

Langstone Quays

Installation : Exterior

Project number : OPP-202056560

Customer : Studio Concept

Processed by : Sam Soundy

Date : 29.10.2020

Project description:

Project Manager:

Andy Wilde

Mobile:+44 7770 843099

Email: andy.wilde@deltalight.co.uk

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 : Langstone Quays
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Luminaire data

Delta Light, OBLIX F 100 930 (15116 9300)

Data sheet

Manufacturer: Delta Light

15116 9300 92- EXTERIOR - Floor # Surface mounted luminaires OBLIX F 100 930

Lighting unit, floor surface mounted mounting (outdoor use) from Delta Light, named OBLIX F 100 930.

Available in the colour(s) : alu grey, dark grey.

The unit is equipped with 1 x LED 10,4W / CRI>90 / 3000K / 1075lm (included: LED power supply 500mA-DC).

Luminaire data

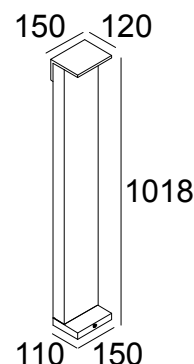
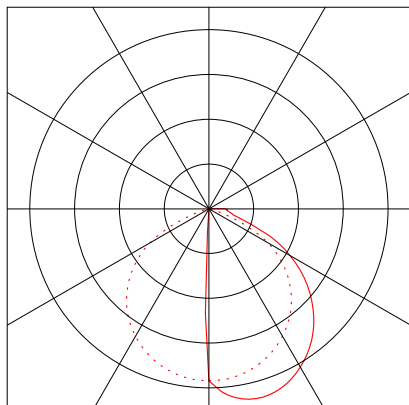
Luminaire efficiency : 72.7%
Luminaire efficacy : 65.13 lm/W
Classification : A40 ↓99.6% ↑0.4%
CIE Flux Codes : 50 84 97 100 73
UGR 4H 8H : 40.0 / 36.0
Power : 12 W
Luminous flux : 781.5 lm

Equipped with

Quantity : 1
Designation : LED ARRAY
BV8-G7H

Power : 10 W
Colour : 3000K
Luminous flux : 1075 lm

Dimensions : 150 mm x 110 mm x 10 mm

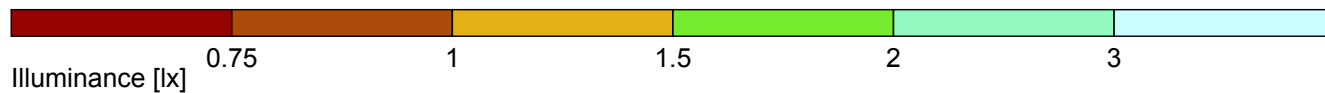
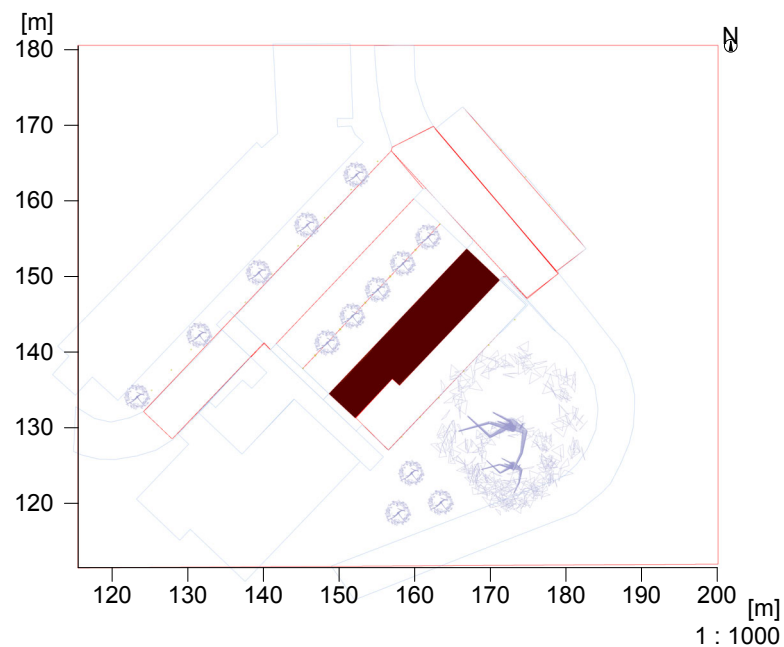


Object : Langstone Quays
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Exterior 1

Description, Exterior 1

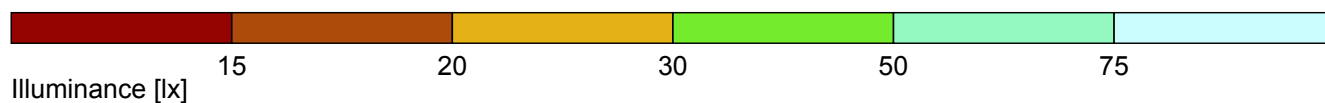
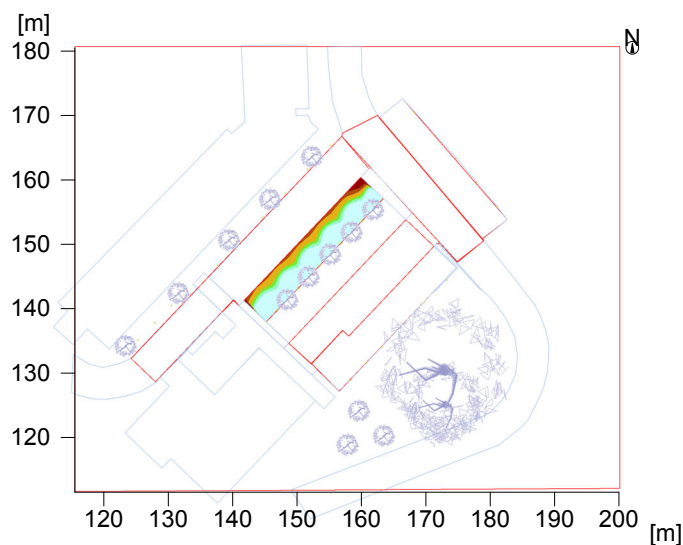
Floor plan



Object : Langstone Quays
 Installation : Exterior
 Project number : OPP-202056560
 Date : 29.10.2020

Summary, Exterior 1

Result overview, Car Park Bay One



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Height (phot centre) [m]:	1.00 m
Maintenance factor	0.80

Total luminous flux of all lamps	34400 lm
Total power	384 W
Total power per area (5809.37 m²)	0.07 W/m²

Illuminance

Average illuminance	Em	29 lx
Minimum illuminance	Emin	0 lx
Maximum illuminance	Emax	309 lx
Uniformity Uo	Emin/Em	1:71.8 (0.01)
Diversity Ud	Emin/Emax	1:777 (0)

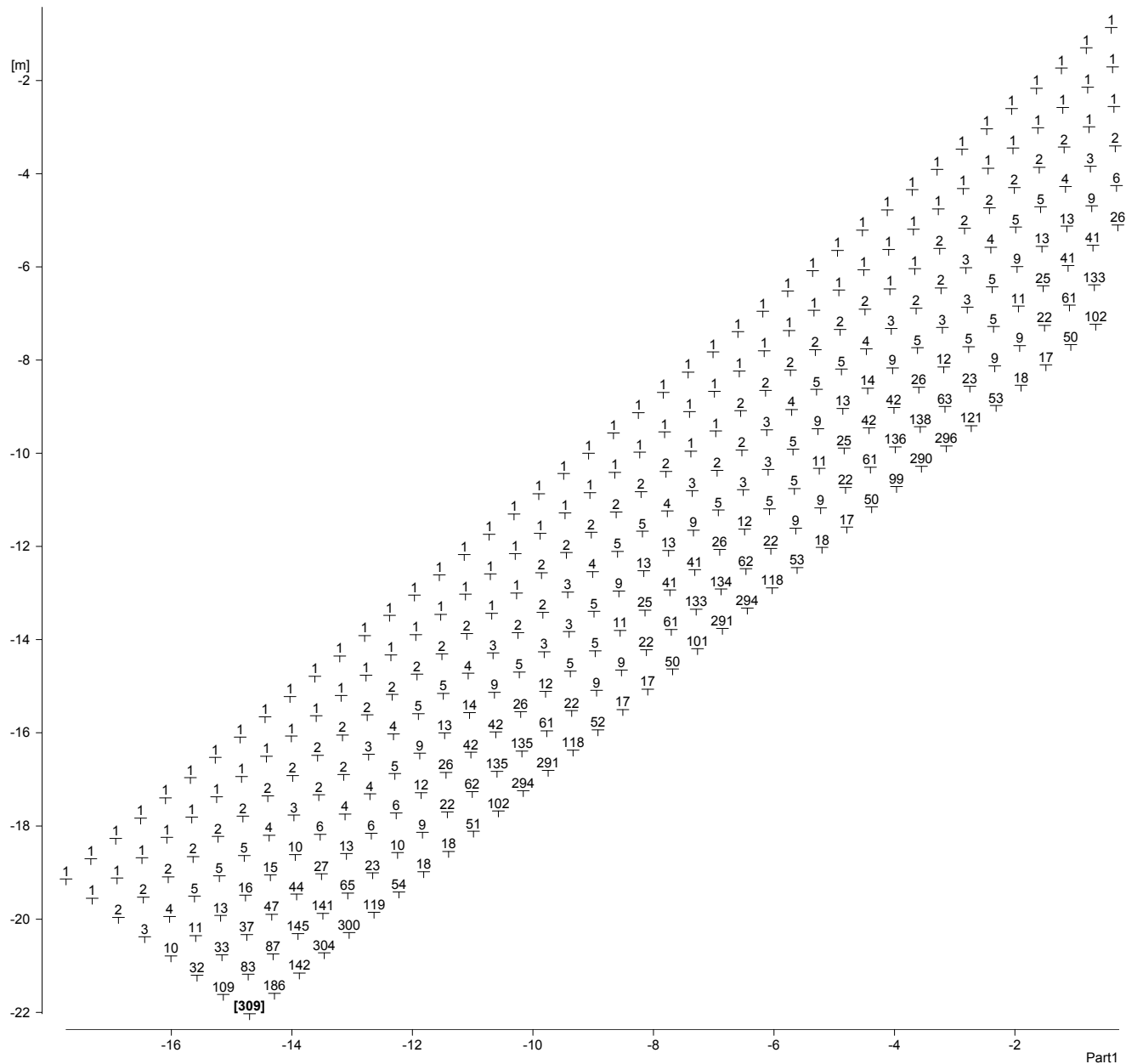
Type No. Make

1	32	Delta Light
	Order No.	: 15116 9300
	Luminaire name	: OBLIX F 100 930
	Equipment	: 1 x LED ARRAY BV8-G7H 3000K-cri90-500mA 10 W / 1075 lm

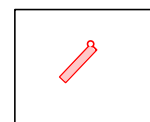
Object : Langstone Quays
Installation : Exterior
Project number : OPP-202056560
Date : 29.10.2020

Calculation results, Exterior 1

Table, Car Park Bay One (E)

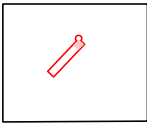
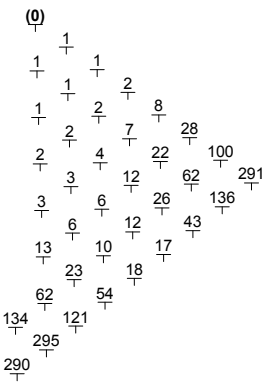


Height reference plane	: 0.00 m
Average illuminance	Em : 29 lx
Minimum illuminance	Emin : 0 lx
Maximum illuminance	Emax : 309 lx
Uniformity Uo	Emin/Em : 1 : 71.81 (0.01)
Diversity Ud	Emin/Emax : 1 : 777.29 (0.00)



Object : Langstone Quays
Installation : Exterior
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Date : 29.10.2020

Calculation results, Exterior 1
Table, Car Park Bay One (E)



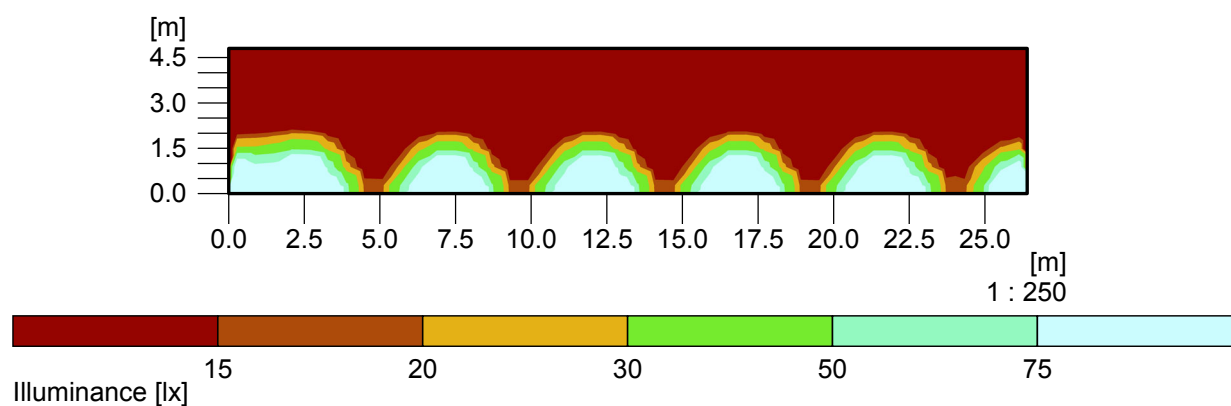
0 2, .

