



Cornelscourt Residential Development

Proposed Site Lighting layout

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DOCUMENT CONTROL & HISTORY

OCSC Job No.: A587	Project Code	Originator Code	Zone Code	Level Code	File Type	Role Type	Number Series	Status/ Suitability Code	Revision
	A587	OCSC	XX	XX	RP	E	0001	S8	P01
Rev.	Status	Authors	Checked	Authorised	Issue Date				
P02	S8	AM	DW	DB	24.11.21				
P01	S8	AM	DW	DB	19.10.21				



PROPOSED DEVELOPMENT

The proposed residential development provides for 419 no. Build-to-Rent dwellings on a site located at Cornelscourt Village, Dublin 18.

The proposed residential development comprises 412 no. apartment units (consisting of 294 no. one-bed apartments, 111 no. two-bed apartments, and 7 no. three-bed apartment units) and 7 no. three-bed houses. The proposed apartments are arranged in 5 no. Blocks which range in height from 4 no. storeys to 12 no. storeys over basement/podium level. The proposed houses are two storey in height.

The proposed development will be for long-term rental and will remain owned and operated by an institutional entity for a minimum period of not less than 15 years. The apartments benefit from a range of internal residential amenities and facilities provided throughout the scheme and include a gym; a variety of tenant amenity lounges including a concierge; a single storey multipurpose pavilion building within the communal courtyard between Blocks A and B; and a clearly defined range and hierarchy of public, communal, and private open spaces.

In addition, the proposed development provides a childcare facility (approximately 258sqm) with capacity for in the order of 50-60 children to serve the needs of the proposed development. A café/retail unit is proposed fronting onto the Old Bray Road (total 264sqm GFA).

Vehicular access to basement level will be via the existing vehicular access point from the Old Bray Road. A total of 237 no. car parking spaces (236 no. at basement level and 1 no. at ground level), 819 no. bicycle parking spaces (664 no. at basement level and 155 no. at ground level), and 10 motorcycle spaces (all at basement level), are proposed.

The proposed development includes on-site pump station integrated with an underground foul sewer balancing storage tank (approx. 2,150m³), at the eastern corner of the site, together with all associated works.

The proposed development includes a new pedestrian connection along the N11, from the subject site to N11/Old Bray Road junction, with the bus stop beyond, together with future potential pedestrian and/or cycle connections to the Old Bray Road and Willow Grove.



The proposed development provides for all associated and ancillary infrastructure, landscaping, boundary treatments and development works on a total site of approximately 2.15 hectares.



Figure 1: Proposed Site Plan

DESIGN CRITERIA:

The public lighting scheme has been designed in accordance with the General Specification for Public Lighting Design and Installation in Residential ,Industrial and Commercial Developments in Dun Laoghaire Rathdowne County Council areas.

The scheme has been designed to comply with Class P4 of BS 5489:2013.

Cornelcourt

Installation : External

Project number : E19077

Customer : OCSC

Processed by : MDC

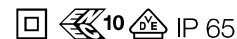
Date : 18.10.2021

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.

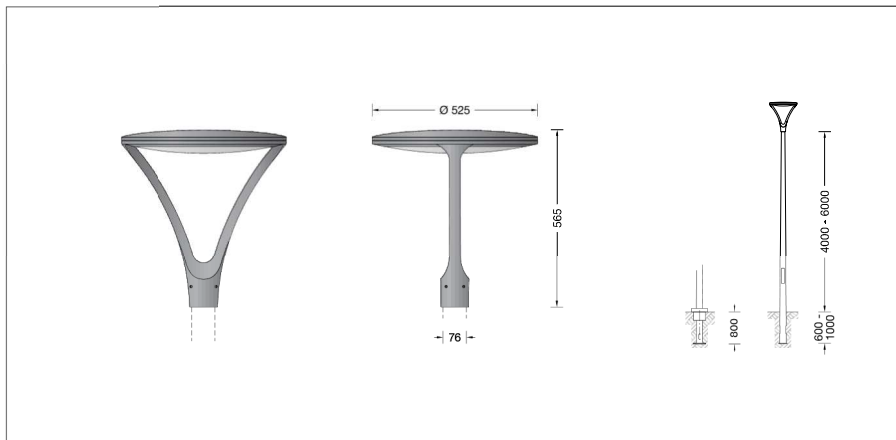
BEGA**84 120**

Pole top luminaire



Project · Reference number

Date



Product data sheet

Application

Pole-top luminaire with symmetrical light distribution.
For mounting heights 4000 - 6000 mm.

Product description

Luminaire made of aluminium alloy, aluminium and stainless steel
BEGA Unidure® coating technology
Synthetic cover with optical structure
Silicone gasket
Reflector made of pure anodised aluminium
For pole top \varnothing 76 mm
Slip fitter insert depth 90 mm
Connecting cable X05BQ-F 4 x 1[□]
Cable length 6 m
BEGA Ultimate Driver®
LED power supply unit
220-240 V \sim 0/50-60 Hz
DC 176-264 V
DALI controllable
A basic isolation exists between power cable and control line
BEGA Thermal Control®
Temporary thermal regulation to protect temperature-sensitive components without switching off the luminaire
Safety class II
Protection class IP 65
Dust-tight and protection against water jets
Impact strength IK04
Protection against mechanical impacts < 0.5 joule
 – Safety mark
CE – Conformity mark
Horizontal wind catching area: 0.07 m²
Weight: 9.7 kg

Lamp

Module connected wattage 23.2 W
Luminaire connected wattage 25.8 W
Rated temperature $t_a = 25\text{ }^\circ\text{C}$
Ambient temperature $t_{a\text{max}} = 50\text{ }^\circ\text{C}$

84 120 K4

Module designation 8x LED-0412/840
Colour temperature 4000 K
Colour rendering index CRI > 80
Module luminous flux 4640 lm
Luminaire luminous flux 2671 lm
Luminaire luminous efficiency 103,5 lm/W

84 120 K3

Module designation 8x LED-0412/830
Colour temperature 3000 K
Colour rendering index CRI > 80
Module luminous flux 4520 lm
Luminaire luminous flux 2602 lm
Luminaire luminous efficiency 100,9 lm/W

Service life · Ambient temperature

Rated temperature $t_a = 25\text{ }^\circ\text{C}$
LED psu: > 50,000 h
LED module: > 200,000 h (L.80 B50)
100,000 h (L.90 B50)

Ambient temperature $t_{a\text{max}} = 50\text{ }^\circ\text{C}$ (100 %)

LED psu: 50,000 h
LED module: 148,000 h (L.80 B50)

Light technique

Luminaire data for the light planning program DIALux for outdoor lighting, street lighting and indoor lighting as well as luminaire data in EULUMDAT- and IES-format you will find on the BEGA web page www.bega.com.

Inrush current

Inrush current: 5 A / 100 μs
Maximum number of luminaires of this type per miniature circuit breaker:
B 10A: 56 luminaires
B 16A: 90 luminaires
C 10A: 56 luminaires
C 16A: 90 luminaires

Article No. 84 120

LED colour temperature optionally 4000 K or 3000 K
4000 K – Article number + **K4**
3000 K – Article number + **K3**

Colour graphite or silver
graphite – article number
silver – article number + **A**

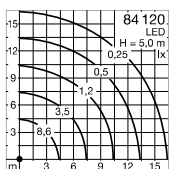
Accessories

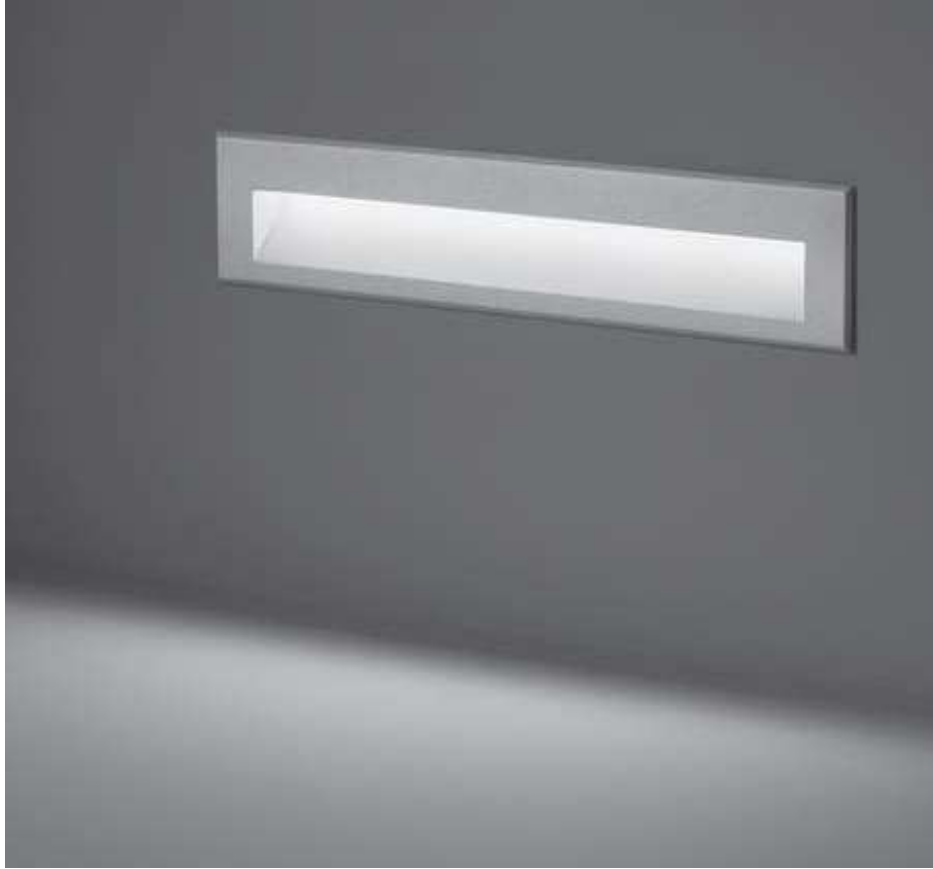
For this luminaire we recommend the following BEGA luminaire poles:

Tapered aluminium poles, lacquered with access door and C-clamp
70 914 Pole with anch.section H 4000 mm
70 725 Pole with anch.section H 4500 mm
70 915 Pole with anch.section H 5000 mm
70 916 Pole with anch.section H 6000 mm
70 791 Pole with baseplate H 4000 mm
70 792 Pole with baseplate H 4500 mm
70 794 Pole with baseplate H 5000 mm

Cylindrically stepped aluminium poles lacquered · with door und C rail
70 901 Pole with anch.section H 4000 mm
70 903 Pole with anch.section H 5000 mm
70 905 Pole with anch.section H 6000 mm
70 900 Pole with baseplate H 4000 mm
70 902 Pole with baseplate H 5000 mm
70 904 Pole with baseplate H 6000 mm

For suitable connection boxes please see the instructions for use of the luminaire poles.

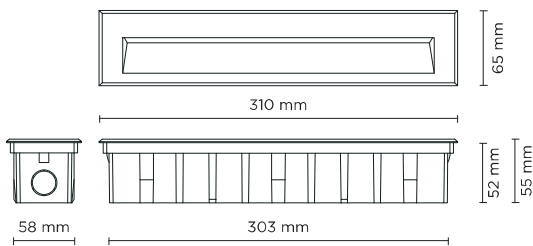
Light distribution



502020

STEP LINEAR 07

Recessed linear steplight for outdoor installation in the wall, phospho-chromatised and polyester powder coated die-cast copper-free aluminium body and frame, tempered frosted glass diffuser, polypropilene housing for recess, moulded silicone gasket and stainless steel screws. Built-in LED driver 220-240V 50-60Hz, with 30 low-power SMD5630 LED. IP65 rating.



light source	light beam options	lumen output (lm)	lumin. efficacy (lm/w)
3000°K warm-white			
low power led	Asymmetric 120°	360	34.28

Finish color options:

Textured Grey
RAL 9006

Technical features



Technical data

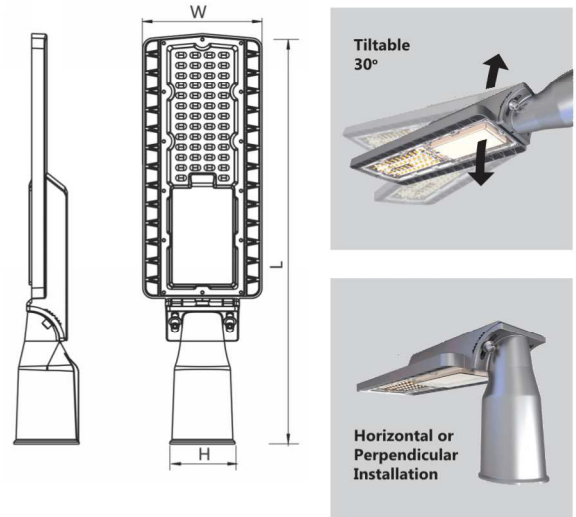
Wattage	10.5 WATT
IP Rating	IP65
IK Rating	IK08
Material	High corrosion resistance die-cast copper-free aluminum body and frame.
Coating	Polyester powder coating with phosphochromating pre-finish
Light source	NR. 30 x SMD5630 LED
Screws	Stainless steel
Transformer	Electronic power supply 220/240V 50/60Hz built-in
Cable	0.5 mt. neoprene power cable included
Gasket	Silicone rubber
Glass	Tempered
Gross weight	1,50 Kg



Valo 30W 4000K Datasheet

4200lm LED Street Light

PXVALO30W



Watts (W)	30
L (mm)	425
W (mm)	117
H (mm)	76
Pole Ø (mm)	60



	RoHS	IP65	LED		140 Lm/W
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Dimensions	425*117*76mm
Wattage	30W
Input Voltage	100-240V
Frequency	50-60Hz
Current (A)	0.14
Colour Temperature	4000K
Ra	≥70
Power Factor	≥0.9
Ta(°C)	-20~45
Lumens	4200
Efficiency	140Lm/W
Lifetime	50,000h
Colour	Dark Grey
Beam Angle	Type II
Tiltable	30°
IP Rating	IP65
Certification	CE, CB, ENEC
Fitting Warranty	5 Years

