OZELENITEV CENTRA ŽETAL

Installation : Elektrotehnika

Project number	:	30021-23-K/AP
Customer	:	OBČINA Žetale
Processed by	:	Boris Leben
Date	:	03.04.2025

Project description:
razsvetljava pokopališča

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.

1 Luminaire data

1.1 Siteco, DL 30 LED, P1.0a, 4000 K,... (5XA5132S1B08A3)

1.1.1 Data sheet

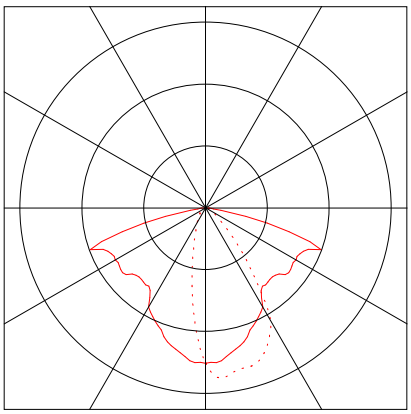
Manufacturer: Siteco

5XA5132S1B08A3 **DL 30 LED, P1.0a, 4000 K, Plus**

Luminaire data		
Luminaire efficiency	:	100%
Luminaire efficacy	:	136 lm/W
Classification	:	A40 □100.0% ↑0.0%
CIE Flux Codes	:	48 76 97 100 100
Glare	:	G*3 / D6
Power	:	20 W
Luminous flux	:	2720 lm

Equipped with		
Quantity	:	1
Designation	:	luminous flux: 100 % | dim-lin: 254 | 202 mA
Colour	:	4000 K
Luminous flux	:	2720 lm
Colour reproduction	:	70

Dimensions : 510 mm x 600 mm x 290 mm



1 Luminaire data

1.2 ANSELL, BOLLARDS - Aries 4000K (AARIES/900/BL/CW)

1.2.1 Data sheet

Manufacturer: ANSELL

AARIES/900/BL/CW **Freestanding uplighter** **BOLLARDS - Aries 4000K**
AARIES/900/BL/CW
AMENITY
Aries LED Bollard
LED

• Robust die-cast aluminium bollard with a choice of textured finishes suitable for commercial applications

• Supplied c/w root mounting kit

• Non-dimmable

• Suitable for external use only
• 5 Year Product Warranty
• IP65

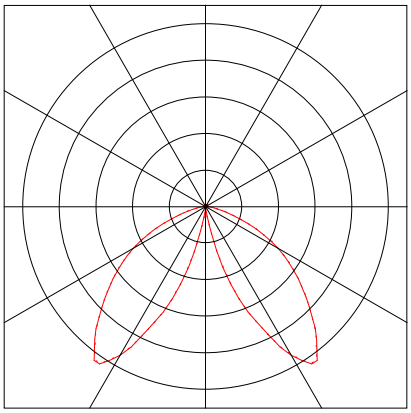
Luminaire data

Absolute Photometry		
Luminaire efficacy	:	60.15 lm/W
Classification	:	A40 □98.2% ↑1.8%
CIE Flux Codes	:	44 82 98 98 100
UGR 4H 8H	:	26.6 / 26.6
Control gear	:	Electronic ballast
Power	:	20.55 W
Luminous flux	:	1236 lm

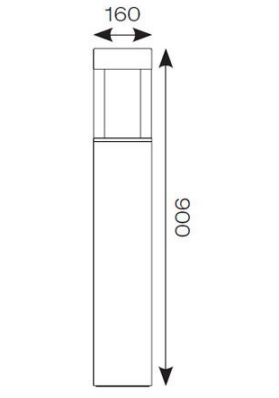
Dimensions : 160 mm x 160 mm x 60 mm

Equipped with

Quantity	:	1
Designation	:	LED single 840
Colour	:	4000K
Colour reproduction	:	--







1 Luminaire data

1.3 AEC Illuminazione, ARMONIA MINI (ARMONIA MINI 0F2H1 S05 3.5-1M)

1.3.1 Data sheet

Manufacturer: AEC Illuminazione

ARMONIA MINI 0F2H1 S05 3.5-1M Urban Lighting floodlight with street lighting optic - LED technology ARMONIA MINI

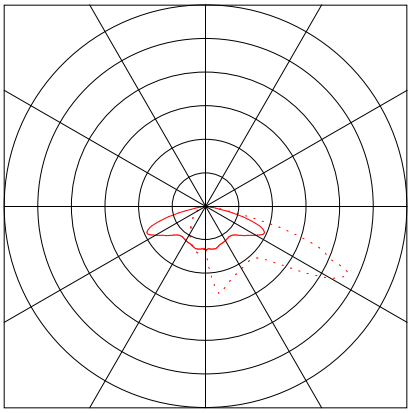
ARMONIA is the modern evolution of classic public lighting luminaires. Its retro style makes it the perfect luminaire for integration into both modern urban settings and historic town centres. The ARMONIA range is completed by a wide variety of luminaire groups, arms and brackets. Available in two different versions and sizes: ARMONIA MINI, ARMONIA 1, ARMONIA. ARMONIA LED is equipped with the LED Comfort Light OpticTM system.

