

Lighting Scheme Proposal

A large, bright blue geometric shape, resembling a parallelogram, is overlaid on the left side of the page. It contains white text. The background of the entire page is a faded, light grey image of a modern interior space with white walls and a staircase.

OVIA Reference:
LS04453

Date: 16 June 2025

Validity Period: 60 Days

Created By: Adam Dawes

Project

Freshfield lane Brickworks – Solar Carports

1 Design Proposal

Solar Car Port Lighting

Installation :

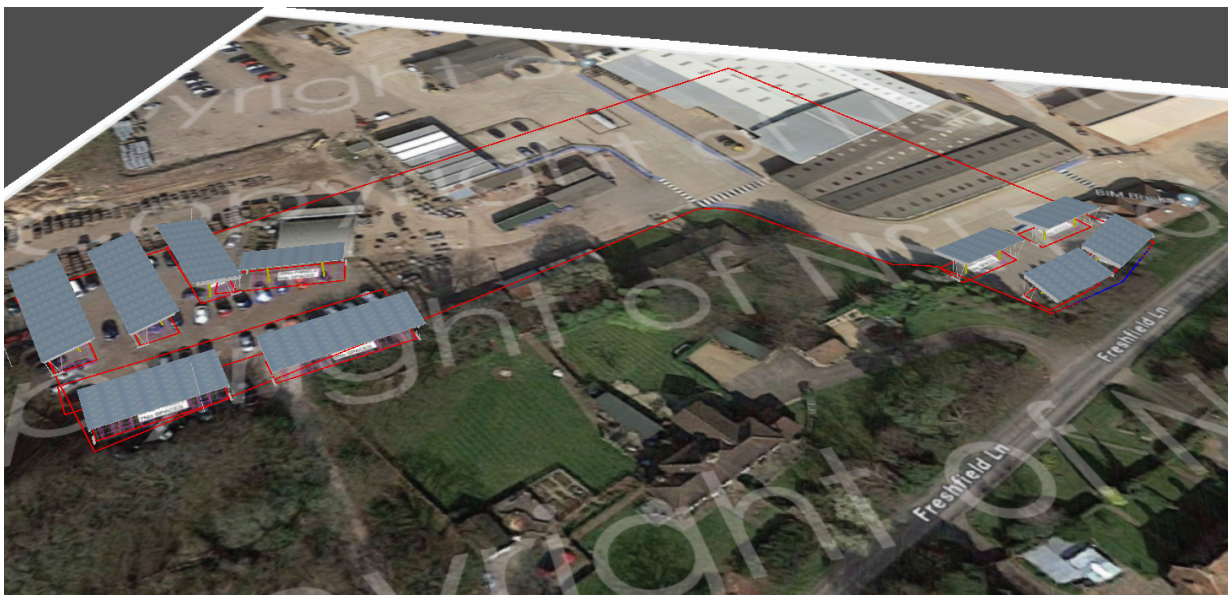
Project number : LS04453
Customer :
Processed by : AD
Date : 16.06.2025

Project description:

We have designed the lighting for the Solar carports only, we have shown lighting columns but have no details regarding the existing if any lighting.

Lighting designs are carried out for estimation purposes only and based on information provided by the client at the time of completing the design. It is the responsibility of the client and not Scolmore International, to ensure that the design complies with all relevant codes including but not limited to the local fire officer, building control, British Standards and health and safety regulations. In the event it is determined that the design does not with any such code or regulation, Scolmore international will consult with the customer to make any necessary adjustments, at customer's sole cost and expense. Scolmore International does not warrant and shall not be liable for the accuracy of any designs or information contained within. Scolmore International makes no express warranties, and disclaims all other warranties, whether implied or statutory.

Scolmore International shall not be liable for indirect, incidental, special, cover, reliance or consequential damages or lost profits resulting from the lighting design.



The following values are based on precise calculations performed on calibrated lamps and luminaires, and their configurations, whereby gradual, unavoidable deviations can occur in practice. All guarantee claims are excluded for the specified data.

This exclusion of liability applies irrespective of the legal grounds for both damages and consequential damages suffered by users and third parties.

Object : Solar Car Port Lighting
Installation :
Project number : LS04453
Date : 16.06.2025



1 Exterior 1

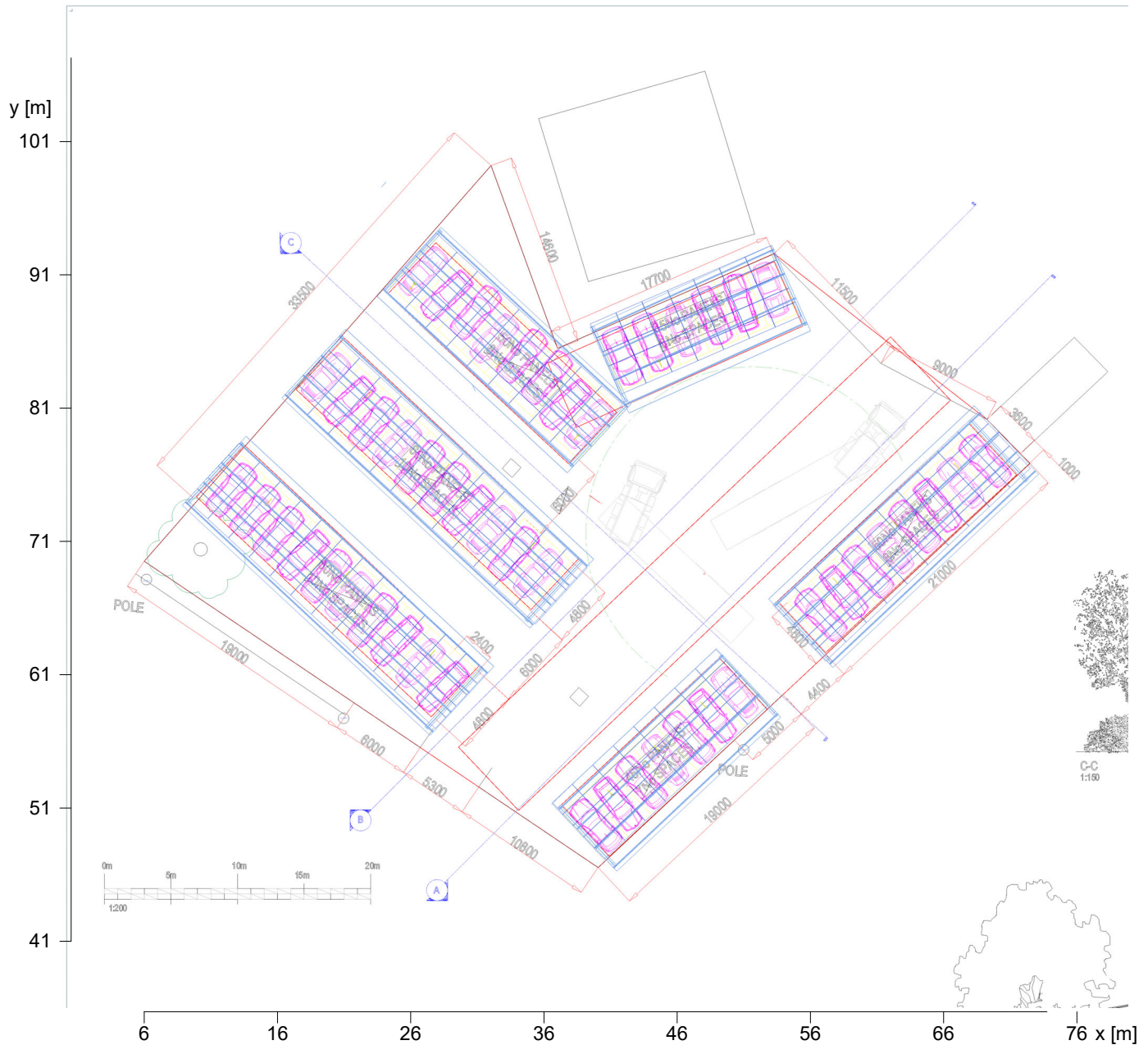
1.1 Description, Exterior 1

1.1.1 Luminaire data/Room elements

Product data:

Type No.\Make

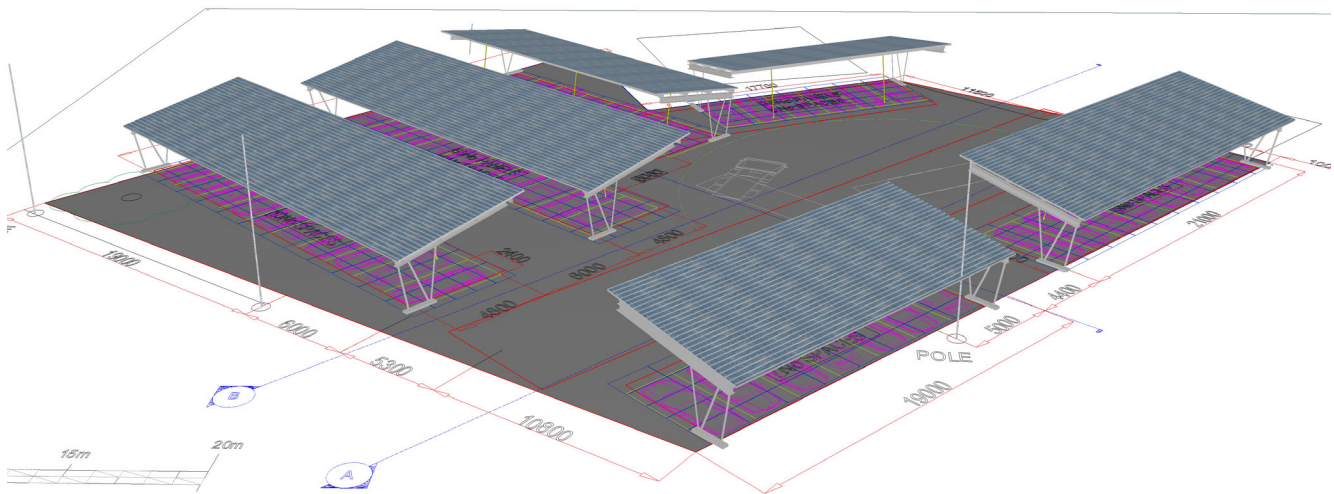
1	17 x	OVIA	
		Order No.	: OV15W (4000K)
		Luminaire name	: VELO
		Equipment	: 1 x LED 15 W / 1650 lm



Object : Solar Car Port Lighting
Installation :
Project number : LS04453
Date : 16.06.2025

1.1 Description, Exterior 1

1.1.3 3D view, View 1

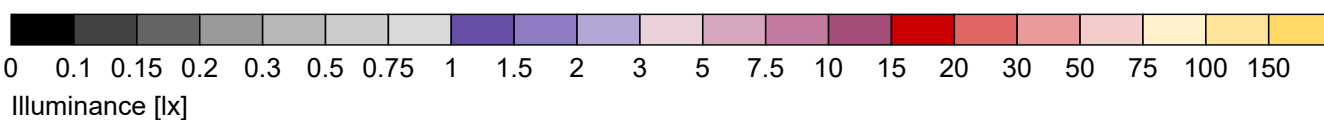
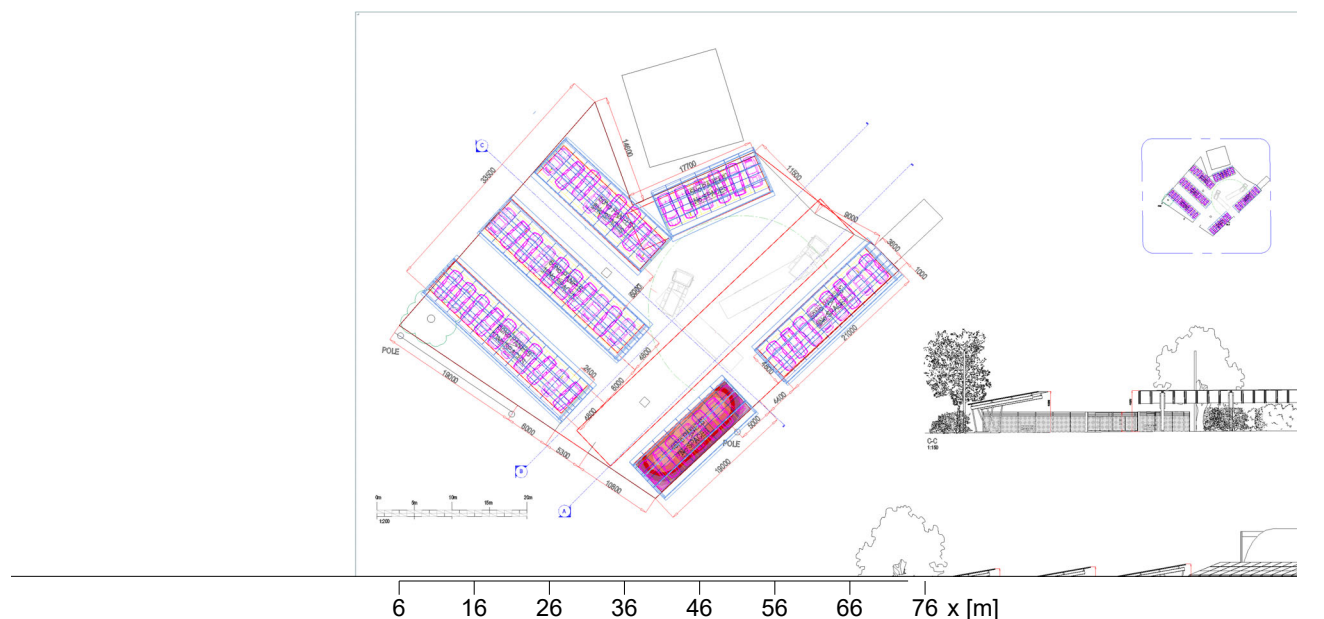


Object : Solar Car Port Lighting
Installation :
Project number : LS04453
Date : 16.06.2025

1 Exterior 1

1.2 Summary, Exterior 1

1.2.1 Result overview, Measuring area 1.1



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Height (phot. centre) [m]:	3.30 m
Maintenance factor	0.80

Total luminous flux	28050 lm
Total power	255 W
Total power per area (1759.62 m²)	0.14 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	24.3 lx
Minimum illuminance	E_{min}	5.9 lx
Maximum illuminance	E_{max}	43.9 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:4.13 (0.24)
Diversity U_d	E_{min}/E_{max}	1:7.45 (0.13)

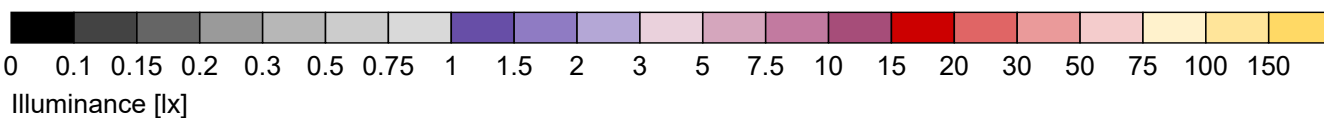
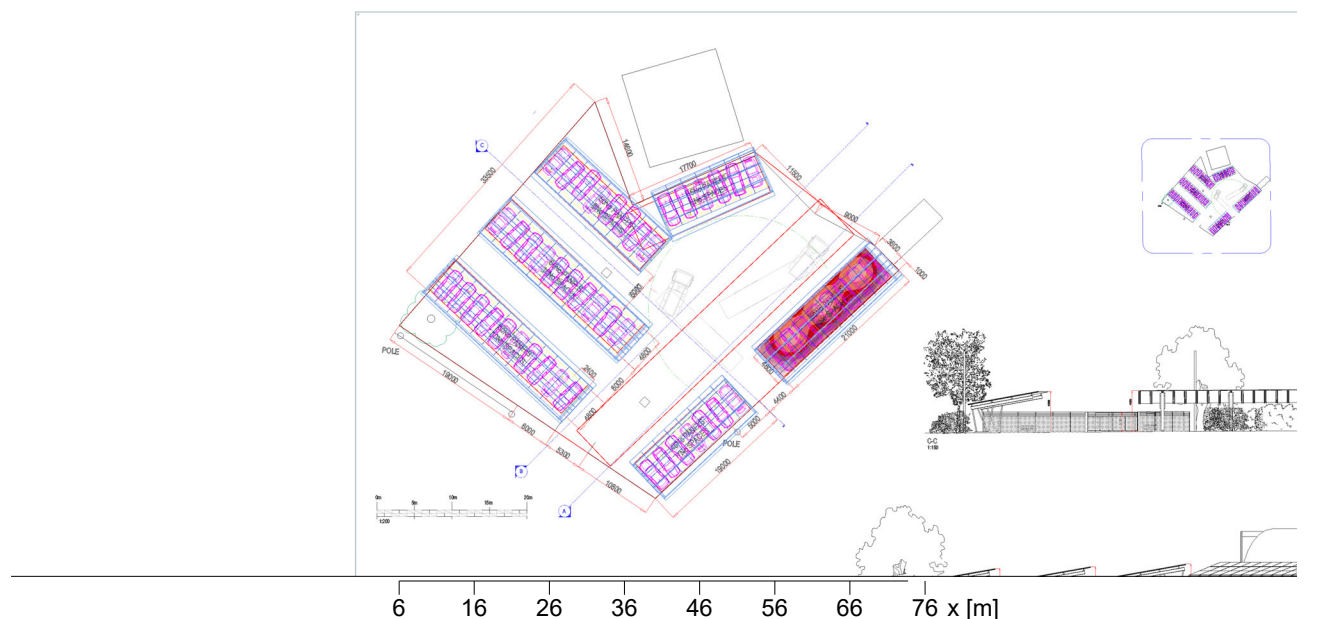
Type No. Make

1	17 x	OVIA	
		Order No.	: OV15W (4000K)
		Luminaire name	: VELO
		Equipment	: 1 x LED 15 W / 1650 lm

Object : Solar Car Port Lighting
Installation :
Project number : LS04453
Date : 16.06.2025

1.2 Summary, Exterior 1

1.2.2 Result overview, Measuring area 2.1



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Height (phot. centre) [m]:	3.30 m
Maintenance factor	0.80

Total luminous flux	28050 lm
Total power	255 W
Total power per area (1759.62 m²)	0.14 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	20.5 lx
Minimum illuminance	E_{min}	4.4 lx
Maximum illuminance	E_{max}	39.7 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:4.69 (0.21)
Diversity U_d	E_{min}/E_{max}	1:9.06 (0.11)

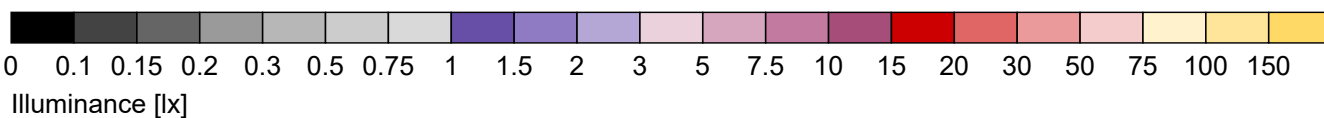
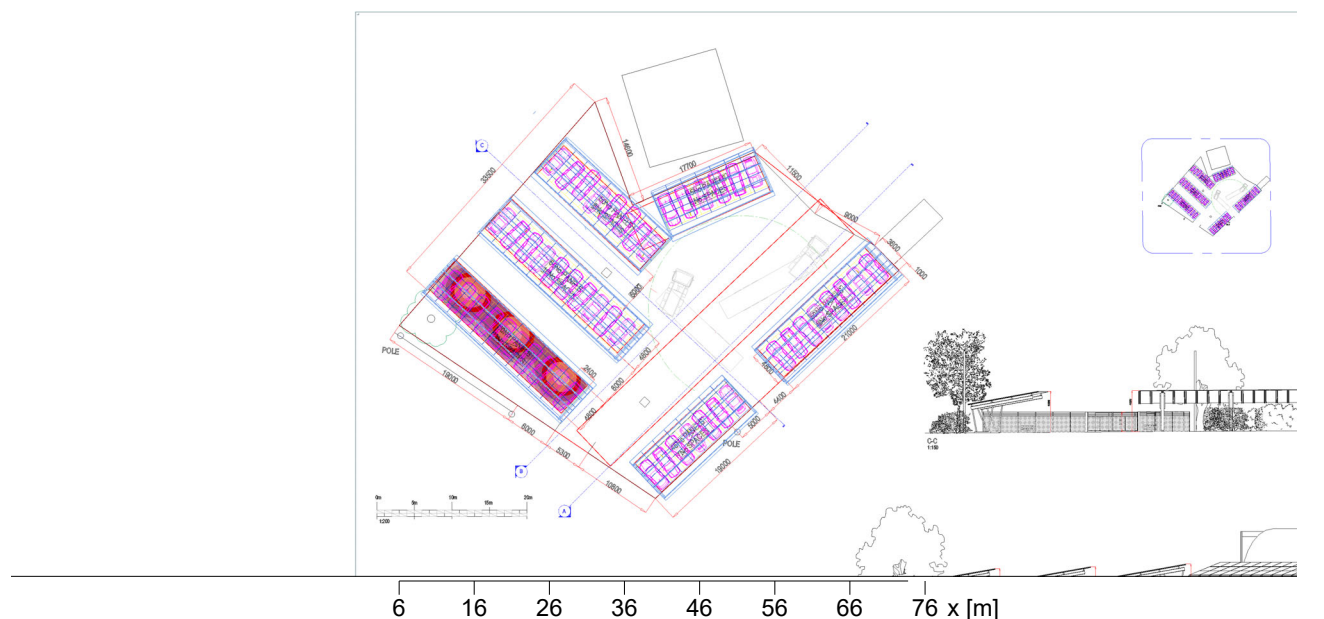
Type No. Make

