

LED Lighting

Installation : External

Project number : MJC-CRS-280621-SG

Customer : MJC

Processed by : Planning

Date : 28.06.2021

Project description:

We have the pleasure of providing you the enclosed proposal with all calculations based on the information, drawings and specifications provided. Please check to confirm that all details are correct, especially dimensions of the rooms and specification of the fittings as the information provided may not be precise.

Areas are assumed to be open areas without any obstructions above the working plane.

Where applicable the designs conform to BS EN12464-1 and 2: 2011, SLL Code of Lighting 2012, CIBSE LG3 1996/2001, BS5489 – 1 2003 and LG7 recommendations and guidelines.

If conformity to LG7 is to be proved with exact figures, we may need to add or change the Luminaire types. Please be aware of the Part L2 requirements and check that conformity has been met where required.

Illuminance levels are uniformity are shown for your approval as are the proposed luminaire types, please ensure that this choice is suitable for the room usage.

We have used common design parameters (unless stated otherwise) for ceiling heights and reflection factors of the room surfaces – (wall 50% ceiling 70% floor 20%), as well as Maintenance Factors (LED light source 0.8), in our calculations unless details were provided or otherwise stated. If any of these are not acceptable, please contact us to enable re-calculations to be carried out prior to ordering.

Any emergency lighting scheme should be checked and confirmed with a local building/fire control officer and ultimately by the owner of the building. Emergency Lighting will be designed to recommended guidelines set out in BS5266 2013.

All calculations have been based on rated lumen outputs and Photometric Data supplied by the manufacturers, but these may vary with ambient site temperatures.

Whilst every effort will be made by EcolightingUK to adhere to the written or product specification provided, it is always the responsibility of the customer to ensure that any design scheme, specification or product supplied satisfies fully, complies with the end user's requirements and is suitable for the installation required.

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 LEDVANCE GmbH, FL PFM 165W/4000K SYM 100 BK (4058075423732)

1.1.1 Data sheet

Manufacturer: LEDVANCE GmbH

4058075423732 FL PFM 165W/4000K SYM 100 BK

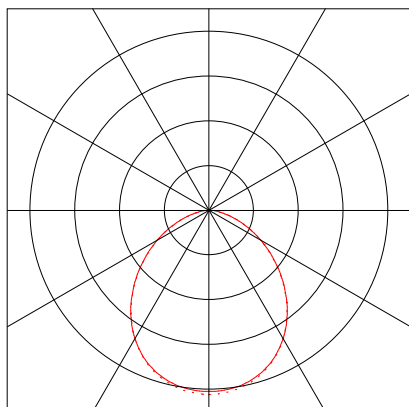
Luminaire data

Luminaire efficiency : 100%
Luminaire efficacy : 121.21 lm/W
Classification : A40 ↓99.9% ↑0.1%
CIE Flux Codes : 53 83 97 100 100
UGR 4H 8H : 32.6 / 32.7
Power : 165 W
Luminous flux : 20000 lm

Equipped with

Quantity : 1
Designation : LED / CRI >= 80
Colour : 4000K
Luminous flux : 20000 lm
Colour reproduction : 80