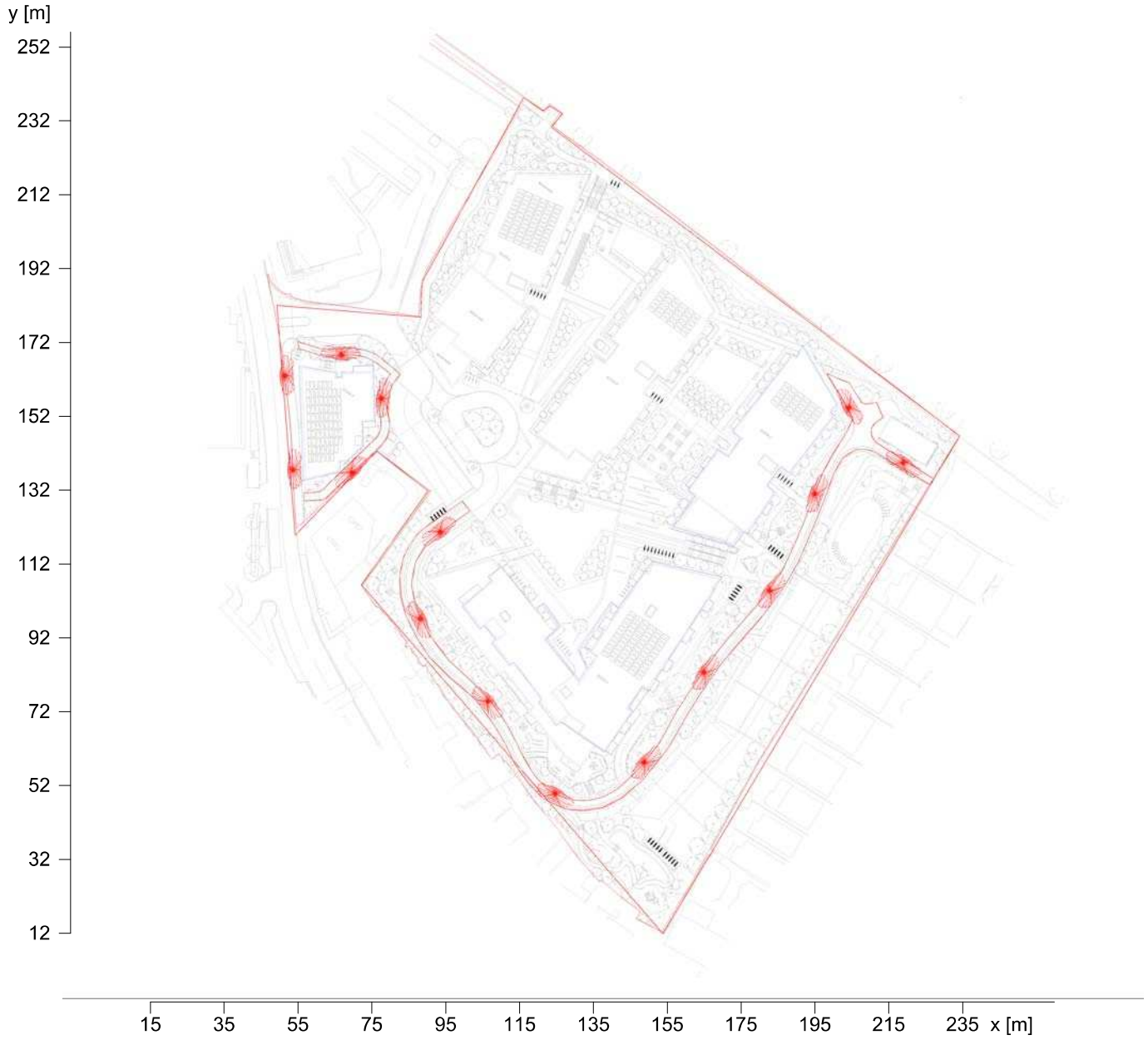
Features & Applications

- Tiltable 30°
- 4000K colour temperature
- Highly Efficient 140 Lm/W
- Excellent photometric design
- Complete with NEMA socket
- IP65 protection rating
- 60mm pole diameter size
- 76mm spigot available (to be ordered separately)
- 50,000 hour lifetime
- Excellent heat dissipation to extend the life of the LEDs.
- 5 year warranty

1 Exterior 1

1.1 Description, Exterior 1

1.1.1 Floor plan



Object : Cornelcourt
 Installation : External
 Project number : E19077
 Date : 18.10.2021

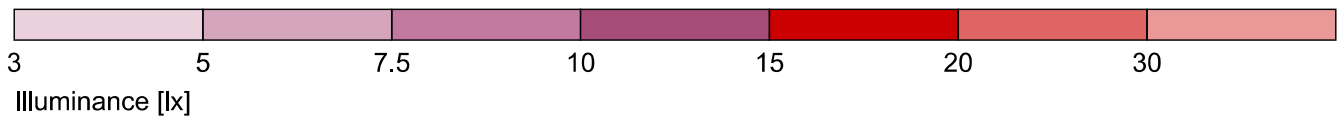
1 Exterior 1

1.2 Summary, Exterior 1

1.2.1 Result overview, Entrance Roadway



15 35 55 75 95 115 155 195 235 x [m]




General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Height (phot.center) [m]:	5.96 m
Maintenance factor	0.80
Total luminous flux of all lamps	63000 lm
Total power	450 W
Total power per area (20925.97 m ²)	0.02 W/m ²

Illuminance

Average illuminance	Em	16.1 lx
Minimum illuminance	Emin	4.5 lx
Maximum illuminance	Emax	33.6 lx
Uniformity Uo	Emin/Em	1:3.59 (0.28)
Diversity Ud	Emin/Emax	1:7.51 (0.13)

Type No.\Make

	HML	
1 15	Order No.	: !20180703F2
	Luminaire name	: Prelux Valo 30W 4K
	Equipment	: 1 x 30 W / 4200 lm

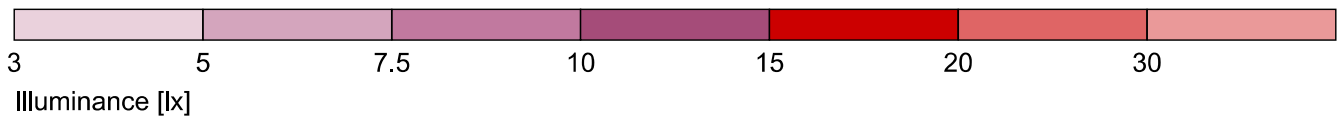
Object : Cornelcourt
 Installation : External
 Project number : E19077
 Date : 18.10.2021

1.2 Summary, Exterior 1

1.2.2 Result overview, Main Roadway



15 35 55 75 95 115 155 195 235 x [m]



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Height (phot. centre) [m]:	5.96 m
Maintenance factor	0.80
Total luminous flux of all lamps	63000 lm
Total power	450 W
Total power per area (20925.97 m ²)	0.02 W/m ²

Illuminance

Average illuminance	Em	11.5 lx
Minimum illuminance	Emin	3.3 lx
Maximum illuminance	Emax	30.7 lx
Uniformity U _o	Emin/Em	1:3.49 (0.29)
Diversity U _d	Emin/Emax	1:9.28 (0.11)

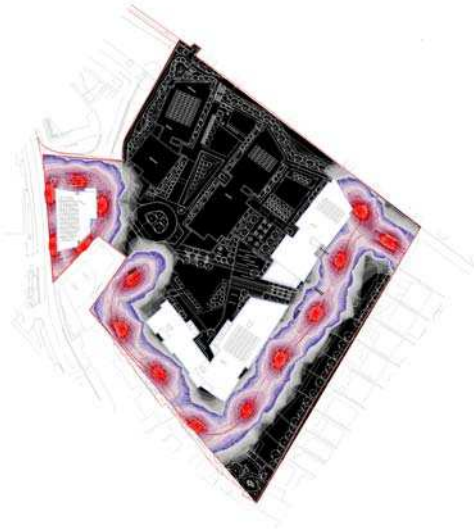
Type No. Make

	HML	
1	15	Order No. : !20180703F2
		Luminaire name : Prelux Valo 30W 4K
		Equipment : 1 x 30 W / 4200 lm

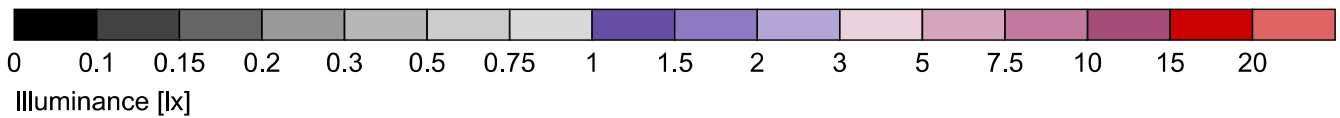
Object : Cornelcourt
 Installation : External
 Project number : E19077
 Date : 18.10.2021

1.2 Summary, Exterior 1

1.2.3 Result overview, Evaluation area 1



15 35 55 75 95 115 155 195 235 x [m]



General


Calculation algorithm used	Average indirect fraction
Height (phot. centre)	5.96 m
Maintenance factor	0.80
Total luminous flux of all lamps	63000.00 lm
Total power	450.0 W
Total power per area (20925.97 m ²)	0.02 W/m ² (0.91 W/m ² /100lx)

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	2.36 lx
Emin	0 lx
Emin/Em (Uo)	---
Emin/Emax (Ud)	---
Position	0.00 m

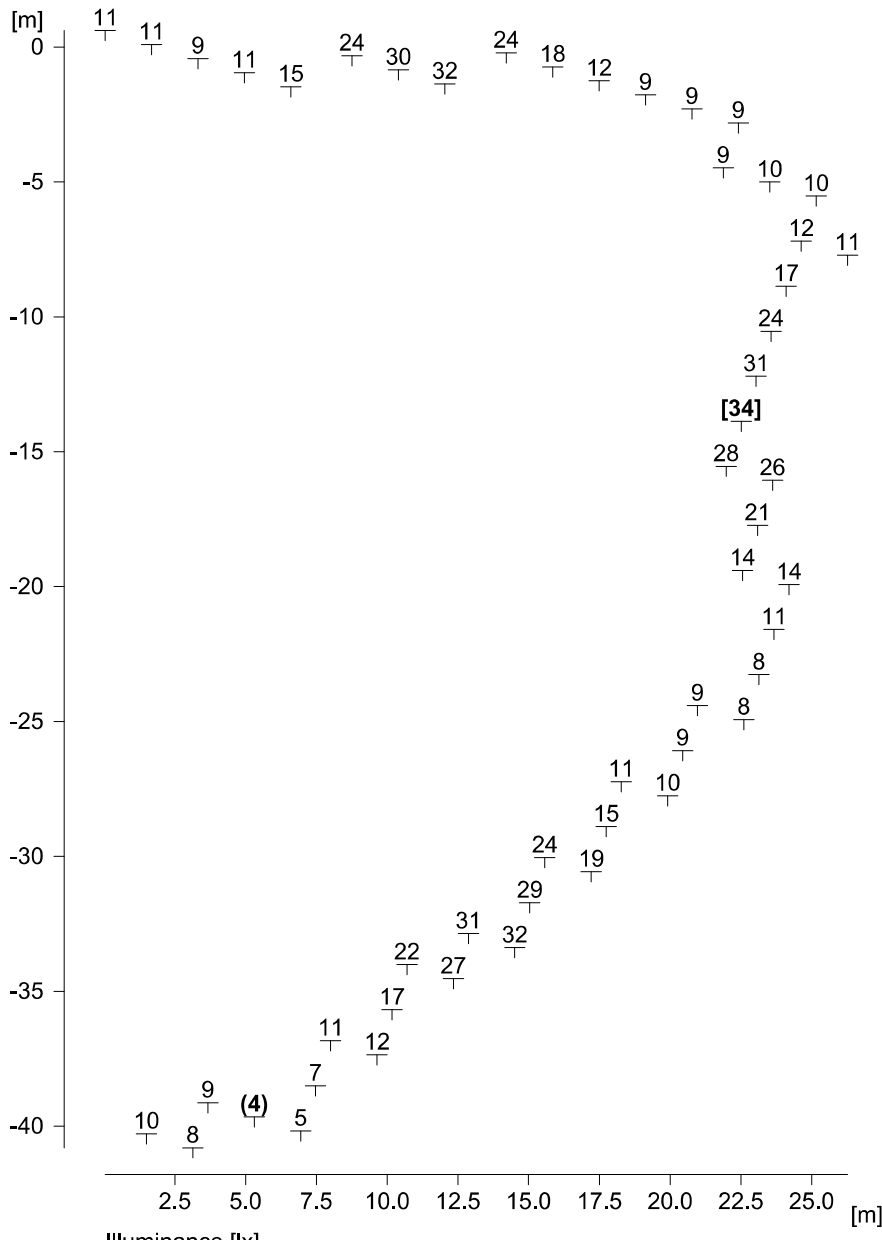
Type No. Make

	HML	
1	15	Order No. : !20180703F2
		Luminaire name : Prelux Valo 30W 4K
		Equipment : 1 x 30 W / 4200 lm

1 Exterior 1

1.3 Calculation results, Exterior 1

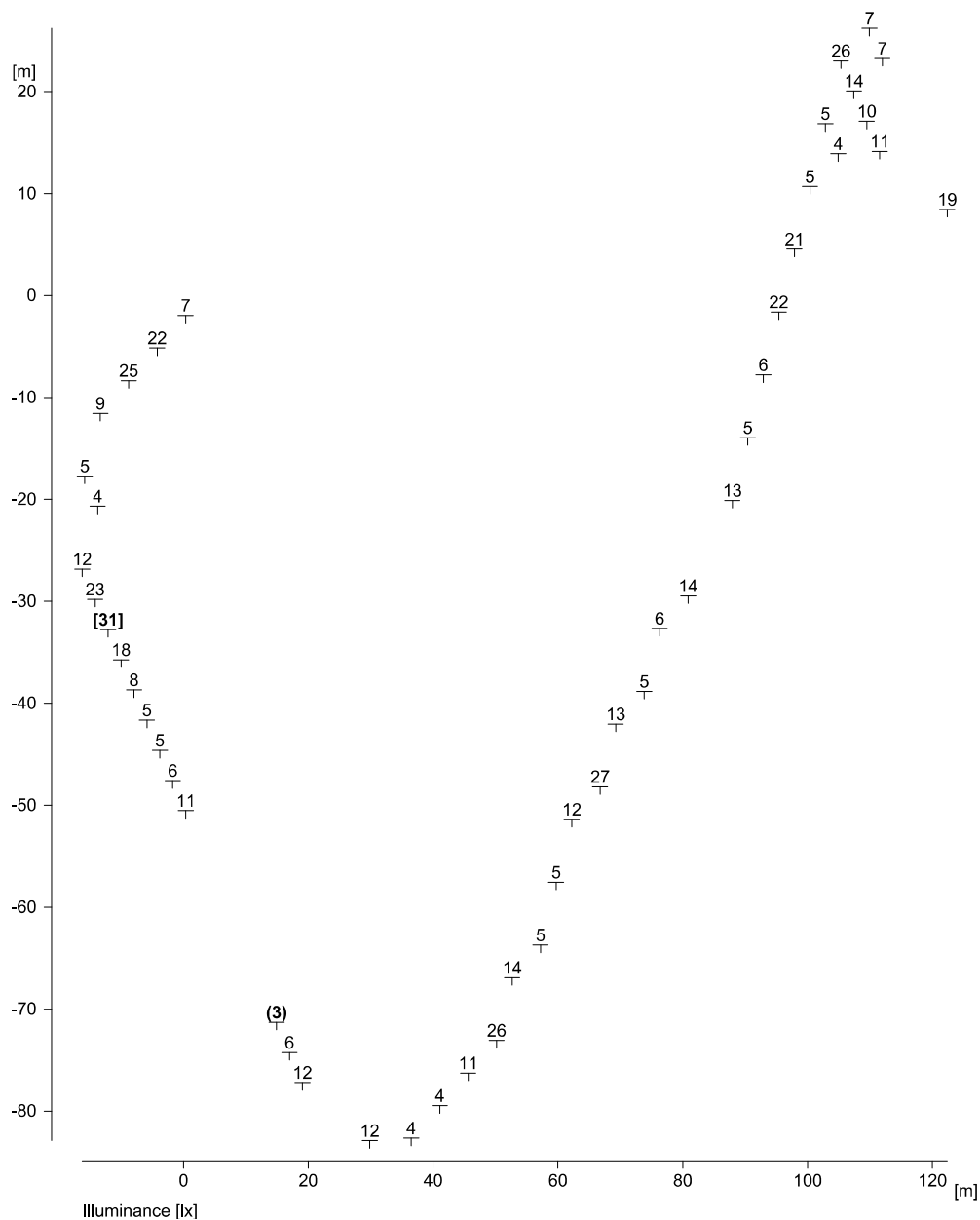
1.3.1 Table, Entrance Roadway (E)



Height reference plane	:	0.00 m
Average illuminance	Em	: 16.1 lx
Minimum illuminance	Emin	: 4.5 lx
Maximum illuminance	Emax	: 33.6 lx
Uniformity Uo	Emin/Em	: 1 : 3.59 (0.28)
Diversity Ud	Emin/Emax	: 1 : 7.51 (0.13)