Part2

Object : Langstone Quays
Installation : Exterior
Project number : OPP-202056560
Date : 29.10.2020

Calculation results, Exterior 1

Pseudo colours, Car Park Bay One (E)

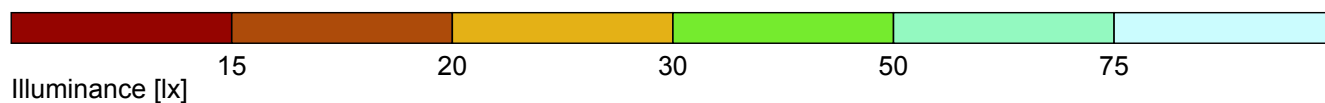
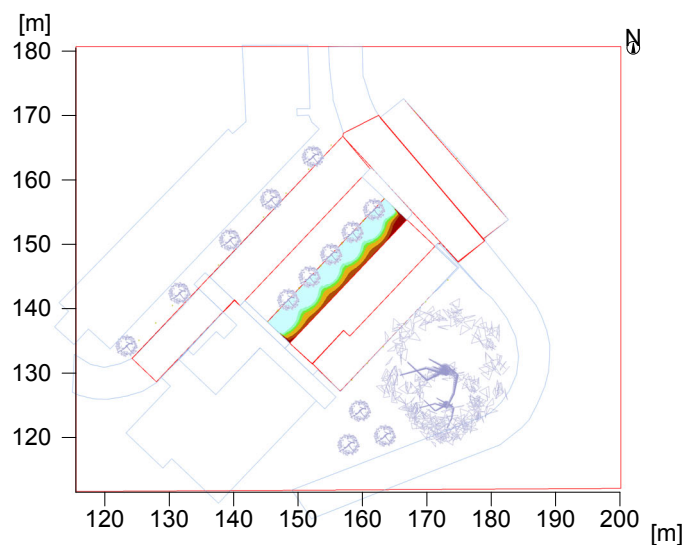


Height reference plane	: 0.00 m
Average illuminance	Em : 29 lx
Minimum illuminance	Emin : 0 lx
Maximum illuminance	Emax : 309 lx
Uniformity Uo	Emin/Em : 1 : 71.81 (0.01)
Diversity Ud	Emin/Emax : 1 : 777.29 (0.00)

Object : Langstone Quays
 Installation : Exterior
 Project number : OPP-202056560
 Date : 29.10.2020

Summary, Exterior 1

Result overview, Car Park Bay Two



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Height (phot. centre) [m]:	1.00 m
Maintenance factor	0.80

Total luminous flux of all lamps	34400 lm
Total power	384 W
Total power per area (5809.37 m ²)	0.07 W/m ²

Illuminance

Average illuminance	Em	28 lx
Minimum illuminance	Emin	0 lx
Maximum illuminance	Emax	314 lx
Uniformity Uo	Emin/Em	1:108 (0.01)
Diversity Ud	Emin/Emax	1:1180 (0)

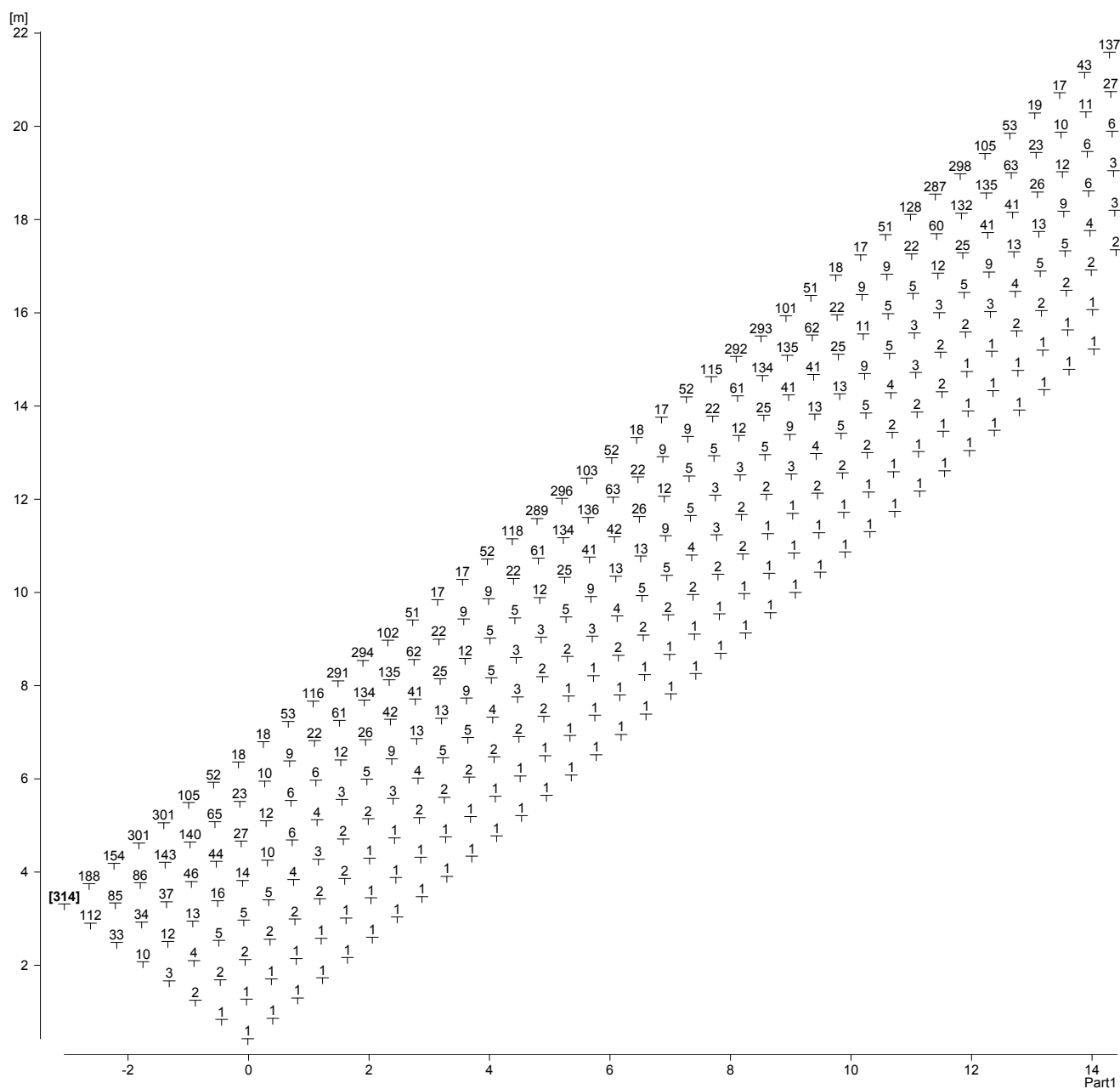
Type No. Make

1	32	Delta Light
		Order No. : 15116 9300
		Luminaire name : OBLIX F 100 930
		Equipment : 1 x LED ARRAY BV8-G7H 3000K-cri90-500mA 10 W / 1075 lm

Object : Langstone Quays
Installation : Exterior
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Date : 29.10.2020

Calculation results, Exterior 1

Table, Car Park Bay Two (E)



Height reference plane

Average illuminance

Minimum illuminance

Maximum illuminance

Uniformity U₀

Diversity U_d

: 0.00 m

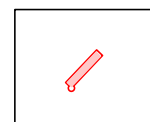
Em : 28 lx

Emin : 0 lx

Emax : 314 lx

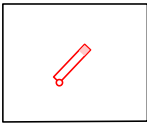
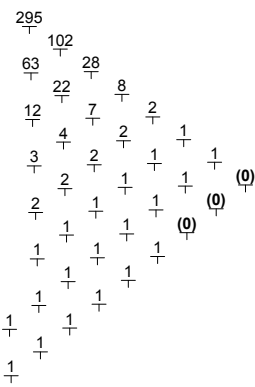
Emin/Em : 1 : 107.58 (0.01)

Emin/Emax : 1 : 1184.64 (0.00)



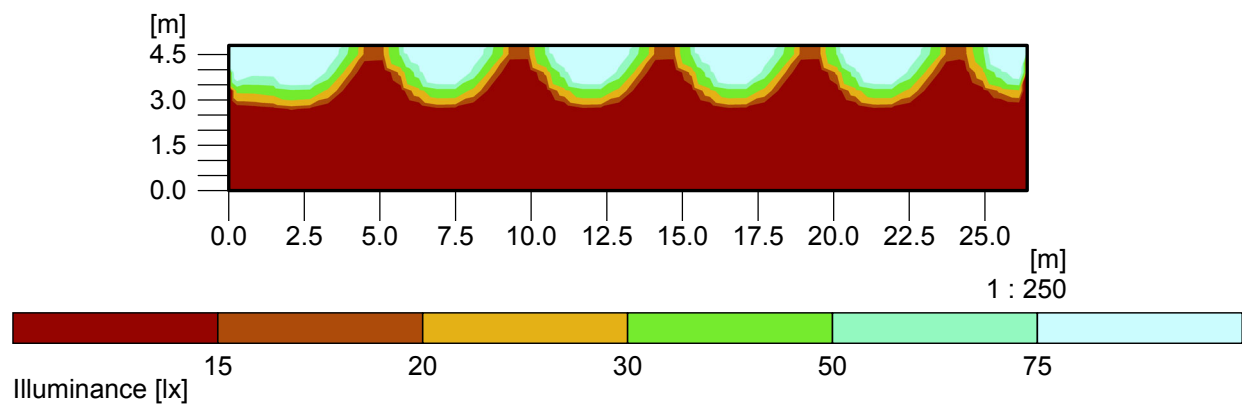
Object : Langstone Quays
Installation : Exterior
Project number : OPP-202056560
Date : 29.10.2020

Calculation results, Exterior 1
Table, Car Park Bay Two (E)



Object : Langstone Quays
Installation : Exterior
Project number : OPP-202056560
Date : 29.10.2020

Calculation results, Exterior 1
Pseudo colours, Car Park Bay Two (E)

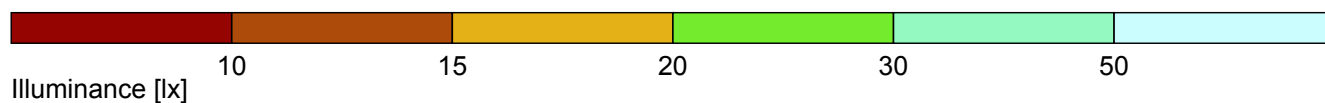
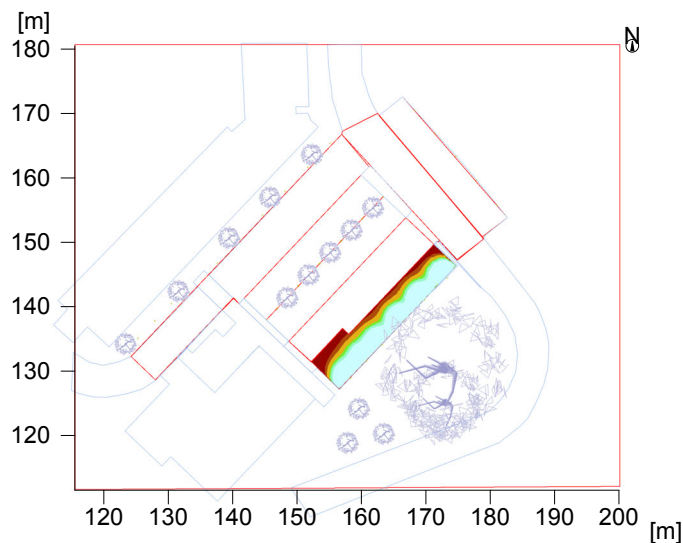


Height reference plane	: 0.00 m
Average illuminance	Em : 28 lx
Minimum illuminance	Emin : 0 lx
Maximum illuminance	Emax : 314 lx
Uniformity Uo	Emin/Em : 1 : 107.58 (0.01)
Diversity Ud	Emin/Emax : 1 : 1184.64 (0.00)

Object : Langstone Quays
Installation : Exterior
Project number : OPP-202056560
Date : 29.10.2020

Summary, Exterior 1

Result overview, Car Park Bay Three



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Height (phot centre) [m]:	1.00 m
Maintenance factor	0.80

Total luminous flux of all lamps	34400 lm
Total power	384 W
Total power per area (5809.37 m²)	0.07 W/m²

Illuminance

Average illuminance	Em	19 lx
Minimum illuminance	Emin	0 lx
Maximum illuminance	Emax	256 lx
Uniformity Uo	Emin/Em	1:58.3 (0.02)
Diversity Ud	Emin/Emax	1:783 (0)

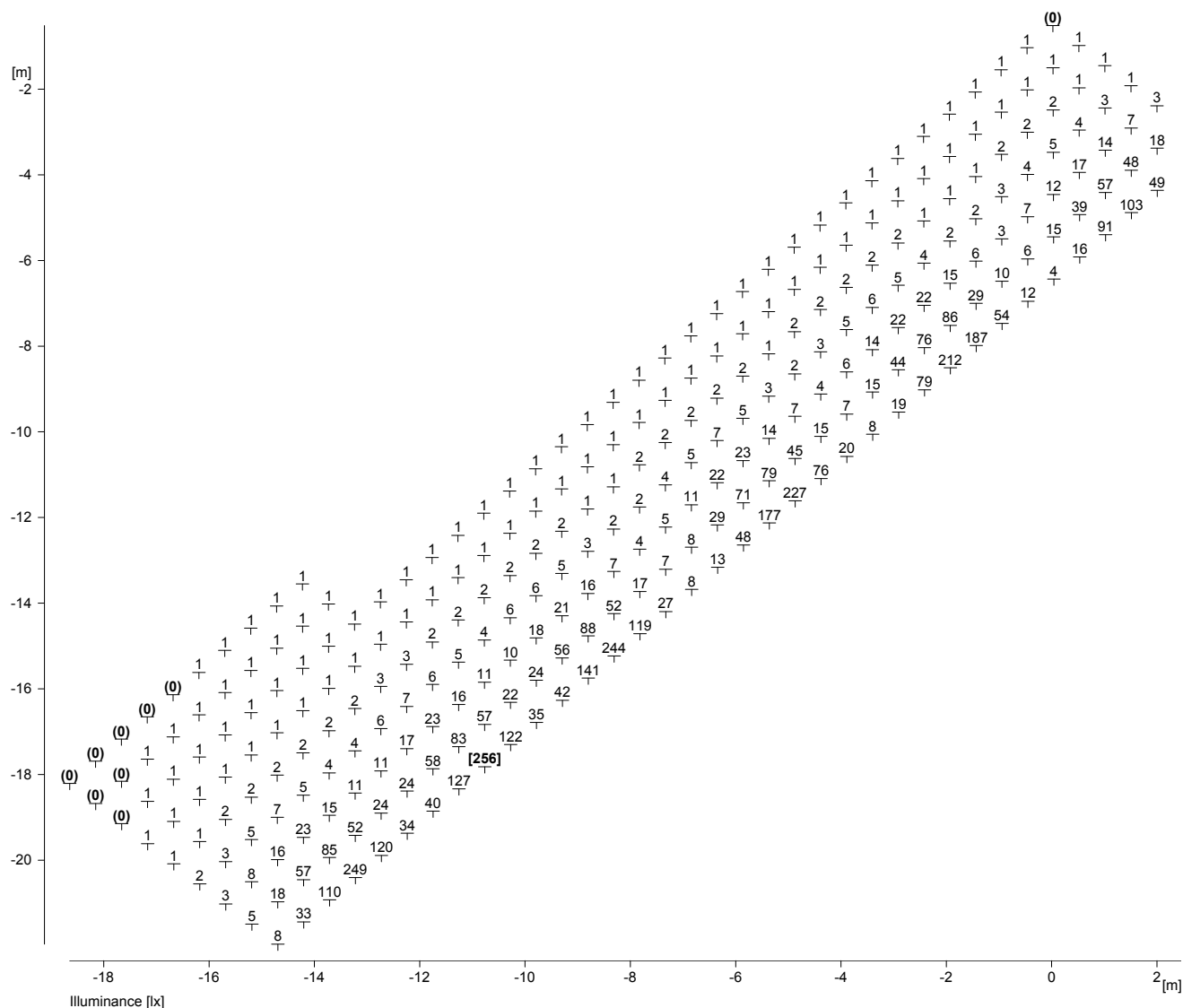
Type No. Make

1	32	Delta Light
	Order No.	: 15116 9300
	Luminaire name	: OBLIX F 100 930
	Equipment	: 1 x LED ARRAY BV8-G7H 3000K-cri90-500mA 10 W / 1075 lm

