

# High Mast Lighting

Installation : External Lighting

Project number : 161386

Customer : SARS

Processed by : Sello Mashego

Date : 21.08.2017

The following values are based on exact calculations on calibrated lamps, luminaires and their arrangement. In practice, gradual divergences can occur.

Guarantee claims for luminaire data are excluded.

Relux and the luminaire manufacturers accept no liability for consequential damage and damage which is occasioned to the user or to third parties.

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## 1 Luminaire data

### 1.1 SCHREDER, OMNISTAR 2266 - 144 C... (OMNISTAR 2266 1...)

#### 1.1.1 Data sheet

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**Manufacturer: SCHREDER**

**OMNISTAR 2266 144 Cree XPL HD 1200mA NW 352712 Flat Glass Extra Clear Smooth - EF.Idt**  
**OMNISTAR 2266 - 144 Cree XPL HD 1200mA NW Flat, Glass Extra Clear, Smooth 352712**

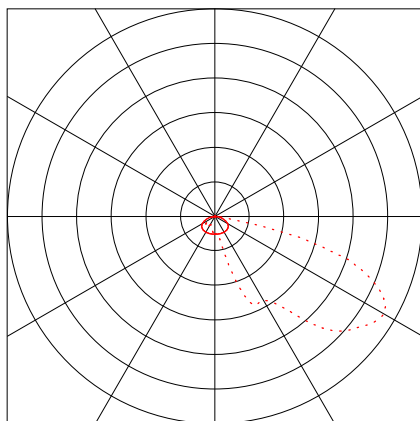
#### Luminaire data

Luminaire efficiency : 76.3%  
Luminaire efficacy : 52896.8 lm/W  
Classification : A20 ↓100.0% ↑0.0%  
CIE Flux Codes : 22 59 94 100 76  
UGR 4H 8H : 33.3 / 17.4  
Power : 1 W  
Luminous flux : 52896.8 lm

#### Equipped with

Quantity : 1  
Designation : 144 Cree XPL  
HD  
Colour :  
Luminous flux : 69327.4 lm

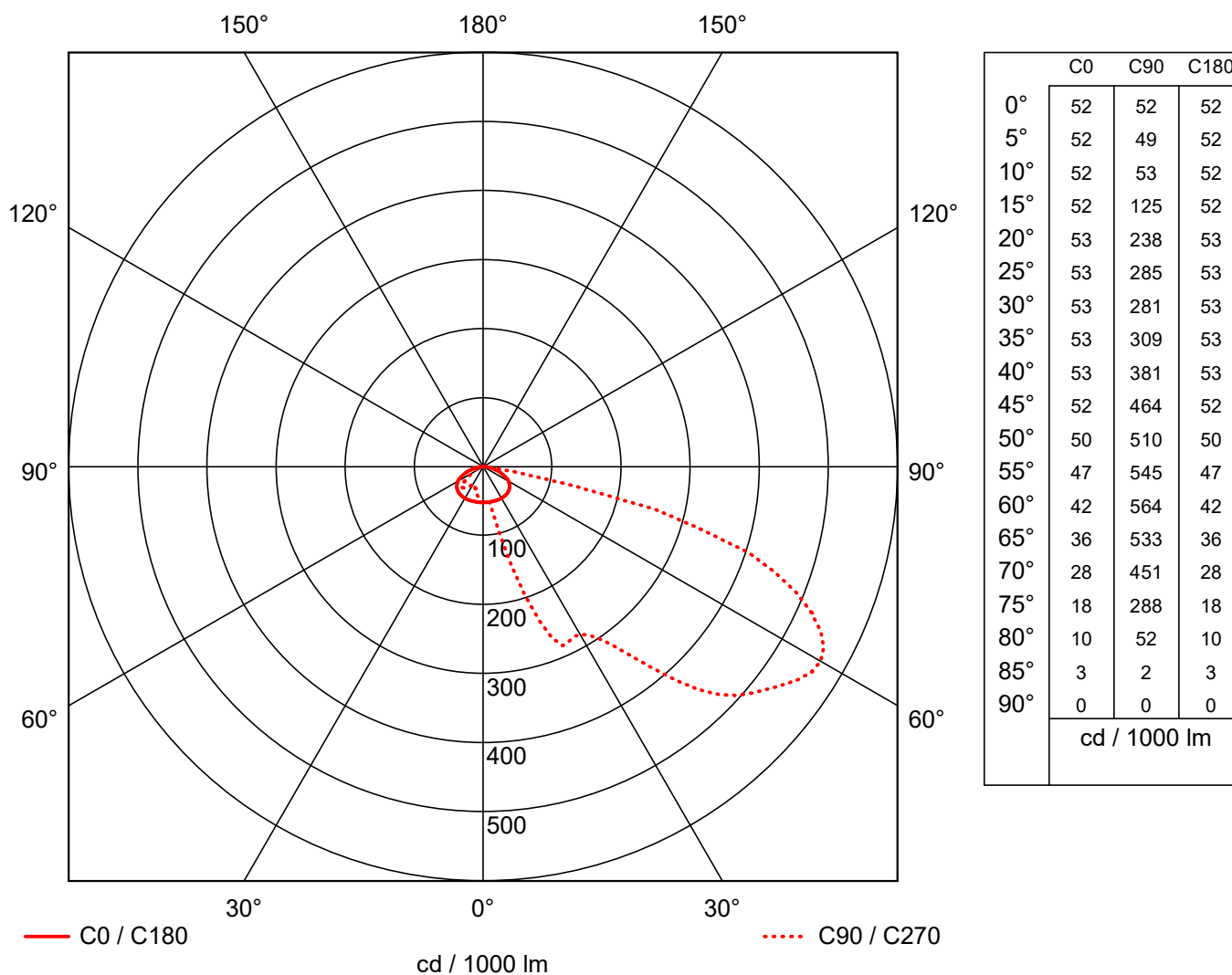
Dimensions : 530 mm x 532 mm x 80 mm



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## 1.1 SCHREDER, OMNISTAR 2266 - 144 C... (OMNISTAR 2266 1...)