1.3 Calculation results, Exterior 1

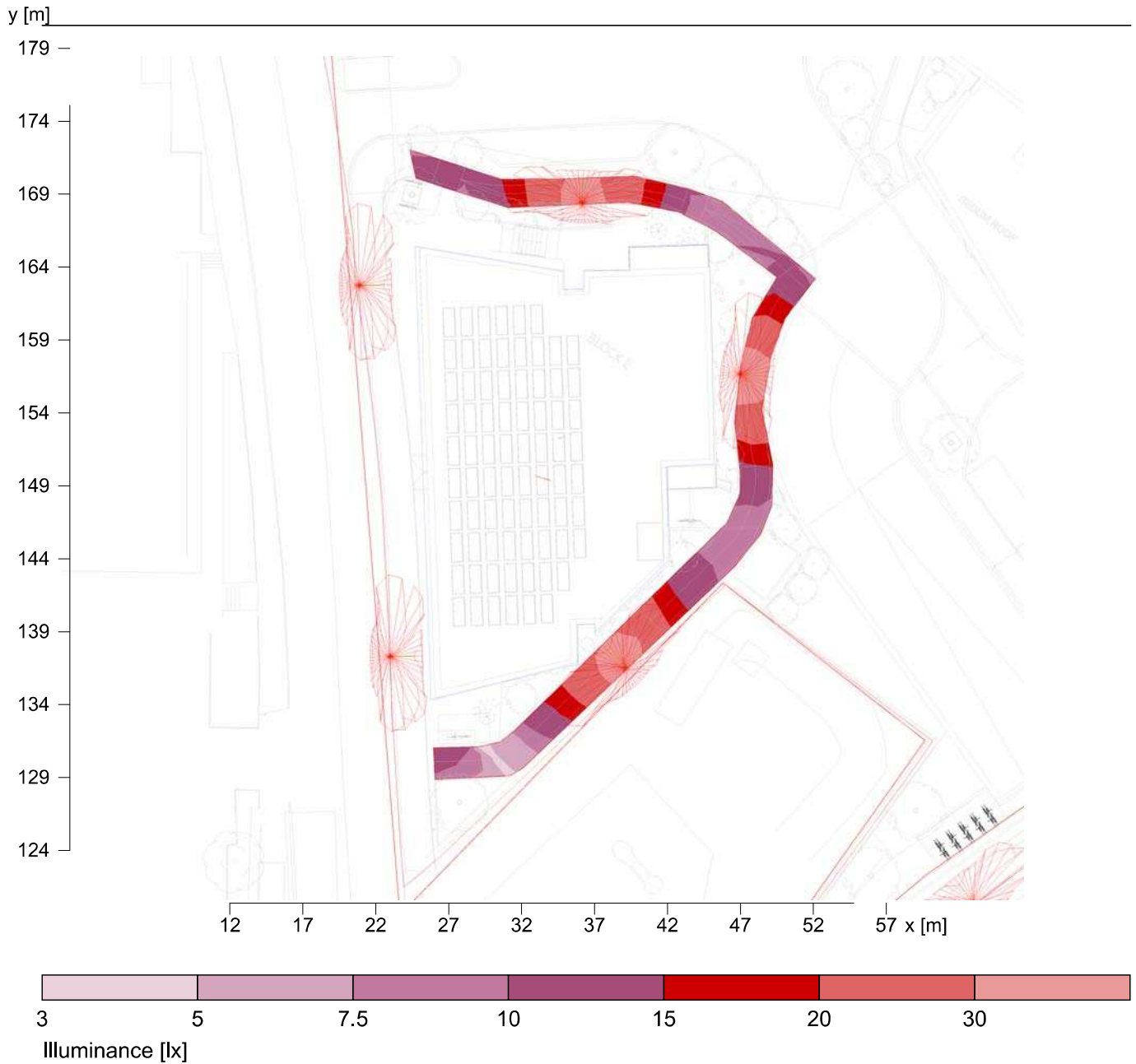
1.3.2 Table, Main Roadway (E)



Height reference plane	:	0.00 m
Average illuminance	Em	: 11.5 lx
Minimum illuminance	Emin	: 3.3 lx
Maximum illuminance	Emax	: 30.7 lx
Uniformity Uo	Emin/Em	: 1 : 3.49 (0.29)
Diversity Ud	Emin/Emax	: 1 : 9.28 (0.11)

1.3 Calculation results, Exterior 1

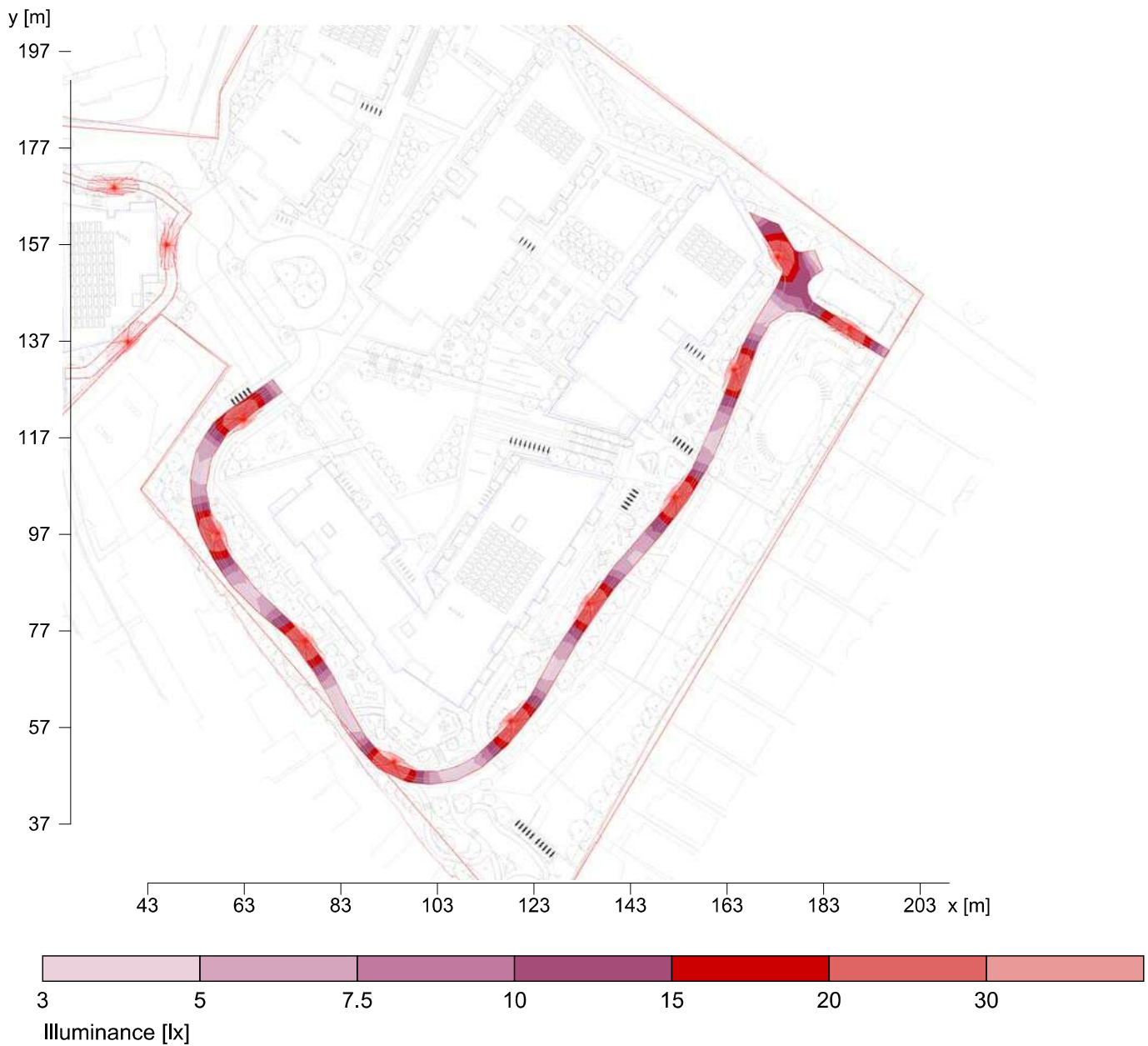
1.3.3 Pseudo colours, Entrance Roadway (E)



Height reference plane		: 0.00 m
Average illuminance	Em	: 16.1 lx
Minimum illuminance	Emin	: 4.5 lx
Maximum illuminance	Emax	: 33.6 lx
Uniformity Uo	Emin/Em	: 1 : 3.59 (0.28)
Diversity Ud	Emin/Emax	: 1 : 7.51 (0.13)

1.3 Calculation results, Exterior 1

1.3.4 Pseudo colours, Main Roadway (E)



Height reference plane		: 0.00 m
Average illuminance	Em	: 11.5 lx
Minimum illuminance	Emin	: 3.3 lx
Maximum illuminance	Emax	: 30.7 lx
Uniformity Uo	Emin/Em	: 1 : 3.49 (0.29)
Diversity Ud	Emin/Emax	: 1 : 9.28 (0.11)

Object : Cornelcourt
Installation : External
Project number : E19077
Date : 18.10.2021

1 Exterior 1

1.4 Calculation results, Exterior 1

1.4.1 3D luminance (raytracing), Variable view



Luminance in the illustration:

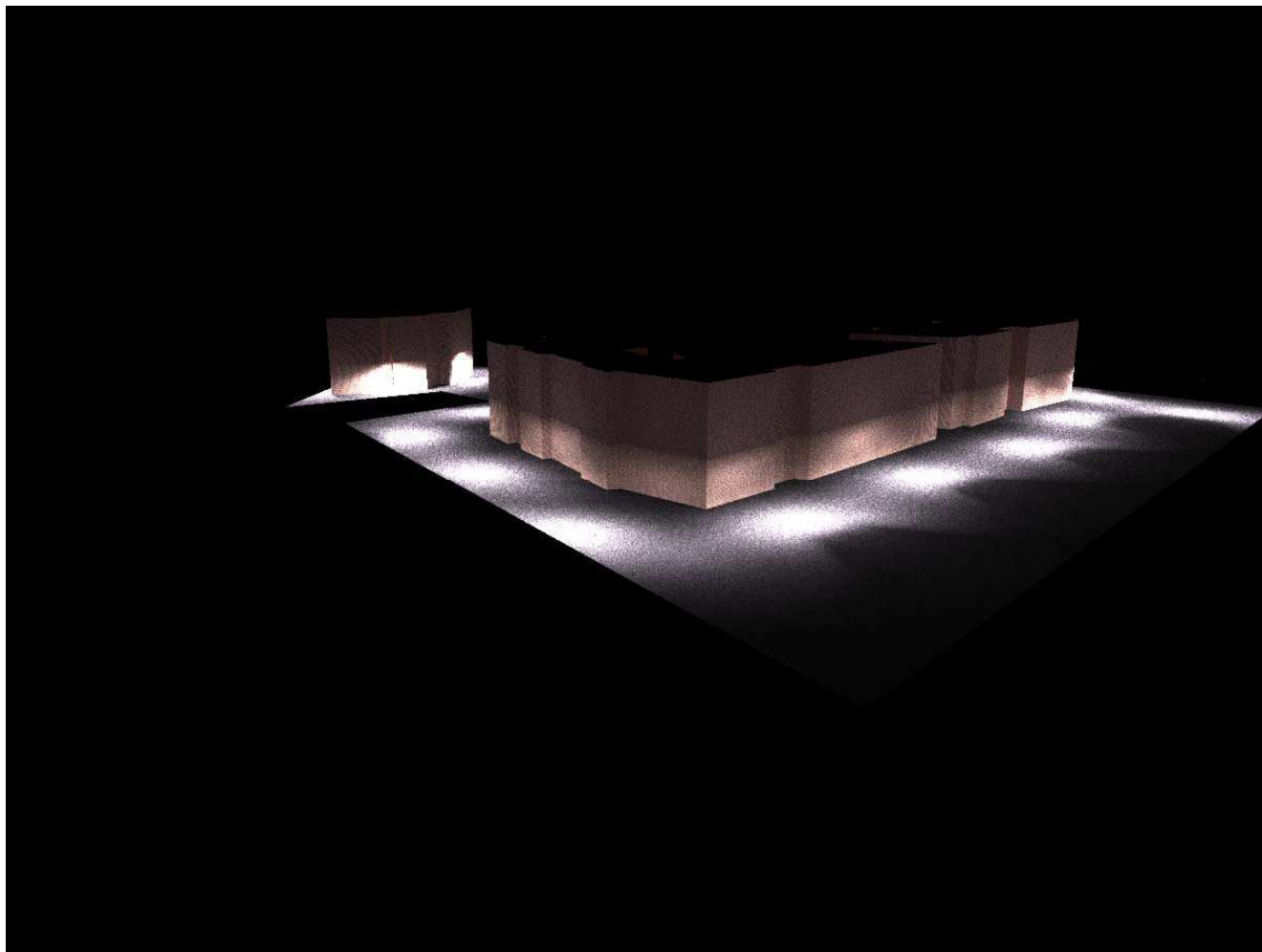
Minimum: : 0 cd/m²
Maximum: : 3.78 cd/m²

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

Object : Cornelcourt
Installation : External
Project number : E19077
Date : 18.10.2021

1.4 Calculation results, Exterior 1

1.4.2 3D luminance (raytracing), Variable view



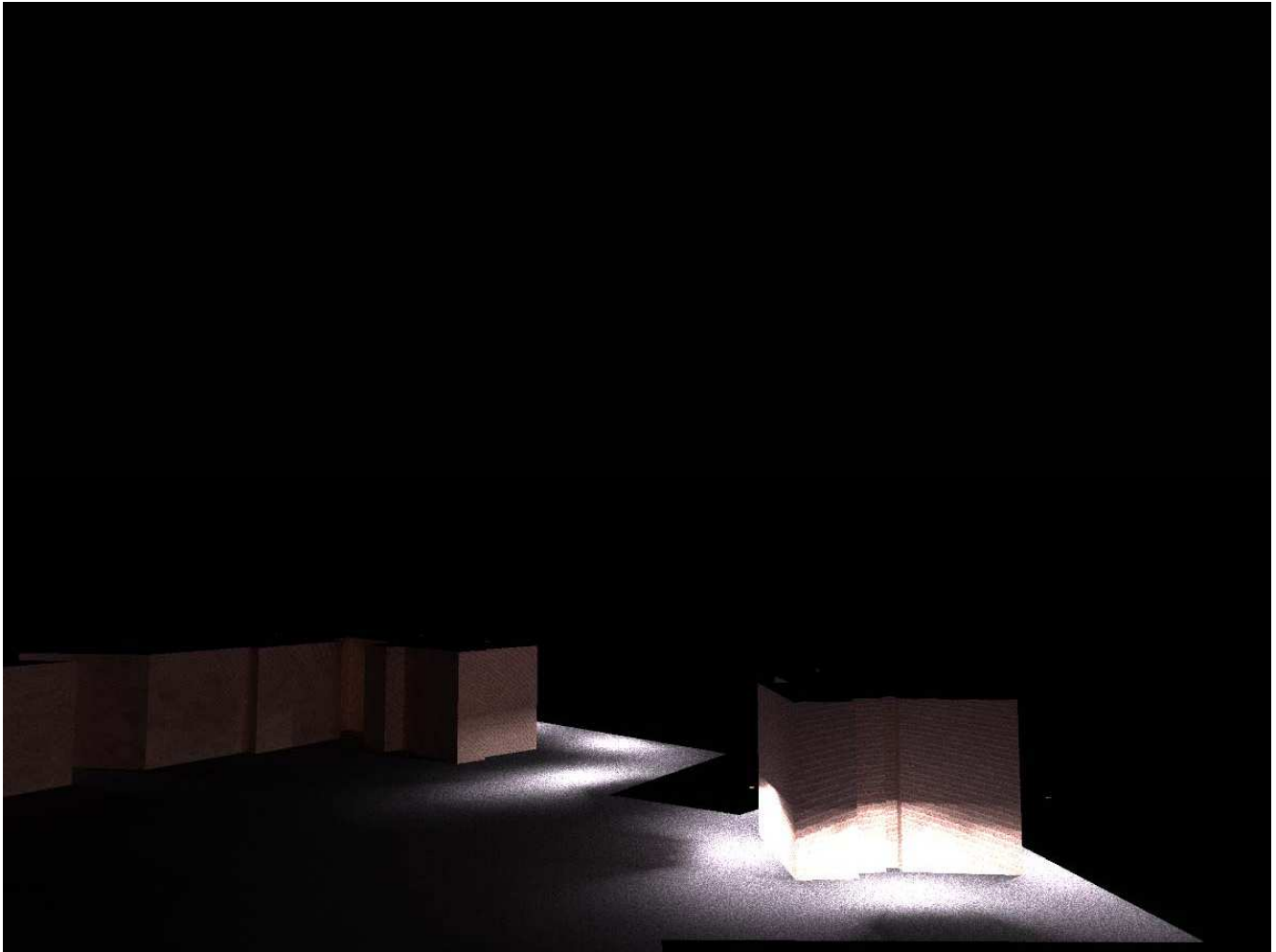
Luminance in the illustration:

Minimum: : 0 cd/m²
Maximum: : 3.47 cd/m²

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

1.4 Calculation results, Exterior 1

1.4.3 3D luminance (raytracing), Variable view



Luminance in the illustration:

Minimum: : 0 cd/m²
Maximum: : 3.74 cd/m²

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

1 Roadway

1.1 Description, Roadway

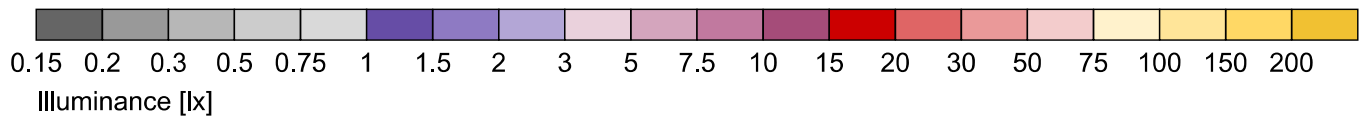
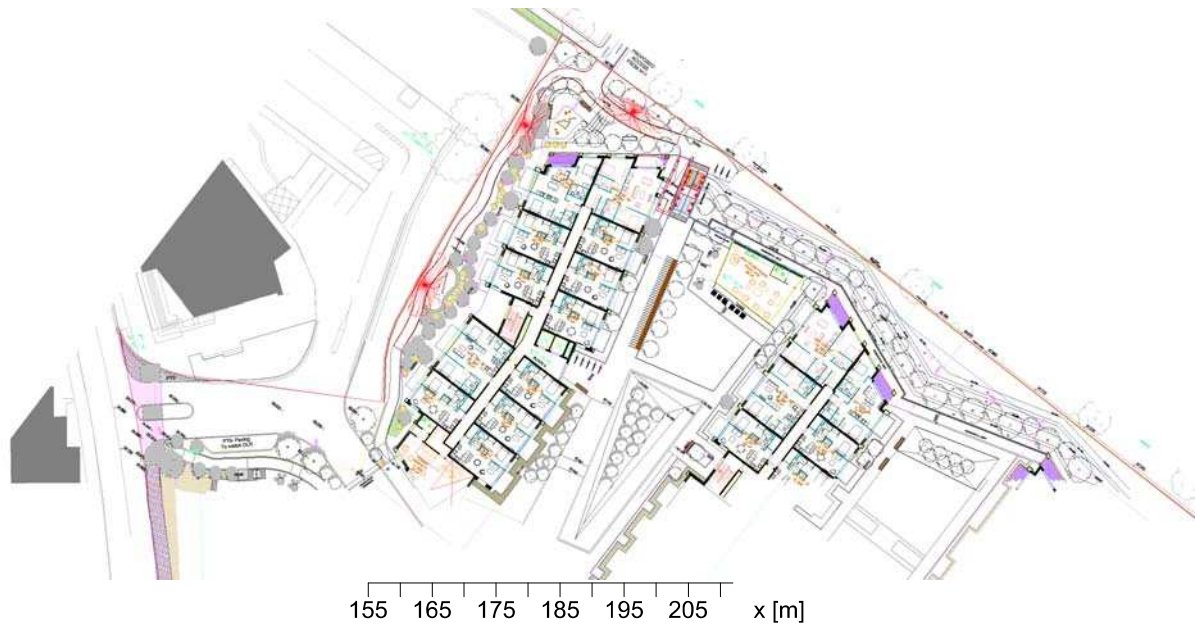
1.1.1 Floor plan



1 Roadway

1.2 Summary, Roadway

1.2.1 Result overview, Steps




General


Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux of all lamps	19728 lm
Total power	310 W
Total power per area (122.02 m ²)	2.54 W/m ²

Illuminance

Average illuminance	Em	101 lx
Minimum illuminance	Emin	0 lx
Maximum illuminance	Emax	271 lx
Uniformity Uo	Emin/Em	1:637 (0)
Diversity Ud	Emin/Emax	1:1720 (0)

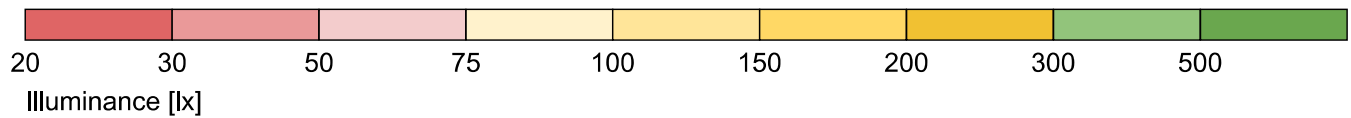
Type No.\Make

PUK ITALIA	
1	22
	Order No. : 375-QL18-S04
	Luminaire name : PUK ITALIA 375-QL18-S04 HYDROSTEP LINEAR 07 LED COD 502020
	Equipment : 1 x 375-QL18-S04 LED 10 W / 324 lm

HML	
2	3
	Order No. : I20180703F2
	Luminaire name : Prelux Valo 30W 4K
	Equipment : 1 x 30 W / 4200 lm

1.2 Summary, Roadway

1.2.2 Result overview, Ramp




General


Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux of all lamps	19728 lm
Total power	310 W
Total power per area (122.02 m ²)	2.54 W/m ²

Illuminance

Average illuminance	Em	110 lx
Minimum illuminance	Emin	26 lx
Maximum illuminance	Emax	534 lx
Uniformity U _o	Emin/Em	1:4.3 (0.23)
Diversity U _d	Emin/Emax	1:20.9 (0.05)

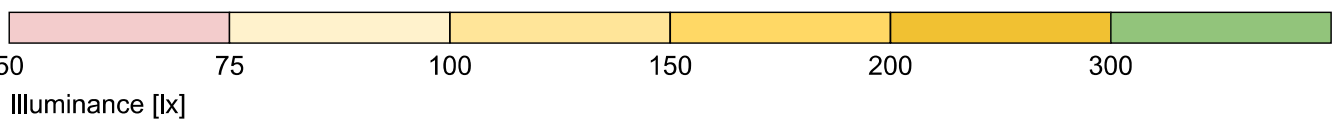
Type No.\Make

PUK ITALIA	
1	22
	Order No. : 375-QL18-S04
	Luminaire name : PUK ITALIA 375-QL18-S04 HYDROSTEP LINEAR 07 LED COD 502020
	Equipment : 1 x 375-QL18-S04 LED 10 W / 324 lm

HML	
2	3
	Order No. : I20180703F2
	Luminaire name : Prelux Valo 30W 4K
	Equipment : 1 x 30 W / 4200 lm

1.2 Summary, Roadway

1.2.3 Result overview, Landing



General


Calculation algorithm used	Average indirect fraction
Height of evaluation surface	1.56 m
Maintenance factor	0.80

Total luminous flux of all lamps	19728 lm
Total power	310 W
Total power per area (122.02 m ²)	2.54 W/m ²

Illuminance

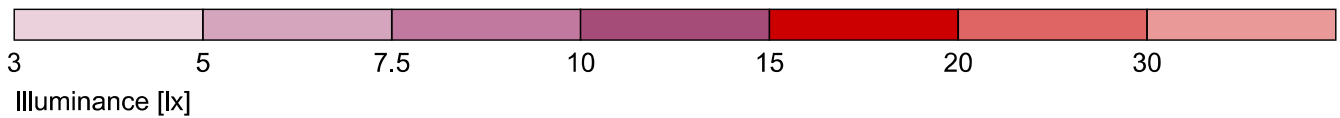
Average illuminance	Em	147 lx
Minimum illuminance	Emin	52 lx
Maximum illuminance	Emax	446 lx
Uniformity Uo	Emin/Em	1:2.8 (0.36)
Diversity Ud	Emin/Emax	1:8.5 (0.12)

Type No. Make

PUK ITALIA		
1	22	Order No. : 375-QL18-S04
		Luminaire name : PUK ITALIA 375-QL18-S04 HYDROSTEP LINEAR 07 LED COD 502020
		Equipment : 1 x 375-QL18-S04 LED 10 W / 324 lm
HML		
2	3	Order No. : !20180703F2
		Luminaire name : Prelux Valo 30W 4K
		Equipment : 1 x 30 W / 4200 lm

1.2 Summary, Roadway

1.2.4 Result overview, Roadway



General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux of all lamps	8400.00 lm
Total power	60.0 W
Total power per area (122.02 m ²)	0.49 W/m ² (3.21 W/m ² /100lx)

Roadway

Reference plane 1.1

	Horizontal
Em	15.3 lx
Emin	4.4 lx
Emin/Em (Uo)	0.29
Emin/Emax (Ud)	0.14
Position	0.00 m

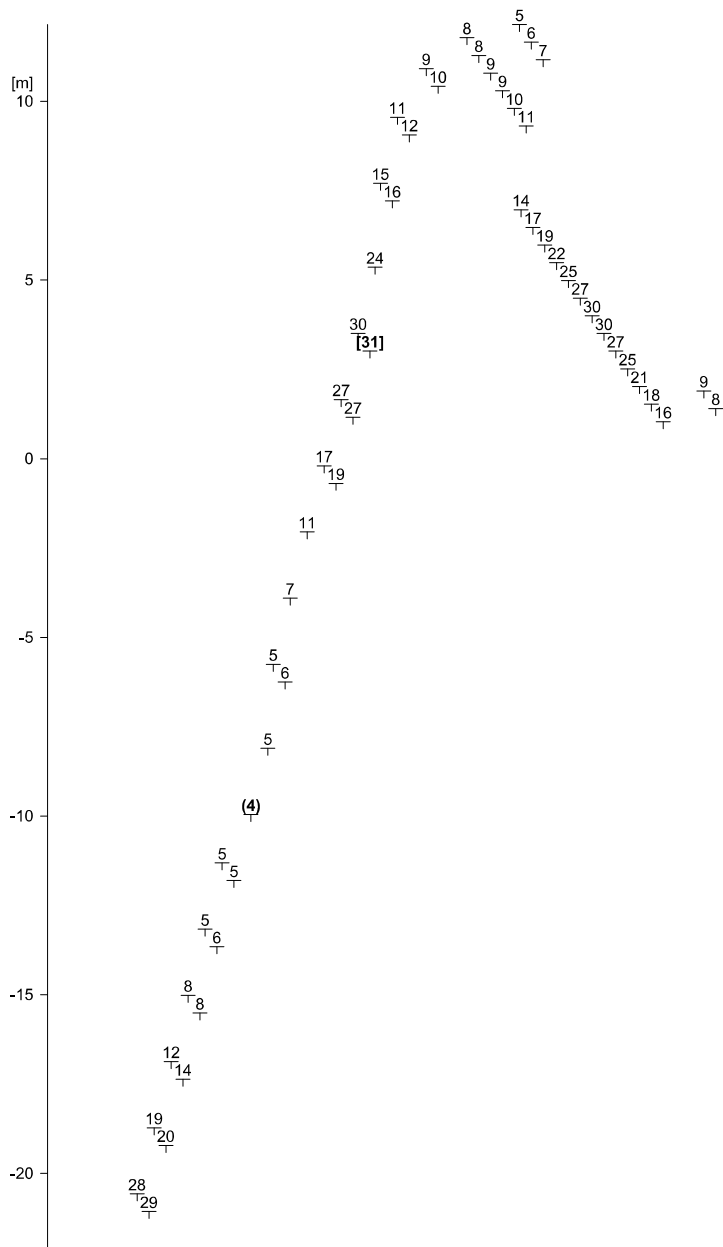
Type No.Make

	HML	
2	2	Order No. : !20180703F2
		Luminaire name : Prelux Valo 30W 4K
		Equipment : 1 x 30 W / 4200 lm

1 Roadway

1.3 Calculation results, Roadway

1.3.1 Table, Reference plane 1.1 (E)



Part1

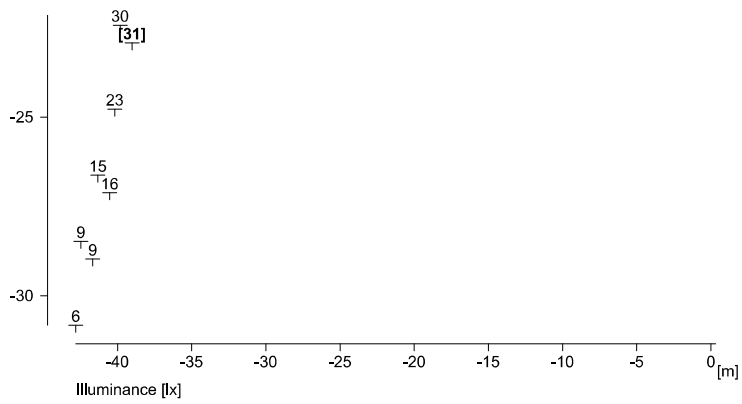
Height reference plane	:	0.00 m
Average illuminance	Em	: 15.3 lx
Minimum illuminance	Emin	: 4.4 lx
Maximum illuminance	Emax	: 31.3 lx
Uniformity Uo	Emin/Em	: 1 : 3.45 (0.29)
Diversity Ud	Emin/Emax	: 1 : 7.06 (0.14)

Object : Cornelscourt BTR
Installation : External Lighting
Project number : E19077
Date : 14.10.2021

1 Roadway

1.3 Calculation results, Roadway

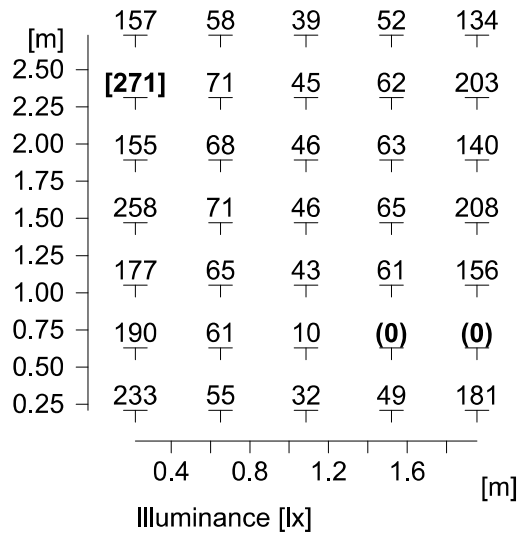
1.3.1 Table, Reference plane 1.1 (E)



Part2

1.3 Calculation results, Roadway

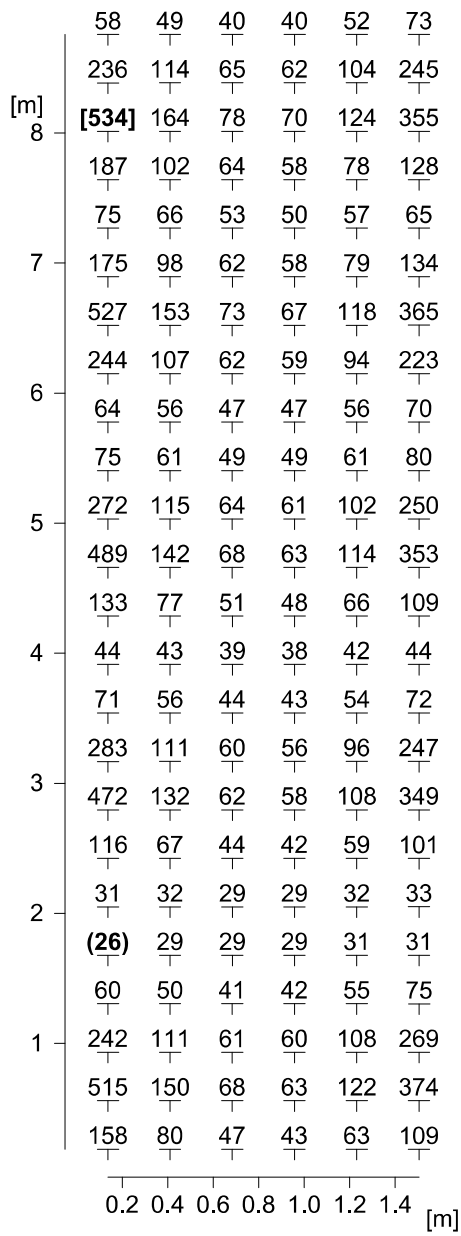
1.3.2 Table, Steps (E)