1	17 x	OVIA	
		Order No.	: OV15W (4000K)
		Luminaire name	: VELO
		Equipment	: 1 x LED 15 W / 1650 lm

Object : Solar Car Port Lighting
Installation :
Project number : LS04453
Date : 16.06.2025

1.2 Summary, Exterior 1

1.2.3 Result overview, Measuring area 3.1



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Height (phot. centre) [m]:	3.30 m
Maintenance factor	0.80

Total luminous flux	28050 lm
Total power	255 W
Total power per area (1759.62 m²)	0.14 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	16.8 lx
Minimum illuminance	E_{min}	3.9 lx
Maximum illuminance	E_{max}	37.2 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:4.33 (0.23)
Diversity U_d	E_{min}/E_{max}	1:9.58 (0.1)

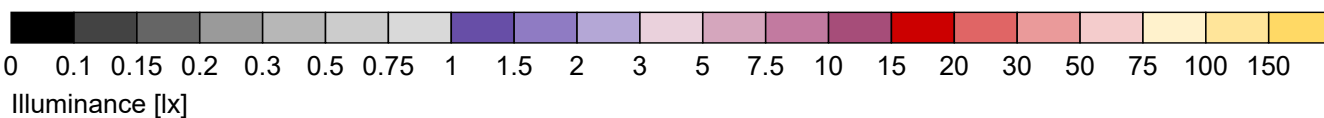
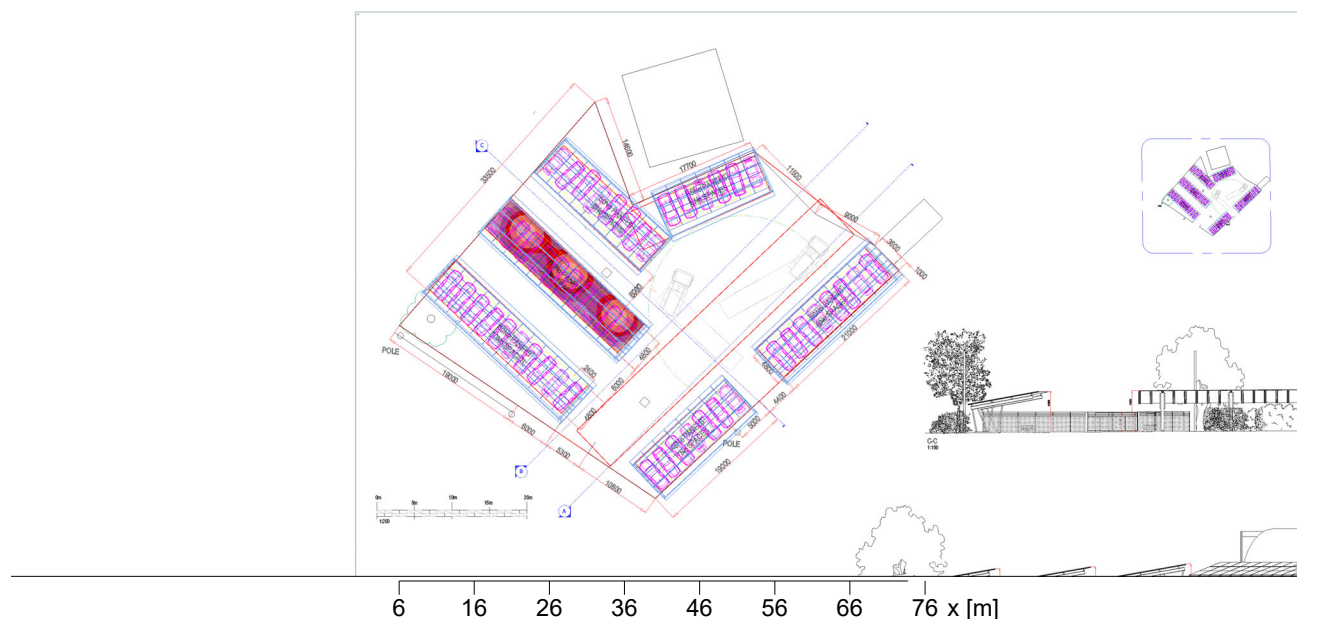
Type No. Make

1	17 x	OVIA	
		Order No.	: OV15W (4000K)
		Luminaire name	: VELO
		Equipment	: 1 x LED 15 W / 1650 lm

Object : Solar Car Port Lighting
Installation :
Project number : LS04453
Date : 16.06.2025

1.2 Summary, Exterior 1

1.2.4 Result overview, Measuring area 4.1



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Height (phot centre) [m]:	3.30 m
Maintenance factor	0.80

Total luminous flux	28050 lm
Total power	255 W
Total power per area (1759.62 m²)	0.14 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	18.5 lx
Minimum illuminance	E_{min}	5.1 lx
Maximum illuminance	E_{max}	39.1 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:3.6 (0.28)
Diversity U_d	E_{min}/E_{max}	1:7.61 (0.13)

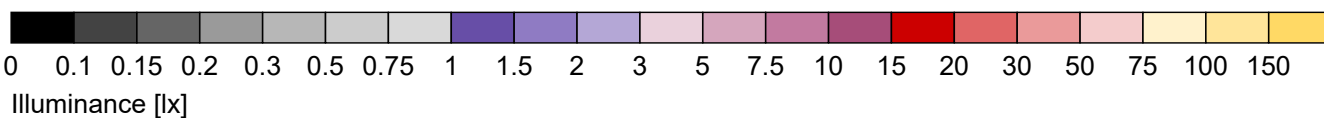
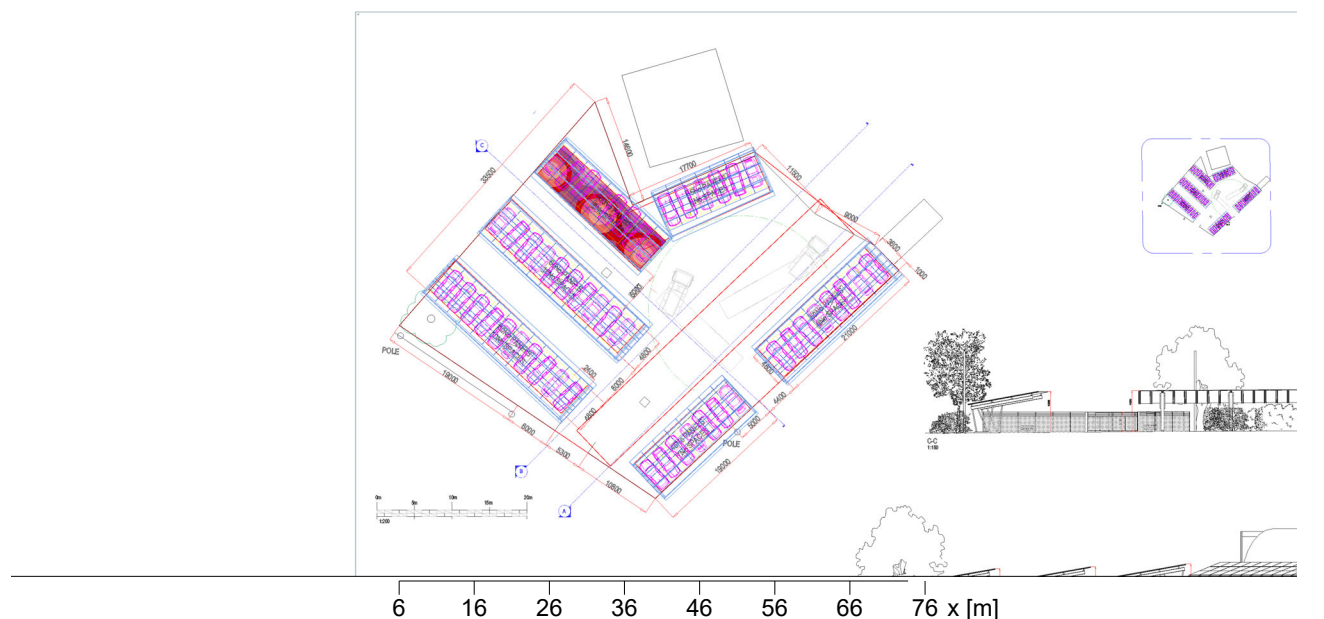
Type No. Make

1	17 x	OVIA	
		Order No.	: OV15W (4000K)
		Luminaire name	: VELO
		Equipment	: 1 x LED 15 W / 1650 lm

Object : Solar Car Port Lighting
Installation :
Project number : LS04453
Date : 16.06.2025

1.2 Summary, Exterior 1

1.2.5 Result overview, Measuring area 5.1



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Height (phot. centre) [m]:	3.30 m
Maintenance factor	0.80

Total luminous flux	28050 lm
Total power	255 W
Total power per area (1759.62 m²)	0.14 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	19.5 lx
Minimum illuminance	E_{min}	6.2 lx
Maximum illuminance	E_{max}	39.4 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:3.13 (0.32)
Diversity U_d	E_{min}/E_{max}	1:6.32 (0.16)

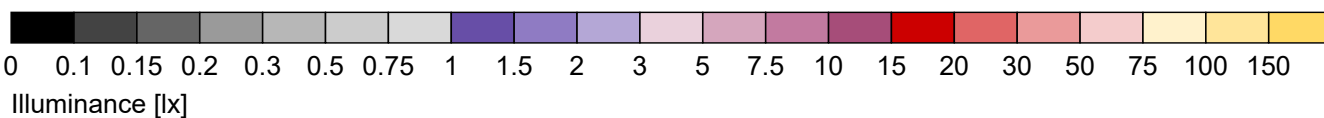
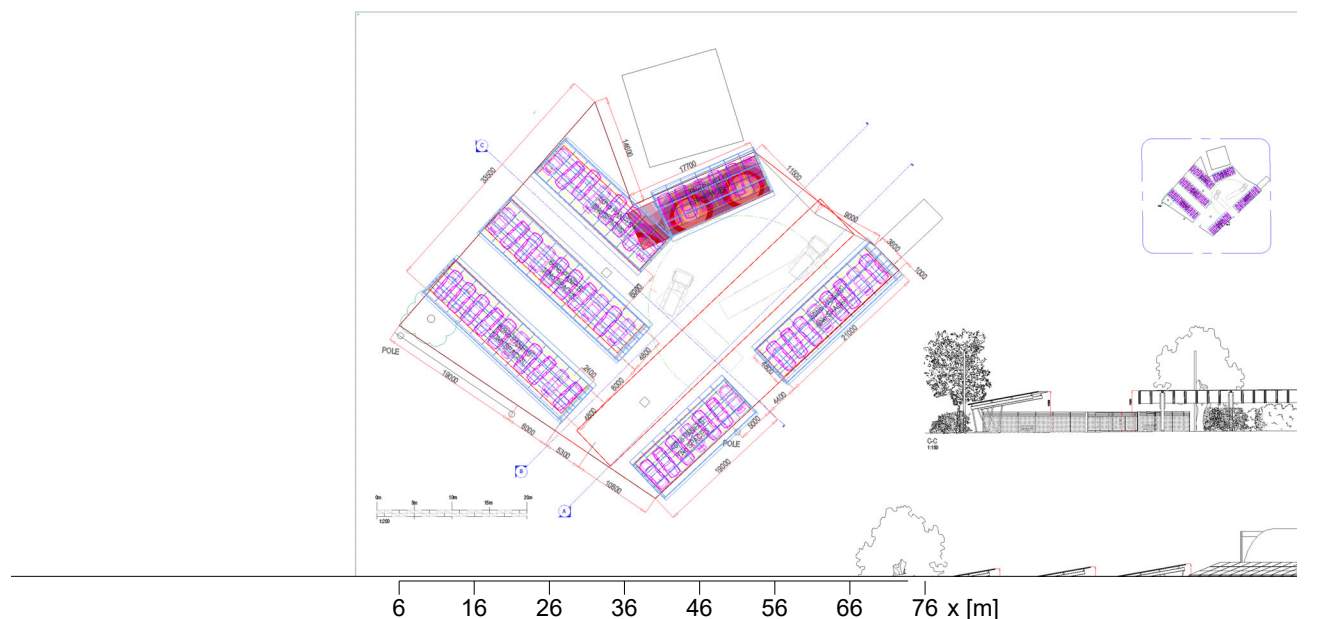
Type No. Make

1	17 x	OVIA	
		Order No.	: OV15W (4000K)
		Luminaire name	: VELO
		Equipment	: 1 x LED 15 W / 1650 lm

Object : Solar Car Port Lighting
Installation :
Project number : LS04453
Date : 16.06.2025

1.2 Summary, Exterior 1

1.2.6 Result overview, Measuring area 6.1



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Height (phot. centre) [m]:	3.30 m
Maintenance factor	0.80

Total luminous flux	28050 lm
Total power	255 W
Total power per area (1759.62 m²)	0.14 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	16.6 lx
Minimum illuminance	E_{min}	4.6 lx
Maximum illuminance	E_{max}	36.8 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:3.64 (0.27)
Diversity U_d	E_{min}/E_{max}	1:8.08 (0.12)

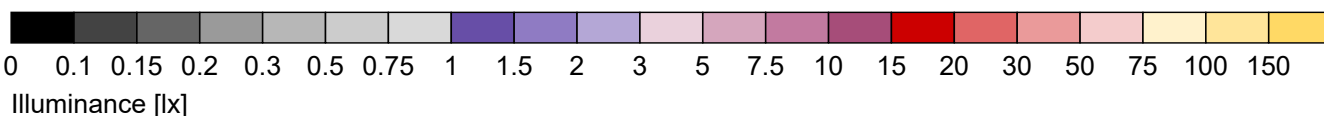
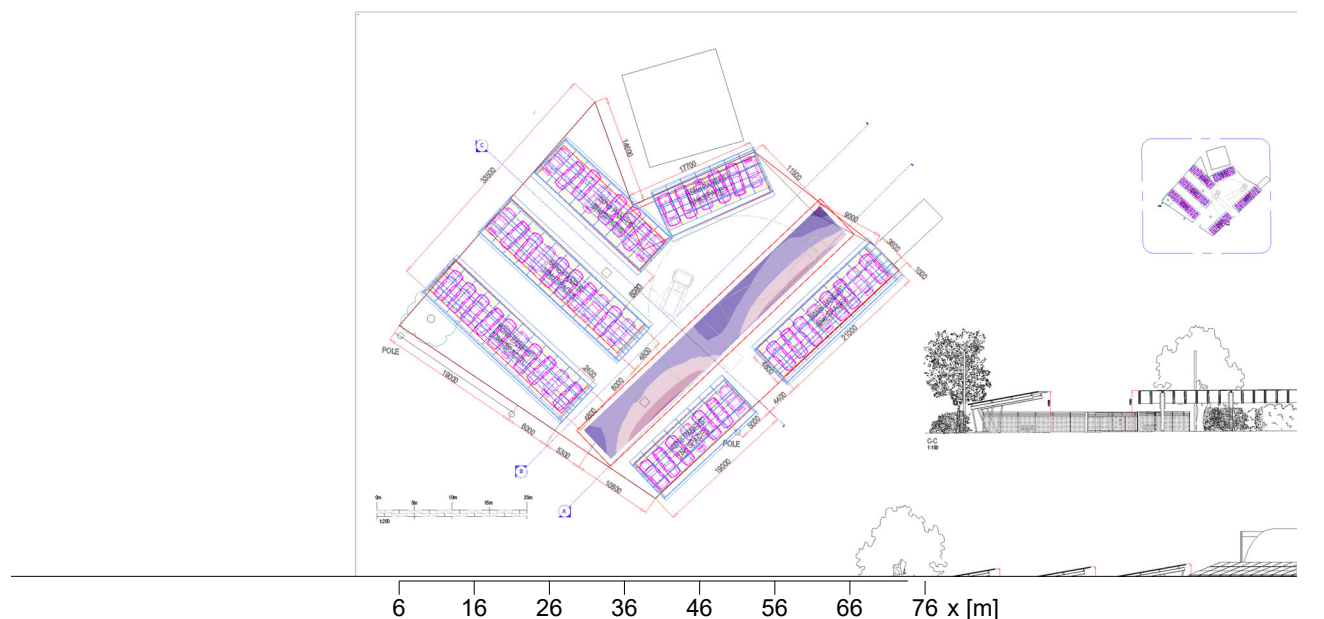
Type No. Make

1	17 x	OVIA	
		Order No.	: OV15W (4000K)
		Luminaire name	: VELO
		Equipment	: 1 x LED 15 W / 1650 lm

Object : Solar Car Port Lighting
Installation :
Project number : LS04453
Date : 16.06.2025

1.2 Summary, Exterior 1

1.2.7 Result overview, Measuring area 1



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Height (phot. centre) [m]:	3.30 m
Maintenance factor	0.80

Total luminous flux	28050 lm
Total power	255 W
Total power per area (1759.62 m²)	0.14 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	3.17 lx
Minimum illuminance	E_{min}	1.21 lx
Maximum illuminance	E_{max}	8.2 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:2.62 (0.38)
Diversity U_d	E_{min}/E_{max}	1:6.77 (0.15)

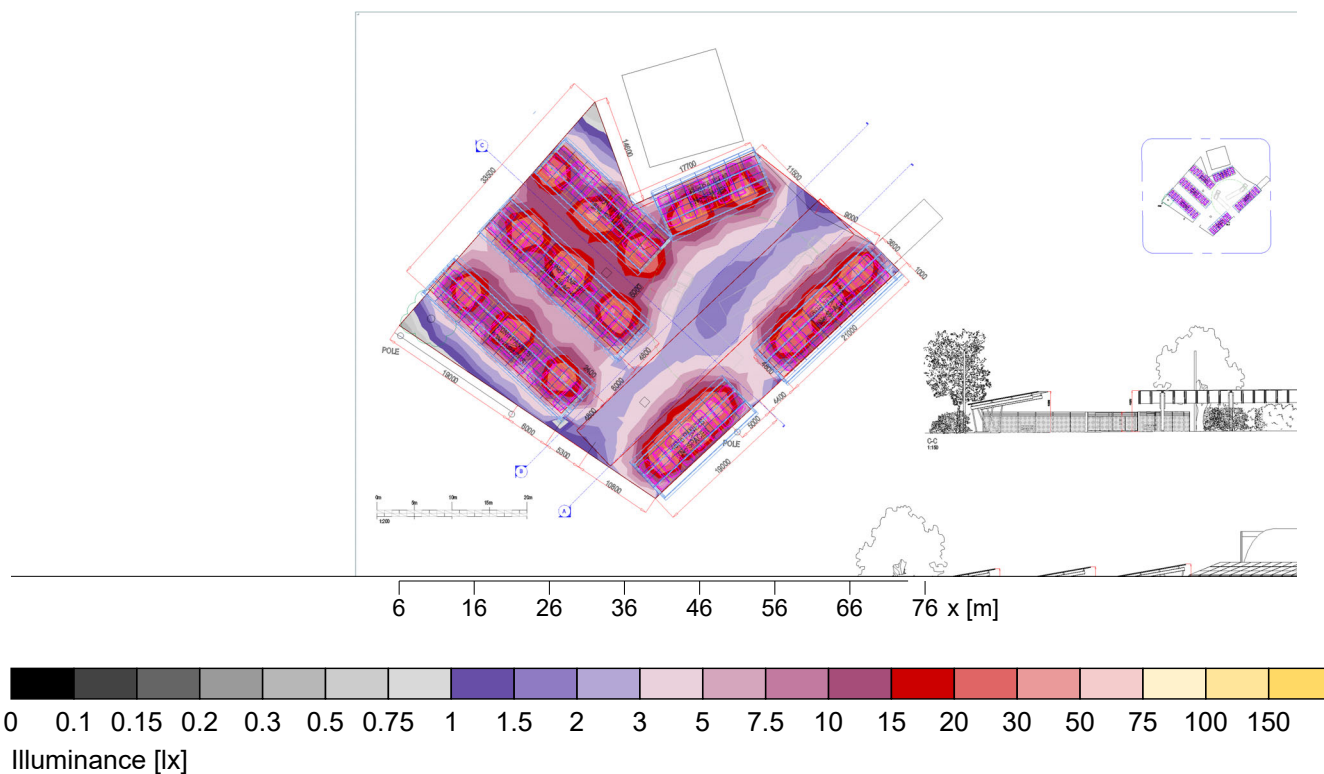
Type No. Make

1	17 x	OVIA	
		Order No.	: OV15W (4000K)
		Luminaire name	: VELO
		Equipment	: 1 x LED 15 W / 1650 lm

