

Marston Inns & Taverns - Leek

Installation : proposed new exterior lighting

Project number : 99-8950-HJ
Customer : Wilsonbell Electrical
Processed by : M Hughes
Date : 03.03.2014

Project description:

Calculation based on standard reflectances.

Room dimensions and floor to ceiling heights issued from wholesaler.

PLEASE NOTE: All room dimensions to be checked on-site prior to installation.

Lighting designed to CIBSE guidelines where applicable and/or client requirements, all stated lux values are for overall averages across the room reference plane.

Lighting arrangement designed to 'Secured by Design' criteria of 30lux average with 25% uniformity for car park areas.

Column mounted floodlights are mounted at 6m from FFL, aimed 15 degrees from the horizontal for the purposes of this calculation.

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

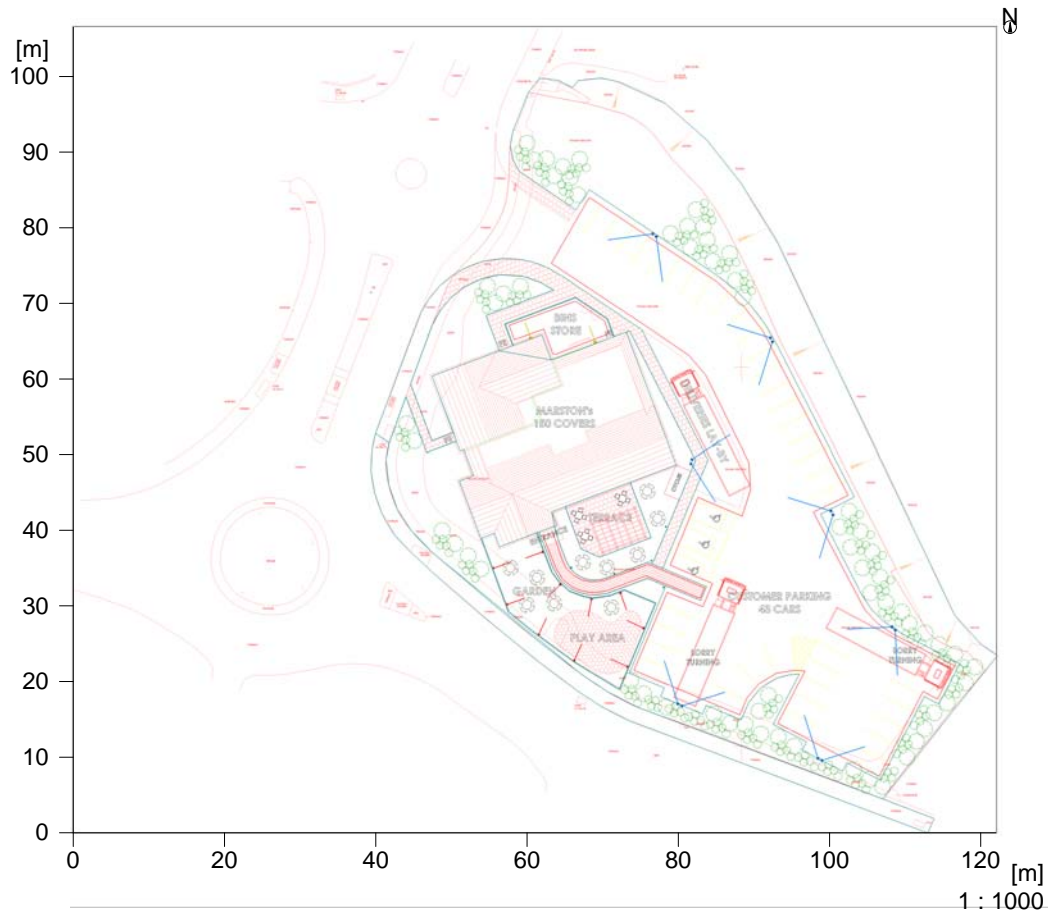
Guarantee claims for luminaire data are excluded.