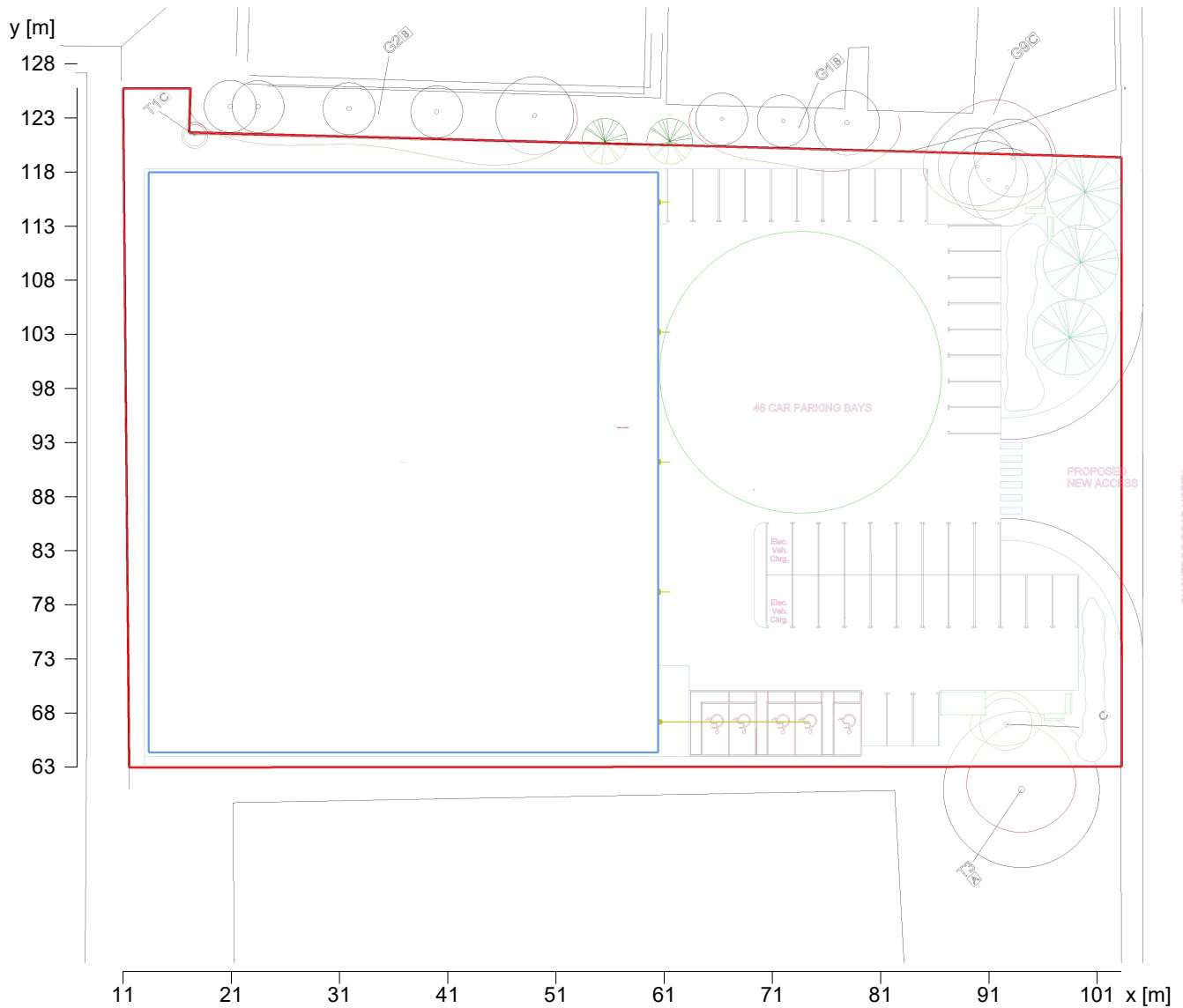
Dimensions : 418 mm x 305 mm x 65 mm



2 Exterior 1

2.1 Description, Exterior 1

2.1.1 Floor plan

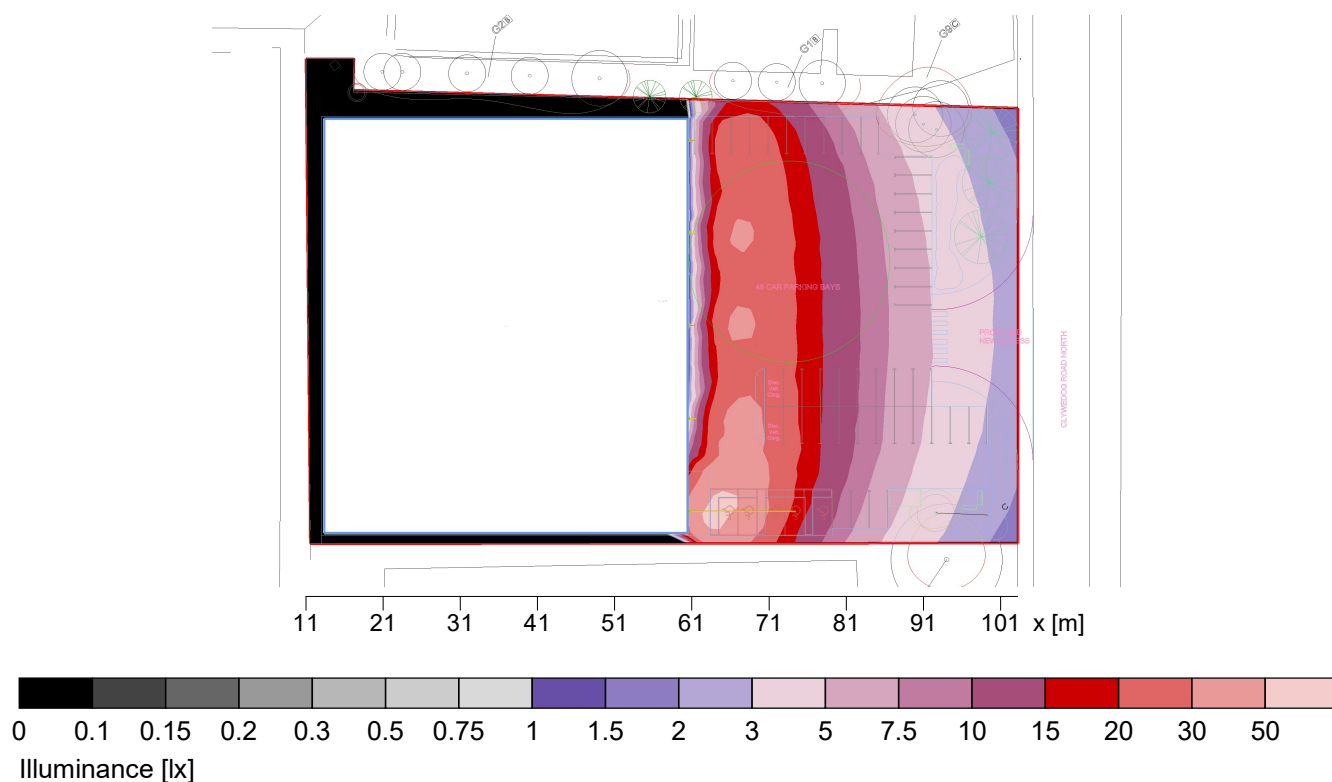


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2 Exterior 1

2.2 Summary, Exterior 1

2.2.1 Result overview, Evaluation area 1



General

Calculation algorithm used
 Maintenance factor

Average indirect fraction
 0.80

Total luminous flux of all lamps

100000.00 lm

Total power

825.0 W

Total power per area (5310.37 m²)

0.16 W/m² (1.44 W/m²/100lx)

Evaluation area 1

Reference plane 1.1

Horizontal
 Em 10.8 lx
 Emin 0 lx
 Emin/Em (Uo) ---
 Emin/Emax (Ud) ---
 Position 0.00 m (rot: 0°/0.05°)

