

Reading External Lighting

Installation :

Project number : 9140
Customer :
Processed by : Bevis Mulholland
Date : 15.02.2019

Project description:
External Lighting Plots

20 lux average and 0.3 uniformity

Luminaires to be switched off between 12pm and 7 am

Columns to be 6m high

Measuring Area 16 indicates the result of light adjacent to the northern site boundary. This is within the parameters described within light pollution guidance for both pre and post curfew.

Wall mounted fittings mounted at 3m affl

Bollard fittings are 1200 high.

This indicative lighting scheme demonstrates how the scheme could meet the planning requirements. The light fittings and positions may vary at a later stage as the landscape design develops. However the relevant design criteria will still be achieved.

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 Luminaire data

1.1 Whitecroft Lighting, SIROCCO PARK (SIPSHE14K)

1.1.1 Data sheet

Manufacturer: Whitecroft Lighting



SIPSHE14K Wall / pole mounted luminaire SIROCCO PARK
 SIROCCO PARK IP66 LED SYMMETRIC WIDE

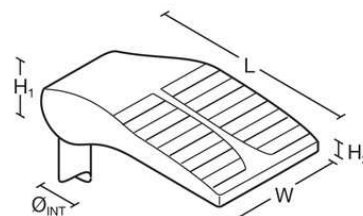
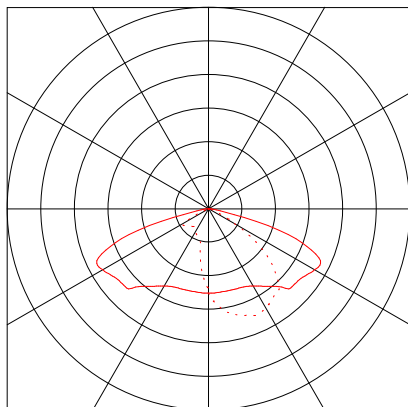
ultra slim post top lantern with symmetrical distribution and zero upward light. Die cast aluminium body with integrated cooling fins and thermal shock resistant clear tempered glass. Electronic control gear with voltage surge protection and insulated safety switch. With 60mm diameter spigot for post top or side entry column mounting. Optional wall mounting bracket (order separately).

Luminaire data

Absolute Photometry
 Luminaire efficacy : 148.86 lm/W
 Classification : A30 ↓100.0% ↑0.0%
 CIE Flux Codes : 37 74 98 100 100
 UGR 4H 8H (20%, 50%, 70%)
 C0 / C90 : 37.0 / 21.1
 Control gear : electronic ballast
 System power : 35 W
 Length : 530 mm
 Width : 280 mm
 Height : 156 mm

Equipped with

Quantity : 1
 Designation : LED
 Colour : 4000K
 Luminous flux : 5210 lm
 Colour reproduction : 80



1 Luminaire data

1.2 Whitecroft Lighting, CENTURION PP65 LED (CENPL0Y)

1.2.1 Data sheet

Manufacturer: Whitecroft Lighting



CENPL0Y EXTERIOR CENTURION PP65 LED
 CENTURION PP65 - LOW OUTPUT LED

IP65 perimeter security lighting bulkhead
 Suitable for direct surface mounting
 A 4 point fixing employing 2 keyhole slots and 2 locking screws
 Black polycarbonate base and visor
 UV stabilised prismatic polycarbonate diffuser

Options:

Add suffix P for integral photocell version
 Add suffix EMIN for 3 hour integral emergency

Note:

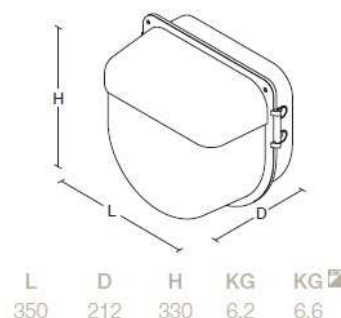
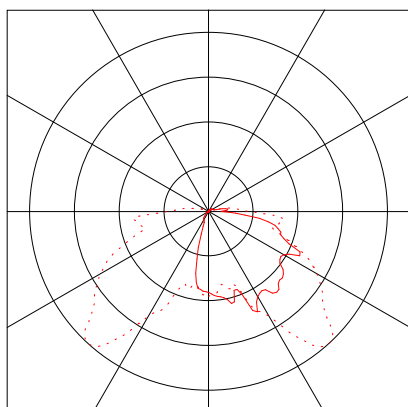
For emergency calculations, please use separate Centurion PP65 LED Emergency file

Luminaire data

Luminaire efficiency : 100%
 Luminaire efficacy : 79.89 lm/W
 Classification : A31 ↓91.3% ↑8.7%
 CIE Flux Codes : 31 66 88 91 100
 UGR 4H 8H (20%, 50%, 70%)
 C0 / C90 : 22.4 / 24.3
 Control gear : electronic ballast
 System power : 17.5 W
 Length : 350 mm
 Width : 212 mm
 Height : 330 mm

Equipped with

Quantity : 1
 Designation : LED
 Power : 17.5W
 Colour : 4000K
 Luminous flux : 1398 lm
 Colour reproduction : 1B



1 Luminaire data

1.3 Whitecroft Lighting, BROADWALK L360 (BLF3614KG)

1.3.1 Data sheet

Manufacturer: Whitecroft Lighting



BLF3614KG bollard / pole mounted luminaires BROADWALK L360

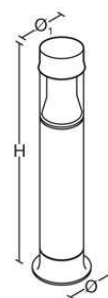
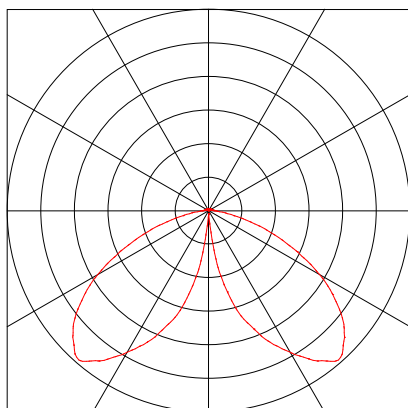
BROADWALK L360 flange plate mounted IP65 bollard with symmetrical distribution. 1100mm high finished in Graphite Grey.

Luminaire data

Luminaire efficiency	: 100%
Luminaire efficacy	: 52.61 lm/W
Classification	: A31 ↓97.4% ↑2.6%
CIE Flux Codes	: 36 76 96 97 100
UGR 4H 8H (20%, 50%, 70%)	
C0 / C90	: 22.5 / 22.5
Control gear	: electronic ballast
System power	: 9.2 W
Diameter	: 180 mm
Height	: 200 mm

Equipped with

Quantity	: 1
Designation	: LED
Power	: 9.2W
Colour	: 4000K
Luminous flux	: 484 lm
Colour reproduction	: 1B



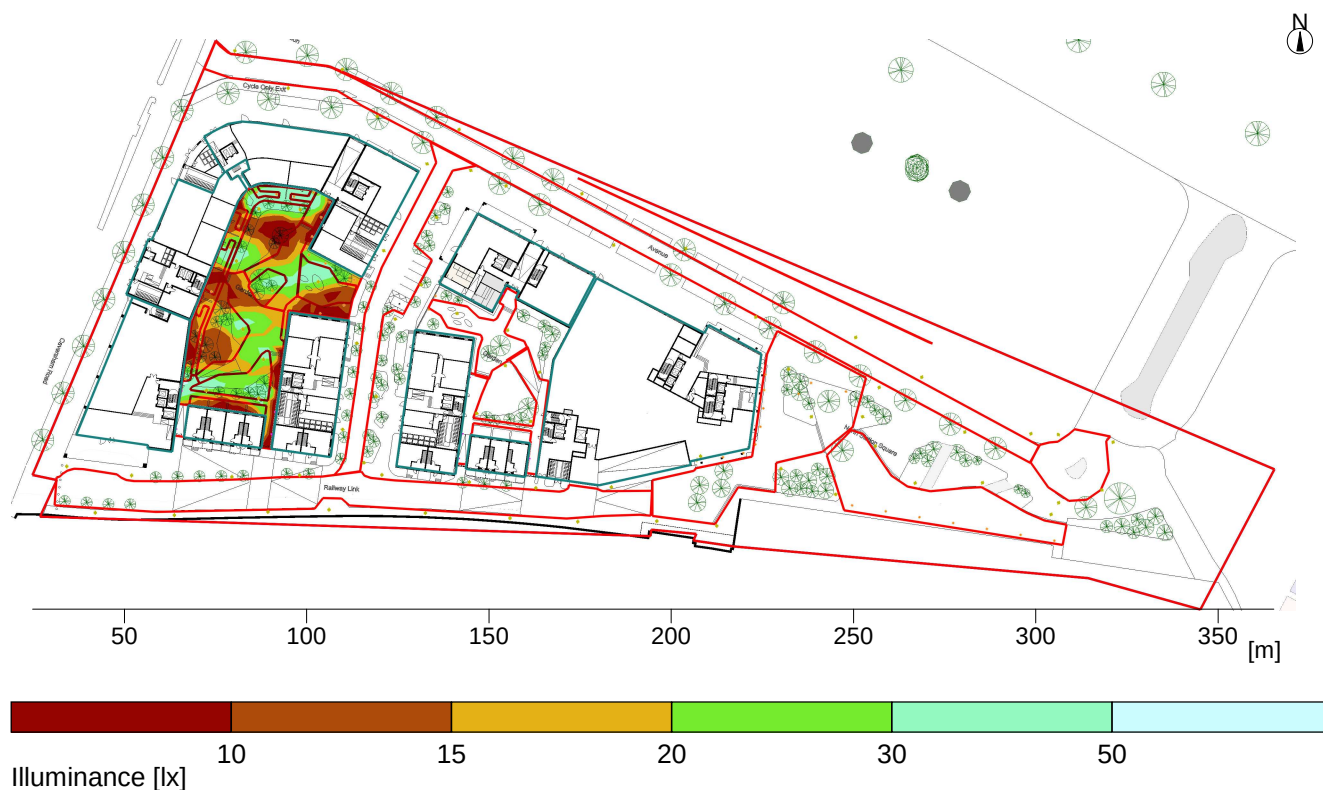
2.1.1 Floor plan



2 Exterior 1

2.2 Summary, Exterior 1

2.2.1 Result overview, Measuring area 1



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux of all lamps	408030 lm
Total power	3063.9 W
Total power per area (27635.62 m²)	0.11 W/m²

Illuminance

Average illuminance	Eav	20.2 lx
Minimum illuminance	Emin	7.6 lx
Maximum illuminance	Emax	45 lx
Uniformity Uo	Emin/Em	1:2.67 (0.37)
Diversity Ud	Emin/Emax	1:5.93 (0.17)

Type No. \Make

Whitcroft Lighting

1	72	Order No.	: SIPSHE14K
		Luminaire name	: SIROCCO PARK
		Equipment	: 1 x LED / 5210 lm
2	9	Order No.	: CENPL0Y
		Luminaire name	: CENTURION PP65 LED
		Equipment	: 1 x LED 17.5W / 1398 lm

Object : Reading External Lighting
Installation :
Project number : 9140
Date : 15.02.2019

2 Exterior 1

2.2 Summary, Exterior 1

2.2.1 Result overview, Measuring area 1

3	42	Order No.	: BLF3614KG
		Luminaire name	: BROADWALK L360
		Equipment	: 1 x LED 9.2W / 484 lm

2.2 Summary, Exterior 1

2.2.2 Result overview, Measuring area 2



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux of all lamps	408030 lm
Total power	3063.9 W
Total power per area (27635.62 m²)	0.11 W/m²

Illuminance

Average illuminance	Eav	27.3 lx
Minimum illuminance	Emin	9.1 lx
Maximum illuminance	Emax	54.5 lx
Uniformity Uo	Emin/Em	1:3.02 (0.33)
Diversity Ud	Emin/Emax	1:6.02 (0.17)

Type No. \Make

Whitecroft Lighting

1	72	Order No.	: SIPSHE14K
		Luminaire name	: SIROCCO PARK
		Equipment	: 1 x LED / 5210 lm
2	9	Order No.	: CENPL0Y
		Luminaire name	: CENTURION PP65 LED
		Equipment	: 1 x LED 17.5W / 1398 lm

Object : Reading External Lighting
Installation :
Project number : 9140
Date : 15.02.2019

2.2 Summary, Exterior 1

2.2.2 Result overview, Measuring area 2

3	42	Order No.	: BLF3614KG
		Luminaire name	: BROADWALK L360
		Equipment	: 1 x LED 9.2W / 484 lm

2.2 Summary, Exterior 1

2.2.3 Result overview, Measuring area 3



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux of all lamps	408030 lm
Total power	3063.9 W
Total power per area (27635.62 m²)	0.11 W/m²

Illuminance

Average illuminance	Eav	20.3 lx
Minimum illuminance	Emin	9.7 lx
Maximum illuminance	Emax	36.9 lx
Uniformity Uo	Emin/Em	1:2.1 (0.48)
Diversity Ud	Emin/Emax	1:3.82 (0.26)

Type No. \ Make

Whitecroft Lighting

1	72	Order No.	: SIPSHE14K
		Luminaire name	: SIROCCO PARK
		Equipment	: 1 x LED / 5210 lm
2	9	Order No.	: CENPL0Y
		Luminaire name	: CENTURION PP65 LED
		Equipment	: 1 x LED 17.5W / 1398 lm

Object : Reading External Lighting
Installation :
Project number : 9140
Date : 15.02.2019

2.2 Summary, Exterior 1

2.2.3 Result overview, Measuring area 3

3	42	Order No.	: BLF3614KG
		Luminaire name	: BROADWALK L360
		Equipment	: 1 x LED 9.2W / 484 lm

2.2 Summary, Exterior 1

2.2.4 Result overview, Measuring area 4



General

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

Total luminous flux of all lamps	408030 lm
Total power	3063.9 W
Total power per area (27635.62 m²)	0.11 W/m²

Illuminance

Average illuminance	Eav	27.9 lx
Minimum illuminance	Emin	10.2 lx
Maximum illuminance	Emax	50.3 lx
Uniformity Uo	Emin/Em	1:2.72 (0.37)
Diversity Ud	Emin/Emax	1:4.91 (0.2)