Average illuminance	Em	: 101 lx
Minimum illuminance	Emin	: 0 lx
Maximum illuminance	Emax	: 271 lx
Uniformity Uo	Emin/Em	: 1 : 636.71 (0.00)
Diversity Ud	Emin/Emax	: 1 : 1717.08 (0.00)

1.3 Calculation results, Roadway

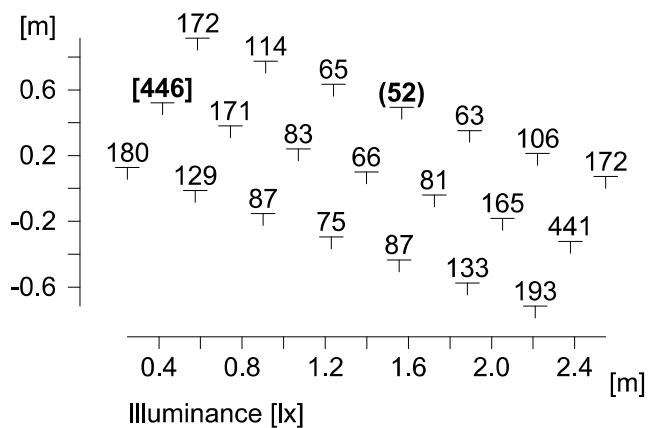
1.3.3 Table, Ramp (E)



Average illuminance	Em	: 110 lx
Minimum illuminance	Emin	: 26 lx
Maximum illuminance	Emax	: 534 lx
Uniformity Uo	Emin/Em	: 1 : 4.30 (0.23)
Diversity Ud	Emin/Emax	: 1 : 20.91 (0.05)

1.3 Calculation results, Roadway

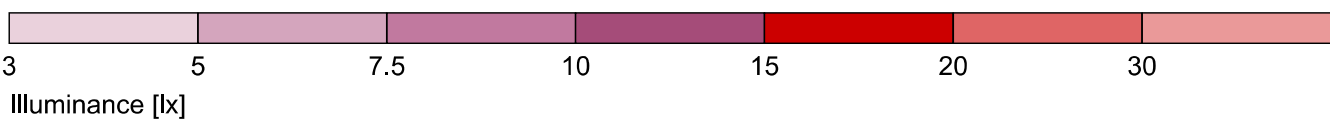
1.3.4 Table, Landing (E)



Height reference plane	:	1.56 m
Average illuminance	Em	: 147 lx
Minimum illuminance	Emin	: 52 lx
Maximum illuminance	Emax	: 446 lx
Uniformity Uo	Emin/Em	: 1 : 2.80 (0.36)
Diversity Ud	Emin/Emax	: 1 : 8.50 (0.12)

1.3 Calculation results, Roadway

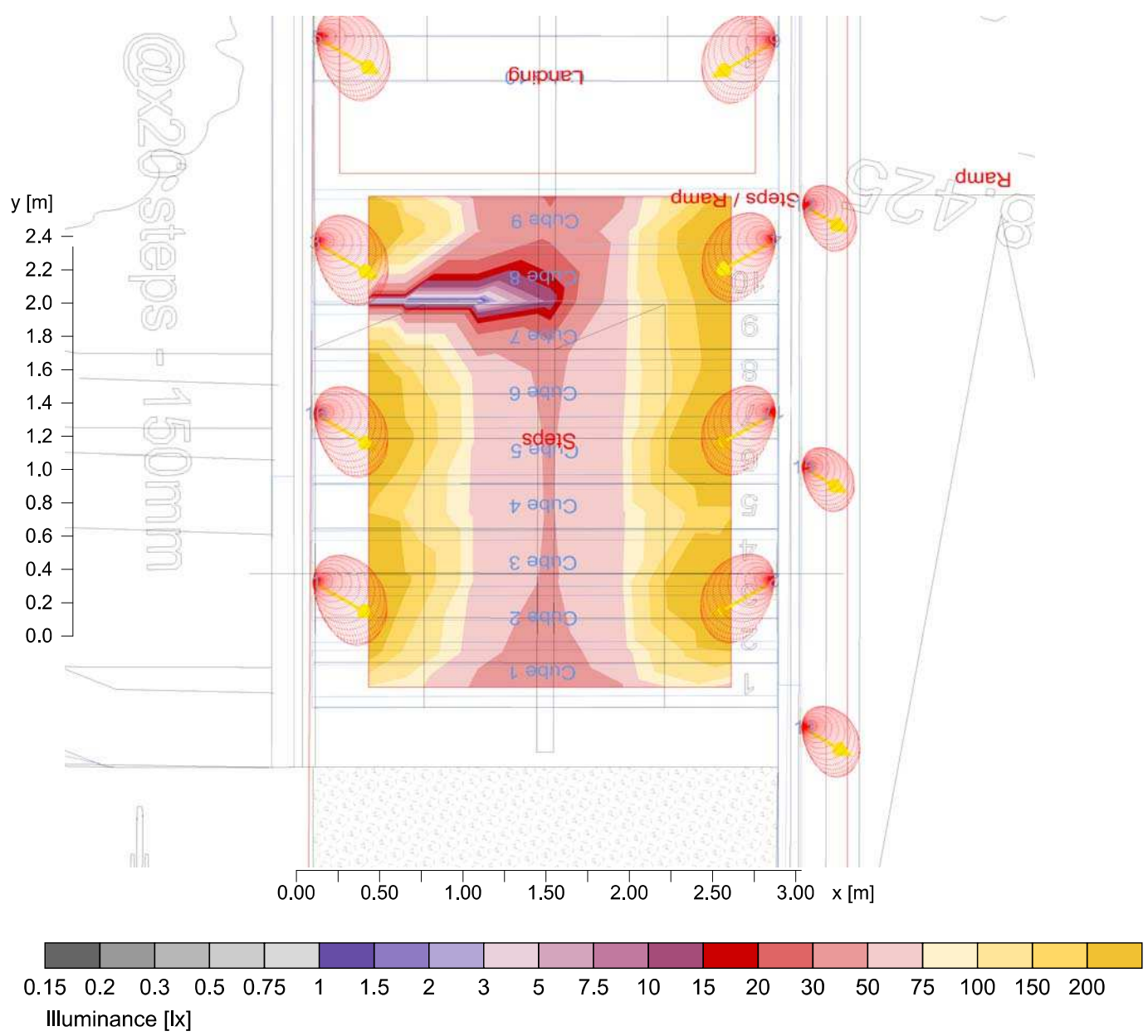
1.3.5 Pseudo colours, Reference plane 1.1 (E)



Height reference plane		: 0.00 m
Average illuminance	Em	: 15.3 lx
Minimum illuminance	Emin	: 4.4 lx
Maximum illuminance	Emax	: 31.3 lx
Uniformity Uo	Emin/Em	: 1 : 3.45 (0.29)
Diversity Ud	Emin/Emax	: 1 : 7.06 (0.14)

1.3 Calculation results, Roadway

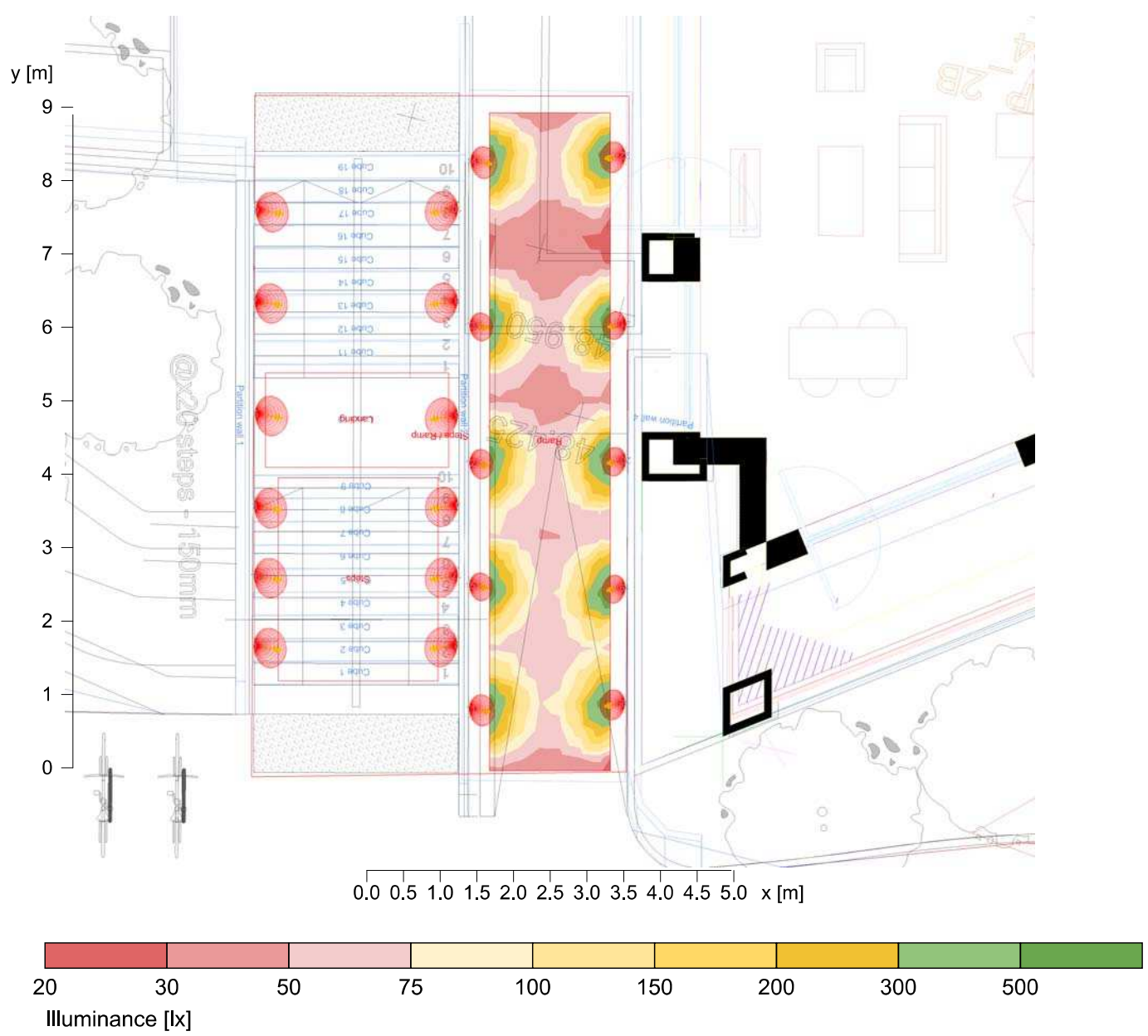
1.3.6 Pseudo colours, Steps (E)



Average illuminance	Em	: 101 lx
Minimum illuminance	Emin	: 0 lx
Maximum illuminance	Emax	: 271 lx
Uniformity Uo	Emin/Em	: 1 : 636.71 (0.00)
Diversity Ud	Emin/Emax	: 1 : 1717.08 (0.00)

1.3 Calculation results, Roadway

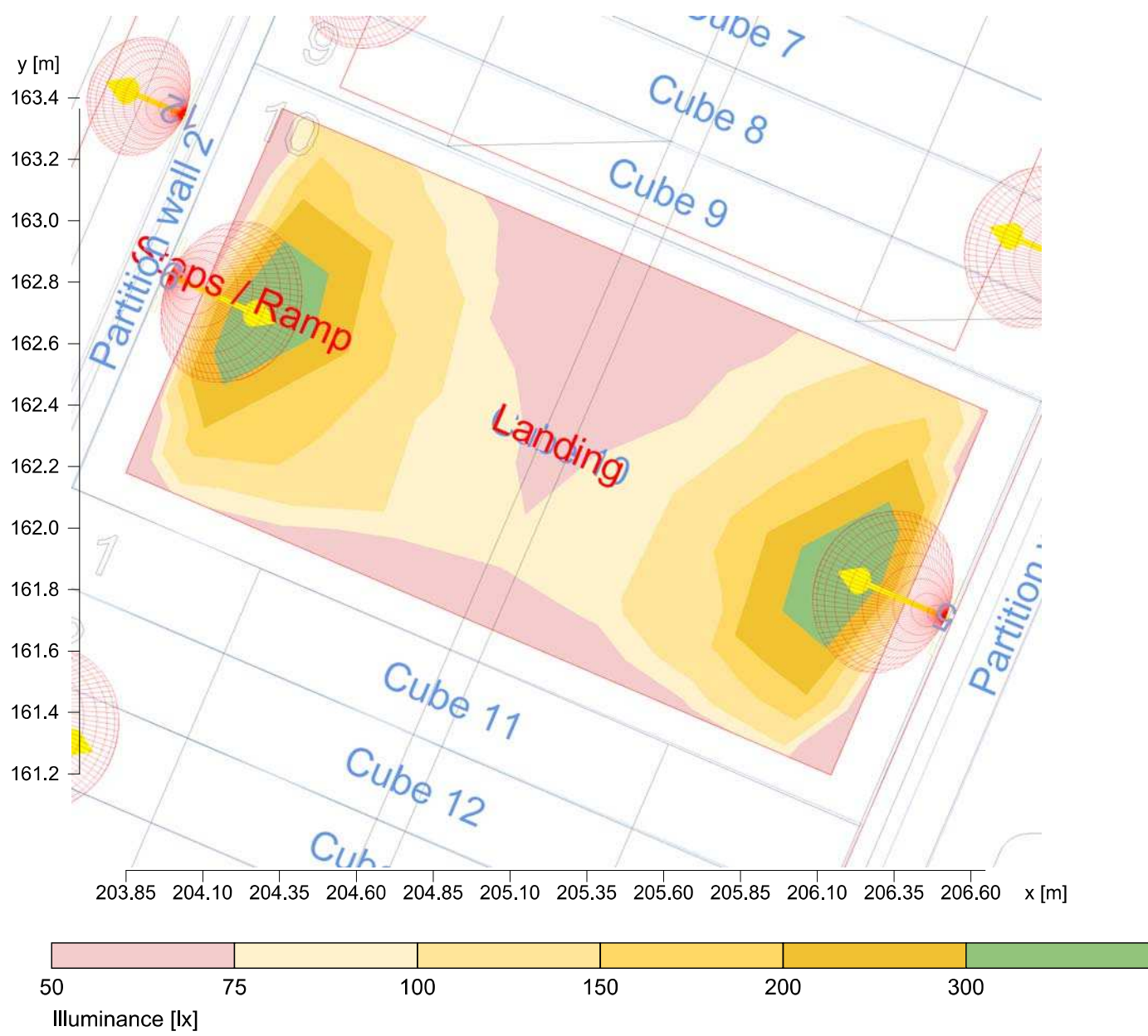
1.3.7 Pseudo colours, Ramp (E)



Average illuminance	Em	: 110 lx
Minimum illuminance	Emin	: 26 lx
Maximum illuminance	Emax	: 534 lx
Uniformity Uo	Emin/Em	: 1 : 4.30 (0.23)
Diversity Ud	Emin/Emax	: 1 : 20.91 (0.05)