### 1.1.2 LDC



Manufacturer : SCHREDER  
Order number : OMNISTAR 2266 144 Cree XPL HD  
Luminaire name : OMNISTAR 2266 - 144 Cree XPL  
HD 1200mA NW Flat, Glass Extra  
Clear, Smooth 352712  
Equipment : 1 x 144 Cree XPL HD 1 W / 69327.4  
Dimensions : L 530 mm x W 532 mm x H 80 mm  
File name : OMNISTAR 2266 144 Cree XPL HD

Efficiency factor : 76.3%  
Luminaire efficacy : 52896.8 lm/W (A20)  
Light distribution : asymmetric  
Beam Angle : -- C0  
75.1° C90  
-- C180  
-- C270

## 1 Luminaire data

### 1.2 High Mast Light - 20m ()

#### 1.2.1 Data sheet

#### High Mast Light - 20m

Luminaire arrangement for:

	Position			Rotation		
	x[m]	y[m]	z[m]	Z[°]	C0[°]	C90[°]
OMNISTAR 2266 144 Cree XPL HD 12... :	0.000	0.500	20.000	0	45	0
OMNISTAR 2266 144 Cree XPL HD 12... :	-0.350	0.350	20.000	45	45	0
OMNISTAR 2266 144 Cree XPL HD 12... :	-0.500	0.000	20.000	90	45	0
OMNISTAR 2266 144 Cree XPL HD 12... :	-0.350	-0.350	20.000	135	45	0
OMNISTAR 2266 144 Cree XPL HD 12... :	0.000	-0.500	20.000	180	45	0
OMNISTAR 2266 144 Cree XPL HD 12... :	0.350	-0.350	20.000	225	45	0
OMNISTAR 2266 144 Cree XPL HD 12... :	0.500	0.000	20.000	270	45	0
OMNISTAR 2266 144 Cree XPL HD 12... :	0.350	0.350	20.000	315	45	0

Position is the LDC position of the luminaire.

**OMNISTAR 2266 144 Cree XPL HD 1200mA NW 352712 Flat Glass Extra Clear Smooth - EF.Idt**  
**OMNISTAR 2266 - 144 Cree XPL HD 1200mA NW Flat, Glass Extra Clear, Smooth 352712**

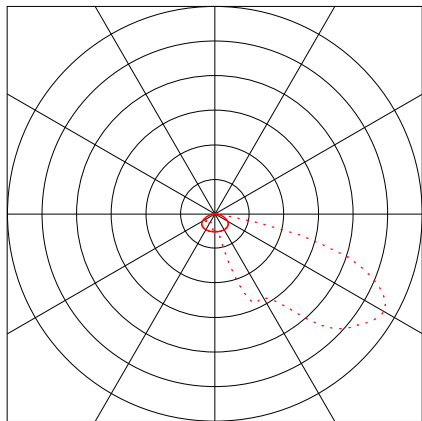
#### Luminaire data

Luminaire efficiency	: 76.3%
Luminaire efficacy	: 52896.8 lm/W
Classification	: A20 ↓ 100.0% ↑ 0.0%
CIE Flux Codes	: 22 59 94 100 76
UGR 4H 8H	: 33.3 / 17.4
Power	: 1 W
Luminous flux	: 52896.8 lm