Type No. \ Make

Whitecroft Lighting

1	72	Order No.	: SIPSHE14K
		Luminaire name	: SIROCCO PARK
		Equipment	: 1 x LED / 5210 lm
2	9	Order No.	: CENPL0Y
		Luminaire name	: CENTURION PP65 LED
		Equipment	: 1 x LED 17.5W / 1398 lm

Object : Reading External Lighting
Installation :
Project number : 9140
Date : 15.02.2019

2.2 Summary, Exterior 1

2.2.4 Result overview, Measuring area 4

3	42	Order No.	: BLF3614KG
		Luminaire name	: BROADWALK L360
		Equipment	: 1 x LED 9.2W / 484 lm

2.2 Summary, Exterior 1

2.2.5 Result overview, Measuring area 5



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux of all lamps	408030 lm
Total power	3063.9 W
Total power per area (27635.62 m²)	0.11 W/m²

Illuminance

Average illuminance	Eav	26.6 lx
Minimum illuminance	Emin	13.3 lx
Maximum illuminance	Emax	41.3 lx
Uniformity Uo	Emin/Em	1:2.01 (0.5)
Diversity Ud	Emin/Emax	1:3.11 (0.32)

Type No. \ Make

Whitecroft Lighting

1	72	Order No.	: SIPSHE14K
		Luminaire name	: SIROCCO PARK
		Equipment	: 1 x LED / 5210 lm
2	9	Order No.	: CENPL0Y
		Luminaire name	: CENTURION PP65 LED
		Equipment	: 1 x LED 17.5W / 1398 lm

Object : Reading External Lighting
Installation :
Project number : 9140
Date : 15.02.2019

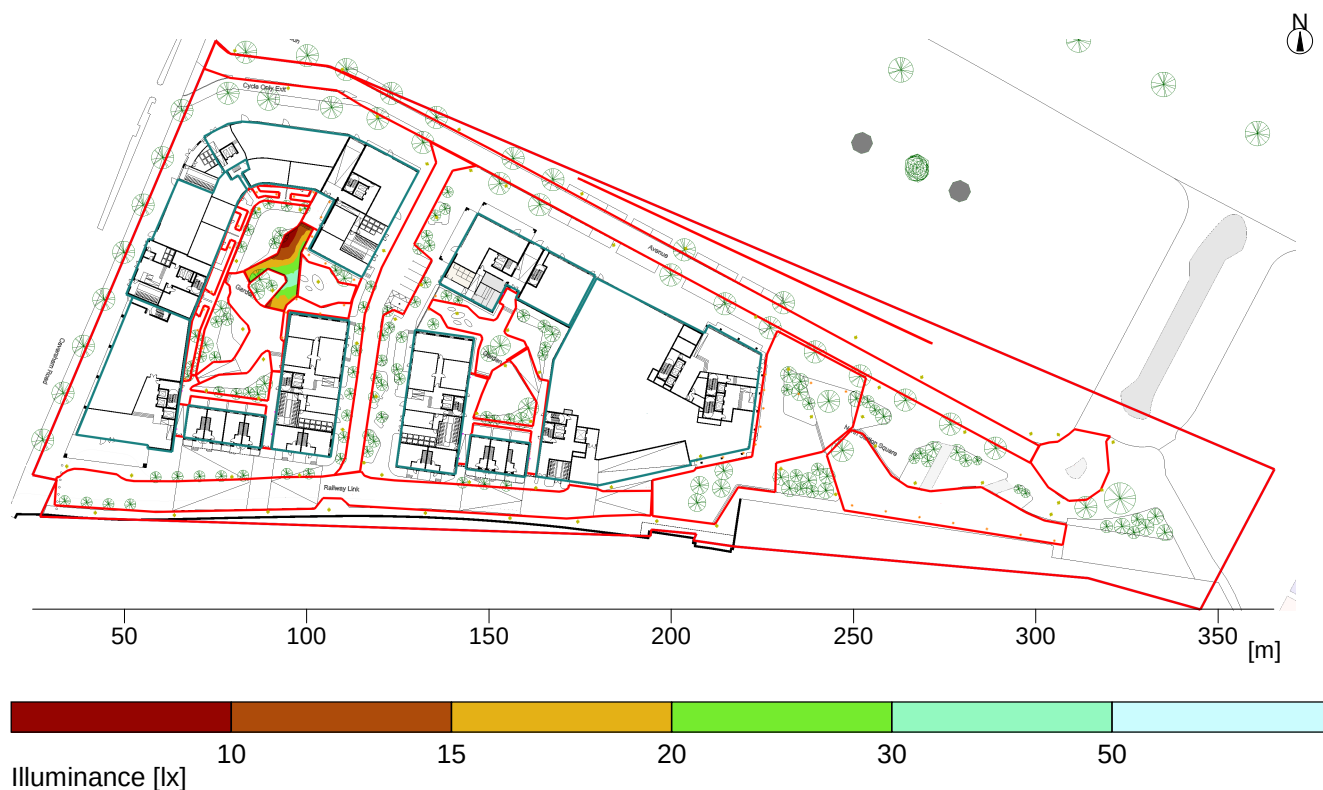
2.2 Summary, Exterior 1

2.2.5 Result overview, Measuring area 5

3	42	Order No.	: BLF3614KG
		Luminaire name	: BROADWALK L360
		Equipment	: 1 x LED 9.2W / 484 lm

2.2 Summary, Exterior 1

2.2.6 Result overview, Measuring area 6



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux of all lamps	408030 lm
Total power	3063.9 W
Total power per area (27635.62 m²)	0.11 W/m²

Illuminance

Average illuminance	Eav	18.4 lx
Minimum illuminance	Emin	7.7 lx
Maximum illuminance	Emax	35.5 lx
Uniformity Uo	Emin/Em	1:2.38 (0.42)
Diversity Ud	Emin/Emax	1:4.58 (0.22)

Type No. \ Make

Whitecroft Lighting

1	72	Order No.	: SIPSHE14K
		Luminaire name	: SIROCCO PARK
		Equipment	: 1 x LED / 5210 lm
2	9	Order No.	: CENPL0Y
		Luminaire name	: CENTURION PP65 LED
		Equipment	: 1 x LED 17.5W / 1398 lm

Object : Reading External Lighting
Installation :
Project number : 9140
Date : 15.02.2019

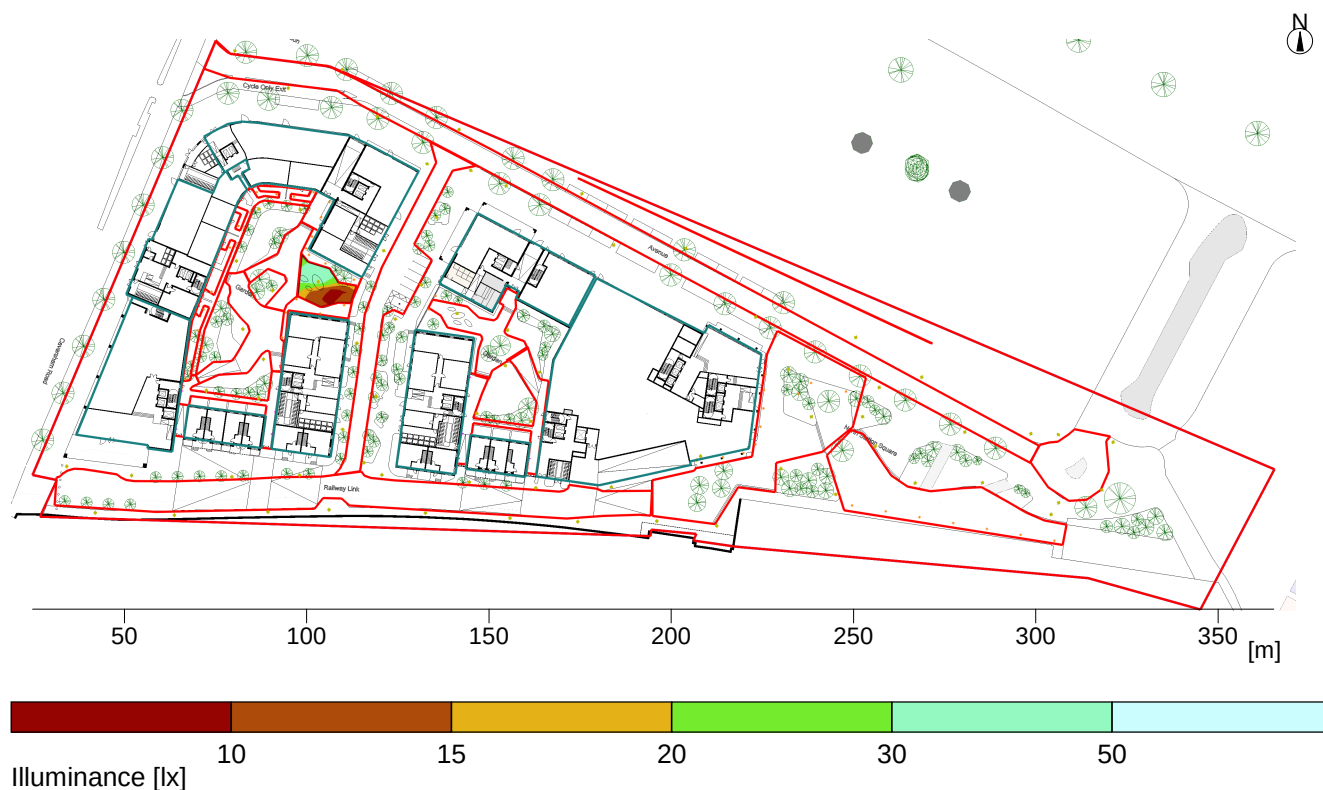
2.2 Summary, Exterior 1

2.2.6 Result overview, Measuring area 6

3	42	Order No.	: BLF3614KG
		Luminaire name	: BROADWALK L360
		Equipment	: 1 x LED 9.2W / 484 lm

2.2 Summary, Exterior 1

2.2.7 Result overview, Measuring area 7



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux of all lamps	408030 lm
Total power	3063.9 W
Total power per area (27635.62 m²)	0.11 W/m²

Illuminance

Average illuminance	Eav	22 lx
Minimum illuminance	Emin	8.2 lx
Maximum illuminance	Emax	42.5 lx
Uniformity Uo	Emin/Em	1:2.68 (0.37)
Diversity Ud	Emin/Emax	1:5.19 (0.19)

Type No. \ Make

Whitecroft Lighting

1	72	Order No.	: SIPSHE14K
		Luminaire name	: SIROCCO PARK
		Equipment	: 1 x LED / 5210 lm
2	9	Order No.	: CENPL0Y
		Luminaire name	: CENTURION PP65 LED
		Equipment	: 1 x LED 17.5W / 1398 lm

Object : Reading External Lighting
Installation :
Project number : 9140
Date : 15.02.2019

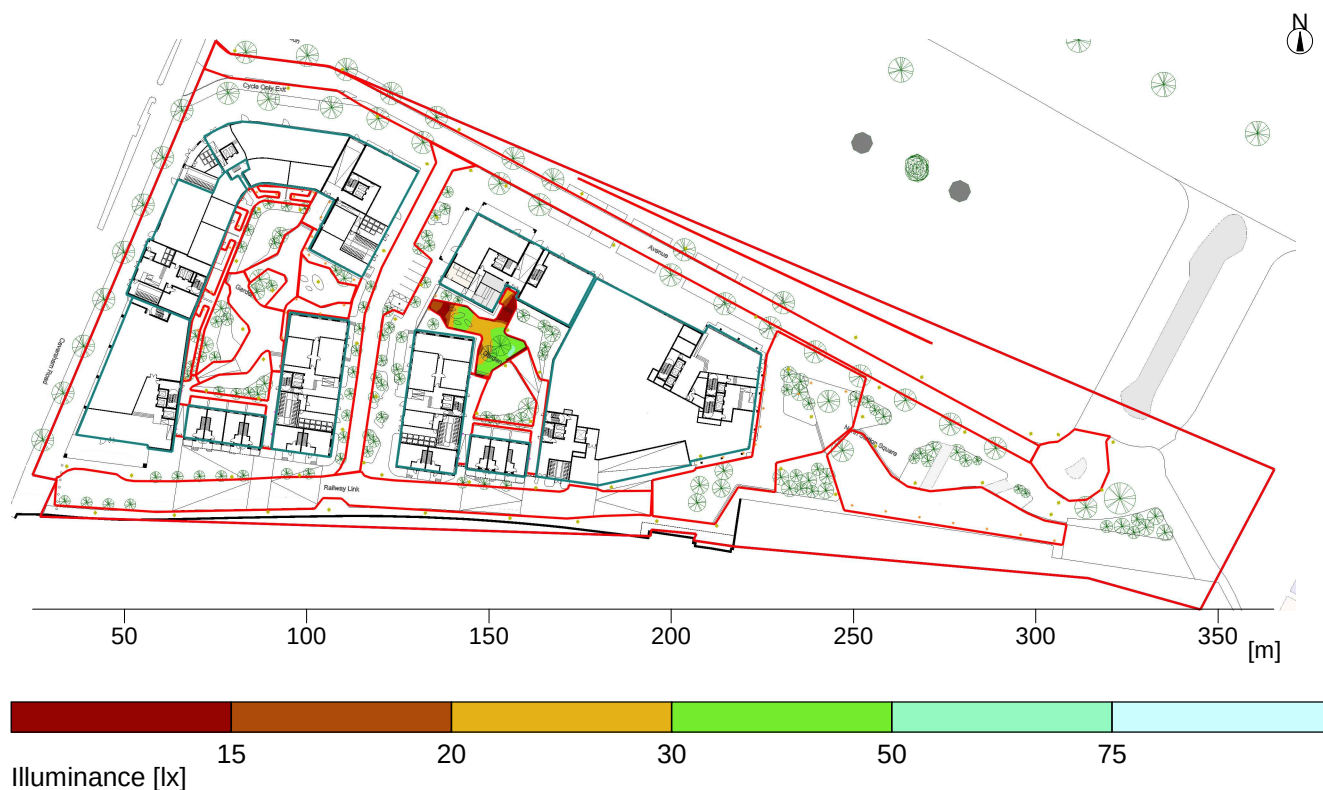
2.2 Summary, Exterior 1

2.2.7 Result overview, Measuring area 7

3	42	Order No.	: BLF3614KG
		Luminaire name	: BROADWALK L360
		Equipment	: 1 x LED 9.2W / 484 lm