Type No.\Make



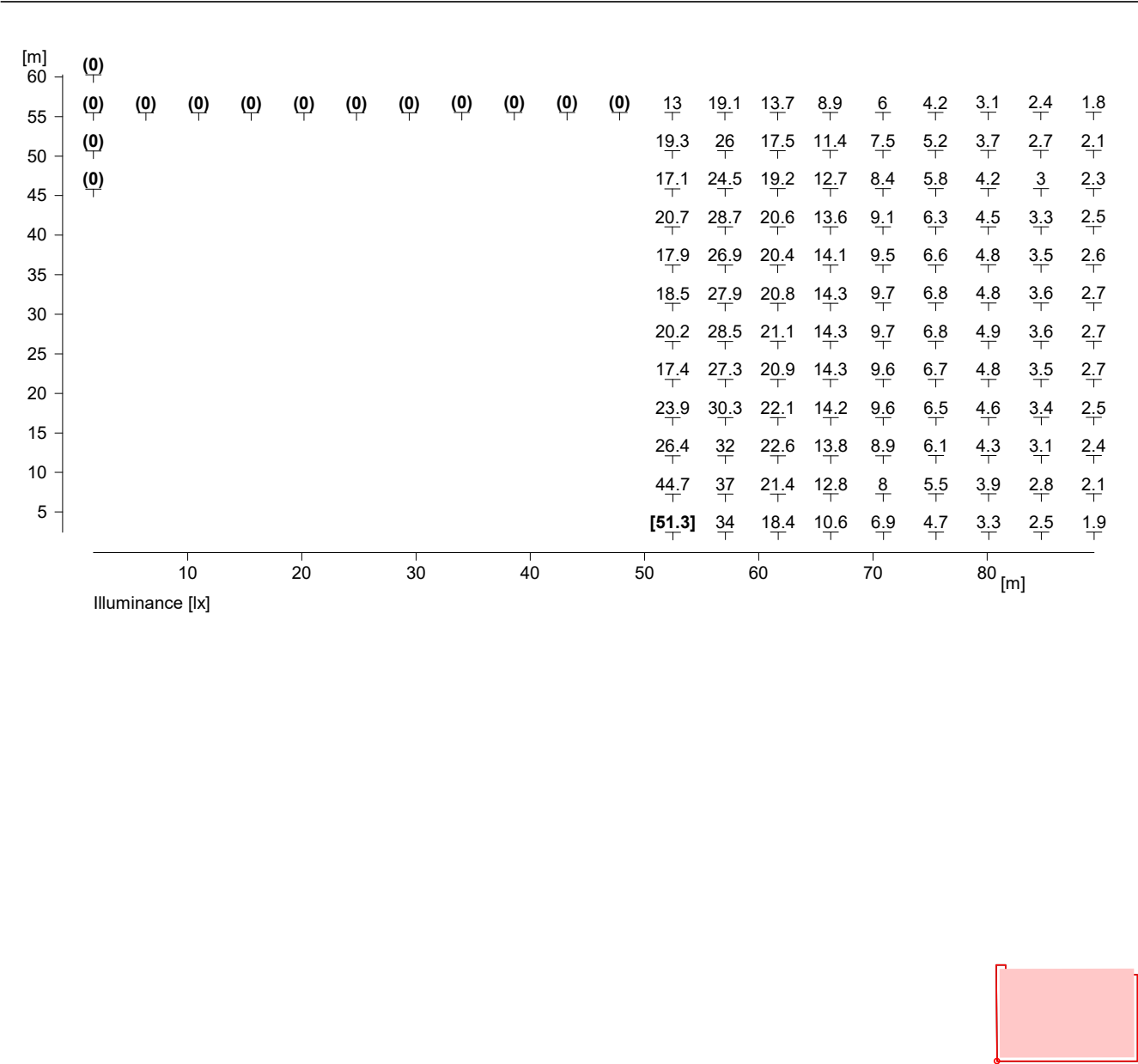
LEDVANCE GmbH

Order No. : 4058075423732
 Luminaire name : FL PFM 165W/4000K SYM 100 BK
 Equipment : 1 x LED / CRI >= 80 165 W / 20000 lm

2 Exterior 1

2.3 Calculation results, Exterior 1

2.3.1 Table, Reference plane 1.1 (E)



Average illuminance	Em	: 10.8 lx
Minimum illuminance	Emin	: 0 lx
Maximum illuminance	Emax	: 51.3 lx
Uniformity Uo	Emin/Em	: ---
Diversity Ud	Emin/Emax	: ---