Object : Solar Car Port Lighting
Installation :
Project number : LS04453
Date : 16.06.2025

1.2 Summary, Exterior 1

1.2.8 Result overview, Evaluation area 1



General

Calculation algorithm used
Height (phot. centre)
Maintenance factor

Average indirect fraction
3.30 m
0.80

Total lamp luminous flux
Luminaire luminous flux
Total power
Total power per area (1759.62 m²)

28050 lm
28049 lm
255.0 W
0.14 W/m² (1.35 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

Horizontal
 $\bar{E}_m$
 E_{min}
 $E_{min}/\bar{E}_m (U_o)$
 $E_{min}/E_{max} (U_d)$
Position

10.7 lx
0.8 lx
0.08
0.02
0.00 m

Type No. \Make

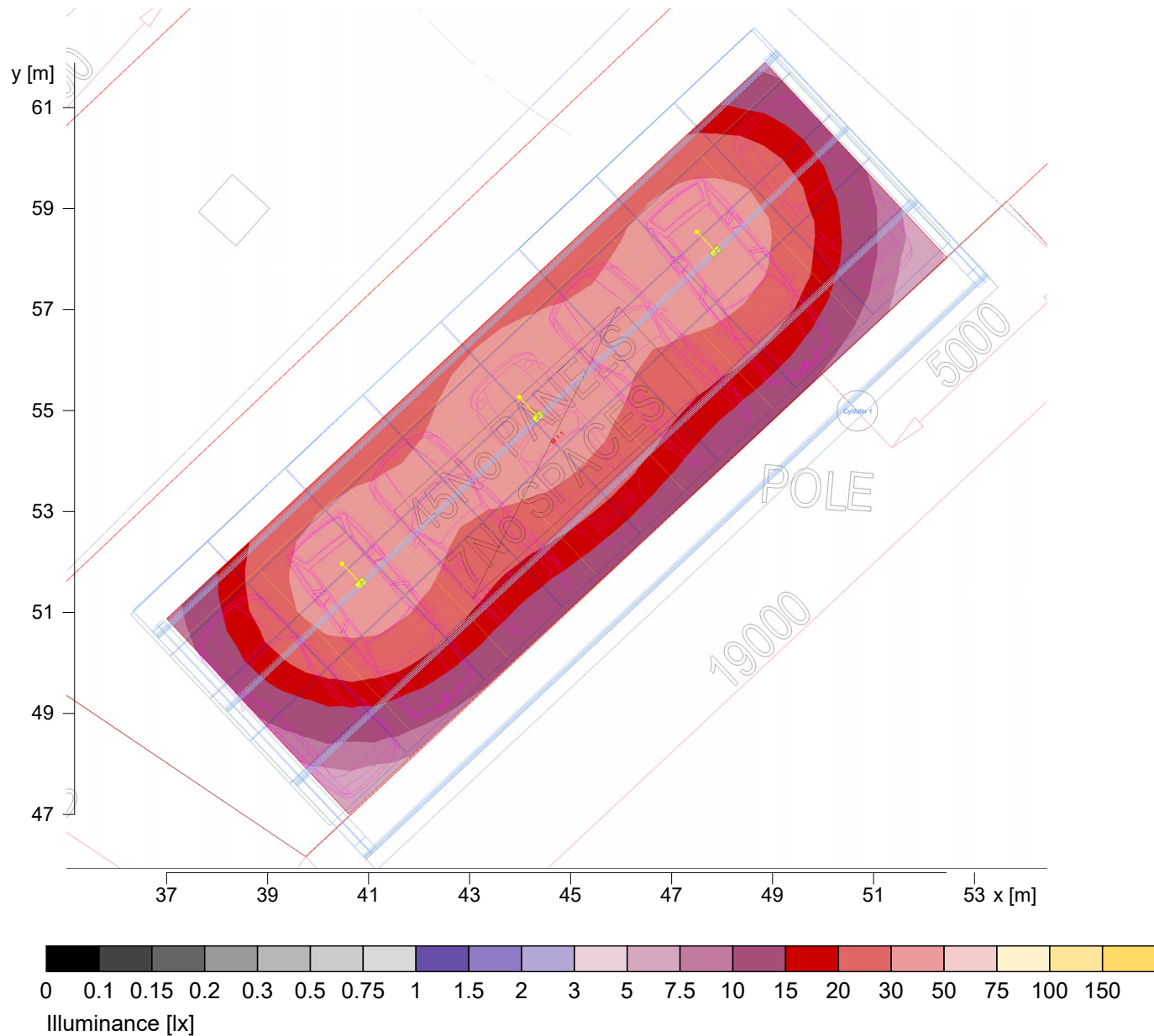
1 17 x
 **OVIA**
Order No. : OV15W (4000K)
Luminaire name : VELO
Equipment : 1 x LED 15 W / 1650 lm

Object : Solar Car Port Lighting
Installation :
Project number : LS04453
Date : 16.06.2025

1 Exterior 1

1.3 Calculation results, Exterior 1

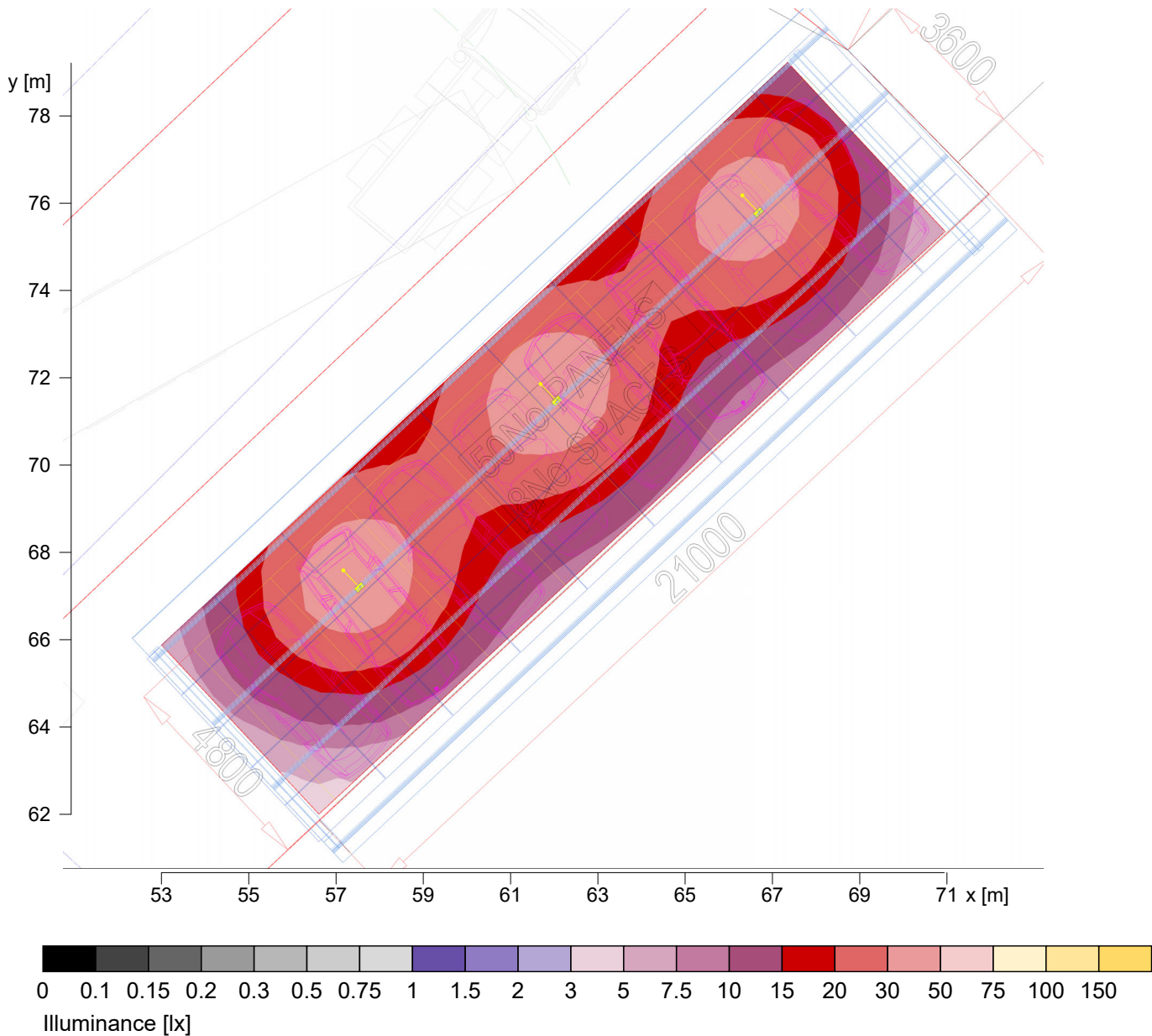
1.3.1 Pseudo colours, Measuring area 1.1 (E)



Object : Solar Car Port Lighting
Installation :
Project number : LS04453
Date : 16.06.2025

1.3 Calculation results, Exterior 1

1.3.2 Pseudo colours, Measuring area 2.1 (E)

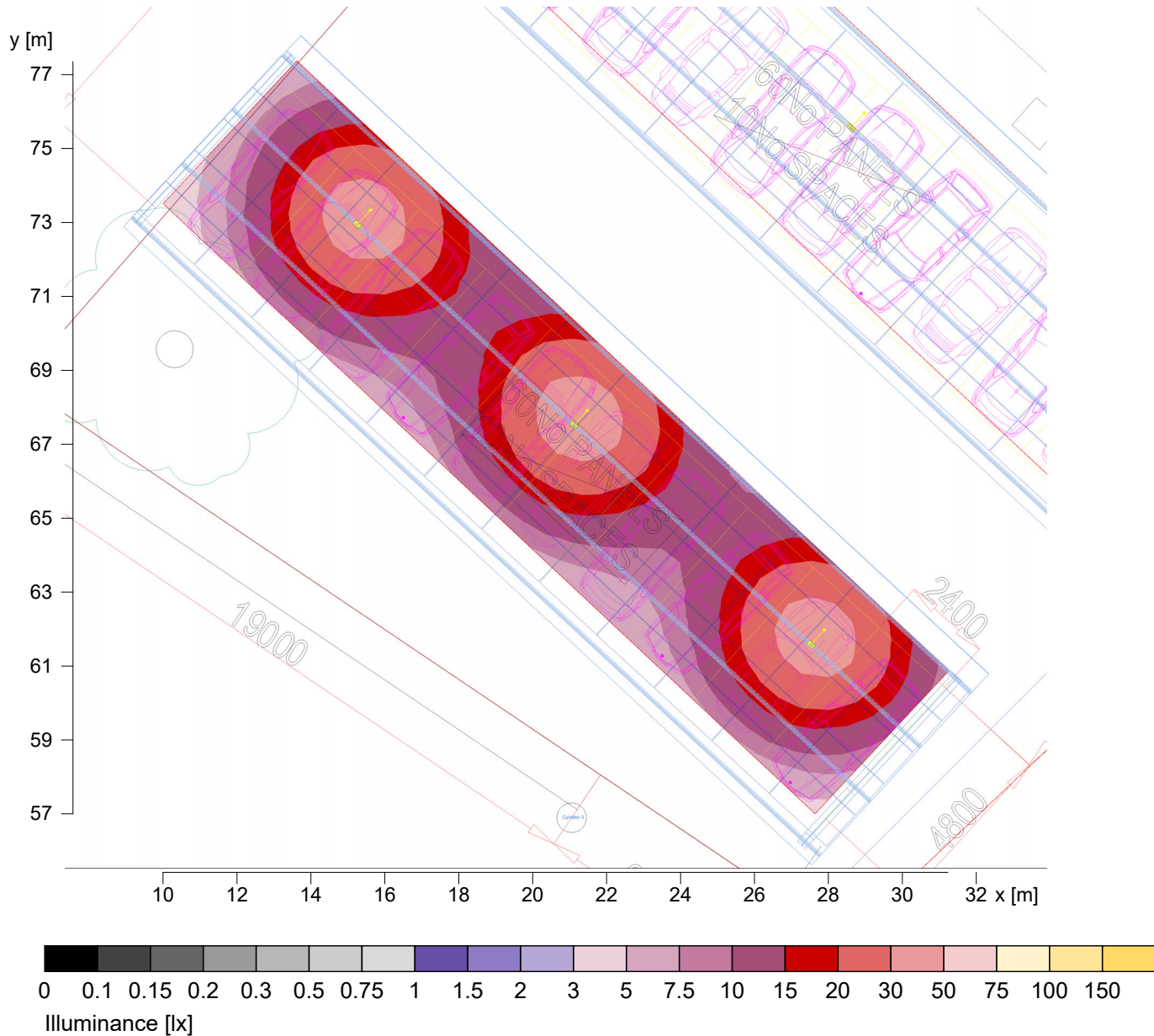


Height reference plane		: 0.00 m
Average illuminance	$\bar{E}_m$	: 20.5 lx
Minimum illuminance	E_{min}	: 4.4 lx
Maximum illuminance	E_{max}	: 39.7 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	: 1 : 4.69 (0.21)

Object : Solar Car Port Lighting
Installation :
Project number : LS04453
Date : 16.06.2025

1.3 Calculation results, Exterior 1

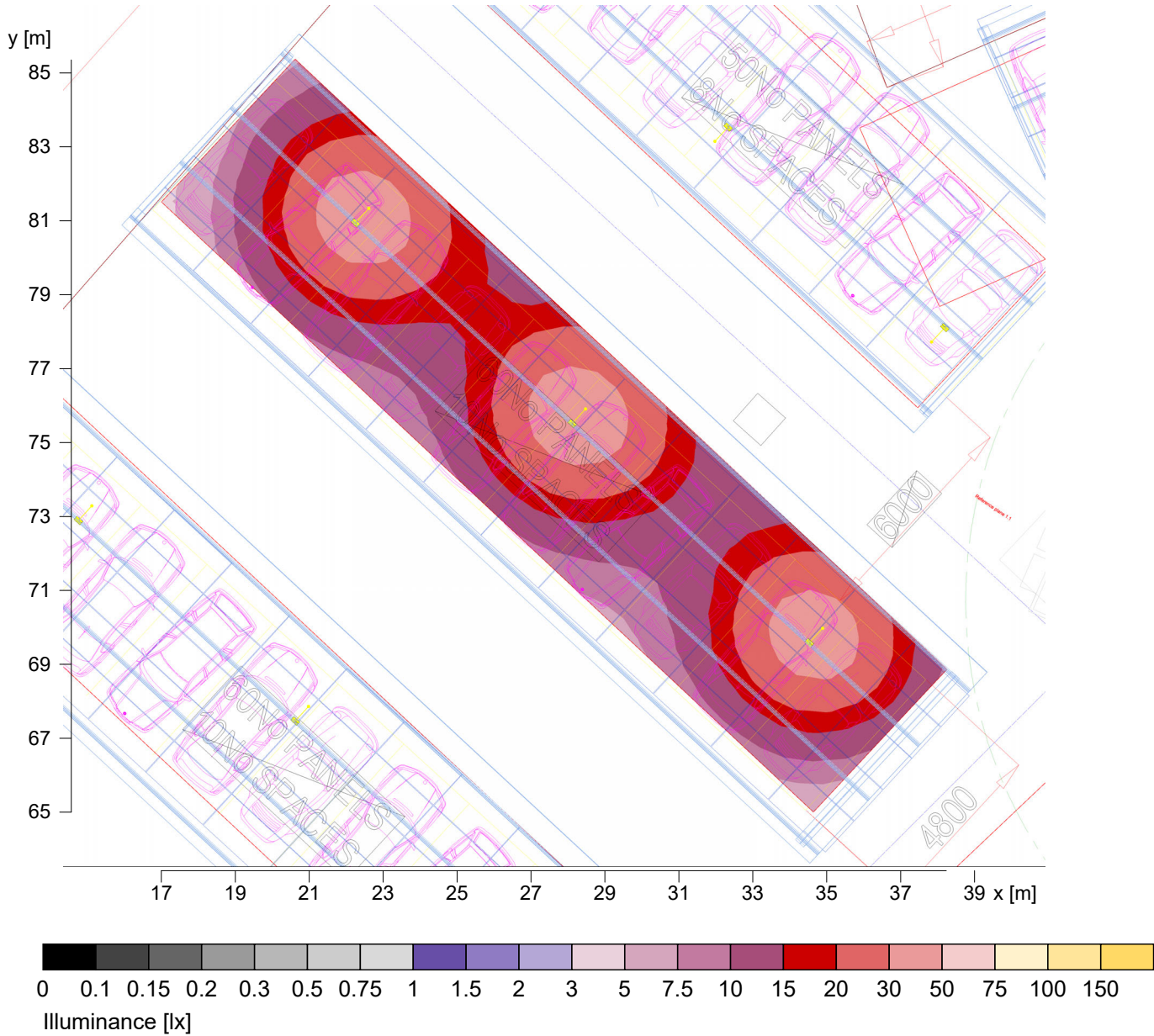
1.3.3 Pseudo colours, Measuring area 3.1 (E)



Object : Solar Car Port Lighting
Installation :
Project number : LS04453
Date : 16.06.2025

1.3 Calculation results, Exterior 1

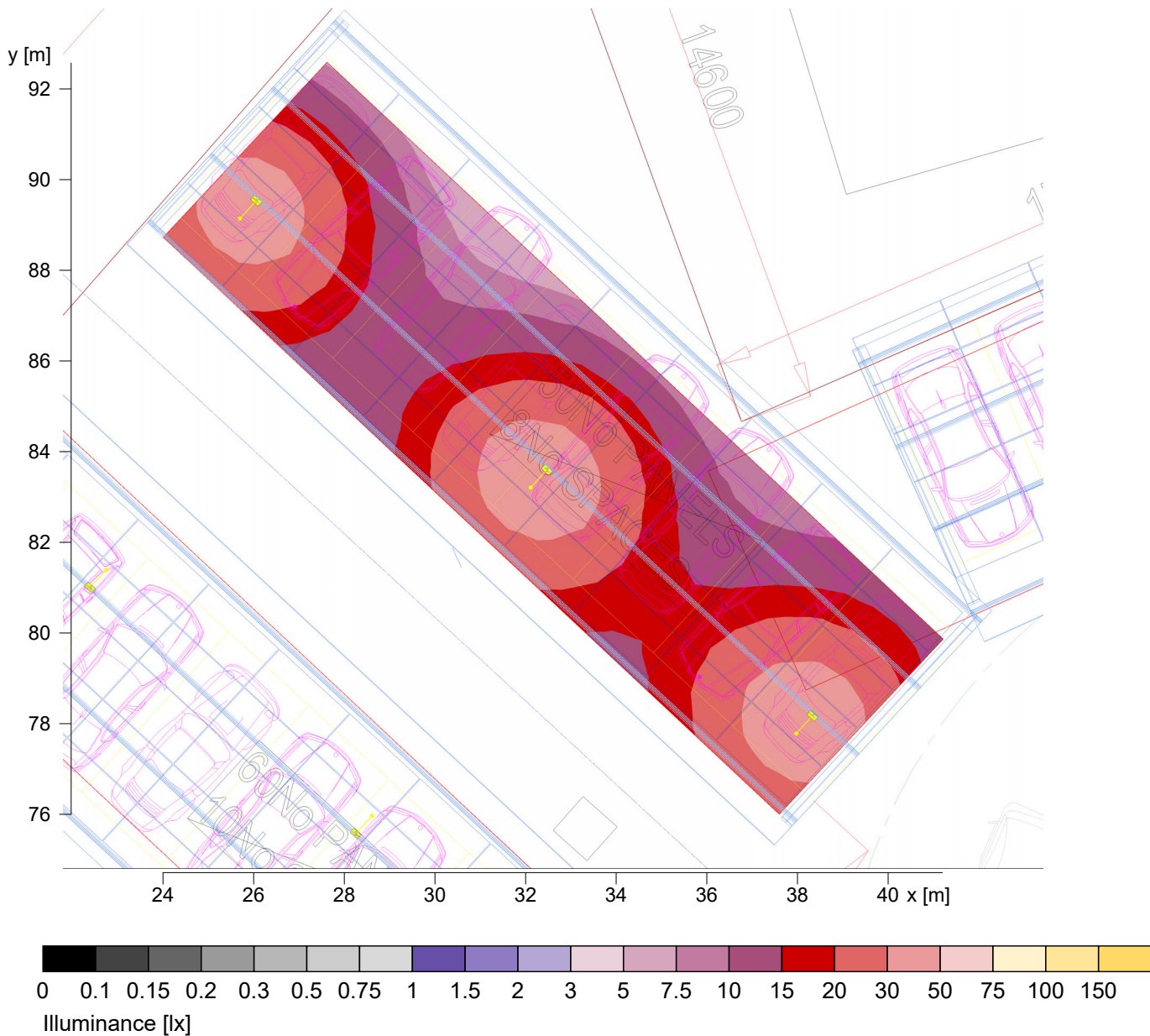
1.3.4 Pseudo colours, Measuring area 4.1 (E)