2.2 Summary, Exterior 1

2.2.8 Result overview, Measuring area 8



General

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

Total luminous flux of all lamps	408030 lm
Total power	3063.9 W
Total power per area (27635.62 m²)	0.11 W/m²

Illuminance

Average illuminance	Eav	28.8 lx
Minimum illuminance	Emin	10.6 lx
Maximum illuminance	Emax	49.9 lx
Uniformity Uo	Emin/Em	1:2.71 (0.37)
Diversity Ud	Emin/Emax	1:4.69 (0.21)

Type No. \ Make

Whitcroft Lighting

1	72	Order No.	: SIPSHE14K
		Luminaire name	: SIROCCO PARK
		Equipment	: 1 x LED / 5210 lm
2	9	Order No.	: CENPL0Y
		Luminaire name	: CENTURION PP65 LED
		Equipment	: 1 x LED 17.5W / 1398 lm

Object : Reading External Lighting
Installation :
Project number : 9140
Date : 15.02.2019

2.2 Summary, Exterior 1

2.2.8 Result overview, Measuring area 8

3	42	Order No.	: BLF3614KG
		Luminaire name	: BROADWALK L360
		Equipment	: 1 x LED 9.2W / 484 lm

2.2 Summary, Exterior 1

2.2.9 Result overview, Measuring area 9



General

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

Total luminous flux of all lamps	408030 lm
Total power	3063.9 W
Total power per area (27635.62 m²)	0.11 W/m²

Illuminance

Average illuminance	Eav	36.8 lx
Minimum illuminance	Emin	24.3 lx
Maximum illuminance	Emax	52.8 lx
Uniformity Uo	Emin/Em	1:1.51 (0.66)
Diversity Ud	Emin/Emax	1:2.17 (0.46)

Type No. \ Make

Whitcroft Lighting

1	72	Order No.	: SIPSHE14K
		Luminaire name	: SIROCCO PARK
		Equipment	: 1 x LED / 5210 lm
2	9	Order No.	: CENPL0Y
		Luminaire name	: CENTURION PP65 LED
		Equipment	: 1 x LED 17.5W / 1398 lm

Object : Reading External Lighting
Installation :
Project number : 9140
Date : 15.02.2019

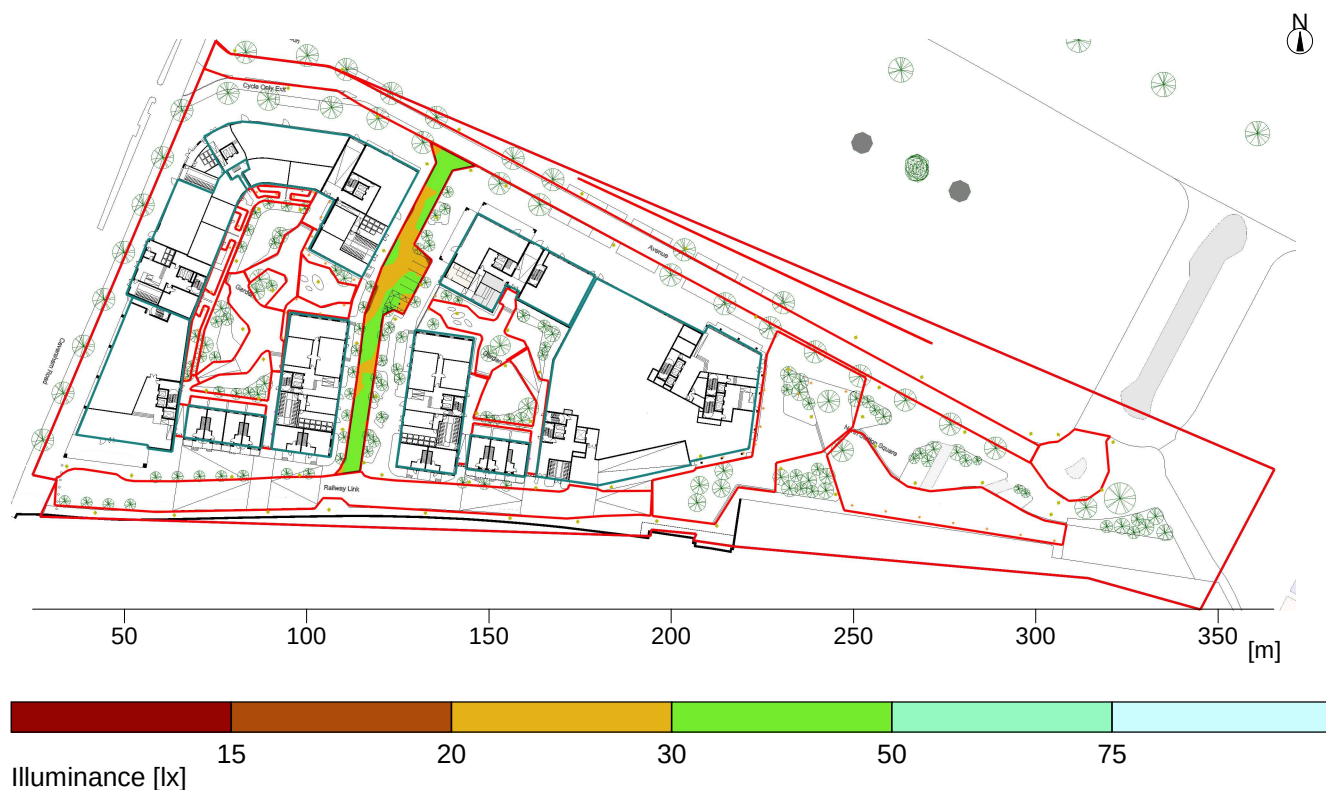
2.2 Summary, Exterior 1

2.2.9 Result overview, Measuring area 9

3	42	Order No.	: BLF3614KG
		Luminaire name	: BROADWALK L360
		Equipment	: 1 x LED 9.2W / 484 lm

2.2 Summary, Exterior 1

2.2.10 Result overview, Measuring area 10



General

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

Total luminous flux of all lamps	408030 lm
Total power	3063.9 W
Total power per area (27635.62 m²)	0.11 W/m²

Illuminance

Average illuminance	Eav	33.4 lx
Minimum illuminance	Emin	17 lx
Maximum illuminance	Emax	46.5 lx
Uniformity Uo	Emin/Em	1:1.96 (0.51)
Diversity Ud	Emin/Emax	1:2.73 (0.37)

Type No. \ Make

Whitecroft Lighting

1	72	Order No.	: SIPSHE14K
		Luminaire name	: SIROCCO PARK
		Equipment	: 1 x LED / 5210 lm
2	9	Order No.	: CENPL0Y
		Luminaire name	: CENTURION PP65 LED
		Equipment	: 1 x LED 17.5W / 1398 lm

Object : Reading External Lighting
Installation :
Project number : 9140
Date : 15.02.2019

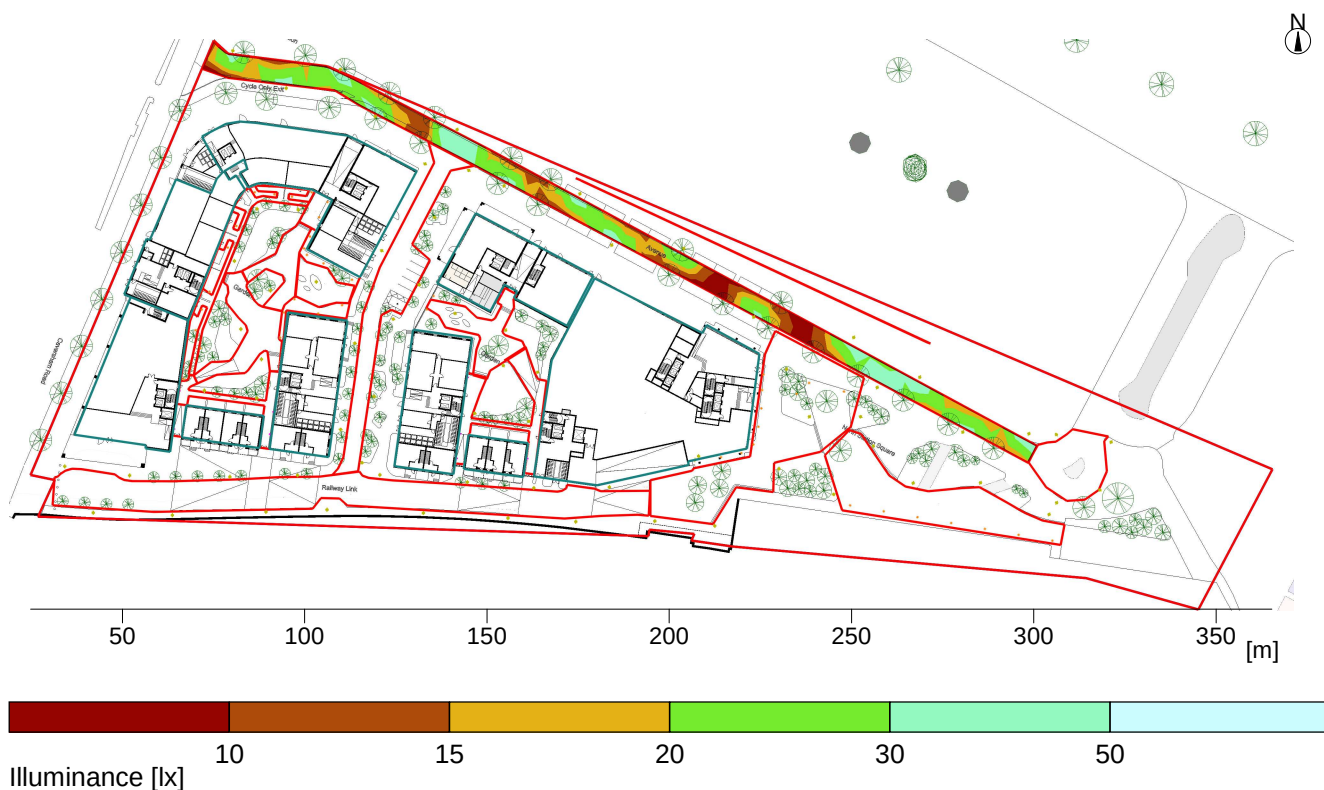
2.2 Summary, Exterior 1

2.2.10 Result overview, Measuring area 10

3	42	Order No.	: BLF3614KG
		Luminaire name	: BROADWALK L360
		Equipment	: 1 x LED 9.2W / 484 lm

2.2 Summary, Exterior 1

2.2.11 Result overview, Measuring area 11



General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux of all lamps	408030 lm
Total power	3063.9 W
Total power per area (27635.62 m ²)	0.11 W/m ²

Illuminance

Average illuminance	Eav	23 lx
Minimum illuminance	Emin	7 lx
Maximum illuminance	Emax	45.9 lx
Uniformity Uo	Emin/Em	1:3.28 (0.31)
Diversity Ud	Emin/Emax	1:6.54 (0.15)

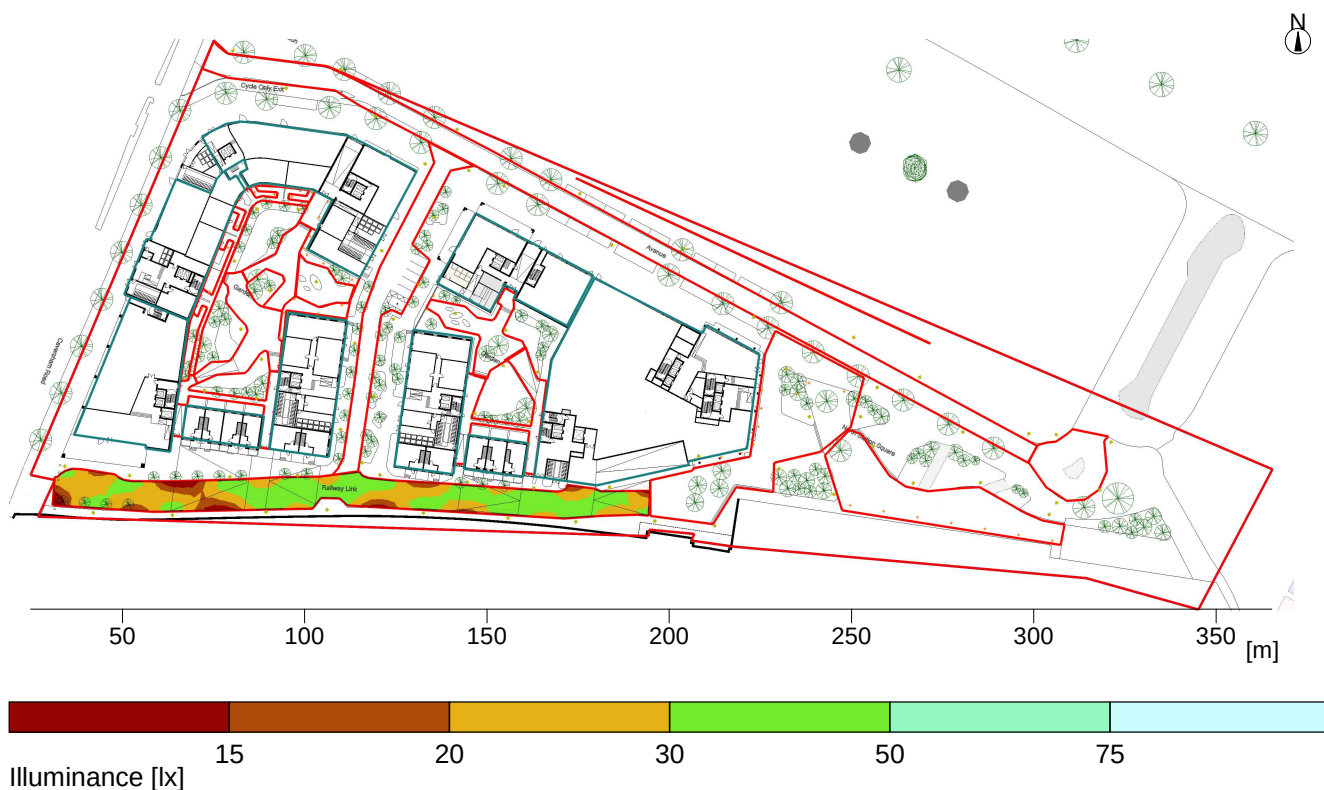
Type No. \ Make

Whitecroft Lighting

1	72	Order No.	: SIPSHE14K
		Luminaire name	: SIROCCO PARK
		Equipment	: 1 x LED / 5210 lm
2	9	Order No.	: CENPL0Y
		Luminaire name	: CENTURION PP65 LED
		Equipment	: 1 x LED 17.5W / 1398 lm
3	42	Order No.	: BLF3614KG
		Luminaire name	: BROADWALK L360
		Equipment	: 1 x LED 9.2W / 484 lm