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

1 Exterior 1

1.1 Description, Exterior 1

1.1.1 Floor plan



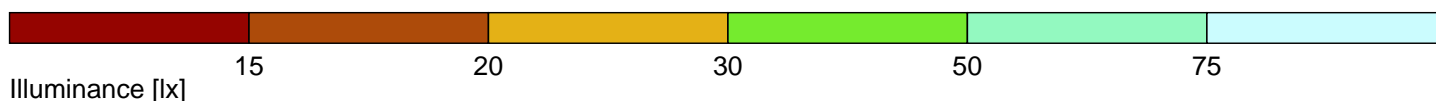
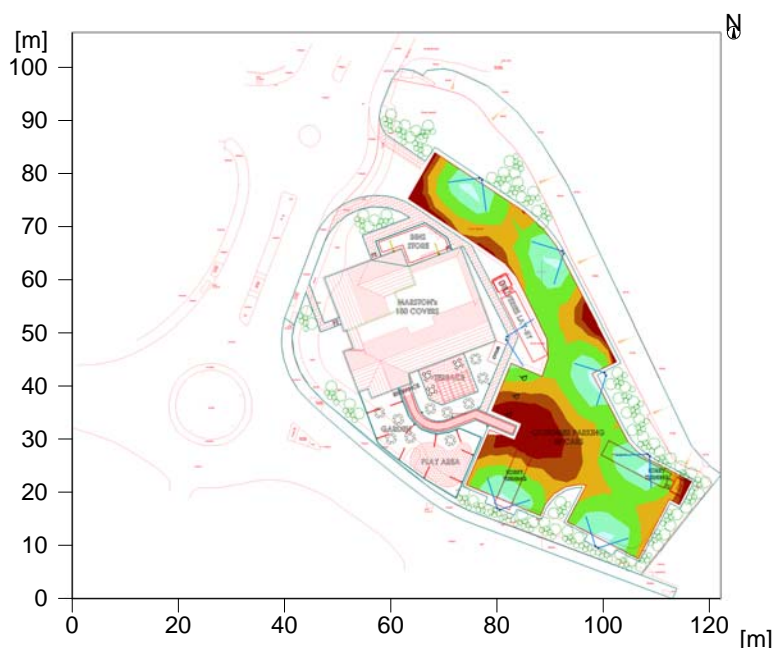
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1 Exterior 1

1.2 Summary, Exterior 1

1.2.1 Result overview, Car Park



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80

Total luminous flux of all lamps	224500 lm
Total power	3835 W
Total power per area (12993.00 m²)	0.30 W/m²

Illuminance

Average illuminance	Eav	35.3 lx
Minimum illuminance	Emin	10.7 lx
Maximum illuminance	Emax	76.1 lx
Uniformity Uo	Emin/Em	1:3.3 (0.3)
Diversity Ud	Emin/Emax	1:7.12 (0.14)

Type No.\Make

ANSELL - floodlighting	
1	Order No. : A70MHL
2	Luminaire name : ORION SLIM DIE-CAST FLOODLIGHT
	Equipment : 1 x 70W HQI-TD / 5500 lm
3	Order No. : A150MHL
14	Luminaire name : ORION SLIM DIE-CAST FLOODLIGHT
	Equipment : 1 x 150W HQI-TD / 11250 lm


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1 Exterior 1

1.2 Summary, Exterior 1

1.2.1 Result overview, Car Park

2 5 **ANSELL - amenity**
 Order No. : AANPL60/HF
Luminaire name : ARIES IP65 BOLLARD
Equipment : 1 x Megaman 60W Clusterlite / 4000 lm

4 10 **ANSELL - Amenity**
 Order No. : ATA226/HF
Luminaire name : TARDO
Equipment : 2 x 26W PL-C / 1800 lm