#### Equipped with

Quantity	: 1
Designation	: 144 Cree XPL HD
Colour	:
Luminous flux	: 69327.4 lm

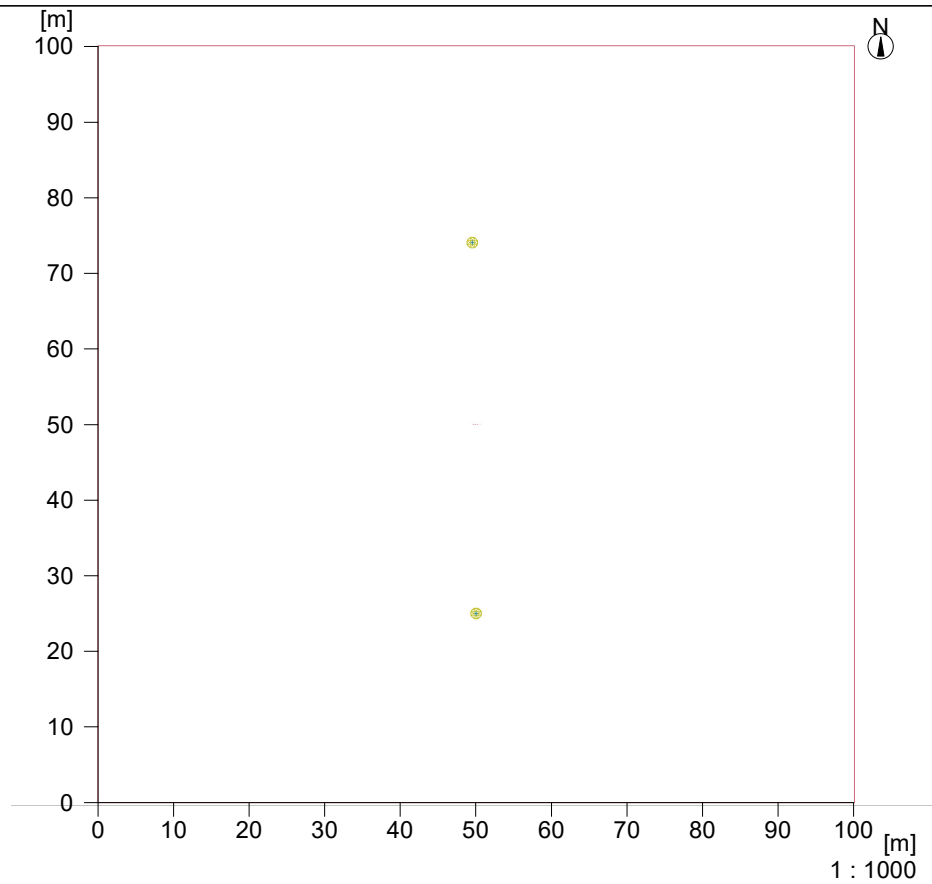
Dimensions : 530 mm x 532 mm x 80 mm



## 2 Vehicle Parking Area

### 2.1 Description, Vehicle Parking Area

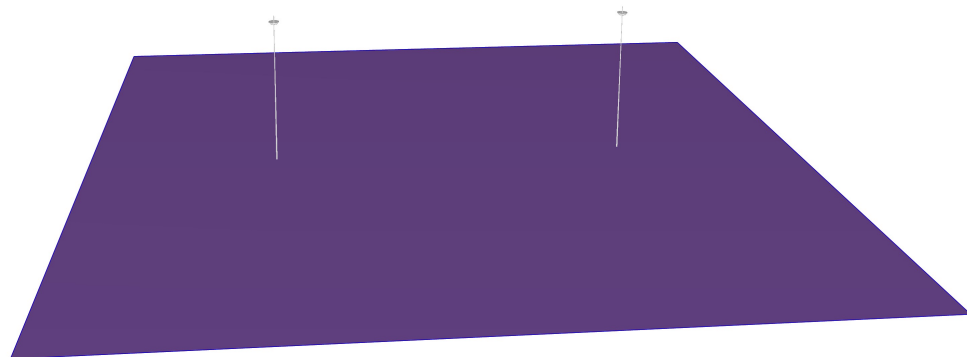
#### 2.1.1 Floor plan



## 2.1 Description, Vehicle Parking Area

### 2.1.2 3D view, View 1

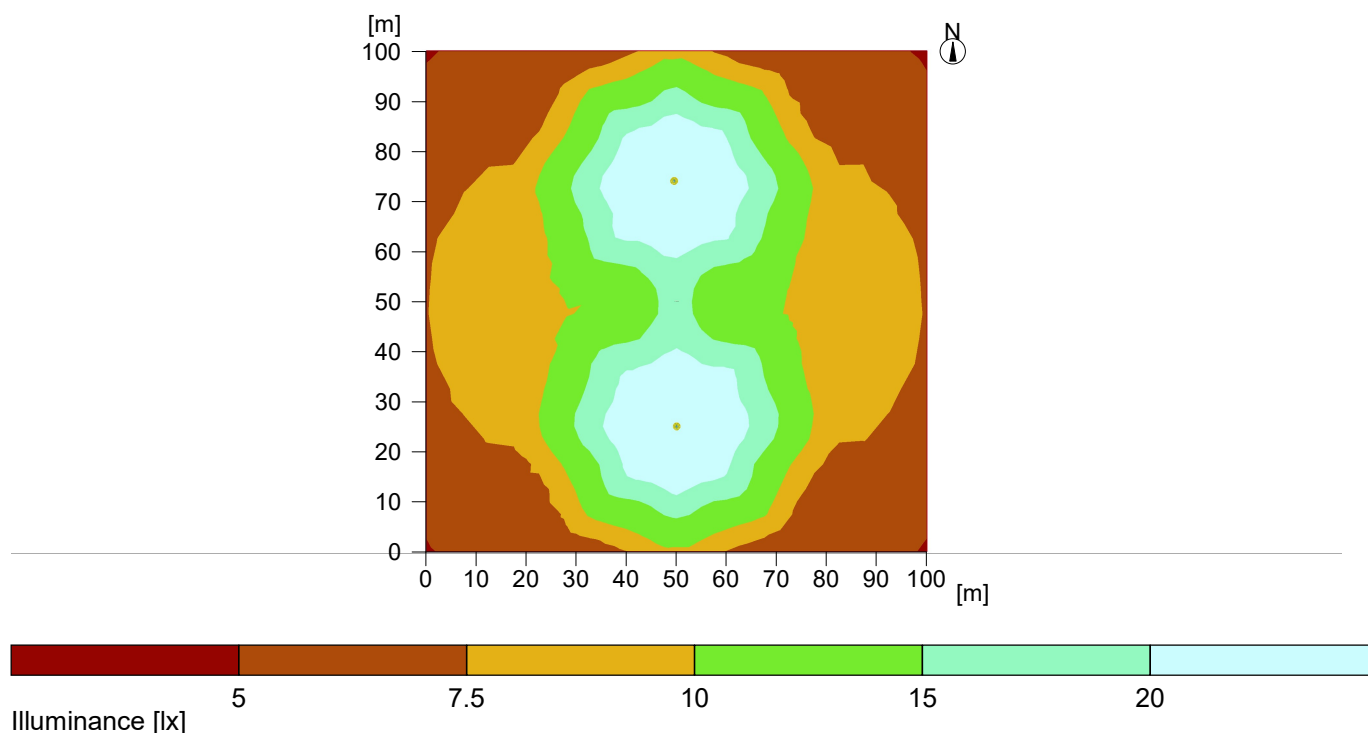
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## 2 Vehicle Parking Area