2.2 Summary, Exterior 1

2.2.12 Result overview, Measuring area 12



General

Calculation algorithm used
 Maintenance factor

Average indirect fraction
 0.80

Total luminous flux of all lamps
 Total power
 Total power per area (27635.62 m²)

408030 lm
 3063.9 W
 0.11 W/m²

Illuminance

Average illuminance	Eav	29.6 lx
Minimum illuminance	Emin	12 lx
Maximum illuminance	Emax	47.1 lx
Uniformity Uo	Emin/Em	1:2.47 (0.4)
Diversity Ud	Emin/Emax	1:3.93 (0.25)

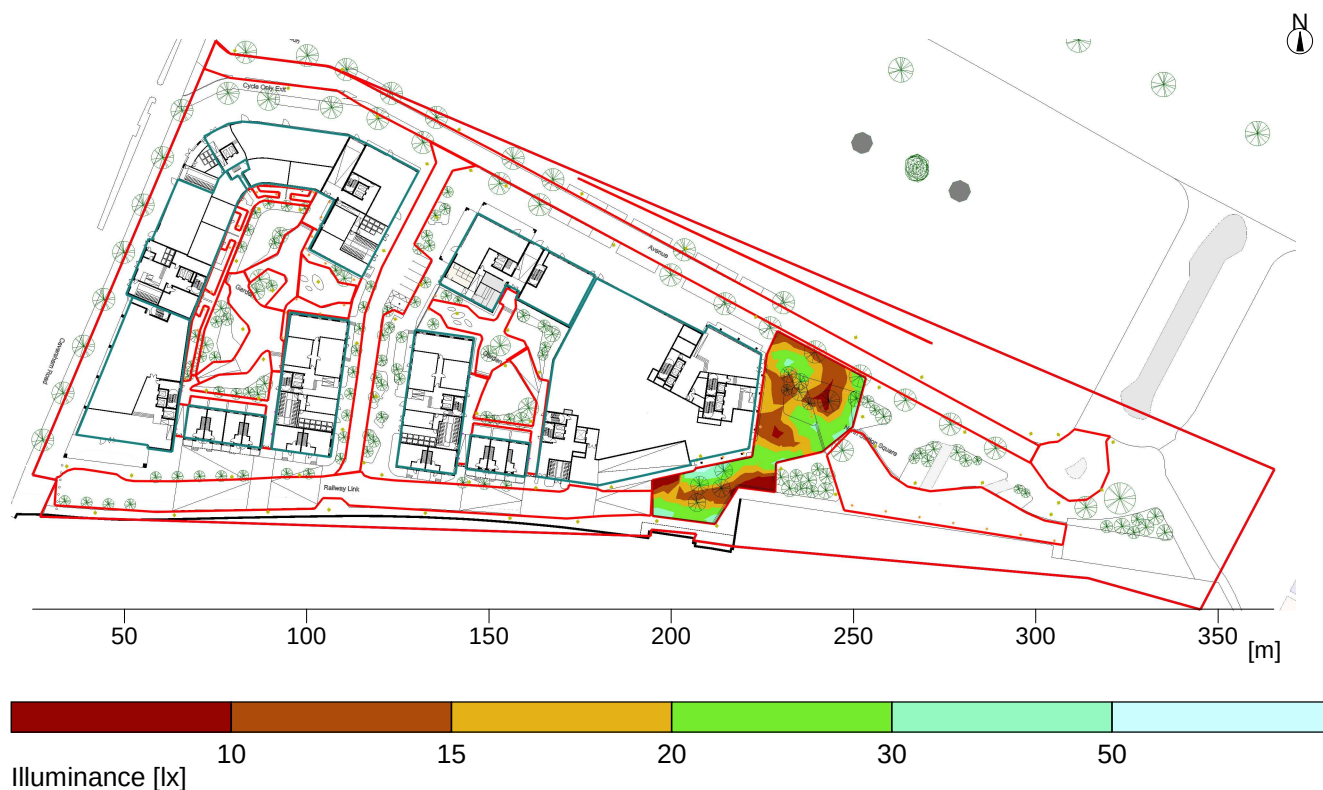
Type No. \ Make

Whitecroft Lighting

- | | | | |
|---|----|----------------|---------------------------|
| 1 | 72 | Order No. | : SIPSHE14K |
|  | | Luminaire name | : SIROCCO PARK |
| | | Equipment | : 1 x LED / 5210 lm |
| 2 | 9 | Order No. | : CENPL0Y |
|  | | Luminaire name | : CENTURION PP65 LED |
| | | Equipment | : 1 x LED 17.5W / 1398 lm |
| 3 | 42 | Order No. | : BLF3614KG |
|  | | Luminaire name | : BROADWALK L360 |
| | | Equipment | : 1 x LED 9.2W / 484 lm |

2.2 Summary, Exterior 1

2.2.13 Result overview, Measuring area 13



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux of all lamps	408030 lm
Total power	3063.9 W
Total power per area (27635.62 m²)	0.11 W/m²

Illuminance

Average illuminance	Eav	18.9 lx
Minimum illuminance	Emin	6.7 lx
Maximum illuminance	Emax	39.5 lx
Uniformity Uo	Emin/Em	1:2.82 (0.36)
Diversity Ud	Emin/Emax	1:5.86 (0.17)

Type No. \ Make

Whitecroft Lighting

1	72	Order No.	: SIPSHE14K
		Luminaire name	: SIROCCO PARK
		Equipment	: 1 x LED / 5210 lm
2	9	Order No.	: CENPL0Y
		Luminaire name	: CENTURION PP65 LED
		Equipment	: 1 x LED 17.5W / 1398 lm

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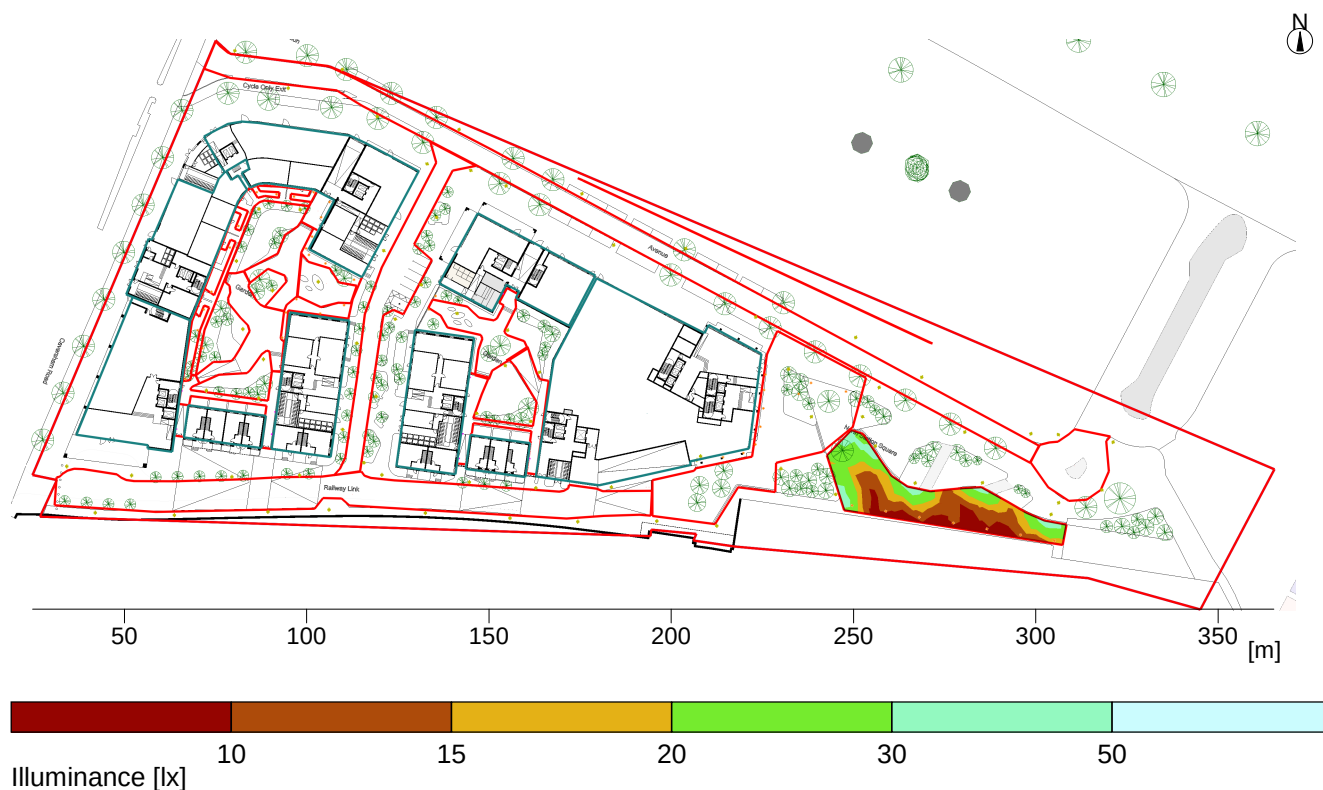
2.2 Summary, Exterior 1

2.2.13 Result overview, Measuring area 13

3	42	Order No.	: BLF3614KG
		Luminaire name	: BROADWALK L360
		Equipment	: 1 x LED 9.2W / 484 lm

2.2 Summary, Exterior 1

2.2.14 Result overview, Measuring area 14



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux of all lamps	408030 lm
Total power	3063.9 W
Total power per area (27635.62 m²)	0.11 W/m²

Illuminance

Average illuminance	Eav	18.3 lx
Minimum illuminance	Emin	7.2 lx
Maximum illuminance	Emax	36.8 lx
Uniformity Uo	Emin/Em	1:2.56 (0.39)
Diversity Ud	Emin/Emax	1:5.15 (0.19)

Type No. \Make

Whitecroft Lighting

1	72	Order No.	: SIPSHE14K
		Luminaire name	: SIROCCO PARK
		Equipment	: 1 x LED / 5210 lm
2	9	Order No.	: CENPL0Y
		Luminaire name	: CENTURION PP65 LED
		Equipment	: 1 x LED 17.5W / 1398 lm

Object : Reading External Lighting
Installation :
Project number : 9140
Date : 15.02.2019

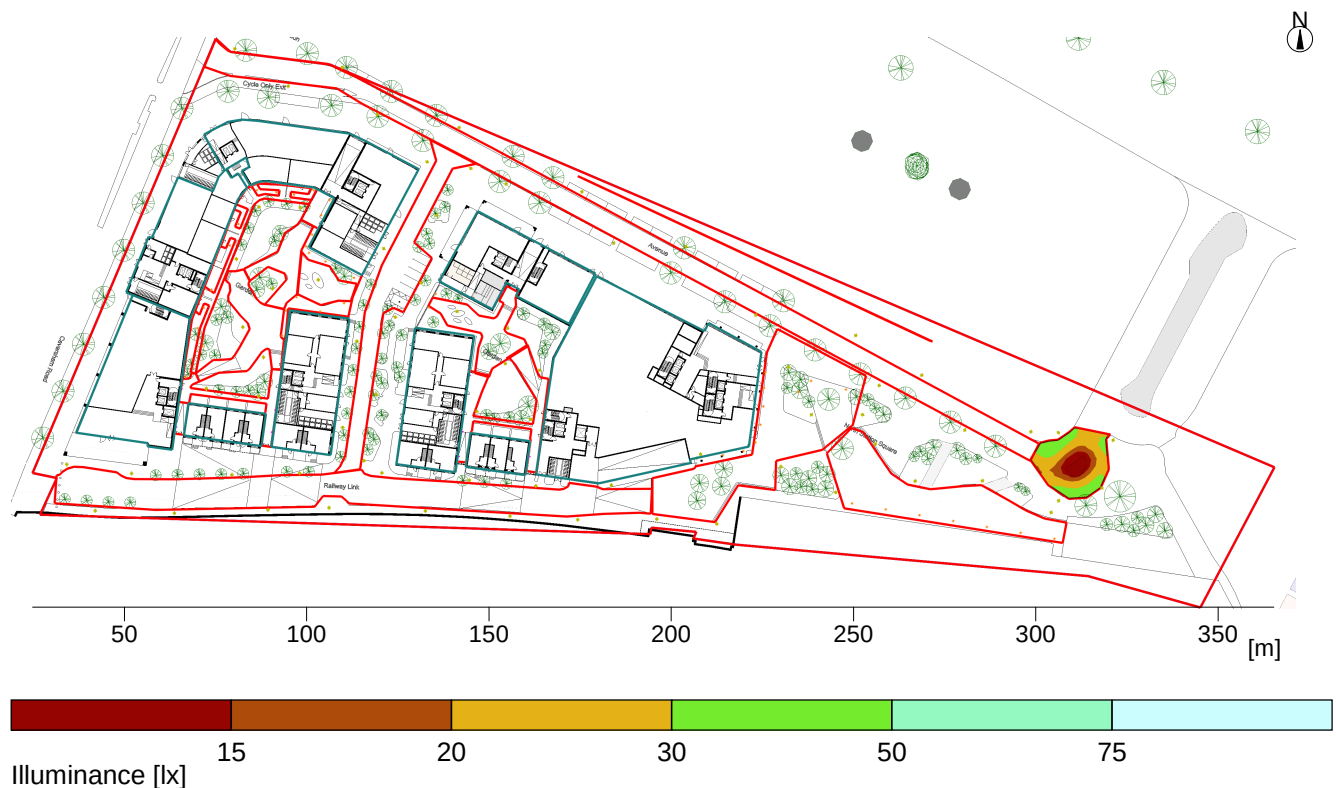
2.2 Summary, Exterior 1

2.2.14 Result overview, Measuring area 14

3	42	Order No.	: BLF3614KG
		Luminaire name	: BROADWALK L360
		Equipment	: 1 x LED 9.2W / 484 lm

