 258.194 | 593.537 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _M | Schepperij 43 9936GM Farmsum | 258.194 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _N | Zijlvest 14 A 9936GZ Farmsum | 258.222 | 593.445 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _O | Zijlvest 24 A 9936GZ Farmsum | 258.239 | 593.474 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| A | Familie Bronsweg 60 9945TA Wagenborgen | 258.511 | 587.742 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AA | Hoofdweg 26 9945PG Wagenborgen | 258.194 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AB | Hoofdweg 23 9945PA Wagenborgen | 258.227 | 586.683 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AC | Hoofdweg 25 9945PA Wagenborgen | 258.217 | 586.663 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AD | Hoofdweg 27 9945PA Wagenborgen | 258.213 | 586.652 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AE | Hoofdweg 29 9945PA Wagenborgen | 258.212 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AF | Hoofdweg 18 9945PG Wagenborgen | 258.219 | 586.709 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AG | Hoofdweg 14 9945PG Wagenborgen | 258.222 | 586.726 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AH | Hoofdweg 10 9945PG Wagenborgen | 258.236 | 586.722 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Hans / Hans@boschenvanrijn.nl
Calculated:
6-2-2017 12:05/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| AI | Hoofdweg 8 9945PG Wagenborgen | 258.258 | 586.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AJ | Hoofdweg 6 9945PG Wagenborgen | 258.276 | 586.731 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AK | Hoofdweg 4 9945PG Wagenborgen | 258.298 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AL | Hoofdweg 21 9945PA Wagenborgen | 258.243 | 586.704 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AM | Hoofdweg 19 9945PA Wagenborgen | 258.272 | 586.709 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AN | Hoofdweg 2 9945PG Wagenborgen | 258.318 | 586.748 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AO | Hoofdweg 15 9945PA Wagenborgen | 258.311 | 586.705 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AP | Hoofdweg 9 9945PA Wagenborgen | 258.331 | 586.713 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AQ | Hoofdweg 11 9945PA Wagenborgen | 258.325 | 586.710 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AR | Hoofdweg 7 9945PA Wagenborgen | 258.338 | 586.725 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AS | Hoofdweg 5 9945PA Wagenborgen | 258.343 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AT | H.L. Emmensweg 17 9945PW Wagenborgen | 258.087 | 586.741 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AU | H.L. Emmensweg 18 9945PX Wagenborgen | 258.106 | 586.733 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AV | H.L. Emmensweg 20 9945PX Wagenborgen | 258.107 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AW | H.L. Emmensweg 22 9945PX Wagenborgen | 258.107 | 586.747 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AX | H.L. Emmensweg 24 9945PX Wagenborgen | 258.108 | 586.753 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AY | H.L. Emmensweg 26 9945PX Wagenborgen | 258.111 | 586.767 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AZ | H.L. Emmensweg 10 9945PX Wagenborgen | 258.103 | 586.698 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| B | Tolhek 4 9945TJ Wagenborgen | 259.289 | 587.610 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BA | H.L. Emmensweg 12 9945PX Wagenborgen | 258.103 | 586.704 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BB | H.L. Emmensweg 14 9945PX Wagenborgen | 258.104 | 586.711 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BC | H.L. Emmensweg 16 9945PX Wagenborgen | 258.105 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BD | H.L. Emmensweg 13 9945PW Wagenborgen | 258.085 | 586.719 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BE | H.L. Emmensweg 15 9945PW Wagenborgen | 258.086 | 586.725 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BF | H.L. Emmensweg 9 9945PW Wagenborgen | 258.083 | 586.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BG | H.L. Emmensweg 11 9945PW Wagenborgen | 258.084 | 586.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BH | H.L. Emmensweg 5 9945PW Wagenborgen | 258.081 | 586.681 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BI | H.L. Emmensweg 7 9945PW Wagenborgen | 258.082 | 586.687 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BJ | H.L. Emmensweg 4 9945PX Wagenborgen | 258.103 | 586.676 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BK | H.L. Emmensweg 2 9945PX Wagenborgen | 258.099 | 586.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BL | H.L. Emmensweg 1 9945PW Wagenborgen | 258.081 | 586.651 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BM | H.L. Emmensweg 3 9945PW Wagenborgen | 258.083 | 586.667 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BN | de Linden 4 9945PZ Wagenborgen | 258.042 | 586.733 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BO | de Linden 6 9945PZ Wagenborgen | 258.058 | 586.734 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BP | de Linden 10 9945PZ Wagenborgen | 258.040 | 586.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BQ | de Linden 12 9945PZ Wagenborgen | 258.021 | 586.721 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BR | de Linden 2 9945PZ Wagenborgen | 258.030 | 586.694 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BS | de Wilgen 12 9945RB Wagenborgen | 258.008 | 586.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BT | de Wilgen 10 9945RB Wagenborgen | 258.008 | 586.764 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BU | de Wilgen 8 9945RB Wagenborgen | 258.007 | 586.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BV | de Wilgen 2 9945RB Wagenborgen | 257.995 | 586.662 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BW | de Wilgen 4 9945RB Wagenborgen | 257.997 | 586.675 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BX | de Wilgen 6 9945RB Wagenborgen | 258.001 | 586.693 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BY | de Wilgen 6 A 9945RB Wagenborgen | 258.004 | 586.726 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BZ | de Wilgen 3 9945RB Wagenborgen | 257.975 | 586.694 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| C | Tolhek 1 9945TJ Wagenborgen | 259.114 | 587.301 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CA | de Wilgen 3 A 9945RB Wagenborgen | 257.977 | 586.713 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CB | de Wilgen 3 B 9945RB Wagenborgen | 257.977 | 586.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CC | de Wilgen 5 9945RB Wagenborgen | 257.973 | 586.766 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CD | de Wilgen 46 9945RB Wagenborgen | 258.036 | 586.921 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CE | de Wilgen 44 9945RB Wagenborgen | 258.036 | 586.927 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CF | de Wilgen 48 9945RB Wagenborgen | 258.034 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CG | de Wilgen 50 9945RB Wagenborgen | 258.034 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CH | de Wilgen 36 9945RB Wagenborgen | 258.060 | 586.908 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CI | de Wilgen 38 9945RB Wagenborgen | 258.059 | 586.915 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CJ | de Wilgen 40 9945RB Wagenborgen | 258.059 | 586.921 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CK | de Wilgen 42 9945RB Wagenborgen | 258.059 | 586.928 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CL | de Wilgen 28 9945RB Wagenborgen | 258.050 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CM | de Wilgen 30 9945RB Wagenborgen | 258.056 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CN | de Wilgen 32 9945RB Wagenborgen | 258.063 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CO | de Wilgen 34 9945RB Wagenborgen | 258.070 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CP | de Wilgen 24 9945TK Wagenborgen | 258.033 | 586.884 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CQ | de Wilgen 26 9945RB Wagenborgen | 258.039 | 586.886 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CR | de Wilgen 20 9945RB Wagenborgen | 258.019 | 586.866 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| CS | de Wilgen 22 9945RB Wagenborgen | 258.019 | 586.872 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CT | de Wilgen 18 9945RB Wagenborgen | 258.016 | 586.853 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CU | de Wilgen 16 9945RB Wagenborgen | 258.015 | 586.837 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CV | de Wilgen 14 9945RB Wagenborgen | 258.014 | 586.813 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CW | de Wilgen 9 9945RB Wagenborgen | 257.970 | 586.829 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CX | de Wilgen 52 9945RB Wagenborgen | 258.167 | 587.083 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CY | Menterne 22 9945RA Wagenborgen | 257.891 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CZ | Menterne 18 9945RA Wagenborgen | 257.856 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| D | Familie Bronsweg 62 9945TA Wagenborgen | 258.389 | 587.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DA | Menterne 21 9945RA Wagenborgen | 257.884 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DB | Menterne 19 9945RA Wagenborgen | 257.863 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DC | Menterne 20 9945RA Wagenborgen | 257.876 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DD | Menterne 17 9945RA Wagenborgen | 257.849 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DE | Menterne 7 9945RA Wagenborgen | 257.896 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DF | Menterne 8 9945RA Wagenborgen | 257.889 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DG | Menterne 9 9945RA Wagenborgen | 257.882 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DH | Menterne 10 9945RA Wagenborgen | 257.875 | 586.913 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DI | Menterne 11 9945RA Wagenborgen | 257.893 | 586.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DJ | Menterne 12 9945RA Wagenborgen | 257.893 | 586.932 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DK | Menterne 13 9945RA Wagenborgen | 257.893 | 586.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DL | Menterne 14 9945RA Wagenborgen | 257.893 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DM | Menterne 1 9945RA Wagenborgen | 257.930 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DN | Menterne 2 9945RA Wagenborgen | 257.924 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DO | Menterne 3 9945RA Wagenborgen | 257.917 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DP | Menterne 4 9945RA Wagenborgen | 257.910 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DQ | Menterne 5 9945RA Wagenborgen | 257.899 | 586.883 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DR | Menterne 6 9945RA Wagenborgen | 257.899 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DS | Menterne 15 9945RA Wagenborgen | 257.866 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DT | Menterne 16 9945RA Wagenborgen | 257.866 | 586.952 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DU | de Berken 6 9945PT Wagenborgen | 258.085 | 586.768 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DV | de Berken 2 9945PT Wagenborgen | 258.040 | 586.782 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DW | de Berken 4 9945PT Wagenborgen | 258.061 | 586.783 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DX | de Berken 1 9945PT Wagenborgen | 258.038 | 586.808 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DY | de Berken 5 9945PT Wagenborgen | 258.087 | 586.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DZ | de Berken 7 9945PT Wagenborgen | 258.102 | 586.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| E | Meerweg 3 9945RC Wagenborgen | 257.540 | 587.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EA | de Berken 9 9945PT Wagenborgen | 258.109 | 586.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EB | de Eiken 14 9945VA Wagenborgen | 258.037 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EC | de Eiken 16 9945VA Wagenborgen | 258.044 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ED | de Eiken 2 9945VA Wagenborgen | 258.061 | 586.829 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EE | de Eiken 4 9945VA Wagenborgen | 258.061 | 586.836 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EF | de Eiken 6 9945VA Wagenborgen | 258.061 | 586.842 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EG | de Eiken 8 9945VA Wagenborgen | 258.062 | 586.853 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EH | de Eiken 10 9945VA Wagenborgen | 258.061 | 586.859 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EI | de Eiken 12 9945VA Wagenborgen | 258.061 | 586.866 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EJ | de Eiken 2 A 9945VA Wagenborgen | 258.065 | 586.807 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EK | Troostlaan 7 9945PV Wagenborgen | 258.200 | 586.801 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EL | Troostlaan 8 9945PV Wagenborgen | 258.187 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EM | Troostlaan 9 9945PV Wagenborgen | 258.172 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EN | Troostlaan 10 9945PV Wagenborgen | 258.153 | 586.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EO | Troostlaan 11 9945PV Wagenborgen | 258.142 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EP | Troostlaan 1 9945PV Wagenborgen | 258.204 | 586.736 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EQ | Troostlaan 2 9945PV Wagenborgen | 258.204 | 586.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ER | Troostlaan 3 9945PV Wagenborgen | 258.205 | 586.772 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ES | Troostlaan 2 A 9945PV Wagenborgen | 258.221 | 586.769 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ET | Troostlaan 4 9945PV Wagenborgen | 258.228 | 586.858 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EU | Troostlaan 14 9945PV Wagenborgen | 258.132 | 586.686 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EV | Troostlaan 22 9945PV Wagenborgen | 258.177 | 586.707 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EW | Troostlaan 20 9945PV Wagenborgen | 258.155 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EX | Troostlaan 21 9945PV Wagenborgen | 258.162 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EY | Troostlaan 18 9945PV Wagenborgen | 258.132 | 586.718 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EZ | Troostlaan 19 9945PV Wagenborgen | 258.139 | 586.718 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| F | G. Boelmanweg 2 9945RJ Wagenborgen | 258.181 | 586.579 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FA | Familie Bronsweg 40 9945PS Wagenborgen | 258.373 | 586.856 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Hans / Hans@boschenvanrijn.nl
Calculated:
6-2-2017 12:05/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| FB | Familie Bronsweg 44 9945PS Wagenborgen | 258.373 | 586.900 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FC | Familie Bronsweg 46 9945PS Wagenborgen | 258.373 | 586.905 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FD | Familie Bronsweg 48 9945PS Wagenborgen | 258.375 | 586.919 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FE | Familie Bronsweg 50 9945PS Wagenborgen | 258.376 | 586.924 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FF | Familie Bronsweg 79 9945PP Wagenborgen | 258.360 | 586.991 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FG | Familie Bronsweg 81 9945PP Wagenborgen | 258.361 | 586.997 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FH | Familie Bronsweg 36 9945PS Wagenborgen | 258.377 | 586.815 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FI | Familie Bronsweg 38 9945PS Wagenborgen | 258.365 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FJ | Familie Bronsweg 42 9945PS Wagenborgen | 258.371 | 586.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FK | Familie Bronsweg 54 9945PS Wagenborgen | 258.390 | 587.021 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FL | Familie Bronsweg 52 9945PS Wagenborgen | 258.387 | 586.987 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FM | Familie Bronsweg 50 B 9945PS Wagenborgen | 258.384 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FN | Familie Bronsweg 50 A 9945PS Wagenborgen | 258.381 | 586.949 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FO | Familie Bronsweg 75 9945PP Wagenborgen | 258.353 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FP | Familie Bronsweg 75 A 9945PP Wagenborgen | 258.355 | 586.957 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FQ | Familie Bronsweg 75 B 9945PP Wagenborgen | 258.357 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FR | Familie Bronsweg 71 9945PP Wagenborgen | 258.349 | 586.917 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FS | Familie Bronsweg 69 A 9945PP Wagenborgen | 258.347 | 586.902 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FT | Familie Bronsweg 69 9945PP Wagenborgen | 258.344 | 586.888 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FU | Familie Bronsweg 67 9945PP Wagenborgen | 258.342 | 586.873 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FV | Familie Bronsweg 65 9945PP Wagenborgen | 258.341 | 586.863 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FW | Familie Bronsweg 63 9945PP Wagenborgen | 258.338 | 586.850 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FX | Familie Bronsweg 61 9945PP Wagenborgen | 258.335 | 586.831 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FY | Familie Bronsweg 59 9945PP Wagenborgen | 258.334 | 586.816 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FZ | Familie Bronsweg 57 9945PP Wagenborgen | 258.332 | 586.805 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| G | G. Boelmanweg 3 9945RE Wagenborgen | 258.198 | 586.584 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GA | Familie Bronsweg 53 9945PP Wagenborgen | 258.332 | 586.793 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GB | Familie Bronsweg 73 9945PP Wagenborgen | 258.351 | 586.930 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GC | Familie Bronsweg 85 9945PP Wagenborgen | 258.372 | 587.065 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GD | Familie Bronsweg 83 9945PP Wagenborgen | 258.363 | 587.014 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GE | Familie Bronsweg 83 A 9945PP Wagenborgen | 258.365 | 587.034 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GF | Familie Bronsweg 77 9945PP Wagenborgen | 258.333 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GG | Familie Bronsweg 51 9945PP Wagenborgen | 258.389 | 586.776 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GH | Familie Bronsweg 2 9945PR Wagenborgen | 258.765 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GI | Familie Bronsweg 4 9945PR Wagenborgen | 258.743 | 586.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GJ | Familie Bronsweg 4 A 9945PR Wagenborgen | 258.723 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GK | Familie Bronsweg 6 9945PR Wagenborgen | 258.705 | 586.916 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GL | Familie Bronsweg 8 9945PR Wagenborgen | 258.677 | 586.901 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GM | Familie Bronsweg 10 9945PR Wagenborgen | 258.649 | 586.888 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GN | Familie Bronsweg 12 9945PR Wagenborgen | 258.620 | 586.864 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GO | Familie Bronsweg 14 9945PR Wagenborgen | 258.608 | 586.858 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GP | Familie Bronsweg 16 9945PR Wagenborgen | 258.597 | 586.852 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GQ | Familie Bronsweg 15 9945PN Wagenborgen | 258.511 | 586.783 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GR | Familie Bronsweg 17 9945PN Wagenborgen | 258.473 | 586.777 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GS | Familie Bronsweg 2 A 9945PR Wagenborgen | 258.786 | 587.001 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GT | Familie Bronsweg 2 B 9945PR Wagenborgen | 258.745 | 587.014 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GU | Familie Bronsweg 2 C 9945PR Wagenborgen | 258.710 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GV | Familie Bronsweg 2 D 9945PR Wagenborgen | 258.686 | 586.974 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GW | Familie Bronsweg 2 F 9945PR Wagenborgen | 258.671 | 586.991 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GX | Familie Bronsweg 2 G 9945PR Wagenborgen | 258.671 | 587.016 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GY | Familie Bronsweg 2 H 9945PR Wagenborgen | 258.696 | 587.012 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GZ | Familie Bronsweg 2 J 9945PR Wagenborgen | 258.717 | 587.009 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| H | G. Boelmanweg 5 9945RE Wagenborgen | 258.203 | 586.561 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HA | Akeleistraat 17 9945VD Wagenborgen | 258.515 | 587.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HB | Akeleistraat 19 9945VD Wagenborgen | 258.505 | 587.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HC | Akeleistraat 21 9945VD Wagenborgen | 258.486 | 587.050 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HD | Akeleistraat 23 9945VD Wagenborgen | 258.477 | 587.051 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HE | Akeleistraat 20 9945VD Wagenborgen | 258.448 | 587.022 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HF | Akeleistraat 22 9945VD Wagenborgen | 258.439 | 587.022 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HG | Akeleistraat 16 9945VD Wagenborgen | 258.477 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HH | Akeleistraat 18 9945VD Wagenborgen | 258.467 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HI | Akeleistraat 12 9945VD Wagenborgen | 258.506 | 587.013 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HJ | Akeleistraat 14 9945VD Wagenborgen | 258.496 | 587.013 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HK | Akeleistraat 10 9945VD Wagenborgen | 258.532 | 587.007 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
6-2-2017 12:05/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| HL | Akeleistraat 1 9945VD Wagenborgen | 258.634 | 587.024 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HM | Akeleistraat 3 9945VD Wagenborgen | 258.625 | 587.021 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HN | Akeleistraat 5 9945VD Wagenborgen | 258.604 | 587.023 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HO | Akeleistraat 7 9945VD Wagenborgen | 258.595 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HP | Akeleistraat 9 9945VD Wagenborgen | 258.574 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HQ | Akeleistraat 11 9945VD Wagenborgen | 258.565 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HR | Akeleistraat 2 9945VD Wagenborgen | 258.626 | 586.998 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HS | Akeleistraat 4 9945VD Wagenborgen | 258.617 | 586.995 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HT | Akeleistraat 6 9945VD Wagenborgen | 258.597 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HU | Akeleistraat 8 9945VD Wagenborgen | 258.588 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HV | Akeleistraat 15 9945VD Wagenborgen | 258.535 | 587.045 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HW | Bremstraat 6 9945VC Wagenborgen | 258.522 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HX | Bremstraat 2 9945VC Wagenborgen | 258.570 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HY | Bremstraat 4 9945VC Wagenborgen | 258.545 | 586.969 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HZ | Bremstraat 12 9945VC Wagenborgen | 258.448 | 586.982 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| I | G. Boelmanweg 4 9945RJ Wagenborgen | 258.168 | 586.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IA | Hibiscusstraat 30 9945VB Wagenborgen | 258.633 | 586.942 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IB | Hibiscusstraat 2 9945VB Wagenborgen | 258.428 | 586.818 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IC | Hibiscusstraat 4 9945VB Wagenborgen | 258.449 | 586.865 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ID | Hibiscusstraat 10 9945VB Wagenborgen | 258.426 | 586.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IE | Hibiscusstraat 16 9945VB Wagenborgen | 258.482 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IF | Bremstraat 14 9945VC Wagenborgen | 258.428 | 586.984 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IG | Hibiscusstraat 6 9945VB Wagenborgen | 258.417 | 586.860 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IH | Hibiscusstraat 26 9945VB Wagenborgen | 258.608 | 586.953 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| II | Kopaf 8 9945TE Wagenborgen | 259.518 | 587.109 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IJ | Kopaf 7 9945TE Wagenborgen | 259.555 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IK | Kopaf 6 9945TE Wagenborgen | 259.575 | 587.100 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IL | Kloosterlaan 27 9945TG Wagenborgen | 259.558 | 587.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IM | Kloosterlaan 25 9945TG Wagenborgen | 259.567 | 587.793 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IN | Kloosterlaan 23 9945TG Wagenborgen | 259.592 | 587.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IO | Scheve Klap 5 9945TD Wagenborgen | 260.522 | 587.264 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IP | Scheve Klap 4 9945TD Wagenborgen | 260.493 | 587.154 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IQ | Hibiscusstraat 8 9945VB Wagenborgen | 258.420 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IR | Hibiscusstraat 12 9945VB Wagenborgen | 258.431 | 586.945 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IS | Hibiscusstraat 18 9945VB Wagenborgen | 258.503 | 586.931 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IT | Hibiscusstraat 24 9945VB Wagenborgen | 258.612 | 586.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IU | Hibiscusstraat 22 9945VB Wagenborgen | 258.583 | 586.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IV | Troostlaan 15 9945PV Wagenborgen | 258.151 | 586.693 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IW | Bremstraat 10 9945VC Wagenborgen | 258.473 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IX | Hibiscusstraat 20 9945VB Wagenborgen | 258.529 | 586.931 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IY | Hibiscusstraat 28 9945VB Wagenborgen | 258.622 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IZ | Troostlaan 5 9945PV Wagenborgen | 258.189 | 586.911 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| J | G. Boelmanweg 7 9945RE Wagenborgen | 258.198 | 586.536 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JA | Troostlaan 6 9945PV Wagenborgen | 258.249 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JB | Boslaan 5 9945TM Wagenborgen | 259.413 | 587.123 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JC | Hoofdweg 33 A 9945PB Wagenborgen | 258.174 | 586.602 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JD | Akeleistraat 13 9945VD Wagenborgen | 258.569 | 587.057 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JE | Hoofdweg 42 9945PG Wagenborgen | 258.103 | 586.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JF | Familie Bronsweg 2 E 9945PR Wagenborgen | 258.670 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JG | Hibiscusstraat 14 9945VB Wagenborgen | 258.456 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JH | Bremstraat 8 9945VC Wagenborgen | 258.502 | 586.974 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JI | Menterne 23 003 9945RA Wagenborgen | 257.949 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JJ | Menterne 23 004 9945RA Wagenborgen | 257.949 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JK | Menterne 23 005 9945RA Wagenborgen | 257.948 | 586.990 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JL | Menterne 23 006 9945RA Wagenborgen | 257.948 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JM | Menterne 23 007 9945RA Wagenborgen | 257.960 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JN | Menterne 23 008 9945RA Wagenborgen | 257.960 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JO | Menterne 23 009 9945RA Wagenborgen | 257.960 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JP | Menterne 23 010 9945RA Wagenborgen | 257.961 | 586.988 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JQ | Menterne 23 017 9945RA Wagenborgen | 257.971 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JR | Menterne 23 030 9945RA Wagenborgen | 257.958 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JS | Menterne 23 103 9945RA Wagenborgen | 257.951 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JT | Menterne 23 104 9945RA Wagenborgen | 257.951 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JU | Menterne 23 105 9945RA Wagenborgen | 257.951 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Hans / Hans@boschenvanrijn.nl
Calculated:
6-2-2017 12:05/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| JV | Menterne 23 106 9945RA Wagenborgen | 257.950 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JW | Menterne 23 107 9945RA Wagenborgen | 257.958 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JX | Menterne 23 108 9945RA Wagenborgen | 257.958 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JY | Menterne 23 109 9945RA Wagenborgen | 257.958 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JZ | Menterne 23 110 9945RA Wagenborgen | 257.958 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| K | G. Boelmanweg 6 9945RJ Wagenborgen | 258.176 | 586.541 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KA | Menterne 23 111 9945RA Wagenborgen | 257.959 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KB | Menterne 23 113 9945RA Wagenborgen | 257.967 | 586.972 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KC | Menterne 23 114 9945RA Wagenborgen | 257.967 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KD | Menterne 23 115 9945RA Wagenborgen | 257.967 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KE | Menterne 23 116 9945RA Wagenborgen | 257.968 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KF | Menterne 23 117 9945RA Wagenborgen | 257.968 | 586.957 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KG | Menterne 23 118 9945RA Wagenborgen | 257.968 | 586.953 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KH | Menterne 23 119 9945RA Wagenborgen | 257.967 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KI | Menterne 23 120 9945RA Wagenborgen | 257.968 | 586.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KJ | Menterne 23 121 9945RA Wagenborgen | 257.968 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KK | Menterne 23 122 9945RA Wagenborgen | 257.968 | 586.936 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KL | Menterne 23 123 9945RA Wagenborgen | 257.968 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KM | Menterne 23 124 9945RA Wagenborgen | 257.968 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KN | Menterne 23 125 9945RA Wagenborgen | 257.956 | 586.930 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KO | Menterne 23 126 9945RA Wagenborgen | 257.956 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KP | Menterne 23 127 9945RA Wagenborgen | 257.956 | 586.937 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KQ | Menterne 23 128 9945RA Wagenborgen | 257.956 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KR | Menterne 23 129 9945RA Wagenborgen | 257.956 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KS | Menterne 23 130 9945RA Wagenborgen | 257.961 | 586.958 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KT | Menterne 23 131 9945RA Wagenborgen | 257.961 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KU | Menterne 23 132 9945RA Wagenborgen | 257.960 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KV | Menterne 23 201 9945RA Wagenborgen | 257.953 | 586.973 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KW | Menterne 23 202 9945RA Wagenborgen | 257.953 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KX | Menterne 23 203 9945RA Wagenborgen | 257.953 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KY | Menterne 23 204 9945RA Wagenborgen | 257.953 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KZ | Menterne 23 205 9945RA Wagenborgen | 257.953 | 586.990 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| L | Kokslaan 1 9945RD Wagenborgen | 258.257 | 586.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LA | Menterne 23 206 9945RA Wagenborgen | 257.953 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LB | Menterne 23 207 9945RA Wagenborgen | 257.956 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LC | Menterne 23 208 9945RA Wagenborgen | 257.956 | 586.995 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LD | Menterne 23 209 9945RA Wagenborgen | 257.956 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LE | Menterne 23 210 9945RA Wagenborgen | 257.956 | 586.988 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LF | Menterne 23 211 9945RA Wagenborgen | 257.957 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LG | Menterne 23 212 9945RA Wagenborgen | 257.957 | 586.981 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LH | Menterne 23 213 9945RA Wagenborgen | 257.964 | 586.972 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LI | Menterne 23 214 9945RA Wagenborgen | 257.965 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LJ | Menterne 23 215 9945RA Wagenborgen | 257.965 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LK | Menterne 23 216 9945RA Wagenborgen | 257.965 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LL | Menterne 23 217 9945RA Wagenborgen | 257.965 | 586.956 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LM | Menterne 23 218 9945RA Wagenborgen | 257.965 | 586.954 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LN | Menterne 23 219 9945RA Wagenborgen | 257.965 | 586.947 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LO | Menterne 23 220 9945RA Wagenborgen | 257.965 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LP | Menterne 23 221 9945RA Wagenborgen | 257.965 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LQ | Menterne 23 222 9945RA Wagenborgen | 257.965 | 586.937 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LR | Menterne 23 223 9945RA Wagenborgen | 257.965 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LS | Menterne 23 224 9945RA Wagenborgen | 257.966 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LT | Menterne 23 226 9945RA Wagenborgen | 257.959 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LU | Menterne 23 228 9945RA Wagenborgen | 257.958 | 586.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LV | Menterne 23 229 9945RA Wagenborgen | 257.958 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LW | Menterne 23 230 9945RA Wagenborgen | 257.962 | 586.958 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LX | Menterne 23 231 9945RA Wagenborgen | 257.962 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LY | Menterne 23 232 9945RA Wagenborgen | 257.962 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LZ | G. Boelmanweg 1 9945RE Wagenborgen | 258.213 | 586.607 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| M | Kokslaan 2 9945RD Wagenborgen | 258.279 | 586.598 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MA | Boslaan 7 9945TM Wagenborgen | 259.467 | 586.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MB | H.L. Emmensweg 23 9945PW Wagenborgen | 258.086 | 586.747 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MC | Kopaf 5 9944VA Nieuwolda | 259.816 | 586.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MD | Familie Bronsweg 68 9945TA Wagenborgen | 258.470 | 588.333 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| ME | Maarkampen 26 9937PL Meedhuizen | 256.956 | 590.088 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MF | Maarkampen 24 9937PL Meedhuizen | 256.931 | 590.090 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MG | Maarkampen 22 9937PL Meedhuizen | 256.916 | 590.093 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MH | Maarkampen 20 9937PL Meedhuizen | 256.898 | 590.098 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MI | Maarkampen 18 9937PL Meedhuizen | 256.878 | 590.101 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MJ | Maarkampen 16 9937PL Meedhuizen | 256.858 | 590.104 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MK | Maarkampen 14 9937PL Meedhuizen | 256.838 | 590.106 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ML | Maarlaan 22 E 9937TH Meedhuizen | 256.932 | 590.173 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MM | Maarlaan 22 D 9937TH Meedhuizen | 256.877 | 590.178 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MN | Schaapbulterweg 8 9937TL Meedhuizen | 256.971 | 589.534 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MO | Schaapbulterweg 6 9937TL Meedhuizen | 256.919 | 589.544 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MP | Schaapbulterweg 29 9937TL Meedhuizen | 256.970 | 589.489 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MQ | Schaapbulterweg 27 9937TL Meedhuizen | 256.949 | 589.497 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MR | Schaapbulterweg 25 9937TL Meedhuizen | 256.935 | 589.503 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MS | Schaapbulterweg 23 9937TL Meedhuizen | 256.920 | 589.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MT | Schaapbulterweg 21 9937TL Meedhuizen | 256.908 | 589.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MU | Geefsweersterweg 11 9937TB Meedhuizen | 257.472 | 591.162 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MV | Schaapbulterweg 35 9937TL Meedhuizen | 257.159 | 589.455 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MW | Meedhuizerweg 20 9937TK Meedhuizen | 257.017 | 590.790 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MX | Familie Bronsweg 66 9945TA Wagenborgen | 258.538 | 588.146 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MY | Familie Bronsweg 64 9945TA Wagenborgen | 258.518 | 588.056 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MZ | Ideweersterweg 10 9937TM Meedhuizen | 257.794 | 589.376 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| N | Kerkstraat 1 9945SB Wagenborgen | 258.120 | 586.579 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NA | Ideweersterweg 8 9937TM Meedhuizen | 257.916 | 589.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NB | Geefsweersterweg 20 9937TC Meedhuizen | 258.111 | 588.986 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NC | Geefsweersterweg 18 9937TC Meedhuizen | 258.066 | 589.025 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ND | Geefsweersterweg 29 9937TB Meedhuizen | 258.051 | 588.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NE | Geefsweersterweg 16 9937TC Meedhuizen | 258.011 | 589.140 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NF | Geefsweersterweg 23 9937TB Meedhuizen | 257.998 | 589.209 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NG | Geefsweersterweg 12 9937TC Meedhuizen | 258.033 | 589.285 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NH | Geefsweersterweg 14 9937TC Meedhuizen | 258.028 | 589.261 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NI | Geefsweersterweg 21 A 9937TB Meedhuizen | 258.002 | 589.266 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NJ | Geefsweersterweg 10 9937TC Meedhuizen | 258.042 | 589.339 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NK | Geefsweersterweg 21 9937TB Meedhuizen | 258.025 | 589.335 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NL | Geefsweersterweg 17 9937TB Meedhuizen | 258.035 | 589.424 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NM | Geefsweersterweg 19 9937TB Meedhuizen | 258.023 | 589.378 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NN | Ideweersterweg 2 9937TM Meedhuizen | 259.329 | 589.348 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NO | Ideweersterweg 1 9937TM Meedhuizen | 259.330 | 589.303 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NP | Geefsweersterweg 15 9937TB Meedhuizen | 257.994 | 590.149 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NQ | Westerlaan 6 9937TS Meedhuizen | 258.650 | 590.176 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NR | Familie Bronsweg 87 9945TA Wagenborgen | 258.255 | 588.149 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NS | Familie Bronsweg 89 9945TA Wagenborgen | 258.288 | 588.393 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NT | Westerlaan 10 9937TS Meedhuizen | 258.640 | 588.541 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NU | Geefsweersterweg 13 9937TB Meedhuizen | 257.998 | 590.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NV | Maarlaan 26 9937TH Meedhuizen | 257.044 | 590.228 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NW | Maarlaan 24 9937TH Meedhuizen | 256.988 | 590.171 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NX | Maarlaan 28 9937TH Meedhuizen | 257.042 | 590.160 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NY | Maarlaan 30 9937TH Meedhuizen | 257.109 | 590.155 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NZ | Kerklaan 3 9937PG Meedhuizen | 257.099 | 589.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| O | Hoofdweg 30 9945PG Wagenborgen | 258.190 | 586.634 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OA | Kerklaan 8 9937PG Meedhuizen | 257.192 | 589.983 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OB | Kerklaan 6 9937PG Meedhuizen | 257.151 | 590.090 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OC | Opmeedenlaan 6 9937TN Meedhuizen | 256.970 | 588.781 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OD | Opmeedenlaan 4 9937TN Meedhuizen | 256.988 | 588.863 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OE | Opmeedenlaan 2 9937TN Meedhuizen | 257.043 | 588.932 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OF | Kloosterlaan 26 9945TG Wagenborgen | 260.046 | 588.262 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OG | Zomerdijk 1 9945TH Wagenborgen | 260.153 | 588.395 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OH | Zomerdijk 3 9945TH Wagenborgen | 260.454 | 588.375 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OI | Zomerdijk 3 A 9945TH Wagenborgen | 260.560 | 588.321 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OJ | Zomerdijk 2 9945TH Wagenborgen | 260.721 | 588.388 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OK | Kloosterlaan 21 A 9945TG Wagenborgen | 259.991 | 588.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OL | Kloosterlaan 21 B 9945TG Wagenborgen | 259.957 | 588.308 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OM | Ideweersterweg 4 9937TM Meedhuizen | 258.658 | 589.400 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ON | Maarlaan 22 C 9937TH Meedhuizen | 256.840 | 590.186 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Hans / Hans@boschenvanrijn.nl
Calculated:
6-2-2017 12:05/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| OO | Kloosterlaan 21 9936TE Farmsum | 260.253 | 589.832 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OP | Geefsweersterweg 8 A 9937TC Meedhuizen | 258.072 | 590.685 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OQ | Houtweg 20 9936BL Farmsum | 257.300 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OR | Houtweg 22 9936BL Farmsum | 257.298 | 593.542 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OS | Houtweg 24 9936BL Farmsum | 257.297 | 593.528 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OT | Houtweg 26 9936BL Farmsum | 257.296 | 593.515 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OU | Houtweg 28 9936BL Farmsum | 257.294 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OV | Rondeboslaan 6 9936BK Farmsum | 257.466 | 593.590 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OW | Proosdij 14 9936EW Farmsum | 257.893 | 593.570 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OX | Bredelaan 6 9936ER Farmsum | 257.806 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OY | Bredelaan 4 9936ER Farmsum | 257.804 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OZ | Bredelaan 2 A 9936ER Farmsum | 257.802 | 593.559 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| P | Hoofdweg 32 9945PG Wagenborgen | 258.177 | 586.629 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PA | Proosdij 24 9936EW Farmsum | 257.913 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PB | Proosdij 22 9936EW Farmsum | 257.910 | 593.522 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PC | Proosdij 20 9936EW Farmsum | 257.906 | 593.533 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PD | Proosdij 18 9936EW Farmsum | 257.901 | 593.549 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PE | Proosdij 16 9936EW Farmsum | 257.899 | 593.554 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PF | Trambaan 19 9936ES Farmsum | 257.863 | 593.507 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PG | Proosdij 17 9936ET Farmsum | 257.864 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PH | Proosdij 15 9936ET Farmsum | 257.862 | 593.560 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PI | Proosdij 13 9936ET Farmsum | 257.859 | 593.568 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PJ | Trambaan 17 9936ES Farmsum | 257.856 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PK | Trambaan 15 9936ES Farmsum | 257.849 | 593.520 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PL | Trambaan 13 9936ES Farmsum | 257.844 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PM | Trambaan 11 9936ES Farmsum | 257.839 | 593.530 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PN | Trambaan 9 9936ES Farmsum | 257.833 | 593.536 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PO | Trambaan 5 9936ES Farmsum | 257.825 | 593.544 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PP | Trambaan 3 9936ES Farmsum | 257.818 | 593.551 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PQ | Trambaan 1 9936ES Farmsum | 257.814 | 593.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PR | Proosdij 12 9936EW Farmsum | 257.888 | 593.590 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PS | Proosdij 8 9936EW Farmsum | 257.881 | 593.604 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PT | Proosdij 6 9936EW Farmsum | 257.876 | 593.616 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PU | Proosdij 4 9936EW Farmsum | 257.872 | 593.630 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PV | Proosdij 11 9936ET Farmsum | 257.856 | 593.577 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PW | Proosdij 9 9936ET Farmsum | 257.853 | 593.584 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PX | Proosdij 7 9936ET Farmsum | 257.849 | 593.596 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PY | Proosdij 5 9936ET Farmsum | 257.846 | 593.605 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PZ | Proosdij 1 9936ET Farmsum | 257.839 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Q | Hoofdweg 31 9945PA Wagenborgen | 258.210 | 586.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QA | Proosdij 3 9936ET Farmsum | 257.844 | 593.611 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QB | Farmsumerzijl 55 9936GC Farmsum | 257.821 | 593.640 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QC | Farmsumerzijl 57 9936GC Farmsum | 257.800 | 593.636 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QD | Rengersweg 4 9936GH Farmsum | 258.026 | 593.578 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QE | Rengersweg 2 9936GH Farmsum | 258.026 | 593.587 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QF | Schepperij 4 A 9936GN Farmsum | 258.046 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QG | Schepperij 2 A 9936GN Farmsum | 258.033 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QH | Schepperij 4 9936GN Farmsum | 258.040 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QI | Schepperij 2 9936GN Farmsum | 258.027 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QJ | Dijkrecht 4 9936GK Farmsum | 258.021 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QK | Dijkrecht 6 9936GK Farmsum | 258.035 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QL | Dijkrecht 10 9936GK Farmsum | 258.054 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QM | Dijkrecht 12 9936GK Farmsum | 258.061 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QN | Dijkrecht 14 9936GK Farmsum | 258.074 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QO | Dijkrecht 16 9936GK Farmsum | 258.081 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QP | Dijkrecht 18 9936GK Farmsum | 258.095 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QQ | Dijkrecht 20 9936GK Farmsum | 258.107 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QR | Dijkrecht 22 9936GK Farmsum | 258.123 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QS | Dijkrecht 24 9936GK Farmsum | 258.138 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QT | Dijkrecht 26 9936GK Farmsum | 258.159 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QU | Dijkrecht 28 9936GK Farmsum | 258.166 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QV | Dijkrecht 30 9936GK Farmsum | 258.186 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QW | Dijkrecht 32 9936GK Farmsum | 258.192 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QX | Dijkrecht 34 9936GK Farmsum | 258.206 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| QY | Dijkrecht 36 9936GK Farmsum | 258.213 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QZ | Dijkrecht 40 9936GK Farmsum | 258.233 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| R | Hoofdweg 38 9945PG Wagenborgen | 258.142 | 586.621 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RA | Dijkrecht 38 9936GK Farmsum | 258.227 | 593.624 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RB | Schepperij 20 9936GN Farmsum | 258.190 | 593.563 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RC | Schepperij 18 9936GN Farmsum | 258.184 | 593.563 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RD | Waarman 12 9936GW Farmsum | 258.263 | 593.622 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RE | Waarman 10 9936GW Farmsum | 258.263 | 593.629 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RF | Waarman 8 9936GW Farmsum | 258.265 | 593.641 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RG | Waarman 6 9936GW Farmsum | 258.265 | 593.648 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RH | Farmsumerzijl 1 9936GB Farmsum | 258.234 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RI | Farmsumerzijl 3 9936GB Farmsum | 258.227 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RJ | Farmsumerzijl 5 9936GB Farmsum | 258.213 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RK | Farmsumerzijl 7 9936GB Farmsum | 258.207 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RL | Farmsumerzijl 13 9936GB Farmsum | 258.172 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RM | Farmsumerzijl 15 9936GB Farmsum | 258.166 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RN | Farmsumerzijl 17 9936GB Farmsum | 258.152 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RO | Farmsumerzijl 19 9936GB Farmsum | 258.146 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RP | Farmsumerzijl 25 9936GB Farmsum | 258.115 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RQ | Farmsumerzijl 27 9936GB Farmsum | 258.108 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RR | Farmsumerzijl 29 9936GB Farmsum | 258.096 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RS | Farmsumerzijl 31 9936GC Farmsum | 258.089 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RT | Farmsumerzijl 37 9936GC Farmsum | 258.057 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RU | Farmsumerzijl 39 9936GC Farmsum | 258.050 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RV | Farmsumerzijl 41 9936GC Farmsum | 258.037 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RW | Farmsumerzijl 43 9936GC Farmsum | 258.031 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RX | Schepperij 1 9936GL Farmsum | 258.054 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RY | Schepperij 3 9936GL Farmsum | 258.060 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RZ | Schepperij 5 9936GL Farmsum | 258.066 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| S | Hoofdweg 39 9945PB Wagenborgen | 258.126 | 586.603 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SA | Schepperij 7 9936GL Farmsum | 258.072 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SB | Schepperij 9 9936GL Farmsum | 258.078 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SC | Schepperij 11 9936GL Farmsum | 258.084 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SD | Schepperij 13 9936GL Farmsum | 258.090 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SE | Schepperij 15 9936GL Farmsum | 258.097 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SF | Dijkrecht 8 9936GK Farmsum | 258.041 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SG | Geefsweersterweg 9 9937TB Meedhuizen | 257.539 | 591.945 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SH | Geefsweersterweg 7 9937TB Meedhuizen | 258.115 | 592.341 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SI | Geefsweersterweg 8 9937TC Meedhuizen | 258.139 | 592.234 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SJ | Geefsweersterweg 3 9937TB Meedhuizen | 258.102 | 592.452 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SK | Geefsweersterweg 6 9937TC Meedhuizen | 258.202 | 592.502 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SL | Geefsweersterweg 4 9937TC Meedhuizen | 258.243 | 592.643 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SM | Meedhuizerweg 2 9937TK Meedhuizen | 256.911 | 592.415 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SN | Molenstraat 31 9936EB Farmsum | 257.786 | 593.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SO | Hindrik Jagerstraat 32 9936CV Farmsum | 257.573 | 593.810 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SP | Hindrik Jagerstraat 11 9936CT Farmsum | 257.561 | 593.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SQ | Hindrik Jagerstraat 13 9936CT Farmsum | 257.568 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SR | Hindrik Jagerstraat 15 9936CT Farmsum | 257.574 | 593.790 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SS | Hindrik Jagerstraat 34 9936CV Farmsum | 257.581 | 593.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ST | Hindrik Jagerstraat 36 9936CV Farmsum | 257.587 | 593.799 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SU | Borgshof 31 9936CR Farmsum | 257.617 | 593.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SV | Borgshof 33 9936CR Farmsum | 257.615 | 593.807 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SW | Borgshof 39 9936CR Farmsum | 257.605 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SX | Borgshof 35 9936CR Farmsum | 257.604 | 593.768 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SY | Molenstraat 20 9936EC Farmsum | 257.801 | 593.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SZ | Molenstraat 24 9936EC Farmsum | 257.812 | 593.926 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| T | Hoofdweg 35 9945PB Wagenborgen | 258.160 | 586.604 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TA | Molenstraat 28 9936EC Farmsum | 257.817 | 593.918 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TB | Molenstraat 41 9936EB Farmsum | 257.798 | 593.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TC | Molenstraat 43 9936EB Farmsum | 257.802 | 593.918 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TD | Molenstraat 45 9936EB Farmsum | 257.807 | 593.910 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TE | Molenstraat 32 9936EC Farmsum | 257.821 | 593.908 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TF | Achterweg 13 9936EG Farmsum | 257.848 | 593.913 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TG | Achterweg 11 9936EG Farmsum | 257.855 | 593.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Hans / Hans@boschenvanrijn.nl
Calculated:
6-2-2017 12:05/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| TH | Achterweg 9 9936EG Farmsum | 257.861 | 593.915 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TI | Molenstraat 49 9936EB Farmsum | 257.809 | 593.905 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TJ | Molenstraat 51 9936EB Farmsum | 257.812 | 593.900 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TK | Molenstraat 53 9936EB Farmsum | 257.815 | 593.894 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TL | Molenstraat 57 9936EB Farmsum | 257.819 | 593.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TM | Molenstraat 61 9936EB Farmsum | 257.826 | 593.870 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TN | Molenstraat 63 9936EB Farmsum | 257.830 | 593.861 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TO | Molenstraat 34 9936ED Farmsum | 257.827 | 593.897 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TP | Molenstraat 38 9936ED Farmsum | 257.832 | 593.886 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TQ | Molenstraat 40 9936ED Farmsum | 257.835 | 593.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TR | Molenstraat 42 9936ED Farmsum | 257.837 | 593.870 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TS | Molenstraat 44 9936ED Farmsum | 257.842 | 593.859 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TT | Molenstraat 65 9936EB Farmsum | 257.834 | 593.850 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TU | Molenstraat 48 9936ED Farmsum | 257.847 | 593.847 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TV | Molenstraat 50 9936ED Farmsum | 257.850 | 593.837 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TW | Molenstraat 56 9936ED Farmsum | 257.851 | 593.824 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TX | Molenstraat 58 9936EE Farmsum | 257.863 | 593.810 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TY | Molenstraat 62 9936EE Farmsum | 257.858 | 593.798 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TZ | Molenstraat 72 9936EE Farmsum | 257.855 | 593.753 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| U | Hoofdweg 37 9945PB Wagenborgen | 258.149 | 586.603 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UA | Molenstraat 70 9936EE Farmsum | 257.854 | 593.758 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UB | Molenstraat 68 9936EE Farmsum | 257.854 | 593.765 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UC | Molenstraat 66 9936EE Farmsum | 257.854 | 593.773 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UD | Achterweg 2 9936EG Farmsum | 257.886 | 593.882 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UE | Achterweg 12 9936EG Farmsum | 257.919 | 593.766 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UF | Achterweg 10 9936EG Farmsum | 257.918 | 593.779 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UG | Achterweg 8 9936EG Farmsum | 257.916 | 593.791 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UH | Hindrik Jagerstraat 17 9936CT Farmsum | 257.588 | 593.777 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UI | Molenstraat 30 9936EC Farmsum | 257.820 | 593.912 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UJ | Borgweg 141 9936EN Farmsum | 257.451 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UK | Borgweg 139 9936EN Farmsum | 257.466 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UL | Borgweg 137 9936EN Farmsum | 257.473 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UM | Borgweg 135 9936EN Farmsum | 257.487 | 593.708 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UN | Afwateringskanaal 109 9936AV Farmsum | 257.508 | 593.724 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UO | Borgweg 131 9936EM Farmsum | 257.636 | 593.714 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UP | Borgweg 133 9936EM Farmsum | 257.581 | 593.701 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UQ | Borgshof 41 9936CR Farmsum | 257.598 | 593.743 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UR | Borgshof 43 9936CR Farmsum | 257.595 | 593.730 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| US | Borgshof 45 9936CR Farmsum | 257.594 | 593.720 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UT | Molenstraat 74 9936EE Farmsum | 257.855 | 593.743 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UU | Molenstraat 76 9936EE Farmsum | 257.857 | 593.736 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UV | Molenstraat 78 9936EE Farmsum | 257.858 | 593.730 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UW | Molenstraat 82 9936EE Farmsum | 257.858 | 593.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UX | Molenstraat 84 9936EE Farmsum | 257.858 | 593.708 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UY | Borgweg 123 9936EM Farmsum | 257.927 | 593.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UZ | Borgweg 125 9936EM Farmsum | 257.917 | 593.698 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| V | Hoofdweg 44 9945PH Wagenborgen | 258.071 | 586.624 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VA | Borgweg 127 9936EM Farmsum | 257.906 | 593.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VB | Borgweg 129 9936EM Farmsum | 257.897 | 593.699 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VC | Farmsumerzijl 51 9936GC Farmsum | 257.925 | 593.665 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VD | Molenstraat 80 9936EE Farmsum | 257.858 | 593.723 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VE | Houtweg 30 9936BL Farmsum | 257.294 | 593.486 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VF | Houtweg 32 9936BL Farmsum | 257.292 | 593.473 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VG | Houtweg 34 9936BL Farmsum | 257.291 | 593.459 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VH | Houtweg 36 9936BL Farmsum | 257.289 | 593.446 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VI | Houtweg 38 9936BL Farmsum | 257.288 | 593.429 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VJ | Houtweg 40 9936BL Farmsum | 257.261 | 593.394 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VK | Houtweg 42 9936BL Farmsum | 257.257 | 593.387 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VL | Houtweg 44 9936BL Farmsum | 257.250 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VM | Houtweg 46 9936BL Farmsum | 257.248 | 593.372 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VN | Houtweg 48 9936BL Farmsum | 257.240 | 593.359 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VO | Rondeboslaan 26 9936BK Farmsum | 257.440 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VP | Rondeboslaan 28 9936BK Farmsum | 257.438 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VQ | Seendweg 32 9936GA Farmsum | 257.903 | 593.454 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Hans / Hans@boschenvanrijn.nl
Calculated:
6-2-2017 12:05/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| VR | Trambaan 21 9936ES Farmsum | 257.870 | 593.499 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VS | Proosdij 19 9936ET Farmsum | 257.892 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VT | Bredelaan 14 9936ER Farmsum | 257.814 | 593.354 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VU | Bredelaan 10 9936ER Farmsum | 257.808 | 593.470 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VV | Bredelaan 8 9936ER Farmsum | 257.807 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VW | Seendweg 22 9936GA Farmsum | 257.897 | 593.364 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VX | Seendweg 28 9936GA Farmsum | 257.898 | 593.405 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VY | Proosdij 28 9936EW Farmsum | 257.922 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VZ | Proosdij 30 9936EX Farmsum | 257.932 | 593.484 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| W | Hoofdweg 48 9945PH Wagenborgen | 258.051 | 586.630 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WA | Proosdij 26 9936EW Farmsum | 257.919 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WB | Afwateringskanaal 107 9936AV Farmsum | 257.499 | 593.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WC | Rondeboslaan 22 A 9936BK Farmsum | 257.532 | 593.326 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WD | Rondeboslaan 22 B 9936BK Farmsum | 257.532 | 593.320 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WE | Rondeboslaan 2 A 9936BK Farmsum | 257.534 | 593.639 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WF | Rondeboslaan 2 B 9936BK Farmsum | 257.493 | 593.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WG | Seendweg 17 9936GA Farmsum | 257.931 | 593.394 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WH | Borgshof 29 9936CR Farmsum | 257.619 | 593.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WI | Molenstraat 22 9936EC Farmsum | 257.808 | 593.935 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WJ | Achterweg 7 A 9936EG Farmsum | 257.858 | 593.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WK | Molenstraat 26 9936EC Farmsum | 257.814 | 593.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WL | Borgweg 113 9936EM Farmsum | 257.957 | 593.782 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WM | Borgweg 115 9936EM Farmsum | 257.968 | 593.707 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WN | Borgweg 117 9936EM Farmsum | 257.959 | 593.705 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WO | Borgweg 119 9936EM Farmsum | 257.947 | 593.703 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WP | Borgweg 121 9936EM Farmsum | 257.938 | 593.701 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WQ | Farmsumerzijl 45 9936GC Farmsum | 257.966 | 593.671 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WR | Farmsumerzijl 47 9936GC Farmsum | 257.947 | 593.667 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WS | Farmsumerzijl 49 9936GC Farmsum | 257.933 | 593.666 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WT | Waarman 4 9936GW Farmsum | 258.267 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WU | Waarman 2 9936GW Farmsum | 258.267 | 593.668 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WV | Farmsumerzijl 9 9936GB Farmsum | 258.192 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WW | Farmsumerzijl 11 9936GB Farmsum | 258.186 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WX | Farmsumerzijl 21 9936GB Farmsum | 258.134 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WY | Farmsumerzijl 23 9936GB Farmsum | 258.126 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WZ | Farmsumerzijl 33 9936GC Farmsum | 258.076 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| X | Hoofdweg 41 9945PB Wagenborgen | 258.092 | 586.599 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XA | Farmsumerzijl 35 9936GC Farmsum | 258.070 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XB | Schepperij 17 9936GL Farmsum | 258.103 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XC | Schepperij 19 9936GL Farmsum | 258.109 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XD | Schepperij 21 9936GL Farmsum | 258.115 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XE | Dijkrecht 3 9936GJ Farmsum | 258.042 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XF | Dijkrecht 5 9936GJ Farmsum | 258.052 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XG | Dijkrecht 7 9936GJ Farmsum | 258.054 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XH | Dijkrecht 9 9936GJ Farmsum | 258.063 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XI | Dijkrecht 11 9936GJ Farmsum | 258.073 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XJ | Dijkrecht 13 9936GJ Farmsum | 258.079 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XK | Dijkrecht 15 9936GJ Farmsum | 258.085 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XL | Dijkrecht 17 9936GJ Farmsum | 258.092 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XM | Dijkrecht 19 9936GJ Farmsum | 258.098 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XN | Dijkrecht 21 9936GJ Farmsum | 258.104 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XO | Schepperij 6 9936GN Farmsum | 258.058 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XP | Schepperij 8 9936GN Farmsum | 258.064 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XQ | Schepperij 10 9936GN Farmsum | 258.070 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XR | Schepperij 12 9936GN Farmsum | 258.075 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XS | Schepperij 14 9936GN Farmsum | 258.081 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XT | Schepperij 16 9936GN Farmsum | 258.087 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XU | Olderman 2 9936GT Farmsum | 258.132 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XV | Olderman 4 9936GT Farmsum | 258.132 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XW | Olderman 6 9936GT Farmsum | 258.132 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XX | Olderman 8 9936GT Farmsum | 258.132 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XY | Olderman 10 9936GT Farmsum | 258.132 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XZ | Olderman 12 9936GT Farmsum | 258.132 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Y | Hoofdweg 20 9945PG Wagenborgen | 258.207 | 586.682 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Hans / Hans@boschenvanrijn.nl
Calculated:
6-2-2017 12:05/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| YA | Olderman 14 9936GT Farmsum | 258.132 | 593.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YB | Dijkrecht 23 9936GJ Farmsum | 258.162 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YC | Dijkrecht 25 9936GJ Farmsum | 258.162 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YD | Dijkrecht 27 9936GJ Farmsum | 258.163 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YE | Dijkrecht 29 9936GJ Farmsum | 258.163 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YF | Dijkrecht 31 9936GJ Farmsum | 258.163 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YG | Dijkrecht 33 9936GJ Farmsum | 258.163 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YH | Dijkrecht 35 9936GJ Farmsum | 258.163 | 593.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YI | Dijkrecht 37 9936GJ Farmsum | 258.182 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YJ | Dijkrecht 39 9936GJ Farmsum | 258.182 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YK | Dijkrecht 41 9936GJ Farmsum | 258.182 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YL | Dijkrecht 43 9936GJ Farmsum | 258.182 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YM | Olderman 1 9936GS Farmsum | 258.107 | 593.574 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YN | Olderman 3 9936GS Farmsum | 258.107 | 593.567 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YO | Olderman 5 9936GS Farmsum | 258.108 | 593.561 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YP | Olderman 7 9936GS Farmsum | 258.108 | 593.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YQ | Schepperij 37 9936GM Farmsum | 258.194 | 593.543 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YR | Schepperij 41 9936GM Farmsum | 258.194 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YS | Schepperij 45 9936GM Farmsum | 258.194 | 593.518 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YT | Schepperij 47 9936GM Farmsum | 258.194 | 593.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YU | Schepperij 49 9936GM Farmsum | 258.194 | 593.506 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YV | Olderman 18 9936GT Farmsum | 258.143 | 593.539 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YW | Olderman 20 9936GT Farmsum | 258.143 | 593.533 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YX | Olderman 22 9936GT Farmsum | 258.143 | 593.527 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YY | Olderman 24 9936GT Farmsum | 258.143 | 593.521 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YZ | Olderman 26 9936GT Farmsum | 258.143 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Z | Hoofdweg 22 9945PG Wagenborgen | 258.202 | 586.669 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZA | Olderman 28 9936GT Farmsum | 258.143 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZB | Olderman 30 9936GT Farmsum | 258.143 | 593.502 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZC | Olderman 9 9936GS Farmsum | 258.120 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZD | Olderman 11 9936GS Farmsum | 258.120 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZE | Olderman 13 9936GS Farmsum | 258.120 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZF | Proosdij 32 9936EX Farmsum | 257.941 | 593.479 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZG | Proosdij 36 9936EX Farmsum | 257.952 | 593.473 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZH | Proosdij 38 9936EX Farmsum | 257.963 | 593.468 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZI | Proosdij 40 9936EX Farmsum | 257.984 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZJ | Proosdij 27 9936EV Farmsum | 257.995 | 593.418 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZK | Proosdij 25 9936EV Farmsum | 257.979 | 593.425 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZL | Proosdij 23 9936EV Farmsum | 257.962 | 593.433 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZM | Proosdij 21 9936EV Farmsum | 257.941 | 593.443 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZN | Seendweg 5 9936GA Farmsum | 258.091 | 593.322 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZO | Proosdij 29 9936EV Farmsum | 258.005 | 593.413 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZP | Proosdij 31 9936EV Farmsum | 258.019 | 593.403 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZQ | Proosdij 33 9936EV Farmsum | 258.043 | 593.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZR | Proosdij 35 9936EV Farmsum | 258.067 | 593.376 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZS | Proosdij 37 9936EV Farmsum | 258.085 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZT | Proosdij 39 9936EV Farmsum | 258.092 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZU | Proosdij 41 9936EV Farmsum | 258.099 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZV | Proosdij 43 9936EV Farmsum | 258.106 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZW | Proosdij 45 9936EV Farmsum | 258.112 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZX | Proosdij 47 9936EV Farmsum | 258.119 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZY | Olderman 15 9936GS Farmsum | 258.118 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZZ | Rengersweg 97 9936GG Farmsum | 258.010 | 593.468 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

## Calculation Results

Shadow receptor

| No. | Name | Shadow, expected values<br>Shadow hours per year<br>[h/year] |
|---|---|---|
| [A | Rengersweg 99 9936GG Farmsum | 1:00 |
| [B | Rengersweg 12 9936GH Farmsum | 1:08 |
| [C | Rengersweg 10 9936GH Farmsum | 1:03 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| [D | Kluft 1 9936GP Farmsum | 0:52 |
| [E | Kluft 3 9936GP Farmsum | 0:55 |
| [F | Proosdij 46 9936EX Farmsum | 1:09 |
| [G | Proosdij 48 9936EX Farmsum | 1:06 |
| [H | Proosdij 50 9936EX Farmsum | 1:24 |
| [I | Proosdij 52 9936EX Farmsum | 1:26 |
| [J | Proosdij 54 9936EX Farmsum | 1:35 |
| [K | Proosdij 56 9936EX Farmsum | 1:42 |
| [L | Olderman 21 9936GS Farmsum | 2:04 |
| [M | Olderman 19 9936GS Farmsum | 1:50 |
| [N | Olderman 17 9936GS Farmsum | 1:42 |
| [O | Kluft 5 9936GP Farmsum | 1:00 |
| [P | Kluft 7 9936GP Farmsum | 1:00 |
| [Q | Kluft 9 9936GP Farmsum | 1:11 |
| [R | Kluft 11 9936GP Farmsum | 1:14 |
| [S | Kluft 17 9936GP Farmsum | 1:38 |
| [T | Zijlvest 8 9936GZ Farmsum | 2:03 |
| [U | Olderman 32 9936GT Farmsum | 1:55 |
| [V | Olderman 34 9936GT Farmsum | 1:56 |
| [W | Olderman 36 9936GT Farmsum | 2:02 |
| [X | Olderman 38 9936GT Farmsum | 2:10 |
| [Y | Olderman 40 9936GT Farmsum | 2:17 |
| [Z | Olderman 42 9936GT Farmsum | 2:13 |
| \A | Zijlvest 22 A 9936GZ Farmsum | 2:36 |
| \B | Zijlvest 18 A 9936GZ Farmsum | 2:21 |
| \C | Zijlvest 18 9936GZ Farmsum | 2:19 |
| \D | Zijlvest 14 9936GZ Farmsum | 2:13 |
| \E | Borgweg 1 9936EH Farmsum | 2:47 |
| \F | Borgweg 3 9936EH Farmsum | 2:51 |
| \G | Borgweg 5 9936EH Farmsum | 2:53 |
| \H | Borgweg 7 9936EH Farmsum | 3:00 |
| \I | Borgweg 9 9936EH Farmsum | 3:07 |
| \J | Borgweg 11 9936EH Farmsum | 3:15 |
| \K | Borgweg 13 9936EH Farmsum | 3:33 |
| \L | Borgweg 15 9936EH Farmsum | 2:50 |
| \M | Borgweg 17 9936EH Farmsum | 2:53 |
| \N | Borgweg 19 9936EH Farmsum | 2:56 |
| \O | Borgweg 21 9936EH Farmsum | 3:03 |
| \P | Borgweg 23 9936EH Farmsum | 3:08 |
| \Q | Borgweg 25 9936EH Farmsum | 3:17 |
| \R | Borgweg 27 9936EH Farmsum | 3:36 |
| \S | Borgweg 29 9936EJ Farmsum | 2:53 |
| \T | Borgweg 31 9936EJ Farmsum | 2:57 |
| \U | Borgweg 33 9936EJ Farmsum | 2:59 |
| \V | Borgweg 35 9936EJ Farmsum | 3:04 |
| \W | Borgweg 37 9936EJ Farmsum | 3:11 |
| \X | Borgweg 39 9936EJ Farmsum | 3:25 |
| \Y | Borgweg 41 9936EJ Farmsum | 3:43 |
| \Z | Borgweg 43 9936EJ Farmsum | 2:54 |
| ]A | Borgweg 45 9936EJ Farmsum | 3:00 |
| ]B | Borgweg 47 9936EJ Farmsum | 3:03 |
| ]C | Borgweg 49 9936EJ Farmsum | 3:09 |
| ]D | Borgweg 51 9936EJ Farmsum | 3:16 |
| ]E | Borgweg 53 9936EJ Farmsum | 3:32 |
| ]F | Borgweg 55 9936EJ Farmsum | 3:45 |
| ]G | Borgweg 57 9936EK Farmsum | 2:20 |
| ]H | Borgweg 59 9936EK Farmsum | 2:18 |
| ]I | Borgweg 61 9936EK Farmsum | 2:16 |
| ]J | Borgweg 63 9936EK Farmsum | 2:16 |
| ]K | Borgweg 65 9936EK Farmsum | 2:13 |
| ]L | Borgweg 67 9936EK Farmsum | 2:13 |
| ]M | Borgweg 69 9936EK Farmsum | 2:12 |
| ]N | Borgweg 71 9936EK Farmsum | 2:23 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| ]O | Borgweg 73 9936EK Farmsum | 2:21 |
| ]P | Borgweg 75 9936EK Farmsum | 2:18 |
| ]Q | Borgweg 77 9936EK Farmsum | 2:16 |
| ]R | Borgweg 79 9936EK Farmsum | 2:14 |
| ]S | Borgweg 81 9936EK Farmsum | 2:15 |
| ]T | Borgweg 83 9936EK Farmsum | 2:13 |
| ]U | Borgweg 85 9936EL Farmsum | 2:24 |
| ]V | Borgweg 87 9936EL Farmsum | 2:23 |
| ]W | Borgweg 89 9936EL Farmsum | 2:22 |
| ]X | Borgweg 91 9936EL Farmsum | 2:20 |
| ]Y | Borgweg 93 9936EL Farmsum | 2:18 |
| ]Z | Borgweg 95 9936EL Farmsum | 2:16 |
| ^A | Borgweg 97 9936EL Farmsum | 2:15 |
| ^B | Borgweg 99 9936EL Farmsum | 2:26 |
| ^C | Borgweg 101 9936EL Farmsum | 2:23 |
| ^D | Borgweg 103 9936EL Farmsum | 2:21 |
| ^E | Borgweg 105 9936EL Farmsum | 2:20 |
| ^F | Borgweg 107 9936EL Farmsum | 2:18 |
| ^G | Borgweg 109 9936EL Farmsum | 2:17 |
| ^H | Borgweg 111 9936EL Farmsum | 2:16 |
| ^I | Kluft 18 9936GR Farmsum | 0:53 |
| ^J | Kluft 20 9936GR Farmsum | 0:55 |
| ^K | Kluft 22 9936GR Farmsum | 0:57 |
| ^L | Kluft 24 9936GR Farmsum | 0:59 |
| ^M | Kluft 26 9936GR Farmsum | 1:01 |
| ^N | Kluft 28 9936GR Farmsum | 1:03 |
| ^O | Kluft 30 9936GR Farmsum | 1:06 |
| ^P | Kluft 32 9936GR Farmsum | 1:09 |
| ^Q | Kluft 2 9936GR Farmsum | 0:55 |
| ^R | Kluft 4 9936GR Farmsum | 0:56 |
| ^S | Kluft 6 9936GR Farmsum | 0:57 |
| ^T | Kluft 8 9936GR Farmsum | 0:59 |
| ^U | Kluft 10 9936GR Farmsum | 1:02 |
| ^V | Kluft 12 9936GR Farmsum | 1:04 |
| ^W | Kluft 14 9936GR Farmsum | 1:04 |
| ^X | Kluft 16 9936GR Farmsum | 1:08 |
| ^Y | Zijlvest 20 A 9936GZ Farmsum | 2:30 |
| ^Z | Schepperij 51 9936GM Farmsum | 2:27 |
| _A | Waarman 15 9936GV Farmsum | 2:37 |
| _B | Waarman 17 9936GV Farmsum | 2:40 |
| _C | Waarman 19 9936GV Farmsum | 2:43 |
| _D | Waarman 21 9936GV Farmsum | 2:47 |
| _E | Waarman 23 9936GV Farmsum | 2:54 |
| _F | Waarman 25 9936GV Farmsum | 3:05 |
| _G | Waarman 27 9936GV Farmsum | 3:05 |
| _H | Waarman 29 9936GV Farmsum | 3:04 |
| _I | Heemskesweg 5 9936HE Farmsum | 16:24 |
| _J | Geefsweersterweg 2 9937TC Meedhuizen | 7:29 |
| _K | Seendweg 12 9936GA Farmsum | 2:44 |
| _L | Schepperij 39 9936GM Farmsum | 2:14 |
| _M | Schepperij 43 9936GM Farmsum | 2:17 |
| _N | Zijlvest 14 A 9936GZ Farmsum | 2:17 |
| _O | Zijlvest 24 A 9936GZ Farmsum | 2:44 |
| A | Familie Bronsweg 60 9945TA Wagenborgen | 20:43 |
| AA | Hoofdweg 26 9945PG Wagenborgen | 0:00 |
| AB | Hoofdweg 23 9945PA Wagenborgen | 0:00 |
| AC | Hoofdweg 25 9945PA Wagenborgen | 0:00 |
| AD | Hoofdweg 27 9945PA Wagenborgen | 0:00 |
| AE | Hoofdweg 29 9945PA Wagenborgen | 0:00 |
| AF | Hoofdweg 18 9945PG Wagenborgen | 0:00 |
| AG | Hoofdweg 14 9945PG Wagenborgen | 0:00 |
| AH | Hoofdweg 10 9945PG Wagenborgen | 0:00 |
| AI | Hoofdweg 8 9945PG Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| AJ | Hoofdweg 6 9945PG Wagenborgen | 0:00 |
| AK | Hoofdweg 4 9945PG Wagenborgen | 0:00 |
| AL | Hoofdweg 21 9945PA Wagenborgen | 0:00 |
| AM | Hoofdweg 19 9945PA Wagenborgen | 0:00 |
| AN | Hoofdweg 2 9945PG Wagenborgen | 0:00 |
| AO | Hoofdweg 15 9945PA Wagenborgen | 0:00 |
| AP | Hoofdweg 9 9945PA Wagenborgen | 0:00 |
| AQ | Hoofdweg 11 9945PA Wagenborgen | 0:00 |
| AR | Hoofdweg 7 9945PA Wagenborgen | 0:00 |
| AS | Hoofdweg 5 9945PA Wagenborgen | 1:26 |
| AT | H.L. Emmensweg 17 9945PW Wagenborgen | 0:00 |
| AU | H.L. Emmensweg 18 9945PX Wagenborgen | 0:00 |
| AV | H.L. Emmensweg 20 9945PX Wagenborgen | 0:00 |
| AW | H.L. Emmensweg 22 9945PX Wagenborgen | 0:00 |
| AX | H.L. Emmensweg 24 9945PX Wagenborgen | 0:00 |
| AY | H.L. Emmensweg 26 9945PX Wagenborgen | 0:00 |
| AZ | H.L. Emmensweg 10 9945PX Wagenborgen | 0:00 |
| B | Tolhek 4 9945TJ Wagenborgen | 33:24 |
| BA | H.L. Emmensweg 12 9945PX Wagenborgen | 0:00 |
| BB | H.L. Emmensweg 14 9945PX Wagenborgen | 0:00 |
| BC | H.L. Emmensweg 16 9945PX Wagenborgen | 0:00 |
| BD | H.L. Emmensweg 13 9945PW Wagenborgen | 0:00 |
| BE | H.L. Emmensweg 15 9945PW Wagenborgen | 0:00 |
| BF | H.L. Emmensweg 9 9945PW Wagenborgen | 0:00 |
| BG | H.L. Emmensweg 11 9945PW Wagenborgen | 0:00 |
| BH | H.L. Emmensweg 5 9945PW Wagenborgen | 0:00 |
| BI | H.L. Emmensweg 7 9945PW Wagenborgen | 0:00 |
| BJ | H.L. Emmensweg 4 9945PX Wagenborgen | 0:00 |
| BK | H.L. Emmensweg 2 9945PX Wagenborgen | 0:00 |
| BL | H.L. Emmensweg 1 9945PW Wagenborgen | 0:00 |
| BM | H.L. Emmensweg 3 9945PW Wagenborgen | 0:00 |
| BN | de Linden 4 9945PZ Wagenborgen | 0:00 |
| BO | de Linden 6 9945PZ Wagenborgen | 0:00 |
| BP | de Linden 10 9945PZ Wagenborgen | 0:00 |
| BQ | de Linden 12 9945PZ Wagenborgen | 0:00 |
| BR | de Linden 2 9945PZ Wagenborgen | 0:00 |
| BS | de Wilgen 12 9945RB Wagenborgen | 0:00 |
| BT | de Wilgen 10 9945RB Wagenborgen | 0:00 |
| BU | de Wilgen 8 9945RB Wagenborgen | 0:00 |
| BV | de Wilgen 2 9945RB Wagenborgen | 0:00 |
| BW | de Wilgen 4 9945RB Wagenborgen | 0:00 |
| BX | de Wilgen 6 9945RB Wagenborgen | 0:00 |
| BY | de Wilgen 6 A 9945RB Wagenborgen | 0:00 |
| BZ | de Wilgen 3 9945RB Wagenborgen | 0:00 |
| C | Tolhek 1 9945TJ Wagenborgen | 9:56 |
| CA | de Wilgen 3 A 9945RB Wagenborgen | 0:00 |
| CB | de Wilgen 3 B 9945RB Wagenborgen | 0:00 |
| CC | de Wilgen 5 9945RB Wagenborgen | 0:00 |
| CD | de Wilgen 46 9945RB Wagenborgen | 0:00 |
| CE | de Wilgen 44 9945RB Wagenborgen | 0:00 |
| CF | de Wilgen 48 9945RB Wagenborgen | 0:00 |
| CG | de Wilgen 50 9945RB Wagenborgen | 0:00 |
| CH | de Wilgen 36 9945RB Wagenborgen | 0:00 |
| CI | de Wilgen 38 9945RB Wagenborgen | 0:00 |
| CJ | de Wilgen 40 9945RB Wagenborgen | 0:00 |
| CK | de Wilgen 42 9945RB Wagenborgen | 0:00 |
| CL | de Wilgen 28 9945RB Wagenborgen | 0:00 |
| CM | de Wilgen 30 9945RB Wagenborgen | 0:00 |
| CN | de Wilgen 32 9945RB Wagenborgen | 0:00 |
| CO | de Wilgen 34 9945RB Wagenborgen | 0:00 |
| CP | de Wilgen 24 9945TK Wagenborgen | 0:00 |
| CQ | de Wilgen 26 9945RB Wagenborgen | 0:00 |
| CR | de Wilgen 20 9945RB Wagenborgen | 0:00 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| CS | de Wilgen 22 9945RB Wagenborgen | 0:00 |
| CT | de Wilgen 18 9945RB Wagenborgen | 0:00 |
| CU | de Wilgen 16 9945RB Wagenborgen | 0:00 |
| CV | de Wilgen 14 9945RB Wagenborgen | 0:00 |
| CW | de Wilgen 9 9945RB Wagenborgen | 0:00 |
| CX | de Wilgen 52 9945RB Wagenborgen | 1:15 |
| CY | Menterne 22 9945RA Wagenborgen | 0:00 |
| CZ | Menterne 18 9945RA Wagenborgen | 0:00 |
| D | Familie Bronsweg 62 9945TA Wagenborgen | 19:11 |
| DA | Menterne 21 9945RA Wagenborgen | 0:00 |
| DB | Menterne 19 9945RA Wagenborgen | 0:00 |
| DC | Menterne 20 9945RA Wagenborgen | 0:00 |
| DD | Menterne 17 9945RA Wagenborgen | 0:00 |
| DE | Menterne 7 9945RA Wagenborgen | 0:00 |
| DF | Menterne 8 9945RA Wagenborgen | 0:00 |
| DG | Menterne 9 9945RA Wagenborgen | 0:00 |
| DH | Menterne 10 9945RA Wagenborgen | 0:00 |
| DI | Menterne 11 9945RA Wagenborgen | 0:00 |
| DJ | Menterne 12 9945RA Wagenborgen | 0:00 |
| DK | Menterne 13 9945RA Wagenborgen | 0:00 |
| DL | Menterne 14 9945RA Wagenborgen | 0:00 |
| DM | Menterne 1 9945RA Wagenborgen | 0:00 |
| DN | Menterne 2 9945RA Wagenborgen | 0:00 |
| DO | Menterne 3 9945RA Wagenborgen | 0:00 |
| DP | Menterne 4 9945RA Wagenborgen | 0:00 |
| DQ | Menterne 5 9945RA Wagenborgen | 0:00 |
| DR | Menterne 6 9945RA Wagenborgen | 0:00 |
| DS | Menterne 15 9945RA Wagenborgen | 0:00 |
| DT | Menterne 16 9945RA Wagenborgen | 0:00 |
| DU | de Berken 6 9945PT Wagenborgen | 0:00 |
| DV | de Berken 2 9945PT Wagenborgen | 0:00 |
| DW | de Berken 4 9945PT Wagenborgen | 0:00 |
| DX | de Berken 1 9945PT Wagenborgen | 0:00 |
| DY | de Berken 5 9945PT Wagenborgen | 0:00 |
| DZ | de Berken 7 9945PT Wagenborgen | 0:00 |
| E | Meerweg 3 9945RC Wagenborgen | 0:36 |
| EA | de Berken 9 9945PT Wagenborgen | 0:00 |
| EB | de Eiken 14 9945VA Wagenborgen | 0:00 |
| EC | de Eiken 16 9945VA Wagenborgen | 0:00 |
| ED | de Eiken 2 9945VA Wagenborgen | 0:00 |
| EE | de Eiken 4 9945VA Wagenborgen | 0:00 |
| EF | de Eiken 6 9945VA Wagenborgen | 0:00 |
| EG | de Eiken 8 9945VA Wagenborgen | 0:00 |
| EH | de Eiken 10 9945VA Wagenborgen | 0:00 |
| EI | de Eiken 12 9945VA Wagenborgen | 0:00 |
| EJ | de Eiken 2 A 9945VA Wagenborgen | 0:00 |
| EK | Troostlaan 7 9945PV Wagenborgen | 0:00 |
| EL | Troostlaan 8 9945PV Wagenborgen | 0:00 |
| EM | Troostlaan 9 9945PV Wagenborgen | 0:00 |
| EN | Troostlaan 10 9945PV Wagenborgen | 0:00 |
| EO | Troostlaan 11 9945PV Wagenborgen | 0:00 |
| EP | Troostlaan 1 9945PV Wagenborgen | 0:00 |
| EQ | Troostlaan 2 9945PV Wagenborgen | 0:00 |
| ER | Troostlaan 3 9945PV Wagenborgen | 0:00 |
| ES | Troostlaan 2 A 9945PV Wagenborgen | 0:00 |
| ET | Troostlaan 4 9945PV Wagenborgen | 0:00 |
| EU | Troostlaan 14 9945PV Wagenborgen | 0:00 |
| EV | Troostlaan 22 9945PV Wagenborgen | 0:00 |
| EW | Troostlaan 20 9945PV Wagenborgen | 0:00 |
| EX | Troostlaan 21 9945PV Wagenborgen | 0:00 |
| EY | Troostlaan 18 9945PV Wagenborgen | 0:00 |
| EZ | Troostlaan 19 9945PV Wagenborgen | 0:00 |
| F | G. Boelmanweg 2 9945RJ Wagenborgen | 0:00 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| FA | Familie Bronsweg 40 9945PS Wagenborgen | 1:40 |
| FB | Familie Bronsweg 44 9945PS Wagenborgen | 1:31 |
| FC | Familie Bronsweg 46 9945PS Wagenborgen | 1:30 |
| FD | Familie Bronsweg 48 9945PS Wagenborgen | 1:30 |
| FE | Familie Bronsweg 50 9945PS Wagenborgen | 1:29 |
| FF | Familie Bronsweg 79 9945PP Wagenborgen | 1:17 |
| FG | Familie Bronsweg 81 9945PP Wagenborgen | 1:17 |
| FH | Familie Bronsweg 36 9945PS Wagenborgen | 2:10 |
| FI | Familie Bronsweg 38 9945PS Wagenborgen | 1:44 |
| FJ | Familie Bronsweg 42 9945PS Wagenborgen | 1:31 |
| FK | Familie Bronsweg 54 9945PS Wagenborgen | 1:24 |
| FL | Familie Bronsweg 52 9945PS Wagenborgen | 1:25 |
| FM | Familie Bronsweg 50 B 9945PS Wagenborgen | 1:27 |
| FN | Familie Bronsweg 50 A 9945PS Wagenborgen | 1:27 |
| FO | Familie Bronsweg 75 9945PP Wagenborgen | 1:18 |
| FP | Familie Bronsweg 75 A 9945PP Wagenborgen | 1:17 |
| FQ | Familie Bronsweg 75 B 9945PP Wagenborgen | 1:17 |
| FR | Familie Bronsweg 71 9945PP Wagenborgen | 1:19 |
| FS | Familie Bronsweg 69 A 9945PP Wagenborgen | 1:21 |
| FT | Familie Bronsweg 69 9945PP Wagenborgen | 1:20 |
| FU | Familie Bronsweg 67 9945PP Wagenborgen | 1:21 |
| FV | Familie Bronsweg 65 9945PP Wagenborgen | 1:21 |
| FW | Familie Bronsweg 63 9945PP Wagenborgen | 1:23 |
| FX | Familie Bronsweg 61 9945PP Wagenborgen | 1:25 |
| FY | Familie Bronsweg 59 9945PP Wagenborgen | 1:31 |
| FZ | Familie Bronsweg 57 9945PP Wagenborgen | 1:34 |
| G | G. Boelmanweg 3 9945RE Wagenborgen | 0:00 |
| GA | Familie Bronsweg 53 9945PP Wagenborgen | 1:48 |
| GB | Familie Bronsweg 73 9945PP Wagenborgen | 1:19 |
| GC | Familie Bronsweg 85 9945PP Wagenborgen | 1:16 |
| GD | Familie Bronsweg 83 9945PP Wagenborgen | 1:17 |
| GE | Familie Bronsweg 83 A 9945PP Wagenborgen | 1:16 |
| GF | Familie Bronsweg 77 9945PP Wagenborgen | 1:08 |
| GG | Familie Bronsweg 51 9945PP Wagenborgen | 1:43 |
| GH | Familie Bronsweg 2 9945PR Wagenborgen | 1:21 |
| GI | Familie Bronsweg 4 9945PR Wagenborgen | 1:18 |
| GJ | Familie Bronsweg 4 A 9945PR Wagenborgen | 1:14 |
| GK | Familie Bronsweg 6 9945PR Wagenborgen | 1:12 |
| GL | Familie Bronsweg 8 9945PR Wagenborgen | 1:14 |
| GM | Familie Bronsweg 10 9945PR Wagenborgen | 1:17 |
| GN | Familie Bronsweg 12 9945PR Wagenborgen | 1:08 |
| GO | Familie Bronsweg 14 9945PR Wagenborgen | 1:10 |
| GP | Familie Bronsweg 16 9945PR Wagenborgen | 1:10 |
| GQ | Familie Bronsweg 15 9945PN Wagenborgen | 0:50 |
| GR | Familie Bronsweg 17 9945PN Wagenborgen | 1:03 |
| GS | Familie Bronsweg 2 A 9945PR Wagenborgen | 2:09 |
| GT | Familie Bronsweg 2 B 9945PR Wagenborgen | 3:15 |
| GU | Familie Bronsweg 2 C 9945PR Wagenborgen | 3:02 |
| GV | Familie Bronsweg 2 D 9945PR Wagenborgen | 2:57 |
| GW | Familie Bronsweg 2 F 9945PR Wagenborgen | 3:37 |
| GX | Familie Bronsweg 2 G 9945PR Wagenborgen | 4:21 |
| GY | Familie Bronsweg 2 H 9945PR Wagenborgen | 3:55 |
| GZ | Familie Bronsweg 2 J 9945PR Wagenborgen | 3:31 |
| H | G. Boelmanweg 5 9945RE Wagenborgen | 0:00 |
| HA | Akeleistraat 17 9945VD Wagenborgen | 2:14 |
| HB | Akeleistraat 19 9945VD Wagenborgen | 2:07 |
| HC | Akeleistraat 21 9945VD Wagenborgen | 1:59 |
| HD | Akeleistraat 23 9945VD Wagenborgen | 1:54 |
| HE | Akeleistraat 20 9945VD Wagenborgen | 1:45 |
| HF | Akeleistraat 22 9945VD Wagenborgen | 1:42 |
| HG | Akeleistraat 16 9945VD Wagenborgen | 2:00 |
| HH | Akeleistraat 18 9945VD Wagenborgen | 1:56 |
| HI | Akeleistraat 12 9945VD Wagenborgen | 2:17 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| HJ | Akeleistraat 14 9945VD Wagenborgen | 2:13 |
| HK | Akeleistraat 10 9945VD Wagenborgen | 2:38 |
| HL | Akeleistraat 1 9945VD Wagenborgen | 4:57 |
| HM | Akeleistraat 3 9945VD Wagenborgen | 4:58 |
| HN | Akeleistraat 5 9945VD Wagenborgen | 5:06 |
| HO | Akeleistraat 7 9945VD Wagenborgen | 5:00 |
| HP | Akeleistraat 9 9945VD Wagenborgen | 4:38 |
| HQ | Akeleistraat 11 9945VD Wagenborgen | 3:04 |
| HR | Akeleistraat 2 9945VD Wagenborgen | 4:22 |
| HS | Akeleistraat 4 9945VD Wagenborgen | 4:21 |
| HT | Akeleistraat 6 9945VD Wagenborgen | 3:50 |
| HU | Akeleistraat 8 9945VD Wagenborgen | 3:46 |
| HV | Akeleistraat 15 9945VD Wagenborgen | 2:26 |
| HW | Bremstraat 6 9945VC Wagenborgen | 2:53 |
| HX | Bremstraat 2 9945VC Wagenborgen | 3:34 |
| HY | Bremstraat 4 9945VC Wagenborgen | 3:26 |
| HZ | Bremstraat 12 9945VC Wagenborgen | 1:52 |
| I | G. Boelmanweg 4 9945RJ Wagenborgen | 0:00 |
| IA | Hibiscusstraat 30 9945VB Wagenborgen | 2:46 |
| IB | Hibiscusstraat 2 9945VB Wagenborgen | 2:08 |
| IC | Hibiscusstraat 4 9945VB Wagenborgen | 2:37 |
| ID | Hibiscusstraat 10 9945VB Wagenborgen | 1:52 |
| IE | Hibiscusstraat 16 9945VB Wagenborgen | 2:39 |
| IF | Bremstraat 14 9945VC Wagenborgen | 1:43 |
| IG | Hibiscusstraat 6 9945VB Wagenborgen | 2:24 |
| IH | Hibiscusstraat 26 9945VB Wagenborgen | 3:21 |
| II | Kopaf 8 9945TE Wagenborgen | 6:47 |
| IJ | Kopaf 7 9945TE Wagenborgen | 3:37 |
| IK | Kopaf 6 9945TE Wagenborgen | 5:53 |
| IL | Kloosterlaan 27 9945TG Wagenborgen | 65:06 |
| IM | Kloosterlaan 25 9945TG Wagenborgen | 81:06 |
| IN | Kloosterlaan 23 9945TG Wagenborgen | 87:59 |
| IO | Scheve Klap 5 9945TD Wagenborgen | 0:46 |
| IP | Scheve Klap 4 9945TD Wagenborgen | 0:38 |
| IQ | Hibiscusstraat 8 9945VB Wagenborgen | 2:02 |
| IR | Hibiscusstraat 12 9945VB Wagenborgen | 1:50 |
| IS | Hibiscusstraat 18 9945VB Wagenborgen | 3:06 |
| IT | Hibiscusstraat 24 9945VB Wagenborgen | 2:33 |
| IU | Hibiscusstraat 22 9945VB Wagenborgen | 2:53 |
| IV | Troostlaan 15 9945PV Wagenborgen | 0:00 |
| IW | Bremstraat 10 9945VC Wagenborgen | 2:06 |
| IX | Hibiscusstraat 20 9945VB Wagenborgen | 3:17 |
| IY | Hibiscusstraat 28 9945VB Wagenborgen | 3:31 |
| IZ | Troostlaan 5 9945PV Wagenborgen | 0:00 |
| J | G. Boelmanweg 7 9945RE Wagenborgen | 0:00 |
| JA | Troostlaan 6 9945PV Wagenborgen | 0:00 |
| JB | Boslaan 5 9945TM Wagenborgen | 4:37 |
| JC | Hoofdweg 33 A 9945PB Wagenborgen | 0:00 |
| JD | Akeleistraat 13 9945VD Wagenborgen | 4:16 |
| JE | Hoofdweg 42 9945PG Wagenborgen | 0:00 |
| JF | Familie Bronsweg 2 E 9945PR Wagenborgen | 3:13 |
| JG | Hibiscusstraat 14 9945VB Wagenborgen | 2:07 |
| JH | Bremstraat 8 9945VC Wagenborgen | 2:27 |
| JI | Menterne 23 003 9945RA Wagenborgen | 0:54 |
| JJ | Menterne 23 004 9945RA Wagenborgen | 0:57 |
| JK | Menterne 23 005 9945RA Wagenborgen | 1:02 |
| JL | Menterne 23 006 9945RA Wagenborgen | 1:05 |
| JM | Menterne 23 007 9945RA Wagenborgen | 1:04 |
| JN | Menterne 23 008 9945RA Wagenborgen | 1:02 |
| JO | Menterne 23 009 9945RA Wagenborgen | 0:57 |
| JP | Menterne 23 010 9945RA Wagenborgen | 0:56 |
| JQ | Menterne 23 017 9945RA Wagenborgen | 0:33 |
| JR | Menterne 23 030 9945RA Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| JS | Menterne 23 103 9945RA Wagenborgen | 0:53 |
| JT | Menterne 23 104 9945RA Wagenborgen | 0:57 |
| JU | Menterne 23 105 9945RA Wagenborgen | 1:01 |
| JV | Menterne 23 106 9945RA Wagenborgen | 1:05 |
| JW | Menterne 23 107 9945RA Wagenborgen | 1:05 |
| JX | Menterne 23 108 9945RA Wagenborgen | 1:03 |
| JY | Menterne 23 109 9945RA Wagenborgen | 0:58 |
| JZ | Menterne 23 110 9945RA Wagenborgen | 0:57 |
| K | G. Boelmanweg 6 9945RJ Wagenborgen | 0:00 |
| KA | Menterne 23 111 9945RA Wagenborgen | 0:54 |
| KB | Menterne 23 113 9945RA Wagenborgen | 0:41 |
| KC | Menterne 23 114 9945RA Wagenborgen | 0:37 |
| KD | Menterne 23 115 9945RA Wagenborgen | 0:34 |
| KE | Menterne 23 116 9945RA Wagenborgen | 0:31 |
| KF | Menterne 23 117 9945RA Wagenborgen | 0:29 |
| KG | Menterne 23 118 9945RA Wagenborgen | 0:27 |
| KH | Menterne 23 119 9945RA Wagenborgen | 0:00 |
| KI | Menterne 23 120 9945RA Wagenborgen | 0:00 |
| KJ | Menterne 23 121 9945RA Wagenborgen | 0:00 |
| KK | Menterne 23 122 9945RA Wagenborgen | 0:00 |
| KL | Menterne 23 123 9945RA Wagenborgen | 0:00 |
| KM | Menterne 23 124 9945RA Wagenborgen | 0:00 |
| KN | Menterne 23 125 9945RA Wagenborgen | 0:00 |
| KO | Menterne 23 126 9945RA Wagenborgen | 0:00 |
| KP | Menterne 23 127 9945RA Wagenborgen | 0:00 |
| KQ | Menterne 23 128 9945RA Wagenborgen | 0:00 |
| KR | Menterne 23 129 9945RA Wagenborgen | 0:00 |
| KS | Menterne 23 130 9945RA Wagenborgen | 0:00 |
| KT | Menterne 23 131 9945RA Wagenborgen | 0:36 |
| KU | Menterne 23 132 9945RA Wagenborgen | 0:38 |
| KV | Menterne 23 201 9945RA Wagenborgen | 0:47 |
| KW | Menterne 23 202 9945RA Wagenborgen | 0:49 |
| KX | Menterne 23 203 9945RA Wagenborgen | 0:52 |
| KY | Menterne 23 204 9945RA Wagenborgen | 0:56 |
| KZ | Menterne 23 205 9945RA Wagenborgen | 0:59 |
| L | Kokslaan 1 9945RD Wagenborgen | 0:00 |
| LA | Menterne 23 206 9945RA Wagenborgen | 1:03 |
| LB | Menterne 23 207 9945RA Wagenborgen | 1:05 |
| LC | Menterne 23 208 9945RA Wagenborgen | 1:03 |
| LD | Menterne 23 209 9945RA Wagenborgen | 1:01 |
| LE | Menterne 23 210 9945RA Wagenborgen | 0:57 |
| LF | Menterne 23 211 9945RA Wagenborgen | 0:54 |
| LG | Menterne 23 212 9945RA Wagenborgen | 0:51 |
| LH | Menterne 23 213 9945RA Wagenborgen | 0:42 |
| LI | Menterne 23 214 9945RA Wagenborgen | 0:38 |
| LJ | Menterne 23 215 9945RA Wagenborgen | 0:35 |
| LK | Menterne 23 216 9945RA Wagenborgen | 0:32 |
| LL | Menterne 23 217 9945RA Wagenborgen | 0:30 |
| LM | Menterne 23 218 9945RA Wagenborgen | 0:00 |
| LN | Menterne 23 219 9945RA Wagenborgen | 0:00 |
| LO | Menterne 23 220 9945RA Wagenborgen | 0:00 |
| LP | Menterne 23 221 9945RA Wagenborgen | 0:00 |
| LQ | Menterne 23 222 9945RA Wagenborgen | 0:00 |
| LR | Menterne 23 223 9945RA Wagenborgen | 0:00 |
| LS | Menterne 23 224 9945RA Wagenborgen | 0:00 |
| LT | Menterne 23 226 9945RA Wagenborgen | 0:00 |
| LU | Menterne 23 228 9945RA Wagenborgen | 0:00 |
| LV | Menterne 23 229 9945RA Wagenborgen | 0:00 |
| LW | Menterne 23 230 9945RA Wagenborgen | 0:00 |
| LX | Menterne 23 231 9945RA Wagenborgen | 0:36 |
| LY | Menterne 23 232 9945RA Wagenborgen | 0:37 |
| LZ | G. Boelmanweg 1 9945RE Wagenborgen | 0:00 |
| M | Kokslaan 2 9945RD Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| MA | Boslaan 7 9945TM Wagenborgen | 0:00 |
| MB | H.L. Emmensweg 23 9945PW Wagenborgen | 0:00 |
| MC | Kopaf 5 9944VA Nieuwolda | 0:00 |
| MD | Familie Bronsweg 68 9945TA Wagenborgen | 29:16 |
| ME | Maarkampen 26 9937PL Meedhuizen | 0:43 |
| MF | Maarkampen 24 9937PL Meedhuizen | 0:39 |
| MG | Maarkampen 22 9937PL Meedhuizen | 0:37 |
| MH | Maarkampen 20 9937PL Meedhuizen | 0:34 |
| MI | Maarkampen 18 9937PL Meedhuizen | 0:31 |
| MJ | Maarkampen 16 9937PL Meedhuizen | 0:28 |
| MK | Maarkampen 14 9937PL Meedhuizen | 0:26 |
| ML | Maarlaan 22 E 9937TH Meedhuizen | 0:38 |
| MM | Maarlaan 22 D 9937TH Meedhuizen | 0:29 |
| MN | Schaapbulterweg 8 9937TL Meedhuizen | 0:59 |
| MO | Schaapbulterweg 6 9937TL Meedhuizen | 0:40 |
| MP | Schaapbulterweg 29 9937TL Meedhuizen | 1:01 |
| MQ | Schaapbulterweg 27 9937TL Meedhuizen | 0:46 |
| MR | Schaapbulterweg 25 9937TL Meedhuizen | 0:43 |
| MS | Schaapbulterweg 23 9937TL Meedhuizen | 0:40 |
| MT | Schaapbulterweg 21 9937TL Meedhuizen | 0:38 |
| MU | Geefsweersterweg 11 9937TB Meedhuizen | 4:14 |
| MV | Schaapbulterweg 35 9937TL Meedhuizen | 3:04 |
| MW | Meedhuizerweg 20 9937TK Meedhuizen | 0:46 |
| MX | Familie Bronsweg 66 9945TA Wagenborgen | 26:15 |
| MY | Familie Bronsweg 64 9945TA Wagenborgen | 25:30 |
| MZ | Ideweersterweg 10 9937TM Meedhuizen | 15:37 |
| N | Kerkstraat 1 9945SB Wagenborgen | 0:00 |
| NA | Ideweersterweg 8 9937TM Meedhuizen | 16:03 |
| NB | Geefsweersterweg 20 9937TC Meedhuizen | 21:15 |
| NC | Geefsweersterweg 18 9937TC Meedhuizen | 29:32 |
| ND | Geefsweersterweg 29 9937TB Meedhuizen | 22:37 |
| NE | Geefsweersterweg 16 9937TC Meedhuizen | 39:01 |
| NF | Geefsweersterweg 23 9937TB Meedhuizen | 27:53 |
| NG | Geefsweersterweg 12 9937TC Meedhuizen | 25:58 |
| NH | Geefsweersterweg 14 9937TC Meedhuizen | 27:13 |
| NI | Geefsweersterweg 21 A 9937TB Meedhuizen | 23:52 |
| NJ | Geefsweersterweg 10 9937TC Meedhuizen | 23:17 |
| NK | Geefsweersterweg 21 9937TB Meedhuizen | 22:11 |
| NL | Geefsweersterweg 17 9937TB Meedhuizen | 19:06 |
| NM | Geefsweersterweg 19 9937TB Meedhuizen | 20:00 |
| NN | Ideweersterweg 2 9937TM Meedhuizen | 127:43 |
| NO | Ideweersterweg 1 9937TM Meedhuizen | 146:37 |
| NP | Geefsweersterweg 15 9937TB Meedhuizen | 32:28 |
| NQ | Westerlaan 6 9937TS Meedhuizen | 55:04 |
| NR | Familie Bronsweg 87 9945TA Wagenborgen | 15:12 |
| NS | Familie Bronsweg 89 9945TA Wagenborgen | 15:37 |
| NT | Westerlaan 10 9937TS Meedhuizen | 45:15 |
| NU | Geefsweersterweg 13 9937TB Meedhuizen | 16:38 |
| NV | Maarlaan 26 9937TH Meedhuizen | 1:28 |
| NW | Maarlaan 24 9937TH Meedhuizen | 0:47 |
| NX | Maarlaan 28 9937TH Meedhuizen | 1:41 |
| NY | Maarlaan 30 9937TH Meedhuizen | 2:15 |
| NZ | Kerklaan 3 9937PG Meedhuizen | 1:39 |
| O | Hoofdweg 30 9945PG Wagenborgen | 0:00 |
| OA | Kerklaan 8 9937PG Meedhuizen | 2:50 |
| OB | Kerklaan 6 9937PG Meedhuizen | 2:54 |
| OC | Opmeedenlaan 6 9937TN Meedhuizen | 0:54 |
| OD | Opmeedenlaan 4 9937TN Meedhuizen | 0:57 |
| OE | Opmeedenlaan 2 9937TN Meedhuizen | 1:09 |
| OF | Kloosterlaan 26 9945TG Wagenborgen | 132:27 |
| OG | Zomerdijk 1 9945TH Wagenborgen | 110:19 |
| OH | Zomerdijk 3 9945TH Wagenborgen | 116:33 |
| OI | Zomerdijk 3 A 9945TH Wagenborgen | 127:32 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| OJ | Zomerdijk 2 9945TH Wagenborgen | 122:38 |
| OK | Kloosterlaan 21 A 9945TG Wagenborgen | 117:51 |
| OL | Kloosterlaan 21 B 9945TG Wagenborgen | 123:57 |
| OM | Ideweersterweg 4 9937TM Meedhuizen | 100:12 |
| ON | Maarlaan 22 C 9937TH Meedhuizen | 0:23 |
| OO | Kloosterlaan 21 9936TE Farmsum | 64:44 |
| OP | Geefsweersterweg 8 A 9937TC Meedhuizen | 30:50 |
| OQ | Houtweg 20 9936BL Farmsum | 0:10 |
| OR | Houtweg 22 9936BL Farmsum | 0:11 |
| OS | Houtweg 24 9936BL Farmsum | 0:11 |
| OT | Houtweg 26 9936BL Farmsum | 0:11 |
| OU | Houtweg 28 9936BL Farmsum | 0:11 |
| OV | Rondeboslaan 6 9936BK Farmsum | 0:43 |
| OW | Proosdij 14 9936EW Farmsum | 1:39 |
| OX | Bredelaan 6 9936ER Farmsum | 1:58 |
| OY | Bredelaan 4 9936ER Farmsum | 1:43 |
| OZ | Bredelaan 2 A 9936ER Farmsum | 1:09 |
| P | Hoofdweg 32 9945PG Wagenborgen | 0:00 |
| PA | Proosdij 24 9936EW Farmsum | 1:02 |
| PB | Proosdij 22 9936EW Farmsum | 1:07 |
| PC | Proosdij 20 9936EW Farmsum | 1:12 |
| PD | Proosdij 18 9936EW Farmsum | 1:23 |
| PE | Proosdij 16 9936EW Farmsum | 1:28 |
| PF | Trambaan 19 9936ES Farmsum | 1:32 |
| PG | Proosdij 17 9936ET Farmsum | 1:43 |
| PH | Proosdij 15 9936ET Farmsum | 1:48 |
| PI | Proosdij 13 9936ET Farmsum | 1:48 |
| PJ | Trambaan 17 9936ES Farmsum | 1:37 |
| PK | Trambaan 15 9936ES Farmsum | 1:44 |
| PL | Trambaan 13 9936ES Farmsum | 1:46 |
| PM | Trambaan 11 9936ES Farmsum | 1:49 |
| PN | Trambaan 9 9936ES Farmsum | 1:51 |
| PO | Trambaan 5 9936ES Farmsum | 1:51 |
| PP | Trambaan 3 9936ES Farmsum | 1:34 |
| PQ | Trambaan 1 9936ES Farmsum | 1:30 |
| PR | Proosdij 12 9936EW Farmsum | 1:56 |
| PS | Proosdij 8 9936EW Farmsum | 1:35 |
| PT | Proosdij 6 9936EW Farmsum | 1:24 |
| PU | Proosdij 4 9936EW Farmsum | 1:19 |
| PV | Proosdij 11 9936ET Farmsum | 1:33 |
| PW | Proosdij 9 9936ET Farmsum | 1:24 |
| PX | Proosdij 7 9936ET Farmsum | 1:14 |
| PY | Proosdij 5 9936ET Farmsum | 1:09 |
| PZ | Proosdij 1 9936ET Farmsum | 0:47 |
| Q | Hoofdweg 31 9945PA Wagenborgen | 0:00 |
| QA | Proosdij 3 9936ET Farmsum | 1:06 |
| QB | Farmsumerzijl 55 9936GC Farmsum | 0:41 |
| QC | Farmsumerzijl 57 9936GC Farmsum | 0:35 |
| QD | Rengersweg 4 9936GH Farmsum | 1:01 |
| QE | Rengersweg 2 9936GH Farmsum | 1:08 |
| QF | Schepperij 4 A 9936GN Farmsum | 0:54 |
| QG | Schepperij 2 A 9936GN Farmsum | 0:51 |
| QH | Schepperij 4 9936GN Farmsum | 0:52 |
| QI | Schepperij 2 9936GN Farmsum | 0:49 |
| QJ | Dijkrecht 4 9936GK Farmsum | 1:53 |
| QK | Dijkrecht 6 9936GK Farmsum | 1:43 |
| QL | Dijkrecht 10 9936GK Farmsum | 1:32 |
| QM | Dijkrecht 12 9936GK Farmsum | 1:31 |
| QN | Dijkrecht 14 9936GK Farmsum | 1:28 |
| QO | Dijkrecht 16 9936GK Farmsum | 1:25 |
| QP | Dijkrecht 18 9936GK Farmsum | 1:21 |
| QQ | Dijkrecht 20 9936GK Farmsum | 1:17 |
| QR | Dijkrecht 22 9936GK Farmsum | 1:16 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| QS | Dijkrecht 24 9936GK Farmsum | 1:21 |
| QT | Dijkrecht 26 9936GK Farmsum | 1:31 |
| QU | Dijkrecht 28 9936GK Farmsum | 1:34 |
| QV | Dijkrecht 30 9936GK Farmsum | 1:43 |
| QW | Dijkrecht 32 9936GK Farmsum | 1:46 |
| QX | Dijkrecht 34 9936GK Farmsum | 1:52 |
| QY | Dijkrecht 36 9936GK Farmsum | 1:57 |
| QZ | Dijkrecht 40 9936GK Farmsum | 2:09 |
| R | Hoofdweg 38 9945PG Wagenborgen | 0:00 |
| RA | Dijkrecht 38 9936GK Farmsum | 2:04 |
| RB | Schepperij 20 9936GN Farmsum | 1:50 |
| RC | Schepperij 18 9936GN Farmsum | 1:49 |
| RD | Waarman 12 9936GW Farmsum | 2:50 |
| RE | Waarman 10 9936GW Farmsum | 2:28 |
| RF | Waarman 8 9936GW Farmsum | 2:25 |
| RG | Waarman 6 9936GW Farmsum | 2:25 |
| RH | Farmsumerzijl 1 9936GB Farmsum | 2:04 |
| RI | Farmsumerzijl 3 9936GB Farmsum | 2:01 |
| RJ | Farmsumerzijl 5 9936GB Farmsum | 1:50 |
| RK | Farmsumerzijl 7 9936GB Farmsum | 1:49 |
| RL | Farmsumerzijl 13 9936GB Farmsum | 1:33 |
| RM | Farmsumerzijl 15 9936GB Farmsum | 1:34 |
| RN | Farmsumerzijl 17 9936GB Farmsum | 1:37 |
| RO | Farmsumerzijl 19 9936GB Farmsum | 1:38 |
| RP | Farmsumerzijl 25 9936GB Farmsum | 1:51 |
| RQ | Farmsumerzijl 27 9936GB Farmsum | 1:53 |
| RR | Farmsumerzijl 29 9936GB Farmsum | 2:04 |
| RS | Farmsumerzijl 31 9936GC Farmsum | 2:07 |
| RT | Farmsumerzijl 37 9936GC Farmsum | 2:22 |
| RU | Farmsumerzijl 39 9936GC Farmsum | 2:25 |
| RV | Farmsumerzijl 41 9936GC Farmsum | 2:36 |
| RW | Farmsumerzijl 43 9936GC Farmsum | 2:39 |
| RX | Schepperij 1 9936GL Farmsum | 0:55 |
| RY | Schepperij 3 9936GL Farmsum | 0:58 |
| RZ | Schepperij 5 9936GL Farmsum | 1:00 |
| S | Hoofdweg 39 9945PB Wagenborgen | 0:00 |
| SA | Schepperij 7 9936GL Farmsum | 1:00 |
| SB | Schepperij 9 9936GL Farmsum | 1:03 |
| SC | Schepperij 11 9936GL Farmsum | 1:04 |
| SD | Schepperij 13 9936GL Farmsum | 1:08 |
| SE | Schepperij 15 9936GL Farmsum | 1:08 |
| SF | Dijkrecht 8 9936GK Farmsum | 1:39 |
| SG | Geefsweersterweg 9 9937TB Meedhuizen | 6:15 |
| SH | Geefsweersterweg 7 9937TB Meedhuizen | 29:56 |
| SI | Geefsweersterweg 8 9937TC Meedhuizen | 34:28 |
| SJ | Geefsweersterweg 3 9937TB Meedhuizen | 20:18 |
| SK | Geefsweersterweg 6 9937TC Meedhuizen | 26:12 |
| SL | Geefsweersterweg 4 9937TC Meedhuizen | 20:17 |
| SM | Meedhuizerweg 2 9937TK Meedhuizen | 0:13 |
| SN | Molenstraat 31 9936EB Farmsum | 3:10 |
| SO | Hindrik Jagerstraat 32 9936CV Farmsum | 0:59 |
| SP | Hindrik Jagerstraat 11 9936CT Farmsum | 1:01 |
| SQ | Hindrik Jagerstraat 13 9936CT Farmsum | 1:06 |
| SR | Hindrik Jagerstraat 15 9936CT Farmsum | 1:06 |
| SS | Hindrik Jagerstraat 34 9936CV Farmsum | 1:04 |
| ST | Hindrik Jagerstraat 36 9936CV Farmsum | 1:07 |
| SU | Borgshof 31 9936CR Farmsum | 1:18 |
| SV | Borgshof 33 9936CR Farmsum | 1:17 |
| SW | Borgshof 39 9936CR Farmsum | 1:39 |
| SX | Borgshof 35 9936CR Farmsum | 1:27 |
| SY | Molenstraat 20 9936EC Farmsum | 3:32 |
| SZ | Molenstraat 24 9936EC Farmsum | 4:26 |
| T | Hoofdweg 35 9945PB Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| TA | Molenstraat 28 9936EC Farmsum | 4:36 |
| TB | Molenstraat 41 9936EB Farmsum | 3:49 |
| TC | Molenstraat 43 9936EB Farmsum | 4:14 |
| TD | Molenstraat 45 9936EB Farmsum | 4:26 |
| TE | Molenstraat 32 9936EC Farmsum | 4:36 |
| TF | Achterweg 13 9936EG Farmsum | 4:48 |
| TG | Achterweg 11 9936EG Farmsum | 4:49 |
| TH | Achterweg 9 9936EG Farmsum | 4:50 |
| TI | Molenstraat 49 9936EB Farmsum | 4:25 |
| TJ | Molenstraat 51 9936EB Farmsum | 4:27 |
| TK | Molenstraat 53 9936EB Farmsum | 4:22 |
| TL | Molenstraat 57 9936EB Farmsum | 4:01 |
| TM | Molenstraat 61 9936EB Farmsum | 3:36 |
| TN | Molenstraat 63 9936EB Farmsum | 3:14 |
| TO | Molenstraat 34 9936ED Farmsum | 4:27 |
| TP | Molenstraat 38 9936ED Farmsum | 4:06 |
| TQ | Molenstraat 40 9936ED Farmsum | 3:51 |
| TR | Molenstraat 42 9936ED Farmsum | 3:28 |
| TS | Molenstraat 44 9936ED Farmsum | 3:02 |
| TT | Molenstraat 65 9936EB Farmsum | 2:49 |
| TU | Molenstraat 48 9936ED Farmsum | 2:33 |
| TV | Molenstraat 50 9936ED Farmsum | 2:11 |
| TW | Molenstraat 56 9936ED Farmsum | 1:47 |
| TX | Molenstraat 58 9936EE Farmsum | 1:20 |
| TY | Molenstraat 62 9936EE Farmsum | 1:08 |
| TZ | Molenstraat 72 9936EE Farmsum | 0:50 |
| U | Hoofdweg 37 9945PB Wagenborgen | 0:00 |
| UA | Molenstraat 70 9936EE Farmsum | 0:50 |
| UB | Molenstraat 68 9936EE Farmsum | 0:50 |
| UC | Molenstraat 66 9936EE Farmsum | 0:48 |
| UD | Achterweg 2 9936EG Farmsum | 3:13 |
| UE | Achterweg 12 9936EG Farmsum | 1:33 |
| UF | Achterweg 10 9936EG Farmsum | 1:12 |
| UG | Achterweg 8 9936EG Farmsum | 1:14 |
| UH | Hindrik Jagerstraat 17 9936CT Farmsum | 1:14 |
| UI | Molenstraat 30 9936EC Farmsum | 4:37 |
| UJ | Borgweg 141 9936EN Farmsum | 0:36 |
| UK | Borgweg 139 9936EN Farmsum | 0:40 |
| UL | Borgweg 137 9936EN Farmsum | 0:43 |
| UM | Borgweg 135 9936EN Farmsum | 0:48 |
| UN | Afwateringskanaal 109 9936AV Farmsum | 0:57 |
| UO | Borgweg 131 9936EM Farmsum | 1:32 |
| UP | Borgweg 133 9936EM Farmsum | 1:46 |
| UQ | Borgshof 41 9936CR Farmsum | 1:45 |
| UR | Borgshof 43 9936CR Farmsum | 1:57 |
| US | Borgshof 45 9936CR Farmsum | 1:57 |
| UT | Molenstraat 74 9936EE Farmsum | 0:49 |
| UU | Molenstraat 76 9936EE Farmsum | 0:50 |
| UV | Molenstraat 78 9936EE Farmsum | 0:52 |
| UW | Molenstraat 82 9936EE Farmsum | 0:51 |
| UX | Molenstraat 84 9936EE Farmsum | 0:50 |
| UY | Borgweg 123 9936EM Farmsum | 1:43 |
| UZ | Borgweg 125 9936EM Farmsum | 1:36 |
| V | Hoofdweg 44 9945PH Wagenborgen | 0:00 |
| VA | Borgweg 127 9936EM Farmsum | 1:32 |
| VB | Borgweg 129 9936EM Farmsum | 1:27 |
| VC | Farmsumerzijl 51 9936GC Farmsum | 1:49 |
| VD | Molenstraat 80 9936EE Farmsum | 0:52 |
| VE | Houtweg 30 9936BL Farmsum | 0:12 |
| VF | Houtweg 32 9936BL Farmsum | 0:12 |
| VG | Houtweg 34 9936BL Farmsum | 0:13 |
| VH | Houtweg 36 9936BL Farmsum | 0:14 |
| VI | Houtweg 38 9936BL Farmsum | 0:15 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| VJ | Houtweg 40 9936BL Farmsum | 0:14 |
| VK | Houtweg 42 9936BL Farmsum | 0:15 |
| VL | Houtweg 44 9936BL Farmsum | 0:15 |
| VM | Houtweg 46 9936BL Farmsum | 0:15 |
| VN | Houtweg 48 9936BL Farmsum | 0:15 |
| VO | Rondeboslaan 26 9936BK Farmsum | 0:20 |
| VP | Rondeboslaan 28 9936BK Farmsum | 0:21 |
| VQ | Seendweg 32 9936GA Farmsum | 1:23 |
| VR | Trambaan 21 9936ES Farmsum | 1:27 |
| VS | Proosdij 19 9936ET Farmsum | 1:13 |
| VT | Bredelaan 14 9936ER Farmsum | 2:00 |
| VU | Bredelaan 10 9936ER Farmsum | 1:52 |
| VV | Bredelaan 8 9936ER Farmsum | 1:55 |
| VW | Seendweg 22 9936GA Farmsum | 2:13 |
| VX | Seendweg 28 9936GA Farmsum | 1:52 |
| VY | Proosdij 28 9936EW Farmsum | 0:57 |
| VZ | Proosdij 30 9936EX Farmsum | 1:00 |
| W | Hoofdweg 48 9945PH Wagenborgen | 0:00 |
| WA | Proosdij 26 9936EW Farmsum | 0:59 |
| WB | Afwateringskanaal 107 9936AV Farmsum | 0:53 |
| WC | Rondeboslaan 22 A 9936BK Farmsum | 0:35 |
| WD | Rondeboslaan 22 B 9936BK Farmsum | 0:37 |
| WE | Rondeboslaan 2 A 9936BK Farmsum | 1:06 |
| WF | Rondeboslaan 2 B 9936BK Farmsum | 1:06 |
| WG | Seendweg 17 9936GA Farmsum | 1:53 |
| WH | Borgshof 29 9936CR Farmsum | 1:17 |
| WI | Molenstraat 22 9936EC Farmsum | 3:58 |
| WJ | Achterweg 7 A 9936EG Farmsum | 5:17 |
| WK | Molenstraat 26 9936EC Farmsum | 4:33 |
| WL | Borgweg 113 9936EM Farmsum | 1:51 |
| WM | Borgweg 115 9936EM Farmsum | 2:14 |
| WN | Borgweg 117 9936EM Farmsum | 2:04 |
| WO | Borgweg 119 9936EM Farmsum | 1:57 |
| WP | Borgweg 121 9936EM Farmsum | 1:51 |
| WQ | Farmsumerzijl 45 9936GC Farmsum | 2:41 |
| WR | Farmsumerzijl 47 9936GC Farmsum | 2:10 |
| WS | Farmsumerzijl 49 9936GC Farmsum | 1:56 |
| WT | Waarman 4 9936GW Farmsum | 2:24 |
| WU | Waarman 2 9936GW Farmsum | 2:22 |
| WV | Farmsumerzijl 9 9936GB Farmsum | 1:41 |
| WW | Farmsumerzijl 11 9936GB Farmsum | 1:39 |
| WX | Farmsumerzijl 21 9936GB Farmsum | 1:44 |
| WY | Farmsumerzijl 23 9936GB Farmsum | 1:50 |
| WZ | Farmsumerzijl 33 9936GC Farmsum | 2:16 |
| X | Hoofdweg 41 9945PB Wagenborgen | 0:00 |
| XA | Farmsumerzijl 35 9936GC Farmsum | 2:20 |
| XB | Schepperij 17 9936GL Farmsum | 1:12 |
| XC | Schepperij 19 9936GL Farmsum | 1:12 |
| XD | Schepperij 21 9936GL Farmsum | 1:16 |
| XE | Dijkrecht 3 9936GJ Farmsum | 1:08 |
| XF | Dijkrecht 5 9936GJ Farmsum | 1:05 |
| XG | Dijkrecht 7 9936GJ Farmsum | 1:04 |
| XH | Dijkrecht 9 9936GJ Farmsum | 1:02 |
| XI | Dijkrecht 11 9936GJ Farmsum | 1:03 |
| XJ | Dijkrecht 13 9936GJ Farmsum | 1:03 |
| XK | Dijkrecht 15 9936GJ Farmsum | 1:04 |
| XL | Dijkrecht 17 9936GJ Farmsum | 1:06 |
| XM | Dijkrecht 19 9936GJ Farmsum | 1:08 |
| XN | Dijkrecht 21 9936GJ Farmsum | 1:11 |
| XO | Schepperij 6 9936GN Farmsum | 0:57 |
| XP | Schepperij 8 9936GN Farmsum | 0:58 |
| XQ | Schepperij 10 9936GN Farmsum | 1:00 |
| XR | Schepperij 12 9936GN Farmsum | 1:01 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| XS | Schepperij 14 9936GN Farmsum | 1:03 |
| XT | Schepperij 16 9936GN Farmsum | 1:05 |
| XU | Olderman 2 9936GT Farmsum | 1:20 |
| XV | Olderman 4 9936GT Farmsum | 1:22 |
| XW | Olderman 6 9936GT Farmsum | 1:21 |
| XX | Olderman 8 9936GT Farmsum | 1:20 |
| XY | Olderman 10 9936GT Farmsum | 1:22 |
| XZ | Olderman 12 9936GT Farmsum | 1:21 |
| Y | Hoofdweg 20 9945PG Wagenborgen | 0:00 |
| YA | Olderman 14 9936GT Farmsum | 1:22 |
| YB | Dijkrecht 23 9936GJ Farmsum | 1:32 |
| YC | Dijkrecht 25 9936GJ Farmsum | 1:35 |
| YD | Dijkrecht 27 9936GJ Farmsum | 1:35 |
| YE | Dijkrecht 29 9936GJ Farmsum | 1:35 |
| YF | Dijkrecht 31 9936GJ Farmsum | 1:34 |
| YG | Dijkrecht 33 9936GJ Farmsum | 1:36 |
| YH | Dijkrecht 35 9936GJ Farmsum | 1:35 |
| YI | Dijkrecht 37 9936GJ Farmsum | 1:42 |
| YJ | Dijkrecht 39 9936GJ Farmsum | 1:43 |
| YK | Dijkrecht 41 9936GJ Farmsum | 1:43 |
| YL | Dijkrecht 43 9936GJ Farmsum | 1:45 |
| YM | Olderman 1 9936GS Farmsum | 1:12 |
| YN | Olderman 3 9936GS Farmsum | 1:11 |
| YO | Olderman 5 9936GS Farmsum | 1:11 |
| YP | Olderman 7 9936GS Farmsum | 1:13 |
| YQ | Schepperij 37 9936GM Farmsum | 2:13 |
| YR | Schepperij 41 9936GM Farmsum | 2:16 |
| YS | Schepperij 45 9936GM Farmsum | 2:20 |
| YT | Schepperij 47 9936GM Farmsum | 2:20 |
| YU | Schepperij 49 9936GM Farmsum | 2:21 |
| YV | Olderman 18 9936GT Farmsum | 1:28 |
| YW | Olderman 20 9936GT Farmsum | 1:29 |
| YX | Olderman 22 9936GT Farmsum | 1:28 |
| YY | Olderman 24 9936GT Farmsum | 1:30 |
| YZ | Olderman 26 9936GT Farmsum | 1:30 |
| Z | Hoofdweg 22 9945PG Wagenborgen | 0:00 |
| ZA | Olderman 28 9936GT Farmsum | 1:31 |
| ZB | Olderman 30 9936GT Farmsum | 1:47 |
| ZC | Olderman 9 9936GS Farmsum | 1:20 |
| ZD | Olderman 11 9936GS Farmsum | 1:17 |
| ZE | Olderman 13 9936GS Farmsum | 1:19 |
| ZF | Proosdij 32 9936EX Farmsum | 1:01 |
| ZG | Proosdij 36 9936EX Farmsum | 1:02 |
| ZH | Proosdij 38 9936EX Farmsum | 1:02 |
| ZI | Proosdij 40 9936EX Farmsum | 1:02 |
| ZJ | Proosdij 27 9936EV Farmsum | 1:26 |
| ZK | Proosdij 25 9936EV Farmsum | 1:24 |
| ZL | Proosdij 23 9936EV Farmsum | 1:23 |
| ZM | Proosdij 21 9936EV Farmsum | 1:21 |
| ZN | Seendweg 5 9936GA Farmsum | 2:24 |
| ZO | Proosdij 29 9936EV Farmsum | 1:26 |
| ZP | Proosdij 31 9936EV Farmsum | 1:31 |
| ZQ | Proosdij 33 9936EV Farmsum | 2:02 |
| ZR | Proosdij 35 9936EV Farmsum | 2:10 |
| ZS | Proosdij 37 9936EV Farmsum | 2:10 |
| ZT | Proosdij 39 9936EV Farmsum | 2:07 |
| ZU | Proosdij 41 9936EV Farmsum | 2:06 |
| ZV | Proosdij 43 9936EV Farmsum | 2:03 |
| ZW | Proosdij 45 9936EV Farmsum | 2:00 |
| ZX | Proosdij 47 9936EV Farmsum | 1:57 |
| ZY | Olderman 15 9936GS Farmsum | 1:20 |
| ZZ | Rengersweg 97 9936GG Farmsum | 0:53 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot

Total amount of flickering on the shadow receptors caused by each WTG

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 1 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (18) | 564:13 | 94:41 |
| 2 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (19) | 224:43 | 27:17 |
| 3 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (20) | 92:05 | 19:39 |
| 4 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (21) | 207:36 | 40:20 |
| 5 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (22) | 346:43 | 48:06 |
| 6 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (23) | 748:25 | 157:36 |
| 7 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (24) | 270:15 | 33:46 |
| 8 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (25) | 41:26 | 5:29 |
| 9 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (26) | 36:43 | 7:28 |
| 10 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (27) | 146:50 | 32:12 |
| 11 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (28) | 117:34 | 22:12 |
| 12 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (29) | 568:07 | 118:58 |
| 13 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (30) | 373:17 | 68:24 |
| 14 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (31) | 432:53 | 78:36 |
| 15 | LAGERWEY 80 18.0 !O! hub: 31,0 m (TOT: 40,0 m) (7) | 0:00 | 0:00 |
| 16 | LAGERWEY 80 18.0 !O! hub: 31,0 m (TOT: 40,0 m) (8) | 0:00 | 0:00 |
| 17 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (9) | 17:07 | 3:40 |
| 18 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (10) | 40:28 | 8:07 |
| 19 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (11) | 60:57 | 9:20 |
| 20 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (12) | 24:24 | 3:39 |
| 21 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (13) | 5:26 | 1:00 |
| 22 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (14) | 167:16 | 24:38 |
| 23 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (15) | 0:00 | 0:00 |
| 24 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (16) | 0:00 | 0:00 |
| 25 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (17) | 0:00 | 0:00 |
| 26 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (18) | 23:25 | 3:40 |
| 27 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (19) | 0:00 | 0:00 |
| 28 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (20) | 0:46 | 0:09 |
| 29 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (21) | 40:19 | 8:48 |
| 30 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (22) | 0:49 | 0:11 |
| 31 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (23) | 0:00 | 0:00 |
| 32 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (24) | 0:00 | 0:00 |
| 33 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (25) | 7:08 | 1:36 |
| 34 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (26) | 1:50 | 0:23 |
| 35 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (27) | 0:00 | 0:00 |
| 36 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (28) | 0:00 | 0:00 |
| 37 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (29) | 1:46 | 0:17 |
| 38 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (30) | 6:55 | 1:32 |
| 39 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (31) | 0:00 | 0:00 |
| 40 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (32) | 0:00 | 0:00 |
| 41 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (33) | 0:33 | 0:07 |
| 42 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (34) | 0:12 | 0:02 |
| 43 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (35) | 3:03 | 0:41 |
| 44 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (36) | 0:00 | 0:00 |
| 45 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (37) | 6:32 | 1:04 |
| 46 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (38) | 0:08 | 0:01 |
| 47 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (39) | 8:23 | 0:47 |
| 48 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (40) | 3:23 | 0:41 |
| 49 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (41) | 205:27 | 45:59 |
| 50 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (42) | 95:47 | 12:22 |
| 51 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (43) | 25:14 | 5:47 |
| 52 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (44) | 31:20 | 7:25 |
| 53 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (45) | 23:49 | 5:38 |
| 54 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (46) | 3:15 | 0:47 |
| 55 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (47) | 0:00 | 0:00 |
| 56 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (48) | 0:00 | 0:00 |
| 57 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (49) | 0:00 | 0:00 |
| 58 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (50) | 0:00 | 0:00 |
| 59 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (51) | 0:00 | 0:00 |
| 60 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (52) | 0:00 | 0:00 |
| 61 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (53) | 0:00 | 0:00 |
| 62 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (54) | 0:00 | 0:00 |
| 63 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (55) | 0:00 | 0:00 |
| 64 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (56) | 0:00 | 0:00 |
| 65 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (57) | 0:00 | 0:00 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot

...continued from previous page

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 66 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (58) | 0:00 | 0:00 |
| 67 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (59) | 0:00 | 0:00 |
| 68 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (60) | 0:00 | 0:00 |
| 69 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (61) | 0:00 | 0:00 |
| 70 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (62) | 0:00 | 0:00 |
| 71 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (63) | 0:00 | 0:00 |
| 72 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (64) | 0:00 | 0:00 |
| 73 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (65) | 0:00 | 0:00 |
| 74 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (66) | 0:00 | 0:00 |
| 75 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (67) | 0:00 | 0:00 |
| 76 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (68) | 0:00 | 0:00 |
| 77 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (69) | 0:00 | 0:00 |
| 78 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (70) | 4:11 | 0:35 |
| 79 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (71) | 63:02 | 8:46 |
| 80 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (72) | 82:07 | 15:13 |
| 81 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (73) | 1:53 | 0:17 |
| 82 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (74) | 0:00 | 0:00 |
| 83 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (75) | 0:00 | 0:00 |
| 84 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (76) | 0:00 | 0:00 |
| 85 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (77) | 0:00 | 0:00 |
| 86 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (78) | 0:00 | 0:00 |
| 87 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (79) | 0:00 | 0:00 |
| 88 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (80) | 303:47 | 52:08 |
| 89 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (81) | 410:57 | 83:55 |
| 90 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (82) | 260:23 | 46:35 |
| 91 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (83) | 735:03 | 130:17 |
| 92 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (84) | 875:55 | 141:05 |
| 93 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (85) | 818:02 | 134:38 |
| 94 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (86) | 399:41 | 51:28 |
| 95 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (87) | 200:42 | 29:25 |
| 96 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (88) | 243:15 | 44:29 |
| 97 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (89) | 48:14 | 8:26 |
| 98 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (90) | 16:51 | 3:32 |
| 99 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (91) | 111:17 | 23:27 |
| 100 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (92) | 133:15 | 26:46 |
| 101 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (93) | 85:56 | 17:38 |
| 102 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (94) | 22:20 | 3:41 |
| 103 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (95) | 122:47 | 23:02 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot met later toegevoegde verblijfsojbecten

### Assumptions for shadow calculations

Maximum distance for influence
Calculate only when more than 20 % of sun is covered by the blade
Please look in WTG table

| | |
|---|---|
| Minimum sun height over horizon for influence | 5 ° |
| Day step for calculation | 1 days |
| Time step for calculation | 1 minutes |

Sunshine probability S (Average daily sunshine hours) [EELDE]

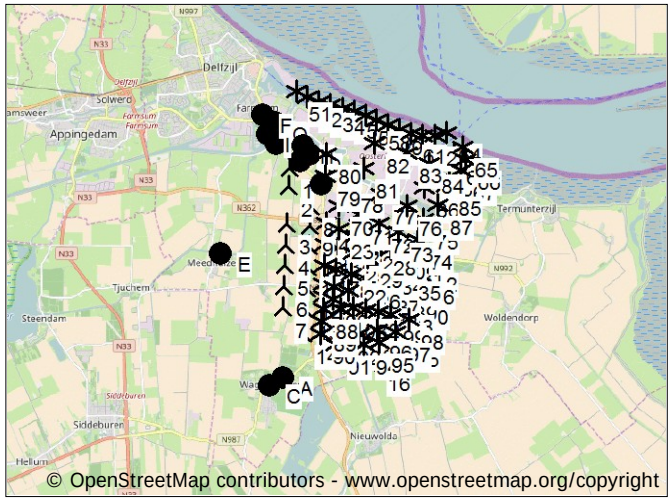
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

All coordinates are in
Dutch Stereo-RD/NAP 2008




Scale 1:200.000
New WTG
Existing WTG
Shadow receptor

### WTGs

| | X (east) | Y (north) | Z | Row data/Description | WTG type Valid | Manufact. | Type-generator | Power, rated | Rotor diameter | Hub height | Shadow data Calculation distance | RPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [m] | | | | | [kW] | [m] | [m] | [m] | [RPM] |
| 1 | 258.610 | 592.416 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 2 | 258.598 | 591.937 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 3 | 258.572 | 590.942 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 4 | 258.554 | 590.388 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 5 | 258.542 | 589.830 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 6 | 258.525 | 589.275 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 7 | 258.509 | 588.721 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 8 | 259.187 | 591.420 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 9 | 259.174 | 590.910 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 10 | 259.158 | 590.354 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 11 | 259.144 | 589.798 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 12 | 259.127 | 589.240 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 13 | 259.112 | 588.683 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 14 | 259.050 | 588.043 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 15 | 261.738 | 588.022 | 0,0 | LAGERWEY 80 18.0 !... | No | LAGERWEY | -80 | 80 | 18,0 | 31,0 | 1.740 | 120,0 |
| 16 | 260.986 | 587.360 | 0,0 | LAGERWEY 80 18.0 !... | No | LAGERWEY | -80 | 80 | 18,0 | 31,0 | 1.740 | 120,0 |
| 17 | 259.587 | 589.858 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 18 | 259.890 | 589.770 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 19 | 259.863 | 589.300 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 20 | 259.845 | 588.985 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 21 | 260.245 | 589.206 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 22 | 260.295 | 589.652 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 23 | 259.952 | 590.853 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 24 | 260.412 | 590.685 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 25 | 260.358 | 590.202 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 26 | 260.680 | 589.539 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 27 | 260.789 | 590.548 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 28 | 261.086 | 590.440 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 29 | 260.740 | 590.089 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 30 | 261.353 | 590.343 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 31 | 261.840 | 590.166 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 32 | 262.200 | 590.035 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 33 | 261.031 | 590.003 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 34 | 261.292 | 589.926 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 35 | 261.764 | 589.785 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 36 | 262.111 | 589.683 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 37 | 261.212 | 589.384 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 38 | 261.584 | 588.876 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 39 | 261.660 | 589.255 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |

To be continued on next page...

