

## **Lichthinderberekening TC De Mors**

TC De Mors

Datum: 13.03.2023  
Operator: OVI-Enschede



OVI-Enschede  
Enschede  
www.o vi-enschede.nl  
info@ovi-enschede.nl

Operator OVI-Enschede  
Telefoon 053 478 0595  
Fax  
e-Mail

## Inhoudsopgave

### Lichthinderberekening TC De Mors

|                                                         |    |
|---------------------------------------------------------|----|
| Voorblad project                                        | 1  |
| Inhoudsopgave                                           | 2  |
| <b>Tennis 2 Courts</b>                                  |    |
| Stuklijst armaturen                                     | 3  |
| Objecten (positieschema)                                | 4  |
| Sportarmaturen (coördinatenlijst)                       | 5  |
| Berekeningsraster (coördinatenlijst)                    | 7  |
| Lichtsterkteberekeningspunten (coördinatenlijst)        | 9  |
| GR-waarnemer (resultatenoverzicht)                      | 10 |
| 3D Rendering                                            | 12 |
| Rendering onjuiste kleuren                              | 13 |
| <b>Buitenvlakken</b>                                    |    |
| <b>Court 1 TA</b>                                       |    |
| Waardegrafiek (E, horizontaal)                          | 14 |
| <b>Court 1 PA</b>                                       |    |
| Waardegrafiek (E, horizontaal)                          | 15 |
| <b>Luxwaardes gevel: Opbroekweg 55, 7461 PH Rijssen</b> |    |
| Waardegrafiek (E, loodrecht)                            | 16 |
| <b>Lichtsterkteberekeningspunten</b>                    |    |
| <b>Opbroekweg 55, 7461 PH Rijssen</b>                   |    |
| Samenvatting                                            | 17 |
| <b>ULR berekeningspunt</b>                              |    |
| Samenvatting                                            | 19 |



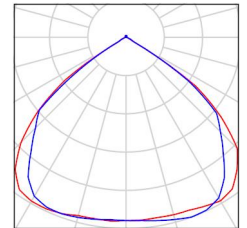
OVI-Enschede  
Enschede  
www.o-vi-enschede.nl  
info@o-vi-enschede.nl

Operator OVI-Enschede  
Telefoon 053 478 0595  
Fax  
e-Mail

## Tennis 2 Courts / Stuklijst armaturen

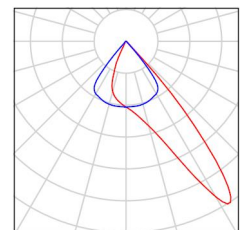
16 Stuk LED FLOOD LIGHT 1916-HVFL200W  
Artikelnr.:  
Lichtstroom (Armatuur): 21374 lm  
Lichtstroom (Lampen): 21403 lm  
Armatuurvermogen: 200.4 W  
Armatuurcategorie volgens CIE: 99  
CIE Flux code: 61 98 100 99 100  
Uitrusting: 1 x 1916-HVFL200W (Correctiefactor 1.000).

In de  
armaturenatalogus  
vindt u een afbeelding  
van het armatuur.



4 Stuk PHILIPS OptiVision LED gen3.5 2022 BVP518  
OUT T35 LED1720/757 A35-MNB LO  
Artikelnr.: OptiVision LED gen3.5 2022  
Lichtstroom (Armatuur): 97563 lm  
Lichtstroom (Lampen): 172000 lm  
Armatuurvermogen: 1006.0 W  
Armatuurcategorie volgens CIE: 100  
CIE Flux code: 88 100 100 100 57  
Uitrusting: 1 x LED1720-4S/757 (Correctiefactor 1.000).

In de  
armaturenatalogus  
vindt u een afbeelding  
van het armatuur.