### 2.2 Summary, Vehicle Parking Area

#### 2.2.1 Result overview, Evaluation area 1



#### General

Calculation algorithm used  
 photometric centre height.  
 Maintenance factor

Average indirect fraction  
 20.00 m  
 0.80

Total luminous flux of all lamps

1109237.75 lm

Total power

16.0 W

Total power per area (10000.00 m<sup>2</sup>)

0.00 W/m<sup>2</sup> (0.01 W/m<sup>2</sup>/100lx)

#### Evaluation area 1

#### Reference plane 1.1

Horizontal

Em 11.6 lx  
 Emin 5 lx  
 Emin/Eav (Uo) 0.43  
 Emin/Emax (Ud) 0.11  
 Position 0.00 m

#### Type No.\Make

2 2

Order No.

:

Luminaire name : High Mast Light - 20m



with

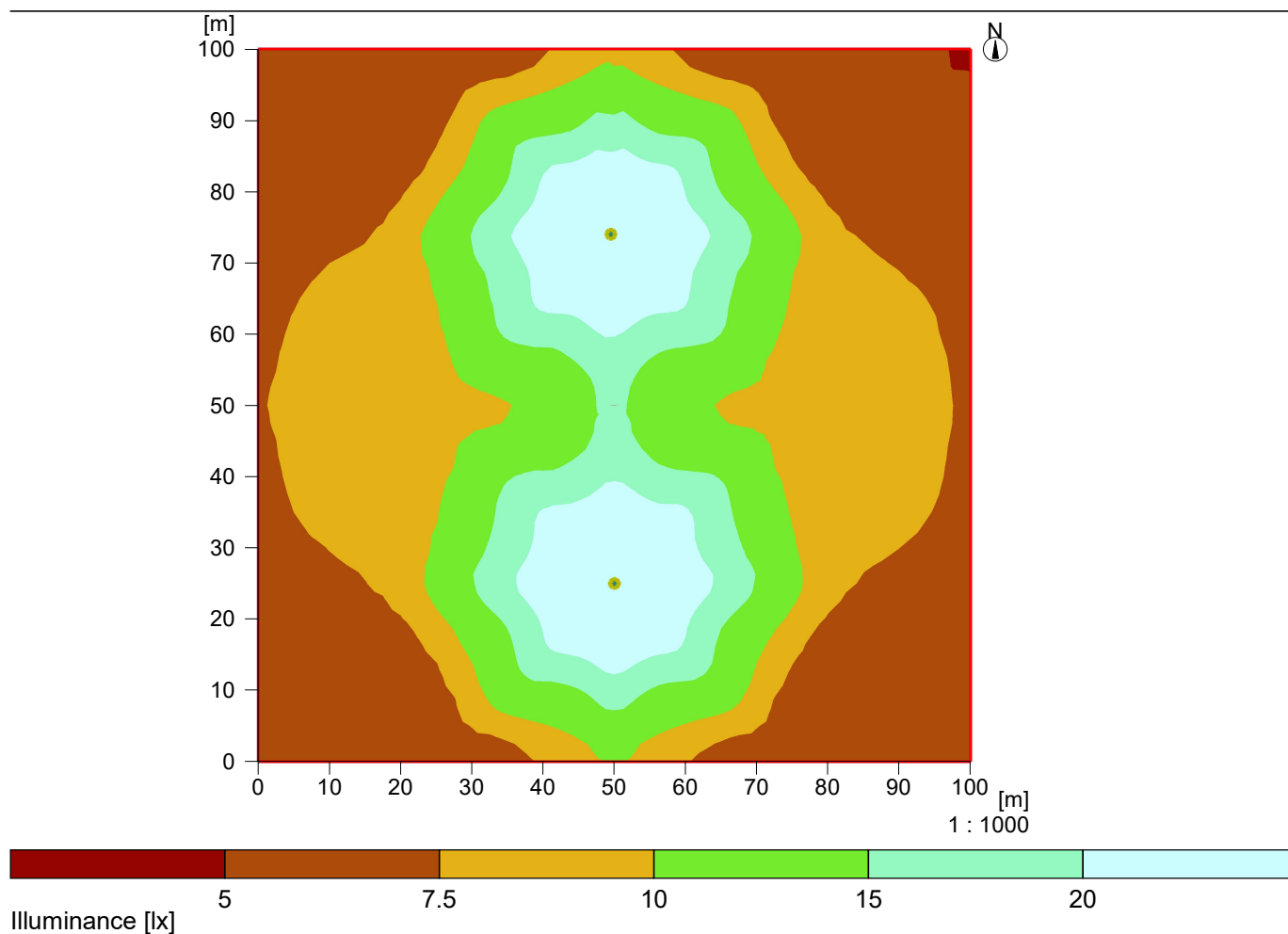
Equipment

: 8 x OMNISTAR 2266 144 Cree XPL HD 1200mA NW 352712 Flat Glass Extra Clear Smooth  
 : 1 x 144 Cree XPL HD 1 W / 69327.4 lm