Object : Langstone Quays
Installation : Exterior
Project number : OPP-202056560
Date : 29.10.2020

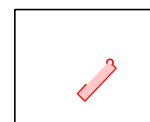
Calculation results, Exterior 1

Table, Car Park Bay Three (E)



Part1

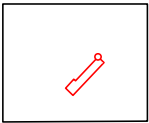
Height reference plane	: 0.00 m
Average illuminance	Em : 19 lx
Minimum illuminance	Emin : 0 lx
Maximum illuminance	Emax : 256 lx
Uniformity Uo	Emin/Em : 1 : 58.32 (0.02)
Diversity Ud	Emin/Emax : 1 : 782.60 (0.00)



Object : Langstone Quays
Installation : Exterior
Project number : OPP-202056560
Date : 29.10.2020

Calculation results, Exterior 1
Table, Car Park Bay Three (E)

5
+ 7
19

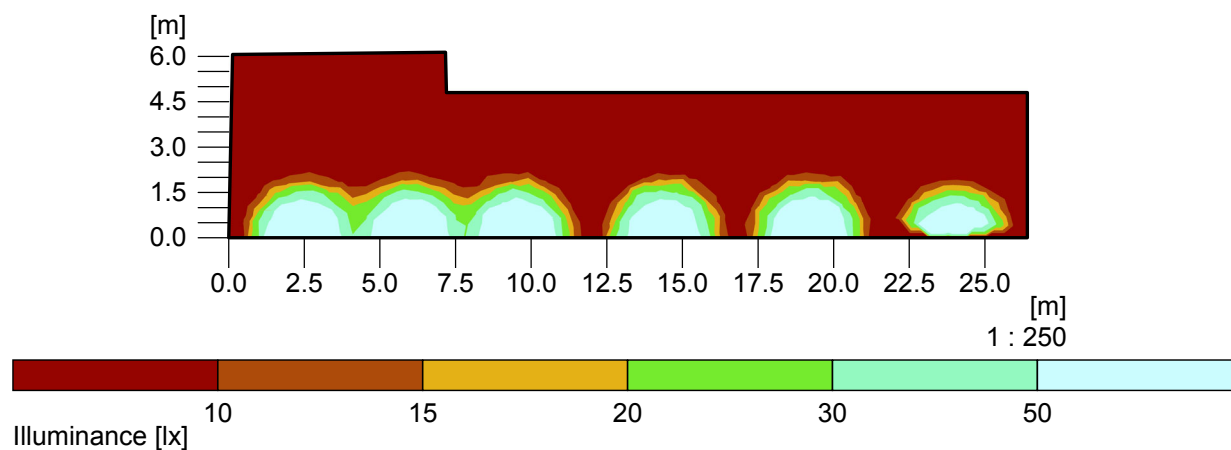


Part2

Object : Langstone Quays
Installation : Exterior
Project number : OPP-202056560
Date : 29.10.2020

Calculation results, Exterior 1

Pseudo colours, Car Park Bay Three (E)

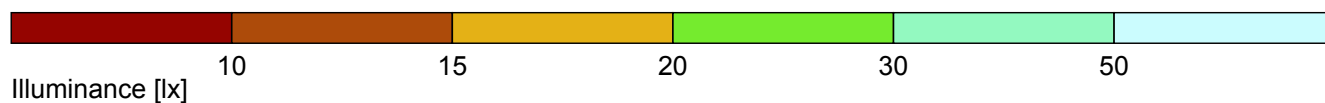
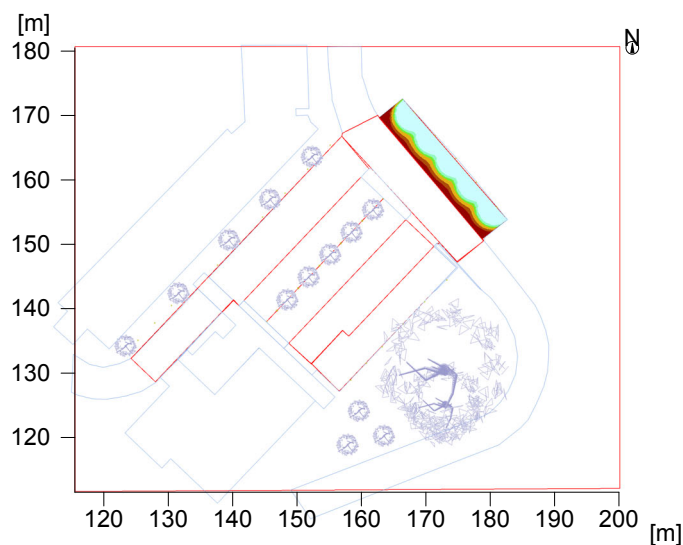


Height reference plane	: 0.00 m
Average illuminance	Em : 19 lx
Minimum illuminance	Emin : 0 lx
Maximum illuminance	Emax : 256 lx
Uniformity Uo	Emin/Em : 1 : 58.32 (0.02)
Diversity Ud	Emin/Emax : 1 : 782.60 (0.00)

Object : Langstone Quays
 Installation : Exterior
 Project number : OPP-202056560
 Date : 29.10.2020

Summary, Exterior 1

Result overview, Car Park Bay Four



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Height (phot centre) [m]:	1.00 m
Maintenance factor	0.80

Total luminous flux of all lamps	34400 lm
Total power	384 W
Total power per area (5809.37 m²)	0.07 W/m²

Illuminance

Average illuminance	Em	22 lx
Minimum illuminance	Emin	0 lx
Maximum illuminance	Emax	330 lx
Uniformity Uo	Emin/Em	1:79.1 (0.01)
Diversity Ud	Emin/Emax	1:1180 (0)

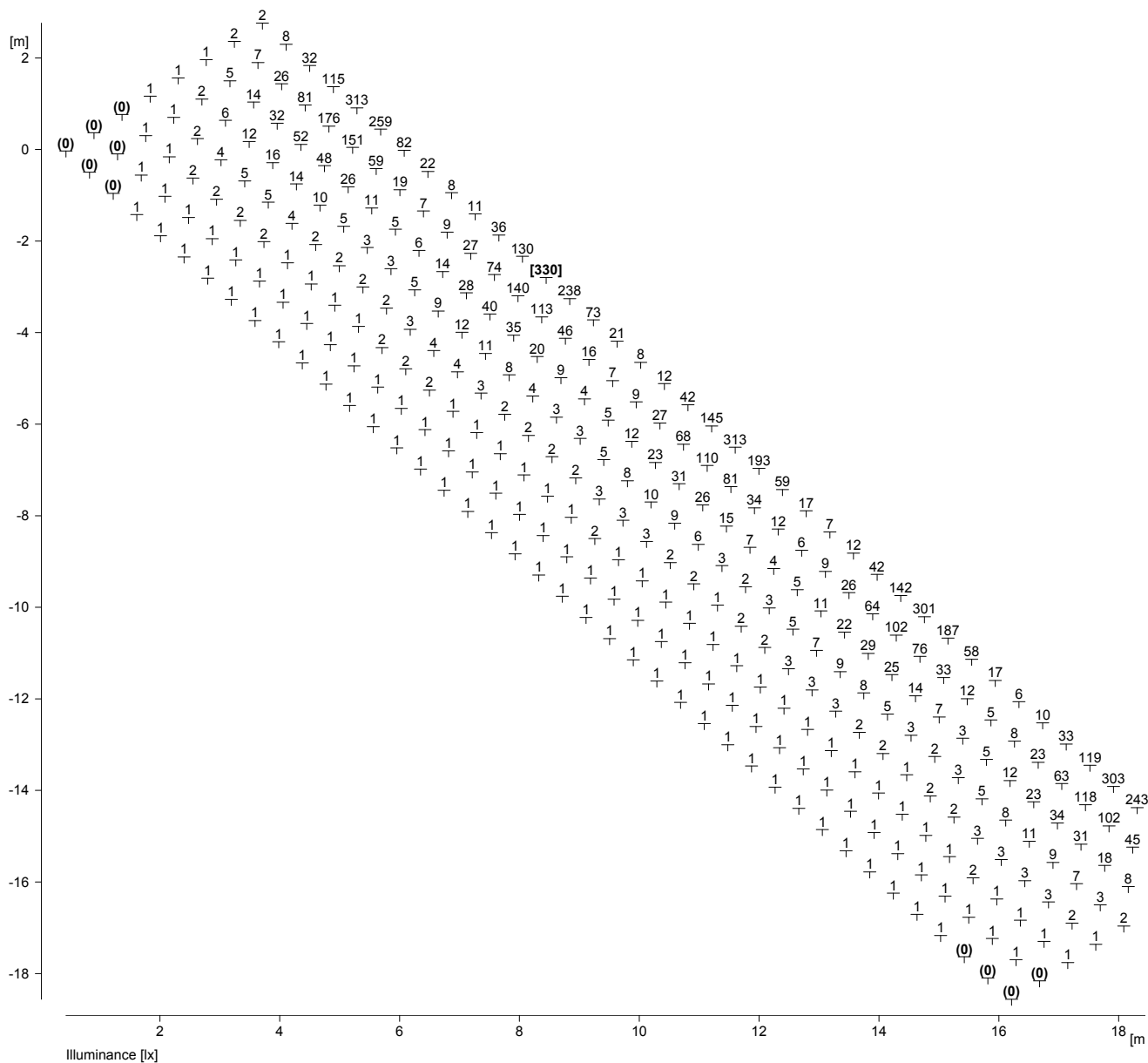
Type No. Make

1	32	Delta Light
	Order No.	: 15116 9300
	Luminaire name	: OBLIX F 100 930
	Equipment	: 1 x LED ARRAY BV8-G7H 3000K-cri90-500mA 10 W / 1075 lm

Object : Langstone Quays
Installation : Exterior
Project number : OPP-202056560
Date : 29.10.2020

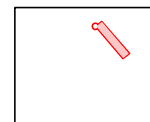
Calculation results, Exterior 1

Table, Car Park Bay Four (E)



Part1

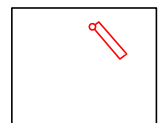
Height reference plane	: 0.00 m
Average illuminance	Em : 22 lx
Minimum illuminance	Emin : 0 lx
Maximum illuminance	Emax : 330 lx
Uniformity Uo	Emin/Em : 1 : 79.11 (0.01)
Diversity Ud	Emin/Emax : 1 : 1180.66 (0.00)



Object : Langstone Quays
Installation : Exterior
Project number : OPP-202056560
Date : 29.10.2020

Calculation results, Exterior 1

Table, Car Park Bay Four (E)

$$\begin{array}{r} 78 \\ \hline 16 \\ \hline 3 \\ \hline \end{array} \quad \begin{array}{r} 22 \\ \hline 5 \\ \hline \end{array} \quad \begin{array}{r} 6 \\ \hline \end{array}$$


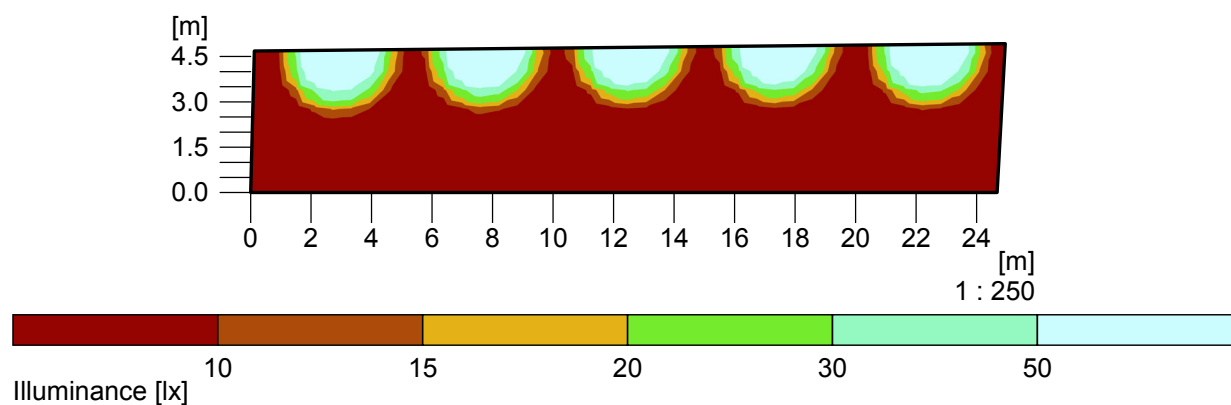
1

Part2

Object : Langstone Quays
Installation : Exterior
Project number : OPP-202056560
Date : 29.10.2020