Height reference plane		: 0.00 m
Average illuminance	$\bar{E}_m$	: 18.5 lx
Minimum illuminance	E_{min}	: 5.1 lx
Maximum illuminance	E_{max}	: 39.1 lx
Uniformity U_0	$E_{min}/\bar{E}_m$	: 1 : 3.60 (0.28)

1.3 Calculation results, Exterior 1

1.3.5 Pseudo colours, Measuring area 5.1 (E)



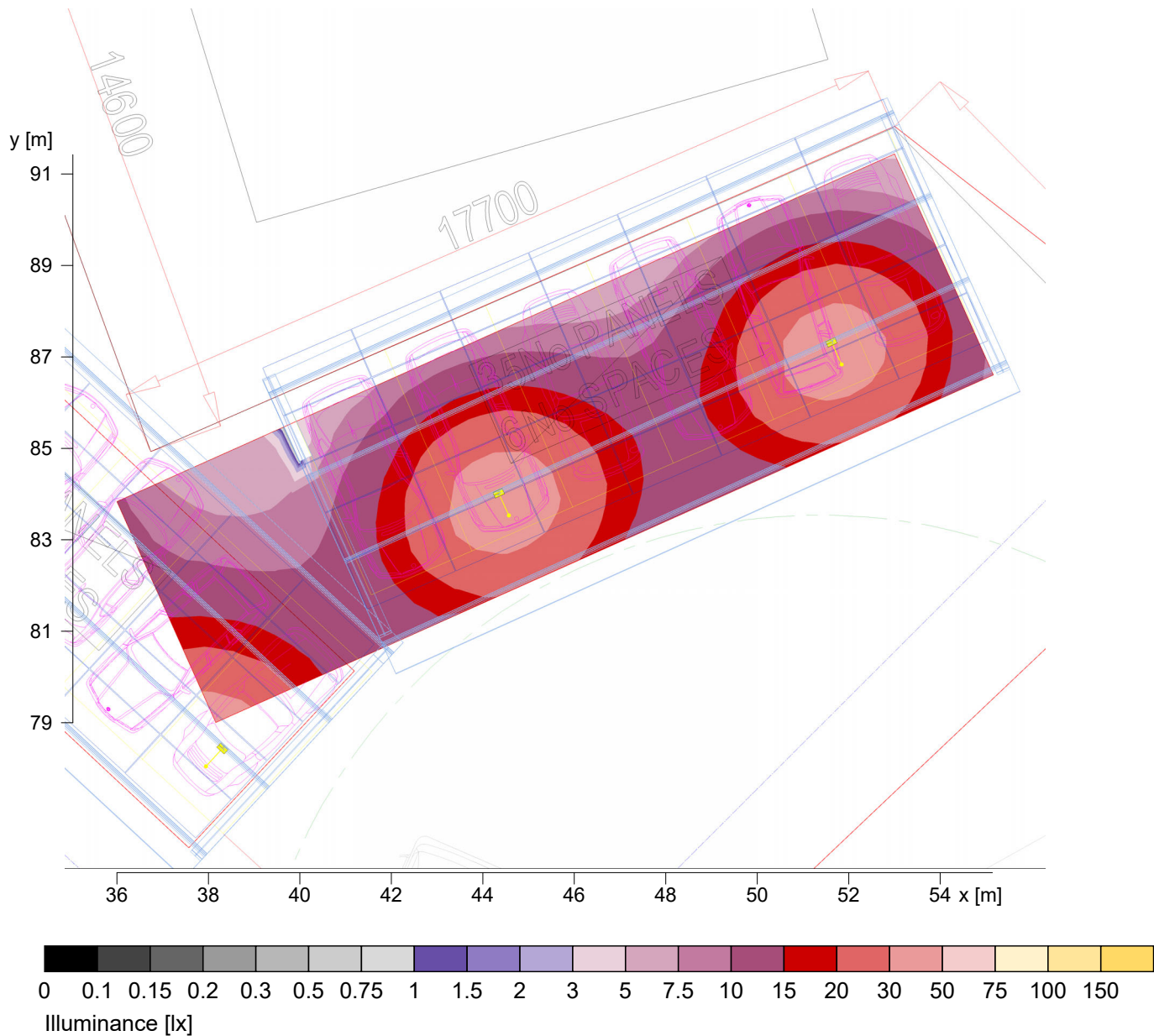
Height reference plane
Average illuminance
Minimum illuminance
Maximum illuminance
Uniformity U_0

	: 0.00 m
$\bar{E}_m$	: 19.5 lx
E_{min}	: 6.2 lx
E_{max}	: 39.4 lx
$E_{min}/\bar{E}_m$	: 1 : 3.13 (0.32)

Object : Solar Car Port Lighting
Installation :
Project number : LS04453
Date : 16.06.2025

1.3 Calculation results, Exterior 1

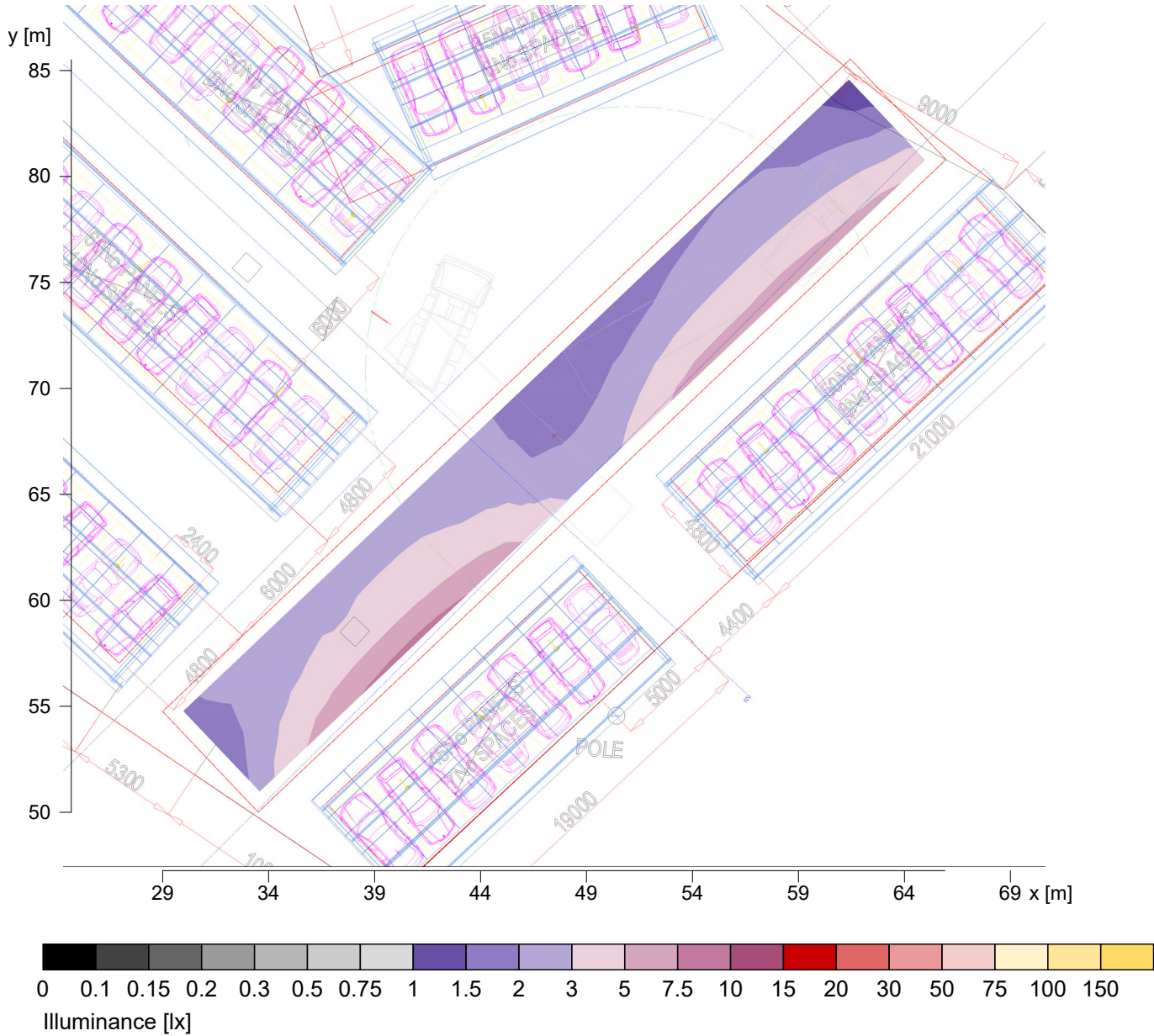
1.3.6 Pseudo colours, Measuring area 6.1 (E)



Object : Solar Car Port Lighting
Installation :
Project number : LS04453
Date : 16.06.2025

1.3 Calculation results, Exterior 1

1.3.7 Pseudo colours, Measuring area 1 (E)

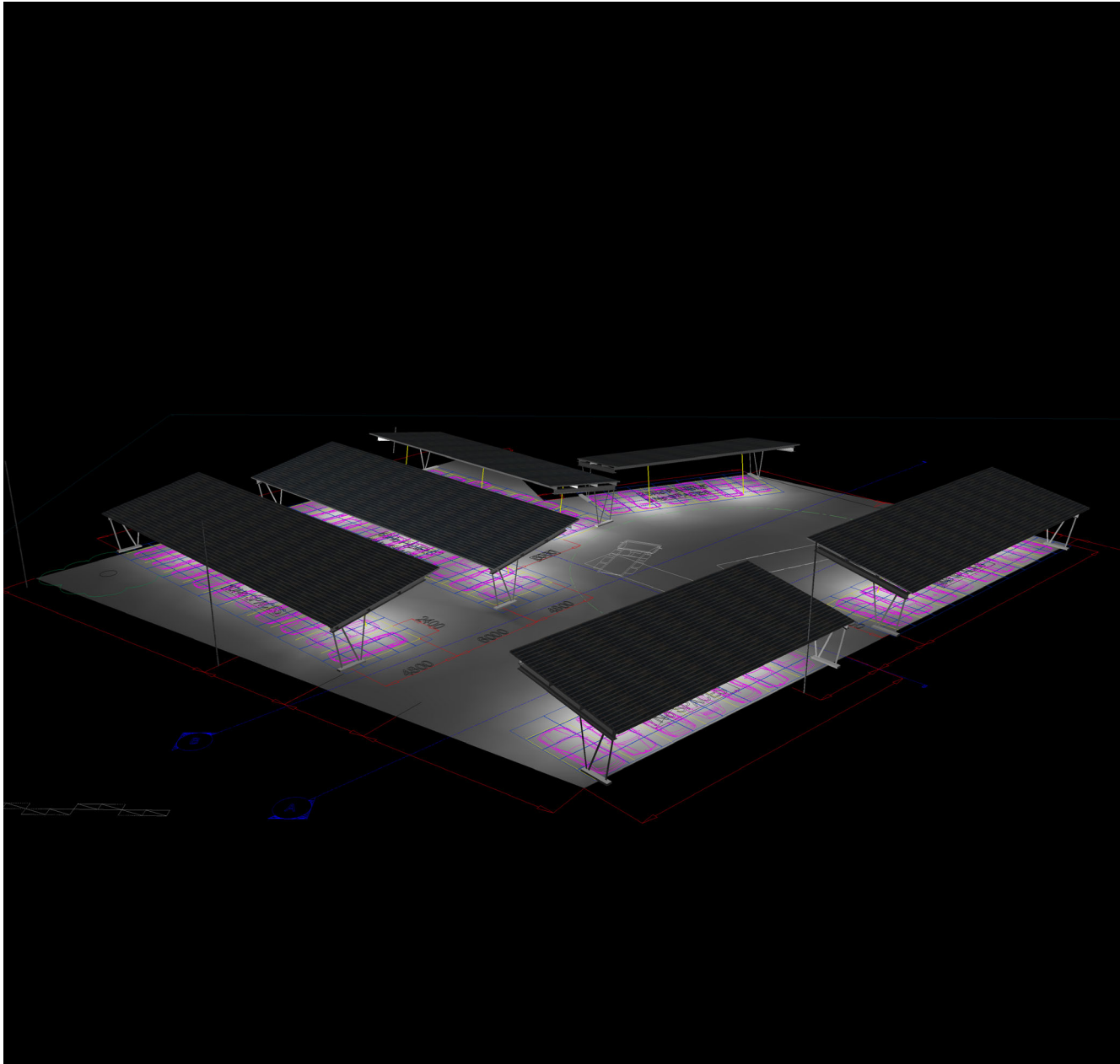


Height reference plane		: 0.00 m
Average illuminance	$\bar{E}_m$	: 3.17 lx
Minimum illuminance	E_{min}	: 1.21 lx
Maximum illuminance	E_{max}	: 8.2 lx
Uniformity U_0	$E_{min}/\bar{E}_m$	: 1 : 2.62 (0.38)

Object : Solar Car Port Lighting
Installation :
Project number : LS04453
Date : 16.06.2025

1.3 Calculation results, Exterior 1

1.3.8 3D luminance, View 1



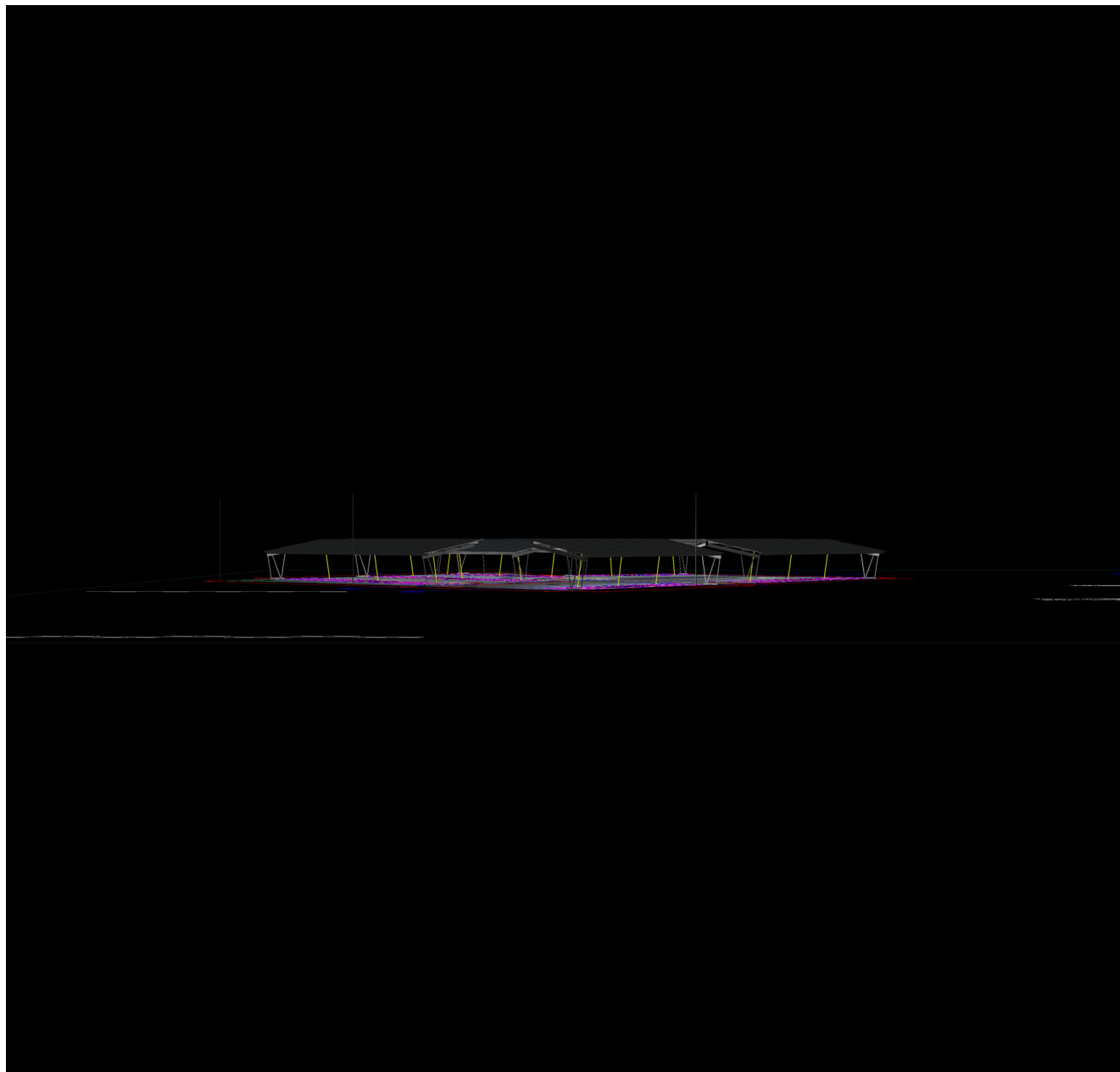
Luminance in the scene

Minimum: : 0 cd/m²
Maximum: : 39.5 cd/m²

Object : Solar Car Port Lighting
Installation :
Project number : LS04453
Date : 16.06.2025

1.3 Calculation results, Exterior 1

1.3.9 3D luminance, View from the front



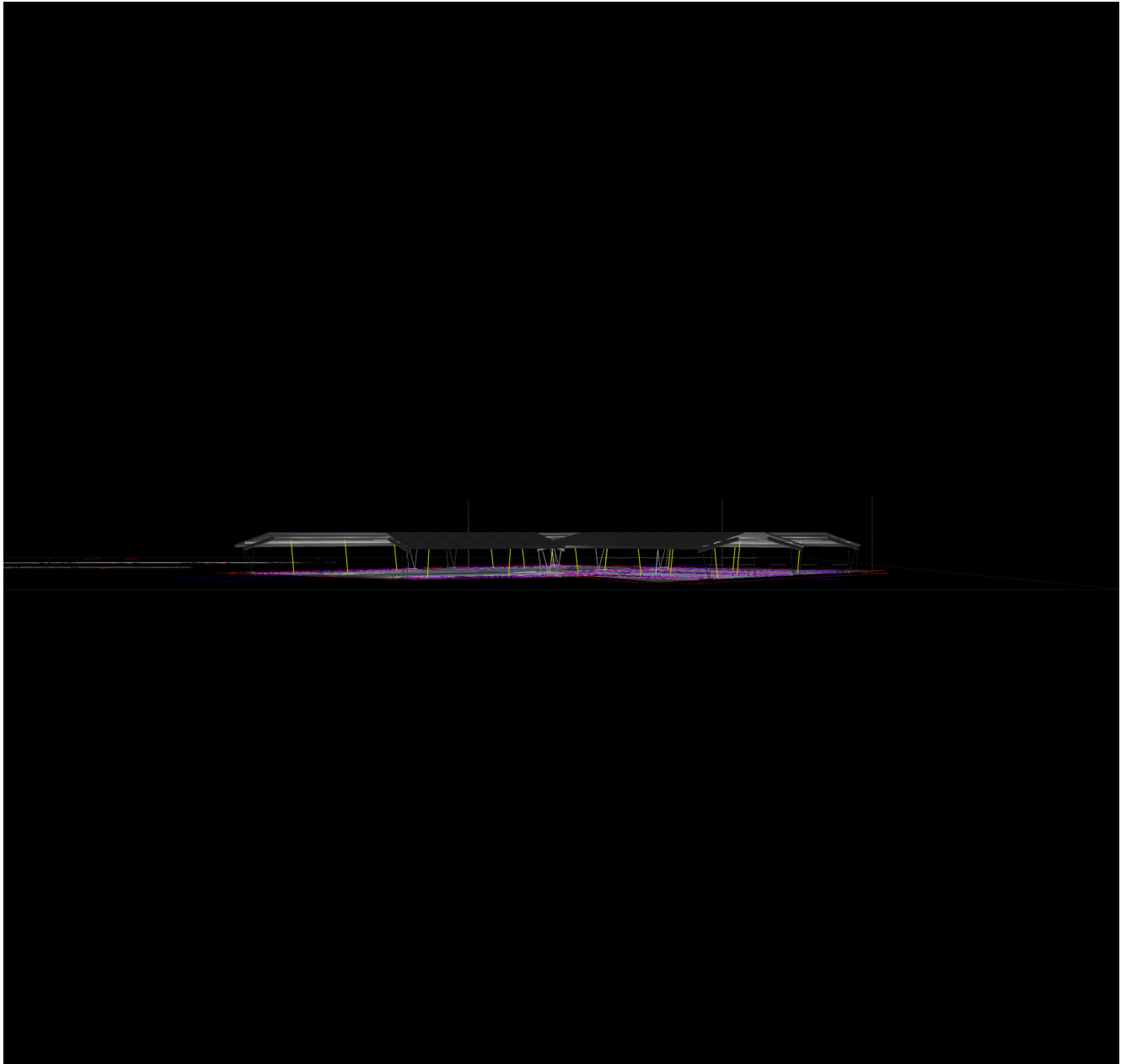
Luminance in the scene

Minimum: : 0 cd/m²
Maximum: : 39.5 cd/m²

Object : Solar Car Port Lighting
Installation :
Project number : LS04453
Date : 16.06.2025