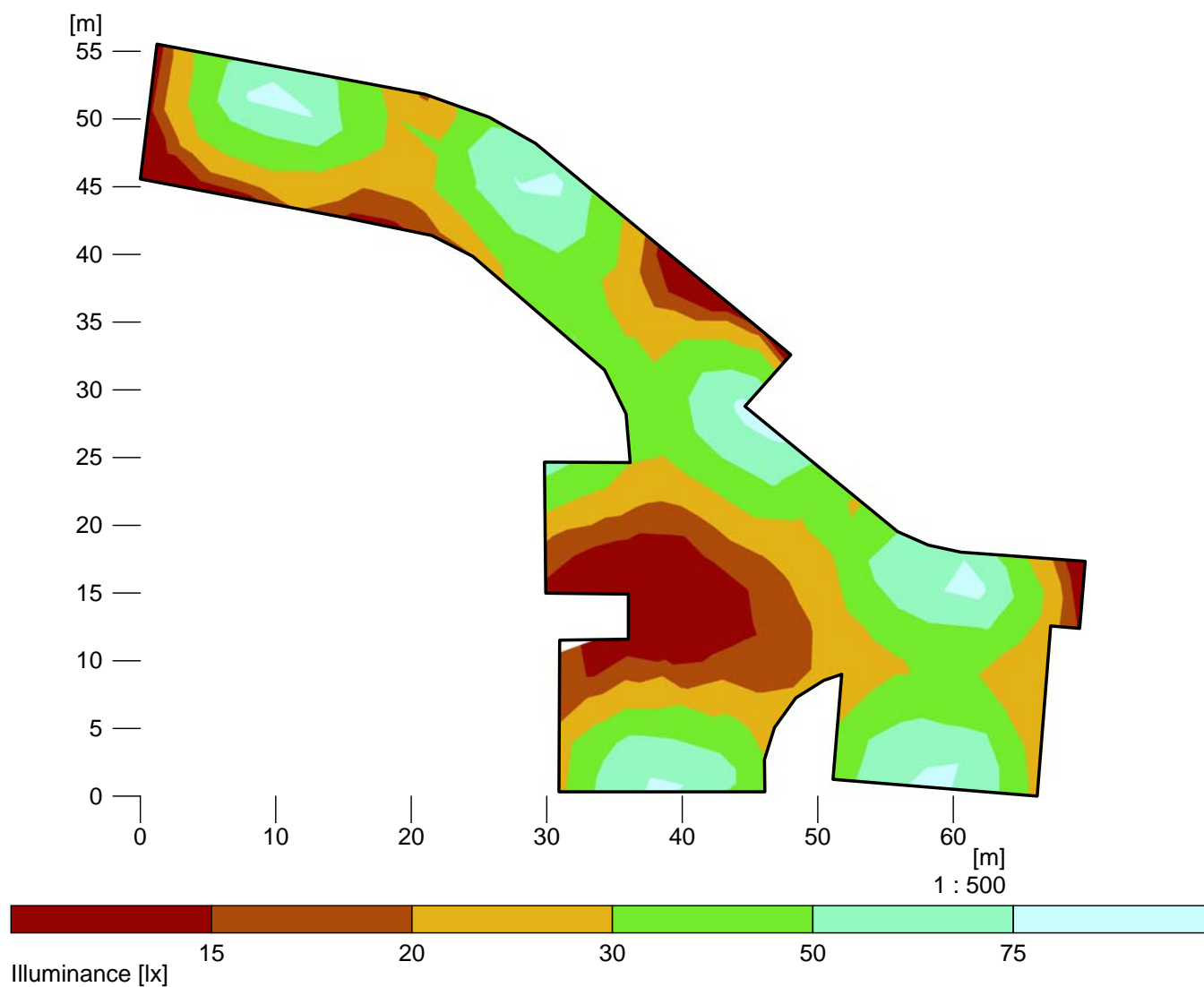
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1 Exterior 1