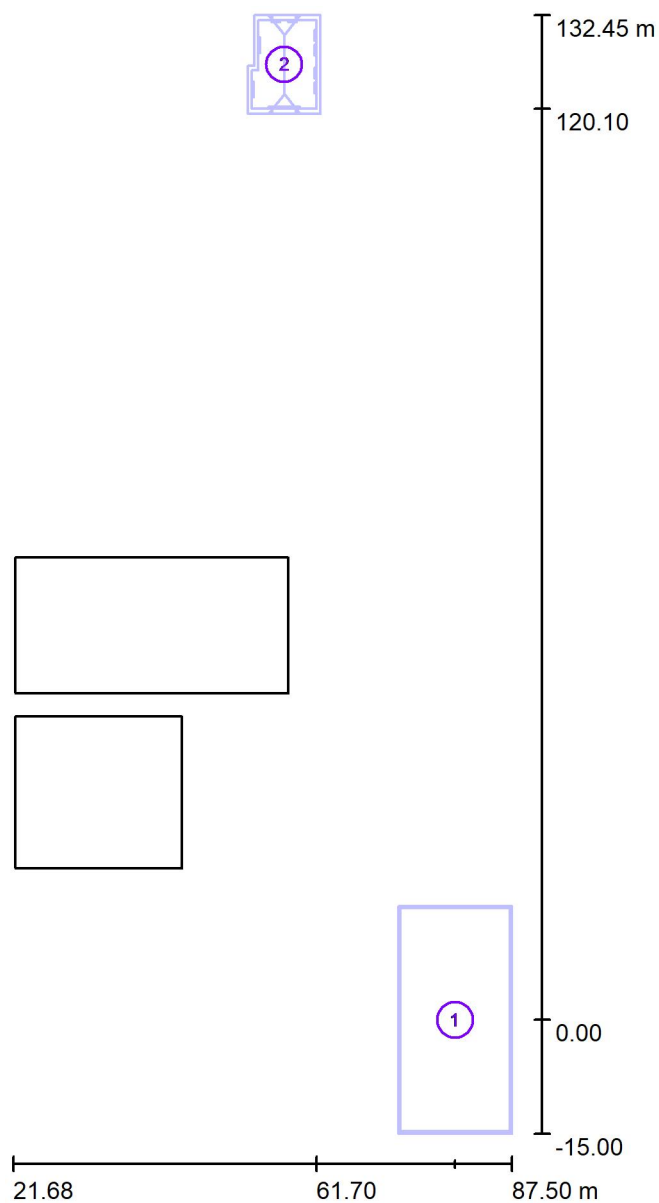




OVI-Enschede  
Enschede  
www.o-vi-enschede.nl  
info@o-vi-enschede.nl

Operator OVI-Enschede  
Telefoon 053 478 0595  
Fax  
e-Mail

## Tennis 2 Courts / Objecten (positieschema)



Schaal 1 : 998

### Object stukslijst

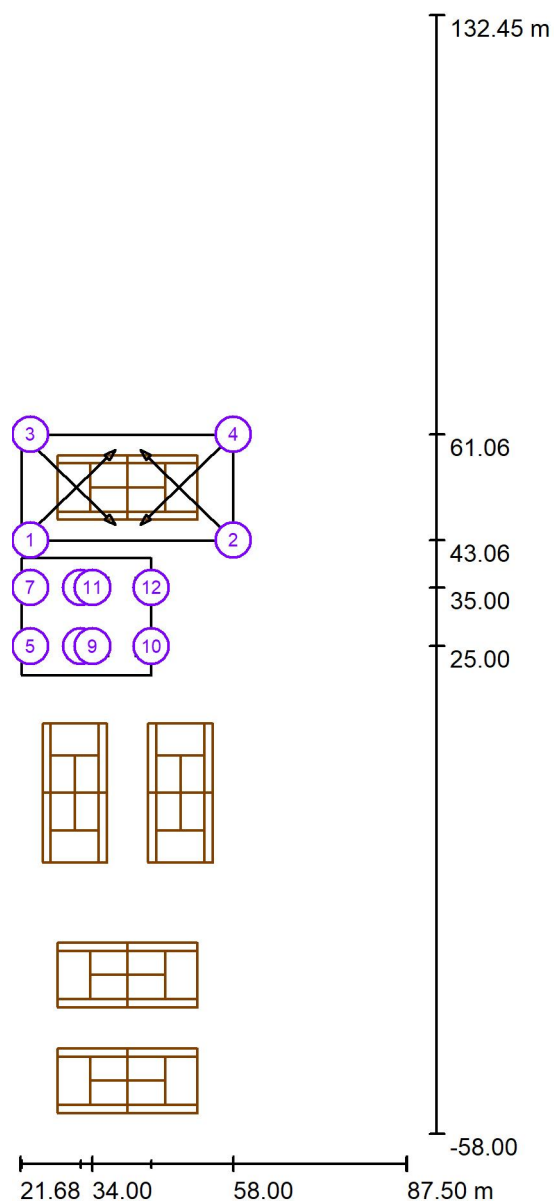
| Nr. | Stuk | Type                                   |
|-----|------|----------------------------------------|
| 1   | 1    | Clubgebouw                             |
| 2   | 1    | Woning: Opbroekweg 55, 7461 PH Rijssen |



OVI-Enschede  
Enschede  
www.o-vi-enschede.nl  
info@o-vi-enschede.nl

Operator OVI-Enschede  
Telefoon 053 478 0595  
Fax  
e-Mail

## Tennis 2 Courts / Sportarmaturen (coördinatenlijst)



Schaal 1 : 1289

### Lijst van sportarmaturen

| Armatuur                                                                           | Index | Positie [m] |        |        | Verlichtingspunt [m] |        |       | Verlichtingshoek [°] | Richting       | Mast |
|------------------------------------------------------------------------------------|-------|-------------|--------|--------|----------------------|--------|-------|----------------------|----------------|------|
|                                                                                    |       | X           | Y      | Z      | X                    | Y      | Z     |                      |                |      |
| PHILIPS OptiVision LED<br>gen3.5 2022 BVP518 OUT<br>T35 LED1720/757 A35-<br>MNB LO | 1     | 22.000      | 43.061 | 15.000 | 37.900               | 58.485 | 0.000 | 34.1                 | (C 0, G 35.0°) | /    |
| PHILIPS OptiVision LED<br>gen3.5 2022 BVP518 OUT<br>T35 LED1720/757 A35-<br>MNB LO | 2     | 58.000      | 43.061 | 15.000 | 42.100               | 58.485 | 0.000 | 34.1                 | (C 0, G 35.0°) | /    |
| PHILIPS OptiVision LED<br>gen3.5 2022 BVP518 OUT<br>T35 LED1720/757 A35-<br>MNB LO | 3     | 22.000      | 61.061 | 15.000 | 37.900               | 45.637 | 0.000 | 34.1                 | (C 0, G 35.0°) | /    |
| PHILIPS OptiVision LED<br>gen3.5 2022 BVP518 OUT<br>T35 LED1720/757 A35-<br>MNB LO | 4     | 58.000      | 61.061 | 15.000 | 42.100               | 45.637 | 0.000 | 34.1                 | (C 0, G 35.0°) | /    |





