



Residential Car Park Lighting

Installation : LED Solar Powered Street Lighting

Project number : TLA/VIV/DWH-CP-R1

Customer : Vivid Solar Street Lighting

Processed by : NT

Date : 24.05.2023

Project description:

REVISED 24.05.2023

Exterior Car Park lit to comply with BS EN 5489-1-2020 Maintained Lighting Levels For Outdoor Car Parks:

Assumed Area Type and Usage:

Light traffic, eg parking areas of shops, terraced houses

Average Illuminance 5Lx, Uniformity 0.25

All posts 8m high

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.

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1 Luminaire data

1.1 E-Able Power, LED (AL-A030)

1.1.1 Data sheet

Manufacturer: E-Able Power

AL-A030 LED

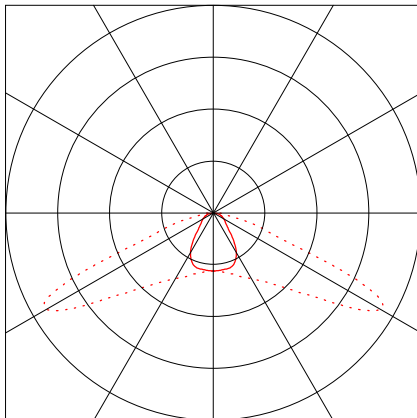
Luminaire data

Luminaire efficiency : 98.9%
Luminaire efficacy : 126.36 lm/W
Classification : A40 ↓ 99.8% ↑ 0.2%
CIE Flux Codes : 38 76 96 100 99
UGR 4H 8H : 24.4 / 35.4
Power : 30 W
Luminous flux : 3790.8 lm

Equipped with

Quantity : 1
Designation :
Colour :
Luminous flux : 3833 lm

Dimensions : 100 mm x 240 mm x 1 mm



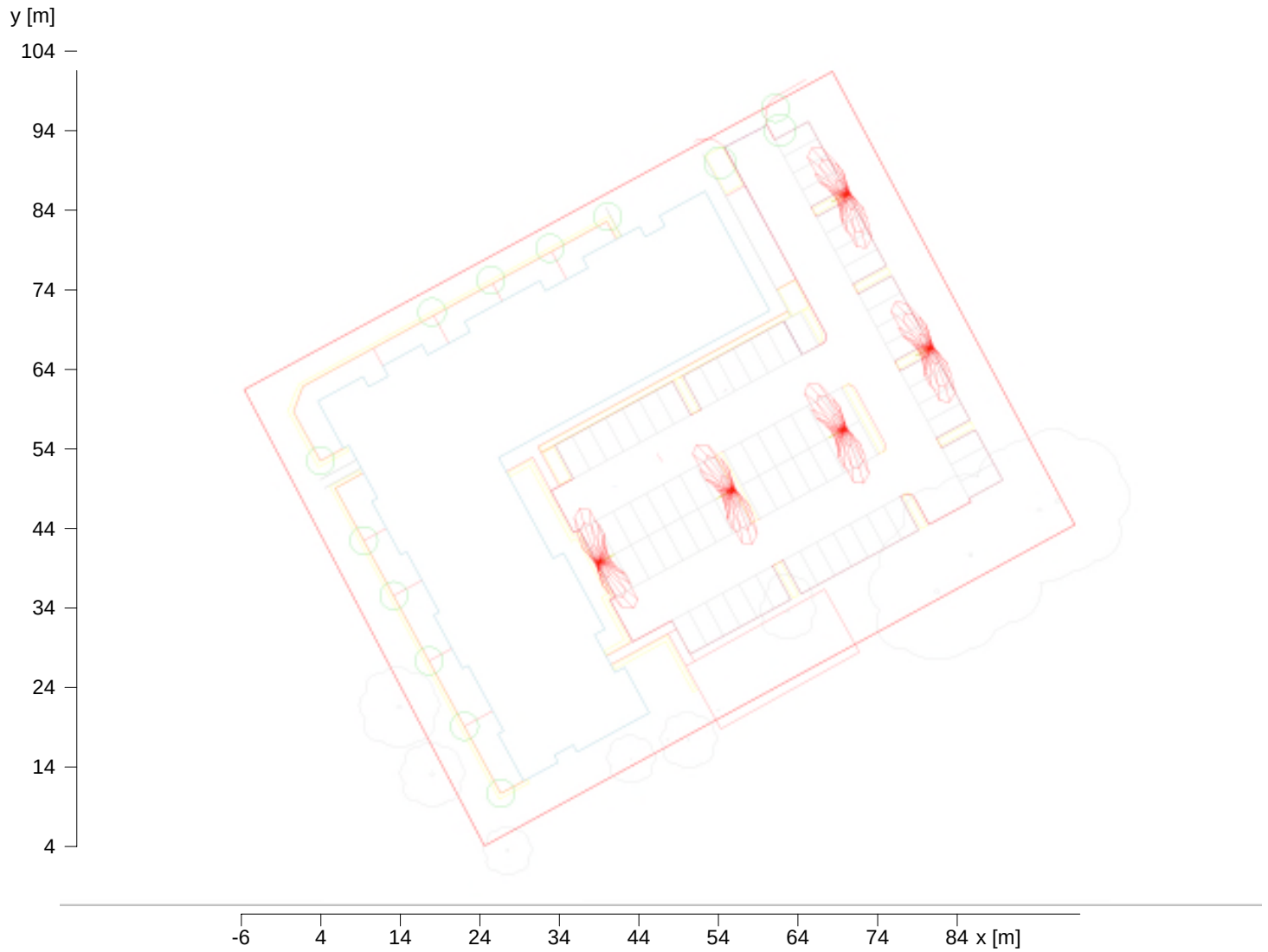
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2 Exterior 1