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8-2-2017 12:00/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot met later toegevoegde verblijfsojbecten

...continued from previous page

| | X (east) | Y (north) | Z | Row data/Description | WTG type Valid | Manufact. | Type-generator | Power, rated | Rotor diameter | Hub height | Shadow data Calculation distance | RPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [m] | | | | | [kW] | [m] | [m] | [m] | [RPM] |
| 40 | 261.980 | 589.161 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 41 | 261.889 | 588.801 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 42 | 259.922 | 590.332 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 43 | 259.601 | 590.427 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 44 | 259.614 | 590.976 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 45 | 260.962 | 589.457 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 46 | 260.634 | 589.110 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 47 | 260.909 | 589.042 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 48 | 261.153 | 588.982 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 49 | 259.576 | 589.371 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 50 | 259.568 | 589.041 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 51 | 258.748 | 594.458 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 52 | 259.042 | 594.322 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 53 | 259.344 | 594.205 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 54 | 259.655 | 594.114 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 55 | 259.971 | 594.042 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 56 | 260.286 | 593.965 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 57 | 260.596 | 593.872 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 58 | 260.896 | 593.750 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 59 | 261.196 | 593.627 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 60 | 261.497 | 593.509 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 61 | 261.805 | 593.407 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 62 | 262.126 | 593.367 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 63 | 262.450 | 593.380 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 64 | 262.767 | 593.448 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 65 | 263.205 | 593.092 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 66 | 263.273 | 592.764 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 67 | 263.154 | 592.466 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 68 | 262.970 | 592.872 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 69 | 262.850 | 592.574 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 70 | 259.947 | 591.451 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 71 | 260.484 | 591.233 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 72 | 261.011 | 591.019 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 73 | 261.526 | 590.802 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 74 | 262.046 | 590.599 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 75 | 262.190 | 591.144 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 76 | 261.741 | 591.483 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 77 | 261.052 | 591.780 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 78 | 260.181 | 592.081 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 79 | 259.555 | 592.229 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 80 | 259.567 | 592.826 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 81 | 260.577 | 592.475 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 82 | 260.839 | 593.122 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 83 | 261.722 | 592.893 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 84 | 262.307 | 592.636 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 85 | 262.775 | 592.062 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 86 | 262.206 | 591.985 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 87 | 262.568 | 591.542 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 88 | 259.583 | 588.718 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 89 | 259.541 | 588.381 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 90 | 259.520 | 588.051 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 91 | 259.935 | 587.778 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 92 | 260.176 | 588.043 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 93 | 260.538 | 588.081 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 94 | 260.683 | 587.792 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 95 | 261.087 | 587.854 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 96 | 261.036 | 588.189 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 97 | 261.513 | 588.148 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 98 | 261.859 | 588.487 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 99 | 261.380 | 588.591 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 100 | 261.043 | 588.659 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 101 | 260.714 | 588.719 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 102 | 260.368 | 588.763 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 103 | 260.032 | 588.735 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |

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Calculated:
8-2-2017 12:00/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot met later toegevoegde verblijfsojbecten

### Shadow receptor-Input

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| A | Familie Bronsweg 22 9945PS Wagenborgen | 258.549 | 586.857 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| B | Geefsweersterweg 1 9937TB Meedhuizen | 258.250 | 593.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| C | Hoofdweg 28 9945PG Wagenborgen | 258.194 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| D | Karspelpad 8 9936HP Farmsum | 259.130 | 592.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| E | Maarkampen 12 9937PL Meedhuizen | 256.818 | 590.108 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| F | Molenstraat 64 9936EE Farmsum | 257.875 | 593.798 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| G | Oosterlaan 9 9936HN Farmsum | 259.468 | 591.997 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| H | Schaappad 1 9936HT Farmsum | 258.946 | 593.010 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| I | Seendweg 8 9936GA Farmsum | 258.005 | 593.293 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| J | T.J. Jansenweg 11 9936HL Farmsum | 258.896 | 592.598 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| K | Waarman 1 9936GV Farmsum | 258.213 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| L | Waarman 11 9936GV Farmsum | 258.213 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| M | Waarman 3 9936GV Farmsum | 258.213 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| N | Waarman 5 9936GV Farmsum | 258.213 | 593.587 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| O | Waarman 7 9936GV Farmsum | 258.213 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| P | Waarman 9 9936GV Farmsum | 258.213 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Q | Zijlvest 20 9936GZ Farmsum | 258.233 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

### Calculation Results

Shadow receptor

| No. | Name | Shadow, expected values<br>Shadow hours per year<br>[h/year] |
|---|---|---|
| A | Familie Bronsweg 22 9945PS Wagenborgen | 1:47 |
| B | Geefsweersterweg 1 9937TB Meedhuizen | 7:07 |
| C | Hoofdweg 28 9945PG Wagenborgen | 0:00 |
| D | Karspelpad 8 9936HP Farmsum | 55:57 |
| E | Maarkampen 12 9937PL Meedhuizen | 0:00 |
| F | Molenstraat 64 9936EE Farmsum | 1:01 |
| G | Oosterlaan 9 9936HN Farmsum | 45:11 |
| H | Schaappad 1 9936HT Farmsum | 20:53 |
| I | Seendweg 8 9936GA Farmsum | 3:08 |
| J | T.J. Jansenweg 11 9936HL Farmsum | 57:03 |
| K | Waarman 1 9936GV Farmsum | 2:00 |
| L | Waarman 11 9936GV Farmsum | 2:24 |
| M | Waarman 3 9936GV Farmsum | 2:00 |
| N | Waarman 5 9936GV Farmsum | 2:01 |
| O | Waarman 7 9936GV Farmsum | 2:03 |
| P | Waarman 9 9936GV Farmsum | 2:24 |
| Q | Zijlvest 20 9936GZ Farmsum | 2:30 |

Total amount of flickering on the shadow receptors caused by each WTG

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 1 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (18) | 315:37 | 47:23 |
| 2 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (19) | 91:07 | 10:46 |
| 3 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (20) | 9:16 | 1:01 |
| 4 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (21) | 0:00 | 0:00 |
| 5 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (22) | 0:00 | 0:00 |
| 6 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (23) | 0:00 | 0:00 |
| 7 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (24) | 0:00 | 0:00 |
| 8 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (25) | 68:36 | 7:04 |
| 9 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (26) | 0:00 | 0:00 |
| 10 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (27) | 0:00 | 0:00 |
| 11 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (28) | 0:00 | 0:00 |
| 12 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (29) | 0:00 | 0:00 |
| 13 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (30) | 0:00 | 0:00 |
| 14 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (31) | 0:00 | 0:00 |
| 15 | LAGERWEY 80 18.0 !O! hub: 31,0 m (TOT: 40,0 m) (7) | 0:00 | 0:00 |
| 16 | LAGERWEY 80 18.0 !O! hub: 31,0 m (TOT: 40,0 m) (8) | 0:00 | 0:00 |
| 17 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (9) | 0:00 | 0:00 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot met later toegevoegde verblijfsojbecten

...continued from previous page

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 18 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (10) | 0:00 | 0:00 |
| 19 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (11) | 0:00 | 0:00 |
| 20 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (12) | 0:00 | 0:00 |
| 21 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (13) | 0:00 | 0:00 |
| 22 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (14) | 0:00 | 0:00 |
| 23 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (15) | 0:00 | 0:00 |
| 24 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (16) | 0:00 | 0:00 |
| 25 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (17) | 0:00 | 0:00 |
| 26 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (18) | 0:00 | 0:00 |
| 27 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (19) | 0:00 | 0:00 |
| 28 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (20) | 0:00 | 0:00 |
| 29 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (21) | 0:00 | 0:00 |
| 30 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (22) | 0:00 | 0:00 |
| 31 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (23) | 0:00 | 0:00 |
| 32 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (24) | 0:00 | 0:00 |
| 33 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (25) | 0:00 | 0:00 |
| 34 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (26) | 0:00 | 0:00 |
| 35 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (27) | 0:00 | 0:00 |
| 36 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (28) | 0:00 | 0:00 |
| 37 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (29) | 0:00 | 0:00 |
| 38 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (30) | 0:00 | 0:00 |
| 39 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (31) | 0:00 | 0:00 |
| 40 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (32) | 0:00 | 0:00 |
| 41 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (33) | 0:00 | 0:00 |
| 42 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (34) | 0:00 | 0:00 |
| 43 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (35) | 0:00 | 0:00 |
| 44 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (36) | 0:00 | 0:00 |
| 45 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (37) | 0:00 | 0:00 |
| 46 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (38) | 0:00 | 0:00 |
| 47 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (39) | 0:00 | 0:00 |
| 48 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (40) | 0:00 | 0:00 |
| 49 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (41) | 0:00 | 0:00 |
| 50 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (42) | 0:00 | 0:00 |
| 51 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (43) | 0:22 | 0:04 |
| 52 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (44) | 3:17 | 0:49 |
| 53 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (45) | 11:24 | 2:40 |
| 54 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (46) | 1:20 | 0:19 |
| 55 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (47) | 0:00 | 0:00 |
| 56 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (48) | 0:00 | 0:00 |
| 57 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (49) | 0:00 | 0:00 |
| 58 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (50) | 0:00 | 0:00 |
| 59 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (51) | 0:00 | 0:00 |
| 60 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (52) | 0:00 | 0:00 |
| 61 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (53) | 0:00 | 0:00 |
| 62 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (54) | 0:00 | 0:00 |
| 63 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (55) | 0:00 | 0:00 |
| 64 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (56) | 0:00 | 0:00 |
| 65 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (57) | 0:00 | 0:00 |
| 66 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (58) | 0:00 | 0:00 |
| 67 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (59) | 0:00 | 0:00 |
| 68 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (60) | 0:00 | 0:00 |
| 69 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (61) | 0:00 | 0:00 |
| 70 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (62) | 63:40 | 7:43 |
| 71 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (63) | 12:29 | 1:38 |
| 72 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (64) | 2:38 | 0:21 |
| 73 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (65) | 0:00 | 0:00 |
| 74 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (66) | 0:00 | 0:00 |
| 75 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (67) | 0:00 | 0:00 |
| 76 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (68) | 0:00 | 0:00 |
| 77 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (69) | 4:06 | 0:41 |
| 78 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (70) | 67:58 | 13:55 |
| 79 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (71) | 129:14 | 16:19 |
| 80 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (72) | 302:43 | 63:47 |
| 81 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (73) | 32:21 | 6:48 |
| 82 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (74) | 4:58 | 1:03 |

To be continued on next page...

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Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 12:00/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 1C Groot met later toegevoegde verblijfsojbecten

...continued from previous page

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 83 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (75) | 0:00 | 0:00 |
| 84 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (76) | 0:00 | 0:00 |
| 85 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (77) | 0:00 | 0:00 |
| 86 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (78) | 0:00 | 0:00 |
| 87 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (79) | 0:00 | 0:00 |
| 88 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (80) | 0:00 | 0:00 |
| 89 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (81) | 0:00 | 0:00 |
| 90 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (82) | 0:00 | 0:00 |
| 91 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (83) | 8:10 | 1:47 |
| 92 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (84) | 0:00 | 0:00 |
| 93 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (85) | 0:00 | 0:00 |
| 94 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (86) | 0:00 | 0:00 |
| 95 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (87) | 0:00 | 0:00 |
| 96 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (88) | 0:00 | 0:00 |
| 97 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (89) | 0:00 | 0:00 |
| 98 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (90) | 0:00 | 0:00 |
| 99 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (91) | 0:00 | 0:00 |
| 100 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (92) | 0:00 | 0:00 |
| 101 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (93) | 0:00 | 0:00 |
| 102 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (94) | 0:00 | 0:00 |
| 103 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (95) | 0:00 | 0:00 |

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Calculated:
3-2-2017 14:20/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2A

### Assumptions for shadow calculations

Maximum distance for influence
Calculate only when more than 20 % of sun is covered by the blade
Please look in WTG table

| | |
|---|---|
| Minimum sun height over horizon for influence | 5 ° |
| Day step for calculation | 1 days |
| Time step for calculation | 1 minutes |

Sunshine probability S (Average daily sunshine hours) [EELDE]

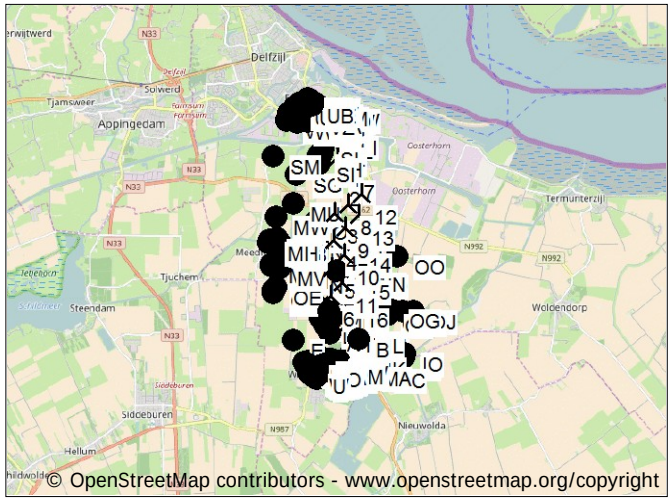
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

All coordinates are in
Dutch Stereo-RD/NAP 2008




Scale 1:200.000

New WTG  Shadow receptor

## WTGs

| | X (east) | Y (north) | Z | Row data/Description | WTG type Valid | Manufact. | Type-generator | Power, rated | Rotor diameter | Hub height | Shadow data Calculation distance | RPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [m] | | | | | [kW] | [m] | [m] | [m] | [RPM] |
| 1 | 258.611 | 592.414 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 2 | 258.598 | 591.937 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 3 | 258.571 | 590.943 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 4 | 258.553 | 590.211 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 5 | 258.531 | 589.481 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 6 | 258.511 | 588.750 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 7 | 258.993 | 592.118 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 8 | 258.921 | 591.166 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 9 | 258.864 | 590.564 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 10 | 258.843 | 589.832 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 11 | 258.822 | 589.099 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 12 | 259.269 | 591.456 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 13 | 259.216 | 590.910 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 14 | 259.154 | 590.190 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 15 | 259.136 | 589.461 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 16 | 259.113 | 588.725 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 17 | 259.027 | 588.069 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |

## Shadow receptor-Input

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| [A | Rengersweg 99 9936GG Farmsum | 258.006 | 593.455 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [B | Rengersweg 12 9936GH Farmsum | 258.034 | 593.437 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [C | Rengersweg 10 9936GH Farmsum | 258.034 | 593.444 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [D | Kluft 1 9936GP Farmsum | 258.040 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [E | Kluft 3 9936GP Farmsum | 258.047 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [F | Proosdij 46 9936EX Farmsum | 258.058 | 593.427 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [G | Proosdij 48 9936EX Farmsum | 258.062 | 593.433 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [H | Proosdij 50 9936EX Farmsum | 258.090 | 593.443 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [I | Proosdij 52 9936EX Farmsum | 258.090 | 593.430 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [J | Proosdij 54 9936EX Farmsum | 258.094 | 593.415 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [K | Proosdij 56 9936EX Farmsum | 258.108 | 593.416 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [L | Olderman 21 9936GS Farmsum | 258.128 | 593.420 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [M | Olderman 19 9936GS Farmsum | 258.126 | 593.434 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [N | Olderman 17 9936GS Farmsum | 258.125 | 593.448 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [O | Kluft 5 9936GP Farmsum | 258.060 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [P | Kluft 7 9936GP Farmsum | 258.067 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Hans / Hans@boschenvanrijn.nl
Calculated:
3-2-2017 14:20/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2A

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| [Q | Kluft 9 9936GP Farmsum | 258.096 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [R | Kluft 11 9936GP Farmsum | 258.102 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [S | Kluft 17 9936GP Farmsum | 258.122 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [T | Zijlvest 8 9936GZ Farmsum | 258.202 | 593.424 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [U | Olderman 32 9936GT Farmsum | 258.151 | 593.480 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [V | Olderman 34 9936GT Farmsum | 258.151 | 593.474 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [W | Olderman 36 9936GT Farmsum | 258.153 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [X | Olderman 38 9936GT Farmsum | 258.153 | 593.453 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [Y | Olderman 40 9936GT Farmsum | 258.155 | 593.440 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [Z | Olderman 42 9936GT Farmsum | 258.155 | 593.434 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \A | Zijlvest 22 A 9936GZ Farmsum | 258.238 | 593.466 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \B | Zijlvest 18 A 9936GZ Farmsum | 258.229 | 593.451 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \C | Zijlvest 18 9936GZ Farmsum | 258.233 | 593.449 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \D | Zijlvest 14 9936GZ Farmsum | 258.229 | 593.441 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \E | Borgweg 1 9936EH Farmsum | 258.030 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \F | Borgweg 3 9936EH Farmsum | 258.031 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \G | Borgweg 5 9936EH Farmsum | 258.031 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \H | Borgweg 7 9936EH Farmsum | 258.031 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \I | Borgweg 9 9936EH Farmsum | 258.031 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \J | Borgweg 11 9936EH Farmsum | 258.031 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \K | Borgweg 13 9936EH Farmsum | 258.031 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \L | Borgweg 15 9936EH Farmsum | 258.033 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \M | Borgweg 17 9936EH Farmsum | 258.033 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \N | Borgweg 19 9936EH Farmsum | 258.033 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \O | Borgweg 21 9936EH Farmsum | 258.033 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \P | Borgweg 23 9936EH Farmsum | 258.033 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \Q | Borgweg 25 9936EH Farmsum | 258.033 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \R | Borgweg 27 9936EH Farmsum | 258.033 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \S | Borgweg 29 9936EJ Farmsum | 258.035 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \T | Borgweg 31 9936EJ Farmsum | 258.035 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \U | Borgweg 33 9936EJ Farmsum | 258.035 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \V | Borgweg 35 9936EJ Farmsum | 258.035 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \W | Borgweg 37 9936EJ Farmsum | 258.035 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \X | Borgweg 39 9936EJ Farmsum | 258.036 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \Y | Borgweg 41 9936EJ Farmsum | 258.036 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \Z | Borgweg 43 9936EJ Farmsum | 258.037 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]A | Borgweg 45 9936EJ Farmsum | 258.038 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]B | Borgweg 47 9936EJ Farmsum | 258.038 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]C | Borgweg 49 9936EJ Farmsum | 258.038 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]D | Borgweg 51 9936EJ Farmsum | 258.038 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]E | Borgweg 53 9936EJ Farmsum | 258.038 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]F | Borgweg 55 9936EJ Farmsum | 258.038 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]G | Borgweg 57 9936EK Farmsum | 258.003 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]H | Borgweg 59 9936EK Farmsum | 258.003 | 593.802 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]I | Borgweg 61 9936EK Farmsum | 258.003 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]J | Borgweg 63 9936EK Farmsum | 258.003 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]K | Borgweg 65 9936EK Farmsum | 258.003 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]L | Borgweg 67 9936EK Farmsum | 258.003 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]M | Borgweg 69 9936EK Farmsum | 258.003 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]N | Borgweg 71 9936EK Farmsum | 258.006 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]O | Borgweg 73 9936EK Farmsum | 258.006 | 593.802 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]P | Borgweg 75 9936EK Farmsum | 258.006 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]Q | Borgweg 77 9936EK Farmsum | 258.005 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]R | Borgweg 79 9936EK Farmsum | 258.005 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]S | Borgweg 81 9936EK Farmsum | 258.005 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]T | Borgweg 83 9936EK Farmsum | 258.005 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]U | Borgweg 85 9936EL Farmsum | 258.008 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]V | Borgweg 87 9936EL Farmsum | 258.008 | 593.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]W | Borgweg 89 9936EL Farmsum | 258.008 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]X | Borgweg 91 9936EL Farmsum | 258.008 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]Y | Borgweg 93 9936EL Farmsum | 258.008 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]Z | Borgweg 95 9936EL Farmsum | 258.008 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^A | Borgweg 97 9936EL Farmsum | 258.008 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^B | Borgweg 99 9936EL Farmsum | 258.010 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2A

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| ^C | Borgweg 101 9936EL Farmsum | 258.010 | 593.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^D | Borgweg 103 9936EL Farmsum | 258.010 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^E | Borgweg 105 9936EL Farmsum | 258.010 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^F | Borgweg 107 9936EL Farmsum | 258.010 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^G | Borgweg 109 9936EL Farmsum | 258.010 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^H | Borgweg 111 9936EL Farmsum | 258.010 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^I | Kluft 18 9936GR Farmsum | 258.043 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^J | Kluft 20 9936GR Farmsum | 258.050 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^K | Kluft 22 9936GR Farmsum | 258.057 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^L | Kluft 24 9936GR Farmsum | 258.064 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^M | Kluft 26 9936GR Farmsum | 258.071 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^N | Kluft 28 9936GR Farmsum | 258.078 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^O | Kluft 30 9936GR Farmsum | 258.085 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^P | Kluft 32 9936GR Farmsum | 258.092 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Q | Kluft 2 9936GR Farmsum | 258.043 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^R | Kluft 4 9936GR Farmsum | 258.050 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^S | Kluft 6 9936GR Farmsum | 258.057 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^T | Kluft 8 9936GR Farmsum | 258.064 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^U | Kluft 10 9936GR Farmsum | 258.071 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^V | Kluft 12 9936GR Farmsum | 258.078 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^W | Kluft 14 9936GR Farmsum | 258.085 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^X | Kluft 16 9936GR Farmsum | 258.092 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Y | Zijlvest 20 A 9936GZ Farmsum | 258.233 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Z | Schepperij 51 9936GM Farmsum | 258.194 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _A | Waarman 15 9936GV Farmsum | 258.223 | 593.543 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _B | Waarman 17 9936GV Farmsum | 258.223 | 593.537 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _C | Waarman 19 9936GV Farmsum | 258.223 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _D | Waarman 21 9936GV Farmsum | 258.223 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _E | Waarman 23 9936GV Farmsum | 258.223 | 593.518 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _F | Waarman 25 9936GV Farmsum | 258.223 | 593.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _G | Waarman 27 9936GV Farmsum | 258.223 | 593.506 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _H | Waarman 29 9936GV Farmsum | 258.222 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _I | Heemskesweg 5 9936HE Farmsum | 258.759 | 592.961 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _J | Geefsweersterweg 2 9937TC Meedhuizen | 258.288 | 593.033 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _K | Seendweg 12 9936GA Farmsum | 257.950 | 593.306 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _L | Schepperij 39 9936GM Farmsum | 258.194 | 593.537 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _M | Schepperij 43 9936GM Farmsum | 258.194 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _N | Zijlvest 14 A 9936GZ Farmsum | 258.222 | 593.445 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _O | Zijlvest 24 A 9936GZ Farmsum | 258.239 | 593.474 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| A | Familie Bronsweg 60 9945TA Wagenborgen | 258.511 | 587.742 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AA | Hoofdweg 26 9945PG Wagenborgen | 258.194 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AB | Hoofdweg 23 9945PA Wagenborgen | 258.227 | 586.683 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AC | Hoofdweg 25 9945PA Wagenborgen | 258.217 | 586.663 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AD | Hoofdweg 27 9945PA Wagenborgen | 258.213 | 586.652 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AE | Hoofdweg 29 9945PA Wagenborgen | 258.212 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AF | Hoofdweg 18 9945PG Wagenborgen | 258.219 | 586.709 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AG | Hoofdweg 14 9945PG Wagenborgen | 258.222 | 586.726 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AH | Hoofdweg 10 9945PG Wagenborgen | 258.236 | 586.722 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AI | Hoofdweg 8 9945PG Wagenborgen | 258.258 | 586.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AJ | Hoofdweg 6 9945PG Wagenborgen | 258.276 | 586.731 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AK | Hoofdweg 4 9945PG Wagenborgen | 258.298 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AL | Hoofdweg 21 9945PA Wagenborgen | 258.243 | 586.704 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AM | Hoofdweg 19 9945PA Wagenborgen | 258.272 | 586.709 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AN | Hoofdweg 2 9945PG Wagenborgen | 258.318 | 586.748 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AO | Hoofdweg 15 9945PA Wagenborgen | 258.311 | 586.705 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AP | Hoofdweg 9 9945PA Wagenborgen | 258.331 | 586.713 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AQ | Hoofdweg 11 9945PA Wagenborgen | 258.325 | 586.710 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AR | Hoofdweg 7 9945PA Wagenborgen | 258.338 | 586.725 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AS | Hoofdweg 5 9945PA Wagenborgen | 258.343 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AT | H.L. Emmensweg 17 9945PW Wagenborgen | 258.087 | 586.741 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AU | H.L. Emmensweg 18 9945PX Wagenborgen | 258.106 | 586.733 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AV | H.L. Emmensweg 20 9945PX Wagenborgen | 258.107 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AW | H.L. Emmensweg 22 9945PX Wagenborgen | 258.107 | 586.747 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AX | H.L. Emmensweg 24 9945PX Wagenborgen | 258.108 | 586.753 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2A

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| AY | H.L. Emmensweg 26 9945PX Wagenborgen | 258.111 | 586.767 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AZ | H.L. Emmensweg 10 9945PX Wagenborgen | 258.103 | 586.698 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| B | Tolhek 4 9945TJ Wagenborgen | 259.289 | 587.610 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BA | H.L. Emmensweg 12 9945PX Wagenborgen | 258.103 | 586.704 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BB | H.L. Emmensweg 14 9945PX Wagenborgen | 258.104 | 586.711 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BC | H.L. Emmensweg 16 9945PX Wagenborgen | 258.105 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BD | H.L. Emmensweg 13 9945PW Wagenborgen | 258.085 | 586.719 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BE | H.L. Emmensweg 15 9945PW Wagenborgen | 258.086 | 586.725 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BF | H.L. Emmensweg 9 9945PW Wagenborgen | 258.083 | 586.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BG | H.L. Emmensweg 11 9945PW Wagenborgen | 258.084 | 586.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BH | H.L. Emmensweg 5 9945PW Wagenborgen | 258.081 | 586.681 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BI | H.L. Emmensweg 7 9945PW Wagenborgen | 258.082 | 586.687 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BJ | H.L. Emmensweg 4 9945PX Wagenborgen | 258.103 | 586.676 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BK | H.L. Emmensweg 2 9945PX Wagenborgen | 258.099 | 586.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BL | H.L. Emmensweg 1 9945PW Wagenborgen | 258.081 | 586.651 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BM | H.L. Emmensweg 3 9945PW Wagenborgen | 258.083 | 586.667 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BN | de Linden 4 9945PZ Wagenborgen | 258.042 | 586.733 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BO | de Linden 6 9945PZ Wagenborgen | 258.058 | 586.734 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BP | de Linden 10 9945PZ Wagenborgen | 258.040 | 586.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BQ | de Linden 12 9945PZ Wagenborgen | 258.021 | 586.721 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BR | de Linden 2 9945PZ Wagenborgen | 258.030 | 586.694 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BS | de Wilgen 12 9945RB Wagenborgen | 258.008 | 586.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BT | de Wilgen 10 9945RB Wagenborgen | 258.008 | 586.764 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BU | de Wilgen 8 9945RB Wagenborgen | 258.007 | 586.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BV | de Wilgen 2 9945RB Wagenborgen | 257.995 | 586.662 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BW | de Wilgen 4 9945RB Wagenborgen | 257.997 | 586.675 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BX | de Wilgen 6 9945RB Wagenborgen | 258.001 | 586.693 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BY | de Wilgen 6 A 9945RB Wagenborgen | 258.004 | 586.726 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BZ | de Wilgen 3 9945RB Wagenborgen | 257.975 | 586.694 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| C | Tolhek 1 9945TJ Wagenborgen | 259.114 | 587.301 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CA | de Wilgen 3 A 9945RB Wagenborgen | 257.977 | 586.713 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CB | de Wilgen 3 B 9945RB Wagenborgen | 257.977 | 586.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CC | de Wilgen 5 9945RB Wagenborgen | 257.973 | 586.766 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CD | de Wilgen 46 9945RB Wagenborgen | 258.036 | 586.921 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CE | de Wilgen 44 9945RB Wagenborgen | 258.036 | 586.927 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CF | de Wilgen 48 9945RB Wagenborgen | 258.034 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CG | de Wilgen 50 9945RB Wagenborgen | 258.034 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CH | de Wilgen 36 9945RB Wagenborgen | 258.060 | 586.908 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CI | de Wilgen 38 9945RB Wagenborgen | 258.059 | 586.915 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CJ | de Wilgen 40 9945RB Wagenborgen | 258.059 | 586.921 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CK | de Wilgen 42 9945RB Wagenborgen | 258.059 | 586.928 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CL | de Wilgen 28 9945RB Wagenborgen | 258.050 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CM | de Wilgen 30 9945RB Wagenborgen | 258.056 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CN | de Wilgen 32 9945RB Wagenborgen | 258.063 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CO | de Wilgen 34 9945RB Wagenborgen | 258.070 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CP | de Wilgen 24 9945TK Wagenborgen | 258.033 | 586.884 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CQ | de Wilgen 26 9945RB Wagenborgen | 258.039 | 586.886 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CR | de Wilgen 20 9945RB Wagenborgen | 258.019 | 586.866 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CS | de Wilgen 22 9945RB Wagenborgen | 258.019 | 586.872 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CT | de Wilgen 18 9945RB Wagenborgen | 258.016 | 586.853 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CU | de Wilgen 16 9945RB Wagenborgen | 258.015 | 586.837 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CV | de Wilgen 14 9945RB Wagenborgen | 258.014 | 586.813 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CW | de Wilgen 9 9945RB Wagenborgen | 257.970 | 586.829 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CX | de Wilgen 52 9945RB Wagenborgen | 258.167 | 587.083 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CY | Menterne 22 9945RA Wagenborgen | 257.891 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CZ | Menterne 18 9945RA Wagenborgen | 257.856 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| D | Familie Bronsweg 62 9945TA Wagenborgen | 258.389 | 587.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DA | Menterne 21 9945RA Wagenborgen | 257.884 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DB | Menterne 19 9945RA Wagenborgen | 257.863 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DC | Menterne 20 9945RA Wagenborgen | 257.876 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DD | Menterne 17 9945RA Wagenborgen | 257.849 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DE | Menterne 7 9945RA Wagenborgen | 257.896 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DF | Menterne 8 9945RA Wagenborgen | 257.889 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DG | Menterne 9 9945RA Wagenborgen | 257.882 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
3-2-2017 14:20/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2A

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| DH | Menterne 10 9945RA Wagenborgen | 257.875 | 586.913 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DI | Menterne 11 9945RA Wagenborgen | 257.893 | 586.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DJ | Menterne 12 9945RA Wagenborgen | 257.893 | 586.932 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DK | Menterne 13 9945RA Wagenborgen | 257.893 | 586.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DL | Menterne 14 9945RA Wagenborgen | 257.893 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DM | Menterne 1 9945RA Wagenborgen | 257.930 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DN | Menterne 2 9945RA Wagenborgen | 257.924 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DO | Menterne 3 9945RA Wagenborgen | 257.917 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DP | Menterne 4 9945RA Wagenborgen | 257.910 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DQ | Menterne 5 9945RA Wagenborgen | 257.899 | 586.883 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DR | Menterne 6 9945RA Wagenborgen | 257.899 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DS | Menterne 15 9945RA Wagenborgen | 257.866 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DT | Menterne 16 9945RA Wagenborgen | 257.866 | 586.952 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DU | de Berken 6 9945PT Wagenborgen | 258.085 | 586.768 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DV | de Berken 2 9945PT Wagenborgen | 258.040 | 586.782 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DW | de Berken 4 9945PT Wagenborgen | 258.061 | 586.783 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DX | de Berken 1 9945PT Wagenborgen | 258.038 | 586.808 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DY | de Berken 5 9945PT Wagenborgen | 258.087 | 586.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DZ | de Berken 7 9945PT Wagenborgen | 258.102 | 586.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| E | Meerweg 3 9945RC Wagenborgen | 257.540 | 587.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EA | de Berken 9 9945PT Wagenborgen | 258.109 | 586.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EB | de Eiken 14 9945VA Wagenborgen | 258.037 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EC | de Eiken 16 9945VA Wagenborgen | 258.044 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ED | de Eiken 2 9945VA Wagenborgen | 258.061 | 586.829 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EE | de Eiken 4 9945VA Wagenborgen | 258.061 | 586.836 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EF | de Eiken 6 9945VA Wagenborgen | 258.061 | 586.842 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EG | de Eiken 8 9945VA Wagenborgen | 258.062 | 586.853 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EH | de Eiken 10 9945VA Wagenborgen | 258.061 | 586.859 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EI | de Eiken 12 9945VA Wagenborgen | 258.061 | 586.866 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EJ | de Eiken 2 A 9945VA Wagenborgen | 258.065 | 586.807 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EK | Troostlaan 7 9945PV Wagenborgen | 258.200 | 586.801 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EL | Troostlaan 8 9945PV Wagenborgen | 258.187 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EM | Troostlaan 9 9945PV Wagenborgen | 258.172 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EN | Troostlaan 10 9945PV Wagenborgen | 258.153 | 586.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EO | Troostlaan 11 9945PV Wagenborgen | 258.142 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EP | Troostlaan 1 9945PV Wagenborgen | 258.204 | 586.736 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EQ | Troostlaan 2 9945PV Wagenborgen | 258.204 | 586.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ER | Troostlaan 3 9945PV Wagenborgen | 258.205 | 586.772 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ES | Troostlaan 2 A 9945PV Wagenborgen | 258.221 | 586.769 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ET | Troostlaan 4 9945PV Wagenborgen | 258.228 | 586.858 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EU | Troostlaan 14 9945PV Wagenborgen | 258.132 | 586.686 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EV | Troostlaan 22 9945PV Wagenborgen | 258.177 | 586.707 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EW | Troostlaan 20 9945PV Wagenborgen | 258.155 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EX | Troostlaan 21 9945PV Wagenborgen | 258.162 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EY | Troostlaan 18 9945PV Wagenborgen | 258.132 | 586.718 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EZ | Troostlaan 19 9945PV Wagenborgen | 258.139 | 586.718 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| F | G. Boelmanweg 2 9945RJ Wagenborgen | 258.181 | 586.579 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FA | Familie Bronsweg 40 9945PS Wagenborgen | 258.373 | 586.856 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FB | Familie Bronsweg 44 9945PS Wagenborgen | 258.373 | 586.900 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FC | Familie Bronsweg 46 9945PS Wagenborgen | 258.373 | 586.905 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FD | Familie Bronsweg 48 9945PS Wagenborgen | 258.375 | 586.919 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FE | Familie Bronsweg 50 9945PS Wagenborgen | 258.376 | 586.924 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FF | Familie Bronsweg 79 9945PP Wagenborgen | 258.360 | 586.991 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FG | Familie Bronsweg 81 9945PP Wagenborgen | 258.361 | 586.997 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FH | Familie Bronsweg 36 9945PS Wagenborgen | 258.377 | 586.815 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FI | Familie Bronsweg 38 9945PS Wagenborgen | 258.365 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FJ | Familie Bronsweg 42 9945PS Wagenborgen | 258.371 | 586.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FK | Familie Bronsweg 54 9945PS Wagenborgen | 258.390 | 587.021 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FL | Familie Bronsweg 52 9945PS Wagenborgen | 258.387 | 586.987 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FM | Familie Bronsweg 50 B 9945PS Wagenborgen | 258.384 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FN | Familie Bronsweg 50 A 9945PS Wagenborgen | 258.381 | 586.949 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FO | Familie Bronsweg 75 9945PP Wagenborgen | 258.353 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FP | Familie Bronsweg 75 A 9945PP Wagenborgen | 258.355 | 586.957 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FQ | Familie Bronsweg 75 B 9945PP Wagenborgen | 258.357 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2A

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| FR | Familie Bronsweg 71 9945PP Wagenborgen | 258.349 | 586.917 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FS | Familie Bronsweg 69 A 9945PP Wagenborgen | 258.347 | 586.902 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FT | Familie Bronsweg 69 9945PP Wagenborgen | 258.344 | 586.888 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FU | Familie Bronsweg 67 9945PP Wagenborgen | 258.342 | 586.873 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FV | Familie Bronsweg 65 9945PP Wagenborgen | 258.341 | 586.863 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FW | Familie Bronsweg 63 9945PP Wagenborgen | 258.338 | 586.850 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FX | Familie Bronsweg 61 9945PP Wagenborgen | 258.335 | 586.831 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FY | Familie Bronsweg 59 9945PP Wagenborgen | 258.334 | 586.816 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FZ | Familie Bronsweg 57 9945PP Wagenborgen | 258.332 | 586.805 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| G | G. Boelmanweg 3 9945RE Wagenborgen | 258.198 | 586.584 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GA | Familie Bronsweg 53 9945PP Wagenborgen | 258.332 | 586.793 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GB | Familie Bronsweg 73 9945PP Wagenborgen | 258.351 | 586.930 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GC | Familie Bronsweg 85 9945PP Wagenborgen | 258.372 | 587.065 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GD | Familie Bronsweg 83 9945PP Wagenborgen | 258.363 | 587.014 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GE | Familie Bronsweg 83 A 9945PP Wagenborgen | 258.365 | 587.034 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GF | Familie Bronsweg 77 9945PP Wagenborgen | 258.333 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GG | Familie Bronsweg 51 9945PP Wagenborgen | 258.389 | 586.776 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GH | Familie Bronsweg 2 9945PR Wagenborgen | 258.765 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GI | Familie Bronsweg 4 9945PR Wagenborgen | 258.743 | 586.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GJ | Familie Bronsweg 4 A 9945PR Wagenborgen | 258.723 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GK | Familie Bronsweg 6 9945PR Wagenborgen | 258.705 | 586.916 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GL | Familie Bronsweg 8 9945PR Wagenborgen | 258.677 | 586.901 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GM | Familie Bronsweg 10 9945PR Wagenborgen | 258.649 | 586.888 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GN | Familie Bronsweg 12 9945PR Wagenborgen | 258.620 | 586.864 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GO | Familie Bronsweg 14 9945PR Wagenborgen | 258.608 | 586.858 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GP | Familie Bronsweg 16 9945PR Wagenborgen | 258.597 | 586.852 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GQ | Familie Bronsweg 15 9945PN Wagenborgen | 258.511 | 586.783 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GR | Familie Bronsweg 17 9945PN Wagenborgen | 258.473 | 586.777 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GS | Familie Bronsweg 2 A 9945PR Wagenborgen | 258.786 | 587.001 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GT | Familie Bronsweg 2 B 9945PR Wagenborgen | 258.745 | 587.014 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GU | Familie Bronsweg 2 C 9945PR Wagenborgen | 258.710 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GV | Familie Bronsweg 2 D 9945PR Wagenborgen | 258.686 | 586.974 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GW | Familie Bronsweg 2 F 9945PR Wagenborgen | 258.671 | 586.991 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GX | Familie Bronsweg 2 G 9945PR Wagenborgen | 258.671 | 587.016 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GY | Familie Bronsweg 2 H 9945PR Wagenborgen | 258.696 | 587.012 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GZ | Familie Bronsweg 2 J 9945PR Wagenborgen | 258.717 | 587.009 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| H | G. Boelmanweg 5 9945RE Wagenborgen | 258.203 | 586.561 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HA | Akeleistraat 17 9945VD Wagenborgen | 258.515 | 587.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HB | Akeleistraat 19 9945VD Wagenborgen | 258.505 | 587.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HC | Akeleistraat 21 9945VD Wagenborgen | 258.486 | 587.050 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HD | Akeleistraat 23 9945VD Wagenborgen | 258.477 | 587.051 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HE | Akeleistraat 20 9945VD Wagenborgen | 258.448 | 587.022 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HF | Akeleistraat 22 9945VD Wagenborgen | 258.439 | 587.022 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HG | Akeleistraat 16 9945VD Wagenborgen | 258.477 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HH | Akeleistraat 18 9945VD Wagenborgen | 258.467 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HI | Akeleistraat 12 9945VD Wagenborgen | 258.506 | 587.013 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HJ | Akeleistraat 14 9945VD Wagenborgen | 258.496 | 587.013 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HK | Akeleistraat 10 9945VD Wagenborgen | 258.532 | 587.007 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HL | Akeleistraat 1 9945VD Wagenborgen | 258.634 | 587.024 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HM | Akeleistraat 3 9945VD Wagenborgen | 258.625 | 587.021 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HN | Akeleistraat 5 9945VD Wagenborgen | 258.604 | 587.023 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HO | Akeleistraat 7 9945VD Wagenborgen | 258.595 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HP | Akeleistraat 9 9945VD Wagenborgen | 258.574 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HQ | Akeleistraat 11 9945VD Wagenborgen | 258.565 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HR | Akeleistraat 2 9945VD Wagenborgen | 258.626 | 586.998 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HS | Akeleistraat 4 9945VD Wagenborgen | 258.617 | 586.995 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HT | Akeleistraat 6 9945VD Wagenborgen | 258.597 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HU | Akeleistraat 8 9945VD Wagenborgen | 258.588 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HV | Akeleistraat 15 9945VD Wagenborgen | 258.535 | 587.045 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HW | Bremstraat 6 9945VC Wagenborgen | 258.522 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HX | Bremstraat 2 9945VC Wagenborgen | 258.570 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HY | Bremstraat 4 9945VC Wagenborgen | 258.545 | 586.969 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HZ | Bremstraat 12 9945VC Wagenborgen | 258.448 | 586.982 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| I | G. Boelmanweg 4 9945RJ Wagenborgen | 258.168 | 586.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Hans / Hans@boschenvanrijn.nl
Calculated:
3-2-2017 14:20/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2A

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| IA | Hibiscusstraat 30 9945VB Wagenborgen | 258.633 | 586.942 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IB | Hibiscusstraat 2 9945VB Wagenborgen | 258.428 | 586.818 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IC | Hibiscusstraat 4 9945VB Wagenborgen | 258.449 | 586.865 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ID | Hibiscusstraat 10 9945VB Wagenborgen | 258.426 | 586.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IE | Hibiscusstraat 16 9945VB Wagenborgen | 258.482 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IF | Bremstraat 14 9945VC Wagenborgen | 258.428 | 586.984 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IG | Hibiscusstraat 6 9945VB Wagenborgen | 258.417 | 586.860 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IH | Hibiscusstraat 26 9945VB Wagenborgen | 258.608 | 586.953 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| II | Kopaf 8 9945TE Wagenborgen | 259.518 | 587.109 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IJ | Kopaf 7 9945TE Wagenborgen | 259.555 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IK | Kopaf 6 9945TE Wagenborgen | 259.575 | 587.100 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IL | Kloosterlaan 27 9945TG Wagenborgen | 259.558 | 587.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IM | Kloosterlaan 25 9945TG Wagenborgen | 259.567 | 587.793 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IN | Kloosterlaan 23 9945TG Wagenborgen | 259.592 | 587.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IO | Scheve Klap 5 9945TD Wagenborgen | 260.522 | 587.264 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IP | Scheve Klap 4 9945TD Wagenborgen | 260.493 | 587.154 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IQ | Hibiscusstraat 8 9945VB Wagenborgen | 258.420 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IR | Hibiscusstraat 12 9945VB Wagenborgen | 258.431 | 586.945 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IS | Hibiscusstraat 18 9945VB Wagenborgen | 258.503 | 586.931 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IT | Hibiscusstraat 24 9945VB Wagenborgen | 258.612 | 586.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IU | Hibiscusstraat 22 9945VB Wagenborgen | 258.583 | 586.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IV | Troostlaan 15 9945PV Wagenborgen | 258.151 | 586.693 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IW | Bremstraat 10 9945VC Wagenborgen | 258.473 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IX | Hibiscusstraat 20 9945VB Wagenborgen | 258.529 | 586.931 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IY | Hibiscusstraat 28 9945VB Wagenborgen | 258.622 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IZ | Troostlaan 5 9945PV Wagenborgen | 258.189 | 586.911 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| J | G. Boelmanweg 7 9945RE Wagenborgen | 258.198 | 586.536 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JA | Troostlaan 6 9945PV Wagenborgen | 258.249 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JB | Boslaan 5 9945TM Wagenborgen | 259.413 | 587.123 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JC | Hoofdweg 33 A 9945PB Wagenborgen | 258.174 | 586.602 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JD | Akeleistraat 13 9945VD Wagenborgen | 258.569 | 587.057 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JE | Hoofdweg 42 9945PG Wagenborgen | 258.103 | 586.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JF | Familie Bronsweg 2 E 9945PR Wagenborgen | 258.670 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JG | Hibiscusstraat 14 9945VB Wagenborgen | 258.456 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JH | Bremstraat 8 9945VC Wagenborgen | 258.502 | 586.974 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JI | Menterne 23 003 9945RA Wagenborgen | 257.949 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JJ | Menterne 23 004 9945RA Wagenborgen | 257.949 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JK | Menterne 23 005 9945RA Wagenborgen | 257.948 | 586.990 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JL | Menterne 23 006 9945RA Wagenborgen | 257.948 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JM | Menterne 23 007 9945RA Wagenborgen | 257.960 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JN | Menterne 23 008 9945RA Wagenborgen | 257.960 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JO | Menterne 23 009 9945RA Wagenborgen | 257.960 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JP | Menterne 23 010 9945RA Wagenborgen | 257.961 | 586.988 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JQ | Menterne 23 017 9945RA Wagenborgen | 257.971 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JR | Menterne 23 030 9945RA Wagenborgen | 257.958 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JS | Menterne 23 103 9945RA Wagenborgen | 257.951 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JT | Menterne 23 104 9945RA Wagenborgen | 257.951 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JU | Menterne 23 105 9945RA Wagenborgen | 257.951 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JV | Menterne 23 106 9945RA Wagenborgen | 257.950 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JW | Menterne 23 107 9945RA Wagenborgen | 257.958 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JX | Menterne 23 108 9945RA Wagenborgen | 257.958 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JY | Menterne 23 109 9945RA Wagenborgen | 257.958 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JZ | Menterne 23 110 9945RA Wagenborgen | 257.958 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| K | G. Boelmanweg 6 9945RJ Wagenborgen | 258.176 | 586.541 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KA | Menterne 23 111 9945RA Wagenborgen | 257.959 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KB | Menterne 23 113 9945RA Wagenborgen | 257.967 | 586.972 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KC | Menterne 23 114 9945RA Wagenborgen | 257.967 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KD | Menterne 23 115 9945RA Wagenborgen | 257.967 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KE | Menterne 23 116 9945RA Wagenborgen | 257.968 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KF | Menterne 23 117 9945RA Wagenborgen | 257.968 | 586.957 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KG | Menterne 23 118 9945RA Wagenborgen | 257.968 | 586.953 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KH | Menterne 23 119 9945RA Wagenborgen | 257.967 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KI | Menterne 23 120 9945RA Wagenborgen | 257.968 | 586.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KJ | Menterne 23 121 9945RA Wagenborgen | 257.968 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
3-2-2017 14:20/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2A

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| KK | Menterne 23 122 9945RA Wagenborgen | 257.968 | 586.936 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KL | Menterne 23 123 9945RA Wagenborgen | 257.968 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KM | Menterne 23 124 9945RA Wagenborgen | 257.968 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KN | Menterne 23 125 9945RA Wagenborgen | 257.956 | 586.930 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KO | Menterne 23 126 9945RA Wagenborgen | 257.956 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KP | Menterne 23 127 9945RA Wagenborgen | 257.956 | 586.937 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KQ | Menterne 23 128 9945RA Wagenborgen | 257.956 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KR | Menterne 23 129 9945RA Wagenborgen | 257.956 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KS | Menterne 23 130 9945RA Wagenborgen | 257.961 | 586.958 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KT | Menterne 23 131 9945RA Wagenborgen | 257.961 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KU | Menterne 23 132 9945RA Wagenborgen | 257.960 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KV | Menterne 23 201 9945RA Wagenborgen | 257.953 | 586.973 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KW | Menterne 23 202 9945RA Wagenborgen | 257.953 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KX | Menterne 23 203 9945RA Wagenborgen | 257.953 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KY | Menterne 23 204 9945RA Wagenborgen | 257.953 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KZ | Menterne 23 205 9945RA Wagenborgen | 257.953 | 586.990 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| L | Kokslaan 1 9945RD Wagenborgen | 258.257 | 586.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LA | Menterne 23 206 9945RA Wagenborgen | 257.953 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LB | Menterne 23 207 9945RA Wagenborgen | 257.956 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LC | Menterne 23 208 9945RA Wagenborgen | 257.956 | 586.995 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LD | Menterne 23 209 9945RA Wagenborgen | 257.956 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LE | Menterne 23 210 9945RA Wagenborgen | 257.956 | 586.988 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LF | Menterne 23 211 9945RA Wagenborgen | 257.957 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LG | Menterne 23 212 9945RA Wagenborgen | 257.957 | 586.981 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LH | Menterne 23 213 9945RA Wagenborgen | 257.964 | 586.972 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LI | Menterne 23 214 9945RA Wagenborgen | 257.965 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LJ | Menterne 23 215 9945RA Wagenborgen | 257.965 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LK | Menterne 23 216 9945RA Wagenborgen | 257.965 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LL | Menterne 23 217 9945RA Wagenborgen | 257.965 | 586.956 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LM | Menterne 23 218 9945RA Wagenborgen | 257.965 | 586.954 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LN | Menterne 23 219 9945RA Wagenborgen | 257.965 | 586.947 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LO | Menterne 23 220 9945RA Wagenborgen | 257.965 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LP | Menterne 23 221 9945RA Wagenborgen | 257.965 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LQ | Menterne 23 222 9945RA Wagenborgen | 257.965 | 586.937 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LR | Menterne 23 223 9945RA Wagenborgen | 257.965 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LS | Menterne 23 224 9945RA Wagenborgen | 257.966 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LT | Menterne 23 226 9945RA Wagenborgen | 257.959 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LU | Menterne 23 228 9945RA Wagenborgen | 257.958 | 586.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LV | Menterne 23 229 9945RA Wagenborgen | 257.958 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LW | Menterne 23 230 9945RA Wagenborgen | 257.962 | 586.958 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LX | Menterne 23 231 9945RA Wagenborgen | 257.962 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LY | Menterne 23 232 9945RA Wagenborgen | 257.962 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LZ | G. Boelmanweg 1 9945RE Wagenborgen | 258.213 | 586.607 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| M | Kokslaan 2 9945RD Wagenborgen | 258.279 | 586.598 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MA | Boslaan 7 9945TM Wagenborgen | 259.467 | 586.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MB | H.L. Emmensweg 23 9945PW Wagenborgen | 258.086 | 586.747 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MC | Kopaf 5 9944VA Nieuwolda | 259.816 | 586.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MD | Familie Bronsweg 68 9945TA Wagenborgen | 258.470 | 588.333 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ME | Maarkampen 26 9937PL Meedhuizen | 256.956 | 590.088 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MF | Maarkampen 24 9937PL Meedhuizen | 256.931 | 590.090 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MG | Maarkampen 22 9937PL Meedhuizen | 256.916 | 590.093 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MH | Maarkampen 20 9937PL Meedhuizen | 256.898 | 590.098 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MI | Maarkampen 18 9937PL Meedhuizen | 256.878 | 590.101 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MJ | Maarkampen 16 9937PL Meedhuizen | 256.858 | 590.104 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MK | Maarkampen 14 9937PL Meedhuizen | 256.838 | 590.106 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ML | Maarlaan 22 E 9937TH Meedhuizen | 256.932 | 590.173 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MM | Maarlaan 22 D 9937TH Meedhuizen | 256.877 | 590.178 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MN | Schaapbulterweg 8 9937TL Meedhuizen | 256.971 | 589.534 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MO | Schaapbulterweg 6 9937TL Meedhuizen | 256.919 | 589.544 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MP | Schaapbulterweg 29 9937TL Meedhuizen | 256.970 | 589.489 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MQ | Schaapbulterweg 27 9937TL Meedhuizen | 256.949 | 589.497 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MR | Schaapbulterweg 25 9937TL Meedhuizen | 256.935 | 589.503 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MS | Schaapbulterweg 23 9937TL Meedhuizen | 256.920 | 589.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MT | Schaapbulterweg 21 9937TL Meedhuizen | 256.908 | 589.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Hans / Hans@boschenvanrijn.nl
Calculated:
3-2-2017 14:20/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2A

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| MU | Geefsweersterweg 11 9937TB Meedhuizen | 257.472 | 591.162 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MV | Schaapbulterweg 35 9937TL Meedhuizen | 257.159 | 589.455 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MW | Meedhuizerweg 20 9937TK Meedhuizen | 257.017 | 590.790 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MX | Familie Bronsweg 66 9945TA Wagenborgen | 258.538 | 588.146 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MY | Familie Bronsweg 64 9945TA Wagenborgen | 258.518 | 588.056 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MZ | Ideweersterweg 10 9937TM Meedhuizen | 257.794 | 589.376 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| N | Kerkstraat 1 9945SB Wagenborgen | 258.120 | 586.579 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NA | Ideweersterweg 8 9937TM Meedhuizen | 257.916 | 589.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NB | Geefsweersterweg 20 9937TC Meedhuizen | 258.111 | 588.986 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NC | Geefsweersterweg 18 9937TC Meedhuizen | 258.066 | 589.025 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ND | Geefsweersterweg 29 9937TB Meedhuizen | 258.051 | 588.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NE | Geefsweersterweg 16 9937TC Meedhuizen | 258.011 | 589.140 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NF | Geefsweersterweg 23 9937TB Meedhuizen | 257.998 | 589.209 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NG | Geefsweersterweg 12 9937TC Meedhuizen | 258.033 | 589.285 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NH | Geefsweersterweg 14 9937TC Meedhuizen | 258.028 | 589.261 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NI | Geefsweersterweg 21 A 9937TB Meedhuizen | 258.002 | 589.266 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NJ | Geefsweersterweg 10 9937TC Meedhuizen | 258.042 | 589.339 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NK | Geefsweersterweg 21 9937TB Meedhuizen | 258.025 | 589.335 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NL | Geefsweersterweg 17 9937TB Meedhuizen | 258.035 | 589.424 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NM | Geefsweersterweg 19 9937TB Meedhuizen | 258.023 | 589.378 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NN | Ideweersterweg 2 9937TM Meedhuizen | 259.329 | 589.348 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NO | Ideweersterweg 1 9937TM Meedhuizen | 259.330 | 589.303 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NP | Geefsweersterweg 15 9937TB Meedhuizen | 257.994 | 590.149 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NQ | Westerlaan 6 9937TS Meedhuizen | 258.650 | 590.176 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NR | Familie Bronsweg 87 9945TA Wagenborgen | 258.255 | 588.149 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NS | Familie Bronsweg 89 9945TA Wagenborgen | 258.288 | 588.393 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NT | Westerlaan 10 9937TS Meedhuizen | 258.640 | 588.541 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NU | Geefsweersterweg 13 9937TB Meedhuizen | 257.998 | 590.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NV | Maarlaan 26 9937TH Meedhuizen | 257.044 | 590.228 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NW | Maarlaan 24 9937TH Meedhuizen | 256.988 | 590.171 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NX | Maarlaan 28 9937TH Meedhuizen | 257.042 | 590.160 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NY | Maarlaan 30 9937TH Meedhuizen | 257.109 | 590.155 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NZ | Kerklaan 3 9937PG Meedhuizen | 257.099 | 589.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| O | Hoofdweg 30 9945PG Wagenborgen | 258.190 | 586.634 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OA | Kerklaan 8 9937PG Meedhuizen | 257.192 | 589.983 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OB | Kerklaan 6 9937PG Meedhuizen | 257.151 | 590.090 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OC | Opmeedenlaan 6 9937TN Meedhuizen | 256.970 | 588.781 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OD | Opmeedenlaan 4 9937TN Meedhuizen | 256.988 | 588.863 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OE | Opmeedenlaan 2 9937TN Meedhuizen | 257.043 | 588.932 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OF | Kloosterlaan 26 9945TG Wagenborgen | 260.046 | 588.262 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OG | Zomerdijk 1 9945TH Wagenborgen | 260.153 | 588.395 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OH | Zomerdijk 3 9945TH Wagenborgen | 260.454 | 588.375 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OI | Zomerdijk 3 A 9945TH Wagenborgen | 260.560 | 588.321 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OJ | Zomerdijk 2 9945TH Wagenborgen | 260.721 | 588.388 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OK | Kloosterlaan 21 A 9945TG Wagenborgen | 259.991 | 588.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OL | Kloosterlaan 21 B 9945TG Wagenborgen | 259.957 | 588.308 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OM | Ideweersterweg 4 9937TM Meedhuizen | 258.658 | 589.400 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ON | Maarlaan 22 C 9937TH Meedhuizen | 256.840 | 590.186 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OO | Kloosterlaan 21 9936TE Farmsum | 260.253 | 589.832 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OP | Geefsweersterweg 8 A 9937TC Meedhuizen | 258.072 | 590.685 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OQ | Houtweg 20 9936BL Farmsum | 257.300 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OR | Houtweg 22 9936BL Farmsum | 257.298 | 593.542 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OS | Houtweg 24 9936BL Farmsum | 257.297 | 593.528 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OT | Houtweg 26 9936BL Farmsum | 257.296 | 593.515 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OU | Houtweg 28 9936BL Farmsum | 257.294 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OV | Rondeboslaan 6 9936BK Farmsum | 257.466 | 593.590 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OW | Proosdij 14 9936EW Farmsum | 257.893 | 593.570 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OX | Bredelaan 6 9936ER Farmsum | 257.806 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OY | Bredelaan 4 9936ER Farmsum | 257.804 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OZ | Bredelaan 2 A 9936ER Farmsum | 257.802 | 593.559 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| P | Hoofdweg 32 9945PG Wagenborgen | 258.177 | 586.629 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PA | Proosdij 24 9936EW Farmsum | 257.913 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PB | Proosdij 22 9936EW Farmsum | 257.910 | 593.522 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PC | Proosdij 20 9936EW Farmsum | 257.906 | 593.533 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2A

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| PD | Proosdij 18 9936EW Farmsum | 257.901 | 593.549 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PE | Proosdij 16 9936EW Farmsum | 257.899 | 593.554 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PF | Trambaan 19 9936ES Farmsum | 257.863 | 593.507 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PG | Proosdij 17 9936ET Farmsum | 257.864 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PH | Proosdij 15 9936ET Farmsum | 257.862 | 593.560 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PI | Proosdij 13 9936ET Farmsum | 257.859 | 593.568 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PJ | Trambaan 17 9936ES Farmsum | 257.856 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PK | Trambaan 15 9936ES Farmsum | 257.849 | 593.520 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PL | Trambaan 13 9936ES Farmsum | 257.844 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PM | Trambaan 11 9936ES Farmsum | 257.839 | 593.530 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PN | Trambaan 9 9936ES Farmsum | 257.833 | 593.536 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PO | Trambaan 5 9936ES Farmsum | 257.825 | 593.544 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PP | Trambaan 3 9936ES Farmsum | 257.818 | 593.551 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PQ | Trambaan 1 9936ES Farmsum | 257.814 | 593.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PR | Proosdij 12 9936EW Farmsum | 257.888 | 593.590 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PS | Proosdij 8 9936EW Farmsum | 257.881 | 593.604 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PT | Proosdij 6 9936EW Farmsum | 257.876 | 593.616 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PU | Proosdij 4 9936EW Farmsum | 257.872 | 593.630 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PV | Proosdij 11 9936ET Farmsum | 257.856 | 593.577 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PW | Proosdij 9 9936ET Farmsum | 257.853 | 593.584 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PX | Proosdij 7 9936ET Farmsum | 257.849 | 593.596 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PY | Proosdij 5 9936ET Farmsum | 257.846 | 593.605 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PZ | Proosdij 1 9936ET Farmsum | 257.839 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Q | Hoofdweg 31 9945PA Wagenborgen | 258.210 | 586.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QA | Proosdij 3 9936ET Farmsum | 257.844 | 593.611 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QB | Farmsumerzijl 55 9936GC Farmsum | 257.821 | 593.640 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QC | Farmsumerzijl 57 9936GC Farmsum | 257.800 | 593.636 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QD | Rengersweg 4 9936GH Farmsum | 258.026 | 593.578 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QE | Rengersweg 2 9936GH Farmsum | 258.026 | 593.587 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QF | Schepperij 4 A 9936GN Farmsum | 258.046 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QG | Schepperij 2 A 9936GN Farmsum | 258.033 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QH | Schepperij 4 9936GN Farmsum | 258.040 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QI | Schepperij 2 9936GN Farmsum | 258.027 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QJ | Dijkrecht 4 9936GK Farmsum | 258.021 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QK | Dijkrecht 6 9936GK Farmsum | 258.035 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QL | Dijkrecht 10 9936GK Farmsum | 258.054 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QM | Dijkrecht 12 9936GK Farmsum | 258.061 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QN | Dijkrecht 14 9936GK Farmsum | 258.074 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QO | Dijkrecht 16 9936GK Farmsum | 258.081 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QP | Dijkrecht 18 9936GK Farmsum | 258.095 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QQ | Dijkrecht 20 9936GK Farmsum | 258.107 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QR | Dijkrecht 22 9936GK Farmsum | 258.123 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QS | Dijkrecht 24 9936GK Farmsum | 258.138 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QT | Dijkrecht 26 9936GK Farmsum | 258.159 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QU | Dijkrecht 28 9936GK Farmsum | 258.166 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QV | Dijkrecht 30 9936GK Farmsum | 258.186 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QW | Dijkrecht 32 9936GK Farmsum | 258.192 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QX | Dijkrecht 34 9936GK Farmsum | 258.206 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QY | Dijkrecht 36 9936GK Farmsum | 258.213 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QZ | Dijkrecht 40 9936GK Farmsum | 258.233 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| R | Hoofdweg 38 9945PG Wagenborgen | 258.142 | 586.621 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RA | Dijkrecht 38 9936GK Farmsum | 258.227 | 593.624 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RB | Schepperij 20 9936GN Farmsum | 258.190 | 593.563 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RC | Schepperij 18 9936GN Farmsum | 258.184 | 593.563 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RD | Waarman 12 9936GW Farmsum | 258.263 | 593.622 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RE | Waarman 10 9936GW Farmsum | 258.263 | 593.629 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RF | Waarman 8 9936GW Farmsum | 258.265 | 593.641 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RG | Waarman 6 9936GW Farmsum | 258.265 | 593.648 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RH | Farmsumerzijl 1 9936GB Farmsum | 258.234 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RI | Farmsumerzijl 3 9936GB Farmsum | 258.227 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RJ | Farmsumerzijl 5 9936GB Farmsum | 258.213 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RK | Farmsumerzijl 7 9936GB Farmsum | 258.207 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RL | Farmsumerzijl 13 9936GB Farmsum | 258.172 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RM | Farmsumerzijl 15 9936GB Farmsum | 258.166 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2A

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| RN | Farmsumerzijl 17 9936GB Farmsum | 258.152 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RO | Farmsumerzijl 19 9936GB Farmsum | 258.146 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RP | Farmsumerzijl 25 9936GB Farmsum | 258.115 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RQ | Farmsumerzijl 27 9936GB Farmsum | 258.108 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RR | Farmsumerzijl 29 9936GB Farmsum | 258.096 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RS | Farmsumerzijl 31 9936GC Farmsum | 258.089 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RT | Farmsumerzijl 37 9936GC Farmsum | 258.057 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RU | Farmsumerzijl 39 9936GC Farmsum | 258.050 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RV | Farmsumerzijl 41 9936GC Farmsum | 258.037 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RW | Farmsumerzijl 43 9936GC Farmsum | 258.031 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RX | Schepperij 1 9936GL Farmsum | 258.054 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RY | Schepperij 3 9936GL Farmsum | 258.060 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RZ | Schepperij 5 9936GL Farmsum | 258.066 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| S | Hoofdweg 39 9945PB Wagenborgen | 258.126 | 586.603 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SA | Schepperij 7 9936GL Farmsum | 258.072 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SB | Schepperij 9 9936GL Farmsum | 258.078 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SC | Schepperij 11 9936GL Farmsum | 258.084 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SD | Schepperij 13 9936GL Farmsum | 258.090 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SE | Schepperij 15 9936GL Farmsum | 258.097 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SF | Dijkrecht 8 9936GK Farmsum | 258.041 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SG | Geefsweersterweg 9 9937TB Meedhuizen | 257.539 | 591.945 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SH | Geefsweersterweg 7 9937TB Meedhuizen | 258.115 | 592.341 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SI | Geefsweersterweg 8 9937TC Meedhuizen | 258.139 | 592.234 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SJ | Geefsweersterweg 3 9937TB Meedhuizen | 258.102 | 592.452 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SK | Geefsweersterweg 6 9937TC Meedhuizen | 258.202 | 592.502 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SL | Geefsweersterweg 4 9937TC Meedhuizen | 258.243 | 592.643 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SM | Meedhuizerweg 2 9937TK Meedhuizen | 256.911 | 592.415 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SN | Molenstraat 31 9936EB Farmsum | 257.786 | 593.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SO | Hindrik Jagerstraat 32 9936CV Farmsum | 257.573 | 593.810 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SP | Hindrik Jagerstraat 11 9936CT Farmsum | 257.561 | 593.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SQ | Hindrik Jagerstraat 13 9936CT Farmsum | 257.568 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SR | Hindrik Jagerstraat 15 9936CT Farmsum | 257.574 | 593.790 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SS | Hindrik Jagerstraat 34 9936CV Farmsum | 257.581 | 593.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ST | Hindrik Jagerstraat 36 9936CV Farmsum | 257.587 | 593.799 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SU | Borgshof 31 9936CR Farmsum | 257.617 | 593.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SV | Borgshof 33 9936CR Farmsum | 257.615 | 593.807 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SW | Borgshof 39 9936CR Farmsum | 257.605 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SX | Borgshof 35 9936CR Farmsum | 257.604 | 593.768 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SY | Molenstraat 20 9936EC Farmsum | 257.801 | 593.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SZ | Molenstraat 24 9936EC Farmsum | 257.812 | 593.926 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| T | Hoofdweg 35 9945PB Wagenborgen | 258.160 | 586.604 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TA | Molenstraat 28 9936EC Farmsum | 257.817 | 593.918 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TB | Molenstraat 41 9936EB Farmsum | 257.798 | 593.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TC | Molenstraat 43 9936EB Farmsum | 257.802 | 593.918 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TD | Molenstraat 45 9936EB Farmsum | 257.807 | 593.910 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TE | Molenstraat 32 9936EC Farmsum | 257.821 | 593.908 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TF | Achterweg 13 9936EG Farmsum | 257.848 | 593.913 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TG | Achterweg 11 9936EG Farmsum | 257.855 | 593.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TH | Achterweg 9 9936EG Farmsum | 257.861 | 593.915 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TI | Molenstraat 49 9936EB Farmsum | 257.809 | 593.905 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TJ | Molenstraat 51 9936EB Farmsum | 257.812 | 593.900 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TK | Molenstraat 53 9936EB Farmsum | 257.815 | 593.894 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TL | Molenstraat 57 9936EB Farmsum | 257.819 | 593.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TM | Molenstraat 61 9936EB Farmsum | 257.826 | 593.870 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TN | Molenstraat 63 9936EB Farmsum | 257.830 | 593.861 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TO | Molenstraat 34 9936ED Farmsum | 257.827 | 593.897 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TP | Molenstraat 38 9936ED Farmsum | 257.832 | 593.886 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TQ | Molenstraat 40 9936ED Farmsum | 257.835 | 593.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TR | Molenstraat 42 9936ED Farmsum | 257.837 | 593.870 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TS | Molenstraat 44 9936ED Farmsum | 257.842 | 593.859 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TT | Molenstraat 65 9936EB Farmsum | 257.834 | 593.850 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TU | Molenstraat 48 9936ED Farmsum | 257.847 | 593.847 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TV | Molenstraat 50 9936ED Farmsum | 257.850 | 593.837 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TW | Molenstraat 56 9936ED Farmsum | 257.851 | 593.824 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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3-2-2017 14:20/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2A

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| TX | Molenstraat 58 9936EE Farmsum | 257.863 | 593.810 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TY | Molenstraat 62 9936EE Farmsum | 257.858 | 593.798 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TZ | Molenstraat 72 9936EE Farmsum | 257.855 | 593.753 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| U | Hoofdweg 37 9945PB Wagenborgen | 258.149 | 586.603 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UA | Molenstraat 70 9936EE Farmsum | 257.854 | 593.758 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UB | Molenstraat 68 9936EE Farmsum | 257.854 | 593.765 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UC | Molenstraat 66 9936EE Farmsum | 257.854 | 593.773 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UD | Achterweg 2 9936EG Farmsum | 257.886 | 593.882 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UE | Achterweg 12 9936EG Farmsum | 257.919 | 593.766 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UF | Achterweg 10 9936EG Farmsum | 257.918 | 593.779 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UG | Achterweg 8 9936EG Farmsum | 257.916 | 593.791 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UH | Hindrik Jagerstraat 17 9936CT Farmsum | 257.588 | 593.777 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UI | Molenstraat 30 9936EC Farmsum | 257.820 | 593.912 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UJ | Borgweg 141 9936EN Farmsum | 257.451 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UK | Borgweg 139 9936EN Farmsum | 257.466 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UL | Borgweg 137 9936EN Farmsum | 257.473 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UM | Borgweg 135 9936EN Farmsum | 257.487 | 593.708 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UN | Afwateringskanaal 109 9936AV Farmsum | 257.508 | 593.724 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UO | Borgweg 131 9936EM Farmsum | 257.636 | 593.714 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UP | Borgweg 133 9936EM Farmsum | 257.581 | 593.701 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UQ | Borgshof 41 9936CR Farmsum | 257.598 | 593.743 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UR | Borgshof 43 9936CR Farmsum | 257.595 | 593.730 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| US | Borgshof 45 9936CR Farmsum | 257.594 | 593.720 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UT | Molenstraat 74 9936EE Farmsum | 257.855 | 593.743 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UU | Molenstraat 76 9936EE Farmsum | 257.857 | 593.736 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UV | Molenstraat 78 9936EE Farmsum | 257.858 | 593.730 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UW | Molenstraat 82 9936EE Farmsum | 257.858 | 593.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UX | Molenstraat 84 9936EE Farmsum | 257.858 | 593.708 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UY | Borgweg 123 9936EM Farmsum | 257.927 | 593.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UZ | Borgweg 125 9936EM Farmsum | 257.917 | 593.698 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| V | Hoofdweg 44 9945PH Wagenborgen | 258.071 | 586.624 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VA | Borgweg 127 9936EM Farmsum | 257.906 | 593.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VB | Borgweg 129 9936EM Farmsum | 257.897 | 593.699 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VC | Farmsumerzijl 51 9936GC Farmsum | 257.925 | 593.665 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VD | Molenstraat 80 9936EE Farmsum | 257.858 | 593.723 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VE | Houtweg 30 9936BL Farmsum | 257.294 | 593.486 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VF | Houtweg 32 9936BL Farmsum | 257.292 | 593.473 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VG | Houtweg 34 9936BL Farmsum | 257.291 | 593.459 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VH | Houtweg 36 9936BL Farmsum | 257.289 | 593.446 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VI | Houtweg 38 9936BL Farmsum | 257.288 | 593.429 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VJ | Houtweg 40 9936BL Farmsum | 257.261 | 593.394 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VK | Houtweg 42 9936BL Farmsum | 257.257 | 593.387 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VL | Houtweg 44 9936BL Farmsum | 257.250 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VM | Houtweg 46 9936BL Farmsum | 257.248 | 593.372 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VN | Houtweg 48 9936BL Farmsum | 257.240 | 593.359 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VO | Rondeboslaan 26 9936BK Farmsum | 257.440 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VP | Rondeboslaan 28 9936BK Farmsum | 257.438 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VQ | Seendweg 32 9936GA Farmsum | 257.903 | 593.454 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VR | Trambaan 21 9936ES Farmsum | 257.870 | 593.499 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VS | Proosdij 19 9936ET Farmsum | 257.892 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VT | Bredelaan 14 9936ER Farmsum | 257.814 | 593.354 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VU | Bredelaan 10 9936ER Farmsum | 257.808 | 593.470 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VV | Bredelaan 8 9936ER Farmsum | 257.807 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VW | Seendweg 22 9936GA Farmsum | 257.897 | 593.364 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VX | Seendweg 28 9936GA Farmsum | 257.898 | 593.405 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VY | Proosdij 28 9936EW Farmsum | 257.922 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VZ | Proosdij 30 9936EX Farmsum | 257.932 | 593.484 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| W | Hoofdweg 48 9945PH Wagenborgen | 258.051 | 586.630 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WA | Proosdij 26 9936EW Farmsum | 257.919 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WB | Afwateringskanaal 107 9936AV Farmsum | 257.499 | 593.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WC | Rondeboslaan 22 A 9936BK Farmsum | 257.532 | 593.326 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WD | Rondeboslaan 22 B 9936BK Farmsum | 257.532 | 593.320 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WE | Rondeboslaan 2 A 9936BK Farmsum | 257.534 | 593.639 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WF | Rondeboslaan 2 B 9936BK Farmsum | 257.493 | 593.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2A

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| WG | Seendweg 17 9936GA Farmsum | 257.931 | 593.394 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WH | Borgshof 29 9936CR Farmsum | 257.619 | 593.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WI | Molenstraat 22 9936EC Farmsum | 257.808 | 593.935 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WJ | Achterweg 7 A 9936EG Farmsum | 257.858 | 593.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WK | Molenstraat 26 9936EC Farmsum | 257.814 | 593.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WL | Borgweg 113 9936EM Farmsum | 257.957 | 593.782 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WM | Borgweg 115 9936EM Farmsum | 257.968 | 593.707 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WN | Borgweg 117 9936EM Farmsum | 257.959 | 593.705 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WO | Borgweg 119 9936EM Farmsum | 257.947 | 593.703 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WP | Borgweg 121 9936EM Farmsum | 257.938 | 593.701 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WQ | Farmsumerzijl 45 9936GC Farmsum | 257.966 | 593.671 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WR | Farmsumerzijl 47 9936GC Farmsum | 257.947 | 593.667 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WS | Farmsumerzijl 49 9936GC Farmsum | 257.933 | 593.666 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WT | Waarman 4 9936GW Farmsum | 258.267 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WU | Waarman 2 9936GW Farmsum | 258.267 | 593.668 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WV | Farmsumerzijl 9 9936GB Farmsum | 258.192 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WW | Farmsumerzijl 11 9936GB Farmsum | 258.186 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WX | Farmsumerzijl 21 9936GB Farmsum | 258.134 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WY | Farmsumerzijl 23 9936GB Farmsum | 258.126 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WZ | Farmsumerzijl 33 9936GC Farmsum | 258.076 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| X | Hoofdweg 41 9945PB Wagenborgen | 258.092 | 586.599 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XA | Farmsumerzijl 35 9936GC Farmsum | 258.070 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XB | Schepperij 17 9936GL Farmsum | 258.103 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XC | Schepperij 19 9936GL Farmsum | 258.109 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XD | Schepperij 21 9936GL Farmsum | 258.115 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XE | Dijkrecht 3 9936GJ Farmsum | 258.042 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XF | Dijkrecht 5 9936GJ Farmsum | 258.052 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XG | Dijkrecht 7 9936GJ Farmsum | 258.054 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XH | Dijkrecht 9 9936GJ Farmsum | 258.063 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XI | Dijkrecht 11 9936GJ Farmsum | 258.073 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XJ | Dijkrecht 13 9936GJ Farmsum | 258.079 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XK | Dijkrecht 15 9936GJ Farmsum | 258.085 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XL | Dijkrecht 17 9936GJ Farmsum | 258.092 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XM | Dijkrecht 19 9936GJ Farmsum | 258.098 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XN | Dijkrecht 21 9936GJ Farmsum | 258.104 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XO | Schepperij 6 9936GN Farmsum | 258.058 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XP | Schepperij 8 9936GN Farmsum | 258.064 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XQ | Schepperij 10 9936GN Farmsum | 258.070 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XR | Schepperij 12 9936GN Farmsum | 258.075 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XS | Schepperij 14 9936GN Farmsum | 258.081 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XT | Schepperij 16 9936GN Farmsum | 258.087 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XU | Olderman 2 9936GT Farmsum | 258.132 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XV | Olderman 4 9936GT Farmsum | 258.132 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XW | Olderman 6 9936GT Farmsum | 258.132 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XX | Olderman 8 9936GT Farmsum | 258.132 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XY | Olderman 10 9936GT Farmsum | 258.132 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XZ | Olderman 12 9936GT Farmsum | 258.132 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Y | Hoofdweg 20 9945PG Wagenborgen | 258.207 | 586.682 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YA | Olderman 14 9936GT Farmsum | 258.132 | 593.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YB | Dijkrecht 23 9936GJ Farmsum | 258.162 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YC | Dijkrecht 25 9936GJ Farmsum | 258.162 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YD | Dijkrecht 27 9936GJ Farmsum | 258.163 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YE | Dijkrecht 29 9936GJ Farmsum | 258.163 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YF | Dijkrecht 31 9936GJ Farmsum | 258.163 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YG | Dijkrecht 33 9936GJ Farmsum | 258.163 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YH | Dijkrecht 35 9936GJ Farmsum | 258.163 | 593.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YI | Dijkrecht 37 9936GJ Farmsum | 258.182 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YJ | Dijkrecht 39 9936GJ Farmsum | 258.182 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YK | Dijkrecht 41 9936GJ Farmsum | 258.182 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YL | Dijkrecht 43 9936GJ Farmsum | 258.182 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YM | Olderman 1 9936GS Farmsum | 258.107 | 593.574 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YN | Olderman 3 9936GS Farmsum | 258.107 | 593.567 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YO | Olderman 5 9936GS Farmsum | 258.108 | 593.561 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YP | Olderman 7 9936GS Farmsum | 258.108 | 593.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2A

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| YQ | Schepperij 37 9936GM Farmsum | 258.194 | 593.543 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YR | Schepperij 41 9936GM Farmsum | 258.194 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YS | Schepperij 45 9936GM Farmsum | 258.194 | 593.518 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YT | Schepperij 47 9936GM Farmsum | 258.194 | 593.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YU | Schepperij 49 9936GM Farmsum | 258.194 | 593.506 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YV | Olderman 18 9936GT Farmsum | 258.143 | 593.539 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YW | Olderman 20 9936GT Farmsum | 258.143 | 593.533 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YX | Olderman 22 9936GT Farmsum | 258.143 | 593.527 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YY | Olderman 24 9936GT Farmsum | 258.143 | 593.521 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YZ | Olderman 26 9936GT Farmsum | 258.143 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Z | Hoofdweg 22 9945PG Wagenborgen | 258.202 | 586.669 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZA | Olderman 28 9936GT Farmsum | 258.143 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZB | Olderman 30 9936GT Farmsum | 258.143 | 593.502 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZC | Olderman 9 9936GS Farmsum | 258.120 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZD | Olderman 11 9936GS Farmsum | 258.120 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZE | Olderman 13 9936GS Farmsum | 258.120 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZF | Proosdij 32 9936EX Farmsum | 257.941 | 593.479 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZG | Proosdij 36 9936EX Farmsum | 257.952 | 593.473 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZH | Proosdij 38 9936EX Farmsum | 257.963 | 593.468 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZI | Proosdij 40 9936EX Farmsum | 257.984 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZJ | Proosdij 27 9936EV Farmsum | 257.995 | 593.418 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZK | Proosdij 25 9936EV Farmsum | 257.979 | 593.425 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZL | Proosdij 23 9936EV Farmsum | 257.962 | 593.433 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZM | Proosdij 21 9936EV Farmsum | 257.941 | 593.443 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZN | Seendweg 5 9936GA Farmsum | 258.091 | 593.322 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZO | Proosdij 29 9936EV Farmsum | 258.005 | 593.413 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZP | Proosdij 31 9936EV Farmsum | 258.019 | 593.403 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZQ | Proosdij 33 9936EV Farmsum | 258.043 | 593.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZR | Proosdij 35 9936EV Farmsum | 258.067 | 593.376 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZS | Proosdij 37 9936EV Farmsum | 258.085 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZT | Proosdij 39 9936EV Farmsum | 258.092 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZU | Proosdij 41 9936EV Farmsum | 258.099 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZV | Proosdij 43 9936EV Farmsum | 258.106 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZW | Proosdij 45 9936EV Farmsum | 258.112 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZX | Proosdij 47 9936EV Farmsum | 258.119 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZY | Olderman 15 9936GS Farmsum | 258.118 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZZ | Rengersweg 97 9936GG Farmsum | 258.010 | 593.468 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

## Calculation Results

Shadow receptor

| No. | Name | Shadow, expected values: Shadow hours per year [h/year] |
|---|---|---|
| [A | Rengersweg 99 9936GG Farmsum | 1:36 |
| [B | Rengersweg 12 9936GH Farmsum | 1:36 |
| [C | Rengersweg 10 9936GH Farmsum | 1:29 |
| [D | Kluft 1 9936GP Farmsum | 1:02 |
| [E | Kluft 3 9936GP Farmsum | 0:58 |
| [F | Proosdij 46 9936EX Farmsum | 1:32 |
| [G | Proosdij 48 9936EX Farmsum | 1:24 |
| [H | Proosdij 50 9936EX Farmsum | 0:56 |
| [I | Proosdij 52 9936EX Farmsum | 1:09 |
| [J | Proosdij 54 9936EX Farmsum | 1:22 |
| [K | Proosdij 56 9936EX Farmsum | 1:12 |
| [L | Olderman 21 9936GS Farmsum | 0:55 |
| [M | Olderman 19 9936GS Farmsum | 0:42 |
| [N | Olderman 17 9936GS Farmsum | 0:28 |
| [O | Kluft 5 9936GP Farmsum | 0:49 |
| [P | Kluft 7 9936GP Farmsum | 0:45 |
| [Q | Kluft 9 9936GP Farmsum | 0:27 |
| [R | Kluft 11 9936GP Farmsum | 0:23 |
| [S | Kluft 17 9936GP Farmsum | 0:10 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2A

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| [T | Zijlvest 8 9936GZ Farmsum | 0:08 |
| [U | Olderman 32 9936GT Farmsum | 0:00 |
| [V | Olderman 34 9936GT Farmsum | 0:00 |
| [W | Olderman 36 9936GT Farmsum | 0:04 |
| [X | Olderman 38 9936GT Farmsum | 0:08 |
| [Y | Olderman 40 9936GT Farmsum | 0:17 |
| [Z | Olderman 42 9936GT Farmsum | 0:22 |
| \A | Zijlvest 22 A 9936GZ Farmsum | 0:00 |
| \B | Zijlvest 18 A 9936GZ Farmsum | 0:00 |
| \C | Zijlvest 18 9936GZ Farmsum | 0:00 |
| \D | Zijlvest 14 9936GZ Farmsum | 0:00 |
| \E | Borgweg 1 9936EH Farmsum | 0:00 |
| \F | Borgweg 3 9936EH Farmsum | 0:00 |
| \G | Borgweg 5 9936EH Farmsum | 0:00 |
| \H | Borgweg 7 9936EH Farmsum | 0:00 |
| \I | Borgweg 9 9936EH Farmsum | 0:00 |
| \J | Borgweg 11 9936EH Farmsum | 0:00 |
| \K | Borgweg 13 9936EH Farmsum | 0:00 |
| \L | Borgweg 15 9936EH Farmsum | 0:00 |
| \M | Borgweg 17 9936EH Farmsum | 0:00 |
| \N | Borgweg 19 9936EH Farmsum | 0:00 |
| \O | Borgweg 21 9936EH Farmsum | 0:00 |
| \P | Borgweg 23 9936EH Farmsum | 0:00 |
| \Q | Borgweg 25 9936EH Farmsum | 0:00 |
| \R | Borgweg 27 9936EH Farmsum | 0:00 |
| \S | Borgweg 29 9936EJ Farmsum | 0:00 |
| \T | Borgweg 31 9936EJ Farmsum | 0:00 |
| \U | Borgweg 33 9936EJ Farmsum | 0:00 |
| \V | Borgweg 35 9936EJ Farmsum | 0:00 |
| \W | Borgweg 37 9936EJ Farmsum | 0:00 |
| \X | Borgweg 39 9936EJ Farmsum | 0:00 |
| \Y | Borgweg 41 9936EJ Farmsum | 0:00 |
| \Z | Borgweg 43 9936EJ Farmsum | 0:00 |
| ]A | Borgweg 45 9936EJ Farmsum | 0:00 |
| ]B | Borgweg 47 9936EJ Farmsum | 0:00 |
| ]C | Borgweg 49 9936EJ Farmsum | 0:00 |
| ]D | Borgweg 51 9936EJ Farmsum | 0:00 |
| ]E | Borgweg 53 9936EJ Farmsum | 0:00 |
| ]F | Borgweg 55 9936EJ Farmsum | 0:00 |
| ]G | Borgweg 57 9936EK Farmsum | 0:00 |
| ]H | Borgweg 59 9936EK Farmsum | 0:00 |
| ]I | Borgweg 61 9936EK Farmsum | 0:00 |
| ]J | Borgweg 63 9936EK Farmsum | 0:00 |
| ]K | Borgweg 65 9936EK Farmsum | 0:00 |
| ]L | Borgweg 67 9936EK Farmsum | 0:00 |
| ]M | Borgweg 69 9936EK Farmsum | 0:00 |
| ]N | Borgweg 71 9936EK Farmsum | 0:00 |
| ]O | Borgweg 73 9936EK Farmsum | 0:00 |
| ]P | Borgweg 75 9936EK Farmsum | 0:00 |
| ]Q | Borgweg 77 9936EK Farmsum | 0:00 |
| ]R | Borgweg 79 9936EK Farmsum | 0:00 |
| ]S | Borgweg 81 9936EK Farmsum | 0:00 |
| ]T | Borgweg 83 9936EK Farmsum | 0:00 |
| ]U | Borgweg 85 9936EL Farmsum | 0:00 |
| ]V | Borgweg 87 9936EL Farmsum | 0:00 |
| ]W | Borgweg 89 9936EL Farmsum | 0:00 |
| ]X | Borgweg 91 9936EL Farmsum | 0:00 |
| ]Y | Borgweg 93 9936EL Farmsum | 0:00 |
| ]Z | Borgweg 95 9936EL Farmsum | 0:00 |
| ^A | Borgweg 97 9936EL Farmsum | 0:00 |
| ^B | Borgweg 99 9936EL Farmsum | 0:00 |
| ^C | Borgweg 101 9936EL Farmsum | 0:00 |
| ^D | Borgweg 103 9936EL Farmsum | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2A

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| ^E | Borgweg 105 9936EL Farmsum | 0:00 |
| ^F | Borgweg 107 9936EL Farmsum | 0:00 |
| ^G | Borgweg 109 9936EL Farmsum | 0:00 |
| ^H | Borgweg 111 9936EL Farmsum | 0:00 |
| ^I | Kluft 18 9936GR Farmsum | 0:31 |
| ^J | Kluft 20 9936GR Farmsum | 0:27 |
| ^K | Kluft 22 9936GR Farmsum | 0:22 |
| ^L | Kluft 24 9936GR Farmsum | 0:18 |
| ^M | Kluft 26 9936GR Farmsum | 0:14 |
| ^N | Kluft 28 9936GR Farmsum | 0:10 |
| ^O | Kluft 30 9936GR Farmsum | 0:06 |
| ^P | Kluft 32 9936GR Farmsum | 0:04 |
| ^Q | Kluft 2 9936GR Farmsum | 0:35 |
| ^R | Kluft 4 9936GR Farmsum | 0:32 |
| ^S | Kluft 6 9936GR Farmsum | 0:26 |
| ^T | Kluft 8 9936GR Farmsum | 0:22 |
| ^U | Kluft 10 9936GR Farmsum | 0:18 |
| ^V | Kluft 12 9936GR Farmsum | 0:14 |
| ^W | Kluft 14 9936GR Farmsum | 0:10 |
| ^X | Kluft 16 9936GR Farmsum | 0:06 |
| ^Y | Zijlvest 20 A 9936GZ Farmsum | 0:00 |
| ^Z | Schepperij 51 9936GM Farmsum | 0:00 |
| _A | Waarman 15 9936GV Farmsum | 0:00 |
| _B | Waarman 17 9936GV Farmsum | 0:00 |
| _C | Waarman 19 9936GV Farmsum | 0:00 |
| _D | Waarman 21 9936GV Farmsum | 0:00 |
| _E | Waarman 23 9936GV Farmsum | 0:00 |
| _F | Waarman 25 9936GV Farmsum | 0:00 |
| _G | Waarman 27 9936GV Farmsum | 0:00 |
| _H | Waarman 29 9936GV Farmsum | 0:00 |
| _I | Heemskesweg 5 9936HE Farmsum | 10:46 |
| _J | Geefsweersterweg 2 9937TC Meedhuizen | 8:46 |
| _K | Seendweg 12 9936GA Farmsum | 3:30 |
| _L | Schepperij 39 9936GM Farmsum | 0:00 |
| _M | Schepperij 43 9936GM Farmsum | 0:00 |
| _N | Zijlvest 14 A 9936GZ Farmsum | 0:00 |
| _O | Zijlvest 24 A 9936GZ Farmsum | 0:00 |
| A | Familie Bronsweg 60 9945TA Wagenborgen | 2:34 |
| AA | Hoofdweg 26 9945PG Wagenborgen | 0:00 |
| AB | Hoofdweg 23 9945PA Wagenborgen | 0:00 |
| AC | Hoofdweg 25 9945PA Wagenborgen | 0:00 |
| AD | Hoofdweg 27 9945PA Wagenborgen | 0:00 |
| AE | Hoofdweg 29 9945PA Wagenborgen | 0:00 |
| AF | Hoofdweg 18 9945PG Wagenborgen | 0:00 |
| AG | Hoofdweg 14 9945PG Wagenborgen | 0:00 |
| AH | Hoofdweg 10 9945PG Wagenborgen | 0:00 |
| AI | Hoofdweg 8 9945PG Wagenborgen | 0:00 |
| AJ | Hoofdweg 6 9945PG Wagenborgen | 0:00 |
| AK | Hoofdweg 4 9945PG Wagenborgen | 0:00 |
| AL | Hoofdweg 21 9945PA Wagenborgen | 0:00 |
| AM | Hoofdweg 19 9945PA Wagenborgen | 0:00 |
| AN | Hoofdweg 2 9945PG Wagenborgen | 0:00 |
| AO | Hoofdweg 15 9945PA Wagenborgen | 0:00 |
| AP | Hoofdweg 9 9945PA Wagenborgen | 0:00 |
| AQ | Hoofdweg 11 9945PA Wagenborgen | 0:00 |
| AR | Hoofdweg 7 9945PA Wagenborgen | 0:00 |
| AS | Hoofdweg 5 9945PA Wagenborgen | 0:00 |
| AT | H.L. Emmensweg 17 9945PW Wagenborgen | 0:00 |
| AU | H.L. Emmensweg 18 9945PX Wagenborgen | 0:00 |
| AV | H.L. Emmensweg 20 9945PX Wagenborgen | 0:00 |
| AW | H.L. Emmensweg 22 9945PX Wagenborgen | 0:00 |
| AX | H.L. Emmensweg 24 9945PX Wagenborgen | 0:00 |
| AY | H.L. Emmensweg 26 9945PX Wagenborgen | 0:00 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2A

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| AZ | H.L. Emmensweg 10 9945PX Wagenborgen | 0:00 |
| B | Tolhek 4 9945TJ Wagenborgen | 0:00 |
| BA | H.L. Emmensweg 12 9945PX Wagenborgen | 0:00 |
| BB | H.L. Emmensweg 14 9945PX Wagenborgen | 0:00 |
| BC | H.L. Emmensweg 16 9945PX Wagenborgen | 0:00 |
| BD | H.L. Emmensweg 13 9945PW Wagenborgen | 0:00 |
| BE | H.L. Emmensweg 15 9945PW Wagenborgen | 0:00 |
| BF | H.L. Emmensweg 9 9945PW Wagenborgen | 0:00 |
| BG | H.L. Emmensweg 11 9945PW Wagenborgen | 0:00 |
| BH | H.L. Emmensweg 5 9945PW Wagenborgen | 0:00 |
| BI | H.L. Emmensweg 7 9945PW Wagenborgen | 0:00 |
| BJ | H.L. Emmensweg 4 9945PX Wagenborgen | 0:00 |
| BK | H.L. Emmensweg 2 9945PX Wagenborgen | 0:00 |
| BL | H.L. Emmensweg 1 9945PW Wagenborgen | 0:00 |
| BM | H.L. Emmensweg 3 9945PW Wagenborgen | 0:00 |
| BN | de Linden 4 9945PZ Wagenborgen | 0:00 |
| BO | de Linden 6 9945PZ Wagenborgen | 0:00 |
| BP | de Linden 10 9945PZ Wagenborgen | 0:00 |
| BQ | de Linden 12 9945PZ Wagenborgen | 0:00 |
| BR | de Linden 2 9945PZ Wagenborgen | 0:00 |
| BS | de Wilgen 12 9945RB Wagenborgen | 0:00 |
| BT | de Wilgen 10 9945RB Wagenborgen | 0:00 |
| BU | de Wilgen 8 9945RB Wagenborgen | 0:00 |
| BV | de Wilgen 2 9945RB Wagenborgen | 0:00 |
| BW | de Wilgen 4 9945RB Wagenborgen | 0:00 |
| BX | de Wilgen 6 9945RB Wagenborgen | 0:00 |
| BY | de Wilgen 6 A 9945RB Wagenborgen | 0:00 |
| BZ | de Wilgen 3 9945RB Wagenborgen | 0:00 |
| C | Tolhek 1 9945TJ Wagenborgen | 0:00 |
| CA | de Wilgen 3 A 9945RB Wagenborgen | 0:00 |
| CB | de Wilgen 3 B 9945RB Wagenborgen | 0:00 |
| CC | de Wilgen 5 9945RB Wagenborgen | 0:00 |
| CD | de Wilgen 46 9945RB Wagenborgen | 0:00 |
| CE | de Wilgen 44 9945RB Wagenborgen | 0:00 |
| CF | de Wilgen 48 9945RB Wagenborgen | 0:00 |
| CG | de Wilgen 50 9945RB Wagenborgen | 0:00 |
| CH | de Wilgen 36 9945RB Wagenborgen | 0:00 |
| CI | de Wilgen 38 9945RB Wagenborgen | 0:00 |
| CJ | de Wilgen 40 9945RB Wagenborgen | 0:00 |
| CK | de Wilgen 42 9945RB Wagenborgen | 0:00 |
| CL | de Wilgen 28 9945RB Wagenborgen | 0:00 |
| CM | de Wilgen 30 9945RB Wagenborgen | 0:00 |
| CN | de Wilgen 32 9945RB Wagenborgen | 0:00 |
| CO | de Wilgen 34 9945RB Wagenborgen | 0:00 |
| CP | de Wilgen 24 9945TK Wagenborgen | 0:00 |
| CQ | de Wilgen 26 9945RB Wagenborgen | 0:00 |
| CR | de Wilgen 20 9945RB Wagenborgen | 0:00 |
| CS | de Wilgen 22 9945RB Wagenborgen | 0:00 |
| CT | de Wilgen 18 9945RB Wagenborgen | 0:00 |
| CU | de Wilgen 16 9945RB Wagenborgen | 0:00 |
| CV | de Wilgen 14 9945RB Wagenborgen | 0:00 |
| CW | de Wilgen 9 9945RB Wagenborgen | 0:00 |
| CX | de Wilgen 52 9945RB Wagenborgen | 0:00 |
| CY | Menterne 22 9945RA Wagenborgen | 0:00 |
| CZ | Menterne 18 9945RA Wagenborgen | 0:00 |
| D | Familie Bronsweg 62 9945TA Wagenborgen | 13:06 |
| DA | Menterne 21 9945RA Wagenborgen | 0:00 |
| DB | Menterne 19 9945RA Wagenborgen | 0:00 |
| DC | Menterne 20 9945RA Wagenborgen | 0:00 |
| DD | Menterne 17 9945RA Wagenborgen | 0:00 |
| DE | Menterne 7 9945RA Wagenborgen | 0:00 |
| DF | Menterne 8 9945RA Wagenborgen | 0:00 |
| DG | Menterne 9 9945RA Wagenborgen | 0:00 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2A

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| DH | Menterne 10 9945RA Wagenborgen | 0:00 |
| DI | Menterne 11 9945RA Wagenborgen | 0:00 |
| DJ | Menterne 12 9945RA Wagenborgen | 0:00 |
| DK | Menterne 13 9945RA Wagenborgen | 0:00 |
| DL | Menterne 14 9945RA Wagenborgen | 0:00 |
| DM | Menterne 1 9945RA Wagenborgen | 0:00 |
| DN | Menterne 2 9945RA Wagenborgen | 0:00 |
| DO | Menterne 3 9945RA Wagenborgen | 0:00 |
| DP | Menterne 4 9945RA Wagenborgen | 0:00 |
| DQ | Menterne 5 9945RA Wagenborgen | 0:00 |
| DR | Menterne 6 9945RA Wagenborgen | 0:00 |
| DS | Menterne 15 9945RA Wagenborgen | 0:00 |
| DT | Menterne 16 9945RA Wagenborgen | 0:00 |
| DU | de Berken 6 9945PT Wagenborgen | 0:00 |
| DV | de Berken 2 9945PT Wagenborgen | 0:00 |
| DW | de Berken 4 9945PT Wagenborgen | 0:00 |
| DX | de Berken 1 9945PT Wagenborgen | 0:00 |
| DY | de Berken 5 9945PT Wagenborgen | 0:00 |
| DZ | de Berken 7 9945PT Wagenborgen | 0:00 |
| E | Meerweg 3 9945RC Wagenborgen | 1:12 |
| EA | de Berken 9 9945PT Wagenborgen | 0:00 |
| EB | de Eiken 14 9945VA Wagenborgen | 0:00 |
| EC | de Eiken 16 9945VA Wagenborgen | 0:00 |
| ED | de Eiken 2 9945VA Wagenborgen | 0:00 |
| EE | de Eiken 4 9945VA Wagenborgen | 0:00 |
| EF | de Eiken 6 9945VA Wagenborgen | 0:00 |
| EG | de Eiken 8 9945VA Wagenborgen | 0:00 |
| EH | de Eiken 10 9945VA Wagenborgen | 0:00 |
| EI | de Eiken 12 9945VA Wagenborgen | 0:00 |
| EJ | de Eiken 2 A 9945VA Wagenborgen | 0:00 |
| EK | Troostlaan 7 9945PV Wagenborgen | 0:00 |
| EL | Troostlaan 8 9945PV Wagenborgen | 0:00 |
| EM | Troostlaan 9 9945PV Wagenborgen | 0:00 |
| EN | Troostlaan 10 9945PV Wagenborgen | 0:00 |
| EO | Troostlaan 11 9945PV Wagenborgen | 0:00 |
| EP | Troostlaan 1 9945PV Wagenborgen | 0:00 |
| EQ | Troostlaan 2 9945PV Wagenborgen | 0:00 |
| ER | Troostlaan 3 9945PV Wagenborgen | 0:00 |
| ES | Troostlaan 2 A 9945PV Wagenborgen | 0:00 |
| ET | Troostlaan 4 9945PV Wagenborgen | 0:00 |
| EU | Troostlaan 14 9945PV Wagenborgen | 0:00 |
| EV | Troostlaan 22 9945PV Wagenborgen | 0:00 |
| EW | Troostlaan 20 9945PV Wagenborgen | 0:00 |
| EX | Troostlaan 21 9945PV Wagenborgen | 0:00 |
| EY | Troostlaan 18 9945PV Wagenborgen | 0:00 |
| EZ | Troostlaan 19 9945PV Wagenborgen | 0:00 |
| F | G. Boelmanweg 2 9945RJ Wagenborgen | 0:00 |
| FA | Familie Bronsweg 40 9945PS Wagenborgen | 0:00 |
| FB | Familie Bronsweg 44 9945PS Wagenborgen | 0:00 |
| FC | Familie Bronsweg 46 9945PS Wagenborgen | 0:00 |
| FD | Familie Bronsweg 48 9945PS Wagenborgen | 0:00 |
| FE | Familie Bronsweg 50 9945PS Wagenborgen | 0:00 |
| FF | Familie Bronsweg 79 9945PP Wagenborgen | 0:00 |
| FG | Familie Bronsweg 81 9945PP Wagenborgen | 0:00 |
| FH | Familie Bronsweg 36 9945PS Wagenborgen | 0:00 |
| FI | Familie Bronsweg 38 9945PS Wagenborgen | 0:00 |
| FJ | Familie Bronsweg 42 9945PS Wagenborgen | 0:00 |
| FK | Familie Bronsweg 54 9945PS Wagenborgen | 0:00 |
| FL | Familie Bronsweg 52 9945PS Wagenborgen | 0:00 |
| FM | Familie Bronsweg 50 B 9945PS Wagenborgen | 0:00 |
| FN | Familie Bronsweg 50 A 9945PS Wagenborgen | 0:00 |
| FO | Familie Bronsweg 75 9945PP Wagenborgen | 0:00 |
| FP | Familie Bronsweg 75 A 9945PP Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2A

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| FQ | Familie Bronsweg 75 B 9945PP Wagenborgen | 0:00 |
| FR | Familie Bronsweg 71 9945PP Wagenborgen | 0:00 |
| FS | Familie Bronsweg 69 A 9945PP Wagenborgen | 0:00 |
| FT | Familie Bronsweg 69 9945PP Wagenborgen | 0:00 |
| FU | Familie Bronsweg 67 9945PP Wagenborgen | 0:00 |
| FV | Familie Bronsweg 65 9945PP Wagenborgen | 0:00 |
| FW | Familie Bronsweg 63 9945PP Wagenborgen | 0:00 |
| FX | Familie Bronsweg 61 9945PP Wagenborgen | 0:00 |
| FY | Familie Bronsweg 59 9945PP Wagenborgen | 0:00 |
| FZ | Familie Bronsweg 57 9945PP Wagenborgen | 0:00 |
| G | G. Boelmanweg 3 9945RE Wagenborgen | 0:00 |
| GA | Familie Bronsweg 53 9945PP Wagenborgen | 0:00 |
| GB | Familie Bronsweg 73 9945PP Wagenborgen | 0:00 |
| GC | Familie Bronsweg 85 9945PP Wagenborgen | 0:00 |
| GD | Familie Bronsweg 83 9945PP Wagenborgen | 0:00 |
| GE | Familie Bronsweg 83 A 9945PP Wagenborgen | 0:00 |
| GF | Familie Bronsweg 77 9945PP Wagenborgen | 0:00 |
| GG | Familie Bronsweg 51 9945PP Wagenborgen | 0:00 |
| GH | Familie Bronsweg 2 9945PR Wagenborgen | 0:00 |
| GI | Familie Bronsweg 4 9945PR Wagenborgen | 0:00 |
| GJ | Familie Bronsweg 4 A 9945PR Wagenborgen | 0:00 |
| GK | Familie Bronsweg 6 9945PR Wagenborgen | 0:00 |
| GL | Familie Bronsweg 8 9945PR Wagenborgen | 0:00 |
| GM | Familie Bronsweg 10 9945PR Wagenborgen | 0:00 |
| GN | Familie Bronsweg 12 9945PR Wagenborgen | 0:00 |
| GO | Familie Bronsweg 14 9945PR Wagenborgen | 0:00 |
| GP | Familie Bronsweg 16 9945PR Wagenborgen | 0:00 |
| GQ | Familie Bronsweg 15 9945PN Wagenborgen | 0:00 |
| GR | Familie Bronsweg 17 9945PN Wagenborgen | 0:00 |
| GS | Familie Bronsweg 2 A 9945PR Wagenborgen | 0:00 |
| GT | Familie Bronsweg 2 B 9945PR Wagenborgen | 0:00 |
| GU | Familie Bronsweg 2 C 9945PR Wagenborgen | 0:00 |
| GV | Familie Bronsweg 2 D 9945PR Wagenborgen | 0:00 |
| GW | Familie Bronsweg 2 F 9945PR Wagenborgen | 0:00 |
| GX | Familie Bronsweg 2 G 9945PR Wagenborgen | 0:00 |
| GY | Familie Bronsweg 2 H 9945PR Wagenborgen | 0:00 |
| GZ | Familie Bronsweg 2 J 9945PR Wagenborgen | 0:00 |
| H | G. Boelmanweg 5 9945RE Wagenborgen | 0:00 |
| HA | Akeleistraat 17 9945VD Wagenborgen | 0:00 |
| HB | Akeleistraat 19 9945VD Wagenborgen | 0:00 |
| HC | Akeleistraat 21 9945VD Wagenborgen | 0:00 |
| HD | Akeleistraat 23 9945VD Wagenborgen | 0:00 |
| HE | Akeleistraat 20 9945VD Wagenborgen | 0:00 |
| HF | Akeleistraat 22 9945VD Wagenborgen | 0:00 |
| HG | Akeleistraat 16 9945VD Wagenborgen | 0:00 |
| HH | Akeleistraat 18 9945VD Wagenborgen | 0:00 |
| HI | Akeleistraat 12 9945VD Wagenborgen | 0:00 |
| HJ | Akeleistraat 14 9945VD Wagenborgen | 0:00 |
| HK | Akeleistraat 10 9945VD Wagenborgen | 0:00 |
| HL | Akeleistraat 1 9945VD Wagenborgen | 0:00 |
| HM | Akeleistraat 3 9945VD Wagenborgen | 0:00 |
| HN | Akeleistraat 5 9945VD Wagenborgen | 0:00 |
| HO | Akeleistraat 7 9945VD Wagenborgen | 0:00 |
| HP | Akeleistraat 9 9945VD Wagenborgen | 0:00 |
| HQ | Akeleistraat 11 9945VD Wagenborgen | 0:00 |
| HR | Akeleistraat 2 9945VD Wagenborgen | 0:00 |
| HS | Akeleistraat 4 9945VD Wagenborgen | 0:00 |
| HT | Akeleistraat 6 9945VD Wagenborgen | 0:00 |
| HU | Akeleistraat 8 9945VD Wagenborgen | 0:00 |
| HV | Akeleistraat 15 9945VD Wagenborgen | 0:00 |
| HW | Bremstraat 6 9945VC Wagenborgen | 0:00 |
| HX | Bremstraat 2 9945VC Wagenborgen | 0:00 |
| HY | Bremstraat 4 9945VC Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2A

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| HZ | Bremstraat 12 9945VC Wagenborgen | 0:00 |
| I | G. Boelmanweg 4 9945RJ Wagenborgen | 0:00 |
| IA | Hibiscusstraat 30 9945VB Wagenborgen | 0:00 |
| IB | Hibiscusstraat 2 9945VB Wagenborgen | 0:00 |
| IC | Hibiscusstraat 4 9945VB Wagenborgen | 0:00 |
| ID | Hibiscusstraat 10 9945VB Wagenborgen | 0:00 |
| IE | Hibiscusstraat 16 9945VB Wagenborgen | 0:00 |
| IF | Bremstraat 14 9945VC Wagenborgen | 0:00 |
| IG | Hibiscusstraat 6 9945VB Wagenborgen | 0:00 |
| IH | Hibiscusstraat 26 9945VB Wagenborgen | 0:00 |
| II | Kopaf 8 9945TE Wagenborgen | 0:00 |
| IJ | Kopaf 7 9945TE Wagenborgen | 0:00 |
| IK | Kopaf 6 9945TE Wagenborgen | 0:00 |
| IL | Kloosterlaan 27 9945TG Wagenborgen | 0:00 |
| IM | Kloosterlaan 25 9945TG Wagenborgen | 5:55 |
| IN | Kloosterlaan 23 9945TG Wagenborgen | 8:31 |
| IO | Scheve Klap 5 9945TD Wagenborgen | 1:50 |
| IP | Scheve Klap 4 9945TD Wagenborgen | 0:44 |
| IQ | Hibiscusstraat 8 9945VB Wagenborgen | 0:00 |
| IR | Hibiscusstraat 12 9945VB Wagenborgen | 0:00 |
| IS | Hibiscusstraat 18 9945VB Wagenborgen | 0:00 |
| IT | Hibiscusstraat 24 9945VB Wagenborgen | 0:00 |
| IU | Hibiscusstraat 22 9945VB Wagenborgen | 0:00 |
| IV | Troostlaan 15 9945PV Wagenborgen | 0:00 |
| IW | Bremstraat 10 9945VC Wagenborgen | 0:00 |
| IX | Hibiscusstraat 20 9945VB Wagenborgen | 0:00 |
| IY | Hibiscusstraat 28 9945VB Wagenborgen | 0:00 |
| IZ | Troostlaan 5 9945PV Wagenborgen | 0:00 |
| J | G. Boelmanweg 7 9945RE Wagenborgen | 0:00 |
| JA | Troostlaan 6 9945PV Wagenborgen | 0:00 |
| JB | Boslaan 5 9945TM Wagenborgen | 0:00 |
| JC | Hoofdweg 33 A 9945PB Wagenborgen | 0:00 |
| JD | Akeleistraat 13 9945VD Wagenborgen | 0:00 |
| JE | Hoofdweg 42 9945PG Wagenborgen | 0:00 |
| JF | Familie Bronsweg 2 E 9945PR Wagenborgen | 0:00 |
| JG | Hibiscusstraat 14 9945VB Wagenborgen | 0:00 |
| JH | Bremstraat 8 9945VC Wagenborgen | 0:00 |
| JI | Menterne 23 003 9945RA Wagenborgen | 0:00 |
| JJ | Menterne 23 004 9945RA Wagenborgen | 0:00 |
| JK | Menterne 23 005 9945RA Wagenborgen | 0:00 |
| JL | Menterne 23 006 9945RA Wagenborgen | 0:00 |
| JM | Menterne 23 007 9945RA Wagenborgen | 0:00 |
| JN | Menterne 23 008 9945RA Wagenborgen | 0:00 |
| JO | Menterne 23 009 9945RA Wagenborgen | 0:00 |
| JP | Menterne 23 010 9945RA Wagenborgen | 0:00 |
| JQ | Menterne 23 017 9945RA Wagenborgen | 0:00 |
| JR | Menterne 23 030 9945RA Wagenborgen | 0:00 |
| JS | Menterne 23 103 9945RA Wagenborgen | 0:00 |
| JT | Menterne 23 104 9945RA Wagenborgen | 0:00 |
| JU | Menterne 23 105 9945RA Wagenborgen | 0:00 |
| JV | Menterne 23 106 9945RA Wagenborgen | 0:00 |
| JW | Menterne 23 107 9945RA Wagenborgen | 0:00 |
| JX | Menterne 23 108 9945RA Wagenborgen | 0:00 |
| JY | Menterne 23 109 9945RA Wagenborgen | 0:00 |
| JZ | Menterne 23 110 9945RA Wagenborgen | 0:00 |
| K | G. Boelmanweg 6 9945RJ Wagenborgen | 0:00 |
| KA | Menterne 23 111 9945RA Wagenborgen | 0:00 |
| KB | Menterne 23 113 9945RA Wagenborgen | 0:00 |
| KC | Menterne 23 114 9945RA Wagenborgen | 0:00 |
| KD | Menterne 23 115 9945RA Wagenborgen | 0:00 |
| KE | Menterne 23 116 9945RA Wagenborgen | 0:00 |
| KF | Menterne 23 117 9945RA Wagenborgen | 0:00 |
| KG | Menterne 23 118 9945RA Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2A

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| KH | Menterne 23 119 9945RA Wagenborgen | 0:00 |
| KI | Menterne 23 120 9945RA Wagenborgen | 0:00 |
| KJ | Menterne 23 121 9945RA Wagenborgen | 0:00 |
| KK | Menterne 23 122 9945RA Wagenborgen | 0:00 |
| KL | Menterne 23 123 9945RA Wagenborgen | 0:00 |
| KM | Menterne 23 124 9945RA Wagenborgen | 0:00 |
| KN | Menterne 23 125 9945RA Wagenborgen | 0:00 |
| KO | Menterne 23 126 9945RA Wagenborgen | 0:00 |
| KP | Menterne 23 127 9945RA Wagenborgen | 0:00 |
| KQ | Menterne 23 128 9945RA Wagenborgen | 0:00 |
| KR | Menterne 23 129 9945RA Wagenborgen | 0:00 |
| KS | Menterne 23 130 9945RA Wagenborgen | 0:00 |
| KT | Menterne 23 131 9945RA Wagenborgen | 0:00 |
| KU | Menterne 23 132 9945RA Wagenborgen | 0:00 |
| KV | Menterne 23 201 9945RA Wagenborgen | 0:00 |
| KW | Menterne 23 202 9945RA Wagenborgen | 0:00 |
| KX | Menterne 23 203 9945RA Wagenborgen | 0:00 |
| KY | Menterne 23 204 9945RA Wagenborgen | 0:00 |
| KZ | Menterne 23 205 9945RA Wagenborgen | 0:00 |
| L | Kokslaan 1 9945RD Wagenborgen | 0:00 |
| LA | Menterne 23 206 9945RA Wagenborgen | 0:00 |
| LB | Menterne 23 207 9945RA Wagenborgen | 0:00 |
| LC | Menterne 23 208 9945RA Wagenborgen | 0:00 |
| LD | Menterne 23 209 9945RA Wagenborgen | 0:00 |
| LE | Menterne 23 210 9945RA Wagenborgen | 0:00 |
| LF | Menterne 23 211 9945RA Wagenborgen | 0:00 |
| LG | Menterne 23 212 9945RA Wagenborgen | 0:00 |
| LH | Menterne 23 213 9945RA Wagenborgen | 0:00 |
| LI | Menterne 23 214 9945RA Wagenborgen | 0:00 |
| LJ | Menterne 23 215 9945RA Wagenborgen | 0:00 |
| LK | Menterne 23 216 9945RA Wagenborgen | 0:00 |
| LL | Menterne 23 217 9945RA Wagenborgen | 0:00 |
| LM | Menterne 23 218 9945RA Wagenborgen | 0:00 |
| LN | Menterne 23 219 9945RA Wagenborgen | 0:00 |
| LO | Menterne 23 220 9945RA Wagenborgen | 0:00 |
| LP | Menterne 23 221 9945RA Wagenborgen | 0:00 |
| LQ | Menterne 23 222 9945RA Wagenborgen | 0:00 |
| LR | Menterne 23 223 9945RA Wagenborgen | 0:00 |
| LS | Menterne 23 224 9945RA Wagenborgen | 0:00 |
| LT | Menterne 23 226 9945RA Wagenborgen | 0:00 |
| LU | Menterne 23 228 9945RA Wagenborgen | 0:00 |
| LV | Menterne 23 229 9945RA Wagenborgen | 0:00 |
| LW | Menterne 23 230 9945RA Wagenborgen | 0:00 |
| LX | Menterne 23 231 9945RA Wagenborgen | 0:00 |
| LY | Menterne 23 232 9945RA Wagenborgen | 0:00 |
| LZ | G. Boelmanweg 1 9945RE Wagenborgen | 0:00 |
| M | Kokslaan 2 9945RD Wagenborgen | 0:00 |
| MA | Boslaan 7 9945TM Wagenborgen | 0:00 |
| MB | H.L. Emmensweg 23 9945PW Wagenborgen | 0:00 |
| MC | Kopaf 5 9944VA Nieuwolda | 0:00 |
| MD | Familie Bronsweg 68 9945TA Wagenborgen | 12:14 |
| ME | Maarkampen 26 9937PL Meedhuizen | 1:09 |
| MF | Maarkampen 24 9937PL Meedhuizen | 1:05 |
| MG | Maarkampen 22 9937PL Meedhuizen | 1:02 |
| MH | Maarkampen 20 9937PL Meedhuizen | 0:37 |
| MI | Maarkampen 18 9937PL Meedhuizen | 0:35 |
| MJ | Maarkampen 16 9937PL Meedhuizen | 0:33 |
| MK | Maarkampen 14 9937PL Meedhuizen | 0:31 |
| ML | Maarlaan 22 E 9937TH Meedhuizen | 0:39 |
| MM | Maarlaan 22 D 9937TH Meedhuizen | 0:32 |
| MN | Schaapbulterweg 8 9937TL Meedhuizen | 2:00 |
| MO | Schaapbulterweg 6 9937TL Meedhuizen | 0:34 |
| MP | Schaapbulterweg 29 9937TL Meedhuizen | 2:04 |

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2A

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| MQ | Schaapbulterweg 27 9937TL Meedhuizen | 1:02 |
| MR | Schaapbulterweg 25 9937TL Meedhuizen | 0:38 |
| MS | Schaapbulterweg 23 9937TL Meedhuizen | 0:36 |
| MT | Schaapbulterweg 21 9937TL Meedhuizen | 0:34 |
| MU | Geefsweersterweg 11 9937TB Meedhuizen | 5:56 |
| MV | Schaapbulterweg 35 9937TL Meedhuizen | 5:04 |
| MW | Meedhuizerweg 20 9937TK Meedhuizen | 1:19 |
| MX | Familie Bronsweg 66 9945TA Wagenborgen | 12:30 |
| MY | Familie Bronsweg 64 9945TA Wagenborgen | 16:20 |
| MZ | Ideweersterweg 10 9937TM Meedhuizen | 23:02 |
| N | Kerkstraat 1 9945SB Wagenborgen | 0:00 |
| NA | Ideweersterweg 8 9937TM Meedhuizen | 34:14 |
| NB | Geefsweersterweg 20 9937TC Meedhuizen | 29:40 |
| NC | Geefsweersterweg 18 9937TC Meedhuizen | 23:34 |
| ND | Geefsweersterweg 29 9937TB Meedhuizen | 24:48 |
| NE | Geefsweersterweg 16 9937TC Meedhuizen | 18:24 |
| NF | Geefsweersterweg 23 9937TB Meedhuizen | 25:58 |
| NG | Geefsweersterweg 12 9937TC Meedhuizen | 35:13 |
| NH | Geefsweersterweg 14 9937TC Meedhuizen | 31:48 |
| NI | Geefsweersterweg 21 A 9937TB Meedhuizen | 33:37 |
| NJ | Geefsweersterweg 10 9937TC Meedhuizen | 43:14 |
| NK | Geefsweersterweg 21 9937TB Meedhuizen | 42:29 |
| NL | Geefsweersterweg 17 9937TB Meedhuizen | 45:44 |
| NM | Geefsweersterweg 19 9937TB Meedhuizen | 46:30 |
| NN | Ideweersterweg 2 9937TM Meedhuizen | 26:38 |
| NO | Ideweersterweg 1 9937TM Meedhuizen | 29:45 |
| NP | Geefsweersterweg 15 9937TB Meedhuizen | 39:20 |
| NQ | Westerlaan 6 9937TS Meedhuizen | 41:27 |
| NR | Familie Bronsweg 87 9945TA Wagenborgen | 7:56 |
| NS | Familie Bronsweg 89 9945TA Wagenborgen | 15:01 |
| NT | Westerlaan 10 9937TS Meedhuizen | 25:40 |
| NU | Geefsweersterweg 13 9937TB Meedhuizen | 19:57 |
| NV | Maarlaan 26 9937TH Meedhuizen | 2:25 |
| NW | Maarlaan 24 9937TH Meedhuizen | 1:10 |
| NX | Maarlaan 28 9937TH Meedhuizen | 2:34 |
| NY | Maarlaan 30 9937TH Meedhuizen | 3:18 |
| NZ | Kerklaan 3 9937PG Meedhuizen | 1:52 |
| O | Hoofdweg 30 9945PG Wagenborgen | 0:00 |
| OA | Kerklaan 8 9937PG Meedhuizen | 3:39 |
| OB | Kerklaan 6 9937PG Meedhuizen | 5:01 |
| OC | Opmeedenlaan 6 9937TN Meedhuizen | 1:44 |
| OD | Opmeedenlaan 4 9937TN Meedhuizen | 1:45 |
| OE | Opmeedenlaan 2 9937TN Meedhuizen | 2:01 |
| OF | Kloosterlaan 26 9945TG Wagenborgen | 10:09 |
| OG | Zomerdijk 1 9945TH Wagenborgen | 9:43 |
| OH | Zomerdijk 3 9945TH Wagenborgen | 2:29 |
| OI | Zomerdijk 3 A 9945TH Wagenborgen | 1:54 |
| OJ | Zomerdijk 2 9945TH Wagenborgen | 1:07 |
| OK | Kloosterlaan 21 A 9945TG Wagenborgen | 14:16 |
| OL | Kloosterlaan 21 B 9945TG Wagenborgen | 11:42 |
| OM | Ideweersterweg 4 9937TM Meedhuizen | 56:21 |
| ON | Maarlaan 22 C 9937TH Meedhuizen | 0:28 |
| OO | Kloosterlaan 21 9936TE Farmsum | 10:31 |
| OP | Geefsweersterweg 8 A 9937TC Meedhuizen | 31:01 |
| OQ | Houtweg 20 9936BL Farmsum | 0:22 |
| OR | Houtweg 22 9936BL Farmsum | 0:22 |
| OS | Houtweg 24 9936BL Farmsum | 0:22 |
| OT | Houtweg 26 9936BL Farmsum | 0:23 |
| OU | Houtweg 28 9936BL Farmsum | 0:24 |
| OV | Rondeboslaan 6 9936BK Farmsum | 0:37 |
| OW | Proosdij 14 9936EW Farmsum | 0:36 |
| OX | Bredelaan 6 9936ER Farmsum | 1:29 |
| OY | Bredelaan 4 9936ER Farmsum | 1:19 |

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2A

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| OZ | Bredelaan 2 A 9936ER Farmsum | 1:06 |
| P | Hoofdweg 32 9945PG Wagenborgen | 0:00 |
| PA | Proosdij 24 9936EW Farmsum | 0:57 |
| PB | Proosdij 22 9936EW Farmsum | 0:54 |
| PC | Proosdij 20 9936EW Farmsum | 0:50 |
| PD | Proosdij 18 9936EW Farmsum | 0:43 |
| PE | Proosdij 16 9936EW Farmsum | 0:41 |
| PF | Trambaan 19 9936ES Farmsum | 1:15 |
| PG | Proosdij 17 9936ET Farmsum | 0:52 |
| PH | Proosdij 15 9936ET Farmsum | 0:50 |
| PI | Proosdij 13 9936ET Farmsum | 0:47 |
| PJ | Trambaan 17 9936ES Farmsum | 1:13 |
| PK | Trambaan 15 9936ES Farmsum | 1:12 |
| PL | Trambaan 13 9936ES Farmsum | 1:11 |
| PM | Trambaan 11 9936ES Farmsum | 1:10 |
| PN | Trambaan 9 9936ES Farmsum | 1:09 |
| PO | Trambaan 5 9936ES Farmsum | 1:07 |
| PP | Trambaan 3 9936ES Farmsum | 1:06 |
| PQ | Trambaan 1 9936ES Farmsum | 1:05 |
| PR | Proosdij 12 9936EW Farmsum | 0:27 |
| PS | Proosdij 8 9936EW Farmsum | 0:23 |
| PT | Proosdij 6 9936EW Farmsum | 0:19 |
| PU | Proosdij 4 9936EW Farmsum | 0:14 |
| PV | Proosdij 11 9936ET Farmsum | 0:44 |
| PW | Proosdij 9 9936ET Farmsum | 0:41 |
| PX | Proosdij 7 9936ET Farmsum | 0:37 |
| PY | Proosdij 5 9936ET Farmsum | 0:34 |
| PZ | Proosdij 1 9936ET Farmsum | 0:26 |
| Q | Hoofdweg 31 9945PA Wagenborgen | 0:00 |
| QA | Proosdij 3 9936ET Farmsum | 0:31 |
| QB | Farmsumerzijl 55 9936GC Farmsum | 0:26 |
| QC | Farmsumerzijl 57 9936GC Farmsum | 0:34 |
| QD | Rengersweg 4 9936GH Farmsum | 0:00 |
| QE | Rengersweg 2 9936GH Farmsum | 0:00 |
| QF | Schepperij 4 A 9936GN Farmsum | 0:00 |
| QG | Schepperij 2 A 9936GN Farmsum | 0:00 |
| QH | Schepperij 4 9936GN Farmsum | 0:00 |
| QI | Schepperij 2 9936GN Farmsum | 0:00 |
| QJ | Dijkrecht 4 9936GK Farmsum | 0:00 |
| QK | Dijkrecht 6 9936GK Farmsum | 0:00 |
| QL | Dijkrecht 10 9936GK Farmsum | 0:00 |
| QM | Dijkrecht 12 9936GK Farmsum | 0:00 |
| QN | Dijkrecht 14 9936GK Farmsum | 0:00 |
| QO | Dijkrecht 16 9936GK Farmsum | 0:00 |
| QP | Dijkrecht 18 9936GK Farmsum | 0:00 |
| QQ | Dijkrecht 20 9936GK Farmsum | 0:00 |
| QR | Dijkrecht 22 9936GK Farmsum | 0:00 |
| QS | Dijkrecht 24 9936GK Farmsum | 0:00 |
| QT | Dijkrecht 26 9936GK Farmsum | 0:00 |
| QU | Dijkrecht 28 9936GK Farmsum | 0:00 |
| QV | Dijkrecht 30 9936GK Farmsum | 0:00 |
| QW | Dijkrecht 32 9936GK Farmsum | 0:00 |
| QX | Dijkrecht 34 9936GK Farmsum | 0:00 |
| QY | Dijkrecht 36 9936GK Farmsum | 0:00 |
| QZ | Dijkrecht 40 9936GK Farmsum | 0:00 |
| R | Hoofdweg 38 9945PG Wagenborgen | 0:00 |
| RA | Dijkrecht 38 9936GK Farmsum | 0:00 |
| RB | Schepperij 20 9936GN Farmsum | 0:00 |
| RC | Schepperij 18 9936GN Farmsum | 0:00 |
| RD | Waarman 12 9936GW Farmsum | 0:00 |
| RE | Waarman 10 9936GW Farmsum | 0:00 |
| RF | Waarman 8 9936GW Farmsum | 0:00 |
| RG | Waarman 6 9936GW Farmsum | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2A