OVI-Enschede  
Enschede  
www.o-vi-enschede.nl  
info@o-vi-enschede.nl

Operator OVI-Enschede  
Telefoon 053 478 0595  
Fax  
e-Mail

## Tennis 2 Courts / Sportarmaturen (coördinatenlijst)

### Lijst van sportarmaturen

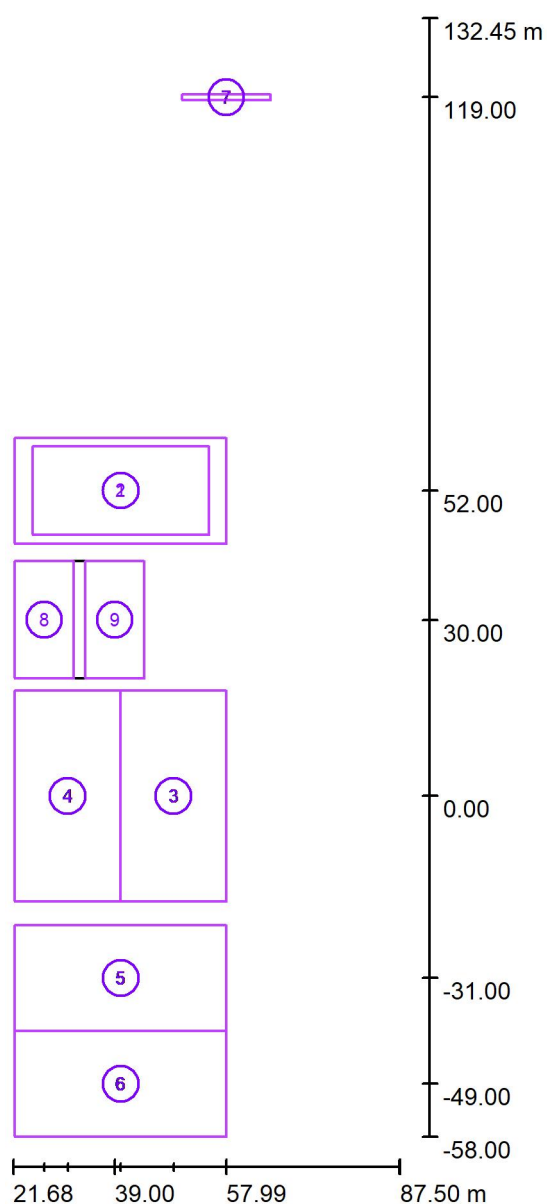
| Armatuur                      | Index | Positie [m] |        |       | Verlichtingspunt [m] |        |       | Verlichtingshoek [°] | Richting   | Mast |
|-------------------------------|-------|-------------|--------|-------|----------------------|--------|-------|----------------------|------------|------|
|                               |       | X           | Y      | Z     | X                    | Y      | Z     |                      |            |      |
| LED FLOOD LIGHT 1916-HVFL200W | 5     | 22.000      | 25.000 | 6.000 | 24.352               | 26.568 | 0.000 | 64.8                 | (C 0, G 0) | /    |
| LED FLOOD LIGHT 1916-HVFL200W | 5     | 22.000      | 25.000 | 6.000 | 24.400               | 23.105 | 0.000 | 63.0                 | (C 0, G 0) | /    |
| LED FLOOD LIGHT 1916-HVFL200W | 6     | 32.000      | 25.000 | 6.000 | 29.648               | 26.568 | 0.000 | 64.8                 | (C 0, G 0) | /    |
| LED FLOOD LIGHT 1916-HVFL200W | 6     | 32.000      | 25.000 | 6.000 | 29.600               | 23.105 | 0.000 | 63.0                 | (C 0, G 0) | /    |
| LED FLOOD LIGHT 1916-HVFL200W | 7     | 22.000      | 35.000 | 6.000 | 24.352               | 33.432 | 0.000 | 64.8                 | (C 0, G 0) | /    |
| LED FLOOD LIGHT 1916-HVFL200W | 7     | 22.000      | 35.000 | 6.000 | 24.400               | 36.895 | 0.000 | 63.0                 | (C 0, G 0) | /    |
| LED FLOOD LIGHT 1916-HVFL200W | 8     | 32.000      | 35.000 | 6.000 | 29.648               | 33.432 | 0.000 | 64.8                 | (C 0, G 0) | /    |
| LED FLOOD LIGHT 1916-HVFL200W | 8     | 32.000      | 35.000 | 6.000 | 29.600               | 36.895 | 0.000 | 63.0                 | (C 0, G 0) | /    |
| LED FLOOD LIGHT 1916-HVFL200W | 9     | 34.000      | 25.000 | 6.000 | 36.712               | 23.300 | 0.000 | 61.9                 | (C 0, G 0) | /    |
| LED FLOOD LIGHT 1916-HVFL200W | 9     | 34.000      | 25.000 | 6.000 | 36.700               | 26.400 | 0.000 | 63.1                 | (C 0, G 0) | /    |
| LED FLOOD LIGHT 1916-HVFL200W | 10    | 44.000      | 25.000 | 6.000 | 41.288               | 23.300 | 0.000 | 61.9                 | (C 0, G 0) | /    |
| LED FLOOD LIGHT 1916-HVFL200W | 10    | 44.000      | 25.000 | 6.000 | 41.300               | 26.400 | 0.000 | 63.1                 | (C 0, G 0) | /    |
| LED FLOOD LIGHT 1916-HVFL200W | 11    | 34.000      | 35.000 | 6.000 | 36.712               | 36.700 | 0.000 | 61.9                 | (C 0, G 0) | /    |
| LED FLOOD LIGHT 1916-HVFL200W | 11    | 34.000      | 35.000 | 6.000 | 36.700               | 33.600 | 0.000 | 63.1                 | (C 0, G 0) | /    |
| LED FLOOD LIGHT 1916-HVFL200W | 12    | 44.000      | 35.000 | 6.000 | 41.288               | 36.700 | 0.000 | 61.9                 | (C 0, G 0) | /    |
| LED FLOOD LIGHT 1916-HVFL200W | 12    | 44.000      | 35.000 | 6.000 | 41.300               | 33.600 | 0.000 | 63.1                 | (C 0, G 0) | /    |