Luminaire data

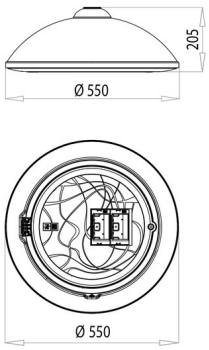
Absolute Photometry		
Luminaire efficacy	:	107.5 lm/W
Classification	:	A20 □100.0% ↑0.0%
CIE Flux Codes	:	27 61 96 100 100
UGR 4H 8H	:	39.4 / 24.0
Control gear	:	Electronic ballast
Power	:	16 W
Luminous flux	:	1719.9 lm
Dimensions	:	Ø550 mm x 205 mm

Equipped with

Quantity	:	1
Designation	:	ARMONIA MINI 0F2H1 S05 3.5-1M
Colour	:	3000K
Colour reproduction	:	70



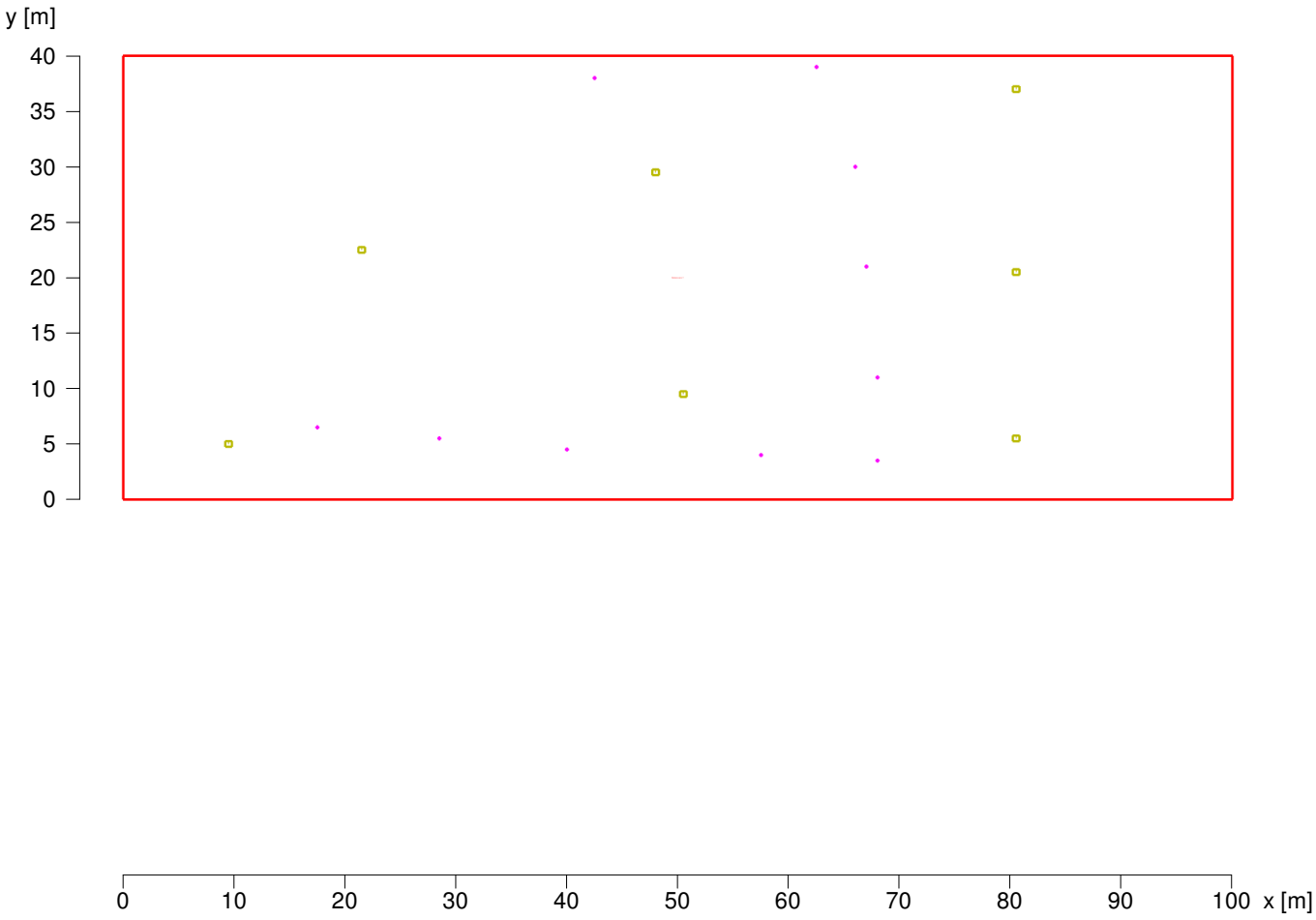