1.3 Calculation results, Exterior 1

1.3.10 3D luminance, View from the back



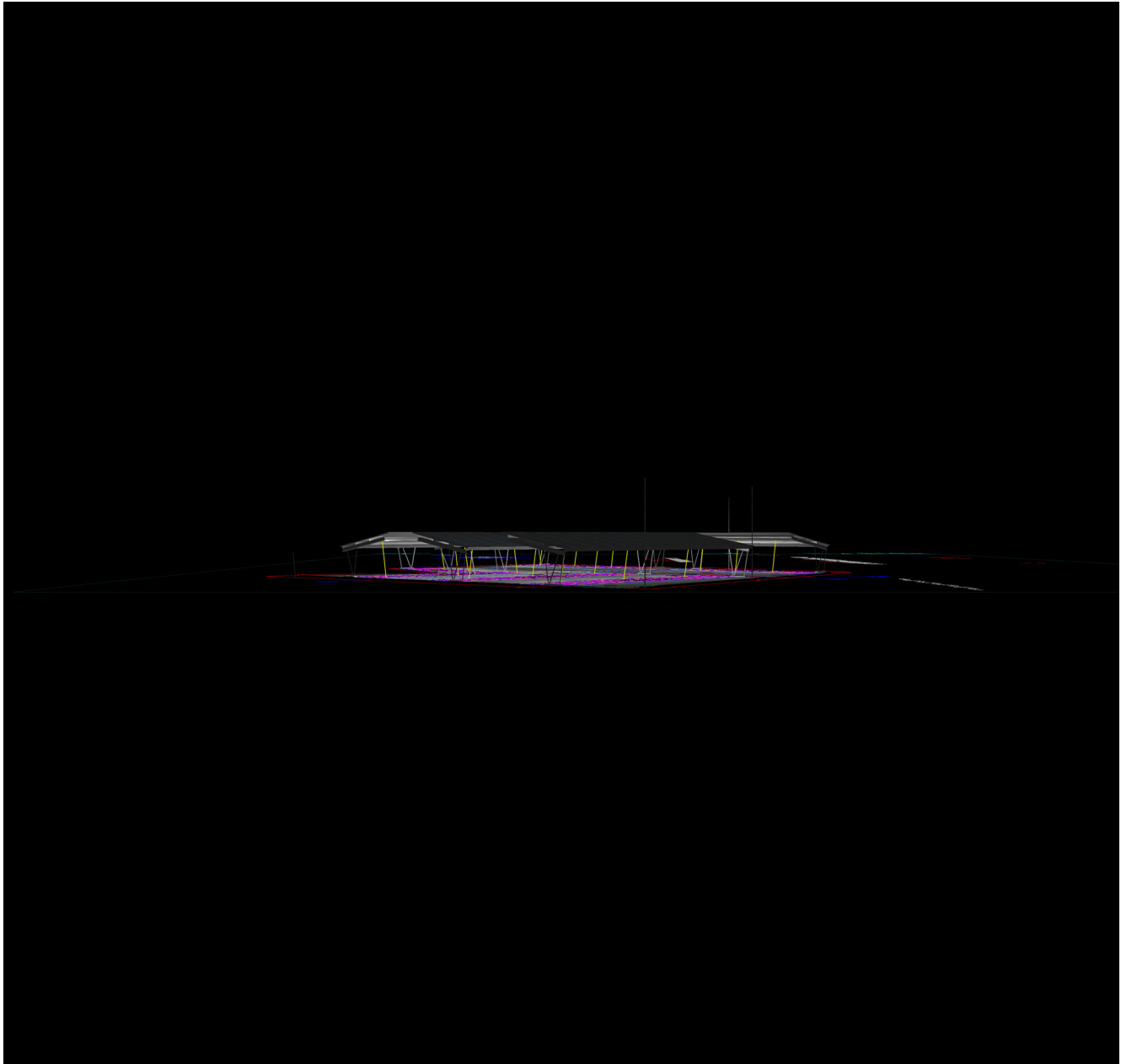
Luminance in the scene

Minimum: : 0 cd/m²
Maximum: : 39.5 cd/m²

Object : Solar Car Port Lighting
Installation :
Project number : LS04453
Date : 16.06.2025

1.3 Calculation results, Exterior 1

1.3.11 3D luminance, View from the left



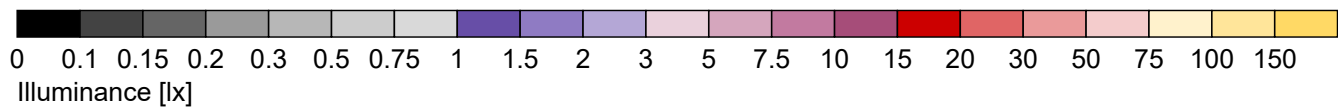
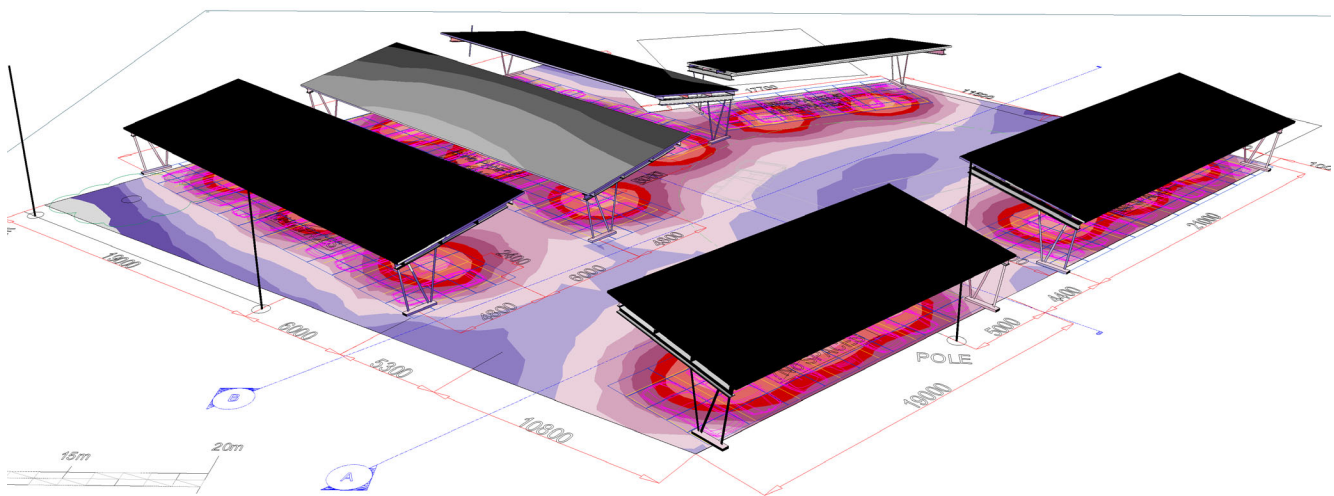
Luminance in the scene

Minimum: : 0 cd/m²
Maximum: : 39.5 cd/m²

Object : Solar Car Port Lighting
Installation :
Project number : LS04453
Date : 16.06.2025

1.3 Calculation results, Exterior 1

1.3.12 3D pseudo colours, View 1 (E)



Object : Solar Car Port Lighting 2
Installation :
Project number : LS04453
Date : 16.06.2025



1 Exterior 1

1.1 Description, Exterior 1

1.1.1 Luminaire data/Room elements

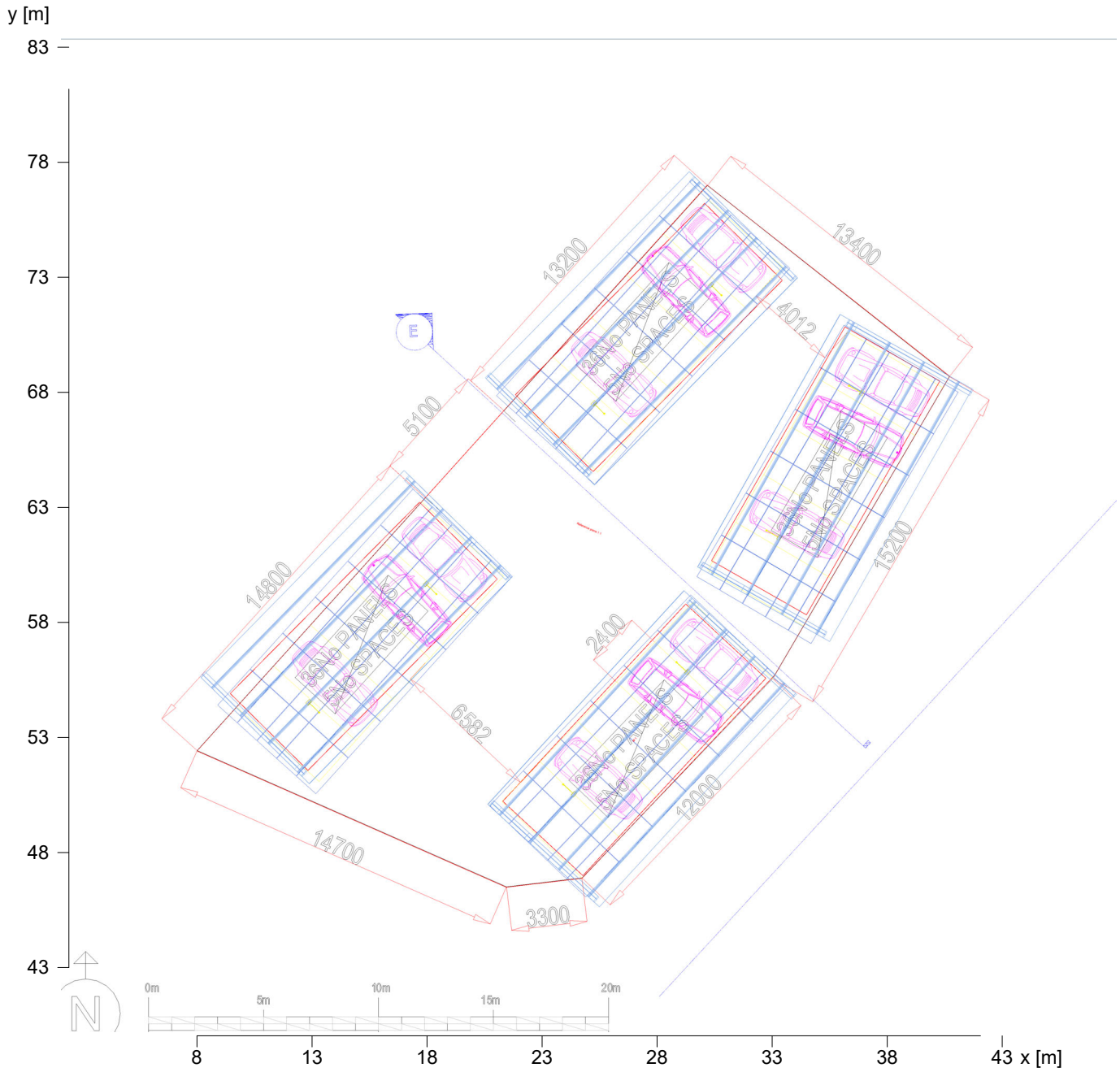
Product data:

Type No.\Make

1	8 x	OVIA	
		Order No.	: OV15W (4000K)
		Luminaire name	: VELO
		Equipment	: 1 x LED 15 W / 1650 lm

1.1 Description, Exterior 1

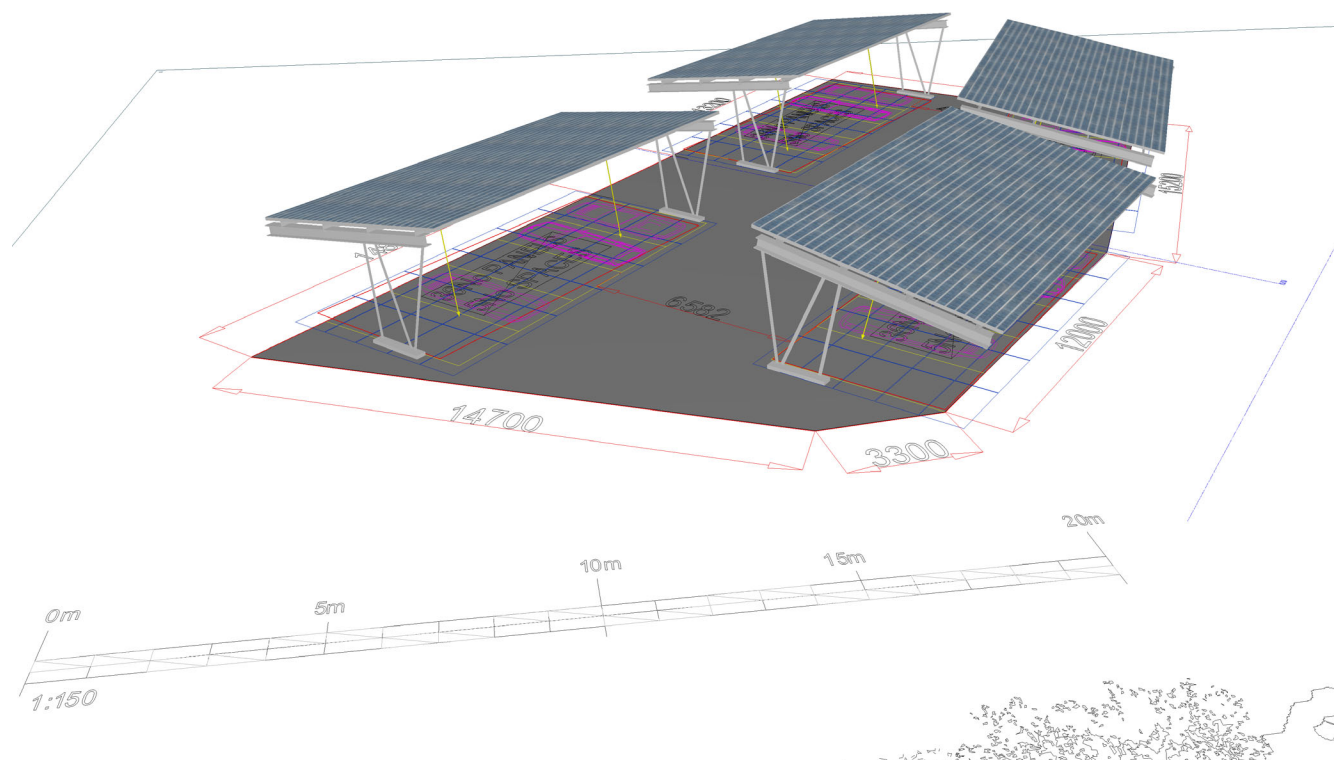
1.1.2 Floor plan



Object : Solar Car Port Lighting 2
Installation :
Project number : LS04453
Date : 16.06.2025

1.1 Description, Exterior 1

1.1.3 3D view, View 1

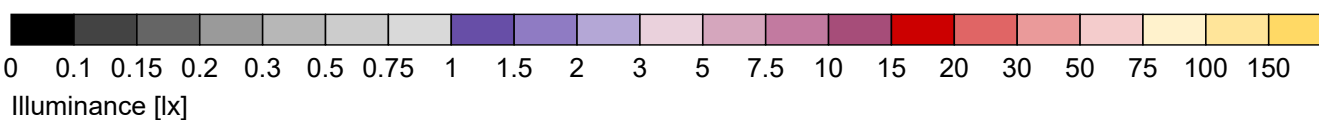
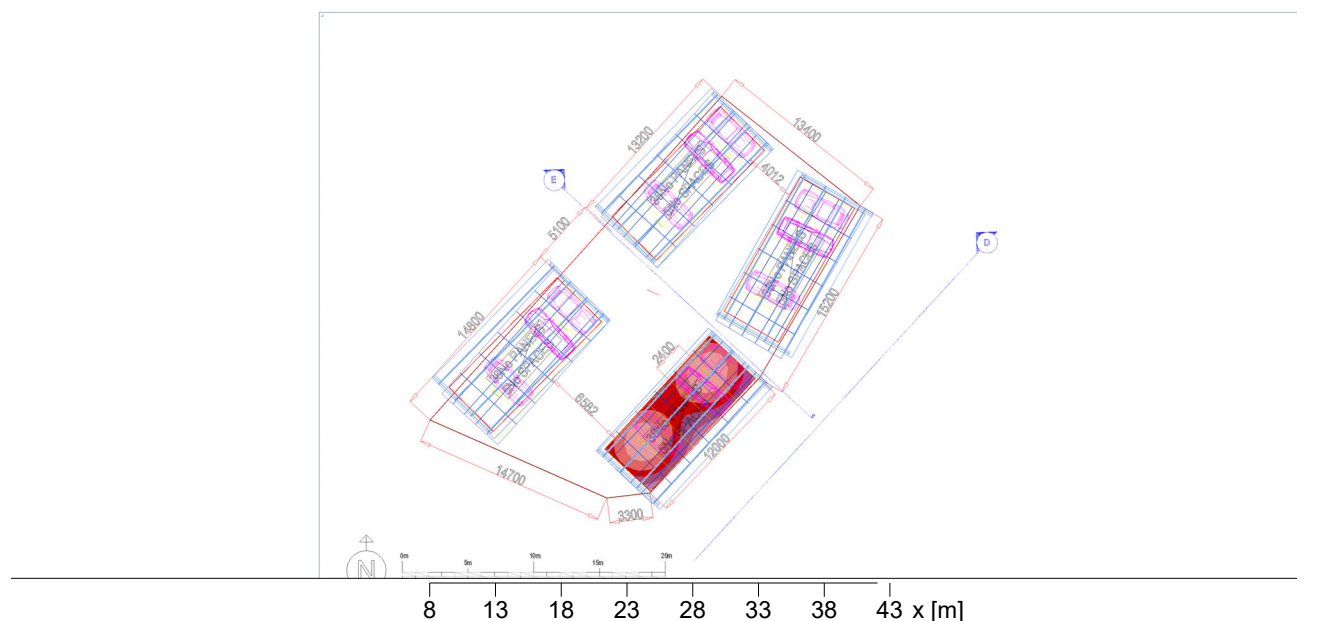


Object : Solar Car Port Lighting 2
Installation :
Project number : LS04453
Date : 16.06.2025

1 Exterior 1

1.2 Summary, Exterior 1

1.2.1 Result overview, Measuring area 1.1



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Height (phot. centre) [m]:	3.03 m
Maintenance factor	0.80

Total luminous flux	13200 lm
Total power	120 W
Total power per area (481.20 m ²)	0.25 W/m ²

Illuminance

Average illuminance	$\bar{E}_m$	23.6 lx
Minimum illuminance	E_{min}	8.7 lx
Maximum illuminance	E_{max}	44.5 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:2.71 (0.37)
Diversity U_d	E_{min}/E_{max}	1:5.12 (0.2)