2.2 Summary, Exterior 1

2.2.15 Result overview, Measuring area 15



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.80
Total luminous flux of all lamps	408030 lm
Total power	3063.9 W
Total power per area (27635.62 m²)	0.11 W/m²

Illuminance

Average illuminance	Eav	25.4 lx
Minimum illuminance	Emin	9.1 lx
Maximum illuminance	Emax	41.5 lx
Uniformity Uo	Emin/Em	1:2.8 (0.36)
Diversity Ud	Emin/Emax	1:4.58 (0.22)

Type No. \ Make

Whitecroft Lighting

1	72	Order No.	: SIPSHE14K
		Luminaire name	: SIROCCO PARK
		Equipment	: 1 x LED / 5210 lm
2	9	Order No.	: CENPL0Y
		Luminaire name	: CENTURION PP65 LED
		Equipment	: 1 x LED 17.5W / 1398 lm

Object : Reading External Lighting
Installation :
Project number : 9140
Date : 15.02.2019

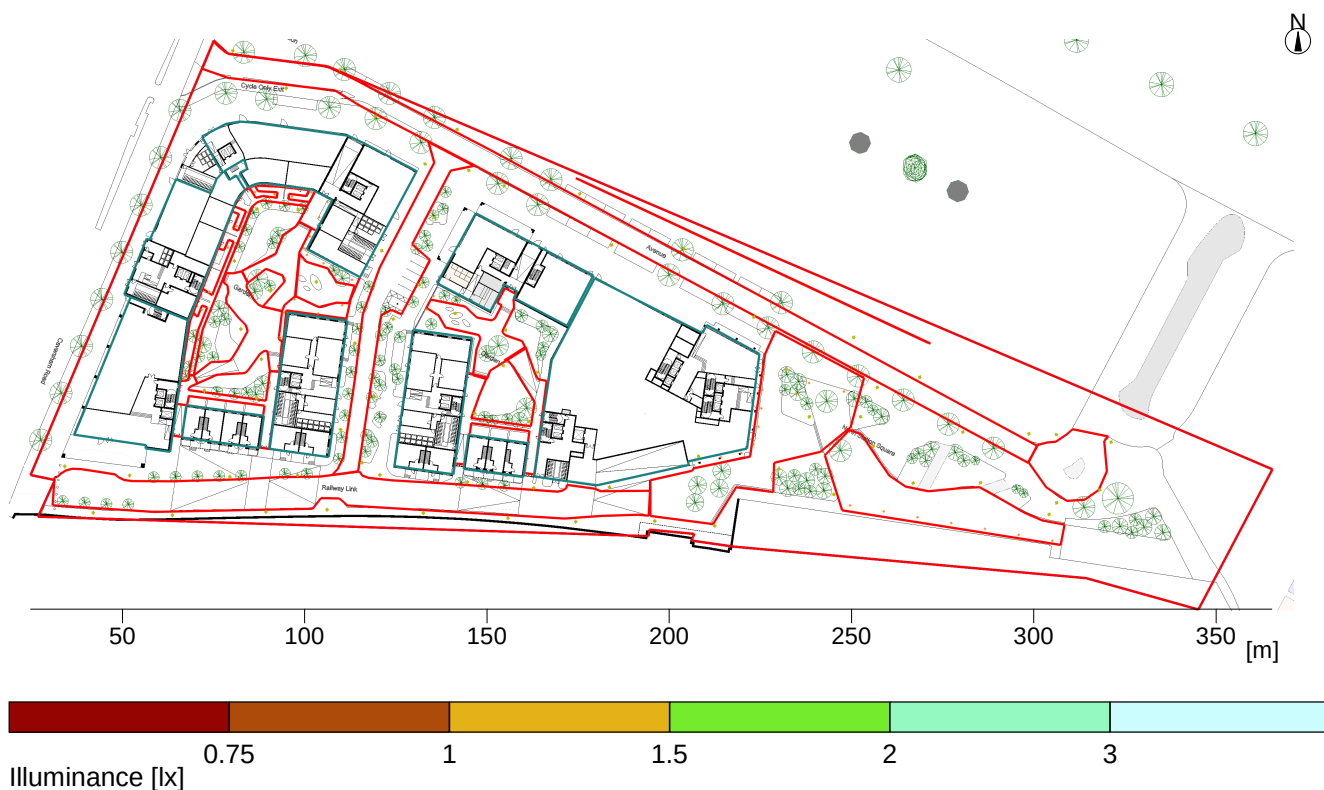
2.2 Summary, Exterior 1

2.2.15 Result overview, Measuring area 15

3	42	Order No.	: BLF3614KG
		Luminaire name	: BROADWALK L360
		Equipment	: 1 x LED 9.2W / 484 lm

2.2 Summary, Exterior 1

2.2.16 Result overview, Measuring area 16



General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux of all lamps	408030 lm
Total power	3063.9 W
Total power per area (27635.62 m²)	0.11 W/m²

Illuminance

Average illuminance	Eav	1.5 lx
Minimum illuminance	Emin	0.6 lx
Maximum illuminance	Emax	16.2 lx
Uniformity Uo	Emin/Em	1:2.5 (0.4)
Diversity Ud	Emin/Emax	1:26.9 (0.04)

Type No. Make

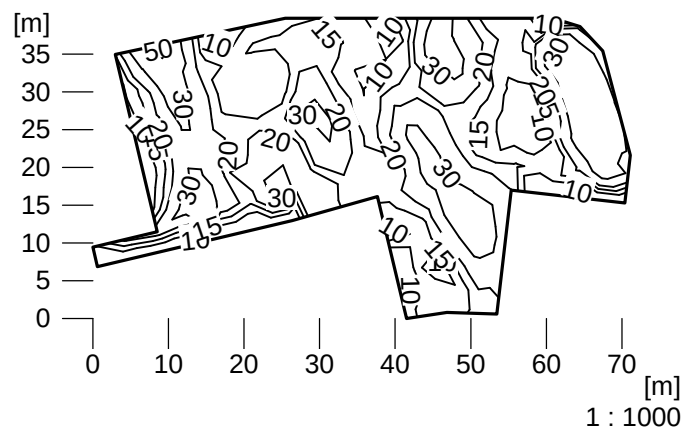
Whitcroft Lighting

1	72	Order No.	: SIPSHE14K
		Luminaire name	: SIROCCO PARK
		Equipment	: 1 x LED / 5210 lm
2	9	Order No.	: CENPL0Y
		Luminaire name	: CENTURION PP65 LED
		Equipment	: 1 x LED 17.5W / 1398 lm
3	42	Order No.	: BLF3614KG
		Luminaire name	: BROADWALK L360
		Equipment	: 1 x LED 9.2W / 484 lm

2 Exterior 1

2.3 Calculation results, Exterior 1

2.3.1 Isolines representation, Measuring area 1 (E)

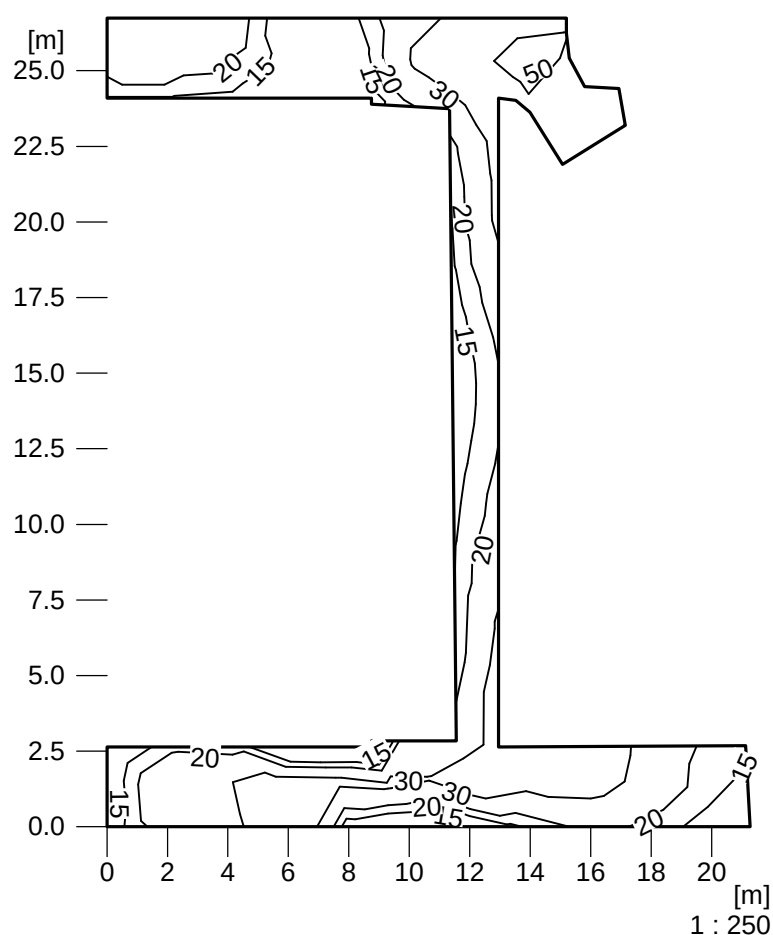


Illuminance [lx]

Height of the reference plane	: 0.00 m
Average illuminance	Eav : 20.2 lx
Minimum illuminance	Emin : 7.6 lx
Maximum illuminance	Emax : 45 lx
Uniformity Uo	Emin/Eav : 1 : 2.67 (0.37)
Diversity Ud	Emin/Emax : 1 : 5.93 (0.17)

2.3 Calculation results, Exterior 1

2.3.2 Isolines representation, Measuring area 2 (E)

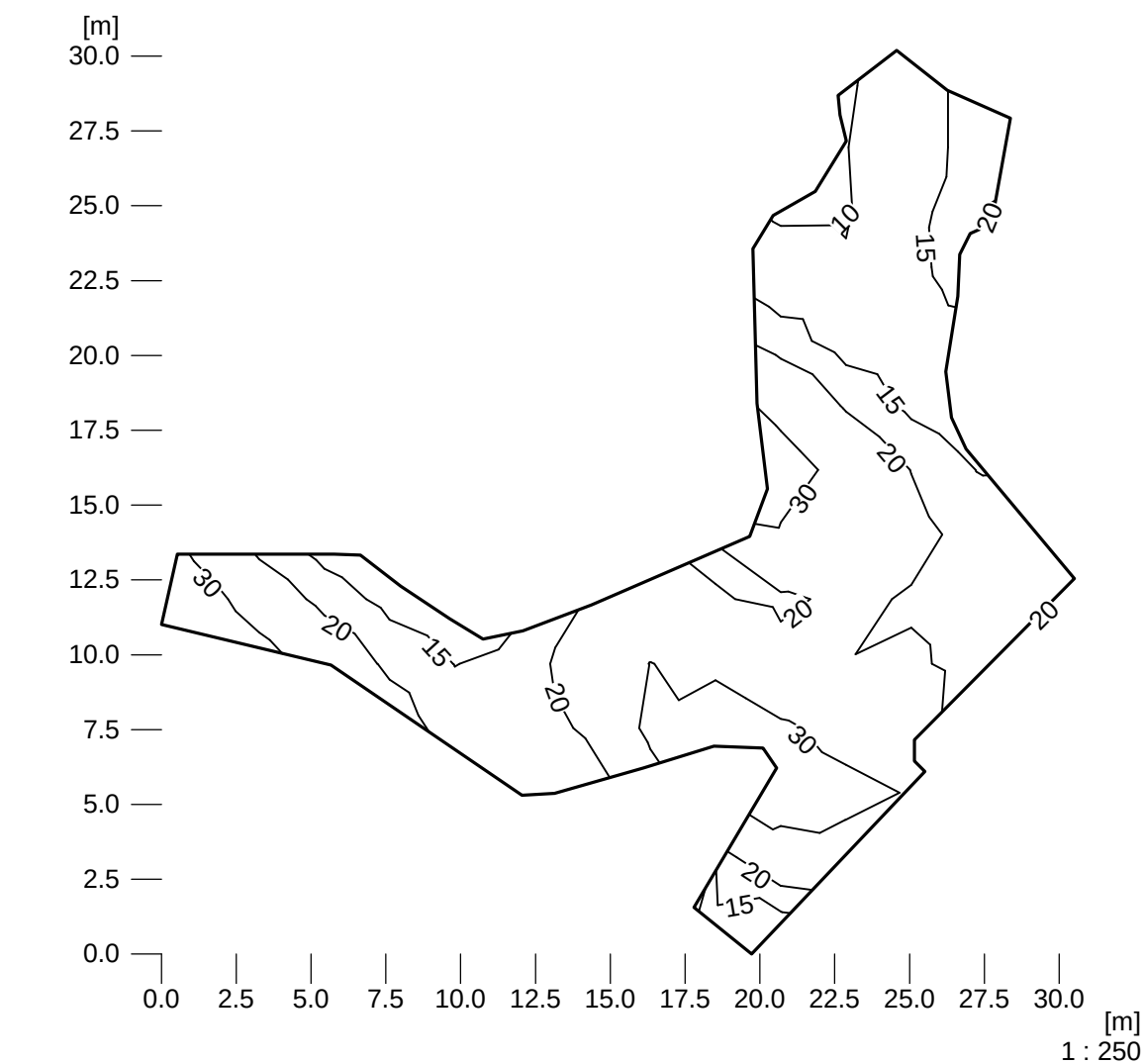


Illuminance [lx]

Height of the reference plane	: 0.00 m
Average illuminance	Eav : 27.3 lx
Minimum illuminance	Emin : 9.1 lx
Maximum illuminance	Emax : 54.5 lx
Uniformity Uo	Emin/Eav : 1 : 3.02 (0.33)
Diversity Ud	Emin/Emax : 1 : 6.02 (0.17)