Calculation results, Exterior 1

Pseudo colours, Car Park Bay Four (E)



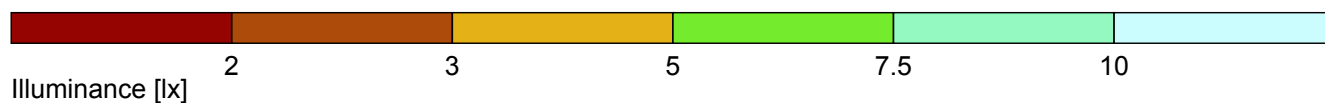
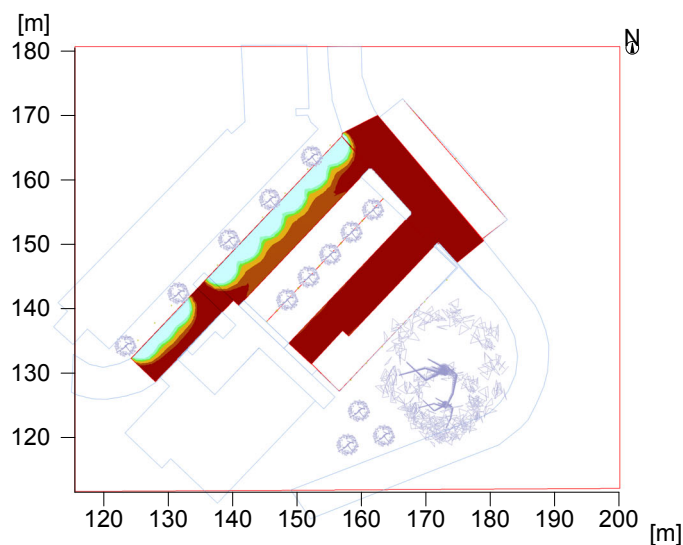
Height reference plane	: 0.00 m
Average illuminance	Em : 22 lx
Minimum illuminance	Emin : 0 lx
Maximum illuminance	Emax : 330 lx
Uniformity Uo	Emin/Em : 1 : 79.11 (0.01)
Diversity Ud	Emin/Emax : 1 : 1180.66 (0.00)

Object : Langstone Quays
Installation : Exterior
Project number : OPP-202056560
Date : 29.10.2020

Exterior 1

Summary, Exterior 1

Result overview, Driveway



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Height (phot. centre) [m]:	1.00 m
Maintenance factor	0.80

Total luminous flux of all lamps	34400 lm
Total power	384 W
Total power per area (5809.37 m²)	0.07 W/m²

Illuminance

Average illuminance	Em	6 lx
Minimum illuminance	Emin	0 lx
Maximum illuminance	Emax	263 lx
Uniformity Uo	Emin/Em	1:70.7 (0.01)
Diversity Ud	Emin/Emax	1:3020 (0)

Type No. Make

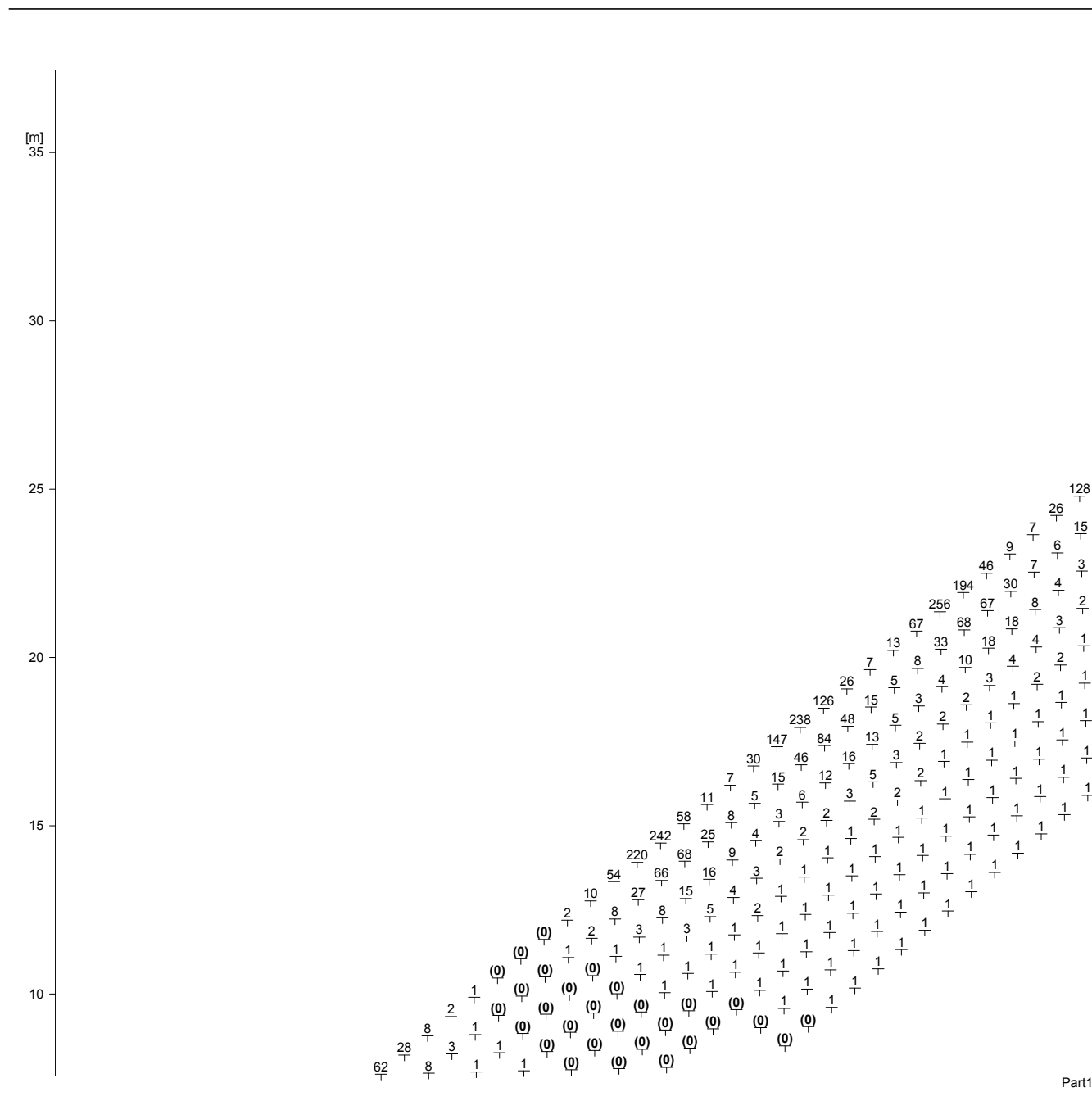
1	32	Delta Light
	Order No.	: 15116 9300
	Luminaire name	: OBLIX F 100 930
	Equipment	: 1 x LED ARRAY BV8-G7H 3000K-cri90-500mA 10 W / 1075 lm

Object : Langstone Quays
Installation : Exterior
Project number : OPP-202056560
Date : 29.10.2020

Exterior 1

Calculation results, Exterior 1

Table, Driveway (E)



Height reference plane

: 0.00 m

Average illuminance

Em : 6 lx

Minimum illuminance

Emin : 0 lx

Maximum illuminance

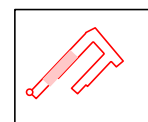
Emax : 263 lx

Uniformity Uo

Emin/Em : 1 : 70.73 (0.01)

Diversity Ud

Emin/Emax : 1 : 3021.08 (0.00)



Object : Langstone Quays
Installation : Exterior
Project number : OPP-202056560
Date : 29.10.2020

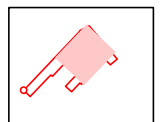
Exterior 1

Calculation results, Exterior 1

Table, Driveway (E)



Part2

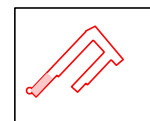
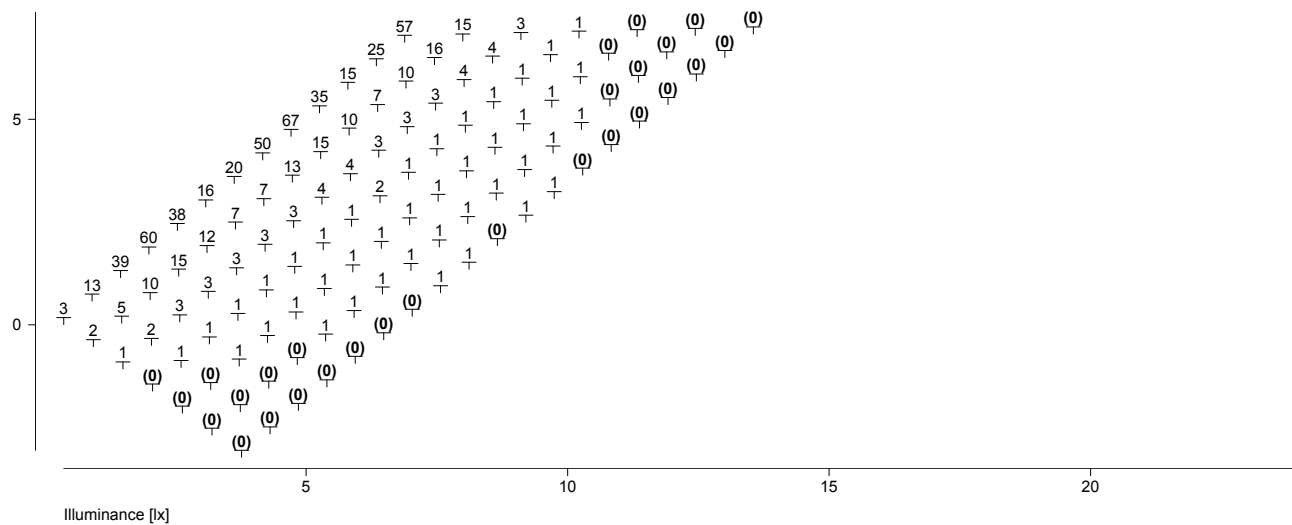


Object : Langstone Quays
Installation : Exterior
Project number : OPP-202056560
Date : 29.10.2020

Exterior 1

Calculation results, Exterior 1

Table, Driveway (E)



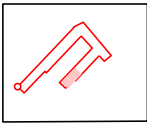
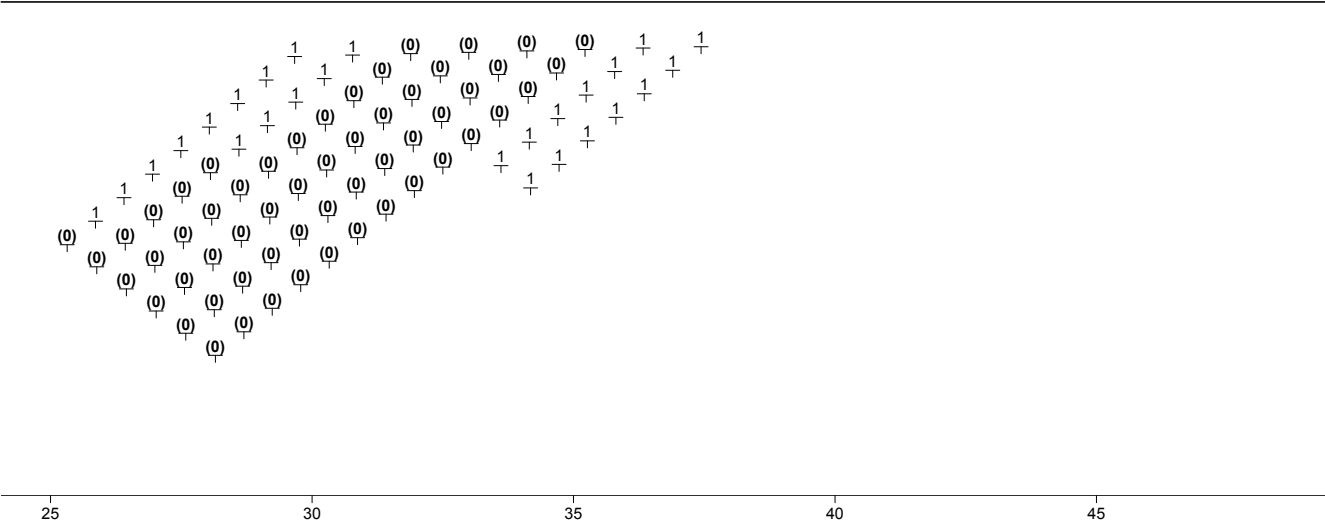
Part4

Object : Langstone Quays
Installation : Exterior
Project number : OPP-202056560
Date : 29.10.2020

Exterior 1

Calculation results, Exterior 1

Table, Driveway (E)



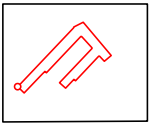
Object : Langstone Quays
Installation : Exterior
Project number : OPP-202056560
Date : 29.10.2020

Exterior 1

Calculation results, Exterior 1

Table, Driveway (E)