1.3 Calculation results, Exterior 1

1.3.1 Pseudo colours, Car Park (E)



Height of the reference plane

Average illuminance

Minimum illuminance

Maximum illuminance

Uniformity U_0

Diversity U_d

: 0.00 m

Eav : 35.3 lx

Emin : 10.7 lx

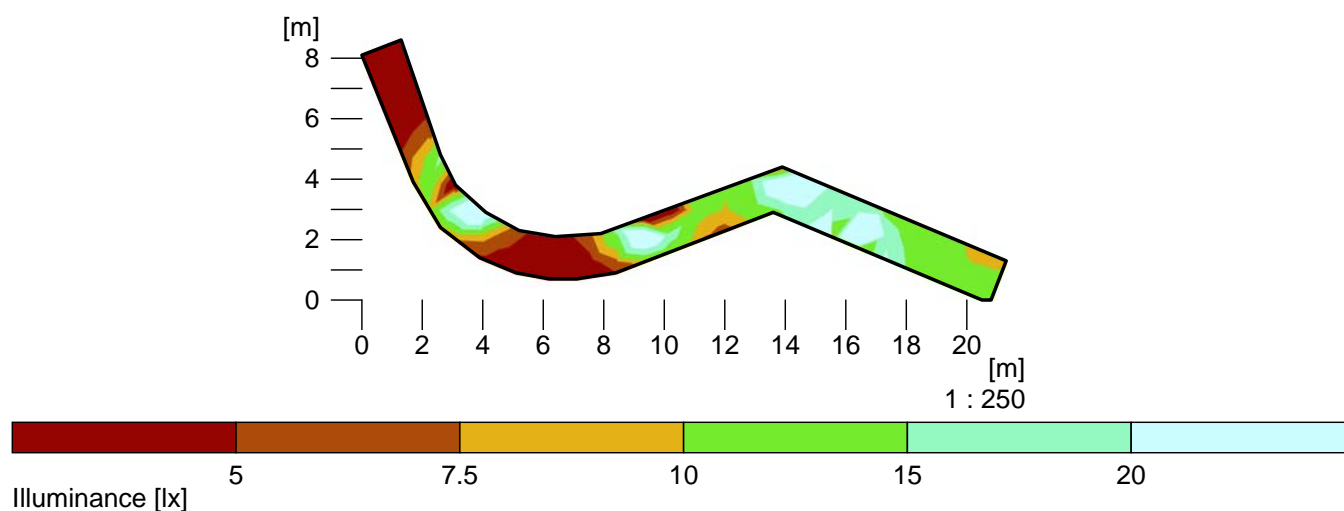
Emax : 76.1 lx

Emin/Eav : 1 : 3.30 (0.30)

Emin/Emax : 1 : 7.12 (0.14)