2 Exterior 1

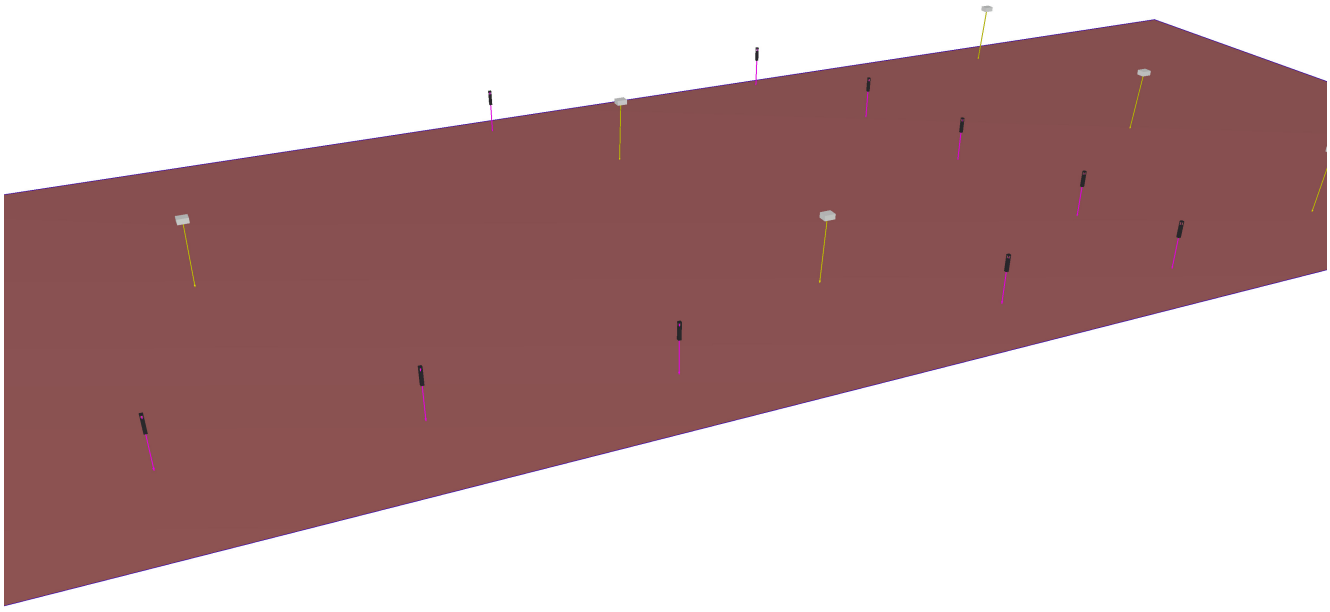
2.1 Description, Exterior 1

2.1.1 Floor plan



2.1 Description, Exterior 1

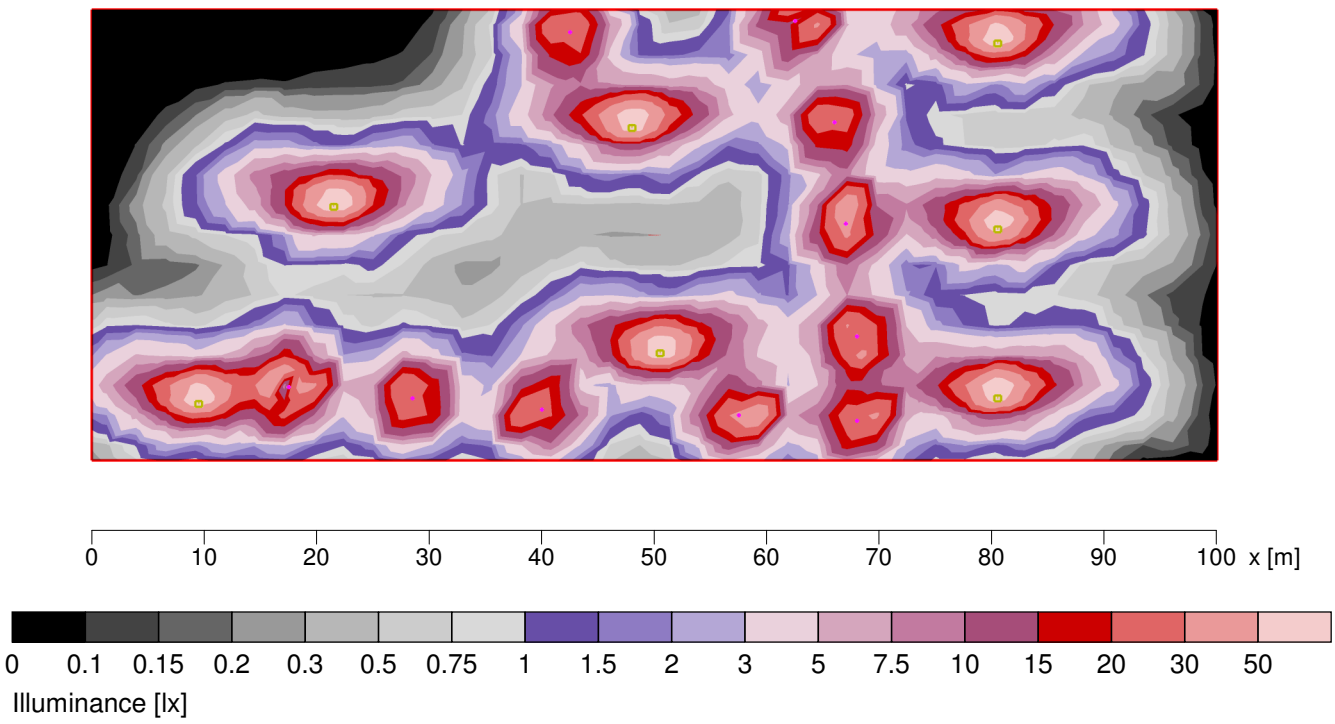
2.1.2 3D view, View 1



2 Exterior 1

2.2 Summary, Exterior 1

2.2.1 Result overview, Evaluation area 1



General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Luminaire luminous flux	31400 lm
Total power	345.5 W
Total power per area (4000.00 m²)	0.09 W/m² (1.46 W/m²/100lx)

Evaluation area 1	**Reference plane 1.1**
	Horizontal
$\bar{E}_m$	5.91 lx
E_{min}	0.01 lx
$E_{min}/\bar{E}_m$ (U_o)	0.00
E_{min}/E_{max} (U_d)	0.00
Position	0.00 m

Type No.\Make

		Siteco	
1	7 x	Order No.	: 5XA5132S1B08A3
		Luminaire name	: DL 30 LED, P1.0a, 4000 K, Plus
		Equipment	: 1 x luminous flux: 100 % | dim-lin: 254 | 202 mA 20 W / 2720 lm
		ANSELL	
2	10 x	Order No.	: AARIES/900/BL/CW
		Luminaire name	: BOLLARDS - Aries 4000K
		Equipment	: 1 x LED single 840 20.55 W / 1236 lm