OVI-Enschede  
Enschede  
www.oivi-enschede.nl  
info@oivi-enschede.nl

Operator OVI-Enschede  
Telefoon 053 478 0595  
Fax  
e-Mail

## Tennis 2 Courts / Berekeningsraster (coördinatenlijst)



Schaal 1 : 1289

### Lijst van berekeningsraster

| Nr. | Type       | Positie [m] |        |       | Grootte [m] |        | Rotatie [°] |     |       |
|-----|------------|-------------|--------|-------|-------------|--------|-------------|-----|-------|
|     |            | X           | Y      | Z     | L           | B      | X           | Y   | Z     |
| 1   | Court 1 TA | 40.000      | 52.000 | 0.000 | 36.000      | 18.000 | 0.0         | 0.0 | 0.0   |
| 2   | Court 1 PA | 40.000      | 52.000 | 0.000 | 30.000      | 15.000 | 0.0         | 0.0 | 0.0   |
| 3   | Bestaand   | 49.000      | 0.000  | 0.000 | 36.000      | 18.000 | 0.0         | 0.0 | -90.0 |
| 4   | Bestaand   | 31.000      | 0.000  | 0.000 | 36.000      | 18.000 | 0.0         | 0.0 | -90.0 |





OVI-Enschede  
 Enschede  
[www.o-vi-enschede.nl](http://www.o-vi-enschede.nl)  
[info@o-vi-enschede.nl](mailto:info@o-vi-enschede.nl)

Operator OVI-Enschede  
 Telefoon 053 478 0595  
 Fax  
 e-Mail

## Tennis 2 Courts / Berekeningsraster (coördinatenlijst)

### Lijst van berekeningsraster

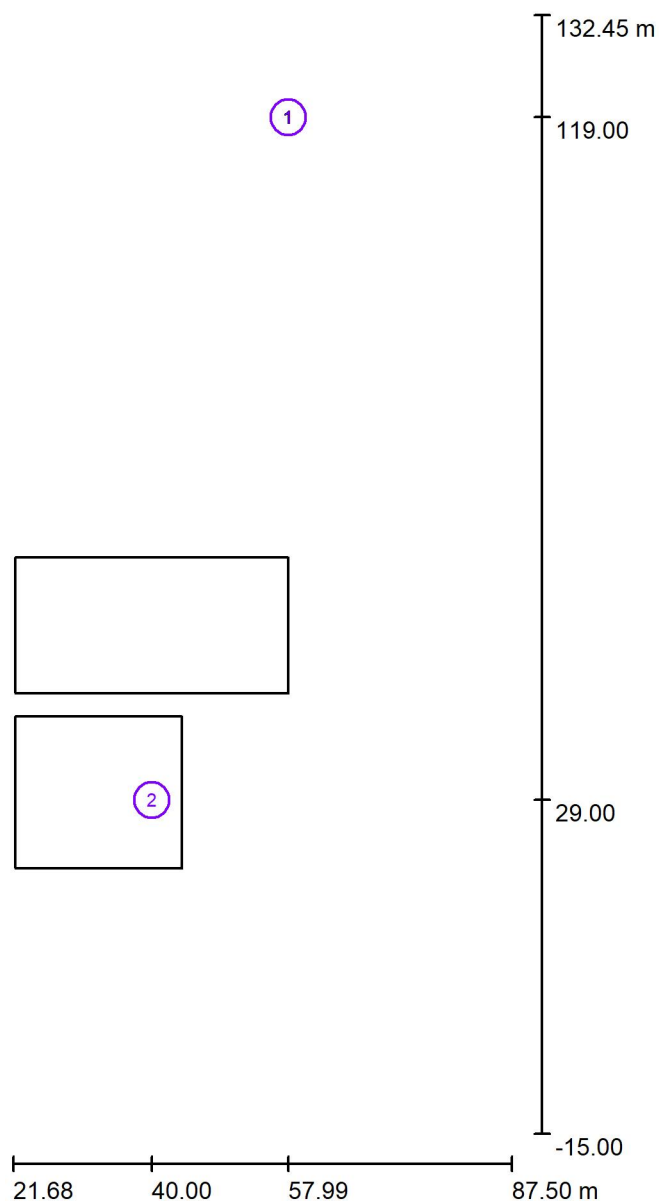
| Nr. | Type                                             | Positie [m] |         |       | Grootte [m] |        | Rotatie [°] |     |     |
|-----|--------------------------------------------------|-------------|---------|-------|-------------|--------|-------------|-----|-----|
|     |                                                  | X           | Y       | Z     | L           | B      | X           | Y   | Z   |
| 5   | Bestaand                                         | 40.000      | -31.000 | 0.000 | 36.000      | 18.000 | 0.0         | 0.0 | 0.0 |
| 6   | Bestaand                                         | 40.000      | -49.000 | 0.000 | 36.000      | 18.000 | 0.0         | 0.0 | 0.0 |
| 7   | Luxwaardes gevel: Opbroekweg 55, 7461 PH Rijssen | 57.988      | 119.000 | 1.800 | 15.000      | 1.000  | 0.0         | 0.0 | 0.0 |
| 8   | Padelbaan                                        | 27.000      | 30.000  | 0.000 | 10.000      | 20.000 | 0.0         | 0.0 | 0.0 |
| 9   | Padelbaan                                        | 39.000      | 30.000  | 0.000 | 10.000      | 20.000 | 0.0         | 0.0 | 0.0 |