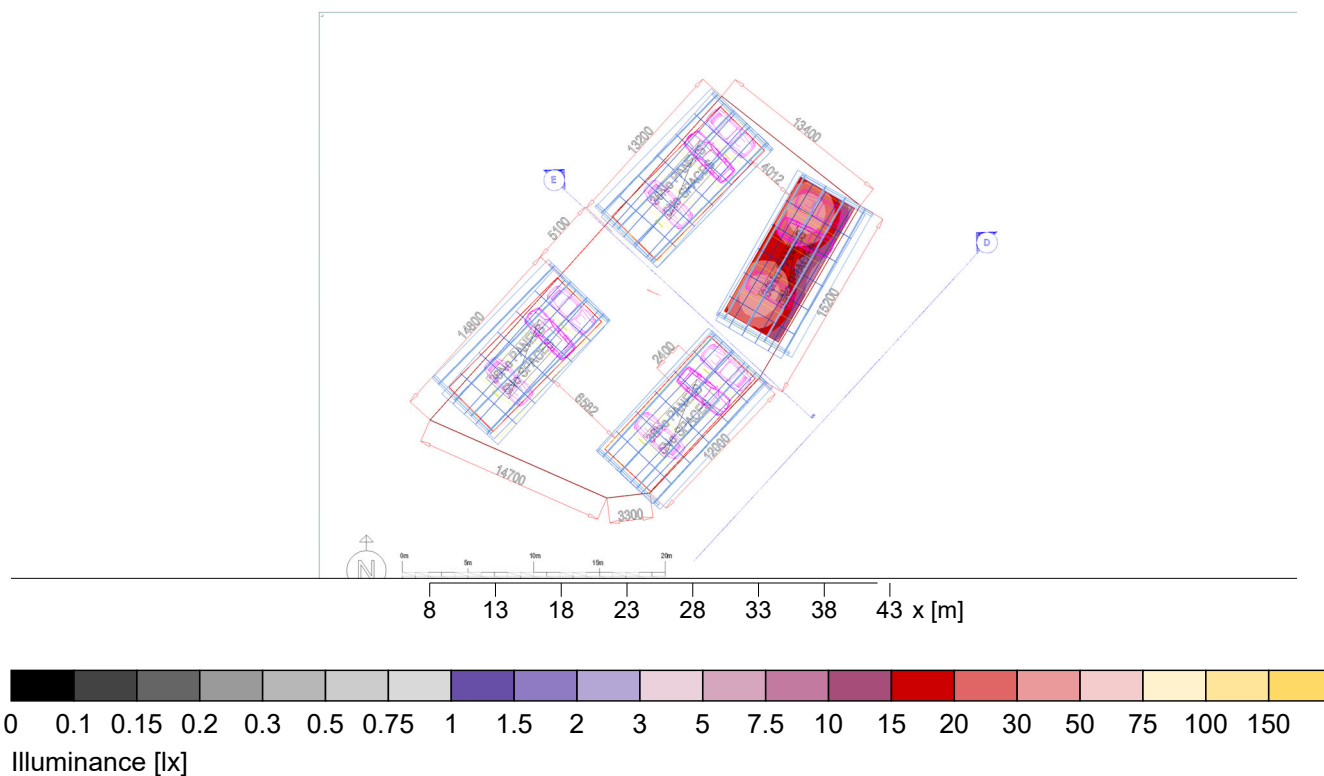
Type No. Make

1	8 x	OVIA	
		Order No.	: OV15W (4000K)
		Luminaire name	: VELO
		Equipment	: 1 x LED 15 W / 1650 lm

Object : Solar Car Port Lighting 2
Installation :
Project number : LS04453
Date : 16.06.2025

1.2 Summary, Exterior 1

1.2.2 Result overview, Measuring area 2.1



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Height (phot. centre) [m]:	3.03 m
Maintenance factor	0.80

Total luminous flux	13200 lm
Total power	120 W
Total power per area (481.20 m ²)	0.25 W/m ²

Illuminance

Average illuminance	$\bar{E}_m$	24.2 lx
Minimum illuminance	E_{min}	9.1 lx
Maximum illuminance	E_{max}	44.8 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:2.65 (0.38)
Diversity U_d	E_{min}/E_{max}	1:4.91 (0.2)

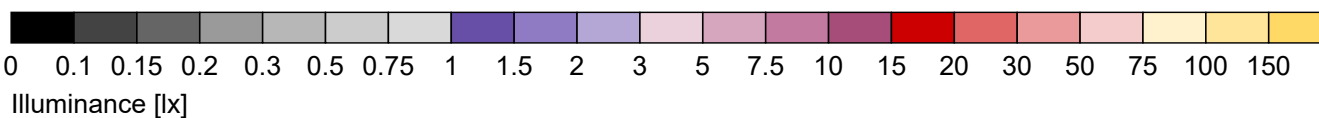
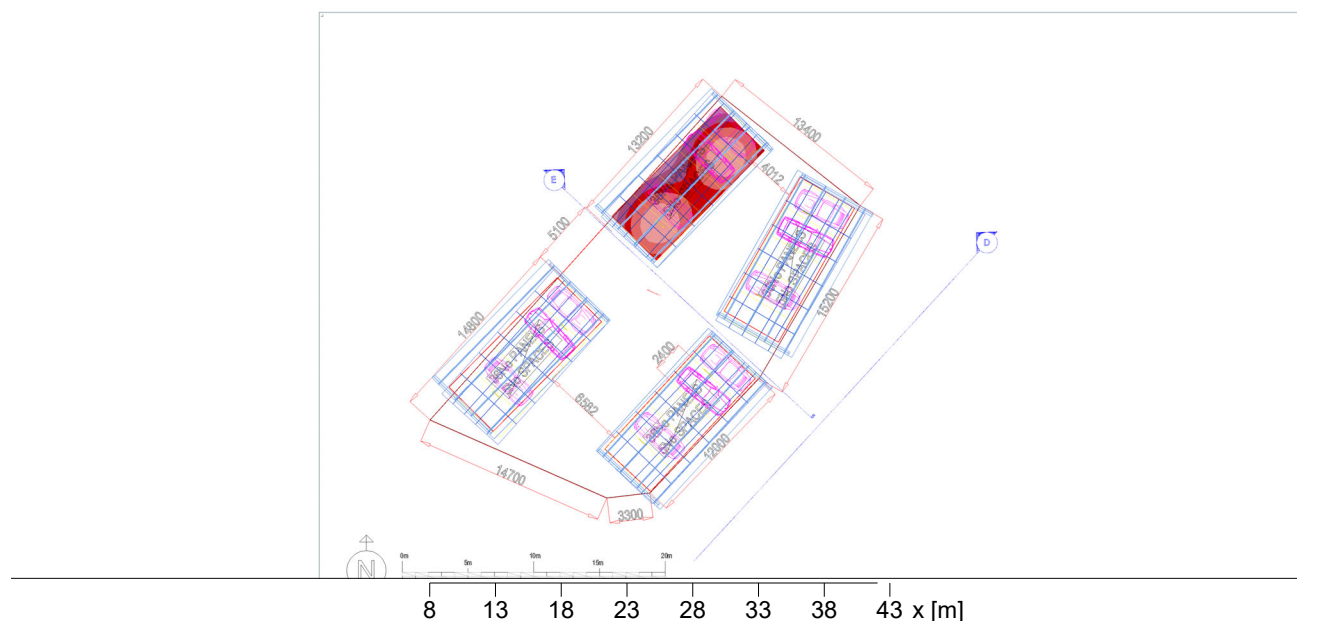
Type No. Make

1	8 x	OVIA	
		Order No.	: OV15W (4000K)
		Luminaire name	: VELO
		Equipment	: 1 x LED 15 W / 1650 lm

Object : Solar Car Port Lighting 2
Installation :
Project number : LS04453
Date : 16.06.2025

1.2 Summary, Exterior 1

1.2.3 Result overview, Measuring area 3.1



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	-0.00 m
Height (phot. centre) [m]:	3.03 m
Maintenance factor	0.80

Total luminous flux	13200 lm
Total power	120 W
Total power per area (481.20 m²)	0.25 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	23.7 lx
Minimum illuminance	E_{min}	8.9 lx
Maximum illuminance	E_{max}	43.7 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:2.66 (0.38)
Diversity U_d	E_{min}/E_{max}	1:4.9 (0.2)

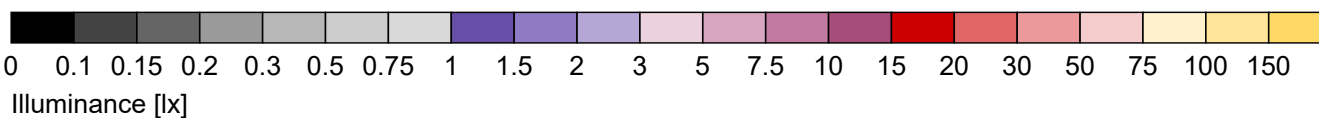
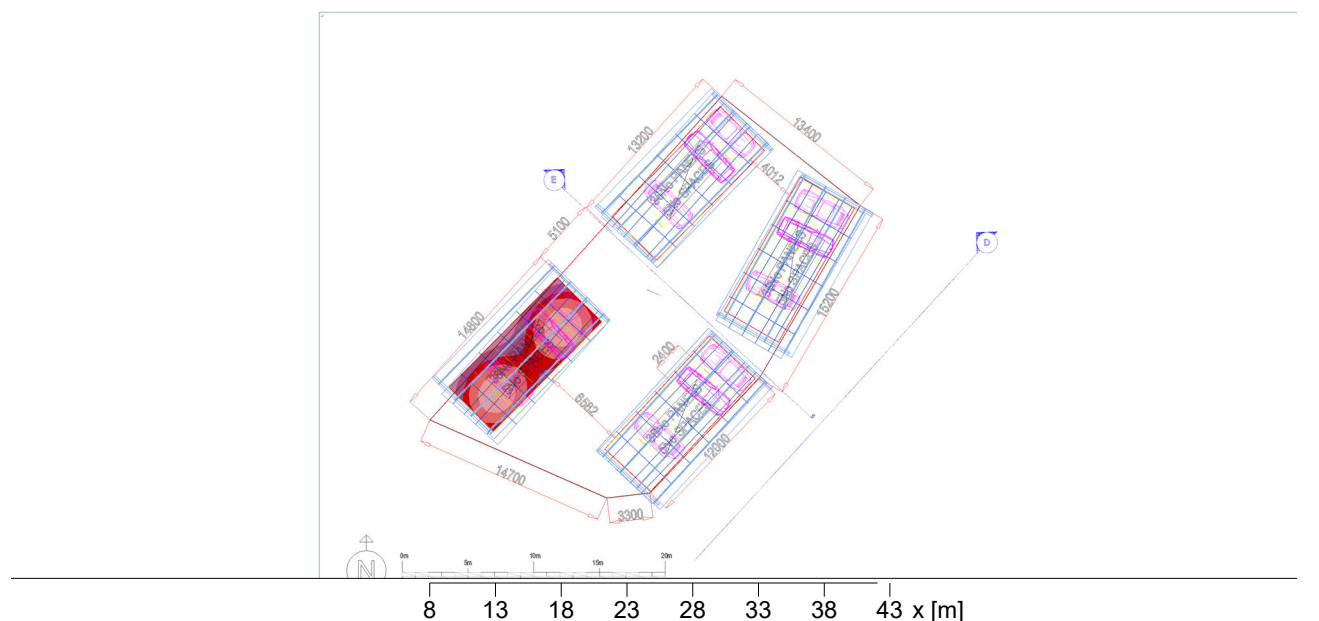
Type No. Make

1	8 x	OVIA	
		Order No.	: OV15W (4000K)
		Luminaire name	: VELO
		Equipment	: 1 x LED 15 W / 1650 lm

Object : Solar Car Port Lighting 2
Installation :
Project number : LS04453
Date : 16.06.2025

1.2 Summary, Exterior 1

1.2.4 Result overview, Measuring area 4.1



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	-0.00 m
Height (phot. centre) [m]:	3.03 m
Maintenance factor	0.80

Total luminous flux	13200 lm
Total power	120 W
Total power per area (481.20 m²)	0.25 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	23 lx
Minimum illuminance	E_{min}	8.6 lx
Maximum illuminance	E_{max}	43.4 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:2.66 (0.38)
Diversity U_d	E_{min}/E_{max}	1:5.02 (0.2)

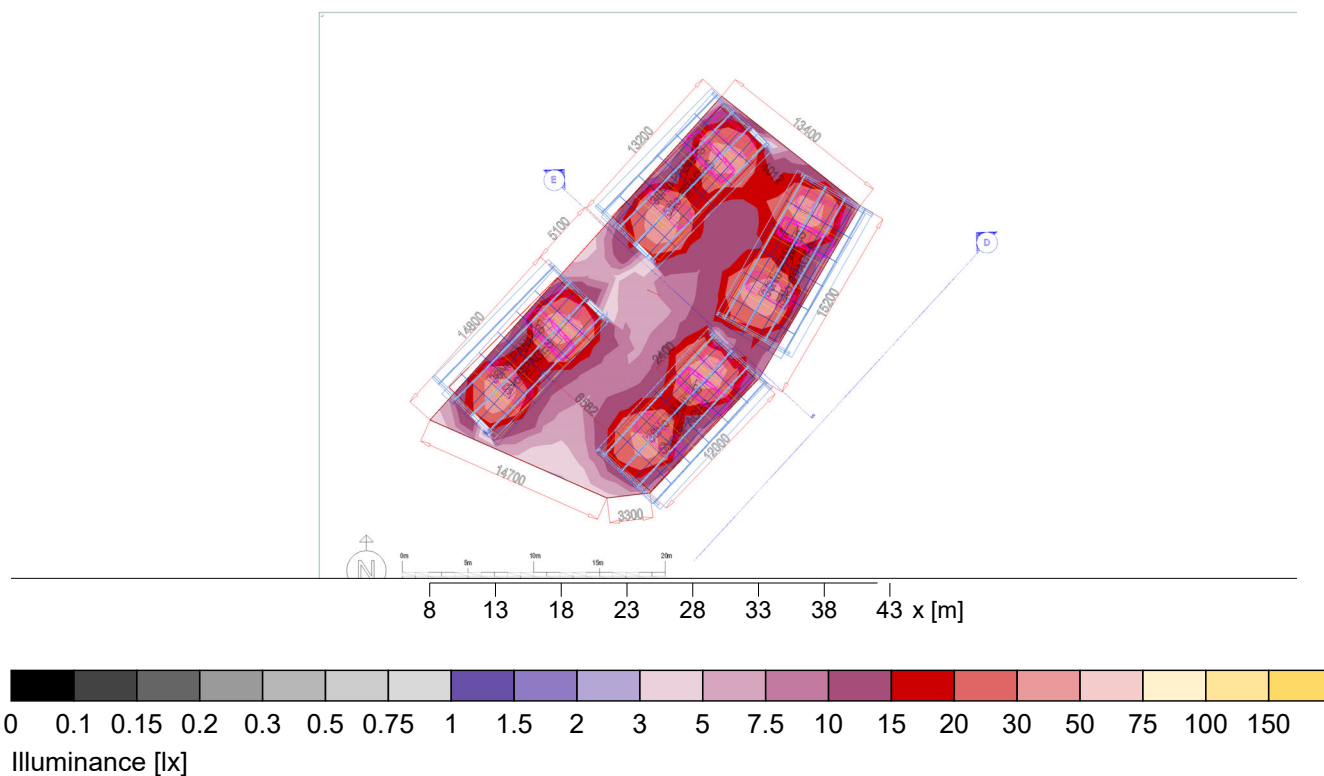
Type No. Make

1	8 x	OVIA	
		Order No.	: OV15W (4000K)
		Luminaire name	: VELO
		Equipment	: 1 x LED 15 W / 1650 lm

Object : Solar Car Port Lighting 2
Installation :
Project number : LS04453
Date : 16.06.2025

1.2 Summary, Exterior 1

1.2.5 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Height (phot. centre)	3.03 m
Maintenance factor	0.80
Total lamp luminous flux	13200 lm
Luminaire luminous flux	13200 lm
Total power	120.0 W
Total power per area (481.20 m ²)	0.25 W/m ² (1.55 W/m ² /100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
$\bar{E}_m$	16.1 lx
E_{min}	3.8 lx
$E_{min}/\bar{E}_m (U_o)$	0.24
$E_{min}/E_{max} (U_d)$	0.09
Position	0.00 m

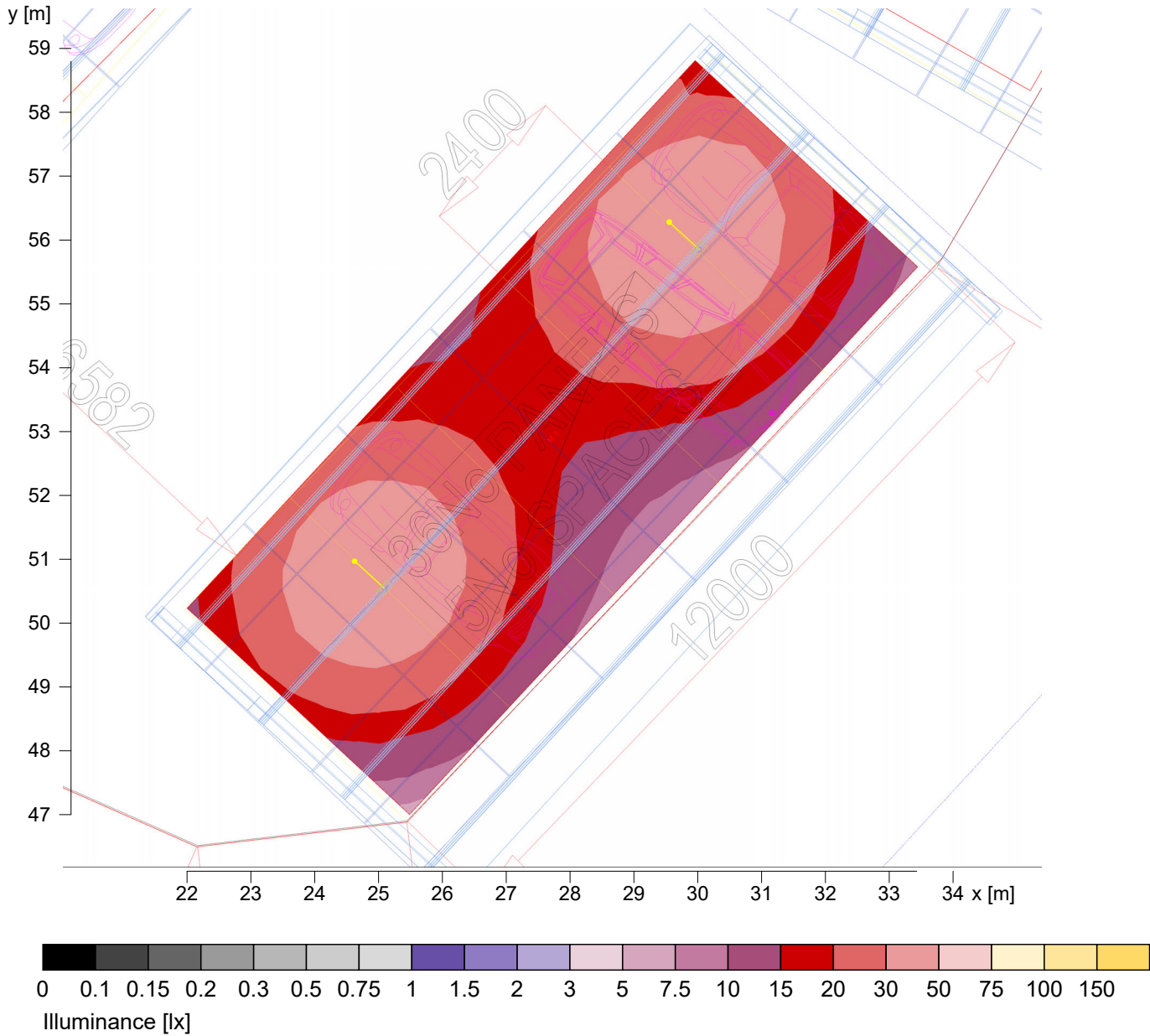
Type No. \Make

1	8 x	OVIA	
		Order No.	: OV15W (4000K)
		Luminaire name	: VELO
		Equipment	: 1 x LED 15 W / 1650 lm