2 Exterior 1

2.3 Calculation results, Exterior 1

2.3.1 Table, Reference plane 1.1 (E)

[m]																											
35	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	0.1	0.1	0.1	0.3	0.8	4.4	27.1	25.7	7.5	1.3	0.5	0.6	1.8	10.6	13.3	32.2	5.2	3.7	6.4
	(0)	(0)	(0)	(0)	(0)	(0)	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.7	2.8	15.8	19.7	4.4	1.4	1.4	1.7	1.5	3.8	12	6.7	3.3	2.4	2.4
	(0)	(0)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.5	1.2	2.9	7.2	9.8	7.7	7.2	6	6.2	3.8	2.3	3.9	6.6	7.5	2.6	0.9
30	(0)	0.1	0.1	0.2	0.4	0.6	0.4	0.3	0.3	0.4	0.6	0.6	0.8	1.7	4	9.2	19.1	41	63.8	25.6	12.5	5.3	3.4	6	26.6	24	6.8	1.5
	0.1	0.1	0.2	0.4	1.1	2.3	2.3	1.6	1.3	2.2	2.6	1.5	1	1.3	1.4	2.1	4.6	10.4	11.9	6.8	3.2	1.5	1.9	3.2	15.9	17.1	4	1.7
25	0.1	0.1	0.4	1.4	3.5	8.3	11.7	15.4	19.6	13.5	9.4	4.9	2.2	0.8	0.5	0.7	1.4	1.7	1.4	1.9	0.9	0.5	0.6	1.7	4.4	8.2	3.6	3.3
	0.1	0.2	0.5	1.4	2.9	5.9	14.7	46	66.6	19.7	7.9	3.6	2	0.8	0.5	0.4	0.5	0.5	0.4	0.5	0.4	0.4	0.6	1.9	9.6	42.4	10	7.7
20	0.1	0.2	0.4	0.5	0.8	0.9	2.1	5.2	4.7	3.1	1.2	0.8	0.7	0.6	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.7	2.4	12.9	32.3	13.1	4.8
	0.1	0.2	0.2	0.2	0.3	0.6	1	1	0.9	1.1	0.7	0.4	0.3	0.3	0.4	0.5	0.8	0.5	0.5	0.5	0.6	0.8	0.9	1.4	3.5	9.8	4	1.6
15	0.2	0.2	0.2	0.3	0.4	0.5	0.8	0.7	0.5	0.5	0.5	0.4	0.3	0.4	0.7	1.4	2.8	3	2.2	1.8	2.8	3.4	2.1	1.5	3	7.5	4.6	2.1
	0.9	1	0.8	0.6	1	1.7	3.1	1.6	0.9	0.7	1.1	0.8	0.6	0.8	1.8	4.3	9	13.8	20.5	26.4	16.5	10.6	5.8	3.5	7.5	30.7	20.1	5
10	3.1	5.1	4.6	3.5	5.2	9.3	18.3	7.6	2	2.4	5.6	3.6	1.6	1.4	3.1	5.3	6.1	13.5	39.8	58.2	18.9	9.2	4.7	3.5	5.6	23.7	20.8	7.2
	6.1	12.4	26.5	55.2	33.1	29.4	8	32.3	5.5	6.8	29.5	18.5	3.8	2.7	12.8	19.3	4.2	2.6	4.6	4.2	6.2	13	8.2	2.9	4.9	13.6	10.5	8.3
5	2	5.7	12.8	23.5	17.4	11.6	22.1	9.9	3.2	5.4	23	19.4	3.5	4.5	29.7	20.6	9.3	2.1	1.2	1.9	10.2	29.6	42.9	6.5	9.5	24.5	32	5.9
	0.4	1	2.6	1.9	3	2.1	3	1.5	1	1.8	4.6	2.8	1.3	1.6	4.9	9.2	2.9	0.7	0.5	0.8	3.3	12.2	7.9	2.5	3.8	17.7	13	2.5
		10			20			30			40			50			60			70								

Illuminance [lx]



Part1

Height reference plane		: 0.00 m
Average illuminance	$\bar{E}_m$	: 5.9 lx
Minimum illuminance	E_{min}	: 0 lx
Maximum illuminance	E_{max}	: 67.8 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	: 1 : 450.26 (0.00)

2 Exterior 1

2.3 Calculation results, Exterior 1

2.3.1 Table, Reference plane 1.1 (E)

12.7	27	55.1	31	14.8	7.4	3.5	1.2	0.4	0.1
5.9	13	23.3	16.3	6.8	2.5	1.8	1	0.4	0.1
1.2	2.7	1.9	2.7	1.3	0.5	0.3	0.2	0.2	0.1
0.8	0.7	0.6	0.6	0.6	0.4	0.3	0.2	0.1	0.1
1.1	0.7	0.6	0.6	0.8	0.9	0.5	0.2	0.1	0.1
4.1	3.4	2.1	3.1	3.8	2.8	1.2	0.5	0.2	0.1
12.2	22.1	40.6	24.7	13.5	7.2	3.4	1.2	0.4	0.1
8.6	18.8	46.9	22.8	9.7	3.5	2.2	1.1	0.4	0.2
1.5	3.5	2.7	3.7	1.4	0.7	0.5	0.4	0.3	0.2
1.1	1	0.8	0.8	0.8	0.6	0.4	0.2	0.1	0.1
2.2	1.5	0.9	1.1	1.4	1.4	0.6	0.3	0.2	0.1
7.2	6.4	6.1	6.7	6.9	4.7	1.9	0.8	0.3	0.1
14	30.3	**[67.8]**	34.8	15.8	7.2	3.4	1.2	0.4	0.2
4.4	8.3	11.5	8.9	4.1	1.7	1.3	0.9	0.3	0.1
1.4	2.1	1.3	1.9	1.1	0.5	0.2	0.1	0.2	0.1