## 2 Vehicle Parking Area

### 2.3 Calculation results, Vehicle Parking Area

#### 2.3.1 Pseudo colours, Floor (E)



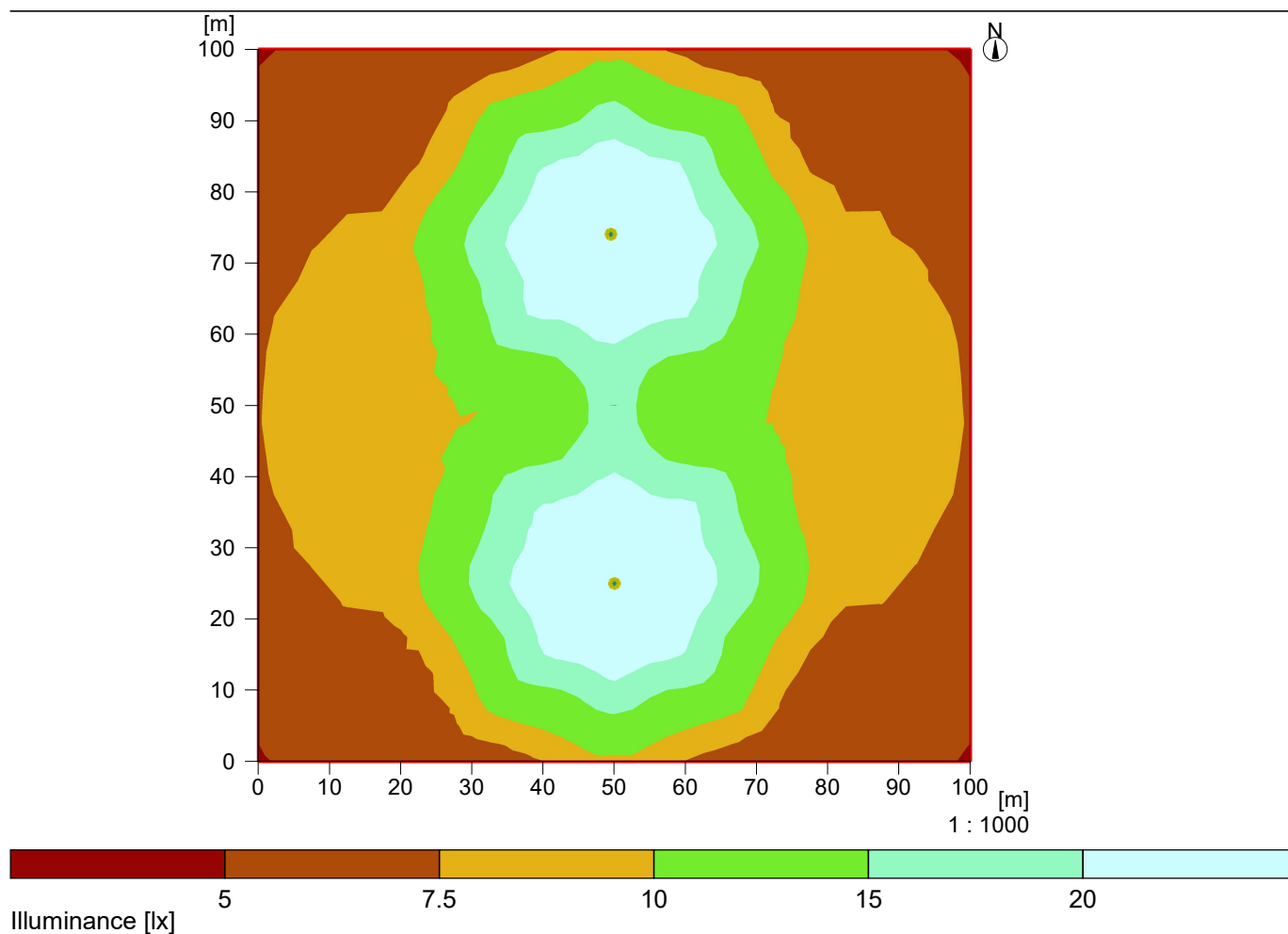
Average illuminance  
 Minimum illuminance  
 Maximum illuminance  
 Uniformity  $U_0$   
 Diversity  $U_d$

Eav : 11.1 lx  
 Emin : 4.9 lx  
 Emax : 51 lx  
 Emin/Eav : 1 : 2.24 (0.45)  
 Emin/Emax : 1 : 10.34 (0.10)