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| RH | Farmsumerzijl 1 9936GB Farmsum | 0:00 |
| RI | Farmsumerzijl 3 9936GB Farmsum | 0:00 |
| RJ | Farmsumerzijl 5 9936GB Farmsum | 0:00 |
| RK | Farmsumerzijl 7 9936GB Farmsum | 0:00 |
| RL | Farmsumerzijl 13 9936GB Farmsum | 0:00 |
| RM | Farmsumerzijl 15 9936GB Farmsum | 0:00 |
| RN | Farmsumerzijl 17 9936GB Farmsum | 0:00 |
| RO | Farmsumerzijl 19 9936GB Farmsum | 0:00 |
| RP | Farmsumerzijl 25 9936GB Farmsum | 0:00 |
| RQ | Farmsumerzijl 27 9936GB Farmsum | 0:00 |
| RR | Farmsumerzijl 29 9936GB Farmsum | 0:00 |
| RS | Farmsumerzijl 31 9936GC Farmsum | 0:00 |
| RT | Farmsumerzijl 37 9936GC Farmsum | 0:00 |
| RU | Farmsumerzijl 39 9936GC Farmsum | 0:00 |
| RV | Farmsumerzijl 41 9936GC Farmsum | 0:00 |
| RW | Farmsumerzijl 43 9936GC Farmsum | 0:00 |
| RX | Schepperij 1 9936GL Farmsum | 0:01 |
| RY | Schepperij 3 9936GL Farmsum | 0:00 |
| RZ | Schepperij 5 9936GL Farmsum | 0:00 |
| S | Hoofdweg 39 9945PB Wagenborgen | 0:00 |
| SA | Schepperij 7 9936GL Farmsum | 0:00 |
| SB | Schepperij 9 9936GL Farmsum | 0:00 |
| SC | Schepperij 11 9936GL Farmsum | 0:00 |
| SD | Schepperij 13 9936GL Farmsum | 0:00 |
| SE | Schepperij 15 9936GL Farmsum | 0:00 |
| SF | Dijkrecht 8 9936GK Farmsum | 0:00 |
| SG | Geefsweersterweg 9 9937TB Meedhuizen | 10:07 |
| SH | Geefsweersterweg 7 9937TB Meedhuizen | 35:21 |
| SI | Geefsweersterweg 8 9937TC Meedhuizen | 33:24 |
| SJ | Geefsweersterweg 3 9937TB Meedhuizen | 22:16 |
| SK | Geefsweersterweg 6 9937TC Meedhuizen | 28:03 |
| SL | Geefsweersterweg 4 9937TC Meedhuizen | 20:22 |
| SM | Meedhuizerweg 2 9937TK Meedhuizen | 0:29 |
| SN | Molenstraat 31 9936EB Farmsum | 0:00 |
| SO | Hindrik Jagerstraat 32 9936CV Farmsum | 0:27 |
| SP | Hindrik Jagerstraat 11 9936CT Farmsum | 0:33 |
| SQ | Hindrik Jagerstraat 13 9936CT Farmsum | 0:33 |
| SR | Hindrik Jagerstraat 15 9936CT Farmsum | 0:34 |
| SS | Hindrik Jagerstraat 34 9936CV Farmsum | 0:27 |
| ST | Hindrik Jagerstraat 36 9936CV Farmsum | 0:27 |
| SU | Borgshof 31 9936CR Farmsum | 0:12 |
| SV | Borgshof 33 9936CR Farmsum | 0:18 |
| SW | Borgshof 39 9936CR Farmsum | 0:38 |
| SX | Borgshof 35 9936CR Farmsum | 0:34 |
| SY | Molenstraat 20 9936EC Farmsum | 0:00 |
| SZ | Molenstraat 24 9936EC Farmsum | 0:00 |
| T | Hoofdweg 35 9945PB Wagenborgen | 0:00 |
| TA | Molenstraat 28 9936EC Farmsum | 0:00 |
| TB | Molenstraat 41 9936EB Farmsum | 0:00 |
| TC | Molenstraat 43 9936EB Farmsum | 0:00 |
| TD | Molenstraat 45 9936EB Farmsum | 0:00 |
| TE | Molenstraat 32 9936EC Farmsum | 0:00 |
| TF | Achterweg 13 9936EG Farmsum | 0:00 |
| TG | Achterweg 11 9936EG Farmsum | 0:00 |
| TH | Achterweg 9 9936EG Farmsum | 0:00 |
| TI | Molenstraat 49 9936EB Farmsum | 0:00 |
| TJ | Molenstraat 51 9936EB Farmsum | 0:00 |
| TK | Molenstraat 53 9936EB Farmsum | 0:00 |
| TL | Molenstraat 57 9936EB Farmsum | 0:00 |
| TM | Molenstraat 61 9936EB Farmsum | 0:00 |
| TN | Molenstraat 63 9936EB Farmsum | 0:00 |
| TO | Molenstraat 34 9936ED Farmsum | 0:00 |
| TP | Molenstraat 38 9936ED Farmsum | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2A

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| TQ | Molenstraat 40 9936ED Farmsum | 0:00 |
| TR | Molenstraat 42 9936ED Farmsum | 0:00 |
| TS | Molenstraat 44 9936ED Farmsum | 0:00 |
| TT | Molenstraat 65 9936EB Farmsum | 0:00 |
| TU | Molenstraat 48 9936ED Farmsum | 0:00 |
| TV | Molenstraat 50 9936ED Farmsum | 0:00 |
| TW | Molenstraat 56 9936ED Farmsum | 0:00 |
| TX | Molenstraat 58 9936EE Farmsum | 0:00 |
| TY | Molenstraat 62 9936EE Farmsum | 0:00 |
| TZ | Molenstraat 72 9936EE Farmsum | 0:00 |
| U | Hoofdweg 37 9945PB Wagenborgen | 0:00 |
| UA | Molenstraat 70 9936EE Farmsum | 0:00 |
| UB | Molenstraat 68 9936EE Farmsum | 0:00 |
| UC | Molenstraat 66 9936EE Farmsum | 0:00 |
| UD | Achterweg 2 9936EG Farmsum | 0:00 |
| UE | Achterweg 12 9936EG Farmsum | 0:00 |
| UF | Achterweg 10 9936EG Farmsum | 0:00 |
| UG | Achterweg 8 9936EG Farmsum | 0:00 |
| UH | Hindrik Jagerstraat 17 9936CT Farmsum | 0:35 |
| UI | Molenstraat 30 9936EC Farmsum | 0:00 |
| UJ | Borgweg 141 9936EN Farmsum | 0:34 |
| UK | Borgweg 139 9936EN Farmsum | 0:37 |
| UL | Borgweg 137 9936EN Farmsum | 0:39 |
| UM | Borgweg 135 9936EN Farmsum | 0:41 |
| UN | Afwateringskanaal 109 9936AV Farmsum | 0:44 |
| UO | Borgweg 131 9936EM Farmsum | 0:45 |
| UP | Borgweg 133 9936EM Farmsum | 0:52 |
| UQ | Borgshof 41 9936CR Farmsum | 0:43 |
| UR | Borgshof 43 9936CR Farmsum | 0:47 |
| US | Borgshof 45 9936CR Farmsum | 0:48 |
| UT | Molenstraat 74 9936EE Farmsum | 0:00 |
| UU | Molenstraat 76 9936EE Farmsum | 0:00 |
| UV | Molenstraat 78 9936EE Farmsum | 0:00 |
| UW | Molenstraat 82 9936EE Farmsum | 0:00 |
| UX | Molenstraat 84 9936EE Farmsum | 0:00 |
| UY | Borgweg 123 9936EM Farmsum | 0:00 |
| UZ | Borgweg 125 9936EM Farmsum | 0:00 |
| V | Hoofdweg 44 9945PH Wagenborgen | 0:00 |
| VA | Borgweg 127 9936EM Farmsum | 0:00 |
| VB | Borgweg 129 9936EM Farmsum | 0:00 |
| VC | Farmsumerzijl 51 9936GC Farmsum | 0:00 |
| VD | Molenstraat 80 9936EE Farmsum | 0:00 |
| VE | Houtweg 30 9936BL Farmsum | 0:24 |
| VF | Houtweg 32 9936BL Farmsum | 0:26 |
| VG | Houtweg 34 9936BL Farmsum | 0:26 |
| VH | Houtweg 36 9936BL Farmsum | 0:26 |
| VI | Houtweg 38 9936BL Farmsum | 0:28 |
| VJ | Houtweg 40 9936BL Farmsum | 0:28 |
| VK | Houtweg 42 9936BL Farmsum | 0:27 |
| VL | Houtweg 44 9936BL Farmsum | 0:28 |
| VM | Houtweg 46 9936BL Farmsum | 0:27 |
| VN | Houtweg 48 9936BL Farmsum | 0:28 |
| VO | Rondeboslaan 26 9936BK Farmsum | 0:35 |
| VP | Rondeboslaan 28 9936BK Farmsum | 0:35 |
| VQ | Seendweg 32 9936GA Farmsum | 2:15 |
| VR | Trambaan 21 9936ES Farmsum | 1:17 |
| VS | Proosdij 19 9936ET Farmsum | 1:20 |
| VT | Bredelaan 14 9936ER Farmsum | 2:27 |
| VU | Bredelaan 10 9936ER Farmsum | 1:45 |
| VV | Bredelaan 8 9936ER Farmsum | 1:41 |
| VW | Seendweg 22 9936GA Farmsum | 2:56 |
| VX | Seendweg 28 9936GA Farmsum | 2:41 |
| VY | Proosdij 28 9936EW Farmsum | 1:04 |

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2A

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| VZ | Proosdij 30 9936EX Farmsum | 1:46 |
| W | Hoofdweg 48 9945PH Wagenborgen | 0:00 |
| WA | Proosdij 26 9936EW Farmsum | 1:02 |
| WB | Afwateringskanaal 107 9936AV Farmsum | 0:41 |
| WC | Rondeboslaan 22 A 9936BK Farmsum | 0:54 |
| WD | Rondeboslaan 22 B 9936BK Farmsum | 0:55 |
| WE | Rondeboslaan 2 A 9936BK Farmsum | 0:50 |
| WF | Rondeboslaan 2 B 9936BK Farmsum | 0:41 |
| WG | Seendweg 17 9936GA Farmsum | 2:47 |
| WH | Borgshof 29 9936CR Farmsum | 0:05 |
| WI | Molenstraat 22 9936EC Farmsum | 0:00 |
| WJ | Achterweg 7 A 9936EG Farmsum | 0:00 |
| WK | Molenstraat 26 9936EC Farmsum | 0:00 |
| WL | Borgweg 113 9936EM Farmsum | 0:00 |
| WM | Borgweg 115 9936EM Farmsum | 0:00 |
| WN | Borgweg 117 9936EM Farmsum | 0:00 |
| WO | Borgweg 119 9936EM Farmsum | 0:00 |
| WP | Borgweg 121 9936EM Farmsum | 0:00 |
| WQ | Farmsumerzijl 45 9936GC Farmsum | 0:00 |
| WR | Farmsumerzijl 47 9936GC Farmsum | 0:00 |
| WS | Farmsumerzijl 49 9936GC Farmsum | 0:00 |
| WT | Waarman 4 9936GW Farmsum | 0:00 |
| WU | Waarman 2 9936GW Farmsum | 0:00 |
| WV | Farmsumerzijl 9 9936GB Farmsum | 0:00 |
| WW | Farmsumerzijl 11 9936GB Farmsum | 0:00 |
| WX | Farmsumerzijl 21 9936GB Farmsum | 0:00 |
| WY | Farmsumerzijl 23 9936GB Farmsum | 0:00 |
| WZ | Farmsumerzijl 33 9936GC Farmsum | 0:00 |
| X | Hoofdweg 41 9945PB Wagenborgen | 0:00 |
| XA | Farmsumerzijl 35 9936GC Farmsum | 0:00 |
| XB | Schepperij 17 9936GL Farmsum | 0:00 |
| XC | Schepperij 19 9936GL Farmsum | 0:00 |
| XD | Schepperij 21 9936GL Farmsum | 0:00 |
| XE | Dijkrecht 3 9936GJ Farmsum | 0:00 |
| XF | Dijkrecht 5 9936GJ Farmsum | 0:00 |
| XG | Dijkrecht 7 9936GJ Farmsum | 0:00 |
| XH | Dijkrecht 9 9936GJ Farmsum | 0:00 |
| XI | Dijkrecht 11 9936GJ Farmsum | 0:00 |
| XJ | Dijkrecht 13 9936GJ Farmsum | 0:00 |
| XK | Dijkrecht 15 9936GJ Farmsum | 0:00 |
| XL | Dijkrecht 17 9936GJ Farmsum | 0:00 |
| XM | Dijkrecht 19 9936GJ Farmsum | 0:00 |
| XN | Dijkrecht 21 9936GJ Farmsum | 0:00 |
| XO | Schepperij 6 9936GN Farmsum | 0:00 |
| XP | Schepperij 8 9936GN Farmsum | 0:00 |
| XQ | Schepperij 10 9936GN Farmsum | 0:00 |
| XR | Schepperij 12 9936GN Farmsum | 0:00 |
| XS | Schepperij 14 9936GN Farmsum | 0:00 |
| XT | Schepperij 16 9936GN Farmsum | 0:00 |
| XU | Olderman 2 9936GT Farmsum | 0:00 |
| XV | Olderman 4 9936GT Farmsum | 0:00 |
| XW | Olderman 6 9936GT Farmsum | 0:00 |
| XX | Olderman 8 9936GT Farmsum | 0:00 |
| XY | Olderman 10 9936GT Farmsum | 0:00 |
| XZ | Olderman 12 9936GT Farmsum | 0:00 |
| Y | Hoofdweg 20 9945PG Wagenborgen | 0:00 |
| YA | Olderman 14 9936GT Farmsum | 0:00 |
| YB | Dijkrecht 23 9936GJ Farmsum | 0:00 |
| YC | Dijkrecht 25 9936GJ Farmsum | 0:00 |
| YD | Dijkrecht 27 9936GJ Farmsum | 0:00 |
| YE | Dijkrecht 29 9936GJ Farmsum | 0:00 |
| YF | Dijkrecht 31 9936GJ Farmsum | 0:00 |
| YG | Dijkrecht 33 9936GJ Farmsum | 0:00 |

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3-2-2017 14:20/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2A

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| YH | Dijkrecht 35 9936GJ Farmsum | 0:00 |
| YI | Dijkrecht 37 9936GJ Farmsum | 0:00 |
| YJ | Dijkrecht 39 9936GJ Farmsum | 0:00 |
| YK | Dijkrecht 41 9936GJ Farmsum | 0:00 |
| YL | Dijkrecht 43 9936GJ Farmsum | 0:00 |
| YM | Olderman 1 9936GS Farmsum | 0:00 |
| YN | Olderman 3 9936GS Farmsum | 0:00 |
| YO | Olderman 5 9936GS Farmsum | 0:00 |
| YP | Olderman 7 9936GS Farmsum | 0:00 |
| YQ | Schepperij 37 9936GM Farmsum | 0:00 |
| YR | Schepperij 41 9936GM Farmsum | 0:00 |
| YS | Schepperij 45 9936GM Farmsum | 0:00 |
| YT | Schepperij 47 9936GM Farmsum | 0:00 |
| YU | Schepperij 49 9936GM Farmsum | 0:00 |
| YV | Olderman 18 9936GT Farmsum | 0:00 |
| YW | Olderman 20 9936GT Farmsum | 0:00 |
| YX | Olderman 22 9936GT Farmsum | 0:00 |
| YY | Olderman 24 9936GT Farmsum | 0:00 |
| YZ | Olderman 26 9936GT Farmsum | 0:00 |
| Z | Hoofdweg 22 9945PG Wagenborgen | 0:00 |
| ZA | Olderman 28 9936GT Farmsum | 0:00 |
| ZB | Olderman 30 9936GT Farmsum | 0:00 |
| ZC | Olderman 9 9936GS Farmsum | 0:00 |
| ZD | Olderman 11 9936GS Farmsum | 0:00 |
| ZE | Olderman 13 9936GS Farmsum | 0:00 |
| ZF | Proosdij 32 9936EX Farmsum | 1:47 |
| ZG | Proosdij 36 9936EX Farmsum | 1:47 |
| ZH | Proosdij 38 9936EX Farmsum | 1:46 |
| ZI | Proosdij 40 9936EX Farmsum | 1:43 |
| ZJ | Proosdij 27 9936EV Farmsum | 2:14 |
| ZK | Proosdij 25 9936EV Farmsum | 2:15 |
| ZL | Proosdij 23 9936EV Farmsum | 2:14 |
| ZM | Proosdij 21 9936EV Farmsum | 2:13 |
| ZN | Seendweg 5 9936GA Farmsum | 3:04 |
| ZO | Proosdij 29 9936EV Farmsum | 2:14 |
| ZP | Proosdij 31 9936EV Farmsum | 2:18 |
| ZQ | Proosdij 33 9936EV Farmsum | 2:28 |
| ZR | Proosdij 35 9936EV Farmsum | 2:18 |
| ZS | Proosdij 37 9936EV Farmsum | 2:07 |
| ZT | Proosdij 39 9936EV Farmsum | 2:02 |
| ZU | Proosdij 41 9936EV Farmsum | 1:58 |
| ZV | Proosdij 43 9936EV Farmsum | 1:54 |
| ZW | Proosdij 45 9936EV Farmsum | 1:50 |
| ZX | Proosdij 47 9936EV Farmsum | 1:46 |
| ZY | Olderman 15 9936GS Farmsum | 0:00 |
| ZZ | Rengersweg 97 9936GG Farmsum | 1:21 |

Total amount of flickering on the shadow receptors caused by each WTG

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 1 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (32) | 601:59 | 100:21 |
| 2 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (33) | 232:33 | 29:27 |
| 3 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (34) | 91:53 | 18:53 |
| 4 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (35) | 192:54 | 35:46 |
| 5 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (36) | 403:04 | 76:17 |
| 6 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (37) | 332:07 | 43:48 |
| 7 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (38) | 152:28 | 20:27 |
| 8 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (39) | 66:56 | 11:30 |
| 9 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (40) | 110:59 | 22:59 |
| 10 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (41) | 256:40 | 41:15 |
| 11 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (42) | 383:25 | 65:20 |
| 12 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (43) | 47:13 | 6:32 |

To be continued on next page...

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Hans / Hans@boschenvanrijn.nl
Calculated:
3-2-2017 14:20/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2A

...continued from previous page

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 13 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (44) | 48:44 | 9:41 |
| 14 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (45) | 135:48 | 28:42 |
| 15 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (46) | 266:49 | 51:15 |
| 16 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (47) | 393:04 | 66:56 |
| 17 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (48) | 429:02 | 77:11 |

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# SHADOW - Main Result

## Calculation: Copy of Slagschaduw Alternatief 2A

### Assumptions for shadow calculations

Maximum distance for influence
Calculate only when more than 20 % of sun is covered by the blade
Please look in WTG table

| | |
|---|---|
| Minimum sun height over horizon for influence | 5 ° |
| Day step for calculation | 1 days |
| Time step for calculation | 1 minutes |

Sunshine probability S (Average daily sunshine hours) [EELDE]

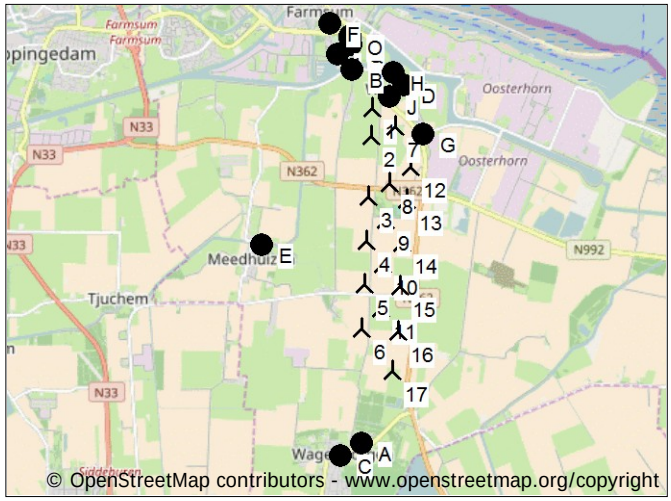
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

All coordinates are in
Dutch Stereo-RD/NAP 2008




Scale 1:125.000

New WTG  Shadow receptor

## WTGs

| | X (east) | Y (north) | Z | Row data/Description | WTG type Valid | Manufact. | Type-generator | Power, rated | Rotor diameter | Hub height | Shadow data Calculation distance | RPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [m] | | | | | [kW] | [m] | [m] | [m] | [RPM] |
| 1 | 258.611 | 592.414 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 2 | 258.598 | 591.937 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 3 | 258.571 | 590.943 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 4 | 258.553 | 590.211 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 5 | 258.531 | 589.481 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 6 | 258.511 | 588.750 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 7 | 258.993 | 592.118 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 8 | 258.921 | 591.166 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 9 | 258.864 | 590.564 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 10 | 258.843 | 589.832 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 11 | 258.822 | 589.099 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 12 | 259.269 | 591.456 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 13 | 259.216 | 590.910 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 14 | 259.154 | 590.190 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 15 | 259.136 | 589.461 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 16 | 259.113 | 588.725 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 17 | 259.027 | 588.069 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |

## Shadow receptor-Input

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| A | Familie Bronsweg 22 9945PS Wagenborgen | 258.549 | 586.857 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| B | Geefsweersterweg 1 9937TB Meedhuizen | 258.250 | 593.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| C | Hoofdweg 28 9945PG Wagenborgen | 258.194 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| D | Karspelpad 8 9936HP Farmsum | 259.130 | 592.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| E | Maarkampen 12 9937PL Meedhuizen | 256.818 | 590.108 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| F | Molenstraat 64 9936EE Farmsum | 257.875 | 593.798 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| G | Oosterlaan 9 9936HN Farmsum | 259.468 | 591.997 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| H | Schaappad 1 9936HT Farmsum | 258.946 | 593.010 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| I | Seendweg 8 9936GA Farmsum | 258.005 | 593.293 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| J | T.J. Jansenweg 11 9936HL Farmsum | 258.896 | 592.598 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| K | Waarman 1 9936GV Farmsum | 258.213 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| L | Waarman 11 9936GV Farmsum | 258.213 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| M | Waarman 3 9936GV Farmsum | 258.213 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| N | Waarman 5 9936GV Farmsum | 258.213 | 593.587 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| O | Waarman 7 9936GV Farmsum | 258.213 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| P | Waarman 9 9936GV Farmsum | 258.213 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Q | Zijlvest 20 9936GZ Farmsum | 258.233 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

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Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:42/3.0.654

# SHADOW - Main Result

## Calculation: Copy of Slagschaduw Alternatief 2A

## Calculation Results

Shadow receptor

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| A | Familie Bronsweg 22 9945PS Wagenborgen | 0:00 |
| B | Geefsweersterweg 1 9937TB Meedhuizen | 8:20 |
| C | Hoofdweg 28 9945PG Wagenborgen | 0:00 |
| D | Karspelpad 8 9936HP Farmsum | 15:50 |
| E | Maarkampen 12 9937PL Meedhuizen | 0:29 |
| F | Molenstraat 64 9936EE Farmsum | 0:00 |
| G | Oosterlaan 9 9936HN Farmsum | 49:51 |
| H | Schaappad 1 9936HT Farmsum | 8:11 |
| I | Seendweg 8 9936GA Farmsum | 3:49 |
| J | T.J. Jansenweg 11 9936HL Farmsum | 42:13 |
| K | Waarman 1 9936GV Farmsum | 0:00 |
| L | Waarman 11 9936GV Farmsum | 0:00 |
| M | Waarman 3 9936GV Farmsum | 0:00 |
| N | Waarman 5 9936GV Farmsum | 0:00 |
| O | Waarman 7 9936GV Farmsum | 0:00 |
| P | Waarman 9 9936GV Farmsum | 0:00 |
| Q | Zijlvest 20 9936GZ Farmsum | 0:00 |

Total amount of flickering on the shadow receptors caused by each WTG

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 1 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (32) | 331:54 | 51:52 |
| 2 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (33) | 110:29 | 13:33 |
| 3 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (34) | 12:52 | 1:32 |
| 4 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (35) | 2:20 | 0:29 |
| 5 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (36) | 0:00 | 0:00 |
| 6 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (37) | 0:00 | 0:00 |
| 7 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (38) | 288:53 | 40:18 |
| 8 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (39) | 38:30 | 4:04 |
| 9 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (40) | 0:00 | 0:00 |
| 10 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (41) | 0:00 | 0:00 |
| 11 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (42) | 0:00 | 0:00 |
| 12 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (43) | 86:39 | 10:02 |
| 13 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (44) | 0:00 | 0:00 |
| 14 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (45) | 0:00 | 0:00 |
| 15 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (46) | 0:00 | 0:00 |
| 16 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (47) | 0:00 | 0:00 |
| 17 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (48) | 0:00 | 0:00 |

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Calculated:
6-2-2017 15:34/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot

### Assumptions for shadow calculations

Maximum distance for influence
Calculate only when more than 20 % of sun is covered by the blade
Please look in WTG table

| | |
|---|---|
| Minimum sun height over horizon for influence | 5 ° |
| Day step for calculation | 1 days |
| Time step for calculation | 1 minutes |

Sunshine probability S (Average daily sunshine hours) [EELDE]

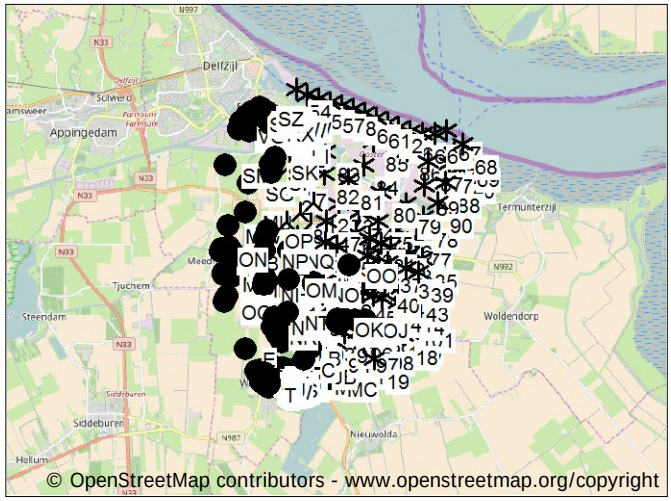
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

All coordinates are in
Dutch Stereo-RD/NAP 2008




Scale 1:200.000
New WTG
Existing WTG
Shadow receptor

## WTGs

| | X (east) | Y (north) | Z | Row data/Description | WTG type Valid | Manufact. | Type-generator | Power, rated | Rotor diameter | Hub height | Shadow data Calculation distance | RPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [m] | | | | | [kW] | [m] | [m] | [m] | [RPM] |
| 1 | 258.611 | 592.414 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 2 | 258.598 | 591.937 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 3 | 258.571 | 590.943 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 4 | 258.553 | 590.211 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 5 | 258.531 | 589.481 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 6 | 258.511 | 588.750 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 7 | 258.993 | 592.118 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 8 | 258.921 | 591.166 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 9 | 258.864 | 590.564 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 10 | 258.843 | 589.832 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 11 | 258.822 | 589.099 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 12 | 259.269 | 591.456 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 13 | 259.216 | 590.910 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 14 | 259.154 | 590.190 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 15 | 259.136 | 589.461 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 16 | 259.113 | 588.725 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 17 | 259.027 | 588.069 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 18 | 261.738 | 588.022 | 0,0 | LAGERWEY 80 18.0 !... | No | LAGERWEY | -80 | 80 | 18,0 | 31,0 | 1.740 | 120,0 |
| 19 | 260.986 | 587.360 | 0,0 | LAGERWEY 80 18.0 !... | No | LAGERWEY | -80 | 80 | 18,0 | 31,0 | 1.740 | 120,0 |
| 20 | 259.587 | 589.858 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 21 | 259.890 | 589.770 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 22 | 259.863 | 589.300 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 23 | 259.845 | 588.985 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 24 | 260.245 | 589.206 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 25 | 260.295 | 589.652 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 26 | 259.952 | 590.853 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 27 | 260.412 | 590.685 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 28 | 260.358 | 590.202 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 29 | 260.680 | 589.539 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 30 | 260.789 | 590.548 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 31 | 261.086 | 590.440 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 32 | 260.740 | 590.089 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 33 | 261.353 | 590.343 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 34 | 261.840 | 590.166 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 35 | 262.200 | 590.035 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 36 | 261.031 | 590.003 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 37 | 261.292 | 589.926 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 38 | 261.764 | 589.785 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 39 | 262.111 | 589.683 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot

...continued from previous page

| | X (east) | Y (north) | Z | Row data/Description | WTG type Valid | WTG type Manufact. | Type-generator | Power, rated | Rotor diameter | Hub height | Shadow data Calculation distance | Shadow data RPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [m] | | | | | [kW] | [m] | [m] | [m] | [RPM] |
| 40 | 261.212 | 589.384 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 41 | 261.584 | 588.876 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 42 | 261.660 | 589.255 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 43 | 261.980 | 589.161 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 44 | 261.889 | 588.801 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 45 | 259.922 | 590.332 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 46 | 259.601 | 590.427 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 47 | 259.614 | 590.976 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 48 | 260.962 | 589.457 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 49 | 260.634 | 589.110 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 50 | 260.909 | 589.042 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 51 | 261.153 | 588.982 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 52 | 259.576 | 589.371 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 53 | 259.568 | 589.041 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 54 | 258.748 | 594.458 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 55 | 259.042 | 594.322 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 56 | 259.344 | 594.205 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 57 | 259.655 | 594.114 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 58 | 259.971 | 594.042 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 59 | 260.286 | 593.965 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 60 | 260.596 | 593.872 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 61 | 260.896 | 593.750 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 62 | 261.196 | 593.627 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 63 | 261.497 | 593.509 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 64 | 261.805 | 593.407 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 65 | 262.126 | 593.367 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 66 | 262.450 | 593.380 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 67 | 262.767 | 593.448 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 68 | 263.205 | 593.092 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 69 | 263.273 | 592.764 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 70 | 263.154 | 592.466 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 71 | 262.970 | 592.872 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 72 | 262.850 | 592.574 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 73 | 259.947 | 591.451 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 74 | 260.484 | 591.233 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 75 | 261.011 | 591.019 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 76 | 261.526 | 590.802 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 77 | 262.046 | 590.599 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 78 | 262.190 | 591.144 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 79 | 261.741 | 591.483 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 80 | 261.052 | 591.780 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 81 | 260.181 | 592.081 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 82 | 259.555 | 592.229 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 83 | 259.567 | 592.826 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 84 | 260.577 | 592.475 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 85 | 260.839 | 593.122 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 86 | 261.722 | 592.893 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 87 | 262.307 | 592.636 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 88 | 262.775 | 592.062 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 89 | 262.206 | 591.985 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 90 | 262.568 | 591.542 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 91 | 259.583 | 588.718 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 92 | 259.541 | 588.381 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 93 | 259.520 | 588.051 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 94 | 259.935 | 587.778 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 95 | 260.176 | 588.043 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 96 | 260.538 | 588.081 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 97 | 260.683 | 587.792 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 98 | 261.087 | 587.854 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 99 | 261.036 | 588.189 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 100 | 261.513 | 588.148 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 101 | 261.859 | 588.487 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 102 | 261.380 | 588.591 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |

To be continued on next page...

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Calculated:
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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot

...continued from previous page

| | X (east) | Y (north) | Z | Row data/Description | WTG type Valid | WTG type Manufact. | Type-generator | Power, rated | Rotor diameter | Hub height | Shadow data Calculation distance | Shadow data RPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [m] | | | | | [kW] | [m] | [m] | [m] | [RPM] |
| 103 | 261.043 | 588.659 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 104 | 260.714 | 588.719 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 105 | 260.368 | 588.763 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 106 | 260.032 | 588.735 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |

## Shadow receptor-Input

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| [A | Rengersweg 99 9936GG Farmsum | 258.006 | 593.455 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [B | Rengersweg 12 9936GH Farmsum | 258.034 | 593.437 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [C | Rengersweg 10 9936GH Farmsum | 258.034 | 593.444 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [D | Kluft 1 9936GP Farmsum | 258.040 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [E | Kluft 3 9936GP Farmsum | 258.047 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [F | Proosdij 46 9936EX Farmsum | 258.058 | 593.427 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [G | Proosdij 48 9936EX Farmsum | 258.062 | 593.433 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [H | Proosdij 50 9936EX Farmsum | 258.090 | 593.443 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [I | Proosdij 52 9936EX Farmsum | 258.090 | 593.430 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [J | Proosdij 54 9936EX Farmsum | 258.094 | 593.415 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [K | Proosdij 56 9936EX Farmsum | 258.108 | 593.416 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [L | Olderman 21 9936GS Farmsum | 258.128 | 593.420 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [M | Olderman 19 9936GS Farmsum | 258.126 | 593.434 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [N | Olderman 17 9936GS Farmsum | 258.125 | 593.448 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [O | Kluft 5 9936GP Farmsum | 258.060 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [P | Kluft 7 9936GP Farmsum | 258.067 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [Q | Kluft 9 9936GP Farmsum | 258.096 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [R | Kluft 11 9936GP Farmsum | 258.102 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [S | Kluft 17 9936GP Farmsum | 258.122 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [T | Zijlvest 8 9936GZ Farmsum | 258.202 | 593.424 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [U | Olderman 32 9936GT Farmsum | 258.151 | 593.480 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [V | Olderman 34 9936GT Farmsum | 258.151 | 593.474 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [W | Olderman 36 9936GT Farmsum | 258.153 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [X | Olderman 38 9936GT Farmsum | 258.153 | 593.453 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [Y | Olderman 40 9936GT Farmsum | 258.155 | 593.440 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [Z | Olderman 42 9936GT Farmsum | 258.155 | 593.434 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \A | Zijlvest 22 A 9936GZ Farmsum | 258.238 | 593.466 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \B | Zijlvest 18 A 9936GZ Farmsum | 258.229 | 593.451 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \C | Zijlvest 18 9936GZ Farmsum | 258.233 | 593.449 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \D | Zijlvest 14 9936GZ Farmsum | 258.229 | 593.441 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \E | Borgweg 1 9936EH Farmsum | 258.030 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \F | Borgweg 3 9936EH Farmsum | 258.031 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \G | Borgweg 5 9936EH Farmsum | 258.031 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \H | Borgweg 7 9936EH Farmsum | 258.031 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \I | Borgweg 9 9936EH Farmsum | 258.031 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \J | Borgweg 11 9936EH Farmsum | 258.031 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \K | Borgweg 13 9936EH Farmsum | 258.031 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \L | Borgweg 15 9936EH Farmsum | 258.033 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \M | Borgweg 17 9936EH Farmsum | 258.033 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \N | Borgweg 19 9936EH Farmsum | 258.033 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \O | Borgweg 21 9936EH Farmsum | 258.033 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \P | Borgweg 23 9936EH Farmsum | 258.033 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \Q | Borgweg 25 9936EH Farmsum | 258.033 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \R | Borgweg 27 9936EH Farmsum | 258.033 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \S | Borgweg 29 9936EJ Farmsum | 258.035 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \T | Borgweg 31 9936EJ Farmsum | 258.035 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \U | Borgweg 33 9936EJ Farmsum | 258.035 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \V | Borgweg 35 9936EJ Farmsum | 258.035 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \W | Borgweg 37 9936EJ Farmsum | 258.035 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \X | Borgweg 39 9936EJ Farmsum | 258.036 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \Y | Borgweg 41 9936EJ Farmsum | 258.036 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \Z | Borgweg 43 9936EJ Farmsum | 258.037 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]A | Borgweg 45 9936EJ Farmsum | 258.038 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
6-2-2017 15:34/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| ]B | Borgweg 47 9936EJ Farmsum | 258.038 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]C | Borgweg 49 9936EJ Farmsum | 258.038 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]D | Borgweg 51 9936EJ Farmsum | 258.038 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]E | Borgweg 53 9936EJ Farmsum | 258.038 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]F | Borgweg 55 9936EJ Farmsum | 258.038 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]G | Borgweg 57 9936EK Farmsum | 258.003 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]H | Borgweg 59 9936EK Farmsum | 258.003 | 593.802 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]I | Borgweg 61 9936EK Farmsum | 258.003 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]J | Borgweg 63 9936EK Farmsum | 258.003 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]K | Borgweg 65 9936EK Farmsum | 258.003 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]L | Borgweg 67 9936EK Farmsum | 258.003 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]M | Borgweg 69 9936EK Farmsum | 258.003 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]N | Borgweg 71 9936EK Farmsum | 258.006 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]O | Borgweg 73 9936EK Farmsum | 258.006 | 593.802 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]P | Borgweg 75 9936EK Farmsum | 258.006 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]Q | Borgweg 77 9936EK Farmsum | 258.005 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]R | Borgweg 79 9936EK Farmsum | 258.005 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]S | Borgweg 81 9936EK Farmsum | 258.005 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]T | Borgweg 83 9936EK Farmsum | 258.005 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]U | Borgweg 85 9936EL Farmsum | 258.008 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]V | Borgweg 87 9936EL Farmsum | 258.008 | 593.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]W | Borgweg 89 9936EL Farmsum | 258.008 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]X | Borgweg 91 9936EL Farmsum | 258.008 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]Y | Borgweg 93 9936EL Farmsum | 258.008 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]Z | Borgweg 95 9936EL Farmsum | 258.008 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^A | Borgweg 97 9936EL Farmsum | 258.008 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^B | Borgweg 99 9936EL Farmsum | 258.010 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^C | Borgweg 101 9936EL Farmsum | 258.010 | 593.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^D | Borgweg 103 9936EL Farmsum | 258.010 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^E | Borgweg 105 9936EL Farmsum | 258.010 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^F | Borgweg 107 9936EL Farmsum | 258.010 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^G | Borgweg 109 9936EL Farmsum | 258.010 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^H | Borgweg 111 9936EL Farmsum | 258.010 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^I | Kluft 18 9936GR Farmsum | 258.043 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^J | Kluft 20 9936GR Farmsum | 258.050 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^K | Kluft 22 9936GR Farmsum | 258.057 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^L | Kluft 24 9936GR Farmsum | 258.064 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^M | Kluft 26 9936GR Farmsum | 258.071 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^N | Kluft 28 9936GR Farmsum | 258.078 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^O | Kluft 30 9936GR Farmsum | 258.085 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^P | Kluft 32 9936GR Farmsum | 258.092 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Q | Kluft 2 9936GR Farmsum | 258.043 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^R | Kluft 4 9936GR Farmsum | 258.050 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^S | Kluft 6 9936GR Farmsum | 258.057 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^T | Kluft 8 9936GR Farmsum | 258.064 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^U | Kluft 10 9936GR Farmsum | 258.071 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^V | Kluft 12 9936GR Farmsum | 258.078 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^W | Kluft 14 9936GR Farmsum | 258.085 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^X | Kluft 16 9936GR Farmsum | 258.092 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Y | Zijlvest 20 A 9936GZ Farmsum | 258.233 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Z | Schepperij 51 9936GM Farmsum | 258.194 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _A | Waarman 15 9936GV Farmsum | 258.223 | 593.543 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _B | Waarman 17 9936GV Farmsum | 258.223 | 593.537 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _C | Waarman 19 9936GV Farmsum | 258.223 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _D | Waarman 21 9936GV Farmsum | 258.223 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _E | Waarman 23 9936GV Farmsum | 258.223 | 593.518 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _F | Waarman 25 9936GV Farmsum | 258.223 | 593.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _G | Waarman 27 9936GV Farmsum | 258.223 | 593.506 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _H | Waarman 29 9936GV Farmsum | 258.222 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _I | Heemskesweg 5 9936HE Farmsum | 258.759 | 592.961 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _J | Geefsweersterweg 2 9937TC Meedhuizen | 258.288 | 593.033 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _K | Seendweg 12 9936GA Farmsum | 257.950 | 593.306 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _L | Schepperij 39 9936GM Farmsum | 258.194 | 593.537 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _M | Schepperij 43 9936GM Farmsum | 258.194 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
6-2-2017 15:34/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| _N | Zijlvest 14 A 9936GZ Farmsum | 258.222 | 593.445 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _O | Zijlvest 24 A 9936GZ Farmsum | 258.239 | 593.474 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| A | Familie Bronsweg 60 9945TA Wagenborgen | 258.511 | 587.742 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AA | Hoofdweg 26 9945PG Wagenborgen | 258.194 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AB | Hoofdweg 23 9945PA Wagenborgen | 258.227 | 586.683 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AC | Hoofdweg 25 9945PA Wagenborgen | 258.217 | 586.663 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AD | Hoofdweg 27 9945PA Wagenborgen | 258.213 | 586.652 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AE | Hoofdweg 29 9945PA Wagenborgen | 258.212 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AF | Hoofdweg 18 9945PG Wagenborgen | 258.219 | 586.709 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AG | Hoofdweg 14 9945PG Wagenborgen | 258.222 | 586.726 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AH | Hoofdweg 10 9945PG Wagenborgen | 258.236 | 586.722 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AI | Hoofdweg 8 9945PG Wagenborgen | 258.258 | 586.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AJ | Hoofdweg 6 9945PG Wagenborgen | 258.276 | 586.731 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AK | Hoofdweg 4 9945PG Wagenborgen | 258.298 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AL | Hoofdweg 21 9945PA Wagenborgen | 258.243 | 586.704 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AM | Hoofdweg 19 9945PA Wagenborgen | 258.272 | 586.709 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AN | Hoofdweg 2 9945PG Wagenborgen | 258.318 | 586.748 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AO | Hoofdweg 15 9945PA Wagenborgen | 258.311 | 586.705 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AP | Hoofdweg 9 9945PA Wagenborgen | 258.331 | 586.713 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AQ | Hoofdweg 11 9945PA Wagenborgen | 258.325 | 586.710 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AR | Hoofdweg 7 9945PA Wagenborgen | 258.338 | 586.725 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AS | Hoofdweg 5 9945PA Wagenborgen | 258.343 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AT | H.L. Emmensweg 17 9945PW Wagenborgen | 258.087 | 586.741 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AU | H.L. Emmensweg 18 9945PX Wagenborgen | 258.106 | 586.733 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AV | H.L. Emmensweg 20 9945PX Wagenborgen | 258.107 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AW | H.L. Emmensweg 22 9945PX Wagenborgen | 258.107 | 586.747 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AX | H.L. Emmensweg 24 9945PX Wagenborgen | 258.108 | 586.753 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AY | H.L. Emmensweg 26 9945PX Wagenborgen | 258.111 | 586.767 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AZ | H.L. Emmensweg 10 9945PX Wagenborgen | 258.103 | 586.698 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| B | Tolhek 4 9945TJ Wagenborgen | 259.289 | 587.610 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BA | H.L. Emmensweg 12 9945PX Wagenborgen | 258.103 | 586.704 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BB | H.L. Emmensweg 14 9945PX Wagenborgen | 258.104 | 586.711 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BC | H.L. Emmensweg 16 9945PX Wagenborgen | 258.105 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BD | H.L. Emmensweg 13 9945PW Wagenborgen | 258.085 | 586.719 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BE | H.L. Emmensweg 15 9945PW Wagenborgen | 258.086 | 586.725 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BF | H.L. Emmensweg 9 9945PW Wagenborgen | 258.083 | 586.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BG | H.L. Emmensweg 11 9945PW Wagenborgen | 258.084 | 586.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BH | H.L. Emmensweg 5 9945PW Wagenborgen | 258.081 | 586.681 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BI | H.L. Emmensweg 7 9945PW Wagenborgen | 258.082 | 586.687 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BJ | H.L. Emmensweg 4 9945PX Wagenborgen | 258.103 | 586.676 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BK | H.L. Emmensweg 2 9945PX Wagenborgen | 258.099 | 586.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BL | H.L. Emmensweg 1 9945PW Wagenborgen | 258.081 | 586.651 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BM | H.L. Emmensweg 3 9945PW Wagenborgen | 258.083 | 586.667 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BN | de Linden 4 9945PZ Wagenborgen | 258.042 | 586.733 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BO | de Linden 6 9945PZ Wagenborgen | 258.058 | 586.734 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BP | de Linden 10 9945PZ Wagenborgen | 258.040 | 586.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BQ | de Linden 12 9945PZ Wagenborgen | 258.021 | 586.721 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BR | de Linden 2 9945PZ Wagenborgen | 258.030 | 586.694 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BS | de Wilgen 12 9945RB Wagenborgen | 258.008 | 586.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BT | de Wilgen 10 9945RB Wagenborgen | 258.008 | 586.764 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BU | de Wilgen 8 9945RB Wagenborgen | 258.007 | 586.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BV | de Wilgen 2 9945RB Wagenborgen | 257.995 | 586.662 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BW | de Wilgen 4 9945RB Wagenborgen | 257.997 | 586.675 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BX | de Wilgen 6 9945RB Wagenborgen | 258.001 | 586.693 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BY | de Wilgen 6 A 9945RB Wagenborgen | 258.004 | 586.726 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BZ | de Wilgen 3 9945RB Wagenborgen | 257.975 | 586.694 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| C | Tolhek 1 9945TJ Wagenborgen | 259.114 | 587.301 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CA | de Wilgen 3 A 9945RB Wagenborgen | 257.977 | 586.713 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CB | de Wilgen 3 B 9945RB Wagenborgen | 257.977 | 586.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CC | de Wilgen 5 9945RB Wagenborgen | 257.973 | 586.766 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CD | de Wilgen 46 9945RB Wagenborgen | 258.036 | 586.921 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CE | de Wilgen 44 9945RB Wagenborgen | 258.036 | 586.927 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CF | de Wilgen 48 9945RB Wagenborgen | 258.034 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CG | de Wilgen 50 9945RB Wagenborgen | 258.034 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
6-2-2017 15:34/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| CH | de Wilgen 36 9945RB Wagenborgen | 258.060 | 586.908 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CI | de Wilgen 38 9945RB Wagenborgen | 258.059 | 586.915 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CJ | de Wilgen 40 9945RB Wagenborgen | 258.059 | 586.921 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CK | de Wilgen 42 9945RB Wagenborgen | 258.059 | 586.928 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CL | de Wilgen 28 9945RB Wagenborgen | 258.050 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CM | de Wilgen 30 9945RB Wagenborgen | 258.056 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CN | de Wilgen 32 9945RB Wagenborgen | 258.063 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CO | de Wilgen 34 9945RB Wagenborgen | 258.070 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CP | de Wilgen 24 9945TK Wagenborgen | 258.033 | 586.884 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CQ | de Wilgen 26 9945RB Wagenborgen | 258.039 | 586.886 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CR | de Wilgen 20 9945RB Wagenborgen | 258.019 | 586.866 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CS | de Wilgen 22 9945RB Wagenborgen | 258.019 | 586.872 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CT | de Wilgen 18 9945RB Wagenborgen | 258.016 | 586.853 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CU | de Wilgen 16 9945RB Wagenborgen | 258.015 | 586.837 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CV | de Wilgen 14 9945RB Wagenborgen | 258.014 | 586.813 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CW | de Wilgen 9 9945RB Wagenborgen | 257.970 | 586.829 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CX | de Wilgen 52 9945RB Wagenborgen | 258.167 | 587.083 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CY | Menterne 22 9945RA Wagenborgen | 257.891 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CZ | Menterne 18 9945RA Wagenborgen | 257.856 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| D | Familie Bronsweg 62 9945TA Wagenborgen | 258.389 | 587.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DA | Menterne 21 9945RA Wagenborgen | 257.884 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DB | Menterne 19 9945RA Wagenborgen | 257.863 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DC | Menterne 20 9945RA Wagenborgen | 257.876 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DD | Menterne 17 9945RA Wagenborgen | 257.849 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DE | Menterne 7 9945RA Wagenborgen | 257.896 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DF | Menterne 8 9945RA Wagenborgen | 257.889 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DG | Menterne 9 9945RA Wagenborgen | 257.882 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DH | Menterne 10 9945RA Wagenborgen | 257.875 | 586.913 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DI | Menterne 11 9945RA Wagenborgen | 257.893 | 586.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DJ | Menterne 12 9945RA Wagenborgen | 257.893 | 586.932 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DK | Menterne 13 9945RA Wagenborgen | 257.893 | 586.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DL | Menterne 14 9945RA Wagenborgen | 257.893 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DM | Menterne 1 9945RA Wagenborgen | 257.930 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DN | Menterne 2 9945RA Wagenborgen | 257.924 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DO | Menterne 3 9945RA Wagenborgen | 257.917 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DP | Menterne 4 9945RA Wagenborgen | 257.910 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DQ | Menterne 5 9945RA Wagenborgen | 257.899 | 586.883 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DR | Menterne 6 9945RA Wagenborgen | 257.899 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DS | Menterne 15 9945RA Wagenborgen | 257.866 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DT | Menterne 16 9945RA Wagenborgen | 257.866 | 586.952 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DU | de Berken 6 9945PT Wagenborgen | 258.085 | 586.768 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DV | de Berken 2 9945PT Wagenborgen | 258.040 | 586.782 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DW | de Berken 4 9945PT Wagenborgen | 258.061 | 586.783 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DX | de Berken 1 9945PT Wagenborgen | 258.038 | 586.808 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DY | de Berken 5 9945PT Wagenborgen | 258.087 | 586.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DZ | de Berken 7 9945PT Wagenborgen | 258.102 | 586.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| E | Meerweg 3 9945RC Wagenborgen | 257.540 | 587.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EA | de Berken 9 9945PT Wagenborgen | 258.109 | 586.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EB | de Eiken 14 9945VA Wagenborgen | 258.037 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EC | de Eiken 16 9945VA Wagenborgen | 258.044 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ED | de Eiken 2 9945VA Wagenborgen | 258.061 | 586.829 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EE | de Eiken 4 9945VA Wagenborgen | 258.061 | 586.836 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EF | de Eiken 6 9945VA Wagenborgen | 258.061 | 586.842 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EG | de Eiken 8 9945VA Wagenborgen | 258.062 | 586.853 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EH | de Eiken 10 9945VA Wagenborgen | 258.061 | 586.859 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EI | de Eiken 12 9945VA Wagenborgen | 258.061 | 586.866 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EJ | de Eiken 2 A 9945VA Wagenborgen | 258.065 | 586.807 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EK | Troostlaan 7 9945PV Wagenborgen | 258.200 | 586.801 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EL | Troostlaan 8 9945PV Wagenborgen | 258.187 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EM | Troostlaan 9 9945PV Wagenborgen | 258.172 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EN | Troostlaan 10 9945PV Wagenborgen | 258.153 | 586.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EO | Troostlaan 11 9945PV Wagenborgen | 258.142 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EP | Troostlaan 1 9945PV Wagenborgen | 258.204 | 586.736 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EQ | Troostlaan 2 9945PV Wagenborgen | 258.204 | 586.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| ER | Troostlaan 3 9945PV Wagenborgen | 258.205 | 586.772 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ES | Troostlaan 2 A 9945PV Wagenborgen | 258.221 | 586.769 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ET | Troostlaan 4 9945PV Wagenborgen | 258.228 | 586.858 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EU | Troostlaan 14 9945PV Wagenborgen | 258.132 | 586.686 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EV | Troostlaan 22 9945PV Wagenborgen | 258.177 | 586.707 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EW | Troostlaan 20 9945PV Wagenborgen | 258.155 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EX | Troostlaan 21 9945PV Wagenborgen | 258.162 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EY | Troostlaan 18 9945PV Wagenborgen | 258.132 | 586.718 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EZ | Troostlaan 19 9945PV Wagenborgen | 258.139 | 586.718 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| F | G. Boelmanweg 2 9945RJ Wagenborgen | 258.181 | 586.579 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FA | Familie Bronsweg 40 9945PS Wagenborgen | 258.373 | 586.856 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FB | Familie Bronsweg 44 9945PS Wagenborgen | 258.373 | 586.900 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FC | Familie Bronsweg 46 9945PS Wagenborgen | 258.373 | 586.905 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FD | Familie Bronsweg 48 9945PS Wagenborgen | 258.375 | 586.919 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FE | Familie Bronsweg 50 9945PS Wagenborgen | 258.376 | 586.924 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FF | Familie Bronsweg 79 9945PP Wagenborgen | 258.360 | 586.991 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FG | Familie Bronsweg 81 9945PP Wagenborgen | 258.361 | 586.997 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FH | Familie Bronsweg 36 9945PS Wagenborgen | 258.377 | 586.815 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FI | Familie Bronsweg 38 9945PS Wagenborgen | 258.365 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FJ | Familie Bronsweg 42 9945PS Wagenborgen | 258.371 | 586.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FK | Familie Bronsweg 54 9945PS Wagenborgen | 258.390 | 587.021 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FL | Familie Bronsweg 52 9945PS Wagenborgen | 258.387 | 586.987 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FM | Familie Bronsweg 50 B 9945PS Wagenborgen | 258.384 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FN | Familie Bronsweg 50 A 9945PS Wagenborgen | 258.381 | 586.949 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FO | Familie Bronsweg 75 9945PP Wagenborgen | 258.353 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FP | Familie Bronsweg 75 A 9945PP Wagenborgen | 258.355 | 586.957 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FQ | Familie Bronsweg 75 B 9945PP Wagenborgen | 258.357 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FR | Familie Bronsweg 71 9945PP Wagenborgen | 258.349 | 586.917 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FS | Familie Bronsweg 69 A 9945PP Wagenborgen | 258.347 | 586.902 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FT | Familie Bronsweg 69 9945PP Wagenborgen | 258.344 | 586.888 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FU | Familie Bronsweg 67 9945PP Wagenborgen | 258.342 | 586.873 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FV | Familie Bronsweg 65 9945PP Wagenborgen | 258.341 | 586.863 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FW | Familie Bronsweg 63 9945PP Wagenborgen | 258.338 | 586.850 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FX | Familie Bronsweg 61 9945PP Wagenborgen | 258.335 | 586.831 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FY | Familie Bronsweg 59 9945PP Wagenborgen | 258.334 | 586.816 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FZ | Familie Bronsweg 57 9945PP Wagenborgen | 258.332 | 586.805 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| G | G. Boelmanweg 3 9945RE Wagenborgen | 258.198 | 586.584 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GA | Familie Bronsweg 53 9945PP Wagenborgen | 258.332 | 586.793 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GB | Familie Bronsweg 73 9945PP Wagenborgen | 258.351 | 586.930 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GC | Familie Bronsweg 85 9945PP Wagenborgen | 258.372 | 587.065 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GD | Familie Bronsweg 83 9945PP Wagenborgen | 258.363 | 587.014 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GE | Familie Bronsweg 83 A 9945PP Wagenborgen | 258.365 | 587.034 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GF | Familie Bronsweg 77 9945PP Wagenborgen | 258.333 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GG | Familie Bronsweg 51 9945PP Wagenborgen | 258.389 | 586.776 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GH | Familie Bronsweg 2 9945PR Wagenborgen | 258.765 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GI | Familie Bronsweg 4 9945PR Wagenborgen | 258.743 | 586.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GJ | Familie Bronsweg 4 A 9945PR Wagenborgen | 258.723 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GK | Familie Bronsweg 6 9945PR Wagenborgen | 258.705 | 586.916 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GL | Familie Bronsweg 8 9945PR Wagenborgen | 258.677 | 586.901 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GM | Familie Bronsweg 10 9945PR Wagenborgen | 258.649 | 586.888 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GN | Familie Bronsweg 12 9945PR Wagenborgen | 258.620 | 586.864 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GO | Familie Bronsweg 14 9945PR Wagenborgen | 258.608 | 586.858 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GP | Familie Bronsweg 16 9945PR Wagenborgen | 258.597 | 586.852 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GQ | Familie Bronsweg 15 9945PN Wagenborgen | 258.511 | 586.783 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GR | Familie Bronsweg 17 9945PN Wagenborgen | 258.473 | 586.777 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GS | Familie Bronsweg 2 A 9945PR Wagenborgen | 258.786 | 587.001 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GT | Familie Bronsweg 2 B 9945PR Wagenborgen | 258.745 | 587.014 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GU | Familie Bronsweg 2 C 9945PR Wagenborgen | 258.710 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GV | Familie Bronsweg 2 D 9945PR Wagenborgen | 258.686 | 586.974 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GW | Familie Bronsweg 2 F 9945PR Wagenborgen | 258.671 | 586.991 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GX | Familie Bronsweg 2 G 9945PR Wagenborgen | 258.671 | 587.016 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GY | Familie Bronsweg 2 H 9945PR Wagenborgen | 258.696 | 587.012 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GZ | Familie Bronsweg 2 J 9945PR Wagenborgen | 258.717 | 587.009 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| H | G. Boelmanweg 5 9945RE Wagenborgen | 258.203 | 586.561 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Hans / Hans@boschenvanrijn.nl
Calculated:
6-2-2017 15:34/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| HA | Akeleistraat 17 9945VD Wagenborgen | 258.515 | 587.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HB | Akeleistraat 19 9945VD Wagenborgen | 258.505 | 587.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HC | Akeleistraat 21 9945VD Wagenborgen | 258.486 | 587.050 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HD | Akeleistraat 23 9945VD Wagenborgen | 258.477 | 587.051 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HE | Akeleistraat 20 9945VD Wagenborgen | 258.448 | 587.022 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HF | Akeleistraat 22 9945VD Wagenborgen | 258.439 | 587.022 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HG | Akeleistraat 16 9945VD Wagenborgen | 258.477 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HH | Akeleistraat 18 9945VD Wagenborgen | 258.467 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HI | Akeleistraat 12 9945VD Wagenborgen | 258.506 | 587.013 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HJ | Akeleistraat 14 9945VD Wagenborgen | 258.496 | 587.013 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HK | Akeleistraat 10 9945VD Wagenborgen | 258.532 | 587.007 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HL | Akeleistraat 1 9945VD Wagenborgen | 258.634 | 587.024 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HM | Akeleistraat 3 9945VD Wagenborgen | 258.625 | 587.021 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HN | Akeleistraat 5 9945VD Wagenborgen | 258.604 | 587.023 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HO | Akeleistraat 7 9945VD Wagenborgen | 258.595 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HP | Akeleistraat 9 9945VD Wagenborgen | 258.574 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HQ | Akeleistraat 11 9945VD Wagenborgen | 258.565 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HR | Akeleistraat 2 9945VD Wagenborgen | 258.626 | 586.998 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HS | Akeleistraat 4 9945VD Wagenborgen | 258.617 | 586.995 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HT | Akeleistraat 6 9945VD Wagenborgen | 258.597 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HU | Akeleistraat 8 9945VD Wagenborgen | 258.588 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HV | Akeleistraat 15 9945VD Wagenborgen | 258.535 | 587.045 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HW | Bremstraat 6 9945VC Wagenborgen | 258.522 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HX | Bremstraat 2 9945VC Wagenborgen | 258.570 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HY | Bremstraat 4 9945VC Wagenborgen | 258.545 | 586.969 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HZ | Bremstraat 12 9945VC Wagenborgen | 258.448 | 586.982 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| I | G. Boelmanweg 4 9945RJ Wagenborgen | 258.168 | 586.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IA | Hibiscusstraat 30 9945VB Wagenborgen | 258.633 | 586.942 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IB | Hibiscusstraat 2 9945VB Wagenborgen | 258.428 | 586.818 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IC | Hibiscusstraat 4 9945VB Wagenborgen | 258.449 | 586.865 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ID | Hibiscusstraat 10 9945VB Wagenborgen | 258.426 | 586.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IE | Hibiscusstraat 16 9945VB Wagenborgen | 258.482 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IF | Bremstraat 14 9945VC Wagenborgen | 258.428 | 586.984 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IG | Hibiscusstraat 6 9945VB Wagenborgen | 258.417 | 586.860 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IH | Hibiscusstraat 26 9945VB Wagenborgen | 258.608 | 586.953 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| II | Kopaf 8 9945TE Wagenborgen | 259.518 | 587.109 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IJ | Kopaf 7 9945TE Wagenborgen | 259.555 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IK | Kopaf 6 9945TE Wagenborgen | 259.575 | 587.100 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IL | Kloosterlaan 27 9945TG Wagenborgen | 259.558 | 587.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IM | Kloosterlaan 25 9945TG Wagenborgen | 259.567 | 587.793 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IN | Kloosterlaan 23 9945TG Wagenborgen | 259.592 | 587.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IO | Scheve Klap 5 9945TD Wagenborgen | 260.522 | 587.264 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IP | Scheve Klap 4 9945TD Wagenborgen | 260.493 | 587.154 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IQ | Hibiscusstraat 8 9945VB Wagenborgen | 258.420 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IR | Hibiscusstraat 12 9945VB Wagenborgen | 258.431 | 586.945 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IS | Hibiscusstraat 18 9945VB Wagenborgen | 258.503 | 586.931 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IT | Hibiscusstraat 24 9945VB Wagenborgen | 258.612 | 586.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IU | Hibiscusstraat 22 9945VB Wagenborgen | 258.583 | 586.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IV | Troostlaan 15 9945PV Wagenborgen | 258.151 | 586.693 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IW | Bremstraat 10 9945VC Wagenborgen | 258.473 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IX | Hibiscusstraat 20 9945VB Wagenborgen | 258.529 | 586.931 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IY | Hibiscusstraat 28 9945VB Wagenborgen | 258.622 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IZ | Troostlaan 5 9945PV Wagenborgen | 258.189 | 586.911 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| J | G. Boelmanweg 7 9945RE Wagenborgen | 258.198 | 586.536 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JA | Troostlaan 6 9945PV Wagenborgen | 258.249 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JB | Boslaan 5 9945TM Wagenborgen | 259.413 | 587.123 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JC | Hoofdweg 33 A 9945PB Wagenborgen | 258.174 | 586.602 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JD | Akeleistraat 13 9945VD Wagenborgen | 258.569 | 587.057 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JE | Hoofdweg 42 9945PG Wagenborgen | 258.103 | 586.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JF | Familie Bronsweg 2 E 9945PR Wagenborgen | 258.670 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JG | Hibiscusstraat 14 9945VB Wagenborgen | 258.456 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JH | Bremstraat 8 9945VC Wagenborgen | 258.502 | 586.974 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JI | Menterne 23 003 9945RA Wagenborgen | 257.949 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JJ | Menterne 23 004 9945RA Wagenborgen | 257.949 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| JK | Menterne 23 005 9945RA Wagenborgen | 257.948 | 586.990 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JL | Menterne 23 006 9945RA Wagenborgen | 257.948 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JM | Menterne 23 007 9945RA Wagenborgen | 257.960 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JN | Menterne 23 008 9945RA Wagenborgen | 257.960 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JO | Menterne 23 009 9945RA Wagenborgen | 257.960 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JP | Menterne 23 010 9945RA Wagenborgen | 257.961 | 586.988 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JQ | Menterne 23 017 9945RA Wagenborgen | 257.971 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JR | Menterne 23 030 9945RA Wagenborgen | 257.958 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JS | Menterne 23 103 9945RA Wagenborgen | 257.951 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JT | Menterne 23 104 9945RA Wagenborgen | 257.951 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JU | Menterne 23 105 9945RA Wagenborgen | 257.951 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JV | Menterne 23 106 9945RA Wagenborgen | 257.950 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JW | Menterne 23 107 9945RA Wagenborgen | 257.958 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JX | Menterne 23 108 9945RA Wagenborgen | 257.958 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JY | Menterne 23 109 9945RA Wagenborgen | 257.958 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JZ | Menterne 23 110 9945RA Wagenborgen | 257.958 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| K | G. Boelmanweg 6 9945RJ Wagenborgen | 258.176 | 586.541 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KA | Menterne 23 111 9945RA Wagenborgen | 257.959 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KB | Menterne 23 113 9945RA Wagenborgen | 257.967 | 586.972 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KC | Menterne 23 114 9945RA Wagenborgen | 257.967 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KD | Menterne 23 115 9945RA Wagenborgen | 257.967 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KE | Menterne 23 116 9945RA Wagenborgen | 257.968 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KF | Menterne 23 117 9945RA Wagenborgen | 257.968 | 586.957 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KG | Menterne 23 118 9945RA Wagenborgen | 257.968 | 586.953 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KH | Menterne 23 119 9945RA Wagenborgen | 257.967 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KI | Menterne 23 120 9945RA Wagenborgen | 257.968 | 586.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KJ | Menterne 23 121 9945RA Wagenborgen | 257.968 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KK | Menterne 23 122 9945RA Wagenborgen | 257.968 | 586.936 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KL | Menterne 23 123 9945RA Wagenborgen | 257.968 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KM | Menterne 23 124 9945RA Wagenborgen | 257.968 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KN | Menterne 23 125 9945RA Wagenborgen | 257.956 | 586.930 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KO | Menterne 23 126 9945RA Wagenborgen | 257.956 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KP | Menterne 23 127 9945RA Wagenborgen | 257.956 | 586.937 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KQ | Menterne 23 128 9945RA Wagenborgen | 257.956 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KR | Menterne 23 129 9945RA Wagenborgen | 257.956 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KS | Menterne 23 130 9945RA Wagenborgen | 257.961 | 586.958 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KT | Menterne 23 131 9945RA Wagenborgen | 257.961 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KU | Menterne 23 132 9945RA Wagenborgen | 257.960 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KV | Menterne 23 201 9945RA Wagenborgen | 257.953 | 586.973 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KW | Menterne 23 202 9945RA Wagenborgen | 257.953 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KX | Menterne 23 203 9945RA Wagenborgen | 257.953 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KY | Menterne 23 204 9945RA Wagenborgen | 257.953 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KZ | Menterne 23 205 9945RA Wagenborgen | 257.953 | 586.990 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| L | Kokslaan 1 9945RD Wagenborgen | 258.257 | 586.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LA | Menterne 23 206 9945RA Wagenborgen | 257.953 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LB | Menterne 23 207 9945RA Wagenborgen | 257.956 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LC | Menterne 23 208 9945RA Wagenborgen | 257.956 | 586.995 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LD | Menterne 23 209 9945RA Wagenborgen | 257.956 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LE | Menterne 23 210 9945RA Wagenborgen | 257.956 | 586.988 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LF | Menterne 23 211 9945RA Wagenborgen | 257.957 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LG | Menterne 23 212 9945RA Wagenborgen | 257.957 | 586.981 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LH | Menterne 23 213 9945RA Wagenborgen | 257.964 | 586.972 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LI | Menterne 23 214 9945RA Wagenborgen | 257.965 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LJ | Menterne 23 215 9945RA Wagenborgen | 257.965 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LK | Menterne 23 216 9945RA Wagenborgen | 257.965 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LL | Menterne 23 217 9945RA Wagenborgen | 257.965 | 586.956 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LM | Menterne 23 218 9945RA Wagenborgen | 257.965 | 586.954 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LN | Menterne 23 219 9945RA Wagenborgen | 257.965 | 586.947 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LO | Menterne 23 220 9945RA Wagenborgen | 257.965 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LP | Menterne 23 221 9945RA Wagenborgen | 257.965 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LQ | Menterne 23 222 9945RA Wagenborgen | 257.965 | 586.937 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LR | Menterne 23 223 9945RA Wagenborgen | 257.965 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LS | Menterne 23 224 9945RA Wagenborgen | 257.966 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LT | Menterne 23 226 9945RA Wagenborgen | 257.959 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
6-2-2017 15:34/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| LU | Menterne 23 228 9945RA Wagenborgen | 257.958 | 586.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LV | Menterne 23 229 9945RA Wagenborgen | 257.958 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LW | Menterne 23 230 9945RA Wagenborgen | 257.962 | 586.958 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LX | Menterne 23 231 9945RA Wagenborgen | 257.962 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LY | Menterne 23 232 9945RA Wagenborgen | 257.962 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LZ | G. Boelmanweg 1 9945RE Wagenborgen | 258.213 | 586.607 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| M | Kokslaan 2 9945RD Wagenborgen | 258.279 | 586.598 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MA | Boslaan 7 9945TM Wagenborgen | 259.467 | 586.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MB | H.L. Emmensweg 23 9945PW Wagenborgen | 258.086 | 586.747 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MC | Kopaf 5 9944VA Nieuwolda | 259.816 | 586.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MD | Familie Bronsweg 68 9945TA Wagenborgen | 258.470 | 588.333 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ME | Maarkampen 26 9937PL Meedhuizen | 256.956 | 590.088 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MF | Maarkampen 24 9937PL Meedhuizen | 256.931 | 590.090 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MG | Maarkampen 22 9937PL Meedhuizen | 256.916 | 590.093 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MH | Maarkampen 20 9937PL Meedhuizen | 256.898 | 590.098 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MI | Maarkampen 18 9937PL Meedhuizen | 256.878 | 590.101 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MJ | Maarkampen 16 9937PL Meedhuizen | 256.858 | 590.104 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MK | Maarkampen 14 9937PL Meedhuizen | 256.838 | 590.106 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ML | Maarlaan 22 E 9937TH Meedhuizen | 256.932 | 590.173 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MM | Maarlaan 22 D 9937TH Meedhuizen | 256.877 | 590.178 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MN | Schaapbulterweg 8 9937TL Meedhuizen | 256.971 | 589.534 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MO | Schaapbulterweg 6 9937TL Meedhuizen | 256.919 | 589.544 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MP | Schaapbulterweg 29 9937TL Meedhuizen | 256.970 | 589.489 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MQ | Schaapbulterweg 27 9937TL Meedhuizen | 256.949 | 589.497 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MR | Schaapbulterweg 25 9937TL Meedhuizen | 256.935 | 589.503 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MS | Schaapbulterweg 23 9937TL Meedhuizen | 256.920 | 589.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MT | Schaapbulterweg 21 9937TL Meedhuizen | 256.908 | 589.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MU | Geefsweersterweg 11 9937TB Meedhuizen | 257.472 | 591.162 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MV | Schaapbulterweg 35 9937TL Meedhuizen | 257.159 | 589.455 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MW | Meedhuizerweg 20 9937TK Meedhuizen | 257.017 | 590.790 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MX | Familie Bronsweg 66 9945TA Wagenborgen | 258.538 | 588.146 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MY | Familie Bronsweg 64 9945TA Wagenborgen | 258.518 | 588.056 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MZ | Ideweersterweg 10 9937TM Meedhuizen | 257.794 | 589.376 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| N | Kerkstraat 1 9945SB Wagenborgen | 258.120 | 586.579 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NA | Ideweersterweg 8 9937TM Meedhuizen | 257.916 | 589.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NB | Geefsweersterweg 20 9937TC Meedhuizen | 258.111 | 588.986 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NC | Geefsweersterweg 18 9937TC Meedhuizen | 258.066 | 589.025 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ND | Geefsweersterweg 29 9937TB Meedhuizen | 258.051 | 588.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NE | Geefsweersterweg 16 9937TC Meedhuizen | 258.011 | 589.140 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NF | Geefsweersterweg 23 9937TB Meedhuizen | 257.998 | 589.209 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NG | Geefsweersterweg 12 9937TC Meedhuizen | 258.033 | 589.285 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NH | Geefsweersterweg 14 9937TC Meedhuizen | 258.028 | 589.261 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NI | Geefsweersterweg 21 A 9937TB Meedhuizen | 258.002 | 589.266 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NJ | Geefsweersterweg 10 9937TC Meedhuizen | 258.042 | 589.339 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NK | Geefsweersterweg 21 9937TB Meedhuizen | 258.025 | 589.335 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NL | Geefsweersterweg 17 9937TB Meedhuizen | 258.035 | 589.424 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NM | Geefsweersterweg 19 9937TB Meedhuizen | 258.023 | 589.378 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NN | Ideweersterweg 2 9937TM Meedhuizen | 259.329 | 589.348 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NO | Ideweersterweg 1 9937TM Meedhuizen | 259.330 | 589.303 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NP | Geefsweersterweg 15 9937TB Meedhuizen | 257.994 | 590.149 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NQ | Westerlaan 6 9937TS Meedhuizen | 258.650 | 590.176 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NR | Familie Bronsweg 87 9945TA Wagenborgen | 258.255 | 588.149 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NS | Familie Bronsweg 89 9945TA Wagenborgen | 258.288 | 588.393 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NT | Westerlaan 10 9937TS Meedhuizen | 258.640 | 588.541 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NU | Geefsweersterweg 13 9937TB Meedhuizen | 257.998 | 590.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NV | Maarlaan 26 9937TH Meedhuizen | 257.044 | 590.228 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NW | Maarlaan 24 9937TH Meedhuizen | 256.988 | 590.171 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NX | Maarlaan 28 9937TH Meedhuizen | 257.042 | 590.160 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NY | Maarlaan 30 9937TH Meedhuizen | 257.109 | 590.155 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NZ | Kerklaan 3 9937PG Meedhuizen | 257.099 | 589.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| O | Hoofdweg 30 9945PG Wagenborgen | 258.190 | 586.634 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OA | Kerklaan 8 9937PG Meedhuizen | 257.192 | 589.983 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OB | Kerklaan 6 9937PG Meedhuizen | 257.151 | 590.090 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OC | Opmeedenlaan 6 9937TN Meedhuizen | 256.970 | 588.781 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| OD | Opmeedenlaan 4 9937TN Meedhuizen | 256.988 | 588.863 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OE | Opmeedenlaan 2 9937TN Meedhuizen | 257.043 | 588.932 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OF | Kloosterlaan 26 9945TG Wagenborgen | 260.046 | 588.262 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OG | Zomerdijk 1 9945TH Wagenborgen | 260.153 | 588.395 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OH | Zomerdijk 3 9945TH Wagenborgen | 260.454 | 588.375 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OI | Zomerdijk 3 A 9945TH Wagenborgen | 260.560 | 588.321 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OJ | Zomerdijk 2 9945TH Wagenborgen | 260.721 | 588.388 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OK | Kloosterlaan 21 A 9945TG Wagenborgen | 259.991 | 588.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OL | Kloosterlaan 21 B 9945TG Wagenborgen | 259.957 | 588.308 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OM | Ideweersterweg 4 9937TM Meedhuizen | 258.658 | 589.400 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ON | Maarlaan 22 C 9937TH Meedhuizen | 256.840 | 590.186 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OO | Kloosterlaan 21 9936TE Farmsum | 260.253 | 589.832 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OP | Geefsweersterweg 8 A 9937TC Meedhuizen | 258.072 | 590.685 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OQ | Houtweg 20 9936BL Farmsum | 257.300 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OR | Houtweg 22 9936BL Farmsum | 257.298 | 593.542 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OS | Houtweg 24 9936BL Farmsum | 257.297 | 593.528 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OT | Houtweg 26 9936BL Farmsum | 257.296 | 593.515 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OU | Houtweg 28 9936BL Farmsum | 257.294 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OV | Rondeboslaan 6 9936BK Farmsum | 257.466 | 593.590 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OW | Proosdij 14 9936EW Farmsum | 257.893 | 593.570 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OX | Bredelaan 6 9936ER Farmsum | 257.806 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OY | Bredelaan 4 9936ER Farmsum | 257.804 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OZ | Bredelaan 2 A 9936ER Farmsum | 257.802 | 593.559 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| P | Hoofdweg 32 9945PG Wagenborgen | 258.177 | 586.629 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PA | Proosdij 24 9936EW Farmsum | 257.913 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PB | Proosdij 22 9936EW Farmsum | 257.910 | 593.522 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PC | Proosdij 20 9936EW Farmsum | 257.906 | 593.533 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PD | Proosdij 18 9936EW Farmsum | 257.901 | 593.549 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PE | Proosdij 16 9936EW Farmsum | 257.899 | 593.554 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PF | Trambaan 19 9936ES Farmsum | 257.863 | 593.507 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PG | Proosdij 17 9936ET Farmsum | 257.864 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PH | Proosdij 15 9936ET Farmsum | 257.862 | 593.560 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PI | Proosdij 13 9936ET Farmsum | 257.859 | 593.568 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PJ | Trambaan 17 9936ES Farmsum | 257.856 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PK | Trambaan 15 9936ES Farmsum | 257.849 | 593.520 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PL | Trambaan 13 9936ES Farmsum | 257.844 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PM | Trambaan 11 9936ES Farmsum | 257.839 | 593.530 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PN | Trambaan 9 9936ES Farmsum | 257.833 | 593.536 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PO | Trambaan 5 9936ES Farmsum | 257.825 | 593.544 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PP | Trambaan 3 9936ES Farmsum | 257.818 | 593.551 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PQ | Trambaan 1 9936ES Farmsum | 257.814 | 593.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PR | Proosdij 12 9936EW Farmsum | 257.888 | 593.590 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PS | Proosdij 8 9936EW Farmsum | 257.881 | 593.604 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PT | Proosdij 6 9936EW Farmsum | 257.876 | 593.616 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PU | Proosdij 4 9936EW Farmsum | 257.872 | 593.630 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PV | Proosdij 11 9936ET Farmsum | 257.856 | 593.577 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PW | Proosdij 9 9936ET Farmsum | 257.853 | 593.584 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PX | Proosdij 7 9936ET Farmsum | 257.849 | 593.596 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PY | Proosdij 5 9936ET Farmsum | 257.846 | 593.605 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PZ | Proosdij 1 9936ET Farmsum | 257.839 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Q | Hoofdweg 31 9945PA Wagenborgen | 258.210 | 586.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QA | Proosdij 3 9936ET Farmsum | 257.844 | 593.611 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QB | Farmsumerzijl 55 9936GC Farmsum | 257.821 | 593.640 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QC | Farmsumerzijl 57 9936GC Farmsum | 257.800 | 593.636 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QD | Rengersweg 4 9936GH Farmsum | 258.026 | 593.578 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QE | Rengersweg 2 9936GH Farmsum | 258.026 | 593.587 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QF | Schepperij 4 A 9936GN Farmsum | 258.046 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QG | Schepperij 2 A 9936GN Farmsum | 258.033 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QH | Schepperij 4 9936GN Farmsum | 258.040 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QI | Schepperij 2 9936GN Farmsum | 258.027 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QJ | Dijkrecht 4 9936GK Farmsum | 258.021 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QK | Dijkrecht 6 9936GK Farmsum | 258.035 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QL | Dijkrecht 10 9936GK Farmsum | 258.054 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QM | Dijkrecht 12 9936GK Farmsum | 258.061 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Hans / Hans@boschenvanrijn.nl
Calculated:
6-2-2017 15:34/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| QN | Dijkrecht 14 9936GK Farmsum | 258.074 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QO | Dijkrecht 16 9936GK Farmsum | 258.081 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QP | Dijkrecht 18 9936GK Farmsum | 258.095 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QQ | Dijkrecht 20 9936GK Farmsum | 258.107 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QR | Dijkrecht 22 9936GK Farmsum | 258.123 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QS | Dijkrecht 24 9936GK Farmsum | 258.138 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QT | Dijkrecht 26 9936GK Farmsum | 258.159 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QU | Dijkrecht 28 9936GK Farmsum | 258.166 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QV | Dijkrecht 30 9936GK Farmsum | 258.186 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QW | Dijkrecht 32 9936GK Farmsum | 258.192 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QX | Dijkrecht 34 9936GK Farmsum | 258.206 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QY | Dijkrecht 36 9936GK Farmsum | 258.213 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QZ | Dijkrecht 40 9936GK Farmsum | 258.233 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| R | Hoofdweg 38 9945PG Wagenborgen | 258.142 | 586.621 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RA | Dijkrecht 38 9936GK Farmsum | 258.227 | 593.624 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RB | Schepperij 20 9936GN Farmsum | 258.190 | 593.563 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RC | Schepperij 18 9936GN Farmsum | 258.184 | 593.563 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RD | Waarman 12 9936GW Farmsum | 258.263 | 593.622 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RE | Waarman 10 9936GW Farmsum | 258.263 | 593.629 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RF | Waarman 8 9936GW Farmsum | 258.265 | 593.641 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RG | Waarman 6 9936GW Farmsum | 258.265 | 593.648 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RH | Farmsumerzijl 1 9936GB Farmsum | 258.234 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RI | Farmsumerzijl 3 9936GB Farmsum | 258.227 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RJ | Farmsumerzijl 5 9936GB Farmsum | 258.213 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RK | Farmsumerzijl 7 9936GB Farmsum | 258.207 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RL | Farmsumerzijl 13 9936GB Farmsum | 258.172 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RM | Farmsumerzijl 15 9936GB Farmsum | 258.166 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RN | Farmsumerzijl 17 9936GB Farmsum | 258.152 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RO | Farmsumerzijl 19 9936GB Farmsum | 258.146 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RP | Farmsumerzijl 25 9936GB Farmsum | 258.115 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RQ | Farmsumerzijl 27 9936GB Farmsum | 258.108 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RR | Farmsumerzijl 29 9936GB Farmsum | 258.096 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RS | Farmsumerzijl 31 9936GC Farmsum | 258.089 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RT | Farmsumerzijl 37 9936GC Farmsum | 258.057 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RU | Farmsumerzijl 39 9936GC Farmsum | 258.050 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RV | Farmsumerzijl 41 9936GC Farmsum | 258.037 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RW | Farmsumerzijl 43 9936GC Farmsum | 258.031 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RX | Schepperij 1 9936GL Farmsum | 258.054 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RY | Schepperij 3 9936GL Farmsum | 258.060 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RZ | Schepperij 5 9936GL Farmsum | 258.066 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| S | Hoofdweg 39 9945PB Wagenborgen | 258.126 | 586.603 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SA | Schepperij 7 9936GL Farmsum | 258.072 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SB | Schepperij 9 9936GL Farmsum | 258.078 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SC | Schepperij 11 9936GL Farmsum | 258.084 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SD | Schepperij 13 9936GL Farmsum | 258.090 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SE | Schepperij 15 9936GL Farmsum | 258.097 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SF | Dijkrecht 8 9936GK Farmsum | 258.041 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SG | Geefsweersterweg 9 9937TB Meedhuizen | 257.539 | 591.945 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SH | Geefsweersterweg 7 9937TB Meedhuizen | 258.115 | 592.341 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SI | Geefsweersterweg 8 9937TC Meedhuizen | 258.139 | 592.234 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SJ | Geefsweersterweg 3 9937TB Meedhuizen | 258.102 | 592.452 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SK | Geefsweersterweg 6 9937TC Meedhuizen | 258.202 | 592.502 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SL | Geefsweersterweg 4 9937TC Meedhuizen | 258.243 | 592.643 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SM | Meedhuizerweg 2 9937TK Meedhuizen | 256.911 | 592.415 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SN | Molenstraat 31 9936EB Farmsum | 257.786 | 593.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SO | Hindrik Jagerstraat 32 9936CV Farmsum | 257.573 | 593.810 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SP | Hindrik Jagerstraat 11 9936CT Farmsum | 257.561 | 593.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SQ | Hindrik Jagerstraat 13 9936CT Farmsum | 257.568 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SR | Hindrik Jagerstraat 15 9936CT Farmsum | 257.574 | 593.790 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SS | Hindrik Jagerstraat 34 9936CV Farmsum | 257.581 | 593.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ST | Hindrik Jagerstraat 36 9936CV Farmsum | 257.587 | 593.799 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SU | Borgshof 31 9936CR Farmsum | 257.617 | 593.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SV | Borgshof 33 9936CR Farmsum | 257.615 | 593.807 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SW | Borgshof 39 9936CR Farmsum | 257.605 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
6-2-2017 15:34/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| SX | Borgshof 35 9936CR Farmsum | 257.604 | 593.768 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SY | Molenstraat 20 9936EC Farmsum | 257.801 | 593.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SZ | Molenstraat 24 9936EC Farmsum | 257.812 | 593.926 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| T | Hoofdweg 35 9945PB Wagenborgen | 258.160 | 586.604 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TA | Molenstraat 28 9936EC Farmsum | 257.817 | 593.918 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TB | Molenstraat 41 9936EB Farmsum | 257.798 | 593.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TC | Molenstraat 43 9936EB Farmsum | 257.802 | 593.918 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TD | Molenstraat 45 9936EB Farmsum | 257.807 | 593.910 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TE | Molenstraat 32 9936EC Farmsum | 257.821 | 593.908 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TF | Achterweg 13 9936EG Farmsum | 257.848 | 593.913 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TG | Achterweg 11 9936EG Farmsum | 257.855 | 593.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TH | Achterweg 9 9936EG Farmsum | 257.861 | 593.915 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TI | Molenstraat 49 9936EB Farmsum | 257.809 | 593.905 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TJ | Molenstraat 51 9936EB Farmsum | 257.812 | 593.900 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TK | Molenstraat 53 9936EB Farmsum | 257.815 | 593.894 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TL | Molenstraat 57 9936EB Farmsum | 257.819 | 593.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TM | Molenstraat 61 9936EB Farmsum | 257.826 | 593.870 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TN | Molenstraat 63 9936EB Farmsum | 257.830 | 593.861 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TO | Molenstraat 34 9936ED Farmsum | 257.827 | 593.897 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TP | Molenstraat 38 9936ED Farmsum | 257.832 | 593.886 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TQ | Molenstraat 40 9936ED Farmsum | 257.835 | 593.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TR | Molenstraat 42 9936ED Farmsum | 257.837 | 593.870 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TS | Molenstraat 44 9936ED Farmsum | 257.842 | 593.859 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TT | Molenstraat 65 9936EB Farmsum | 257.834 | 593.850 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TU | Molenstraat 48 9936ED Farmsum | 257.847 | 593.847 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TV | Molenstraat 50 9936ED Farmsum | 257.850 | 593.837 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TW | Molenstraat 56 9936ED Farmsum | 257.851 | 593.824 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TX | Molenstraat 58 9936EE Farmsum | 257.863 | 593.810 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TY | Molenstraat 62 9936EE Farmsum | 257.858 | 593.798 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TZ | Molenstraat 72 9936EE Farmsum | 257.855 | 593.753 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| U | Hoofdweg 37 9945PB Wagenborgen | 258.149 | 586.603 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UA | Molenstraat 70 9936EE Farmsum | 257.854 | 593.758 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UB | Molenstraat 68 9936EE Farmsum | 257.854 | 593.765 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UC | Molenstraat 66 9936EE Farmsum | 257.854 | 593.773 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UD | Achterweg 2 9936EG Farmsum | 257.886 | 593.882 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UE | Achterweg 12 9936EG Farmsum | 257.919 | 593.766 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UF | Achterweg 10 9936EG Farmsum | 257.918 | 593.779 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UG | Achterweg 8 9936EG Farmsum | 257.916 | 593.791 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UH | Hindrik Jagerstraat 17 9936CT Farmsum | 257.588 | 593.777 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UI | Molenstraat 30 9936EC Farmsum | 257.820 | 593.912 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UJ | Borgweg 141 9936EN Farmsum | 257.451 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UK | Borgweg 139 9936EN Farmsum | 257.466 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UL | Borgweg 137 9936EN Farmsum | 257.473 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UM | Borgweg 135 9936EN Farmsum | 257.487 | 593.708 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UN | Afwateringskanaal 109 9936AV Farmsum | 257.508 | 593.724 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UO | Borgweg 131 9936EM Farmsum | 257.636 | 593.714 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UP | Borgweg 133 9936EM Farmsum | 257.581 | 593.701 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UQ | Borgshof 41 9936CR Farmsum | 257.598 | 593.743 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UR | Borgshof 43 9936CR Farmsum | 257.595 | 593.730 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| US | Borgshof 45 9936CR Farmsum | 257.594 | 593.720 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UT | Molenstraat 74 9936EE Farmsum | 257.855 | 593.743 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UU | Molenstraat 76 9936EE Farmsum | 257.857 | 593.736 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UV | Molenstraat 78 9936EE Farmsum | 257.858 | 593.730 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UW | Molenstraat 82 9936EE Farmsum | 257.858 | 593.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UX | Molenstraat 84 9936EE Farmsum | 257.858 | 593.708 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UY | Borgweg 123 9936EM Farmsum | 257.927 | 593.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UZ | Borgweg 125 9936EM Farmsum | 257.917 | 593.698 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| V | Hoofdweg 44 9945PH Wagenborgen | 258.071 | 586.624 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VA | Borgweg 127 9936EM Farmsum | 257.906 | 593.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VB | Borgweg 129 9936EM Farmsum | 257.897 | 593.699 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VC | Farmsumerzijl 51 9936GC Farmsum | 257.925 | 593.665 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VD | Molenstraat 80 9936EE Farmsum | 257.858 | 593.723 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VE | Houtweg 30 9936BL Farmsum | 257.294 | 593.486 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VF | Houtweg 32 9936BL Farmsum | 257.292 | 593.473 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Hans / Hans@boschenvanrijn.nl
Calculated:
6-2-2017 15:34/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| VG | Houtweg 34 9936BL Farmsum | 257.291 | 593.459 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VH | Houtweg 36 9936BL Farmsum | 257.289 | 593.446 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VI | Houtweg 38 9936BL Farmsum | 257.288 | 593.429 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VJ | Houtweg 40 9936BL Farmsum | 257.261 | 593.394 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VK | Houtweg 42 9936BL Farmsum | 257.257 | 593.387 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VL | Houtweg 44 9936BL Farmsum | 257.250 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VM | Houtweg 46 9936BL Farmsum | 257.248 | 593.372 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VN | Houtweg 48 9936BL Farmsum | 257.240 | 593.359 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VO | Rondeboslaan 26 9936BK Farmsum | 257.440 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VP | Rondeboslaan 28 9936BK Farmsum | 257.438 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VQ | Seendweg 32 9936GA Farmsum | 257.903 | 593.454 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VR | Trambaan 21 9936ES Farmsum | 257.870 | 593.499 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VS | Proosdij 19 9936ET Farmsum | 257.892 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VT | Bredelaan 14 9936ER Farmsum | 257.814 | 593.354 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VU | Bredelaan 10 9936ER Farmsum | 257.808 | 593.470 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VV | Bredelaan 8 9936ER Farmsum | 257.807 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VW | Seendweg 22 9936GA Farmsum | 257.897 | 593.364 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VX | Seendweg 28 9936GA Farmsum | 257.898 | 593.405 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VY | Proosdij 28 9936EW Farmsum | 257.922 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VZ | Proosdij 30 9936EX Farmsum | 257.932 | 593.484 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| W | Hoofdweg 48 9945PH Wagenborgen | 258.051 | 586.630 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WA | Proosdij 26 9936EW Farmsum | 257.919 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WB | Afwateringskanaal 107 9936AV Farmsum | 257.499 | 593.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WC | Rondeboslaan 22 A 9936BK Farmsum | 257.532 | 593.326 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WD | Rondeboslaan 22 B 9936BK Farmsum | 257.532 | 593.320 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WE | Rondeboslaan 2 A 9936BK Farmsum | 257.534 | 593.639 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WF | Rondeboslaan 2 B 9936BK Farmsum | 257.493 | 593.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WG | Seendweg 17 9936GA Farmsum | 257.931 | 593.394 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WH | Borgshof 29 9936CR Farmsum | 257.619 | 593.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WI | Molenstraat 22 9936EC Farmsum | 257.808 | 593.935 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WJ | Achterweg 7 A 9936EG Farmsum | 257.858 | 593.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WK | Molenstraat 26 9936EC Farmsum | 257.814 | 593.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WL | Borgweg 113 9936EM Farmsum | 257.957 | 593.782 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WM | Borgweg 115 9936EM Farmsum | 257.968 | 593.707 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WN | Borgweg 117 9936EM Farmsum | 257.959 | 593.705 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WO | Borgweg 119 9936EM Farmsum | 257.947 | 593.703 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WP | Borgweg 121 9936EM Farmsum | 257.938 | 593.701 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WQ | Farmsumerzijl 45 9936GC Farmsum | 257.966 | 593.671 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WR | Farmsumerzijl 47 9936GC Farmsum | 257.947 | 593.667 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WS | Farmsumerzijl 49 9936GC Farmsum | 257.933 | 593.666 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WT | Waarman 4 9936GW Farmsum | 258.267 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WU | Waarman 2 9936GW Farmsum | 258.267 | 593.668 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WV | Farmsumerzijl 9 9936GB Farmsum | 258.192 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WW | Farmsumerzijl 11 9936GB Farmsum | 258.186 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WX | Farmsumerzijl 21 9936GB Farmsum | 258.134 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WY | Farmsumerzijl 23 9936GB Farmsum | 258.126 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WZ | Farmsumerzijl 33 9936GC Farmsum | 258.076 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| X | Hoofdweg 41 9945PB Wagenborgen | 258.092 | 586.599 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XA | Farmsumerzijl 35 9936GC Farmsum | 258.070 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XB | Schepperij 17 9936GL Farmsum | 258.103 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XC | Schepperij 19 9936GL Farmsum | 258.109 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XD | Schepperij 21 9936GL Farmsum | 258.115 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XE | Dijkrecht 3 9936GJ Farmsum | 258.042 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XF | Dijkrecht 5 9936GJ Farmsum | 258.052 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XG | Dijkrecht 7 9936GJ Farmsum | 258.054 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XH | Dijkrecht 9 9936GJ Farmsum | 258.063 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XI | Dijkrecht 11 9936GJ Farmsum | 258.073 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XJ | Dijkrecht 13 9936GJ Farmsum | 258.079 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XK | Dijkrecht 15 9936GJ Farmsum | 258.085 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XL | Dijkrecht 17 9936GJ Farmsum | 258.092 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XM | Dijkrecht 19 9936GJ Farmsum | 258.098 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XN | Dijkrecht 21 9936GJ Farmsum | 258.104 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XO | Schepperij 6 9936GN Farmsum | 258.058 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XP | Schepperij 8 9936GN Farmsum | 258.064 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
6-2-2017 15:34/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| XQ | Schepperij 10 9936GN Farmsum | 258.070 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XR | Schepperij 12 9936GN Farmsum | 258.075 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XS | Schepperij 14 9936GN Farmsum | 258.081 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XT | Schepperij 16 9936GN Farmsum | 258.087 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XU | Olderman 2 9936GT Farmsum | 258.132 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XV | Olderman 4 9936GT Farmsum | 258.132 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XW | Olderman 6 9936GT Farmsum | 258.132 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XX | Olderman 8 9936GT Farmsum | 258.132 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XY | Olderman 10 9936GT Farmsum | 258.132 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XZ | Olderman 12 9936GT Farmsum | 258.132 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Y | Hoofdweg 20 9945PG Wagenborgen | 258.207 | 586.682 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YA | Olderman 14 9936GT Farmsum | 258.132 | 593.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YB | Dijkrecht 23 9936GJ Farmsum | 258.162 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YC | Dijkrecht 25 9936GJ Farmsum | 258.162 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YD | Dijkrecht 27 9936GJ Farmsum | 258.163 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YE | Dijkrecht 29 9936GJ Farmsum | 258.163 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YF | Dijkrecht 31 9936GJ Farmsum | 258.163 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YG | Dijkrecht 33 9936GJ Farmsum | 258.163 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YH | Dijkrecht 35 9936GJ Farmsum | 258.163 | 593.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YI | Dijkrecht 37 9936GJ Farmsum | 258.182 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YJ | Dijkrecht 39 9936GJ Farmsum | 258.182 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YK | Dijkrecht 41 9936GJ Farmsum | 258.182 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YL | Dijkrecht 43 9936GJ Farmsum | 258.182 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YM | Olderman 1 9936GS Farmsum | 258.107 | 593.574 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YN | Olderman 3 9936GS Farmsum | 258.107 | 593.567 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YO | Olderman 5 9936GS Farmsum | 258.108 | 593.561 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YP | Olderman 7 9936GS Farmsum | 258.108 | 593.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YQ | Schepperij 37 9936GM Farmsum | 258.194 | 593.543 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YR | Schepperij 41 9936GM Farmsum | 258.194 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YS | Schepperij 45 9936GM Farmsum | 258.194 | 593.518 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YT | Schepperij 47 9936GM Farmsum | 258.194 | 593.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YU | Schepperij 49 9936GM Farmsum | 258.194 | 593.506 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YV | Olderman 18 9936GT Farmsum | 258.143 | 593.539 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YW | Olderman 20 9936GT Farmsum | 258.143 | 593.533 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YX | Olderman 22 9936GT Farmsum | 258.143 | 593.527 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YY | Olderman 24 9936GT Farmsum | 258.143 | 593.521 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YZ | Olderman 26 9936GT Farmsum | 258.143 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Z | Hoofdweg 22 9945PG Wagenborgen | 258.202 | 586.669 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZA | Olderman 28 9936GT Farmsum | 258.143 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZB | Olderman 30 9936GT Farmsum | 258.143 | 593.502 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZC | Olderman 9 9936GS Farmsum | 258.120 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZD | Olderman 11 9936GS Farmsum | 258.120 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZE | Olderman 13 9936GS Farmsum | 258.120 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZF | Proosdij 32 9936EX Farmsum | 257.941 | 593.479 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZG | Proosdij 36 9936EX Farmsum | 257.952 | 593.473 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZH | Proosdij 38 9936EX Farmsum | 257.963 | 593.468 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZI | Proosdij 40 9936EX Farmsum | 257.984 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZJ | Proosdij 27 9936EV Farmsum | 257.995 | 593.418 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZK | Proosdij 25 9936EV Farmsum | 257.979 | 593.425 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZL | Proosdij 23 9936EV Farmsum | 257.962 | 593.433 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZM | Proosdij 21 9936EV Farmsum | 257.941 | 593.443 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZN | Seendweg 5 9936GA Farmsum | 258.091 | 593.322 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZO | Proosdij 29 9936EV Farmsum | 258.005 | 593.413 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZP | Proosdij 31 9936EV Farmsum | 258.019 | 593.403 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZQ | Proosdij 33 9936EV Farmsum | 258.043 | 593.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZR | Proosdij 35 9936EV Farmsum | 258.067 | 593.376 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZS | Proosdij 37 9936EV Farmsum | 258.085 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZT | Proosdij 39 9936EV Farmsum | 258.092 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZU | Proosdij 41 9936EV Farmsum | 258.099 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZV | Proosdij 43 9936EV Farmsum | 258.106 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZW | Proosdij 45 9936EV Farmsum | 258.112 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZX | Proosdij 47 9936EV Farmsum | 258.119 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZY | Olderman 15 9936GS Farmsum | 258.118 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZZ | Rengersweg 97 9936GG Farmsum | 258.010 | 593.468 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

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Calculated:
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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot

### Calculation Results

Shadow receptor

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| [A | Rengersweg 99 9936GG Farmsum | 2:21 |
| [B | Rengersweg 12 9936GH Farmsum | 2:30 |
| [C | Rengersweg 10 9936GH Farmsum | 2:22 |
| [D | Kluft 1 9936GP Farmsum | 1:55 |
| [E | Kluft 3 9936GP Farmsum | 1:53 |
| [F | Proosdij 46 9936EX Farmsum | 2:31 |
| [G | Proosdij 48 9936EX Farmsum | 2:25 |
| [H | Proosdij 50 9936EX Farmsum | 2:22 |
| [I | Proosdij 52 9936EX Farmsum | 2:35 |
| [J | Proosdij 54 9936EX Farmsum | 2:54 |
| [K | Proosdij 56 9936EX Farmsum | 2:54 |
| [L | Olderman 21 9936GS Farmsum | 2:59 |
| [M | Olderman 19 9936GS Farmsum | 2:33 |
| [N | Olderman 17 9936GS Farmsum | 2:11 |
| [O | Kluft 5 9936GP Farmsum | 1:50 |
| [P | Kluft 7 9936GP Farmsum | 1:46 |
| [Q | Kluft 9 9936GP Farmsum | 1:38 |
| [R | Kluft 11 9936GP Farmsum | 1:37 |
| [S | Kluft 17 9936GP Farmsum | 1:49 |
| [T | Zijlvest 8 9936GZ Farmsum | 2:12 |
| [U | Olderman 32 9936GT Farmsum | 1:55 |
| [V | Olderman 34 9936GT Farmsum | 1:56 |
| [W | Olderman 36 9936GT Farmsum | 2:06 |
| [X | Olderman 38 9936GT Farmsum | 2:19 |
| [Y | Olderman 40 9936GT Farmsum | 2:34 |
| [Z | Olderman 42 9936GT Farmsum | 2:36 |
| \A | Zijlvest 22 A 9936GZ Farmsum | 2:36 |
| \B | Zijlvest 18 A 9936GZ Farmsum | 2:21 |
| \C | Zijlvest 18 9936GZ Farmsum | 2:19 |
| \D | Zijlvest 14 9936GZ Farmsum | 2:13 |
| \E | Borgweg 1 9936EH Farmsum | 2:47 |
| \F | Borgweg 3 9936EH Farmsum | 2:51 |
| \G | Borgweg 5 9936EH Farmsum | 2:53 |
| \H | Borgweg 7 9936EH Farmsum | 3:00 |
| \I | Borgweg 9 9936EH Farmsum | 3:07 |
| \J | Borgweg 11 9936EH Farmsum | 3:15 |
| \K | Borgweg 13 9936EH Farmsum | 3:33 |
| \L | Borgweg 15 9936EH Farmsum | 2:50 |
| \M | Borgweg 17 9936EH Farmsum | 2:53 |
| \N | Borgweg 19 9936EH Farmsum | 2:56 |
| \O | Borgweg 21 9936EH Farmsum | 3:03 |
| \P | Borgweg 23 9936EH Farmsum | 3:08 |
| \Q | Borgweg 25 9936EH Farmsum | 3:17 |
| \R | Borgweg 27 9936EH Farmsum | 3:36 |
| \S | Borgweg 29 9936EJ Farmsum | 2:53 |
| \T | Borgweg 31 9936EJ Farmsum | 2:57 |
| \U | Borgweg 33 9936EJ Farmsum | 2:59 |
| \V | Borgweg 35 9936EJ Farmsum | 3:04 |
| \W | Borgweg 37 9936EJ Farmsum | 3:11 |
| \X | Borgweg 39 9936EJ Farmsum | 3:25 |
| \Y | Borgweg 41 9936EJ Farmsum | 3:43 |
| \Z | Borgweg 43 9936EJ Farmsum | 2:54 |
| ]A | Borgweg 45 9936EJ Farmsum | 3:00 |
| ]B | Borgweg 47 9936EJ Farmsum | 3:03 |
| ]C | Borgweg 49 9936EJ Farmsum | 3:09 |
| ]D | Borgweg 51 9936EJ Farmsum | 3:16 |
| ]E | Borgweg 53 9936EJ Farmsum | 3:32 |
| ]F | Borgweg 55 9936EJ Farmsum | 3:45 |
| ]G | Borgweg 57 9936EK Farmsum | 2:20 |
| ]H | Borgweg 59 9936EK Farmsum | 2:18 |
| ]I | Borgweg 61 9936EK Farmsum | 2:16 |
| ]J | Borgweg 63 9936EK Farmsum | 2:16 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| ]K | Borgweg 65 9936EK Farmsum | 2:13 |
| ]L | Borgweg 67 9936EK Farmsum | 2:13 |
| ]M | Borgweg 69 9936EK Farmsum | 2:12 |
| ]N | Borgweg 71 9936EK Farmsum | 2:23 |
| ]O | Borgweg 73 9936EK Farmsum | 2:21 |
| ]P | Borgweg 75 9936EK Farmsum | 2:18 |
| ]Q | Borgweg 77 9936EK Farmsum | 2:16 |
| ]R | Borgweg 79 9936EK Farmsum | 2:14 |
| ]S | Borgweg 81 9936EK Farmsum | 2:15 |
| ]T | Borgweg 83 9936EK Farmsum | 2:13 |
| ]U | Borgweg 85 9936EL Farmsum | 2:24 |
| ]V | Borgweg 87 9936EL Farmsum | 2:23 |
| ]W | Borgweg 89 9936EL Farmsum | 2:22 |
| ]X | Borgweg 91 9936EL Farmsum | 2:20 |
| ]Y | Borgweg 93 9936EL Farmsum | 2:18 |
| ]Z | Borgweg 95 9936EL Farmsum | 2:16 |
| ^A | Borgweg 97 9936EL Farmsum | 2:15 |
| ^B | Borgweg 99 9936EL Farmsum | 2:26 |
| ^C | Borgweg 101 9936EL Farmsum | 2:23 |
| ^D | Borgweg 103 9936EL Farmsum | 2:21 |
| ^E | Borgweg 105 9936EL Farmsum | 2:20 |
| ^F | Borgweg 107 9936EL Farmsum | 2:18 |
| ^G | Borgweg 109 9936EL Farmsum | 2:17 |
| ^H | Borgweg 111 9936EL Farmsum | 2:16 |
| ^I | Kluft 18 9936GR Farmsum | 1:25 |
| ^J | Kluft 20 9936GR Farmsum | 1:23 |
| ^K | Kluft 22 9936GR Farmsum | 1:19 |
| ^L | Kluft 24 9936GR Farmsum | 1:17 |
| ^M | Kluft 26 9936GR Farmsum | 1:15 |
| ^N | Kluft 28 9936GR Farmsum | 1:13 |
| ^O | Kluft 30 9936GR Farmsum | 1:12 |
| ^P | Kluft 32 9936GR Farmsum | 1:13 |
| ^Q | Kluft 2 9936GR Farmsum | 1:31 |
| ^R | Kluft 4 9936GR Farmsum | 1:29 |
| ^S | Kluft 6 9936GR Farmsum | 1:24 |
| ^T | Kluft 8 9936GR Farmsum | 1:21 |
| ^U | Kluft 10 9936GR Farmsum | 1:21 |
| ^V | Kluft 12 9936GR Farmsum | 1:19 |
| ^W | Kluft 14 9936GR Farmsum | 1:15 |
| ^X | Kluft 16 9936GR Farmsum | 1:15 |
| ^Y | Zijlvest 20 A 9936GZ Farmsum | 2:30 |
| ^Z | Schepperij 51 9936GM Farmsum | 2:27 |
| _A | Waarman 15 9936GV Farmsum | 2:37 |
| _B | Waarman 17 9936GV Farmsum | 2:40 |
| _C | Waarman 19 9936GV Farmsum | 2:43 |
| _D | Waarman 21 9936GV Farmsum | 2:47 |
| _E | Waarman 23 9936GV Farmsum | 2:54 |
| _F | Waarman 25 9936GV Farmsum | 3:05 |
| _G | Waarman 27 9936GV Farmsum | 3:05 |
| _H | Waarman 29 9936GV Farmsum | 3:04 |
| _I | Heemskesweg 5 9936HE Farmsum | 19:33 |
| _J | Geefsweersterweg 2 9937TC Meedhuizen | 11:12 |
| _K | Seendweg 12 9936GA Farmsum | 4:04 |
| _L | Schepperij 39 9936GM Farmsum | 2:14 |
| _M | Schepperij 43 9936GM Farmsum | 2:17 |
| _N | Zijlvest 14 A 9936GZ Farmsum | 2:17 |
| _O | Zijlvest 24 A 9936GZ Farmsum | 2:44 |
| A | Familie Bronsweg 60 9945TA Wagenborgen | 13:52 |
| AA | Hoofdweg 26 9945PG Wagenborgen | 0:00 |
| AB | Hoofdweg 23 9945PA Wagenborgen | 0:00 |
| AC | Hoofdweg 25 9945PA Wagenborgen | 0:00 |
| AD | Hoofdweg 27 9945PA Wagenborgen | 0:00 |
| AE | Hoofdweg 29 9945PA Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| AF | Hoofdweg 18 9945PG Wagenborgen | 0:00 |
| AG | Hoofdweg 14 9945PG Wagenborgen | 0:00 |
| AH | Hoofdweg 10 9945PG Wagenborgen | 0:00 |
| AI | Hoofdweg 8 9945PG Wagenborgen | 0:00 |
| AJ | Hoofdweg 6 9945PG Wagenborgen | 0:00 |
| AK | Hoofdweg 4 9945PG Wagenborgen | 0:00 |
| AL | Hoofdweg 21 9945PA Wagenborgen | 0:00 |
| AM | Hoofdweg 19 9945PA Wagenborgen | 0:00 |
| AN | Hoofdweg 2 9945PG Wagenborgen | 0:00 |
| AO | Hoofdweg 15 9945PA Wagenborgen | 0:00 |
| AP | Hoofdweg 9 9945PA Wagenborgen | 0:00 |
| AQ | Hoofdweg 11 9945PA Wagenborgen | 0:00 |
| AR | Hoofdweg 7 9945PA Wagenborgen | 0:00 |
| AS | Hoofdweg 5 9945PA Wagenborgen | 1:26 |
| AT | H.L. Emmensweg 17 9945PW Wagenborgen | 0:00 |
| AU | H.L. Emmensweg 18 9945PX Wagenborgen | 0:00 |
| AV | H.L. Emmensweg 20 9945PX Wagenborgen | 0:00 |
| AW | H.L. Emmensweg 22 9945PX Wagenborgen | 0:00 |
| AX | H.L. Emmensweg 24 9945PX Wagenborgen | 0:00 |
| AY | H.L. Emmensweg 26 9945PX Wagenborgen | 0:00 |
| AZ | H.L. Emmensweg 10 9945PX Wagenborgen | 0:00 |
| B | Tolhek 4 9945TJ Wagenborgen | 33:24 |
| BA | H.L. Emmensweg 12 9945PX Wagenborgen | 0:00 |
| BB | H.L. Emmensweg 14 9945PX Wagenborgen | 0:00 |
| BC | H.L. Emmensweg 16 9945PX Wagenborgen | 0:00 |
| BD | H.L. Emmensweg 13 9945PW Wagenborgen | 0:00 |
| BE | H.L. Emmensweg 15 9945PW Wagenborgen | 0:00 |
| BF | H.L. Emmensweg 9 9945PW Wagenborgen | 0:00 |
| BG | H.L. Emmensweg 11 9945PW Wagenborgen | 0:00 |
| BH | H.L. Emmensweg 5 9945PW Wagenborgen | 0:00 |
| BI | H.L. Emmensweg 7 9945PW Wagenborgen | 0:00 |
| BJ | H.L. Emmensweg 4 9945PX Wagenborgen | 0:00 |
| BK | H.L. Emmensweg 2 9945PX Wagenborgen | 0:00 |
| BL | H.L. Emmensweg 1 9945PW Wagenborgen | 0:00 |
| BM | H.L. Emmensweg 3 9945PW Wagenborgen | 0:00 |
| BN | de Linden 4 9945PZ Wagenborgen | 0:00 |
| BO | de Linden 6 9945PZ Wagenborgen | 0:00 |
| BP | de Linden 10 9945PZ Wagenborgen | 0:00 |
| BQ | de Linden 12 9945PZ Wagenborgen | 0:00 |
| BR | de Linden 2 9945PZ Wagenborgen | 0:00 |
| BS | de Wilgen 12 9945RB Wagenborgen | 0:00 |
| BT | de Wilgen 10 9945RB Wagenborgen | 0:00 |
| BU | de Wilgen 8 9945RB Wagenborgen | 0:00 |
| BV | de Wilgen 2 9945RB Wagenborgen | 0:00 |
| BW | de Wilgen 4 9945RB Wagenborgen | 0:00 |
| BX | de Wilgen 6 9945RB Wagenborgen | 0:00 |
| BY | de Wilgen 6 A 9945RB Wagenborgen | 0:00 |
| BZ | de Wilgen 3 9945RB Wagenborgen | 0:00 |
| C | Tolhek 1 9945TJ Wagenborgen | 9:56 |
| CA | de Wilgen 3 A 9945RB Wagenborgen | 0:00 |
| CB | de Wilgen 3 B 9945RB Wagenborgen | 0:00 |
| CC | de Wilgen 5 9945RB Wagenborgen | 0:00 |
| CD | de Wilgen 46 9945RB Wagenborgen | 0:00 |
| CE | de Wilgen 44 9945RB Wagenborgen | 0:00 |
| CF | de Wilgen 48 9945RB Wagenborgen | 0:00 |
| CG | de Wilgen 50 9945RB Wagenborgen | 0:00 |
| CH | de Wilgen 36 9945RB Wagenborgen | 0:00 |
| CI | de Wilgen 38 9945RB Wagenborgen | 0:00 |
| CJ | de Wilgen 40 9945RB Wagenborgen | 0:00 |
| CK | de Wilgen 42 9945RB Wagenborgen | 0:00 |
| CL | de Wilgen 28 9945RB Wagenborgen | 0:00 |
| CM | de Wilgen 30 9945RB Wagenborgen | 0:00 |
| CN | de Wilgen 32 9945RB Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| CO | de Wilgen 34 9945RB Wagenborgen | 0:00 |
| CP | de Wilgen 24 9945TK Wagenborgen | 0:00 |
| CQ | de Wilgen 26 9945RB Wagenborgen | 0:00 |
| CR | de Wilgen 20 9945RB Wagenborgen | 0:00 |
| CS | de Wilgen 22 9945RB Wagenborgen | 0:00 |
| CT | de Wilgen 18 9945RB Wagenborgen | 0:00 |
| CU | de Wilgen 16 9945RB Wagenborgen | 0:00 |
| CV | de Wilgen 14 9945RB Wagenborgen | 0:00 |
| CW | de Wilgen 9 9945RB Wagenborgen | 0:00 |
| CX | de Wilgen 52 9945RB Wagenborgen | 1:15 |
| CY | Menterne 22 9945RA Wagenborgen | 0:00 |
| CZ | Menterne 18 9945RA Wagenborgen | 0:00 |
| D | Familie Bronsweg 62 9945TA Wagenborgen | 24:10 |
| DA | Menterne 21 9945RA Wagenborgen | 0:00 |
| DB | Menterne 19 9945RA Wagenborgen | 0:00 |
| DC | Menterne 20 9945RA Wagenborgen | 0:00 |
| DD | Menterne 17 9945RA Wagenborgen | 0:00 |
| DE | Menterne 7 9945RA Wagenborgen | 0:00 |
| DF | Menterne 8 9945RA Wagenborgen | 0:00 |
| DG | Menterne 9 9945RA Wagenborgen | 0:00 |
| DH | Menterne 10 9945RA Wagenborgen | 0:00 |
| DI | Menterne 11 9945RA Wagenborgen | 0:00 |
| DJ | Menterne 12 9945RA Wagenborgen | 0:00 |
| DK | Menterne 13 9945RA Wagenborgen | 0:00 |
| DL | Menterne 14 9945RA Wagenborgen | 0:00 |
| DM | Menterne 1 9945RA Wagenborgen | 0:00 |
| DN | Menterne 2 9945RA Wagenborgen | 0:00 |
| DO | Menterne 3 9945RA Wagenborgen | 0:00 |
| DP | Menterne 4 9945RA Wagenborgen | 0:00 |
| DQ | Menterne 5 9945RA Wagenborgen | 0:00 |
| DR | Menterne 6 9945RA Wagenborgen | 0:00 |
| DS | Menterne 15 9945RA Wagenborgen | 0:00 |
| DT | Menterne 16 9945RA Wagenborgen | 0:00 |
| DU | de Berken 6 9945PT Wagenborgen | 0:00 |
| DV | de Berken 2 9945PT Wagenborgen | 0:00 |
| DW | de Berken 4 9945PT Wagenborgen | 0:00 |
| DX | de Berken 1 9945PT Wagenborgen | 0:00 |
| DY | de Berken 5 9945PT Wagenborgen | 0:00 |
| DZ | de Berken 7 9945PT Wagenborgen | 0:00 |
| E | Meerweg 3 9945RC Wagenborgen | 1:12 |
| EA | de Berken 9 9945PT Wagenborgen | 0:00 |
| EB | de Eiken 14 9945VA Wagenborgen | 0:00 |
| EC | de Eiken 16 9945VA Wagenborgen | 0:00 |
| ED | de Eiken 2 9945VA Wagenborgen | 0:00 |
| EE | de Eiken 4 9945VA Wagenborgen | 0:00 |
| EF | de Eiken 6 9945VA Wagenborgen | 0:00 |
| EG | de Eiken 8 9945VA Wagenborgen | 0:00 |
| EH | de Eiken 10 9945VA Wagenborgen | 0:00 |
| EI | de Eiken 12 9945VA Wagenborgen | 0:00 |
| EJ | de Eiken 2 A 9945VA Wagenborgen | 0:00 |
| EK | Troostlaan 7 9945PV Wagenborgen | 0:00 |
| EL | Troostlaan 8 9945PV Wagenborgen | 0:00 |
| EM | Troostlaan 9 9945PV Wagenborgen | 0:00 |
| EN | Troostlaan 10 9945PV Wagenborgen | 0:00 |
| EO | Troostlaan 11 9945PV Wagenborgen | 0:00 |
| EP | Troostlaan 1 9945PV Wagenborgen | 0:00 |
| EQ | Troostlaan 2 9945PV Wagenborgen | 0:00 |
| ER | Troostlaan 3 9945PV Wagenborgen | 0:00 |
| ES | Troostlaan 2 A 9945PV Wagenborgen | 0:00 |
| ET | Troostlaan 4 9945PV Wagenborgen | 0:00 |
| EU | Troostlaan 14 9945PV Wagenborgen | 0:00 |
| EV | Troostlaan 22 9945PV Wagenborgen | 0:00 |
| EW | Troostlaan 20 9945PV Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| EX | Troostlaan 21 9945PV Wagenborgen | 0:00 |
| EY | Troostlaan 18 9945PV Wagenborgen | 0:00 |
| EZ | Troostlaan 19 9945PV Wagenborgen | 0:00 |
| F | G. Boelmanweg 2 9945RJ Wagenborgen | 0:00 |
| FA | Familie Bronsweg 40 9945PS Wagenborgen | 1:40 |
| FB | Familie Bronsweg 44 9945PS Wagenborgen | 1:31 |
| FC | Familie Bronsweg 46 9945PS Wagenborgen | 1:30 |
| FD | Familie Bronsweg 48 9945PS Wagenborgen | 1:30 |
| FE | Familie Bronsweg 50 9945PS Wagenborgen | 1:29 |
| FF | Familie Bronsweg 79 9945PP Wagenborgen | 1:17 |
| FG | Familie Bronsweg 81 9945PP Wagenborgen | 1:17 |
| FH | Familie Bronsweg 36 9945PS Wagenborgen | 2:10 |
| FI | Familie Bronsweg 38 9945PS Wagenborgen | 1:44 |
| FJ | Familie Bronsweg 42 9945PS Wagenborgen | 1:31 |
| FK | Familie Bronsweg 54 9945PS Wagenborgen | 1:24 |
| FL | Familie Bronsweg 52 9945PS Wagenborgen | 1:25 |
| FM | Familie Bronsweg 50 B 9945PS Wagenborgen | 1:27 |
| FN | Familie Bronsweg 50 A 9945PS Wagenborgen | 1:27 |
| FO | Familie Bronsweg 75 9945PP Wagenborgen | 1:18 |
| FP | Familie Bronsweg 75 A 9945PP Wagenborgen | 1:17 |
| FQ | Familie Bronsweg 75 B 9945PP Wagenborgen | 1:17 |
| FR | Familie Bronsweg 71 9945PP Wagenborgen | 1:19 |
| FS | Familie Bronsweg 69 A 9945PP Wagenborgen | 1:21 |
| FT | Familie Bronsweg 69 9945PP Wagenborgen | 1:20 |
| FU | Familie Bronsweg 67 9945PP Wagenborgen | 1:21 |
| FV | Familie Bronsweg 65 9945PP Wagenborgen | 1:21 |
| FW | Familie Bronsweg 63 9945PP Wagenborgen | 1:23 |
| FX | Familie Bronsweg 61 9945PP Wagenborgen | 1:25 |
| FY | Familie Bronsweg 59 9945PP Wagenborgen | 1:31 |
| FZ | Familie Bronsweg 57 9945PP Wagenborgen | 1:34 |
| G | G. Boelmanweg 3 9945RE Wagenborgen | 0:00 |
| GA | Familie Bronsweg 53 9945PP Wagenborgen | 1:48 |
| GB | Familie Bronsweg 73 9945PP Wagenborgen | 1:19 |
| GC | Familie Bronsweg 85 9945PP Wagenborgen | 1:16 |
| GD | Familie Bronsweg 83 9945PP Wagenborgen | 1:17 |
| GE | Familie Bronsweg 83 A 9945PP Wagenborgen | 1:16 |
| GF | Familie Bronsweg 77 9945PP Wagenborgen | 1:08 |
| GG | Familie Bronsweg 51 9945PP Wagenborgen | 1:43 |
| GH | Familie Bronsweg 2 9945PR Wagenborgen | 1:21 |
| GI | Familie Bronsweg 4 9945PR Wagenborgen | 1:18 |
| GJ | Familie Bronsweg 4 A 9945PR Wagenborgen | 1:14 |
| GK | Familie Bronsweg 6 9945PR Wagenborgen | 1:12 |
| GL | Familie Bronsweg 8 9945PR Wagenborgen | 1:14 |
| GM | Familie Bronsweg 10 9945PR Wagenborgen | 1:17 |
| GN | Familie Bronsweg 12 9945PR Wagenborgen | 1:08 |
| GO | Familie Bronsweg 14 9945PR Wagenborgen | 1:10 |
| GP | Familie Bronsweg 16 9945PR Wagenborgen | 1:10 |
| GQ | Familie Bronsweg 15 9945PN Wagenborgen | 0:50 |
| GR | Familie Bronsweg 17 9945PN Wagenborgen | 1:03 |
| GS | Familie Bronsweg 2 A 9945PR Wagenborgen | 2:09 |
| GT | Familie Bronsweg 2 B 9945PR Wagenborgen | 3:15 |
| GU | Familie Bronsweg 2 C 9945PR Wagenborgen | 3:02 |
| GV | Familie Bronsweg 2 D 9945PR Wagenborgen | 2:57 |
| GW | Familie Bronsweg 2 F 9945PR Wagenborgen | 3:37 |
| GX | Familie Bronsweg 2 G 9945PR Wagenborgen | 4:21 |
| GY | Familie Bronsweg 2 H 9945PR Wagenborgen | 3:55 |
| GZ | Familie Bronsweg 2 J 9945PR Wagenborgen | 3:31 |
| H | G. Boelmanweg 5 9945RE Wagenborgen | 0:00 |
| HA | Akeleistraat 17 9945VD Wagenborgen | 2:14 |
| HB | Akeleistraat 19 9945VD Wagenborgen | 2:07 |
| HC | Akeleistraat 21 9945VD Wagenborgen | 1:59 |
| HD | Akeleistraat 23 9945VD Wagenborgen | 1:54 |
| HE | Akeleistraat 20 9945VD Wagenborgen | 1:45 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| HF | Akeleistraat 22 9945VD Wagenborgen | 1:42 |
| HG | Akeleistraat 16 9945VD Wagenborgen | 2:00 |
| HH | Akeleistraat 18 9945VD Wagenborgen | 1:56 |
| HI | Akeleistraat 12 9945VD Wagenborgen | 2:17 |
| HJ | Akeleistraat 14 9945VD Wagenborgen | 2:13 |
| HK | Akeleistraat 10 9945VD Wagenborgen | 2:38 |
| HL | Akeleistraat 1 9945VD Wagenborgen | 4:57 |
| HM | Akeleistraat 3 9945VD Wagenborgen | 4:58 |
| HN | Akeleistraat 5 9945VD Wagenborgen | 5:06 |
| HO | Akeleistraat 7 9945VD Wagenborgen | 5:00 |
| HP | Akeleistraat 9 9945VD Wagenborgen | 4:38 |
| HQ | Akeleistraat 11 9945VD Wagenborgen | 3:04 |
| HR | Akeleistraat 2 9945VD Wagenborgen | 4:22 |
| HS | Akeleistraat 4 9945VD Wagenborgen | 4:21 |
| HT | Akeleistraat 6 9945VD Wagenborgen | 3:50 |
| HU | Akeleistraat 8 9945VD Wagenborgen | 3:46 |
| HV | Akeleistraat 15 9945VD Wagenborgen | 2:26 |
| HW | Bremstraat 6 9945VC Wagenborgen | 2:53 |
| HX | Bremstraat 2 9945VC Wagenborgen | 3:34 |
| HY | Bremstraat 4 9945VC Wagenborgen | 3:26 |
| HZ | Bremstraat 12 9945VC Wagenborgen | 1:52 |
| I | G. Boelmanweg 4 9945RJ Wagenborgen | 0:00 |
| IA | Hibiscusstraat 30 9945VB Wagenborgen | 2:46 |
| IB | Hibiscusstraat 2 9945VB Wagenborgen | 2:08 |
| IC | Hibiscusstraat 4 9945VB Wagenborgen | 2:37 |
| ID | Hibiscusstraat 10 9945VB Wagenborgen | 1:52 |
| IE | Hibiscusstraat 16 9945VB Wagenborgen | 2:39 |
| IF | Bremstraat 14 9945VC Wagenborgen | 1:43 |
| IG | Hibiscusstraat 6 9945VB Wagenborgen | 2:24 |
| IH | Hibiscusstraat 26 9945VB Wagenborgen | 3:21 |
| II | Kopaf 8 9945TE Wagenborgen | 6:47 |
| IJ | Kopaf 7 9945TE Wagenborgen | 3:37 |
| IK | Kopaf 6 9945TE Wagenborgen | 5:53 |
| IL | Kloosterlaan 27 9945TG Wagenborgen | 62:33 |
| IM | Kloosterlaan 25 9945TG Wagenborgen | 75:09 |
| IN | Kloosterlaan 23 9945TG Wagenborgen | 82:41 |
| IO | Scheve Klap 5 9945TD Wagenborgen | 1:50 |
| IP | Scheve Klap 4 9945TD Wagenborgen | 0:44 |
| IQ | Hibiscusstraat 8 9945VB Wagenborgen | 2:02 |
| IR | Hibiscusstraat 12 9945VB Wagenborgen | 1:50 |
| IS | Hibiscusstraat 18 9945VB Wagenborgen | 3:06 |
| IT | Hibiscusstraat 24 9945VB Wagenborgen | 2:33 |
| IU | Hibiscusstraat 22 9945VB Wagenborgen | 2:53 |
| IV | Troostlaan 15 9945PV Wagenborgen | 0:00 |
| IW | Bremstraat 10 9945VC Wagenborgen | 2:06 |
| IX | Hibiscusstraat 20 9945VB Wagenborgen | 3:17 |
| IY | Hibiscusstraat 28 9945VB Wagenborgen | 3:31 |
| IZ | Troostlaan 5 9945PV Wagenborgen | 0:00 |
| J | G. Boelmanweg 7 9945RE Wagenborgen | 0:00 |
| JA | Troostlaan 6 9945PV Wagenborgen | 0:00 |
| JB | Boslaan 5 9945TM Wagenborgen | 4:37 |
| JC | Hoofdweg 33 A 9945PB Wagenborgen | 0:00 |
| JD | Akeleistraat 13 9945VD Wagenborgen | 4:16 |
| JE | Hoofdweg 42 9945PG Wagenborgen | 0:00 |
| JF | Familie Bronsweg 2 E 9945PR Wagenborgen | 3:13 |
| JG | Hibiscusstraat 14 9945VB Wagenborgen | 2:07 |
| JH | Bremstraat 8 9945VC Wagenborgen | 2:27 |
| JI | Menterne 23 003 9945RA Wagenborgen | 0:54 |
| JJ | Menterne 23 004 9945RA Wagenborgen | 0:57 |
| JK | Menterne 23 005 9945RA Wagenborgen | 1:02 |
| JL | Menterne 23 006 9945RA Wagenborgen | 1:05 |
| JM | Menterne 23 007 9945RA Wagenborgen | 1:04 |
| JN | Menterne 23 008 9945RA Wagenborgen | 1:02 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| JO | Menterne 23 009 9945RA Wagenborgen | 0:57 |
| JP | Menterne 23 010 9945RA Wagenborgen | 0:56 |
| JQ | Menterne 23 017 9945RA Wagenborgen | 0:33 |
| JR | Menterne 23 030 9945RA Wagenborgen | 0:00 |
| JS | Menterne 23 103 9945RA Wagenborgen | 0:53 |
| JT | Menterne 23 104 9945RA Wagenborgen | 0:57 |
| JU | Menterne 23 105 9945RA Wagenborgen | 1:01 |
| JV | Menterne 23 106 9945RA Wagenborgen | 1:05 |
| JW | Menterne 23 107 9945RA Wagenborgen | 1:05 |
| JX | Menterne 23 108 9945RA Wagenborgen | 1:03 |
| JY | Menterne 23 109 9945RA Wagenborgen | 0:58 |
| JZ | Menterne 23 110 9945RA Wagenborgen | 0:57 |
| K | G. Boelmanweg 6 9945RJ Wagenborgen | 0:00 |
| KA | Menterne 23 111 9945RA Wagenborgen | 0:54 |
| KB | Menterne 23 113 9945RA Wagenborgen | 0:41 |
| KC | Menterne 23 114 9945RA Wagenborgen | 0:37 |
| KD | Menterne 23 115 9945RA Wagenborgen | 0:34 |
| KE | Menterne 23 116 9945RA Wagenborgen | 0:31 |
| KF | Menterne 23 117 9945RA Wagenborgen | 0:29 |
| KG | Menterne 23 118 9945RA Wagenborgen | 0:27 |
| KH | Menterne 23 119 9945RA Wagenborgen | 0:00 |
| KI | Menterne 23 120 9945RA Wagenborgen | 0:00 |
| KJ | Menterne 23 121 9945RA Wagenborgen | 0:00 |
| KK | Menterne 23 122 9945RA Wagenborgen | 0:00 |
| KL | Menterne 23 123 9945RA Wagenborgen | 0:00 |
| KM | Menterne 23 124 9945RA Wagenborgen | 0:00 |
| KN | Menterne 23 125 9945RA Wagenborgen | 0:00 |
| KO | Menterne 23 126 9945RA Wagenborgen | 0:00 |
| KP | Menterne 23 127 9945RA Wagenborgen | 0:00 |
| KQ | Menterne 23 128 9945RA Wagenborgen | 0:00 |
| KR | Menterne 23 129 9945RA Wagenborgen | 0:00 |
| KS | Menterne 23 130 9945RA Wagenborgen | 0:00 |
| KT | Menterne 23 131 9945RA Wagenborgen | 0:36 |
| KU | Menterne 23 132 9945RA Wagenborgen | 0:38 |
| KV | Menterne 23 201 9945RA Wagenborgen | 0:47 |
| KW | Menterne 23 202 9945RA Wagenborgen | 0:49 |
| KX | Menterne 23 203 9945RA Wagenborgen | 0:52 |
| KY | Menterne 23 204 9945RA Wagenborgen | 0:56 |
| KZ | Menterne 23 205 9945RA Wagenborgen | 0:59 |
| L | Kokslaan 1 9945RD Wagenborgen | 0:00 |
| LA | Menterne 23 206 9945RA Wagenborgen | 1:03 |
| LB | Menterne 23 207 9945RA Wagenborgen | 1:05 |
| LC | Menterne 23 208 9945RA Wagenborgen | 1:03 |
| LD | Menterne 23 209 9945RA Wagenborgen | 1:01 |
| LE | Menterne 23 210 9945RA Wagenborgen | 0:57 |
| LF | Menterne 23 211 9945RA Wagenborgen | 0:54 |
| LG | Menterne 23 212 9945RA Wagenborgen | 0:51 |
| LH | Menterne 23 213 9945RA Wagenborgen | 0:42 |
| LI | Menterne 23 214 9945RA Wagenborgen | 0:38 |
| LJ | Menterne 23 215 9945RA Wagenborgen | 0:35 |
| LK | Menterne 23 216 9945RA Wagenborgen | 0:32 |
| LL | Menterne 23 217 9945RA Wagenborgen | 0:30 |
| LM | Menterne 23 218 9945RA Wagenborgen | 0:00 |
| LN | Menterne 23 219 9945RA Wagenborgen | 0:00 |
| LO | Menterne 23 220 9945RA Wagenborgen | 0:00 |
| LP | Menterne 23 221 9945RA Wagenborgen | 0:00 |
| LQ | Menterne 23 222 9945RA Wagenborgen | 0:00 |
| LR | Menterne 23 223 9945RA Wagenborgen | 0:00 |
| LS | Menterne 23 224 9945RA Wagenborgen | 0:00 |
| LT | Menterne 23 226 9945RA Wagenborgen | 0:00 |
| LU | Menterne 23 228 9945RA Wagenborgen | 0:00 |
| LV | Menterne 23 229 9945RA Wagenborgen | 0:00 |
| LW | Menterne 23 230 9945RA Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| LX | Menterne 23 231 9945RA Wagenborgen | 0:36 |
| LY | Menterne 23 232 9945RA Wagenborgen | 0:37 |
| LZ | G. Boelmanweg 1 9945RE Wagenborgen | 0:00 |
| M | Kokslaan 2 9945RD Wagenborgen | 0:00 |
| MA | Boslaan 7 9945TM Wagenborgen | 0:00 |
| MB | H.L. Emmensweg 23 9945PW Wagenborgen | 0:00 |
| MC | Kopaf 5 9944VA Nieuwolda | 0:00 |
| MD | Familie Bronsweg 68 9945TA Wagenborgen | 24:14 |
| ME | Maarkampen 26 9937PL Meedhuizen | 1:09 |
| MF | Maarkampen 24 9937PL Meedhuizen | 1:05 |
| MG | Maarkampen 22 9937PL Meedhuizen | 1:02 |
| MH | Maarkampen 20 9937PL Meedhuizen | 0:37 |
| MI | Maarkampen 18 9937PL Meedhuizen | 0:35 |
| MJ | Maarkampen 16 9937PL Meedhuizen | 0:33 |
| MK | Maarkampen 14 9937PL Meedhuizen | 0:31 |
| ML | Maarlaan 22 E 9937TH Meedhuizen | 0:39 |
| MM | Maarlaan 22 D 9937TH Meedhuizen | 0:32 |
| MN | Schaapbulterweg 8 9937TL Meedhuizen | 2:00 |
| MO | Schaapbulterweg 6 9937TL Meedhuizen | 0:34 |
| MP | Schaapbulterweg 29 9937TL Meedhuizen | 2:04 |
| MQ | Schaapbulterweg 27 9937TL Meedhuizen | 1:02 |
| MR | Schaapbulterweg 25 9937TL Meedhuizen | 0:38 |
| MS | Schaapbulterweg 23 9937TL Meedhuizen | 0:36 |
| MT | Schaapbulterweg 21 9937TL Meedhuizen | 0:34 |
| MU | Geefsweersterweg 11 9937TB Meedhuizen | 5:56 |
| MV | Schaapbulterweg 35 9937TL Meedhuizen | 5:04 |
| MW | Meedhuizerweg 20 9937TK Meedhuizen | 1:19 |
| MX | Familie Bronsweg 66 9945TA Wagenborgen | 29:41 |
| MY | Familie Bronsweg 64 9945TA Wagenborgen | 30:57 |
| MZ | Ideweersterweg 10 9937TM Meedhuizen | 23:02 |
| N | Kerkstraat 1 9945SB Wagenborgen | 0:00 |
| NA | Ideweersterweg 8 9937TM Meedhuizen | 34:34 |
| NB | Geefsweersterweg 20 9937TC Meedhuizen | 31:32 |
| NC | Geefsweersterweg 18 9937TC Meedhuizen | 25:14 |
| ND | Geefsweersterweg 29 9937TB Meedhuizen | 26:22 |
| NE | Geefsweersterweg 16 9937TC Meedhuizen | 19:50 |
| NF | Geefsweersterweg 23 9937TB Meedhuizen | 26:56 |
| NG | Geefsweersterweg 12 9937TC Meedhuizen | 36:05 |
| NH | Geefsweersterweg 14 9937TC Meedhuizen | 32:43 |
| NI | Geefsweersterweg 21 A 9937TB Meedhuizen | 34:27 |
| NJ | Geefsweersterweg 10 9937TC Meedhuizen | 43:55 |
| NK | Geefsweersterweg 21 9937TB Meedhuizen | 43:11 |
| NL | Geefsweersterweg 17 9937TB Meedhuizen | 45:58 |
| NM | Geefsweersterweg 19 9937TB Meedhuizen | 46:58 |
| NN | Ideweersterweg 2 9937TM Meedhuizen | 83:05 |
| NO | Ideweersterweg 1 9937TM Meedhuizen | 84:51 |
| NP | Geefsweersterweg 15 9937TB Meedhuizen | 39:20 |
| NQ | Westerlaan 6 9937TS Meedhuizen | 42:38 |
| NR | Familie Bronsweg 87 9945TA Wagenborgen | 14:10 |
| NS | Familie Bronsweg 89 9945TA Wagenborgen | 21:12 |
| NT | Westerlaan 10 9937TS Meedhuizen | 40:06 |
| NU | Geefsweersterweg 13 9937TB Meedhuizen | 19:57 |
| NV | Maarlaan 26 9937TH Meedhuizen | 2:25 |
| NW | Maarlaan 24 9937TH Meedhuizen | 1:10 |
| NX | Maarlaan 28 9937TH Meedhuizen | 2:34 |
| NY | Maarlaan 30 9937TH Meedhuizen | 3:18 |
| NZ | Kerklaan 3 9937PG Meedhuizen | 1:52 |
| O | Hoofdweg 30 9945PG Wagenborgen | 0:00 |
| OA | Kerklaan 8 9937PG Meedhuizen | 3:39 |
| OB | Kerklaan 6 9937PG Meedhuizen | 5:01 |
| OC | Opmeedenlaan 6 9937TN Meedhuizen | 1:44 |
| OD | Opmeedenlaan 4 9937TN Meedhuizen | 1:45 |
| OE | Opmeedenlaan 2 9937TN Meedhuizen | 2:01 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| OF | Kloosterlaan 26 9945TG Wagenborgen | 133:24 |
| OG | Zomerdijk 1 9945TH Wagenborgen | 113:35 |
| OH | Zomerdijk 3 9945TH Wagenborgen | 117:11 |
| OI | Zomerdijk 3 A 9945TH Wagenborgen | 128:05 |
| OJ | Zomerdijk 2 9945TH Wagenborgen | 122:59 |
| OK | Kloosterlaan 21 A 9945TG Wagenborgen | 122:52 |
| OL | Kloosterlaan 21 B 9945TG Wagenborgen | 123:59 |
| OM | Ideweersterweg 4 9937TM Meedhuizen | 63:09 |
| ON | Maarlaan 22 C 9937TH Meedhuizen | 0:28 |
| OO | Kloosterlaan 21 9936TE Farmsum | 68:00 |
| OP | Geefsweersterweg 8 A 9937TC Meedhuizen | 31:01 |
| OQ | Houtweg 20 9936BL Farmsum | 0:22 |
| OR | Houtweg 22 9936BL Farmsum | 0:22 |
| OS | Houtweg 24 9936BL Farmsum | 0:22 |
| OT | Houtweg 26 9936BL Farmsum | 0:23 |
| OU | Houtweg 28 9936BL Farmsum | 0:24 |
| OV | Rondeboslaan 6 9936BK Farmsum | 0:59 |
| OW | Proosdij 14 9936EW Farmsum | 2:13 |
| OX | Bredelaan 6 9936ER Farmsum | 2:29 |
| OY | Bredelaan 4 9936ER Farmsum | 2:15 |
| OZ | Bredelaan 2 A 9936ER Farmsum | 1:40 |
| P | Hoofdweg 32 9945PG Wagenborgen | 0:00 |
| PA | Proosdij 24 9936EW Farmsum | 1:41 |
| PB | Proosdij 22 9936EW Farmsum | 1:45 |
| PC | Proosdij 20 9936EW Farmsum | 1:49 |
| PD | Proosdij 18 9936EW Farmsum | 1:59 |
| PE | Proosdij 16 9936EW Farmsum | 2:03 |
| PF | Trambaan 19 9936ES Farmsum | 2:07 |
| PG | Proosdij 17 9936ET Farmsum | 2:18 |
| PH | Proosdij 15 9936ET Farmsum | 2:23 |
| PI | Proosdij 13 9936ET Farmsum | 2:22 |
| PJ | Trambaan 17 9936ES Farmsum | 2:10 |
| PK | Trambaan 15 9936ES Farmsum | 2:17 |
| PL | Trambaan 13 9936ES Farmsum | 2:19 |
| PM | Trambaan 11 9936ES Farmsum | 2:21 |
| PN | Trambaan 9 9936ES Farmsum | 2:24 |
| PO | Trambaan 5 9936ES Farmsum | 2:22 |
| PP | Trambaan 3 9936ES Farmsum | 2:06 |
| PQ | Trambaan 1 9936ES Farmsum | 2:02 |
| PR | Proosdij 12 9936EW Farmsum | 2:21 |
| PS | Proosdij 8 9936EW Farmsum | 1:57 |
| PT | Proosdij 6 9936EW Farmsum | 1:43 |
| PU | Proosdij 4 9936EW Farmsum | 1:32 |
| PV | Proosdij 11 9936ET Farmsum | 2:08 |
| PW | Proosdij 9 9936ET Farmsum | 1:58 |
| PX | Proosdij 7 9936ET Farmsum | 1:47 |
| PY | Proosdij 5 9936ET Farmsum | 1:41 |
| PZ | Proosdij 1 9936ET Farmsum | 1:12 |
| Q | Hoofdweg 31 9945PA Wagenborgen | 0:00 |
| QA | Proosdij 3 9936ET Farmsum | 1:37 |
| QB | Farmsumerzijl 55 9936GC Farmsum | 1:05 |
| QC | Farmsumerzijl 57 9936GC Farmsum | 1:06 |
| QD | Rengersweg 4 9936GH Farmsum | 1:01 |
| QE | Rengersweg 2 9936GH Farmsum | 1:08 |
| QF | Schepperij 4 A 9936GN Farmsum | 0:54 |
| QG | Schepperij 2 A 9936GN Farmsum | 0:51 |
| QH | Schepperij 4 9936GN Farmsum | 0:52 |
| QI | Schepperij 2 9936GN Farmsum | 0:49 |
| QJ | Dijkrecht 4 9936GK Farmsum | 1:53 |
| QK | Dijkrecht 6 9936GK Farmsum | 1:43 |
| QL | Dijkrecht 10 9936GK Farmsum | 1:32 |
| QM | Dijkrecht 12 9936GK Farmsum | 1:31 |
| QN | Dijkrecht 14 9936GK Farmsum | 1:28 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| QO | Dijkrecht 16 9936GK Farmsum | 1:25 |
| QP | Dijkrecht 18 9936GK Farmsum | 1:21 |
| QQ | Dijkrecht 20 9936GK Farmsum | 1:17 |
| QR | Dijkrecht 22 9936GK Farmsum | 1:16 |
| QS | Dijkrecht 24 9936GK Farmsum | 1:21 |
| QT | Dijkrecht 26 9936GK Farmsum | 1:31 |
| QU | Dijkrecht 28 9936GK Farmsum | 1:34 |
| QV | Dijkrecht 30 9936GK Farmsum | 1:43 |
| QW | Dijkrecht 32 9936GK Farmsum | 1:46 |
| QX | Dijkrecht 34 9936GK Farmsum | 1:52 |
| QY | Dijkrecht 36 9936GK Farmsum | 1:57 |
| QZ | Dijkrecht 40 9936GK Farmsum | 2:09 |
| R | Hoofdweg 38 9945PG Wagenborgen | 0:00 |
| RA | Dijkrecht 38 9936GK Farmsum | 2:04 |
| RB | Schepperij 20 9936GN Farmsum | 1:50 |
| RC | Schepperij 18 9936GN Farmsum | 1:49 |
| RD | Waarman 12 9936GW Farmsum | 2:50 |
| RE | Waarman 10 9936GW Farmsum | 2:28 |
| RF | Waarman 8 9936GW Farmsum | 2:25 |
| RG | Waarman 6 9936GW Farmsum | 2:25 |
| RH | Farmsumerzijl 1 9936GB Farmsum | 2:04 |
| RI | Farmsumerzijl 3 9936GB Farmsum | 2:01 |
| RJ | Farmsumerzijl 5 9936GB Farmsum | 1:50 |
| RK | Farmsumerzijl 7 9936GB Farmsum | 1:49 |
| RL | Farmsumerzijl 13 9936GB Farmsum | 1:33 |
| RM | Farmsumerzijl 15 9936GB Farmsum | 1:34 |
| RN | Farmsumerzijl 17 9936GB Farmsum | 1:37 |
| RO | Farmsumerzijl 19 9936GB Farmsum | 1:38 |
| RP | Farmsumerzijl 25 9936GB Farmsum | 1:51 |
| RQ | Farmsumerzijl 27 9936GB Farmsum | 1:53 |
| RR | Farmsumerzijl 29 9936GB Farmsum | 2:04 |
| RS | Farmsumerzijl 31 9936GC Farmsum | 2:07 |
| RT | Farmsumerzijl 37 9936GC Farmsum | 2:22 |
| RU | Farmsumerzijl 39 9936GC Farmsum | 2:25 |
| RV | Farmsumerzijl 41 9936GC Farmsum | 2:36 |
| RW | Farmsumerzijl 43 9936GC Farmsum | 2:39 |
| RX | Schepperij 1 9936GL Farmsum | 0:57 |
| RY | Schepperij 3 9936GL Farmsum | 0:58 |
| RZ | Schepperij 5 9936GL Farmsum | 1:00 |
| S | Hoofdweg 39 9945PB Wagenborgen | 0:00 |
| SA | Schepperij 7 9936GL Farmsum | 1:00 |
| SB | Schepperij 9 9936GL Farmsum | 1:03 |
| SC | Schepperij 11 9936GL Farmsum | 1:04 |
| SD | Schepperij 13 9936GL Farmsum | 1:08 |
| SE | Schepperij 15 9936GL Farmsum | 1:08 |
| SF | Dijkrecht 8 9936GK Farmsum | 1:39 |
| SG | Geefsweersterweg 9 9937TB Meedhuizen | 10:07 |
| SH | Geefsweersterweg 7 9937TB Meedhuizen | 38:02 |
| SI | Geefsweersterweg 8 9937TC Meedhuizen | 36:34 |
| SJ | Geefsweersterweg 3 9937TB Meedhuizen | 24:39 |
| SK | Geefsweersterweg 6 9937TC Meedhuizen | 31:00 |
| SL | Geefsweersterweg 4 9937TC Meedhuizen | 23:26 |
| SM | Meedhuizerweg 2 9937TK Meedhuizen | 0:29 |
| SN | Molenstraat 31 9936EB Farmsum | 3:10 |
| SO | Hindrik Jagerstraat 32 9936CV Farmsum | 1:21 |
| SP | Hindrik Jagerstraat 11 9936CT Farmsum | 1:23 |
| SQ | Hindrik Jagerstraat 13 9936CT Farmsum | 1:28 |
| SR | Hindrik Jagerstraat 15 9936CT Farmsum | 1:29 |
| SS | Hindrik Jagerstraat 34 9936CV Farmsum | 1:26 |
| ST | Hindrik Jagerstraat 36 9936CV Farmsum | 1:30 |
| SU | Borgshof 31 9936CR Farmsum | 1:28 |
| SV | Borgshof 33 9936CR Farmsum | 1:33 |
| SW | Borgshof 39 9936CR Farmsum | 2:02 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| SX | Borgshof 35 9936CR Farmsum | 1:50 |
| SY | Molenstraat 20 9936EC Farmsum | 3:32 |
| SZ | Molenstraat 24 9936EC Farmsum | 4:26 |
| T | Hoofdweg 35 9945PB Wagenborgen | 0:00 |
| TA | Molenstraat 28 9936EC Farmsum | 4:36 |
| TB | Molenstraat 41 9936EB Farmsum | 3:49 |
| TC | Molenstraat 43 9936EB Farmsum | 4:14 |
| TD | Molenstraat 45 9936EB Farmsum | 4:26 |
| TE | Molenstraat 32 9936EC Farmsum | 4:36 |
| TF | Achterweg 13 9936EG Farmsum | 4:48 |
| TG | Achterweg 11 9936EG Farmsum | 4:49 |
| TH | Achterweg 9 9936EG Farmsum | 4:50 |
| TI | Molenstraat 49 9936EB Farmsum | 4:25 |
| TJ | Molenstraat 51 9936EB Farmsum | 4:27 |
| TK | Molenstraat 53 9936EB Farmsum | 4:22 |
| TL | Molenstraat 57 9936EB Farmsum | 4:01 |
| TM | Molenstraat 61 9936EB Farmsum | 3:36 |
| TN | Molenstraat 63 9936EB Farmsum | 3:14 |
| TO | Molenstraat 34 9936ED Farmsum | 4:27 |
| TP | Molenstraat 38 9936ED Farmsum | 4:06 |
| TQ | Molenstraat 40 9936ED Farmsum | 3:51 |
| TR | Molenstraat 42 9936ED Farmsum | 3:28 |
| TS | Molenstraat 44 9936ED Farmsum | 3:02 |
| TT | Molenstraat 65 9936EB Farmsum | 2:49 |
| TU | Molenstraat 48 9936ED Farmsum | 2:33 |
| TV | Molenstraat 50 9936ED Farmsum | 2:11 |
| TW | Molenstraat 56 9936ED Farmsum | 1:47 |
| TX | Molenstraat 58 9936EE Farmsum | 1:20 |
| TY | Molenstraat 62 9936EE Farmsum | 1:08 |
| TZ | Molenstraat 72 9936EE Farmsum | 0:50 |
| U | Hoofdweg 37 9945PB Wagenborgen | 0:00 |
| UA | Molenstraat 70 9936EE Farmsum | 0:50 |
| UB | Molenstraat 68 9936EE Farmsum | 0:50 |
| UC | Molenstraat 66 9936EE Farmsum | 0:48 |
| UD | Achterweg 2 9936EG Farmsum | 3:13 |
| UE | Achterweg 12 9936EG Farmsum | 1:33 |
| UF | Achterweg 10 9936EG Farmsum | 1:12 |
| UG | Achterweg 8 9936EG Farmsum | 1:14 |
| UH | Hindrik Jagerstraat 17 9936CT Farmsum | 1:38 |
| UI | Molenstraat 30 9936EC Farmsum | 4:37 |
| UJ | Borgweg 141 9936EN Farmsum | 0:53 |
| UK | Borgweg 139 9936EN Farmsum | 0:59 |
| UL | Borgweg 137 9936EN Farmsum | 1:03 |
| UM | Borgweg 135 9936EN Farmsum | 1:08 |
| UN | Afwateringskanaal 109 9936AV Farmsum | 1:17 |
| UO | Borgweg 131 9936EM Farmsum | 1:57 |
| UP | Borgweg 133 9936EM Farmsum | 2:06 |
| UQ | Borgshof 41 9936CR Farmsum | 2:08 |
| UR | Borgshof 43 9936CR Farmsum | 2:19 |
| US | Borgshof 45 9936CR Farmsum | 2:18 |
| UT | Molenstraat 74 9936EE Farmsum | 0:49 |
| UU | Molenstraat 76 9936EE Farmsum | 0:50 |
| UV | Molenstraat 78 9936EE Farmsum | 0:52 |
| UW | Molenstraat 82 9936EE Farmsum | 0:51 |
| UX | Molenstraat 84 9936EE Farmsum | 0:50 |
| UY | Borgweg 123 9936EM Farmsum | 1:43 |
| UZ | Borgweg 125 9936EM Farmsum | 1:36 |
| V | Hoofdweg 44 9945PH Wagenborgen | 0:00 |
| VA | Borgweg 127 9936EM Farmsum | 1:32 |
| VB | Borgweg 129 9936EM Farmsum | 1:27 |
| VC | Farmsumerzijl 51 9936GC Farmsum | 1:49 |
| VD | Molenstraat 80 9936EE Farmsum | 0:52 |
| VE | Houtweg 30 9936BL Farmsum | 0:24 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| VF | Houtweg 32 9936BL Farmsum | 0:26 |
| VG | Houtweg 34 9936BL Farmsum | 0:26 |
| VH | Houtweg 36 9936BL Farmsum | 0:26 |
| VI | Houtweg 38 9936BL Farmsum | 0:28 |
| VJ | Houtweg 40 9936BL Farmsum | 0:28 |
| VK | Houtweg 42 9936BL Farmsum | 0:27 |
| VL | Houtweg 44 9936BL Farmsum | 0:28 |
| VM | Houtweg 46 9936BL Farmsum | 0:27 |
| VN | Houtweg 48 9936BL Farmsum | 0:28 |
| VO | Rondeboslaan 26 9936BK Farmsum | 0:35 |
| VP | Rondeboslaan 28 9936BK Farmsum | 0:35 |
| VQ | Seendweg 32 9936GA Farmsum | 2:43 |
| VR | Trambaan 21 9936ES Farmsum | 2:01 |
| VS | Proosdij 19 9936ET Farmsum | 1:50 |
| VT | Bredelaan 14 9936ER Farmsum | 2:46 |
| VU | Bredelaan 10 9936ER Farmsum | 2:24 |
| VV | Bredelaan 8 9936ER Farmsum | 2:27 |
| VW | Seendweg 22 9936GA Farmsum | 3:22 |
| VX | Seendweg 28 9936GA Farmsum | 3:08 |
| VY | Proosdij 28 9936EW Farmsum | 1:36 |
| VZ | Proosdij 30 9936EX Farmsum | 2:18 |
| W | Hoofdweg 48 9945PH Wagenborgen | 0:00 |
| WA | Proosdij 26 9936EW Farmsum | 1:38 |
| WB | Afwateringskanaal 107 9936AV Farmsum | 1:11 |
| WC | Rondeboslaan 22 A 9936BK Farmsum | 0:54 |
| WD | Rondeboslaan 22 B 9936BK Farmsum | 0:55 |
| WE | Rondeboslaan 2 A 9936BK Farmsum | 1:27 |
| WF | Rondeboslaan 2 B 9936BK Farmsum | 1:24 |
| WG | Seendweg 17 9936GA Farmsum | 3:19 |
| WH | Borgshof 29 9936CR Farmsum | 1:21 |
| WI | Molenstraat 22 9936EC Farmsum | 3:58 |
| WJ | Achterweg 7 A 9936EG Farmsum | 5:17 |
| WK | Molenstraat 26 9936EC Farmsum | 4:33 |
| WL | Borgweg 113 9936EM Farmsum | 1:51 |
| WM | Borgweg 115 9936EM Farmsum | 2:14 |
| WN | Borgweg 117 9936EM Farmsum | 2:04 |
| WO | Borgweg 119 9936EM Farmsum | 1:57 |
| WP | Borgweg 121 9936EM Farmsum | 1:51 |
| WQ | Farmsumerzijl 45 9936GC Farmsum | 2:41 |
| WR | Farmsumerzijl 47 9936GC Farmsum | 2:10 |
| WS | Farmsumerzijl 49 9936GC Farmsum | 1:56 |
| WT | Waarman 4 9936GW Farmsum | 2:24 |
| WU | Waarman 2 9936GW Farmsum | 2:22 |
| WV | Farmsumerzijl 9 9936GB Farmsum | 1:41 |
| WW | Farmsumerzijl 11 9936GB Farmsum | 1:39 |
| WX | Farmsumerzijl 21 9936GB Farmsum | 1:44 |
| WY | Farmsumerzijl 23 9936GB Farmsum | 1:50 |
| WZ | Farmsumerzijl 33 9936GC Farmsum | 2:16 |
| X | Hoofdweg 41 9945PB Wagenborgen | 0:00 |
| XA | Farmsumerzijl 35 9936GC Farmsum | 2:20 |
| XB | Schepperij 17 9936GL Farmsum | 1:12 |
| XC | Schepperij 19 9936GL Farmsum | 1:12 |
| XD | Schepperij 21 9936GL Farmsum | 1:16 |
| XE | Dijkrecht 3 9936GJ Farmsum | 1:08 |
| XF | Dijkrecht 5 9936GJ Farmsum | 1:05 |
| XG | Dijkrecht 7 9936GJ Farmsum | 1:04 |
| XH | Dijkrecht 9 9936GJ Farmsum | 1:02 |
| XI | Dijkrecht 11 9936GJ Farmsum | 1:03 |
| XJ | Dijkrecht 13 9936GJ Farmsum | 1:03 |
| XK | Dijkrecht 15 9936GJ Farmsum | 1:04 |
| XL | Dijkrecht 17 9936GJ Farmsum | 1:06 |
| XM | Dijkrecht 19 9936GJ Farmsum | 1:08 |
| XN | Dijkrecht 21 9936GJ Farmsum | 1:11 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| XO | Schepperij 6 9936GN Farmsum | 0:57 |
| XP | Schepperij 8 9936GN Farmsum | 0:58 |
| XQ | Schepperij 10 9936GN Farmsum | 1:00 |
| XR | Schepperij 12 9936GN Farmsum | 1:01 |
| XS | Schepperij 14 9936GN Farmsum | 1:03 |
| XT | Schepperij 16 9936GN Farmsum | 1:05 |
| XU | Olderman 2 9936GT Farmsum | 1:20 |
| XV | Olderman 4 9936GT Farmsum | 1:22 |
| XW | Olderman 6 9936GT Farmsum | 1:21 |
| XX | Olderman 8 9936GT Farmsum | 1:20 |
| XY | Olderman 10 9936GT Farmsum | 1:22 |
| XZ | Olderman 12 9936GT Farmsum | 1:21 |
| Y | Hoofdweg 20 9945PG Wagenborgen | 0:00 |
| YA | Olderman 14 9936GT Farmsum | 1:22 |
| YB | Dijkrecht 23 9936GJ Farmsum | 1:32 |
| YC | Dijkrecht 25 9936GJ Farmsum | 1:35 |
| YD | Dijkrecht 27 9936GJ Farmsum | 1:35 |
| YE | Dijkrecht 29 9936GJ Farmsum | 1:35 |
| YF | Dijkrecht 31 9936GJ Farmsum | 1:34 |
| YG | Dijkrecht 33 9936GJ Farmsum | 1:36 |
| YH | Dijkrecht 35 9936GJ Farmsum | 1:35 |
| YI | Dijkrecht 37 9936GJ Farmsum | 1:42 |
| YJ | Dijkrecht 39 9936GJ Farmsum | 1:43 |
| YK | Dijkrecht 41 9936GJ Farmsum | 1:43 |
| YL | Dijkrecht 43 9936GJ Farmsum | 1:45 |
| YM | Olderman 1 9936GS Farmsum | 1:12 |
| YN | Olderman 3 9936GS Farmsum | 1:11 |
| YO | Olderman 5 9936GS Farmsum | 1:11 |
| YP | Olderman 7 9936GS Farmsum | 1:13 |
| YQ | Schepperij 37 9936GM Farmsum | 2:13 |
| YR | Schepperij 41 9936GM Farmsum | 2:16 |
| YS | Schepperij 45 9936GM Farmsum | 2:20 |
| YT | Schepperij 47 9936GM Farmsum | 2:20 |
| YU | Schepperij 49 9936GM Farmsum | 2:21 |
| YV | Olderman 18 9936GT Farmsum | 1:28 |
| YW | Olderman 20 9936GT Farmsum | 1:29 |
| YX | Olderman 22 9936GT Farmsum | 1:28 |
| YY | Olderman 24 9936GT Farmsum | 1:30 |
| YZ | Olderman 26 9936GT Farmsum | 1:30 |
| Z | Hoofdweg 22 9945PG Wagenborgen | 0:00 |
| ZA | Olderman 28 9936GT Farmsum | 1:31 |
| ZB | Olderman 30 9936GT Farmsum | 1:47 |
| ZC | Olderman 9 9936GS Farmsum | 1:20 |
| ZD | Olderman 11 9936GS Farmsum | 1:17 |
| ZE | Olderman 13 9936GS Farmsum | 1:19 |
| ZF | Proosdij 32 9936EX Farmsum | 2:22 |
| ZG | Proosdij 36 9936EX Farmsum | 2:23 |
| ZH | Proosdij 38 9936EX Farmsum | 2:24 |
| ZI | Proosdij 40 9936EX Farmsum | 2:25 |
| ZJ | Proosdij 27 9936EV Farmsum | 2:58 |
| ZK | Proosdij 25 9936EV Farmsum | 2:56 |
| ZL | Proosdij 23 9936EV Farmsum | 2:52 |
| ZM | Proosdij 21 9936EV Farmsum | 2:46 |
| ZN | Seendweg 5 9936GA Farmsum | 4:21 |
| ZO | Proosdij 29 9936EV Farmsum | 2:59 |
| ZP | Proosdij 31 9936EV Farmsum | 3:07 |
| ZQ | Proosdij 33 9936EV Farmsum | 3:43 |
| ZR | Proosdij 35 9936EV Farmsum | 3:49 |
| ZS | Proosdij 37 9936EV Farmsum | 3:45 |
| ZT | Proosdij 39 9936EV Farmsum | 3:41 |
| ZU | Proosdij 41 9936EV Farmsum | 3:39 |
| ZV | Proosdij 43 9936EV Farmsum | 3:35 |
| ZW | Proosdij 45 9936EV Farmsum | 3:32 |

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6-2-2017 15:34/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| ZX | Proosdij 47 9936EV Farmsum | 3:27 |
| ZY | Olderman 15 9936GS Farmsum | 1:20 |
| ZZ | Rengersweg 97 9936GG Farmsum | 2:08 |

Total amount of flickering on the shadow receptors caused by each WTG

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 1 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (32) | 601:59 | 100:12 |
| 2 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (33) | 232:33 | 29:27 |
| 3 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (34) | 91:53 | 18:53 |
| 4 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (35) | 192:54 | 35:46 |
| 5 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (36) | 403:04 | 76:57 |
| 6 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (37) | 332:07 | 43:20 |
| 7 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (38) | 152:28 | 20:30 |
| 8 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (39) | 66:56 | 11:30 |
| 9 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (40) | 110:59 | 23:18 |
| 10 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (41) | 256:40 | 41:15 |
| 11 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (42) | 383:25 | 65:10 |
| 12 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (43) | 47:13 | 6:32 |
| 13 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (44) | 48:44 | 9:41 |
| 14 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (45) | 135:48 | 28:50 |
| 15 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (46) | 266:49 | 51:17 |
| 16 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (47) | 393:04 | 66:59 |
| 17 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (48) | 429:02 | 77:59 |
| 18 | LAGERWEY 80 18.0 !O! hub: 31,0 m (TOT: 40,0 m) (7) | 0:00 | 0:00 |
| 19 | LAGERWEY 80 18.0 !O! hub: 31,0 m (TOT: 40,0 m) (8) | 0:00 | 0:00 |
| 20 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (9) | 17:07 | 3:37 |
| 21 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (10) | 40:28 | 8:08 |
| 22 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (11) | 60:57 | 9:08 |
| 23 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (12) | 24:24 | 3:40 |
| 24 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (13) | 5:26 | 1:00 |
| 25 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (14) | 167:16 | 24:34 |
| 26 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (15) | 0:00 | 0:00 |
| 27 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (16) | 0:00 | 0:00 |
| 28 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (17) | 0:00 | 0:00 |
| 29 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (18) | 23:25 | 3:39 |
| 30 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (19) | 0:00 | 0:00 |
| 31 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (20) | 0:46 | 0:09 |
| 32 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (21) | 40:19 | 8:48 |
| 33 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (22) | 0:49 | 0:10 |
| 34 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (23) | 0:00 | 0:00 |
| 35 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (24) | 0:00 | 0:00 |
| 36 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (25) | 7:08 | 1:36 |
| 37 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (26) | 1:50 | 0:23 |
| 38 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (27) | 0:00 | 0:00 |
| 39 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (28) | 0:00 | 0:00 |
| 40 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (29) | 1:46 | 0:17 |
| 41 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (30) | 6:55 | 1:32 |
| 42 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (31) | 0:00 | 0:00 |
| 43 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (32) | 0:00 | 0:00 |
| 44 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (33) | 0:33 | 0:07 |
| 45 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (34) | 0:12 | 0:02 |
| 46 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (35) | 3:03 | 0:40 |
| 47 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (36) | 0:00 | 0:00 |
| 48 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (37) | 6:32 | 1:04 |
| 49 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (38) | 0:08 | 0:01 |
| 50 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (39) | 8:23 | 0:47 |
| 51 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (40) | 3:23 | 0:41 |
| 52 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (41) | 205:27 | 44:40 |
| 53 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (42) | 95:47 | 12:30 |
| 54 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (43) | 25:14 | 5:47 |
| 55 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (44) | 31:20 | 7:25 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot

...continued from previous page

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 56 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (45) | 23:49 | 5:38 |
| 57 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (46) | 3:15 | 0:47 |
| 58 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (47) | 0:00 | 0:00 |
| 59 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (48) | 0:00 | 0:00 |
| 60 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (49) | 0:00 | 0:00 |
| 61 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (50) | 0:00 | 0:00 |
| 62 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (51) | 0:00 | 0:00 |
| 63 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (52) | 0:00 | 0:00 |
| 64 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (53) | 0:00 | 0:00 |
| 65 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (54) | 0:00 | 0:00 |
| 66 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (55) | 0:00 | 0:00 |
| 67 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (56) | 0:00 | 0:00 |
| 68 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (57) | 0:00 | 0:00 |
| 69 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (58) | 0:00 | 0:00 |
| 70 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (59) | 0:00 | 0:00 |
| 71 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (60) | 0:00 | 0:00 |
| 72 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (61) | 0:00 | 0:00 |
| 73 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (62) | 0:00 | 0:00 |
| 74 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (63) | 0:00 | 0:00 |
| 75 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (64) | 0:00 | 0:00 |
| 76 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (65) | 0:00 | 0:00 |
| 77 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (66) | 0:00 | 0:00 |
| 78 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (67) | 0:00 | 0:00 |
| 79 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (68) | 0:00 | 0:00 |
| 80 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (69) | 0:00 | 0:00 |
| 81 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (70) | 4:11 | 0:36 |
| 82 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (71) | 63:02 | 8:47 |
| 83 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (72) | 82:07 | 15:11 |
| 84 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (73) | 1:53 | 0:17 |
| 85 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (74) | 0:00 | 0:00 |
| 86 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (75) | 0:00 | 0:00 |
| 87 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (76) | 0:00 | 0:00 |
| 88 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (77) | 0:00 | 0:00 |
| 89 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (78) | 0:00 | 0:00 |
| 90 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (79) | 0:00 | 0:00 |
| 91 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (80) | 303:47 | 52:21 |
| 92 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (81) | 410:57 | 83:44 |
| 93 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (82) | 260:23 | 46:39 |
| 94 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (83) | 735:03 | 130:32 |
| 95 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (84) | 875:55 | 141:11 |
| 96 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (85) | 818:02 | 134:39 |
| 97 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (86) | 399:41 | 51:28 |
| 98 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (87) | 200:42 | 29:25 |
| 99 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (88) | 243:15 | 44:32 |
| 100 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (89) | 48:14 | 8:27 |
| 101 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (90) | 16:51 | 3:32 |
| 102 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (91) | 111:17 | 23:25 |
| 103 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (92) | 133:15 | 26:50 |
| 104 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (93) | 85:56 | 17:34 |
| 105 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (94) | 22:20 | 3:43 |
| 106 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (95) | 122:47 | 23:00 |

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Calculated:
8-2-2017 12:07/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot incl verblijfsobjecten later toegevoegd

### Assumptions for shadow calculations

Maximum distance for influence
Calculate only when more than 20 % of sun is covered by the blade
Please look in WTG table

| | |
|---|---|
| Minimum sun height over horizon for influence | 5 ° |
| Day step for calculation | 1 days |
| Time step for calculation | 1 minutes |

Sunshine probability S (Average daily sunshine hours) [EELDE]

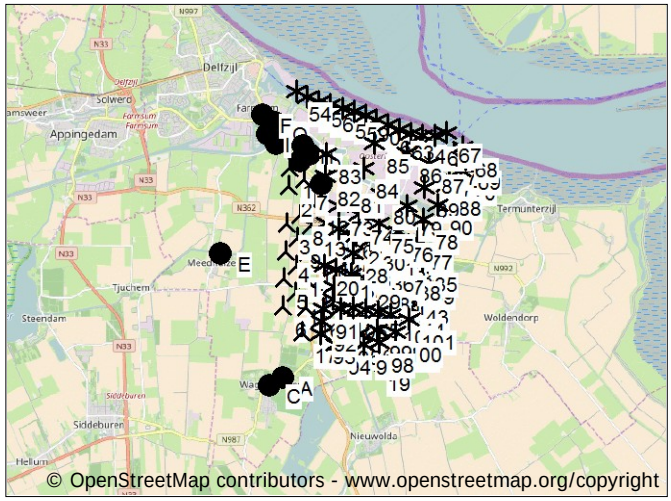
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

All coordinates are in
Dutch Stereo-RD/NAP 2008




Scale 1:200.000
New WTG
Existing WTG
Shadow receptor

### WTGs

| | X (east) | Y (north) | Z | Row data/Description | WTG type Valid | Manufact. | Type-generator | Power, rated | Rotor diameter | Hub height | Shadow data Calculation distance | RPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [m] | | | | | [kW] | [m] | [m] | [m] | [RPM] |
| 1 | 258.611 | 592.414 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 2 | 258.598 | 591.937 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 3 | 258.571 | 590.943 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 4 | 258.553 | 590.211 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 5 | 258.531 | 589.481 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 6 | 258.511 | 588.750 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 7 | 258.993 | 592.118 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 8 | 258.921 | 591.166 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 9 | 258.864 | 590.564 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 10 | 258.843 | 589.832 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 11 | 258.822 | 589.099 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 12 | 259.269 | 591.456 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 13 | 259.216 | 590.910 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 14 | 259.154 | 590.190 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 15 | 259.136 | 589.461 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 16 | 259.113 | 588.725 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 17 | 259.027 | 588.069 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 145,0 | 1.740 | 0,0 |
| 18 | 261.738 | 588.022 | 0,0 | LAGERWEY 80 18.0 !... | No | LAGERWEY | -80 | 80 | 18,0 | 31,0 | 1.740 | 120,0 |
| 19 | 260.986 | 587.360 | 0,0 | LAGERWEY 80 18.0 !... | No | LAGERWEY | -80 | 80 | 18,0 | 31,0 | 1.740 | 120,0 |
| 20 | 259.587 | 589.858 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 21 | 259.890 | 589.770 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 22 | 259.863 | 589.300 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 23 | 259.845 | 588.985 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 24 | 260.245 | 589.206 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 25 | 260.295 | 589.652 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 26 | 259.952 | 590.853 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 27 | 260.412 | 590.685 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 28 | 260.358 | 590.202 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 29 | 260.680 | 589.539 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 30 | 260.789 | 590.548 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 31 | 261.086 | 590.440 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 32 | 260.740 | 590.089 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 33 | 261.353 | 590.343 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 34 | 261.840 | 590.166 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 35 | 262.200 | 590.035 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 36 | 261.031 | 590.003 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 37 | 261.292 | 589.926 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 38 | 261.764 | 589.785 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 39 | 262.111 | 589.683 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |

To be continued on next page...

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8-2-2017 12:07/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot incl verblijfsobjecten later toegevoegd

...continued from previous page

| | X (east) | Y (north) | Z | Row data/Description | WTG type Valid | Manufact. | Type-generator | Power, rated | Rotor diameter | Hub height | Shadow data Calculation distance | RPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [m] | | | | | [kW] | [m] | [m] | [m] | [RPM] |
| 40 | 261.212 | 589.384 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 41 | 261.584 | 588.876 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 42 | 261.660 | 589.255 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 43 | 261.980 | 589.161 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 44 | 261.889 | 588.801 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 45 | 259.922 | 590.332 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 46 | 259.601 | 590.427 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 47 | 259.614 | 590.976 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 48 | 260.962 | 589.457 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 49 | 260.634 | 589.110 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 50 | 260.909 | 589.042 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 51 | 261.153 | 588.982 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 52 | 259.576 | 589.371 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 53 | 259.568 | 589.041 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 54 | 258.748 | 594.458 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 55 | 259.042 | 594.322 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 56 | 259.344 | 594.205 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 57 | 259.655 | 594.114 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 58 | 259.971 | 594.042 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 59 | 260.286 | 593.965 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 60 | 260.596 | 593.872 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 61 | 260.896 | 593.750 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 62 | 261.196 | 593.627 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 63 | 261.497 | 593.509 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 64 | 261.805 | 593.407 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 65 | 262.126 | 593.367 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 66 | 262.450 | 593.380 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 67 | 262.767 | 593.448 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 68 | 263.205 | 593.092 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 69 | 263.273 | 592.764 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 70 | 263.154 | 592.466 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 71 | 262.970 | 592.872 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 72 | 262.850 | 592.574 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 73 | 259.947 | 591.451 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 74 | 260.484 | 591.233 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 75 | 261.011 | 591.019 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 76 | 261.526 | 590.802 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 77 | 262.046 | 590.599 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 78 | 262.190 | 591.144 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 79 | 261.741 | 591.483 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 80 | 261.052 | 591.780 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 81 | 260.181 | 592.081 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 82 | 259.555 | 592.229 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 83 | 259.567 | 592.826 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 84 | 260.577 | 592.475 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 85 | 260.839 | 593.122 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 86 | 261.722 | 592.893 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 87 | 262.307 | 592.636 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 88 | 262.775 | 592.062 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 89 | 262.206 | 591.985 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 90 | 262.568 | 591.542 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 91 | 259.583 | 588.718 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 92 | 259.541 | 588.381 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 93 | 259.520 | 588.051 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 94 | 259.935 | 587.778 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 95 | 260.176 | 588.043 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 96 | 260.538 | 588.081 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 97 | 260.683 | 587.792 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 98 | 261.087 | 587.854 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 99 | 261.036 | 588.189 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 100 | 261.513 | 588.148 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 101 | 261.859 | 588.487 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 102 | 261.380 | 588.591 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |

To be continued on next page...

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Calculated:
8-2-2017 12:07/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot incl verblijfsobjecten later toegevoegd

...continued from previous page

| | X (east) | Y (north) | Z | Row data/Description | WTG type Valid | Manufact. | Type-generator | Power, rated | Rotor diameter | Hub height | Shadow data Calculation distance | RPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [m] | | | | | [kW] | [m] | [m] | [m] | [RPM] |
| 103 | 261.043 | 588.659 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 104 | 260.714 | 588.719 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 105 | 260.368 | 588.763 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 106 | 260.032 | 588.735 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |

## Shadow receptor-Input

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| A | Familie Bronsweg 22 9945PS Wagenborgen | 258.549 | 586.857 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| B | Geefsweersterweg 1 9937TB Meedhuizen | 258.250 | 593.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| C | Hoofdweg 28 9945PG Wagenborgen | 258.194 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| D | Karspelpad 8 9936HP Farmsum | 259.130 | 592.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| E | Maarkampen 12 9937PL Meedhuizen | 256.818 | 590.108 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| F | Molenstraat 64 9936EE Farmsum | 257.875 | 593.798 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| G | Oosterlaan 9 9936HN Farmsum | 259.468 | 591.997 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| H | Schaappad 1 9936HT Farmsum | 258.946 | 593.010 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| I | Seendweg 8 9936GA Farmsum | 258.005 | 593.293 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| J | T.J. Jansenweg 11 9936HL Farmsum | 258.896 | 592.598 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| K | Waarman 1 9936GV Farmsum | 258.213 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| L | Waarman 11 9936GV Farmsum | 258.213 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| M | Waarman 3 9936GV Farmsum | 258.213 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| N | Waarman 5 9936GV Farmsum | 258.213 | 593.587 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| O | Waarman 7 9936GV Farmsum | 258.213 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| P | Waarman 9 9936GV Farmsum | 258.213 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Q | Zijlvest 20 9936GZ Farmsum | 258.233 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

## Calculation Results

Shadow receptor

| No. | Name | Shadow, expected values Shadow hours per year [h/year] |
|---|---|---|
| A | Familie Bronsweg 22 9945PS Wagenborgen | 1:47 |
| B | Geefsweersterweg 1 9937TB Meedhuizen | 10:32 |
| C | Hoofdweg 28 9945PG Wagenborgen | 0:00 |
| D | Karspelpad 8 9936HP Farmsum | 61:45 |
| E | Maarkampen 12 9937PL Meedhuizen | 0:29 |
| F | Molenstraat 64 9936EE Farmsum | 1:01 |
| G | Oosterlaan 9 9936HN Farmsum | 74:40 |
| H | Schaappad 1 9936HT Farmsum | 21:47 |
| I | Seendweg 8 9936GA Farmsum | 4:53 |
| J | T.J. Jansenweg 11 9936HL Farmsum | 69:29 |
| K | Waarman 1 9936GV Farmsum | 2:00 |
| L | Waarman 11 9936GV Farmsum | 2:24 |
| M | Waarman 3 9936GV Farmsum | 2:00 |
| N | Waarman 5 9936GV Farmsum | 2:01 |
| O | Waarman 7 9936GV Farmsum | 2:03 |
| P | Waarman 9 9936GV Farmsum | 2:24 |
| Q | Zijlvest 20 9936GZ Farmsum | 2:30 |

Total amount of flickering on the shadow receptors caused by each WTG

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 1 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (32) | 331:54 | 50:48 |
| 2 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (33) | 110:29 | 13:20 |
| 3 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (34) | 12:52 | 1:28 |
| 4 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (35) | 2:20 | 0:29 |
| 5 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (36) | 0:00 | 0:00 |
| 6 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (37) | 0:00 | 0:00 |

To be continued on next page...

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NL-3521 AV Utrecht
+31 6 51 71 04 93
Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 12:07/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot incl verblijfsobjecten later toegevoegd

...continued from previous page

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 7 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (38) | 288:53 | 40:30 |
| 8 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (39) | 38:30 | 3:56 |
| 9 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (40) | 0:00 | 0:00 |
| 10 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (41) | 0:00 | 0:00 |
| 11 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (42) | 0:00 | 0:00 |
| 12 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (43) | 86:39 | 9:28 |
| 13 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (44) | 0:00 | 0:00 |
| 14 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (45) | 0:00 | 0:00 |
| 15 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (46) | 0:00 | 0:00 |
| 16 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (47) | 0:00 | 0:00 |
| 17 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 145,0 m (TOT: 210,0 m) (48) | 0:00 | 0:00 |
| 18 | LAGERWEY 80 18.0 !O! hub: 31,0 m (TOT: 40,0 m) (7) | 0:00 | 0:00 |
| 19 | LAGERWEY 80 18.0 !O! hub: 31,0 m (TOT: 40,0 m) (8) | 0:00 | 0:00 |
| 20 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (9) | 0:00 | 0:00 |
| 21 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (10) | 0:00 | 0:00 |
| 22 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (11) | 0:00 | 0:00 |
| 23 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (12) | 0:00 | 0:00 |
| 24 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (13) | 0:00 | 0:00 |
| 25 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (14) | 0:00 | 0:00 |
| 26 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (15) | 0:00 | 0:00 |
| 27 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (16) | 0:00 | 0:00 |
| 28 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (17) | 0:00 | 0:00 |
| 29 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (18) | 0:00 | 0:00 |
| 30 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (19) | 0:00 | 0:00 |
| 31 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (20) | 0:00 | 0:00 |
| 32 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (21) | 0:00 | 0:00 |
| 33 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (22) | 0:00 | 0:00 |
| 34 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (23) | 0:00 | 0:00 |
| 35 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (24) | 0:00 | 0:00 |
| 36 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (25) | 0:00 | 0:00 |
| 37 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (26) | 0:00 | 0:00 |
| 38 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (27) | 0:00 | 0:00 |
| 39 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (28) | 0:00 | 0:00 |
| 40 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (29) | 0:00 | 0:00 |
| 41 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (30) | 0:00 | 0:00 |
| 42 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (31) | 0:00 | 0:00 |
| 43 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (32) | 0:00 | 0:00 |
| 44 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (33) | 0:00 | 0:00 |
| 45 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (34) | 0:00 | 0:00 |
| 46 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (35) | 0:00 | 0:00 |
| 47 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (36) | 0:00 | 0:00 |
| 48 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (37) | 0:00 | 0:00 |
| 49 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (38) | 0:00 | 0:00 |
| 50 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (39) | 0:00 | 0:00 |
| 51 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (40) | 0:00 | 0:00 |
| 52 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (41) | 0:00 | 0:00 |
| 53 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (42) | 0:00 | 0:00 |
| 54 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (43) | 0:22 | 0:04 |
| 55 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (44) | 3:17 | 0:49 |
| 56 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (45) | 11:24 | 2:40 |
| 57 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (46) | 1:20 | 0:19 |
| 58 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (47) | 0:00 | 0:00 |
| 59 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (48) | 0:00 | 0:00 |
| 60 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (49) | 0:00 | 0:00 |
| 61 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (50) | 0:00 | 0:00 |
| 62 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (51) | 0:00 | 0:00 |
| 63 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (52) | 0:00 | 0:00 |
| 64 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (53) | 0:00 | 0:00 |
| 65 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (54) | 0:00 | 0:00 |
| 66 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (55) | 0:00 | 0:00 |
| 67 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (56) | 0:00 | 0:00 |
| 68 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (57) | 0:00 | 0:00 |
| 69 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (58) | 0:00 | 0:00 |
| 70 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (59) | 0:00 | 0:00 |
| 71 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (60) | 0:00 | 0:00 |

To be continued on next page...

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Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 12:07/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2A groot incl verblijfsobjecten later toegevoegd

...continued from previous page

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 72 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (61) | 0:00 | 0:00 |
| 73 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (62) | 63:40 | 7:52 |
| 74 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (63) | 12:29 | 1:42 |
| 75 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (64) | 2:38 | 0:22 |
| 76 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (65) | 0:00 | 0:00 |
| 77 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (66) | 0:00 | 0:00 |
| 78 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (67) | 0:00 | 0:00 |
| 79 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (68) | 0:00 | 0:00 |
| 80 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (69) | 4:06 | 0:41 |
| 81 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (70) | 67:58 | 13:43 |
| 82 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (71) | 129:14 | 16:06 |
| 83 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (72) | 302:43 | 63:47 |
| 84 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (73) | 32:21 | 6:34 |
| 85 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (74) | 4:58 | 1:03 |
| 86 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (75) | 0:00 | 0:00 |
| 87 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (76) | 0:00 | 0:00 |
| 88 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (77) | 0:00 | 0:00 |
| 89 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (78) | 0:00 | 0:00 |
| 90 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (79) | 0:00 | 0:00 |
| 91 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (80) | 0:00 | 0:00 |
| 92 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (81) | 0:00 | 0:00 |
| 93 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (82) | 0:00 | 0:00 |
| 94 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (83) | 8:10 | 1:47 |
| 95 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (84) | 0:00 | 0:00 |
| 96 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (85) | 0:00 | 0:00 |
| 97 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (86) | 0:00 | 0:00 |
| 98 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (87) | 0:00 | 0:00 |
| 99 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (88) | 0:00 | 0:00 |
| 100 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (89) | 0:00 | 0:00 |
| 101 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (90) | 0:00 | 0:00 |
| 102 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (91) | 0:00 | 0:00 |
| 103 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (92) | 0:00 | 0:00 |
| 104 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (93) | 0:00 | 0:00 |
| 105 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (94) | 0:00 | 0:00 |
| 106 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (95) | 0:00 | 0:00 |

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Hans / Hans@boschenvanrijn.nl
Calculated:
3-2-2017 15:34/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2B

### Assumptions for shadow calculations

Maximum distance for influence
Calculate only when more than 20 % of sun is covered by the blade
Please look in WTG table

| | |
|---|---|
| Minimum sun height over horizon for influence | 5 ° |
| Day step for calculation | 1 days |
| Time step for calculation | 1 minutes |

Sunshine probability S (Average daily sunshine hours) [EELDE]

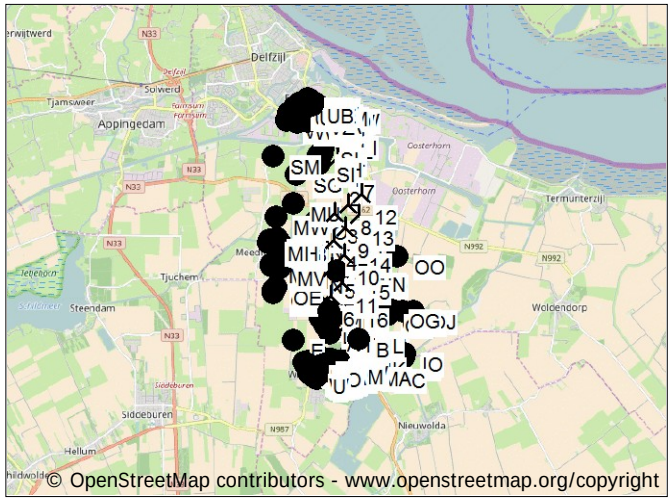
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

All coordinates are in
Dutch Stereo-RD/NAP 2008




Scale 1:200.000

New WTG  Shadow receptor

## WTGs

| | X (east) | Y (north) | Z | Row data/Description | WTG type Valid | Manufact. | Type-generator | Power, rated | Rotor diameter | Hub height | Shadow data Calculation distance | RPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [m] | | | | | [kW] | [m] | [m] | [m] | [RPM] |
| 1 | 258.611 | 592.414 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 2 | 258.598 | 591.937 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 3 | 258.571 | 590.943 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 4 | 258.553 | 590.211 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 5 | 258.531 | 589.481 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 6 | 258.511 | 588.750 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 7 | 258.993 | 592.118 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 8 | 258.921 | 591.166 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 9 | 258.864 | 590.564 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 10 | 258.843 | 589.832 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 11 | 258.822 | 589.099 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 12 | 259.269 | 591.456 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 13 | 259.216 | 590.910 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 14 | 259.154 | 590.190 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 15 | 259.136 | 589.461 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 16 | 259.113 | 588.725 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 17 | 259.027 | 588.069 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |

## Shadow receptor-Input

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| [A | Rengersweg 99 9936GG Farmsum | 258.006 | 593.455 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [B | Rengersweg 12 9936GH Farmsum | 258.034 | 593.437 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [C | Rengersweg 10 9936GH Farmsum | 258.034 | 593.444 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [D | Kluft 1 9936GP Farmsum | 258.040 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [E | Kluft 3 9936GP Farmsum | 258.047 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [F | Proosdij 46 9936EX Farmsum | 258.058 | 593.427 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [G | Proosdij 48 9936EX Farmsum | 258.062 | 593.433 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [H | Proosdij 50 9936EX Farmsum | 258.090 | 593.443 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [I | Proosdij 52 9936EX Farmsum | 258.090 | 593.430 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [J | Proosdij 54 9936EX Farmsum | 258.094 | 593.415 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [K | Proosdij 56 9936EX Farmsum | 258.108 | 593.416 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [L | Olderman 21 9936GS Farmsum | 258.128 | 593.420 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [M | Olderman 19 9936GS Farmsum | 258.126 | 593.434 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [N | Olderman 17 9936GS Farmsum | 258.125 | 593.448 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [O | Kluft 5 9936GP Farmsum | 258.060 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [P | Kluft 7 9936GP Farmsum | 258.067 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
3-2-2017 15:34/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2B

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| [Q | Kluft 9 9936GP Farmsum | 258.096 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [R | Kluft 11 9936GP Farmsum | 258.102 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [S | Kluft 17 9936GP Farmsum | 258.122 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [T | Zijlvest 8 9936GZ Farmsum | 258.202 | 593.424 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [U | Olderman 32 9936GT Farmsum | 258.151 | 593.480 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [V | Olderman 34 9936GT Farmsum | 258.151 | 593.474 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [W | Olderman 36 9936GT Farmsum | 258.153 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [X | Olderman 38 9936GT Farmsum | 258.153 | 593.453 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [Y | Olderman 40 9936GT Farmsum | 258.155 | 593.440 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [Z | Olderman 42 9936GT Farmsum | 258.155 | 593.434 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \A | Zijlvest 22 A 9936GZ Farmsum | 258.238 | 593.466 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \B | Zijlvest 18 A 9936GZ Farmsum | 258.229 | 593.451 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \C | Zijlvest 18 9936GZ Farmsum | 258.233 | 593.449 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \D | Zijlvest 14 9936GZ Farmsum | 258.229 | 593.441 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \E | Borgweg 1 9936EH Farmsum | 258.030 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \F | Borgweg 3 9936EH Farmsum | 258.031 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \G | Borgweg 5 9936EH Farmsum | 258.031 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \H | Borgweg 7 9936EH Farmsum | 258.031 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \I | Borgweg 9 9936EH Farmsum | 258.031 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \J | Borgweg 11 9936EH Farmsum | 258.031 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \K | Borgweg 13 9936EH Farmsum | 258.031 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \L | Borgweg 15 9936EH Farmsum | 258.033 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \M | Borgweg 17 9936EH Farmsum | 258.033 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \N | Borgweg 19 9936EH Farmsum | 258.033 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \O | Borgweg 21 9936EH Farmsum | 258.033 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \P | Borgweg 23 9936EH Farmsum | 258.033 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \Q | Borgweg 25 9936EH Farmsum | 258.033 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \R | Borgweg 27 9936EH Farmsum | 258.033 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \S | Borgweg 29 9936EJ Farmsum | 258.035 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \T | Borgweg 31 9936EJ Farmsum | 258.035 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \U | Borgweg 33 9936EJ Farmsum | 258.035 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \V | Borgweg 35 9936EJ Farmsum | 258.035 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \W | Borgweg 37 9936EJ Farmsum | 258.035 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \X | Borgweg 39 9936EJ Farmsum | 258.036 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \Y | Borgweg 41 9936EJ Farmsum | 258.036 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \Z | Borgweg 43 9936EJ Farmsum | 258.037 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]A | Borgweg 45 9936EJ Farmsum | 258.038 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]B | Borgweg 47 9936EJ Farmsum | 258.038 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]C | Borgweg 49 9936EJ Farmsum | 258.038 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]D | Borgweg 51 9936EJ Farmsum | 258.038 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]E | Borgweg 53 9936EJ Farmsum | 258.038 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]F | Borgweg 55 9936EJ Farmsum | 258.038 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]G | Borgweg 57 9936EK Farmsum | 258.003 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]H | Borgweg 59 9936EK Farmsum | 258.003 | 593.802 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]I | Borgweg 61 9936EK Farmsum | 258.003 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]J | Borgweg 63 9936EK Farmsum | 258.003 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]K | Borgweg 65 9936EK Farmsum | 258.003 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]L | Borgweg 67 9936EK Farmsum | 258.003 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]M | Borgweg 69 9936EK Farmsum | 258.003 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]N | Borgweg 71 9936EK Farmsum | 258.006 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]O | Borgweg 73 9936EK Farmsum | 258.006 | 593.802 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]P | Borgweg 75 9936EK Farmsum | 258.006 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]Q | Borgweg 77 9936EK Farmsum | 258.005 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]R | Borgweg 79 9936EK Farmsum | 258.005 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]S | Borgweg 81 9936EK Farmsum | 258.005 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]T | Borgweg 83 9936EK Farmsum | 258.005 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]U | Borgweg 85 9936EL Farmsum | 258.008 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]V | Borgweg 87 9936EL Farmsum | 258.008 | 593.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]W | Borgweg 89 9936EL Farmsum | 258.008 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]X | Borgweg 91 9936EL Farmsum | 258.008 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]Y | Borgweg 93 9936EL Farmsum | 258.008 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]Z | Borgweg 95 9936EL Farmsum | 258.008 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^A | Borgweg 97 9936EL Farmsum | 258.008 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^B | Borgweg 99 9936EL Farmsum | 258.010 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2B

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| ^C | Borgweg 101 9936EL Farmsum | 258.010 | 593.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^D | Borgweg 103 9936EL Farmsum | 258.010 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^E | Borgweg 105 9936EL Farmsum | 258.010 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^F | Borgweg 107 9936EL Farmsum | 258.010 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^G | Borgweg 109 9936EL Farmsum | 258.010 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^H | Borgweg 111 9936EL Farmsum | 258.010 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^I | Kluft 18 9936GR Farmsum | 258.043 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^J | Kluft 20 9936GR Farmsum | 258.050 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^K | Kluft 22 9936GR Farmsum | 258.057 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^L | Kluft 24 9936GR Farmsum | 258.064 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^M | Kluft 26 9936GR Farmsum | 258.071 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^N | Kluft 28 9936GR Farmsum | 258.078 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^O | Kluft 30 9936GR Farmsum | 258.085 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^P | Kluft 32 9936GR Farmsum | 258.092 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Q | Kluft 2 9936GR Farmsum | 258.043 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^R | Kluft 4 9936GR Farmsum | 258.050 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^S | Kluft 6 9936GR Farmsum | 258.057 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^T | Kluft 8 9936GR Farmsum | 258.064 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^U | Kluft 10 9936GR Farmsum | 258.071 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^V | Kluft 12 9936GR Farmsum | 258.078 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^W | Kluft 14 9936GR Farmsum | 258.085 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^X | Kluft 16 9936GR Farmsum | 258.092 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Y | Zijlvest 20 A 9936GZ Farmsum | 258.233 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Z | Schepperij 51 9936GM Farmsum | 258.194 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _A | Waarman 15 9936GV Farmsum | 258.223 | 593.543 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _B | Waarman 17 9936GV Farmsum | 258.223 | 593.537 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _C | Waarman 19 9936GV Farmsum | 258.223 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _D | Waarman 21 9936GV Farmsum | 258.223 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _E | Waarman 23 9936GV Farmsum | 258.223 | 593.518 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _F | Waarman 25 9936GV Farmsum | 258.223 | 593.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _G | Waarman 27 9936GV Farmsum | 258.223 | 593.506 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _H | Waarman 29 9936GV Farmsum | 258.222 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _I | Heemskesweg 5 9936HE Farmsum | 258.759 | 592.961 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _J | Geefsweersterweg 2 9937TC Meedhuizen | 258.288 | 593.033 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _K | Seendweg 12 9936GA Farmsum | 257.950 | 593.306 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _L | Schepperij 39 9936GM Farmsum | 258.194 | 593.537 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _M | Schepperij 43 9936GM Farmsum | 258.194 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _N | Zijlvest 14 A 9936GZ Farmsum | 258.222 | 593.445 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _O | Zijlvest 24 A 9936GZ Farmsum | 258.239 | 593.474 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| A | Familie Bronsweg 60 9945TA Wagenborgen | 258.511 | 587.742 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AA | Hoofdweg 26 9945PG Wagenborgen | 258.194 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AB | Hoofdweg 23 9945PA Wagenborgen | 258.227 | 586.683 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AC | Hoofdweg 25 9945PA Wagenborgen | 258.217 | 586.663 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AD | Hoofdweg 27 9945PA Wagenborgen | 258.213 | 586.652 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AE | Hoofdweg 29 9945PA Wagenborgen | 258.212 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AF | Hoofdweg 18 9945PG Wagenborgen | 258.219 | 586.709 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AG | Hoofdweg 14 9945PG Wagenborgen | 258.222 | 586.726 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AH | Hoofdweg 10 9945PG Wagenborgen | 258.236 | 586.722 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AI | Hoofdweg 8 9945PG Wagenborgen | 258.258 | 586.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AJ | Hoofdweg 6 9945PG Wagenborgen | 258.276 | 586.731 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AK | Hoofdweg 4 9945PG Wagenborgen | 258.298 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AL | Hoofdweg 21 9945PA Wagenborgen | 258.243 | 586.704 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AM | Hoofdweg 19 9945PA Wagenborgen | 258.272 | 586.709 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AN | Hoofdweg 2 9945PG Wagenborgen | 258.318 | 586.748 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AO | Hoofdweg 15 9945PA Wagenborgen | 258.311 | 586.705 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AP | Hoofdweg 9 9945PA Wagenborgen | 258.331 | 586.713 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AQ | Hoofdweg 11 9945PA Wagenborgen | 258.325 | 586.710 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AR | Hoofdweg 7 9945PA Wagenborgen | 258.338 | 586.725 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AS | Hoofdweg 5 9945PA Wagenborgen | 258.343 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AT | H.L. Emmensweg 17 9945PW Wagenborgen | 258.087 | 586.741 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AU | H.L. Emmensweg 18 9945PX Wagenborgen | 258.106 | 586.733 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AV | H.L. Emmensweg 20 9945PX Wagenborgen | 258.107 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AW | H.L. Emmensweg 22 9945PX Wagenborgen | 258.107 | 586.747 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AX | H.L. Emmensweg 24 9945PX Wagenborgen | 258.108 | 586.753 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
3-2-2017 15:34/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2B

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| AY | H.L. Emmensweg 26 9945PX Wagenborgen | 258.111 | 586.767 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AZ | H.L. Emmensweg 10 9945PX Wagenborgen | 258.103 | 586.698 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| B | Tolhek 4 9945TJ Wagenborgen | 259.289 | 587.610 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BA | H.L. Emmensweg 12 9945PX Wagenborgen | 258.103 | 586.704 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BB | H.L. Emmensweg 14 9945PX Wagenborgen | 258.104 | 586.711 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BC | H.L. Emmensweg 16 9945PX Wagenborgen | 258.105 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BD | H.L. Emmensweg 13 9945PW Wagenborgen | 258.085 | 586.719 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BE | H.L. Emmensweg 15 9945PW Wagenborgen | 258.086 | 586.725 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BF | H.L. Emmensweg 9 9945PW Wagenborgen | 258.083 | 586.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BG | H.L. Emmensweg 11 9945PW Wagenborgen | 258.084 | 586.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BH | H.L. Emmensweg 5 9945PW Wagenborgen | 258.081 | 586.681 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BI | H.L. Emmensweg 7 9945PW Wagenborgen | 258.082 | 586.687 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BJ | H.L. Emmensweg 4 9945PX Wagenborgen | 258.103 | 586.676 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BK | H.L. Emmensweg 2 9945PX Wagenborgen | 258.099 | 586.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BL | H.L. Emmensweg 1 9945PW Wagenborgen | 258.081 | 586.651 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BM | H.L. Emmensweg 3 9945PW Wagenborgen | 258.083 | 586.667 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BN | de Linden 4 9945PZ Wagenborgen | 258.042 | 586.733 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BO | de Linden 6 9945PZ Wagenborgen | 258.058 | 586.734 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BP | de Linden 10 9945PZ Wagenborgen | 258.040 | 586.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BQ | de Linden 12 9945PZ Wagenborgen | 258.021 | 586.721 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BR | de Linden 2 9945PZ Wagenborgen | 258.030 | 586.694 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BS | de Wilgen 12 9945RB Wagenborgen | 258.008 | 586.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BT | de Wilgen 10 9945RB Wagenborgen | 258.008 | 586.764 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BU | de Wilgen 8 9945RB Wagenborgen | 258.007 | 586.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BV | de Wilgen 2 9945RB Wagenborgen | 257.995 | 586.662 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BW | de Wilgen 4 9945RB Wagenborgen | 257.997 | 586.675 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BX | de Wilgen 6 9945RB Wagenborgen | 258.001 | 586.693 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BY | de Wilgen 6 A 9945RB Wagenborgen | 258.004 | 586.726 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BZ | de Wilgen 3 9945RB Wagenborgen | 257.975 | 586.694 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| C | Tolhek 1 9945TJ Wagenborgen | 259.114 | 587.301 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CA | de Wilgen 3 A 9945RB Wagenborgen | 257.977 | 586.713 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CB | de Wilgen 3 B 9945RB Wagenborgen | 257.977 | 586.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CC | de Wilgen 5 9945RB Wagenborgen | 257.973 | 586.766 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CD | de Wilgen 46 9945RB Wagenborgen | 258.036 | 586.921 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CE | de Wilgen 44 9945RB Wagenborgen | 258.036 | 586.927 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CF | de Wilgen 48 9945RB Wagenborgen | 258.034 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CG | de Wilgen 50 9945RB Wagenborgen | 258.034 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CH | de Wilgen 36 9945RB Wagenborgen | 258.060 | 586.908 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CI | de Wilgen 38 9945RB Wagenborgen | 258.059 | 586.915 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CJ | de Wilgen 40 9945RB Wagenborgen | 258.059 | 586.921 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CK | de Wilgen 42 9945RB Wagenborgen | 258.059 | 586.928 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CL | de Wilgen 28 9945RB Wagenborgen | 258.050 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CM | de Wilgen 30 9945RB Wagenborgen | 258.056 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CN | de Wilgen 32 9945RB Wagenborgen | 258.063 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CO | de Wilgen 34 9945RB Wagenborgen | 258.070 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CP | de Wilgen 24 9945TK Wagenborgen | 258.033 | 586.884 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CQ | de Wilgen 26 9945RB Wagenborgen | 258.039 | 586.886 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CR | de Wilgen 20 9945RB Wagenborgen | 258.019 | 586.866 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CS | de Wilgen 22 9945RB Wagenborgen | 258.019 | 586.872 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CT | de Wilgen 18 9945RB Wagenborgen | 258.016 | 586.853 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CU | de Wilgen 16 9945RB Wagenborgen | 258.015 | 586.837 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CV | de Wilgen 14 9945RB Wagenborgen | 258.014 | 586.813 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CW | de Wilgen 9 9945RB Wagenborgen | 257.970 | 586.829 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CX | de Wilgen 52 9945RB Wagenborgen | 258.167 | 587.083 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CY | Menterne 22 9945RA Wagenborgen | 257.891 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CZ | Menterne 18 9945RA Wagenborgen | 257.856 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| D | Familie Bronsweg 62 9945TA Wagenborgen | 258.389 | 587.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DA | Menterne 21 9945RA Wagenborgen | 257.884 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DB | Menterne 19 9945RA Wagenborgen | 257.863 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DC | Menterne 20 9945RA Wagenborgen | 257.876 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DD | Menterne 17 9945RA Wagenborgen | 257.849 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DE | Menterne 7 9945RA Wagenborgen | 257.896 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DF | Menterne 8 9945RA Wagenborgen | 257.889 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DG | Menterne 9 9945RA Wagenborgen | 257.882 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2B

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| DH | Menterne 10 9945RA Wagenborgen | 257.875 | 586.913 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DI | Menterne 11 9945RA Wagenborgen | 257.893 | 586.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DJ | Menterne 12 9945RA Wagenborgen | 257.893 | 586.932 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DK | Menterne 13 9945RA Wagenborgen | 257.893 | 586.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DL | Menterne 14 9945RA Wagenborgen | 257.893 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DM | Menterne 1 9945RA Wagenborgen | 257.930 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DN | Menterne 2 9945RA Wagenborgen | 257.924 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DO | Menterne 3 9945RA Wagenborgen | 257.917 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DP | Menterne 4 9945RA Wagenborgen | 257.910 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DQ | Menterne 5 9945RA Wagenborgen | 257.899 | 586.883 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DR | Menterne 6 9945RA Wagenborgen | 257.899 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DS | Menterne 15 9945RA Wagenborgen | 257.866 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DT | Menterne 16 9945RA Wagenborgen | 257.866 | 586.952 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DU | de Berken 6 9945PT Wagenborgen | 258.085 | 586.768 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DV | de Berken 2 9945PT Wagenborgen | 258.040 | 586.782 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DW | de Berken 4 9945PT Wagenborgen | 258.061 | 586.783 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DX | de Berken 1 9945PT Wagenborgen | 258.038 | 586.808 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DY | de Berken 5 9945PT Wagenborgen | 258.087 | 586.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DZ | de Berken 7 9945PT Wagenborgen | 258.102 | 586.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| E | Meerweg 3 9945RC Wagenborgen | 257.540 | 587.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EA | de Berken 9 9945PT Wagenborgen | 258.109 | 586.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EB | de Eiken 14 9945VA Wagenborgen | 258.037 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EC | de Eiken 16 9945VA Wagenborgen | 258.044 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ED | de Eiken 2 9945VA Wagenborgen | 258.061 | 586.829 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EE | de Eiken 4 9945VA Wagenborgen | 258.061 | 586.836 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EF | de Eiken 6 9945VA Wagenborgen | 258.061 | 586.842 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EG | de Eiken 8 9945VA Wagenborgen | 258.062 | 586.853 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EH | de Eiken 10 9945VA Wagenborgen | 258.061 | 586.859 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EI | de Eiken 12 9945VA Wagenborgen | 258.061 | 586.866 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EJ | de Eiken 2 A 9945VA Wagenborgen | 258.065 | 586.807 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EK | Troostlaan 7 9945PV Wagenborgen | 258.200 | 586.801 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EL | Troostlaan 8 9945PV Wagenborgen | 258.187 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EM | Troostlaan 9 9945PV Wagenborgen | 258.172 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EN | Troostlaan 10 9945PV Wagenborgen | 258.153 | 586.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EO | Troostlaan 11 9945PV Wagenborgen | 258.142 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EP | Troostlaan 1 9945PV Wagenborgen | 258.204 | 586.736 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EQ | Troostlaan 2 9945PV Wagenborgen | 258.204 | 586.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ER | Troostlaan 3 9945PV Wagenborgen | 258.205 | 586.772 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ES | Troostlaan 2 A 9945PV Wagenborgen | 258.221 | 586.769 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ET | Troostlaan 4 9945PV Wagenborgen | 258.228 | 586.858 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EU | Troostlaan 14 9945PV Wagenborgen | 258.132 | 586.686 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EV | Troostlaan 22 9945PV Wagenborgen | 258.177 | 586.707 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EW | Troostlaan 20 9945PV Wagenborgen | 258.155 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EX | Troostlaan 21 9945PV Wagenborgen | 258.162 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EY | Troostlaan 18 9945PV Wagenborgen | 258.132 | 586.718 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EZ | Troostlaan 19 9945PV Wagenborgen | 258.139 | 586.718 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| F | G. Boelmanweg 2 9945RJ Wagenborgen | 258.181 | 586.579 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FA | Familie Bronsweg 40 9945PS Wagenborgen | 258.373 | 586.856 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FB | Familie Bronsweg 44 9945PS Wagenborgen | 258.373 | 586.900 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FC | Familie Bronsweg 46 9945PS Wagenborgen | 258.373 | 586.905 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FD | Familie Bronsweg 48 9945PS Wagenborgen | 258.375 | 586.919 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FE | Familie Bronsweg 50 9945PS Wagenborgen | 258.376 | 586.924 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FF | Familie Bronsweg 79 9945PP Wagenborgen | 258.360 | 586.991 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FG | Familie Bronsweg 81 9945PP Wagenborgen | 258.361 | 586.997 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FH | Familie Bronsweg 36 9945PS Wagenborgen | 258.377 | 586.815 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FI | Familie Bronsweg 38 9945PS Wagenborgen | 258.365 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FJ | Familie Bronsweg 42 9945PS Wagenborgen | 258.371 | 586.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FK | Familie Bronsweg 54 9945PS Wagenborgen | 258.390 | 587.021 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FL | Familie Bronsweg 52 9945PS Wagenborgen | 258.387 | 586.987 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FM | Familie Bronsweg 50 B 9945PS Wagenborgen | 258.384 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FN | Familie Bronsweg 50 A 9945PS Wagenborgen | 258.381 | 586.949 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FO | Familie Bronsweg 75 9945PP Wagenborgen | 258.353 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FP | Familie Bronsweg 75 A 9945PP Wagenborgen | 258.355 | 586.957 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FQ | Familie Bronsweg 75 B 9945PP Wagenborgen | 258.357 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
3-2-2017 15:34/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2B

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| FR | Familie Bronsweg 71 9945PP Wagenborgen | 258.349 | 586.917 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FS | Familie Bronsweg 69 A 9945PP Wagenborgen | 258.347 | 586.902 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FT | Familie Bronsweg 69 9945PP Wagenborgen | 258.344 | 586.888 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FU | Familie Bronsweg 67 9945PP Wagenborgen | 258.342 | 586.873 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FV | Familie Bronsweg 65 9945PP Wagenborgen | 258.341 | 586.863 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FW | Familie Bronsweg 63 9945PP Wagenborgen | 258.338 | 586.850 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FX | Familie Bronsweg 61 9945PP Wagenborgen | 258.335 | 586.831 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FY | Familie Bronsweg 59 9945PP Wagenborgen | 258.334 | 586.816 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FZ | Familie Bronsweg 57 9945PP Wagenborgen | 258.332 | 586.805 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| G | G. Boelmanweg 3 9945RE Wagenborgen | 258.198 | 586.584 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GA | Familie Bronsweg 53 9945PP Wagenborgen | 258.332 | 586.793 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GB | Familie Bronsweg 73 9945PP Wagenborgen | 258.351 | 586.930 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GC | Familie Bronsweg 85 9945PP Wagenborgen | 258.372 | 587.065 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GD | Familie Bronsweg 83 9945PP Wagenborgen | 258.363 | 587.014 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GE | Familie Bronsweg 83 A 9945PP Wagenborgen | 258.365 | 587.034 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GF | Familie Bronsweg 77 9945PP Wagenborgen | 258.333 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GG | Familie Bronsweg 51 9945PP Wagenborgen | 258.389 | 586.776 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GH | Familie Bronsweg 2 9945PR Wagenborgen | 258.765 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GI | Familie Bronsweg 4 9945PR Wagenborgen | 258.743 | 586.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GJ | Familie Bronsweg 4 A 9945PR Wagenborgen | 258.723 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GK | Familie Bronsweg 6 9945PR Wagenborgen | 258.705 | 586.916 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GL | Familie Bronsweg 8 9945PR Wagenborgen | 258.677 | 586.901 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GM | Familie Bronsweg 10 9945PR Wagenborgen | 258.649 | 586.888 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GN | Familie Bronsweg 12 9945PR Wagenborgen | 258.620 | 586.864 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GO | Familie Bronsweg 14 9945PR Wagenborgen | 258.608 | 586.858 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GP | Familie Bronsweg 16 9945PR Wagenborgen | 258.597 | 586.852 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GQ | Familie Bronsweg 15 9945PN Wagenborgen | 258.511 | 586.783 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GR | Familie Bronsweg 17 9945PN Wagenborgen | 258.473 | 586.777 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GS | Familie Bronsweg 2 A 9945PR Wagenborgen | 258.786 | 587.001 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GT | Familie Bronsweg 2 B 9945PR Wagenborgen | 258.745 | 587.014 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GU | Familie Bronsweg 2 C 9945PR Wagenborgen | 258.710 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GV | Familie Bronsweg 2 D 9945PR Wagenborgen | 258.686 | 586.974 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GW | Familie Bronsweg 2 F 9945PR Wagenborgen | 258.671 | 586.991 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GX | Familie Bronsweg 2 G 9945PR Wagenborgen | 258.671 | 587.016 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GY | Familie Bronsweg 2 H 9945PR Wagenborgen | 258.696 | 587.012 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GZ | Familie Bronsweg 2 J 9945PR Wagenborgen | 258.717 | 587.009 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| H | G. Boelmanweg 5 9945RE Wagenborgen | 258.203 | 586.561 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HA | Akeleistraat 17 9945VD Wagenborgen | 258.515 | 587.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HB | Akeleistraat 19 9945VD Wagenborgen | 258.505 | 587.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HC | Akeleistraat 21 9945VD Wagenborgen | 258.486 | 587.050 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HD | Akeleistraat 23 9945VD Wagenborgen | 258.477 | 587.051 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HE | Akeleistraat 20 9945VD Wagenborgen | 258.448 | 587.022 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HF | Akeleistraat 22 9945VD Wagenborgen | 258.439 | 587.022 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HG | Akeleistraat 16 9945VD Wagenborgen | 258.477 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HH | Akeleistraat 18 9945VD Wagenborgen | 258.467 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HI | Akeleistraat 12 9945VD Wagenborgen | 258.506 | 587.013 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HJ | Akeleistraat 14 9945VD Wagenborgen | 258.496 | 587.013 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HK | Akeleistraat 10 9945VD Wagenborgen | 258.532 | 587.007 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HL | Akeleistraat 1 9945VD Wagenborgen | 258.634 | 587.024 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HM | Akeleistraat 3 9945VD Wagenborgen | 258.625 | 587.021 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HN | Akeleistraat 5 9945VD Wagenborgen | 258.604 | 587.023 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HO | Akeleistraat 7 9945VD Wagenborgen | 258.595 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HP | Akeleistraat 9 9945VD Wagenborgen | 258.574 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HQ | Akeleistraat 11 9945VD Wagenborgen | 258.565 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HR | Akeleistraat 2 9945VD Wagenborgen | 258.626 | 586.998 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HS | Akeleistraat 4 9945VD Wagenborgen | 258.617 | 586.995 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HT | Akeleistraat 6 9945VD Wagenborgen | 258.597 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HU | Akeleistraat 8 9945VD Wagenborgen | 258.588 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HV | Akeleistraat 15 9945VD Wagenborgen | 258.535 | 587.045 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HW | Bremstraat 6 9945VC Wagenborgen | 258.522 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HX | Bremstraat 2 9945VC Wagenborgen | 258.570 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HY | Bremstraat 4 9945VC Wagenborgen | 258.545 | 586.969 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HZ | Bremstraat 12 9945VC Wagenborgen | 258.448 | 586.982 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| I | G. Boelmanweg 4 9945RJ Wagenborgen | 258.168 | 586.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2B

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| IA | Hibiscusstraat 30 9945VB Wagenborgen | 258.633 | 586.942 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IB | Hibiscusstraat 2 9945VB Wagenborgen | 258.428 | 586.818 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IC | Hibiscusstraat 4 9945VB Wagenborgen | 258.449 | 586.865 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ID | Hibiscusstraat 10 9945VB Wagenborgen | 258.426 | 586.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IE | Hibiscusstraat 16 9945VB Wagenborgen | 258.482 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IF | Bremstraat 14 9945VC Wagenborgen | 258.428 | 586.984 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IG | Hibiscusstraat 6 9945VB Wagenborgen | 258.417 | 586.860 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IH | Hibiscusstraat 26 9945VB Wagenborgen | 258.608 | 586.953 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| II | Kopaf 8 9945TE Wagenborgen | 259.518 | 587.109 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IJ | Kopaf 7 9945TE Wagenborgen | 259.555 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IK | Kopaf 6 9945TE Wagenborgen | 259.575 | 587.100 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IL | Kloosterlaan 27 9945TG Wagenborgen | 259.558 | 587.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IM | Kloosterlaan 25 9945TG Wagenborgen | 259.567 | 587.793 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IN | Kloosterlaan 23 9945TG Wagenborgen | 259.592 | 587.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IO | Scheve Klap 5 9945TD Wagenborgen | 260.522 | 587.264 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IP | Scheve Klap 4 9945TD Wagenborgen | 260.493 | 587.154 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IQ | Hibiscusstraat 8 9945VB Wagenborgen | 258.420 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IR | Hibiscusstraat 12 9945VB Wagenborgen | 258.431 | 586.945 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IS | Hibiscusstraat 18 9945VB Wagenborgen | 258.503 | 586.931 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IT | Hibiscusstraat 24 9945VB Wagenborgen | 258.612 | 586.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IU | Hibiscusstraat 22 9945VB Wagenborgen | 258.583 | 586.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IV | Troostlaan 15 9945PV Wagenborgen | 258.151 | 586.693 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IW | Bremstraat 10 9945VC Wagenborgen | 258.473 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IX | Hibiscusstraat 20 9945VB Wagenborgen | 258.529 | 586.931 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IY | Hibiscusstraat 28 9945VB Wagenborgen | 258.622 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IZ | Troostlaan 5 9945PV Wagenborgen | 258.189 | 586.911 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| J | G. Boelmanweg 7 9945RE Wagenborgen | 258.198 | 586.536 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JA | Troostlaan 6 9945PV Wagenborgen | 258.249 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JB | Boslaan 5 9945TM Wagenborgen | 259.413 | 587.123 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JC | Hoofdweg 33 A 9945PB Wagenborgen | 258.174 | 586.602 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JD | Akeleistraat 13 9945VD Wagenborgen | 258.569 | 587.057 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JE | Hoofdweg 42 9945PG Wagenborgen | 258.103 | 586.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JF | Familie Bronsweg 2 E 9945PR Wagenborgen | 258.670 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JG | Hibiscusstraat 14 9945VB Wagenborgen | 258.456 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JH | Bremstraat 8 9945VC Wagenborgen | 258.502 | 586.974 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JI | Menterne 23 003 9945RA Wagenborgen | 257.949 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JJ | Menterne 23 004 9945RA Wagenborgen | 257.949 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JK | Menterne 23 005 9945RA Wagenborgen | 257.948 | 586.990 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JL | Menterne 23 006 9945RA Wagenborgen | 257.948 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JM | Menterne 23 007 9945RA Wagenborgen | 257.960 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JN | Menterne 23 008 9945RA Wagenborgen | 257.960 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JO | Menterne 23 009 9945RA Wagenborgen | 257.960 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JP | Menterne 23 010 9945RA Wagenborgen | 257.961 | 586.988 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JQ | Menterne 23 017 9945RA Wagenborgen | 257.971 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JR | Menterne 23 030 9945RA Wagenborgen | 257.958 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JS | Menterne 23 103 9945RA Wagenborgen | 257.951 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JT | Menterne 23 104 9945RA Wagenborgen | 257.951 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JU | Menterne 23 105 9945RA Wagenborgen | 257.951 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JV | Menterne 23 106 9945RA Wagenborgen | 257.950 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JW | Menterne 23 107 9945RA Wagenborgen | 257.958 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JX | Menterne 23 108 9945RA Wagenborgen | 257.958 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JY | Menterne 23 109 9945RA Wagenborgen | 257.958 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JZ | Menterne 23 110 9945RA Wagenborgen | 257.958 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| K | G. Boelmanweg 6 9945RJ Wagenborgen | 258.176 | 586.541 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KA | Menterne 23 111 9945RA Wagenborgen | 257.959 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KB | Menterne 23 113 9945RA Wagenborgen | 257.967 | 586.972 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KC | Menterne 23 114 9945RA Wagenborgen | 257.967 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KD | Menterne 23 115 9945RA Wagenborgen | 257.967 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KE | Menterne 23 116 9945RA Wagenborgen | 257.968 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KF | Menterne 23 117 9945RA Wagenborgen | 257.968 | 586.957 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KG | Menterne 23 118 9945RA Wagenborgen | 257.968 | 586.953 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KH | Menterne 23 119 9945RA Wagenborgen | 257.967 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KI | Menterne 23 120 9945RA Wagenborgen | 257.968 | 586.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KJ | Menterne 23 121 9945RA Wagenborgen | 257.968 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
3-2-2017 15:34/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2B

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| KK | Menterne 23 122 9945RA Wagenborgen | 257.968 | 586.936 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KL | Menterne 23 123 9945RA Wagenborgen | 257.968 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KM | Menterne 23 124 9945RA Wagenborgen | 257.968 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KN | Menterne 23 125 9945RA Wagenborgen | 257.956 | 586.930 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KO | Menterne 23 126 9945RA Wagenborgen | 257.956 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KP | Menterne 23 127 9945RA Wagenborgen | 257.956 | 586.937 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KQ | Menterne 23 128 9945RA Wagenborgen | 257.956 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KR | Menterne 23 129 9945RA Wagenborgen | 257.956 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KS | Menterne 23 130 9945RA Wagenborgen | 257.961 | 586.958 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KT | Menterne 23 131 9945RA Wagenborgen | 257.961 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KU | Menterne 23 132 9945RA Wagenborgen | 257.960 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KV | Menterne 23 201 9945RA Wagenborgen | 257.953 | 586.973 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KW | Menterne 23 202 9945RA Wagenborgen | 257.953 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KX | Menterne 23 203 9945RA Wagenborgen | 257.953 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KY | Menterne 23 204 9945RA Wagenborgen | 257.953 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KZ | Menterne 23 205 9945RA Wagenborgen | 257.953 | 586.990 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| L | Kokslaan 1 9945RD Wagenborgen | 258.257 | 586.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LA | Menterne 23 206 9945RA Wagenborgen | 257.953 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LB | Menterne 23 207 9945RA Wagenborgen | 257.956 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LC | Menterne 23 208 9945RA Wagenborgen | 257.956 | 586.995 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LD | Menterne 23 209 9945RA Wagenborgen | 257.956 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LE | Menterne 23 210 9945RA Wagenborgen | 257.956 | 586.988 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LF | Menterne 23 211 9945RA Wagenborgen | 257.957 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LG | Menterne 23 212 9945RA Wagenborgen | 257.957 | 586.981 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LH | Menterne 23 213 9945RA Wagenborgen | 257.964 | 586.972 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LI | Menterne 23 214 9945RA Wagenborgen | 257.965 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LJ | Menterne 23 215 9945RA Wagenborgen | 257.965 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LK | Menterne 23 216 9945RA Wagenborgen | 257.965 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LL | Menterne 23 217 9945RA Wagenborgen | 257.965 | 586.956 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LM | Menterne 23 218 9945RA Wagenborgen | 257.965 | 586.954 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LN | Menterne 23 219 9945RA Wagenborgen | 257.965 | 586.947 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LO | Menterne 23 220 9945RA Wagenborgen | 257.965 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LP | Menterne 23 221 9945RA Wagenborgen | 257.965 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LQ | Menterne 23 222 9945RA Wagenborgen | 257.965 | 586.937 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LR | Menterne 23 223 9945RA Wagenborgen | 257.965 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LS | Menterne 23 224 9945RA Wagenborgen | 257.966 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LT | Menterne 23 226 9945RA Wagenborgen | 257.959 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LU | Menterne 23 228 9945RA Wagenborgen | 257.958 | 586.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LV | Menterne 23 229 9945RA Wagenborgen | 257.958 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LW | Menterne 23 230 9945RA Wagenborgen | 257.962 | 586.958 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LX | Menterne 23 231 9945RA Wagenborgen | 257.962 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LY | Menterne 23 232 9945RA Wagenborgen | 257.962 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LZ | G. Boelmanweg 1 9945RE Wagenborgen | 258.213 | 586.607 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| M | Kokslaan 2 9945RD Wagenborgen | 258.279 | 586.598 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MA | Boslaan 7 9945TM Wagenborgen | 259.467 | 586.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MB | H.L. Emmensweg 23 9945PW Wagenborgen | 258.086 | 586.747 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MC | Kopaf 5 9944VA Nieuwolda | 259.816 | 586.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MD | Familie Bronsweg 68 9945TA Wagenborgen | 258.470 | 588.333 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ME | Maarkampen 26 9937PL Meedhuizen | 256.956 | 590.088 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MF | Maarkampen 24 9937PL Meedhuizen | 256.931 | 590.090 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MG | Maarkampen 22 9937PL Meedhuizen | 256.916 | 590.093 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MH | Maarkampen 20 9937PL Meedhuizen | 256.898 | 590.098 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MI | Maarkampen 18 9937PL Meedhuizen | 256.878 | 590.101 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MJ | Maarkampen 16 9937PL Meedhuizen | 256.858 | 590.104 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MK | Maarkampen 14 9937PL Meedhuizen | 256.838 | 590.106 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ML | Maarlaan 22 E 9937TH Meedhuizen | 256.932 | 590.173 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MM | Maarlaan 22 D 9937TH Meedhuizen | 256.877 | 590.178 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MN | Schaapbulterweg 8 9937TL Meedhuizen | 256.971 | 589.534 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MO | Schaapbulterweg 6 9937TL Meedhuizen | 256.919 | 589.544 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MP | Schaapbulterweg 29 9937TL Meedhuizen | 256.970 | 589.489 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MQ | Schaapbulterweg 27 9937TL Meedhuizen | 256.949 | 589.497 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MR | Schaapbulterweg 25 9937TL Meedhuizen | 256.935 | 589.503 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MS | Schaapbulterweg 23 9937TL Meedhuizen | 256.920 | 589.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MT | Schaapbulterweg 21 9937TL Meedhuizen | 256.908 | 589.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

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Calculated:
3-2-2017 15:34/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2B

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| MU | Geefsweersterweg 11 9937TB Meedhuizen | 257.472 | 591.162 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MV | Schaapbulterweg 35 9937TL Meedhuizen | 257.159 | 589.455 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MW | Meedhuizerweg 20 9937TK Meedhuizen | 257.017 | 590.790 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MX | Familie Bronsweg 66 9945TA Wagenborgen | 258.538 | 588.146 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MY | Familie Bronsweg 64 9945TA Wagenborgen | 258.518 | 588.056 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MZ | Ideweersterweg 10 9937TM Meedhuizen | 257.794 | 589.376 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| N | Kerkstraat 1 9945SB Wagenborgen | 258.120 | 586.579 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NA | Ideweersterweg 8 9937TM Meedhuizen | 257.916 | 589.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NB | Geefsweersterweg 20 9937TC Meedhuizen | 258.111 | 588.986 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NC | Geefsweersterweg 18 9937TC Meedhuizen | 258.066 | 589.025 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ND | Geefsweersterweg 29 9937TB Meedhuizen | 258.051 | 588.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NE | Geefsweersterweg 16 9937TC Meedhuizen | 258.011 | 589.140 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NF | Geefsweersterweg 23 9937TB Meedhuizen | 257.998 | 589.209 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NG | Geefsweersterweg 12 9937TC Meedhuizen | 258.033 | 589.285 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NH | Geefsweersterweg 14 9937TC Meedhuizen | 258.028 | 589.261 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NI | Geefsweersterweg 21 A 9937TB Meedhuizen | 258.002 | 589.266 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NJ | Geefsweersterweg 10 9937TC Meedhuizen | 258.042 | 589.339 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NK | Geefsweersterweg 21 9937TB Meedhuizen | 258.025 | 589.335 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NL | Geefsweersterweg 17 9937TB Meedhuizen | 258.035 | 589.424 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NM | Geefsweersterweg 19 9937TB Meedhuizen | 258.023 | 589.378 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NN | Ideweersterweg 2 9937TM Meedhuizen | 259.329 | 589.348 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NO | Ideweersterweg 1 9937TM Meedhuizen | 259.330 | 589.303 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NP | Geefsweersterweg 15 9937TB Meedhuizen | 257.994 | 590.149 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NQ | Westerlaan 6 9937TS Meedhuizen | 258.650 | 590.176 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NR | Familie Bronsweg 87 9945TA Wagenborgen | 258.255 | 588.149 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NS | Familie Bronsweg 89 9945TA Wagenborgen | 258.288 | 588.393 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NT | Westerlaan 10 9937TS Meedhuizen | 258.640 | 588.541 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NU | Geefsweersterweg 13 9937TB Meedhuizen | 257.998 | 590.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NV | Maarlaan 26 9937TH Meedhuizen | 257.044 | 590.228 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NW | Maarlaan 24 9937TH Meedhuizen | 256.988 | 590.171 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NX | Maarlaan 28 9937TH Meedhuizen | 257.042 | 590.160 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NY | Maarlaan 30 9937TH Meedhuizen | 257.109 | 590.155 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NZ | Kerklaan 3 9937PG Meedhuizen | 257.099 | 589.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| O | Hoofdweg 30 9945PG Wagenborgen | 258.190 | 586.634 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OA | Kerklaan 8 9937PG Meedhuizen | 257.192 | 589.983 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OB | Kerklaan 6 9937PG Meedhuizen | 257.151 | 590.090 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OC | Opmeedenlaan 6 9937TN Meedhuizen | 256.970 | 588.781 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OD | Opmeedenlaan 4 9937TN Meedhuizen | 256.988 | 588.863 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OE | Opmeedenlaan 2 9937TN Meedhuizen | 257.043 | 588.932 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OF | Kloosterlaan 26 9945TG Wagenborgen | 260.046 | 588.262 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OG | Zomerdijk 1 9945TH Wagenborgen | 260.153 | 588.395 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OH | Zomerdijk 3 9945TH Wagenborgen | 260.454 | 588.375 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OI | Zomerdijk 3 A 9945TH Wagenborgen | 260.560 | 588.321 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OJ | Zomerdijk 2 9945TH Wagenborgen | 260.721 | 588.388 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OK | Kloosterlaan 21 A 9945TG Wagenborgen | 259.991 | 588.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OL | Kloosterlaan 21 B 9945TG Wagenborgen | 259.957 | 588.308 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OM | Ideweersterweg 4 9937TM Meedhuizen | 258.658 | 589.400 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ON | Maarlaan 22 C 9937TH Meedhuizen | 256.840 | 590.186 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OO | Kloosterlaan 21 9936TE Farmsum | 260.253 | 589.832 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OP | Geefsweersterweg 8 A 9937TC Meedhuizen | 258.072 | 590.685 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OQ | Houtweg 20 9936BL Farmsum | 257.300 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OR | Houtweg 22 9936BL Farmsum | 257.298 | 593.542 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OS | Houtweg 24 9936BL Farmsum | 257.297 | 593.528 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OT | Houtweg 26 9936BL Farmsum | 257.296 | 593.515 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OU | Houtweg 28 9936BL Farmsum | 257.294 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OV | Rondeboslaan 6 9936BK Farmsum | 257.466 | 593.590 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OW | Proosdij 14 9936EW Farmsum | 257.893 | 593.570 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OX | Bredelaan 6 9936ER Farmsum | 257.806 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OY | Bredelaan 4 9936ER Farmsum | 257.804 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OZ | Bredelaan 2 A 9936ER Farmsum | 257.802 | 593.559 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| P | Hoofdweg 32 9945PG Wagenborgen | 258.177 | 586.629 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PA | Proosdij 24 9936EW Farmsum | 257.913 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PB | Proosdij 22 9936EW Farmsum | 257.910 | 593.522 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PC | Proosdij 20 9936EW Farmsum | 257.906 | 593.533 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
3-2-2017 15:34/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2B

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| PD | Proosdij 18 9936EW Farmsum | 257.901 | 593.549 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PE | Proosdij 16 9936EW Farmsum | 257.899 | 593.554 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PF | Trambaan 19 9936ES Farmsum | 257.863 | 593.507 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PG | Proosdij 17 9936ET Farmsum | 257.864 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PH | Proosdij 15 9936ET Farmsum | 257.862 | 593.560 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PI | Proosdij 13 9936ET Farmsum | 257.859 | 593.568 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PJ | Trambaan 17 9936ES Farmsum | 257.856 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PK | Trambaan 15 9936ES Farmsum | 257.849 | 593.520 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PL | Trambaan 13 9936ES Farmsum | 257.844 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PM | Trambaan 11 9936ES Farmsum | 257.839 | 593.530 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PN | Trambaan 9 9936ES Farmsum | 257.833 | 593.536 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PO | Trambaan 5 9936ES Farmsum | 257.825 | 593.544 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PP | Trambaan 3 9936ES Farmsum | 257.818 | 593.551 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PQ | Trambaan 1 9936ES Farmsum | 257.814 | 593.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PR | Proosdij 12 9936EW Farmsum | 257.888 | 593.590 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PS | Proosdij 8 9936EW Farmsum | 257.881 | 593.604 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PT | Proosdij 6 9936EW Farmsum | 257.876 | 593.616 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PU | Proosdij 4 9936EW Farmsum | 257.872 | 593.630 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PV | Proosdij 11 9936ET Farmsum | 257.856 | 593.577 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PW | Proosdij 9 9936ET Farmsum | 257.853 | 593.584 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PX | Proosdij 7 9936ET Farmsum | 257.849 | 593.596 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PY | Proosdij 5 9936ET Farmsum | 257.846 | 593.605 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PZ | Proosdij 1 9936ET Farmsum | 257.839 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Q | Hoofdweg 31 9945PA Wagenborgen | 258.210 | 586.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QA | Proosdij 3 9936ET Farmsum | 257.844 | 593.611 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QB | Farmsumerzijl 55 9936GC Farmsum | 257.821 | 593.640 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QC | Farmsumerzijl 57 9936GC Farmsum | 257.800 | 593.636 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QD | Rengersweg 4 9936GH Farmsum | 258.026 | 593.578 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QE | Rengersweg 2 9936GH Farmsum | 258.026 | 593.587 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QF | Schepperij 4 A 9936GN Farmsum | 258.046 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QG | Schepperij 2 A 9936GN Farmsum | 258.033 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QH | Schepperij 4 9936GN Farmsum | 258.040 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QI | Schepperij 2 9936GN Farmsum | 258.027 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QJ | Dijkrecht 4 9936GK Farmsum | 258.021 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QK | Dijkrecht 6 9936GK Farmsum | 258.035 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QL | Dijkrecht 10 9936GK Farmsum | 258.054 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QM | Dijkrecht 12 9936GK Farmsum | 258.061 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QN | Dijkrecht 14 9936GK Farmsum | 258.074 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QO | Dijkrecht 16 9936GK Farmsum | 258.081 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QP | Dijkrecht 18 9936GK Farmsum | 258.095 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QQ | Dijkrecht 20 9936GK Farmsum | 258.107 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QR | Dijkrecht 22 9936GK Farmsum | 258.123 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QS | Dijkrecht 24 9936GK Farmsum | 258.138 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QT | Dijkrecht 26 9936GK Farmsum | 258.159 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QU | Dijkrecht 28 9936GK Farmsum | 258.166 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QV | Dijkrecht 30 9936GK Farmsum | 258.186 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QW | Dijkrecht 32 9936GK Farmsum | 258.192 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QX | Dijkrecht 34 9936GK Farmsum | 258.206 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QY | Dijkrecht 36 9936GK Farmsum | 258.213 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QZ | Dijkrecht 40 9936GK Farmsum | 258.233 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| R | Hoofdweg 38 9945PG Wagenborgen | 258.142 | 586.621 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RA | Dijkrecht 38 9936GK Farmsum | 258.227 | 593.624 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RB | Schepperij 20 9936GN Farmsum | 258.190 | 593.563 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RC | Schepperij 18 9936GN Farmsum | 258.184 | 593.563 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RD | Waarman 12 9936GW Farmsum | 258.263 | 593.622 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RE | Waarman 10 9936GW Farmsum | 258.263 | 593.629 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RF | Waarman 8 9936GW Farmsum | 258.265 | 593.641 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RG | Waarman 6 9936GW Farmsum | 258.265 | 593.648 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RH | Farmsumerzijl 1 9936GB Farmsum | 258.234 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RI | Farmsumerzijl 3 9936GB Farmsum | 258.227 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RJ | Farmsumerzijl 5 9936GB Farmsum | 258.213 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RK | Farmsumerzijl 7 9936GB Farmsum | 258.207 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RL | Farmsumerzijl 13 9936GB Farmsum | 258.172 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RM | Farmsumerzijl 15 9936GB Farmsum | 258.166 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2B

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| RN | Farmsumerzijl 17 9936GB Farmsum | 258.152 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RO | Farmsumerzijl 19 9936GB Farmsum | 258.146 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RP | Farmsumerzijl 25 9936GB Farmsum | 258.115 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RQ | Farmsumerzijl 27 9936GB Farmsum | 258.108 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RR | Farmsumerzijl 29 9936GB Farmsum | 258.096 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RS | Farmsumerzijl 31 9936GC Farmsum | 258.089 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RT | Farmsumerzijl 37 9936GC Farmsum | 258.057 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RU | Farmsumerzijl 39 9936GC Farmsum | 258.050 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RV | Farmsumerzijl 41 9936GC Farmsum | 258.037 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RW | Farmsumerzijl 43 9936GC Farmsum | 258.031 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RX | Schepperij 1 9936GL Farmsum | 258.054 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RY | Schepperij 3 9936GL Farmsum | 258.060 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RZ | Schepperij 5 9936GL Farmsum | 258.066 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| S | Hoofdweg 39 9945PB Wagenborgen | 258.126 | 586.603 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SA | Schepperij 7 9936GL Farmsum | 258.072 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SB | Schepperij 9 9936GL Farmsum | 258.078 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SC | Schepperij 11 9936GL Farmsum | 258.084 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SD | Schepperij 13 9936GL Farmsum | 258.090 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SE | Schepperij 15 9936GL Farmsum | 258.097 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SF | Dijkrecht 8 9936GK Farmsum | 258.041 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SG | Geefsweersterweg 9 9937TB Meedhuizen | 257.539 | 591.945 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SH | Geefsweersterweg 7 9937TB Meedhuizen | 258.115 | 592.341 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SI | Geefsweersterweg 8 9937TC Meedhuizen | 258.139 | 592.234 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SJ | Geefsweersterweg 3 9937TB Meedhuizen | 258.102 | 592.452 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SK | Geefsweersterweg 6 9937TC Meedhuizen | 258.202 | 592.502 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SL | Geefsweersterweg 4 9937TC Meedhuizen | 258.243 | 592.643 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SM | Meedhuizerweg 2 9937TK Meedhuizen | 256.911 | 592.415 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SN | Molenstraat 31 9936EB Farmsum | 257.786 | 593.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SO | Hindrik Jagerstraat 32 9936CV Farmsum | 257.573 | 593.810 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SP | Hindrik Jagerstraat 11 9936CT Farmsum | 257.561 | 593.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SQ | Hindrik Jagerstraat 13 9936CT Farmsum | 257.568 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SR | Hindrik Jagerstraat 15 9936CT Farmsum | 257.574 | 593.790 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SS | Hindrik Jagerstraat 34 9936CV Farmsum | 257.581 | 593.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ST | Hindrik Jagerstraat 36 9936CV Farmsum | 257.587 | 593.799 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SU | Borgshof 31 9936CR Farmsum | 257.617 | 593.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SV | Borgshof 33 9936CR Farmsum | 257.615 | 593.807 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SW | Borgshof 39 9936CR Farmsum | 257.605 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SX | Borgshof 35 9936CR Farmsum | 257.604 | 593.768 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SY | Molenstraat 20 9936EC Farmsum | 257.801 | 593.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SZ | Molenstraat 24 9936EC Farmsum | 257.812 | 593.926 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| T | Hoofdweg 35 9945PB Wagenborgen | 258.160 | 586.604 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TA | Molenstraat 28 9936EC Farmsum | 257.817 | 593.918 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TB | Molenstraat 41 9936EB Farmsum | 257.798 | 593.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TC | Molenstraat 43 9936EB Farmsum | 257.802 | 593.918 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TD | Molenstraat 45 9936EB Farmsum | 257.807 | 593.910 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TE | Molenstraat 32 9936EC Farmsum | 257.821 | 593.908 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TF | Achterweg 13 9936EG Farmsum | 257.848 | 593.913 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TG | Achterweg 11 9936EG Farmsum | 257.855 | 593.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TH | Achterweg 9 9936EG Farmsum | 257.861 | 593.915 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TI | Molenstraat 49 9936EB Farmsum | 257.809 | 593.905 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TJ | Molenstraat 51 9936EB Farmsum | 257.812 | 593.900 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TK | Molenstraat 53 9936EB Farmsum | 257.815 | 593.894 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TL | Molenstraat 57 9936EB Farmsum | 257.819 | 593.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TM | Molenstraat 61 9936EB Farmsum | 257.826 | 593.870 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TN | Molenstraat 63 9936EB Farmsum | 257.830 | 593.861 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TO | Molenstraat 34 9936ED Farmsum | 257.827 | 593.897 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TP | Molenstraat 38 9936ED Farmsum | 257.832 | 593.886 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TQ | Molenstraat 40 9936ED Farmsum | 257.835 | 593.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TR | Molenstraat 42 9936ED Farmsum | 257.837 | 593.870 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TS | Molenstraat 44 9936ED Farmsum | 257.842 | 593.859 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TT | Molenstraat 65 9936EB Farmsum | 257.834 | 593.850 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TU | Molenstraat 48 9936ED Farmsum | 257.847 | 593.847 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TV | Molenstraat 50 9936ED Farmsum | 257.850 | 593.837 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TW | Molenstraat 56 9936ED Farmsum | 257.851 | 593.824 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
3-2-2017 15:34/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2B

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| TX | Molenstraat 58 9936EE Farmsum | 257.863 | 593.810 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TY | Molenstraat 62 9936EE Farmsum | 257.858 | 593.798 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TZ | Molenstraat 72 9936EE Farmsum | 257.855 | 593.753 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| U | Hoofdweg 37 9945PB Wagenborgen | 258.149 | 586.603 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UA | Molenstraat 70 9936EE Farmsum | 257.854 | 593.758 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UB | Molenstraat 68 9936EE Farmsum | 257.854 | 593.765 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UC | Molenstraat 66 9936EE Farmsum | 257.854 | 593.773 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UD | Achterweg 2 9936EG Farmsum | 257.886 | 593.882 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UE | Achterweg 12 9936EG Farmsum | 257.919 | 593.766 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UF | Achterweg 10 9936EG Farmsum | 257.918 | 593.779 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UG | Achterweg 8 9936EG Farmsum | 257.916 | 593.791 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UH | Hindrik Jagerstraat 17 9936CT Farmsum | 257.588 | 593.777 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UI | Molenstraat 30 9936EC Farmsum | 257.820 | 593.912 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UJ | Borgweg 141 9936EN Farmsum | 257.451 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UK | Borgweg 139 9936EN Farmsum | 257.466 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UL | Borgweg 137 9936EN Farmsum | 257.473 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UM | Borgweg 135 9936EN Farmsum | 257.487 | 593.708 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UN | Afwateringskanaal 109 9936AV Farmsum | 257.508 | 593.724 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UO | Borgweg 131 9936EM Farmsum | 257.636 | 593.714 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UP | Borgweg 133 9936EM Farmsum | 257.581 | 593.701 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UQ | Borgshof 41 9936CR Farmsum | 257.598 | 593.743 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UR | Borgshof 43 9936CR Farmsum | 257.595 | 593.730 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| US | Borgshof 45 9936CR Farmsum | 257.594 | 593.720 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UT | Molenstraat 74 9936EE Farmsum | 257.855 | 593.743 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UU | Molenstraat 76 9936EE Farmsum | 257.857 | 593.736 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UV | Molenstraat 78 9936EE Farmsum | 257.858 | 593.730 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UW | Molenstraat 82 9936EE Farmsum | 257.858 | 593.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UX | Molenstraat 84 9936EE Farmsum | 257.858 | 593.708 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UY | Borgweg 123 9936EM Farmsum | 257.927 | 593.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UZ | Borgweg 125 9936EM Farmsum | 257.917 | 593.698 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| V | Hoofdweg 44 9945PH Wagenborgen | 258.071 | 586.624 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VA | Borgweg 127 9936EM Farmsum | 257.906 | 593.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VB | Borgweg 129 9936EM Farmsum | 257.897 | 593.699 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VC | Farmsumerzijl 51 9936GC Farmsum | 257.925 | 593.665 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VD | Molenstraat 80 9936EE Farmsum | 257.858 | 593.723 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VE | Houtweg 30 9936BL Farmsum | 257.294 | 593.486 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VF | Houtweg 32 9936BL Farmsum | 257.292 | 593.473 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VG | Houtweg 34 9936BL Farmsum | 257.291 | 593.459 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VH | Houtweg 36 9936BL Farmsum | 257.289 | 593.446 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VI | Houtweg 38 9936BL Farmsum | 257.288 | 593.429 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VJ | Houtweg 40 9936BL Farmsum | 257.261 | 593.394 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VK | Houtweg 42 9936BL Farmsum | 257.257 | 593.387 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VL | Houtweg 44 9936BL Farmsum | 257.250 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VM | Houtweg 46 9936BL Farmsum | 257.248 | 593.372 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VN | Houtweg 48 9936BL Farmsum | 257.240 | 593.359 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VO | Rondeboslaan 26 9936BK Farmsum | 257.440 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VP | Rondeboslaan 28 9936BK Farmsum | 257.438 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VQ | Seendweg 32 9936GA Farmsum | 257.903 | 593.454 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VR | Trambaan 21 9936ES Farmsum | 257.870 | 593.499 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VS | Proosdij 19 9936ET Farmsum | 257.892 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VT | Bredelaan 14 9936ER Farmsum | 257.814 | 593.354 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VU | Bredelaan 10 9936ER Farmsum | 257.808 | 593.470 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VV | Bredelaan 8 9936ER Farmsum | 257.807 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VW | Seendweg 22 9936GA Farmsum | 257.897 | 593.364 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VX | Seendweg 28 9936GA Farmsum | 257.898 | 593.405 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VY | Proosdij 28 9936EW Farmsum | 257.922 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VZ | Proosdij 30 9936EX Farmsum | 257.932 | 593.484 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| W | Hoofdweg 48 9945PH Wagenborgen | 258.051 | 586.630 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WA | Proosdij 26 9936EW Farmsum | 257.919 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WB | Afwateringskanaal 107 9936AV Farmsum | 257.499 | 593.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WC | Rondeboslaan 22 A 9936BK Farmsum | 257.532 | 593.326 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WD | Rondeboslaan 22 B 9936BK Farmsum | 257.532 | 593.320 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WE | Rondeboslaan 2 A 9936BK Farmsum | 257.534 | 593.639 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WF | Rondeboslaan 2 B 9936BK Farmsum | 257.493 | 593.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2B

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| WG | Seendweg 17 9936GA Farmsum | 257.931 | 593.394 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WH | Borgshof 29 9936CR Farmsum | 257.619 | 593.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WI | Molenstraat 22 9936EC Farmsum | 257.808 | 593.935 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WJ | Achterweg 7 A 9936EG Farmsum | 257.858 | 593.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WK | Molenstraat 26 9936EC Farmsum | 257.814 | 593.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WL | Borgweg 113 9936EM Farmsum | 257.957 | 593.782 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WM | Borgweg 115 9936EM Farmsum | 257.968 | 593.707 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WN | Borgweg 117 9936EM Farmsum | 257.959 | 593.705 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WO | Borgweg 119 9936EM Farmsum | 257.947 | 593.703 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WP | Borgweg 121 9936EM Farmsum | 257.938 | 593.701 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WQ | Farmsumerzijl 45 9936GC Farmsum | 257.966 | 593.671 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WR | Farmsumerzijl 47 9936GC Farmsum | 257.947 | 593.667 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WS | Farmsumerzijl 49 9936GC Farmsum | 257.933 | 593.666 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WT | Waarman 4 9936GW Farmsum | 258.267 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WU | Waarman 2 9936GW Farmsum | 258.267 | 593.668 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WV | Farmsumerzijl 9 9936GB Farmsum | 258.192 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WW | Farmsumerzijl 11 9936GB Farmsum | 258.186 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WX | Farmsumerzijl 21 9936GB Farmsum | 258.134 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WY | Farmsumerzijl 23 9936GB Farmsum | 258.126 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WZ | Farmsumerzijl 33 9936GC Farmsum | 258.076 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| X | Hoofdweg 41 9945PB Wagenborgen | 258.092 | 586.599 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XA | Farmsumerzijl 35 9936GC Farmsum | 258.070 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XB | Schepperij 17 9936GL Farmsum | 258.103 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XC | Schepperij 19 9936GL Farmsum | 258.109 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XD | Schepperij 21 9936GL Farmsum | 258.115 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XE | Dijkrecht 3 9936GJ Farmsum | 258.042 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XF | Dijkrecht 5 9936GJ Farmsum | 258.052 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XG | Dijkrecht 7 9936GJ Farmsum | 258.054 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XH | Dijkrecht 9 9936GJ Farmsum | 258.063 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XI | Dijkrecht 11 9936GJ Farmsum | 258.073 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XJ | Dijkrecht 13 9936GJ Farmsum | 258.079 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XK | Dijkrecht 15 9936GJ Farmsum | 258.085 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XL | Dijkrecht 17 9936GJ Farmsum | 258.092 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XM | Dijkrecht 19 9936GJ Farmsum | 258.098 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XN | Dijkrecht 21 9936GJ Farmsum | 258.104 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XO | Schepperij 6 9936GN Farmsum | 258.058 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XP | Schepperij 8 9936GN Farmsum | 258.064 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XQ | Schepperij 10 9936GN Farmsum | 258.070 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XR | Schepperij 12 9936GN Farmsum | 258.075 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XS | Schepperij 14 9936GN Farmsum | 258.081 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XT | Schepperij 16 9936GN Farmsum | 258.087 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XU | Olderman 2 9936GT Farmsum | 258.132 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XV | Olderman 4 9936GT Farmsum | 258.132 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XW | Olderman 6 9936GT Farmsum | 258.132 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XX | Olderman 8 9936GT Farmsum | 258.132 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XY | Olderman 10 9936GT Farmsum | 258.132 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XZ | Olderman 12 9936GT Farmsum | 258.132 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Y | Hoofdweg 20 9945PG Wagenborgen | 258.207 | 586.682 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YA | Olderman 14 9936GT Farmsum | 258.132 | 593.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YB | Dijkrecht 23 9936GJ Farmsum | 258.162 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YC | Dijkrecht 25 9936GJ Farmsum | 258.162 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YD | Dijkrecht 27 9936GJ Farmsum | 258.163 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YE | Dijkrecht 29 9936GJ Farmsum | 258.163 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YF | Dijkrecht 31 9936GJ Farmsum | 258.163 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YG | Dijkrecht 33 9936GJ Farmsum | 258.163 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YH | Dijkrecht 35 9936GJ Farmsum | 258.163 | 593.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YI | Dijkrecht 37 9936GJ Farmsum | 258.182 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YJ | Dijkrecht 39 9936GJ Farmsum | 258.182 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YK | Dijkrecht 41 9936GJ Farmsum | 258.182 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YL | Dijkrecht 43 9936GJ Farmsum | 258.182 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YM | Olderman 1 9936GS Farmsum | 258.107 | 593.574 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YN | Olderman 3 9936GS Farmsum | 258.107 | 593.567 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YO | Olderman 5 9936GS Farmsum | 258.108 | 593.561 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YP | Olderman 7 9936GS Farmsum | 258.108 | 593.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2B

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| YQ | Schepperij 37 9936GM Farmsum | 258.194 | 593.543 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YR | Schepperij 41 9936GM Farmsum | 258.194 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YS | Schepperij 45 9936GM Farmsum | 258.194 | 593.518 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YT | Schepperij 47 9936GM Farmsum | 258.194 | 593.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YU | Schepperij 49 9936GM Farmsum | 258.194 | 593.506 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YV | Olderman 18 9936GT Farmsum | 258.143 | 593.539 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YW | Olderman 20 9936GT Farmsum | 258.143 | 593.533 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YX | Olderman 22 9936GT Farmsum | 258.143 | 593.527 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YY | Olderman 24 9936GT Farmsum | 258.143 | 593.521 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YZ | Olderman 26 9936GT Farmsum | 258.143 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Z | Hoofdweg 22 9945PG Wagenborgen | 258.202 | 586.669 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZA | Olderman 28 9936GT Farmsum | 258.143 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZB | Olderman 30 9936GT Farmsum | 258.143 | 593.502 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZC | Olderman 9 9936GS Farmsum | 258.120 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZD | Olderman 11 9936GS Farmsum | 258.120 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZE | Olderman 13 9936GS Farmsum | 258.120 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZF | Proosdij 32 9936EX Farmsum | 257.941 | 593.479 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZG | Proosdij 36 9936EX Farmsum | 257.952 | 593.473 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZH | Proosdij 38 9936EX Farmsum | 257.963 | 593.468 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZI | Proosdij 40 9936EX Farmsum | 257.984 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZJ | Proosdij 27 9936EV Farmsum | 257.995 | 593.418 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZK | Proosdij 25 9936EV Farmsum | 257.979 | 593.425 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZL | Proosdij 23 9936EV Farmsum | 257.962 | 593.433 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZM | Proosdij 21 9936EV Farmsum | 257.941 | 593.443 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZN | Seendweg 5 9936GA Farmsum | 258.091 | 593.322 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZO | Proosdij 29 9936EV Farmsum | 258.005 | 593.413 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZP | Proosdij 31 9936EV Farmsum | 258.019 | 593.403 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZQ | Proosdij 33 9936EV Farmsum | 258.043 | 593.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZR | Proosdij 35 9936EV Farmsum | 258.067 | 593.376 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZS | Proosdij 37 9936EV Farmsum | 258.085 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZT | Proosdij 39 9936EV Farmsum | 258.092 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZU | Proosdij 41 9936EV Farmsum | 258.099 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZV | Proosdij 43 9936EV Farmsum | 258.106 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZW | Proosdij 45 9936EV Farmsum | 258.112 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZX | Proosdij 47 9936EV Farmsum | 258.119 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZY | Olderman 15 9936GS Farmsum | 258.118 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZZ | Rengersweg 97 9936GG Farmsum | 258.010 | 593.468 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

## Calculation Results

Shadow receptor

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| [A | Rengersweg 99 9936GG Farmsum | 0:24 |
| [B | Rengersweg 12 9936GH Farmsum | 0:22 |
| [C | Rengersweg 10 9936GH Farmsum | 0:16 |
| [D | Kluft 1 9936GP Farmsum | 0:00 |
| [E | Kluft 3 9936GP Farmsum | 0:00 |
| [F | Proosdij 46 9936EX Farmsum | 0:15 |
| [G | Proosdij 48 9936EX Farmsum | 0:07 |
| [H | Proosdij 50 9936EX Farmsum | 0:00 |
| [I | Proosdij 52 9936EX Farmsum | 0:00 |
| [J | Proosdij 54 9936EX Farmsum | 0:03 |
| [K | Proosdij 56 9936EX Farmsum | 0:00 |
| [L | Olderman 21 9936GS Farmsum | 0:00 |
| [M | Olderman 19 9936GS Farmsum | 0:00 |
| [N | Olderman 17 9936GS Farmsum | 0:00 |
| [O | Kluft 5 9936GP Farmsum | 0:00 |
| [P | Kluft 7 9936GP Farmsum | 0:00 |
| [Q | Kluft 9 9936GP Farmsum | 0:00 |
| [R | Kluft 11 9936GP Farmsum | 0:00 |
| [S | Kluft 17 9936GP Farmsum | 0:00 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2B