1.3 Calculation results, Exterior 1

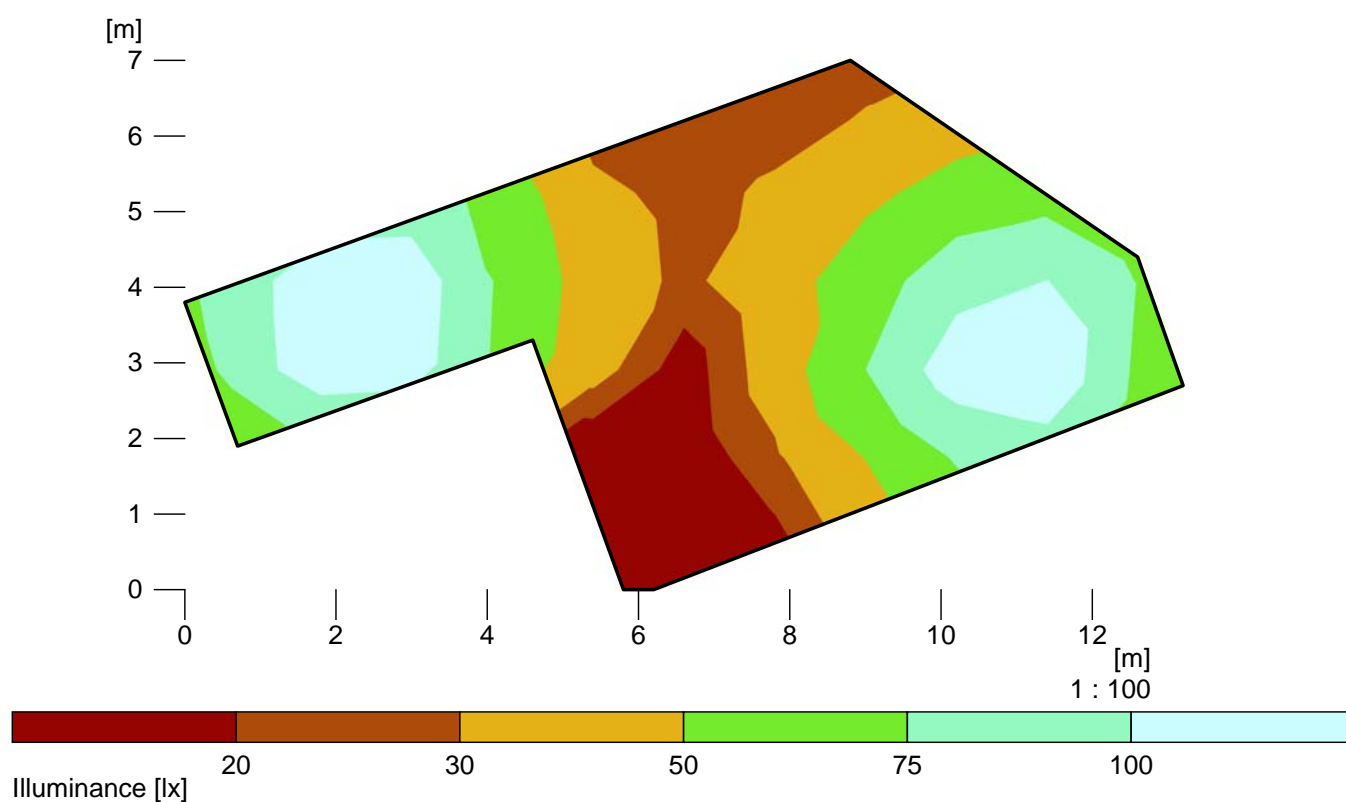
1.3.2 Pseudo colours, Pathway (E)



Height of the reference plane	: 0.11 m
Average illuminance	Eav : 11.6 lx
Minimum illuminance	Emin : 1.9 lx
Maximum illuminance	Emax : 48.3 lx
Uniformity Uo	Emin/Eav : 1 : 6.13 (0.16)
Diversity Ud	Emin/Emax : 1 : 25.48 (0.04)