1.3 Calculation results, Roadway

1.3.8 Pseudo colours, Landing (E)

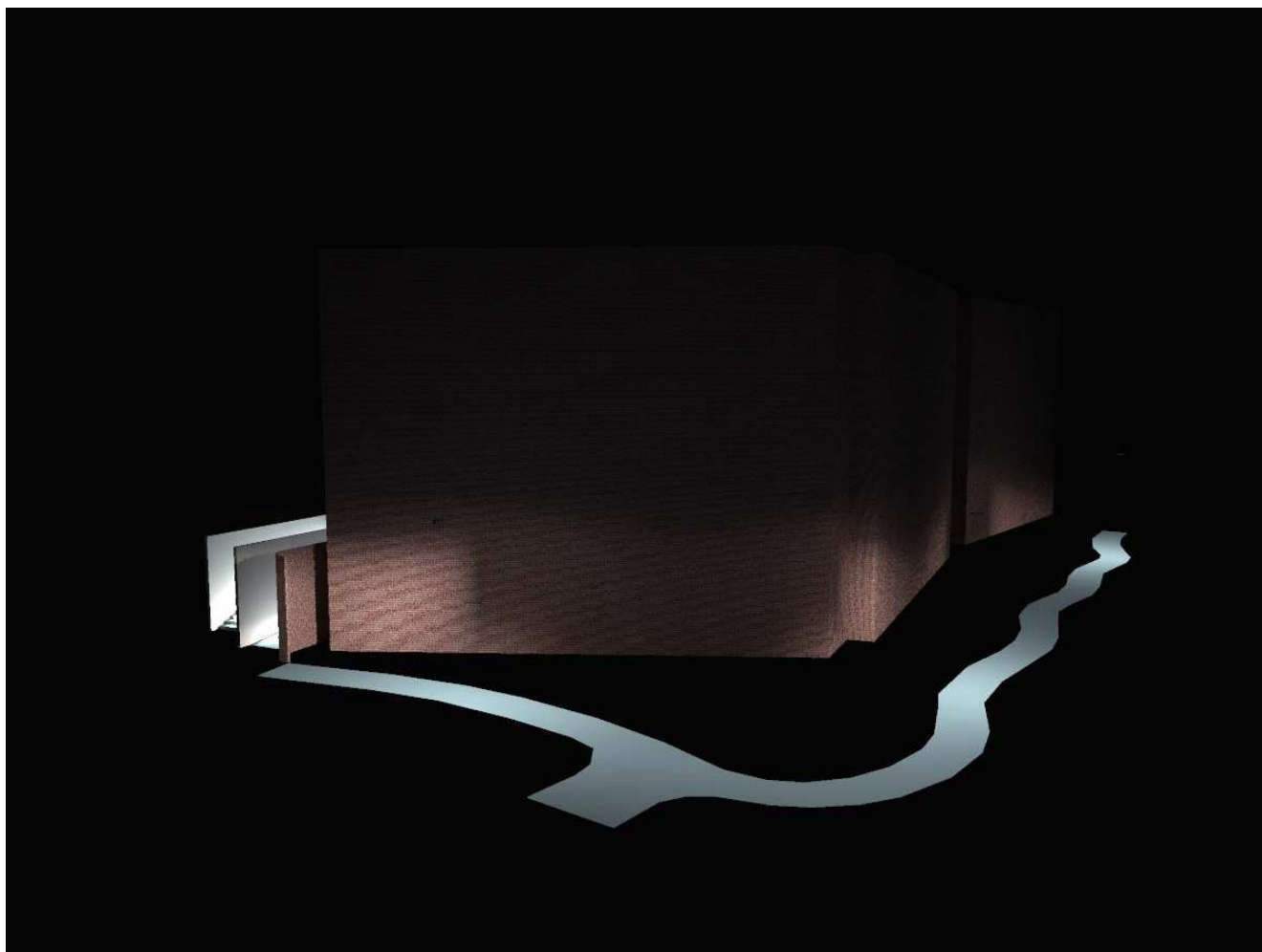


Height reference plane		: 1.56 m
Average illuminance	Em	: 147 lx
Minimum illuminance	Emin	: 52 lx
Maximum illuminance	Emax	: 446 lx
Uniformity Uo	Emin/Em	: 1 : 2.80 (0.36)
Diversity Ud	Emin/Emax	: 1 : 8.50 (0.12)

1 Roadway

1.4 Calculation results, Roadway

1.4.1 3D luminance (raytracing), Variable view



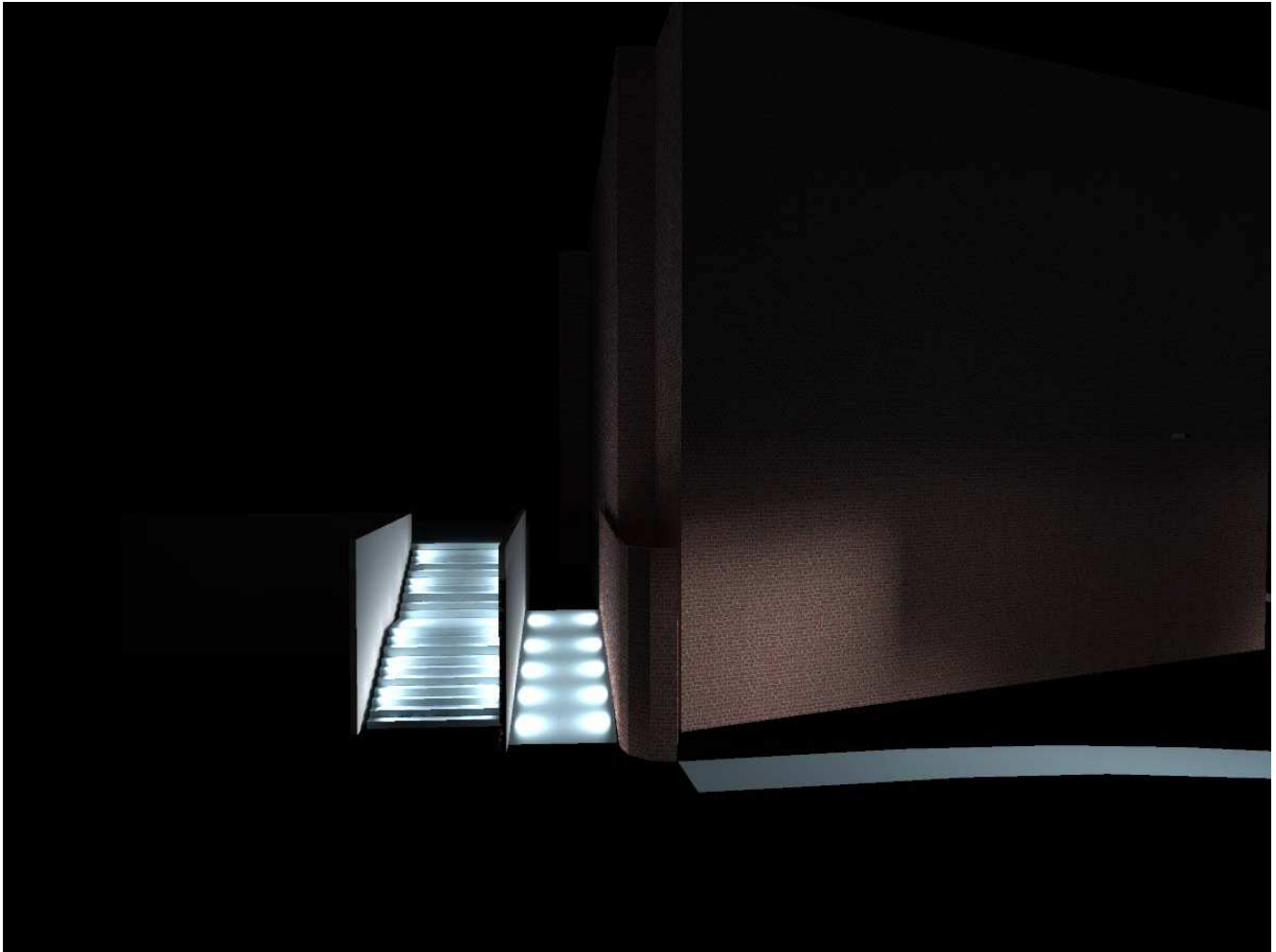
Luminance in the illustration:

Minimum: : 0 cd/m²
Maximum: : 3790 cd/m²

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

1.4 Calculation results, Roadway

1.4.2 3D luminance (raytracing), Variable view



Luminance in the illustration:

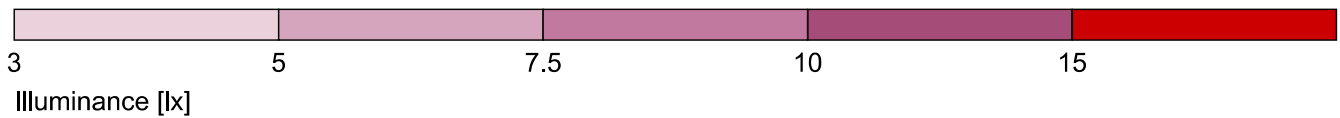
Minimum: : 0 cd/m²
Maximum: : 5610 cd/m²

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

1 Exterior 1

1.1 Summary, Exterior 1

1.1.1 Result overview, Walkway to Block Entrance A & B



General


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


Total luminous flux of all lamps	81214 lm
Total power	632 W
Total power per area (20925.97 m ²)	0.03 W/m ²

Illuminance

Average illuminance	Em	10.4 lx
Minimum illuminance	Emin	3.6 lx
Maximum illuminance	Emax	17 lx
Uniformity U ₀	Emin/Em	1:2.84 (0.35)
Diversity U _d	Emin/Emax	1:4.67 (0.21)

Type No. Make

1 15	HML	
	Order No.	: !20180703F2
	Luminaire name	: Prelux Valo 30W 4K
	Equipment	: 1 x 30 W / 4200 lm

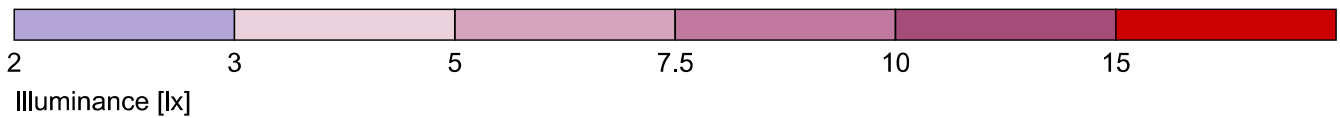
2 7	BEGA	
	Order No.	: BE_84120K3 (2).LDT
	Luminaire name	: 84120K3
	Equipment	: 1 x LED 23,2W 26 W / 2602 lm

1.1 Summary, Exterior 1

1.1.2 Result overview, Landscape Passive Area



15 35 55 75 95 115 155 195 235 x [m]



General


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


Total luminous flux of all lamps	81214 lm
Total power	632 W
Total power per area (20925.97 m ²)	0.03 W/m ²

Illuminance

Average illuminance	Em	10 lx
Minimum illuminance	Emin	2.8 lx
Maximum illuminance	Emax	17.7 lx
Uniformity U _o	Emin/Em	1:3.55 (0.28)
Diversity U _d	Emin/Emax	1:6.31 (0.16)

Type No. Make

1 15	HML	
	Order No.	: I20180703F2
	Luminaire name	: Prelux Valo 30W 4K
	Equipment	: 1 x 30 W / 4200 lm

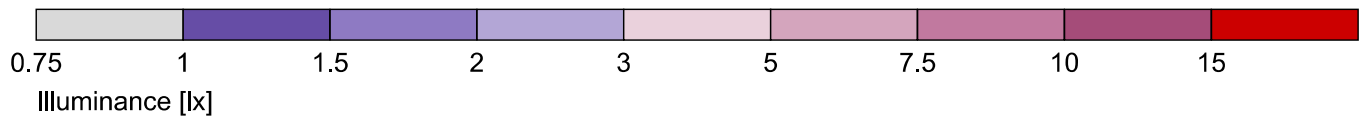
2 7	BEGA	
	Order No.	: BE_84120K3 (2).LDT
	Luminaire name	: 84120K3
	Equipment	: 1 x LED 23,2W 26 W / 2602 lm

1.1 Summary, Exterior 1

1.1.3 Result overview, Walkway to Block Entrance B & C



15 35 55 75 95 115 155 195 235 x [m]



General


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


Total luminous flux of all lamps	81214 lm
Total power	632 W
Total power per area (20925.97 m ²)	0.03 W/m ²

Illuminance

Average illuminance	Em	5.6 lx
Minimum illuminance	Emin	0.9 lx
Maximum illuminance	Emax	16 lx
Uniformity U _o	Emin/Em	1:6.38 (0.16)
Diversity U _d	Emin/Emax	1:18.4 (0.05)

Type No.\Make

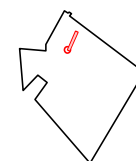
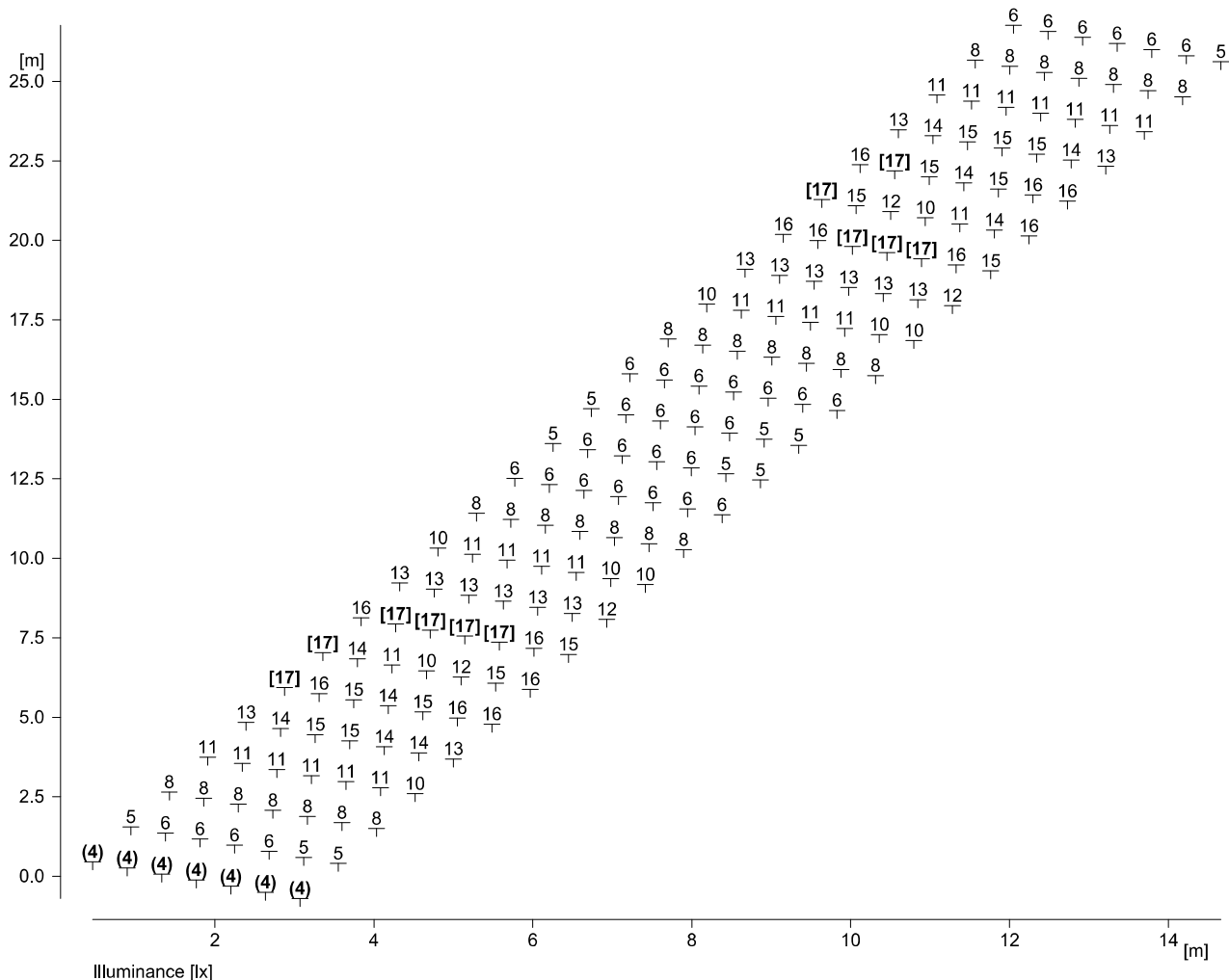
1 15	HML	
	Order No.	: !20180703F2
	Luminaire name	: Prelux Valo 30W 4K
	Equipment	: 1 x 30 W / 4200 lm

2 7	BEGA	
	Order No.	: BE_84120K3 (2).LDT
	Luminaire name	: 84120K3
	Equipment	: 1 x LED 23,2W 26 W / 2602 lm