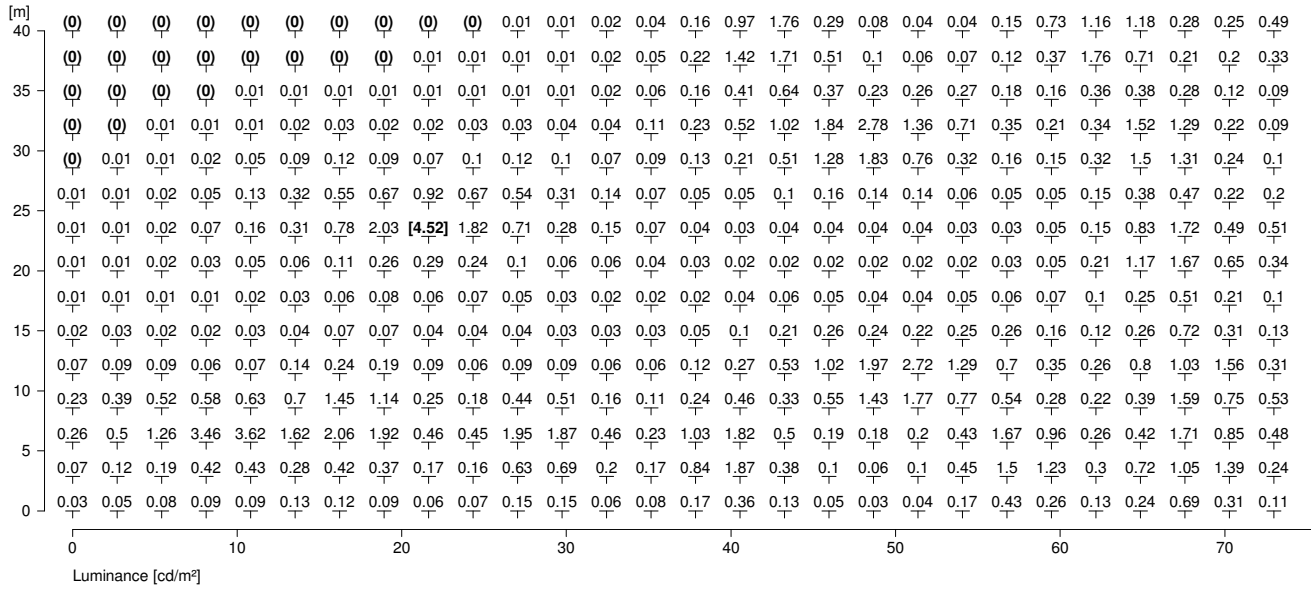
80 90 [m]



Part2

2.3 Calculation results, Exterior 1

2.3.2 Table, Floor (L)



Part1

Average luminance	$\bar{L}_m$	: 0.36 cd/m²
Minimum luminance	L_{min}	: 0 cd/m²
Maximum luminance	L_{max}	: 4.52 cd/m²

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2.3 Calculation results, Exterior 1

2.3.2 Table, Floor (L)

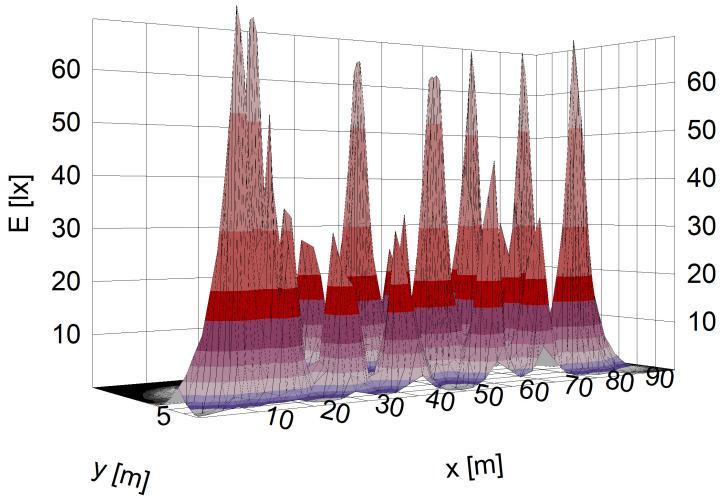
0.84	1.17	1.55	1.03	0.68	0.34	0.15	0.06	0.03	0.02
0.84	2.29	4.12	1.37	0.55	0.22	0.12	0.05	0.03	0.01
0.15	0.29	0.29	0.23	0.1	0.05	0.05	0.02	0.02	0.01
0.06	0.07	0.06	0.07	0.04	0.03	0.02	0.01	0.01	0.01
0.07	0.06	0.05	0.06	0.06	0.04	0.03	0.01	0.01	0.01
0.21	0.18	0.15	0.18	0.21	0.12	0.06	0.03	0.01	0.01
0.85	1.4	2.1	1.15	0.66	0.31	0.13	0.05	0.02	0.01
0.63	1.73	2.87	1.03	0.41	0.17	0.1	0.04	0.02	0.01
0.11	0.21	0.19	0.15	0.07	0.04	0.03	0.02	0.02	0.01
0.09	0.08	0.06	0.07	0.06	0.04	0.02	0.01	0.01	0.01
0.17	0.11	0.08	0.12	0.14	0.09	0.05	0.02	0.01	0.01
0.66	0.81	1.05	0.74	0.56	0.28	0.12	0.04	0.02	0.01
0.87	2.42	4.33	1.44	0.55	0.23	0.12	0.05	0.02	0.01
0.17	0.3	0.31	0.22	0.1	0.05	0.04	0.02	0.02	0.01
0.1	0.1	0.08	0.09	0.05	0.03	0.01	0.01	0.01	0.01