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| [T | Zijlvest 8 9936GZ Farmsum | 0:00 |
| [U | Olderman 32 9936GT Farmsum | 0:00 |
| [V | Olderman 34 9936GT Farmsum | 0:00 |
| [W | Olderman 36 9936GT Farmsum | 0:00 |
| [X | Olderman 38 9936GT Farmsum | 0:00 |
| [Y | Olderman 40 9936GT Farmsum | 0:00 |
| [Z | Olderman 42 9936GT Farmsum | 0:00 |
| \A | Zijlvest 22 A 9936GZ Farmsum | 0:00 |
| \B | Zijlvest 18 A 9936GZ Farmsum | 0:00 |
| \C | Zijlvest 18 9936GZ Farmsum | 0:00 |
| \D | Zijlvest 14 9936GZ Farmsum | 0:00 |
| \E | Borgweg 1 9936EH Farmsum | 0:00 |
| \F | Borgweg 3 9936EH Farmsum | 0:00 |
| \G | Borgweg 5 9936EH Farmsum | 0:00 |
| \H | Borgweg 7 9936EH Farmsum | 0:00 |
| \I | Borgweg 9 9936EH Farmsum | 0:00 |
| \J | Borgweg 11 9936EH Farmsum | 0:00 |
| \K | Borgweg 13 9936EH Farmsum | 0:00 |
| \L | Borgweg 15 9936EH Farmsum | 0:00 |
| \M | Borgweg 17 9936EH Farmsum | 0:00 |
| \N | Borgweg 19 9936EH Farmsum | 0:00 |
| \O | Borgweg 21 9936EH Farmsum | 0:00 |
| \P | Borgweg 23 9936EH Farmsum | 0:00 |
| \Q | Borgweg 25 9936EH Farmsum | 0:00 |
| \R | Borgweg 27 9936EH Farmsum | 0:00 |
| \S | Borgweg 29 9936EJ Farmsum | 0:00 |
| \T | Borgweg 31 9936EJ Farmsum | 0:00 |
| \U | Borgweg 33 9936EJ Farmsum | 0:00 |
| \V | Borgweg 35 9936EJ Farmsum | 0:00 |
| \W | Borgweg 37 9936EJ Farmsum | 0:00 |
| \X | Borgweg 39 9936EJ Farmsum | 0:00 |
| \Y | Borgweg 41 9936EJ Farmsum | 0:00 |
| \Z | Borgweg 43 9936EJ Farmsum | 0:00 |
| ]A | Borgweg 45 9936EJ Farmsum | 0:00 |
| ]B | Borgweg 47 9936EJ Farmsum | 0:00 |
| ]C | Borgweg 49 9936EJ Farmsum | 0:00 |
| ]D | Borgweg 51 9936EJ Farmsum | 0:00 |
| ]E | Borgweg 53 9936EJ Farmsum | 0:00 |
| ]F | Borgweg 55 9936EJ Farmsum | 0:00 |
| ]G | Borgweg 57 9936EK Farmsum | 0:00 |
| ]H | Borgweg 59 9936EK Farmsum | 0:00 |
| ]I | Borgweg 61 9936EK Farmsum | 0:00 |
| ]J | Borgweg 63 9936EK Farmsum | 0:00 |
| ]K | Borgweg 65 9936EK Farmsum | 0:00 |
| ]L | Borgweg 67 9936EK Farmsum | 0:00 |
| ]M | Borgweg 69 9936EK Farmsum | 0:00 |
| ]N | Borgweg 71 9936EK Farmsum | 0:00 |
| ]O | Borgweg 73 9936EK Farmsum | 0:00 |
| ]P | Borgweg 75 9936EK Farmsum | 0:00 |
| ]Q | Borgweg 77 9936EK Farmsum | 0:00 |
| ]R | Borgweg 79 9936EK Farmsum | 0:00 |
| ]S | Borgweg 81 9936EK Farmsum | 0:00 |
| ]T | Borgweg 83 9936EK Farmsum | 0:00 |
| ]U | Borgweg 85 9936EL Farmsum | 0:00 |
| ]V | Borgweg 87 9936EL Farmsum | 0:00 |
| ]W | Borgweg 89 9936EL Farmsum | 0:00 |
| ]X | Borgweg 91 9936EL Farmsum | 0:00 |
| ]Y | Borgweg 93 9936EL Farmsum | 0:00 |
| ]Z | Borgweg 95 9936EL Farmsum | 0:00 |
| ^A | Borgweg 97 9936EL Farmsum | 0:00 |
| ^B | Borgweg 99 9936EL Farmsum | 0:00 |
| ^C | Borgweg 101 9936EL Farmsum | 0:00 |
| ^D | Borgweg 103 9936EL Farmsum | 0:00 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2B

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| ^E | Borgweg 105 9936EL Farmsum | 0:00 |
| ^F | Borgweg 107 9936EL Farmsum | 0:00 |
| ^G | Borgweg 109 9936EL Farmsum | 0:00 |
| ^H | Borgweg 111 9936EL Farmsum | 0:00 |
| ^I | Kluft 18 9936GR Farmsum | 0:00 |
| ^J | Kluft 20 9936GR Farmsum | 0:00 |
| ^K | Kluft 22 9936GR Farmsum | 0:00 |
| ^L | Kluft 24 9936GR Farmsum | 0:00 |
| ^M | Kluft 26 9936GR Farmsum | 0:00 |
| ^N | Kluft 28 9936GR Farmsum | 0:00 |
| ^O | Kluft 30 9936GR Farmsum | 0:00 |
| ^P | Kluft 32 9936GR Farmsum | 0:00 |
| ^Q | Kluft 2 9936GR Farmsum | 0:00 |
| ^R | Kluft 4 9936GR Farmsum | 0:00 |
| ^S | Kluft 6 9936GR Farmsum | 0:00 |
| ^T | Kluft 8 9936GR Farmsum | 0:00 |
| ^U | Kluft 10 9936GR Farmsum | 0:00 |
| ^V | Kluft 12 9936GR Farmsum | 0:00 |
| ^W | Kluft 14 9936GR Farmsum | 0:00 |
| ^X | Kluft 16 9936GR Farmsum | 0:00 |
| ^Y | Zijlvest 20 A 9936GZ Farmsum | 0:00 |
| ^Z | Schepperij 51 9936GM Farmsum | 0:00 |
| _A | Waarman 15 9936GV Farmsum | 0:00 |
| _B | Waarman 17 9936GV Farmsum | 0:00 |
| _C | Waarman 19 9936GV Farmsum | 0:00 |
| _D | Waarman 21 9936GV Farmsum | 0:00 |
| _E | Waarman 23 9936GV Farmsum | 0:00 |
| _F | Waarman 25 9936GV Farmsum | 0:00 |
| _G | Waarman 27 9936GV Farmsum | 0:00 |
| _H | Waarman 29 9936GV Farmsum | 0:00 |
| _I | Heemskesweg 5 9936HE Farmsum | 7:33 |
| _J | Geefsweersterweg 2 9937TC Meedhuizen | 7:03 |
| _K | Seendweg 12 9936GA Farmsum | 2:35 |
| _L | Schepperij 39 9936GM Farmsum | 0:00 |
| _M | Schepperij 43 9936GM Farmsum | 0:00 |
| _N | Zijlvest 14 A 9936GZ Farmsum | 0:00 |
| _O | Zijlvest 24 A 9936GZ Farmsum | 0:00 |
| A | Familie Bronsweg 60 9945TA Wagenborgen | 7:36 |
| AA | Hoofdweg 26 9945PG Wagenborgen | 0:00 |
| AB | Hoofdweg 23 9945PA Wagenborgen | 0:00 |
| AC | Hoofdweg 25 9945PA Wagenborgen | 0:00 |
| AD | Hoofdweg 27 9945PA Wagenborgen | 0:00 |
| AE | Hoofdweg 29 9945PA Wagenborgen | 0:00 |
| AF | Hoofdweg 18 9945PG Wagenborgen | 0:00 |
| AG | Hoofdweg 14 9945PG Wagenborgen | 0:00 |
| AH | Hoofdweg 10 9945PG Wagenborgen | 0:00 |
| AI | Hoofdweg 8 9945PG Wagenborgen | 0:00 |
| AJ | Hoofdweg 6 9945PG Wagenborgen | 0:00 |
| AK | Hoofdweg 4 9945PG Wagenborgen | 0:00 |
| AL | Hoofdweg 21 9945PA Wagenborgen | 0:00 |
| AM | Hoofdweg 19 9945PA Wagenborgen | 0:00 |
| AN | Hoofdweg 2 9945PG Wagenborgen | 0:00 |
| AO | Hoofdweg 15 9945PA Wagenborgen | 0:00 |
| AP | Hoofdweg 9 9945PA Wagenborgen | 0:00 |
| AQ | Hoofdweg 11 9945PA Wagenborgen | 0:00 |
| AR | Hoofdweg 7 9945PA Wagenborgen | 0:00 |
| AS | Hoofdweg 5 9945PA Wagenborgen | 0:00 |
| AT | H.L. Emmensweg 17 9945PW Wagenborgen | 0:00 |
| AU | H.L. Emmensweg 18 9945PX Wagenborgen | 0:00 |
| AV | H.L. Emmensweg 20 9945PX Wagenborgen | 0:00 |
| AW | H.L. Emmensweg 22 9945PX Wagenborgen | 0:00 |
| AX | H.L. Emmensweg 24 9945PX Wagenborgen | 0:00 |
| AY | H.L. Emmensweg 26 9945PX Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2B

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| AZ | H.L. Emmensweg 10 9945PX Wagenborgen | 0:00 |
| B | Tolhek 4 9945TJ Wagenborgen | 0:00 |
| BA | H.L. Emmensweg 12 9945PX Wagenborgen | 0:00 |
| BB | H.L. Emmensweg 14 9945PX Wagenborgen | 0:00 |
| BC | H.L. Emmensweg 16 9945PX Wagenborgen | 0:00 |
| BD | H.L. Emmensweg 13 9945PW Wagenborgen | 0:00 |
| BE | H.L. Emmensweg 15 9945PW Wagenborgen | 0:00 |
| BF | H.L. Emmensweg 9 9945PW Wagenborgen | 0:00 |
| BG | H.L. Emmensweg 11 9945PW Wagenborgen | 0:00 |
| BH | H.L. Emmensweg 5 9945PW Wagenborgen | 0:00 |
| BI | H.L. Emmensweg 7 9945PW Wagenborgen | 0:00 |
| BJ | H.L. Emmensweg 4 9945PX Wagenborgen | 0:00 |
| BK | H.L. Emmensweg 2 9945PX Wagenborgen | 0:00 |
| BL | H.L. Emmensweg 1 9945PW Wagenborgen | 0:00 |
| BM | H.L. Emmensweg 3 9945PW Wagenborgen | 0:00 |
| BN | de Linden 4 9945PZ Wagenborgen | 0:00 |
| BO | de Linden 6 9945PZ Wagenborgen | 0:00 |
| BP | de Linden 10 9945PZ Wagenborgen | 0:00 |
| BQ | de Linden 12 9945PZ Wagenborgen | 0:00 |
| BR | de Linden 2 9945PZ Wagenborgen | 0:00 |
| BS | de Wilgen 12 9945RB Wagenborgen | 0:00 |
| BT | de Wilgen 10 9945RB Wagenborgen | 0:00 |
| BU | de Wilgen 8 9945RB Wagenborgen | 0:00 |
| BV | de Wilgen 2 9945RB Wagenborgen | 0:00 |
| BW | de Wilgen 4 9945RB Wagenborgen | 0:00 |
| BX | de Wilgen 6 9945RB Wagenborgen | 0:00 |
| BY | de Wilgen 6 A 9945RB Wagenborgen | 0:00 |
| BZ | de Wilgen 3 9945RB Wagenborgen | 0:00 |
| C | Tolhek 1 9945TJ Wagenborgen | 0:00 |
| CA | de Wilgen 3 A 9945RB Wagenborgen | 0:00 |
| CB | de Wilgen 3 B 9945RB Wagenborgen | 0:00 |
| CC | de Wilgen 5 9945RB Wagenborgen | 0:00 |
| CD | de Wilgen 46 9945RB Wagenborgen | 0:00 |
| CE | de Wilgen 44 9945RB Wagenborgen | 0:00 |
| CF | de Wilgen 48 9945RB Wagenborgen | 0:00 |
| CG | de Wilgen 50 9945RB Wagenborgen | 0:00 |
| CH | de Wilgen 36 9945RB Wagenborgen | 0:00 |
| CI | de Wilgen 38 9945RB Wagenborgen | 0:00 |
| CJ | de Wilgen 40 9945RB Wagenborgen | 0:00 |
| CK | de Wilgen 42 9945RB Wagenborgen | 0:00 |
| CL | de Wilgen 28 9945RB Wagenborgen | 0:00 |
| CM | de Wilgen 30 9945RB Wagenborgen | 0:00 |
| CN | de Wilgen 32 9945RB Wagenborgen | 0:00 |
| CO | de Wilgen 34 9945RB Wagenborgen | 0:00 |
| CP | de Wilgen 24 9945TK Wagenborgen | 0:00 |
| CQ | de Wilgen 26 9945RB Wagenborgen | 0:00 |
| CR | de Wilgen 20 9945RB Wagenborgen | 0:00 |
| CS | de Wilgen 22 9945RB Wagenborgen | 0:00 |
| CT | de Wilgen 18 9945RB Wagenborgen | 0:00 |
| CU | de Wilgen 16 9945RB Wagenborgen | 0:00 |
| CV | de Wilgen 14 9945RB Wagenborgen | 0:00 |
| CW | de Wilgen 9 9945RB Wagenborgen | 0:00 |
| CX | de Wilgen 52 9945RB Wagenborgen | 0:00 |
| CY | Menterne 22 9945RA Wagenborgen | 0:00 |
| CZ | Menterne 18 9945RA Wagenborgen | 0:00 |
| D | Familie Bronsweg 62 9945TA Wagenborgen | 11:42 |
| DA | Menterne 21 9945RA Wagenborgen | 0:00 |
| DB | Menterne 19 9945RA Wagenborgen | 0:00 |
| DC | Menterne 20 9945RA Wagenborgen | 0:00 |
| DD | Menterne 17 9945RA Wagenborgen | 0:00 |
| DE | Menterne 7 9945RA Wagenborgen | 0:00 |
| DF | Menterne 8 9945RA Wagenborgen | 0:00 |
| DG | Menterne 9 9945RA Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2B

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| DH | Menterne 10 9945RA Wagenborgen | 0:00 |
| DI | Menterne 11 9945RA Wagenborgen | 0:00 |
| DJ | Menterne 12 9945RA Wagenborgen | 0:00 |
| DK | Menterne 13 9945RA Wagenborgen | 0:00 |
| DL | Menterne 14 9945RA Wagenborgen | 0:00 |
| DM | Menterne 1 9945RA Wagenborgen | 0:00 |
| DN | Menterne 2 9945RA Wagenborgen | 0:00 |
| DO | Menterne 3 9945RA Wagenborgen | 0:00 |
| DP | Menterne 4 9945RA Wagenborgen | 0:00 |
| DQ | Menterne 5 9945RA Wagenborgen | 0:00 |
| DR | Menterne 6 9945RA Wagenborgen | 0:00 |
| DS | Menterne 15 9945RA Wagenborgen | 0:00 |
| DT | Menterne 16 9945RA Wagenborgen | 0:00 |
| DU | de Berken 6 9945PT Wagenborgen | 0:00 |
| DV | de Berken 2 9945PT Wagenborgen | 0:00 |
| DW | de Berken 4 9945PT Wagenborgen | 0:00 |
| DX | de Berken 1 9945PT Wagenborgen | 0:00 |
| DY | de Berken 5 9945PT Wagenborgen | 0:00 |
| DZ | de Berken 7 9945PT Wagenborgen | 0:00 |
| E | Meerweg 3 9945RC Wagenborgen | 0:41 |
| EA | de Berken 9 9945PT Wagenborgen | 0:00 |
| EB | de Eiken 14 9945VA Wagenborgen | 0:00 |
| EC | de Eiken 16 9945VA Wagenborgen | 0:00 |
| ED | de Eiken 2 9945VA Wagenborgen | 0:00 |
| EE | de Eiken 4 9945VA Wagenborgen | 0:00 |
| EF | de Eiken 6 9945VA Wagenborgen | 0:00 |
| EG | de Eiken 8 9945VA Wagenborgen | 0:00 |
| EH | de Eiken 10 9945VA Wagenborgen | 0:00 |
| EI | de Eiken 12 9945VA Wagenborgen | 0:00 |
| EJ | de Eiken 2 A 9945VA Wagenborgen | 0:00 |
| EK | Troostlaan 7 9945PV Wagenborgen | 0:00 |
| EL | Troostlaan 8 9945PV Wagenborgen | 0:00 |
| EM | Troostlaan 9 9945PV Wagenborgen | 0:00 |
| EN | Troostlaan 10 9945PV Wagenborgen | 0:00 |
| EO | Troostlaan 11 9945PV Wagenborgen | 0:00 |
| EP | Troostlaan 1 9945PV Wagenborgen | 0:00 |
| EQ | Troostlaan 2 9945PV Wagenborgen | 0:00 |
| ER | Troostlaan 3 9945PV Wagenborgen | 0:00 |
| ES | Troostlaan 2 A 9945PV Wagenborgen | 0:00 |
| ET | Troostlaan 4 9945PV Wagenborgen | 0:00 |
| EU | Troostlaan 14 9945PV Wagenborgen | 0:00 |
| EV | Troostlaan 22 9945PV Wagenborgen | 0:00 |
| EW | Troostlaan 20 9945PV Wagenborgen | 0:00 |
| EX | Troostlaan 21 9945PV Wagenborgen | 0:00 |
| EY | Troostlaan 18 9945PV Wagenborgen | 0:00 |
| EZ | Troostlaan 19 9945PV Wagenborgen | 0:00 |
| F | G. Boelmanweg 2 9945RJ Wagenborgen | 0:00 |
| FA | Familie Bronsweg 40 9945PS Wagenborgen | 0:00 |
| FB | Familie Bronsweg 44 9945PS Wagenborgen | 0:00 |
| FC | Familie Bronsweg 46 9945PS Wagenborgen | 0:00 |
| FD | Familie Bronsweg 48 9945PS Wagenborgen | 0:00 |
| FE | Familie Bronsweg 50 9945PS Wagenborgen | 0:00 |
| FF | Familie Bronsweg 79 9945PP Wagenborgen | 0:00 |
| FG | Familie Bronsweg 81 9945PP Wagenborgen | 0:00 |
| FH | Familie Bronsweg 36 9945PS Wagenborgen | 0:00 |
| FI | Familie Bronsweg 38 9945PS Wagenborgen | 0:00 |
| FJ | Familie Bronsweg 42 9945PS Wagenborgen | 0:00 |
| FK | Familie Bronsweg 54 9945PS Wagenborgen | 0:00 |
| FL | Familie Bronsweg 52 9945PS Wagenborgen | 0:00 |
| FM | Familie Bronsweg 50 B 9945PS Wagenborgen | 0:00 |
| FN | Familie Bronsweg 50 A 9945PS Wagenborgen | 0:00 |
| FO | Familie Bronsweg 75 9945PP Wagenborgen | 0:00 |
| FP | Familie Bronsweg 75 A 9945PP Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2B

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| FQ | Familie Bronsweg 75 B 9945PP Wagenborgen | 0:00 |
| FR | Familie Bronsweg 71 9945PP Wagenborgen | 0:00 |
| FS | Familie Bronsweg 69 A 9945PP Wagenborgen | 0:00 |
| FT | Familie Bronsweg 69 9945PP Wagenborgen | 0:00 |
| FU | Familie Bronsweg 67 9945PP Wagenborgen | 0:00 |
| FV | Familie Bronsweg 65 9945PP Wagenborgen | 0:00 |
| FW | Familie Bronsweg 63 9945PP Wagenborgen | 0:00 |
| FX | Familie Bronsweg 61 9945PP Wagenborgen | 0:00 |
| FY | Familie Bronsweg 59 9945PP Wagenborgen | 0:00 |
| FZ | Familie Bronsweg 57 9945PP Wagenborgen | 0:00 |
| G | G. Boelmanweg 3 9945RE Wagenborgen | 0:00 |
| GA | Familie Bronsweg 53 9945PP Wagenborgen | 0:00 |
| GB | Familie Bronsweg 73 9945PP Wagenborgen | 0:00 |
| GC | Familie Bronsweg 85 9945PP Wagenborgen | 0:00 |
| GD | Familie Bronsweg 83 9945PP Wagenborgen | 0:00 |
| GE | Familie Bronsweg 83 A 9945PP Wagenborgen | 0:00 |
| GF | Familie Bronsweg 77 9945PP Wagenborgen | 0:00 |
| GG | Familie Bronsweg 51 9945PP Wagenborgen | 0:00 |
| GH | Familie Bronsweg 2 9945PR Wagenborgen | 0:00 |
| GI | Familie Bronsweg 4 9945PR Wagenborgen | 0:00 |
| GJ | Familie Bronsweg 4 A 9945PR Wagenborgen | 0:00 |
| GK | Familie Bronsweg 6 9945PR Wagenborgen | 0:00 |
| GL | Familie Bronsweg 8 9945PR Wagenborgen | 0:00 |
| GM | Familie Bronsweg 10 9945PR Wagenborgen | 0:00 |
| GN | Familie Bronsweg 12 9945PR Wagenborgen | 0:00 |
| GO | Familie Bronsweg 14 9945PR Wagenborgen | 0:00 |
| GP | Familie Bronsweg 16 9945PR Wagenborgen | 0:00 |
| GQ | Familie Bronsweg 15 9945PN Wagenborgen | 0:00 |
| GR | Familie Bronsweg 17 9945PN Wagenborgen | 0:00 |
| GS | Familie Bronsweg 2 A 9945PR Wagenborgen | 0:00 |
| GT | Familie Bronsweg 2 B 9945PR Wagenborgen | 0:00 |
| GU | Familie Bronsweg 2 C 9945PR Wagenborgen | 0:00 |
| GV | Familie Bronsweg 2 D 9945PR Wagenborgen | 0:00 |
| GW | Familie Bronsweg 2 F 9945PR Wagenborgen | 0:00 |
| GX | Familie Bronsweg 2 G 9945PR Wagenborgen | 0:00 |
| GY | Familie Bronsweg 2 H 9945PR Wagenborgen | 0:00 |
| GZ | Familie Bronsweg 2 J 9945PR Wagenborgen | 0:00 |
| H | G. Boelmanweg 5 9945RE Wagenborgen | 0:00 |
| HA | Akeleistraat 17 9945VD Wagenborgen | 0:00 |
| HB | Akeleistraat 19 9945VD Wagenborgen | 0:00 |
| HC | Akeleistraat 21 9945VD Wagenborgen | 0:00 |
| HD | Akeleistraat 23 9945VD Wagenborgen | 0:00 |
| HE | Akeleistraat 20 9945VD Wagenborgen | 0:00 |
| HF | Akeleistraat 22 9945VD Wagenborgen | 0:00 |
| HG | Akeleistraat 16 9945VD Wagenborgen | 0:00 |
| HH | Akeleistraat 18 9945VD Wagenborgen | 0:00 |
| HI | Akeleistraat 12 9945VD Wagenborgen | 0:00 |
| HJ | Akeleistraat 14 9945VD Wagenborgen | 0:00 |
| HK | Akeleistraat 10 9945VD Wagenborgen | 0:00 |
| HL | Akeleistraat 1 9945VD Wagenborgen | 0:00 |
| HM | Akeleistraat 3 9945VD Wagenborgen | 0:00 |
| HN | Akeleistraat 5 9945VD Wagenborgen | 0:00 |
| HO | Akeleistraat 7 9945VD Wagenborgen | 0:00 |
| HP | Akeleistraat 9 9945VD Wagenborgen | 0:00 |
| HQ | Akeleistraat 11 9945VD Wagenborgen | 0:00 |
| HR | Akeleistraat 2 9945VD Wagenborgen | 0:00 |
| HS | Akeleistraat 4 9945VD Wagenborgen | 0:00 |
| HT | Akeleistraat 6 9945VD Wagenborgen | 0:00 |
| HU | Akeleistraat 8 9945VD Wagenborgen | 0:00 |
| HV | Akeleistraat 15 9945VD Wagenborgen | 0:00 |
| HW | Bremstraat 6 9945VC Wagenborgen | 0:00 |
| HX | Bremstraat 2 9945VC Wagenborgen | 0:00 |
| HY | Bremstraat 4 9945VC Wagenborgen | 0:00 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2B

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| HZ | Bremstraat 12 9945VC Wagenborgen | 0:00 |
| I | G. Boelmanweg 4 9945RJ Wagenborgen | 0:00 |
| IA | Hibiscusstraat 30 9945VB Wagenborgen | 0:00 |
| IB | Hibiscusstraat 2 9945VB Wagenborgen | 0:00 |
| IC | Hibiscusstraat 4 9945VB Wagenborgen | 0:00 |
| ID | Hibiscusstraat 10 9945VB Wagenborgen | 0:00 |
| IE | Hibiscusstraat 16 9945VB Wagenborgen | 0:00 |
| IF | Bremstraat 14 9945VC Wagenborgen | 0:00 |
| IG | Hibiscusstraat 6 9945VB Wagenborgen | 0:00 |
| IH | Hibiscusstraat 26 9945VB Wagenborgen | 0:00 |
| II | Kopaf 8 9945TE Wagenborgen | 0:00 |
| IJ | Kopaf 7 9945TE Wagenborgen | 0:00 |
| IK | Kopaf 6 9945TE Wagenborgen | 0:00 |
| IL | Kloosterlaan 27 9945TG Wagenborgen | 1:36 |
| IM | Kloosterlaan 25 9945TG Wagenborgen | 10:00 |
| IN | Kloosterlaan 23 9945TG Wagenborgen | 11:55 |
| IO | Scheve Klap 5 9945TD Wagenborgen | 0:41 |
| IP | Scheve Klap 4 9945TD Wagenborgen | 0:27 |
| IQ | Hibiscusstraat 8 9945VB Wagenborgen | 0:00 |
| IR | Hibiscusstraat 12 9945VB Wagenborgen | 0:00 |
| IS | Hibiscusstraat 18 9945VB Wagenborgen | 0:00 |
| IT | Hibiscusstraat 24 9945VB Wagenborgen | 0:00 |
| IU | Hibiscusstraat 22 9945VB Wagenborgen | 0:00 |
| IV | Troostlaan 15 9945PV Wagenborgen | 0:00 |
| IW | Bremstraat 10 9945VC Wagenborgen | 0:00 |
| IX | Hibiscusstraat 20 9945VB Wagenborgen | 0:00 |
| IY | Hibiscusstraat 28 9945VB Wagenborgen | 0:00 |
| IZ | Troostlaan 5 9945PV Wagenborgen | 0:00 |
| J | G. Boelmanweg 7 9945RE Wagenborgen | 0:00 |
| JA | Troostlaan 6 9945PV Wagenborgen | 0:00 |
| JB | Boslaan 5 9945TM Wagenborgen | 0:00 |
| JC | Hoofdweg 33 A 9945PB Wagenborgen | 0:00 |
| JD | Akeleistraat 13 9945VD Wagenborgen | 0:00 |
| JE | Hoofdweg 42 9945PG Wagenborgen | 0:00 |
| JF | Familie Bronsweg 2 E 9945PR Wagenborgen | 0:00 |
| JG | Hibiscusstraat 14 9945VB Wagenborgen | 0:00 |
| JH | Bremstraat 8 9945VC Wagenborgen | 0:00 |
| JI | Menterne 23 003 9945RA Wagenborgen | 0:00 |
| JJ | Menterne 23 004 9945RA Wagenborgen | 0:00 |
| JK | Menterne 23 005 9945RA Wagenborgen | 0:00 |
| JL | Menterne 23 006 9945RA Wagenborgen | 0:00 |
| JM | Menterne 23 007 9945RA Wagenborgen | 0:00 |
| JN | Menterne 23 008 9945RA Wagenborgen | 0:00 |
| JO | Menterne 23 009 9945RA Wagenborgen | 0:00 |
| JP | Menterne 23 010 9945RA Wagenborgen | 0:00 |
| JQ | Menterne 23 017 9945RA Wagenborgen | 0:00 |
| JR | Menterne 23 030 9945RA Wagenborgen | 0:00 |
| JS | Menterne 23 103 9945RA Wagenborgen | 0:00 |
| JT | Menterne 23 104 9945RA Wagenborgen | 0:00 |
| JU | Menterne 23 105 9945RA Wagenborgen | 0:00 |
| JV | Menterne 23 106 9945RA Wagenborgen | 0:00 |
| JW | Menterne 23 107 9945RA Wagenborgen | 0:00 |
| JX | Menterne 23 108 9945RA Wagenborgen | 0:00 |
| JY | Menterne 23 109 9945RA Wagenborgen | 0:00 |
| JZ | Menterne 23 110 9945RA Wagenborgen | 0:00 |
| K | G. Boelmanweg 6 9945RJ Wagenborgen | 0:00 |
| KA | Menterne 23 111 9945RA Wagenborgen | 0:00 |
| KB | Menterne 23 113 9945RA Wagenborgen | 0:00 |
| KC | Menterne 23 114 9945RA Wagenborgen | 0:00 |
| KD | Menterne 23 115 9945RA Wagenborgen | 0:00 |
| KE | Menterne 23 116 9945RA Wagenborgen | 0:00 |
| KF | Menterne 23 117 9945RA Wagenborgen | 0:00 |
| KG | Menterne 23 118 9945RA Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2B

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| KH | Menterne 23 119 9945RA Wagenborgen | 0:00 |
| KI | Menterne 23 120 9945RA Wagenborgen | 0:00 |
| KJ | Menterne 23 121 9945RA Wagenborgen | 0:00 |
| KK | Menterne 23 122 9945RA Wagenborgen | 0:00 |
| KL | Menterne 23 123 9945RA Wagenborgen | 0:00 |
| KM | Menterne 23 124 9945RA Wagenborgen | 0:00 |
| KN | Menterne 23 125 9945RA Wagenborgen | 0:00 |
| KO | Menterne 23 126 9945RA Wagenborgen | 0:00 |
| KP | Menterne 23 127 9945RA Wagenborgen | 0:00 |
| KQ | Menterne 23 128 9945RA Wagenborgen | 0:00 |
| KR | Menterne 23 129 9945RA Wagenborgen | 0:00 |
| KS | Menterne 23 130 9945RA Wagenborgen | 0:00 |
| KT | Menterne 23 131 9945RA Wagenborgen | 0:00 |
| KU | Menterne 23 132 9945RA Wagenborgen | 0:00 |
| KV | Menterne 23 201 9945RA Wagenborgen | 0:00 |
| KW | Menterne 23 202 9945RA Wagenborgen | 0:00 |
| KX | Menterne 23 203 9945RA Wagenborgen | 0:00 |
| KY | Menterne 23 204 9945RA Wagenborgen | 0:00 |
| KZ | Menterne 23 205 9945RA Wagenborgen | 0:00 |
| L | Kokslaan 1 9945RD Wagenborgen | 0:00 |
| LA | Menterne 23 206 9945RA Wagenborgen | 0:00 |
| LB | Menterne 23 207 9945RA Wagenborgen | 0:00 |
| LC | Menterne 23 208 9945RA Wagenborgen | 0:00 |
| LD | Menterne 23 209 9945RA Wagenborgen | 0:00 |
| LE | Menterne 23 210 9945RA Wagenborgen | 0:00 |
| LF | Menterne 23 211 9945RA Wagenborgen | 0:00 |
| LG | Menterne 23 212 9945RA Wagenborgen | 0:00 |
| LH | Menterne 23 213 9945RA Wagenborgen | 0:00 |
| LI | Menterne 23 214 9945RA Wagenborgen | 0:00 |
| LJ | Menterne 23 215 9945RA Wagenborgen | 0:00 |
| LK | Menterne 23 216 9945RA Wagenborgen | 0:00 |
| LL | Menterne 23 217 9945RA Wagenborgen | 0:00 |
| LM | Menterne 23 218 9945RA Wagenborgen | 0:00 |
| LN | Menterne 23 219 9945RA Wagenborgen | 0:00 |
| LO | Menterne 23 220 9945RA Wagenborgen | 0:00 |
| LP | Menterne 23 221 9945RA Wagenborgen | 0:00 |
| LQ | Menterne 23 222 9945RA Wagenborgen | 0:00 |
| LR | Menterne 23 223 9945RA Wagenborgen | 0:00 |
| LS | Menterne 23 224 9945RA Wagenborgen | 0:00 |
| LT | Menterne 23 226 9945RA Wagenborgen | 0:00 |
| LU | Menterne 23 228 9945RA Wagenborgen | 0:00 |
| LV | Menterne 23 229 9945RA Wagenborgen | 0:00 |
| LW | Menterne 23 230 9945RA Wagenborgen | 0:00 |
| LX | Menterne 23 231 9945RA Wagenborgen | 0:00 |
| LY | Menterne 23 232 9945RA Wagenborgen | 0:00 |
| LZ | G. Boelmanweg 1 9945RE Wagenborgen | 0:00 |
| M | Kokslaan 2 9945RD Wagenborgen | 0:00 |
| MA | Boslaan 7 9945TM Wagenborgen | 0:00 |
| MB | H.L. Emmensweg 23 9945PW Wagenborgen | 0:00 |
| MC | Kopaf 5 9944VA Nieuwolda | 0:00 |
| MD | Familie Bronsweg 68 9945TA Wagenborgen | 14:28 |
| ME | Maarkampen 26 9937PL Meedhuizen | 0:37 |
| MF | Maarkampen 24 9937PL Meedhuizen | 0:34 |
| MG | Maarkampen 22 9937PL Meedhuizen | 0:31 |
| MH | Maarkampen 20 9937PL Meedhuizen | 0:19 |
| MI | Maarkampen 18 9937PL Meedhuizen | 0:17 |
| MJ | Maarkampen 16 9937PL Meedhuizen | 0:16 |
| MK | Maarkampen 14 9937PL Meedhuizen | 0:15 |
| ML | Maarlaan 22 E 9937TH Meedhuizen | 0:21 |
| MM | Maarlaan 22 D 9937TH Meedhuizen | 0:16 |
| MN | Schaapbulterweg 8 9937TL Meedhuizen | 1:01 |
| MO | Schaapbulterweg 6 9937TL Meedhuizen | 0:19 |
| MP | Schaapbulterweg 29 9937TL Meedhuizen | 1:03 |

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2B

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| MQ | Schaapbulterweg 27 9937TL Meedhuizen | 0:33 |
| MR | Schaapbulterweg 25 9937TL Meedhuizen | 0:20 |
| MS | Schaapbulterweg 23 9937TL Meedhuizen | 0:19 |
| MT | Schaapbulterweg 21 9937TL Meedhuizen | 0:18 |
| MU | Geefsweersterweg 11 9937TB Meedhuizen | 4:21 |
| MV | Schaapbulterweg 35 9937TL Meedhuizen | 2:51 |
| MW | Meedhuizerweg 20 9937TK Meedhuizen | 0:45 |
| MX | Familie Bronsweg 66 9945TA Wagenborgen | 12:06 |
| MY | Familie Bronsweg 64 9945TA Wagenborgen | 15:16 |
| MZ | Ideweersterweg 10 9937TM Meedhuizen | 17:15 |
| N | Kerkstraat 1 9945SB Wagenborgen | 0:00 |
| NA | Ideweersterweg 8 9937TM Meedhuizen | 28:34 |
| NB | Geefsweersterweg 20 9937TC Meedhuizen | 26:37 |
| NC | Geefsweersterweg 18 9937TC Meedhuizen | 21:12 |
| ND | Geefsweersterweg 29 9937TB Meedhuizen | 21:53 |
| NE | Geefsweersterweg 16 9937TC Meedhuizen | 20:52 |
| NF | Geefsweersterweg 23 9937TB Meedhuizen | 28:34 |
| NG | Geefsweersterweg 12 9937TC Meedhuizen | 37:37 |
| NH | Geefsweersterweg 14 9937TC Meedhuizen | 34:32 |
| NI | Geefsweersterweg 21 A 9937TB Meedhuizen | 35:07 |
| NJ | Geefsweersterweg 10 9937TC Meedhuizen | 43:48 |
| NK | Geefsweersterweg 21 9937TB Meedhuizen | 42:29 |
| NL | Geefsweersterweg 17 9937TB Meedhuizen | 39:47 |
| NM | Geefsweersterweg 19 9937TB Meedhuizen | 42:25 |
| NN | Ideweersterweg 2 9937TM Meedhuizen | 23:26 |
| NO | Ideweersterweg 1 9937TM Meedhuizen | 26:06 |
| NP | Geefsweersterweg 15 9937TB Meedhuizen | 33:44 |
| NQ | Westerlaan 6 9937TS Meedhuizen | 38:18 |
| NR | Familie Bronsweg 87 9945TA Wagenborgen | 7:31 |
| NS | Familie Bronsweg 89 9945TA Wagenborgen | 11:32 |
| NT | Westerlaan 10 9937TS Meedhuizen | 31:08 |
| NU | Geefsweersterweg 13 9937TB Meedhuizen | 16:44 |
| NV | Maarlaan 26 9937TH Meedhuizen | 1:18 |
| NW | Maarlaan 24 9937TH Meedhuizen | 0:39 |
| NX | Maarlaan 28 9937TH Meedhuizen | 1:20 |
| NY | Maarlaan 30 9937TH Meedhuizen | 1:50 |
| NZ | Kerklaan 3 9937PG Meedhuizen | 1:09 |
| O | Hoofdweg 30 9945PG Wagenborgen | 0:00 |
| OA | Kerklaan 8 9937PG Meedhuizen | 2:23 |
| OB | Kerklaan 6 9937PG Meedhuizen | 2:33 |
| OC | Opmeedenlaan 6 9937TN Meedhuizen | 0:53 |
| OD | Opmeedenlaan 4 9937TN Meedhuizen | 0:57 |
| OE | Opmeedenlaan 2 9937TN Meedhuizen | 1:11 |
| OF | Kloosterlaan 26 9945TG Wagenborgen | 8:45 |
| OG | Zomerdijk 1 9945TH Wagenborgen | 6:26 |
| OH | Zomerdijk 3 9945TH Wagenborgen | 1:36 |
| OI | Zomerdijk 3 A 9945TH Wagenborgen | 1:07 |
| OJ | Zomerdijk 2 9945TH Wagenborgen | 0:33 |
| OK | Kloosterlaan 21 A 9945TG Wagenborgen | 10:51 |
| OL | Kloosterlaan 21 B 9945TG Wagenborgen | 10:31 |
| OM | Ideweersterweg 4 9937TM Meedhuizen | 51:25 |
| ON | Maarlaan 22 C 9937TH Meedhuizen | 0:13 |
| OO | Kloosterlaan 21 9936TE Farmsum | 6:38 |
| OP | Geefsweersterweg 8 A 9937TC Meedhuizen | 30:35 |
| OQ | Houtweg 20 9936BL Farmsum | 0:10 |
| OR | Houtweg 22 9936BL Farmsum | 0:10 |
| OS | Houtweg 24 9936BL Farmsum | 0:11 |
| OT | Houtweg 26 9936BL Farmsum | 0:11 |
| OU | Houtweg 28 9936BL Farmsum | 0:11 |
| OV | Rondeboslaan 6 9936BK Farmsum | 0:21 |
| OW | Proosdij 14 9936EW Farmsum | 0:00 |
| OX | Bredelaan 6 9936ER Farmsum | 0:58 |
| OY | Bredelaan 4 9936ER Farmsum | 0:47 |

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2B

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| OZ | Bredelaan 2 A 9936ER Farmsum | 0:35 |
| P | Hoofdweg 32 9945PG Wagenborgen | 0:00 |
| PA | Proosdij 24 9936EW Farmsum | 0:18 |
| PB | Proosdij 22 9936EW Farmsum | 0:15 |
| PC | Proosdij 20 9936EW Farmsum | 0:12 |
| PD | Proosdij 18 9936EW Farmsum | 0:05 |
| PE | Proosdij 16 9936EW Farmsum | 0:04 |
| PF | Trambaan 19 9936ES Farmsum | 0:40 |
| PG | Proosdij 17 9936ET Farmsum | 0:17 |
| PH | Proosdij 15 9936ET Farmsum | 0:14 |
| PI | Proosdij 13 9936ET Farmsum | 0:12 |
| PJ | Trambaan 17 9936ES Farmsum | 0:39 |
| PK | Trambaan 15 9936ES Farmsum | 0:39 |
| PL | Trambaan 13 9936ES Farmsum | 0:37 |
| PM | Trambaan 11 9936ES Farmsum | 0:37 |
| PN | Trambaan 9 9936ES Farmsum | 0:36 |
| PO | Trambaan 5 9936ES Farmsum | 0:35 |
| PP | Trambaan 3 9936ES Farmsum | 0:33 |
| PQ | Trambaan 1 9936ES Farmsum | 0:33 |
| PR | Proosdij 12 9936EW Farmsum | 0:00 |
| PS | Proosdij 8 9936EW Farmsum | 0:00 |
| PT | Proosdij 6 9936EW Farmsum | 0:00 |
| PU | Proosdij 4 9936EW Farmsum | 0:00 |
| PV | Proosdij 11 9936ET Farmsum | 0:08 |
| PW | Proosdij 9 9936ET Farmsum | 0:06 |
| PX | Proosdij 7 9936ET Farmsum | 0:02 |
| PY | Proosdij 5 9936ET Farmsum | 0:00 |
| PZ | Proosdij 1 9936ET Farmsum | 0:00 |
| Q | Hoofdweg 31 9945PA Wagenborgen | 0:00 |
| QA | Proosdij 3 9936ET Farmsum | 0:00 |
| QB | Farmsumerzijl 55 9936GC Farmsum | 0:00 |
| QC | Farmsumerzijl 57 9936GC Farmsum | 0:01 |
| QD | Rengersweg 4 9936GH Farmsum | 0:00 |
| QE | Rengersweg 2 9936GH Farmsum | 0:00 |
| QF | Schepperij 4 A 9936GN Farmsum | 0:00 |
| QG | Schepperij 2 A 9936GN Farmsum | 0:00 |
| QH | Schepperij 4 9936GN Farmsum | 0:00 |
| QI | Schepperij 2 9936GN Farmsum | 0:00 |
| QJ | Dijkrecht 4 9936GK Farmsum | 0:00 |
| QK | Dijkrecht 6 9936GK Farmsum | 0:00 |
| QL | Dijkrecht 10 9936GK Farmsum | 0:00 |
| QM | Dijkrecht 12 9936GK Farmsum | 0:00 |
| QN | Dijkrecht 14 9936GK Farmsum | 0:00 |
| QO | Dijkrecht 16 9936GK Farmsum | 0:00 |
| QP | Dijkrecht 18 9936GK Farmsum | 0:00 |
| QQ | Dijkrecht 20 9936GK Farmsum | 0:00 |
| QR | Dijkrecht 22 9936GK Farmsum | 0:00 |
| QS | Dijkrecht 24 9936GK Farmsum | 0:00 |
| QT | Dijkrecht 26 9936GK Farmsum | 0:00 |
| QU | Dijkrecht 28 9936GK Farmsum | 0:00 |
| QV | Dijkrecht 30 9936GK Farmsum | 0:00 |
| QW | Dijkrecht 32 9936GK Farmsum | 0:00 |
| QX | Dijkrecht 34 9936GK Farmsum | 0:00 |
| QY | Dijkrecht 36 9936GK Farmsum | 0:00 |
| QZ | Dijkrecht 40 9936GK Farmsum | 0:00 |
| R | Hoofdweg 38 9945PG Wagenborgen | 0:00 |
| RA | Dijkrecht 38 9936GK Farmsum | 0:00 |
| RB | Schepperij 20 9936GN Farmsum | 0:00 |
| RC | Schepperij 18 9936GN Farmsum | 0:00 |
| RD | Waarman 12 9936GW Farmsum | 0:00 |
| RE | Waarman 10 9936GW Farmsum | 0:00 |
| RF | Waarman 8 9936GW Farmsum | 0:00 |
| RG | Waarman 6 9936GW Farmsum | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2B

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| RH | Farmsumerzijl 1 9936GB Farmsum | 0:00 |
| RI | Farmsumerzijl 3 9936GB Farmsum | 0:00 |
| RJ | Farmsumerzijl 5 9936GB Farmsum | 0:00 |
| RK | Farmsumerzijl 7 9936GB Farmsum | 0:00 |
| RL | Farmsumerzijl 13 9936GB Farmsum | 0:00 |
| RM | Farmsumerzijl 15 9936GB Farmsum | 0:00 |
| RN | Farmsumerzijl 17 9936GB Farmsum | 0:00 |
| RO | Farmsumerzijl 19 9936GB Farmsum | 0:00 |
| RP | Farmsumerzijl 25 9936GB Farmsum | 0:00 |
| RQ | Farmsumerzijl 27 9936GB Farmsum | 0:00 |
| RR | Farmsumerzijl 29 9936GB Farmsum | 0:00 |
| RS | Farmsumerzijl 31 9936GC Farmsum | 0:00 |
| RT | Farmsumerzijl 37 9936GC Farmsum | 0:00 |
| RU | Farmsumerzijl 39 9936GC Farmsum | 0:00 |
| RV | Farmsumerzijl 41 9936GC Farmsum | 0:00 |
| RW | Farmsumerzijl 43 9936GC Farmsum | 0:00 |
| RX | Schepperij 1 9936GL Farmsum | 0:00 |
| RY | Schepperij 3 9936GL Farmsum | 0:00 |
| RZ | Schepperij 5 9936GL Farmsum | 0:00 |
| S | Hoofdweg 39 9945PB Wagenborgen | 0:00 |
| SA | Schepperij 7 9936GL Farmsum | 0:00 |
| SB | Schepperij 9 9936GL Farmsum | 0:00 |
| SC | Schepperij 11 9936GL Farmsum | 0:00 |
| SD | Schepperij 13 9936GL Farmsum | 0:00 |
| SE | Schepperij 15 9936GL Farmsum | 0:00 |
| SF | Dijkrecht 8 9936GK Farmsum | 0:00 |
| SG | Geefsweersterweg 9 9937TB Meedhuizen | 7:05 |
| SH | Geefsweersterweg 7 9937TB Meedhuizen | 29:57 |
| SI | Geefsweersterweg 8 9937TC Meedhuizen | 36:23 |
| SJ | Geefsweersterweg 3 9937TB Meedhuizen | 20:46 |
| SK | Geefsweersterweg 6 9937TC Meedhuizen | 26:20 |
| SL | Geefsweersterweg 4 9937TC Meedhuizen | 18:09 |
| SM | Meedhuizerweg 2 9937TK Meedhuizen | 0:14 |
| SN | Molenstraat 31 9936EB Farmsum | 0:00 |
| SO | Hindrik Jagerstraat 32 9936CV Farmsum | 0:03 |
| SP | Hindrik Jagerstraat 11 9936CT Farmsum | 0:09 |
| SQ | Hindrik Jagerstraat 13 9936CT Farmsum | 0:09 |
| SR | Hindrik Jagerstraat 15 9936CT Farmsum | 0:09 |
| SS | Hindrik Jagerstraat 34 9936CV Farmsum | 0:03 |
| ST | Hindrik Jagerstraat 36 9936CV Farmsum | 0:02 |
| SU | Borgshof 31 9936CR Farmsum | 0:00 |
| SV | Borgshof 33 9936CR Farmsum | 0:00 |
| SW | Borgshof 39 9936CR Farmsum | 0:13 |
| SX | Borgshof 35 9936CR Farmsum | 0:09 |
| SY | Molenstraat 20 9936EC Farmsum | 0:00 |
| SZ | Molenstraat 24 9936EC Farmsum | 0:00 |
| T | Hoofdweg 35 9945PB Wagenborgen | 0:00 |
| TA | Molenstraat 28 9936EC Farmsum | 0:00 |
| TB | Molenstraat 41 9936EB Farmsum | 0:00 |
| TC | Molenstraat 43 9936EB Farmsum | 0:00 |
| TD | Molenstraat 45 9936EB Farmsum | 0:00 |
| TE | Molenstraat 32 9936EC Farmsum | 0:00 |
| TF | Achterweg 13 9936EG Farmsum | 0:00 |
| TG | Achterweg 11 9936EG Farmsum | 0:00 |
| TH | Achterweg 9 9936EG Farmsum | 0:00 |
| TI | Molenstraat 49 9936EB Farmsum | 0:00 |
| TJ | Molenstraat 51 9936EB Farmsum | 0:00 |
| TK | Molenstraat 53 9936EB Farmsum | 0:00 |
| TL | Molenstraat 57 9936EB Farmsum | 0:00 |
| TM | Molenstraat 61 9936EB Farmsum | 0:00 |
| TN | Molenstraat 63 9936EB Farmsum | 0:00 |
| TO | Molenstraat 34 9936ED Farmsum | 0:00 |
| TP | Molenstraat 38 9936ED Farmsum | 0:00 |

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3-2-2017 15:34/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2B

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| TQ | Molenstraat 40 9936ED Farmsum | 0:00 |
| TR | Molenstraat 42 9936ED Farmsum | 0:00 |
| TS | Molenstraat 44 9936ED Farmsum | 0:00 |
| TT | Molenstraat 65 9936EB Farmsum | 0:00 |
| TU | Molenstraat 48 9936ED Farmsum | 0:00 |
| TV | Molenstraat 50 9936ED Farmsum | 0:00 |
| TW | Molenstraat 56 9936ED Farmsum | 0:00 |
| TX | Molenstraat 58 9936EE Farmsum | 0:00 |
| TY | Molenstraat 62 9936EE Farmsum | 0:00 |
| TZ | Molenstraat 72 9936EE Farmsum | 0:00 |
| U | Hoofdweg 37 9945PB Wagenborgen | 0:00 |
| UA | Molenstraat 70 9936EE Farmsum | 0:00 |
| UB | Molenstraat 68 9936EE Farmsum | 0:00 |
| UC | Molenstraat 66 9936EE Farmsum | 0:00 |
| UD | Achterweg 2 9936EG Farmsum | 0:00 |
| UE | Achterweg 12 9936EG Farmsum | 0:00 |
| UF | Achterweg 10 9936EG Farmsum | 0:00 |
| UG | Achterweg 8 9936EG Farmsum | 0:00 |
| UH | Hindrik Jagerstraat 17 9936CT Farmsum | 0:10 |
| UI | Molenstraat 30 9936EC Farmsum | 0:00 |
| UJ | Borgweg 141 9936EN Farmsum | 0:16 |
| UK | Borgweg 139 9936EN Farmsum | 0:18 |
| UL | Borgweg 137 9936EN Farmsum | 0:19 |
| UM | Borgweg 135 9936EN Farmsum | 0:21 |
| UN | Afwateringskanaal 109 9936AV Farmsum | 0:24 |
| UO | Borgweg 131 9936EM Farmsum | 0:19 |
| UP | Borgweg 133 9936EM Farmsum | 0:30 |
| UQ | Borgshof 41 9936CR Farmsum | 0:19 |
| UR | Borgshof 43 9936CR Farmsum | 0:23 |
| US | Borgshof 45 9936CR Farmsum | 0:26 |
| UT | Molenstraat 74 9936EE Farmsum | 0:00 |
| UU | Molenstraat 76 9936EE Farmsum | 0:00 |
| UV | Molenstraat 78 9936EE Farmsum | 0:00 |
| UW | Molenstraat 82 9936EE Farmsum | 0:00 |
| UX | Molenstraat 84 9936EE Farmsum | 0:00 |
| UY | Borgweg 123 9936EM Farmsum | 0:00 |
| UZ | Borgweg 125 9936EM Farmsum | 0:00 |
| V | Hoofdweg 44 9945PH Wagenborgen | 0:00 |
| VA | Borgweg 127 9936EM Farmsum | 0:00 |
| VB | Borgweg 129 9936EM Farmsum | 0:00 |
| VC | Farmsumerzijl 51 9936GC Farmsum | 0:00 |
| VD | Molenstraat 80 9936EE Farmsum | 0:00 |
| VE | Houtweg 30 9936BL Farmsum | 0:12 |
| VF | Houtweg 32 9936BL Farmsum | 0:12 |
| VG | Houtweg 34 9936BL Farmsum | 0:13 |
| VH | Houtweg 36 9936BL Farmsum | 0:14 |
| VI | Houtweg 38 9936BL Farmsum | 0:15 |
| VJ | Houtweg 40 9936BL Farmsum | 0:14 |
| VK | Houtweg 42 9936BL Farmsum | 0:15 |
| VL | Houtweg 44 9936BL Farmsum | 0:15 |
| VM | Houtweg 46 9936BL Farmsum | 0:15 |
| VN | Houtweg 48 9936BL Farmsum | 0:15 |
| VO | Rondeboslaan 26 9936BK Farmsum | 0:20 |
| VP | Rondeboslaan 28 9936BK Farmsum | 0:21 |
| VQ | Seendweg 32 9936GA Farmsum | 1:18 |
| VR | Trambaan 21 9936ES Farmsum | 0:42 |
| VS | Proosdij 19 9936ET Farmsum | 0:44 |
| VT | Bredelaan 14 9936ER Farmsum | 1:49 |
| VU | Bredelaan 10 9936ER Farmsum | 1:13 |
| VV | Bredelaan 8 9936ER Farmsum | 1:09 |
| VW | Seendweg 22 9936GA Farmsum | 2:05 |
| VX | Seendweg 28 9936GA Farmsum | 1:47 |
| VY | Proosdij 28 9936EW Farmsum | 0:25 |

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2B

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| VZ | Proosdij 30 9936EX Farmsum | 0:45 |
| W | Hoofdweg 48 9945PH Wagenborgen | 0:00 |
| WA | Proosdij 26 9936EW Farmsum | 0:24 |
| WB | Afwateringskanaal 107 9936AV Farmsum | 0:22 |
| WC | Rondeboslaan 22 A 9936BK Farmsum | 0:35 |
| WD | Rondeboslaan 22 B 9936BK Farmsum | 0:36 |
| WE | Rondeboslaan 2 A 9936BK Farmsum | 0:28 |
| WF | Rondeboslaan 2 B 9936BK Farmsum | 0:22 |
| WG | Seendweg 17 9936GA Farmsum | 1:49 |
| WH | Borgshof 29 9936CR Farmsum | 0:00 |
| WI | Molenstraat 22 9936EC Farmsum | 0:00 |
| WJ | Achterweg 7 A 9936EG Farmsum | 0:00 |
| WK | Molenstraat 26 9936EC Farmsum | 0:00 |
| WL | Borgweg 113 9936EM Farmsum | 0:00 |
| WM | Borgweg 115 9936EM Farmsum | 0:00 |
| WN | Borgweg 117 9936EM Farmsum | 0:00 |
| WO | Borgweg 119 9936EM Farmsum | 0:00 |
| WP | Borgweg 121 9936EM Farmsum | 0:00 |
| WQ | Farmsumerzijl 45 9936GC Farmsum | 0:00 |
| WR | Farmsumerzijl 47 9936GC Farmsum | 0:00 |
| WS | Farmsumerzijl 49 9936GC Farmsum | 0:00 |
| WT | Waarman 4 9936GW Farmsum | 0:00 |
| WU | Waarman 2 9936GW Farmsum | 0:00 |
| WV | Farmsumerzijl 9 9936GB Farmsum | 0:00 |
| WW | Farmsumerzijl 11 9936GB Farmsum | 0:00 |
| WX | Farmsumerzijl 21 9936GB Farmsum | 0:00 |
| WY | Farmsumerzijl 23 9936GB Farmsum | 0:00 |
| WZ | Farmsumerzijl 33 9936GC Farmsum | 0:00 |
| X | Hoofdweg 41 9945PB Wagenborgen | 0:00 |
| XA | Farmsumerzijl 35 9936GC Farmsum | 0:00 |
| XB | Schepperij 17 9936GL Farmsum | 0:00 |
| XC | Schepperij 19 9936GL Farmsum | 0:00 |
| XD | Schepperij 21 9936GL Farmsum | 0:00 |
| XE | Dijkrecht 3 9936GJ Farmsum | 0:00 |
| XF | Dijkrecht 5 9936GJ Farmsum | 0:00 |
| XG | Dijkrecht 7 9936GJ Farmsum | 0:00 |
| XH | Dijkrecht 9 9936GJ Farmsum | 0:00 |
| XI | Dijkrecht 11 9936GJ Farmsum | 0:00 |
| XJ | Dijkrecht 13 9936GJ Farmsum | 0:00 |
| XK | Dijkrecht 15 9936GJ Farmsum | 0:00 |
| XL | Dijkrecht 17 9936GJ Farmsum | 0:00 |
| XM | Dijkrecht 19 9936GJ Farmsum | 0:00 |
| XN | Dijkrecht 21 9936GJ Farmsum | 0:00 |
| XO | Schepperij 6 9936GN Farmsum | 0:00 |
| XP | Schepperij 8 9936GN Farmsum | 0:00 |
| XQ | Schepperij 10 9936GN Farmsum | 0:00 |
| XR | Schepperij 12 9936GN Farmsum | 0:00 |
| XS | Schepperij 14 9936GN Farmsum | 0:00 |
| XT | Schepperij 16 9936GN Farmsum | 0:00 |
| XU | Olderman 2 9936GT Farmsum | 0:00 |
| XV | Olderman 4 9936GT Farmsum | 0:00 |
| XW | Olderman 6 9936GT Farmsum | 0:00 |
| XX | Olderman 8 9936GT Farmsum | 0:00 |
| XY | Olderman 10 9936GT Farmsum | 0:00 |
| XZ | Olderman 12 9936GT Farmsum | 0:00 |
| Y | Hoofdweg 20 9945PG Wagenborgen | 0:00 |
| YA | Olderman 14 9936GT Farmsum | 0:00 |
| YB | Dijkrecht 23 9936GJ Farmsum | 0:00 |
| YC | Dijkrecht 25 9936GJ Farmsum | 0:00 |
| YD | Dijkrecht 27 9936GJ Farmsum | 0:00 |
| YE | Dijkrecht 29 9936GJ Farmsum | 0:00 |
| YF | Dijkrecht 31 9936GJ Farmsum | 0:00 |
| YG | Dijkrecht 33 9936GJ Farmsum | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2B

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| YH | Dijkrecht 35 9936GJ Farmsum | 0:00 |
| YI | Dijkrecht 37 9936GJ Farmsum | 0:00 |
| YJ | Dijkrecht 39 9936GJ Farmsum | 0:00 |
| YK | Dijkrecht 41 9936GJ Farmsum | 0:00 |
| YL | Dijkrecht 43 9936GJ Farmsum | 0:00 |
| YM | Olderman 1 9936GS Farmsum | 0:00 |
| YN | Olderman 3 9936GS Farmsum | 0:00 |
| YO | Olderman 5 9936GS Farmsum | 0:00 |
| YP | Olderman 7 9936GS Farmsum | 0:00 |
| YQ | Schepperij 37 9936GM Farmsum | 0:00 |
| YR | Schepperij 41 9936GM Farmsum | 0:00 |
| YS | Schepperij 45 9936GM Farmsum | 0:00 |
| YT | Schepperij 47 9936GM Farmsum | 0:00 |
| YU | Schepperij 49 9936GM Farmsum | 0:00 |
| YV | Olderman 18 9936GT Farmsum | 0:00 |
| YW | Olderman 20 9936GT Farmsum | 0:00 |
| YX | Olderman 22 9936GT Farmsum | 0:00 |
| YY | Olderman 24 9936GT Farmsum | 0:00 |
| YZ | Olderman 26 9936GT Farmsum | 0:00 |
| Z | Hoofdweg 22 9945PG Wagenborgen | 0:00 |
| ZA | Olderman 28 9936GT Farmsum | 0:00 |
| ZB | Olderman 30 9936GT Farmsum | 0:00 |
| ZC | Olderman 9 9936GS Farmsum | 0:00 |
| ZD | Olderman 11 9936GS Farmsum | 0:00 |
| ZE | Olderman 13 9936GS Farmsum | 0:00 |
| ZF | Proosdij 32 9936EX Farmsum | 0:45 |
| ZG | Proosdij 36 9936EX Farmsum | 0:44 |
| ZH | Proosdij 38 9936EX Farmsum | 0:42 |
| ZI | Proosdij 40 9936EX Farmsum | 0:35 |
| ZJ | Proosdij 27 9936EV Farmsum | 1:07 |
| ZK | Proosdij 25 9936EV Farmsum | 1:09 |
| ZL | Proosdij 23 9936EV Farmsum | 1:11 |
| ZM | Proosdij 21 9936EV Farmsum | 1:12 |
| ZN | Seendweg 5 9936GA Farmsum | 1:45 |
| ZO | Proosdij 29 9936EV Farmsum | 1:06 |
| ZP | Proosdij 31 9936EV Farmsum | 1:07 |
| ZQ | Proosdij 33 9936EV Farmsum | 1:16 |
| ZR | Proosdij 35 9936EV Farmsum | 1:02 |
| ZS | Proosdij 37 9936EV Farmsum | 0:47 |
| ZT | Proosdij 39 9936EV Farmsum | 0:42 |
| ZU | Proosdij 41 9936EV Farmsum | 0:37 |
| ZV | Proosdij 43 9936EV Farmsum | 0:32 |
| ZW | Proosdij 45 9936EV Farmsum | 0:27 |
| ZX | Proosdij 47 9936EV Farmsum | 0:22 |
| ZY | Olderman 15 9936GS Farmsum | 0:00 |
| ZZ | Rengersweg 97 9936GG Farmsum | 0:10 |

Total amount of flickering on the shadow receptors caused by each WTG

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 1 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (49) | 561:19 | 94:09 |
| 2 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (50) | 224:46 | 27:18 |
| 3 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (51) | 91:32 | 19:33 |
| 4 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (52) | 171:05 | 30:04 |
| 5 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (53) | 362:48 | 71:46 |
| 6 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (54) | 288:52 | 37:08 |
| 7 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (55) | 110:09 | 15:17 |
| 8 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (56) | 55:44 | 10:11 |
| 9 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (57) | 89:24 | 18:41 |
| 10 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (58) | 272:12 | 39:25 |
| 11 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (59) | 401:39 | 62:37 |
| 12 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (60) | 34:08 | 4:49 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2B

...continued from previous page

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 13 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (61) | 35:02 | 7:09 |
| 14 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (62) | 112:07 | 23:32 |
| 15 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (63) | 202:00 | 38:37 |
| 16 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (64) | 354:46 | 61:28 |
| 17 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (65) | 429:47 | 77:00 |

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8-2-2017 11:46/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2B met verblijfsobjecten later toegevoegd

### Assumptions for shadow calculations

Maximum distance for influence
Calculate only when more than 20 % of sun is covered by the blade
Please look in WTG table

| | |
|---|---|
| Minimum sun height over horizon for influence | 5 ° |
| Day step for calculation | 1 days |
| Time step for calculation | 1 minutes |

Sunshine probability S (Average daily sunshine hours) [EELDE]

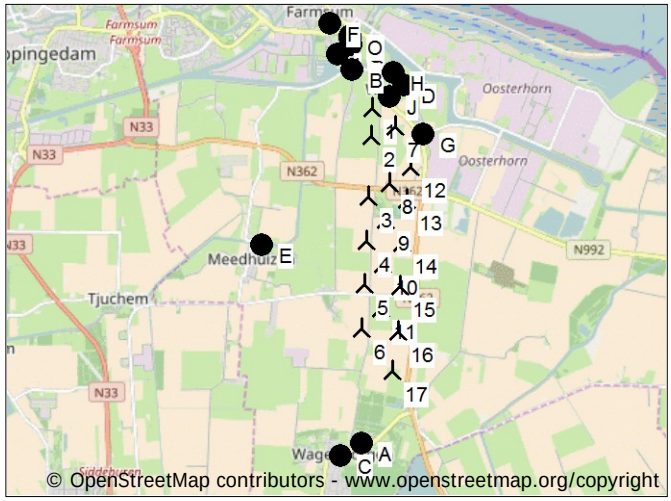
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

All coordinates are in
Dutch Stereo-RD/NAP 2008




Scale 1:125.000

New WTG  Shadow receptor

### WTGs

| | X (east) | Y (north) | Z | Row data/Description | WTG type Valid | Manufact. | Type-generator | Power, rated | Rotor diameter | Hub height | Shadow data Calculation distance | RPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [m] | | | | | [kW] | [m] | [m] | [m] | [RPM] |
| 1 | 258.611 | 592.414 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 2 | 258.598 | 591.937 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 3 | 258.571 | 590.943 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 4 | 258.553 | 590.211 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 5 | 258.531 | 589.481 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 6 | 258.511 | 588.750 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 7 | 258.993 | 592.118 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 8 | 258.921 | 591.166 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 9 | 258.864 | 590.564 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 10 | 258.843 | 589.832 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 11 | 258.822 | 589.099 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 12 | 259.269 | 591.456 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 13 | 259.216 | 590.910 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 14 | 259.154 | 590.190 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 15 | 259.136 | 589.461 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 16 | 259.113 | 588.725 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 17 | 259.027 | 588.069 | 0,0 | GE WIND ENERGY 3.4-130 343... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |

### Shadow receptor-Input

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| A | Familie Bronsweg 22 9945PS Wagenborgen | 258.549 | 586.857 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| B | Geefsweersterweg 1 9937TB Meedhuizen | 258.250 | 593.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| C | Hoofdweg 28 9945PG Wagenborgen | 258.194 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| D | Karspelpad 8 9936HP Farmsum | 259.130 | 592.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| E | Maarkampen 12 9937PL Meedhuizen | 256.818 | 590.108 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| F | Molenstraat 64 9936EE Farmsum | 257.875 | 593.798 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| G | Oosterlaan 9 9936HN Farmsum | 259.468 | 591.997 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| H | Schaappad 1 9936HT Farmsum | 258.946 | 593.010 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| I | Seendweg 8 9936GA Farmsum | 258.005 | 593.293 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| J | T.J. Jansenweg 11 9936HL Farmsum | 258.896 | 592.598 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| K | Waarman 1 9936GV Farmsum | 258.213 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| L | Waarman 11 9936GV Farmsum | 258.213 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| M | Waarman 3 9936GV Farmsum | 258.213 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| N | Waarman 5 9936GV Farmsum | 258.213 | 593.587 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| O | Waarman 7 9936GV Farmsum | 258.213 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| P | Waarman 9 9936GV Farmsum | 258.213 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Q | Zijlvest 20 9936GZ Farmsum | 258.233 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

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Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 11:46/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw Alternatief 2B met verblijfsobjecten later toegevoegd

### Calculation Results

Shadow receptor

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| A | Familie Bronsweg 22 9945PS Wagenborgen | 0:00 |
| B | Geefsweersterweg 1 9937TB Meedhuizen | 6:47 |
| C | Hoofdweg 28 9945PG Wagenborgen | 0:00 |
| D | Karspelpad 8 9936HP Farmsum | 13:09 |
| E | Maarkampen 12 9937PL Meedhuizen | 0:13 |
| F | Molenstraat 64 9936EE Farmsum | 0:00 |
| G | Oosterlaan 9 9936HN Farmsum | 49:07 |
| H | Schaappad 1 9936HT Farmsum | 7:12 |
| I | Seendweg 8 9936GA Farmsum | 2:44 |
| J | T.J. Jansenweg 11 9936HL Farmsum | 39:24 |
| K | Waarman 1 9936GV Farmsum | 0:00 |
| L | Waarman 11 9936GV Farmsum | 0:00 |
| M | Waarman 3 9936GV Farmsum | 0:00 |
| N | Waarman 5 9936GV Farmsum | 0:00 |
| O | Waarman 7 9936GV Farmsum | 0:00 |
| P | Waarman 9 9936GV Farmsum | 0:00 |
| Q | Zijlvest 20 9936GZ Farmsum | 0:00 |

Total amount of flickering on the shadow receptors caused by each WTG

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 1 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (49) | 315:23 | 48:23 |
| 2 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (50) | 91:05 | 10:50 |
| 3 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (51) | 9:16 | 1:05 |
| 4 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (52) | 1:05 | 0:13 |
| 5 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (53) | 0:00 | 0:00 |
| 6 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (54) | 0:00 | 0:00 |
| 7 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (55) | 266:51 | 38:33 |
| 8 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (56) | 33:10 | 3:22 |
| 9 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (57) | 0:00 | 0:00 |
| 10 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (58) | 0:00 | 0:00 |
| 11 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (59) | 0:00 | 0:00 |
| 12 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (60) | 76:31 | 8:19 |
| 13 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (61) | 0:00 | 0:00 |
| 14 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (62) | 0:00 | 0:00 |
| 15 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (63) | 0:00 | 0:00 |
| 16 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (64) | 0:00 | 0:00 |
| 17 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (65) | 0:00 | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2B klein

### Assumptions for shadow calculations

Maximum distance for influence
Calculate only when more than 20 % of sun is covered by the blade
Please look in WTG table

| | |
|---|---|
| Minimum sun height over horizon for influence | 5 ° |
| Day step for calculation | 1 days |
| Time step for calculation | 1 minutes |

Sunshine probability S (Average daily sunshine hours) [EELDE]

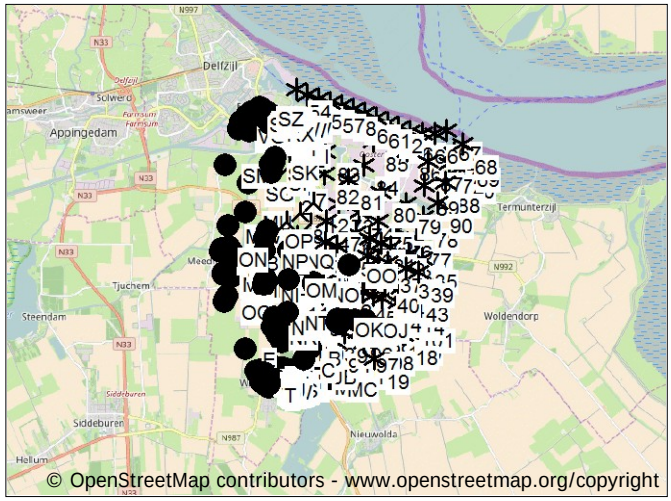
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

All coordinates are in
Dutch Stereo-RD/NAP 2008




Scale 1:200.000
New WTG
Existing WTG
Shadow receptor

## WTGs

| | X (east) | Y (north) | Z | Row data/Description | WTG type Valid | Manufact. | Type-generator | Power, rated | Rotor diameter | Hub height | Shadow data Calculation distance | RPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [m] | | | | | [kW] | [m] | [m] | [m] | [RPM] |
| 1 | 258.611 | 592.414 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 2 | 258.598 | 591.937 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 3 | 258.571 | 590.943 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 4 | 258.553 | 590.211 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 5 | 258.531 | 589.481 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 6 | 258.511 | 588.750 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 7 | 258.993 | 592.118 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 8 | 258.921 | 591.166 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 9 | 258.864 | 590.564 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 10 | 258.843 | 589.832 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 11 | 258.822 | 589.099 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 12 | 259.269 | 591.456 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 13 | 259.216 | 590.910 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 14 | 259.154 | 590.190 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 15 | 259.136 | 589.461 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 16 | 259.113 | 588.725 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 17 | 259.027 | 588.069 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 18 | 261.738 | 588.022 | 0,0 | LAGERWEY 80 18.0 !... | No | LAGERWEY | -80 | 80 | 18,0 | 31,0 | 1.740 | 120,0 |
| 19 | 260.986 | 587.360 | 0,0 | LAGERWEY 80 18.0 !... | No | LAGERWEY | -80 | 80 | 18,0 | 31,0 | 1.740 | 120,0 |
| 20 | 259.587 | 589.858 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 21 | 259.890 | 589.770 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 22 | 259.863 | 589.300 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 23 | 259.845 | 588.985 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 24 | 260.245 | 589.206 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 25 | 260.295 | 589.652 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 26 | 259.952 | 590.853 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 27 | 260.412 | 590.685 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 28 | 260.358 | 590.202 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 29 | 260.680 | 589.539 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 30 | 260.789 | 590.548 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 31 | 261.086 | 590.440 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 32 | 260.740 | 590.089 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 33 | 261.353 | 590.343 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 34 | 261.840 | 590.166 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 35 | 262.200 | 590.035 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 36 | 261.031 | 590.003 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 37 | 261.292 | 589.926 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 38 | 261.764 | 589.785 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 39 | 262.111 | 589.683 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |

To be continued on next page...

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Calculated:
6-2-2017 18:35/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2B klein

...continued from previous page

| | X (east) | Y (north) | Z | Row data/Description | WTG type Valid | WTG type Manufact. | Type-generator | Power, rated | Rotor diameter | Hub height | Shadow data Calculation distance | Shadow data RPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [m] | | | | | [kW] | [m] | [m] | [m] | [RPM] |
| 40 | 261.212 | 589.384 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 41 | 261.584 | 588.876 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 42 | 261.660 | 589.255 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 43 | 261.980 | 589.161 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 44 | 261.889 | 588.801 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 45 | 259.922 | 590.332 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 46 | 259.601 | 590.427 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 47 | 259.614 | 590.976 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 48 | 260.962 | 589.457 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 49 | 260.634 | 589.110 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 50 | 260.909 | 589.042 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 51 | 261.153 | 588.982 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 52 | 259.576 | 589.371 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 53 | 259.568 | 589.041 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 54 | 258.748 | 594.458 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 55 | 259.042 | 594.322 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 56 | 259.344 | 594.205 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 57 | 259.655 | 594.114 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 58 | 259.971 | 594.042 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 59 | 260.286 | 593.965 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 60 | 260.596 | 593.872 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 61 | 260.896 | 593.750 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 62 | 261.196 | 593.627 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 63 | 261.497 | 593.509 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 64 | 261.805 | 593.407 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 65 | 262.126 | 593.367 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 66 | 262.450 | 593.380 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 67 | 262.767 | 593.448 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 68 | 263.205 | 593.092 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 69 | 263.273 | 592.764 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 70 | 263.154 | 592.466 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 71 | 262.970 | 592.872 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 72 | 262.850 | 592.574 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 73 | 259.947 | 591.451 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 74 | 260.484 | 591.233 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 75 | 261.011 | 591.019 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 76 | 261.526 | 590.802 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 77 | 262.046 | 590.599 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 78 | 262.190 | 591.144 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 79 | 261.741 | 591.483 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 80 | 261.052 | 591.780 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 81 | 260.181 | 592.081 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 82 | 259.555 | 592.229 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 83 | 259.567 | 592.826 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 84 | 260.577 | 592.475 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 85 | 260.839 | 593.122 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 86 | 261.722 | 592.893 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 87 | 262.307 | 592.636 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 88 | 262.775 | 592.062 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 89 | 262.206 | 591.985 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 90 | 262.568 | 591.542 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 91 | 259.583 | 588.718 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 92 | 259.541 | 588.381 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 93 | 259.520 | 588.051 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 94 | 259.935 | 587.778 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 95 | 260.176 | 588.043 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 96 | 260.538 | 588.081 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 97 | 260.683 | 587.792 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 98 | 261.087 | 587.854 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 99 | 261.036 | 588.189 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 100 | 261.513 | 588.148 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 101 | 261.859 | 588.487 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 102 | 261.380 | 588.591 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |

To be continued on next page...

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Hans / Hans@boschenvanrijn.nl
Calculated:
6-2-2017 18:35/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2B klein

...continued from previous page

| | X (east) | Y (north) | Z | Row data/Description | WTG type Valid | Manufact. | Type-generator | Power, rated | Rotor diameter | Hub height | Shadow data Calculation distance | RPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [m] | | | | | [kW] | [m] | [m] | [m] | [RPM] |
| 103 | 261.043 | 588.659 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 104 | 260.714 | 588.719 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 105 | 260.368 | 588.763 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 106 | 260.032 | 588.735 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |

## Shadow receptor-Input

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| [A | Rengersweg 99 9936GG Farmsum | 258.006 | 593.455 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [B | Rengersweg 12 9936GH Farmsum | 258.034 | 593.437 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [C | Rengersweg 10 9936GH Farmsum | 258.034 | 593.444 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [D | Kluft 1 9936GP Farmsum | 258.040 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [E | Kluft 3 9936GP Farmsum | 258.047 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [F | Proosdij 46 9936EX Farmsum | 258.058 | 593.427 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [G | Proosdij 48 9936EX Farmsum | 258.062 | 593.433 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [H | Proosdij 50 9936EX Farmsum | 258.090 | 593.443 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [I | Proosdij 52 9936EX Farmsum | 258.090 | 593.430 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [J | Proosdij 54 9936EX Farmsum | 258.094 | 593.415 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [K | Proosdij 56 9936EX Farmsum | 258.108 | 593.416 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [L | Olderman 21 9936GS Farmsum | 258.128 | 593.420 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [M | Olderman 19 9936GS Farmsum | 258.126 | 593.434 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [N | Olderman 17 9936GS Farmsum | 258.125 | 593.448 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [O | Kluft 5 9936GP Farmsum | 258.060 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [P | Kluft 7 9936GP Farmsum | 258.067 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [Q | Kluft 9 9936GP Farmsum | 258.096 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [R | Kluft 11 9936GP Farmsum | 258.102 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [S | Kluft 17 9936GP Farmsum | 258.122 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [T | Zijlvest 8 9936GZ Farmsum | 258.202 | 593.424 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [U | Olderman 32 9936GT Farmsum | 258.151 | 593.480 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [V | Olderman 34 9936GT Farmsum | 258.151 | 593.474 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [W | Olderman 36 9936GT Farmsum | 258.153 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [X | Olderman 38 9936GT Farmsum | 258.153 | 593.453 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [Y | Olderman 40 9936GT Farmsum | 258.155 | 593.440 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [Z | Olderman 42 9936GT Farmsum | 258.155 | 593.434 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \A | Zijlvest 22 A 9936GZ Farmsum | 258.238 | 593.466 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \B | Zijlvest 18 A 9936GZ Farmsum | 258.229 | 593.451 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \C | Zijlvest 18 9936GZ Farmsum | 258.233 | 593.449 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \D | Zijlvest 14 9936GZ Farmsum | 258.229 | 593.441 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \E | Borgweg 1 9936EH Farmsum | 258.030 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \F | Borgweg 3 9936EH Farmsum | 258.031 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \G | Borgweg 5 9936EH Farmsum | 258.031 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \H | Borgweg 7 9936EH Farmsum | 258.031 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \I | Borgweg 9 9936EH Farmsum | 258.031 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \J | Borgweg 11 9936EH Farmsum | 258.031 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \K | Borgweg 13 9936EH Farmsum | 258.031 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \L | Borgweg 15 9936EH Farmsum | 258.033 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \M | Borgweg 17 9936EH Farmsum | 258.033 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \N | Borgweg 19 9936EH Farmsum | 258.033 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \O | Borgweg 21 9936EH Farmsum | 258.033 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \P | Borgweg 23 9936EH Farmsum | 258.033 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \Q | Borgweg 25 9936EH Farmsum | 258.033 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \R | Borgweg 27 9936EH Farmsum | 258.033 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \S | Borgweg 29 9936EJ Farmsum | 258.035 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \T | Borgweg 31 9936EJ Farmsum | 258.035 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \U | Borgweg 33 9936EJ Farmsum | 258.035 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \V | Borgweg 35 9936EJ Farmsum | 258.035 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \W | Borgweg 37 9936EJ Farmsum | 258.035 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \X | Borgweg 39 9936EJ Farmsum | 258.036 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \Y | Borgweg 41 9936EJ Farmsum | 258.036 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \Z | Borgweg 43 9936EJ Farmsum | 258.037 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]A | Borgweg 45 9936EJ Farmsum | 258.038 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Hans / Hans@boschenvanrijn.nl
Calculated:
6-2-2017 18:35/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2B klein

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| ]B | Borgweg 47 9936EJ Farmsum | 258.038 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]C | Borgweg 49 9936EJ Farmsum | 258.038 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]D | Borgweg 51 9936EJ Farmsum | 258.038 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]E | Borgweg 53 9936EJ Farmsum | 258.038 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]F | Borgweg 55 9936EJ Farmsum | 258.038 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]G | Borgweg 57 9936EK Farmsum | 258.003 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]H | Borgweg 59 9936EK Farmsum | 258.003 | 593.802 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]I | Borgweg 61 9936EK Farmsum | 258.003 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]J | Borgweg 63 9936EK Farmsum | 258.003 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]K | Borgweg 65 9936EK Farmsum | 258.003 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]L | Borgweg 67 9936EK Farmsum | 258.003 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]M | Borgweg 69 9936EK Farmsum | 258.003 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]N | Borgweg 71 9936EK Farmsum | 258.006 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]O | Borgweg 73 9936EK Farmsum | 258.006 | 593.802 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]P | Borgweg 75 9936EK Farmsum | 258.006 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]Q | Borgweg 77 9936EK Farmsum | 258.005 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]R | Borgweg 79 9936EK Farmsum | 258.005 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]S | Borgweg 81 9936EK Farmsum | 258.005 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]T | Borgweg 83 9936EK Farmsum | 258.005 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]U | Borgweg 85 9936EL Farmsum | 258.008 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]V | Borgweg 87 9936EL Farmsum | 258.008 | 593.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]W | Borgweg 89 9936EL Farmsum | 258.008 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]X | Borgweg 91 9936EL Farmsum | 258.008 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]Y | Borgweg 93 9936EL Farmsum | 258.008 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]Z | Borgweg 95 9936EL Farmsum | 258.008 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^A | Borgweg 97 9936EL Farmsum | 258.008 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^B | Borgweg 99 9936EL Farmsum | 258.010 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^C | Borgweg 101 9936EL Farmsum | 258.010 | 593.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^D | Borgweg 103 9936EL Farmsum | 258.010 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^E | Borgweg 105 9936EL Farmsum | 258.010 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^F | Borgweg 107 9936EL Farmsum | 258.010 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^G | Borgweg 109 9936EL Farmsum | 258.010 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^H | Borgweg 111 9936EL Farmsum | 258.010 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^I | Kluft 18 9936GR Farmsum | 258.043 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^J | Kluft 20 9936GR Farmsum | 258.050 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^K | Kluft 22 9936GR Farmsum | 258.057 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^L | Kluft 24 9936GR Farmsum | 258.064 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^M | Kluft 26 9936GR Farmsum | 258.071 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^N | Kluft 28 9936GR Farmsum | 258.078 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^O | Kluft 30 9936GR Farmsum | 258.085 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^P | Kluft 32 9936GR Farmsum | 258.092 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Q | Kluft 2 9936GR Farmsum | 258.043 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^R | Kluft 4 9936GR Farmsum | 258.050 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^S | Kluft 6 9936GR Farmsum | 258.057 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^T | Kluft 8 9936GR Farmsum | 258.064 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^U | Kluft 10 9936GR Farmsum | 258.071 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^V | Kluft 12 9936GR Farmsum | 258.078 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^W | Kluft 14 9936GR Farmsum | 258.085 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^X | Kluft 16 9936GR Farmsum | 258.092 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Y | Zijlvest 20 A 9936GZ Farmsum | 258.233 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Z | Schepperij 51 9936GM Farmsum | 258.194 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _A | Waarman 15 9936GV Farmsum | 258.223 | 593.543 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _B | Waarman 17 9936GV Farmsum | 258.223 | 593.537 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _C | Waarman 19 9936GV Farmsum | 258.223 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _D | Waarman 21 9936GV Farmsum | 258.223 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _E | Waarman 23 9936GV Farmsum | 258.223 | 593.518 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _F | Waarman 25 9936GV Farmsum | 258.223 | 593.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _G | Waarman 27 9936GV Farmsum | 258.223 | 593.506 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _H | Waarman 29 9936GV Farmsum | 258.222 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _I | Heemskesweg 5 9936HE Farmsum | 258.759 | 592.961 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _J | Geefsweersterweg 2 9937TC Meedhuizen | 258.288 | 593.033 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _K | Seendweg 12 9936GA Farmsum | 257.950 | 593.306 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _L | Schepperij 39 9936GM Farmsum | 258.194 | 593.537 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _M | Schepperij 43 9936GM Farmsum | 258.194 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
6-2-2017 18:35/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2B klein

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| _N | Zijlvest 14 A 9936GZ Farmsum | 258.222 | 593.445 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _O | Zijlvest 24 A 9936GZ Farmsum | 258.239 | 593.474 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| A | Familie Bronsweg 60 9945TA Wagenborgen | 258.511 | 587.742 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AA | Hoofdweg 26 9945PG Wagenborgen | 258.194 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AB | Hoofdweg 23 9945PA Wagenborgen | 258.227 | 586.683 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AC | Hoofdweg 25 9945PA Wagenborgen | 258.217 | 586.663 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AD | Hoofdweg 27 9945PA Wagenborgen | 258.213 | 586.652 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AE | Hoofdweg 29 9945PA Wagenborgen | 258.212 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AF | Hoofdweg 18 9945PG Wagenborgen | 258.219 | 586.709 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AG | Hoofdweg 14 9945PG Wagenborgen | 258.222 | 586.726 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AH | Hoofdweg 10 9945PG Wagenborgen | 258.236 | 586.722 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AI | Hoofdweg 8 9945PG Wagenborgen | 258.258 | 586.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AJ | Hoofdweg 6 9945PG Wagenborgen | 258.276 | 586.731 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AK | Hoofdweg 4 9945PG Wagenborgen | 258.298 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AL | Hoofdweg 21 9945PA Wagenborgen | 258.243 | 586.704 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AM | Hoofdweg 19 9945PA Wagenborgen | 258.272 | 586.709 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AN | Hoofdweg 2 9945PG Wagenborgen | 258.318 | 586.748 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AO | Hoofdweg 15 9945PA Wagenborgen | 258.311 | 586.705 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AP | Hoofdweg 9 9945PA Wagenborgen | 258.331 | 586.713 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AQ | Hoofdweg 11 9945PA Wagenborgen | 258.325 | 586.710 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AR | Hoofdweg 7 9945PA Wagenborgen | 258.338 | 586.725 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AS | Hoofdweg 5 9945PA Wagenborgen | 258.343 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AT | H.L. Emmensweg 17 9945PW Wagenborgen | 258.087 | 586.741 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AU | H.L. Emmensweg 18 9945PX Wagenborgen | 258.106 | 586.733 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AV | H.L. Emmensweg 20 9945PX Wagenborgen | 258.107 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AW | H.L. Emmensweg 22 9945PX Wagenborgen | 258.107 | 586.747 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AX | H.L. Emmensweg 24 9945PX Wagenborgen | 258.108 | 586.753 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AY | H.L. Emmensweg 26 9945PX Wagenborgen | 258.111 | 586.767 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AZ | H.L. Emmensweg 10 9945PX Wagenborgen | 258.103 | 586.698 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| B | Tolhek 4 9945TJ Wagenborgen | 259.289 | 587.610 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BA | H.L. Emmensweg 12 9945PX Wagenborgen | 258.103 | 586.704 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BB | H.L. Emmensweg 14 9945PX Wagenborgen | 258.104 | 586.711 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BC | H.L. Emmensweg 16 9945PX Wagenborgen | 258.105 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BD | H.L. Emmensweg 13 9945PW Wagenborgen | 258.085 | 586.719 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BE | H.L. Emmensweg 15 9945PW Wagenborgen | 258.086 | 586.725 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BF | H.L. Emmensweg 9 9945PW Wagenborgen | 258.083 | 586.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BG | H.L. Emmensweg 11 9945PW Wagenborgen | 258.084 | 586.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BH | H.L. Emmensweg 5 9945PW Wagenborgen | 258.081 | 586.681 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BI | H.L. Emmensweg 7 9945PW Wagenborgen | 258.082 | 586.687 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BJ | H.L. Emmensweg 4 9945PX Wagenborgen | 258.103 | 586.676 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BK | H.L. Emmensweg 2 9945PX Wagenborgen | 258.099 | 586.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BL | H.L. Emmensweg 1 9945PW Wagenborgen | 258.081 | 586.651 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BM | H.L. Emmensweg 3 9945PW Wagenborgen | 258.083 | 586.667 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BN | de Linden 4 9945PZ Wagenborgen | 258.042 | 586.733 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BO | de Linden 6 9945PZ Wagenborgen | 258.058 | 586.734 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BP | de Linden 10 9945PZ Wagenborgen | 258.040 | 586.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BQ | de Linden 12 9945PZ Wagenborgen | 258.021 | 586.721 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BR | de Linden 2 9945PZ Wagenborgen | 258.030 | 586.694 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BS | de Wilgen 12 9945RB Wagenborgen | 258.008 | 586.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BT | de Wilgen 10 9945RB Wagenborgen | 258.008 | 586.764 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BU | de Wilgen 8 9945RB Wagenborgen | 258.007 | 586.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BV | de Wilgen 2 9945RB Wagenborgen | 257.995 | 586.662 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BW | de Wilgen 4 9945RB Wagenborgen | 257.997 | 586.675 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BX | de Wilgen 6 9945RB Wagenborgen | 258.001 | 586.693 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BY | de Wilgen 6 A 9945RB Wagenborgen | 258.004 | 586.726 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BZ | de Wilgen 3 9945RB Wagenborgen | 257.975 | 586.694 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| C | Tolhek 1 9945TJ Wagenborgen | 259.114 | 587.301 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CA | de Wilgen 3 A 9945RB Wagenborgen | 257.977 | 586.713 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CB | de Wilgen 3 B 9945RB Wagenborgen | 257.977 | 586.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CC | de Wilgen 5 9945RB Wagenborgen | 257.973 | 586.766 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CD | de Wilgen 46 9945RB Wagenborgen | 258.036 | 586.921 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CE | de Wilgen 44 9945RB Wagenborgen | 258.036 | 586.927 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CF | de Wilgen 48 9945RB Wagenborgen | 258.034 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CG | de Wilgen 50 9945RB Wagenborgen | 258.034 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2B klein

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| CH | de Wilgen 36 9945RB Wagenborgen | 258.060 | 586.908 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CI | de Wilgen 38 9945RB Wagenborgen | 258.059 | 586.915 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CJ | de Wilgen 40 9945RB Wagenborgen | 258.059 | 586.921 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CK | de Wilgen 42 9945RB Wagenborgen | 258.059 | 586.928 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CL | de Wilgen 28 9945RB Wagenborgen | 258.050 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CM | de Wilgen 30 9945RB Wagenborgen | 258.056 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CN | de Wilgen 32 9945RB Wagenborgen | 258.063 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CO | de Wilgen 34 9945RB Wagenborgen | 258.070 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CP | de Wilgen 24 9945TK Wagenborgen | 258.033 | 586.884 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CQ | de Wilgen 26 9945RB Wagenborgen | 258.039 | 586.886 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CR | de Wilgen 20 9945RB Wagenborgen | 258.019 | 586.866 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CS | de Wilgen 22 9945RB Wagenborgen | 258.019 | 586.872 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CT | de Wilgen 18 9945RB Wagenborgen | 258.016 | 586.853 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CU | de Wilgen 16 9945RB Wagenborgen | 258.015 | 586.837 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CV | de Wilgen 14 9945RB Wagenborgen | 258.014 | 586.813 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CW | de Wilgen 9 9945RB Wagenborgen | 257.970 | 586.829 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CX | de Wilgen 52 9945RB Wagenborgen | 258.167 | 587.083 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CY | Menterne 22 9945RA Wagenborgen | 257.891 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CZ | Menterne 18 9945RA Wagenborgen | 257.856 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| D | Familie Bronsweg 62 9945TA Wagenborgen | 258.389 | 587.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DA | Menterne 21 9945RA Wagenborgen | 257.884 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DB | Menterne 19 9945RA Wagenborgen | 257.863 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DC | Menterne 20 9945RA Wagenborgen | 257.876 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DD | Menterne 17 9945RA Wagenborgen | 257.849 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DE | Menterne 7 9945RA Wagenborgen | 257.896 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DF | Menterne 8 9945RA Wagenborgen | 257.889 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DG | Menterne 9 9945RA Wagenborgen | 257.882 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DH | Menterne 10 9945RA Wagenborgen | 257.875 | 586.913 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DI | Menterne 11 9945RA Wagenborgen | 257.893 | 586.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DJ | Menterne 12 9945RA Wagenborgen | 257.893 | 586.932 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DK | Menterne 13 9945RA Wagenborgen | 257.893 | 586.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DL | Menterne 14 9945RA Wagenborgen | 257.893 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DM | Menterne 1 9945RA Wagenborgen | 257.930 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DN | Menterne 2 9945RA Wagenborgen | 257.924 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DO | Menterne 3 9945RA Wagenborgen | 257.917 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DP | Menterne 4 9945RA Wagenborgen | 257.910 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DQ | Menterne 5 9945RA Wagenborgen | 257.899 | 586.883 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DR | Menterne 6 9945RA Wagenborgen | 257.899 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DS | Menterne 15 9945RA Wagenborgen | 257.866 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DT | Menterne 16 9945RA Wagenborgen | 257.866 | 586.952 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DU | de Berken 6 9945PT Wagenborgen | 258.085 | 586.768 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DV | de Berken 2 9945PT Wagenborgen | 258.040 | 586.782 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DW | de Berken 4 9945PT Wagenborgen | 258.061 | 586.783 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DX | de Berken 1 9945PT Wagenborgen | 258.038 | 586.808 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DY | de Berken 5 9945PT Wagenborgen | 258.087 | 586.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DZ | de Berken 7 9945PT Wagenborgen | 258.102 | 586.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| E | Meerweg 3 9945RC Wagenborgen | 257.540 | 587.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EA | de Berken 9 9945PT Wagenborgen | 258.109 | 586.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EB | de Eiken 14 9945VA Wagenborgen | 258.037 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EC | de Eiken 16 9945VA Wagenborgen | 258.044 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ED | de Eiken 2 9945VA Wagenborgen | 258.061 | 586.829 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EE | de Eiken 4 9945VA Wagenborgen | 258.061 | 586.836 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EF | de Eiken 6 9945VA Wagenborgen | 258.061 | 586.842 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EG | de Eiken 8 9945VA Wagenborgen | 258.062 | 586.853 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EH | de Eiken 10 9945VA Wagenborgen | 258.061 | 586.859 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EI | de Eiken 12 9945VA Wagenborgen | 258.061 | 586.866 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EJ | de Eiken 2 A 9945VA Wagenborgen | 258.065 | 586.807 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EK | Troostlaan 7 9945PV Wagenborgen | 258.200 | 586.801 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EL | Troostlaan 8 9945PV Wagenborgen | 258.187 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EM | Troostlaan 9 9945PV Wagenborgen | 258.172 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EN | Troostlaan 10 9945PV Wagenborgen | 258.153 | 586.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EO | Troostlaan 11 9945PV Wagenborgen | 258.142 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EP | Troostlaan 1 9945PV Wagenborgen | 258.204 | 586.736 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EQ | Troostlaan 2 9945PV Wagenborgen | 258.204 | 586.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
6-2-2017 18:35/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2B klein

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| ER | Troostlaan 3 9945PV Wagenborgen | 258.205 | 586.772 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ES | Troostlaan 2 A 9945PV Wagenborgen | 258.221 | 586.769 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ET | Troostlaan 4 9945PV Wagenborgen | 258.228 | 586.858 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EU | Troostlaan 14 9945PV Wagenborgen | 258.132 | 586.686 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EV | Troostlaan 22 9945PV Wagenborgen | 258.177 | 586.707 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EW | Troostlaan 20 9945PV Wagenborgen | 258.155 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EX | Troostlaan 21 9945PV Wagenborgen | 258.162 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EY | Troostlaan 18 9945PV Wagenborgen | 258.132 | 586.718 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EZ | Troostlaan 19 9945PV Wagenborgen | 258.139 | 586.718 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| F | G. Boelmanweg 2 9945RJ Wagenborgen | 258.181 | 586.579 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FA | Familie Bronsweg 40 9945PS Wagenborgen | 258.373 | 586.856 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FB | Familie Bronsweg 44 9945PS Wagenborgen | 258.373 | 586.900 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FC | Familie Bronsweg 46 9945PS Wagenborgen | 258.373 | 586.905 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FD | Familie Bronsweg 48 9945PS Wagenborgen | 258.375 | 586.919 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FE | Familie Bronsweg 50 9945PS Wagenborgen | 258.376 | 586.924 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FF | Familie Bronsweg 79 9945PP Wagenborgen | 258.360 | 586.991 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FG | Familie Bronsweg 81 9945PP Wagenborgen | 258.361 | 586.997 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FH | Familie Bronsweg 36 9945PS Wagenborgen | 258.377 | 586.815 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FI | Familie Bronsweg 38 9945PS Wagenborgen | 258.365 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FJ | Familie Bronsweg 42 9945PS Wagenborgen | 258.371 | 586.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FK | Familie Bronsweg 54 9945PS Wagenborgen | 258.390 | 587.021 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FL | Familie Bronsweg 52 9945PS Wagenborgen | 258.387 | 586.987 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FM | Familie Bronsweg 50 B 9945PS Wagenborgen | 258.384 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FN | Familie Bronsweg 50 A 9945PS Wagenborgen | 258.381 | 586.949 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FO | Familie Bronsweg 75 9945PP Wagenborgen | 258.353 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FP | Familie Bronsweg 75 A 9945PP Wagenborgen | 258.355 | 586.957 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FQ | Familie Bronsweg 75 B 9945PP Wagenborgen | 258.357 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FR | Familie Bronsweg 71 9945PP Wagenborgen | 258.349 | 586.917 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FS | Familie Bronsweg 69 A 9945PP Wagenborgen | 258.347 | 586.902 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FT | Familie Bronsweg 69 9945PP Wagenborgen | 258.344 | 586.888 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FU | Familie Bronsweg 67 9945PP Wagenborgen | 258.342 | 586.873 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FV | Familie Bronsweg 65 9945PP Wagenborgen | 258.341 | 586.863 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FW | Familie Bronsweg 63 9945PP Wagenborgen | 258.338 | 586.850 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FX | Familie Bronsweg 61 9945PP Wagenborgen | 258.335 | 586.831 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FY | Familie Bronsweg 59 9945PP Wagenborgen | 258.334 | 586.816 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FZ | Familie Bronsweg 57 9945PP Wagenborgen | 258.332 | 586.805 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| G | G. Boelmanweg 3 9945RE Wagenborgen | 258.198 | 586.584 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GA | Familie Bronsweg 53 9945PP Wagenborgen | 258.332 | 586.793 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GB | Familie Bronsweg 73 9945PP Wagenborgen | 258.351 | 586.930 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GC | Familie Bronsweg 85 9945PP Wagenborgen | 258.372 | 587.065 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GD | Familie Bronsweg 83 9945PP Wagenborgen | 258.363 | 587.014 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GE | Familie Bronsweg 83 A 9945PP Wagenborgen | 258.365 | 587.034 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GF | Familie Bronsweg 77 9945PP Wagenborgen | 258.333 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GG | Familie Bronsweg 51 9945PP Wagenborgen | 258.389 | 586.776 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GH | Familie Bronsweg 2 9945PR Wagenborgen | 258.765 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GI | Familie Bronsweg 4 9945PR Wagenborgen | 258.743 | 586.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GJ | Familie Bronsweg 4 A 9945PR Wagenborgen | 258.723 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GK | Familie Bronsweg 6 9945PR Wagenborgen | 258.705 | 586.916 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GL | Familie Bronsweg 8 9945PR Wagenborgen | 258.677 | 586.901 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GM | Familie Bronsweg 10 9945PR Wagenborgen | 258.649 | 586.888 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GN | Familie Bronsweg 12 9945PR Wagenborgen | 258.620 | 586.864 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GO | Familie Bronsweg 14 9945PR Wagenborgen | 258.608 | 586.858 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GP | Familie Bronsweg 16 9945PR Wagenborgen | 258.597 | 586.852 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GQ | Familie Bronsweg 15 9945PN Wagenborgen | 258.511 | 586.783 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GR | Familie Bronsweg 17 9945PN Wagenborgen | 258.473 | 586.777 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GS | Familie Bronsweg 2 A 9945PR Wagenborgen | 258.786 | 587.001 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GT | Familie Bronsweg 2 B 9945PR Wagenborgen | 258.745 | 587.014 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GU | Familie Bronsweg 2 C 9945PR Wagenborgen | 258.710 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GV | Familie Bronsweg 2 D 9945PR Wagenborgen | 258.686 | 586.974 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GW | Familie Bronsweg 2 F 9945PR Wagenborgen | 258.671 | 586.991 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GX | Familie Bronsweg 2 G 9945PR Wagenborgen | 258.671 | 587.016 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GY | Familie Bronsweg 2 H 9945PR Wagenborgen | 258.696 | 587.012 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GZ | Familie Bronsweg 2 J 9945PR Wagenborgen | 258.717 | 587.009 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| H | G. Boelmanweg 5 9945RE Wagenborgen | 258.203 | 586.561 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2B klein

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| HA | Akeleistraat 17 9945VD Wagenborgen | 258.515 | 587.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HB | Akeleistraat 19 9945VD Wagenborgen | 258.505 | 587.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HC | Akeleistraat 21 9945VD Wagenborgen | 258.486 | 587.050 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HD | Akeleistraat 23 9945VD Wagenborgen | 258.477 | 587.051 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HE | Akeleistraat 20 9945VD Wagenborgen | 258.448 | 587.022 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HF | Akeleistraat 22 9945VD Wagenborgen | 258.439 | 587.022 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HG | Akeleistraat 16 9945VD Wagenborgen | 258.477 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HH | Akeleistraat 18 9945VD Wagenborgen | 258.467 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HI | Akeleistraat 12 9945VD Wagenborgen | 258.506 | 587.013 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HJ | Akeleistraat 14 9945VD Wagenborgen | 258.496 | 587.013 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HK | Akeleistraat 10 9945VD Wagenborgen | 258.532 | 587.007 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HL | Akeleistraat 1 9945VD Wagenborgen | 258.634 | 587.024 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HM | Akeleistraat 3 9945VD Wagenborgen | 258.625 | 587.021 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HN | Akeleistraat 5 9945VD Wagenborgen | 258.604 | 587.023 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HO | Akeleistraat 7 9945VD Wagenborgen | 258.595 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HP | Akeleistraat 9 9945VD Wagenborgen | 258.574 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HQ | Akeleistraat 11 9945VD Wagenborgen | 258.565 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HR | Akeleistraat 2 9945VD Wagenborgen | 258.626 | 586.998 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HS | Akeleistraat 4 9945VD Wagenborgen | 258.617 | 586.995 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HT | Akeleistraat 6 9945VD Wagenborgen | 258.597 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HU | Akeleistraat 8 9945VD Wagenborgen | 258.588 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HV | Akeleistraat 15 9945VD Wagenborgen | 258.535 | 587.045 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HW | Bremstraat 6 9945VC Wagenborgen | 258.522 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HX | Bremstraat 2 9945VC Wagenborgen | 258.570 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HY | Bremstraat 4 9945VC Wagenborgen | 258.545 | 586.969 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HZ | Bremstraat 12 9945VC Wagenborgen | 258.448 | 586.982 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| I | G. Boelmanweg 4 9945RJ Wagenborgen | 258.168 | 586.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IA | Hibiscusstraat 30 9945VB Wagenborgen | 258.633 | 586.942 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IB | Hibiscusstraat 2 9945VB Wagenborgen | 258.428 | 586.818 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IC | Hibiscusstraat 4 9945VB Wagenborgen | 258.449 | 586.865 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ID | Hibiscusstraat 10 9945VB Wagenborgen | 258.426 | 586.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IE | Hibiscusstraat 16 9945VB Wagenborgen | 258.482 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IF | Bremstraat 14 9945VC Wagenborgen | 258.428 | 586.984 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IG | Hibiscusstraat 6 9945VB Wagenborgen | 258.417 | 586.860 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IH | Hibiscusstraat 26 9945VB Wagenborgen | 258.608 | 586.953 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| II | Kopaf 8 9945TE Wagenborgen | 259.518 | 587.109 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IJ | Kopaf 7 9945TE Wagenborgen | 259.555 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IK | Kopaf 6 9945TE Wagenborgen | 259.575 | 587.100 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IL | Kloosterlaan 27 9945TG Wagenborgen | 259.558 | 587.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IM | Kloosterlaan 25 9945TG Wagenborgen | 259.567 | 587.793 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IN | Kloosterlaan 23 9945TG Wagenborgen | 259.592 | 587.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IO | Scheve Klap 5 9945TD Wagenborgen | 260.522 | 587.264 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IP | Scheve Klap 4 9945TD Wagenborgen | 260.493 | 587.154 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IQ | Hibiscusstraat 8 9945VB Wagenborgen | 258.420 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IR | Hibiscusstraat 12 9945VB Wagenborgen | 258.431 | 586.945 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IS | Hibiscusstraat 18 9945VB Wagenborgen | 258.503 | 586.931 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IT | Hibiscusstraat 24 9945VB Wagenborgen | 258.612 | 586.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IU | Hibiscusstraat 22 9945VB Wagenborgen | 258.583 | 586.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IV | Troostlaan 15 9945PV Wagenborgen | 258.151 | 586.693 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IW | Bremstraat 10 9945VC Wagenborgen | 258.473 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IX | Hibiscusstraat 20 9945VB Wagenborgen | 258.529 | 586.931 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IY | Hibiscusstraat 28 9945VB Wagenborgen | 258.622 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IZ | Troostlaan 5 9945PV Wagenborgen | 258.189 | 586.911 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| J | G. Boelmanweg 7 9945RE Wagenborgen | 258.198 | 586.536 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JA | Troostlaan 6 9945PV Wagenborgen | 258.249 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JB | Boslaan 5 9945TM Wagenborgen | 259.413 | 587.123 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JC | Hoofdweg 33 A 9945PB Wagenborgen | 258.174 | 586.602 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JD | Akeleistraat 13 9945VD Wagenborgen | 258.569 | 587.057 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JE | Hoofdweg 42 9945PG Wagenborgen | 258.103 | 586.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JF | Familie Bronsweg 2 E 9945PR Wagenborgen | 258.670 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JG | Hibiscusstraat 14 9945VB Wagenborgen | 258.456 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JH | Bremstraat 8 9945VC Wagenborgen | 258.502 | 586.974 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JI | Menterne 23 003 9945RA Wagenborgen | 257.949 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JJ | Menterne 23 004 9945RA Wagenborgen | 257.949 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Hans / Hans@boschenvanrijn.nl
Calculated:
6-2-2017 18:35/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2B klein

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| JK | Menterne 23 005 9945RA Wagenborgen | 257.948 | 586.990 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JL | Menterne 23 006 9945RA Wagenborgen | 257.948 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JM | Menterne 23 007 9945RA Wagenborgen | 257.960 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JN | Menterne 23 008 9945RA Wagenborgen | 257.960 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JO | Menterne 23 009 9945RA Wagenborgen | 257.960 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JP | Menterne 23 010 9945RA Wagenborgen | 257.961 | 586.988 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JQ | Menterne 23 017 9945RA Wagenborgen | 257.971 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JR | Menterne 23 030 9945RA Wagenborgen | 257.958 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JS | Menterne 23 103 9945RA Wagenborgen | 257.951 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JT | Menterne 23 104 9945RA Wagenborgen | 257.951 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JU | Menterne 23 105 9945RA Wagenborgen | 257.951 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JV | Menterne 23 106 9945RA Wagenborgen | 257.950 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JW | Menterne 23 107 9945RA Wagenborgen | 257.958 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JX | Menterne 23 108 9945RA Wagenborgen | 257.958 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JY | Menterne 23 109 9945RA Wagenborgen | 257.958 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JZ | Menterne 23 110 9945RA Wagenborgen | 257.958 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| K | G. Boelmanweg 6 9945RJ Wagenborgen | 258.176 | 586.541 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KA | Menterne 23 111 9945RA Wagenborgen | 257.959 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KB | Menterne 23 113 9945RA Wagenborgen | 257.967 | 586.972 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KC | Menterne 23 114 9945RA Wagenborgen | 257.967 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KD | Menterne 23 115 9945RA Wagenborgen | 257.967 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KE | Menterne 23 116 9945RA Wagenborgen | 257.968 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KF | Menterne 23 117 9945RA Wagenborgen | 257.968 | 586.957 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KG | Menterne 23 118 9945RA Wagenborgen | 257.968 | 586.953 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KH | Menterne 23 119 9945RA Wagenborgen | 257.967 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KI | Menterne 23 120 9945RA Wagenborgen | 257.968 | 586.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KJ | Menterne 23 121 9945RA Wagenborgen | 257.968 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KK | Menterne 23 122 9945RA Wagenborgen | 257.968 | 586.936 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KL | Menterne 23 123 9945RA Wagenborgen | 257.968 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KM | Menterne 23 124 9945RA Wagenborgen | 257.968 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KN | Menterne 23 125 9945RA Wagenborgen | 257.956 | 586.930 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KO | Menterne 23 126 9945RA Wagenborgen | 257.956 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KP | Menterne 23 127 9945RA Wagenborgen | 257.956 | 586.937 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KQ | Menterne 23 128 9945RA Wagenborgen | 257.956 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KR | Menterne 23 129 9945RA Wagenborgen | 257.956 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KS | Menterne 23 130 9945RA Wagenborgen | 257.961 | 586.958 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KT | Menterne 23 131 9945RA Wagenborgen | 257.961 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KU | Menterne 23 132 9945RA Wagenborgen | 257.960 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KV | Menterne 23 201 9945RA Wagenborgen | 257.953 | 586.973 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KW | Menterne 23 202 9945RA Wagenborgen | 257.953 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KX | Menterne 23 203 9945RA Wagenborgen | 257.953 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KY | Menterne 23 204 9945RA Wagenborgen | 257.953 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KZ | Menterne 23 205 9945RA Wagenborgen | 257.953 | 586.990 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| L | Kokslaan 1 9945RD Wagenborgen | 258.257 | 586.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LA | Menterne 23 206 9945RA Wagenborgen | 257.953 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LB | Menterne 23 207 9945RA Wagenborgen | 257.956 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LC | Menterne 23 208 9945RA Wagenborgen | 257.956 | 586.995 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LD | Menterne 23 209 9945RA Wagenborgen | 257.956 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LE | Menterne 23 210 9945RA Wagenborgen | 257.956 | 586.988 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LF | Menterne 23 211 9945RA Wagenborgen | 257.957 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LG | Menterne 23 212 9945RA Wagenborgen | 257.957 | 586.981 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LH | Menterne 23 213 9945RA Wagenborgen | 257.964 | 586.972 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LI | Menterne 23 214 9945RA Wagenborgen | 257.965 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LJ | Menterne 23 215 9945RA Wagenborgen | 257.965 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LK | Menterne 23 216 9945RA Wagenborgen | 257.965 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LL | Menterne 23 217 9945RA Wagenborgen | 257.965 | 586.956 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LM | Menterne 23 218 9945RA Wagenborgen | 257.965 | 586.954 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LN | Menterne 23 219 9945RA Wagenborgen | 257.965 | 586.947 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LO | Menterne 23 220 9945RA Wagenborgen | 257.965 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LP | Menterne 23 221 9945RA Wagenborgen | 257.965 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LQ | Menterne 23 222 9945RA Wagenborgen | 257.965 | 586.937 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LR | Menterne 23 223 9945RA Wagenborgen | 257.965 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LS | Menterne 23 224 9945RA Wagenborgen | 257.966 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LT | Menterne 23 226 9945RA Wagenborgen | 257.959 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
6-2-2017 18:35/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2B klein

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| LU | Menterne 23 228 9945RA Wagenborgen | 257.958 | 586.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LV | Menterne 23 229 9945RA Wagenborgen | 257.958 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LW | Menterne 23 230 9945RA Wagenborgen | 257.962 | 586.958 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LX | Menterne 23 231 9945RA Wagenborgen | 257.962 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LY | Menterne 23 232 9945RA Wagenborgen | 257.962 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LZ | G. Boelmanweg 1 9945RE Wagenborgen | 258.213 | 586.607 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| M | Kokslaan 2 9945RD Wagenborgen | 258.279 | 586.598 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MA | Boslaan 7 9945TM Wagenborgen | 259.467 | 586.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MB | H.L. Emmensweg 23 9945PW Wagenborgen | 258.086 | 586.747 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MC | Kopaf 5 9944VA Nieuwolda | 259.816 | 586.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MD | Familie Bronsweg 68 9945TA Wagenborgen | 258.470 | 588.333 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ME | Maarkampen 26 9937PL Meedhuizen | 256.956 | 590.088 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MF | Maarkampen 24 9937PL Meedhuizen | 256.931 | 590.090 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MG | Maarkampen 22 9937PL Meedhuizen | 256.916 | 590.093 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MH | Maarkampen 20 9937PL Meedhuizen | 256.898 | 590.098 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MI | Maarkampen 18 9937PL Meedhuizen | 256.878 | 590.101 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MJ | Maarkampen 16 9937PL Meedhuizen | 256.858 | 590.104 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MK | Maarkampen 14 9937PL Meedhuizen | 256.838 | 590.106 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ML | Maarlaan 22 E 9937TH Meedhuizen | 256.932 | 590.173 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MM | Maarlaan 22 D 9937TH Meedhuizen | 256.877 | 590.178 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MN | Schaapbulterweg 8 9937TL Meedhuizen | 256.971 | 589.534 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MO | Schaapbulterweg 6 9937TL Meedhuizen | 256.919 | 589.544 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MP | Schaapbulterweg 29 9937TL Meedhuizen | 256.970 | 589.489 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MQ | Schaapbulterweg 27 9937TL Meedhuizen | 256.949 | 589.497 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MR | Schaapbulterweg 25 9937TL Meedhuizen | 256.935 | 589.503 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MS | Schaapbulterweg 23 9937TL Meedhuizen | 256.920 | 589.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MT | Schaapbulterweg 21 9937TL Meedhuizen | 256.908 | 589.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MU | Geefsweersterweg 11 9937TB Meedhuizen | 257.472 | 591.162 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MV | Schaapbulterweg 35 9937TL Meedhuizen | 257.159 | 589.455 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MW | Meedhuizerweg 20 9937TK Meedhuizen | 257.017 | 590.790 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MX | Familie Bronsweg 66 9945TA Wagenborgen | 258.538 | 588.146 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MY | Familie Bronsweg 64 9945TA Wagenborgen | 258.518 | 588.056 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MZ | Ideweersterweg 10 9937TM Meedhuizen | 257.794 | 589.376 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| N | Kerkstraat 1 9945SB Wagenborgen | 258.120 | 586.579 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NA | Ideweersterweg 8 9937TM Meedhuizen | 257.916 | 589.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NB | Geefsweersterweg 20 9937TC Meedhuizen | 258.111 | 588.986 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NC | Geefsweersterweg 18 9937TC Meedhuizen | 258.066 | 589.025 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ND | Geefsweersterweg 29 9937TB Meedhuizen | 258.051 | 588.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NE | Geefsweersterweg 16 9937TC Meedhuizen | 258.011 | 589.140 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NF | Geefsweersterweg 23 9937TB Meedhuizen | 257.998 | 589.209 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NG | Geefsweersterweg 12 9937TC Meedhuizen | 258.033 | 589.285 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NH | Geefsweersterweg 14 9937TC Meedhuizen | 258.028 | 589.261 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NI | Geefsweersterweg 21 A 9937TB Meedhuizen | 258.002 | 589.266 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NJ | Geefsweersterweg 10 9937TC Meedhuizen | 258.042 | 589.339 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NK | Geefsweersterweg 21 9937TB Meedhuizen | 258.025 | 589.335 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NL | Geefsweersterweg 17 9937TB Meedhuizen | 258.035 | 589.424 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NM | Geefsweersterweg 19 9937TB Meedhuizen | 258.023 | 589.378 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NN | Ideweersterweg 2 9937TM Meedhuizen | 259.329 | 589.348 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NO | Ideweersterweg 1 9937TM Meedhuizen | 259.330 | 589.303 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NP | Geefsweersterweg 15 9937TB Meedhuizen | 257.994 | 590.149 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NQ | Westerlaan 6 9937TS Meedhuizen | 258.650 | 590.176 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NR | Familie Bronsweg 87 9945TA Wagenborgen | 258.255 | 588.149 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NS | Familie Bronsweg 89 9945TA Wagenborgen | 258.288 | 588.393 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NT | Westerlaan 10 9937TS Meedhuizen | 258.640 | 588.541 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NU | Geefsweersterweg 13 9937TB Meedhuizen | 257.998 | 590.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NV | Maarlaan 26 9937TH Meedhuizen | 257.044 | 590.228 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NW | Maarlaan 24 9937TH Meedhuizen | 256.988 | 590.171 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NX | Maarlaan 28 9937TH Meedhuizen | 257.042 | 590.160 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NY | Maarlaan 30 9937TH Meedhuizen | 257.109 | 590.155 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NZ | Kerklaan 3 9937PG Meedhuizen | 257.099 | 589.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| O | Hoofdweg 30 9945PG Wagenborgen | 258.190 | 586.634 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OA | Kerklaan 8 9937PG Meedhuizen | 257.192 | 589.983 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OB | Kerklaan 6 9937PG Meedhuizen | 257.151 | 590.090 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OC | Opmeedenlaan 6 9937TN Meedhuizen | 256.970 | 588.781 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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6-2-2017 18:35/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2B klein

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| OD | Opmeedenlaan 4 9937TN Meedhuizen | 256.988 | 588.863 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OE | Opmeedenlaan 2 9937TN Meedhuizen | 257.043 | 588.932 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OF | Kloosterlaan 26 9945TG Wagenborgen | 260.046 | 588.262 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OG | Zomerdijk 1 9945TH Wagenborgen | 260.153 | 588.395 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OH | Zomerdijk 3 9945TH Wagenborgen | 260.454 | 588.375 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OI | Zomerdijk 3 A 9945TH Wagenborgen | 260.560 | 588.321 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OJ | Zomerdijk 2 9945TH Wagenborgen | 260.721 | 588.388 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OK | Kloosterlaan 21 A 9945TG Wagenborgen | 259.991 | 588.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OL | Kloosterlaan 21 B 9945TG Wagenborgen | 259.957 | 588.308 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OM | Ideweersterweg 4 9937TM Meedhuizen | 258.658 | 589.400 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ON | Maarlaan 22 C 9937TH Meedhuizen | 256.840 | 590.186 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OO | Kloosterlaan 21 9936TE Farmsum | 260.253 | 589.832 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OP | Geefsweersterweg 8 A 9937TC Meedhuizen | 258.072 | 590.685 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OQ | Houtweg 20 9936BL Farmsum | 257.300 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OR | Houtweg 22 9936BL Farmsum | 257.298 | 593.542 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OS | Houtweg 24 9936BL Farmsum | 257.297 | 593.528 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OT | Houtweg 26 9936BL Farmsum | 257.296 | 593.515 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OU | Houtweg 28 9936BL Farmsum | 257.294 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OV | Rondeboslaan 6 9936BK Farmsum | 257.466 | 593.590 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OW | Proosdij 14 9936EW Farmsum | 257.893 | 593.570 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OX | Bredelaan 6 9936ER Farmsum | 257.806 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OY | Bredelaan 4 9936ER Farmsum | 257.804 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OZ | Bredelaan 2 A 9936ER Farmsum | 257.802 | 593.559 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| P | Hoofdweg 32 9945PG Wagenborgen | 258.177 | 586.629 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PA | Proosdij 24 9936EW Farmsum | 257.913 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PB | Proosdij 22 9936EW Farmsum | 257.910 | 593.522 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PC | Proosdij 20 9936EW Farmsum | 257.906 | 593.533 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PD | Proosdij 18 9936EW Farmsum | 257.901 | 593.549 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PE | Proosdij 16 9936EW Farmsum | 257.899 | 593.554 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PF | Trambaan 19 9936ES Farmsum | 257.863 | 593.507 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PG | Proosdij 17 9936ET Farmsum | 257.864 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PH | Proosdij 15 9936ET Farmsum | 257.862 | 593.560 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PI | Proosdij 13 9936ET Farmsum | 257.859 | 593.568 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PJ | Trambaan 17 9936ES Farmsum | 257.856 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PK | Trambaan 15 9936ES Farmsum | 257.849 | 593.520 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PL | Trambaan 13 9936ES Farmsum | 257.844 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PM | Trambaan 11 9936ES Farmsum | 257.839 | 593.530 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PN | Trambaan 9 9936ES Farmsum | 257.833 | 593.536 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PO | Trambaan 5 9936ES Farmsum | 257.825 | 593.544 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PP | Trambaan 3 9936ES Farmsum | 257.818 | 593.551 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PQ | Trambaan 1 9936ES Farmsum | 257.814 | 593.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PR | Proosdij 12 9936EW Farmsum | 257.888 | 593.590 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PS | Proosdij 8 9936EW Farmsum | 257.881 | 593.604 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PT | Proosdij 6 9936EW Farmsum | 257.876 | 593.616 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PU | Proosdij 4 9936EW Farmsum | 257.872 | 593.630 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PV | Proosdij 11 9936ET Farmsum | 257.856 | 593.577 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PW | Proosdij 9 9936ET Farmsum | 257.853 | 593.584 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PX | Proosdij 7 9936ET Farmsum | 257.849 | 593.596 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PY | Proosdij 5 9936ET Farmsum | 257.846 | 593.605 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PZ | Proosdij 1 9936ET Farmsum | 257.839 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Q | Hoofdweg 31 9945PA Wagenborgen | 258.210 | 586.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QA | Proosdij 3 9936ET Farmsum | 257.844 | 593.611 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QB | Farmsumerzijl 55 9936GC Farmsum | 257.821 | 593.640 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QC | Farmsumerzijl 57 9936GC Farmsum | 257.800 | 593.636 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QD | Rengersweg 4 9936GH Farmsum | 258.026 | 593.578 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QE | Rengersweg 2 9936GH Farmsum | 258.026 | 593.587 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QF | Schepperij 4 A 9936GN Farmsum | 258.046 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QG | Schepperij 2 A 9936GN Farmsum | 258.033 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QH | Schepperij 4 9936GN Farmsum | 258.040 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QI | Schepperij 2 9936GN Farmsum | 258.027 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QJ | Dijkrecht 4 9936GK Farmsum | 258.021 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QK | Dijkrecht 6 9936GK Farmsum | 258.035 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QL | Dijkrecht 10 9936GK Farmsum | 258.054 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QM | Dijkrecht 12 9936GK Farmsum | 258.061 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2B klein

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| QN | Dijkrecht 14 9936GK Farmsum | 258.074 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QO | Dijkrecht 16 9936GK Farmsum | 258.081 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QP | Dijkrecht 18 9936GK Farmsum | 258.095 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QQ | Dijkrecht 20 9936GK Farmsum | 258.107 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QR | Dijkrecht 22 9936GK Farmsum | 258.123 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QS | Dijkrecht 24 9936GK Farmsum | 258.138 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QT | Dijkrecht 26 9936GK Farmsum | 258.159 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QU | Dijkrecht 28 9936GK Farmsum | 258.166 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QV | Dijkrecht 30 9936GK Farmsum | 258.186 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QW | Dijkrecht 32 9936GK Farmsum | 258.192 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QX | Dijkrecht 34 9936GK Farmsum | 258.206 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QY | Dijkrecht 36 9936GK Farmsum | 258.213 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QZ | Dijkrecht 40 9936GK Farmsum | 258.233 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| R | Hoofdweg 38 9945PG Wagenborgen | 258.142 | 586.621 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RA | Dijkrecht 38 9936GK Farmsum | 258.227 | 593.624 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RB | Schepperij 20 9936GN Farmsum | 258.190 | 593.563 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RC | Schepperij 18 9936GN Farmsum | 258.184 | 593.563 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RD | Waarman 12 9936GW Farmsum | 258.263 | 593.622 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RE | Waarman 10 9936GW Farmsum | 258.263 | 593.629 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RF | Waarman 8 9936GW Farmsum | 258.265 | 593.641 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RG | Waarman 6 9936GW Farmsum | 258.265 | 593.648 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RH | Farmsumerzijl 1 9936GB Farmsum | 258.234 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RI | Farmsumerzijl 3 9936GB Farmsum | 258.227 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RJ | Farmsumerzijl 5 9936GB Farmsum | 258.213 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RK | Farmsumerzijl 7 9936GB Farmsum | 258.207 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RL | Farmsumerzijl 13 9936GB Farmsum | 258.172 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RM | Farmsumerzijl 15 9936GB Farmsum | 258.166 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RN | Farmsumerzijl 17 9936GB Farmsum | 258.152 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RO | Farmsumerzijl 19 9936GB Farmsum | 258.146 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RP | Farmsumerzijl 25 9936GB Farmsum | 258.115 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RQ | Farmsumerzijl 27 9936GB Farmsum | 258.108 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RR | Farmsumerzijl 29 9936GB Farmsum | 258.096 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RS | Farmsumerzijl 31 9936GC Farmsum | 258.089 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RT | Farmsumerzijl 37 9936GC Farmsum | 258.057 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RU | Farmsumerzijl 39 9936GC Farmsum | 258.050 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RV | Farmsumerzijl 41 9936GC Farmsum | 258.037 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RW | Farmsumerzijl 43 9936GC Farmsum | 258.031 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RX | Schepperij 1 9936GL Farmsum | 258.054 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RY | Schepperij 3 9936GL Farmsum | 258.060 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RZ | Schepperij 5 9936GL Farmsum | 258.066 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| S | Hoofdweg 39 9945PB Wagenborgen | 258.126 | 586.603 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SA | Schepperij 7 9936GL Farmsum | 258.072 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SB | Schepperij 9 9936GL Farmsum | 258.078 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SC | Schepperij 11 9936GL Farmsum | 258.084 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SD | Schepperij 13 9936GL Farmsum | 258.090 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SE | Schepperij 15 9936GL Farmsum | 258.097 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SF | Dijkrecht 8 9936GK Farmsum | 258.041 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SG | Geefsweersterweg 9 9937TB Meedhuizen | 257.539 | 591.945 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SH | Geefsweersterweg 7 9937TB Meedhuizen | 258.115 | 592.341 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SI | Geefsweersterweg 8 9937TC Meedhuizen | 258.139 | 592.234 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SJ | Geefsweersterweg 3 9937TB Meedhuizen | 258.102 | 592.452 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SK | Geefsweersterweg 6 9937TC Meedhuizen | 258.202 | 592.502 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SL | Geefsweersterweg 4 9937TC Meedhuizen | 258.243 | 592.643 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SM | Meedhuizerweg 2 9937TK Meedhuizen | 256.911 | 592.415 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SN | Molenstraat 31 9936EB Farmsum | 257.786 | 593.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SO | Hindrik Jagerstraat 32 9936CV Farmsum | 257.573 | 593.810 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SP | Hindrik Jagerstraat 11 9936CT Farmsum | 257.561 | 593.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SQ | Hindrik Jagerstraat 13 9936CT Farmsum | 257.568 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SR | Hindrik Jagerstraat 15 9936CT Farmsum | 257.574 | 593.790 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SS | Hindrik Jagerstraat 34 9936CV Farmsum | 257.581 | 593.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ST | Hindrik Jagerstraat 36 9936CV Farmsum | 257.587 | 593.799 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SU | Borgshof 31 9936CR Farmsum | 257.617 | 593.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SV | Borgshof 33 9936CR Farmsum | 257.615 | 593.807 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SW | Borgshof 39 9936CR Farmsum | 257.605 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
6-2-2017 18:35/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2B klein

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| SX | Borgshof 35 9936CR Farmsum | 257.604 | 593.768 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SY | Molenstraat 20 9936EC Farmsum | 257.801 | 593.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SZ | Molenstraat 24 9936EC Farmsum | 257.812 | 593.926 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| T | Hoofdweg 35 9945PB Wagenborgen | 258.160 | 586.604 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TA | Molenstraat 28 9936EC Farmsum | 257.817 | 593.918 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TB | Molenstraat 41 9936EB Farmsum | 257.798 | 593.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TC | Molenstraat 43 9936EB Farmsum | 257.802 | 593.918 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TD | Molenstraat 45 9936EB Farmsum | 257.807 | 593.910 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TE | Molenstraat 32 9936EC Farmsum | 257.821 | 593.908 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TF | Achterweg 13 9936EG Farmsum | 257.848 | 593.913 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TG | Achterweg 11 9936EG Farmsum | 257.855 | 593.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TH | Achterweg 9 9936EG Farmsum | 257.861 | 593.915 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TI | Molenstraat 49 9936EB Farmsum | 257.809 | 593.905 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TJ | Molenstraat 51 9936EB Farmsum | 257.812 | 593.900 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TK | Molenstraat 53 9936EB Farmsum | 257.815 | 593.894 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TL | Molenstraat 57 9936EB Farmsum | 257.819 | 593.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TM | Molenstraat 61 9936EB Farmsum | 257.826 | 593.870 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TN | Molenstraat 63 9936EB Farmsum | 257.830 | 593.861 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TO | Molenstraat 34 9936ED Farmsum | 257.827 | 593.897 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TP | Molenstraat 38 9936ED Farmsum | 257.832 | 593.886 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TQ | Molenstraat 40 9936ED Farmsum | 257.835 | 593.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TR | Molenstraat 42 9936ED Farmsum | 257.837 | 593.870 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TS | Molenstraat 44 9936ED Farmsum | 257.842 | 593.859 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TT | Molenstraat 65 9936EB Farmsum | 257.834 | 593.850 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TU | Molenstraat 48 9936ED Farmsum | 257.847 | 593.847 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TV | Molenstraat 50 9936ED Farmsum | 257.850 | 593.837 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TW | Molenstraat 56 9936ED Farmsum | 257.851 | 593.824 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TX | Molenstraat 58 9936EE Farmsum | 257.863 | 593.810 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TY | Molenstraat 62 9936EE Farmsum | 257.858 | 593.798 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TZ | Molenstraat 72 9936EE Farmsum | 257.855 | 593.753 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| U | Hoofdweg 37 9945PB Wagenborgen | 258.149 | 586.603 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UA | Molenstraat 70 9936EE Farmsum | 257.854 | 593.758 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UB | Molenstraat 68 9936EE Farmsum | 257.854 | 593.765 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UC | Molenstraat 66 9936EE Farmsum | 257.854 | 593.773 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UD | Achterweg 2 9936EG Farmsum | 257.886 | 593.882 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UE | Achterweg 12 9936EG Farmsum | 257.919 | 593.766 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UF | Achterweg 10 9936EG Farmsum | 257.918 | 593.779 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UG | Achterweg 8 9936EG Farmsum | 257.916 | 593.791 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UH | Hindrik Jagerstraat 17 9936CT Farmsum | 257.588 | 593.777 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UI | Molenstraat 30 9936EC Farmsum | 257.820 | 593.912 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UJ | Borgweg 141 9936EN Farmsum | 257.451 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UK | Borgweg 139 9936EN Farmsum | 257.466 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UL | Borgweg 137 9936EN Farmsum | 257.473 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UM | Borgweg 135 9936EN Farmsum | 257.487 | 593.708 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UN | Afwateringskanaal 109 9936AV Farmsum | 257.508 | 593.724 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UO | Borgweg 131 9936EM Farmsum | 257.636 | 593.714 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UP | Borgweg 133 9936EM Farmsum | 257.581 | 593.701 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UQ | Borgshof 41 9936CR Farmsum | 257.598 | 593.743 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UR | Borgshof 43 9936CR Farmsum | 257.595 | 593.730 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| US | Borgshof 45 9936CR Farmsum | 257.594 | 593.720 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UT | Molenstraat 74 9936EE Farmsum | 257.855 | 593.743 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UU | Molenstraat 76 9936EE Farmsum | 257.857 | 593.736 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UV | Molenstraat 78 9936EE Farmsum | 257.858 | 593.730 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UW | Molenstraat 82 9936EE Farmsum | 257.858 | 593.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UX | Molenstraat 84 9936EE Farmsum | 257.858 | 593.708 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UY | Borgweg 123 9936EM Farmsum | 257.927 | 593.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UZ | Borgweg 125 9936EM Farmsum | 257.917 | 593.698 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| V | Hoofdweg 44 9945PH Wagenborgen | 258.071 | 586.624 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VA | Borgweg 127 9936EM Farmsum | 257.906 | 593.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VB | Borgweg 129 9936EM Farmsum | 257.897 | 593.699 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VC | Farmsumerzijl 51 9936GC Farmsum | 257.925 | 593.665 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VD | Molenstraat 80 9936EE Farmsum | 257.858 | 593.723 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VE | Houtweg 30 9936BL Farmsum | 257.294 | 593.486 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VF | Houtweg 32 9936BL Farmsum | 257.292 | 593.473 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2B klein

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| VG | Houtweg 34 9936BL Farmsum | 257.291 | 593.459 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VH | Houtweg 36 9936BL Farmsum | 257.289 | 593.446 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VI | Houtweg 38 9936BL Farmsum | 257.288 | 593.429 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VJ | Houtweg 40 9936BL Farmsum | 257.261 | 593.394 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VK | Houtweg 42 9936BL Farmsum | 257.257 | 593.387 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VL | Houtweg 44 9936BL Farmsum | 257.250 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VM | Houtweg 46 9936BL Farmsum | 257.248 | 593.372 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VN | Houtweg 48 9936BL Farmsum | 257.240 | 593.359 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VO | Rondeboslaan 26 9936BK Farmsum | 257.440 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VP | Rondeboslaan 28 9936BK Farmsum | 257.438 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VQ | Seendweg 32 9936GA Farmsum | 257.903 | 593.454 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VR | Trambaan 21 9936ES Farmsum | 257.870 | 593.499 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VS | Proosdij 19 9936ET Farmsum | 257.892 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VT | Bredelaan 14 9936ER Farmsum | 257.814 | 593.354 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VU | Bredelaan 10 9936ER Farmsum | 257.808 | 593.470 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VV | Bredelaan 8 9936ER Farmsum | 257.807 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VW | Seendweg 22 9936GA Farmsum | 257.897 | 593.364 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VX | Seendweg 28 9936GA Farmsum | 257.898 | 593.405 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VY | Proosdij 28 9936EW Farmsum | 257.922 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VZ | Proosdij 30 9936EX Farmsum | 257.932 | 593.484 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| W | Hoofdweg 48 9945PH Wagenborgen | 258.051 | 586.630 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WA | Proosdij 26 9936EW Farmsum | 257.919 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WB | Afwateringskanaal 107 9936AV Farmsum | 257.499 | 593.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WC | Rondeboslaan 22 A 9936BK Farmsum | 257.532 | 593.326 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WD | Rondeboslaan 22 B 9936BK Farmsum | 257.532 | 593.320 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WE | Rondeboslaan 2 A 9936BK Farmsum | 257.534 | 593.639 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WF | Rondeboslaan 2 B 9936BK Farmsum | 257.493 | 593.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WG | Seendweg 17 9936GA Farmsum | 257.931 | 593.394 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WH | Borgshof 29 9936CR Farmsum | 257.619 | 593.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WI | Molenstraat 22 9936EC Farmsum | 257.808 | 593.935 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WJ | Achterweg 7 A 9936EG Farmsum | 257.858 | 593.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WK | Molenstraat 26 9936EC Farmsum | 257.814 | 593.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WL | Borgweg 113 9936EM Farmsum | 257.957 | 593.782 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WM | Borgweg 115 9936EM Farmsum | 257.968 | 593.707 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WN | Borgweg 117 9936EM Farmsum | 257.959 | 593.705 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WO | Borgweg 119 9936EM Farmsum | 257.947 | 593.703 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WP | Borgweg 121 9936EM Farmsum | 257.938 | 593.701 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WQ | Farmsumerzijl 45 9936GC Farmsum | 257.966 | 593.671 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WR | Farmsumerzijl 47 9936GC Farmsum | 257.947 | 593.667 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WS | Farmsumerzijl 49 9936GC Farmsum | 257.933 | 593.666 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WT | Waarman 4 9936GW Farmsum | 258.267 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WU | Waarman 2 9936GW Farmsum | 258.267 | 593.668 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WV | Farmsumerzijl 9 9936GB Farmsum | 258.192 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WW | Farmsumerzijl 11 9936GB Farmsum | 258.186 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WX | Farmsumerzijl 21 9936GB Farmsum | 258.134 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WY | Farmsumerzijl 23 9936GB Farmsum | 258.126 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WZ | Farmsumerzijl 33 9936GC Farmsum | 258.076 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| X | Hoofdweg 41 9945PB Wagenborgen | 258.092 | 586.599 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XA | Farmsumerzijl 35 9936GC Farmsum | 258.070 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XB | Schepperij 17 9936GL Farmsum | 258.103 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XC | Schepperij 19 9936GL Farmsum | 258.109 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XD | Schepperij 21 9936GL Farmsum | 258.115 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XE | Dijkrecht 3 9936GJ Farmsum | 258.042 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XF | Dijkrecht 5 9936GJ Farmsum | 258.052 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XG | Dijkrecht 7 9936GJ Farmsum | 258.054 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XH | Dijkrecht 9 9936GJ Farmsum | 258.063 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XI | Dijkrecht 11 9936GJ Farmsum | 258.073 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XJ | Dijkrecht 13 9936GJ Farmsum | 258.079 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XK | Dijkrecht 15 9936GJ Farmsum | 258.085 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XL | Dijkrecht 17 9936GJ Farmsum | 258.092 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XM | Dijkrecht 19 9936GJ Farmsum | 258.098 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XN | Dijkrecht 21 9936GJ Farmsum | 258.104 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XO | Schepperij 6 9936GN Farmsum | 258.058 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XP | Schepperij 8 9936GN Farmsum | 258.064 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2B klein

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| XQ | Schepperij 10 9936GN Farmsum | 258.070 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XR | Schepperij 12 9936GN Farmsum | 258.075 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XS | Schepperij 14 9936GN Farmsum | 258.081 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XT | Schepperij 16 9936GN Farmsum | 258.087 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XU | Olderman 2 9936GT Farmsum | 258.132 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XV | Olderman 4 9936GT Farmsum | 258.132 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XW | Olderman 6 9936GT Farmsum | 258.132 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XX | Olderman 8 9936GT Farmsum | 258.132 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XY | Olderman 10 9936GT Farmsum | 258.132 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XZ | Olderman 12 9936GT Farmsum | 258.132 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Y | Hoofdweg 20 9945PG Wagenborgen | 258.207 | 586.682 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YA | Olderman 14 9936GT Farmsum | 258.132 | 593.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YB | Dijkrecht 23 9936GJ Farmsum | 258.162 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YC | Dijkrecht 25 9936GJ Farmsum | 258.162 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YD | Dijkrecht 27 9936GJ Farmsum | 258.163 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YE | Dijkrecht 29 9936GJ Farmsum | 258.163 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YF | Dijkrecht 31 9936GJ Farmsum | 258.163 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YG | Dijkrecht 33 9936GJ Farmsum | 258.163 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YH | Dijkrecht 35 9936GJ Farmsum | 258.163 | 593.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YI | Dijkrecht 37 9936GJ Farmsum | 258.182 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YJ | Dijkrecht 39 9936GJ Farmsum | 258.182 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YK | Dijkrecht 41 9936GJ Farmsum | 258.182 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YL | Dijkrecht 43 9936GJ Farmsum | 258.182 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YM | Olderman 1 9936GS Farmsum | 258.107 | 593.574 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YN | Olderman 3 9936GS Farmsum | 258.107 | 593.567 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YO | Olderman 5 9936GS Farmsum | 258.108 | 593.561 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YP | Olderman 7 9936GS Farmsum | 258.108 | 593.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YQ | Schepperij 37 9936GM Farmsum | 258.194 | 593.543 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YR | Schepperij 41 9936GM Farmsum | 258.194 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YS | Schepperij 45 9936GM Farmsum | 258.194 | 593.518 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YT | Schepperij 47 9936GM Farmsum | 258.194 | 593.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YU | Schepperij 49 9936GM Farmsum | 258.194 | 593.506 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YV | Olderman 18 9936GT Farmsum | 258.143 | 593.539 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YW | Olderman 20 9936GT Farmsum | 258.143 | 593.533 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YX | Olderman 22 9936GT Farmsum | 258.143 | 593.527 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YY | Olderman 24 9936GT Farmsum | 258.143 | 593.521 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YZ | Olderman 26 9936GT Farmsum | 258.143 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Z | Hoofdweg 22 9945PG Wagenborgen | 258.202 | 586.669 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZA | Olderman 28 9936GT Farmsum | 258.143 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZB | Olderman 30 9936GT Farmsum | 258.143 | 593.502 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZC | Olderman 9 9936GS Farmsum | 258.120 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZD | Olderman 11 9936GS Farmsum | 258.120 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZE | Olderman 13 9936GS Farmsum | 258.120 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZF | Proosdij 32 9936EX Farmsum | 257.941 | 593.479 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZG | Proosdij 36 9936EX Farmsum | 257.952 | 593.473 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZH | Proosdij 38 9936EX Farmsum | 257.963 | 593.468 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZI | Proosdij 40 9936EX Farmsum | 257.984 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZJ | Proosdij 27 9936EV Farmsum | 257.995 | 593.418 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZK | Proosdij 25 9936EV Farmsum | 257.979 | 593.425 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZL | Proosdij 23 9936EV Farmsum | 257.962 | 593.433 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZM | Proosdij 21 9936EV Farmsum | 257.941 | 593.443 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZN | Seendweg 5 9936GA Farmsum | 258.091 | 593.322 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZO | Proosdij 29 9936EV Farmsum | 258.005 | 593.413 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZP | Proosdij 31 9936EV Farmsum | 258.019 | 593.403 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZQ | Proosdij 33 9936EV Farmsum | 258.043 | 593.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZR | Proosdij 35 9936EV Farmsum | 258.067 | 593.376 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZS | Proosdij 37 9936EV Farmsum | 258.085 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZT | Proosdij 39 9936EV Farmsum | 258.092 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZU | Proosdij 41 9936EV Farmsum | 258.099 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZV | Proosdij 43 9936EV Farmsum | 258.106 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZW | Proosdij 45 9936EV Farmsum | 258.112 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZX | Proosdij 47 9936EV Farmsum | 258.119 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZY | Olderman 15 9936GS Farmsum | 258.118 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZZ | Rengersweg 97 9936GG Farmsum | 258.010 | 593.468 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

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Calculated:
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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2B klein

### Calculation Results

Shadow receptor

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| [A | Rengersweg 99 9936GG Farmsum | 1:10 |
| [B | Rengersweg 12 9936GH Farmsum | 1:16 |
| [C | Rengersweg 10 9936GH Farmsum | 1:08 |
| [D | Kluft 1 9936GP Farmsum | 0:52 |
| [E | Kluft 3 9936GP Farmsum | 0:55 |
| [F | Proosdij 46 9936EX Farmsum | 1:14 |
| [G | Proosdij 48 9936EX Farmsum | 1:08 |
| [H | Proosdij 50 9936EX Farmsum | 1:24 |
| [I | Proosdij 52 9936EX Farmsum | 1:26 |
| [J | Proosdij 54 9936EX Farmsum | 1:35 |
| [K | Proosdij 56 9936EX Farmsum | 1:42 |
| [L | Olderman 21 9936GS Farmsum | 2:04 |
| [M | Olderman 19 9936GS Farmsum | 1:50 |
| [N | Olderman 17 9936GS Farmsum | 1:42 |
| [O | Kluft 5 9936GP Farmsum | 1:00 |
| [P | Kluft 7 9936GP Farmsum | 1:00 |
| [Q | Kluft 9 9936GP Farmsum | 1:11 |
| [R | Kluft 11 9936GP Farmsum | 1:14 |
| [S | Kluft 17 9936GP Farmsum | 1:38 |
| [T | Zijlvest 8 9936GZ Farmsum | 2:03 |
| [U | Olderman 32 9936GT Farmsum | 1:55 |
| [V | Olderman 34 9936GT Farmsum | 1:56 |
| [W | Olderman 36 9936GT Farmsum | 2:02 |
| [X | Olderman 38 9936GT Farmsum | 2:10 |
| [Y | Olderman 40 9936GT Farmsum | 2:17 |
| [Z | Olderman 42 9936GT Farmsum | 2:13 |
| \A | Zijlvest 22 A 9936GZ Farmsum | 2:36 |
| \B | Zijlvest 18 A 9936GZ Farmsum | 2:21 |
| \C | Zijlvest 18 9936GZ Farmsum | 2:19 |
| \D | Zijlvest 14 9936GZ Farmsum | 2:13 |
| \E | Borgweg 1 9936EH Farmsum | 2:47 |
| \F | Borgweg 3 9936EH Farmsum | 2:51 |
| \G | Borgweg 5 9936EH Farmsum | 2:53 |
| \H | Borgweg 7 9936EH Farmsum | 3:00 |
| \I | Borgweg 9 9936EH Farmsum | 3:07 |
| \J | Borgweg 11 9936EH Farmsum | 3:15 |
| \K | Borgweg 13 9936EH Farmsum | 3:33 |
| \L | Borgweg 15 9936EH Farmsum | 2:50 |
| \M | Borgweg 17 9936EH Farmsum | 2:53 |
| \N | Borgweg 19 9936EH Farmsum | 2:56 |
| \O | Borgweg 21 9936EH Farmsum | 3:03 |
| \P | Borgweg 23 9936EH Farmsum | 3:08 |
| \Q | Borgweg 25 9936EH Farmsum | 3:17 |
| \R | Borgweg 27 9936EH Farmsum | 3:36 |
| \S | Borgweg 29 9936EJ Farmsum | 2:53 |
| \T | Borgweg 31 9936EJ Farmsum | 2:57 |
| \U | Borgweg 33 9936EJ Farmsum | 2:59 |
| \V | Borgweg 35 9936EJ Farmsum | 3:04 |
| \W | Borgweg 37 9936EJ Farmsum | 3:11 |
| \X | Borgweg 39 9936EJ Farmsum | 3:25 |
| \Y | Borgweg 41 9936EJ Farmsum | 3:43 |
| \Z | Borgweg 43 9936EJ Farmsum | 2:54 |
| ]A | Borgweg 45 9936EJ Farmsum | 3:00 |
| ]B | Borgweg 47 9936EJ Farmsum | 3:03 |
| ]C | Borgweg 49 9936EJ Farmsum | 3:09 |
| ]D | Borgweg 51 9936EJ Farmsum | 3:16 |
| ]E | Borgweg 53 9936EJ Farmsum | 3:32 |
| ]F | Borgweg 55 9936EJ Farmsum | 3:45 |
| ]G | Borgweg 57 9936EK Farmsum | 2:20 |
| ]H | Borgweg 59 9936EK Farmsum | 2:18 |
| ]I | Borgweg 61 9936EK Farmsum | 2:16 |
| ]J | Borgweg 63 9936EK Farmsum | 2:16 |

To be continued on next page...