2.1 Description, Exterior 1

2.1.1 Floor plan



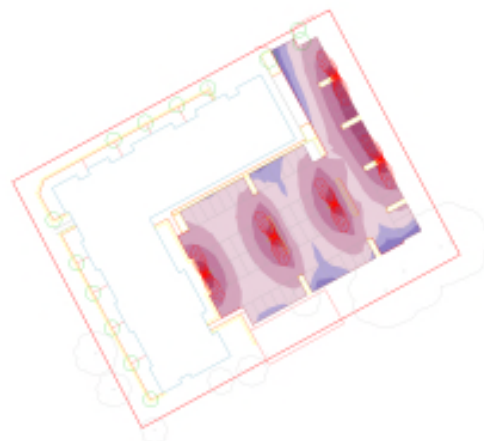
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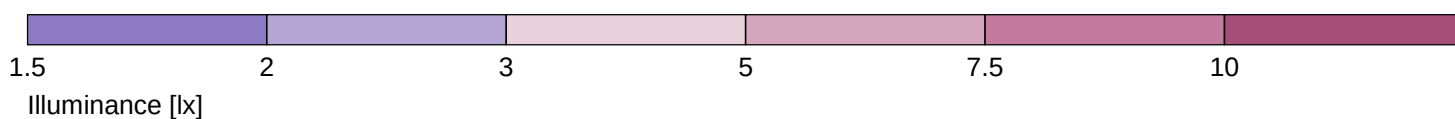
2 Exterior 1

2.2 Summary, Exterior 1

2.2.1 Result overview, Measuring area 1



-6 4 14 24 34 44 54 64 74 84 x [m]



General

Calculation algorithm used	High indirect fraction
Height of evaluation surface	0.00 m
Height (phot centre) [m]:	8.00 m
Maintenance factor	0.80

Total luminous flux	19165 lm
Total power	150 W
Total power per area (5460.52 m ²)	0.03 W/m ²

Illuminance

Average illuminance	$\bar{E}_m$	5.8 lx
Minimum illuminance	E_{min}	1.7 lx
Maximum illuminance	E_{max}	11.1 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:3.49 (0.29)
Diversity U_d	E_{min}/E_{max}	1:6.67 (0.15)

Type No. \Make

E-Able Power

1	5 x	Order No.	: AL-A030
		Luminaire name	: LED
		Equipment	: 1 x 30 W / 3833 lm