## 2.3 Calculation results, Vehicle Parking Area

### 2.3.2 Pseudo colours, Reference plane 1.1 (E)



Height of the reference plane

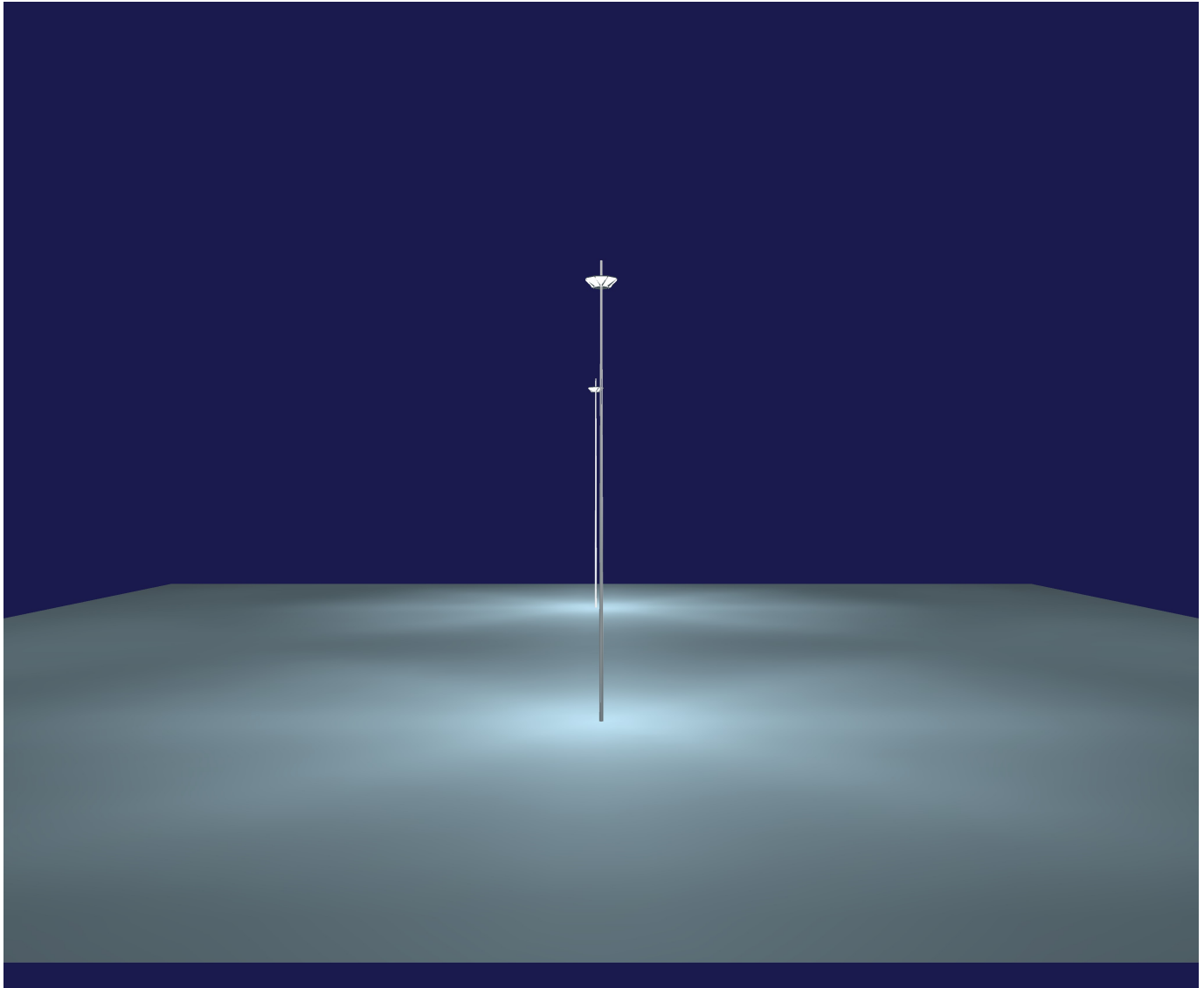
Average illuminance  
 Minimum illuminance  
 Maximum illuminance  
 Uniformity  $U_0$   
 Diversity  $U_d$

: 0.00 m  
 Eav : 11.6 lx  
 Emin : 5 lx  
 Emax : 46.5 lx  
 Emin/Eav : 1 : 2.33 (0.43)  
 Emin/Emax : 1 : 9.36 (0.11)

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## 2.3 Calculation results, Vehicle Parking Area