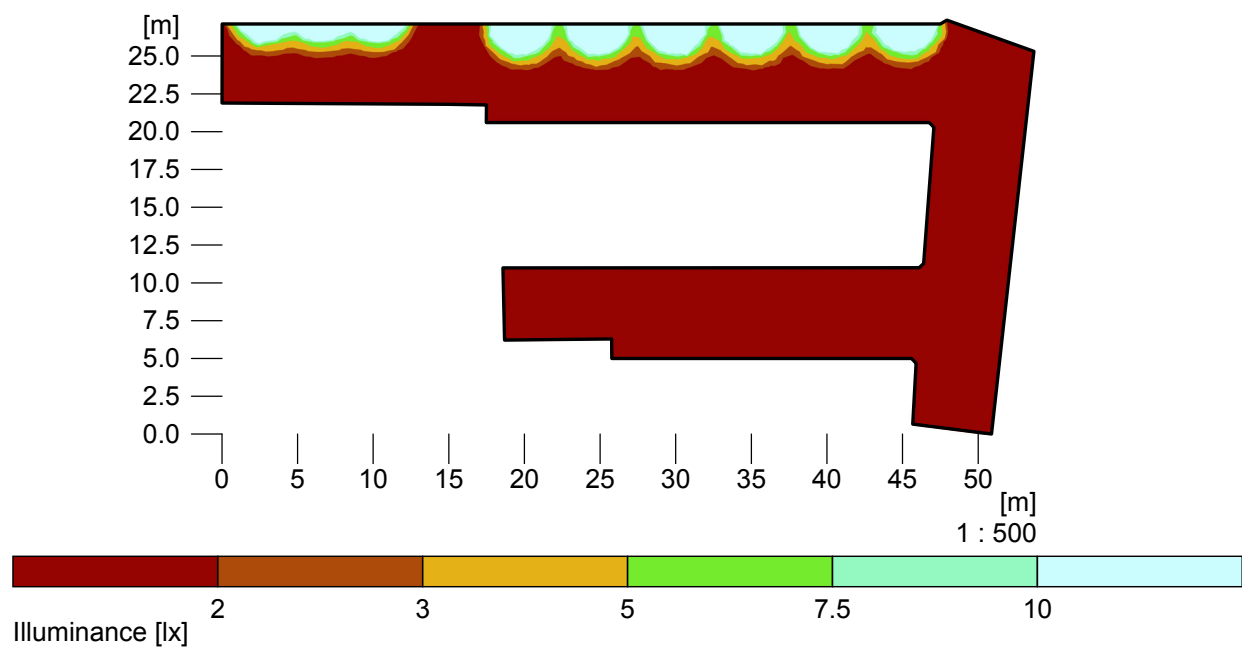
50 [m]



Part6

Calculation results, Exterior 1

Pseudo colours, Driveway (E)

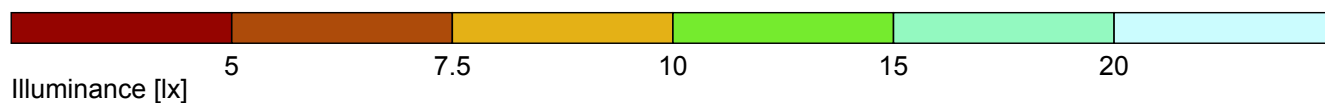
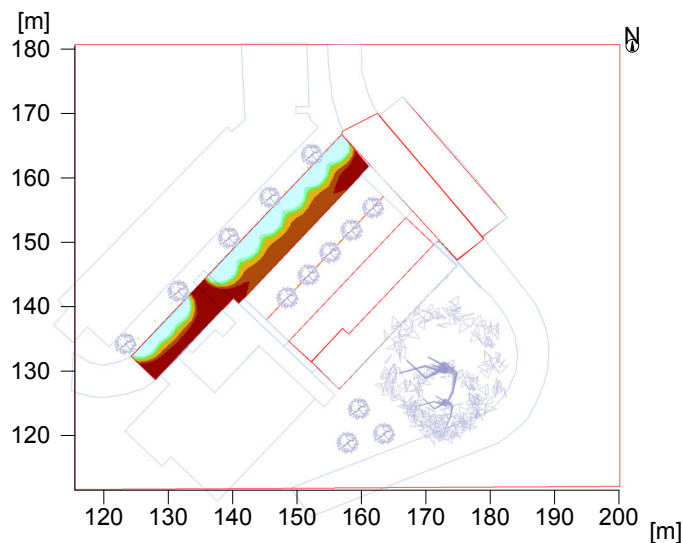


Height reference plane	: 0.00 m
Average illuminance	Em : 6 lx
Minimum illuminance	Emin : 0 lx
Maximum illuminance	Emax : 263 lx
Uniformity Uo	Emin/Em : 1 : 70.73 (0.01)
Diversity Ud	Emin/Emax : 1 : 3021.08 (0.00)

Object : Langstone Quays
 Installation : Exterior
 Project number : OPP-202056560
 Date : 29.10.2020

Summary, Exterior 1

Result overview, Driveway Area One



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Height (phot centre) [m]:	1.00 m
Maintenance factor	0.80

Total luminous flux of all lamps	34400 lm
Total power	384 W
Total power per area (5809.37 m ²)	0.07 W/m ²

Illuminance

Average illuminance	Em	10 lx
Minimum illuminance	Emin	0 lx
Maximum illuminance	Emax	211 lx
Uniformity Uo	Emin/Em	1:48.3 (0.02)
Diversity Ud	Emin/Emax	1:1040 (0)

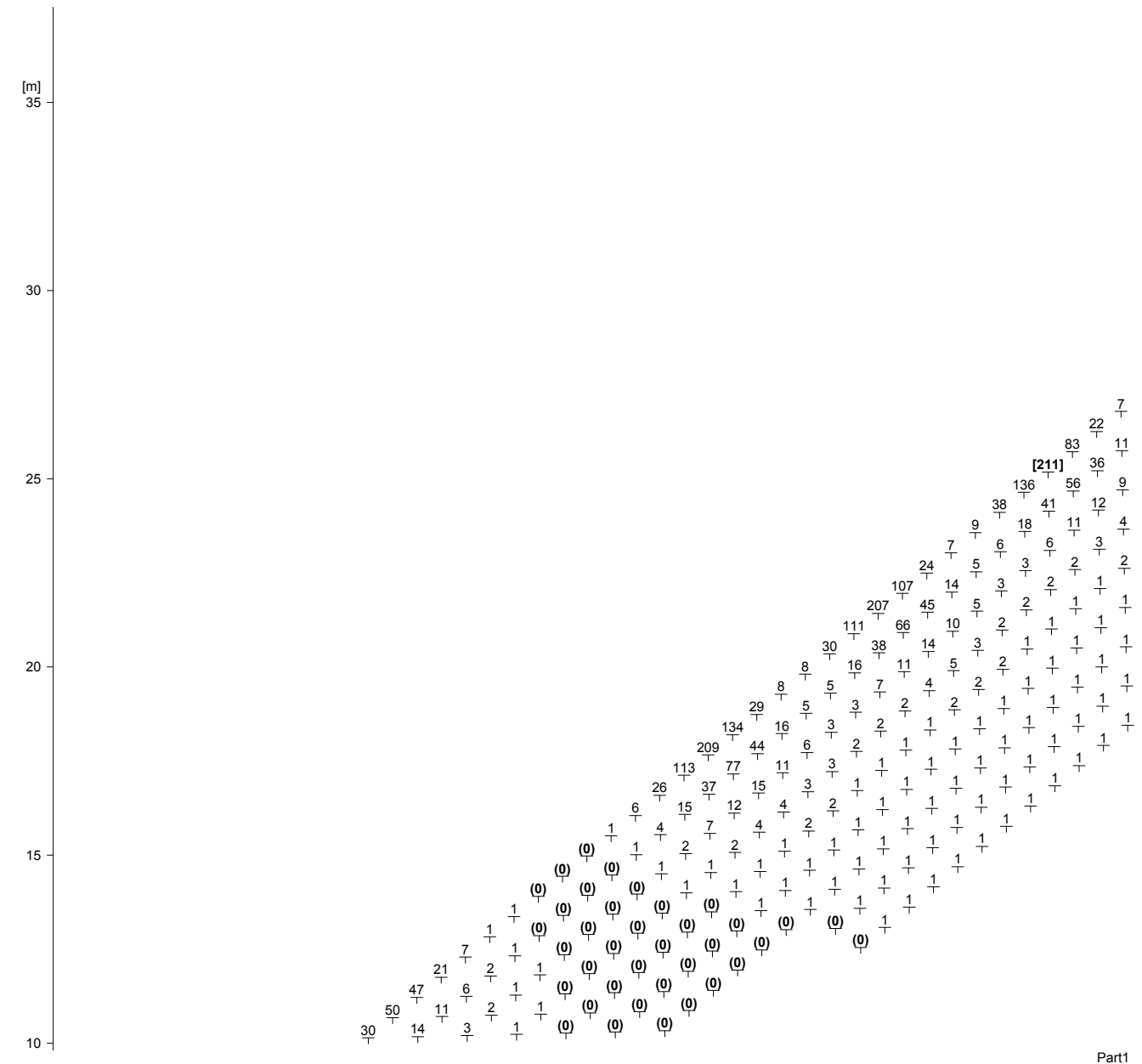
Type No. Make

1	32	Delta Light
	Order No.	: 15116 9300
	Luminaire name	: OBLIX F 100 930
	Equipment	: 1 x LED ARRAY BV8-G7H 3000K-cri90-500mA 10 W / 1075 lm

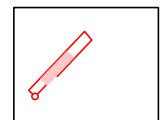
Object : Langstone Quays
Installation : Exterior
Project number : OPP-202056560
Date : 29.10.2020

Calculation results, Exterior 1

Table, Driveway Area One (E)



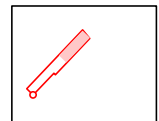
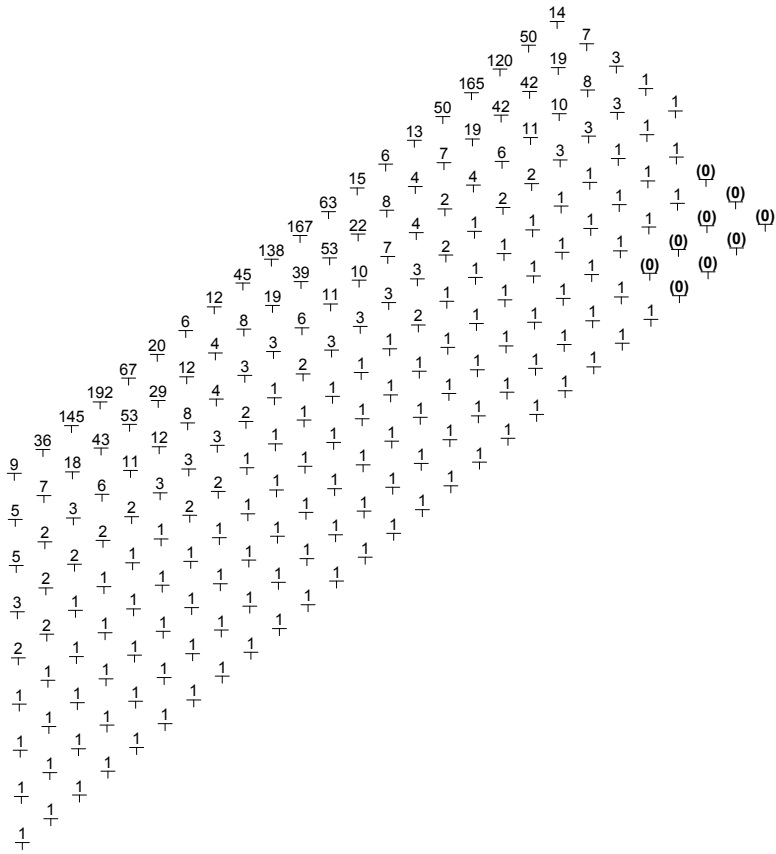
Height reference plane	: 0.00 m
Average illuminance	Em : 10 lx
Minimum illuminance	Emin : 0 lx
Maximum illuminance	Emax : 211 lx
Uniformity Uo	Emin/Em : 1 : 48.33 (0.02)
Diversity Ud	Emin/Emax : 1 : 1038.18 (0.00)



Object : Langstone Quays
Installation : Exterior
Project number : OPP-202056560
Date : 29.10.2020

Calculation results, Exterior 1

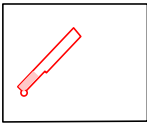
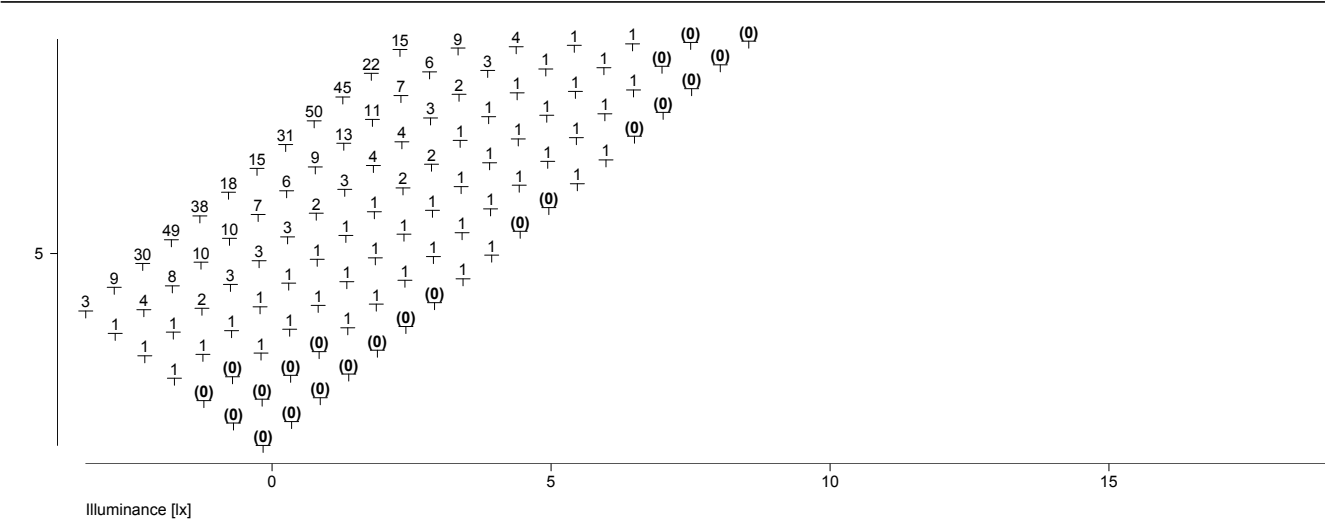
Table, Driveway Area One (E)



Part2

Calculation results, Exterior 1

Table, Driveway Area One (E)

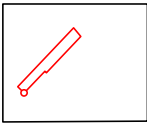


Object : Langstone Quays
Installation : Exterior
Project number : OPP-202056560
Date : 29.10.2020