OVI-Enschede  
 Enschede  
[www.ovi-enschede.nl](http://www.ovi-enschede.nl)  
[info@ovi-enschede.nl](mailto:info@ovi-enschede.nl)

Operator OVI-Enschede  
 Telefoon 053 478 0595  
 Fax  
 e-Mail

## Tennis 2 Courts / Lichtsterkteberekeningspunten (coördinatenlijst)



Schaal 1 : 998

### Lijst van de lichtsterkteberekeningspunten

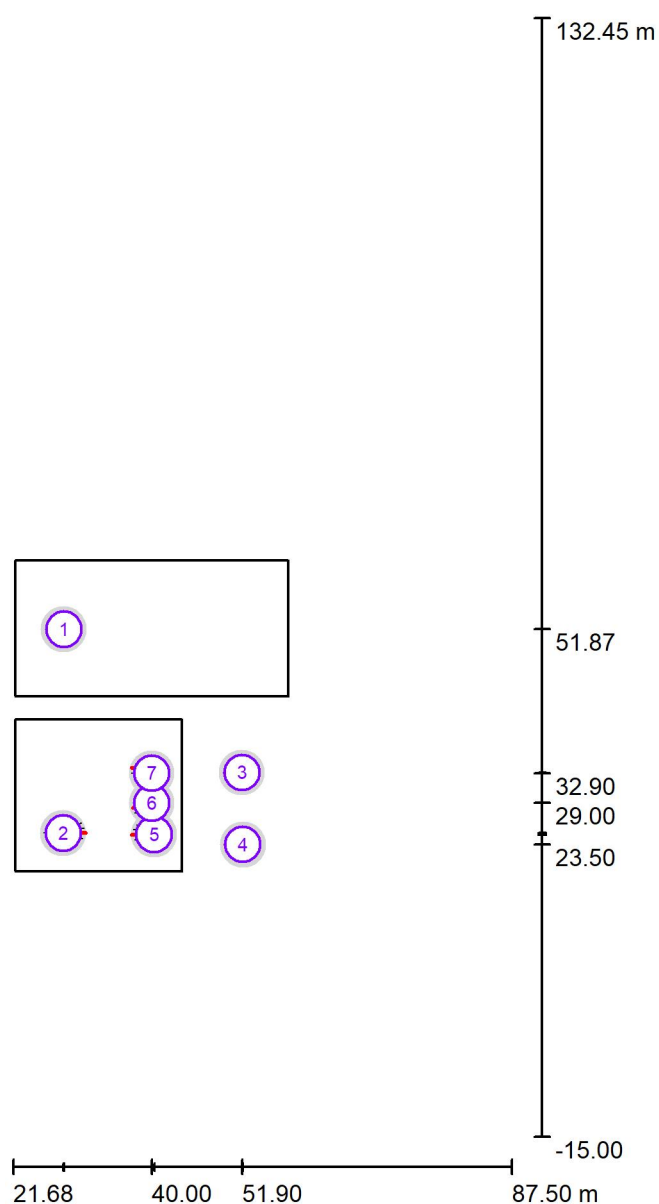
| Nr. | Type                           | Positie [m] |         |        |
|-----|--------------------------------|-------------|---------|--------|
|     |                                | X           | Y       | Z      |
| 1   | Opbroekweg 55, 7461 PH Rijssen | 57.988      | 119.000 | 1.800  |
| 2   | ULR berekeningspunt            | 40.000      | 29.000  | 17.000 |



OVI-Enschede  
Enschede  
www.o-vi-enschede.nl  
info@o-vi-enschede.nl

Operator OVI-Enschede  
Telefoon 053 478 0595  
Fax  
e-Mail

## Tennis 2 Courts / GR-waarnemer (resultatenoverzicht)



Schaal 1 : 998

### GR Lijst met berekeningspunten

| Nr. | Type          | Positie [m] |        |       | Perspectiefbereik [°] |       |      | Max              |
|-----|---------------|-------------|--------|-------|-----------------------|-------|------|------------------|
|     |               | X           | Y      | Z     | Start                 | Eind  | Stap |                  |
| 1   | GR Observer 1 | 28.400      | 51.870 | 1.800 | 0.0                   | 360.0 | 15.0 | 25 <sup>2)</sup> |
| 2   | GR Observer 2 | 28.300      | 25.000 | 1.800 | 0.0                   | 360.0 | 15.0 | 34 <sup>2)</sup> |
| 3   | GR Observer 3 | 51.900      | 33.000 | 1.800 | 0.0                   | 360.0 | 15.0 | 27 <sup>2)</sup> |
| 4   | GR Observer 4 | 52.000      | 23.500 | 1.800 | 0.0                   | 360.0 | 15.0 | 28 <sup>2)</sup> |