1.3 Calculation results, Exterior 1

1.3.3 Pseudo colours, Bin Store (E)



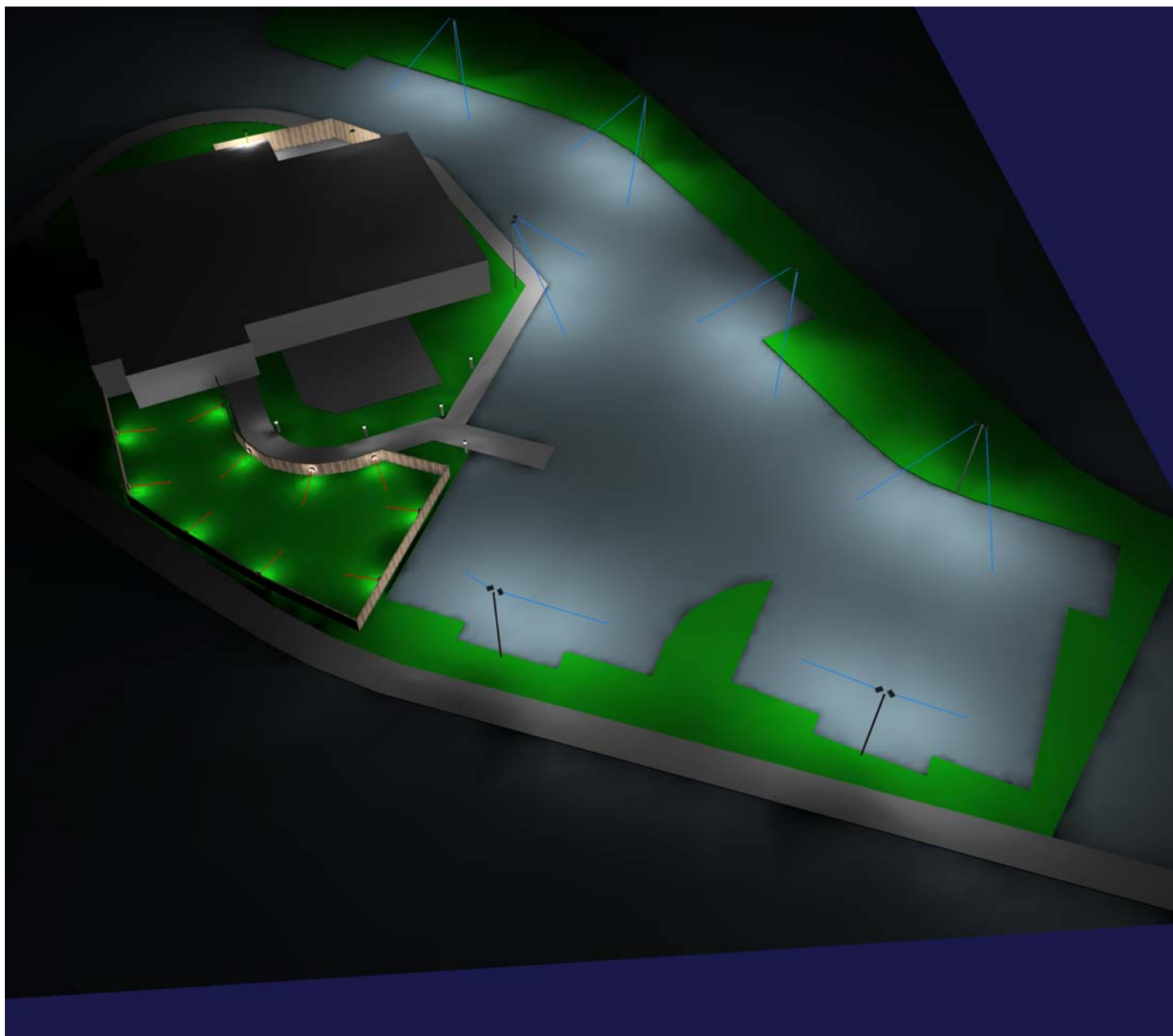
Height of the reference plane	: 0.11 m
Average illuminance	Eav : 59 lx
Minimum illuminance	Emin : 7 lx
Maximum illuminance	Emax : 121 lx
Uniformity Uo	Emin/Eav : 1 : 8.25 (0.12)
Diversity Ud	Emin/Emax : 1 : 16.91 (0.06)

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1.3 Calculation results, Exterior 1