Calculation results, Exterior 1

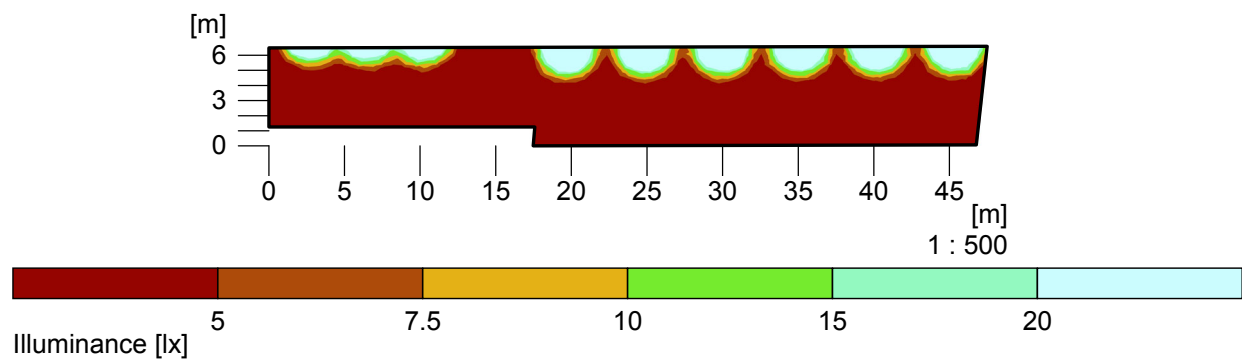
Table, Driveway Area One (E)

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Object : Langstone Quays
Installation : Exterior
Project number : OPP-202056560
Date : 29.10.2020

Calculation results, Exterior 1
Pseudo colours, Driveway Area One (E)

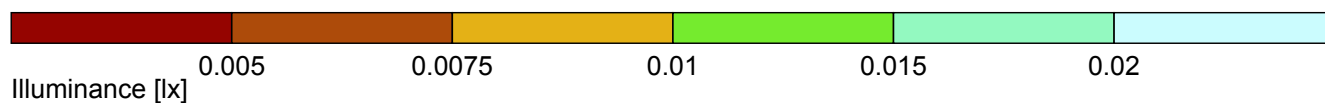
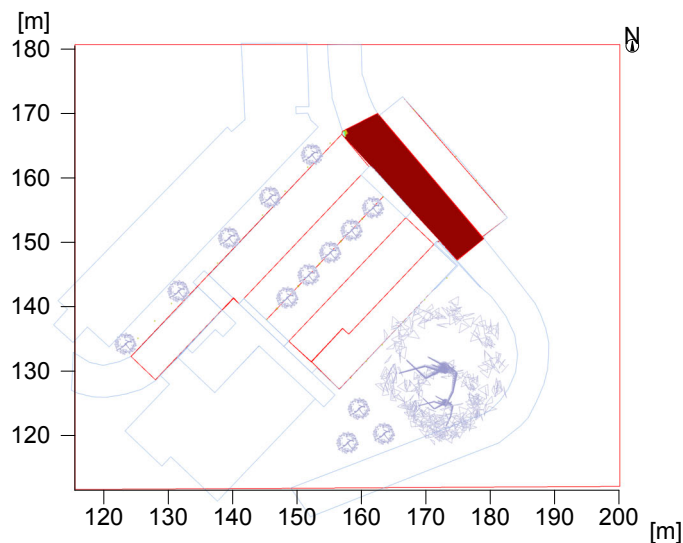


Height reference plane	: 0.00 m
Average illuminance	Em : 10 lx
Minimum illuminance	Emin : 0 lx
Maximum illuminance	Emax : 211 lx
Uniformity Uo	Emin/Em : 1 : 48.33 (0.02)
Diversity Ud	Emin/Emax : 1 : 1038.18 (0.00)

Object : Langstone Quays
 Installation : Exterior
 Project number : OPP-202056560
 Date : 29.10.2020

Summary, Exterior 1

Result overview, Driveway Area Two



General

Calculation algorithm used	Average indirect fraction
Height (phot centre) [m]:	1.00 m
Maintenance factor	0.80
Total luminous flux of all lamps	34400 lm
Total power	384 W
Total power per area (5809.37 m²)	0.07 W/m²

Illuminance

Average illuminance	Em	0.01 lx
Minimum illuminance	Emin	0 lx
Maximum illuminance	Emax	2.34 lx
Uniformity Uo	Emin/Em	1:--- (---)
Diversity Ud	Emin/Emax	1:--- (---)

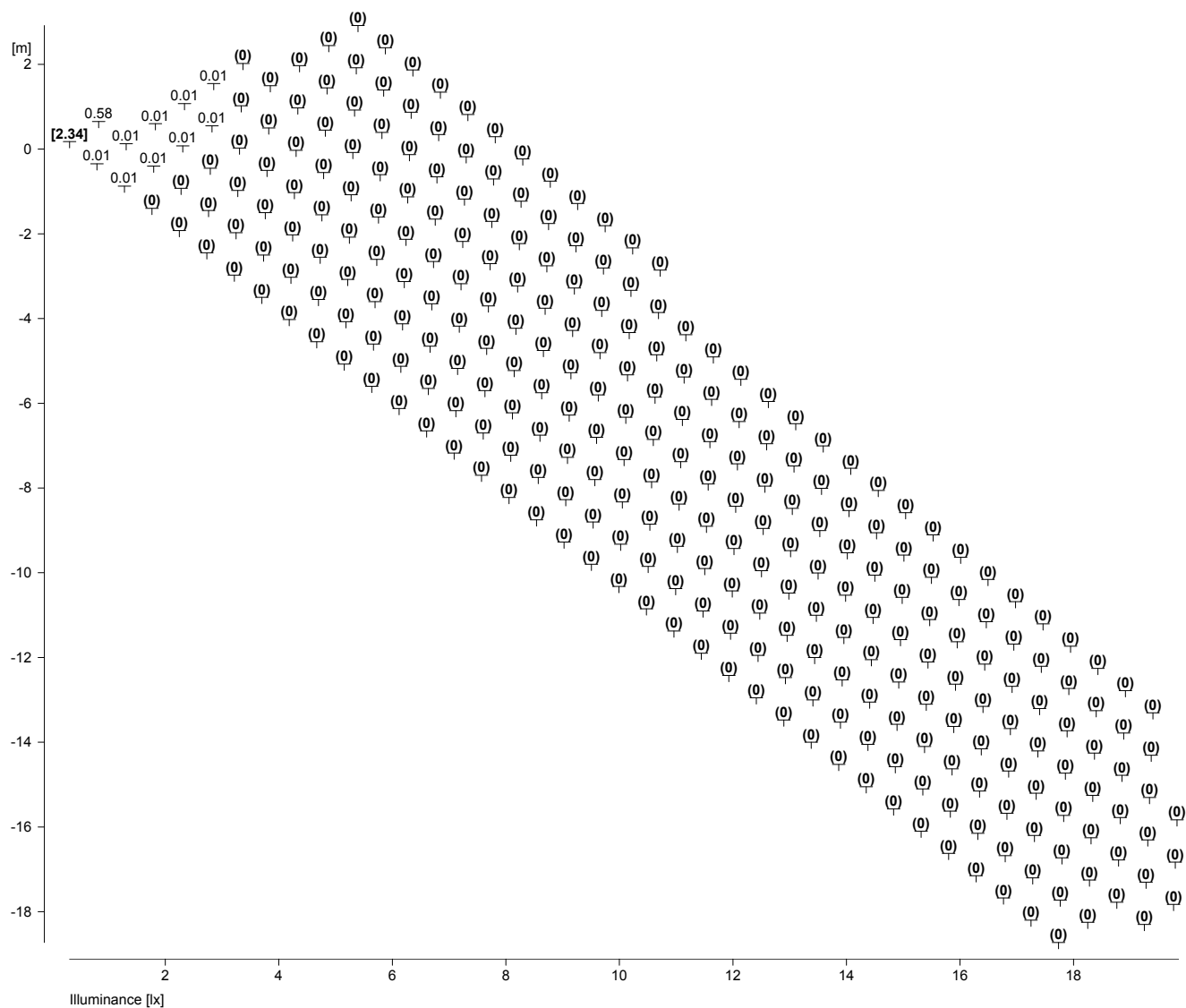
Type No. Make

1	32	Delta Light
	Order No.	: 15116 9300
	Luminaire name	: OBLIX F 100 930
	Equipment	: 1 x LED ARRAY BV8-G7H 3000K-cri90-500mA 10 W / 1075 lm

Object : Langstone Quays
Installation : Exterior
Project number : OPP-202056560
Date : 29.10.2020

Calculation results, Exterior 1

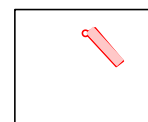
Table, Driveway Area Two (E)



Part1

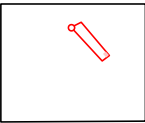
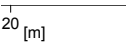
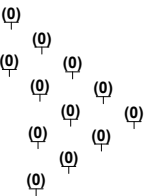
Average illuminance
Minimum illuminance
Maximum illuminance
Uniformity Uo
Diversity Ud

Em : 0.01 lx
Emin : 0 lx
Emax : 2.34 lx
Emin/Em : ---
Emin/Emax : ---

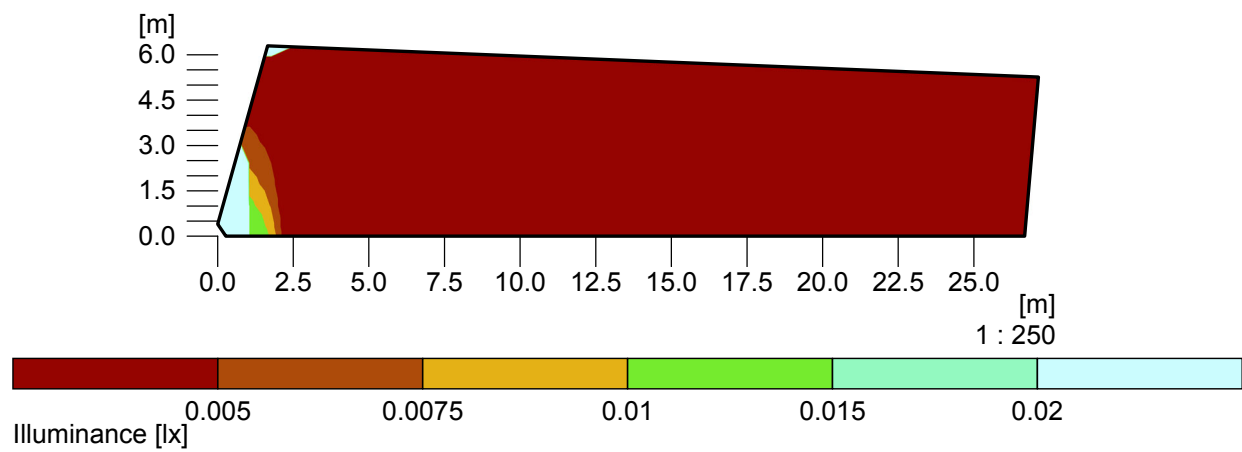


Object : Langstone Quays
Installation : Exterior
Project number : OPP-202056560
Date : 29.10.2020

Calculation results, Exterior 1
Table, Driveway Area Two (E)



Calculation results, Exterior 1
Pseudo colours, Driveway Area Two (E)

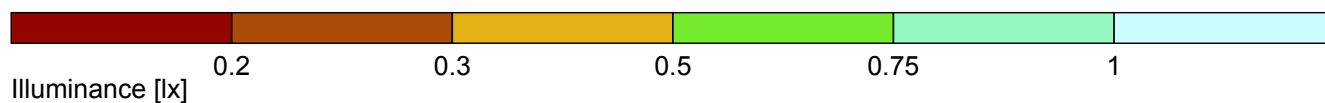
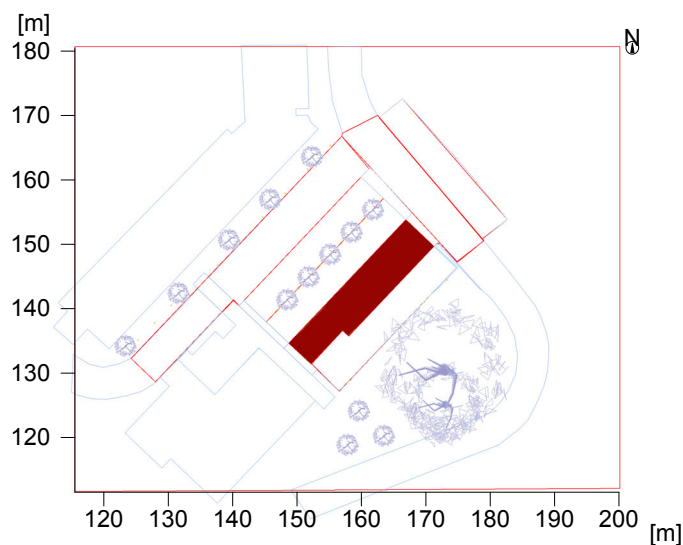


Average illuminance	Em	: 0.01 lx
Minimum illuminance	Emin	: 0 lx
Maximum illuminance	Emax	: 2.34 lx
Uniformity Uo	Emin/Em	: ---
Diversity Ud	Emin/Emax	: ---

Object : Langstone Quays
Installation : Exterior
Project number : OPP-202056560
Date : 29.10.2020

Summary, Exterior 1

Result overview, Driveway Area Three



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Height (phot centre) [m]:	1.00 m
Maintenance factor	0.80

Total luminous flux of all lamps	34400 lm
Total power	384 W
Total power per area (5809.37 m ²)	0.07 W/m ²

Illuminance

Average illuminance	Em	0.45 lx
Minimum illuminance	Emin	0.23 lx
Maximum illuminance	Emax	0.68 lx
Uniformity Uo	Emin/Em	1:1.96 (0.51)
Diversity Ud	Emin/Emax	1:2.95 (0.34)