2.3 Calculation results, Exterior 1

2.3.3 Isolines representation, Measuring area 3 (E)

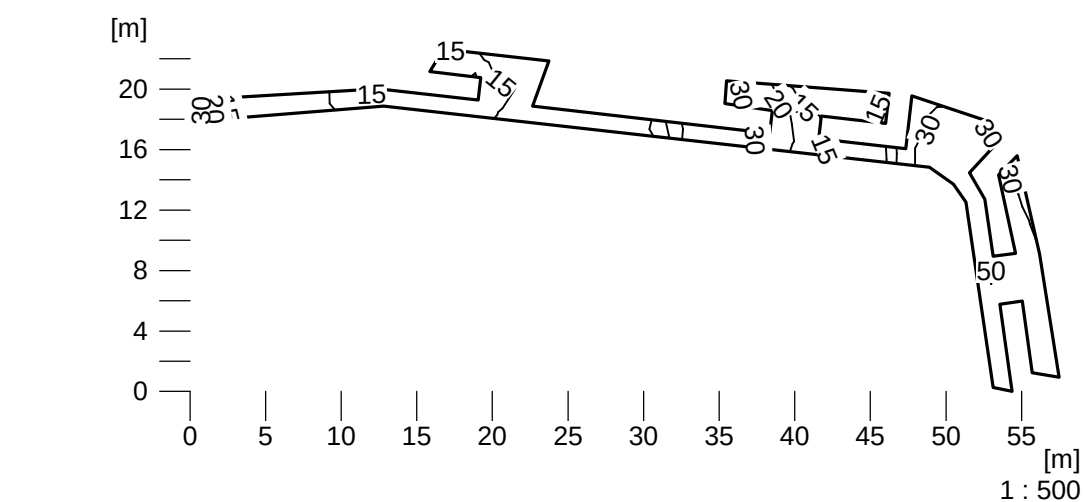


Illuminance [lx]

Height of the reference plane	: 0.00 m
Average illuminance	Eav : 20.3 lx
Minimum illuminance	Emin : 9.7 lx
Maximum illuminance	Emax : 36.9 lx
Uniformity Uo	Emin/Eav : 1 : 2.10 (0.48)
Diversity Ud	Emin/Emax : 1 : 3.82 (0.26)

2.3 Calculation results, Exterior 1

2.3.4 Isolines representation, Measuring area 4 (E)

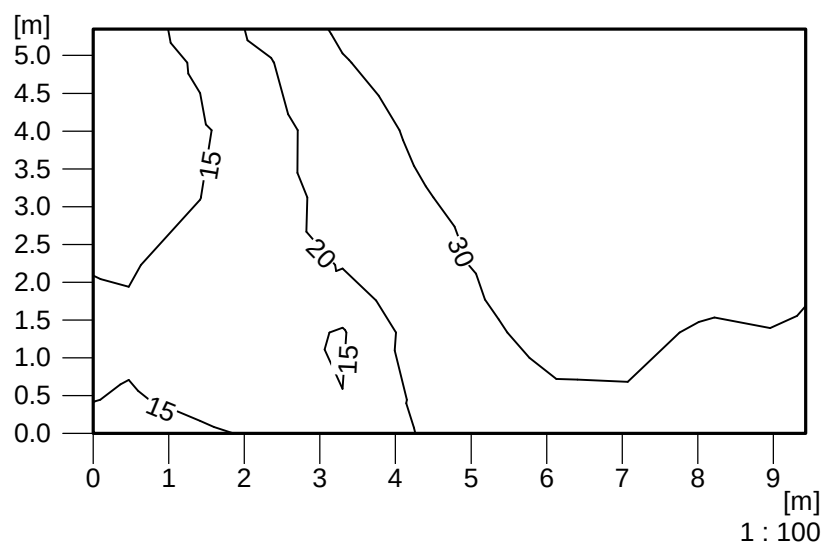


Illuminance [lx]

Height of the reference plane	: 0.00 m
Average illuminance	Eav : 27.9 lx
Minimum illuminance	Emin : 10.2 lx
Maximum illuminance	Emax : 50.3 lx
Uniformity Uo	Emin/Eav : 1 : 2.72 (0.37)
Diversity Ud	Emin/Emax : 1 : 4.91 (0.20)

2.3 Calculation results, Exterior 1

2.3.5 Isolines representation, Measuring area 5 (E)

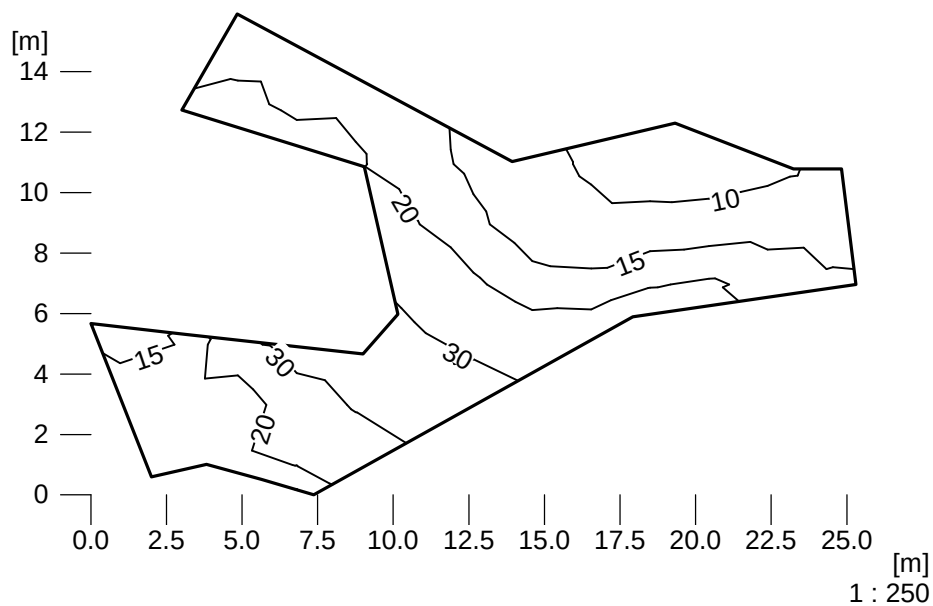


Illuminance [lx]

Height of the reference plane	:	0.00 m
Average illuminance	Eav	: 26.6 lx
Minimum illuminance	Emin	: 13.3 lx
Maximum illuminance	Emax	: 41.3 lx
Uniformity Uo	Emin/Eav	: 1 : 2.01 (0.50)
Diversity Ud	Emin/Emax	: 1 : 3.11 (0.32)

2.3 Calculation results, Exterior 1

2.3.6 Isolines representation, Measuring area 6 (E)

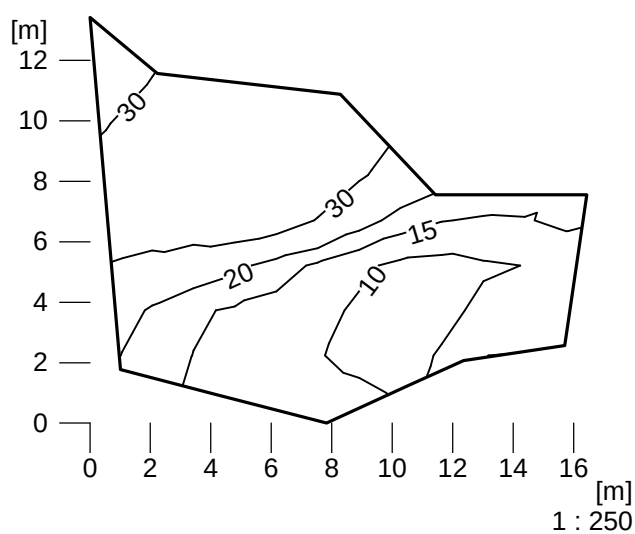


Illuminance [lx]

Height of the reference plane	: 0.00 m
Average illuminance	Eav : 18.4 lx
Minimum illuminance	Emin : 7.7 lx
Maximum illuminance	Emax : 35.5 lx
Uniformity Uo	Emin/Eav : 1 : 2.38 (0.42)
Diversity Ud	Emin/Emax : 1 : 4.58 (0.22)

2.3 Calculation results, Exterior 1

2.3.7 Isolines representation, Measuring area 7 (E)

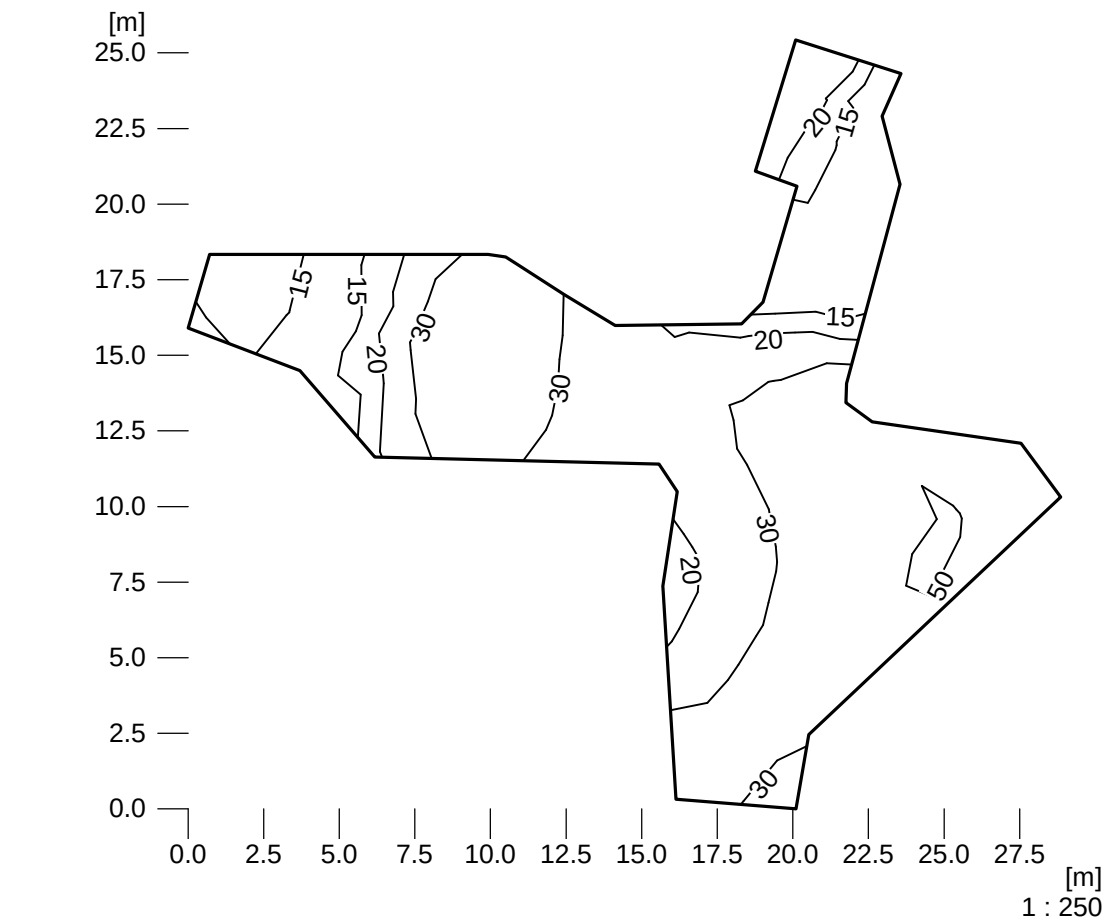


Illuminance [lx]

Height of the reference plane	: 0.00 m
Average illuminance	Eav : 22 lx
Minimum illuminance	Emin : 8.2 lx
Maximum illuminance	Emax : 42.5 lx
Uniformity Uo	Emin/Eav : 1 : 2.68 (0.37)
Diversity Ud	Emin/Emax : 1 : 5.19 (0.19)

2.3 Calculation results, Exterior 1

2.3.8 Isolines representation, Measuring area 8 (E)

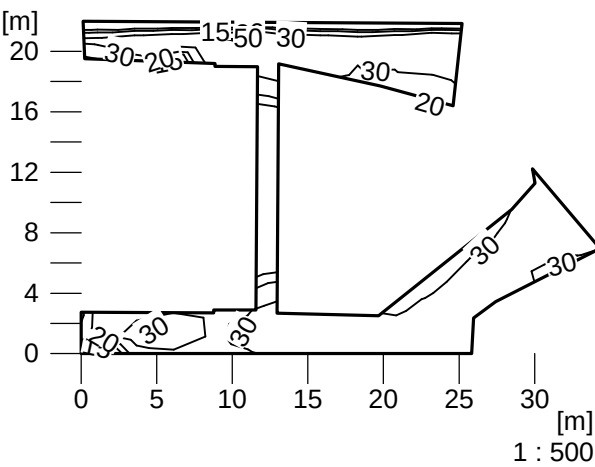


Illuminance [lx]

Height of the reference plane	: 0.00 m
Average illuminance	Eav : 28.8 lx
Minimum illuminance	Emin : 10.6 lx
Maximum illuminance	Emax : 49.9 lx
Uniformity Uo	Emin/Eav : 1 : 2.71 (0.37)
Diversity Ud	Emin/Emax : 1 : 4.69 (0.21)

2.3 Calculation results, Exterior 1

2.3.9 Isolines representation, Measuring area 9 (E)

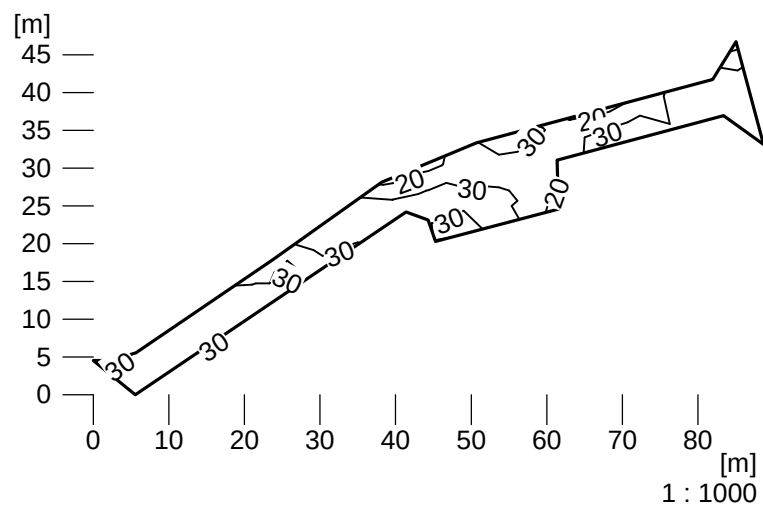


Illuminance [lx]