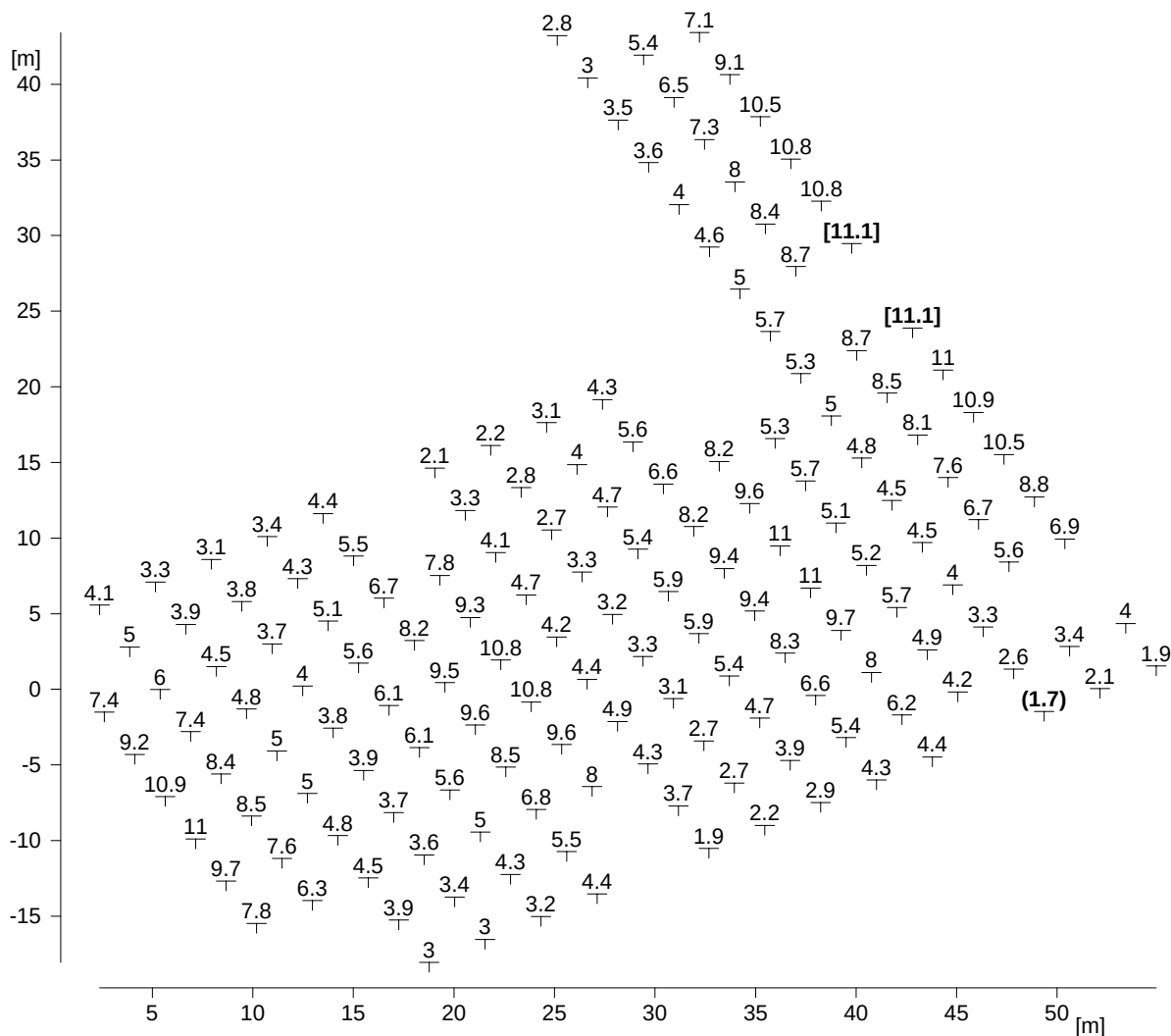
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2 Exterior 1

2.3 Calculation results, Exterior 1

2.3.2 Table, Measuring area 1 (E)



Height reference plane	: 0.00 m
Average illuminance	$\bar{E}_m$: 5.8 lx
Minimum illuminance	E_{min} : 1.7 lx
Maximum illuminance	E_{max} : 11.1 lx
Uniformity U_o	$E_{min}/\bar{E}_m$: 1 : 3.49 (0.29)
Diversity U_d	E_{min}/E_{max} : 1 : 6.67 (0.15)