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Calculated:
6-2-2017 18:35/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2B klein

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| ]K | Borgweg 65 9936EK Farmsum | 2:13 |
| ]L | Borgweg 67 9936EK Farmsum | 2:13 |
| ]M | Borgweg 69 9936EK Farmsum | 2:12 |
| ]N | Borgweg 71 9936EK Farmsum | 2:23 |
| ]O | Borgweg 73 9936EK Farmsum | 2:21 |
| ]P | Borgweg 75 9936EK Farmsum | 2:18 |
| ]Q | Borgweg 77 9936EK Farmsum | 2:16 |
| ]R | Borgweg 79 9936EK Farmsum | 2:14 |
| ]S | Borgweg 81 9936EK Farmsum | 2:15 |
| ]T | Borgweg 83 9936EK Farmsum | 2:13 |
| ]U | Borgweg 85 9936EL Farmsum | 2:24 |
| ]V | Borgweg 87 9936EL Farmsum | 2:23 |
| ]W | Borgweg 89 9936EL Farmsum | 2:22 |
| ]X | Borgweg 91 9936EL Farmsum | 2:20 |
| ]Y | Borgweg 93 9936EL Farmsum | 2:18 |
| ]Z | Borgweg 95 9936EL Farmsum | 2:16 |
| ^A | Borgweg 97 9936EL Farmsum | 2:15 |
| ^B | Borgweg 99 9936EL Farmsum | 2:26 |
| ^C | Borgweg 101 9936EL Farmsum | 2:23 |
| ^D | Borgweg 103 9936EL Farmsum | 2:21 |
| ^E | Borgweg 105 9936EL Farmsum | 2:20 |
| ^F | Borgweg 107 9936EL Farmsum | 2:18 |
| ^G | Borgweg 109 9936EL Farmsum | 2:17 |
| ^H | Borgweg 111 9936EL Farmsum | 2:16 |
| ^I | Kluft 18 9936GR Farmsum | 0:53 |
| ^J | Kluft 20 9936GR Farmsum | 0:55 |
| ^K | Kluft 22 9936GR Farmsum | 0:57 |
| ^L | Kluft 24 9936GR Farmsum | 0:59 |
| ^M | Kluft 26 9936GR Farmsum | 1:01 |
| ^N | Kluft 28 9936GR Farmsum | 1:03 |
| ^O | Kluft 30 9936GR Farmsum | 1:06 |
| ^P | Kluft 32 9936GR Farmsum | 1:09 |
| ^Q | Kluft 2 9936GR Farmsum | 0:55 |
| ^R | Kluft 4 9936GR Farmsum | 0:56 |
| ^S | Kluft 6 9936GR Farmsum | 0:57 |
| ^T | Kluft 8 9936GR Farmsum | 0:59 |
| ^U | Kluft 10 9936GR Farmsum | 1:02 |
| ^V | Kluft 12 9936GR Farmsum | 1:04 |
| ^W | Kluft 14 9936GR Farmsum | 1:04 |
| ^X | Kluft 16 9936GR Farmsum | 1:08 |
| ^Y | Zijlvest 20 A 9936GZ Farmsum | 2:30 |
| ^Z | Schepperij 51 9936GM Farmsum | 2:27 |
| _A | Waarman 15 9936GV Farmsum | 2:37 |
| _B | Waarman 17 9936GV Farmsum | 2:40 |
| _C | Waarman 19 9936GV Farmsum | 2:43 |
| _D | Waarman 21 9936GV Farmsum | 2:47 |
| _E | Waarman 23 9936GV Farmsum | 2:54 |
| _F | Waarman 25 9936GV Farmsum | 3:05 |
| _G | Waarman 27 9936GV Farmsum | 3:05 |
| _H | Waarman 29 9936GV Farmsum | 3:04 |
| _I | Heemskesweg 5 9936HE Farmsum | 16:20 |
| _J | Geefsweersterweg 2 9937TC Meedhuizen | 9:29 |
| _K | Seendweg 12 9936GA Farmsum | 3:08 |
| _L | Schepperij 39 9936GM Farmsum | 2:14 |
| _M | Schepperij 43 9936GM Farmsum | 2:17 |
| _N | Zijlvest 14 A 9936GZ Farmsum | 2:17 |
| _O | Zijlvest 24 A 9936GZ Farmsum | 2:44 |
| A | Familie Bronsweg 60 9945TA Wagenborgen | 15:22 |
| AA | Hoofdweg 26 9945PG Wagenborgen | 0:00 |
| AB | Hoofdweg 23 9945PA Wagenborgen | 0:00 |
| AC | Hoofdweg 25 9945PA Wagenborgen | 0:00 |
| AD | Hoofdweg 27 9945PA Wagenborgen | 0:00 |
| AE | Hoofdweg 29 9945PA Wagenborgen | 0:00 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2B klein

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| AF | Hoofdweg 18 9945PG Wagenborgen | 0:00 |
| AG | Hoofdweg 14 9945PG Wagenborgen | 0:00 |
| AH | Hoofdweg 10 9945PG Wagenborgen | 0:00 |
| AI | Hoofdweg 8 9945PG Wagenborgen | 0:00 |
| AJ | Hoofdweg 6 9945PG Wagenborgen | 0:00 |
| AK | Hoofdweg 4 9945PG Wagenborgen | 0:00 |
| AL | Hoofdweg 21 9945PA Wagenborgen | 0:00 |
| AM | Hoofdweg 19 9945PA Wagenborgen | 0:00 |
| AN | Hoofdweg 2 9945PG Wagenborgen | 0:00 |
| AO | Hoofdweg 15 9945PA Wagenborgen | 0:00 |
| AP | Hoofdweg 9 9945PA Wagenborgen | 0:00 |
| AQ | Hoofdweg 11 9945PA Wagenborgen | 0:00 |
| AR | Hoofdweg 7 9945PA Wagenborgen | 0:00 |
| AS | Hoofdweg 5 9945PA Wagenborgen | 1:26 |
| AT | H.L. Emmensweg 17 9945PW Wagenborgen | 0:00 |
| AU | H.L. Emmensweg 18 9945PX Wagenborgen | 0:00 |
| AV | H.L. Emmensweg 20 9945PX Wagenborgen | 0:00 |
| AW | H.L. Emmensweg 22 9945PX Wagenborgen | 0:00 |
| AX | H.L. Emmensweg 24 9945PX Wagenborgen | 0:00 |
| AY | H.L. Emmensweg 26 9945PX Wagenborgen | 0:00 |
| AZ | H.L. Emmensweg 10 9945PX Wagenborgen | 0:00 |
| B | Tolhek 4 9945TJ Wagenborgen | 33:24 |
| BA | H.L. Emmensweg 12 9945PX Wagenborgen | 0:00 |
| BB | H.L. Emmensweg 14 9945PX Wagenborgen | 0:00 |
| BC | H.L. Emmensweg 16 9945PX Wagenborgen | 0:00 |
| BD | H.L. Emmensweg 13 9945PW Wagenborgen | 0:00 |
| BE | H.L. Emmensweg 15 9945PW Wagenborgen | 0:00 |
| BF | H.L. Emmensweg 9 9945PW Wagenborgen | 0:00 |
| BG | H.L. Emmensweg 11 9945PW Wagenborgen | 0:00 |
| BH | H.L. Emmensweg 5 9945PW Wagenborgen | 0:00 |
| BI | H.L. Emmensweg 7 9945PW Wagenborgen | 0:00 |
| BJ | H.L. Emmensweg 4 9945PX Wagenborgen | 0:00 |
| BK | H.L. Emmensweg 2 9945PX Wagenborgen | 0:00 |
| BL | H.L. Emmensweg 1 9945PW Wagenborgen | 0:00 |
| BM | H.L. Emmensweg 3 9945PW Wagenborgen | 0:00 |
| BN | de Linden 4 9945PZ Wagenborgen | 0:00 |
| BO | de Linden 6 9945PZ Wagenborgen | 0:00 |
| BP | de Linden 10 9945PZ Wagenborgen | 0:00 |
| BQ | de Linden 12 9945PZ Wagenborgen | 0:00 |
| BR | de Linden 2 9945PZ Wagenborgen | 0:00 |
| BS | de Wilgen 12 9945RB Wagenborgen | 0:00 |
| BT | de Wilgen 10 9945RB Wagenborgen | 0:00 |
| BU | de Wilgen 8 9945RB Wagenborgen | 0:00 |
| BV | de Wilgen 2 9945RB Wagenborgen | 0:00 |
| BW | de Wilgen 4 9945RB Wagenborgen | 0:00 |
| BX | de Wilgen 6 9945RB Wagenborgen | 0:00 |
| BY | de Wilgen 6 A 9945RB Wagenborgen | 0:00 |
| BZ | de Wilgen 3 9945RB Wagenborgen | 0:00 |
| C | Tolhek 1 9945TJ Wagenborgen | 9:56 |
| CA | de Wilgen 3 A 9945RB Wagenborgen | 0:00 |
| CB | de Wilgen 3 B 9945RB Wagenborgen | 0:00 |
| CC | de Wilgen 5 9945RB Wagenborgen | 0:00 |
| CD | de Wilgen 46 9945RB Wagenborgen | 0:00 |
| CE | de Wilgen 44 9945RB Wagenborgen | 0:00 |
| CF | de Wilgen 48 9945RB Wagenborgen | 0:00 |
| CG | de Wilgen 50 9945RB Wagenborgen | 0:00 |
| CH | de Wilgen 36 9945RB Wagenborgen | 0:00 |
| CI | de Wilgen 38 9945RB Wagenborgen | 0:00 |
| CJ | de Wilgen 40 9945RB Wagenborgen | 0:00 |
| CK | de Wilgen 42 9945RB Wagenborgen | 0:00 |
| CL | de Wilgen 28 9945RB Wagenborgen | 0:00 |
| CM | de Wilgen 30 9945RB Wagenborgen | 0:00 |
| CN | de Wilgen 32 9945RB Wagenborgen | 0:00 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2B klein

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| CO | de Wilgen 34 9945RB Wagenborgen | 0:00 |
| CP | de Wilgen 24 9945TK Wagenborgen | 0:00 |
| CQ | de Wilgen 26 9945RB Wagenborgen | 0:00 |
| CR | de Wilgen 20 9945RB Wagenborgen | 0:00 |
| CS | de Wilgen 22 9945RB Wagenborgen | 0:00 |
| CT | de Wilgen 18 9945RB Wagenborgen | 0:00 |
| CU | de Wilgen 16 9945RB Wagenborgen | 0:00 |
| CV | de Wilgen 14 9945RB Wagenborgen | 0:00 |
| CW | de Wilgen 9 9945RB Wagenborgen | 0:00 |
| CX | de Wilgen 52 9945RB Wagenborgen | 1:15 |
| CY | Menterne 22 9945RA Wagenborgen | 0:00 |
| CZ | Menterne 18 9945RA Wagenborgen | 0:00 |
| D | Familie Bronsweg 62 9945TA Wagenborgen | 22:05 |
| DA | Menterne 21 9945RA Wagenborgen | 0:00 |
| DB | Menterne 19 9945RA Wagenborgen | 0:00 |
| DC | Menterne 20 9945RA Wagenborgen | 0:00 |
| DD | Menterne 17 9945RA Wagenborgen | 0:00 |
| DE | Menterne 7 9945RA Wagenborgen | 0:00 |
| DF | Menterne 8 9945RA Wagenborgen | 0:00 |
| DG | Menterne 9 9945RA Wagenborgen | 0:00 |
| DH | Menterne 10 9945RA Wagenborgen | 0:00 |
| DI | Menterne 11 9945RA Wagenborgen | 0:00 |
| DJ | Menterne 12 9945RA Wagenborgen | 0:00 |
| DK | Menterne 13 9945RA Wagenborgen | 0:00 |
| DL | Menterne 14 9945RA Wagenborgen | 0:00 |
| DM | Menterne 1 9945RA Wagenborgen | 0:00 |
| DN | Menterne 2 9945RA Wagenborgen | 0:00 |
| DO | Menterne 3 9945RA Wagenborgen | 0:00 |
| DP | Menterne 4 9945RA Wagenborgen | 0:00 |
| DQ | Menterne 5 9945RA Wagenborgen | 0:00 |
| DR | Menterne 6 9945RA Wagenborgen | 0:00 |
| DS | Menterne 15 9945RA Wagenborgen | 0:00 |
| DT | Menterne 16 9945RA Wagenborgen | 0:00 |
| DU | de Berken 6 9945PT Wagenborgen | 0:00 |
| DV | de Berken 2 9945PT Wagenborgen | 0:00 |
| DW | de Berken 4 9945PT Wagenborgen | 0:00 |
| DX | de Berken 1 9945PT Wagenborgen | 0:00 |
| DY | de Berken 5 9945PT Wagenborgen | 0:00 |
| DZ | de Berken 7 9945PT Wagenborgen | 0:00 |
| E | Meerweg 3 9945RC Wagenborgen | 0:41 |
| EA | de Berken 9 9945PT Wagenborgen | 0:00 |
| EB | de Eiken 14 9945VA Wagenborgen | 0:00 |
| EC | de Eiken 16 9945VA Wagenborgen | 0:00 |
| ED | de Eiken 2 9945VA Wagenborgen | 0:00 |
| EE | de Eiken 4 9945VA Wagenborgen | 0:00 |
| EF | de Eiken 6 9945VA Wagenborgen | 0:00 |
| EG | de Eiken 8 9945VA Wagenborgen | 0:00 |
| EH | de Eiken 10 9945VA Wagenborgen | 0:00 |
| EI | de Eiken 12 9945VA Wagenborgen | 0:00 |
| EJ | de Eiken 2 A 9945VA Wagenborgen | 0:00 |
| EK | Troostlaan 7 9945PV Wagenborgen | 0:00 |
| EL | Troostlaan 8 9945PV Wagenborgen | 0:00 |
| EM | Troostlaan 9 9945PV Wagenborgen | 0:00 |
| EN | Troostlaan 10 9945PV Wagenborgen | 0:00 |
| EO | Troostlaan 11 9945PV Wagenborgen | 0:00 |
| EP | Troostlaan 1 9945PV Wagenborgen | 0:00 |
| EQ | Troostlaan 2 9945PV Wagenborgen | 0:00 |
| ER | Troostlaan 3 9945PV Wagenborgen | 0:00 |
| ES | Troostlaan 2 A 9945PV Wagenborgen | 0:00 |
| ET | Troostlaan 4 9945PV Wagenborgen | 0:00 |
| EU | Troostlaan 14 9945PV Wagenborgen | 0:00 |
| EV | Troostlaan 22 9945PV Wagenborgen | 0:00 |
| EW | Troostlaan 20 9945PV Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2B klein

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| EX | Troostlaan 21 9945PV Wagenborgen | 0:00 |
| EY | Troostlaan 18 9945PV Wagenborgen | 0:00 |
| EZ | Troostlaan 19 9945PV Wagenborgen | 0:00 |
| F | G. Boelmanweg 2 9945RJ Wagenborgen | 0:00 |
| FA | Familie Bronsweg 40 9945PS Wagenborgen | 1:40 |
| FB | Familie Bronsweg 44 9945PS Wagenborgen | 1:31 |
| FC | Familie Bronsweg 46 9945PS Wagenborgen | 1:30 |
| FD | Familie Bronsweg 48 9945PS Wagenborgen | 1:30 |
| FE | Familie Bronsweg 50 9945PS Wagenborgen | 1:29 |
| FF | Familie Bronsweg 79 9945PP Wagenborgen | 1:17 |
| FG | Familie Bronsweg 81 9945PP Wagenborgen | 1:17 |
| FH | Familie Bronsweg 36 9945PS Wagenborgen | 2:10 |
| FI | Familie Bronsweg 38 9945PS Wagenborgen | 1:44 |
| FJ | Familie Bronsweg 42 9945PS Wagenborgen | 1:31 |
| FK | Familie Bronsweg 54 9945PS Wagenborgen | 1:24 |
| FL | Familie Bronsweg 52 9945PS Wagenborgen | 1:25 |
| FM | Familie Bronsweg 50 B 9945PS Wagenborgen | 1:27 |
| FN | Familie Bronsweg 50 A 9945PS Wagenborgen | 1:27 |
| FO | Familie Bronsweg 75 9945PP Wagenborgen | 1:18 |
| FP | Familie Bronsweg 75 A 9945PP Wagenborgen | 1:17 |
| FQ | Familie Bronsweg 75 B 9945PP Wagenborgen | 1:17 |
| FR | Familie Bronsweg 71 9945PP Wagenborgen | 1:19 |
| FS | Familie Bronsweg 69 A 9945PP Wagenborgen | 1:21 |
| FT | Familie Bronsweg 69 9945PP Wagenborgen | 1:20 |
| FU | Familie Bronsweg 67 9945PP Wagenborgen | 1:21 |
| FV | Familie Bronsweg 65 9945PP Wagenborgen | 1:21 |
| FW | Familie Bronsweg 63 9945PP Wagenborgen | 1:23 |
| FX | Familie Bronsweg 61 9945PP Wagenborgen | 1:25 |
| FY | Familie Bronsweg 59 9945PP Wagenborgen | 1:31 |
| FZ | Familie Bronsweg 57 9945PP Wagenborgen | 1:34 |
| G | G. Boelmanweg 3 9945RE Wagenborgen | 0:00 |
| GA | Familie Bronsweg 53 9945PP Wagenborgen | 1:48 |
| GB | Familie Bronsweg 73 9945PP Wagenborgen | 1:19 |
| GC | Familie Bronsweg 85 9945PP Wagenborgen | 1:16 |
| GD | Familie Bronsweg 83 9945PP Wagenborgen | 1:17 |
| GE | Familie Bronsweg 83 A 9945PP Wagenborgen | 1:16 |
| GF | Familie Bronsweg 77 9945PP Wagenborgen | 1:08 |
| GG | Familie Bronsweg 51 9945PP Wagenborgen | 1:43 |
| GH | Familie Bronsweg 2 9945PR Wagenborgen | 1:21 |
| GI | Familie Bronsweg 4 9945PR Wagenborgen | 1:18 |
| GJ | Familie Bronsweg 4 A 9945PR Wagenborgen | 1:14 |
| GK | Familie Bronsweg 6 9945PR Wagenborgen | 1:12 |
| GL | Familie Bronsweg 8 9945PR Wagenborgen | 1:14 |
| GM | Familie Bronsweg 10 9945PR Wagenborgen | 1:17 |
| GN | Familie Bronsweg 12 9945PR Wagenborgen | 1:08 |
| GO | Familie Bronsweg 14 9945PR Wagenborgen | 1:10 |
| GP | Familie Bronsweg 16 9945PR Wagenborgen | 1:10 |
| GQ | Familie Bronsweg 15 9945PN Wagenborgen | 0:50 |
| GR | Familie Bronsweg 17 9945PN Wagenborgen | 1:03 |
| GS | Familie Bronsweg 2 A 9945PR Wagenborgen | 2:09 |
| GT | Familie Bronsweg 2 B 9945PR Wagenborgen | 3:15 |
| GU | Familie Bronsweg 2 C 9945PR Wagenborgen | 3:02 |
| GV | Familie Bronsweg 2 D 9945PR Wagenborgen | 2:57 |
| GW | Familie Bronsweg 2 F 9945PR Wagenborgen | 3:37 |
| GX | Familie Bronsweg 2 G 9945PR Wagenborgen | 4:21 |
| GY | Familie Bronsweg 2 H 9945PR Wagenborgen | 3:55 |
| GZ | Familie Bronsweg 2 J 9945PR Wagenborgen | 3:31 |
| H | G. Boelmanweg 5 9945RE Wagenborgen | 0:00 |
| HA | Akeleistraat 17 9945VD Wagenborgen | 2:14 |
| HB | Akeleistraat 19 9945VD Wagenborgen | 2:07 |
| HC | Akeleistraat 21 9945VD Wagenborgen | 1:59 |
| HD | Akeleistraat 23 9945VD Wagenborgen | 1:54 |
| HE | Akeleistraat 20 9945VD Wagenborgen | 1:45 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2B klein

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| HF | Akeleistraat 22 9945VD Wagenborgen | 1:42 |
| HG | Akeleistraat 16 9945VD Wagenborgen | 2:00 |
| HH | Akeleistraat 18 9945VD Wagenborgen | 1:56 |
| HI | Akeleistraat 12 9945VD Wagenborgen | 2:17 |
| HJ | Akeleistraat 14 9945VD Wagenborgen | 2:13 |
| HK | Akeleistraat 10 9945VD Wagenborgen | 2:38 |
| HL | Akeleistraat 1 9945VD Wagenborgen | 4:57 |
| HM | Akeleistraat 3 9945VD Wagenborgen | 4:58 |
| HN | Akeleistraat 5 9945VD Wagenborgen | 5:06 |
| HO | Akeleistraat 7 9945VD Wagenborgen | 5:00 |
| HP | Akeleistraat 9 9945VD Wagenborgen | 4:38 |
| HQ | Akeleistraat 11 9945VD Wagenborgen | 3:04 |
| HR | Akeleistraat 2 9945VD Wagenborgen | 4:22 |
| HS | Akeleistraat 4 9945VD Wagenborgen | 4:21 |
| HT | Akeleistraat 6 9945VD Wagenborgen | 3:50 |
| HU | Akeleistraat 8 9945VD Wagenborgen | 3:46 |
| HV | Akeleistraat 15 9945VD Wagenborgen | 2:26 |
| HW | Bremstraat 6 9945VC Wagenborgen | 2:53 |
| HX | Bremstraat 2 9945VC Wagenborgen | 3:34 |
| HY | Bremstraat 4 9945VC Wagenborgen | 3:26 |
| HZ | Bremstraat 12 9945VC Wagenborgen | 1:52 |
| I | G. Boelmanweg 4 9945RJ Wagenborgen | 0:00 |
| IA | Hibiscusstraat 30 9945VB Wagenborgen | 2:46 |
| IB | Hibiscusstraat 2 9945VB Wagenborgen | 2:08 |
| IC | Hibiscusstraat 4 9945VB Wagenborgen | 2:37 |
| ID | Hibiscusstraat 10 9945VB Wagenborgen | 1:52 |
| IE | Hibiscusstraat 16 9945VB Wagenborgen | 2:39 |
| IF | Bremstraat 14 9945VC Wagenborgen | 1:43 |
| IG | Hibiscusstraat 6 9945VB Wagenborgen | 2:24 |
| IH | Hibiscusstraat 26 9945VB Wagenborgen | 3:21 |
| II | Kopaf 8 9945TE Wagenborgen | 6:47 |
| IJ | Kopaf 7 9945TE Wagenborgen | 3:37 |
| IK | Kopaf 6 9945TE Wagenborgen | 5:53 |
| IL | Kloosterlaan 27 9945TG Wagenborgen | 64:08 |
| IM | Kloosterlaan 25 9945TG Wagenborgen | 79:14 |
| IN | Kloosterlaan 23 9945TG Wagenborgen | 86:06 |
| IO | Scheve Klap 5 9945TD Wagenborgen | 0:41 |
| IP | Scheve Klap 4 9945TD Wagenborgen | 0:27 |
| IQ | Hibiscusstraat 8 9945VB Wagenborgen | 2:02 |
| IR | Hibiscusstraat 12 9945VB Wagenborgen | 1:50 |
| IS | Hibiscusstraat 18 9945VB Wagenborgen | 3:06 |
| IT | Hibiscusstraat 24 9945VB Wagenborgen | 2:33 |
| IU | Hibiscusstraat 22 9945VB Wagenborgen | 2:53 |
| IV | Troostlaan 15 9945PV Wagenborgen | 0:00 |
| IW | Bremstraat 10 9945VC Wagenborgen | 2:06 |
| IX | Hibiscusstraat 20 9945VB Wagenborgen | 3:17 |
| IY | Hibiscusstraat 28 9945VB Wagenborgen | 3:31 |
| IZ | Troostlaan 5 9945PV Wagenborgen | 0:00 |
| J | G. Boelmanweg 7 9945RE Wagenborgen | 0:00 |
| JA | Troostlaan 6 9945PV Wagenborgen | 0:00 |
| JB | Boslaan 5 9945TM Wagenborgen | 4:37 |
| JC | Hoofdweg 33 A 9945PB Wagenborgen | 0:00 |
| JD | Akeleistraat 13 9945VD Wagenborgen | 4:16 |
| JE | Hoofdweg 42 9945PG Wagenborgen | 0:00 |
| JF | Familie Bronsweg 2 E 9945PR Wagenborgen | 3:13 |
| JG | Hibiscusstraat 14 9945VB Wagenborgen | 2:07 |
| JH | Bremstraat 8 9945VC Wagenborgen | 2:27 |
| JI | Menterne 23 003 9945RA Wagenborgen | 0:54 |
| JJ | Menterne 23 004 9945RA Wagenborgen | 0:57 |
| JK | Menterne 23 005 9945RA Wagenborgen | 1:02 |
| JL | Menterne 23 006 9945RA Wagenborgen | 1:05 |
| JM | Menterne 23 007 9945RA Wagenborgen | 1:04 |
| JN | Menterne 23 008 9945RA Wagenborgen | 1:02 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2B klein

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| JO | Menterne 23 009 9945RA Wagenborgen | 0:57 |
| JP | Menterne 23 010 9945RA Wagenborgen | 0:56 |
| JQ | Menterne 23 017 9945RA Wagenborgen | 0:33 |
| JR | Menterne 23 030 9945RA Wagenborgen | 0:00 |
| JS | Menterne 23 103 9945RA Wagenborgen | 0:53 |
| JT | Menterne 23 104 9945RA Wagenborgen | 0:57 |
| JU | Menterne 23 105 9945RA Wagenborgen | 1:01 |
| JV | Menterne 23 106 9945RA Wagenborgen | 1:05 |
| JW | Menterne 23 107 9945RA Wagenborgen | 1:05 |
| JX | Menterne 23 108 9945RA Wagenborgen | 1:03 |
| JY | Menterne 23 109 9945RA Wagenborgen | 0:58 |
| JZ | Menterne 23 110 9945RA Wagenborgen | 0:57 |
| K | G. Boelmanweg 6 9945RJ Wagenborgen | 0:00 |
| KA | Menterne 23 111 9945RA Wagenborgen | 0:54 |
| KB | Menterne 23 113 9945RA Wagenborgen | 0:41 |
| KC | Menterne 23 114 9945RA Wagenborgen | 0:37 |
| KD | Menterne 23 115 9945RA Wagenborgen | 0:34 |
| KE | Menterne 23 116 9945RA Wagenborgen | 0:31 |
| KF | Menterne 23 117 9945RA Wagenborgen | 0:29 |
| KG | Menterne 23 118 9945RA Wagenborgen | 0:27 |
| KH | Menterne 23 119 9945RA Wagenborgen | 0:00 |
| KI | Menterne 23 120 9945RA Wagenborgen | 0:00 |
| KJ | Menterne 23 121 9945RA Wagenborgen | 0:00 |
| KK | Menterne 23 122 9945RA Wagenborgen | 0:00 |
| KL | Menterne 23 123 9945RA Wagenborgen | 0:00 |
| KM | Menterne 23 124 9945RA Wagenborgen | 0:00 |
| KN | Menterne 23 125 9945RA Wagenborgen | 0:00 |
| KO | Menterne 23 126 9945RA Wagenborgen | 0:00 |
| KP | Menterne 23 127 9945RA Wagenborgen | 0:00 |
| KQ | Menterne 23 128 9945RA Wagenborgen | 0:00 |
| KR | Menterne 23 129 9945RA Wagenborgen | 0:00 |
| KS | Menterne 23 130 9945RA Wagenborgen | 0:00 |
| KT | Menterne 23 131 9945RA Wagenborgen | 0:36 |
| KU | Menterne 23 132 9945RA Wagenborgen | 0:38 |
| KV | Menterne 23 201 9945RA Wagenborgen | 0:47 |
| KW | Menterne 23 202 9945RA Wagenborgen | 0:49 |
| KX | Menterne 23 203 9945RA Wagenborgen | 0:52 |
| KY | Menterne 23 204 9945RA Wagenborgen | 0:56 |
| KZ | Menterne 23 205 9945RA Wagenborgen | 0:59 |
| L | Kokslaan 1 9945RD Wagenborgen | 0:00 |
| LA | Menterne 23 206 9945RA Wagenborgen | 1:03 |
| LB | Menterne 23 207 9945RA Wagenborgen | 1:05 |
| LC | Menterne 23 208 9945RA Wagenborgen | 1:03 |
| LD | Menterne 23 209 9945RA Wagenborgen | 1:01 |
| LE | Menterne 23 210 9945RA Wagenborgen | 0:57 |
| LF | Menterne 23 211 9945RA Wagenborgen | 0:54 |
| LG | Menterne 23 212 9945RA Wagenborgen | 0:51 |
| LH | Menterne 23 213 9945RA Wagenborgen | 0:42 |
| LI | Menterne 23 214 9945RA Wagenborgen | 0:38 |
| LJ | Menterne 23 215 9945RA Wagenborgen | 0:35 |
| LK | Menterne 23 216 9945RA Wagenborgen | 0:32 |
| LL | Menterne 23 217 9945RA Wagenborgen | 0:30 |
| LM | Menterne 23 218 9945RA Wagenborgen | 0:00 |
| LN | Menterne 23 219 9945RA Wagenborgen | 0:00 |
| LO | Menterne 23 220 9945RA Wagenborgen | 0:00 |
| LP | Menterne 23 221 9945RA Wagenborgen | 0:00 |
| LQ | Menterne 23 222 9945RA Wagenborgen | 0:00 |
| LR | Menterne 23 223 9945RA Wagenborgen | 0:00 |
| LS | Menterne 23 224 9945RA Wagenborgen | 0:00 |
| LT | Menterne 23 226 9945RA Wagenborgen | 0:00 |
| LU | Menterne 23 228 9945RA Wagenborgen | 0:00 |
| LV | Menterne 23 229 9945RA Wagenborgen | 0:00 |
| LW | Menterne 23 230 9945RA Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2B klein

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| LX | Menterne 23 231 9945RA Wagenborgen | 0:36 |
| LY | Menterne 23 232 9945RA Wagenborgen | 0:37 |
| LZ | G. Boelmanweg 1 9945RE Wagenborgen | 0:00 |
| M | Kokslaan 2 9945RD Wagenborgen | 0:00 |
| MA | Boslaan 7 9945TM Wagenborgen | 0:00 |
| MB | H.L. Emmensweg 23 9945PW Wagenborgen | 0:00 |
| MC | Kopaf 5 9944VA Nieuwolda | 0:00 |
| MD | Familie Bronsweg 68 9945TA Wagenborgen | 26:01 |
| ME | Maarkampen 26 9937PL Meedhuizen | 0:37 |
| MF | Maarkampen 24 9937PL Meedhuizen | 0:34 |
| MG | Maarkampen 22 9937PL Meedhuizen | 0:31 |
| MH | Maarkampen 20 9937PL Meedhuizen | 0:19 |
| MI | Maarkampen 18 9937PL Meedhuizen | 0:17 |
| MJ | Maarkampen 16 9937PL Meedhuizen | 0:16 |
| MK | Maarkampen 14 9937PL Meedhuizen | 0:15 |
| ML | Maarlaan 22 E 9937TH Meedhuizen | 0:21 |
| MM | Maarlaan 22 D 9937TH Meedhuizen | 0:16 |
| MN | Schaapbulterweg 8 9937TL Meedhuizen | 1:01 |
| MO | Schaapbulterweg 6 9937TL Meedhuizen | 0:19 |
| MP | Schaapbulterweg 29 9937TL Meedhuizen | 1:03 |
| MQ | Schaapbulterweg 27 9937TL Meedhuizen | 0:33 |
| MR | Schaapbulterweg 25 9937TL Meedhuizen | 0:20 |
| MS | Schaapbulterweg 23 9937TL Meedhuizen | 0:19 |
| MT | Schaapbulterweg 21 9937TL Meedhuizen | 0:18 |
| MU | Geefsweersterweg 11 9937TB Meedhuizen | 4:21 |
| MV | Schaapbulterweg 35 9937TL Meedhuizen | 2:51 |
| MW | Meedhuizerweg 20 9937TK Meedhuizen | 0:45 |
| MX | Familie Bronsweg 66 9945TA Wagenborgen | 27:48 |
| MY | Familie Bronsweg 64 9945TA Wagenborgen | 28:17 |
| MZ | Ideweersterweg 10 9937TM Meedhuizen | 17:15 |
| N | Kerkstraat 1 9945SB Wagenborgen | 0:00 |
| NA | Ideweersterweg 8 9937TM Meedhuizen | 28:48 |
| NB | Geefsweersterweg 20 9937TC Meedhuizen | 28:18 |
| NC | Geefsweersterweg 18 9937TC Meedhuizen | 22:35 |
| ND | Geefsweersterweg 29 9937TB Meedhuizen | 23:11 |
| NE | Geefsweersterweg 16 9937TC Meedhuizen | 22:00 |
| NF | Geefsweersterweg 23 9937TB Meedhuizen | 29:31 |
| NG | Geefsweersterweg 12 9937TC Meedhuizen | 38:28 |
| NH | Geefsweersterweg 14 9937TC Meedhuizen | 35:26 |
| NI | Geefsweersterweg 21 A 9937TB Meedhuizen | 35:57 |
| NJ | Geefsweersterweg 10 9937TC Meedhuizen | 44:19 |
| NK | Geefsweersterweg 21 9937TB Meedhuizen | 43:03 |
| NL | Geefsweersterweg 17 9937TB Meedhuizen | 39:52 |
| NM | Geefsweersterweg 19 9937TB Meedhuizen | 42:44 |
| NN | Ideweersterweg 2 9937TM Meedhuizen | 79:53 |
| NO | Ideweersterweg 1 9937TM Meedhuizen | 81:13 |
| NP | Geefsweersterweg 15 9937TB Meedhuizen | 33:44 |
| NQ | Westerlaan 6 9937TS Meedhuizen | 39:29 |
| NR | Familie Bronsweg 87 9945TA Wagenborgen | 13:24 |
| NS | Familie Bronsweg 89 9945TA Wagenborgen | 17:32 |
| NT | Westerlaan 10 9937TS Meedhuizen | 45:20 |
| NU | Geefsweersterweg 13 9937TB Meedhuizen | 16:44 |
| NV | Maarlaan 26 9937TH Meedhuizen | 1:18 |
| NW | Maarlaan 24 9937TH Meedhuizen | 0:39 |
| NX | Maarlaan 28 9937TH Meedhuizen | 1:20 |
| NY | Maarlaan 30 9937TH Meedhuizen | 1:50 |
| NZ | Kerklaan 3 9937PG Meedhuizen | 1:09 |
| O | Hoofdweg 30 9945PG Wagenborgen | 0:00 |
| OA | Kerklaan 8 9937PG Meedhuizen | 2:23 |
| OB | Kerklaan 6 9937PG Meedhuizen | 2:33 |
| OC | Opmeedenlaan 6 9937TN Meedhuizen | 0:53 |
| OD | Opmeedenlaan 4 9937TN Meedhuizen | 0:57 |
| OE | Opmeedenlaan 2 9937TN Meedhuizen | 1:11 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2B klein

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| OF | Kloosterlaan 26 9945TG Wagenborgen | 131:59 |
| OG | Zomerdijk 1 9945TH Wagenborgen | 111:31 |
| OH | Zomerdijk 3 9945TH Wagenborgen | 116:19 |
| OI | Zomerdijk 3 A 9945TH Wagenborgen | 127:21 |
| OJ | Zomerdijk 2 9945TH Wagenborgen | 122:35 |
| OK | Kloosterlaan 21 A 9945TG Wagenborgen | 119:25 |
| OL | Kloosterlaan 21 B 9945TG Wagenborgen | 122:48 |
| OM | Ideweersterweg 4 9937TM Meedhuizen | 58:02 |
| ON | Maarlaan 22 C 9937TH Meedhuizen | 0:13 |
| OO | Kloosterlaan 21 9936TE Farmsum | 64:22 |
| OP | Geefsweersterweg 8 A 9937TC Meedhuizen | 30:35 |
| OQ | Houtweg 20 9936BL Farmsum | 0:10 |
| OR | Houtweg 22 9936BL Farmsum | 0:10 |
| OS | Houtweg 24 9936BL Farmsum | 0:11 |
| OT | Houtweg 26 9936BL Farmsum | 0:11 |
| OU | Houtweg 28 9936BL Farmsum | 0:11 |
| OV | Rondeboslaan 6 9936BK Farmsum | 0:43 |
| OW | Proosdij 14 9936EW Farmsum | 1:39 |
| OX | Bredelaan 6 9936ER Farmsum | 1:58 |
| OY | Bredelaan 4 9936ER Farmsum | 1:43 |
| OZ | Bredelaan 2 A 9936ER Farmsum | 1:09 |
| P | Hoofdweg 32 9945PG Wagenborgen | 0:00 |
| PA | Proosdij 24 9936EW Farmsum | 1:02 |
| PB | Proosdij 22 9936EW Farmsum | 1:07 |
| PC | Proosdij 20 9936EW Farmsum | 1:12 |
| PD | Proosdij 18 9936EW Farmsum | 1:23 |
| PE | Proosdij 16 9936EW Farmsum | 1:28 |
| PF | Trambaan 19 9936ES Farmsum | 1:32 |
| PG | Proosdij 17 9936ET Farmsum | 1:43 |
| PH | Proosdij 15 9936ET Farmsum | 1:48 |
| PI | Proosdij 13 9936ET Farmsum | 1:48 |
| PJ | Trambaan 17 9936ES Farmsum | 1:36 |
| PK | Trambaan 15 9936ES Farmsum | 1:43 |
| PL | Trambaan 13 9936ES Farmsum | 1:46 |
| PM | Trambaan 11 9936ES Farmsum | 1:49 |
| PN | Trambaan 9 9936ES Farmsum | 1:51 |
| PO | Trambaan 5 9936ES Farmsum | 1:50 |
| PP | Trambaan 3 9936ES Farmsum | 1:34 |
| PQ | Trambaan 1 9936ES Farmsum | 1:30 |
| PR | Proosdij 12 9936EW Farmsum | 1:56 |
| PS | Proosdij 8 9936EW Farmsum | 1:35 |
| PT | Proosdij 6 9936EW Farmsum | 1:24 |
| PU | Proosdij 4 9936EW Farmsum | 1:19 |
| PV | Proosdij 11 9936ET Farmsum | 1:33 |
| PW | Proosdij 9 9936ET Farmsum | 1:24 |
| PX | Proosdij 7 9936ET Farmsum | 1:13 |
| PY | Proosdij 5 9936ET Farmsum | 1:09 |
| PZ | Proosdij 1 9936ET Farmsum | 0:47 |
| Q | Hoofdweg 31 9945PA Wagenborgen | 0:00 |
| QA | Proosdij 3 9936ET Farmsum | 1:06 |
| QB | Farmsumerzijl 55 9936GC Farmsum | 0:41 |
| QC | Farmsumerzijl 57 9936GC Farmsum | 0:35 |
| QD | Rengersweg 4 9936GH Farmsum | 1:01 |
| QE | Rengersweg 2 9936GH Farmsum | 1:08 |
| QF | Schepperij 4 A 9936GN Farmsum | 0:54 |
| QG | Schepperij 2 A 9936GN Farmsum | 0:51 |
| QH | Schepperij 4 9936GN Farmsum | 0:52 |
| QI | Schepperij 2 9936GN Farmsum | 0:49 |
| QJ | Dijkrecht 4 9936GK Farmsum | 1:53 |
| QK | Dijkrecht 6 9936GK Farmsum | 1:43 |
| QL | Dijkrecht 10 9936GK Farmsum | 1:32 |
| QM | Dijkrecht 12 9936GK Farmsum | 1:31 |
| QN | Dijkrecht 14 9936GK Farmsum | 1:28 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2B klein

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| QO | Dijkrecht 16 9936GK Farmsum | 1:25 |
| QP | Dijkrecht 18 9936GK Farmsum | 1:21 |
| QQ | Dijkrecht 20 9936GK Farmsum | 1:17 |
| QR | Dijkrecht 22 9936GK Farmsum | 1:16 |
| QS | Dijkrecht 24 9936GK Farmsum | 1:21 |
| QT | Dijkrecht 26 9936GK Farmsum | 1:31 |
| QU | Dijkrecht 28 9936GK Farmsum | 1:34 |
| QV | Dijkrecht 30 9936GK Farmsum | 1:43 |
| QW | Dijkrecht 32 9936GK Farmsum | 1:46 |
| QX | Dijkrecht 34 9936GK Farmsum | 1:52 |
| QY | Dijkrecht 36 9936GK Farmsum | 1:57 |
| QZ | Dijkrecht 40 9936GK Farmsum | 2:09 |
| R | Hoofdweg 38 9945PG Wagenborgen | 0:00 |
| RA | Dijkrecht 38 9936GK Farmsum | 2:04 |
| RB | Schepperij 20 9936GN Farmsum | 1:50 |
| RC | Schepperij 18 9936GN Farmsum | 1:49 |
| RD | Waarman 12 9936GW Farmsum | 2:50 |
| RE | Waarman 10 9936GW Farmsum | 2:28 |
| RF | Waarman 8 9936GW Farmsum | 2:25 |
| RG | Waarman 6 9936GW Farmsum | 2:25 |
| RH | Farmsumerzijl 1 9936GB Farmsum | 2:04 |
| RI | Farmsumerzijl 3 9936GB Farmsum | 2:01 |
| RJ | Farmsumerzijl 5 9936GB Farmsum | 1:50 |
| RK | Farmsumerzijl 7 9936GB Farmsum | 1:49 |
| RL | Farmsumerzijl 13 9936GB Farmsum | 1:33 |
| RM | Farmsumerzijl 15 9936GB Farmsum | 1:34 |
| RN | Farmsumerzijl 17 9936GB Farmsum | 1:37 |
| RO | Farmsumerzijl 19 9936GB Farmsum | 1:38 |
| RP | Farmsumerzijl 25 9936GB Farmsum | 1:51 |
| RQ | Farmsumerzijl 27 9936GB Farmsum | 1:53 |
| RR | Farmsumerzijl 29 9936GB Farmsum | 2:04 |
| RS | Farmsumerzijl 31 9936GC Farmsum | 2:07 |
| RT | Farmsumerzijl 37 9936GC Farmsum | 2:22 |
| RU | Farmsumerzijl 39 9936GC Farmsum | 2:25 |
| RV | Farmsumerzijl 41 9936GC Farmsum | 2:36 |
| RW | Farmsumerzijl 43 9936GC Farmsum | 2:39 |
| RX | Schepperij 1 9936GL Farmsum | 0:55 |
| RY | Schepperij 3 9936GL Farmsum | 0:58 |
| RZ | Schepperij 5 9936GL Farmsum | 1:00 |
| S | Hoofdweg 39 9945PB Wagenborgen | 0:00 |
| SA | Schepperij 7 9936GL Farmsum | 1:00 |
| SB | Schepperij 9 9936GL Farmsum | 1:03 |
| SC | Schepperij 11 9936GL Farmsum | 1:04 |
| SD | Schepperij 13 9936GL Farmsum | 1:08 |
| SE | Schepperij 15 9936GL Farmsum | 1:08 |
| SF | Dijkrecht 8 9936GK Farmsum | 1:39 |
| SG | Geefsweersterweg 9 9937TB Meedhuizen | 7:05 |
| SH | Geefsweersterweg 7 9937TB Meedhuizen | 32:38 |
| SI | Geefsweersterweg 8 9937TC Meedhuizen | 38:18 |
| SJ | Geefsweersterweg 3 9937TB Meedhuizen | 22:44 |
| SK | Geefsweersterweg 6 9937TC Meedhuizen | 28:46 |
| SL | Geefsweersterweg 4 9937TC Meedhuizen | 21:13 |
| SM | Meedhuizerweg 2 9937TK Meedhuizen | 0:14 |
| SN | Molenstraat 31 9936EB Farmsum | 3:10 |
| SO | Hindrik Jagerstraat 32 9936CV Farmsum | 0:59 |
| SP | Hindrik Jagerstraat 11 9936CT Farmsum | 1:01 |
| SQ | Hindrik Jagerstraat 13 9936CT Farmsum | 1:06 |
| SR | Hindrik Jagerstraat 15 9936CT Farmsum | 1:06 |
| SS | Hindrik Jagerstraat 34 9936CV Farmsum | 1:04 |
| ST | Hindrik Jagerstraat 36 9936CV Farmsum | 1:07 |
| SU | Borgshof 31 9936CR Farmsum | 1:18 |
| SV | Borgshof 33 9936CR Farmsum | 1:17 |
| SW | Borgshof 39 9936CR Farmsum | 1:39 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2B klein

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| SX | Borgshof 35 9936CR Farmsum | 1:27 |
| SY | Molenstraat 20 9936EC Farmsum | 3:32 |
| SZ | Molenstraat 24 9936EC Farmsum | 4:26 |
| T | Hoofdweg 35 9945PB Wagenborgen | 0:00 |
| TA | Molenstraat 28 9936EC Farmsum | 4:36 |
| TB | Molenstraat 41 9936EB Farmsum | 3:49 |
| TC | Molenstraat 43 9936EB Farmsum | 4:14 |
| TD | Molenstraat 45 9936EB Farmsum | 4:26 |
| TE | Molenstraat 32 9936EC Farmsum | 4:36 |
| TF | Achterweg 13 9936EG Farmsum | 4:48 |
| TG | Achterweg 11 9936EG Farmsum | 4:49 |
| TH | Achterweg 9 9936EG Farmsum | 4:50 |
| TI | Molenstraat 49 9936EB Farmsum | 4:25 |
| TJ | Molenstraat 51 9936EB Farmsum | 4:27 |
| TK | Molenstraat 53 9936EB Farmsum | 4:22 |
| TL | Molenstraat 57 9936EB Farmsum | 4:01 |
| TM | Molenstraat 61 9936EB Farmsum | 3:36 |
| TN | Molenstraat 63 9936EB Farmsum | 3:14 |
| TO | Molenstraat 34 9936ED Farmsum | 4:27 |
| TP | Molenstraat 38 9936ED Farmsum | 4:06 |
| TQ | Molenstraat 40 9936ED Farmsum | 3:51 |
| TR | Molenstraat 42 9936ED Farmsum | 3:28 |
| TS | Molenstraat 44 9936ED Farmsum | 3:02 |
| TT | Molenstraat 65 9936EB Farmsum | 2:49 |
| TU | Molenstraat 48 9936ED Farmsum | 2:33 |
| TV | Molenstraat 50 9936ED Farmsum | 2:11 |
| TW | Molenstraat 56 9936ED Farmsum | 1:47 |
| TX | Molenstraat 58 9936EE Farmsum | 1:20 |
| TY | Molenstraat 62 9936EE Farmsum | 1:08 |
| TZ | Molenstraat 72 9936EE Farmsum | 0:50 |
| U | Hoofdweg 37 9945PB Wagenborgen | 0:00 |
| UA | Molenstraat 70 9936EE Farmsum | 0:50 |
| UB | Molenstraat 68 9936EE Farmsum | 0:50 |
| UC | Molenstraat 66 9936EE Farmsum | 0:48 |
| UD | Achterweg 2 9936EG Farmsum | 3:13 |
| UE | Achterweg 12 9936EG Farmsum | 1:33 |
| UF | Achterweg 10 9936EG Farmsum | 1:12 |
| UG | Achterweg 8 9936EG Farmsum | 1:14 |
| UH | Hindrik Jagerstraat 17 9936CT Farmsum | 1:14 |
| UI | Molenstraat 30 9936EC Farmsum | 4:37 |
| UJ | Borgweg 141 9936EN Farmsum | 0:36 |
| UK | Borgweg 139 9936EN Farmsum | 0:40 |
| UL | Borgweg 137 9936EN Farmsum | 0:43 |
| UM | Borgweg 135 9936EN Farmsum | 0:47 |
| UN | Afwateringskanaal 109 9936AV Farmsum | 0:57 |
| UO | Borgweg 131 9936EM Farmsum | 1:32 |
| UP | Borgweg 133 9936EM Farmsum | 1:45 |
| UQ | Borgshof 41 9936CR Farmsum | 1:45 |
| UR | Borgshof 43 9936CR Farmsum | 1:57 |
| US | Borgshof 45 9936CR Farmsum | 1:57 |
| UT | Molenstraat 74 9936EE Farmsum | 0:49 |
| UU | Molenstraat 76 9936EE Farmsum | 0:50 |
| UV | Molenstraat 78 9936EE Farmsum | 0:52 |
| UW | Molenstraat 82 9936EE Farmsum | 0:51 |
| UX | Molenstraat 84 9936EE Farmsum | 0:50 |
| UY | Borgweg 123 9936EM Farmsum | 1:43 |
| UZ | Borgweg 125 9936EM Farmsum | 1:36 |
| V | Hoofdweg 44 9945PH Wagenborgen | 0:00 |
| VA | Borgweg 127 9936EM Farmsum | 1:32 |
| VB | Borgweg 129 9936EM Farmsum | 1:27 |
| VC | Farmsumerzijl 51 9936GC Farmsum | 1:49 |
| VD | Molenstraat 80 9936EE Farmsum | 0:52 |
| VE | Houtweg 30 9936BL Farmsum | 0:12 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2B klein

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| VF | Houtweg 32 9936BL Farmsum | 0:12 |
| VG | Houtweg 34 9936BL Farmsum | 0:13 |
| VH | Houtweg 36 9936BL Farmsum | 0:14 |
| VI | Houtweg 38 9936BL Farmsum | 0:15 |
| VJ | Houtweg 40 9936BL Farmsum | 0:14 |
| VK | Houtweg 42 9936BL Farmsum | 0:15 |
| VL | Houtweg 44 9936BL Farmsum | 0:15 |
| VM | Houtweg 46 9936BL Farmsum | 0:15 |
| VN | Houtweg 48 9936BL Farmsum | 0:15 |
| VO | Rondeboslaan 26 9936BK Farmsum | 0:20 |
| VP | Rondeboslaan 28 9936BK Farmsum | 0:21 |
| VQ | Seendweg 32 9936GA Farmsum | 1:46 |
| VR | Trambaan 21 9936ES Farmsum | 1:26 |
| VS | Proosdij 19 9936ET Farmsum | 1:13 |
| VT | Bredelaan 14 9936ER Farmsum | 2:08 |
| VU | Bredelaan 10 9936ER Farmsum | 1:52 |
| VV | Bredelaan 8 9936ER Farmsum | 1:55 |
| VW | Seendweg 22 9936GA Farmsum | 2:32 |
| VX | Seendweg 28 9936GA Farmsum | 2:15 |
| VY | Proosdij 28 9936EW Farmsum | 0:57 |
| VZ | Proosdij 30 9936EX Farmsum | 1:17 |
| W | Hoofdweg 48 9945PH Wagenborgen | 0:00 |
| WA | Proosdij 26 9936EW Farmsum | 0:59 |
| WB | Afwateringskanaal 107 9936AV Farmsum | 0:52 |
| WC | Rondeboslaan 22 A 9936BK Farmsum | 0:35 |
| WD | Rondeboslaan 22 B 9936BK Farmsum | 0:36 |
| WE | Rondeboslaan 2 A 9936BK Farmsum | 1:06 |
| WF | Rondeboslaan 2 B 9936BK Farmsum | 1:06 |
| WG | Seendweg 17 9936GA Farmsum | 2:22 |
| WH | Borgshof 29 9936CR Farmsum | 1:17 |
| WI | Molenstraat 22 9936EC Farmsum | 3:58 |
| WJ | Achterweg 7 A 9936EG Farmsum | 5:17 |
| WK | Molenstraat 26 9936EC Farmsum | 4:33 |
| WL | Borgweg 113 9936EM Farmsum | 1:51 |
| WM | Borgweg 115 9936EM Farmsum | 2:14 |
| WN | Borgweg 117 9936EM Farmsum | 2:04 |
| WO | Borgweg 119 9936EM Farmsum | 1:57 |
| WP | Borgweg 121 9936EM Farmsum | 1:51 |
| WQ | Farmsumerzijl 45 9936GC Farmsum | 2:41 |
| WR | Farmsumerzijl 47 9936GC Farmsum | 2:10 |
| WS | Farmsumerzijl 49 9936GC Farmsum | 1:56 |
| WT | Waarman 4 9936GW Farmsum | 2:24 |
| WU | Waarman 2 9936GW Farmsum | 2:22 |
| WV | Farmsumerzijl 9 9936GB Farmsum | 1:41 |
| WW | Farmsumerzijl 11 9936GB Farmsum | 1:39 |
| WX | Farmsumerzijl 21 9936GB Farmsum | 1:44 |
| WY | Farmsumerzijl 23 9936GB Farmsum | 1:50 |
| WZ | Farmsumerzijl 33 9936GC Farmsum | 2:16 |
| X | Hoofdweg 41 9945PB Wagenborgen | 0:00 |
| XA | Farmsumerzijl 35 9936GC Farmsum | 2:20 |
| XB | Schepperij 17 9936GL Farmsum | 1:12 |
| XC | Schepperij 19 9936GL Farmsum | 1:12 |
| XD | Schepperij 21 9936GL Farmsum | 1:16 |
| XE | Dijkrecht 3 9936GJ Farmsum | 1:08 |
| XF | Dijkrecht 5 9936GJ Farmsum | 1:05 |
| XG | Dijkrecht 7 9936GJ Farmsum | 1:04 |
| XH | Dijkrecht 9 9936GJ Farmsum | 1:02 |
| XI | Dijkrecht 11 9936GJ Farmsum | 1:03 |
| XJ | Dijkrecht 13 9936GJ Farmsum | 1:03 |
| XK | Dijkrecht 15 9936GJ Farmsum | 1:04 |
| XL | Dijkrecht 17 9936GJ Farmsum | 1:06 |
| XM | Dijkrecht 19 9936GJ Farmsum | 1:08 |
| XN | Dijkrecht 21 9936GJ Farmsum | 1:11 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2B klein

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| XO | Schepperij 6 9936GN Farmsum | 0:57 |
| XP | Schepperij 8 9936GN Farmsum | 0:58 |
| XQ | Schepperij 10 9936GN Farmsum | 1:00 |
| XR | Schepperij 12 9936GN Farmsum | 1:01 |
| XS | Schepperij 14 9936GN Farmsum | 1:03 |
| XT | Schepperij 16 9936GN Farmsum | 1:05 |
| XU | Olderman 2 9936GT Farmsum | 1:20 |
| XV | Olderman 4 9936GT Farmsum | 1:22 |
| XW | Olderman 6 9936GT Farmsum | 1:21 |
| XX | Olderman 8 9936GT Farmsum | 1:20 |
| XY | Olderman 10 9936GT Farmsum | 1:22 |
| XZ | Olderman 12 9936GT Farmsum | 1:21 |
| Y | Hoofdweg 20 9945PG Wagenborgen | 0:00 |
| YA | Olderman 14 9936GT Farmsum | 1:22 |
| YB | Dijkrecht 23 9936GJ Farmsum | 1:32 |
| YC | Dijkrecht 25 9936GJ Farmsum | 1:35 |
| YD | Dijkrecht 27 9936GJ Farmsum | 1:35 |
| YE | Dijkrecht 29 9936GJ Farmsum | 1:35 |
| YF | Dijkrecht 31 9936GJ Farmsum | 1:34 |
| YG | Dijkrecht 33 9936GJ Farmsum | 1:36 |
| YH | Dijkrecht 35 9936GJ Farmsum | 1:35 |
| YI | Dijkrecht 37 9936GJ Farmsum | 1:42 |
| YJ | Dijkrecht 39 9936GJ Farmsum | 1:43 |
| YK | Dijkrecht 41 9936GJ Farmsum | 1:43 |
| YL | Dijkrecht 43 9936GJ Farmsum | 1:45 |
| YM | Olderman 1 9936GS Farmsum | 1:12 |
| YN | Olderman 3 9936GS Farmsum | 1:11 |
| YO | Olderman 5 9936GS Farmsum | 1:11 |
| YP | Olderman 7 9936GS Farmsum | 1:13 |
| YQ | Schepperij 37 9936GM Farmsum | 2:13 |
| YR | Schepperij 41 9936GM Farmsum | 2:16 |
| YS | Schepperij 45 9936GM Farmsum | 2:20 |
| YT | Schepperij 47 9936GM Farmsum | 2:20 |
| YU | Schepperij 49 9936GM Farmsum | 2:21 |
| YV | Olderman 18 9936GT Farmsum | 1:28 |
| YW | Olderman 20 9936GT Farmsum | 1:29 |
| YX | Olderman 22 9936GT Farmsum | 1:28 |
| YY | Olderman 24 9936GT Farmsum | 1:30 |
| YZ | Olderman 26 9936GT Farmsum | 1:30 |
| Z | Hoofdweg 22 9945PG Wagenborgen | 0:00 |
| ZA | Olderman 28 9936GT Farmsum | 1:31 |
| ZB | Olderman 30 9936GT Farmsum | 1:47 |
| ZC | Olderman 9 9936GS Farmsum | 1:20 |
| ZD | Olderman 11 9936GS Farmsum | 1:17 |
| ZE | Olderman 13 9936GS Farmsum | 1:19 |
| ZF | Proosdij 32 9936EX Farmsum | 1:19 |
| ZG | Proosdij 36 9936EX Farmsum | 1:20 |
| ZH | Proosdij 38 9936EX Farmsum | 1:19 |
| ZI | Proosdij 40 9936EX Farmsum | 1:16 |
| ZJ | Proosdij 27 9936EV Farmsum | 1:51 |
| ZK | Proosdij 25 9936EV Farmsum | 1:50 |
| ZL | Proosdij 23 9936EV Farmsum | 1:48 |
| ZM | Proosdij 21 9936EV Farmsum | 1:45 |
| ZN | Seendweg 5 9936GA Farmsum | 3:02 |
| ZO | Proosdij 29 9936EV Farmsum | 1:51 |
| ZP | Proosdij 31 9936EV Farmsum | 1:56 |
| ZQ | Proosdij 33 9936EV Farmsum | 2:30 |
| ZR | Proosdij 35 9936EV Farmsum | 2:32 |
| ZS | Proosdij 37 9936EV Farmsum | 2:26 |
| ZT | Proosdij 39 9936EV Farmsum | 2:20 |
| ZU | Proosdij 41 9936EV Farmsum | 2:18 |
| ZV | Proosdij 43 9936EV Farmsum | 2:13 |
| ZW | Proosdij 45 9936EV Farmsum | 2:08 |

To be continued on next page...

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Hans / Hans@boschenvanrijn.nl
Calculated:
6-2-2017 18:35/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2B klein

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| ZX | Proosdij 47 9936EV Farmsum | 2:02 |
| ZY | Olderman 15 9936GS Farmsum | 1:20 |
| ZZ | Rengersweg 97 9936GG Farmsum | 0:57 |

Total amount of flickering on the shadow receptors caused by each WTG

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 1 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (49) | 561:19 | 94:06 |
| 2 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (50) | 224:46 | 27:18 |
| 3 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (51) | 91:32 | 19:33 |
| 4 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (52) | 171:05 | 30:04 |
| 5 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (53) | 362:48 | 72:17 |
| 6 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (54) | 288:52 | 36:45 |
| 7 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (55) | 110:09 | 15:18 |
| 8 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (56) | 55:44 | 10:11 |
| 9 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (57) | 89:24 | 18:51 |
| 10 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (58) | 272:12 | 39:25 |
| 11 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (59) | 401:39 | 62:19 |
| 12 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (60) | 34:08 | 4:49 |
| 13 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (61) | 35:02 | 7:09 |
| 14 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (62) | 112:07 | 23:36 |
| 15 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (63) | 202:00 | 38:39 |
| 16 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (64) | 354:46 | 61:34 |
| 17 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (65) | 429:47 | 77:57 |
| 18 | LAGERWEY 80 18.0 !O! hub: 31,0 m (TOT: 40,0 m) (7) | 0:00 | 0:00 |
| 19 | LAGERWEY 80 18.0 !O! hub: 31,0 m (TOT: 40,0 m) (8) | 0:00 | 0:00 |
| 20 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (9) | 17:07 | 3:36 |
| 21 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (10) | 40:28 | 8:08 |
| 22 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (11) | 60:57 | 9:03 |
| 23 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (12) | 24:24 | 3:39 |
| 24 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (13) | 5:26 | 1:00 |
| 25 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (14) | 167:16 | 24:32 |
| 26 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (15) | 0:00 | 0:00 |
| 27 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (16) | 0:00 | 0:00 |
| 28 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (17) | 0:00 | 0:00 |
| 29 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (18) | 23:25 | 3:39 |
| 30 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (19) | 0:00 | 0:00 |
| 31 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (20) | 0:46 | 0:09 |
| 32 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (21) | 40:19 | 9:01 |
| 33 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (22) | 0:49 | 0:10 |
| 34 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (23) | 0:00 | 0:00 |
| 35 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (24) | 0:00 | 0:00 |
| 36 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (25) | 7:08 | 1:36 |
| 37 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (26) | 1:50 | 0:23 |
| 38 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (27) | 0:00 | 0:00 |
| 39 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (28) | 0:00 | 0:00 |
| 40 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (29) | 1:46 | 0:17 |
| 41 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (30) | 6:55 | 1:32 |
| 42 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (31) | 0:00 | 0:00 |
| 43 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (32) | 0:00 | 0:00 |
| 44 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (33) | 0:33 | 0:07 |
| 45 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (34) | 0:12 | 0:02 |
| 46 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (35) | 3:03 | 0:40 |
| 47 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (36) | 0:00 | 0:00 |
| 48 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (37) | 6:32 | 1:03 |
| 49 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (38) | 0:08 | 0:01 |
| 50 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (39) | 8:23 | 0:47 |
| 51 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (40) | 3:23 | 0:41 |
| 52 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (41) | 205:27 | 44:50 |
| 53 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (42) | 95:47 | 12:24 |
| 54 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (43) | 25:14 | 5:47 |
| 55 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (44) | 31:20 | 7:25 |

To be continued on next page...

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6-2-2017 18:35/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2B klein

...continued from previous page

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 56 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (45) | 23:49 | 5:38 |
| 57 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (46) | 3:15 | 0:47 |
| 58 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (47) | 0:00 | 0:00 |
| 59 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (48) | 0:00 | 0:00 |
| 60 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (49) | 0:00 | 0:00 |
| 61 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (50) | 0:00 | 0:00 |
| 62 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (51) | 0:00 | 0:00 |
| 63 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (52) | 0:00 | 0:00 |
| 64 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (53) | 0:00 | 0:00 |
| 65 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (54) | 0:00 | 0:00 |
| 66 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (55) | 0:00 | 0:00 |
| 67 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (56) | 0:00 | 0:00 |
| 68 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (57) | 0:00 | 0:00 |
| 69 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (58) | 0:00 | 0:00 |
| 70 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (59) | 0:00 | 0:00 |
| 71 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (60) | 0:00 | 0:00 |
| 72 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (61) | 0:00 | 0:00 |
| 73 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (62) | 0:00 | 0:00 |
| 74 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (63) | 0:00 | 0:00 |
| 75 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (64) | 0:00 | 0:00 |
| 76 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (65) | 0:00 | 0:00 |
| 77 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (66) | 0:00 | 0:00 |
| 78 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (67) | 0:00 | 0:00 |
| 79 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (68) | 0:00 | 0:00 |
| 80 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (69) | 0:00 | 0:00 |
| 81 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (70) | 4:11 | 0:35 |
| 82 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (71) | 63:02 | 8:44 |
| 83 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (72) | 82:07 | 15:13 |
| 84 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (73) | 1:53 | 0:17 |
| 85 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (74) | 0:00 | 0:00 |
| 86 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (75) | 0:00 | 0:00 |
| 87 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (76) | 0:00 | 0:00 |
| 88 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (77) | 0:00 | 0:00 |
| 89 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (78) | 0:00 | 0:00 |
| 90 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (79) | 0:00 | 0:00 |
| 91 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (80) | 303:47 | 52:19 |
| 92 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (81) | 410:57 | 83:53 |
| 93 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (82) | 260:23 | 46:38 |
| 94 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (83) | 735:03 | 130:22 |
| 95 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (84) | 875:55 | 141:07 |
| 96 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (85) | 818:02 | 134:38 |
| 97 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (86) | 399:41 | 51:28 |
| 98 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (87) | 200:42 | 29:25 |
| 99 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (88) | 243:15 | 44:30 |
| 100 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (89) | 48:14 | 8:26 |
| 101 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (90) | 16:51 | 3:32 |
| 102 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (91) | 111:17 | 23:26 |
| 103 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (92) | 133:15 | 26:50 |
| 104 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (93) | 85:56 | 17:38 |
| 105 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (94) | 22:20 | 3:43 |
| 106 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (95) | 122:47 | 22:57 |

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2b groot incl verblijfsobjecten later toegevoegd

### Assumptions for shadow calculations

Maximum distance for influence
Calculate only when more than 20 % of sun is covered by the blade
Please look in WTG table

| | |
|---|---|
| Minimum sun height over horizon for influence | 5 ° |
| Day step for calculation | 1 days |
| Time step for calculation | 1 minutes |

Sunshine probability S (Average daily sunshine hours) [EELDE]

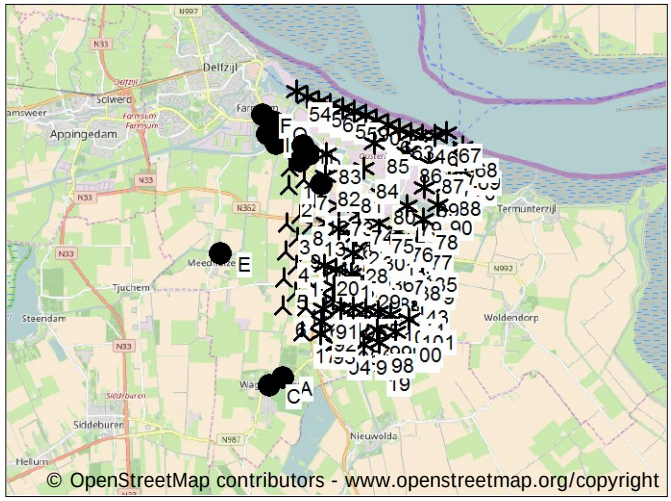
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

All coordinates are in
Dutch Stereo-RD/NAP 2008




Scale 1:200.000
New WTG
Existing WTG
Shadow receptor

### WTGs

| | X (east) | Y (north) | Z | Row data/Description | WTG type Valid | Manufact. | Type-generator | Power, rated | Rotor diameter | Hub height | Shadow data Calculation distance | RPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [m] | | | | | [kW] | [m] | [m] | [m] | [RPM] |
| 1 | 258.611 | 592.414 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 2 | 258.598 | 591.937 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 3 | 258.571 | 590.943 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 4 | 258.553 | 590.211 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 5 | 258.531 | 589.481 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 6 | 258.511 | 588.750 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 7 | 258.993 | 592.118 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 8 | 258.921 | 591.166 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 9 | 258.864 | 590.564 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 10 | 258.843 | 589.832 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 11 | 258.822 | 589.099 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 12 | 259.269 | 591.456 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 13 | 259.216 | 590.910 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 14 | 259.154 | 590.190 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 15 | 259.136 | 589.461 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 16 | 259.113 | 588.725 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 17 | 259.027 | 588.069 | 0,0 | GE WIND ENERGY 3.4... | No | GE WIND ENERGY | 3.4-130-3.430 | 3.430 | 130,0 | 120,0 | 1.740 | 0,0 |
| 18 | 261.738 | 588.022 | 0,0 | LAGERWEY 80 18.0 !... | No | LAGERWEY | -80 | 80 | 18,0 | 31,0 | 1.740 | 120,0 |
| 19 | 260.986 | 587.360 | 0,0 | LAGERWEY 80 18.0 !... | No | LAGERWEY | -80 | 80 | 18,0 | 31,0 | 1.740 | 120,0 |
| 20 | 259.587 | 589.858 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 21 | 259.890 | 589.770 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 22 | 259.863 | 589.300 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 23 | 259.845 | 588.985 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 24 | 260.245 | 589.206 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 25 | 260.295 | 589.652 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 26 | 259.952 | 590.853 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 27 | 260.412 | 590.685 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 28 | 260.358 | 590.202 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 29 | 260.680 | 589.539 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 30 | 260.789 | 590.548 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 31 | 261.086 | 590.440 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 32 | 260.740 | 590.089 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 33 | 261.353 | 590.343 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 34 | 261.840 | 590.166 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 35 | 262.200 | 590.035 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 36 | 261.031 | 590.003 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 37 | 261.292 | 589.926 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 38 | 261.764 | 589.785 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 39 | 262.111 | 589.683 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2b groot incl verblijfsobjecten later toegevoegd

...continued from previous page

| | X (east) | Y (north) | Z | Row data/Description | WTG type Valid | Manufact. | Type-generator | Power, rated | Rotor diameter | Hub height | Shadow data Calculation distance | RPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [m] | | | | | [kW] | [m] | [m] | [m] | [RPM] |
| 40 | 261.212 | 589.384 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 41 | 261.584 | 588.876 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 42 | 261.660 | 589.255 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 43 | 261.980 | 589.161 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 44 | 261.889 | 588.801 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 45 | 259.922 | 590.332 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 46 | 259.601 | 590.427 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 47 | 259.614 | 590.976 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 48 | 260.962 | 589.457 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 49 | 260.634 | 589.110 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 50 | 260.909 | 589.042 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 51 | 261.153 | 588.982 | 0,0 | ENERCON E-70 E4 20... | No | ENERCON | E-70 E4-2.000 | 2.000 | 71,0 | 85,0 | 1.643 | 20,0 |
| 52 | 259.576 | 589.371 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 53 | 259.568 | 589.041 | 0,0 | ENERCON E-70 E4 2,3... | Yes | ENERCON | E-70 E4 2,3 MW-2.300 | 2.300 | 71,0 | 85,0 | 1.643 | 20,0 |
| 54 | 258.748 | 594.458 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 55 | 259.042 | 594.322 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 56 | 259.344 | 594.205 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 57 | 259.655 | 594.114 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 58 | 259.971 | 594.042 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 59 | 260.286 | 593.965 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 60 | 260.596 | 593.872 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 61 | 260.896 | 593.750 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 62 | 261.196 | 593.627 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 63 | 261.497 | 593.509 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 64 | 261.805 | 593.407 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 65 | 262.126 | 593.367 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 66 | 262.450 | 593.380 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 67 | 262.767 | 593.448 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 68 | 263.205 | 593.092 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 69 | 263.273 | 592.764 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 70 | 263.154 | 592.466 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 71 | 262.970 | 592.872 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 72 | 262.850 | 592.574 | 0,0 | NORDEX N100/3300 3... | Yes | NORDEX | N100/3300-3.300 | 3.300 | 99,8 | 100,0 | 1.700 | 14,3 |
| 73 | 259.947 | 591.451 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 74 | 260.484 | 591.233 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 75 | 261.011 | 591.019 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 76 | 261.526 | 590.802 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 77 | 262.046 | 590.599 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 78 | 262.190 | 591.144 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 79 | 261.741 | 591.483 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 80 | 261.052 | 591.780 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 81 | 260.181 | 592.081 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 82 | 259.555 | 592.229 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 83 | 259.567 | 592.826 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 84 | 260.577 | 592.475 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 85 | 260.839 | 593.122 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 86 | 261.722 | 592.893 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 87 | 262.307 | 592.636 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 88 | 262.775 | 592.062 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 89 | 262.206 | 591.985 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 90 | 262.568 | 591.542 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 91 | 259.583 | 588.718 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 92 | 259.541 | 588.381 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 93 | 259.520 | 588.051 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 94 | 259.935 | 587.778 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 95 | 260.176 | 588.043 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 96 | 260.538 | 588.081 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 97 | 260.683 | 587.792 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 98 | 261.087 | 587.854 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 99 | 261.036 | 588.189 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 100 | 261.513 | 588.148 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 101 | 261.859 | 588.487 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 102 | 261.380 | 588.591 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2b groot incl verblijfsobjecten later toegevoegd

...continued from previous page

| | X (east) | Y (north) | Z | Row data/Description | WTG type Valid | Manufact. | Type-generator | Power, rated | Rotor diameter | Hub height | Shadow data Calculation distance | RPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [m] | | | | | [kW] | [m] | [m] | [m] | [RPM] |
| 103 | 261.043 | 588.659 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 104 | 260.714 | 588.719 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 105 | 260.368 | 588.763 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |
| 106 | 260.032 | 588.735 | 0,0 | ENERCON 145 as 145 ... | Yes | ENERCON | 145 as 145 rotor-4.200 | 4.200 | 145,0 | 145,0 | 1.902 | 0,0 |

## Shadow receptor-Input

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| A | Familie Bronsweg 22 9945PS Wagenborgen | 258.549 | 586.857 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| B | Geefsweersterweg 1 9937TB Meedhuizen | 258.250 | 593.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| C | Hoofdweg 28 9945PG Wagenborgen | 258.194 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| D | Karspelpad 8 9936HP Farmsum | 259.130 | 592.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| E | Maarkampen 12 9937PL Meedhuizen | 256.818 | 590.108 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| F | Molenstraat 64 9936EE Farmsum | 257.875 | 593.798 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| G | Oosterlaan 9 9936HN Farmsum | 259.468 | 591.997 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| H | Schaappad 1 9936HT Farmsum | 258.946 | 593.010 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| I | Seendweg 8 9936GA Farmsum | 258.005 | 593.293 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| J | T.J. Jansenweg 11 9936HL Farmsum | 258.896 | 592.598 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| K | Waarman 1 9936GV Farmsum | 258.213 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| L | Waarman 11 9936GV Farmsum | 258.213 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| M | Waarman 3 9936GV Farmsum | 258.213 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| N | Waarman 5 9936GV Farmsum | 258.213 | 593.587 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| O | Waarman 7 9936GV Farmsum | 258.213 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| P | Waarman 9 9936GV Farmsum | 258.213 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Q | Zijlvest 20 9936GZ Farmsum | 258.233 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

## Calculation Results

Shadow receptor

| No. | Name | Shadow, expected values Shadow hours per year [h/year] |
|---|---|---|
| A | Familie Bronsweg 22 9945PS Wagenborgen | 1:47 |
| B | Geefsweersterweg 1 9937TB Meedhuizen | 8:59 |
| C | Hoofdweg 28 9945PG Wagenborgen | 0:00 |
| D | Karspelpad 8 9936HP Farmsum | 58:58 |
| E | Maarkampen 12 9937PL Meedhuizen | 0:13 |
| F | Molenstraat 64 9936EE Farmsum | 1:01 |
| G | Oosterlaan 9 9936HN Farmsum | 73:54 |
| H | Schaappad 1 9936HT Farmsum | 20:51 |
| I | Seendweg 8 9936GA Farmsum | 3:49 |
| J | T.J. Jansenweg 11 9936HL Farmsum | 66:41 |
| K | Waarman 1 9936GV Farmsum | 2:00 |
| L | Waarman 11 9936GV Farmsum | 2:24 |
| M | Waarman 3 9936GV Farmsum | 2:00 |
| N | Waarman 5 9936GV Farmsum | 2:01 |
| O | Waarman 7 9936GV Farmsum | 2:03 |
| P | Waarman 9 9936GV Farmsum | 2:24 |
| Q | Zijlvest 20 9936GZ Farmsum | 2:30 |

Total amount of flickering on the shadow receptors caused by each WTG

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 1 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (49) | 315:23 | 47:05 |
| 2 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (50) | 91:05 | 10:38 |
| 3 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (51) | 9:16 | 1:02 |
| 4 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (52) | 1:05 | 0:13 |
| 5 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (53) | 0:00 | 0:00 |
| 6 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (54) | 0:00 | 0:00 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2b groot incl verblijfsobjecten later toegevoegd

...continued from previous page

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 7 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (55) | 266:51 | 39:02 |
| 8 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (56) | 33:10 | 3:16 |
| 9 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (57) | 0:00 | 0:00 |
| 10 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (58) | 0:00 | 0:00 |
| 11 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (59) | 0:00 | 0:00 |
| 12 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (60) | 76:31 | 7:56 |
| 13 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (61) | 0:00 | 0:00 |
| 14 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (62) | 0:00 | 0:00 |
| 15 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (63) | 0:00 | 0:00 |
| 16 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (64) | 0:00 | 0:00 |
| 17 | GE WIND ENERGY 3.4-130 3430 130.0 !-! hub: 120,0 m (TOT: 185,0 m) (65) | 0:00 | 0:00 |
| 18 | LAGERWEY 80 18.0 !O! hub: 31,0 m (TOT: 40,0 m) (7) | 0:00 | 0:00 |
| 19 | LAGERWEY 80 18.0 !O! hub: 31,0 m (TOT: 40,0 m) (8) | 0:00 | 0:00 |
| 20 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (9) | 0:00 | 0:00 |
| 21 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (10) | 0:00 | 0:00 |
| 22 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (11) | 0:00 | 0:00 |
| 23 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (12) | 0:00 | 0:00 |
| 24 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (13) | 0:00 | 0:00 |
| 25 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (14) | 0:00 | 0:00 |
| 26 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (15) | 0:00 | 0:00 |
| 27 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (16) | 0:00 | 0:00 |
| 28 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (17) | 0:00 | 0:00 |
| 29 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (18) | 0:00 | 0:00 |
| 30 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (19) | 0:00 | 0:00 |
| 31 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (20) | 0:00 | 0:00 |
| 32 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (21) | 0:00 | 0:00 |
| 33 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (22) | 0:00 | 0:00 |
| 34 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (23) | 0:00 | 0:00 |
| 35 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (24) | 0:00 | 0:00 |
| 36 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (25) | 0:00 | 0:00 |
| 37 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (26) | 0:00 | 0:00 |
| 38 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (27) | 0:00 | 0:00 |
| 39 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (28) | 0:00 | 0:00 |
| 40 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (29) | 0:00 | 0:00 |
| 41 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (30) | 0:00 | 0:00 |
| 42 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (31) | 0:00 | 0:00 |
| 43 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (32) | 0:00 | 0:00 |
| 44 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (33) | 0:00 | 0:00 |
| 45 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (34) | 0:00 | 0:00 |
| 46 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (35) | 0:00 | 0:00 |
| 47 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (36) | 0:00 | 0:00 |
| 48 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (37) | 0:00 | 0:00 |
| 49 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (38) | 0:00 | 0:00 |
| 50 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (39) | 0:00 | 0:00 |
| 51 | ENERCON E-70 E4 2000 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (40) | 0:00 | 0:00 |
| 52 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (41) | 0:00 | 0:00 |
| 53 | ENERCON E-70 E4 2,3 MW 2300 71.0 !O! hub: 85,0 m (TOT: 120,5 m) (42) | 0:00 | 0:00 |
| 54 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (43) | 0:22 | 0:04 |
| 55 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (44) | 3:17 | 0:49 |
| 56 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (45) | 11:24 | 2:40 |
| 57 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (46) | 1:20 | 0:19 |
| 58 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (47) | 0:00 | 0:00 |
| 59 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (48) | 0:00 | 0:00 |
| 60 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (49) | 0:00 | 0:00 |
| 61 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (50) | 0:00 | 0:00 |
| 62 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (51) | 0:00 | 0:00 |
| 63 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (52) | 0:00 | 0:00 |
| 64 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (53) | 0:00 | 0:00 |
| 65 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (54) | 0:00 | 0:00 |
| 66 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (55) | 0:00 | 0:00 |
| 67 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (56) | 0:00 | 0:00 |
| 68 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (57) | 0:00 | 0:00 |
| 69 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (58) | 0:00 | 0:00 |
| 70 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (59) | 0:00 | 0:00 |
| 71 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (60) | 0:00 | 0:00 |

To be continued on next page...

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Hans / Hans@boschenvanrijn.nl
Calculated:
8-2-2017 12:17/3.0.654

# SHADOW - Main Result

## Calculation: Slagschaduw cumulatie Alternatief 2b groot incl verblijfsobjecten later toegevoegd

...continued from previous page

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 72 | NORDEX N100/3300 3300 99.8 !O! hub: 100,0 m (TOT: 149,9 m) (61) | 0:00 | 0:00 |
| 73 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (62) | 63:40 | 7:43 |
| 74 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (63) | 12:29 | 1:38 |
| 75 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (64) | 2:38 | 0:21 |
| 76 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (65) | 0:00 | 0:00 |
| 77 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (66) | 0:00 | 0:00 |
| 78 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (67) | 0:00 | 0:00 |
| 79 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (68) | 0:00 | 0:00 |
| 80 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (69) | 4:06 | 0:41 |
| 81 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (70) | 67:58 | 13:37 |
| 82 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (71) | 129:14 | 16:21 |
| 83 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (72) | 302:43 | 63:47 |
| 84 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (73) | 32:21 | 6:31 |
| 85 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (74) | 4:58 | 1:03 |
| 86 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (75) | 0:00 | 0:00 |
| 87 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (76) | 0:00 | 0:00 |
| 88 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (77) | 0:00 | 0:00 |
| 89 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (78) | 0:00 | 0:00 |
| 90 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (79) | 0:00 | 0:00 |
| 91 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (80) | 0:00 | 0:00 |
| 92 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (81) | 0:00 | 0:00 |
| 93 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (82) | 0:00 | 0:00 |
| 94 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (83) | 8:10 | 1:47 |
| 95 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (84) | 0:00 | 0:00 |
| 96 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (85) | 0:00 | 0:00 |
| 97 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (86) | 0:00 | 0:00 |
| 98 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (87) | 0:00 | 0:00 |
| 99 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (88) | 0:00 | 0:00 |
| 100 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (89) | 0:00 | 0:00 |
| 101 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (90) | 0:00 | 0:00 |
| 102 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (91) | 0:00 | 0:00 |
| 103 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (92) | 0:00 | 0:00 |
| 104 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (93) | 0:00 | 0:00 |
| 105 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (94) | 0:00 | 0:00 |
| 106 | ENERCON 145 as 145 rotor 4200 145.0 !-! hub: 145,0 m (TOT: 217,5 m) (95) | 0:00 | 0:00 |

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Calculated:
17-2-2017 12:36/3.0.654

# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief A

### Assumptions for shadow calculations

Maximum distance for influence
Calculate only when more than 20 % of sun is covered by the blade
Please look in WTG table

| | |
|---|---|
| Minimum sun height over horizon for influence | 5 ° |
| Day step for calculation | 1 days |
| Time step for calculation | 1 minutes |

Sunshine probability S (Average daily sunshine hours) [EELDE]

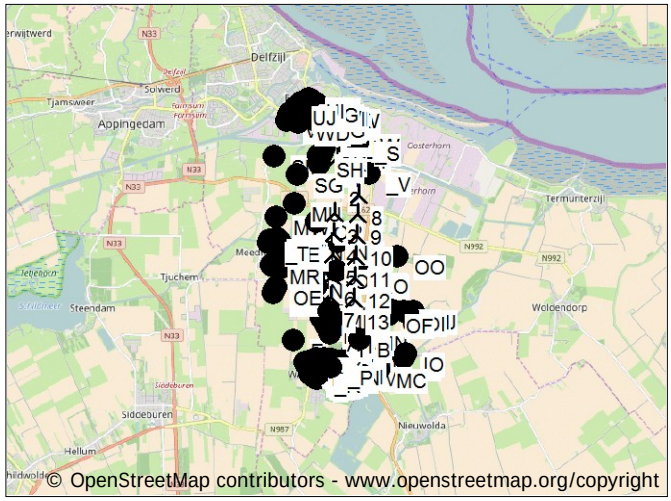
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

All coordinates are in
Dutch Stereo-RD/NAP 2008




Scale 1:200.000

New WTG  Shadow receptor

## WTGs

| | X (east) | Y (north) | Z | Row data/Description | WTG type Valid | Manufact. | Type-generator | Power, rated | Rotor diameter | Hub height | Shadow data Calculation distance | RPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [m] | | | | | [kW] | [m] | [m] | [m] | [RPM] |
| 1 | 258.610 | 592.416 | 0,0 | GE WIND ENERGY GE 2.5-12... | Yes | GE WIND ENERGY | GE 2.5-120-2.500 | 2.500 | 120,0 | 120,0 | 1.740 | 13,0 |
| 2 | 258.598 | 591.937 | 0,0 | GE WIND ENERGY GE 2.5-12... | Yes | GE WIND ENERGY | GE 2.5-120-2.500 | 2.500 | 120,0 | 120,0 | 1.740 | 13,0 |
| 3 | 258.572 | 590.942 | 0,0 | GE WIND ENERGY GE 2.5-12... | Yes | GE WIND ENERGY | GE 2.5-120-2.500 | 2.500 | 120,0 | 120,0 | 1.740 | 13,0 |
| 4 | 258.554 | 590.388 | 0,0 | GE WIND ENERGY GE 2.5-12... | Yes | GE WIND ENERGY | GE 2.5-120-2.500 | 2.500 | 120,0 | 120,0 | 1.740 | 13,0 |
| 5 | 258.542 | 589.830 | 0,0 | GE WIND ENERGY GE 2.5-12... | Yes | GE WIND ENERGY | GE 2.5-120-2.500 | 2.500 | 120,0 | 120,0 | 1.740 | 13,0 |
| 6 | 258.525 | 589.275 | 0,0 | GE WIND ENERGY GE 2.5-12... | Yes | GE WIND ENERGY | GE 2.5-120-2.500 | 2.500 | 120,0 | 120,0 | 1.740 | 13,0 |
| 7 | 258.509 | 588.721 | 0,0 | GE WIND ENERGY GE 2.5-12... | Yes | GE WIND ENERGY | GE 2.5-120-2.500 | 2.500 | 120,0 | 120,0 | 1.740 | 13,0 |
| 8 | 259.187 | 591.420 | 0,0 | GE WIND ENERGY GE 2.5-12... | Yes | GE WIND ENERGY | GE 2.5-120-2.500 | 2.500 | 120,0 | 120,0 | 1.740 | 13,0 |
| 9 | 259.174 | 590.910 | 0,0 | GE WIND ENERGY GE 2.5-12... | Yes | GE WIND ENERGY | GE 2.5-120-2.500 | 2.500 | 120,0 | 120,0 | 1.740 | 13,0 |
| 10 | 259.158 | 590.354 | 0,0 | GE WIND ENERGY GE 2.5-12... | Yes | GE WIND ENERGY | GE 2.5-120-2.500 | 2.500 | 120,0 | 120,0 | 1.740 | 13,0 |
| 11 | 259.144 | 589.798 | 0,0 | GE WIND ENERGY GE 2.5-12... | Yes | GE WIND ENERGY | GE 2.5-120-2.500 | 2.500 | 120,0 | 120,0 | 1.740 | 13,0 |
| 12 | 259.127 | 589.240 | 0,0 | GE WIND ENERGY GE 2.5-12... | Yes | GE WIND ENERGY | GE 2.5-120-2.500 | 2.500 | 120,0 | 120,0 | 1.740 | 13,0 |
| 13 | 259.112 | 588.683 | 0,0 | GE WIND ENERGY GE 2.5-12... | Yes | GE WIND ENERGY | GE 2.5-120-2.500 | 2.500 | 120,0 | 120,0 | 1.740 | 13,0 |
| 14 | 259.050 | 588.043 | 0,0 | GE WIND ENERGY GE 2.5-12... | Yes | GE WIND ENERGY | GE 2.5-120-2.500 | 2.500 | 120,0 | 120,0 | 1.740 | 13,0 |

## Shadow receptor-Input

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| [A | Rengersweg 99 9936GG Farmsum | 258.006 | 593.455 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [B | Rengersweg 12 9936GH Farmsum | 258.034 | 593.437 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [C | Rengersweg 10 9936GH Farmsum | 258.034 | 593.444 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [D | Kluft 1 9936GP Farmsum | 258.040 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [E | Kluft 3 9936GP Farmsum | 258.047 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [F | Proosdij 46 9936EX Farmsum | 258.058 | 593.427 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [G | Proosdij 48 9936EX Farmsum | 258.062 | 593.433 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [H | Proosdij 50 9936EX Farmsum | 258.090 | 593.443 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [I | Proosdij 52 9936EX Farmsum | 258.090 | 593.430 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [J | Proosdij 54 9936EX Farmsum | 258.094 | 593.415 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [K | Proosdij 56 9936EX Farmsum | 258.108 | 593.416 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [L | Olderman 21 9936GS Farmsum | 258.128 | 593.420 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [M | Olderman 19 9936GS Farmsum | 258.126 | 593.434 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [N | Olderman 17 9936GS Farmsum | 258.125 | 593.448 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [O | Kluft 5 9936GP Farmsum | 258.060 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [P | Kluft 7 9936GP Farmsum | 258.067 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [Q | Kluft 9 9936GP Farmsum | 258.096 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [R | Kluft 11 9936GP Farmsum | 258.102 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [S | Kluft 17 9936GP Farmsum | 258.122 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [T | Zijlvest 8 9936GZ Farmsum | 258.202 | 593.424 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
17-2-2017 12:36/3.0.654

# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief A

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| [U | Olderman 32 9936GT Farmsum | 258.151 | 593.480 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [V | Olderman 34 9936GT Farmsum | 258.151 | 593.474 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [W | Olderman 36 9936GT Farmsum | 258.153 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [X | Olderman 38 9936GT Farmsum | 258.153 | 593.453 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [Y | Olderman 40 9936GT Farmsum | 258.155 | 593.440 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [Z | Olderman 42 9936GT Farmsum | 258.155 | 593.434 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \A | ZijIvest 22 A 9936GZ Farmsum | 258.238 | 593.466 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \B | ZijIvest 18 A 9936GZ Farmsum | 258.229 | 593.451 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \C | ZijIvest 18 9936GZ Farmsum | 258.233 | 593.449 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \D | ZijIvest 14 9936GZ Farmsum | 258.229 | 593.441 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \E | Borgweg 1 9936EH Farmsum | 258.030 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \F | Borgweg 3 9936EH Farmsum | 258.031 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \G | Borgweg 5 9936EH Farmsum | 258.031 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \H | Borgweg 7 9936EH Farmsum | 258.031 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \I | Borgweg 9 9936EH Farmsum | 258.031 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \J | Borgweg 11 9936EH Farmsum | 258.031 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \K | Borgweg 13 9936EH Farmsum | 258.031 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \L | Borgweg 15 9936EH Farmsum | 258.033 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \M | Borgweg 17 9936EH Farmsum | 258.033 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \N | Borgweg 19 9936EH Farmsum | 258.033 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \O | Borgweg 21 9936EH Farmsum | 258.033 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \P | Borgweg 23 9936EH Farmsum | 258.033 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \Q | Borgweg 25 9936EH Farmsum | 258.033 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \R | Borgweg 27 9936EH Farmsum | 258.033 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \S | Borgweg 29 9936EJ Farmsum | 258.035 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \T | Borgweg 31 9936EJ Farmsum | 258.035 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \U | Borgweg 33 9936EJ Farmsum | 258.035 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \V | Borgweg 35 9936EJ Farmsum | 258.035 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \W | Borgweg 37 9936EJ Farmsum | 258.035 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \X | Borgweg 39 9936EJ Farmsum | 258.036 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \Y | Borgweg 41 9936EJ Farmsum | 258.036 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \Z | Borgweg 43 9936EJ Farmsum | 258.037 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]A | Borgweg 45 9936EJ Farmsum | 258.038 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]B | Borgweg 47 9936EJ Farmsum | 258.038 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]C | Borgweg 49 9936EJ Farmsum | 258.038 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]D | Borgweg 51 9936EJ Farmsum | 258.038 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]E | Borgweg 53 9936EJ Farmsum | 258.038 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]F | Borgweg 55 9936EJ Farmsum | 258.038 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]G | Borgweg 57 9936EK Farmsum | 258.003 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]H | Borgweg 59 9936EK Farmsum | 258.003 | 593.802 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]I | Borgweg 61 9936EK Farmsum | 258.003 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]J | Borgweg 63 9936EK Farmsum | 258.003 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]K | Borgweg 65 9936EK Farmsum | 258.003 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]L | Borgweg 67 9936EK Farmsum | 258.003 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]M | Borgweg 69 9936EK Farmsum | 258.003 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]N | Borgweg 71 9936EK Farmsum | 258.006 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]O | Borgweg 73 9936EK Farmsum | 258.006 | 593.802 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]P | Borgweg 75 9936EK Farmsum | 258.006 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]Q | Borgweg 77 9936EK Farmsum | 258.005 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]R | Borgweg 79 9936EK Farmsum | 258.005 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]S | Borgweg 81 9936EK Farmsum | 258.005 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]T | Borgweg 83 9936EK Farmsum | 258.005 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]U | Borgweg 85 9936EL Farmsum | 258.008 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]V | Borgweg 87 9936EL Farmsum | 258.008 | 593.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]W | Borgweg 89 9936EL Farmsum | 258.008 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]X | Borgweg 91 9936EL Farmsum | 258.008 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]Y | Borgweg 93 9936EL Farmsum | 258.008 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]Z | Borgweg 95 9936EL Farmsum | 258.008 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^A | Borgweg 97 9936EL Farmsum | 258.008 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^B | Borgweg 99 9936EL Farmsum | 258.010 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^C | Borgweg 101 9936EL Farmsum | 258.010 | 593.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^D | Borgweg 103 9936EL Farmsum | 258.010 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^E | Borgweg 105 9936EL Farmsum | 258.010 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^F | Borgweg 107 9936EL Farmsum | 258.010 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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17-2-2017 12:36/3.0.654

# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief A

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| ^G | Borgweg 109 9936EL Farmsum | 258.010 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^H | Borgweg 111 9936EL Farmsum | 258.010 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^I | Kluft 18 9936GR Farmsum | 258.043 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^J | Kluft 20 9936GR Farmsum | 258.050 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^K | Kluft 22 9936GR Farmsum | 258.057 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^L | Kluft 24 9936GR Farmsum | 258.064 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^M | Kluft 26 9936GR Farmsum | 258.071 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^N | Kluft 28 9936GR Farmsum | 258.078 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^O | Kluft 30 9936GR Farmsum | 258.085 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^P | Kluft 32 9936GR Farmsum | 258.092 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Q | Kluft 2 9936GR Farmsum | 258.043 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^R | Kluft 4 9936GR Farmsum | 258.050 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^S | Kluft 6 9936GR Farmsum | 258.057 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^T | Kluft 8 9936GR Farmsum | 258.064 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^U | Kluft 10 9936GR Farmsum | 258.071 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^V | Kluft 12 9936GR Farmsum | 258.078 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^W | Kluft 14 9936GR Farmsum | 258.085 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^X | Kluft 16 9936GR Farmsum | 258.092 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Y | Zijlvest 20 A 9936GZ Farmsum | 258.233 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Z | Schepperij 51 9936GM Farmsum | 258.194 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _A | Waarman 15 9936GV Farmsum | 258.223 | 593.543 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _B | Waarman 17 9936GV Farmsum | 258.223 | 593.537 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _C | Waarman 19 9936GV Farmsum | 258.223 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _D | Waarman 21 9936GV Farmsum | 258.223 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _E | Waarman 23 9936GV Farmsum | 258.223 | 593.518 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _F | Waarman 25 9936GV Farmsum | 258.223 | 593.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _G | Waarman 27 9936GV Farmsum | 258.223 | 593.506 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _H | Waarman 29 9936GV Farmsum | 258.222 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _I | Heemskesweg 5 9936HE Farmsum | 258.759 | 592.961 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _J | Geefsweersterweg 2 9937TC Meedhuizen | 258.288 | 593.033 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _K | Seendweg 12 9936GA Farmsum | 257.950 | 593.306 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _L | Schepperij 39 9936GM Farmsum | 258.194 | 593.537 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _M | Schepperij 43 9936GM Farmsum | 258.194 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _N | Zijlvest 14 A 9936GZ Farmsum | 258.222 | 593.445 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _O | Zijlvest 24 A 9936GZ Farmsum | 258.239 | 593.474 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _P | Familie Bronsweg 22 9945PS Wagenborgen | 258.549 | 586.857 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _Q | Geefsweersterweg 1 9937TB Meedhuizen | 258.250 | 593.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _R | Hoofdweg 28 9945PG Wagenborgen | 258.194 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _S | Karspelpad 8 9936HP Farmsum | 259.130 | 592.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _T | Maarkampen 12 9937PL Meedhuizen | 256.818 | 590.108 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _U | Molenstraat 64 9936EE Farmsum | 257.875 | 593.798 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _V | Oosterlaan 9 9936HN Farmsum | 259.468 | 591.997 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _W | Schaappad 1 9936HT Farmsum | 258.946 | 593.010 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _X | Seendweg 8 9936GA Farmsum | 258.005 | 593.293 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _Y | T.J. Jansenweg 11 9936HL Farmsum | 258.896 | 592.598 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _Z | Waarman 1 9936GV Farmsum | 258.213 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| `A | Waarman 11 9936GV Farmsum | 258.213 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| `B | Waarman 3 9936GV Farmsum | 258.213 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| `C | Waarman 5 9936GV Farmsum | 258.213 | 593.587 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| `D | Waarman 7 9936GV Farmsum | 258.213 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| `E | Waarman 9 9936GV Farmsum | 258.213 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| `F | Zijlvest 20 9936GZ Farmsum | 258.233 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| A | Familie Bronsweg 60 9945TA Wagenborgen | 258.511 | 587.742 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AA | Hoofdweg 26 9945PG Wagenborgen | 258.194 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AB | Hoofdweg 23 9945PA Wagenborgen | 258.227 | 586.683 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AC | Hoofdweg 25 9945PA Wagenborgen | 258.217 | 586.663 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AD | Hoofdweg 27 9945PA Wagenborgen | 258.213 | 586.652 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AE | Hoofdweg 29 9945PA Wagenborgen | 258.212 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AF | Hoofdweg 18 9945PG Wagenborgen | 258.219 | 586.709 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AG | Hoofdweg 14 9945PG Wagenborgen | 258.222 | 586.726 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AH | Hoofdweg 10 9945PG Wagenborgen | 258.236 | 586.722 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AI | Hoofdweg 8 9945PG Wagenborgen | 258.258 | 586.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AJ | Hoofdweg 6 9945PG Wagenborgen | 258.276 | 586.731 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AK | Hoofdweg 4 9945PG Wagenborgen | 258.298 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
17-2-2017 12:36/3.0.654

# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief A

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| AL | Hoofdweg 21 9945PA Wagenborgen | 258.243 | 586.704 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AM | Hoofdweg 19 9945PA Wagenborgen | 258.272 | 586.709 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AN | Hoofdweg 2 9945PG Wagenborgen | 258.318 | 586.748 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AO | Hoofdweg 15 9945PA Wagenborgen | 258.311 | 586.705 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AP | Hoofdweg 9 9945PA Wagenborgen | 258.331 | 586.713 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AQ | Hoofdweg 11 9945PA Wagenborgen | 258.325 | 586.710 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AR | Hoofdweg 7 9945PA Wagenborgen | 258.338 | 586.725 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AS | Hoofdweg 5 9945PA Wagenborgen | 258.343 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AT | H.L. Emmensweg 17 9945PW Wagenborgen | 258.087 | 586.741 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AU | H.L. Emmensweg 18 9945PX Wagenborgen | 258.106 | 586.733 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AV | H.L. Emmensweg 20 9945PX Wagenborgen | 258.107 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AW | H.L. Emmensweg 22 9945PX Wagenborgen | 258.107 | 586.747 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AX | H.L. Emmensweg 24 9945PX Wagenborgen | 258.108 | 586.753 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AY | H.L. Emmensweg 26 9945PX Wagenborgen | 258.111 | 586.767 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AZ | H.L. Emmensweg 10 9945PX Wagenborgen | 258.103 | 586.698 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| B | Tolhek 4 9945TJ Wagenborgen | 259.289 | 587.610 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BA | H.L. Emmensweg 12 9945PX Wagenborgen | 258.103 | 586.704 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BB | H.L. Emmensweg 14 9945PX Wagenborgen | 258.104 | 586.711 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BC | H.L. Emmensweg 16 9945PX Wagenborgen | 258.105 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BD | H.L. Emmensweg 13 9945PW Wagenborgen | 258.085 | 586.719 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BE | H.L. Emmensweg 15 9945PW Wagenborgen | 258.086 | 586.725 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BF | H.L. Emmensweg 9 9945PW Wagenborgen | 258.083 | 586.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BG | H.L. Emmensweg 11 9945PW Wagenborgen | 258.084 | 586.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BH | H.L. Emmensweg 5 9945PW Wagenborgen | 258.081 | 586.681 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BI | H.L. Emmensweg 7 9945PW Wagenborgen | 258.082 | 586.687 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BJ | H.L. Emmensweg 4 9945PX Wagenborgen | 258.103 | 586.676 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BK | H.L. Emmensweg 2 9945PX Wagenborgen | 258.099 | 586.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BL | H.L. Emmensweg 1 9945PW Wagenborgen | 258.081 | 586.651 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BM | H.L. Emmensweg 3 9945PW Wagenborgen | 258.083 | 586.667 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BN | de Linden 4 9945PZ Wagenborgen | 258.042 | 586.733 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BO | de Linden 6 9945PZ Wagenborgen | 258.058 | 586.734 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BP | de Linden 10 9945PZ Wagenborgen | 258.040 | 586.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BQ | de Linden 12 9945PZ Wagenborgen | 258.021 | 586.721 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BR | de Linden 2 9945PZ Wagenborgen | 258.030 | 586.694 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BS | de Wilgen 12 9945RB Wagenborgen | 258.008 | 586.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BT | de Wilgen 10 9945RB Wagenborgen | 258.008 | 586.764 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BU | de Wilgen 8 9945RB Wagenborgen | 258.007 | 586.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BV | de Wilgen 2 9945RB Wagenborgen | 257.995 | 586.662 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BW | de Wilgen 4 9945RB Wagenborgen | 257.997 | 586.675 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BX | de Wilgen 6 9945RB Wagenborgen | 258.001 | 586.693 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BY | de Wilgen 6 A 9945RB Wagenborgen | 258.004 | 586.726 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BZ | de Wilgen 3 9945RB Wagenborgen | 257.975 | 586.694 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| C | Tolhek 1 9945TJ Wagenborgen | 259.114 | 587.301 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CA | de Wilgen 3 A 9945RB Wagenborgen | 257.977 | 586.713 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CB | de Wilgen 3 B 9945RB Wagenborgen | 257.977 | 586.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CC | de Wilgen 5 9945RB Wagenborgen | 257.973 | 586.766 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CD | de Wilgen 46 9945RB Wagenborgen | 258.036 | 586.921 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CE | de Wilgen 44 9945RB Wagenborgen | 258.036 | 586.927 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CF | de Wilgen 48 9945RB Wagenborgen | 258.034 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CG | de Wilgen 50 9945RB Wagenborgen | 258.034 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CH | de Wilgen 36 9945RB Wagenborgen | 258.060 | 586.908 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CI | de Wilgen 38 9945RB Wagenborgen | 258.059 | 586.915 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CJ | de Wilgen 40 9945RB Wagenborgen | 258.059 | 586.921 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CK | de Wilgen 42 9945RB Wagenborgen | 258.059 | 586.928 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CL | de Wilgen 28 9945RB Wagenborgen | 258.050 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CM | de Wilgen 30 9945RB Wagenborgen | 258.056 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CN | de Wilgen 32 9945RB Wagenborgen | 258.063 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CO | de Wilgen 34 9945RB Wagenborgen | 258.070 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CP | de Wilgen 24 9945TK Wagenborgen | 258.033 | 586.884 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CQ | de Wilgen 26 9945RB Wagenborgen | 258.039 | 586.886 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CR | de Wilgen 20 9945RB Wagenborgen | 258.019 | 586.866 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CS | de Wilgen 22 9945RB Wagenborgen | 258.019 | 586.872 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CT | de Wilgen 18 9945RB Wagenborgen | 258.016 | 586.853 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CU | de Wilgen 16 9945RB Wagenborgen | 258.015 | 586.837 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
17-2-2017 12:36/3.0.654

# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief A

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| CV | de Wilgen 14 9945RB Wagenborgen | 258.014 | 586.813 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CW | de Wilgen 9 9945RB Wagenborgen | 257.970 | 586.829 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CX | de Wilgen 52 9945RB Wagenborgen | 258.167 | 587.083 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CY | Menterne 22 9945RA Wagenborgen | 257.891 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CZ | Menterne 18 9945RA Wagenborgen | 257.856 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| D | Familie Bronsweg 62 9945TA Wagenborgen | 258.389 | 587.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DA | Menterne 21 9945RA Wagenborgen | 257.884 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DB | Menterne 19 9945RA Wagenborgen | 257.863 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DC | Menterne 20 9945RA Wagenborgen | 257.876 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DD | Menterne 17 9945RA Wagenborgen | 257.849 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DE | Menterne 7 9945RA Wagenborgen | 257.896 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DF | Menterne 8 9945RA Wagenborgen | 257.889 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DG | Menterne 9 9945RA Wagenborgen | 257.882 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DH | Menterne 10 9945RA Wagenborgen | 257.875 | 586.913 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DI | Menterne 11 9945RA Wagenborgen | 257.893 | 586.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DJ | Menterne 12 9945RA Wagenborgen | 257.893 | 586.932 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DK | Menterne 13 9945RA Wagenborgen | 257.893 | 586.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DL | Menterne 14 9945RA Wagenborgen | 257.893 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DM | Menterne 1 9945RA Wagenborgen | 257.930 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DN | Menterne 2 9945RA Wagenborgen | 257.924 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DO | Menterne 3 9945RA Wagenborgen | 257.917 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DP | Menterne 4 9945RA Wagenborgen | 257.910 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DQ | Menterne 5 9945RA Wagenborgen | 257.899 | 586.883 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DR | Menterne 6 9945RA Wagenborgen | 257.899 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DS | Menterne 15 9945RA Wagenborgen | 257.866 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DT | Menterne 16 9945RA Wagenborgen | 257.866 | 586.952 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DU | de Berken 6 9945PT Wagenborgen | 258.085 | 586.768 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DV | de Berken 2 9945PT Wagenborgen | 258.040 | 586.782 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DW | de Berken 4 9945PT Wagenborgen | 258.061 | 586.783 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DX | de Berken 1 9945PT Wagenborgen | 258.038 | 586.808 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DY | de Berken 5 9945PT Wagenborgen | 258.087 | 586.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DZ | de Berken 7 9945PT Wagenborgen | 258.102 | 586.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| E | Meerweg 3 9945RC Wagenborgen | 257.540 | 587.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EA | de Berken 9 9945PT Wagenborgen | 258.109 | 586.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EB | de Eiken 14 9945VA Wagenborgen | 258.037 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EC | de Eiken 16 9945VA Wagenborgen | 258.044 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ED | de Eiken 2 9945VA Wagenborgen | 258.061 | 586.829 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EE | de Eiken 4 9945VA Wagenborgen | 258.061 | 586.836 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EF | de Eiken 6 9945VA Wagenborgen | 258.061 | 586.842 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EG | de Eiken 8 9945VA Wagenborgen | 258.062 | 586.853 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EH | de Eiken 10 9945VA Wagenborgen | 258.061 | 586.859 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EI | de Eiken 12 9945VA Wagenborgen | 258.061 | 586.866 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EJ | de Eiken 2 A 9945VA Wagenborgen | 258.065 | 586.807 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EK | Troostlaan 7 9945PV Wagenborgen | 258.200 | 586.801 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EL | Troostlaan 8 9945PV Wagenborgen | 258.187 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EM | Troostlaan 9 9945PV Wagenborgen | 258.172 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EN | Troostlaan 10 9945PV Wagenborgen | 258.153 | 586.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EO | Troostlaan 11 9945PV Wagenborgen | 258.142 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EP | Troostlaan 1 9945PV Wagenborgen | 258.204 | 586.736 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EQ | Troostlaan 2 9945PV Wagenborgen | 258.204 | 586.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ER | Troostlaan 3 9945PV Wagenborgen | 258.205 | 586.772 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ES | Troostlaan 2 A 9945PV Wagenborgen | 258.221 | 586.769 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ET | Troostlaan 4 9945PV Wagenborgen | 258.228 | 586.858 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EU | Troostlaan 14 9945PV Wagenborgen | 258.132 | 586.686 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EV | Troostlaan 22 9945PV Wagenborgen | 258.177 | 586.707 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EW | Troostlaan 20 9945PV Wagenborgen | 258.155 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EX | Troostlaan 21 9945PV Wagenborgen | 258.162 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EY | Troostlaan 18 9945PV Wagenborgen | 258.132 | 586.718 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EZ | Troostlaan 19 9945PV Wagenborgen | 258.139 | 586.718 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| F | G. Boelmanweg 2 9945RJ Wagenborgen | 258.181 | 586.579 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FA | Familie Bronsweg 40 9945PS Wagenborgen | 258.373 | 586.856 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FB | Familie Bronsweg 44 9945PS Wagenborgen | 258.373 | 586.900 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FC | Familie Bronsweg 46 9945PS Wagenborgen | 258.373 | 586.905 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FD | Familie Bronsweg 48 9945PS Wagenborgen | 258.375 | 586.919 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief A