Height of the reference plane	:	0.00 m
Average illuminance	Eav	: 36.8 lx
Minimum illuminance	Emin	: 24.3 lx
Maximum illuminance	Emax	: 52.8 lx
Uniformity Uo	Emin/Eav	: 1 : 1.51 (0.66)
Diversity Ud	Emin/Emax	: 1 : 2.17 (0.46)

2.3 Calculation results, Exterior 1

2.3.10 Isolines representation, Measuring area 10 (E)

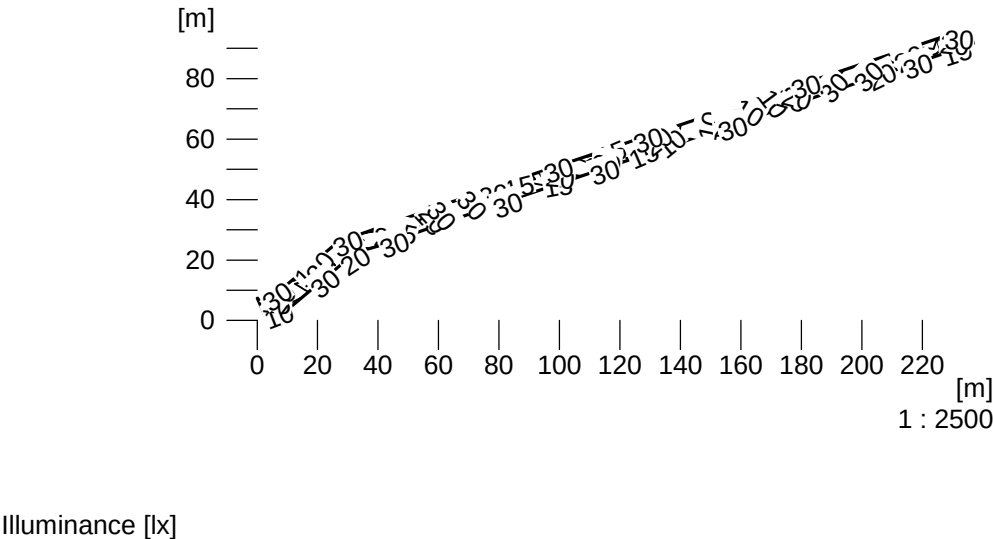


Illuminance [lx]

Height of the reference plane		: 0.00 m
Average illuminance	Eav	: 33.4 lx
Minimum illuminance	Emin	: 17 lx
Maximum illuminance	Emax	: 46.5 lx
Uniformity Uo	Emin/Eav	: 1 : 1.96 (0.51)
Diversity Ud	Emin/Emax	: 1 : 2.73 (0.37)

2.3 Calculation results, Exterior 1

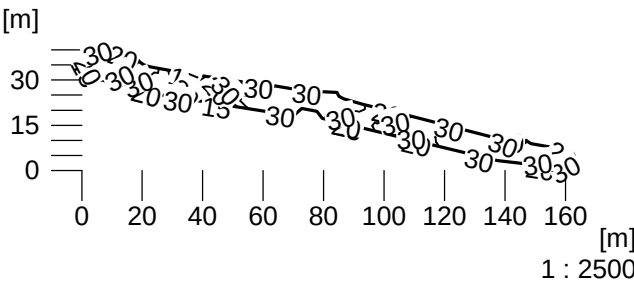
2.3.11 Isolines representation, Measuring area 11 (E)



Average illuminance	Eav	: 23 lx
Minimum illuminance	Emin	: 7 lx
Maximum illuminance	Emax	: 45.9 lx
Uniformity Uo	Emin/Eav	: 1 : 3.28 (0.31)
Diversity Ud	Emin/Emax	: 1 : 6.54 (0.15)

2.3 Calculation results, Exterior 1

2.3.12 Isolines representation, Measuring area 12 (E)

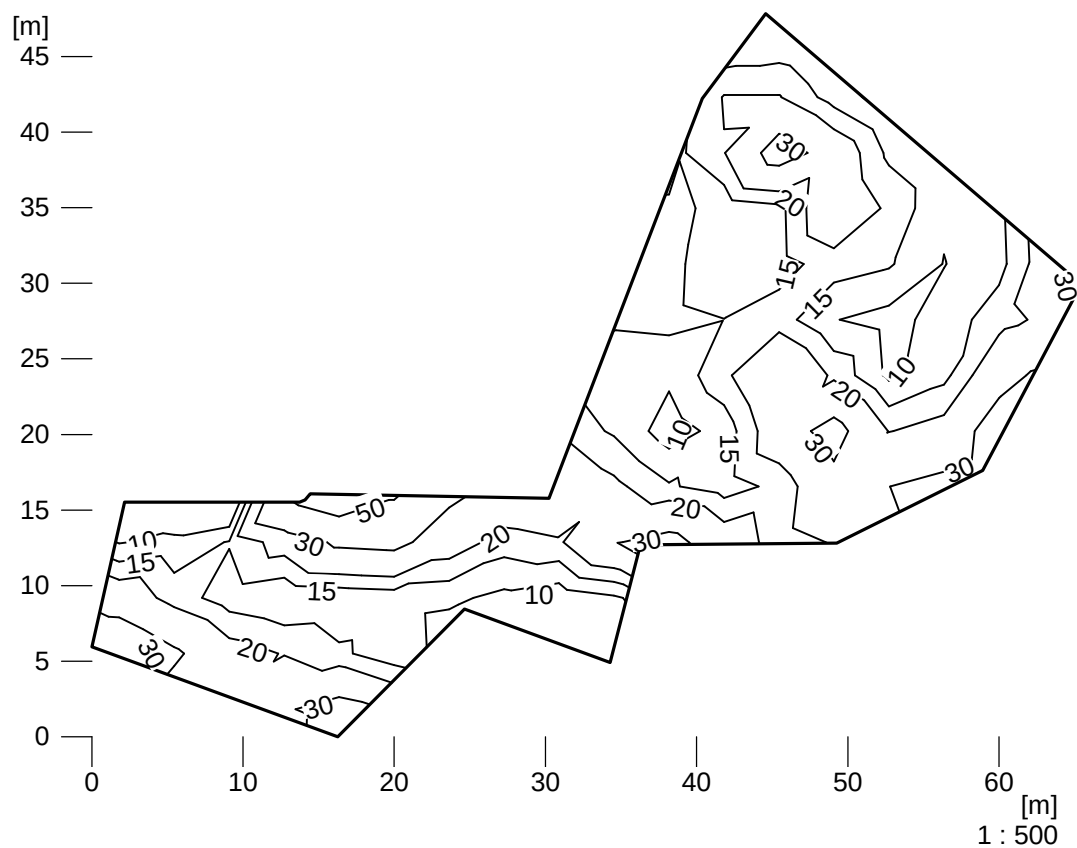


Illuminance [lx]

Average illuminance	Eav	: 29.6 lx
Minimum illuminance	Emin	: 12 lx
Maximum illuminance	Emax	: 47.1 lx
Uniformity Uo	Emin/Eav	: 1 : 2.47 (0.40)
Diversity Ud	Emin/Emax	: 1 : 3.93 (0.25)

2.3 Calculation results, Exterior 1

2.3.13 Isolines representation, Measuring area 13 (E)

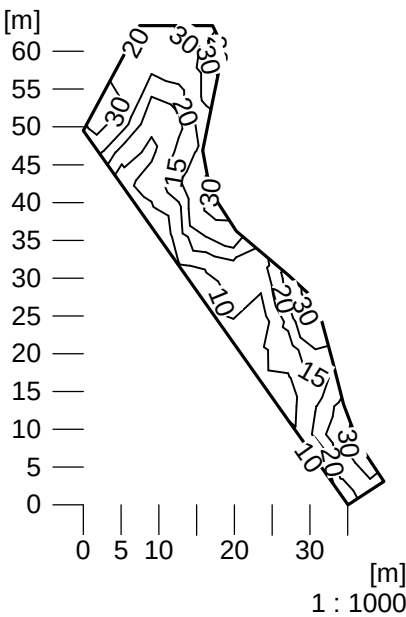


Illuminance [lx]

Height of the reference plane	: 0.00 m
Average illuminance	Eav : 18.9 lx
Minimum illuminance	Emin : 6.7 lx
Maximum illuminance	Emax : 39.5 lx
Uniformity Uo	Emin/Eav : 1 : 2.82 (0.36)
Diversity Ud	Emin/Emax : 1 : 5.86 (0.17)

2.3 Calculation results, Exterior 1

2.3.14 Isolines representation, Measuring area 14 (E)

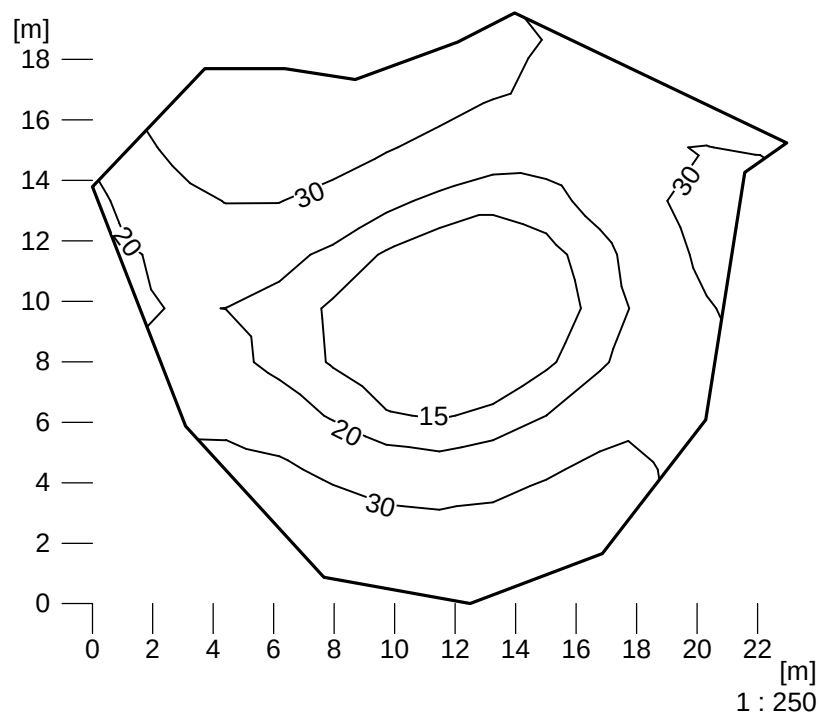


Illuminance [lx]

Height of the reference plane		: 0.00 m
Average illuminance	Eav	: 18.3 lx
Minimum illuminance	Emin	: 7.2 lx
Maximum illuminance	Emax	: 36.8 lx
Uniformity Uo	Emin/Eav	: 1 : 2.56 (0.39)
Diversity Ud	Emin/Emax	: 1 : 5.15 (0.19)

2.3 Calculation results, Exterior 1

2.3.15 Isolines representation, Measuring area 15 (E)

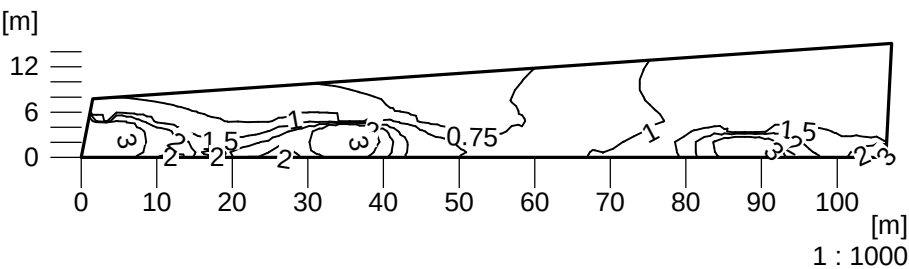


Illuminance [lx]

Height of the reference plane	:	0.00 m
Average illuminance	Eav	: 25.4 lx
Minimum illuminance	Emin	: 9.1 lx
Maximum illuminance	Emax	: 41.5 lx
Uniformity Uo	Emin/Eav	: 1 : 2.80 (0.36)
Diversity Ud	Emin/Emax	: 1 : 4.58 (0.22)

2.3 Calculation results, Exterior 1

2.3.16 Isolines representation, Measuring area 16 (E)



Illuminance [lx]

Average illuminance	Eav	: 1.5 lx
Minimum illuminance	Emin	: 0.6 lx
Maximum illuminance	Emax	: 16.2 lx
Uniformity Uo	Emin/Eav	: 1 : 2.50 (0.40)
Diversity Ud	Emin/Emax	: 1 : 26.86 (0.04)