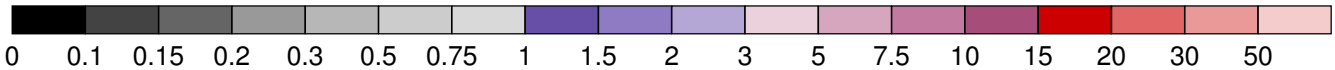
80 90 100 [m]

Part2

2.3 Calculation results, Exterior 1

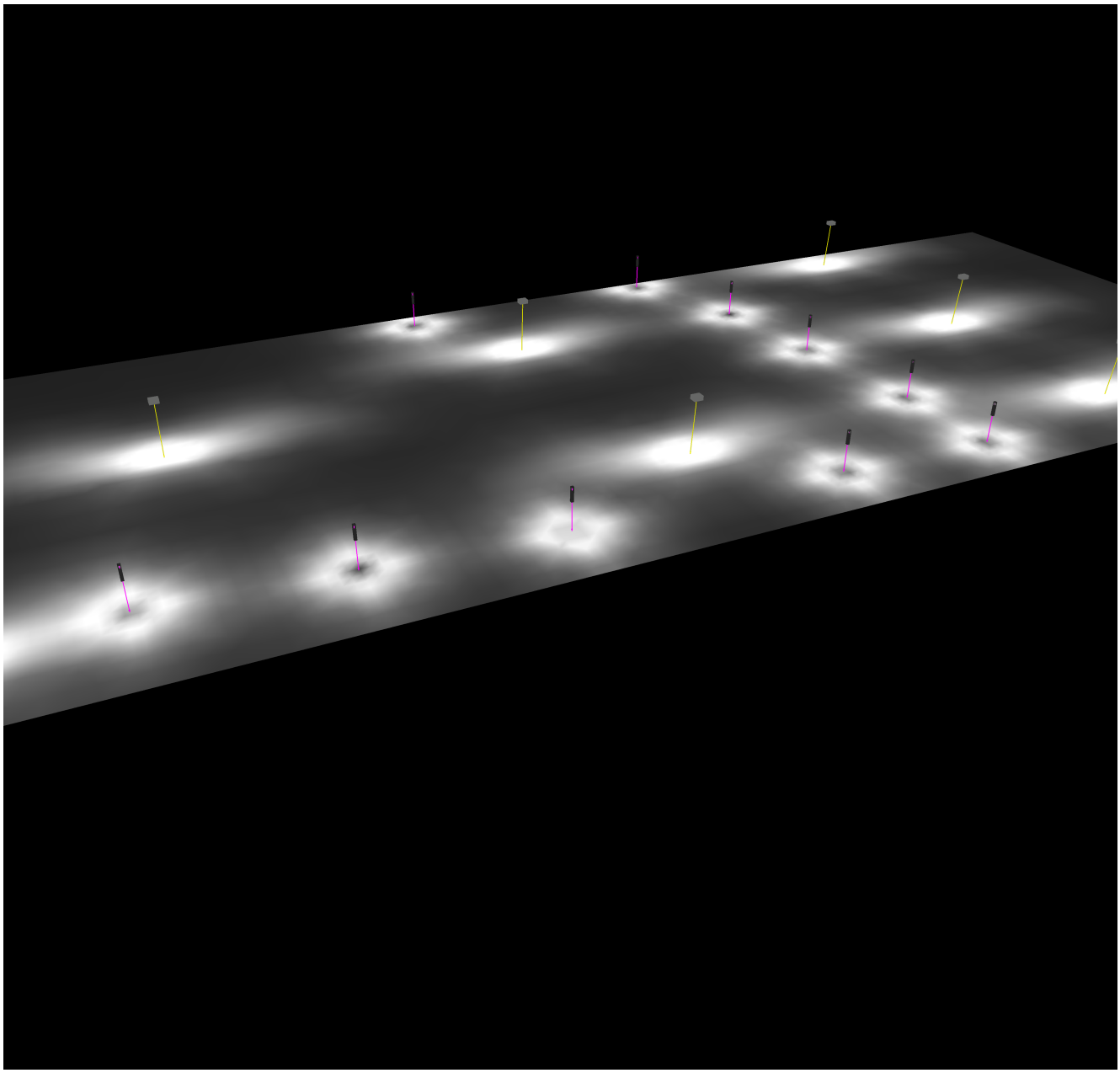
2.3.3 3D mountain plot, Reference plane 1.1 (E)