OVI-Enschede  
Enschede  
www.o-vi-enschede.nl  
info@o-vi-enschede.nl

Operator OVI-Enschede  
Telefoon 053 478 0595  
Fax  
e-Mail

## Tennis 2 Courts / GR-waarnemer (resultatenoverzicht)

### GR Lijst met berekeningspunten

| Nr. | Type          | Positie [m] |        |       | Perspectiefbereik [°] |       |      |         | Max              |
|-----|---------------|-------------|--------|-------|-----------------------|-------|------|---------|------------------|
|     |               | X           | Y      | Z     | Start                 | Eind  | Stap | Neiging |                  |
| 5   | GR Observer 5 | 40.300      | 24.800 | 1.800 | 0.0                   | 360.0 | 15.0 | -2.0    | 34 <sup>2)</sup> |
| 6   | GR Observer 6 | 40.000      | 29.000 | 1.800 | 0.0                   | 360.0 | 15.0 | -2.0    | 30 <sup>2)</sup> |
| 7   | GR Observer 7 | 40.000      | 32.900 | 1.800 | 0.0                   | 360.0 | 15.0 | -2.0    | 32 <sup>2)</sup> |

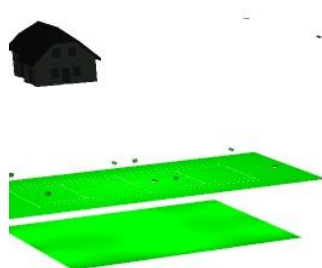
2) De berekende equivalente sluiertiluminantie van de omgeving is gebaseerd op de veronderstelling van een volkomen diffuus reflectiegedrag van de omgeving (volgens EN 12464-2).



OVI-Enschede  
Enschede  
[www.o-vi-enschede.nl](http://www.o-vi-enschede.nl)  
[info@o-vi-enschede.nl](mailto:info@o-vi-enschede.nl)

Operator OVI-Enschede  
Telefoon 053 478 0595  
Fax  
e-Mail

## Tennis 2 Courts / 3D Rendering

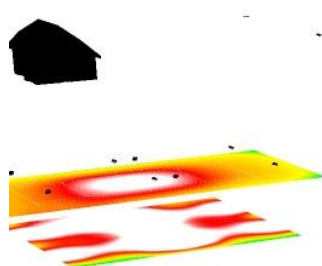




OVI-Enschede  
Enschede  
[www.ovi-enschede.nl](http://www.ovi-enschede.nl)  
[info@ovi-enschede.nl](mailto:info@ovi-enschede.nl)

Operator OVI-Enschede  
Telefoon 053 478 0595  
Fax  
e-Mail

## Tennis 2 Courts / Rendering onjuiste kleuren



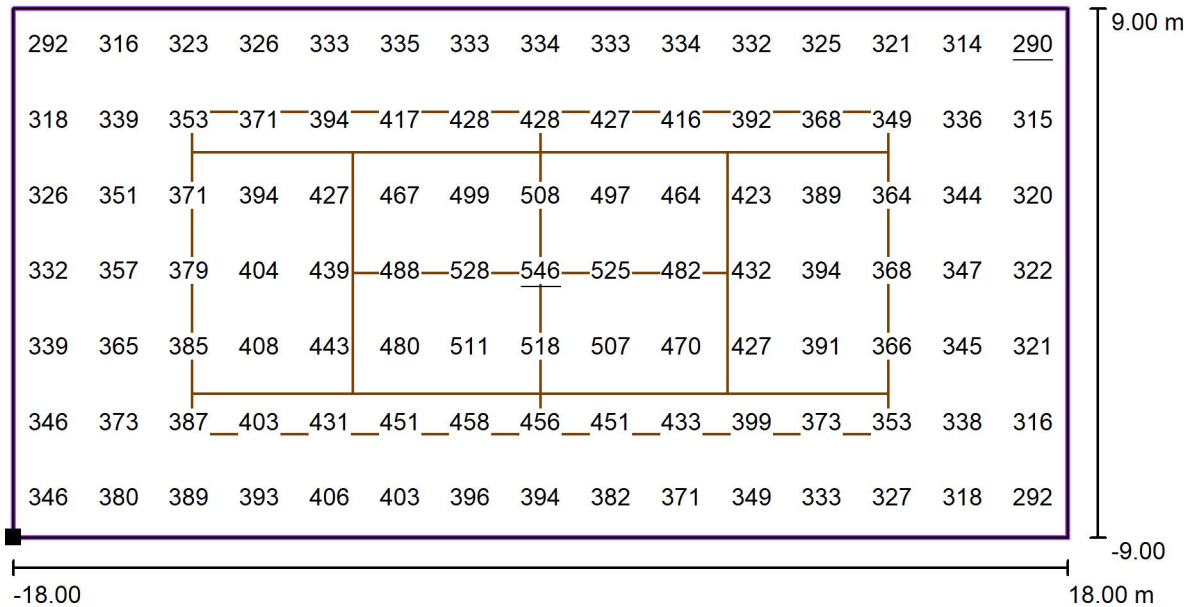
lx



OVI-Enschede  
Enschede  
www.o-vi-enschede.nl  
info@o-vi-enschede.nl

Operator OVI-Enschede  
Telefoon 053 478 0595  
Fax  
e-Mail

## Tennis 2 Courts / Court 1 TA / Waardegrafiek (E, horizontaal)



Waarden in Lux, Schaal 1 : 258

Positie van het vlak in het  
buitendecor:  
Gemarkeerd punt: (22.000 m,  
43.000 m, 0.000 m)