2.3 Calculation results, Exterior 1

2.3.17 3D luminance, View 1



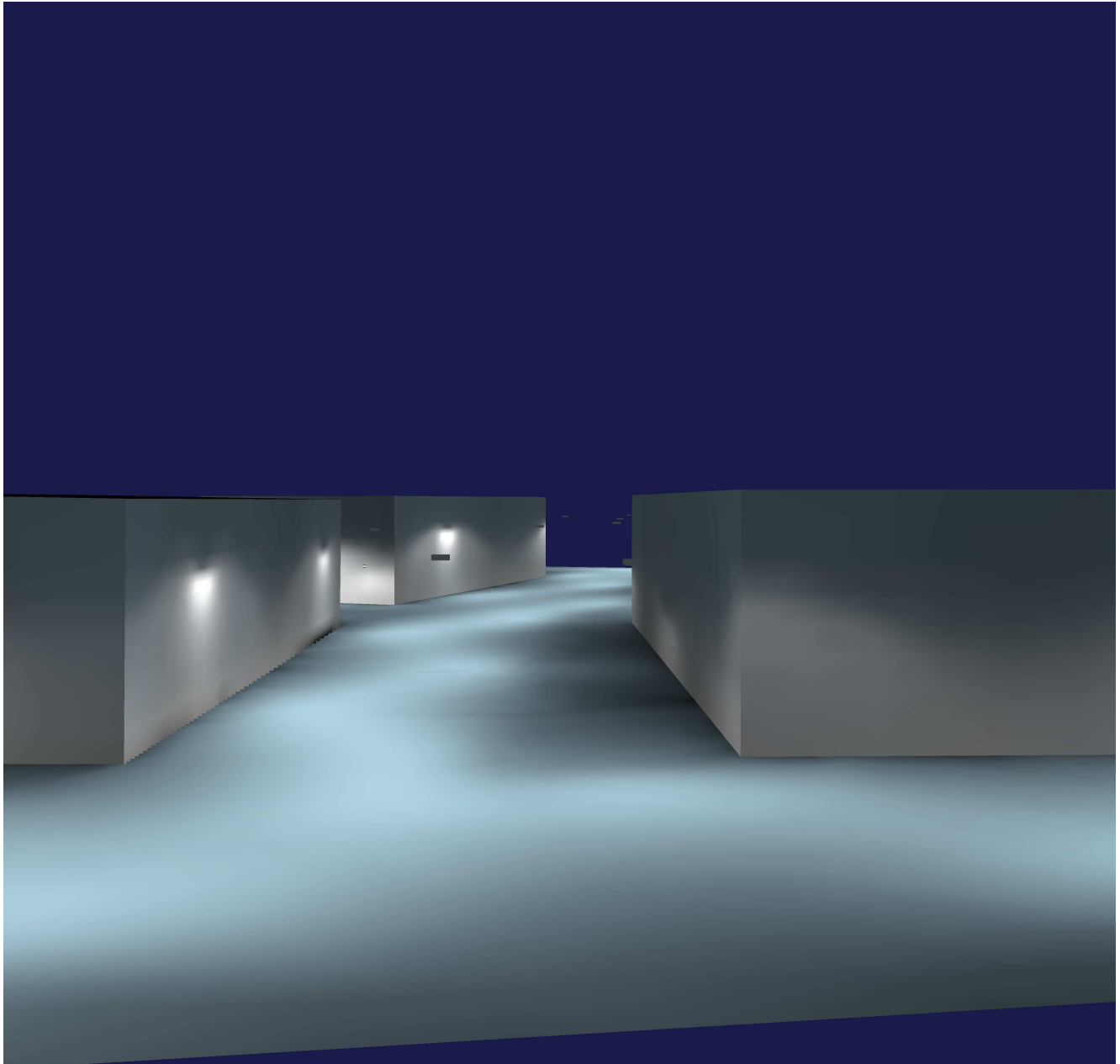
Luminance in the scene

Minimum: : 0 cd/m²

Maximum: : 47.4 cd/m²

2.3 Calculation results, Exterior 1

2.3.18 3D luminance, View 2



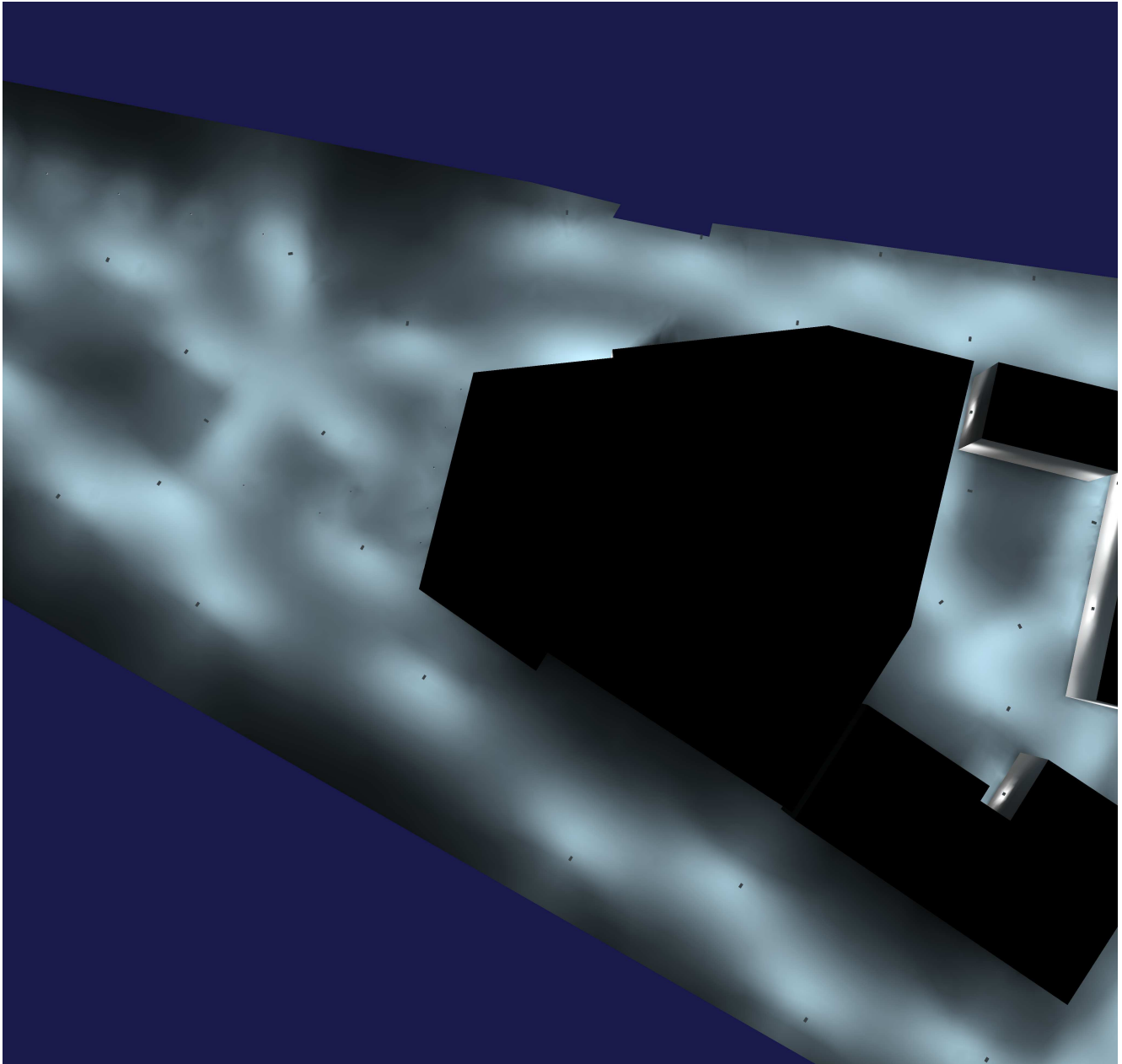
Luminance in the scene

Minimum: : 0 cd/m²

Maximum: : 47.4 cd/m²

2.3 Calculation results, Exterior 1

2.3.19 3D luminance, View 3



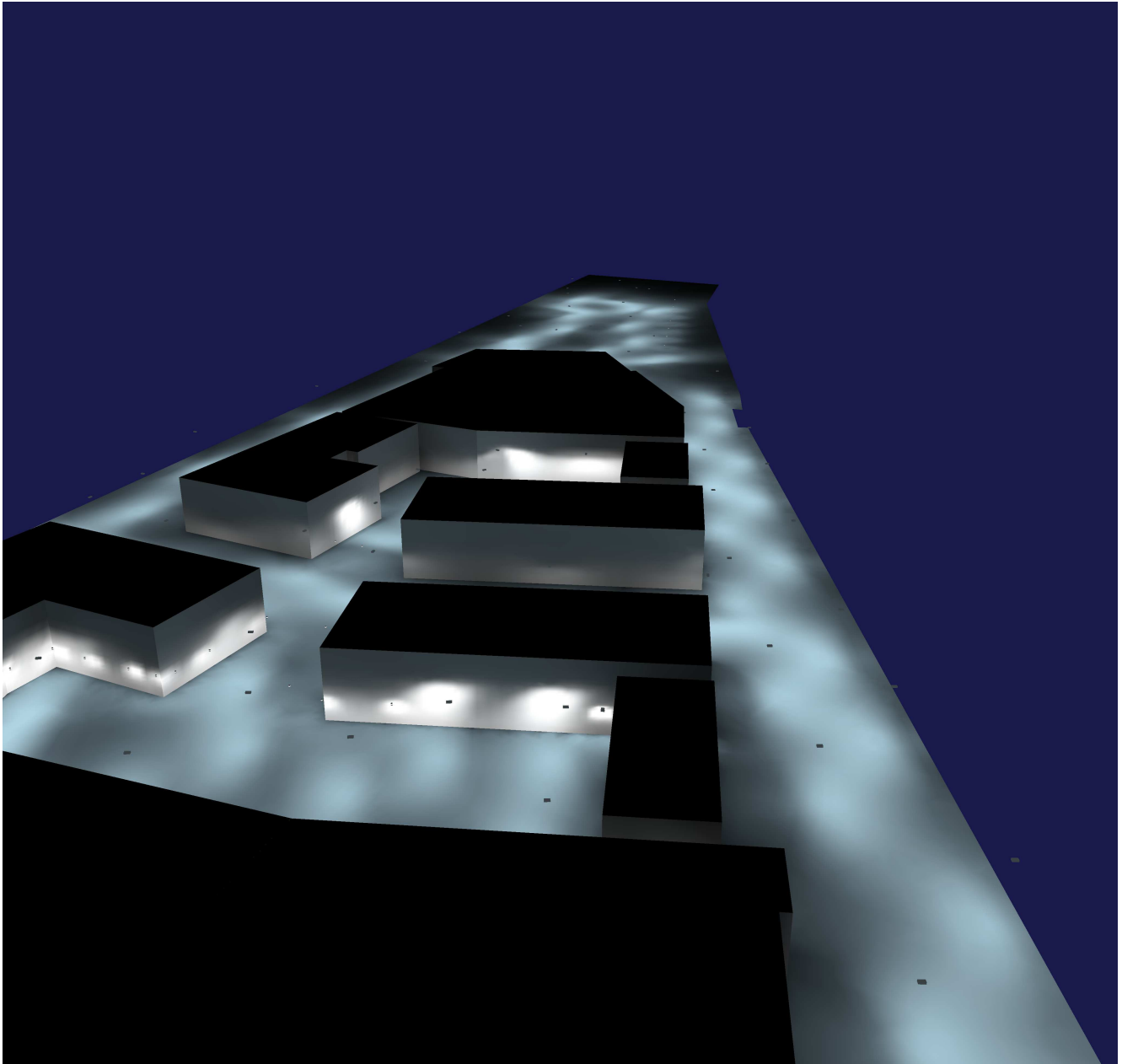
Luminance in the scene

Minimum: : 0 cd/m²

Maximum: : 47.4 cd/m²

2.3 Calculation results, Exterior 1

2.3.20 3D luminance, View 4



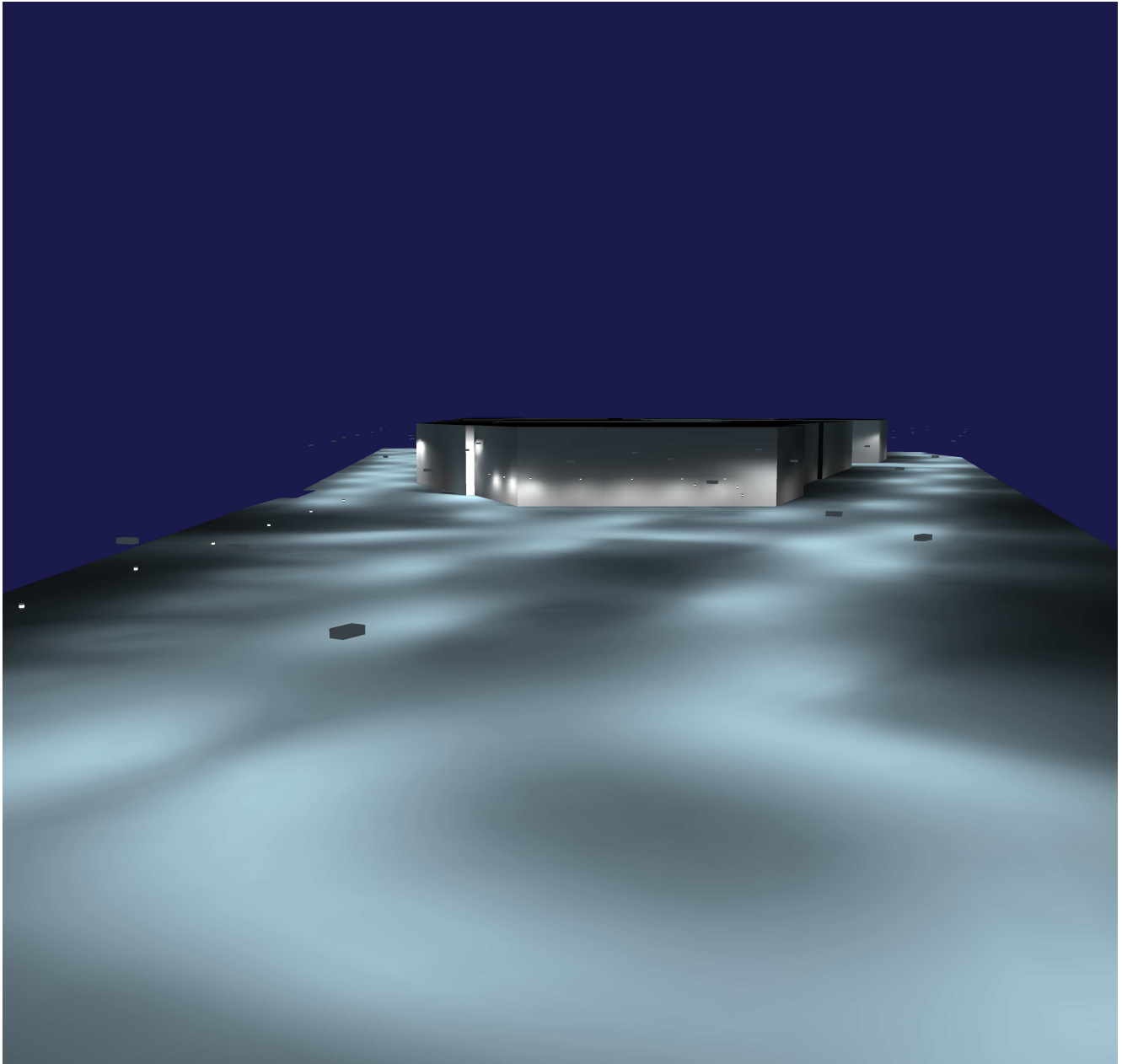
Luminance in the scene

Minimum: : 0 cd/m²

Maximum: : 47.4 cd/m²

2.3 Calculation results, Exterior 1

2.3.21 3D luminance, View 5



Luminance in the scene

Minimum: : 0 cd/m²

Maximum: : 47.4 cd/m²