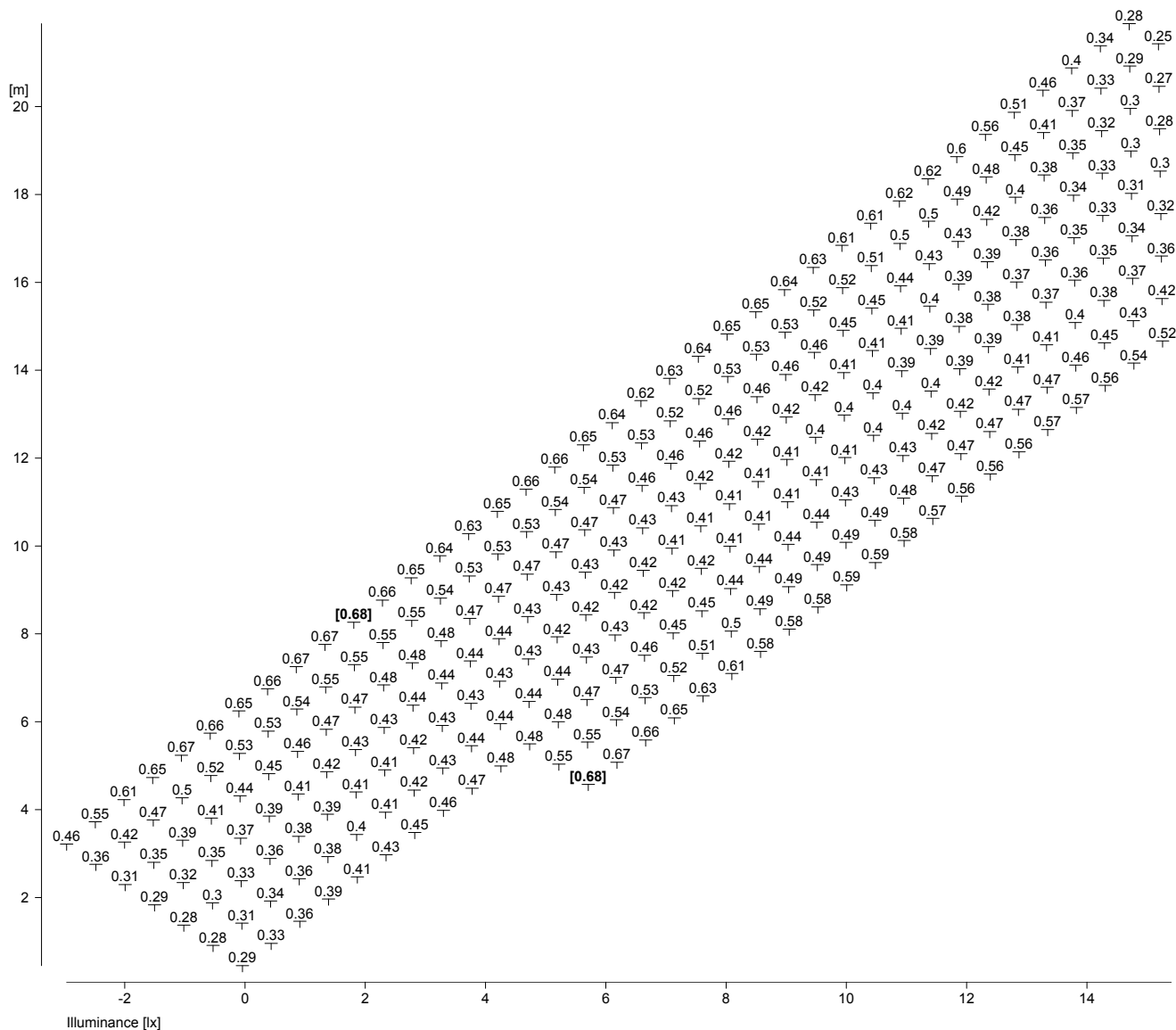
Type No. Make

1	32	Delta Light
	Order No.	: 15116 9300
	Luminaire name	: OBLIX F 100 930
	Equipment	: 1 x LED ARRAY BV8-G7H 3000K-cri90-500mA 10 W / 1075 lm

Object : Langstone Quays
Installation : Exterior
Project number : OPP-202056560
Date : 29.10.2020

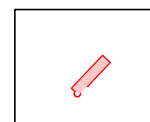
Calculation results, Exterior 1

Table, Driveway Area Three (E)



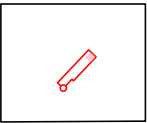
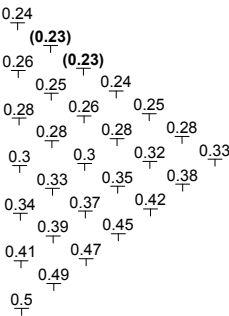
Part1

Height reference plane	: 0.00 m
Average illuminance	Em : 0.45 lx
Minimum illuminance	Emin : 0.23 lx
Maximum illuminance	Emax : 0.68 lx
Uniformity Uo	Emin/Em : 1 : 1.96 (0.51)
Diversity Ud	Emin/Emax : 1 : 2.95 (0.34)

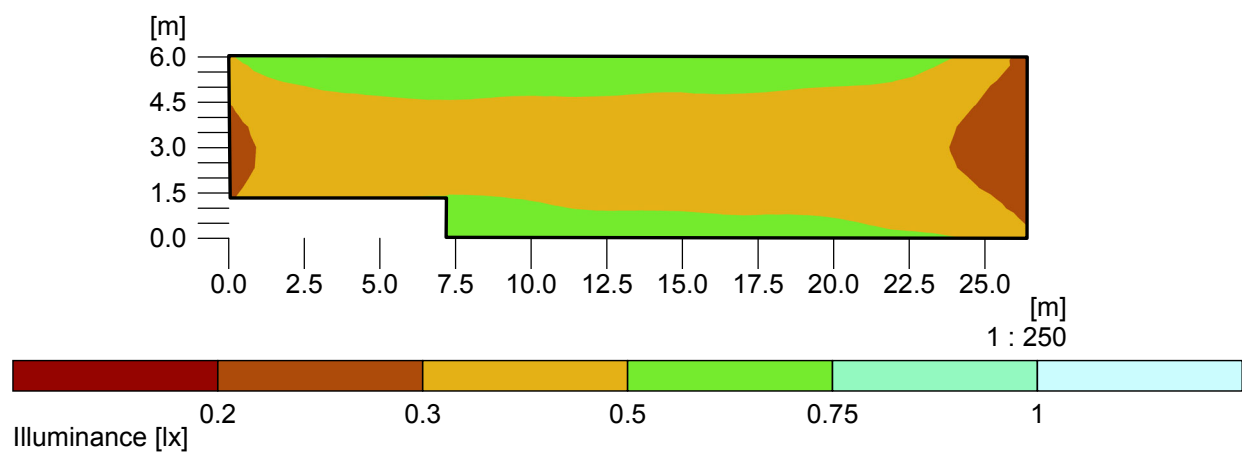


Object : Langstone Quays
Installation : Exterior
Project number : OPP-202056560
Date : 29.10.2020

Calculation results, Exterior 1
Table, Driveway Area Three (E)



Calculation results, Exterior 1
Pseudo colours, Driveway Area Three (E)



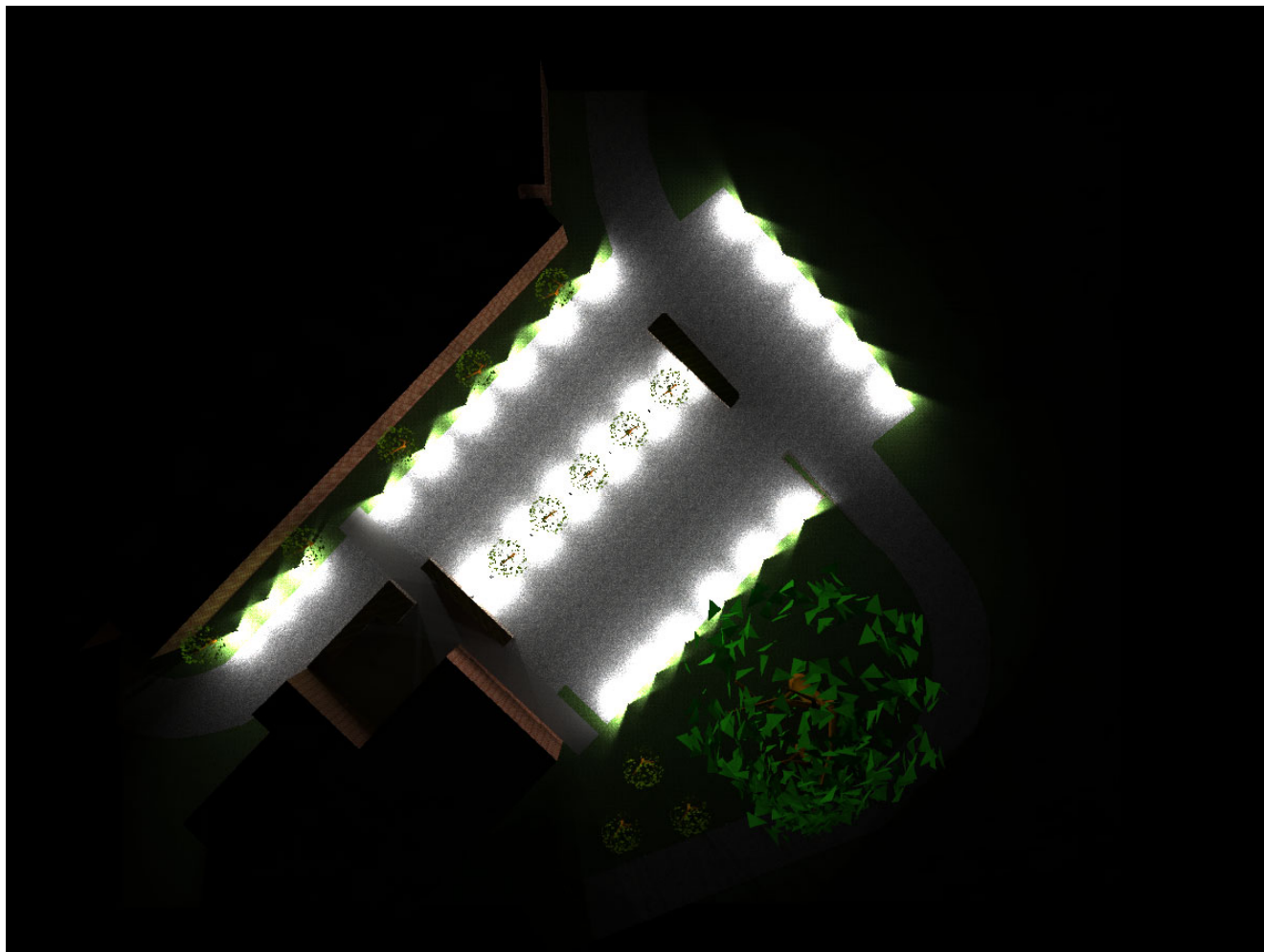
Height reference plane	: 0.00 m
Average illuminance	Em : 0.45 lx
Minimum illuminance	Emin : 0.23 lx
Maximum illuminance	Emax : 0.68 lx
Uniformity Uo	Emin/Em : 1 : 1.96 (0.51)
Diversity Ud	Emin/Emax : 1 : 2.95 (0.34)

Object : Langstone Quays
Installation : Exterior
Project number : OPP-202056560
Date : 29.10.2020

Exterior 1

Calculation results, Exterior 1

3D luminance (raytracing), View from above



Luminance in the illustration:

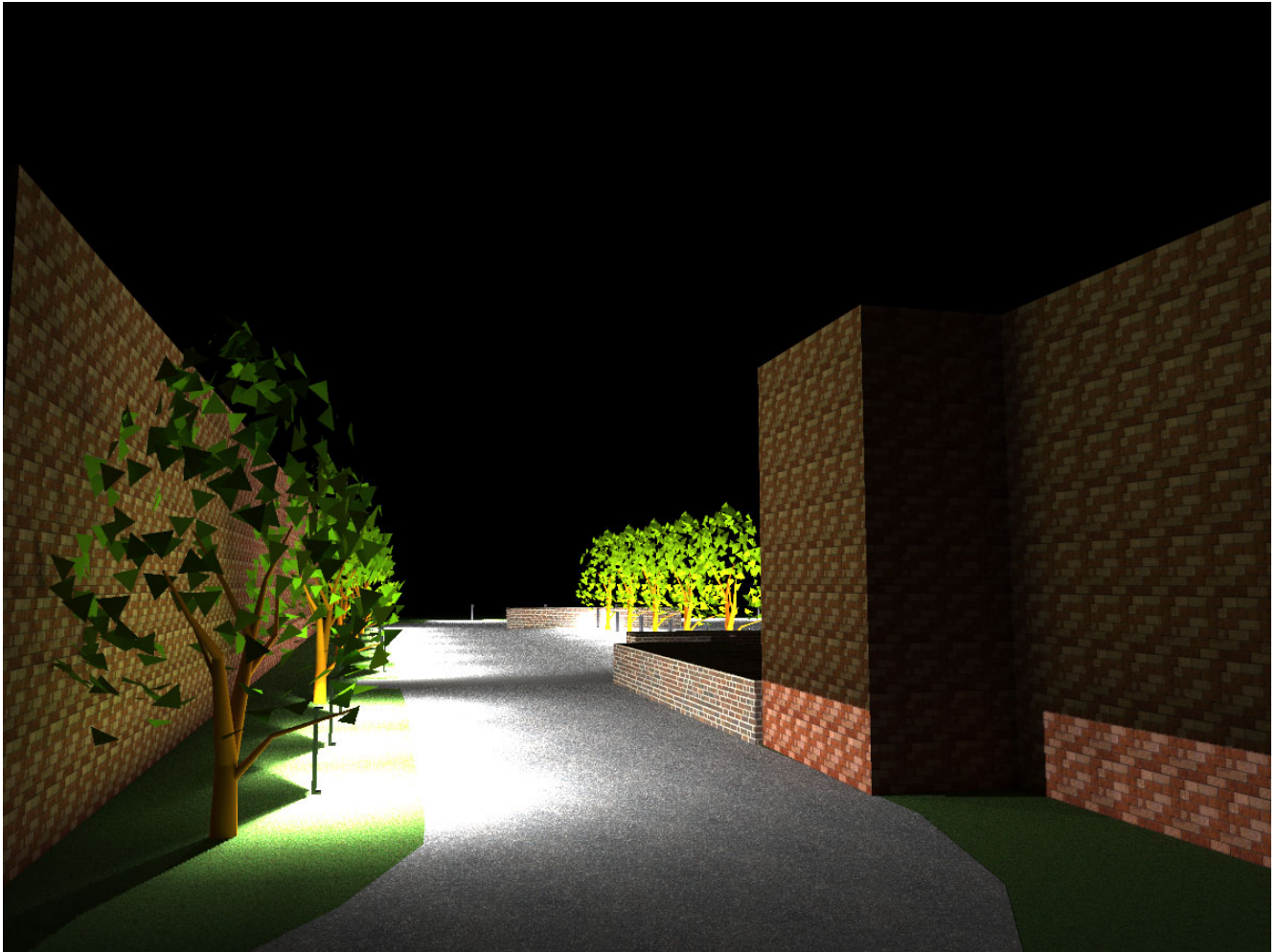
Minimum: : 0 cd/m²
Maximum: : 59.2 cd/m²