Raster: 15 x 7 Punten

$E_{\text{gem}}$  [lx]  
388

$E_s$  [lx]  
290

$E_{\text{max}}$  [lx]  
546

$E_s / E_{\text{gem}}$   
0.75

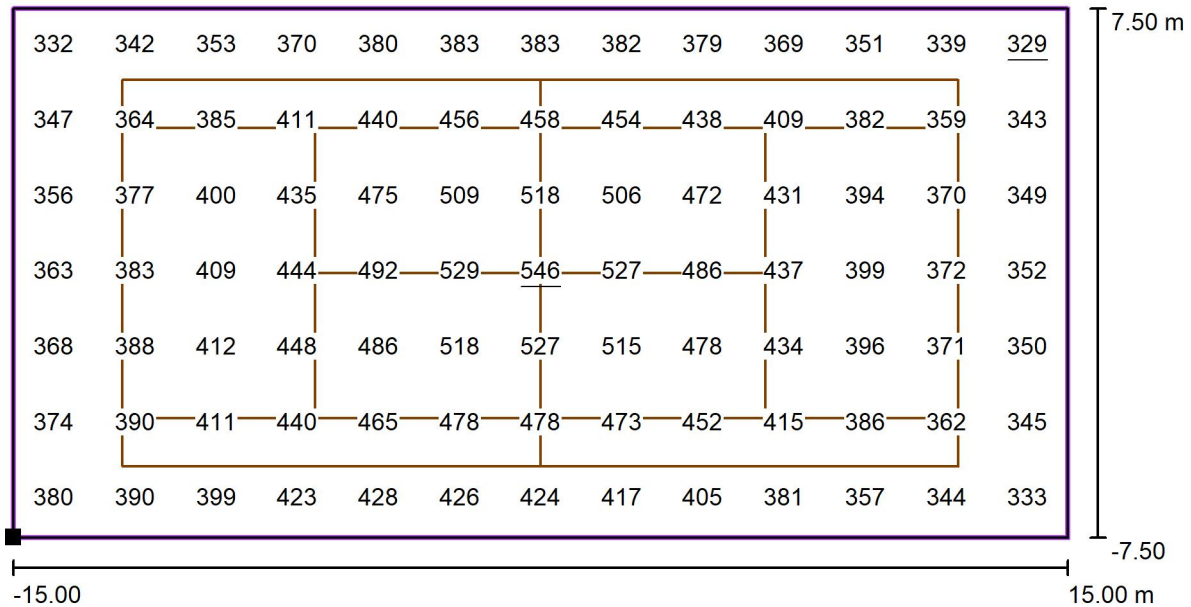
$E_s / E_{\text{max}}$   
0.53



OVI-Enschede  
Enschede  
www.o-vi-enschede.nl  
info@o-vi-enschede.nl

Operator OVI-Enschede  
Telefoon 053 478 0595  
Fax  
e-Mail

## Tennis 2 Courts / Court 1 PA / Waardegrafiek (E, horizontaal)



Waarden in Lux, Schaal 1 : 215

Positie van het vlak in het  
buitendecor:  
Gemarkeerd punt: (25.000 m,  
44.500 m, 0.000 m)



Raster: 13 x 7 Punten

$E_{\text{gem}}$  [lx]  
412

$E_s$  [lx]  
329

$E_{\text{max}}$  [lx]  
546

$E_s / E_{\text{gem}}$   
0.80

$E_s / E_{\text{max}}$   
0.60

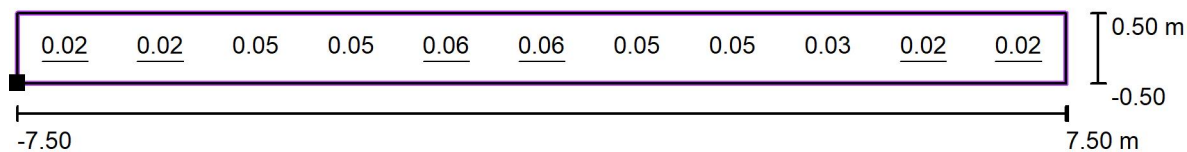




OVI-Enschede  
Enschede  
www.o-vi-enschede.nl  
info@o-vi-enschede.nl

Operator OVI-Enschede  
Telefoon 053 478 0595  
Fax  
e-Mail

## Tennis 2 Courts / Luxwaardes gevel: Opbroekweg 55, 7461 PH Rijssen / Waardegrafiek (E, loodrecht)



Waarden in Lux, Schaal 1 : 108

Positie van het vlak in het  
buitendecor:  
Gemarkeerd punt: (50.488 m,  
118.500 m, 1.800 m)



Raster: 11 x 1 Punten

$E_{\text{gem}}$  [lx]  
0.04

$E_s$  [lx]  
0.02

$E_{\text{max}}$  [lx]  
0.06

$E_s / E_{\text{gem}}$   
0.40

$E_s / E_{\text{max}}$   
0.27

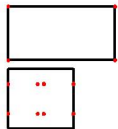


OVI-Enschede  
Enschede  
www.o-vi-enschede.nl  
info@o-vi-enschede.nl

Operator OVI-Enschede  
Telefoon 053 478 0595  
Fax  
e-Mail

## Tennis 2 Courts / Opbroekweg 55, 7461 PH Rijssen / Samenvatting

+



Positie: (57.988 m, 119.000 m, 1.800 m)