1 Exterior 1

1.2 Calculation results, Exterior 1

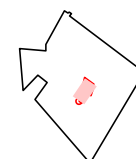
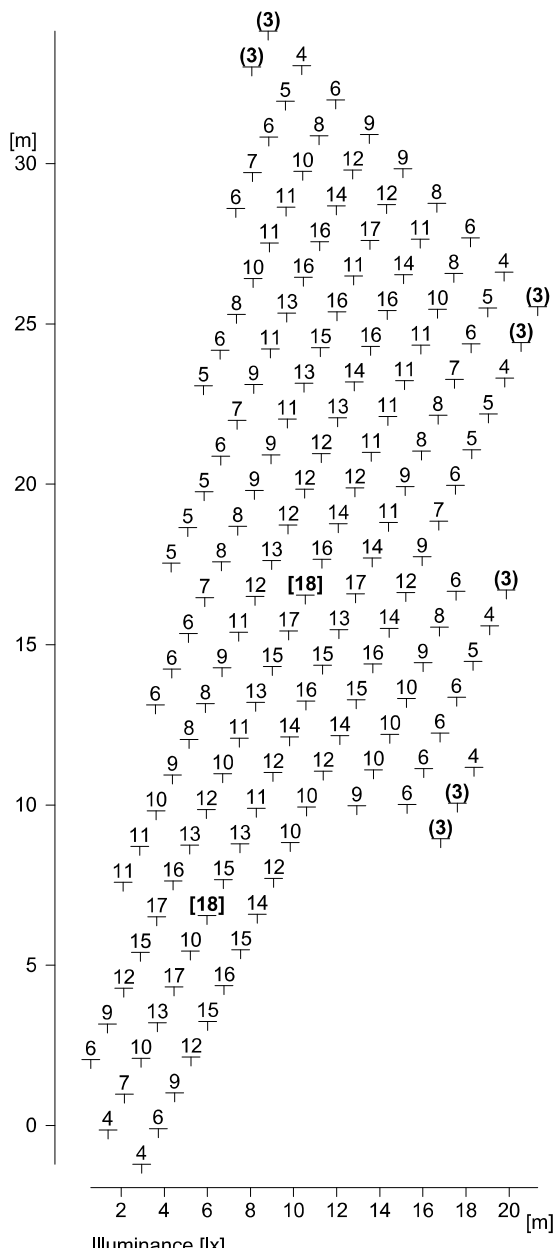
1.2.1 Table, Walkway to Block Entrance A & B (E)



Height reference plane	:	0.00 m
Average illuminance	Em	: 10.4 lx
Minimum illuminance	Emin	: 3.6 lx
Maximum illuminance	Emax	: 17 lx
Uniformity Uo	Emin/Em	: 1 : 2.84 (0.35)
Diversity Ud	Emin/Emax	: 1 : 4.67 (0.21)

1.2 Calculation results, Exterior 1

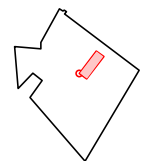
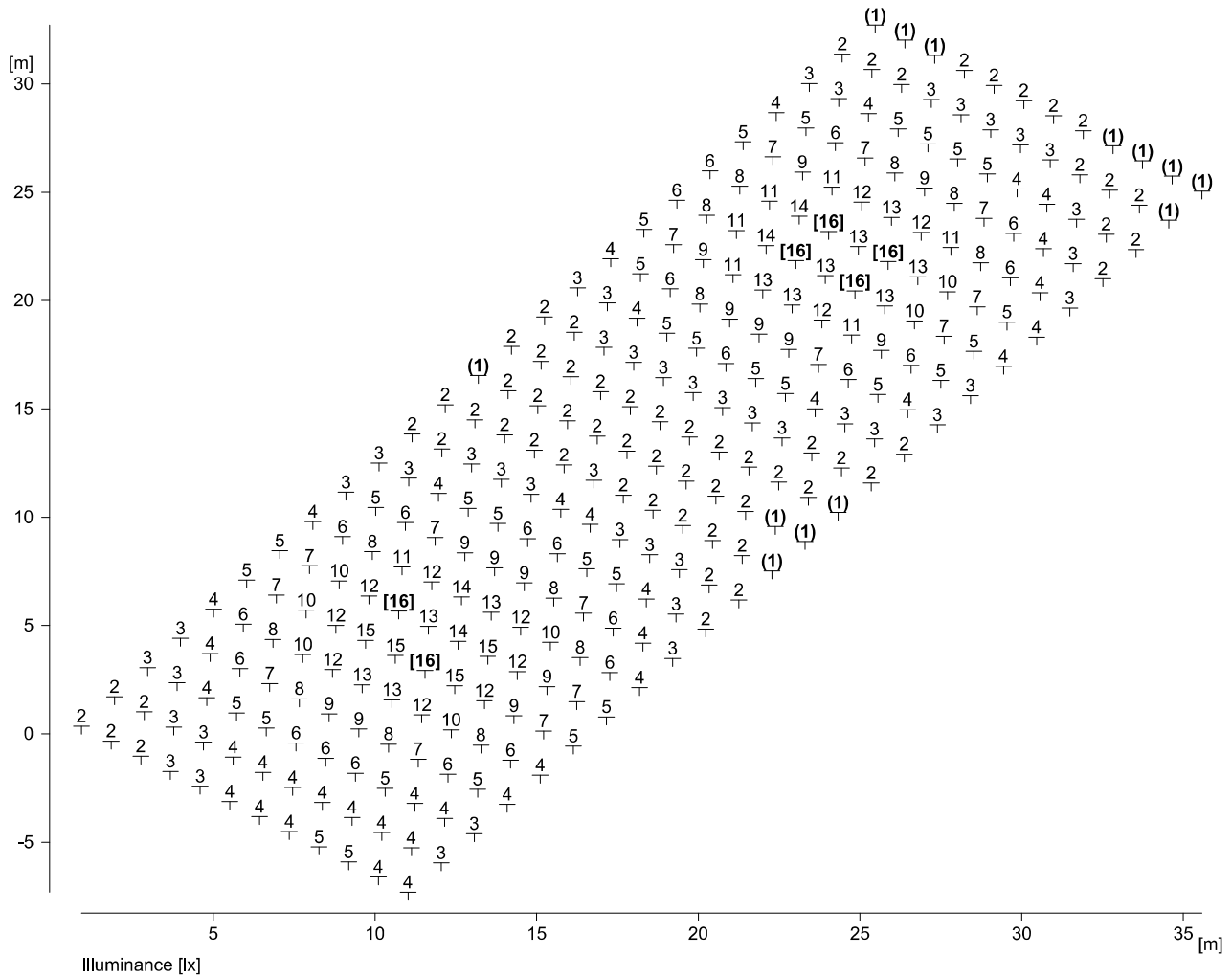
1.2.2 Table, Landscape Passive Area (E)



Height reference plane	:	0.00 m
Average illuminance	Em	: 10 lx
Minimum illuminance	Emin	: 2.8 lx
Maximum illuminance	Emax	: 17.7 lx
Uniformity Uo	Emin/Em	: 1 : 3.55 (0.28)
Diversity Ud	Emin/Emax	: 1 : 6.31 (0.16)

1.2 Calculation results, Exterior 1

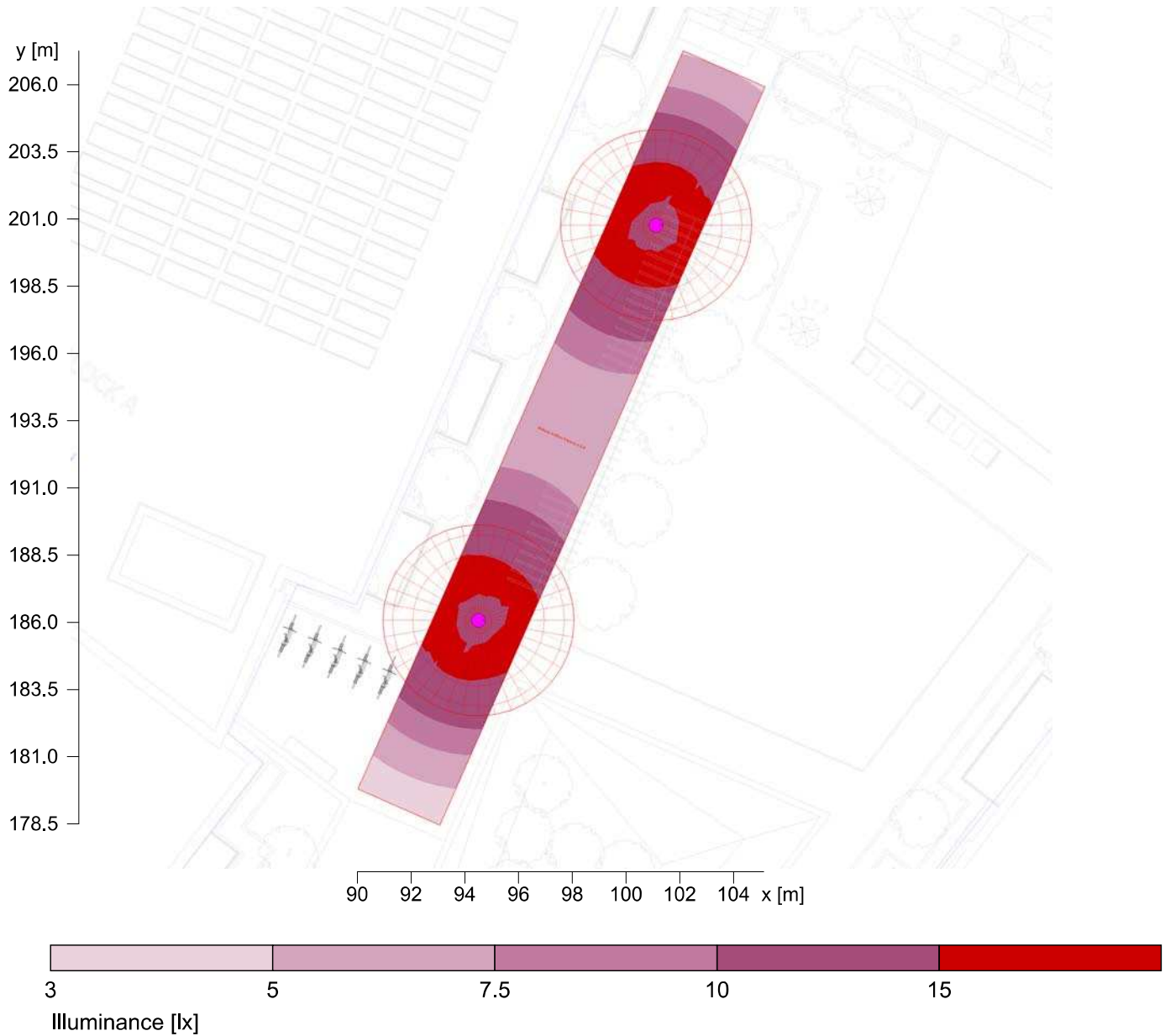
1.2.3 Table, Walkway to Block Entrance B & C (E)



Height reference plane	:	0.00 m
Average illuminance	Em	: 5.6 lx
Minimum illuminance	Emin	: 0.9 lx
Maximum illuminance	Emax	: 16 lx
Uniformity Uo	Emin/Em	: 1 : 6.38 (0.16)
Diversity Ud	Emin/Emax	: 1 : 18.43 (0.05)

1.2 Calculation results, Exterior 1

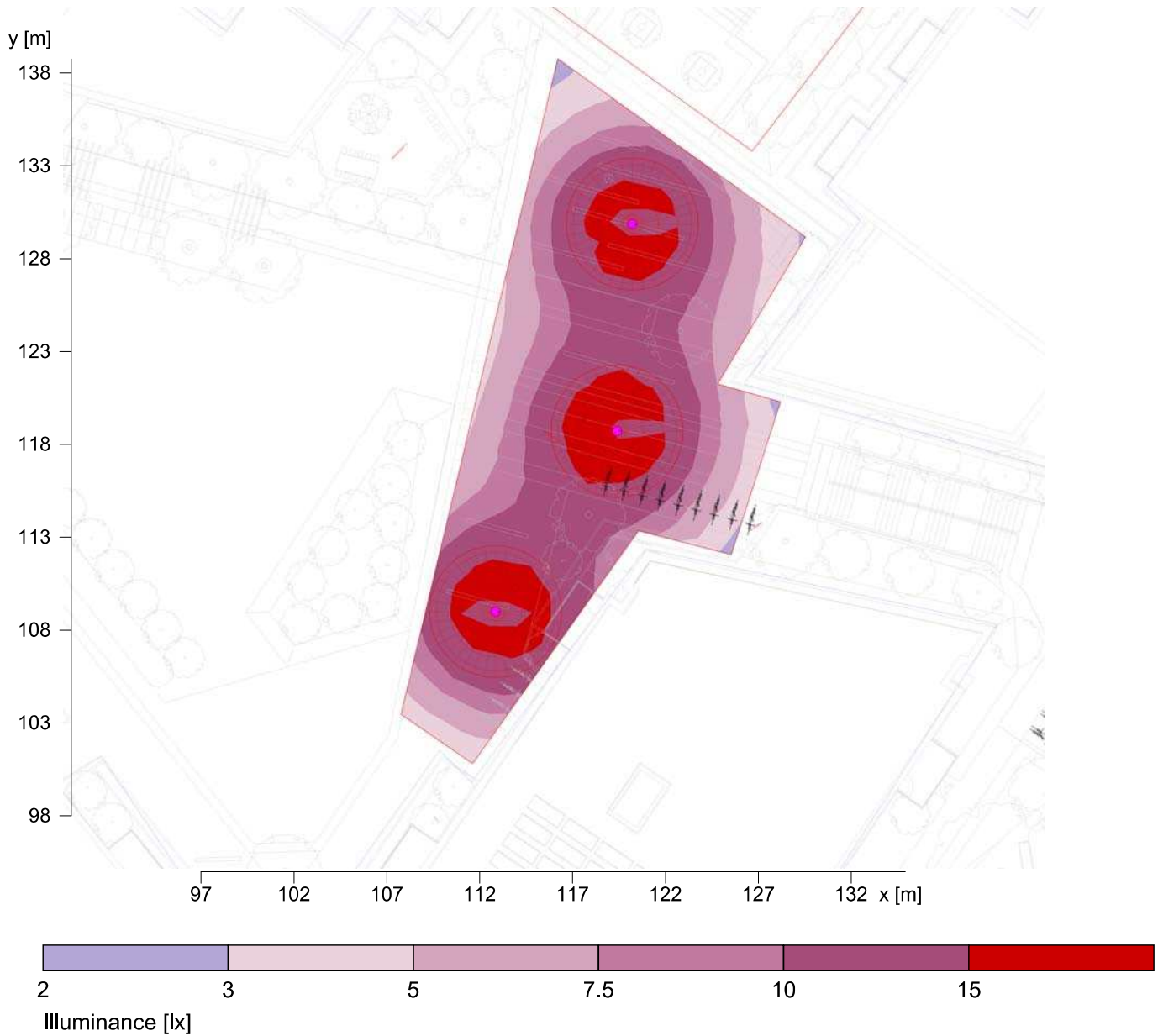
1.2.4 Pseudo colours, Walkway to Block Entrance A & B (E)



Height reference plane		: 0.00 m
Average illuminance	Em	: 10.4 lx
Minimum illuminance	Emin	: 3.6 lx
Maximum illuminance	Emax	: 17 lx
Uniformity Uo	Emin/Em	: 1 : 2.84 (0.35)
Diversity Ud	Emin/Emax	: 1 : 4.67 (0.21)