### 2.3.3 3D luminance, View from the front



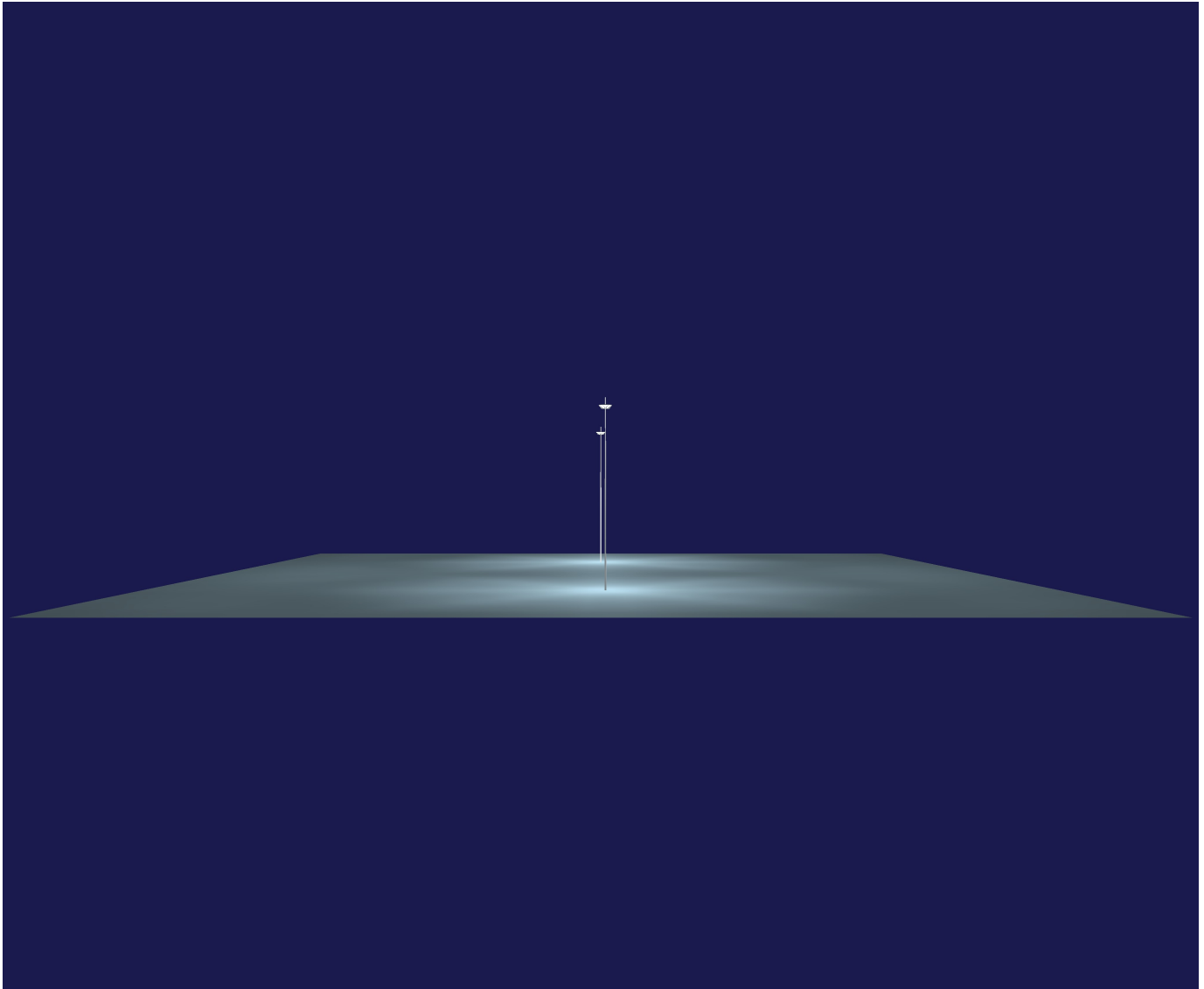
Luminance in the scene

Minimum: : 0 cd/m<sup>2</sup>  
Maximum: : 7.24 cd/m<sup>2</sup>

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## 2.3 Calculation results, Vehicle Parking Area