1.3.4 3D luminance, View 1



Luminance in the scene

Minimum: : 0 cd/m²

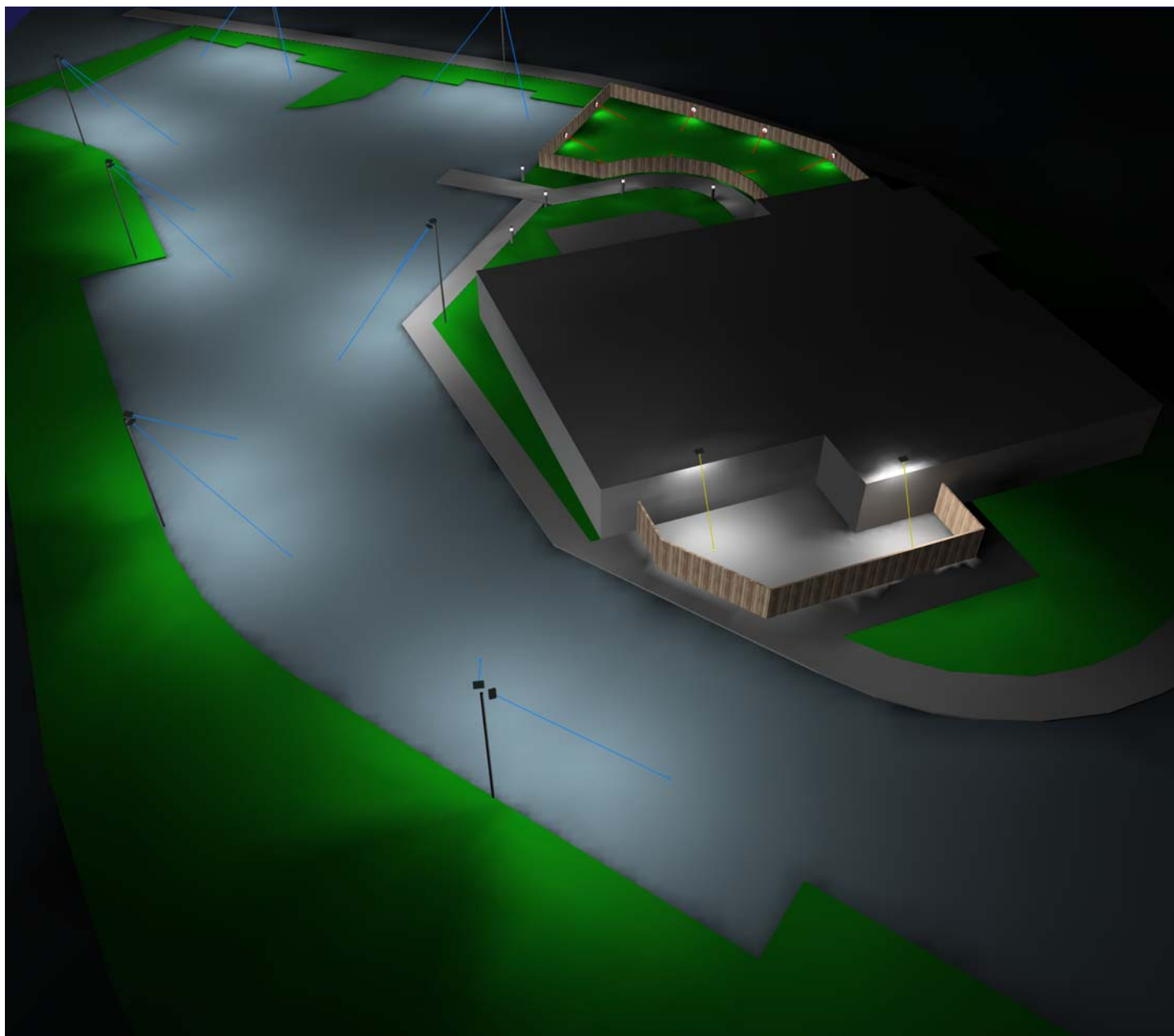
Maximum: : 613 cd/m²

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1.3 Calculation results, Exterior 1

1.3.5 3D luminance, View 2



Luminance in the scene

Minimum: : 0 cd/m²
Maximum: : 613 cd/m²