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| FE | Familie Bronsweg 50 9945PS Wagenborgen | 258.376 | 586.924 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FF | Familie Bronsweg 79 9945PP Wagenborgen | 258.360 | 586.991 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FG | Familie Bronsweg 81 9945PP Wagenborgen | 258.361 | 586.997 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FH | Familie Bronsweg 36 9945PS Wagenborgen | 258.377 | 586.815 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FI | Familie Bronsweg 38 9945PS Wagenborgen | 258.365 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FJ | Familie Bronsweg 42 9945PS Wagenborgen | 258.371 | 586.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FK | Familie Bronsweg 54 9945PS Wagenborgen | 258.390 | 587.021 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FL | Familie Bronsweg 52 9945PS Wagenborgen | 258.387 | 586.987 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FM | Familie Bronsweg 50 B 9945PS Wagenborgen | 258.384 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FN | Familie Bronsweg 50 A 9945PS Wagenborgen | 258.381 | 586.949 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FO | Familie Bronsweg 75 9945PP Wagenborgen | 258.353 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FP | Familie Bronsweg 75 A 9945PP Wagenborgen | 258.355 | 586.957 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FQ | Familie Bronsweg 75 B 9945PP Wagenborgen | 258.357 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FR | Familie Bronsweg 71 9945PP Wagenborgen | 258.349 | 586.917 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FS | Familie Bronsweg 69 A 9945PP Wagenborgen | 258.347 | 586.902 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FT | Familie Bronsweg 69 9945PP Wagenborgen | 258.344 | 586.888 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FU | Familie Bronsweg 67 9945PP Wagenborgen | 258.342 | 586.873 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FV | Familie Bronsweg 65 9945PP Wagenborgen | 258.341 | 586.863 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FW | Familie Bronsweg 63 9945PP Wagenborgen | 258.338 | 586.850 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FX | Familie Bronsweg 61 9945PP Wagenborgen | 258.335 | 586.831 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FY | Familie Bronsweg 59 9945PP Wagenborgen | 258.334 | 586.816 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FZ | Familie Bronsweg 57 9945PP Wagenborgen | 258.332 | 586.805 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| G | G. Boelmanweg 3 9945RE Wagenborgen | 258.198 | 586.584 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GA | Familie Bronsweg 53 9945PP Wagenborgen | 258.332 | 586.793 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GB | Familie Bronsweg 73 9945PP Wagenborgen | 258.351 | 586.930 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GC | Familie Bronsweg 85 9945PP Wagenborgen | 258.372 | 587.065 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GD | Familie Bronsweg 83 9945PP Wagenborgen | 258.363 | 587.014 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GE | Familie Bronsweg 83 A 9945PP Wagenborgen | 258.365 | 587.034 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GF | Familie Bronsweg 77 9945PP Wagenborgen | 258.333 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GG | Familie Bronsweg 51 9945PP Wagenborgen | 258.389 | 586.776 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GH | Familie Bronsweg 2 9945PR Wagenborgen | 258.765 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GI | Familie Bronsweg 4 9945PR Wagenborgen | 258.743 | 586.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GJ | Familie Bronsweg 4 A 9945PR Wagenborgen | 258.723 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GK | Familie Bronsweg 6 9945PR Wagenborgen | 258.705 | 586.916 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GL | Familie Bronsweg 8 9945PR Wagenborgen | 258.677 | 586.901 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GM | Familie Bronsweg 10 9945PR Wagenborgen | 258.649 | 586.888 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GN | Familie Bronsweg 12 9945PR Wagenborgen | 258.620 | 586.864 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GO | Familie Bronsweg 14 9945PR Wagenborgen | 258.608 | 586.858 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GP | Familie Bronsweg 16 9945PR Wagenborgen | 258.597 | 586.852 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GQ | Familie Bronsweg 15 9945PN Wagenborgen | 258.511 | 586.783 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GR | Familie Bronsweg 17 9945PN Wagenborgen | 258.473 | 586.777 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GS | Familie Bronsweg 2 A 9945PR Wagenborgen | 258.786 | 587.001 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GT | Familie Bronsweg 2 B 9945PR Wagenborgen | 258.745 | 587.014 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GU | Familie Bronsweg 2 C 9945PR Wagenborgen | 258.710 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GV | Familie Bronsweg 2 D 9945PR Wagenborgen | 258.686 | 586.974 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GW | Familie Bronsweg 2 F 9945PR Wagenborgen | 258.671 | 586.991 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GX | Familie Bronsweg 2 G 9945PR Wagenborgen | 258.671 | 587.016 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GY | Familie Bronsweg 2 H 9945PR Wagenborgen | 258.696 | 587.012 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GZ | Familie Bronsweg 2 J 9945PR Wagenborgen | 258.717 | 587.009 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| H | G. Boelmanweg 5 9945RE Wagenborgen | 258.203 | 586.561 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HA | Akeleistraat 17 9945VD Wagenborgen | 258.515 | 587.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HB | Akeleistraat 19 9945VD Wagenborgen | 258.505 | 587.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HC | Akeleistraat 21 9945VD Wagenborgen | 258.486 | 587.050 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HD | Akeleistraat 23 9945VD Wagenborgen | 258.477 | 587.051 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HE | Akeleistraat 20 9945VD Wagenborgen | 258.448 | 587.022 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HF | Akeleistraat 22 9945VD Wagenborgen | 258.439 | 587.022 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HG | Akeleistraat 16 9945VD Wagenborgen | 258.477 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HH | Akeleistraat 18 9945VD Wagenborgen | 258.467 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HI | Akeleistraat 12 9945VD Wagenborgen | 258.506 | 587.013 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HJ | Akeleistraat 14 9945VD Wagenborgen | 258.496 | 587.013 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HK | Akeleistraat 10 9945VD Wagenborgen | 258.532 | 587.007 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HL | Akeleistraat 1 9945VD Wagenborgen | 258.634 | 587.024 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HM | Akeleistraat 3 9945VD Wagenborgen | 258.625 | 587.021 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HN | Akeleistraat 5 9945VD Wagenborgen | 258.604 | 587.023 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
17-2-2017 12:36/3.0.654

# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief A

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| HO | Akeleistraat 7 9945VD Wagenborgen | 258.595 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HP | Akeleistraat 9 9945VD Wagenborgen | 258.574 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HQ | Akeleistraat 11 9945VD Wagenborgen | 258.565 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HR | Akeleistraat 2 9945VD Wagenborgen | 258.626 | 586.998 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HS | Akeleistraat 4 9945VD Wagenborgen | 258.617 | 586.995 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HT | Akeleistraat 6 9945VD Wagenborgen | 258.597 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HU | Akeleistraat 8 9945VD Wagenborgen | 258.588 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HV | Akeleistraat 15 9945VD Wagenborgen | 258.535 | 587.045 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HW | Bremstraat 6 9945VC Wagenborgen | 258.522 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HX | Bremstraat 2 9945VC Wagenborgen | 258.570 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HY | Bremstraat 4 9945VC Wagenborgen | 258.545 | 586.969 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HZ | Bremstraat 12 9945VC Wagenborgen | 258.448 | 586.982 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| I | G. Boelmanweg 4 9945RJ Wagenborgen | 258.168 | 586.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IA | Hibiscusstraat 30 9945VB Wagenborgen | 258.633 | 586.942 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IB | Hibiscusstraat 2 9945VB Wagenborgen | 258.428 | 586.818 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IC | Hibiscusstraat 4 9945VB Wagenborgen | 258.449 | 586.865 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ID | Hibiscusstraat 10 9945VB Wagenborgen | 258.426 | 586.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IE | Hibiscusstraat 16 9945VB Wagenborgen | 258.482 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IF | Bremstraat 14 9945VC Wagenborgen | 258.428 | 586.984 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IG | Hibiscusstraat 6 9945VB Wagenborgen | 258.417 | 586.860 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IH | Hibiscusstraat 26 9945VB Wagenborgen | 258.608 | 586.953 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| II | Kopaf 8 9945TE Wagenborgen | 259.518 | 587.109 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IJ | Kopaf 7 9945TE Wagenborgen | 259.555 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IK | Kopaf 6 9945TE Wagenborgen | 259.575 | 587.100 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IL | Kloosterlaan 27 9945TG Wagenborgen | 259.558 | 587.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IM | Kloosterlaan 25 9945TG Wagenborgen | 259.567 | 587.793 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IN | Kloosterlaan 23 9945TG Wagenborgen | 259.592 | 587.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IO | Scheve Klap 5 9945TD Wagenborgen | 260.522 | 587.264 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IP | Scheve Klap 4 9945TD Wagenborgen | 260.493 | 587.154 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IQ | Hibiscusstraat 8 9945VB Wagenborgen | 258.420 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IR | Hibiscusstraat 12 9945VB Wagenborgen | 258.431 | 586.945 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IS | Hibiscusstraat 18 9945VB Wagenborgen | 258.503 | 586.931 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IT | Hibiscusstraat 24 9945VB Wagenborgen | 258.612 | 586.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IU | Hibiscusstraat 22 9945VB Wagenborgen | 258.583 | 586.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IV | Troostlaan 15 9945PV Wagenborgen | 258.151 | 586.693 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IW | Bremstraat 10 9945VC Wagenborgen | 258.473 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IX | Hibiscusstraat 20 9945VB Wagenborgen | 258.529 | 586.931 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IY | Hibiscusstraat 28 9945VB Wagenborgen | 258.622 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IZ | Troostlaan 5 9945PV Wagenborgen | 258.189 | 586.911 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| J | G. Boelmanweg 7 9945RE Wagenborgen | 258.198 | 586.536 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JA | Troostlaan 6 9945PV Wagenborgen | 258.249 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JB | Boslaan 5 9945TM Wagenborgen | 259.413 | 587.123 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JC | Hoofdweg 33 A 9945PB Wagenborgen | 258.174 | 586.602 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JD | Akeleistraat 13 9945VD Wagenborgen | 258.569 | 587.057 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JE | Hoofdweg 42 9945PG Wagenborgen | 258.103 | 586.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JF | Familie Bronsweg 2 E 9945PR Wagenborgen | 258.670 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JG | Hibiscusstraat 14 9945VB Wagenborgen | 258.456 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JH | Bremstraat 8 9945VC Wagenborgen | 258.502 | 586.974 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JI | Menterne 23 003 9945RA Wagenborgen | 257.949 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JJ | Menterne 23 004 9945RA Wagenborgen | 257.949 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JK | Menterne 23 005 9945RA Wagenborgen | 257.948 | 586.990 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JL | Menterne 23 006 9945RA Wagenborgen | 257.948 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JM | Menterne 23 007 9945RA Wagenborgen | 257.960 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JN | Menterne 23 008 9945RA Wagenborgen | 257.960 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JO | Menterne 23 009 9945RA Wagenborgen | 257.960 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JP | Menterne 23 010 9945RA Wagenborgen | 257.961 | 586.988 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JQ | Menterne 23 017 9945RA Wagenborgen | 257.971 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JR | Menterne 23 030 9945RA Wagenborgen | 257.958 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JS | Menterne 23 103 9945RA Wagenborgen | 257.951 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JT | Menterne 23 104 9945RA Wagenborgen | 257.951 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JU | Menterne 23 105 9945RA Wagenborgen | 257.951 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JV | Menterne 23 106 9945RA Wagenborgen | 257.950 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JW | Menterne 23 107 9945RA Wagenborgen | 257.958 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JX | Menterne 23 108 9945RA Wagenborgen | 257.958 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief A

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| JY | Menterne 23 109 9945RA Wagenborgen | 257.958 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JZ | Menterne 23 110 9945RA Wagenborgen | 257.958 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| K | G. Boelmanweg 6 9945RJ Wagenborgen | 258.176 | 586.541 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KA | Menterne 23 111 9945RA Wagenborgen | 257.959 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KB | Menterne 23 113 9945RA Wagenborgen | 257.967 | 586.972 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KC | Menterne 23 114 9945RA Wagenborgen | 257.967 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KD | Menterne 23 115 9945RA Wagenborgen | 257.967 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KE | Menterne 23 116 9945RA Wagenborgen | 257.968 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KF | Menterne 23 117 9945RA Wagenborgen | 257.968 | 586.957 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KG | Menterne 23 118 9945RA Wagenborgen | 257.968 | 586.953 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KH | Menterne 23 119 9945RA Wagenborgen | 257.967 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KI | Menterne 23 120 9945RA Wagenborgen | 257.968 | 586.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KJ | Menterne 23 121 9945RA Wagenborgen | 257.968 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KK | Menterne 23 122 9945RA Wagenborgen | 257.968 | 586.936 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KL | Menterne 23 123 9945RA Wagenborgen | 257.968 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KM | Menterne 23 124 9945RA Wagenborgen | 257.968 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KN | Menterne 23 125 9945RA Wagenborgen | 257.956 | 586.930 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KO | Menterne 23 126 9945RA Wagenborgen | 257.956 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KP | Menterne 23 127 9945RA Wagenborgen | 257.956 | 586.937 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KQ | Menterne 23 128 9945RA Wagenborgen | 257.956 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KR | Menterne 23 129 9945RA Wagenborgen | 257.956 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KS | Menterne 23 130 9945RA Wagenborgen | 257.961 | 586.958 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KT | Menterne 23 131 9945RA Wagenborgen | 257.961 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KU | Menterne 23 132 9945RA Wagenborgen | 257.960 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KV | Menterne 23 201 9945RA Wagenborgen | 257.953 | 586.973 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KW | Menterne 23 202 9945RA Wagenborgen | 257.953 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KX | Menterne 23 203 9945RA Wagenborgen | 257.953 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KY | Menterne 23 204 9945RA Wagenborgen | 257.953 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KZ | Menterne 23 205 9945RA Wagenborgen | 257.953 | 586.990 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| L | Kokslaan 1 9945RD Wagenborgen | 258.257 | 586.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LA | Menterne 23 206 9945RA Wagenborgen | 257.953 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LB | Menterne 23 207 9945RA Wagenborgen | 257.956 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LC | Menterne 23 208 9945RA Wagenborgen | 257.956 | 586.995 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LD | Menterne 23 209 9945RA Wagenborgen | 257.956 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LE | Menterne 23 210 9945RA Wagenborgen | 257.956 | 586.988 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LF | Menterne 23 211 9945RA Wagenborgen | 257.957 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LG | Menterne 23 212 9945RA Wagenborgen | 257.957 | 586.981 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LH | Menterne 23 213 9945RA Wagenborgen | 257.964 | 586.972 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LI | Menterne 23 214 9945RA Wagenborgen | 257.965 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LJ | Menterne 23 215 9945RA Wagenborgen | 257.965 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LK | Menterne 23 216 9945RA Wagenborgen | 257.965 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LL | Menterne 23 217 9945RA Wagenborgen | 257.965 | 586.956 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LM | Menterne 23 218 9945RA Wagenborgen | 257.965 | 586.954 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LN | Menterne 23 219 9945RA Wagenborgen | 257.965 | 586.947 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LO | Menterne 23 220 9945RA Wagenborgen | 257.965 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LP | Menterne 23 221 9945RA Wagenborgen | 257.965 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LQ | Menterne 23 222 9945RA Wagenborgen | 257.965 | 586.937 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LR | Menterne 23 223 9945RA Wagenborgen | 257.965 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LS | Menterne 23 224 9945RA Wagenborgen | 257.966 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LT | Menterne 23 226 9945RA Wagenborgen | 257.959 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LU | Menterne 23 228 9945RA Wagenborgen | 257.958 | 586.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LV | Menterne 23 229 9945RA Wagenborgen | 257.958 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LW | Menterne 23 230 9945RA Wagenborgen | 257.962 | 586.958 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LX | Menterne 23 231 9945RA Wagenborgen | 257.962 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LY | Menterne 23 232 9945RA Wagenborgen | 257.962 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LZ | G. Boelmanweg 1 9945RE Wagenborgen | 258.213 | 586.607 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| M | Kokslaan 2 9945RD Wagenborgen | 258.279 | 586.598 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MA | Boslaan 7 9945TM Wagenborgen | 259.467 | 586.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MB | H.L. Emmensweg 23 9945PW Wagenborgen | 258.086 | 586.747 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MC | Kopaf 5 9944VA Nieuwolda | 259.816 | 586.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MD | Familie Bronsweg 68 9945TA Wagenborgen | 258.470 | 588.333 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ME | Maarkampen 26 9937PL Meedhuizen | 256.956 | 590.088 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MF | Maarkampen 24 9937PL Meedhuizen | 256.931 | 590.090 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MG | Maarkampen 22 9937PL Meedhuizen | 256.916 | 590.093 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
17-2-2017 12:36/3.0.654

# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief A

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| MH | Maarkampen 20 9937PL Meedhuizen | 256.898 | 590.098 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MI | Maarkampen 18 9937PL Meedhuizen | 256.878 | 590.101 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MJ | Maarkampen 16 9937PL Meedhuizen | 256.858 | 590.104 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MK | Maarkampen 14 9937PL Meedhuizen | 256.838 | 590.106 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ML | Maarlaan 22 E 9937TH Meedhuizen | 256.932 | 590.173 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MM | Maarlaan 22 D 9937TH Meedhuizen | 256.877 | 590.178 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MN | Schaapbulterweg 8 9937TL Meedhuizen | 256.971 | 589.534 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MO | Schaapbulterweg 6 9937TL Meedhuizen | 256.919 | 589.544 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MP | Schaapbulterweg 29 9937TL Meedhuizen | 256.970 | 589.489 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MQ | Schaapbulterweg 27 9937TL Meedhuizen | 256.949 | 589.497 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MR | Schaapbulterweg 25 9937TL Meedhuizen | 256.935 | 589.503 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MS | Schaapbulterweg 23 9937TL Meedhuizen | 256.920 | 589.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MT | Schaapbulterweg 21 9937TL Meedhuizen | 256.908 | 589.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MU | Geefsweersterweg 11 9937TB Meedhuizen | 257.472 | 591.162 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MV | Schaapbulterweg 35 9937TL Meedhuizen | 257.159 | 589.455 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MW | Meedhuizerweg 20 9937TK Meedhuizen | 257.017 | 590.790 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MX | Familie Bronsweg 66 9945TA Wagenborgen | 258.538 | 588.146 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MY | Familie Bronsweg 64 9945TA Wagenborgen | 258.518 | 588.056 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MZ | Ideweersterweg 10 9937TM Meedhuizen | 257.794 | 589.376 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| N | Kerkstraat 1 9945SB Wagenborgen | 258.120 | 586.579 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NA | Ideweersterweg 8 9937TM Meedhuizen | 257.916 | 589.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NB | Geefsweersterweg 20 9937TC Meedhuizen | 258.111 | 588.986 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NC | Geefsweersterweg 18 9937TC Meedhuizen | 258.066 | 589.025 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ND | Geefsweersterweg 29 9937TB Meedhuizen | 258.051 | 588.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NE | Geefsweersterweg 16 9937TC Meedhuizen | 258.011 | 589.140 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NF | Geefsweersterweg 23 9937TB Meedhuizen | 257.998 | 589.209 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NG | Geefsweersterweg 12 9937TC Meedhuizen | 258.033 | 589.285 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NH | Geefsweersterweg 14 9937TC Meedhuizen | 258.028 | 589.261 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NI | Geefsweersterweg 21 A 9937TB Meedhuizen | 258.002 | 589.266 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NJ | Geefsweersterweg 10 9937TC Meedhuizen | 258.042 | 589.339 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NK | Geefsweersterweg 21 9937TB Meedhuizen | 258.025 | 589.335 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NL | Geefsweersterweg 17 9937TB Meedhuizen | 258.035 | 589.424 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NM | Geefsweersterweg 19 9937TB Meedhuizen | 258.023 | 589.378 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NN | Ideweersterweg 2 9937TM Meedhuizen | 259.329 | 589.348 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NO | Ideweersterweg 1 9937TM Meedhuizen | 259.330 | 589.303 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NP | Geefsweersterweg 15 9937TB Meedhuizen | 257.994 | 590.149 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NQ | Westerlaan 6 9937TS Meedhuizen | 258.650 | 590.176 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NR | Familie Bronsweg 87 9945TA Wagenborgen | 258.255 | 588.149 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NS | Familie Bronsweg 89 9945TA Wagenborgen | 258.288 | 588.393 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NT | Westerlaan 10 9937TS Meedhuizen | 258.640 | 588.541 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NU | Geefsweersterweg 13 9937TB Meedhuizen | 257.998 | 590.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NV | Maarlaan 26 9937TH Meedhuizen | 257.044 | 590.228 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NW | Maarlaan 24 9937TH Meedhuizen | 256.988 | 590.171 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NX | Maarlaan 28 9937TH Meedhuizen | 257.042 | 590.160 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NY | Maarlaan 30 9937TH Meedhuizen | 257.109 | 590.155 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NZ | Kerklaan 3 9937PG Meedhuizen | 257.099 | 589.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| O | Hoofdweg 30 9945PG Wagenborgen | 258.190 | 586.634 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OA | Kerklaan 8 9937PG Meedhuizen | 257.192 | 589.983 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OB | Kerklaan 6 9937PG Meedhuizen | 257.151 | 590.090 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OC | Opmeedenlaan 6 9937TN Meedhuizen | 256.970 | 588.781 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OD | Opmeedenlaan 4 9937TN Meedhuizen | 256.988 | 588.863 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OE | Opmeedenlaan 2 9937TN Meedhuizen | 257.043 | 588.932 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OF | Kloosterlaan 26 9945TG Wagenborgen | 260.046 | 588.262 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OG | Zomerdijk 1 9945TH Wagenborgen | 260.153 | 588.395 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OH | Zomerdijk 3 9945TH Wagenborgen | 260.454 | 588.375 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OI | Zomerdijk 3 A 9945TH Wagenborgen | 260.560 | 588.321 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OJ | Zomerdijk 2 9945TH Wagenborgen | 260.721 | 588.388 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OK | Kloosterlaan 21 A 9945TG Wagenborgen | 259.991 | 588.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OL | Kloosterlaan 21 B 9945TG Wagenborgen | 259.957 | 588.308 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OM | Ideweersterweg 4 9937TM Meedhuizen | 258.658 | 589.400 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ON | Maarlaan 22 C 9937TH Meedhuizen | 256.840 | 590.186 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OO | Kloosterlaan 21 9936TE Farmsum | 260.253 | 589.832 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OP | Geefsweersterweg 8 A 9937TC Meedhuizen | 258.072 | 590.685 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OQ | Houtweg 20 9936BL Farmsum | 257.300 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief A

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| OR | Houtweg 22 9936BL Farmsum | 257.298 | 593.542 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OS | Houtweg 24 9936BL Farmsum | 257.297 | 593.528 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OT | Houtweg 26 9936BL Farmsum | 257.296 | 593.515 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OU | Houtweg 28 9936BL Farmsum | 257.294 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OV | Rondeboslaan 6 9936BK Farmsum | 257.466 | 593.590 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OW | Proosdij 14 9936EW Farmsum | 257.893 | 593.570 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OX | Bredelaan 6 9936ER Farmsum | 257.806 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OY | Bredelaan 4 9936ER Farmsum | 257.804 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OZ | Bredelaan 2 A 9936ER Farmsum | 257.802 | 593.559 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| P | Hoofdweg 32 9945PG Wagenborgen | 258.177 | 586.629 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PA | Proosdij 24 9936EW Farmsum | 257.913 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PB | Proosdij 22 9936EW Farmsum | 257.910 | 593.522 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PC | Proosdij 20 9936EW Farmsum | 257.906 | 593.533 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PD | Proosdij 18 9936EW Farmsum | 257.901 | 593.549 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PE | Proosdij 16 9936EW Farmsum | 257.899 | 593.554 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PF | Trambaan 19 9936ES Farmsum | 257.863 | 593.507 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PG | Proosdij 17 9936ET Farmsum | 257.864 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PH | Proosdij 15 9936ET Farmsum | 257.862 | 593.560 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PI | Proosdij 13 9936ET Farmsum | 257.859 | 593.568 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PJ | Trambaan 17 9936ES Farmsum | 257.856 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PK | Trambaan 15 9936ES Farmsum | 257.849 | 593.520 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PL | Trambaan 13 9936ES Farmsum | 257.844 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PM | Trambaan 11 9936ES Farmsum | 257.839 | 593.530 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PN | Trambaan 9 9936ES Farmsum | 257.833 | 593.536 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PO | Trambaan 5 9936ES Farmsum | 257.825 | 593.544 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PP | Trambaan 3 9936ES Farmsum | 257.818 | 593.551 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PQ | Trambaan 1 9936ES Farmsum | 257.814 | 593.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PR | Proosdij 12 9936EW Farmsum | 257.888 | 593.590 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PS | Proosdij 8 9936EW Farmsum | 257.881 | 593.604 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PT | Proosdij 6 9936EW Farmsum | 257.876 | 593.616 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PU | Proosdij 4 9936EW Farmsum | 257.872 | 593.630 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PV | Proosdij 11 9936ET Farmsum | 257.856 | 593.577 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PW | Proosdij 9 9936ET Farmsum | 257.853 | 593.584 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PX | Proosdij 7 9936ET Farmsum | 257.849 | 593.596 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PY | Proosdij 5 9936ET Farmsum | 257.846 | 593.605 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PZ | Proosdij 1 9936ET Farmsum | 257.839 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Q | Hoofdweg 31 9945PA Wagenborgen | 258.210 | 586.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QA | Proosdij 3 9936ET Farmsum | 257.844 | 593.611 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QB | Farmsumerzijl 55 9936GC Farmsum | 257.821 | 593.640 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QC | Farmsumerzijl 57 9936GC Farmsum | 257.800 | 593.636 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QD | Rengersweg 4 9936GH Farmsum | 258.026 | 593.578 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QE | Rengersweg 2 9936GH Farmsum | 258.026 | 593.587 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QF | Schepperij 4 A 9936GN Farmsum | 258.046 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QG | Schepperij 2 A 9936GN Farmsum | 258.033 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QH | Schepperij 4 9936GN Farmsum | 258.040 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QI | Schepperij 2 9936GN Farmsum | 258.027 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QJ | Dijkrecht 4 9936GK Farmsum | 258.021 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QK | Dijkrecht 6 9936GK Farmsum | 258.035 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QL | Dijkrecht 10 9936GK Farmsum | 258.054 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QM | Dijkrecht 12 9936GK Farmsum | 258.061 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QN | Dijkrecht 14 9936GK Farmsum | 258.074 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QO | Dijkrecht 16 9936GK Farmsum | 258.081 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QP | Dijkrecht 18 9936GK Farmsum | 258.095 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QQ | Dijkrecht 20 9936GK Farmsum | 258.107 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QR | Dijkrecht 22 9936GK Farmsum | 258.123 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QS | Dijkrecht 24 9936GK Farmsum | 258.138 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QT | Dijkrecht 26 9936GK Farmsum | 258.159 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QU | Dijkrecht 28 9936GK Farmsum | 258.166 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QV | Dijkrecht 30 9936GK Farmsum | 258.186 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QW | Dijkrecht 32 9936GK Farmsum | 258.192 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QX | Dijkrecht 34 9936GK Farmsum | 258.206 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QY | Dijkrecht 36 9936GK Farmsum | 258.213 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QZ | Dijkrecht 40 9936GK Farmsum | 258.233 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| R | Hoofdweg 38 9945PG Wagenborgen | 258.142 | 586.621 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Hans / Hans@boschenvanrijn.nl
Calculated:
17-2-2017 12:36/3.0.654

# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief A

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| RA | Dijkrecht 38 9936GK Farmsum | 258.227 | 593.624 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RB | Schepperij 20 9936GN Farmsum | 258.190 | 593.563 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RC | Schepperij 18 9936GN Farmsum | 258.184 | 593.563 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RD | Waarman 12 9936GW Farmsum | 258.263 | 593.622 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RE | Waarman 10 9936GW Farmsum | 258.263 | 593.629 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RF | Waarman 8 9936GW Farmsum | 258.265 | 593.641 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RG | Waarman 6 9936GW Farmsum | 258.265 | 593.648 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RH | Farmsumerzijl 1 9936GB Farmsum | 258.234 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RI | Farmsumerzijl 3 9936GB Farmsum | 258.227 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RJ | Farmsumerzijl 5 9936GB Farmsum | 258.213 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RK | Farmsumerzijl 7 9936GB Farmsum | 258.207 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RL | Farmsumerzijl 13 9936GB Farmsum | 258.172 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RM | Farmsumerzijl 15 9936GB Farmsum | 258.166 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RN | Farmsumerzijl 17 9936GB Farmsum | 258.152 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RO | Farmsumerzijl 19 9936GB Farmsum | 258.146 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RP | Farmsumerzijl 25 9936GB Farmsum | 258.115 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RQ | Farmsumerzijl 27 9936GB Farmsum | 258.108 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RR | Farmsumerzijl 29 9936GB Farmsum | 258.096 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RS | Farmsumerzijl 31 9936GC Farmsum | 258.089 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RT | Farmsumerzijl 37 9936GC Farmsum | 258.057 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RU | Farmsumerzijl 39 9936GC Farmsum | 258.050 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RV | Farmsumerzijl 41 9936GC Farmsum | 258.037 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RW | Farmsumerzijl 43 9936GC Farmsum | 258.031 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RX | Schepperij 1 9936GL Farmsum | 258.054 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RY | Schepperij 3 9936GL Farmsum | 258.060 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RZ | Schepperij 5 9936GL Farmsum | 258.066 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| S | Hoofdweg 39 9945PB Wagenborgen | 258.126 | 586.603 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SA | Schepperij 7 9936GL Farmsum | 258.072 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SB | Schepperij 9 9936GL Farmsum | 258.078 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SC | Schepperij 11 9936GL Farmsum | 258.084 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SD | Schepperij 13 9936GL Farmsum | 258.090 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SE | Schepperij 15 9936GL Farmsum | 258.097 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SF | Dijkrecht 8 9936GK Farmsum | 258.041 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SG | Geefsweersterweg 9 9937TB Meedhuizen | 257.539 | 591.945 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SH | Geefsweersterweg 7 9937TB Meedhuizen | 258.115 | 592.341 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SI | Geefsweersterweg 8 9937TC Meedhuizen | 258.139 | 592.234 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SJ | Geefsweersterweg 3 9937TB Meedhuizen | 258.102 | 592.452 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SK | Geefsweersterweg 6 9937TC Meedhuizen | 258.202 | 592.502 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SL | Geefsweersterweg 4 9937TC Meedhuizen | 258.243 | 592.643 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SM | Meedhuizerweg 2 9937TK Meedhuizen | 256.911 | 592.415 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SN | Molenstraat 31 9936EB Farmsum | 257.786 | 593.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SO | Hindrik Jagerstraat 32 9936CV Farmsum | 257.573 | 593.810 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SP | Hindrik Jagerstraat 11 9936CT Farmsum | 257.561 | 593.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SQ | Hindrik Jagerstraat 13 9936CT Farmsum | 257.568 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SR | Hindrik Jagerstraat 15 9936CT Farmsum | 257.574 | 593.790 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SS | Hindrik Jagerstraat 34 9936CV Farmsum | 257.581 | 593.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ST | Hindrik Jagerstraat 36 9936CV Farmsum | 257.587 | 593.799 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SU | Borgshof 31 9936CR Farmsum | 257.617 | 593.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SV | Borgshof 33 9936CR Farmsum | 257.615 | 593.807 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SW | Borgshof 39 9936CR Farmsum | 257.605 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SX | Borgshof 35 9936CR Farmsum | 257.604 | 593.768 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SY | Molenstraat 20 9936EC Farmsum | 257.801 | 593.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SZ | Molenstraat 24 9936EC Farmsum | 257.812 | 593.926 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| T | Hoofdweg 35 9945PB Wagenborgen | 258.160 | 586.604 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TA | Molenstraat 28 9936EC Farmsum | 257.817 | 593.918 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TB | Molenstraat 41 9936EB Farmsum | 257.798 | 593.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TC | Molenstraat 43 9936EB Farmsum | 257.802 | 593.918 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TD | Molenstraat 45 9936EB Farmsum | 257.807 | 593.910 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TE | Molenstraat 32 9936EC Farmsum | 257.821 | 593.908 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TF | Achterweg 13 9936EG Farmsum | 257.848 | 593.913 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TG | Achterweg 11 9936EG Farmsum | 257.855 | 593.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TH | Achterweg 9 9936EG Farmsum | 257.861 | 593.915 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TI | Molenstraat 49 9936EB Farmsum | 257.809 | 593.905 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TJ | Molenstraat 51 9936EB Farmsum | 257.812 | 593.900 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
17-2-2017 12:36/3.0.654

# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief A

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| TK | Molenstraat 53 9936EB Farmsum | 257.815 | 593.894 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TL | Molenstraat 57 9936EB Farmsum | 257.819 | 593.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TM | Molenstraat 61 9936EB Farmsum | 257.826 | 593.870 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TN | Molenstraat 63 9936EB Farmsum | 257.830 | 593.861 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TO | Molenstraat 34 9936ED Farmsum | 257.827 | 593.897 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TP | Molenstraat 38 9936ED Farmsum | 257.832 | 593.886 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TQ | Molenstraat 40 9936ED Farmsum | 257.835 | 593.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TR | Molenstraat 42 9936ED Farmsum | 257.837 | 593.870 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TS | Molenstraat 44 9936ED Farmsum | 257.842 | 593.859 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TT | Molenstraat 65 9936EB Farmsum | 257.834 | 593.850 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TU | Molenstraat 48 9936ED Farmsum | 257.847 | 593.847 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TV | Molenstraat 50 9936ED Farmsum | 257.850 | 593.837 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TW | Molenstraat 56 9936ED Farmsum | 257.851 | 593.824 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TX | Molenstraat 58 9936EE Farmsum | 257.863 | 593.810 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TY | Molenstraat 62 9936EE Farmsum | 257.858 | 593.798 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TZ | Molenstraat 72 9936EE Farmsum | 257.855 | 593.753 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| U | Hoofdweg 37 9945PB Wagenborgen | 258.149 | 586.603 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UA | Molenstraat 70 9936EE Farmsum | 257.854 | 593.758 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UB | Molenstraat 68 9936EE Farmsum | 257.854 | 593.765 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UC | Molenstraat 66 9936EE Farmsum | 257.854 | 593.773 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UD | Achterweg 2 9936EG Farmsum | 257.886 | 593.882 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UE | Achterweg 12 9936EG Farmsum | 257.919 | 593.766 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UF | Achterweg 10 9936EG Farmsum | 257.918 | 593.779 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UG | Achterweg 8 9936EG Farmsum | 257.916 | 593.791 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UH | Hindrik Jagerstraat 17 9936CT Farmsum | 257.588 | 593.777 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UI | Molenstraat 30 9936EC Farmsum | 257.820 | 593.912 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UJ | Borgweg 141 9936EN Farmsum | 257.451 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UK | Borgweg 139 9936EN Farmsum | 257.466 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UL | Borgweg 137 9936EN Farmsum | 257.473 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UM | Borgweg 135 9936EN Farmsum | 257.487 | 593.708 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UN | Afwateringskanaal 109 9936AV Farmsum | 257.508 | 593.724 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UO | Borgweg 131 9936EM Farmsum | 257.636 | 593.714 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UP | Borgweg 133 9936EM Farmsum | 257.581 | 593.701 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UQ | Borgshof 41 9936CR Farmsum | 257.598 | 593.743 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UR | Borgshof 43 9936CR Farmsum | 257.595 | 593.730 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| US | Borgshof 45 9936CR Farmsum | 257.594 | 593.720 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UT | Molenstraat 74 9936EE Farmsum | 257.855 | 593.743 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UU | Molenstraat 76 9936EE Farmsum | 257.857 | 593.736 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UV | Molenstraat 78 9936EE Farmsum | 257.858 | 593.730 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UW | Molenstraat 82 9936EE Farmsum | 257.858 | 593.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UX | Molenstraat 84 9936EE Farmsum | 257.858 | 593.708 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UY | Borgweg 123 9936EM Farmsum | 257.927 | 593.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UZ | Borgweg 125 9936EM Farmsum | 257.917 | 593.698 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| V | Hoofdweg 44 9945PH Wagenborgen | 258.071 | 586.624 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VA | Borgweg 127 9936EM Farmsum | 257.906 | 593.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VB | Borgweg 129 9936EM Farmsum | 257.897 | 593.699 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VC | Farmsumerzijl 51 9936GC Farmsum | 257.925 | 593.665 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VD | Molenstraat 80 9936EE Farmsum | 257.858 | 593.723 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VE | Houtweg 30 9936BL Farmsum | 257.294 | 593.486 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VF | Houtweg 32 9936BL Farmsum | 257.292 | 593.473 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VG | Houtweg 34 9936BL Farmsum | 257.291 | 593.459 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VH | Houtweg 36 9936BL Farmsum | 257.289 | 593.446 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VI | Houtweg 38 9936BL Farmsum | 257.288 | 593.429 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VJ | Houtweg 40 9936BL Farmsum | 257.261 | 593.394 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VK | Houtweg 42 9936BL Farmsum | 257.257 | 593.387 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VL | Houtweg 44 9936BL Farmsum | 257.250 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VM | Houtweg 46 9936BL Farmsum | 257.248 | 593.372 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VN | Houtweg 48 9936BL Farmsum | 257.240 | 593.359 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VO | Rondeboslaan 26 9936BK Farmsum | 257.440 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VP | Rondeboslaan 28 9936BK Farmsum | 257.438 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VQ | Seendweg 32 9936GA Farmsum | 257.903 | 593.454 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VR | Trambaan 21 9936ES Farmsum | 257.870 | 593.499 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VS | Proosdij 19 9936ET Farmsum | 257.892 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VT | Bredelaan 14 9936ER Farmsum | 257.814 | 593.354 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Hans / Hans@boschenvanrijn.nl
Calculated:
17-2-2017 12:36/3.0.654

# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief A

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| VU | Bredelaan 10 9936ER Farmsum | 257.808 | 593.470 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VV | Bredelaan 8 9936ER Farmsum | 257.807 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VW | Seendweg 22 9936GA Farmsum | 257.897 | 593.364 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VX | Seendweg 28 9936GA Farmsum | 257.898 | 593.405 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VY | Proosdij 28 9936EW Farmsum | 257.922 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VZ | Proosdij 30 9936EX Farmsum | 257.932 | 593.484 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| W | Hoofdweg 48 9945PH Wagenborgen | 258.051 | 586.630 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WA | Proosdij 26 9936EW Farmsum | 257.919 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WB | Afwateringskanaal 107 9936AV Farmsum | 257.499 | 593.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WC | Rondeboslaan 22 A 9936BK Farmsum | 257.532 | 593.326 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WD | Rondeboslaan 22 B 9936BK Farmsum | 257.532 | 593.320 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WE | Rondeboslaan 2 A 9936BK Farmsum | 257.534 | 593.639 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WF | Rondeboslaan 2 B 9936BK Farmsum | 257.493 | 593.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WG | Seendweg 17 9936GA Farmsum | 257.931 | 593.394 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WH | Borgshof 29 9936CR Farmsum | 257.619 | 593.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WI | Molenstraat 22 9936EC Farmsum | 257.808 | 593.935 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WJ | Achterweg 7 A 9936EG Farmsum | 257.858 | 593.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WK | Molenstraat 26 9936EC Farmsum | 257.814 | 593.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WL | Borgweg 113 9936EM Farmsum | 257.957 | 593.782 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WM | Borgweg 115 9936EM Farmsum | 257.968 | 593.707 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WN | Borgweg 117 9936EM Farmsum | 257.959 | 593.705 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WO | Borgweg 119 9936EM Farmsum | 257.947 | 593.703 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WP | Borgweg 121 9936EM Farmsum | 257.938 | 593.701 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WQ | Farmsumerzijl 45 9936GC Farmsum | 257.966 | 593.671 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WR | Farmsumerzijl 47 9936GC Farmsum | 257.947 | 593.667 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WS | Farmsumerzijl 49 9936GC Farmsum | 257.933 | 593.666 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WT | Waarman 4 9936GW Farmsum | 258.267 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WU | Waarman 2 9936GW Farmsum | 258.267 | 593.668 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WV | Farmsumerzijl 9 9936GB Farmsum | 258.192 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WW | Farmsumerzijl 11 9936GB Farmsum | 258.186 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WX | Farmsumerzijl 21 9936GB Farmsum | 258.134 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WY | Farmsumerzijl 23 9936GB Farmsum | 258.126 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WZ | Farmsumerzijl 33 9936GC Farmsum | 258.076 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| X | Hoofdweg 41 9945PB Wagenborgen | 258.092 | 586.599 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XA | Farmsumerzijl 35 9936GC Farmsum | 258.070 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XB | Schepperij 17 9936GL Farmsum | 258.103 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XC | Schepperij 19 9936GL Farmsum | 258.109 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XD | Schepperij 21 9936GL Farmsum | 258.115 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XE | Dijkrecht 3 9936GJ Farmsum | 258.042 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XF | Dijkrecht 5 9936GJ Farmsum | 258.052 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XG | Dijkrecht 7 9936GJ Farmsum | 258.054 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XH | Dijkrecht 9 9936GJ Farmsum | 258.063 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XI | Dijkrecht 11 9936GJ Farmsum | 258.073 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XJ | Dijkrecht 13 9936GJ Farmsum | 258.079 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XK | Dijkrecht 15 9936GJ Farmsum | 258.085 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XL | Dijkrecht 17 9936GJ Farmsum | 258.092 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XM | Dijkrecht 19 9936GJ Farmsum | 258.098 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XN | Dijkrecht 21 9936GJ Farmsum | 258.104 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XO | Schepperij 6 9936GN Farmsum | 258.058 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XP | Schepperij 8 9936GN Farmsum | 258.064 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XQ | Schepperij 10 9936GN Farmsum | 258.070 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XR | Schepperij 12 9936GN Farmsum | 258.075 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XS | Schepperij 14 9936GN Farmsum | 258.081 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XT | Schepperij 16 9936GN Farmsum | 258.087 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XU | Olderman 2 9936GT Farmsum | 258.132 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XV | Olderman 4 9936GT Farmsum | 258.132 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XW | Olderman 6 9936GT Farmsum | 258.132 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XX | Olderman 8 9936GT Farmsum | 258.132 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XY | Olderman 10 9936GT Farmsum | 258.132 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XZ | Olderman 12 9936GT Farmsum | 258.132 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Y | Hoofdweg 20 9945PG Wagenborgen | 258.207 | 586.682 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YA | Olderman 14 9936GT Farmsum | 258.132 | 593.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YB | Dijkrecht 23 9936GJ Farmsum | 258.162 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YC | Dijkrecht 25 9936GJ Farmsum | 258.162 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief A

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| YD | Dijkrecht 27 9936GJ Farmsum | 258.163 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YE | Dijkrecht 29 9936GJ Farmsum | 258.163 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YF | Dijkrecht 31 9936GJ Farmsum | 258.163 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YG | Dijkrecht 33 9936GJ Farmsum | 258.163 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YH | Dijkrecht 35 9936GJ Farmsum | 258.163 | 593.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YI | Dijkrecht 37 9936GJ Farmsum | 258.182 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YJ | Dijkrecht 39 9936GJ Farmsum | 258.182 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YK | Dijkrecht 41 9936GJ Farmsum | 258.182 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YL | Dijkrecht 43 9936GJ Farmsum | 258.182 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YM | Olderman 1 9936GS Farmsum | 258.107 | 593.574 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YN | Olderman 3 9936GS Farmsum | 258.107 | 593.567 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YO | Olderman 5 9936GS Farmsum | 258.108 | 593.561 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YP | Olderman 7 9936GS Farmsum | 258.108 | 593.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YQ | Schepperij 37 9936GM Farmsum | 258.194 | 593.543 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YR | Schepperij 41 9936GM Farmsum | 258.194 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YS | Schepperij 45 9936GM Farmsum | 258.194 | 593.518 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YT | Schepperij 47 9936GM Farmsum | 258.194 | 593.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YU | Schepperij 49 9936GM Farmsum | 258.194 | 593.506 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YV | Olderman 18 9936GT Farmsum | 258.143 | 593.539 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YW | Olderman 20 9936GT Farmsum | 258.143 | 593.533 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YX | Olderman 22 9936GT Farmsum | 258.143 | 593.527 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YY | Olderman 24 9936GT Farmsum | 258.143 | 593.521 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YZ | Olderman 26 9936GT Farmsum | 258.143 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Z | Hoofdweg 22 9945PG Wagenborgen | 258.202 | 586.669 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZA | Olderman 28 9936GT Farmsum | 258.143 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZB | Olderman 30 9936GT Farmsum | 258.143 | 593.502 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZC | Olderman 9 9936GS Farmsum | 258.120 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZD | Olderman 11 9936GS Farmsum | 258.120 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZE | Olderman 13 9936GS Farmsum | 258.120 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZF | Proosdij 32 9936EX Farmsum | 257.941 | 593.479 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZG | Proosdij 36 9936EX Farmsum | 257.952 | 593.473 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZH | Proosdij 38 9936EX Farmsum | 257.963 | 593.468 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZI | Proosdij 40 9936EX Farmsum | 257.984 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZJ | Proosdij 27 9936EV Farmsum | 257.995 | 593.418 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZK | Proosdij 25 9936EV Farmsum | 257.979 | 593.425 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZL | Proosdij 23 9936EV Farmsum | 257.962 | 593.433 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZM | Proosdij 21 9936EV Farmsum | 257.941 | 593.443 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZN | Seendweg 5 9936GA Farmsum | 258.091 | 593.322 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZO | Proosdij 29 9936EV Farmsum | 258.005 | 593.413 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZP | Proosdij 31 9936EV Farmsum | 258.019 | 593.403 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZQ | Proosdij 33 9936EV Farmsum | 258.043 | 593.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZR | Proosdij 35 9936EV Farmsum | 258.067 | 593.376 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZS | Proosdij 37 9936EV Farmsum | 258.085 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZT | Proosdij 39 9936EV Farmsum | 258.092 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZU | Proosdij 41 9936EV Farmsum | 258.099 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZV | Proosdij 43 9936EV Farmsum | 258.106 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZW | Proosdij 45 9936EV Farmsum | 258.112 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZX | Proosdij 47 9936EV Farmsum | 258.119 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZY | Olderman 15 9936GS Farmsum | 258.118 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZZ | Rengersweg 97 9936GG Farmsum | 258.010 | 593.468 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

## Calculation Results

Shadow receptor

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| [A | Rengersweg 99 9936GG Farmsum | 0:05 |
| [B | Rengersweg 12 9936GH Farmsum | 0:04 |
| [C | Rengersweg 10 9936GH Farmsum | 0:00 |
| [D | Kluft 1 9936GP Farmsum | 0:00 |
| [E | Kluft 3 9936GP Farmsum | 0:00 |
| [F | Proosdij 46 9936EX Farmsum | 0:00 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief A

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| [G | Proosdij 48 9936EX Farmsum | 0:00 |
| [H | Proosdij 50 9936EX Farmsum | 0:00 |
| [I | Proosdij 52 9936EX Farmsum | 0:00 |
| [J | Proosdij 54 9936EX Farmsum | 0:00 |
| [K | Proosdij 56 9936EX Farmsum | 0:00 |
| [L | Olderman 21 9936GS Farmsum | 0:00 |
| [M | Olderman 19 9936GS Farmsum | 0:00 |
| [N | Olderman 17 9936GS Farmsum | 0:00 |
| [O | Kluft 5 9936GP Farmsum | 0:00 |
| [P | Kluft 7 9936GP Farmsum | 0:00 |
| [Q | Kluft 9 9936GP Farmsum | 0:00 |
| [R | Kluft 11 9936GP Farmsum | 0:00 |
| [S | Kluft 17 9936GP Farmsum | 0:00 |
| [T | Zijlvest 8 9936GZ Farmsum | 0:00 |
| [U | Olderman 32 9936GT Farmsum | 0:00 |
| [V | Olderman 34 9936GT Farmsum | 0:00 |
| [W | Olderman 36 9936GT Farmsum | 0:00 |
| [X | Olderman 38 9936GT Farmsum | 0:00 |
| [Y | Olderman 40 9936GT Farmsum | 0:00 |
| [Z | Olderman 42 9936GT Farmsum | 0:00 |
| \A | Zijlvest 22 A 9936GZ Farmsum | 0:00 |
| \B | Zijlvest 18 A 9936GZ Farmsum | 0:00 |
| \C | Zijlvest 18 9936GZ Farmsum | 0:00 |
| \D | Zijlvest 14 9936GZ Farmsum | 0:00 |
| \E | Borgweg 1 9936EH Farmsum | 0:00 |
| \F | Borgweg 3 9936EH Farmsum | 0:00 |
| \G | Borgweg 5 9936EH Farmsum | 0:00 |
| \H | Borgweg 7 9936EH Farmsum | 0:00 |
| \I | Borgweg 9 9936EH Farmsum | 0:00 |
| \J | Borgweg 11 9936EH Farmsum | 0:00 |
| \K | Borgweg 13 9936EH Farmsum | 0:00 |
| \L | Borgweg 15 9936EH Farmsum | 0:00 |
| \M | Borgweg 17 9936EH Farmsum | 0:00 |
| \N | Borgweg 19 9936EH Farmsum | 0:00 |
| \O | Borgweg 21 9936EH Farmsum | 0:00 |
| \P | Borgweg 23 9936EH Farmsum | 0:00 |
| \Q | Borgweg 25 9936EH Farmsum | 0:00 |
| \R | Borgweg 27 9936EH Farmsum | 0:00 |
| \S | Borgweg 29 9936EJ Farmsum | 0:00 |
| \T | Borgweg 31 9936EJ Farmsum | 0:00 |
| \U | Borgweg 33 9936EJ Farmsum | 0:00 |
| \V | Borgweg 35 9936EJ Farmsum | 0:00 |
| \W | Borgweg 37 9936EJ Farmsum | 0:00 |
| \X | Borgweg 39 9936EJ Farmsum | 0:00 |
| \Y | Borgweg 41 9936EJ Farmsum | 0:00 |
| \Z | Borgweg 43 9936EJ Farmsum | 0:00 |
| ]A | Borgweg 45 9936EJ Farmsum | 0:00 |
| ]B | Borgweg 47 9936EJ Farmsum | 0:00 |
| ]C | Borgweg 49 9936EJ Farmsum | 0:00 |
| ]D | Borgweg 51 9936EJ Farmsum | 0:00 |
| ]E | Borgweg 53 9936EJ Farmsum | 0:00 |
| ]F | Borgweg 55 9936EJ Farmsum | 0:00 |
| ]G | Borgweg 57 9936EK Farmsum | 0:00 |
| ]H | Borgweg 59 9936EK Farmsum | 0:00 |
| ]I | Borgweg 61 9936EK Farmsum | 0:00 |
| ]J | Borgweg 63 9936EK Farmsum | 0:00 |
| ]K | Borgweg 65 9936EK Farmsum | 0:00 |
| ]L | Borgweg 67 9936EK Farmsum | 0:00 |
| ]M | Borgweg 69 9936EK Farmsum | 0:00 |
| ]N | Borgweg 71 9936EK Farmsum | 0:00 |
| ]O | Borgweg 73 9936EK Farmsum | 0:00 |
| ]P | Borgweg 75 9936EK Farmsum | 0:00 |
| ]Q | Borgweg 77 9936EK Farmsum | 0:00 |

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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief A

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| ]R | Borgweg 79 9936EK Farmsum | 0:00 |
| ]S | Borgweg 81 9936EK Farmsum | 0:00 |
| ]T | Borgweg 83 9936EK Farmsum | 0:00 |
| ]U | Borgweg 85 9936EL Farmsum | 0:00 |
| ]V | Borgweg 87 9936EL Farmsum | 0:00 |
| ]W | Borgweg 89 9936EL Farmsum | 0:00 |
| ]X | Borgweg 91 9936EL Farmsum | 0:00 |
| ]Y | Borgweg 93 9936EL Farmsum | 0:00 |
| ]Z | Borgweg 95 9936EL Farmsum | 0:00 |
| ^A | Borgweg 97 9936EL Farmsum | 0:00 |
| ^B | Borgweg 99 9936EL Farmsum | 0:00 |
| ^C | Borgweg 101 9936EL Farmsum | 0:00 |
| ^D | Borgweg 103 9936EL Farmsum | 0:00 |
| ^E | Borgweg 105 9936EL Farmsum | 0:00 |
| ^F | Borgweg 107 9936EL Farmsum | 0:00 |
| ^G | Borgweg 109 9936EL Farmsum | 0:00 |
| ^H | Borgweg 111 9936EL Farmsum | 0:00 |
| ^I | Kluft 18 9936GR Farmsum | 0:00 |
| ^J | Kluft 20 9936GR Farmsum | 0:00 |
| ^K | Kluft 22 9936GR Farmsum | 0:00 |
| ^L | Kluft 24 9936GR Farmsum | 0:00 |
| ^M | Kluft 26 9936GR Farmsum | 0:00 |
| ^N | Kluft 28 9936GR Farmsum | 0:00 |
| ^O | Kluft 30 9936GR Farmsum | 0:00 |
| ^P | Kluft 32 9936GR Farmsum | 0:00 |
| ^Q | Kluft 2 9936GR Farmsum | 0:00 |
| ^R | Kluft 4 9936GR Farmsum | 0:00 |
| ^S | Kluft 6 9936GR Farmsum | 0:00 |
| ^T | Kluft 8 9936GR Farmsum | 0:00 |
| ^U | Kluft 10 9936GR Farmsum | 0:00 |
| ^V | Kluft 12 9936GR Farmsum | 0:00 |
| ^W | Kluft 14 9936GR Farmsum | 0:00 |
| ^X | Kluft 16 9936GR Farmsum | 0:00 |
| ^Y | Zijlvest 20 A 9936GZ Farmsum | 0:00 |
| ^Z | Schepperij 51 9936GM Farmsum | 0:00 |
| _A | Waarman 15 9936GV Farmsum | 0:00 |
| _B | Waarman 17 9936GV Farmsum | 0:00 |
| _C | Waarman 19 9936GV Farmsum | 0:00 |
| _D | Waarman 21 9936GV Farmsum | 0:00 |
| _E | Waarman 23 9936GV Farmsum | 0:00 |
| _F | Waarman 25 9936GV Farmsum | 0:00 |
| _G | Waarman 27 9936GV Farmsum | 0:00 |
| _H | Waarman 29 9936GV Farmsum | 0:00 |
| _I | Heemskesweg 5 9936HE Farmsum | 6:45 |
| _J | Geefsweersterweg 2 9937TC Meedhuizen | 4:28 |
| _K | Seendweg 12 9936GA Farmsum | 1:56 |
| _L | Schepperij 39 9936GM Farmsum | 0:00 |
| _M | Schepperij 43 9936GM Farmsum | 0:00 |
| _N | Zijlvest 14 A 9936GZ Farmsum | 0:00 |
| _O | Zijlvest 24 A 9936GZ Farmsum | 0:00 |
| _P | Familie Bronsweg 22 9945PS Wagenborgen | 0:00 |
| _Q | Geefsweersterweg 1 9937TB Meedhuizen | 4:22 |
| _R | Hoofdweg 28 9945PG Wagenborgen | 0:00 |
| _S | Karspelpad 8 9936HP Farmsum | 9:06 |
| _T | Maarkampen 12 9937PL Meedhuizen | 0:00 |
| _U | Molenstraat 64 9936EE Farmsum | 0:00 |
| _V | Oosterlaan 9 9936HN Farmsum | 18:11 |
| _W | Schaappad 1 9936HT Farmsum | 6:28 |
| _X | Seendweg 8 9936GA Farmsum | 1:47 |
| _Y | T.J. Jansenweg 11 9936HL Farmsum | 25:37 |
| _Z | Waarman 1 9936GV Farmsum | 0:00 |
| `A | Waarman 11 9936GV Farmsum | 0:00 |
| `B | Waarman 3 9936GV Farmsum | 0:00 |

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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief A

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| `C | Waarman 5 9936GV Farmsum | 0:00 |
| `D | Waarman 7 9936GV Farmsum | 0:00 |
| `E | Waarman 9 9936GV Farmsum | 0:00 |
| `F | Zijlvest 20 9936GZ Farmsum | 0:00 |
| A | Familie Bronsweg 60 9945TA Wagenborgen | 10:53 |
| AA | Hoofdweg 26 9945PG Wagenborgen | 0:00 |
| AB | Hoofdweg 23 9945PA Wagenborgen | 0:00 |
| AC | Hoofdweg 25 9945PA Wagenborgen | 0:00 |
| AD | Hoofdweg 27 9945PA Wagenborgen | 0:00 |
| AE | Hoofdweg 29 9945PA Wagenborgen | 0:00 |
| AF | Hoofdweg 18 9945PG Wagenborgen | 0:00 |
| AG | Hoofdweg 14 9945PG Wagenborgen | 0:00 |
| AH | Hoofdweg 10 9945PG Wagenborgen | 0:00 |
| AI | Hoofdweg 8 9945PG Wagenborgen | 0:00 |
| AJ | Hoofdweg 6 9945PG Wagenborgen | 0:00 |
| AK | Hoofdweg 4 9945PG Wagenborgen | 0:00 |
| AL | Hoofdweg 21 9945PA Wagenborgen | 0:00 |
| AM | Hoofdweg 19 9945PA Wagenborgen | 0:00 |
| AN | Hoofdweg 2 9945PG Wagenborgen | 0:00 |
| AO | Hoofdweg 15 9945PA Wagenborgen | 0:00 |
| AP | Hoofdweg 9 9945PA Wagenborgen | 0:00 |
| AQ | Hoofdweg 11 9945PA Wagenborgen | 0:00 |
| AR | Hoofdweg 7 9945PA Wagenborgen | 0:00 |
| AS | Hoofdweg 5 9945PA Wagenborgen | 0:00 |
| AT | H.L. Emmensweg 17 9945PW Wagenborgen | 0:00 |
| AU | H.L. Emmensweg 18 9945PX Wagenborgen | 0:00 |
| AV | H.L. Emmensweg 20 9945PX Wagenborgen | 0:00 |
| AW | H.L. Emmensweg 22 9945PX Wagenborgen | 0:00 |
| AX | H.L. Emmensweg 24 9945PX Wagenborgen | 0:00 |
| AY | H.L. Emmensweg 26 9945PX Wagenborgen | 0:00 |
| AZ | H.L. Emmensweg 10 9945PX Wagenborgen | 0:00 |
| B | Tolhek 4 9945TJ Wagenborgen | 0:00 |
| BA | H.L. Emmensweg 12 9945PX Wagenborgen | 0:00 |
| BB | H.L. Emmensweg 14 9945PX Wagenborgen | 0:00 |
| BC | H.L. Emmensweg 16 9945PX Wagenborgen | 0:00 |
| BD | H.L. Emmensweg 13 9945PW Wagenborgen | 0:00 |
| BE | H.L. Emmensweg 15 9945PW Wagenborgen | 0:00 |
| BF | H.L. Emmensweg 9 9945PW Wagenborgen | 0:00 |
| BG | H.L. Emmensweg 11 9945PW Wagenborgen | 0:00 |
| BH | H.L. Emmensweg 5 9945PW Wagenborgen | 0:00 |
| BI | H.L. Emmensweg 7 9945PW Wagenborgen | 0:00 |
| BJ | H.L. Emmensweg 4 9945PX Wagenborgen | 0:00 |
| BK | H.L. Emmensweg 2 9945PX Wagenborgen | 0:00 |
| BL | H.L. Emmensweg 1 9945PW Wagenborgen | 0:00 |
| BM | H.L. Emmensweg 3 9945PW Wagenborgen | 0:00 |
| BN | de Linden 4 9945PZ Wagenborgen | 0:00 |
| BO | de Linden 6 9945PZ Wagenborgen | 0:00 |
| BP | de Linden 10 9945PZ Wagenborgen | 0:00 |
| BQ | de Linden 12 9945PZ Wagenborgen | 0:00 |
| BR | de Linden 2 9945PZ Wagenborgen | 0:00 |
| BS | de Wilgen 12 9945RB Wagenborgen | 0:00 |
| BT | de Wilgen 10 9945RB Wagenborgen | 0:00 |
| BU | de Wilgen 8 9945RB Wagenborgen | 0:00 |
| BV | de Wilgen 2 9945RB Wagenborgen | 0:00 |
| BW | de Wilgen 4 9945RB Wagenborgen | 0:00 |
| BX | de Wilgen 6 9945RB Wagenborgen | 0:00 |
| BY | de Wilgen 6 A 9945RB Wagenborgen | 0:00 |
| BZ | de Wilgen 3 9945RB Wagenborgen | 0:00 |
| C | Tolhek 1 9945TJ Wagenborgen | 0:00 |
| CA | de Wilgen 3 A 9945RB Wagenborgen | 0:00 |
| CB | de Wilgen 3 B 9945RB Wagenborgen | 0:00 |
| CC | de Wilgen 5 9945RB Wagenborgen | 0:00 |
| CD | de Wilgen 46 9945RB Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief A

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| CE | de Wilgen 44 9945RB Wagenborgen | 0:00 |
| CF | de Wilgen 48 9945RB Wagenborgen | 0:00 |
| CG | de Wilgen 50 9945RB Wagenborgen | 0:00 |
| CH | de Wilgen 36 9945RB Wagenborgen | 0:00 |
| CI | de Wilgen 38 9945RB Wagenborgen | 0:00 |
| CJ | de Wilgen 40 9945RB Wagenborgen | 0:00 |
| CK | de Wilgen 42 9945RB Wagenborgen | 0:00 |
| CL | de Wilgen 28 9945RB Wagenborgen | 0:00 |
| CM | de Wilgen 30 9945RB Wagenborgen | 0:00 |
| CN | de Wilgen 32 9945RB Wagenborgen | 0:00 |
| CO | de Wilgen 34 9945RB Wagenborgen | 0:00 |
| CP | de Wilgen 24 9945TK Wagenborgen | 0:00 |
| CQ | de Wilgen 26 9945RB Wagenborgen | 0:00 |
| CR | de Wilgen 20 9945RB Wagenborgen | 0:00 |
| CS | de Wilgen 22 9945RB Wagenborgen | 0:00 |
| CT | de Wilgen 18 9945RB Wagenborgen | 0:00 |
| CU | de Wilgen 16 9945RB Wagenborgen | 0:00 |
| CV | de Wilgen 14 9945RB Wagenborgen | 0:00 |
| CW | de Wilgen 9 9945RB Wagenborgen | 0:00 |
| CX | de Wilgen 52 9945RB Wagenborgen | 0:00 |
| CY | Menterne 22 9945RA Wagenborgen | 0:00 |
| CZ | Menterne 18 9945RA Wagenborgen | 0:00 |
| D | Familie Bronsweg 62 9945TA Wagenborgen | 8:38 |
| DA | Menterne 21 9945RA Wagenborgen | 0:00 |
| DB | Menterne 19 9945RA Wagenborgen | 0:00 |
| DC | Menterne 20 9945RA Wagenborgen | 0:00 |
| DD | Menterne 17 9945RA Wagenborgen | 0:00 |
| DE | Menterne 7 9945RA Wagenborgen | 0:00 |
| DF | Menterne 8 9945RA Wagenborgen | 0:00 |
| DG | Menterne 9 9945RA Wagenborgen | 0:00 |
| DH | Menterne 10 9945RA Wagenborgen | 0:00 |
| DI | Menterne 11 9945RA Wagenborgen | 0:00 |
| DJ | Menterne 12 9945RA Wagenborgen | 0:00 |
| DK | Menterne 13 9945RA Wagenborgen | 0:00 |
| DL | Menterne 14 9945RA Wagenborgen | 0:00 |
| DM | Menterne 1 9945RA Wagenborgen | 0:00 |
| DN | Menterne 2 9945RA Wagenborgen | 0:00 |
| DO | Menterne 3 9945RA Wagenborgen | 0:00 |
| DP | Menterne 4 9945RA Wagenborgen | 0:00 |
| DQ | Menterne 5 9945RA Wagenborgen | 0:00 |
| DR | Menterne 6 9945RA Wagenborgen | 0:00 |
| DS | Menterne 15 9945RA Wagenborgen | 0:00 |
| DT | Menterne 16 9945RA Wagenborgen | 0:00 |
| DU | de Berken 6 9945PT Wagenborgen | 0:00 |
| DV | de Berken 2 9945PT Wagenborgen | 0:00 |
| DW | de Berken 4 9945PT Wagenborgen | 0:00 |
| DX | de Berken 1 9945PT Wagenborgen | 0:00 |
| DY | de Berken 5 9945PT Wagenborgen | 0:00 |
| DZ | de Berken 7 9945PT Wagenborgen | 0:00 |
| E | Meerweg 3 9945RC Wagenborgen | 0:29 |
| EA | de Berken 9 9945PT Wagenborgen | 0:00 |
| EB | de Eiken 14 9945VA Wagenborgen | 0:00 |
| EC | de Eiken 16 9945VA Wagenborgen | 0:00 |
| ED | de Eiken 2 9945VA Wagenborgen | 0:00 |
| EE | de Eiken 4 9945VA Wagenborgen | 0:00 |
| EF | de Eiken 6 9945VA Wagenborgen | 0:00 |
| EG | de Eiken 8 9945VA Wagenborgen | 0:00 |
| EH | de Eiken 10 9945VA Wagenborgen | 0:00 |
| EI | de Eiken 12 9945VA Wagenborgen | 0:00 |
| EJ | de Eiken 2 A 9945VA Wagenborgen | 0:00 |
| EK | Troostlaan 7 9945PV Wagenborgen | 0:00 |
| EL | Troostlaan 8 9945PV Wagenborgen | 0:00 |
| EM | Troostlaan 9 9945PV Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief A

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| EN | Troostlaan 10 9945PV Wagenborgen | 0:00 |
| EO | Troostlaan 11 9945PV Wagenborgen | 0:00 |
| EP | Troostlaan 1 9945PV Wagenborgen | 0:00 |
| EQ | Troostlaan 2 9945PV Wagenborgen | 0:00 |
| ER | Troostlaan 3 9945PV Wagenborgen | 0:00 |
| ES | Troostlaan 2 A 9945PV Wagenborgen | 0:00 |
| ET | Troostlaan 4 9945PV Wagenborgen | 0:00 |
| EU | Troostlaan 14 9945PV Wagenborgen | 0:00 |
| EV | Troostlaan 22 9945PV Wagenborgen | 0:00 |
| EW | Troostlaan 20 9945PV Wagenborgen | 0:00 |
| EX | Troostlaan 21 9945PV Wagenborgen | 0:00 |
| EY | Troostlaan 18 9945PV Wagenborgen | 0:00 |
| EZ | Troostlaan 19 9945PV Wagenborgen | 0:00 |
| F | G. Boelmanweg 2 9945RJ Wagenborgen | 0:00 |
| FA | Familie Bronsweg 40 9945PS Wagenborgen | 0:00 |
| FB | Familie Bronsweg 44 9945PS Wagenborgen | 0:00 |
| FC | Familie Bronsweg 46 9945PS Wagenborgen | 0:00 |
| FD | Familie Bronsweg 48 9945PS Wagenborgen | 0:00 |
| FE | Familie Bronsweg 50 9945PS Wagenborgen | 0:00 |
| FF | Familie Bronsweg 79 9945PP Wagenborgen | 0:00 |
| FG | Familie Bronsweg 81 9945PP Wagenborgen | 0:00 |
| FH | Familie Bronsweg 36 9945PS Wagenborgen | 0:00 |
| FI | Familie Bronsweg 38 9945PS Wagenborgen | 0:00 |
| FJ | Familie Bronsweg 42 9945PS Wagenborgen | 0:00 |
| FK | Familie Bronsweg 54 9945PS Wagenborgen | 0:00 |
| FL | Familie Bronsweg 52 9945PS Wagenborgen | 0:00 |
| FM | Familie Bronsweg 50 B 9945PS Wagenborgen | 0:00 |
| FN | Familie Bronsweg 50 A 9945PS Wagenborgen | 0:00 |
| FO | Familie Bronsweg 75 9945PP Wagenborgen | 0:00 |
| FP | Familie Bronsweg 75 A 9945PP Wagenborgen | 0:00 |
| FQ | Familie Bronsweg 75 B 9945PP Wagenborgen | 0:00 |
| FR | Familie Bronsweg 71 9945PP Wagenborgen | 0:00 |
| FS | Familie Bronsweg 69 A 9945PP Wagenborgen | 0:00 |
| FT | Familie Bronsweg 69 9945PP Wagenborgen | 0:00 |
| FU | Familie Bronsweg 67 9945PP Wagenborgen | 0:00 |
| FV | Familie Bronsweg 65 9945PP Wagenborgen | 0:00 |
| FW | Familie Bronsweg 63 9945PP Wagenborgen | 0:00 |
| FX | Familie Bronsweg 61 9945PP Wagenborgen | 0:00 |
| FY | Familie Bronsweg 59 9945PP Wagenborgen | 0:00 |
| FZ | Familie Bronsweg 57 9945PP Wagenborgen | 0:00 |
| G | G. Boelmanweg 3 9945RE Wagenborgen | 0:00 |
| GA | Familie Bronsweg 53 9945PP Wagenborgen | 0:00 |
| GB | Familie Bronsweg 73 9945PP Wagenborgen | 0:00 |
| GC | Familie Bronsweg 85 9945PP Wagenborgen | 0:00 |
| GD | Familie Bronsweg 83 9945PP Wagenborgen | 0:00 |
| GE | Familie Bronsweg 83 A 9945PP Wagenborgen | 0:00 |
| GF | Familie Bronsweg 77 9945PP Wagenborgen | 0:00 |
| GG | Familie Bronsweg 51 9945PP Wagenborgen | 0:00 |
| GH | Familie Bronsweg 2 9945PR Wagenborgen | 0:00 |
| GI | Familie Bronsweg 4 9945PR Wagenborgen | 0:00 |
| GJ | Familie Bronsweg 4 A 9945PR Wagenborgen | 0:00 |
| GK | Familie Bronsweg 6 9945PR Wagenborgen | 0:00 |
| GL | Familie Bronsweg 8 9945PR Wagenborgen | 0:00 |
| GM | Familie Bronsweg 10 9945PR Wagenborgen | 0:00 |
| GN | Familie Bronsweg 12 9945PR Wagenborgen | 0:00 |
| GO | Familie Bronsweg 14 9945PR Wagenborgen | 0:00 |
| GP | Familie Bronsweg 16 9945PR Wagenborgen | 0:00 |
| GQ | Familie Bronsweg 15 9945PN Wagenborgen | 0:00 |
| GR | Familie Bronsweg 17 9945PN Wagenborgen | 0:00 |
| GS | Familie Bronsweg 2 A 9945PR Wagenborgen | 0:00 |
| GT | Familie Bronsweg 2 B 9945PR Wagenborgen | 0:00 |
| GU | Familie Bronsweg 2 C 9945PR Wagenborgen | 0:00 |
| GV | Familie Bronsweg 2 D 9945PR Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief A

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| GW | Familie Bronsweg 2 F 9945PR Wagenborgen | 0:00 |
| GX | Familie Bronsweg 2 G 9945PR Wagenborgen | 0:00 |
| GY | Familie Bronsweg 2 H 9945PR Wagenborgen | 0:00 |
| GZ | Familie Bronsweg 2 J 9945PR Wagenborgen | 0:00 |
| H | G. Boelmanweg 5 9945RE Wagenborgen | 0:00 |
| HA | Akeleistraat 17 9945VD Wagenborgen | 0:00 |
| HB | Akeleistraat 19 9945VD Wagenborgen | 0:00 |
| HC | Akeleistraat 21 9945VD Wagenborgen | 0:00 |
| HD | Akeleistraat 23 9945VD Wagenborgen | 0:00 |
| HE | Akeleistraat 20 9945VD Wagenborgen | 0:00 |
| HF | Akeleistraat 22 9945VD Wagenborgen | 0:00 |
| HG | Akeleistraat 16 9945VD Wagenborgen | 0:00 |
| HH | Akeleistraat 18 9945VD Wagenborgen | 0:00 |
| HI | Akeleistraat 12 9945VD Wagenborgen | 0:00 |
| HJ | Akeleistraat 14 9945VD Wagenborgen | 0:00 |
| HK | Akeleistraat 10 9945VD Wagenborgen | 0:00 |
| HL | Akeleistraat 1 9945VD Wagenborgen | 0:00 |
| HM | Akeleistraat 3 9945VD Wagenborgen | 0:00 |
| HN | Akeleistraat 5 9945VD Wagenborgen | 0:00 |
| HO | Akeleistraat 7 9945VD Wagenborgen | 0:00 |
| HP | Akeleistraat 9 9945VD Wagenborgen | 0:00 |
| HQ | Akeleistraat 11 9945VD Wagenborgen | 0:00 |
| HR | Akeleistraat 2 9945VD Wagenborgen | 0:00 |
| HS | Akeleistraat 4 9945VD Wagenborgen | 0:00 |
| HT | Akeleistraat 6 9945VD Wagenborgen | 0:00 |
| HU | Akeleistraat 8 9945VD Wagenborgen | 0:00 |
| HV | Akeleistraat 15 9945VD Wagenborgen | 0:00 |
| HW | Bremstraat 6 9945VC Wagenborgen | 0:00 |
| HX | Bremstraat 2 9945VC Wagenborgen | 0:00 |
| HY | Bremstraat 4 9945VC Wagenborgen | 0:00 |
| HZ | Bremstraat 12 9945VC Wagenborgen | 0:00 |
| I | G. Boelmanweg 4 9945RJ Wagenborgen | 0:00 |
| IA | Hibiscusstraat 30 9945VB Wagenborgen | 0:00 |
| IB | Hibiscusstraat 2 9945VB Wagenborgen | 0:00 |
| IC | Hibiscusstraat 4 9945VB Wagenborgen | 0:00 |
| ID | Hibiscusstraat 10 9945VB Wagenborgen | 0:00 |
| IE | Hibiscusstraat 16 9945VB Wagenborgen | 0:00 |
| IF | Bremstraat 14 9945VC Wagenborgen | 0:00 |
| IG | Hibiscusstraat 6 9945VB Wagenborgen | 0:00 |
| IH | Hibiscusstraat 26 9945VB Wagenborgen | 0:00 |
| II | Kopaf 8 9945TE Wagenborgen | 0:00 |
| IJ | Kopaf 7 9945TE Wagenborgen | 0:00 |
| IK | Kopaf 6 9945TE Wagenborgen | 0:00 |
| IL | Kloosterlaan 27 9945TG Wagenborgen | 1:39 |
| IM | Kloosterlaan 25 9945TG Wagenborgen | 10:18 |
| IN | Kloosterlaan 23 9945TG Wagenborgen | 12:19 |
| IO | Scheve Klap 5 9945TD Wagenborgen | 0:34 |
| IP | Scheve Klap 4 9945TD Wagenborgen | 0:33 |
| IQ | Hibiscusstraat 8 9945VB Wagenborgen | 0:00 |
| IR | Hibiscusstraat 12 9945VB Wagenborgen | 0:00 |
| IS | Hibiscusstraat 18 9945VB Wagenborgen | 0:00 |
| IT | Hibiscusstraat 24 9945VB Wagenborgen | 0:00 |
| IU | Hibiscusstraat 22 9945VB Wagenborgen | 0:00 |
| IV | Troostlaan 15 9945PV Wagenborgen | 0:00 |
| IW | Bremstraat 10 9945VC Wagenborgen | 0:00 |
| IX | Hibiscusstraat 20 9945VB Wagenborgen | 0:00 |
| IY | Hibiscusstraat 28 9945VB Wagenborgen | 0:00 |
| IZ | Troostlaan 5 9945PV Wagenborgen | 0:00 |
| J | G. Boelmanweg 7 9945RE Wagenborgen | 0:00 |
| JA | Troostlaan 6 9945PV Wagenborgen | 0:00 |
| JB | Boslaan 5 9945TM Wagenborgen | 0:00 |
| JC | Hoofdweg 33 A 9945PB Wagenborgen | 0:00 |
| JD | Akeleistraat 13 9945VD Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief A

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| JE | Hoofdweg 42 9945PG Wagenborgen | 0:00 |
| JF | Familie Bronsweg 2 E 9945PR Wagenborgen | 0:00 |
| JG | Hibiscusstraat 14 9945VB Wagenborgen | 0:00 |
| JH | Bremstraat 8 9945VC Wagenborgen | 0:00 |
| JI | Menterne 23 003 9945RA Wagenborgen | 0:00 |
| JJ | Menterne 23 004 9945RA Wagenborgen | 0:00 |
| JK | Menterne 23 005 9945RA Wagenborgen | 0:00 |
| JL | Menterne 23 006 9945RA Wagenborgen | 0:00 |
| JM | Menterne 23 007 9945RA Wagenborgen | 0:00 |
| JN | Menterne 23 008 9945RA Wagenborgen | 0:00 |
| JO | Menterne 23 009 9945RA Wagenborgen | 0:00 |
| JP | Menterne 23 010 9945RA Wagenborgen | 0:00 |
| JQ | Menterne 23 017 9945RA Wagenborgen | 0:00 |
| JR | Menterne 23 030 9945RA Wagenborgen | 0:00 |
| JS | Menterne 23 103 9945RA Wagenborgen | 0:00 |
| JT | Menterne 23 104 9945RA Wagenborgen | 0:00 |
| JU | Menterne 23 105 9945RA Wagenborgen | 0:00 |
| JV | Menterne 23 106 9945RA Wagenborgen | 0:00 |
| JW | Menterne 23 107 9945RA Wagenborgen | 0:00 |
| JX | Menterne 23 108 9945RA Wagenborgen | 0:00 |
| JY | Menterne 23 109 9945RA Wagenborgen | 0:00 |
| JZ | Menterne 23 110 9945RA Wagenborgen | 0:00 |
| K | G. Boelmanweg 6 9945RJ Wagenborgen | 0:00 |
| KA | Menterne 23 111 9945RA Wagenborgen | 0:00 |
| KB | Menterne 23 113 9945RA Wagenborgen | 0:00 |
| KC | Menterne 23 114 9945RA Wagenborgen | 0:00 |
| KD | Menterne 23 115 9945RA Wagenborgen | 0:00 |
| KE | Menterne 23 116 9945RA Wagenborgen | 0:00 |
| KF | Menterne 23 117 9945RA Wagenborgen | 0:00 |
| KG | Menterne 23 118 9945RA Wagenborgen | 0:00 |
| KH | Menterne 23 119 9945RA Wagenborgen | 0:00 |
| KI | Menterne 23 120 9945RA Wagenborgen | 0:00 |
| KJ | Menterne 23 121 9945RA Wagenborgen | 0:00 |
| KK | Menterne 23 122 9945RA Wagenborgen | 0:00 |
| KL | Menterne 23 123 9945RA Wagenborgen | 0:00 |
| KM | Menterne 23 124 9945RA Wagenborgen | 0:00 |
| KN | Menterne 23 125 9945RA Wagenborgen | 0:00 |
| KO | Menterne 23 126 9945RA Wagenborgen | 0:00 |
| KP | Menterne 23 127 9945RA Wagenborgen | 0:00 |
| KQ | Menterne 23 128 9945RA Wagenborgen | 0:00 |
| KR | Menterne 23 129 9945RA Wagenborgen | 0:00 |
| KS | Menterne 23 130 9945RA Wagenborgen | 0:00 |
| KT | Menterne 23 131 9945RA Wagenborgen | 0:00 |
| KU | Menterne 23 132 9945RA Wagenborgen | 0:00 |
| KV | Menterne 23 201 9945RA Wagenborgen | 0:00 |
| KW | Menterne 23 202 9945RA Wagenborgen | 0:00 |
| KX | Menterne 23 203 9945RA Wagenborgen | 0:00 |
| KY | Menterne 23 204 9945RA Wagenborgen | 0:00 |
| KZ | Menterne 23 205 9945RA Wagenborgen | 0:00 |
| L | Kokslaan 1 9945RD Wagenborgen | 0:00 |
| LA | Menterne 23 206 9945RA Wagenborgen | 0:00 |
| LB | Menterne 23 207 9945RA Wagenborgen | 0:00 |
| LC | Menterne 23 208 9945RA Wagenborgen | 0:00 |
| LD | Menterne 23 209 9945RA Wagenborgen | 0:00 |
| LE | Menterne 23 210 9945RA Wagenborgen | 0:00 |
| LF | Menterne 23 211 9945RA Wagenborgen | 0:00 |
| LG | Menterne 23 212 9945RA Wagenborgen | 0:00 |
| LH | Menterne 23 213 9945RA Wagenborgen | 0:00 |
| LI | Menterne 23 214 9945RA Wagenborgen | 0:00 |
| LJ | Menterne 23 215 9945RA Wagenborgen | 0:00 |
| LK | Menterne 23 216 9945RA Wagenborgen | 0:00 |
| LL | Menterne 23 217 9945RA Wagenborgen | 0:00 |
| LM | Menterne 23 218 9945RA Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief A

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| LN | Menterne 23 219 9945RA Wagenborgen | 0:00 |
| LO | Menterne 23 220 9945RA Wagenborgen | 0:00 |
| LP | Menterne 23 221 9945RA Wagenborgen | 0:00 |
| LQ | Menterne 23 222 9945RA Wagenborgen | 0:00 |
| LR | Menterne 23 223 9945RA Wagenborgen | 0:00 |
| LS | Menterne 23 224 9945RA Wagenborgen | 0:00 |
| LT | Menterne 23 226 9945RA Wagenborgen | 0:00 |
| LU | Menterne 23 228 9945RA Wagenborgen | 0:00 |
| LV | Menterne 23 229 9945RA Wagenborgen | 0:00 |
| LW | Menterne 23 230 9945RA Wagenborgen | 0:00 |
| LX | Menterne 23 231 9945RA Wagenborgen | 0:00 |
| LY | Menterne 23 232 9945RA Wagenborgen | 0:00 |
| LZ | G. Boelmanweg 1 9945RE Wagenborgen | 0:00 |
| M | Kokslaan 2 9945RD Wagenborgen | 0:00 |
| MA | Boslaan 7 9945TM Wagenborgen | 0:00 |
| MB | H.L. Emmensweg 23 9945PW Wagenborgen | 0:00 |
| MC | Kopaf 5 9944VA Nieuwolda | 0:00 |
| MD | Familie Bronsweg 68 9945TA Wagenborgen | 15:46 |
| ME | Maarkampen 26 9937PL Meedhuizen | 0:35 |
| MF | Maarkampen 24 9937PL Meedhuizen | 0:32 |
| MG | Maarkampen 22 9937PL Meedhuizen | 0:29 |
| MH | Maarkampen 20 9937PL Meedhuizen | 0:27 |
| MI | Maarkampen 18 9937PL Meedhuizen | 0:24 |
| MJ | Maarkampen 16 9937PL Meedhuizen | 0:22 |
| MK | Maarkampen 14 9937PL Meedhuizen | 0:19 |
| ML | Maarlaan 22 E 9937TH Meedhuizen | 0:28 |
| MM | Maarlaan 22 D 9937TH Meedhuizen | 0:22 |
| MN | Schaapbulterweg 8 9937TL Meedhuizen | 0:49 |
| MO | Schaapbulterweg 6 9937TL Meedhuizen | 0:31 |
| MP | Schaapbulterweg 29 9937TL Meedhuizen | 0:48 |
| MQ | Schaapbulterweg 27 9937TL Meedhuizen | 0:36 |
| MR | Schaapbulterweg 25 9937TL Meedhuizen | 0:34 |
| MS | Schaapbulterweg 23 9937TL Meedhuizen | 0:32 |
| MT | Schaapbulterweg 21 9937TL Meedhuizen | 0:31 |
| MU | Geefsweersterweg 11 9937TB Meedhuizen | 3:43 |
| MV | Schaapbulterweg 35 9937TL Meedhuizen | 2:38 |
| MW | Meedhuizerweg 20 9937TK Meedhuizen | 0:38 |
| MX | Familie Bronsweg 66 9945TA Wagenborgen | 8:38 |
| MY | Familie Bronsweg 64 9945TA Wagenborgen | 10:48 |
| MZ | Ideweersterweg 10 9937TM Meedhuizen | 14:09 |
| N | Kerkstraat 1 9945SB Wagenborgen | 0:00 |
| NA | Ideweersterweg 8 9937TM Meedhuizen | 13:35 |
| NB | Geefsweersterweg 20 9937TC Meedhuizen | 15:20 |
| NC | Geefsweersterweg 18 9937TC Meedhuizen | 24:02 |
| ND | Geefsweersterweg 29 9937TB Meedhuizen | 17:12 |
| NE | Geefsweersterweg 16 9937TC Meedhuizen | 33:19 |
| NF | Geefsweersterweg 23 9937TB Meedhuizen | 23:38 |
| NG | Geefsweersterweg 12 9937TC Meedhuizen | 22:11 |
| NH | Geefsweersterweg 14 9937TC Meedhuizen | 23:09 |
| NI | Geefsweersterweg 21 A 9937TB Meedhuizen | 20:20 |
| NJ | Geefsweersterweg 10 9937TC Meedhuizen | 20:01 |
| NK | Geefsweersterweg 21 9937TB Meedhuizen | 19:01 |
| NL | Geefsweersterweg 17 9937TB Meedhuizen | 16:15 |
| NM | Geefsweersterweg 19 9937TB Meedhuizen | 17:07 |
| NN | Ideweersterweg 2 9937TM Meedhuizen | 61:23 |
| NO | Ideweersterweg 1 9937TM Meedhuizen | 81:33 |
| NP | Geefsweersterweg 15 9937TB Meedhuizen | 29:01 |
| NQ | Westerlaan 6 9937TS Meedhuizen | 48:03 |
| NR | Familie Bronsweg 87 9945TA Wagenborgen | 8:20 |
| NS | Familie Bronsweg 89 9945TA Wagenborgen | 9:04 |
| NT | Westerlaan 10 9937TS Meedhuizen | 30:13 |
| NU | Geefsweersterweg 13 9937TB Meedhuizen | 14:40 |
| NV | Maarlaan 26 9937TH Meedhuizen | 1:12 |

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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief A

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| NW | Maarlaan 24 9937TH Meedhuizen | 0:38 |
| NX | Maarlaan 28 9937TH Meedhuizen | 1:21 |
| NY | Maarlaan 30 9937TH Meedhuizen | 1:50 |
| NZ | Kerklaan 3 9937PG Meedhuizen | 1:22 |
| O | Hoofdweg 30 9945PG Wagenborgen | 0:00 |
| OA | Kerklaan 8 9937PG Meedhuizen | 2:23 |
| OB | Kerklaan 6 9937PG Meedhuizen | 2:22 |
| OC | Opmeedenlaan 6 9937TN Meedhuizen | 0:44 |
| OD | Opmeedenlaan 4 9937TN Meedhuizen | 0:47 |
| OE | Opmeedenlaan 2 9937TN Meedhuizen | 0:58 |
| OF | Kloosterlaan 26 9945TG Wagenborgen | 8:10 |
| OG | Zomerdijk 1 9945TH Wagenborgen | 3:59 |
| OH | Zomerdijk 3 9945TH Wagenborgen | 1:33 |
| OI | Zomerdijk 3 A 9945TH Wagenborgen | 1:08 |
| OJ | Zomerdijk 2 9945TH Wagenborgen | 0:27 |
| OK | Kloosterlaan 21 A 9945TG Wagenborgen | 8:05 |
| OL | Kloosterlaan 21 B 9945TG Wagenborgen | 10:29 |
| OM | Ideweersterweg 4 9937TM Meedhuizen | 79:16 |
| ON | Maarlaan 22 C 9937TH Meedhuizen | 0:19 |
| OO | Kloosterlaan 21 9936TE Farmsum | 6:02 |
| OP | Geefsweersterweg 8 A 9937TC Meedhuizen | 27:11 |
| OQ | Houtweg 20 9936BL Farmsum | 0:07 |
| OR | Houtweg 22 9936BL Farmsum | 0:08 |
| OS | Houtweg 24 9936BL Farmsum | 0:08 |
| OT | Houtweg 26 9936BL Farmsum | 0:08 |
| OU | Houtweg 28 9936BL Farmsum | 0:09 |
| OV | Rondeboslaan 6 9936BK Farmsum | 0:17 |
| OW | Proosdij 14 9936EW Farmsum | 0:00 |
| OX | Bredelaan 6 9936ER Farmsum | 0:49 |
| OY | Bredelaan 4 9936ER Farmsum | 0:38 |
| OZ | Bredelaan 2 A 9936ER Farmsum | 0:27 |
| P | Hoofdweg 32 9945PG Wagenborgen | 0:00 |
| PA | Proosdij 24 9936EW Farmsum | 0:10 |
| PB | Proosdij 22 9936EW Farmsum | 0:07 |
| PC | Proosdij 20 9936EW Farmsum | 0:03 |
| PD | Proosdij 18 9936EW Farmsum | 0:00 |
| PE | Proosdij 16 9936EW Farmsum | 0:00 |
| PF | Trambaan 19 9936ES Farmsum | 0:31 |
| PG | Proosdij 17 9936ET Farmsum | 0:08 |
| PH | Proosdij 15 9936ET Farmsum | 0:06 |
| PI | Proosdij 13 9936ET Farmsum | 0:03 |
| PJ | Trambaan 17 9936ES Farmsum | 0:30 |
| PK | Trambaan 15 9936ES Farmsum | 0:29 |
| PL | Trambaan 13 9936ES Farmsum | 0:29 |
| PM | Trambaan 11 9936ES Farmsum | 0:28 |
| PN | Trambaan 9 9936ES Farmsum | 0:27 |
| PO | Trambaan 5 9936ES Farmsum | 0:26 |
| PP | Trambaan 3 9936ES Farmsum | 0:25 |
| PQ | Trambaan 1 9936ES Farmsum | 0:25 |
| PR | Proosdij 12 9936EW Farmsum | 0:00 |
| PS | Proosdij 8 9936EW Farmsum | 0:00 |
| PT | Proosdij 6 9936EW Farmsum | 0:00 |
| PU | Proosdij 4 9936EW Farmsum | 0:00 |
| PV | Proosdij 11 9936ET Farmsum | 0:01 |
| PW | Proosdij 9 9936ET Farmsum | 0:00 |
| PX | Proosdij 7 9936ET Farmsum | 0:00 |
| PY | Proosdij 5 9936ET Farmsum | 0:00 |
| PZ | Proosdij 1 9936ET Farmsum | 0:00 |
| Q | Hoofdweg 31 9945PA Wagenborgen | 0:00 |
| QA | Proosdij 3 9936ET Farmsum | 0:00 |
| QB | Farmsumerzijl 55 9936GC Farmsum | 0:00 |
| QC | Farmsumerzijl 57 9936GC Farmsum | 0:00 |
| QD | Rengersweg 4 9936GH Farmsum | 0:00 |

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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief A

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| QE | Rengersweg 2 9936GH Farmsum | 0:00 |
| QF | Schepperij 4 A 9936GN Farmsum | 0:00 |
| QG | Schepperij 2 A 9936GN Farmsum | 0:00 |
| QH | Schepperij 4 9936GN Farmsum | 0:00 |
| QI | Schepperij 2 9936GN Farmsum | 0:00 |
| QJ | Dijkrecht 4 9936GK Farmsum | 0:00 |
| QK | Dijkrecht 6 9936GK Farmsum | 0:00 |
| QL | Dijkrecht 10 9936GK Farmsum | 0:00 |
| QM | Dijkrecht 12 9936GK Farmsum | 0:00 |
| QN | Dijkrecht 14 9936GK Farmsum | 0:00 |
| QO | Dijkrecht 16 9936GK Farmsum | 0:00 |
| QP | Dijkrecht 18 9936GK Farmsum | 0:00 |
| QQ | Dijkrecht 20 9936GK Farmsum | 0:00 |
| QR | Dijkrecht 22 9936GK Farmsum | 0:00 |
| QS | Dijkrecht 24 9936GK Farmsum | 0:00 |
| QT | Dijkrecht 26 9936GK Farmsum | 0:00 |
| QU | Dijkrecht 28 9936GK Farmsum | 0:00 |
| QV | Dijkrecht 30 9936GK Farmsum | 0:00 |
| QW | Dijkrecht 32 9936GK Farmsum | 0:00 |
| QX | Dijkrecht 34 9936GK Farmsum | 0:00 |
| QY | Dijkrecht 36 9936GK Farmsum | 0:00 |
| QZ | Dijkrecht 40 9936GK Farmsum | 0:00 |
| R | Hoofdweg 38 9945PG Wagenborgen | 0:00 |
| RA | Dijkrecht 38 9936GK Farmsum | 0:00 |
| RB | Schepperij 20 9936GN Farmsum | 0:00 |
| RC | Schepperij 18 9936GN Farmsum | 0:00 |
| RD | Waarman 12 9936GW Farmsum | 0:00 |
| RE | Waarman 10 9936GW Farmsum | 0:00 |
| RF | Waarman 8 9936GW Farmsum | 0:00 |
| RG | Waarman 6 9936GW Farmsum | 0:00 |
| RH | Farmsumerzijl 1 9936GB Farmsum | 0:00 |
| RI | Farmsumerzijl 3 9936GB Farmsum | 0:00 |
| RJ | Farmsumerzijl 5 9936GB Farmsum | 0:00 |
| RK | Farmsumerzijl 7 9936GB Farmsum | 0:00 |
| RL | Farmsumerzijl 13 9936GB Farmsum | 0:00 |
| RM | Farmsumerzijl 15 9936GB Farmsum | 0:00 |
| RN | Farmsumerzijl 17 9936GB Farmsum | 0:00 |
| RO | Farmsumerzijl 19 9936GB Farmsum | 0:00 |
| RP | Farmsumerzijl 25 9936GB Farmsum | 0:00 |
| RQ | Farmsumerzijl 27 9936GB Farmsum | 0:00 |
| RR | Farmsumerzijl 29 9936GB Farmsum | 0:00 |
| RS | Farmsumerzijl 31 9936GC Farmsum | 0:00 |
| RT | Farmsumerzijl 37 9936GC Farmsum | 0:00 |
| RU | Farmsumerzijl 39 9936GC Farmsum | 0:00 |
| RV | Farmsumerzijl 41 9936GC Farmsum | 0:00 |
| RW | Farmsumerzijl 43 9936GC Farmsum | 0:00 |
| RX | Schepperij 1 9936GL Farmsum | 0:00 |
| RY | Schepperij 3 9936GL Farmsum | 0:00 |
| RZ | Schepperij 5 9936GL Farmsum | 0:00 |
| S | Hoofdweg 39 9945PB Wagenborgen | 0:00 |
| SA | Schepperij 7 9936GL Farmsum | 0:00 |
| SB | Schepperij 9 9936GL Farmsum | 0:00 |
| SC | Schepperij 11 9936GL Farmsum | 0:00 |
| SD | Schepperij 13 9936GL Farmsum | 0:00 |
| SE | Schepperij 15 9936GL Farmsum | 0:00 |
| SF | Dijkrecht 8 9936GK Farmsum | 0:00 |
| SG | Geefsweersterweg 9 9937TB Meedhuizen | 5:24 |
| SH | Geefsweersterweg 7 9937TB Meedhuizen | 23:18 |
| SI | Geefsweersterweg 8 9937TC Meedhuizen | 28:56 |
| SJ | Geefsweersterweg 3 9937TB Meedhuizen | 15:51 |
| SK | Geefsweersterweg 6 9937TC Meedhuizen | 20:37 |
| SL | Geefsweersterweg 4 9937TC Meedhuizen | 14:48 |
| SM | Meedhuizerweg 2 9937TK Meedhuizen | 0:10 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief A

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| SN | Molenstraat 31 9936EB Farmsum | 0:00 |
| SO | Hindrik Jagerstraat 32 9936CV Farmsum | 0:00 |
| SP | Hindrik Jagerstraat 11 9936CT Farmsum | 0:04 |
| SQ | Hindrik Jagerstraat 13 9936CT Farmsum | 0:04 |
| SR | Hindrik Jagerstraat 15 9936CT Farmsum | 0:04 |
| SS | Hindrik Jagerstraat 34 9936CV Farmsum | 0:00 |
| ST | Hindrik Jagerstraat 36 9936CV Farmsum | 0:00 |
| SU | Borgshof 31 9936CR Farmsum | 0:00 |
| SV | Borgshof 33 9936CR Farmsum | 0:00 |
| SW | Borgshof 39 9936CR Farmsum | 0:07 |
| SX | Borgshof 35 9936CR Farmsum | 0:03 |
| SY | Molenstraat 20 9936EC Farmsum | 0:00 |
| SZ | Molenstraat 24 9936EC Farmsum | 0:00 |
| T | Hoofdweg 35 9945PB Wagenborgen | 0:00 |
| TA | Molenstraat 28 9936EC Farmsum | 0:00 |
| TB | Molenstraat 41 9936EB Farmsum | 0:00 |
| TC | Molenstraat 43 9936EB Farmsum | 0:00 |
| TD | Molenstraat 45 9936EB Farmsum | 0:00 |
| TE | Molenstraat 32 9936EC Farmsum | 0:00 |
| TF | Achterweg 13 9936EG Farmsum | 0:00 |
| TG | Achterweg 11 9936EG Farmsum | 0:00 |
| TH | Achterweg 9 9936EG Farmsum | 0:00 |
| TI | Molenstraat 49 9936EB Farmsum | 0:00 |
| TJ | Molenstraat 51 9936EB Farmsum | 0:00 |
| TK | Molenstraat 53 9936EB Farmsum | 0:00 |
| TL | Molenstraat 57 9936EB Farmsum | 0:00 |
| TM | Molenstraat 61 9936EB Farmsum | 0:00 |
| TN | Molenstraat 63 9936EB Farmsum | 0:00 |
| TO | Molenstraat 34 9936ED Farmsum | 0:00 |
| TP | Molenstraat 38 9936ED Farmsum | 0:00 |
| TQ | Molenstraat 40 9936ED Farmsum | 0:00 |
| TR | Molenstraat 42 9936ED Farmsum | 0:00 |
| TS | Molenstraat 44 9936ED Farmsum | 0:00 |
| TT | Molenstraat 65 9936EB Farmsum | 0:00 |
| TU | Molenstraat 48 9936ED Farmsum | 0:00 |
| TV | Molenstraat 50 9936ED Farmsum | 0:00 |
| TW | Molenstraat 56 9936ED Farmsum | 0:00 |
| TX | Molenstraat 58 9936EE Farmsum | 0:00 |
| TY | Molenstraat 62 9936EE Farmsum | 0:00 |
| TZ | Molenstraat 72 9936EE Farmsum | 0:00 |
| U | Hoofdweg 37 9945PB Wagenborgen | 0:00 |
| UA | Molenstraat 70 9936EE Farmsum | 0:00 |
| UB | Molenstraat 68 9936EE Farmsum | 0:00 |
| UC | Molenstraat 66 9936EE Farmsum | 0:00 |
| UD | Achterweg 2 9936EG Farmsum | 0:00 |
| UE | Achterweg 12 9936EG Farmsum | 0:00 |
| UF | Achterweg 10 9936EG Farmsum | 0:00 |
| UG | Achterweg 8 9936EG Farmsum | 0:00 |
| UH | Hindrik Jagerstraat 17 9936CT Farmsum | 0:04 |
| UI | Molenstraat 30 9936EC Farmsum | 0:00 |
| UJ | Borgweg 141 9936EN Farmsum | 0:12 |
| UK | Borgweg 139 9936EN Farmsum | 0:14 |
| UL | Borgweg 137 9936EN Farmsum | 0:14 |
| UM | Borgweg 135 9936EN Farmsum | 0:16 |
| UN | Afwateringskanaal 109 9936AV Farmsum | 0:19 |
| UO | Borgweg 131 9936EM Farmsum | 0:13 |
| UP | Borgweg 133 9936EM Farmsum | 0:25 |
| UQ | Borgshof 41 9936CR Farmsum | 0:13 |
| UR | Borgshof 43 9936CR Farmsum | 0:18 |
| US | Borgshof 45 9936CR Farmsum | 0:21 |
| UT | Molenstraat 74 9936EE Farmsum | 0:00 |
| UU | Molenstraat 76 9936EE Farmsum | 0:00 |
| UV | Molenstraat 78 9936EE Farmsum | 0:00 |

To be continued on next page...

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Calculated:
17-2-2017 12:36/3.0.654

# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief A

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| UW | Molenstraat 82 9936EE Farmsum | 0:00 |
| UX | Molenstraat 84 9936EE Farmsum | 0:00 |
| UY | Borgweg 123 9936EM Farmsum | 0:00 |
| UZ | Borgweg 125 9936EM Farmsum | 0:00 |
| V | Hoofdweg 44 9945PH Wagenborgen | 0:00 |
| VA | Borgweg 127 9936EM Farmsum | 0:00 |
| VB | Borgweg 129 9936EM Farmsum | 0:00 |
| VC | Farmsumerzijl 51 9936GC Farmsum | 0:00 |
| VD | Molenstraat 80 9936EE Farmsum | 0:00 |
| VE | Houtweg 30 9936BL Farmsum | 0:09 |
| VF | Houtweg 32 9936BL Farmsum | 0:10 |
| VG | Houtweg 34 9936BL Farmsum | 0:10 |
| VH | Houtweg 36 9936BL Farmsum | 0:11 |
| VI | Houtweg 38 9936BL Farmsum | 0:11 |
| VJ | Houtweg 40 9936BL Farmsum | 0:12 |
| VK | Houtweg 42 9936BL Farmsum | 0:11 |
| VL | Houtweg 44 9936BL Farmsum | 0:11 |
| VM | Houtweg 46 9936BL Farmsum | 0:11 |
| VN | Houtweg 48 9936BL Farmsum | 0:11 |
| VO | Rondeboslaan 26 9936BK Farmsum | 0:17 |
| VP | Rondeboslaan 28 9936BK Farmsum | 0:17 |
| VQ | Seendweg 32 9936GA Farmsum | 0:44 |
| VR | Trambaan 21 9936ES Farmsum | 0:32 |
| VS | Proosdij 19 9936ET Farmsum | 0:34 |
| VT | Bredelaan 14 9936ER Farmsum | 1:29 |
| VU | Bredelaan 10 9936ER Farmsum | 1:04 |
| VV | Bredelaan 8 9936ER Farmsum | 1:00 |
| VW | Seendweg 22 9936GA Farmsum | 1:35 |
| VX | Seendweg 28 9936GA Farmsum | 1:12 |
| VY | Proosdij 28 9936EW Farmsum | 0:16 |
| VZ | Proosdij 30 9936EX Farmsum | 0:18 |
| W | Hoofdweg 48 9945PH Wagenborgen | 0:00 |
| WA | Proosdij 26 9936EW Farmsum | 0:14 |
| WB | Afwateringskanaal 107 9936AV Farmsum | 0:18 |
| WC | Rondeboslaan 22 A 9936BK Farmsum | 0:30 |
| WD | Rondeboslaan 22 B 9936BK Farmsum | 0:31 |
| WE | Rondeboslaan 2 A 9936BK Farmsum | 0:23 |
| WF | Rondeboslaan 2 B 9936BK Farmsum | 0:18 |
| WG | Seendweg 17 9936GA Farmsum | 1:07 |
| WH | Borgshof 29 9936CR Farmsum | 0:00 |
| WI | Molenstraat 22 9936EC Farmsum | 0:00 |
| WJ | Achterweg 7 A 9936EG Farmsum | 0:00 |
| WK | Molenstraat 26 9936EC Farmsum | 0:00 |
| WL | Borgweg 113 9936EM Farmsum | 0:00 |
| WM | Borgweg 115 9936EM Farmsum | 0:00 |
| WN | Borgweg 117 9936EM Farmsum | 0:00 |
| WO | Borgweg 119 9936EM Farmsum | 0:00 |
| WP | Borgweg 121 9936EM Farmsum | 0:00 |
| WQ | Farmsumerzijl 45 9936GC Farmsum | 0:00 |
| WR | Farmsumerzijl 47 9936GC Farmsum | 0:00 |
| WS | Farmsumerzijl 49 9936GC Farmsum | 0:00 |
| WT | Waarman 4 9936GW Farmsum | 0:00 |
| WU | Waarman 2 9936GW Farmsum | 0:00 |
| WV | Farmsumerzijl 9 9936GB Farmsum | 0:00 |
| WW | Farmsumerzijl 11 9936GB Farmsum | 0:00 |
| WX | Farmsumerzijl 21 9936GB Farmsum | 0:00 |
| WY | Farmsumerzijl 23 9936GB Farmsum | 0:00 |
| WZ | Farmsumerzijl 33 9936GC Farmsum | 0:00 |
| X | Hoofdweg 41 9945PB Wagenborgen | 0:00 |
| XA | Farmsumerzijl 35 9936GC Farmsum | 0:00 |
| XB | Schepperij 17 9936GL Farmsum | 0:00 |
| XC | Schepperij 19 9936GL Farmsum | 0:00 |
| XD | Schepperij 21 9936GL Farmsum | 0:00 |

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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief A

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| XE | Dijkrecht 3 9936GJ Farmsum | 0:00 |
| XF | Dijkrecht 5 9936GJ Farmsum | 0:00 |
| XG | Dijkrecht 7 9936GJ Farmsum | 0:00 |
| XH | Dijkrecht 9 9936GJ Farmsum | 0:00 |
| XI | Dijkrecht 11 9936GJ Farmsum | 0:00 |
| XJ | Dijkrecht 13 9936GJ Farmsum | 0:00 |
| XK | Dijkrecht 15 9936GJ Farmsum | 0:00 |
| XL | Dijkrecht 17 9936GJ Farmsum | 0:00 |
| XM | Dijkrecht 19 9936GJ Farmsum | 0:00 |
| XN | Dijkrecht 21 9936GJ Farmsum | 0:00 |
| XO | Schepperij 6 9936GN Farmsum | 0:00 |
| XP | Schepperij 8 9936GN Farmsum | 0:00 |
| XQ | Schepperij 10 9936GN Farmsum | 0:00 |
| XR | Schepperij 12 9936GN Farmsum | 0:00 |
| XS | Schepperij 14 9936GN Farmsum | 0:00 |
| XT | Schepperij 16 9936GN Farmsum | 0:00 |
| XU | Olderman 2 9936GT Farmsum | 0:00 |
| XV | Olderman 4 9936GT Farmsum | 0:00 |
| XW | Olderman 6 9936GT Farmsum | 0:00 |
| XX | Olderman 8 9936GT Farmsum | 0:00 |
| XY | Olderman 10 9936GT Farmsum | 0:00 |
| XZ | Olderman 12 9936GT Farmsum | 0:00 |
| Y | Hoofdweg 20 9945PG Wagenborgen | 0:00 |
| YA | Olderman 14 9936GT Farmsum | 0:00 |
| YB | Dijkrecht 23 9936GJ Farmsum | 0:00 |
| YC | Dijkrecht 25 9936GJ Farmsum | 0:00 |
| YD | Dijkrecht 27 9936GJ Farmsum | 0:00 |
| YE | Dijkrecht 29 9936GJ Farmsum | 0:00 |
| YF | Dijkrecht 31 9936GJ Farmsum | 0:00 |
| YG | Dijkrecht 33 9936GJ Farmsum | 0:00 |
| YH | Dijkrecht 35 9936GJ Farmsum | 0:00 |
| YI | Dijkrecht 37 9936GJ Farmsum | 0:00 |
| YJ | Dijkrecht 39 9936GJ Farmsum | 0:00 |
| YK | Dijkrecht 41 9936GJ Farmsum | 0:00 |
| YL | Dijkrecht 43 9936GJ Farmsum | 0:00 |
| YM | Olderman 1 9936GS Farmsum | 0:00 |
| YN | Olderman 3 9936GS Farmsum | 0:00 |
| YO | Olderman 5 9936GS Farmsum | 0:00 |
| YP | Olderman 7 9936GS Farmsum | 0:00 |
| YQ | Schepperij 37 9936GM Farmsum | 0:00 |
| YR | Schepperij 41 9936GM Farmsum | 0:00 |
| YS | Schepperij 45 9936GM Farmsum | 0:00 |
| YT | Schepperij 47 9936GM Farmsum | 0:00 |
| YU | Schepperij 49 9936GM Farmsum | 0:00 |
| YV | Olderman 18 9936GT Farmsum | 0:00 |
| YW | Olderman 20 9936GT Farmsum | 0:00 |
| YX | Olderman 22 9936GT Farmsum | 0:00 |
| YY | Olderman 24 9936GT Farmsum | 0:00 |
| YZ | Olderman 26 9936GT Farmsum | 0:00 |
| Z | Hoofdweg 22 9945PG Wagenborgen | 0:00 |
| ZA | Olderman 28 9936GT Farmsum | 0:00 |
| ZB | Olderman 30 9936GT Farmsum | 0:00 |
| ZC | Olderman 9 9936GS Farmsum | 0:00 |
| ZD | Olderman 11 9936GS Farmsum | 0:00 |
| ZE | Olderman 13 9936GS Farmsum | 0:00 |
| ZF | Proosdij 32 9936EX Farmsum | 0:17 |
| ZG | Proosdij 36 9936EX Farmsum | 0:16 |
| ZH | Proosdij 38 9936EX Farmsum | 0:15 |
| ZI | Proosdij 40 9936EX Farmsum | 0:11 |
| ZJ | Proosdij 27 9936EV Farmsum | 0:30 |
| ZK | Proosdij 25 9936EV Farmsum | 0:33 |
| ZL | Proosdij 23 9936EV Farmsum | 0:35 |
| ZM | Proosdij 21 9936EV Farmsum | 0:37 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief A

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| ZN | Seendweg 5 9936GA Farmsum | 0:53 |
| ZO | Proosdij 29 9936EV Farmsum | 0:29 |
| ZP | Proosdij 31 9936EV Farmsum | 0:30 |
| ZQ | Proosdij 33 9936EV Farmsum | 0:35 |
| ZR | Proosdij 35 9936EV Farmsum | 0:27 |
| ZS | Proosdij 37 9936EV Farmsum | 0:18 |
| ZT | Proosdij 39 9936EV Farmsum | 0:15 |
| ZU | Proosdij 41 9936EV Farmsum | 0:13 |
| ZV | Proosdij 43 9936EV Farmsum | 0:10 |
| ZW | Proosdij 45 9936EV Farmsum | 0:07 |
| ZX | Proosdij 47 9936EV Farmsum | 0:05 |
| ZY | Olderman 15 9936GS Farmsum | 0:00 |
| ZZ | Rengersweg 97 9936GG Farmsum | 0:00 |

Total amount of flickering on the shadow receptors caused by each WTG

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 1 | GE WIND ENERGY GE 2.5-120 2500 120.0 !O! hub: 120,0 m (TOT: 180,0 m) (80) | 736:09 | 123:46 |
| 2 | GE WIND ENERGY GE 2.5-120 2500 120.0 !O! hub: 120,0 m (TOT: 180,0 m) (81) | 289:32 | 34:57 |
| 3 | GE WIND ENERGY GE 2.5-120 2500 120.0 !O! hub: 120,0 m (TOT: 180,0 m) (82) | 90:50 | 18:39 |
| 4 | GE WIND ENERGY GE 2.5-120 2500 120.0 !O! hub: 120,0 m (TOT: 180,0 m) (83) | 183:38 | 35:44 |
| 5 | GE WIND ENERGY GE 2.5-120 2500 120.0 !O! hub: 120,0 m (TOT: 180,0 m) (84) | 309:03 | 42:46 |
| 6 | GE WIND ENERGY GE 2.5-120 2500 120.0 !O! hub: 120,0 m (TOT: 180,0 m) (85) | 658:38 | 138:41 |
| 7 | GE WIND ENERGY GE 2.5-120 2500 120.0 !O! hub: 120,0 m (TOT: 180,0 m) (86) | 248:41 | 31:15 |
| 8 | GE WIND ENERGY GE 2.5-120 2500 120.0 !O! hub: 120,0 m (TOT: 180,0 m) (87) | 98:23 | 11:33 |
| 9 | GE WIND ENERGY GE 2.5-120 2500 120.0 !O! hub: 120,0 m (TOT: 180,0 m) (88) | 31:59 | 6:34 |
| 10 | GE WIND ENERGY GE 2.5-120 2500 120.0 !O! hub: 120,0 m (TOT: 180,0 m) (89) | 129:29 | 28:06 |
| 11 | GE WIND ENERGY GE 2.5-120 2500 120.0 !O! hub: 120,0 m (TOT: 180,0 m) (90) | 105:45 | 20:01 |
| 12 | GE WIND ENERGY GE 2.5-120 2500 120.0 !O! hub: 120,0 m (TOT: 180,0 m) (91) | 503:25 | 106:57 |
| 13 | GE WIND ENERGY GE 2.5-120 2500 120.0 !O! hub: 120,0 m (TOT: 180,0 m) (92) | 345:10 | 63:23 |
| 14 | GE WIND ENERGY GE 2.5-120 2500 120.0 !O! hub: 120,0 m (TOT: 180,0 m) (93) | 392:48 | 70:01 |

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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief B

### Assumptions for shadow calculations

Maximum distance for influence
Calculate only when more than 20 % of sun is covered by the blade
Please look in WTG table

| | |
|---|---|
| Minimum sun height over horizon for influence | 5 ° |
| Day step for calculation | 1 days |
| Time step for calculation | 1 minutes |

Sunshine probability S (Average daily sunshine hours) [EELDE]

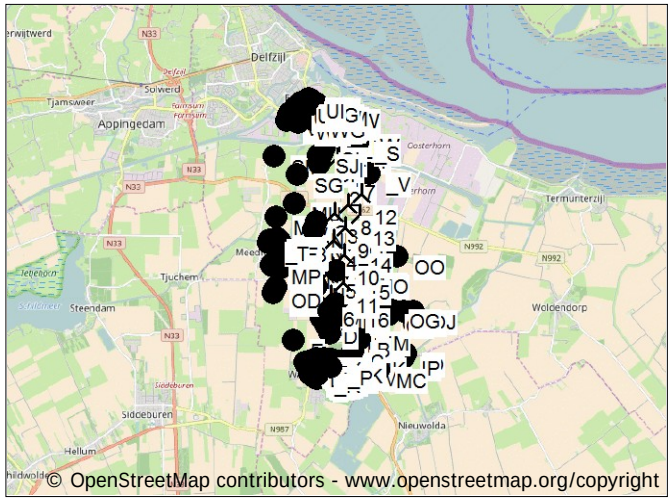
| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,36 | 2,51 | 3,14 | 5,11 | 6,79 | 5,48 | 5,64 | 5,50 | 4,24 | 3,12 | 1,82 | 0,96 |

Operational time

| N | NNE | ENE | E | ESE | SSE | S | SSW | WSW | W | WNW | NNW | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 473 | 547 | 527 | 593 | 464 | 444 | 729 | 1.274 | 1.330 | 812 | 634 | 588 | 8.415 |

Idle start wind speed: Cut in wind speed from power curve

All coordinates are in
Dutch Stereo-RD/NAP 2008




Scale 1:200.000

New WTG  Shadow receptor

## WTGs

| | X (east) | Y (north) | Z | Row data/Description | WTG type Valid | Manufact. | Type-generator | Power, rated | Rotor diameter | Hub height | Shadow data Calculation distance | RPM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | [m] | | | | | [kW] | [m] | [m] | [m] | [RPM] |
| 1 | 258.611 | 592.414 | 0,0 | GE WIND ENERGY GE 2.5-12... | Yes | GE WIND ENERGY | GE 2.5-120-2.500 | 2.500 | 120,0 | 120,0 | 1.740 | 13,0 |
| 2 | 258.598 | 591.937 | 0,0 | GE WIND ENERGY GE 2.5-12... | Yes | GE WIND ENERGY | GE 2.5-120-2.500 | 2.500 | 120,0 | 120,0 | 1.740 | 13,0 |
| 3 | 258.571 | 590.943 | 0,0 | GE WIND ENERGY GE 2.5-12... | Yes | GE WIND ENERGY | GE 2.5-120-2.500 | 2.500 | 120,0 | 120,0 | 1.740 | 13,0 |
| 4 | 258.553 | 590.211 | 0,0 | GE WIND ENERGY GE 2.5-12... | Yes | GE WIND ENERGY | GE 2.5-120-2.500 | 2.500 | 120,0 | 120,0 | 1.740 | 13,0 |
| 5 | 258.531 | 589.481 | 0,0 | GE WIND ENERGY GE 2.5-12... | Yes | GE WIND ENERGY | GE 2.5-120-2.500 | 2.500 | 120,0 | 120,0 | 1.740 | 13,0 |
| 6 | 258.511 | 588.750 | 0,0 | GE WIND ENERGY GE 2.5-12... | Yes | GE WIND ENERGY | GE 2.5-120-2.500 | 2.500 | 120,0 | 120,0 | 1.740 | 13,0 |
| 7 | 258.993 | 592.118 | 0,0 | GE WIND ENERGY GE 2.5-12... | Yes | GE WIND ENERGY | GE 2.5-120-2.500 | 2.500 | 120,0 | 120,0 | 1.740 | 13,0 |
| 8 | 258.921 | 591.166 | 0,0 | GE WIND ENERGY GE 2.5-12... | Yes | GE WIND ENERGY | GE 2.5-120-2.500 | 2.500 | 120,0 | 120,0 | 1.740 | 13,0 |
| 9 | 258.864 | 590.564 | 0,0 | GE WIND ENERGY GE 2.5-12... | Yes | GE WIND ENERGY | GE 2.5-120-2.500 | 2.500 | 120,0 | 120,0 | 1.740 | 13,0 |
| 10 | 258.843 | 589.832 | 0,0 | GE WIND ENERGY GE 2.5-12... | Yes | GE WIND ENERGY | GE 2.5-120-2.500 | 2.500 | 120,0 | 120,0 | 1.740 | 13,0 |
| 11 | 258.822 | 589.099 | 0,0 | GE WIND ENERGY GE 2.5-12... | Yes | GE WIND ENERGY | GE 2.5-120-2.500 | 2.500 | 120,0 | 120,0 | 1.740 | 13,0 |
| 12 | 259.269 | 591.456 | 0,0 | GE WIND ENERGY GE 2.5-12... | Yes | GE WIND ENERGY | GE 2.5-120-2.500 | 2.500 | 120,0 | 120,0 | 1.740 | 13,0 |
| 13 | 259.216 | 590.910 | 0,0 | GE WIND ENERGY GE 2.5-12... | Yes | GE WIND ENERGY | GE 2.5-120-2.500 | 2.500 | 120,0 | 120,0 | 1.740 | 13,0 |
| 14 | 259.154 | 590.190 | 0,0 | GE WIND ENERGY GE 2.5-12... | Yes | GE WIND ENERGY | GE 2.5-120-2.500 | 2.500 | 120,0 | 120,0 | 1.740 | 13,0 |
| 15 | 259.136 | 589.461 | 0,0 | GE WIND ENERGY GE 2.5-12... | Yes | GE WIND ENERGY | GE 2.5-120-2.500 | 2.500 | 120,0 | 120,0 | 1.740 | 13,0 |
| 16 | 259.113 | 588.725 | 0,0 | GE WIND ENERGY GE 2.5-12... | Yes | GE WIND ENERGY | GE 2.5-120-2.500 | 2.500 | 120,0 | 120,0 | 1.740 | 13,0 |
| 17 | 259.027 | 588.069 | 0,0 | GE WIND ENERGY GE 2.5-12... | Yes | GE WIND ENERGY | GE 2.5-120-2.500 | 2.500 | 120,0 | 120,0 | 1.740 | 13,0 |

## Shadow receptor-Input

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| [A | Rengersweg 99 9936GG Farmsum | 258.006 | 593.455 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [B | Rengersweg 12 9936GH Farmsum | 258.034 | 593.437 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [C | Rengersweg 10 9936GH Farmsum | 258.034 | 593.444 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [D | Kluft 1 9936GP Farmsum | 258.040 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [E | Kluft 3 9936GP Farmsum | 258.047 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [F | Proosdij 46 9936EX Farmsum | 258.058 | 593.427 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [G | Proosdij 48 9936EX Farmsum | 258.062 | 593.433 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [H | Proosdij 50 9936EX Farmsum | 258.090 | 593.443 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [I | Proosdij 52 9936EX Farmsum | 258.090 | 593.430 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [J | Proosdij 54 9936EX Farmsum | 258.094 | 593.415 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [K | Proosdij 56 9936EX Farmsum | 258.108 | 593.416 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [L | Olderman 21 9936GS Farmsum | 258.128 | 593.420 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [M | Olderman 19 9936GS Farmsum | 258.126 | 593.434 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [N | Olderman 17 9936GS Farmsum | 258.125 | 593.448 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [O | Kluft 5 9936GP Farmsum | 258.060 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [P | Kluft 7 9936GP Farmsum | 258.067 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [Q | Kluft 9 9936GP Farmsum | 258.096 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
17-2-2017 13:51/3.0.654

# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief B

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| [R | Kluft 11 9936GP Farmsum | 258.102 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [S | Kluft 17 9936GP Farmsum | 258.122 | 593.469 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [T | Zijlvest 8 9936GZ Farmsum | 258.202 | 593.424 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [U | Olderman 32 9936GT Farmsum | 258.151 | 593.480 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [V | Olderman 34 9936GT Farmsum | 258.151 | 593.474 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [W | Olderman 36 9936GT Farmsum | 258.153 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [X | Olderman 38 9936GT Farmsum | 258.153 | 593.453 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [Y | Olderman 40 9936GT Farmsum | 258.155 | 593.440 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| [Z | Olderman 42 9936GT Farmsum | 258.155 | 593.434 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \A | Zijlvest 22 A 9936GZ Farmsum | 258.238 | 593.466 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \B | Zijlvest 18 A 9936GZ Farmsum | 258.229 | 593.451 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \C | Zijlvest 18 9936GZ Farmsum | 258.233 | 593.449 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \D | Zijlvest 14 9936GZ Farmsum | 258.229 | 593.441 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \E | Borgweg 1 9936EH Farmsum | 258.030 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \F | Borgweg 3 9936EH Farmsum | 258.031 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \G | Borgweg 5 9936EH Farmsum | 258.031 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \H | Borgweg 7 9936EH Farmsum | 258.031 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \I | Borgweg 9 9936EH Farmsum | 258.031 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \J | Borgweg 11 9936EH Farmsum | 258.031 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \K | Borgweg 13 9936EH Farmsum | 258.031 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \L | Borgweg 15 9936EH Farmsum | 258.033 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \M | Borgweg 17 9936EH Farmsum | 258.033 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \N | Borgweg 19 9936EH Farmsum | 258.033 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \O | Borgweg 21 9936EH Farmsum | 258.033 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \P | Borgweg 23 9936EH Farmsum | 258.033 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \Q | Borgweg 25 9936EH Farmsum | 258.033 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \R | Borgweg 27 9936EH Farmsum | 258.033 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \S | Borgweg 29 9936EJ Farmsum | 258.035 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \T | Borgweg 31 9936EJ Farmsum | 258.035 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \U | Borgweg 33 9936EJ Farmsum | 258.035 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \V | Borgweg 35 9936EJ Farmsum | 258.035 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \W | Borgweg 37 9936EJ Farmsum | 258.035 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \X | Borgweg 39 9936EJ Farmsum | 258.036 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \Y | Borgweg 41 9936EJ Farmsum | 258.036 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| \Z | Borgweg 43 9936EJ Farmsum | 258.037 | 593.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]A | Borgweg 45 9936EJ Farmsum | 258.038 | 593.770 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]B | Borgweg 47 9936EJ Farmsum | 258.038 | 593.762 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]C | Borgweg 49 9936EJ Farmsum | 258.038 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]D | Borgweg 51 9936EJ Farmsum | 258.038 | 593.746 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]E | Borgweg 53 9936EJ Farmsum | 258.038 | 593.737 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]F | Borgweg 55 9936EJ Farmsum | 258.038 | 593.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]G | Borgweg 57 9936EK Farmsum | 258.003 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]H | Borgweg 59 9936EK Farmsum | 258.003 | 593.802 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]I | Borgweg 61 9936EK Farmsum | 258.003 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]J | Borgweg 63 9936EK Farmsum | 258.003 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]K | Borgweg 65 9936EK Farmsum | 258.003 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]L | Borgweg 67 9936EK Farmsum | 258.003 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]M | Borgweg 69 9936EK Farmsum | 258.003 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]N | Borgweg 71 9936EK Farmsum | 258.006 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]O | Borgweg 73 9936EK Farmsum | 258.006 | 593.802 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]P | Borgweg 75 9936EK Farmsum | 258.006 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]Q | Borgweg 77 9936EK Farmsum | 258.005 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]R | Borgweg 79 9936EK Farmsum | 258.005 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]S | Borgweg 81 9936EK Farmsum | 258.005 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]T | Borgweg 83 9936EK Farmsum | 258.005 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]U | Borgweg 85 9936EL Farmsum | 258.008 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]V | Borgweg 87 9936EL Farmsum | 258.008 | 593.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]W | Borgweg 89 9936EL Farmsum | 258.008 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]X | Borgweg 91 9936EL Farmsum | 258.008 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]Y | Borgweg 93 9936EL Farmsum | 258.008 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ]Z | Borgweg 95 9936EL Farmsum | 258.008 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^A | Borgweg 97 9936EL Farmsum | 258.008 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^B | Borgweg 99 9936EL Farmsum | 258.010 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^C | Borgweg 101 9936EL Farmsum | 258.010 | 593.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief B

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| ^D | Borgweg 103 9936EL Farmsum | 258.010 | 593.811 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^E | Borgweg 105 9936EL Farmsum | 258.010 | 593.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^F | Borgweg 107 9936EL Farmsum | 258.010 | 593.827 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^G | Borgweg 109 9936EL Farmsum | 258.010 | 593.835 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^H | Borgweg 111 9936EL Farmsum | 258.010 | 593.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^I | Kluft 18 9936GR Farmsum | 258.043 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^J | Kluft 20 9936GR Farmsum | 258.050 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^K | Kluft 22 9936GR Farmsum | 258.057 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^L | Kluft 24 9936GR Farmsum | 258.064 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^M | Kluft 26 9936GR Farmsum | 258.071 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^N | Kluft 28 9936GR Farmsum | 258.078 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^O | Kluft 30 9936GR Farmsum | 258.085 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^P | Kluft 32 9936GR Farmsum | 258.092 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Q | Kluft 2 9936GR Farmsum | 258.043 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^R | Kluft 4 9936GR Farmsum | 258.050 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^S | Kluft 6 9936GR Farmsum | 258.057 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^T | Kluft 8 9936GR Farmsum | 258.064 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^U | Kluft 10 9936GR Farmsum | 258.071 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^V | Kluft 12 9936GR Farmsum | 258.078 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^W | Kluft 14 9936GR Farmsum | 258.085 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^X | Kluft 16 9936GR Farmsum | 258.092 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Y | Zijlvest 20 A 9936GZ Farmsum | 258.233 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ^Z | Schepperij 51 9936GM Farmsum | 258.194 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _A | Waarman 15 9936GV Farmsum | 258.223 | 593.543 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _B | Waarman 17 9936GV Farmsum | 258.223 | 593.537 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _C | Waarman 19 9936GV Farmsum | 258.223 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _D | Waarman 21 9936GV Farmsum | 258.223 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _E | Waarman 23 9936GV Farmsum | 258.223 | 593.518 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _F | Waarman 25 9936GV Farmsum | 258.223 | 593.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _G | Waarman 27 9936GV Farmsum | 258.223 | 593.506 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _H | Waarman 29 9936GV Farmsum | 258.222 | 593.500 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _I | Heemskesweg 5 9936HE Farmsum | 258.759 | 592.961 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _J | Geefsweersterweg 2 9937TC Meedhuizen | 258.288 | 593.033 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _K | Seendweg 12 9936GA Farmsum | 257.950 | 593.306 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _L | Schepperij 39 9936GM Farmsum | 258.194 | 593.537 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _M | Schepperij 43 9936GM Farmsum | 258.194 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _N | Zijlvest 14 A 9936GZ Farmsum | 258.222 | 593.445 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _O | Zijlvest 24 A 9936GZ Farmsum | 258.239 | 593.474 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _P | Familie Bronsweg 22 9945PS Wagenborgen | 258.549 | 586.857 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _Q | Geefsweersterweg 1 9937TB Meedhuizen | 258.250 | 593.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _R | Hoofdweg 28 9945PG Wagenborgen | 258.194 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _S | Karspelpad 8 9936HP Farmsum | 259.130 | 592.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _T | Maarkampen 12 9937PL Meedhuizen | 256.818 | 590.108 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _U | Molenstraat 64 9936EE Farmsum | 257.875 | 593.798 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _V | Oosterlaan 9 9936HN Farmsum | 259.468 | 591.997 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _W | Schaappad 1 9936HT Farmsum | 258.946 | 593.010 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _X | Seendweg 8 9936GA Farmsum | 258.005 | 593.293 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _Y | T.J. Jansenweg 11 9936HL Farmsum | 258.896 | 592.598 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| _Z | Waarman 1 9936GV Farmsum | 258.213 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| `A | Waarman 11 9936GV Farmsum | 258.213 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| `B | Waarman 3 9936GV Farmsum | 258.213 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| `C | Waarman 5 9936GV Farmsum | 258.213 | 593.587 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| `D | Waarman 7 9936GV Farmsum | 258.213 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| `E | Waarman 9 9936GV Farmsum | 258.213 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| `F | Zijlvest 20 9936GZ Farmsum | 258.233 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| A | Familie Bronsweg 60 9945TA Wagenborgen | 258.511 | 587.742 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AA | Hoofdweg 26 9945PG Wagenborgen | 258.194 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AB | Hoofdweg 23 9945PA Wagenborgen | 258.227 | 586.683 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AC | Hoofdweg 25 9945PA Wagenborgen | 258.217 | 586.663 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AD | Hoofdweg 27 9945PA Wagenborgen | 258.213 | 586.652 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AE | Hoofdweg 29 9945PA Wagenborgen | 258.212 | 586.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AF | Hoofdweg 18 9945PG Wagenborgen | 258.219 | 586.709 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AG | Hoofdweg 14 9945PG Wagenborgen | 258.222 | 586.726 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AH | Hoofdweg 10 9945PG Wagenborgen | 258.236 | 586.722 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
17-2-2017 13:51/3.0.654

# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief B

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| AI | Hoofdweg 8 9945PG Wagenborgen | 258.258 | 586.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AJ | Hoofdweg 6 9945PG Wagenborgen | 258.276 | 586.731 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AK | Hoofdweg 4 9945PG Wagenborgen | 258.298 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AL | Hoofdweg 21 9945PA Wagenborgen | 258.243 | 586.704 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AM | Hoofdweg 19 9945PA Wagenborgen | 258.272 | 586.709 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AN | Hoofdweg 2 9945PG Wagenborgen | 258.318 | 586.748 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AO | Hoofdweg 15 9945PA Wagenborgen | 258.311 | 586.705 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AP | Hoofdweg 9 9945PA Wagenborgen | 258.331 | 586.713 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AQ | Hoofdweg 11 9945PA Wagenborgen | 258.325 | 586.710 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AR | Hoofdweg 7 9945PA Wagenborgen | 258.338 | 586.725 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AS | Hoofdweg 5 9945PA Wagenborgen | 258.343 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AT | H.L. Emmensweg 17 9945PW Wagenborgen | 258.087 | 586.741 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AU | H.L. Emmensweg 18 9945PX Wagenborgen | 258.106 | 586.733 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AV | H.L. Emmensweg 20 9945PX Wagenborgen | 258.107 | 586.740 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AW | H.L. Emmensweg 22 9945PX Wagenborgen | 258.107 | 586.747 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AX | H.L. Emmensweg 24 9945PX Wagenborgen | 258.108 | 586.753 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AY | H.L. Emmensweg 26 9945PX Wagenborgen | 258.111 | 586.767 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| AZ | H.L. Emmensweg 10 9945PX Wagenborgen | 258.103 | 586.698 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| B | Tolhek 4 9945TJ Wagenborgen | 259.289 | 587.610 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BA | H.L. Emmensweg 12 9945PX Wagenborgen | 258.103 | 586.704 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BB | H.L. Emmensweg 14 9945PX Wagenborgen | 258.104 | 586.711 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BC | H.L. Emmensweg 16 9945PX Wagenborgen | 258.105 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BD | H.L. Emmensweg 13 9945PW Wagenborgen | 258.085 | 586.719 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BE | H.L. Emmensweg 15 9945PW Wagenborgen | 258.086 | 586.725 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BF | H.L. Emmensweg 9 9945PW Wagenborgen | 258.083 | 586.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BG | H.L. Emmensweg 11 9945PW Wagenborgen | 258.084 | 586.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BH | H.L. Emmensweg 5 9945PW Wagenborgen | 258.081 | 586.681 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BI | H.L. Emmensweg 7 9945PW Wagenborgen | 258.082 | 586.687 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BJ | H.L. Emmensweg 4 9945PX Wagenborgen | 258.103 | 586.676 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BK | H.L. Emmensweg 2 9945PX Wagenborgen | 258.099 | 586.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BL | H.L. Emmensweg 1 9945PW Wagenborgen | 258.081 | 586.651 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BM | H.L. Emmensweg 3 9945PW Wagenborgen | 258.083 | 586.667 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BN | de Linden 4 9945PZ Wagenborgen | 258.042 | 586.733 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BO | de Linden 6 9945PZ Wagenborgen | 258.058 | 586.734 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BP | de Linden 10 9945PZ Wagenborgen | 258.040 | 586.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BQ | de Linden 12 9945PZ Wagenborgen | 258.021 | 586.721 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BR | de Linden 2 9945PZ Wagenborgen | 258.030 | 586.694 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BS | de Wilgen 12 9945RB Wagenborgen | 258.008 | 586.778 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BT | de Wilgen 10 9945RB Wagenborgen | 258.008 | 586.764 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BU | de Wilgen 8 9945RB Wagenborgen | 258.007 | 586.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BV | de Wilgen 2 9945RB Wagenborgen | 257.995 | 586.662 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BW | de Wilgen 4 9945RB Wagenborgen | 257.997 | 586.675 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BX | de Wilgen 6 9945RB Wagenborgen | 258.001 | 586.693 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BY | de Wilgen 6 A 9945RB Wagenborgen | 258.004 | 586.726 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| BZ | de Wilgen 3 9945RB Wagenborgen | 257.975 | 586.694 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| C | Tolhek 1 9945TJ Wagenborgen | 259.114 | 587.301 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CA | de Wilgen 3 A 9945RB Wagenborgen | 257.977 | 586.713 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CB | de Wilgen 3 B 9945RB Wagenborgen | 257.977 | 586.729 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CC | de Wilgen 5 9945RB Wagenborgen | 257.973 | 586.766 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CD | de Wilgen 46 9945RB Wagenborgen | 258.036 | 586.921 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CE | de Wilgen 44 9945RB Wagenborgen | 258.036 | 586.927 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CF | de Wilgen 48 9945RB Wagenborgen | 258.034 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CG | de Wilgen 50 9945RB Wagenborgen | 258.034 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CH | de Wilgen 36 9945RB Wagenborgen | 258.060 | 586.908 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CI | de Wilgen 38 9945RB Wagenborgen | 258.059 | 586.915 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CJ | de Wilgen 40 9945RB Wagenborgen | 258.059 | 586.921 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CK | de Wilgen 42 9945RB Wagenborgen | 258.059 | 586.928 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CL | de Wilgen 28 9945RB Wagenborgen | 258.050 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CM | de Wilgen 30 9945RB Wagenborgen | 258.056 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CN | de Wilgen 32 9945RB Wagenborgen | 258.063 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CO | de Wilgen 34 9945RB Wagenborgen | 258.070 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CP | de Wilgen 24 9945TK Wagenborgen | 258.033 | 586.884 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CQ | de Wilgen 26 9945RB Wagenborgen | 258.039 | 586.886 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CR | de Wilgen 20 9945RB Wagenborgen | 258.019 | 586.866 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief B

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| CS | de Wilgen 22 9945RB Wagenborgen | 258.019 | 586.872 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CT | de Wilgen 18 9945RB Wagenborgen | 258.016 | 586.853 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CU | de Wilgen 16 9945RB Wagenborgen | 258.015 | 586.837 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CV | de Wilgen 14 9945RB Wagenborgen | 258.014 | 586.813 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CW | de Wilgen 9 9945RB Wagenborgen | 257.970 | 586.829 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CX | de Wilgen 52 9945RB Wagenborgen | 258.167 | 587.083 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CY | Menterne 22 9945RA Wagenborgen | 257.891 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| CZ | Menterne 18 9945RA Wagenborgen | 257.856 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| D | Familie Bronsweg 62 9945TA Wagenborgen | 258.389 | 587.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DA | Menterne 21 9945RA Wagenborgen | 257.884 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DB | Menterne 19 9945RA Wagenborgen | 257.863 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DC | Menterne 20 9945RA Wagenborgen | 257.876 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DD | Menterne 17 9945RA Wagenborgen | 257.849 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DE | Menterne 7 9945RA Wagenborgen | 257.896 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DF | Menterne 8 9945RA Wagenborgen | 257.889 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DG | Menterne 9 9945RA Wagenborgen | 257.882 | 586.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DH | Menterne 10 9945RA Wagenborgen | 257.875 | 586.913 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DI | Menterne 11 9945RA Wagenborgen | 257.893 | 586.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DJ | Menterne 12 9945RA Wagenborgen | 257.893 | 586.932 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DK | Menterne 13 9945RA Wagenborgen | 257.893 | 586.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DL | Menterne 14 9945RA Wagenborgen | 257.893 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DM | Menterne 1 9945RA Wagenborgen | 257.930 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DN | Menterne 2 9945RA Wagenborgen | 257.924 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DO | Menterne 3 9945RA Wagenborgen | 257.917 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DP | Menterne 4 9945RA Wagenborgen | 257.910 | 586.907 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DQ | Menterne 5 9945RA Wagenborgen | 257.899 | 586.883 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DR | Menterne 6 9945RA Wagenborgen | 257.899 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DS | Menterne 15 9945RA Wagenborgen | 257.866 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DT | Menterne 16 9945RA Wagenborgen | 257.866 | 586.952 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DU | de Berken 6 9945PT Wagenborgen | 258.085 | 586.768 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DV | de Berken 2 9945PT Wagenborgen | 258.040 | 586.782 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DW | de Berken 4 9945PT Wagenborgen | 258.061 | 586.783 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DX | de Berken 1 9945PT Wagenborgen | 258.038 | 586.808 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DY | de Berken 5 9945PT Wagenborgen | 258.087 | 586.819 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| DZ | de Berken 7 9945PT Wagenborgen | 258.102 | 586.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| E | Meerweg 3 9945RC Wagenborgen | 257.540 | 587.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EA | de Berken 9 9945PT Wagenborgen | 258.109 | 586.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EB | de Eiken 14 9945VA Wagenborgen | 258.037 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EC | de Eiken 16 9945VA Wagenborgen | 258.044 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ED | de Eiken 2 9945VA Wagenborgen | 258.061 | 586.829 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EE | de Eiken 4 9945VA Wagenborgen | 258.061 | 586.836 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EF | de Eiken 6 9945VA Wagenborgen | 258.061 | 586.842 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EG | de Eiken 8 9945VA Wagenborgen | 258.062 | 586.853 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EH | de Eiken 10 9945VA Wagenborgen | 258.061 | 586.859 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EI | de Eiken 12 9945VA Wagenborgen | 258.061 | 586.866 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EJ | de Eiken 2 A 9945VA Wagenborgen | 258.065 | 586.807 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EK | Troostlaan 7 9945PV Wagenborgen | 258.200 | 586.801 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EL | Troostlaan 8 9945PV Wagenborgen | 258.187 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EM | Troostlaan 9 9945PV Wagenborgen | 258.172 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EN | Troostlaan 10 9945PV Wagenborgen | 258.153 | 586.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EO | Troostlaan 11 9945PV Wagenborgen | 258.142 | 586.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EP | Troostlaan 1 9945PV Wagenborgen | 258.204 | 586.736 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EQ | Troostlaan 2 9945PV Wagenborgen | 258.204 | 586.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ER | Troostlaan 3 9945PV Wagenborgen | 258.205 | 586.772 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ES | Troostlaan 2 A 9945PV Wagenborgen | 258.221 | 586.769 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ET | Troostlaan 4 9945PV Wagenborgen | 258.228 | 586.858 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EU | Troostlaan 14 9945PV Wagenborgen | 258.132 | 586.686 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EV | Troostlaan 22 9945PV Wagenborgen | 258.177 | 586.707 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EW | Troostlaan 20 9945PV Wagenborgen | 258.155 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EX | Troostlaan 21 9945PV Wagenborgen | 258.162 | 586.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EY | Troostlaan 18 9945PV Wagenborgen | 258.132 | 586.718 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| EZ | Troostlaan 19 9945PV Wagenborgen | 258.139 | 586.718 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| F | G. Boelmanweg 2 9945RJ Wagenborgen | 258.181 | 586.579 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FA | Familie Bronsweg 40 9945PS Wagenborgen | 258.373 | 586.856 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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17-2-2017 13:51/3.0.654

# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief B

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| FB | Familie Bronsweg 44 9945PS Wagenborgen | 258.373 | 586.900 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FC | Familie Bronsweg 46 9945PS Wagenborgen | 258.373 | 586.905 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FD | Familie Bronsweg 48 9945PS Wagenborgen | 258.375 | 586.919 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FE | Familie Bronsweg 50 9945PS Wagenborgen | 258.376 | 586.924 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FF | Familie Bronsweg 79 9945PP Wagenborgen | 258.360 | 586.991 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FG | Familie Bronsweg 81 9945PP Wagenborgen | 258.361 | 586.997 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FH | Familie Bronsweg 36 9945PS Wagenborgen | 258.377 | 586.815 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FI | Familie Bronsweg 38 9945PS Wagenborgen | 258.365 | 586.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FJ | Familie Bronsweg 42 9945PS Wagenborgen | 258.371 | 586.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FK | Familie Bronsweg 54 9945PS Wagenborgen | 258.390 | 587.021 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FL | Familie Bronsweg 52 9945PS Wagenborgen | 258.387 | 586.987 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FM | Familie Bronsweg 50 B 9945PS Wagenborgen | 258.384 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FN | Familie Bronsweg 50 A 9945PS Wagenborgen | 258.381 | 586.949 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FO | Familie Bronsweg 75 9945PP Wagenborgen | 258.353 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FP | Familie Bronsweg 75 A 9945PP Wagenborgen | 258.355 | 586.957 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FQ | Familie Bronsweg 75 B 9945PP Wagenborgen | 258.357 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FR | Familie Bronsweg 71 9945PP Wagenborgen | 258.349 | 586.917 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FS | Familie Bronsweg 69 A 9945PP Wagenborgen | 258.347 | 586.902 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FT | Familie Bronsweg 69 9945PP Wagenborgen | 258.344 | 586.888 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FU | Familie Bronsweg 67 9945PP Wagenborgen | 258.342 | 586.873 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FV | Familie Bronsweg 65 9945PP Wagenborgen | 258.341 | 586.863 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FW | Familie Bronsweg 63 9945PP Wagenborgen | 258.338 | 586.850 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FX | Familie Bronsweg 61 9945PP Wagenborgen | 258.335 | 586.831 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FY | Familie Bronsweg 59 9945PP Wagenborgen | 258.334 | 586.816 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| FZ | Familie Bronsweg 57 9945PP Wagenborgen | 258.332 | 586.805 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| G | G. Boelmanweg 3 9945RE Wagenborgen | 258.198 | 586.584 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GA | Familie Bronsweg 53 9945PP Wagenborgen | 258.332 | 586.793 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GB | Familie Bronsweg 73 9945PP Wagenborgen | 258.351 | 586.930 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GC | Familie Bronsweg 85 9945PP Wagenborgen | 258.372 | 587.065 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GD | Familie Bronsweg 83 9945PP Wagenborgen | 258.363 | 587.014 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GE | Familie Bronsweg 83 A 9945PP Wagenborgen | 258.365 | 587.034 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GF | Familie Bronsweg 77 9945PP Wagenborgen | 258.333 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GG | Familie Bronsweg 51 9945PP Wagenborgen | 258.389 | 586.776 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GH | Familie Bronsweg 2 9945PR Wagenborgen | 258.765 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GI | Familie Bronsweg 4 9945PR Wagenborgen | 258.743 | 586.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GJ | Familie Bronsweg 4 A 9945PR Wagenborgen | 258.723 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GK | Familie Bronsweg 6 9945PR Wagenborgen | 258.705 | 586.916 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GL | Familie Bronsweg 8 9945PR Wagenborgen | 258.677 | 586.901 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GM | Familie Bronsweg 10 9945PR Wagenborgen | 258.649 | 586.888 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GN | Familie Bronsweg 12 9945PR Wagenborgen | 258.620 | 586.864 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GO | Familie Bronsweg 14 9945PR Wagenborgen | 258.608 | 586.858 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GP | Familie Bronsweg 16 9945PR Wagenborgen | 258.597 | 586.852 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GQ | Familie Bronsweg 15 9945PN Wagenborgen | 258.511 | 586.783 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GR | Familie Bronsweg 17 9945PN Wagenborgen | 258.473 | 586.777 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GS | Familie Bronsweg 2 A 9945PR Wagenborgen | 258.786 | 587.001 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GT | Familie Bronsweg 2 B 9945PR Wagenborgen | 258.745 | 587.014 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GU | Familie Bronsweg 2 C 9945PR Wagenborgen | 258.710 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GV | Familie Bronsweg 2 D 9945PR Wagenborgen | 258.686 | 586.974 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GW | Familie Bronsweg 2 F 9945PR Wagenborgen | 258.671 | 586.991 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GX | Familie Bronsweg 2 G 9945PR Wagenborgen | 258.671 | 587.016 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GY | Familie Bronsweg 2 H 9945PR Wagenborgen | 258.696 | 587.012 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| GZ | Familie Bronsweg 2 J 9945PR Wagenborgen | 258.717 | 587.009 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| H | G. Boelmanweg 5 9945RE Wagenborgen | 258.203 | 586.561 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HA | Akeleistraat 17 9945VD Wagenborgen | 258.515 | 587.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HB | Akeleistraat 19 9945VD Wagenborgen | 258.505 | 587.046 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HC | Akeleistraat 21 9945VD Wagenborgen | 258.486 | 587.050 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HD | Akeleistraat 23 9945VD Wagenborgen | 258.477 | 587.051 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HE | Akeleistraat 20 9945VD Wagenborgen | 258.448 | 587.022 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HF | Akeleistraat 22 9945VD Wagenborgen | 258.439 | 587.022 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HG | Akeleistraat 16 9945VD Wagenborgen | 258.477 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HH | Akeleistraat 18 9945VD Wagenborgen | 258.467 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HI | Akeleistraat 12 9945VD Wagenborgen | 258.506 | 587.013 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HJ | Akeleistraat 14 9945VD Wagenborgen | 258.496 | 587.013 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HK | Akeleistraat 10 9945VD Wagenborgen | 258.532 | 587.007 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief B

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| HL | Akeleistraat 1 9945VD Wagenborgen | 258.634 | 587.024 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HM | Akeleistraat 3 9945VD Wagenborgen | 258.625 | 587.021 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HN | Akeleistraat 5 9945VD Wagenborgen | 258.604 | 587.023 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HO | Akeleistraat 7 9945VD Wagenborgen | 258.595 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HP | Akeleistraat 9 9945VD Wagenborgen | 258.574 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HQ | Akeleistraat 11 9945VD Wagenborgen | 258.565 | 587.017 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HR | Akeleistraat 2 9945VD Wagenborgen | 258.626 | 586.998 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HS | Akeleistraat 4 9945VD Wagenborgen | 258.617 | 586.995 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HT | Akeleistraat 6 9945VD Wagenborgen | 258.597 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HU | Akeleistraat 8 9945VD Wagenborgen | 258.588 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HV | Akeleistraat 15 9945VD Wagenborgen | 258.535 | 587.045 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HW | Bremstraat 6 9945VC Wagenborgen | 258.522 | 586.971 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HX | Bremstraat 2 9945VC Wagenborgen | 258.570 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HY | Bremstraat 4 9945VC Wagenborgen | 258.545 | 586.969 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| HZ | Bremstraat 12 9945VC Wagenborgen | 258.448 | 586.982 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| I | G. Boelmanweg 4 9945RJ Wagenborgen | 258.168 | 586.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IA | Hibiscusstraat 30 9945VB Wagenborgen | 258.633 | 586.942 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IB | Hibiscusstraat 2 9945VB Wagenborgen | 258.428 | 586.818 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IC | Hibiscusstraat 4 9945VB Wagenborgen | 258.449 | 586.865 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ID | Hibiscusstraat 10 9945VB Wagenborgen | 258.426 | 586.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IE | Hibiscusstraat 16 9945VB Wagenborgen | 258.482 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IF | Bremstraat 14 9945VC Wagenborgen | 258.428 | 586.984 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IG | Hibiscusstraat 6 9945VB Wagenborgen | 258.417 | 586.860 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IH | Hibiscusstraat 26 9945VB Wagenborgen | 258.608 | 586.953 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| II | Kopaf 8 9945TE Wagenborgen | 259.518 | 587.109 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IJ | Kopaf 7 9945TE Wagenborgen | 259.555 | 587.020 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IK | Kopaf 6 9945TE Wagenborgen | 259.575 | 587.100 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IL | Kloosterlaan 27 9945TG Wagenborgen | 259.558 | 587.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IM | Kloosterlaan 25 9945TG Wagenborgen | 259.567 | 587.793 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IN | Kloosterlaan 23 9945TG Wagenborgen | 259.592 | 587.803 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IO | Scheve Klap 5 9945TD Wagenborgen | 260.522 | 587.264 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IP | Scheve Klap 4 9945TD Wagenborgen | 260.493 | 587.154 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IQ | Hibiscusstraat 8 9945VB Wagenborgen | 258.420 | 586.890 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IR | Hibiscusstraat 12 9945VB Wagenborgen | 258.431 | 586.945 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IS | Hibiscusstraat 18 9945VB Wagenborgen | 258.503 | 586.931 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IT | Hibiscusstraat 24 9945VB Wagenborgen | 258.612 | 586.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IU | Hibiscusstraat 22 9945VB Wagenborgen | 258.583 | 586.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IV | Troostlaan 15 9945PV Wagenborgen | 258.151 | 586.693 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IW | Bremstraat 10 9945VC Wagenborgen | 258.473 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IX | Hibiscusstraat 20 9945VB Wagenborgen | 258.529 | 586.931 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IY | Hibiscusstraat 28 9945VB Wagenborgen | 258.622 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| IZ | Troostlaan 5 9945PV Wagenborgen | 258.189 | 586.911 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| J | G. Boelmanweg 7 9945RE Wagenborgen | 258.198 | 586.536 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JA | Troostlaan 6 9945PV Wagenborgen | 258.249 | 586.889 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JB | Boslaan 5 9945TM Wagenborgen | 259.413 | 587.123 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JC | Hoofdweg 33 A 9945PB Wagenborgen | 258.174 | 586.602 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JD | Akeleistraat 13 9945VD Wagenborgen | 258.569 | 587.057 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JE | Hoofdweg 42 9945PG Wagenborgen | 258.103 | 586.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JF | Familie Bronsweg 2 E 9945PR Wagenborgen | 258.670 | 586.976 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JG | Hibiscusstraat 14 9945VB Wagenborgen | 258.456 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JH | Bremstraat 8 9945VC Wagenborgen | 258.502 | 586.974 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JI | Menterne 23 003 9945RA Wagenborgen | 257.949 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JJ | Menterne 23 004 9945RA Wagenborgen | 257.949 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JK | Menterne 23 005 9945RA Wagenborgen | 257.948 | 586.990 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JL | Menterne 23 006 9945RA Wagenborgen | 257.948 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JM | Menterne 23 007 9945RA Wagenborgen | 257.960 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JN | Menterne 23 008 9945RA Wagenborgen | 257.960 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JO | Menterne 23 009 9945RA Wagenborgen | 257.960 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JP | Menterne 23 010 9945RA Wagenborgen | 257.961 | 586.988 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JQ | Menterne 23 017 9945RA Wagenborgen | 257.971 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JR | Menterne 23 030 9945RA Wagenborgen | 257.958 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JS | Menterne 23 103 9945RA Wagenborgen | 257.951 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JT | Menterne 23 104 9945RA Wagenborgen | 257.951 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JU | Menterne 23 105 9945RA Wagenborgen | 257.951 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
17-2-2017 13:51/3.0.654

# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief B

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| JV | Menterne 23 106 9945RA Wagenborgen | 257.950 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JW | Menterne 23 107 9945RA Wagenborgen | 257.958 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JX | Menterne 23 108 9945RA Wagenborgen | 257.958 | 586.996 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JY | Menterne 23 109 9945RA Wagenborgen | 257.958 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| JZ | Menterne 23 110 9945RA Wagenborgen | 257.958 | 586.989 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| K | G. Boelmanweg 6 9945RJ Wagenborgen | 258.176 | 586.541 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KA | Menterne 23 111 9945RA Wagenborgen | 257.959 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KB | Menterne 23 113 9945RA Wagenborgen | 257.967 | 586.972 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KC | Menterne 23 114 9945RA Wagenborgen | 257.967 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KD | Menterne 23 115 9945RA Wagenborgen | 257.967 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KE | Menterne 23 116 9945RA Wagenborgen | 257.968 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KF | Menterne 23 117 9945RA Wagenborgen | 257.968 | 586.957 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KG | Menterne 23 118 9945RA Wagenborgen | 257.968 | 586.953 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KH | Menterne 23 119 9945RA Wagenborgen | 257.967 | 586.946 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KI | Menterne 23 120 9945RA Wagenborgen | 257.968 | 586.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KJ | Menterne 23 121 9945RA Wagenborgen | 257.968 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KK | Menterne 23 122 9945RA Wagenborgen | 257.968 | 586.936 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KL | Menterne 23 123 9945RA Wagenborgen | 257.968 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KM | Menterne 23 124 9945RA Wagenborgen | 257.968 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KN | Menterne 23 125 9945RA Wagenborgen | 257.956 | 586.930 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KO | Menterne 23 126 9945RA Wagenborgen | 257.956 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KP | Menterne 23 127 9945RA Wagenborgen | 257.956 | 586.937 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KQ | Menterne 23 128 9945RA Wagenborgen | 257.956 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KR | Menterne 23 129 9945RA Wagenborgen | 257.956 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KS | Menterne 23 130 9945RA Wagenborgen | 257.961 | 586.958 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KT | Menterne 23 131 9945RA Wagenborgen | 257.961 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KU | Menterne 23 132 9945RA Wagenborgen | 257.960 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KV | Menterne 23 201 9945RA Wagenborgen | 257.953 | 586.973 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KW | Menterne 23 202 9945RA Wagenborgen | 257.953 | 586.977 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KX | Menterne 23 203 9945RA Wagenborgen | 257.953 | 586.980 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KY | Menterne 23 204 9945RA Wagenborgen | 257.953 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| KZ | Menterne 23 205 9945RA Wagenborgen | 257.953 | 586.990 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| L | Kokslaan 1 9945RD Wagenborgen | 258.257 | 586.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LA | Menterne 23 206 9945RA Wagenborgen | 257.953 | 586.994 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LB | Menterne 23 207 9945RA Wagenborgen | 257.956 | 586.999 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LC | Menterne 23 208 9945RA Wagenborgen | 257.956 | 586.995 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LD | Menterne 23 209 9945RA Wagenborgen | 257.956 | 586.992 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LE | Menterne 23 210 9945RA Wagenborgen | 257.956 | 586.988 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LF | Menterne 23 211 9945RA Wagenborgen | 257.957 | 586.985 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LG | Menterne 23 212 9945RA Wagenborgen | 257.957 | 586.981 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LH | Menterne 23 213 9945RA Wagenborgen | 257.964 | 586.972 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LI | Menterne 23 214 9945RA Wagenborgen | 257.965 | 586.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LJ | Menterne 23 215 9945RA Wagenborgen | 257.965 | 586.963 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LK | Menterne 23 216 9945RA Wagenborgen | 257.965 | 586.959 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LL | Menterne 23 217 9945RA Wagenborgen | 257.965 | 586.956 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LM | Menterne 23 218 9945RA Wagenborgen | 257.965 | 586.954 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LN | Menterne 23 219 9945RA Wagenborgen | 257.965 | 586.947 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LO | Menterne 23 220 9945RA Wagenborgen | 257.965 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LP | Menterne 23 221 9945RA Wagenborgen | 257.965 | 586.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LQ | Menterne 23 222 9945RA Wagenborgen | 257.965 | 586.937 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LR | Menterne 23 223 9945RA Wagenborgen | 257.965 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LS | Menterne 23 224 9945RA Wagenborgen | 257.966 | 586.929 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LT | Menterne 23 226 9945RA Wagenborgen | 257.959 | 586.933 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LU | Menterne 23 228 9945RA Wagenborgen | 257.958 | 586.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LV | Menterne 23 229 9945RA Wagenborgen | 257.958 | 586.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LW | Menterne 23 230 9945RA Wagenborgen | 257.962 | 586.958 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LX | Menterne 23 231 9945RA Wagenborgen | 257.962 | 586.962 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LY | Menterne 23 232 9945RA Wagenborgen | 257.962 | 586.965 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| LZ | G. Boelmanweg 1 9945RE Wagenborgen | 258.213 | 586.607 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| M | Kokslaan 2 9945RD Wagenborgen | 258.279 | 586.598 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MA | Boslaan 7 9945TM Wagenborgen | 259.467 | 586.843 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MB | H.L. Emmensweg 23 9945PW Wagenborgen | 258.086 | 586.747 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MC | Kopaf 5 9944VA Nieuwolda | 259.816 | 586.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MD | Familie Bronsweg 68 9945TA Wagenborgen | 258.470 | 588.333 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
17-2-2017 13:51/3.0.654

# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief B

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| ME | Maarkampen 26 9937PL Meedhuizen | 256.956 | 590.088 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MF | Maarkampen 24 9937PL Meedhuizen | 256.931 | 590.090 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MG | Maarkampen 22 9937PL Meedhuizen | 256.916 | 590.093 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MH | Maarkampen 20 9937PL Meedhuizen | 256.898 | 590.098 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MI | Maarkampen 18 9937PL Meedhuizen | 256.878 | 590.101 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MJ | Maarkampen 16 9937PL Meedhuizen | 256.858 | 590.104 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MK | Maarkampen 14 9937PL Meedhuizen | 256.838 | 590.106 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ML | Maarlaan 22 E 9937TH Meedhuizen | 256.932 | 590.173 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MM | Maarlaan 22 D 9937TH Meedhuizen | 256.877 | 590.178 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MN | Schaapbulterweg 8 9937TL Meedhuizen | 256.971 | 589.534 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MO | Schaapbulterweg 6 9937TL Meedhuizen | 256.919 | 589.544 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MP | Schaapbulterweg 29 9937TL Meedhuizen | 256.970 | 589.489 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MQ | Schaapbulterweg 27 9937TL Meedhuizen | 256.949 | 589.497 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MR | Schaapbulterweg 25 9937TL Meedhuizen | 256.935 | 589.503 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MS | Schaapbulterweg 23 9937TL Meedhuizen | 256.920 | 589.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MT | Schaapbulterweg 21 9937TL Meedhuizen | 256.908 | 589.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MU | Geefsweersterweg 11 9937TB Meedhuizen | 257.472 | 591.162 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MV | Schaapbulterweg 35 9937TL Meedhuizen | 257.159 | 589.455 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MW | Meedhuizerweg 20 9937TK Meedhuizen | 257.017 | 590.790 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MX | Familie Bronsweg 66 9945TA Wagenborgen | 258.538 | 588.146 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MY | Familie Bronsweg 64 9945TA Wagenborgen | 258.518 | 588.056 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| MZ | Ideweersterweg 10 9937TM Meedhuizen | 257.794 | 589.376 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| N | Kerkstraat 1 9945SB Wagenborgen | 258.120 | 586.579 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NA | Ideweersterweg 8 9937TM Meedhuizen | 257.916 | 589.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NB | Geefsweersterweg 20 9937TC Meedhuizen | 258.111 | 588.986 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NC | Geefsweersterweg 18 9937TC Meedhuizen | 258.066 | 589.025 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ND | Geefsweersterweg 29 9937TB Meedhuizen | 258.051 | 588.968 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NE | Geefsweersterweg 16 9937TC Meedhuizen | 258.011 | 589.140 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NF | Geefsweersterweg 23 9937TB Meedhuizen | 257.998 | 589.209 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NG | Geefsweersterweg 12 9937TC Meedhuizen | 258.033 | 589.285 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NH | Geefsweersterweg 14 9937TC Meedhuizen | 258.028 | 589.261 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NI | Geefsweersterweg 21 A 9937TB Meedhuizen | 258.002 | 589.266 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NJ | Geefsweersterweg 10 9937TC Meedhuizen | 258.042 | 589.339 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NK | Geefsweersterweg 21 9937TB Meedhuizen | 258.025 | 589.335 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NL | Geefsweersterweg 17 9937TB Meedhuizen | 258.035 | 589.424 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NM | Geefsweersterweg 19 9937TB Meedhuizen | 258.023 | 589.378 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NN | Ideweersterweg 2 9937TM Meedhuizen | 259.329 | 589.348 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NO | Ideweersterweg 1 9937TM Meedhuizen | 259.330 | 589.303 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NP | Geefsweersterweg 15 9937TB Meedhuizen | 257.994 | 590.149 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NQ | Westerlaan 6 9937TS Meedhuizen | 258.650 | 590.176 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NR | Familie Bronsweg 87 9945TA Wagenborgen | 258.255 | 588.149 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NS | Familie Bronsweg 89 9945TA Wagenborgen | 258.288 | 588.393 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NT | Westerlaan 10 9937TS Meedhuizen | 258.640 | 588.541 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NU | Geefsweersterweg 13 9937TB Meedhuizen | 257.998 | 590.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NV | Maarlaan 26 9937TH Meedhuizen | 257.044 | 590.228 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NW | Maarlaan 24 9937TH Meedhuizen | 256.988 | 590.171 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NX | Maarlaan 28 9937TH Meedhuizen | 257.042 | 590.160 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NY | Maarlaan 30 9937TH Meedhuizen | 257.109 | 590.155 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| NZ | Kerklaan 3 9937PG Meedhuizen | 257.099 | 589.943 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| O | Hoofdweg 30 9945PG Wagenborgen | 258.190 | 586.634 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OA | Kerklaan 8 9937PG Meedhuizen | 257.192 | 589.983 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OB | Kerklaan 6 9937PG Meedhuizen | 257.151 | 590.090 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OC | Opmeedenlaan 6 9937TN Meedhuizen | 256.970 | 588.781 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OD | Opmeedenlaan 4 9937TN Meedhuizen | 256.988 | 588.863 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OE | Opmeedenlaan 2 9937TN Meedhuizen | 257.043 | 588.932 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OF | Kloosterlaan 26 9945TG Wagenborgen | 260.046 | 588.262 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OG | Zomerdijk 1 9945TH Wagenborgen | 260.153 | 588.395 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OH | Zomerdijk 3 9945TH Wagenborgen | 260.454 | 588.375 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OI | Zomerdijk 3 A 9945TH Wagenborgen | 260.560 | 588.321 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OJ | Zomerdijk 2 9945TH Wagenborgen | 260.721 | 588.388 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OK | Kloosterlaan 21 A 9945TG Wagenborgen | 259.991 | 588.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OL | Kloosterlaan 21 B 9945TG Wagenborgen | 259.957 | 588.308 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OM | Ideweersterweg 4 9937TM Meedhuizen | 258.658 | 589.400 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ON | Maarlaan 22 C 9937TH Meedhuizen | 256.840 | 590.186 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief B

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| OO | Kloosterlaan 21 9936TE Farmsum | 260.253 | 589.832 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OP | Geefsweersterweg 8 A 9937TC Meedhuizen | 258.072 | 590.685 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OQ | Houtweg 20 9936BL Farmsum | 257.300 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OR | Houtweg 22 9936BL Farmsum | 257.298 | 593.542 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OS | Houtweg 24 9936BL Farmsum | 257.297 | 593.528 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OT | Houtweg 26 9936BL Farmsum | 257.296 | 593.515 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OU | Houtweg 28 9936BL Farmsum | 257.294 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OV | Rondeboslaan 6 9936BK Farmsum | 257.466 | 593.590 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OW | Proosdij 14 9936EW Farmsum | 257.893 | 593.570 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OX | Bredelaan 6 9936ER Farmsum | 257.806 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OY | Bredelaan 4 9936ER Farmsum | 257.804 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| OZ | Bredelaan 2 A 9936ER Farmsum | 257.802 | 593.559 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| P | Hoofdweg 32 9945PG Wagenborgen | 258.177 | 586.629 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PA | Proosdij 24 9936EW Farmsum | 257.913 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PB | Proosdij 22 9936EW Farmsum | 257.910 | 593.522 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PC | Proosdij 20 9936EW Farmsum | 257.906 | 593.533 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PD | Proosdij 18 9936EW Farmsum | 257.901 | 593.549 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PE | Proosdij 16 9936EW Farmsum | 257.899 | 593.554 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PF | Trambaan 19 9936ES Farmsum | 257.863 | 593.507 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PG | Proosdij 17 9936ET Farmsum | 257.864 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PH | Proosdij 15 9936ET Farmsum | 257.862 | 593.560 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PI | Proosdij 13 9936ET Farmsum | 257.859 | 593.568 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PJ | Trambaan 17 9936ES Farmsum | 257.856 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PK | Trambaan 15 9936ES Farmsum | 257.849 | 593.520 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PL | Trambaan 13 9936ES Farmsum | 257.844 | 593.525 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PM | Trambaan 11 9936ES Farmsum | 257.839 | 593.530 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PN | Trambaan 9 9936ES Farmsum | 257.833 | 593.536 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PO | Trambaan 5 9936ES Farmsum | 257.825 | 593.544 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PP | Trambaan 3 9936ES Farmsum | 257.818 | 593.551 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PQ | Trambaan 1 9936ES Farmsum | 257.814 | 593.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PR | Proosdij 12 9936EW Farmsum | 257.888 | 593.590 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PS | Proosdij 8 9936EW Farmsum | 257.881 | 593.604 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PT | Proosdij 6 9936EW Farmsum | 257.876 | 593.616 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PU | Proosdij 4 9936EW Farmsum | 257.872 | 593.630 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PV | Proosdij 11 9936ET Farmsum | 257.856 | 593.577 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PW | Proosdij 9 9936ET Farmsum | 257.853 | 593.584 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PX | Proosdij 7 9936ET Farmsum | 257.849 | 593.596 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PY | Proosdij 5 9936ET Farmsum | 257.846 | 593.605 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| PZ | Proosdij 1 9936ET Farmsum | 257.839 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Q | Hoofdweg 31 9945PA Wagenborgen | 258.210 | 586.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QA | Proosdij 3 9936ET Farmsum | 257.844 | 593.611 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QB | Farmsumerzijl 55 9936GC Farmsum | 257.821 | 593.640 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QC | Farmsumerzijl 57 9936GC Farmsum | 257.800 | 593.636 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QD | Rengersweg 4 9936GH Farmsum | 258.026 | 593.578 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QE | Rengersweg 2 9936GH Farmsum | 258.026 | 593.587 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QF | Schepperij 4 A 9936GN Farmsum | 258.046 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QG | Schepperij 2 A 9936GN Farmsum | 258.033 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QH | Schepperij 4 9936GN Farmsum | 258.040 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QI | Schepperij 2 9936GN Farmsum | 258.027 | 593.553 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QJ | Dijkrecht 4 9936GK Farmsum | 258.021 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QK | Dijkrecht 6 9936GK Farmsum | 258.035 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QL | Dijkrecht 10 9936GK Farmsum | 258.054 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QM | Dijkrecht 12 9936GK Farmsum | 258.061 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QN | Dijkrecht 14 9936GK Farmsum | 258.074 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QO | Dijkrecht 16 9936GK Farmsum | 258.081 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QP | Dijkrecht 18 9936GK Farmsum | 258.095 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QQ | Dijkrecht 20 9936GK Farmsum | 258.107 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QR | Dijkrecht 22 9936GK Farmsum | 258.123 | 593.623 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QS | Dijkrecht 24 9936GK Farmsum | 258.138 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QT | Dijkrecht 26 9936GK Farmsum | 258.159 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QU | Dijkrecht 28 9936GK Farmsum | 258.166 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QV | Dijkrecht 30 9936GK Farmsum | 258.186 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QW | Dijkrecht 32 9936GK Farmsum | 258.192 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QX | Dijkrecht 34 9936GK Farmsum | 258.206 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
17-2-2017 13:51/3.0.654

# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief B

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| QY | Dijkrecht 36 9936GK Farmsum | 258.213 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| QZ | Dijkrecht 40 9936GK Farmsum | 258.233 | 593.625 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| R | Hoofdweg 38 9945PG Wagenborgen | 258.142 | 586.621 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RA | Dijkrecht 38 9936GK Farmsum | 258.227 | 593.624 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RB | Schepperij 20 9936GN Farmsum | 258.190 | 593.563 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RC | Schepperij 18 9936GN Farmsum | 258.184 | 593.563 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RD | Waarman 12 9936GW Farmsum | 258.263 | 593.622 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RE | Waarman 10 9936GW Farmsum | 258.263 | 593.629 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RF | Waarman 8 9936GW Farmsum | 258.265 | 593.641 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RG | Waarman 6 9936GW Farmsum | 258.265 | 593.648 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RH | Farmsumerzijl 1 9936GB Farmsum | 258.234 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RI | Farmsumerzijl 3 9936GB Farmsum | 258.227 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RJ | Farmsumerzijl 5 9936GB Farmsum | 258.213 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RK | Farmsumerzijl 7 9936GB Farmsum | 258.207 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RL | Farmsumerzijl 13 9936GB Farmsum | 258.172 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RM | Farmsumerzijl 15 9936GB Farmsum | 258.166 | 593.657 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RN | Farmsumerzijl 17 9936GB Farmsum | 258.152 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RO | Farmsumerzijl 19 9936GB Farmsum | 258.146 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RP | Farmsumerzijl 25 9936GB Farmsum | 258.115 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RQ | Farmsumerzijl 27 9936GB Farmsum | 258.108 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RR | Farmsumerzijl 29 9936GB Farmsum | 258.096 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RS | Farmsumerzijl 31 9936GC Farmsum | 258.089 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RT | Farmsumerzijl 37 9936GC Farmsum | 258.057 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RU | Farmsumerzijl 39 9936GC Farmsum | 258.050 | 593.656 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RV | Farmsumerzijl 41 9936GC Farmsum | 258.037 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RW | Farmsumerzijl 43 9936GC Farmsum | 258.031 | 593.658 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RX | Schepperij 1 9936GL Farmsum | 258.054 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RY | Schepperij 3 9936GL Farmsum | 258.060 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| RZ | Schepperij 5 9936GL Farmsum | 258.066 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| S | Hoofdweg 39 9945PB Wagenborgen | 258.126 | 586.603 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SA | Schepperij 7 9936GL Farmsum | 258.072 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SB | Schepperij 9 9936GL Farmsum | 258.078 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SC | Schepperij 11 9936GL Farmsum | 258.084 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SD | Schepperij 13 9936GL Farmsum | 258.090 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SE | Schepperij 15 9936GL Farmsum | 258.097 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SF | Dijkrecht 8 9936GK Farmsum | 258.041 | 593.620 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SG | Geefsweersterweg 9 9937TB Meedhuizen | 257.539 | 591.945 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SH | Geefsweersterweg 7 9937TB Meedhuizen | 258.115 | 592.341 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SI | Geefsweersterweg 8 9937TC Meedhuizen | 258.139 | 592.234 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SJ | Geefsweersterweg 3 9937TB Meedhuizen | 258.102 | 592.452 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SK | Geefsweersterweg 6 9937TC Meedhuizen | 258.202 | 592.502 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SL | Geefsweersterweg 4 9937TC Meedhuizen | 258.243 | 592.643 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SM | Meedhuizerweg 2 9937TK Meedhuizen | 256.911 | 592.415 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SN | Molenstraat 31 9936EB Farmsum | 257.786 | 593.940 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SO | Hindrik Jagerstraat 32 9936CV Farmsum | 257.573 | 593.810 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SP | Hindrik Jagerstraat 11 9936CT Farmsum | 257.561 | 593.800 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SQ | Hindrik Jagerstraat 13 9936CT Farmsum | 257.568 | 593.794 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SR | Hindrik Jagerstraat 15 9936CT Farmsum | 257.574 | 593.790 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SS | Hindrik Jagerstraat 34 9936CV Farmsum | 257.581 | 593.804 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ST | Hindrik Jagerstraat 36 9936CV Farmsum | 257.587 | 593.799 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SU | Borgshof 31 9936CR Farmsum | 257.617 | 593.822 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SV | Borgshof 33 9936CR Farmsum | 257.615 | 593.807 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SW | Borgshof 39 9936CR Farmsum | 257.605 | 593.754 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SX | Borgshof 35 9936CR Farmsum | 257.604 | 593.768 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SY | Molenstraat 20 9936EC Farmsum | 257.801 | 593.944 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| SZ | Molenstraat 24 9936EC Farmsum | 257.812 | 593.926 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| T | Hoofdweg 35 9945PB Wagenborgen | 258.160 | 586.604 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TA | Molenstraat 28 9936EC Farmsum | 257.817 | 593.918 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TB | Molenstraat 41 9936EB Farmsum | 257.798 | 593.925 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TC | Molenstraat 43 9936EB Farmsum | 257.802 | 593.918 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TD | Molenstraat 45 9936EB Farmsum | 257.807 | 593.910 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TE | Molenstraat 32 9936EC Farmsum | 257.821 | 593.908 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TF | Achterweg 13 9936EG Farmsum | 257.848 | 593.913 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TG | Achterweg 11 9936EG Farmsum | 257.855 | 593.914 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
17-2-2017 13:51/3.0.654

# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief B

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| TH | Achterweg 9 9936EG Farmsum | 257.861 | 593.915 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TI | Molenstraat 49 9936EB Farmsum | 257.809 | 593.905 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TJ | Molenstraat 51 9936EB Farmsum | 257.812 | 593.900 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TK | Molenstraat 53 9936EB Farmsum | 257.815 | 593.894 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TL | Molenstraat 57 9936EB Farmsum | 257.819 | 593.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TM | Molenstraat 61 9936EB Farmsum | 257.826 | 593.870 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TN | Molenstraat 63 9936EB Farmsum | 257.830 | 593.861 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TO | Molenstraat 34 9936ED Farmsum | 257.827 | 593.897 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TP | Molenstraat 38 9936ED Farmsum | 257.832 | 593.886 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TQ | Molenstraat 40 9936ED Farmsum | 257.835 | 593.880 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TR | Molenstraat 42 9936ED Farmsum | 257.837 | 593.870 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TS | Molenstraat 44 9936ED Farmsum | 257.842 | 593.859 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TT | Molenstraat 65 9936EB Farmsum | 257.834 | 593.850 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TU | Molenstraat 48 9936ED Farmsum | 257.847 | 593.847 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TV | Molenstraat 50 9936ED Farmsum | 257.850 | 593.837 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TW | Molenstraat 56 9936ED Farmsum | 257.851 | 593.824 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TX | Molenstraat 58 9936EE Farmsum | 257.863 | 593.810 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TY | Molenstraat 62 9936EE Farmsum | 257.858 | 593.798 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| TZ | Molenstraat 72 9936EE Farmsum | 257.855 | 593.753 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| U | Hoofdweg 37 9945PB Wagenborgen | 258.149 | 586.603 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UA | Molenstraat 70 9936EE Farmsum | 257.854 | 593.758 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UB | Molenstraat 68 9936EE Farmsum | 257.854 | 593.765 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UC | Molenstraat 66 9936EE Farmsum | 257.854 | 593.773 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UD | Achterweg 2 9936EG Farmsum | 257.886 | 593.882 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UE | Achterweg 12 9936EG Farmsum | 257.919 | 593.766 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UF | Achterweg 10 9936EG Farmsum | 257.918 | 593.779 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UG | Achterweg 8 9936EG Farmsum | 257.916 | 593.791 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UH | Hindrik Jagerstraat 17 9936CT Farmsum | 257.588 | 593.777 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UI | Molenstraat 30 9936EC Farmsum | 257.820 | 593.912 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UJ | Borgweg 141 9936EN Farmsum | 257.451 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UK | Borgweg 139 9936EN Farmsum | 257.466 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UL | Borgweg 137 9936EN Farmsum | 257.473 | 593.706 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UM | Borgweg 135 9936EN Farmsum | 257.487 | 593.708 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UN | Afwateringskanaal 109 9936AV Farmsum | 257.508 | 593.724 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UO | Borgweg 131 9936EM Farmsum | 257.636 | 593.714 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UP | Borgweg 133 9936EM Farmsum | 257.581 | 593.701 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UQ | Borgshof 41 9936CR Farmsum | 257.598 | 593.743 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UR | Borgshof 43 9936CR Farmsum | 257.595 | 593.730 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| US | Borgshof 45 9936CR Farmsum | 257.594 | 593.720 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UT | Molenstraat 74 9936EE Farmsum | 257.855 | 593.743 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UU | Molenstraat 76 9936EE Farmsum | 257.857 | 593.736 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UV | Molenstraat 78 9936EE Farmsum | 257.858 | 593.730 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UW | Molenstraat 82 9936EE Farmsum | 257.858 | 593.717 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UX | Molenstraat 84 9936EE Farmsum | 257.858 | 593.708 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UY | Borgweg 123 9936EM Farmsum | 257.927 | 593.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| UZ | Borgweg 125 9936EM Farmsum | 257.917 | 593.698 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| V | Hoofdweg 44 9945PH Wagenborgen | 258.071 | 586.624 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VA | Borgweg 127 9936EM Farmsum | 257.906 | 593.700 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VB | Borgweg 129 9936EM Farmsum | 257.897 | 593.699 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VC | Farmsumerzijl 51 9936GC Farmsum | 257.925 | 593.665 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VD | Molenstraat 80 9936EE Farmsum | 257.858 | 593.723 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VE | Houtweg 30 9936BL Farmsum | 257.294 | 593.486 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VF | Houtweg 32 9936BL Farmsum | 257.292 | 593.473 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VG | Houtweg 34 9936BL Farmsum | 257.291 | 593.459 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VH | Houtweg 36 9936BL Farmsum | 257.289 | 593.446 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VI | Houtweg 38 9936BL Farmsum | 257.288 | 593.429 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VJ | Houtweg 40 9936BL Farmsum | 257.261 | 593.394 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VK | Houtweg 42 9936BL Farmsum | 257.257 | 593.387 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VL | Houtweg 44 9936BL Farmsum | 257.250 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VM | Houtweg 46 9936BL Farmsum | 257.248 | 593.372 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VN | Houtweg 48 9936BL Farmsum | 257.240 | 593.359 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VO | Rondeboslaan 26 9936BK Farmsum | 257.440 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VP | Rondeboslaan 28 9936BK Farmsum | 257.438 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VQ | Seendweg 32 9936GA Farmsum | 257.903 | 593.454 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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17-2-2017 13:51/3.0.654

# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief B

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| VR | Trambaan 21 9936ES Farmsum | 257.870 | 593.499 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VS | Proosdij 19 9936ET Farmsum | 257.892 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VT | Bredelaan 14 9936ER Farmsum | 257.814 | 593.354 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VU | Bredelaan 10 9936ER Farmsum | 257.808 | 593.470 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VV | Bredelaan 8 9936ER Farmsum | 257.807 | 593.481 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VW | Seendweg 22 9936GA Farmsum | 257.897 | 593.364 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VX | Seendweg 28 9936GA Farmsum | 257.898 | 593.405 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VY | Proosdij 28 9936EW Farmsum | 257.922 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| VZ | Proosdij 30 9936EX Farmsum | 257.932 | 593.484 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| W | Hoofdweg 48 9945PH Wagenborgen | 258.051 | 586.630 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WA | Proosdij 26 9936EW Farmsum | 257.919 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WB | Afwateringskanaal 107 9936AV Farmsum | 257.499 | 593.749 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WC | Rondeboslaan 22 A 9936BK Farmsum | 257.532 | 593.326 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WD | Rondeboslaan 22 B 9936BK Farmsum | 257.532 | 593.320 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WE | Rondeboslaan 2 A 9936BK Farmsum | 257.534 | 593.639 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WF | Rondeboslaan 2 B 9936BK Farmsum | 257.493 | 593.646 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WG | Seendweg 17 9936GA Farmsum | 257.931 | 593.394 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WH | Borgshof 29 9936CR Farmsum | 257.619 | 593.839 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WI | Molenstraat 22 9936EC Farmsum | 257.808 | 593.935 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WJ | Achterweg 7 A 9936EG Farmsum | 257.858 | 593.939 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WK | Molenstraat 26 9936EC Farmsum | 257.814 | 593.923 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WL | Borgweg 113 9936EM Farmsum | 257.957 | 593.782 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WM | Borgweg 115 9936EM Farmsum | 257.968 | 593.707 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WN | Borgweg 117 9936EM Farmsum | 257.959 | 593.705 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WO | Borgweg 119 9936EM Farmsum | 257.947 | 593.703 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WP | Borgweg 121 9936EM Farmsum | 257.938 | 593.701 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WQ | Farmsumerzijl 45 9936GC Farmsum | 257.966 | 593.671 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WR | Farmsumerzijl 47 9936GC Farmsum | 257.947 | 593.667 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WS | Farmsumerzijl 49 9936GC Farmsum | 257.933 | 593.666 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WT | Waarman 4 9936GW Farmsum | 258.267 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WU | Waarman 2 9936GW Farmsum | 258.267 | 593.668 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WV | Farmsumerzijl 9 9936GB Farmsum | 258.192 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WW | Farmsumerzijl 11 9936GB Farmsum | 258.186 | 593.661 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WX | Farmsumerzijl 21 9936GB Farmsum | 258.134 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WY | Farmsumerzijl 23 9936GB Farmsum | 258.126 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| WZ | Farmsumerzijl 33 9936GC Farmsum | 258.076 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| X | Hoofdweg 41 9945PB Wagenborgen | 258.092 | 586.599 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XA | Farmsumerzijl 35 9936GC Farmsum | 258.070 | 593.660 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XB | Schepperij 17 9936GL Farmsum | 258.103 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XC | Schepperij 19 9936GL Farmsum | 258.109 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XD | Schepperij 21 9936GL Farmsum | 258.115 | 593.532 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XE | Dijkrecht 3 9936GJ Farmsum | 258.042 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XF | Dijkrecht 5 9936GJ Farmsum | 258.052 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XG | Dijkrecht 7 9936GJ Farmsum | 258.054 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XH | Dijkrecht 9 9936GJ Farmsum | 258.063 | 593.591 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XI | Dijkrecht 11 9936GJ Farmsum | 258.073 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XJ | Dijkrecht 13 9936GJ Farmsum | 258.079 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XK | Dijkrecht 15 9936GJ Farmsum | 258.085 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XL | Dijkrecht 17 9936GJ Farmsum | 258.092 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XM | Dijkrecht 19 9936GJ Farmsum | 258.098 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XN | Dijkrecht 21 9936GJ Farmsum | 258.104 | 593.593 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XO | Schepperij 6 9936GN Farmsum | 258.058 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XP | Schepperij 8 9936GN Farmsum | 258.064 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XQ | Schepperij 10 9936GN Farmsum | 258.070 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XR | Schepperij 12 9936GN Farmsum | 258.075 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XS | Schepperij 14 9936GN Farmsum | 258.081 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XT | Schepperij 16 9936GN Farmsum | 258.087 | 593.556 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XU | Olderman 2 9936GT Farmsum | 258.132 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XV | Olderman 4 9936GT Farmsum | 258.132 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XW | Olderman 6 9936GT Farmsum | 258.132 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XX | Olderman 8 9936GT Farmsum | 258.132 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XY | Olderman 10 9936GT Farmsum | 258.132 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| XZ | Olderman 12 9936GT Farmsum | 258.132 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Y | Hoofdweg 20 9945PG Wagenborgen | 258.207 | 586.682 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

To be continued on next page...

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Calculated:
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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief B

...continued from previous page

| No. | Name | X (east) | Y (north) | Z | Width | Height | Height a.g.l. | Degrees from south cw | Slope of window | Direction mode |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | [m] | [m] | [m] | [m] | [°] | [°] | |
| YA | Olderman 14 9936GT Farmsum | 258.132 | 593.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YB | Dijkrecht 23 9936GJ Farmsum | 258.162 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YC | Dijkrecht 25 9936GJ Farmsum | 258.162 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YD | Dijkrecht 27 9936GJ Farmsum | 258.163 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YE | Dijkrecht 29 9936GJ Farmsum | 258.163 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YF | Dijkrecht 31 9936GJ Farmsum | 258.163 | 593.575 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YG | Dijkrecht 33 9936GJ Farmsum | 258.163 | 593.569 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YH | Dijkrecht 35 9936GJ Farmsum | 258.163 | 593.562 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YI | Dijkrecht 37 9936GJ Farmsum | 258.182 | 593.600 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YJ | Dijkrecht 39 9936GJ Farmsum | 258.182 | 593.594 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YK | Dijkrecht 41 9936GJ Farmsum | 258.182 | 593.588 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YL | Dijkrecht 43 9936GJ Farmsum | 258.182 | 593.581 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YM | Olderman 1 9936GS Farmsum | 258.107 | 593.574 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YN | Olderman 3 9936GS Farmsum | 258.107 | 593.567 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YO | Olderman 5 9936GS Farmsum | 258.108 | 593.561 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YP | Olderman 7 9936GS Farmsum | 258.108 | 593.555 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YQ | Schepperij 37 9936GM Farmsum | 258.194 | 593.543 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YR | Schepperij 41 9936GM Farmsum | 258.194 | 593.531 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YS | Schepperij 45 9936GM Farmsum | 258.194 | 593.518 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YT | Schepperij 47 9936GM Farmsum | 258.194 | 593.512 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YU | Schepperij 49 9936GM Farmsum | 258.194 | 593.506 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YV | Olderman 18 9936GT Farmsum | 258.143 | 593.539 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YW | Olderman 20 9936GT Farmsum | 258.143 | 593.533 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YX | Olderman 22 9936GT Farmsum | 258.143 | 593.527 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YY | Olderman 24 9936GT Farmsum | 258.143 | 593.521 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| YZ | Olderman 26 9936GT Farmsum | 258.143 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| Z | Hoofdweg 22 9945PG Wagenborgen | 258.202 | 586.669 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZA | Olderman 28 9936GT Farmsum | 258.143 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZB | Olderman 30 9936GT Farmsum | 258.143 | 593.502 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZC | Olderman 9 9936GS Farmsum | 258.120 | 593.514 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZD | Olderman 11 9936GS Farmsum | 258.120 | 593.508 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZE | Olderman 13 9936GS Farmsum | 258.120 | 593.501 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZF | Proosdij 32 9936EX Farmsum | 257.941 | 593.479 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZG | Proosdij 36 9936EX Farmsum | 257.952 | 593.473 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZH | Proosdij 38 9936EX Farmsum | 257.963 | 593.468 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZI | Proosdij 40 9936EX Farmsum | 257.984 | 593.460 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZJ | Proosdij 27 9936EV Farmsum | 257.995 | 593.418 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZK | Proosdij 25 9936EV Farmsum | 257.979 | 593.425 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZL | Proosdij 23 9936EV Farmsum | 257.962 | 593.433 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZM | Proosdij 21 9936EV Farmsum | 257.941 | 593.443 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZN | Seendweg 5 9936GA Farmsum | 258.091 | 593.322 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZO | Proosdij 29 9936EV Farmsum | 258.005 | 593.413 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZP | Proosdij 31 9936EV Farmsum | 258.019 | 593.403 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZQ | Proosdij 33 9936EV Farmsum | 258.043 | 593.379 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZR | Proosdij 35 9936EV Farmsum | 258.067 | 593.376 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZS | Proosdij 37 9936EV Farmsum | 258.085 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZT | Proosdij 39 9936EV Farmsum | 258.092 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZU | Proosdij 41 9936EV Farmsum | 258.099 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZV | Proosdij 43 9936EV Farmsum | 258.106 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZW | Proosdij 45 9936EV Farmsum | 258.112 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZX | Proosdij 47 9936EV Farmsum | 258.119 | 593.377 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZY | Olderman 15 9936GS Farmsum | 258.118 | 593.495 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |
| ZZ | Rengersweg 97 9936GG Farmsum | 258.010 | 593.468 | 0,0 | 8,0 | 5,0 | 0,5 | 0,0 | 90,0 | "Green house mode" |

## Calculation Results

Shadow receptor

| No. | Name | Shadow, expected values<br>Shadow hours per year<br>[h/year] |
|---|---|---|
| [A | Rengersweg 99 9936GG Farmsum | 0:09 |
| [B | Rengersweg 12 9936GH Farmsum | 0:07 |
| [C | Rengersweg 10 9936GH Farmsum | 0:00 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief B

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| [D | Kluft 1 9936GP Farmsum | 0:00 |
| [E | Kluft 3 9936GP Farmsum | 0:00 |
| [F | Proosdij 46 9936EX Farmsum | 0:00 |
| [G | Proosdij 48 9936EX Farmsum | 0:00 |
| [H | Proosdij 50 9936EX Farmsum | 0:00 |
| [I | Proosdij 52 9936EX Farmsum | 0:00 |
| [J | Proosdij 54 9936EX Farmsum | 0:00 |
| [K | Proosdij 56 9936EX Farmsum | 0:00 |
| [L | Olderman 21 9936GS Farmsum | 0:00 |
| [M | Olderman 19 9936GS Farmsum | 0:00 |
| [N | Olderman 17 9936GS Farmsum | 0:00 |
| [O | Kluft 5 9936GP Farmsum | 0:00 |
| [P | Kluft 7 9936GP Farmsum | 0:00 |
| [Q | Kluft 9 9936GP Farmsum | 0:00 |
| [R | Kluft 11 9936GP Farmsum | 0:00 |
| [S | Kluft 17 9936GP Farmsum | 0:00 |
| [T | Zijlvest 8 9936GZ Farmsum | 0:00 |
| [U | Olderman 32 9936GT Farmsum | 0:00 |
| [V | Olderman 34 9936GT Farmsum | 0:00 |
| [W | Olderman 36 9936GT Farmsum | 0:00 |
| [X | Olderman 38 9936GT Farmsum | 0:00 |
| [Y | Olderman 40 9936GT Farmsum | 0:00 |
| [Z | Olderman 42 9936GT Farmsum | 0:00 |
| \A | Zijlvest 22 A 9936GZ Farmsum | 0:00 |
| \B | Zijlvest 18 A 9936GZ Farmsum | 0:00 |
| \C | Zijlvest 18 9936GZ Farmsum | 0:00 |
| \D | Zijlvest 14 9936GZ Farmsum | 0:00 |
| \E | Borgweg 1 9936EH Farmsum | 0:00 |
| \F | Borgweg 3 9936EH Farmsum | 0:00 |
| \G | Borgweg 5 9936EH Farmsum | 0:00 |
| \H | Borgweg 7 9936EH Farmsum | 0:00 |
| \I | Borgweg 9 9936EH Farmsum | 0:00 |
| \J | Borgweg 11 9936EH Farmsum | 0:00 |
| \K | Borgweg 13 9936EH Farmsum | 0:00 |
| \L | Borgweg 15 9936EH Farmsum | 0:00 |
| \M | Borgweg 17 9936EH Farmsum | 0:00 |
| \N | Borgweg 19 9936EH Farmsum | 0:00 |
| \O | Borgweg 21 9936EH Farmsum | 0:00 |
| \P | Borgweg 23 9936EH Farmsum | 0:00 |
| \Q | Borgweg 25 9936EH Farmsum | 0:00 |
| \R | Borgweg 27 9936EH Farmsum | 0:00 |
| \S | Borgweg 29 9936EJ Farmsum | 0:00 |
| \T | Borgweg 31 9936EJ Farmsum | 0:00 |
| \U | Borgweg 33 9936EJ Farmsum | 0:00 |
| \V | Borgweg 35 9936EJ Farmsum | 0:00 |
| \W | Borgweg 37 9936EJ Farmsum | 0:00 |
| \X | Borgweg 39 9936EJ Farmsum | 0:00 |
| \Y | Borgweg 41 9936EJ Farmsum | 0:00 |
| \Z | Borgweg 43 9936EJ Farmsum | 0:00 |
| ]A | Borgweg 45 9936EJ Farmsum | 0:00 |
| ]B | Borgweg 47 9936EJ Farmsum | 0:00 |
| ]C | Borgweg 49 9936EJ Farmsum | 0:00 |
| ]D | Borgweg 51 9936EJ Farmsum | 0:00 |
| ]E | Borgweg 53 9936EJ Farmsum | 0:00 |
| ]F | Borgweg 55 9936EJ Farmsum | 0:00 |
| ]G | Borgweg 57 9936EK Farmsum | 0:00 |
| ]H | Borgweg 59 9936EK Farmsum | 0:00 |
| ]I | Borgweg 61 9936EK Farmsum | 0:00 |
| ]J | Borgweg 63 9936EK Farmsum | 0:00 |
| ]K | Borgweg 65 9936EK Farmsum | 0:00 |
| ]L | Borgweg 67 9936EK Farmsum | 0:00 |
| ]M | Borgweg 69 9936EK Farmsum | 0:00 |
| ]N | Borgweg 71 9936EK Farmsum | 0:00 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief B

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| ]O | Borgweg 73 9936EK Farmsum | 0:00 |
| ]P | Borgweg 75 9936EK Farmsum | 0:00 |
| ]Q | Borgweg 77 9936EK Farmsum | 0:00 |
| ]R | Borgweg 79 9936EK Farmsum | 0:00 |
| ]S | Borgweg 81 9936EK Farmsum | 0:00 |
| ]T | Borgweg 83 9936EK Farmsum | 0:00 |
| ]U | Borgweg 85 9936EL Farmsum | 0:00 |
| ]V | Borgweg 87 9936EL Farmsum | 0:00 |
| ]W | Borgweg 89 9936EL Farmsum | 0:00 |
| ]X | Borgweg 91 9936EL Farmsum | 0:00 |
| ]Y | Borgweg 93 9936EL Farmsum | 0:00 |
| ]Z | Borgweg 95 9936EL Farmsum | 0:00 |
| ^A | Borgweg 97 9936EL Farmsum | 0:00 |
| ^B | Borgweg 99 9936EL Farmsum | 0:00 |
| ^C | Borgweg 101 9936EL Farmsum | 0:00 |
| ^D | Borgweg 103 9936EL Farmsum | 0:00 |
| ^E | Borgweg 105 9936EL Farmsum | 0:00 |
| ^F | Borgweg 107 9936EL Farmsum | 0:00 |
| ^G | Borgweg 109 9936EL Farmsum | 0:00 |
| ^H | Borgweg 111 9936EL Farmsum | 0:00 |
| ^I | Kluft 18 9936GR Farmsum | 0:00 |
| ^J | Kluft 20 9936GR Farmsum | 0:00 |
| ^K | Kluft 22 9936GR Farmsum | 0:00 |
| ^L | Kluft 24 9936GR Farmsum | 0:00 |
| ^M | Kluft 26 9936GR Farmsum | 0:00 |
| ^N | Kluft 28 9936GR Farmsum | 0:00 |
| ^O | Kluft 30 9936GR Farmsum | 0:00 |
| ^P | Kluft 32 9936GR Farmsum | 0:00 |
| ^Q | Kluft 2 9936GR Farmsum | 0:00 |
| ^R | Kluft 4 9936GR Farmsum | 0:00 |
| ^S | Kluft 6 9936GR Farmsum | 0:00 |
| ^T | Kluft 8 9936GR Farmsum | 0:00 |
| ^U | Kluft 10 9936GR Farmsum | 0:00 |
| ^V | Kluft 12 9936GR Farmsum | 0:00 |
| ^W | Kluft 14 9936GR Farmsum | 0:00 |
| ^X | Kluft 16 9936GR Farmsum | 0:00 |
| ^Y | Zijlvest 20 A 9936GZ Farmsum | 0:00 |
| ^Z | Schepperij 51 9936GM Farmsum | 0:00 |
| _A | Waarman 15 9936GV Farmsum | 0:00 |
| _B | Waarman 17 9936GV Farmsum | 0:00 |
| _C | Waarman 19 9936GV Farmsum | 0:00 |
| _D | Waarman 21 9936GV Farmsum | 0:00 |
| _E | Waarman 23 9936GV Farmsum | 0:00 |
| _F | Waarman 25 9936GV Farmsum | 0:00 |
| _G | Waarman 27 9936GV Farmsum | 0:00 |
| _H | Waarman 29 9936GV Farmsum | 0:00 |
| _I | Heemskesweg 5 9936HE Farmsum | 6:40 |
| _J | Geefsweersterweg 2 9937TC Meedhuizen | 6:15 |
| _K | Seendweg 12 9936GA Farmsum | 2:19 |
| _L | Schepperij 39 9936GM Farmsum | 0:00 |
| _M | Schepperij 43 9936GM Farmsum | 0:00 |
| _N | Zijlvest 14 A 9936GZ Farmsum | 0:00 |
| _O | Zijlvest 24 A 9936GZ Farmsum | 0:00 |
| _P | Familie Bronsweg 22 9945PS Wagenborgen | 0:00 |
| _Q | Geefsweersterweg 1 9937TB Meedhuizen | 6:02 |
| _R | Hoofdweg 28 9945PG Wagenborgen | 0:00 |
| _S | Karspelpad 8 9936HP Farmsum | 11:22 |
| _T | Maarkampen 12 9937PL Meedhuizen | 0:10 |
| _U | Molenstraat 64 9936EE Farmsum | 0:00 |
| _V | Oosterlaan 9 9936HN Farmsum | 44:05 |
| _W | Schaappad 1 9936HT Farmsum | 6:25 |
| _X | Seendweg 8 9936GA Farmsum | 2:24 |
| _Y | T.J. Jansenweg 11 9936HL Farmsum | 34:04 |

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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief B

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| _Z | Waarman 1 9936GV Farmsum | 0:00 |
| `A | Waarman 11 9936GV Farmsum | 0:00 |
| `B | Waarman 3 9936GV Farmsum | 0:00 |
| `C | Waarman 5 9936GV Farmsum | 0:00 |
| `D | Waarman 7 9936GV Farmsum | 0:00 |
| `E | Waarman 9 9936GV Farmsum | 0:00 |
| `F | ZijIvest 20 9936GZ Farmsum | 0:00 |
| A | Familie Bronsweg 60 9945TA Wagenborgen | 6:21 |
| AA | Hoofdweg 26 9945PG Wagenborgen | 0:00 |
| AB | Hoofdweg 23 9945PA Wagenborgen | 0:00 |
| AC | Hoofdweg 25 9945PA Wagenborgen | 0:00 |
| AD | Hoofdweg 27 9945PA Wagenborgen | 0:00 |
| AE | Hoofdweg 29 9945PA Wagenborgen | 0:00 |
| AF | Hoofdweg 18 9945PG Wagenborgen | 0:00 |
| AG | Hoofdweg 14 9945PG Wagenborgen | 0:00 |
| AH | Hoofdweg 10 9945PG Wagenborgen | 0:00 |
| AI | Hoofdweg 8 9945PG Wagenborgen | 0:00 |
| AJ | Hoofdweg 6 9945PG Wagenborgen | 0:00 |
| AK | Hoofdweg 4 9945PG Wagenborgen | 0:00 |
| AL | Hoofdweg 21 9945PA Wagenborgen | 0:00 |
| AM | Hoofdweg 19 9945PA Wagenborgen | 0:00 |
| AN | Hoofdweg 2 9945PG Wagenborgen | 0:00 |
| AO | Hoofdweg 15 9945PA Wagenborgen | 0:00 |
| AP | Hoofdweg 9 9945PA Wagenborgen | 0:00 |
| AQ | Hoofdweg 11 9945PA Wagenborgen | 0:00 |
| AR | Hoofdweg 7 9945PA Wagenborgen | 0:00 |
| AS | Hoofdweg 5 9945PA Wagenborgen | 0:00 |
| AT | H.L. Emmensweg 17 9945PW Wagenborgen | 0:00 |
| AU | H.L. Emmensweg 18 9945PX Wagenborgen | 0:00 |
| AV | H.L. Emmensweg 20 9945PX Wagenborgen | 0:00 |
| AW | H.L. Emmensweg 22 9945PX Wagenborgen | 0:00 |
| AX | H.L. Emmensweg 24 9945PX Wagenborgen | 0:00 |
| AY | H.L. Emmensweg 26 9945PX Wagenborgen | 0:00 |
| AZ | H.L. Emmensweg 10 9945PX Wagenborgen | 0:00 |
| B | Tolhek 4 9945TJ Wagenborgen | 0:00 |
| BA | H.L. Emmensweg 12 9945PX Wagenborgen | 0:00 |
| BB | H.L. Emmensweg 14 9945PX Wagenborgen | 0:00 |
| BC | H.L. Emmensweg 16 9945PX Wagenborgen | 0:00 |
| BD | H.L. Emmensweg 13 9945PW Wagenborgen | 0:00 |
| BE | H.L. Emmensweg 15 9945PW Wagenborgen | 0:00 |
| BF | H.L. Emmensweg 9 9945PW Wagenborgen | 0:00 |
| BG | H.L. Emmensweg 11 9945PW Wagenborgen | 0:00 |
| BH | H.L. Emmensweg 5 9945PW Wagenborgen | 0:00 |
| BI | H.L. Emmensweg 7 9945PW Wagenborgen | 0:00 |
| BJ | H.L. Emmensweg 4 9945PX Wagenborgen | 0:00 |
| BK | H.L. Emmensweg 2 9945PX Wagenborgen | 0:00 |
| BL | H.L. Emmensweg 1 9945PW Wagenborgen | 0:00 |
| BM | H.L. Emmensweg 3 9945PW Wagenborgen | 0:00 |
| BN | de Linden 4 9945PZ Wagenborgen | 0:00 |
| BO | de Linden 6 9945PZ Wagenborgen | 0:00 |
| BP | de Linden 10 9945PZ Wagenborgen | 0:00 |
| BQ | de Linden 12 9945PZ Wagenborgen | 0:00 |
| BR | de Linden 2 9945PZ Wagenborgen | 0:00 |
| BS | de Wilgen 12 9945RB Wagenborgen | 0:00 |
| BT | de Wilgen 10 9945RB Wagenborgen | 0:00 |
| BU | de Wilgen 8 9945RB Wagenborgen | 0:00 |
| BV | de Wilgen 2 9945RB Wagenborgen | 0:00 |
| BW | de Wilgen 4 9945RB Wagenborgen | 0:00 |
| BX | de Wilgen 6 9945RB Wagenborgen | 0:00 |
| BY | de Wilgen 6 A 9945RB Wagenborgen | 0:00 |
| BZ | de Wilgen 3 9945RB Wagenborgen | 0:00 |
| C | Tolhek 1 9945TJ Wagenborgen | 0:00 |
| CA | de Wilgen 3 A 9945RB Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief B

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| CB | de Wilgen 3 B 9945RB Wagenborgen | 0:00 |
| CC | de Wilgen 5 9945RB Wagenborgen | 0:00 |
| CD | de Wilgen 46 9945RB Wagenborgen | 0:00 |
| CE | de Wilgen 44 9945RB Wagenborgen | 0:00 |
| CF | de Wilgen 48 9945RB Wagenborgen | 0:00 |
| CG | de Wilgen 50 9945RB Wagenborgen | 0:00 |
| CH | de Wilgen 36 9945RB Wagenborgen | 0:00 |
| CI | de Wilgen 38 9945RB Wagenborgen | 0:00 |
| CJ | de Wilgen 40 9945RB Wagenborgen | 0:00 |
| CK | de Wilgen 42 9945RB Wagenborgen | 0:00 |
| CL | de Wilgen 28 9945RB Wagenborgen | 0:00 |
| CM | de Wilgen 30 9945RB Wagenborgen | 0:00 |
| CN | de Wilgen 32 9945RB Wagenborgen | 0:00 |
| CO | de Wilgen 34 9945RB Wagenborgen | 0:00 |
| CP | de Wilgen 24 9945TK Wagenborgen | 0:00 |
| CQ | de Wilgen 26 9945RB Wagenborgen | 0:00 |
| CR | de Wilgen 20 9945RB Wagenborgen | 0:00 |
| CS | de Wilgen 22 9945RB Wagenborgen | 0:00 |
| CT | de Wilgen 18 9945RB Wagenborgen | 0:00 |
| CU | de Wilgen 16 9945RB Wagenborgen | 0:00 |
| CV | de Wilgen 14 9945RB Wagenborgen | 0:00 |
| CW | de Wilgen 9 9945RB Wagenborgen | 0:00 |
| CX | de Wilgen 52 9945RB Wagenborgen | 0:00 |
| CY | Menterne 22 9945RA Wagenborgen | 0:00 |
| CZ | Menterne 18 9945RA Wagenborgen | 0:00 |
| D | Familie Bronsweg 62 9945TA Wagenborgen | 10:10 |
| DA | Menterne 21 9945RA Wagenborgen | 0:00 |
| DB | Menterne 19 9945RA Wagenborgen | 0:00 |
| DC | Menterne 20 9945RA Wagenborgen | 0:00 |
| DD | Menterne 17 9945RA Wagenborgen | 0:00 |
| DE | Menterne 7 9945RA Wagenborgen | 0:00 |
| DF | Menterne 8 9945RA Wagenborgen | 0:00 |
| DG | Menterne 9 9945RA Wagenborgen | 0:00 |
| DH | Menterne 10 9945RA Wagenborgen | 0:00 |
| DI | Menterne 11 9945RA Wagenborgen | 0:00 |
| DJ | Menterne 12 9945RA Wagenborgen | 0:00 |
| DK | Menterne 13 9945RA Wagenborgen | 0:00 |
| DL | Menterne 14 9945RA Wagenborgen | 0:00 |
| DM | Menterne 1 9945RA Wagenborgen | 0:00 |
| DN | Menterne 2 9945RA Wagenborgen | 0:00 |
| DO | Menterne 3 9945RA Wagenborgen | 0:00 |
| DP | Menterne 4 9945RA Wagenborgen | 0:00 |
| DQ | Menterne 5 9945RA Wagenborgen | 0:00 |
| DR | Menterne 6 9945RA Wagenborgen | 0:00 |
| DS | Menterne 15 9945RA Wagenborgen | 0:00 |
| DT | Menterne 16 9945RA Wagenborgen | 0:00 |
| DU | de Berken 6 9945PT Wagenborgen | 0:00 |
| DV | de Berken 2 9945PT Wagenborgen | 0:00 |
| DW | de Berken 4 9945PT Wagenborgen | 0:00 |
| DX | de Berken 1 9945PT Wagenborgen | 0:00 |
| DY | de Berken 5 9945PT Wagenborgen | 0:00 |
| DZ | de Berken 7 9945PT Wagenborgen | 0:00 |
| E | Meerweg 3 9945RC Wagenborgen | 0:34 |
| EA | de Berken 9 9945PT Wagenborgen | 0:00 |
| EB | de Eiken 14 9945VA Wagenborgen | 0:00 |
| EC | de Eiken 16 9945VA Wagenborgen | 0:00 |
| ED | de Eiken 2 9945VA Wagenborgen | 0:00 |
| EE | de Eiken 4 9945VA Wagenborgen | 0:00 |
| EF | de Eiken 6 9945VA Wagenborgen | 0:00 |
| EG | de Eiken 8 9945VA Wagenborgen | 0:00 |
| EH | de Eiken 10 9945VA Wagenborgen | 0:00 |
| EI | de Eiken 12 9945VA Wagenborgen | 0:00 |
| EJ | de Eiken 2 A 9945VA Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief B

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| EK | Troostlaan 7 9945PV Wagenborgen | 0:00 |
| EL | Troostlaan 8 9945PV Wagenborgen | 0:00 |
| EM | Troostlaan 9 9945PV Wagenborgen | 0:00 |
| EN | Troostlaan 10 9945PV Wagenborgen | 0:00 |
| EO | Troostlaan 11 9945PV Wagenborgen | 0:00 |
| EP | Troostlaan 1 9945PV Wagenborgen | 0:00 |
| EQ | Troostlaan 2 9945PV Wagenborgen | 0:00 |
| ER | Troostlaan 3 9945PV Wagenborgen | 0:00 |
| ES | Troostlaan 2 A 9945PV Wagenborgen | 0:00 |
| ET | Troostlaan 4 9945PV Wagenborgen | 0:00 |
| EU | Troostlaan 14 9945PV Wagenborgen | 0:00 |
| EV | Troostlaan 22 9945PV Wagenborgen | 0:00 |
| EW | Troostlaan 20 9945PV Wagenborgen | 0:00 |
| EX | Troostlaan 21 9945PV Wagenborgen | 0:00 |
| EY | Troostlaan 18 9945PV Wagenborgen | 0:00 |
| EZ | Troostlaan 19 9945PV Wagenborgen | 0:00 |
| F | G. Boelmanweg 2 9945RJ Wagenborgen | 0:00 |
| FA | Familie Bronsweg 40 9945PS Wagenborgen | 0:00 |
| FB | Familie Bronsweg 44 9945PS Wagenborgen | 0:00 |
| FC | Familie Bronsweg 46 9945PS Wagenborgen | 0:00 |
| FD | Familie Bronsweg 48 9945PS Wagenborgen | 0:00 |
| FE | Familie Bronsweg 50 9945PS Wagenborgen | 0:00 |
| FF | Familie Bronsweg 79 9945PP Wagenborgen | 0:00 |
| FG | Familie Bronsweg 81 9945PP Wagenborgen | 0:00 |
| FH | Familie Bronsweg 36 9945PS Wagenborgen | 0:00 |
| FI | Familie Bronsweg 38 9945PS Wagenborgen | 0:00 |
| FJ | Familie Bronsweg 42 9945PS Wagenborgen | 0:00 |
| FK | Familie Bronsweg 54 9945PS Wagenborgen | 0:00 |
| FL | Familie Bronsweg 52 9945PS Wagenborgen | 0:00 |
| FM | Familie Bronsweg 50 B 9945PS Wagenborgen | 0:00 |
| FN | Familie Bronsweg 50 A 9945PS Wagenborgen | 0:00 |
| FO | Familie Bronsweg 75 9945PP Wagenborgen | 0:00 |
| FP | Familie Bronsweg 75 A 9945PP Wagenborgen | 0:00 |
| FQ | Familie Bronsweg 75 B 9945PP Wagenborgen | 0:00 |
| FR | Familie Bronsweg 71 9945PP Wagenborgen | 0:00 |
| FS | Familie Bronsweg 69 A 9945PP Wagenborgen | 0:00 |
| FT | Familie Bronsweg 69 9945PP Wagenborgen | 0:00 |
| FU | Familie Bronsweg 67 9945PP Wagenborgen | 0:00 |
| FV | Familie Bronsweg 65 9945PP Wagenborgen | 0:00 |
| FW | Familie Bronsweg 63 9945PP Wagenborgen | 0:00 |
| FX | Familie Bronsweg 61 9945PP Wagenborgen | 0:00 |
| FY | Familie Bronsweg 59 9945PP Wagenborgen | 0:00 |
| FZ | Familie Bronsweg 57 9945PP Wagenborgen | 0:00 |
| G | G. Boelmanweg 3 9945RE Wagenborgen | 0:00 |
| GA | Familie Bronsweg 53 9945PP Wagenborgen | 0:00 |
| GB | Familie Bronsweg 73 9945PP Wagenborgen | 0:00 |
| GC | Familie Bronsweg 85 9945PP Wagenborgen | 0:00 |
| GD | Familie Bronsweg 83 9945PP Wagenborgen | 0:00 |
| GE | Familie Bronsweg 83 A 9945PP Wagenborgen | 0:00 |
| GF | Familie Bronsweg 77 9945PP Wagenborgen | 0:00 |
| GG | Familie Bronsweg 51 9945PP Wagenborgen | 0:00 |
| GH | Familie Bronsweg 2 9945PR Wagenborgen | 0:00 |
| GI | Familie Bronsweg 4 9945PR Wagenborgen | 0:00 |
| GJ | Familie Bronsweg 4 A 9945PR Wagenborgen | 0:00 |
| GK | Familie Bronsweg 6 9945PR Wagenborgen | 0:00 |
| GL | Familie Bronsweg 8 9945PR Wagenborgen | 0:00 |
| GM | Familie Bronsweg 10 9945PR Wagenborgen | 0:00 |
| GN | Familie Bronsweg 12 9945PR Wagenborgen | 0:00 |
| GO | Familie Bronsweg 14 9945PR Wagenborgen | 0:00 |
| GP | Familie Bronsweg 16 9945PR Wagenborgen | 0:00 |
| GQ | Familie Bronsweg 15 9945PN Wagenborgen | 0:00 |
| GR | Familie Bronsweg 17 9945PN Wagenborgen | 0:00 |
| GS | Familie Bronsweg 2 A 9945PR Wagenborgen | 0:00 |

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Calculated:
17-2-2017 13:51/3.0.654

# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief B

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| GT | Familie Bronsweg 2 B 9945PR Wagenborgen | 0:00 |
| GU | Familie Bronsweg 2 C 9945PR Wagenborgen | 0:00 |
| GV | Familie Bronsweg 2 D 9945PR Wagenborgen | 0:00 |
| GW | Familie Bronsweg 2 F 9945PR Wagenborgen | 0:00 |
| GX | Familie Bronsweg 2 G 9945PR Wagenborgen | 0:00 |
| GY | Familie Bronsweg 2 H 9945PR Wagenborgen | 0:00 |
| GZ | Familie Bronsweg 2 J 9945PR Wagenborgen | 0:00 |
| H | G. Boelmanweg 5 9945RE Wagenborgen | 0:00 |
| HA | Akeleistraat 17 9945VD Wagenborgen | 0:00 |
| HB | Akeleistraat 19 9945VD Wagenborgen | 0:00 |
| HC | Akeleistraat 21 9945VD Wagenborgen | 0:00 |
| HD | Akeleistraat 23 9945VD Wagenborgen | 0:00 |
| HE | Akeleistraat 20 9945VD Wagenborgen | 0:00 |
| HF | Akeleistraat 22 9945VD Wagenborgen | 0:00 |
| HG | Akeleistraat 16 9945VD Wagenborgen | 0:00 |
| HH | Akeleistraat 18 9945VD Wagenborgen | 0:00 |
| HI | Akeleistraat 12 9945VD Wagenborgen | 0:00 |
| HJ | Akeleistraat 14 9945VD Wagenborgen | 0:00 |
| HK | Akeleistraat 10 9945VD Wagenborgen | 0:00 |
| HL | Akeleistraat 1 9945VD Wagenborgen | 0:00 |
| HM | Akeleistraat 3 9945VD Wagenborgen | 0:00 |
| HN | Akeleistraat 5 9945VD Wagenborgen | 0:00 |
| HO | Akeleistraat 7 9945VD Wagenborgen | 0:00 |
| HP | Akeleistraat 9 9945VD Wagenborgen | 0:00 |
| HQ | Akeleistraat 11 9945VD Wagenborgen | 0:00 |
| HR | Akeleistraat 2 9945VD Wagenborgen | 0:00 |
| HS | Akeleistraat 4 9945VD Wagenborgen | 0:00 |
| HT | Akeleistraat 6 9945VD Wagenborgen | 0:00 |
| HU | Akeleistraat 8 9945VD Wagenborgen | 0:00 |
| HV | Akeleistraat 15 9945VD Wagenborgen | 0:00 |
| HW | Bremstraat 6 9945VC Wagenborgen | 0:00 |
| HX | Bremstraat 2 9945VC Wagenborgen | 0:00 |
| HY | Bremstraat 4 9945VC Wagenborgen | 0:00 |
| HZ | Bremstraat 12 9945VC Wagenborgen | 0:00 |
| I | G. Boelmanweg 4 9945RJ Wagenborgen | 0:00 |
| IA | Hibiscusstraat 30 9945VB Wagenborgen | 0:00 |
| IB | Hibiscusstraat 2 9945VB Wagenborgen | 0:00 |
| IC | Hibiscusstraat 4 9945VB Wagenborgen | 0:00 |
| ID | Hibiscusstraat 10 9945VB Wagenborgen | 0:00 |
| IE | Hibiscusstraat 16 9945VB Wagenborgen | 0:00 |
| IF | Bremstraat 14 9945VC Wagenborgen | 0:00 |
| IG | Hibiscusstraat 6 9945VB Wagenborgen | 0:00 |
| IH | Hibiscusstraat 26 9945VB Wagenborgen | 0:00 |
| II | Kopaf 8 9945TE Wagenborgen | 0:00 |
| IJ | Kopaf 7 9945TE Wagenborgen | 0:00 |
| IK | Kopaf 6 9945TE Wagenborgen | 0:00 |
| IL | Kloosterlaan 27 9945TG Wagenborgen | 0:54 |
| IM | Kloosterlaan 25 9945TG Wagenborgen | 8:47 |
| IN | Kloosterlaan 23 9945TG Wagenborgen | 10:45 |
| IO | Scheve Klap 5 9945TD Wagenborgen | 0:31 |
| IP | Scheve Klap 4 9945TD Wagenborgen | 0:23 |
| IQ | Hibiscusstraat 8 9945VB Wagenborgen | 0:00 |
| IR | Hibiscusstraat 12 9945VB Wagenborgen | 0:00 |
| IS | Hibiscusstraat 18 9945VB Wagenborgen | 0:00 |
| IT | Hibiscusstraat 24 9945VB Wagenborgen | 0:00 |
| IU | Hibiscusstraat 22 9945VB Wagenborgen | 0:00 |
| IV | Troostlaan 15 9945PV Wagenborgen | 0:00 |
| IW | Bremstraat 10 9945VC Wagenborgen | 0:00 |
| IX | Hibiscusstraat 20 9945VB Wagenborgen | 0:00 |
| IY | Hibiscusstraat 28 9945VB Wagenborgen | 0:00 |
| IZ | Troostlaan 5 9945PV Wagenborgen | 0:00 |
| J | G. Boelmanweg 7 9945RE Wagenborgen | 0:00 |
| JA | Troostlaan 6 9945PV Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief B

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| JB | Boslaan 5 9945TM Wagenborgen | 0:00 |
| JC | Hoofdweg 33 A 9945PB Wagenborgen | 0:00 |
| JD | Akeleistraat 13 9945VD Wagenborgen | 0:00 |
| JE | Hoofdweg 42 9945PG Wagenborgen | 0:00 |
| JF | Familie Bronsweg 2 E 9945PR Wagenborgen | 0:00 |
| JG | Hibiscusstraat 14 9945VB Wagenborgen | 0:00 |
| JH | Bremstraat 8 9945VC Wagenborgen | 0:00 |
| JI | Menterne 23 003 9945RA Wagenborgen | 0:00 |
| JJ | Menterne 23 004 9945RA Wagenborgen | 0:00 |
| JK | Menterne 23 005 9945RA Wagenborgen | 0:00 |
| JL | Menterne 23 006 9945RA Wagenborgen | 0:00 |
| JM | Menterne 23 007 9945RA Wagenborgen | 0:00 |
| JN | Menterne 23 008 9945RA Wagenborgen | 0:00 |
| JO | Menterne 23 009 9945RA Wagenborgen | 0:00 |
| JP | Menterne 23 010 9945RA Wagenborgen | 0:00 |
| JQ | Menterne 23 017 9945RA Wagenborgen | 0:00 |
| JR | Menterne 23 030 9945RA Wagenborgen | 0:00 |
| JS | Menterne 23 103 9945RA Wagenborgen | 0:00 |
| JT | Menterne 23 104 9945RA Wagenborgen | 0:00 |
| JU | Menterne 23 105 9945RA Wagenborgen | 0:00 |
| JV | Menterne 23 106 9945RA Wagenborgen | 0:00 |
| JW | Menterne 23 107 9945RA Wagenborgen | 0:00 |
| JX | Menterne 23 108 9945RA Wagenborgen | 0:00 |
| JY | Menterne 23 109 9945RA Wagenborgen | 0:00 |
| JZ | Menterne 23 110 9945RA Wagenborgen | 0:00 |
| K | G. Boelmanweg 6 9945RJ Wagenborgen | 0:00 |
| KA | Menterne 23 111 9945RA Wagenborgen | 0:00 |
| KB | Menterne 23 113 9945RA Wagenborgen | 0:00 |
| KC | Menterne 23 114 9945RA Wagenborgen | 0:00 |
| KD | Menterne 23 115 9945RA Wagenborgen | 0:00 |
| KE | Menterne 23 116 9945RA Wagenborgen | 0:00 |
| KF | Menterne 23 117 9945RA Wagenborgen | 0:00 |
| KG | Menterne 23 118 9945RA Wagenborgen | 0:00 |
| KH | Menterne 23 119 9945RA Wagenborgen | 0:00 |
| KI | Menterne 23 120 9945RA Wagenborgen | 0:00 |
| KJ | Menterne 23 121 9945RA Wagenborgen | 0:00 |
| KK | Menterne 23 122 9945RA Wagenborgen | 0:00 |
| KL | Menterne 23 123 9945RA Wagenborgen | 0:00 |
| KM | Menterne 23 124 9945RA Wagenborgen | 0:00 |
| KN | Menterne 23 125 9945RA Wagenborgen | 0:00 |
| KO | Menterne 23 126 9945RA Wagenborgen | 0:00 |
| KP | Menterne 23 127 9945RA Wagenborgen | 0:00 |
| KQ | Menterne 23 128 9945RA Wagenborgen | 0:00 |
| KR | Menterne 23 129 9945RA Wagenborgen | 0:00 |
| KS | Menterne 23 130 9945RA Wagenborgen | 0:00 |
| KT | Menterne 23 131 9945RA Wagenborgen | 0:00 |
| KU | Menterne 23 132 9945RA Wagenborgen | 0:00 |
| KV | Menterne 23 201 9945RA Wagenborgen | 0:00 |
| KW | Menterne 23 202 9945RA Wagenborgen | 0:00 |
| KX | Menterne 23 203 9945RA Wagenborgen | 0:00 |
| KY | Menterne 23 204 9945RA Wagenborgen | 0:00 |
| KZ | Menterne 23 205 9945RA Wagenborgen | 0:00 |
| L | Kokslaan 1 9945RD Wagenborgen | 0:00 |
| LA | Menterne 23 206 9945RA Wagenborgen | 0:00 |
| LB | Menterne 23 207 9945RA Wagenborgen | 0:00 |
| LC | Menterne 23 208 9945RA Wagenborgen | 0:00 |
| LD | Menterne 23 209 9945RA Wagenborgen | 0:00 |
| LE | Menterne 23 210 9945RA Wagenborgen | 0:00 |
| LF | Menterne 23 211 9945RA Wagenborgen | 0:00 |
| LG | Menterne 23 212 9945RA Wagenborgen | 0:00 |
| LH | Menterne 23 213 9945RA Wagenborgen | 0:00 |
| LI | Menterne 23 214 9945RA Wagenborgen | 0:00 |
| LJ | Menterne 23 215 9945RA Wagenborgen | 0:00 |

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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief B

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| LK | Menterne 23 216 9945RA Wagenborgen | 0:00 |
| LL | Menterne 23 217 9945RA Wagenborgen | 0:00 |
| LM | Menterne 23 218 9945RA Wagenborgen | 0:00 |
| LN | Menterne 23 219 9945RA Wagenborgen | 0:00 |
| LO | Menterne 23 220 9945RA Wagenborgen | 0:00 |
| LP | Menterne 23 221 9945RA Wagenborgen | 0:00 |
| LQ | Menterne 23 222 9945RA Wagenborgen | 0:00 |
| LR | Menterne 23 223 9945RA Wagenborgen | 0:00 |
| LS | Menterne 23 224 9945RA Wagenborgen | 0:00 |
| LT | Menterne 23 226 9945RA Wagenborgen | 0:00 |
| LU | Menterne 23 228 9945RA Wagenborgen | 0:00 |
| LV | Menterne 23 229 9945RA Wagenborgen | 0:00 |
| LW | Menterne 23 230 9945RA Wagenborgen | 0:00 |
| LX | Menterne 23 231 9945RA Wagenborgen | 0:00 |
| LY | Menterne 23 232 9945RA Wagenborgen | 0:00 |
| LZ | G. Boelmanweg 1 9945RE Wagenborgen | 0:00 |
| M | Kokslaan 2 9945RD Wagenborgen | 0:00 |
| MA | Boslaan 7 9945TM Wagenborgen | 0:00 |
| MB | H.L. Emmensweg 23 9945PW Wagenborgen | 0:00 |
| MC | Kopaf 5 9944VA Nieuwolda | 0:00 |
| MD | Familie Bronsweg 68 9945TA Wagenborgen | 12:59 |
| ME | Maarkampen 26 9937PL Meedhuizen | 0:29 |
| MF | Maarkampen 24 9937PL Meedhuizen | 0:28 |
| MG | Maarkampen 22 9937PL Meedhuizen | 0:25 |
| MH | Maarkampen 20 9937PL Meedhuizen | 0:15 |
| MI | Maarkampen 18 9937PL Meedhuizen | 0:13 |
| MJ | Maarkampen 16 9937PL Meedhuizen | 0:13 |
| MK | Maarkampen 14 9937PL Meedhuizen | 0:11 |
| ML | Maarlaan 22 E 9937TH Meedhuizen | 0:17 |
| MM | Maarlaan 22 D 9937TH Meedhuizen | 0:13 |
| MN | Schaapbulterweg 8 9937TL Meedhuizen | 0:47 |
| MO | Schaapbulterweg 6 9937TL Meedhuizen | 0:15 |
| MP | Schaapbulterweg 29 9937TL Meedhuizen | 0:48 |
| MQ | Schaapbulterweg 27 9937TL Meedhuizen | 0:26 |
| MR | Schaapbulterweg 25 9937TL Meedhuizen | 0:16 |
| MS | Schaapbulterweg 23 9937TL Meedhuizen | 0:15 |
| MT | Schaapbulterweg 21 9937TL Meedhuizen | 0:14 |
| MU | Geefsweersterweg 11 9937TB Meedhuizen | 3:49 |
| MV | Schaapbulterweg 35 9937TL Meedhuizen | 2:19 |
| MW | Meedhuizerweg 20 9937TK Meedhuizen | 0:36 |
| MX | Familie Bronsweg 66 9945TA Wagenborgen | 10:20 |
| MY | Familie Bronsweg 64 9945TA Wagenborgen | 13:06 |
| MZ | Ideweersterweg 10 9937TM Meedhuizen | 15:00 |
| N | Kerkstraat 1 9945SB Wagenborgen | 0:00 |
| NA | Ideweersterweg 8 9937TM Meedhuizen | 24:51 |
| NB | Geefsweersterweg 20 9937TC Meedhuizen | 23:02 |
| NC | Geefsweersterweg 18 9937TC Meedhuizen | 18:23 |
| ND | Geefsweersterweg 29 9937TB Meedhuizen | 18:55 |
| NE | Geefsweersterweg 16 9937TC Meedhuizen | 18:05 |
| NF | Geefsweersterweg 23 9937TB Meedhuizen | 25:05 |
| NG | Geefsweersterweg 12 9937TC Meedhuizen | 33:37 |
| NH | Geefsweersterweg 14 9937TC Meedhuizen | 30:38 |
| NI | Geefsweersterweg 21 A 9937TB Meedhuizen | 31:24 |
| NJ | Geefsweersterweg 10 9937TC Meedhuizen | 39:21 |
| NK | Geefsweersterweg 21 9937TB Meedhuizen | 38:05 |
| NL | Geefsweersterweg 17 9937TB Meedhuizen | 35:15 |
| NM | Geefsweersterweg 19 9937TB Meedhuizen | 36:39 |
| NN | Ideweersterweg 2 9937TM Meedhuizen | 20:25 |
| NO | Ideweersterweg 1 9937TM Meedhuizen | 22:47 |
| NP | Geefsweersterweg 15 9937TB Meedhuizen | 29:41 |
| NQ | Westerlaan 6 9937TS Meedhuizen | 33:34 |
| NR | Familie Bronsweg 87 9945TA Wagenborgen | 6:40 |
| NS | Familie Bronsweg 89 9945TA Wagenborgen | 10:05 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief B

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| NT | Westerlaan 10 9937TS Meedhuizen | 27:43 |
| NU | Geefsweersterweg 13 9937TB Meedhuizen | 14:25 |
| NV | Maarlaan 26 9937TH Meedhuizen | 1:03 |
| NW | Maarlaan 24 9937TH Meedhuizen | 0:31 |
| NX | Maarlaan 28 9937TH Meedhuizen | 1:05 |
| NY | Maarlaan 30 9937TH Meedhuizen | 1:30 |
| NZ | Kerklaan 3 9937PG Meedhuizen | 0:59 |
| O | Hoofdweg 30 9945PG Wagenborgen | 0:00 |
| OA | Kerklaan 8 9937PG Meedhuizen | 2:00 |
| OB | Kerklaan 6 9937PG Meedhuizen | 2:05 |
| OC | Opmeedenlaan 6 9937TN Meedhuizen | 0:42 |
| OD | Opmeedenlaan 4 9937TN Meedhuizen | 0:47 |
| OE | Opmeedenlaan 2 9937TN Meedhuizen | 0:57 |
| OF | Kloosterlaan 26 9945TG Wagenborgen | 7:53 |
| OG | Zomerdijk 1 9945TH Wagenborgen | 5:27 |
| OH | Zomerdijk 3 9945TH Wagenborgen | 1:22 |
| OI | Zomerdijk 3 A 9945TH Wagenborgen | 0:56 |
| OJ | Zomerdijk 2 9945TH Wagenborgen | 0:26 |
| OK | Kloosterlaan 21 A 9945TG Wagenborgen | 9:18 |
| OL | Kloosterlaan 21 B 9945TG Wagenborgen | 9:31 |
| OM | Ideweersterweg 4 9937TM Meedhuizen | 44:50 |
| ON | Maarlaan 22 C 9937TH Meedhuizen | 0:10 |
| OO | Kloosterlaan 21 9936TE Farmsum | 5:39 |
| OP | Geefsweersterweg 8 A 9937TC Meedhuizen | 27:50 |
| OQ | Houtweg 20 9936BL Farmsum | 0:07 |
| OR | Houtweg 22 9936BL Farmsum | 0:08 |
| OS | Houtweg 24 9936BL Farmsum | 0:08 |
| OT | Houtweg 26 9936BL Farmsum | 0:08 |
| OU | Houtweg 28 9936BL Farmsum | 0:08 |
| OV | Rondeboslaan 6 9936BK Farmsum | 0:17 |
| OW | Proosdij 14 9936EW Farmsum | 0:00 |
| OX | Bredelaan 6 9936ER Farmsum | 0:48 |
| OY | Bredelaan 4 9936ER Farmsum | 0:38 |
| OZ | Bredelaan 2 A 9936ER Farmsum | 0:27 |
| P | Hoofdweg 32 9945PG Wagenborgen | 0:00 |
| PA | Proosdij 24 9936EW Farmsum | 0:10 |
| PB | Proosdij 22 9936EW Farmsum | 0:07 |
| PC | Proosdij 20 9936EW Farmsum | 0:03 |
| PD | Proosdij 18 9936EW Farmsum | 0:00 |
| PE | Proosdij 16 9936EW Farmsum | 0:00 |
| PF | Trambaan 19 9936ES Farmsum | 0:31 |
| PG | Proosdij 17 9936ET Farmsum | 0:08 |
| PH | Proosdij 15 9936ET Farmsum | 0:06 |
| PI | Proosdij 13 9936ET Farmsum | 0:03 |
| PJ | Trambaan 17 9936ES Farmsum | 0:30 |
| PK | Trambaan 15 9936ES Farmsum | 0:29 |
| PL | Trambaan 13 9936ES Farmsum | 0:28 |
| PM | Trambaan 11 9936ES Farmsum | 0:28 |
| PN | Trambaan 9 9936ES Farmsum | 0:27 |
| PO | Trambaan 5 9936ES Farmsum | 0:26 |
| PP | Trambaan 3 9936ES Farmsum | 0:25 |
| PQ | Trambaan 1 9936ES Farmsum | 0:24 |
| PR | Proosdij 12 9936EW Farmsum | 0:00 |
| PS | Proosdij 8 9936EW Farmsum | 0:00 |
| PT | Proosdij 6 9936EW Farmsum | 0:00 |
| PU | Proosdij 4 9936EW Farmsum | 0:00 |
| PV | Proosdij 11 9936ET Farmsum | 0:01 |
| PW | Proosdij 9 9936ET Farmsum | 0:00 |
| PX | Proosdij 7 9936ET Farmsum | 0:00 |
| PY | Proosdij 5 9936ET Farmsum | 0:00 |
| PZ | Proosdij 1 9936ET Farmsum | 0:00 |
| Q | Hoofdweg 31 9945PA Wagenborgen | 0:00 |
| QA | Proosdij 3 9936ET Farmsum | 0:00 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief B

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| QB | Farmsumerzijl 55 9936GC Farmsum | 0:00 |
| QC | Farmsumerzijl 57 9936GC Farmsum | 0:00 |
| QD | Rengersweg 4 9936GH Farmsum | 0:00 |
| QE | Rengersweg 2 9936GH Farmsum | 0:00 |
| QF | Schepperij 4 A 9936GN Farmsum | 0:00 |
| QG | Schepperij 2 A 9936GN Farmsum | 0:00 |
| QH | Schepperij 4 9936GN Farmsum | 0:00 |
| QI | Schepperij 2 9936GN Farmsum | 0:00 |
| QJ | Dijkrecht 4 9936GK Farmsum | 0:00 |
| QK | Dijkrecht 6 9936GK Farmsum | 0:00 |
| QL | Dijkrecht 10 9936GK Farmsum | 0:00 |
| QM | Dijkrecht 12 9936GK Farmsum | 0:00 |
| QN | Dijkrecht 14 9936GK Farmsum | 0:00 |
| QO | Dijkrecht 16 9936GK Farmsum | 0:00 |
| QP | Dijkrecht 18 9936GK Farmsum | 0:00 |
| QQ | Dijkrecht 20 9936GK Farmsum | 0:00 |
| QR | Dijkrecht 22 9936GK Farmsum | 0:00 |
| QS | Dijkrecht 24 9936GK Farmsum | 0:00 |
| QT | Dijkrecht 26 9936GK Farmsum | 0:00 |
| QU | Dijkrecht 28 9936GK Farmsum | 0:00 |
| QV | Dijkrecht 30 9936GK Farmsum | 0:00 |
| QW | Dijkrecht 32 9936GK Farmsum | 0:00 |
| QX | Dijkrecht 34 9936GK Farmsum | 0:00 |
| QY | Dijkrecht 36 9936GK Farmsum | 0:00 |
| QZ | Dijkrecht 40 9936GK Farmsum | 0:00 |
| R | Hoofdweg 38 9945PG Wagenborgen | 0:00 |
| RA | Dijkrecht 38 9936GK Farmsum | 0:00 |
| RB | Schepperij 20 9936GN Farmsum | 0:00 |
| RC | Schepperij 18 9936GN Farmsum | 0:00 |
| RD | Waarman 12 9936GW Farmsum | 0:00 |
| RE | Waarman 10 9936GW Farmsum | 0:00 |
| RF | Waarman 8 9936GW Farmsum | 0:00 |
| RG | Waarman 6 9936GW Farmsum | 0:00 |
| RH | Farmsumerzijl 1 9936GB Farmsum | 0:00 |
| RI | Farmsumerzijl 3 9936GB Farmsum | 0:00 |
| RJ | Farmsumerzijl 5 9936GB Farmsum | 0:00 |
| RK | Farmsumerzijl 7 9936GB Farmsum | 0:00 |
| RL | Farmsumerzijl 13 9936GB Farmsum | 0:00 |
| RM | Farmsumerzijl 15 9936GB Farmsum | 0:00 |
| RN | Farmsumerzijl 17 9936GB Farmsum | 0:00 |
| RO | Farmsumerzijl 19 9936GB Farmsum | 0:00 |
| RP | Farmsumerzijl 25 9936GB Farmsum | 0:00 |
| RQ | Farmsumerzijl 27 9936GB Farmsum | 0:00 |
| RR | Farmsumerzijl 29 9936GB Farmsum | 0:00 |
| RS | Farmsumerzijl 31 9936GC Farmsum | 0:00 |
| RT | Farmsumerzijl 37 9936GC Farmsum | 0:00 |
| RU | Farmsumerzijl 39 9936GC Farmsum | 0:00 |
| RV | Farmsumerzijl 41 9936GC Farmsum | 0:00 |
| RW | Farmsumerzijl 43 9936GC Farmsum | 0:00 |
| RX | Schepperij 1 9936GL Farmsum | 0:00 |
| RY | Schepperij 3 9936GL Farmsum | 0:00 |
| RZ | Schepperij 5 9936GL Farmsum | 0:00 |
| S | Hoofdweg 39 9945PB Wagenborgen | 0:00 |
| SA | Schepperij 7 9936GL Farmsum | 0:00 |
| SB | Schepperij 9 9936GL Farmsum | 0:00 |
| SC | Schepperij 11 9936GL Farmsum | 0:00 |
| SD | Schepperij 13 9936GL Farmsum | 0:00 |
| SE | Schepperij 15 9936GL Farmsum | 0:00 |
| SF | Dijkrecht 8 9936GK Farmsum | 0:00 |
| SG | Geefsweersterweg 9 9937TB Meedhuizen | 6:10 |
| SH | Geefsweersterweg 7 9937TB Meedhuizen | 25:41 |
| SI | Geefsweersterweg 8 9937TC Meedhuizen | 32:19 |
| SJ | Geefsweersterweg 3 9937TB Meedhuizen | 18:01 |

To be continued on next page...

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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief B

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| SK | Geefsweersterweg 6 9937TC Meedhuizen | 22:56 |
| SL | Geefsweersterweg 4 9937TC Meedhuizen | 15:58 |
| SM | Meedhuizerweg 2 9937TK Meedhuizen | 0:10 |
| SN | Molenstraat 31 9936EB Farmsum | 0:00 |
| SO | Hindrik Jagerstraat 32 9936CV Farmsum | 0:00 |
| SP | Hindrik Jagerstraat 11 9936CT Farmsum | 0:04 |
| SQ | Hindrik Jagerstraat 13 9936CT Farmsum | 0:04 |
| SR | Hindrik Jagerstraat 15 9936CT Farmsum | 0:04 |
| SS | Hindrik Jagerstraat 34 9936CV Farmsum | 0:00 |
| ST | Hindrik Jagerstraat 36 9936CV Farmsum | 0:00 |
| SU | Borgshof 31 9936CR Farmsum | 0:00 |
| SV | Borgshof 33 9936CR Farmsum | 0:00 |
| SW | Borgshof 39 9936CR Farmsum | 0:07 |
| SX | Borgshof 35 9936CR Farmsum | 0:03 |
| SY | Molenstraat 20 9936EC Farmsum | 0:00 |
| SZ | Molenstraat 24 9936EC Farmsum | 0:00 |
| T | Hoofdweg 35 9945PB Wagenborgen | 0:00 |
| TA | Molenstraat 28 9936EC Farmsum | 0:00 |
| TB | Molenstraat 41 9936EB Farmsum | 0:00 |
| TC | Molenstraat 43 9936EB Farmsum | 0:00 |
| TD | Molenstraat 45 9936EB Farmsum | 0:00 |
| TE | Molenstraat 32 9936EC Farmsum | 0:00 |
| TF | Achterweg 13 9936EG Farmsum | 0:00 |
| TG | Achterweg 11 9936EG Farmsum | 0:00 |
| TH | Achterweg 9 9936EG Farmsum | 0:00 |
| TI | Molenstraat 49 9936EB Farmsum | 0:00 |
| TJ | Molenstraat 51 9936EB Farmsum | 0:00 |
| TK | Molenstraat 53 9936EB Farmsum | 0:00 |
| TL | Molenstraat 57 9936EB Farmsum | 0:00 |
| TM | Molenstraat 61 9936EB Farmsum | 0:00 |
| TN | Molenstraat 63 9936EB Farmsum | 0:00 |
| TO | Molenstraat 34 9936ED Farmsum | 0:00 |
| TP | Molenstraat 38 9936ED Farmsum | 0:00 |
| TQ | Molenstraat 40 9936ED Farmsum | 0:00 |
| TR | Molenstraat 42 9936ED Farmsum | 0:00 |
| TS | Molenstraat 44 9936ED Farmsum | 0:00 |
| TT | Molenstraat 65 9936EB Farmsum | 0:00 |
| TU | Molenstraat 48 9936ED Farmsum | 0:00 |
| TV | Molenstraat 50 9936ED Farmsum | 0:00 |
| TW | Molenstraat 56 9936ED Farmsum | 0:00 |
| TX | Molenstraat 58 9936EE Farmsum | 0:00 |
| TY | Molenstraat 62 9936EE Farmsum | 0:00 |
| TZ | Molenstraat 72 9936EE Farmsum | 0:00 |
| U | Hoofdweg 37 9945PB Wagenborgen | 0:00 |
| UA | Molenstraat 70 9936EE Farmsum | 0:00 |
| UB | Molenstraat 68 9936EE Farmsum | 0:00 |
| UC | Molenstraat 66 9936EE Farmsum | 0:00 |
| UD | Achterweg 2 9936EG Farmsum | 0:00 |
| UE | Achterweg 12 9936EG Farmsum | 0:00 |
| UF | Achterweg 10 9936EG Farmsum | 0:00 |
| UG | Achterweg 8 9936EG Farmsum | 0:00 |
| UH | Hindrik Jagerstraat 17 9936CT Farmsum | 0:04 |
| UI | Molenstraat 30 9936EC Farmsum | 0:00 |
| UJ | Borgweg 141 9936EN Farmsum | 0:12 |
| UK | Borgweg 139 9936EN Farmsum | 0:14 |
| UL | Borgweg 137 9936EN Farmsum | 0:14 |
| UM | Borgweg 135 9936EN Farmsum | 0:16 |
| UN | Afwateringskanaal 109 9936AV Farmsum | 0:19 |
| UO | Borgweg 131 9936EM Farmsum | 0:13 |
| UP | Borgweg 133 9936EM Farmsum | 0:25 |
| UQ | Borgshof 41 9936CR Farmsum | 0:13 |
| UR | Borgshof 43 9936CR Farmsum | 0:18 |
| US | Borgshof 45 9936CR Farmsum | 0:20 |

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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief B

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| UT | Molenstraat 74 9936EE Farmsum | 0:00 |
| UU | Molenstraat 76 9936EE Farmsum | 0:00 |
| UV | Molenstraat 78 9936EE Farmsum | 0:00 |
| UW | Molenstraat 82 9936EE Farmsum | 0:00 |
| UX | Molenstraat 84 9936EE Farmsum | 0:00 |
| UY | Borgweg 123 9936EM Farmsum | 0:00 |
| UZ | Borgweg 125 9936EM Farmsum | 0:00 |
| V | Hoofdweg 44 9945PH Wagenborgen | 0:00 |
| VA | Borgweg 127 9936EM Farmsum | 0:00 |
| VB | Borgweg 129 9936EM Farmsum | 0:00 |
| VC | Farmsumerzijl 51 9936GC Farmsum | 0:00 |
| VD | Molenstraat 80 9936EE Farmsum | 0:00 |
| VE | Houtweg 30 9936BL Farmsum | 0:09 |
| VF | Houtweg 32 9936BL Farmsum | 0:09 |
| VG | Houtweg 34 9936BL Farmsum | 0:10 |
| VH | Houtweg 36 9936BL Farmsum | 0:10 |
| VI | Houtweg 38 9936BL Farmsum | 0:11 |
| VJ | Houtweg 40 9936BL Farmsum | 0:12 |
| VK | Houtweg 42 9936BL Farmsum | 0:11 |
| VL | Houtweg 44 9936BL Farmsum | 0:11 |
| VM | Houtweg 46 9936BL Farmsum | 0:11 |
| VN | Houtweg 48 9936BL Farmsum | 0:11 |
| VO | Rondeboslaan 26 9936BK Farmsum | 0:17 |
| VP | Rondeboslaan 28 9936BK Farmsum | 0:17 |
| VQ | Seendweg 32 9936GA Farmsum | 1:03 |
| VR | Trambaan 21 9936ES Farmsum | 0:32 |
| VS | Proosdij 19 9936ET Farmsum | 0:34 |
| VT | Bredelaan 14 9936ER Farmsum | 1:37 |
| VU | Bredelaan 10 9936ER Farmsum | 1:03 |
| VV | Bredelaan 8 9936ER Farmsum | 1:00 |
| VW | Seendweg 22 9936GA Farmsum | 1:51 |
| VX | Seendweg 28 9936GA Farmsum | 1:32 |
| VY | Proosdij 28 9936EW Farmsum | 0:16 |
| VZ | Proosdij 30 9936EX Farmsum | 0:30 |
| W | Hoofdweg 48 9945PH Wagenborgen | 0:00 |
| WA | Proosdij 26 9936EW Farmsum | 0:14 |
| WB | Afwateringskanaal 107 9936AV Farmsum | 0:17 |
| WC | Rondeboslaan 22 A 9936BK Farmsum | 0:30 |
| WD | Rondeboslaan 22 B 9936BK Farmsum | 0:31 |
| WE | Rondeboslaan 2 A 9936BK Farmsum | 0:23 |
| WF | Rondeboslaan 2 B 9936BK Farmsum | 0:17 |
| WG | Seendweg 17 9936GA Farmsum | 1:32 |
| WH | Borgshof 29 9936CR Farmsum | 0:00 |
| WI | Molenstraat 22 9936EC Farmsum | 0:00 |
| WJ | Achterweg 7 A 9936EG Farmsum | 0:00 |
| WK | Molenstraat 26 9936EC Farmsum | 0:00 |
| WL | Borgweg 113 9936EM Farmsum | 0:00 |
| WM | Borgweg 115 9936EM Farmsum | 0:00 |
| WN | Borgweg 117 9936EM Farmsum | 0:00 |
| WO | Borgweg 119 9936EM Farmsum | 0:00 |
| WP | Borgweg 121 9936EM Farmsum | 0:00 |
| WQ | Farmsumerzijl 45 9936GC Farmsum | 0:00 |
| WR | Farmsumerzijl 47 9936GC Farmsum | 0:00 |
| WS | Farmsumerzijl 49 9936GC Farmsum | 0:00 |
| WT | Waarman 4 9936GW Farmsum | 0:00 |
| WU | Waarman 2 9936GW Farmsum | 0:00 |
| WV | Farmsumerzijl 9 9936GB Farmsum | 0:00 |
| WW | Farmsumerzijl 11 9936GB Farmsum | 0:00 |
| WX | Farmsumerzijl 21 9936GB Farmsum | 0:00 |
| WY | Farmsumerzijl 23 9936GB Farmsum | 0:00 |
| WZ | Farmsumerzijl 33 9936GC Farmsum | 0:00 |
| X | Hoofdweg 41 9945PB Wagenborgen | 0:00 |
| XA | Farmsumerzijl 35 9936GC Farmsum | 0:00 |

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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief B

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| XB | Schepperij 17 9936GL Farmsum | 0:00 |
| XC | Schepperij 19 9936GL Farmsum | 0:00 |
| XD | Schepperij 21 9936GL Farmsum | 0:00 |
| XE | Dijkrecht 3 9936GJ Farmsum | 0:00 |
| XF | Dijkrecht 5 9936GJ Farmsum | 0:00 |
| XG | Dijkrecht 7 9936GJ Farmsum | 0:00 |
| XH | Dijkrecht 9 9936GJ Farmsum | 0:00 |
| XI | Dijkrecht 11 9936GJ Farmsum | 0:00 |
| XJ | Dijkrecht 13 9936GJ Farmsum | 0:00 |
| XK | Dijkrecht 15 9936GJ Farmsum | 0:00 |
| XL | Dijkrecht 17 9936GJ Farmsum | 0:00 |
| XM | Dijkrecht 19 9936GJ Farmsum | 0:00 |
| XN | Dijkrecht 21 9936GJ Farmsum | 0:00 |
| XO | Schepperij 6 9936GN Farmsum | 0:00 |
| XP | Schepperij 8 9936GN Farmsum | 0:00 |
| XQ | Schepperij 10 9936GN Farmsum | 0:00 |
| XR | Schepperij 12 9936GN Farmsum | 0:00 |
| XS | Schepperij 14 9936GN Farmsum | 0:00 |
| XT | Schepperij 16 9936GN Farmsum | 0:00 |
| XU | Olderman 2 9936GT Farmsum | 0:00 |
| XV | Olderman 4 9936GT Farmsum | 0:00 |
| XW | Olderman 6 9936GT Farmsum | 0:00 |
| XX | Olderman 8 9936GT Farmsum | 0:00 |
| XY | Olderman 10 9936GT Farmsum | 0:00 |
| XZ | Olderman 12 9936GT Farmsum | 0:00 |
| Y | Hoofdweg 20 9945PG Wagenborgen | 0:00 |
| YA | Olderman 14 9936GT Farmsum | 0:00 |
| YB | Dijkrecht 23 9936GJ Farmsum | 0:00 |
| YC | Dijkrecht 25 9936GJ Farmsum | 0:00 |
| YD | Dijkrecht 27 9936GJ Farmsum | 0:00 |
| YE | Dijkrecht 29 9936GJ Farmsum | 0:00 |
| YF | Dijkrecht 31 9936GJ Farmsum | 0:00 |
| YG | Dijkrecht 33 9936GJ Farmsum | 0:00 |
| YH | Dijkrecht 35 9936GJ Farmsum | 0:00 |
| YI | Dijkrecht 37 9936GJ Farmsum | 0:00 |
| YJ | Dijkrecht 39 9936GJ Farmsum | 0:00 |
| YK | Dijkrecht 41 9936GJ Farmsum | 0:00 |
| YL | Dijkrecht 43 9936GJ Farmsum | 0:00 |
| YM | Olderman 1 9936GS Farmsum | 0:00 |
| YN | Olderman 3 9936GS Farmsum | 0:00 |
| YO | Olderman 5 9936GS Farmsum | 0:00 |
| YP | Olderman 7 9936GS Farmsum | 0:00 |
| YQ | Schepperij 37 9936GM Farmsum | 0:00 |
| YR | Schepperij 41 9936GM Farmsum | 0:00 |
| YS | Schepperij 45 9936GM Farmsum | 0:00 |
| YT | Schepperij 47 9936GM Farmsum | 0:00 |
| YU | Schepperij 49 9936GM Farmsum | 0:00 |
| YV | Olderman 18 9936GT Farmsum | 0:00 |
| YW | Olderman 20 9936GT Farmsum | 0:00 |
| YX | Olderman 22 9936GT Farmsum | 0:00 |
| YY | Olderman 24 9936GT Farmsum | 0:00 |
| YZ | Olderman 26 9936GT Farmsum | 0:00 |
| Z | Hoofdweg 22 9945PG Wagenborgen | 0:00 |
| ZA | Olderman 28 9936GT Farmsum | 0:00 |
| ZB | Olderman 30 9936GT Farmsum | 0:00 |
| ZC | Olderman 9 9936GS Farmsum | 0:00 |
| ZD | Olderman 11 9936GS Farmsum | 0:00 |
| ZE | Olderman 13 9936GS Farmsum | 0:00 |
| ZF | Proosdij 32 9936EX Farmsum | 0:30 |
| ZG | Proosdij 36 9936EX Farmsum | 0:29 |
| ZH | Proosdij 38 9936EX Farmsum | 0:25 |
| ZI | Proosdij 40 9936EX Farmsum | 0:19 |
| ZJ | Proosdij 27 9936EV Farmsum | 0:50 |

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# SHADOW - Main Result

## Calculation: Voorkeursalternatief Ondergrens Alternattief B

...continued from previous page

| No. | Name | Shadow, expected values<br>Shadow hours per year [h/year] |
|---|---|---|
| ZK | Proosdij 25 9936EV Farmsum | 0:53 |
| ZL | Proosdij 23 9936EV Farmsum | 0:55 |
| ZM | Proosdij 21 9936EV Farmsum | 0:56 |
| ZN | Seendweg 5 9936GA Farmsum | 1:23 |
| ZO | Proosdij 29 9936EV Farmsum | 0:48 |
| ZP | Proosdij 31 9936EV Farmsum | 0:48 |
| ZQ | Proosdij 33 9936EV Farmsum | 0:56 |
| ZR | Proosdij 35 9936EV Farmsum | 0:42 |
| ZS | Proosdij 37 9936EV Farmsum | 0:28 |
| ZT | Proosdij 39 9936EV Farmsum | 0:23 |
| ZU | Proosdij 41 9936EV Farmsum | 0:18 |
| ZV | Proosdij 43 9936EV Farmsum | 0:14 |
| ZW | Proosdij 45 9936EV Farmsum | 0:09 |
| ZX | Proosdij 47 9936EV Farmsum | 0:04 |
| ZY | Olderman 15 9936GS Farmsum | 0:00 |
| ZZ | Rengersweg 97 9936GG Farmsum | 0:00 |

Total amount of flickering on the shadow receptors caused by each WTG

| No. | Name | Worst case [h/year] | Expected [h/year] |
|---|---|---|---|
| 1 | GE WIND ENERGY GE 2.5-120 2500 120.0 !O! hub: 120,0 m (TOT: 180,0 m) (111) | 733:37 | 123:11 |
| 2 | GE WIND ENERGY GE 2.5-120 2500 120.0 !O! hub: 120,0 m (TOT: 180,0 m) (112) | 289:38 | 34:40 |
| 3 | GE WIND ENERGY GE 2.5-120 2500 120.0 !O! hub: 120,0 m (TOT: 180,0 m) (113) | 90:28 | 18:35 |
| 4 | GE WIND ENERGY GE 2.5-120 2500 120.0 !O! hub: 120,0 m (TOT: 180,0 m) (114) | 150:51 | 26:26 |
| 5 | GE WIND ENERGY GE 2.5-120 2500 120.0 !O! hub: 120,0 m (TOT: 180,0 m) (115) | 333:52 | 66:48 |
| 6 | GE WIND ENERGY GE 2.5-120 2500 120.0 !O! hub: 120,0 m (TOT: 180,0 m) (116) | 266:06 | 34:00 |
| 7 | GE WIND ENERGY GE 2.5-120 2500 120.0 !O! hub: 120,0 m (TOT: 180,0 m) (117) | 318:21 | 46:27 |
| 8 | GE WIND ENERGY GE 2.5-120 2500 120.0 !O! hub: 120,0 m (TOT: 180,0 m) (118) | 79:56 | 12:17 |
| 9 | GE WIND ENERGY GE 2.5-120 2500 120.0 !O! hub: 120,0 m (TOT: 180,0 m) (119) | 77:45 | 16:18 |
| 10 | GE WIND ENERGY GE 2.5-120 2500 120.0 !O! hub: 120,0 m (TOT: 180,0 m) (120) | 243:20 | 35:35 |
| 11 | GE WIND ENERGY GE 2.5-120 2500 120.0 !O! hub: 120,0 m (TOT: 180,0 m) (121) | 356:11 | 55:55 |
| 12 | GE WIND ENERGY GE 2.5-120 2500 120.0 !O! hub: 120,0 m (TOT: 180,0 m) (122) | 99:18 | 11:45 |
| 13 | GE WIND ENERGY GE 2.5-120 2500 120.0 !O! hub: 120,0 m (TOT: 180,0 m) (123) | 30:38 | 6:18 |
| 14 | GE WIND ENERGY GE 2.5-120 2500 120.0 !O! hub: 120,0 m (TOT: 180,0 m) (124) | 98:04 | 20:35 |
| 15 | GE WIND ENERGY GE 2.5-120 2500 120.0 !O! hub: 120,0 m (TOT: 180,0 m) (125) | 179:08 | 34:14 |
| 16 | GE WIND ENERGY GE 2.5-120 2500 120.0 !O! hub: 120,0 m (TOT: 180,0 m) (126) | 327:34 | 57:02 |
| 17 | GE WIND ENERGY GE 2.5-120 2500 120.0 !O! hub: 120,0 m (TOT: 180,0 m) (127) | 388:02 | 69:11 |