2.3 Calculation results, Exterior 1

2.3.4 3D luminance, View 1

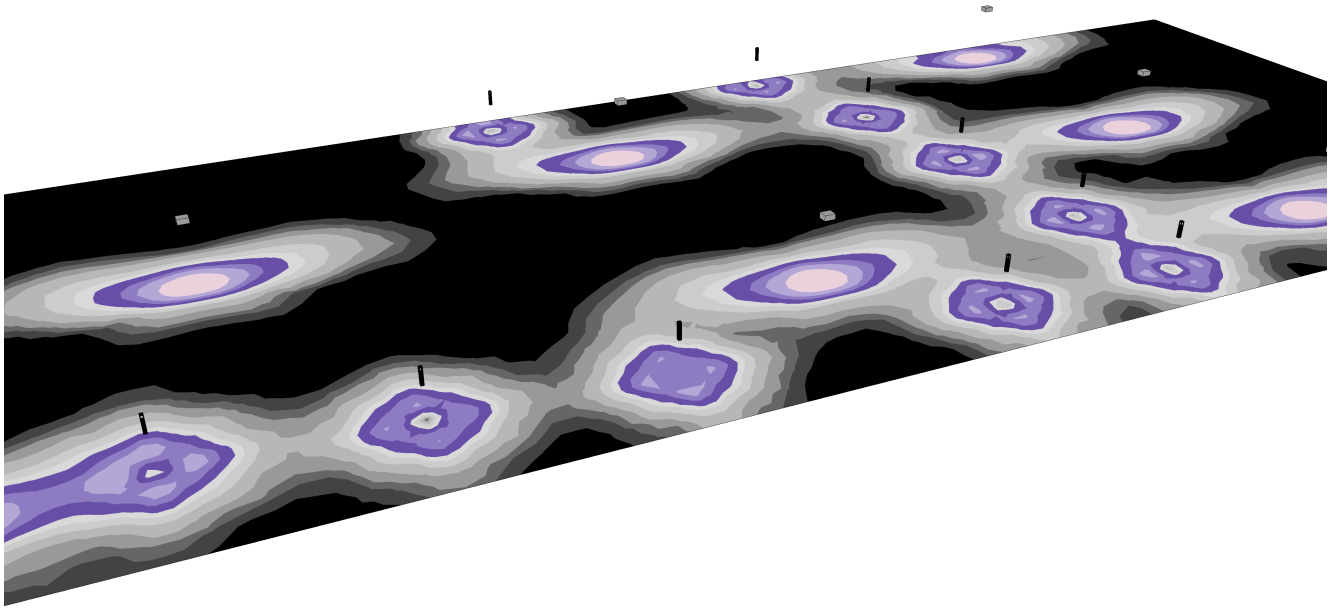


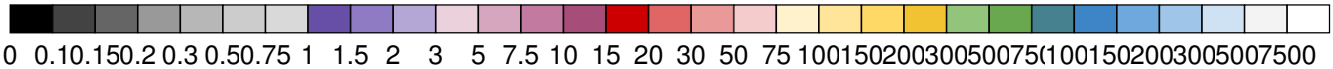
Luminance in the scene
Minimum: : 0 cd/m²
Maximum: : 4.52 cd/m²

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2.3 Calculation results, Exterior 1

2.3.5 3D pseudo colours, View 1 (L)





0 0.1 0.15 0.2 0.3 0.5 0.75 1 1.5 2 3 5 7.5 10 15 20 30 50 75 100 150 200 300 500 750 1000 1500 2000 3000 5000 7500

Luminance [cd/m²]

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2.3 Calculation results, Exterior 1

2.3.6 3D pseudo colours, View 1 (E)