1.2 Calculation results, Exterior 1

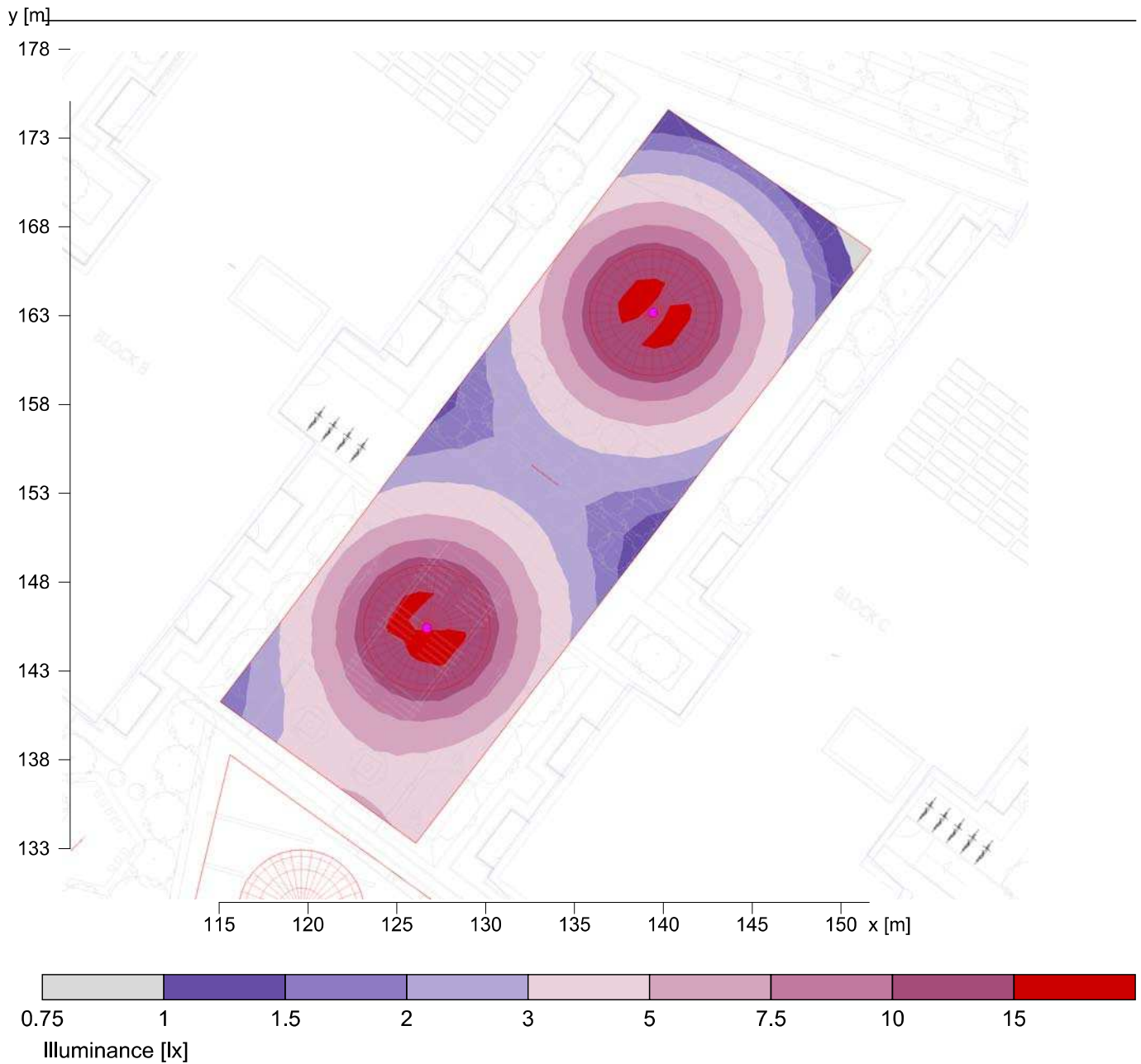
1.2.5 Pseudo colours, Landscape Passive Area (E)



Height reference plane		: 0.00 m
Average illuminance	Em	: 10 lx
Minimum illuminance	Emin	: 2.8 lx
Maximum illuminance	Emax	: 17.7 lx
Uniformity Uo	Emin/Em	: 1 : 3.55 (0.28)
Diversity Ud	Emin/Emax	: 1 : 6.31 (0.16)

1.2 Calculation results, Exterior 1

1.2.6 Pseudo colours, Walkway to Block Entrance B & C (E)



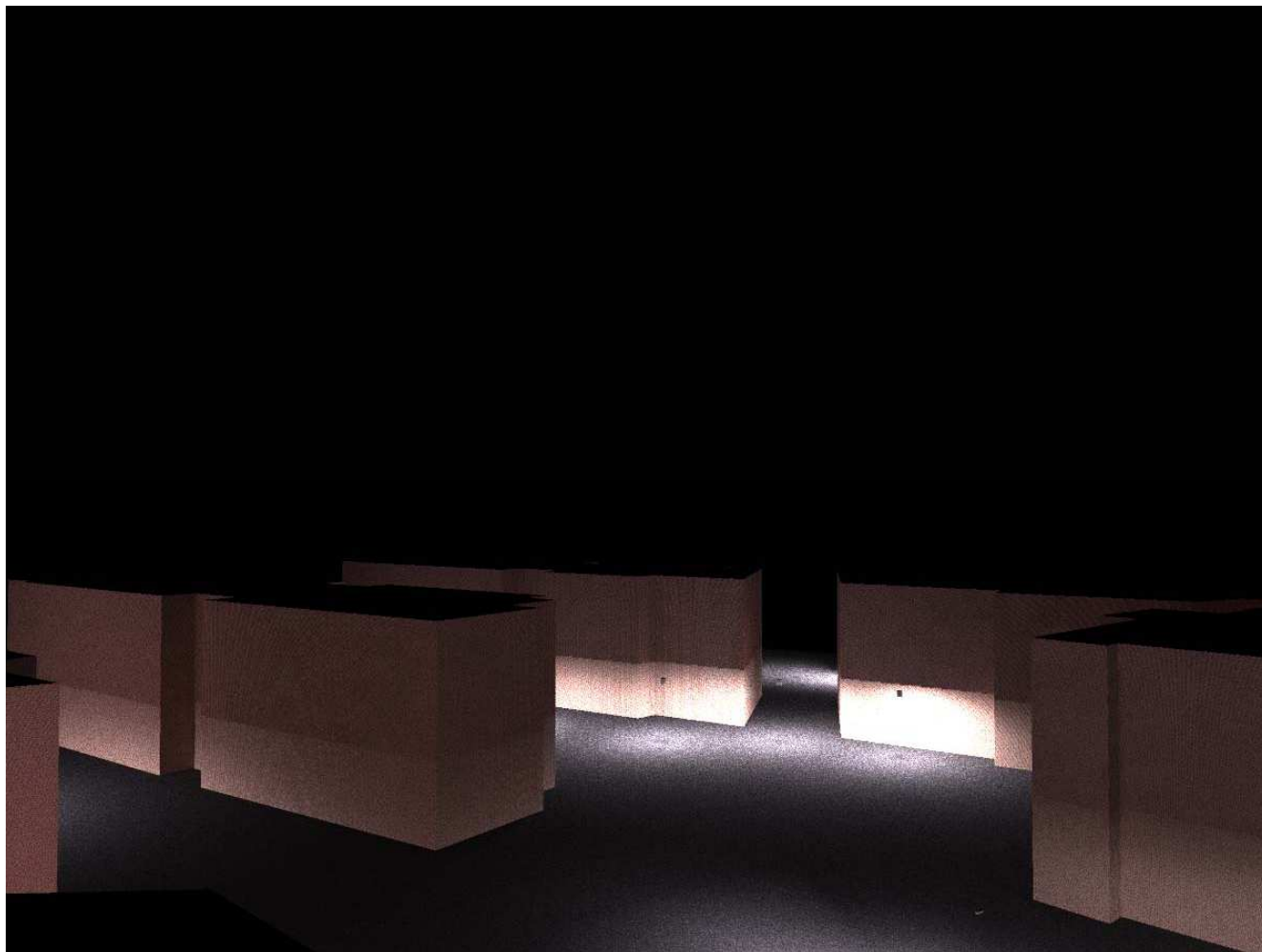
Height reference plane		: 0.00 m
Average illuminance	Em	: 5.6 lx
Minimum illuminance	Emin	: 0.9 lx
Maximum illuminance	Emax	: 16 lx
Uniformity Uo	Emin/Em	: 1 : 6.38 (0.16)
Diversity Ud	Emin/Emax	: 1 : 18.43 (0.05)

Object : Cornelcourt
Installation : External
Project number : E19077
Date : 18.10.2021

1 Exterior 1

1.3 Calculation results, Exterior 1

1.3.1 3D luminance (raytracing), Variable view



Luminance in the illustration:

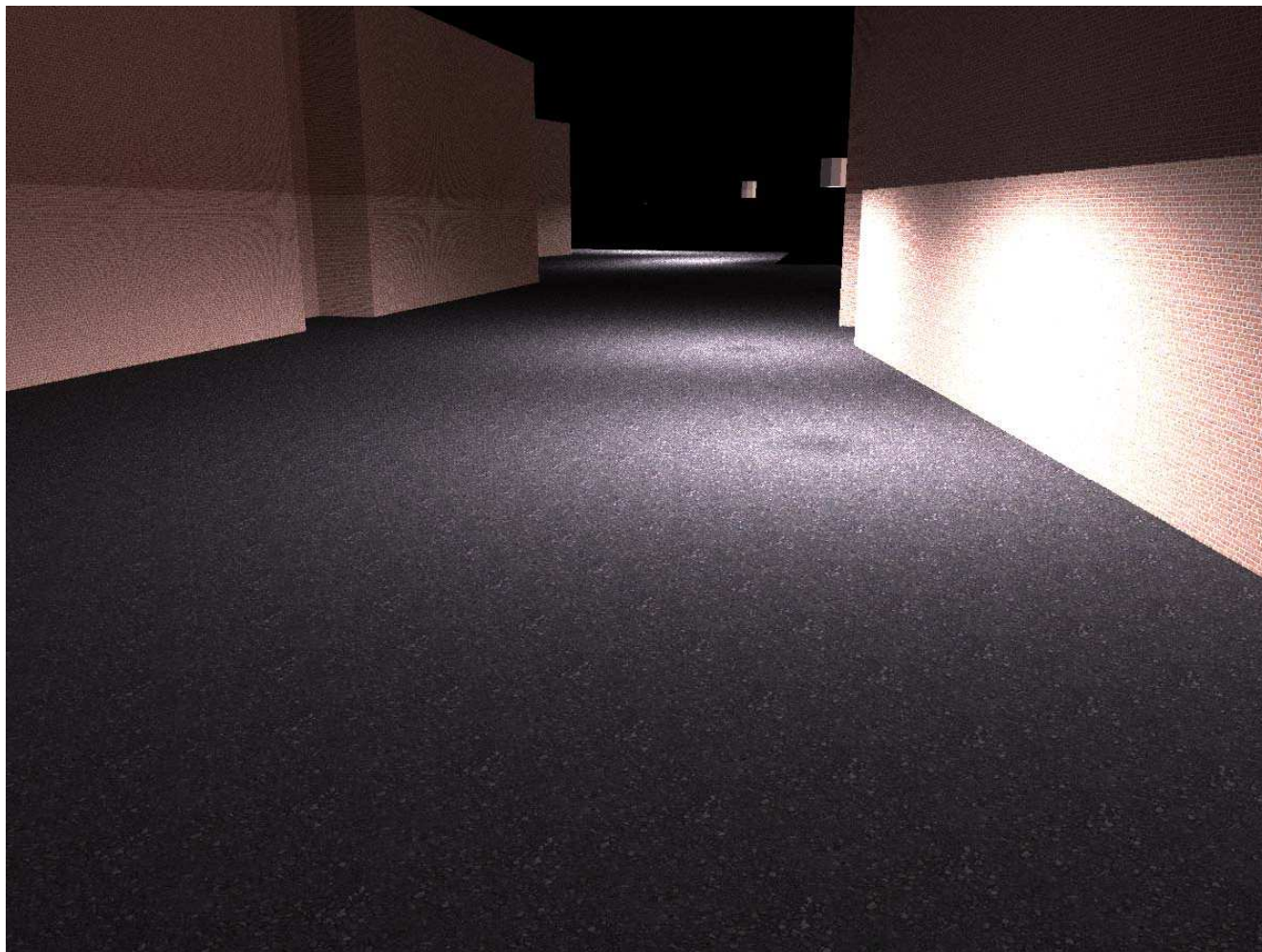
Minimum: : 0 cd/m²
Maximum: : 1.68 cd/m²

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

Object : Cornelcourt
Installation : External
Project number : E19077
Date : 18.10.2021

1.3 Calculation results, Exterior 1

1.3.2 3D luminance (raytracing), Variable view



Luminance in the illustration:

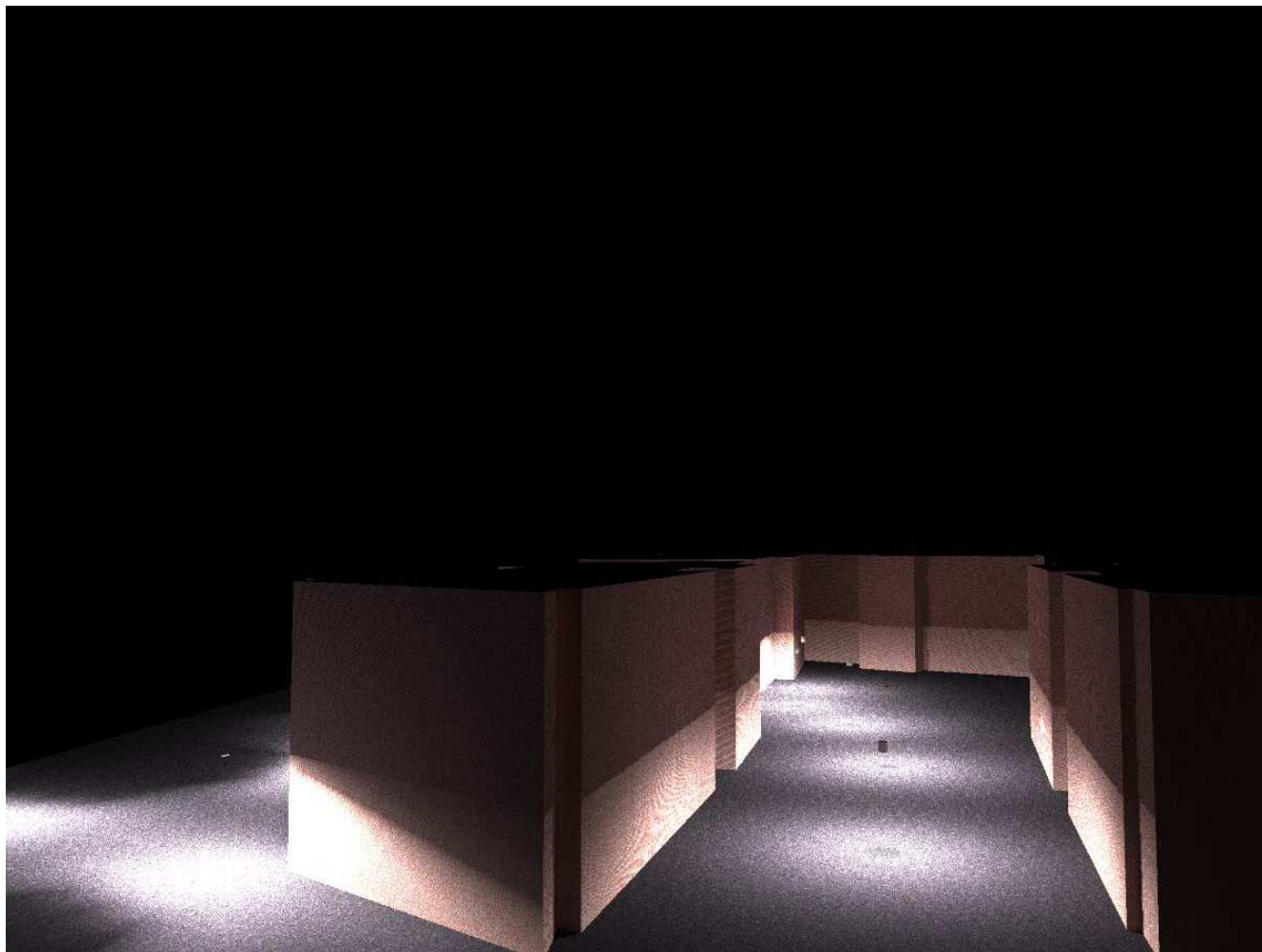
Minimum: : 0 cd/m²
Maximum: : 317 cd/m²

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

Object : Cornelcourt
Installation : External
Project number : E19077
Date : 18.10.2021

1.3 Calculation results, Exterior 1

1.3.3 3D luminance (raytracing), Variable view



Luminance in the illustration:

Minimum: : 0 cd/m²
Maximum: : 1.6 cd/m²

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