Artificial light calculation : Direct part, with 2 inter-reflections

Object : Langstone Quays
Installation : Exterior
Project number : OPP-202056560
Date : 29.10.2020

Calculation results, Exterior 1

3D luminance (raytracing), Variable view



Luminance in the illustration:

Minimum: : 0 cd/m²
Maximum: : 27.8 cd/m²

Artificial light calculation : Direct part, with 2 inter-reflections

Object : Langstone Quays
Installation : Exterior
Project number : OPP-202056560
Date : 29.10.2020

Calculation results, Exterior 1

3D luminance (raytracing), Variable view



Luminance in the illustration:

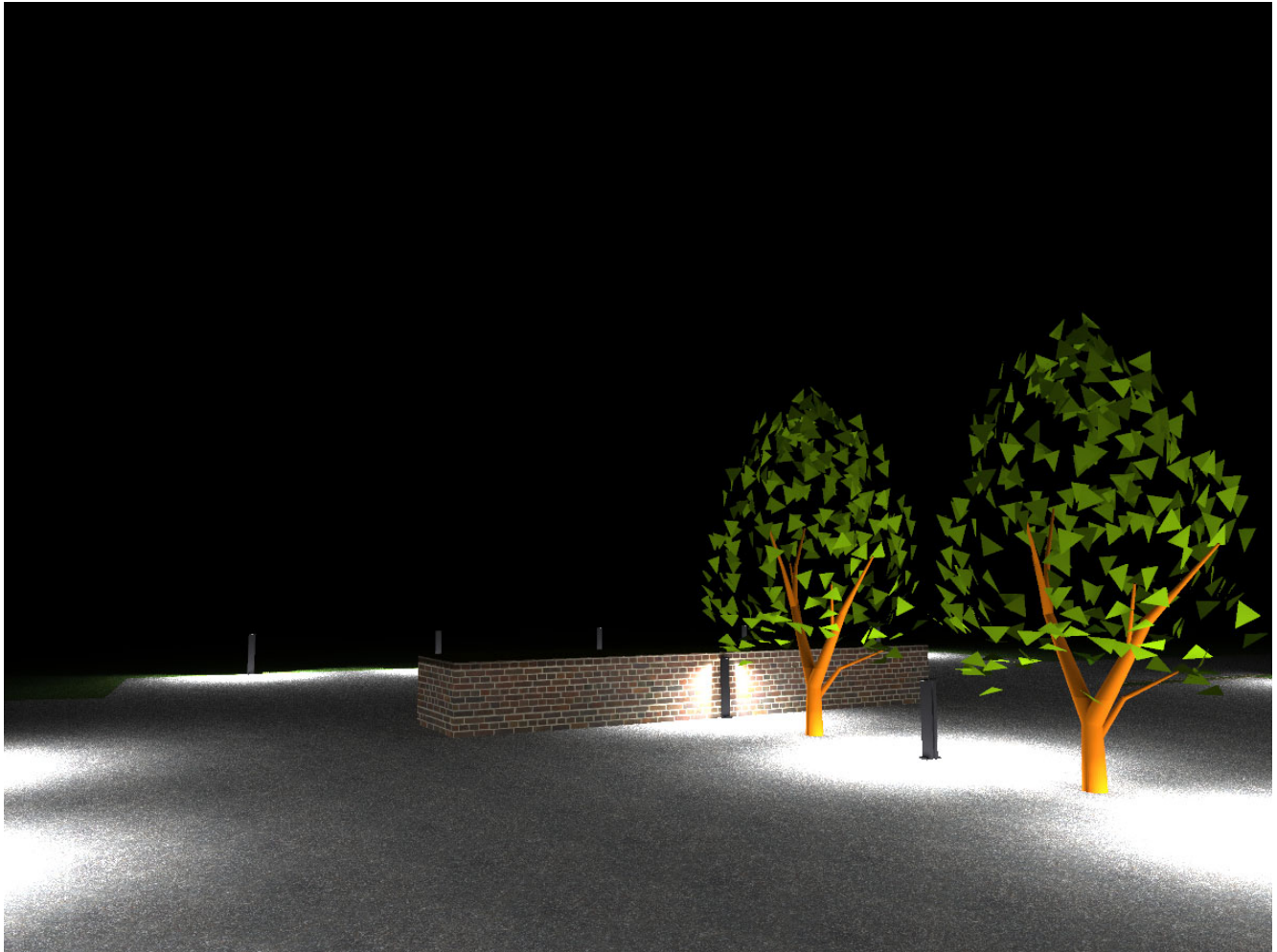
Minimum: : 0 cd/m²
Maximum: : 55.6 cd/m²

Artificial light calculation : Direct part, with 2 inter-reflections

Object : Langstone Quays
Installation : Exterior
Project number : OPP-202056560
Date : 29.10.2020

Calculation results, Exterior 1

3D luminance (raytracing), Variable view



Luminance in the illustration:

Minimum: : 0 cd/m²
Maximum: : 46.6 cd/m²

Artificial light calculation : Direct part, with 2 inter-reflections

Object : Langstone Quays
Installation : Exterior
Project number : OPP-202056560
Date : 29.10.2020

Calculation results, Exterior 1

3D luminance (raytracing), Variable view



Luminance in the illustration:

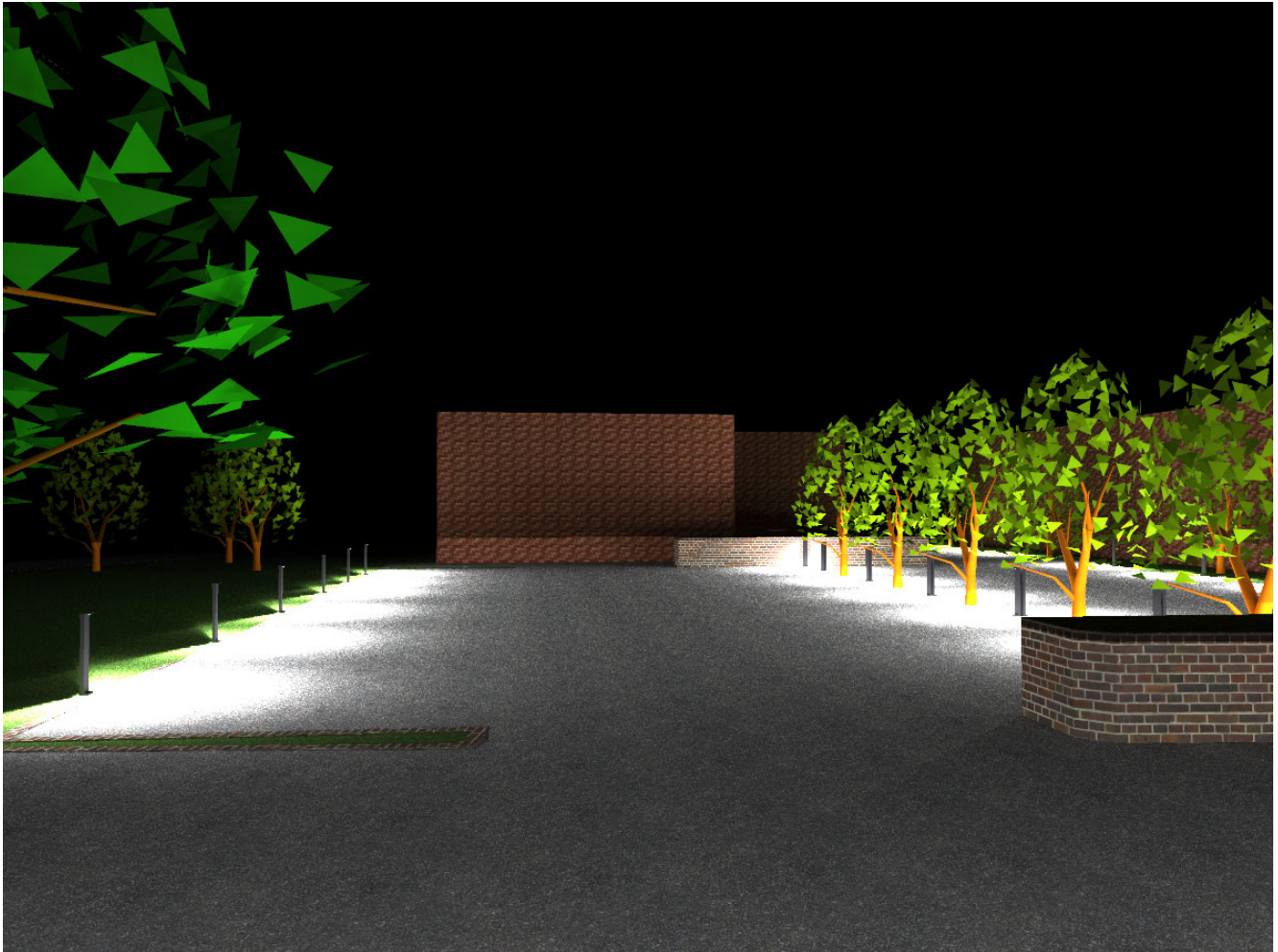
Minimum: : 0 cd/m²
Maximum: : 48.2 cd/m²

Artificial light calculation : Direct part, with 2 inter-reflections

Object : Langstone Quays
Installation : Exterior
Project number : OPP-202056560
Date : 29.10.2020

Calculation results, Exterior 1

3D luminance (raytracing), Variable view



Luminance in the illustration:

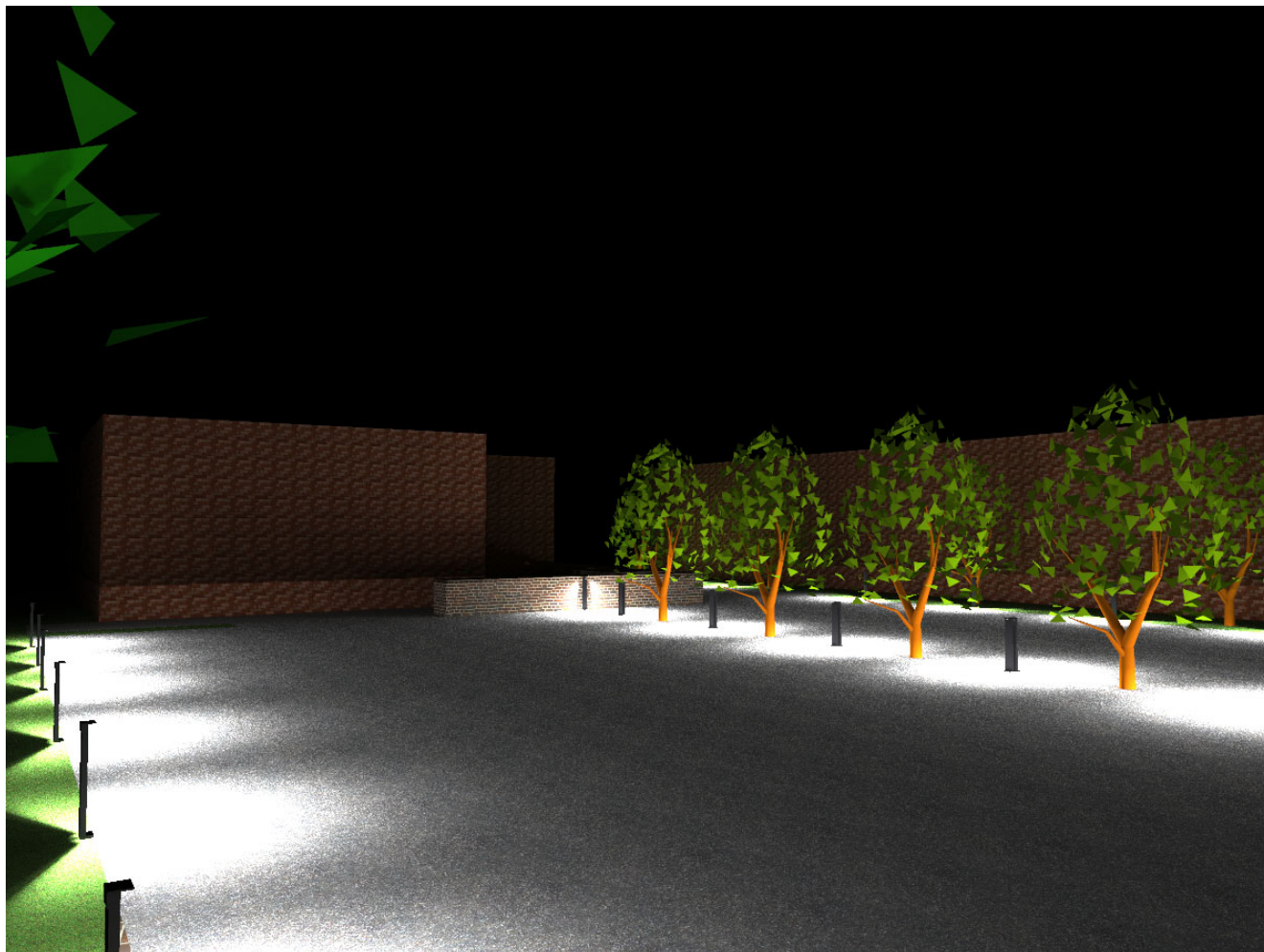
Minimum: : 0 cd/m²
Maximum: : 44.8 cd/m²

Artificial light calculation : Direct part, with 2 inter-reflections

Object : Langstone Quays
Installation : Exterior
Project number : OPP-202056560
Date : 29.10.2020

Calculation results, Exterior 1

3D luminance (raytracing), Variable view



Luminance in the illustration:

Minimum: : 0 cd/m²
Maximum: : 51 cd/m²

Artificial light calculation : Direct part, with 2 inter-reflections