1 Exterior 1

1.3 Calculation results, Exterior 1

1.3.1 Pseudo colours, Measuring area 1.1 (E)

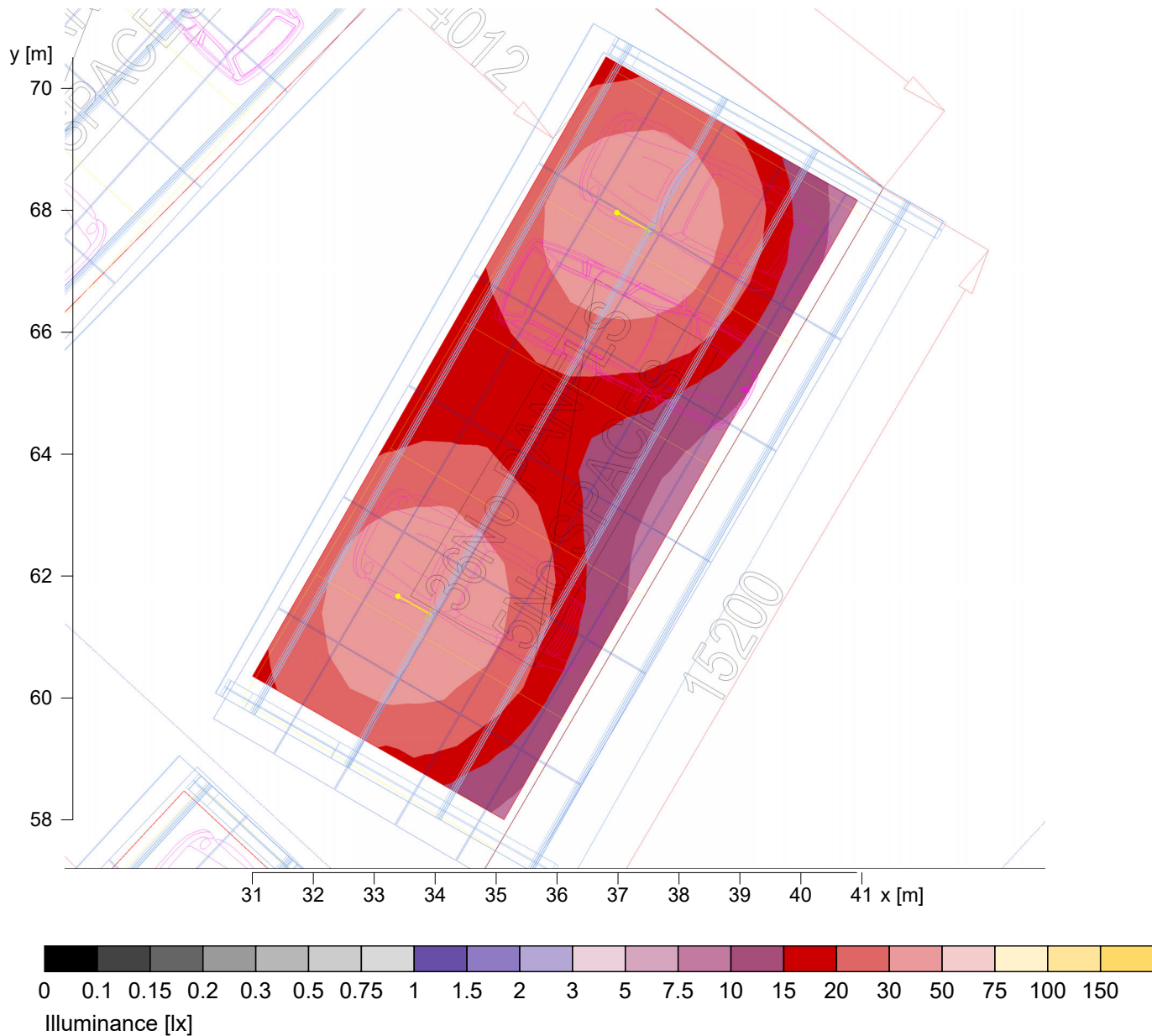


Height reference plane		: 0.00 m
Average illuminance	$\bar{E}_m$	: 23.6 lx
Minimum illuminance	E_{min}	: 8.7 lx
Maximum illuminance	E_{max}	: 44.5 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	: 1 : 2.71 (0.37)

Object : Solar Car Port Lighting 2
Installation :
Project number : LS04453
Date : 16.06.2025

1.3 Calculation results, Exterior 1

1.3.2 Pseudo colours, Measuring area 2.1 (E)

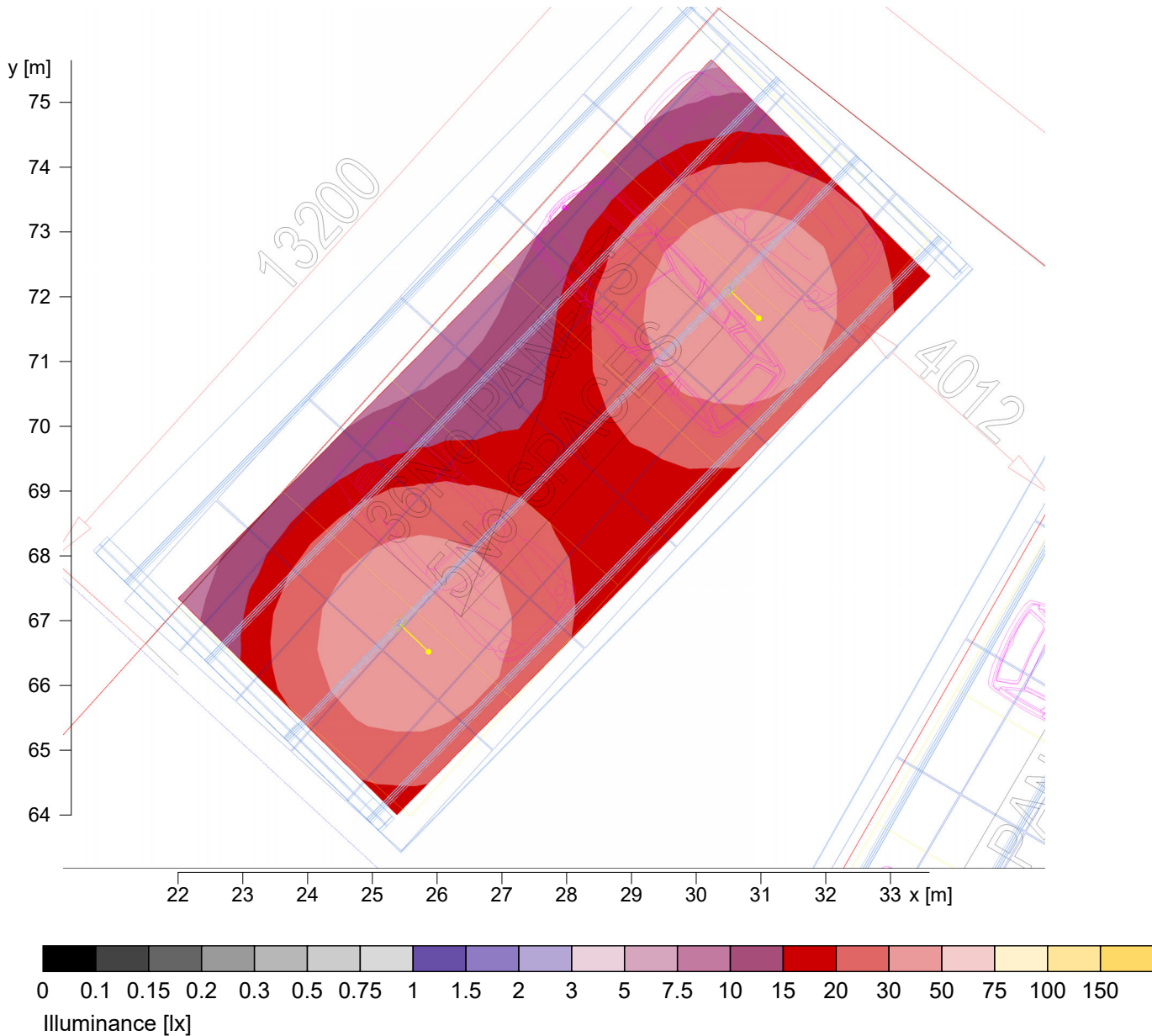


Height reference plane		: 0.00 m
Average illuminance	$\bar{E}_m$	: 24.2 lx
Minimum illuminance	E_{min}	: 9.1 lx
Maximum illuminance	E_{max}	: 44.8 lx
Uniformity U_0	$E_{min}/\bar{E}_m$	: 1 : 2.65 (0.38)

Object : Solar Car Port Lighting 2
Installation :
Project number : LS04453
Date : 16.06.2025

1.3 Calculation results, Exterior 1

1.3.3 Pseudo colours, Measuring area 3.1 (E)



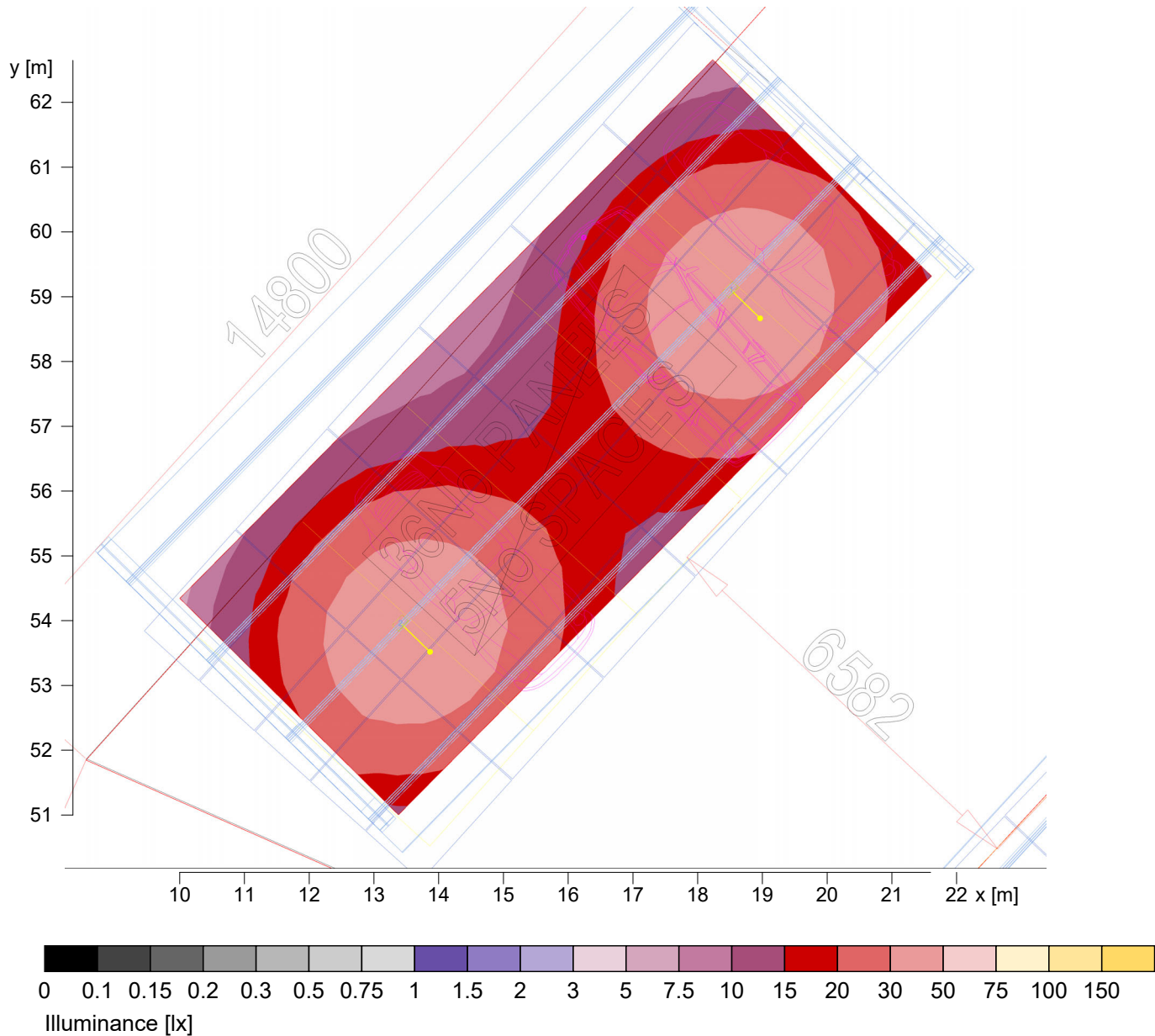
Height reference plane
Average illuminance
Minimum illuminance
Maximum illuminance
Uniformity U_0

: 0.00 m
 $\bar{E}_m$: 23.7 lx
 E_{min} : 8.9 lx
 E_{max} : 43.7 lx
 $E_{min}/\bar{E}_m$: 1 : 2.66 (0.38)

Object : Solar Car Port Lighting 2
Installation :
Project number : LS04453
Date : 16.06.2025

1.3 Calculation results, Exterior 1

1.3.4 Pseudo colours, Measuring area 4.1 (E)

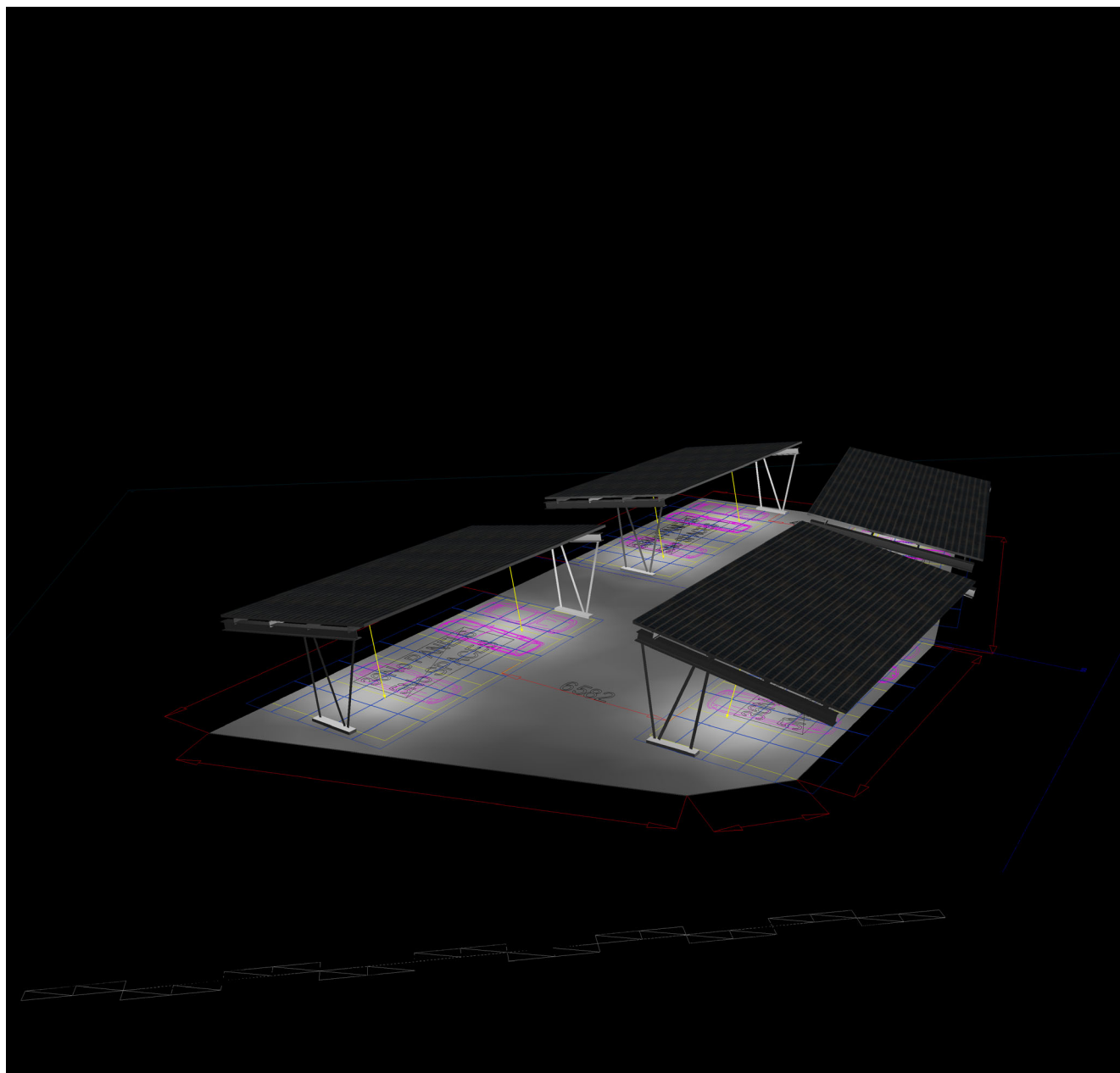


Height reference plane		: 0.00 m
Average illuminance	$\bar{E}_m$	: 23 lx
Minimum illuminance	E_{min}	: 8.6 lx
Maximum illuminance	E_{max}	: 43.4 lx
Uniformity U_0	$E_{min}/\bar{E}_m$	: 1 : 2.66 (0.38)

Object : Solar Car Port Lighting 2
Installation :
Project number : LS04453
Date : 16.06.2025

1.3 Calculation results, Exterior 1

1.3.5 3D luminance, View 1



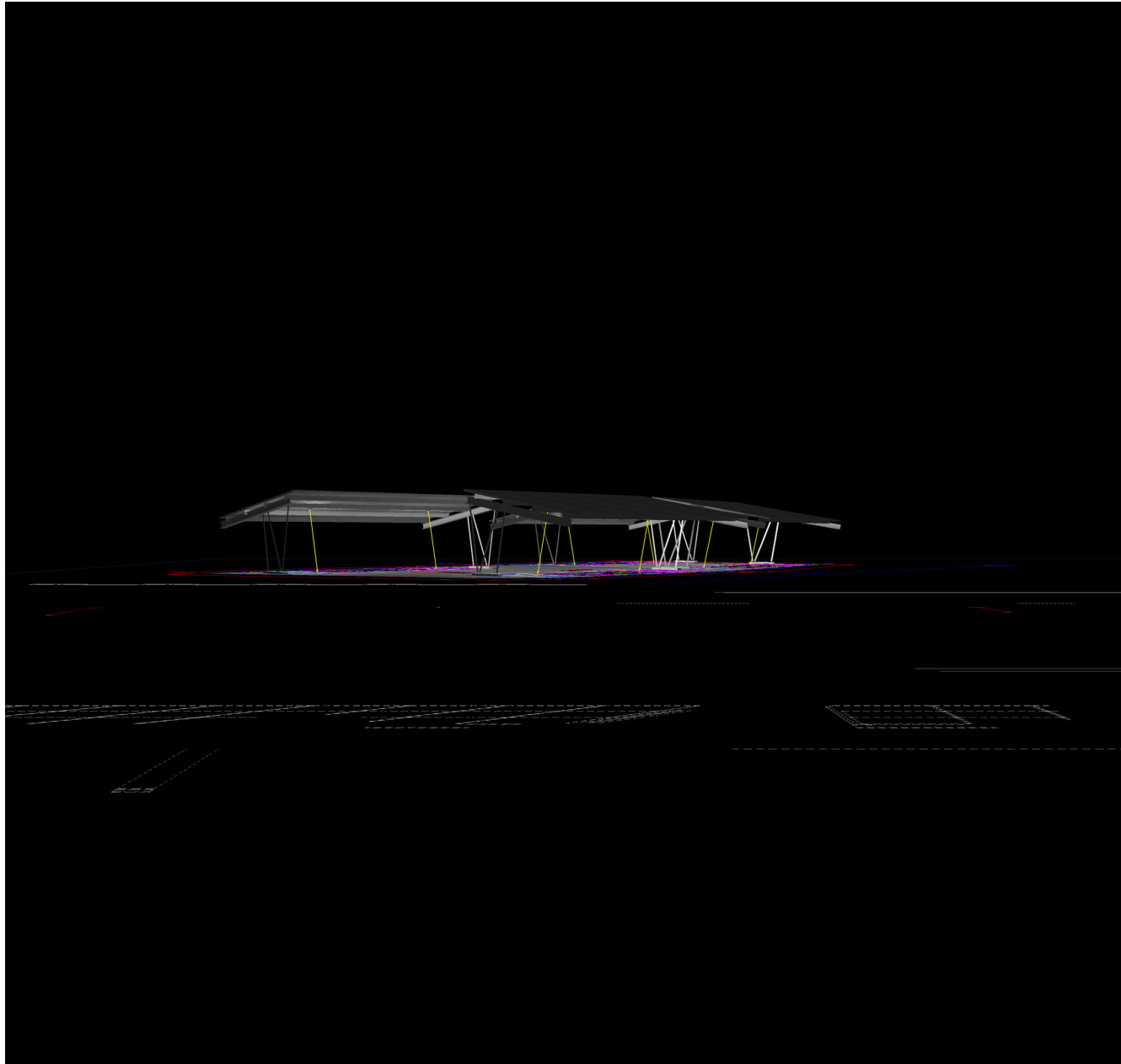
Luminance in the scene

Minimum: : 0 cd/m²
Maximum: : 20.8 cd/m²

Object : Solar Car Port Lighting 2
Installation :
Project number : LS04453
Date : 16.06.2025