### Mogelijke storingsbronnen

| Nr. | Armatuur                                                                    | Positie [m] |        |        | Lichtuitstraling   | Lichtsterkte [cd] |
|-----|-----------------------------------------------------------------------------|-------------|--------|--------|--------------------|-------------------|
|     |                                                                             | X           | Y      | Z      |                    |                   |
| 1   | PHILIPS OptiVision LED gen3.5 2022<br>BVP518 OUT T35 LED1720/757 A35-MNB LO | 22.000      | 43.061 | 15.000 | Lichtuitstraling 1 | 221               |
| 2   | PHILIPS OptiVision LED gen3.5 2022<br>BVP518 OUT T35 LED1720/757 A35-MNB LO | 58.000      | 43.061 | 15.000 | Lichtuitstraling 1 | 89                |
| 3   | PHILIPS OptiVision LED gen3.5 2022<br>BVP518 OUT T35 LED1720/757 A35-MNB LO | 22.000      | 61.061 | 15.000 | Lichtuitstraling 1 | 22                |
| 4   | PHILIPS OptiVision LED gen3.5 2022<br>BVP518 OUT T35 LED1720/757 A35-MNB LO | 58.000      | 61.061 | 15.000 | Lichtuitstraling 1 | 0                 |
| 5   | LED FLOOD LIGHT 1916-HVFL200W                                               | 22.000      | 25.000 | 6.000  | Lichtuitstraling 1 | 142               |
| 6   | LED FLOOD LIGHT 1916-HVFL200W                                               | 22.000      | 25.000 | 6.000  | Lichtuitstraling 1 | 27                |
| 7   | LED FLOOD LIGHT 1916-HVFL200W                                               | 32.000      | 25.000 | 6.000  | Lichtuitstraling 1 | 34                |
| 8   | LED FLOOD LIGHT 1916-HVFL200W                                               | 32.000      | 25.000 | 6.000  | Lichtuitstraling 1 | 33                |
| 9   | LED FLOOD LIGHT 1916-HVFL200W                                               | 22.000      | 35.000 | 6.000  | Lichtuitstraling 1 | 25                |
| 10  | LED FLOOD LIGHT 1916-HVFL200W                                               | 22.000      | 35.000 | 6.000  | Lichtuitstraling 1 | 460               |
| 11  | LED FLOOD LIGHT 1916-HVFL200W                                               | 32.000      | 35.000 | 6.000  | Lichtuitstraling 1 | 32                |
| 12  | LED FLOOD LIGHT 1916-HVFL200W                                               | 32.000      | 35.000 | 6.000  | Lichtuitstraling 1 | 42                |
| 13  | LED FLOOD LIGHT 1916-HVFL200W                                               | 34.000      | 25.000 | 6.000  | Lichtuitstraling 1 | 27                |
| 14  | LED FLOOD LIGHT 1916-HVFL200W                                               | 34.000      | 25.000 | 6.000  | Lichtuitstraling 1 | 112               |
| 15  | LED FLOOD LIGHT 1916-HVFL200W                                               | 44.000      | 25.000 | 6.000  | Lichtuitstraling 1 | 30                |



OVI-Enschede  
Enschede  
www.o-vi-enschede.nl  
info@o-vi-enschede.nl

Operator OVI-Enschede  
Telefoon 053 478 0595  
Fax  
e-Mail

## Tennis 2 Courts / Opbroekweg 55, 7461 PH Rijssen / Samenvatting

### Mogelijke storingsbronnen

| Nr. | Armatuur                      | Positie [m] |        |       | Lichtuitstraling   | Lichtsterkte [cd] |
|-----|-------------------------------|-------------|--------|-------|--------------------|-------------------|
|     |                               | X           | Y      | Z     |                    |                   |
| 16  | LED FLOOD LIGHT 1916-HVFL200W | 44.000      | 25.000 | 6.000 | Lichtuitstraling 1 | 38                |
| 17  | LED FLOOD LIGHT 1916-HVFL200W | 34.000      | 35.000 | 6.000 | Lichtuitstraling 1 | 162               |
| 18  | LED FLOOD LIGHT 1916-HVFL200W | 34.000      | 35.000 | 6.000 | Lichtuitstraling 1 | 25                |
| 19  | LED FLOOD LIGHT 1916-HVFL200W | 44.000      | 35.000 | 6.000 | Lichtuitstraling 1 | 47                |
| 20  | LED FLOOD LIGHT 1916-HVFL200W | 44.000      | 35.000 | 6.000 | Lichtuitstraling 1 | 29                |

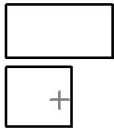
Alle in het buitendecor geplaatste armaturen zijn opgesomd.



OVI-Enschede  
Enschede  
[www.o-vi-enschede.nl](http://www.o-vi-enschede.nl)  
[info@o-vi-enschede.nl](mailto:info@o-vi-enschede.nl)

Operator OVI-Enschede  
Telefoon 053 478 0595  
Fax  
e-Mail

## Tennis 2 Courts / ULR berekeningspunt / Samenvatting



Positie: (40.000 m, 29.000 m, 17.000 m)

Alle in het buitendecor geplaatste armaturen respecteren de grenswaarde van de schadelijke interferentie. Deze grenswaarde bedraagt: 2500 cd.