### 2.3.4 3D luminance, View from the back



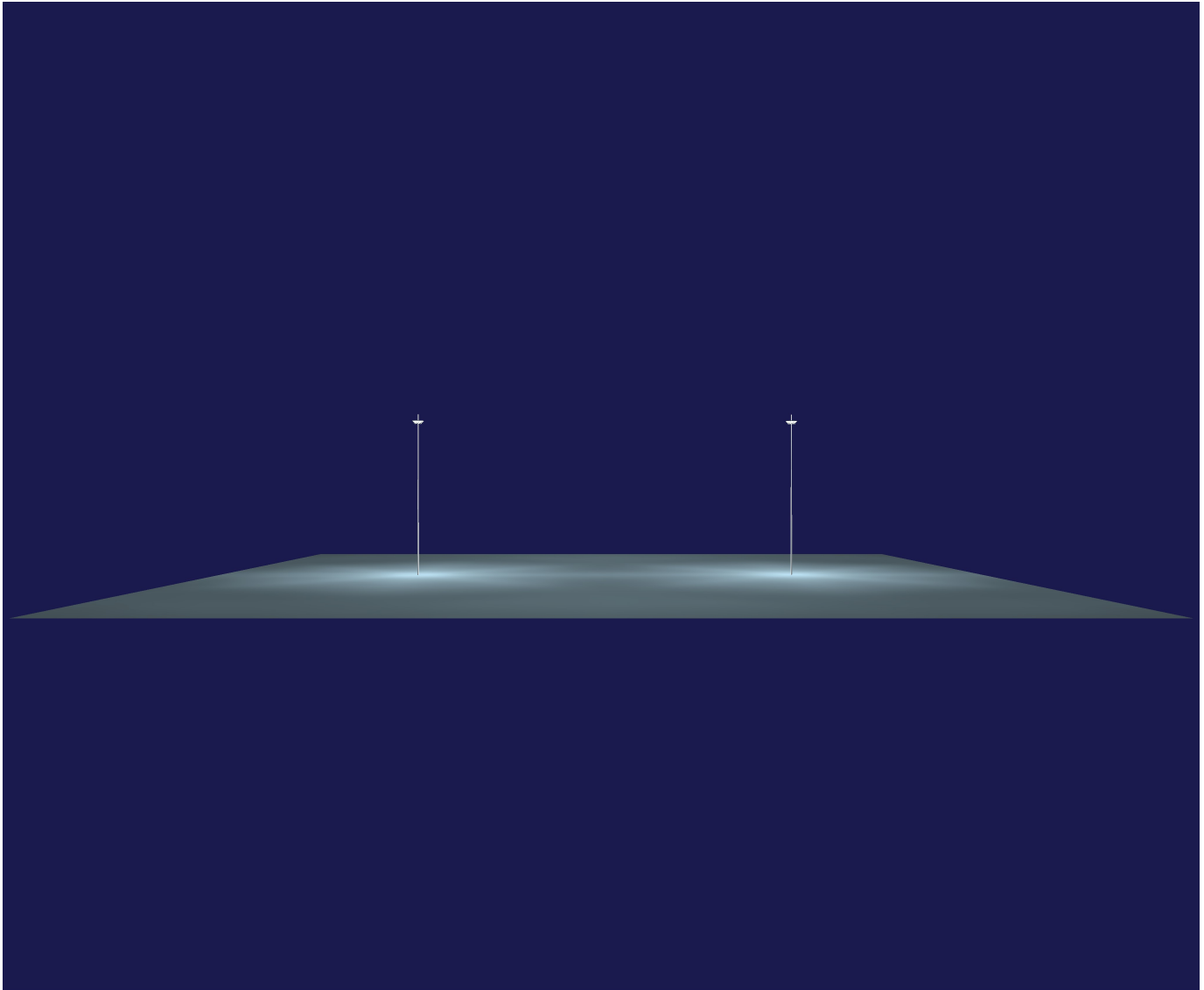
Luminance in the scene

Minimum: : 0 cd/m<sup>2</sup>  
Maximum: : 7.24 cd/m<sup>2</sup>

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## 2.3 Calculation results, Vehicle Parking Area

### 2.3.5 3D luminance, View from the left



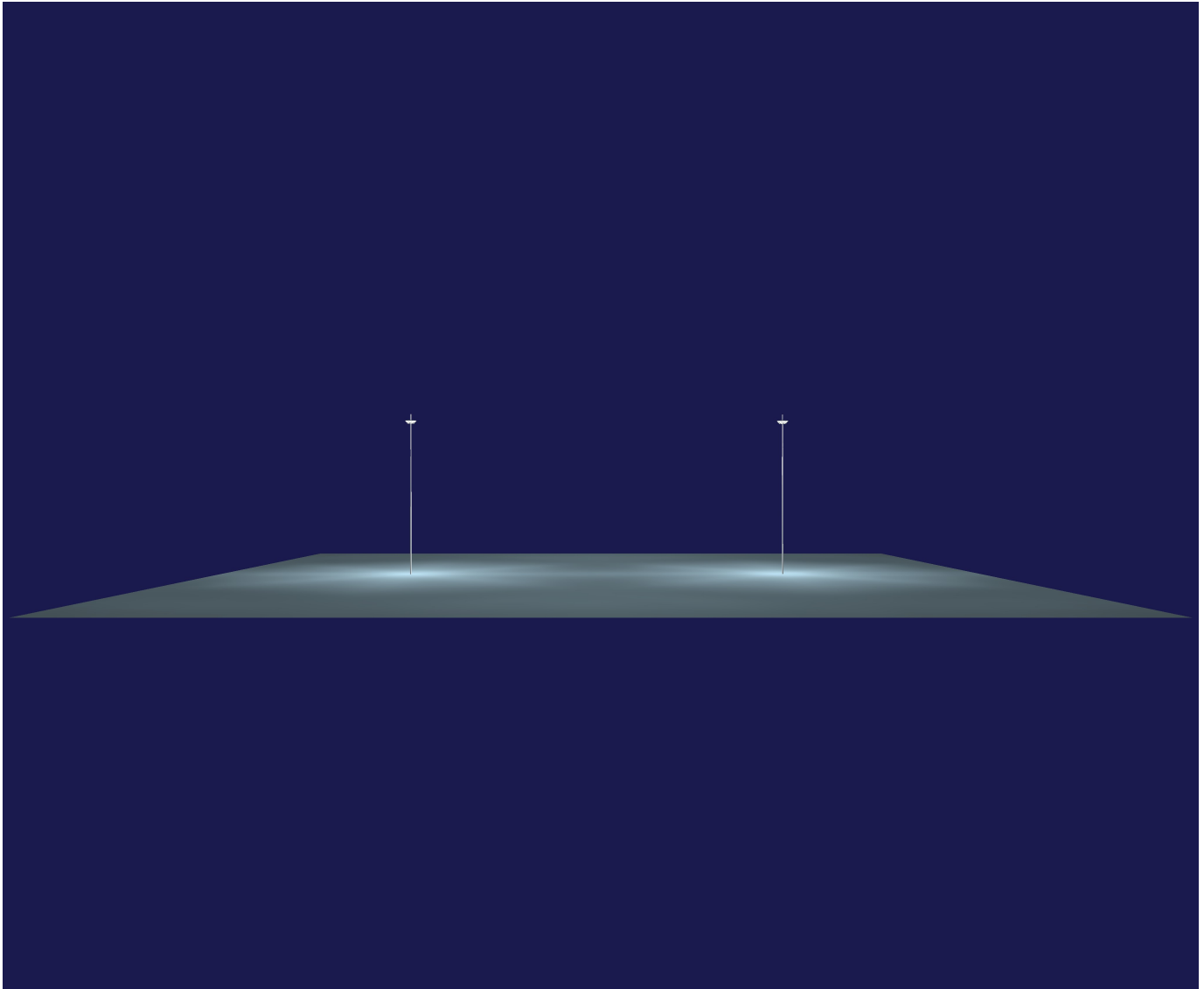
Luminance in the scene

Minimum: : 0 cd/m<sup>2</sup>  
Maximum: : 7.24 cd/m<sup>2</sup>

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## 2.3 Calculation results, Vehicle Parking Area

### 2.3.6 3D luminance, View from the right



Luminance in the scene

Minimum: : 0 cd/m<sup>2</sup>  
Maximum: : 7.24 cd/m<sup>2</sup>