1.3 Calculation results, Exterior 1

1.3.6 3D luminance, View from the front



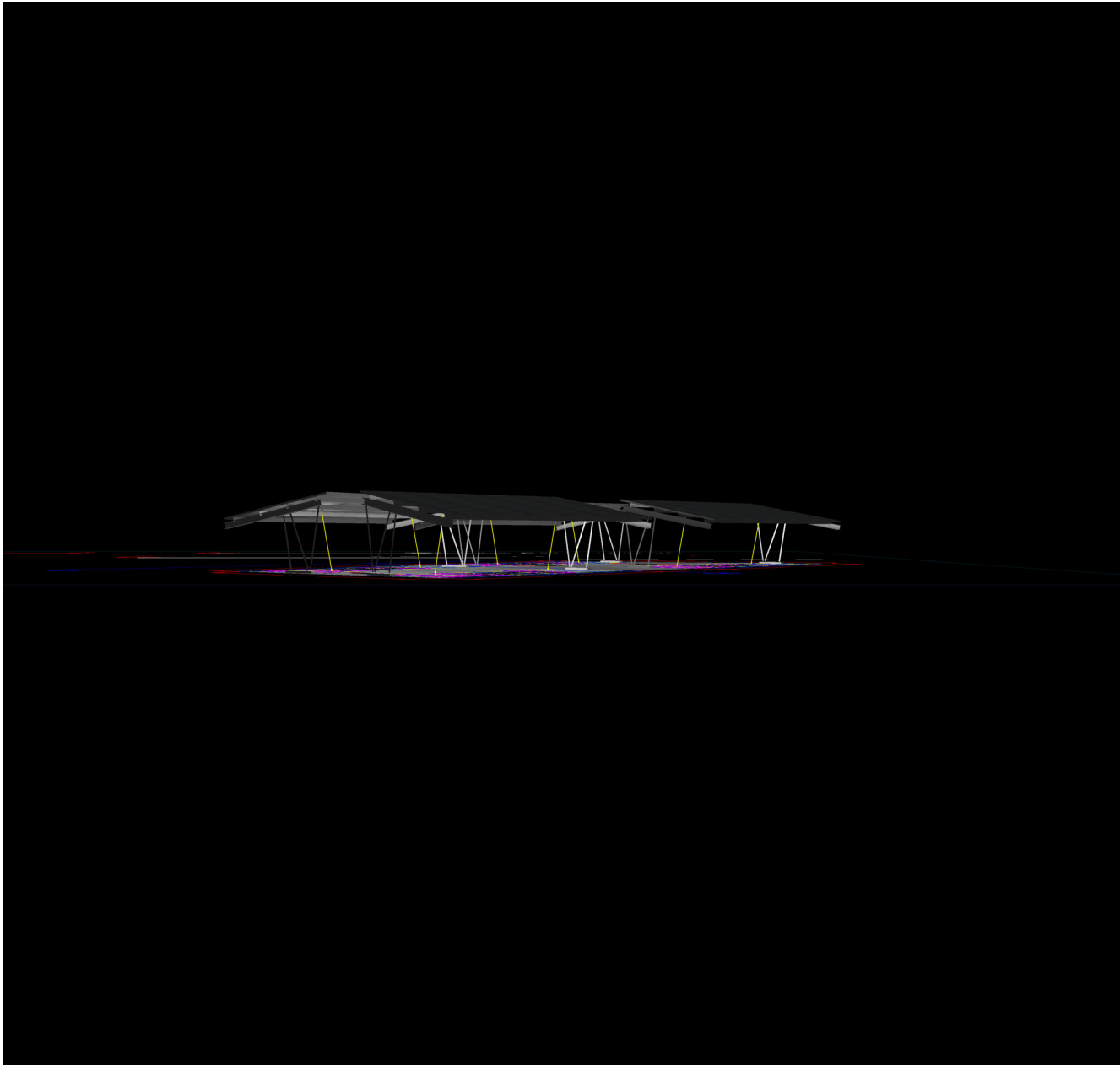
Luminance in the scene

Minimum: : 0 cd/m²
Maximum: : 20.8 cd/m²

Object : Solar Car Port Lighting 2
Installation :
Project number : LS04453
Date : 16.06.2025

1.3 Calculation results, Exterior 1

1.3.7 3D luminance, View from the back



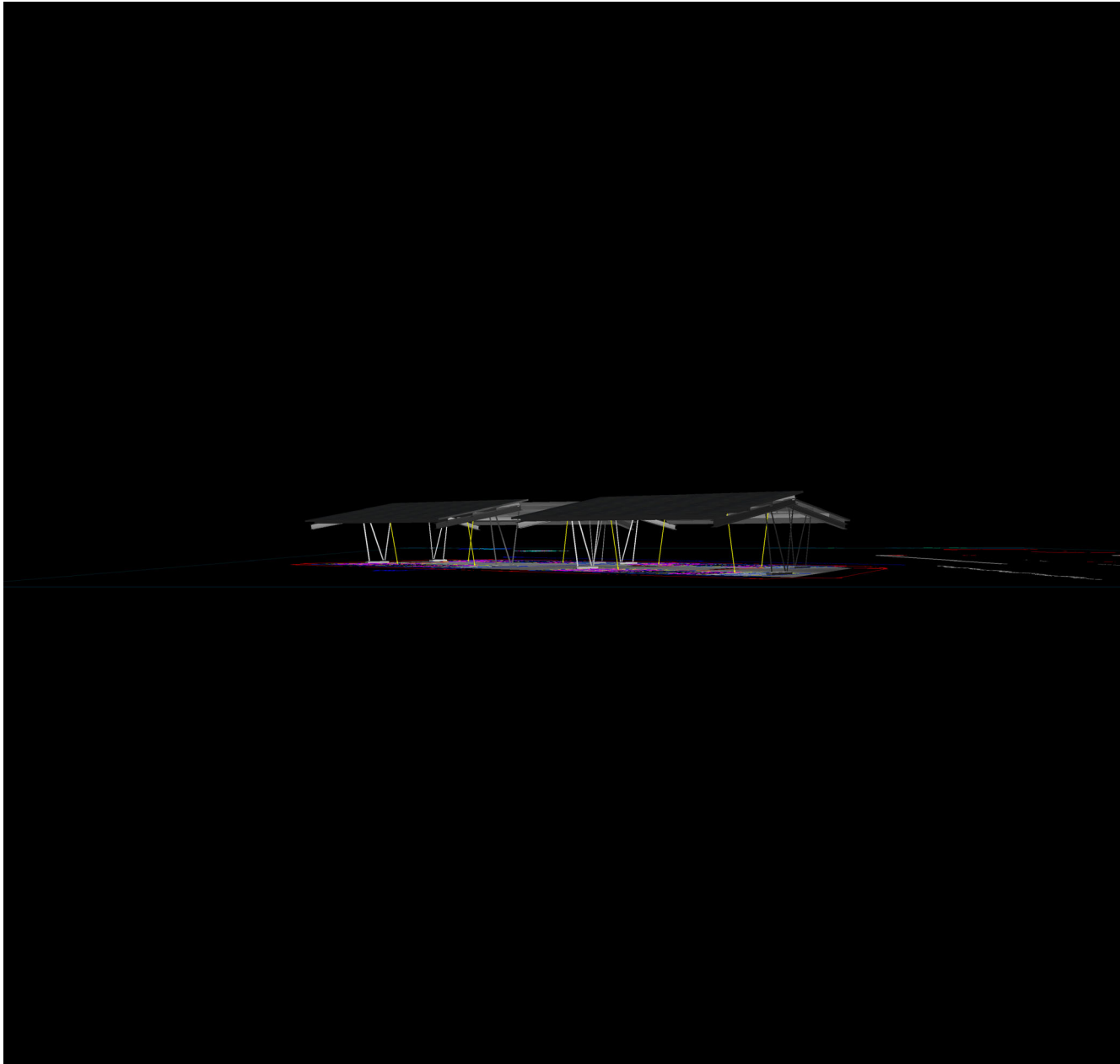
Luminance in the scene

Minimum: : 0 cd/m²
Maximum: : 20.8 cd/m²

Object : Solar Car Port Lighting 2
Installation :
Project number : LS04453
Date : 16.06.2025

1.3 Calculation results, Exterior 1

1.3.8 3D luminance, View from the left



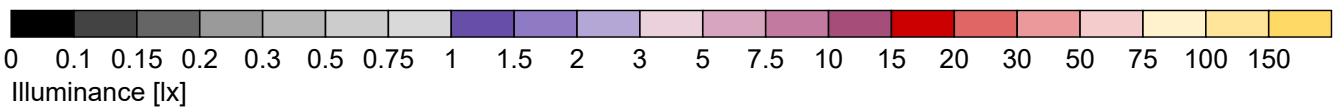
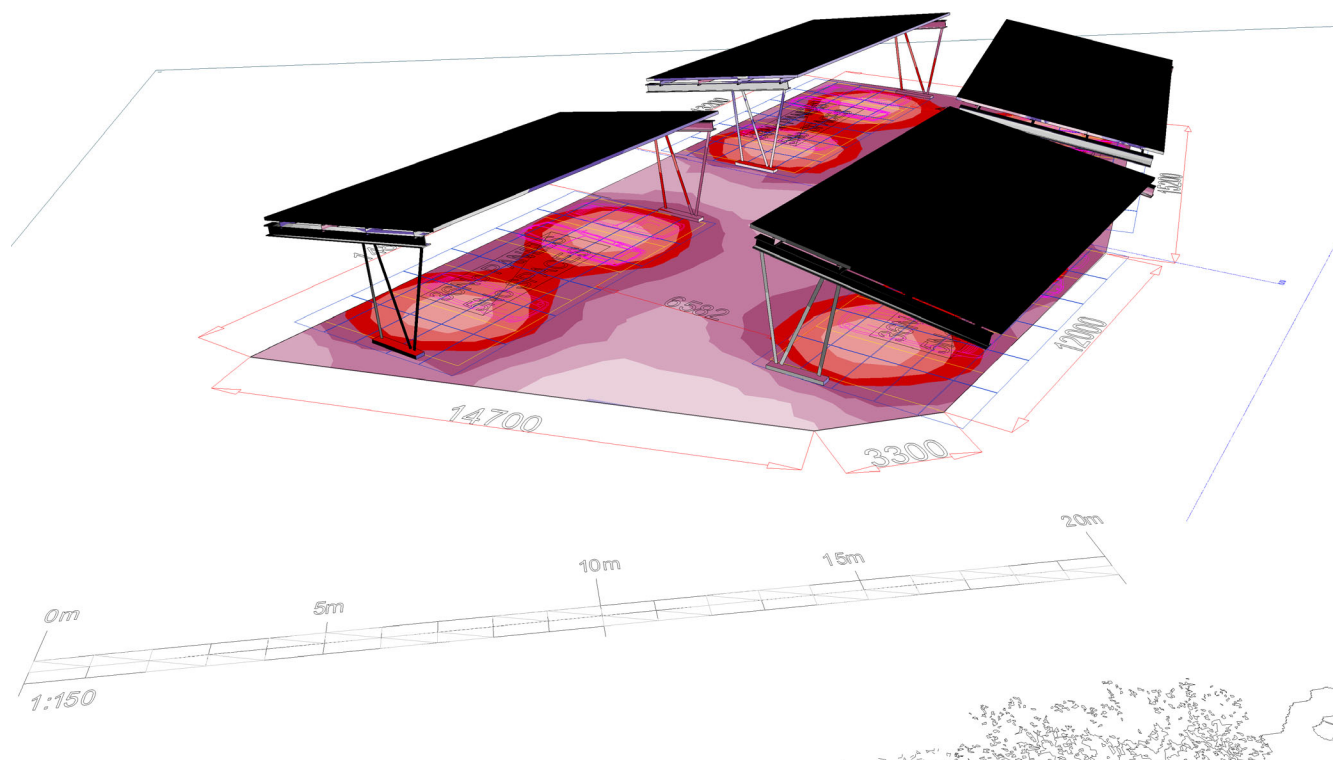
Luminance in the scene

Minimum: : 0 cd/m²
Maximum: : 20.8 cd/m²

Object : Solar Car Port Lighting 2
Installation :
Project number : LS04453
Date : 16.06.2025

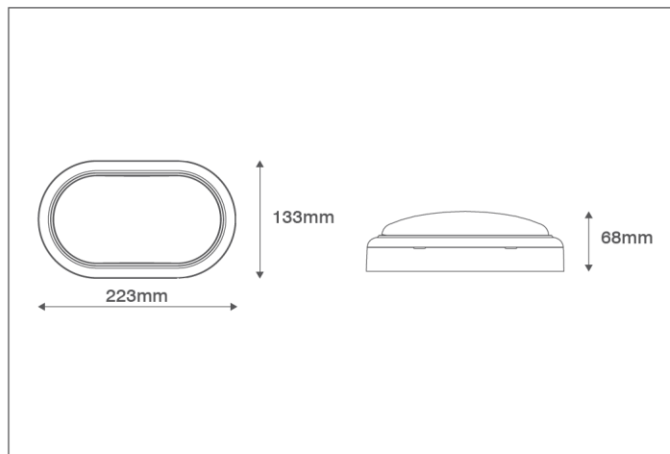
1.3 Calculation results, Exterior 1

1.3.9 3D pseudo colours, View 1 (E)



[illegible]

2.2 Luminaire Specifications



General Information

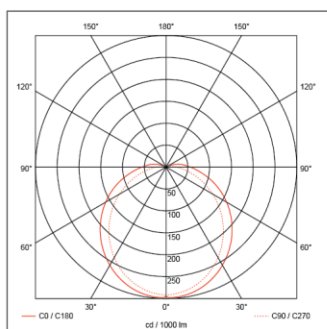
Dimensions (mm)	221 (L) x 131 (W) x 68 (D)
Materials	Base & Diffuser: Polycarbonate (UV Stabilised)
Colour	White
Product Weight (Kg)	0.35
Ingress Protection	IP65
Impact Rating (IK)	06
Flammability Rating	V2
Mounting	Ceiling or Wall
Warranty (Years)	2

Luminaire Output

Colour Temperature (K)	3000	4000	6500
Typical Luminous Flux (lm)	1500	1650	1500
Efficacy (lm/W)	100	110	100
Beam Angle (°)	110		
Colour Rendering Index (CRI)	>80		
LED Lifetime (L70) (Hours)	25000		

Supply & Power Information

Continuous Operating Voltage (AC) (Hz)	220-240 (50)
Safety Class	II
Circuit Wattage (W)	15
LED Wattage (W)	15
Input Current (mA)	85
Power Factor	>0.5
Driver Information	Integrated
Operating Temperature (°C)	-25 to +35
Input Terminations	2 Pole Screw Terminals



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Catalogue



Section

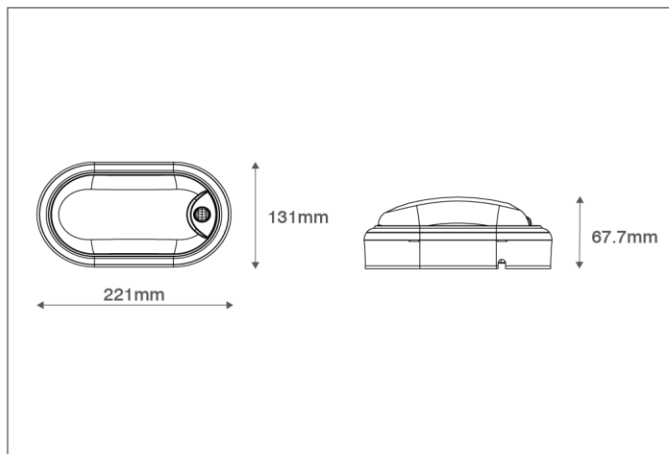


DoC



Installation





General Information

Dimensions (mm)	221 (L) x 131 (W) x 68 (D)
Materials	Base & Diffuser: Polycarbonate (UV Stabilised)
Colour	White
Product Weight (Kg)	0.35
Ingress Protection	IP54
Impact Rating (IK)	06
Flammability Rating	V2
Mounting	Ceiling or Wall
Warranty (Years)	2

Supply & Power Information

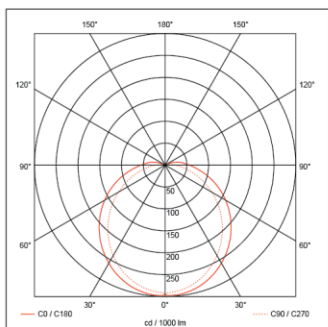
Continuous Operating Voltage (AC) (Hz)	220-240 (50)
Safety Class	II
Circuit Wattage (W)	15
LED Wattage (W)	15
Input Current (mA)	70
Power Factor	>0.5
Driver Information	Integrated
Operating Temperature (°C)	-25 to +35
Input Terminations	2 Pole Screw Terminals

Luminaire Output

Colour Temperature (K)	3000	4000	6500
Typical Luminous Flux (lm)	1500	1650	1500
Efficacy (lm/W)	100	110	100
Beam Angle (°)	110		
Colour Rendering Index (CRI)	>80		
LED Lifetime (L70) (Hours)	25000		

Sensor Information

Detection Distance (m)	6
Detection Angle (°)	120
Light Level Settings (Lux)	5
Time Delay Settings	30 Secs



WARRANTY

2

IP54



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Catalogue



Section



DoC



Installation



3 Assumptions & Clarifications

3.1 Assumptions

3.1.1 Reflectance

The surface finish reflectance values used in the above calculations, unless otherwise expressed, will be as follows:

- Floor: 0.2
- Ceiling: 0.7
- Wall: 0.5

Maintenance Factor

The Maintenance Factor used in the above calculations, unless otherwise expressed, will be as follows:

- 0.8

3.1.2 Unknown Elements

There may be cases of unknown elements not apparent until works commence, these can be defined as:

New Build Projects

Some building elements may not be apparent from the drawings provided, and could affect the design of the system, i.e. drop beams, fire walls and fire curtains etc.

Existing Premises

The existing systems may contain elements which are not apparent or available upon survey or reading drawings supplied, i.e. rooms locked and unavailable for inspection, cable earth faults, incompatible devices/equipment, missing devices, devices existing but not indicated.

Whilst the above are not common, they do sometimes occur, causing unwanted delay. In cases of such delay where completion cannot be achieved in line with the programme of works, and/or further time or materials are required to complete, this is excluded from the scope, and subject to variation order and additional costs.

4 Exclusions

4.1 Qualifications and Variations

The following comments should be read in conjunction with this preliminary tender submission:

- All equipment offered shall be standard OVIA equipment and shall be offered in standard colours.
- All luminaires shall be surface mounted.
- This preliminary tender submission offer does not include for detection.
- This preliminary tender submission does not include for any equipment associated with any fireman's control panel, smoke extract systems or ventilation systems.
- As details have not been made available ceiling heights have been assumed.
- OVIA have assumed there is no racking, ceiling beams, purlins or any other obstruction in place which could affect the design methodology.
- OVIA have assumed no phased evacuation is required.
- OVIA have assumed there are flat ceilings with no ceiling beams/ obstructions etc.
- The design has been based solely on drawings and listed documents given to OVIA, at this stage OVIA have not carried out a site survey and therefore any further equipment required from a resultant site visit to meet the requirements of BS5266 would be subject to additional costs.
- OVIA reserve the right to amend the design and costs at a later date should further information come to light which is not available now but could affect the design philosophy currently being put together.
- The certification for the installation of the system with respect to compliance with BS 5266 & BS 7671 including cabling methodology is the responsibility of others.
- The designer is not responsible for any changes, modifications carried out on the design at any time in the future.
- A test period would be recommended of at least 1 week.
- The actual design of Lighting scheme was provided by yourselves as shown on the tender drawings supplied with your enquiry. As such the responsibility of the design would be down to others.
- Our proposals are therefore based generally upon the summated types and quantities of equipment you have specified, we also assume that the responsibility of the design would be down to others.
- No legend has been made available & as such we have made assumptions as to the nature of certain items of equipment
- If by incorrect assumptions or items not identified as forming part of the Lighting scheme and further equipment is needed then this would be subject to additional costs.
- The design has been put together based on the drawings provided. However, should further items of equipment be required to meet the requirements of BS 5266 this would be subject to additional costs.
- Any variations to this design must be agreed and may incur additional equipment and / or cost.