Osbourne House Manchester - EDM04

Installation : EDM04 Edmundson birmingham

Project number : LD-251106-REVB
Customer : ROBUS
Processed by : Olena Tsizh
Date : 17.02.2026

Project description:
All calculations have been based on the information provided, plus the accompanying drawings and verbal information received. The Led Group take no responsibility for the maintenance regime and only guarantee light levels at start of life. Our lighting designs are based on relevant lighting guides in conjunction with best practice.
The Robus LDT files used to produce this design are specific to the Robus Luminaires included herein. A new lighting design must be produced should an alternative fitting be required. The optics of different fittings are rarely the same even if the lumen output is identical. Using an alternate fitting without a design could render the scheme non-compliant with relevant lighting guides.

Emergency scheme is to be checked and confirmed with local building or fire control officer and ultimately approved by the owner of the building. Any emergency calculations that have been completed have been based on 0.5 lux for open areas and 1 lux for escape routes unless otherwise stated. In general information with regard to positioning of fire fighting and call points is unknown and hence the design does not consider this requirement. The absence of an emergency scheme within the design does not indicate one is not required, rather that the brief has suggested that this is either already in existence or will be provided by another source.

All designs unless otherwise specified will include 1 No. nominal Emergency exit sign REX4P0LST-01) for quotation purposes with final quantity required to be confirmed on site.

Please ensure that this lighting scheme complies with all your requirements before placing order with our sales team.

**Assumptions/ Comments:
Reflectance's: 70.50.20
Maintenance factor internal: 0.8
Maintenance factor external: 0.6
Measuring plane at 0.00m
A. Mounting height from 1.8m

The following values are based on precise calculations performed on calibrated lamps and luminaires, and their configurations, whereby gradual, unavoidable deviations can occur in practice. All guarantee claims are excluded for the specified data.

This exclusion of liability applies irrespective of the legal grounds for both damages and consequential damages suffered by users and third parties.

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1 Luminaire data

1.1 LEDGroup Robus, GOLF EXPRESS MODULAR 9... (!RX100-01PCELL+...)

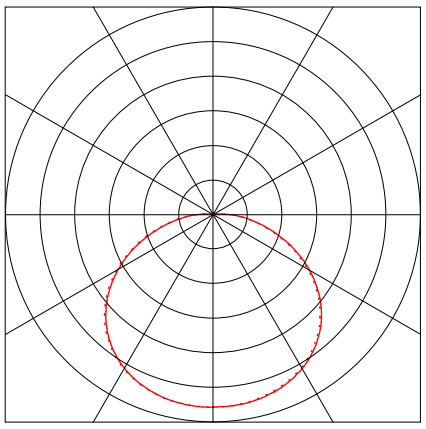
1.1.1 Data sheet

Manufacturer: LEDGroup Robus

!RX100-01PCELL+Eyelid **GOLF EXPRESS MODULAR 9W 13W 18W Multiwattage CCT3 IP65 White 3000K 4000K 6000K**

Luminaire data		
Luminaire efficiency	:	100%
Luminaire efficacy	:	112.58 lm/W
Classification	:	A30 ↓98.1% ↑1.9%
CIE Flux Codes	:	41 73 92 98 100
UGR 4H 8H	:	27.0 / 27.0
Power	:	17.8 W
Luminous flux	:	2004 lm
Dimensions	:	Ø326 mm x 85 mm

Equipped with		
Quantity	:	1
Designation	:	LED
Colour	:	4000K
Luminous flux	:	2004 lm
Colour reproduction	:	86.6



1 Luminaire data

1.2 LEDGroup Robus, GOLF EXPRESS MODULAR 9W 1... (!RX100-01PCELL)

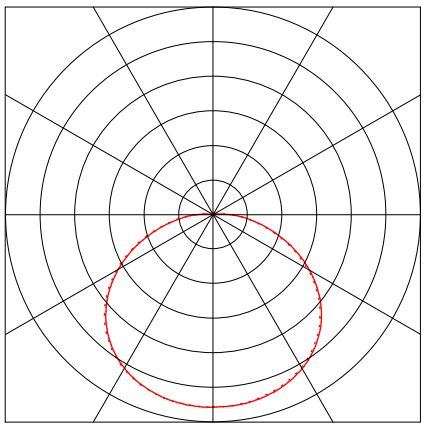
1.2.1 Data sheet

Manufacturer: LEDGroup Robus

!RX100-01PCELL GOLF EXPRESS MODULAR 9W 13W 18W Multiwattage CCT3 IP65 White 3000K 4000K 6000K

Luminaire data		
Luminaire efficiency	:	100%
Luminaire efficacy	:	112.58 lm/W
Classification	:	A30 ↓98.1% ↑1.9%
CIE Flux Codes	:	41 73 92 98 100
UGR 4H 8H	:	27.0 / 27.0
Power	:	17.8 W
Luminous flux	:	2004 lm
Dimensions	:	Ø326 mm x 85 mm

Equipped with		
Quantity	:	1
Designation	:	LED
Colour	:	4000K
Luminous flux	:	2004 lm
Colour reproduction	:	86.6



Object : Osbourne House Manchester - EDM04
Installation : EDM04 Edmundson birmingham
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1 Luminaire data

1.3 LEDGroup Robus, GOLF EXPRESS MODULAR 9W ... (!RX100E-01PCELL)

1.3.1 Data sheet

Manufacturer: LEDGroup Robus

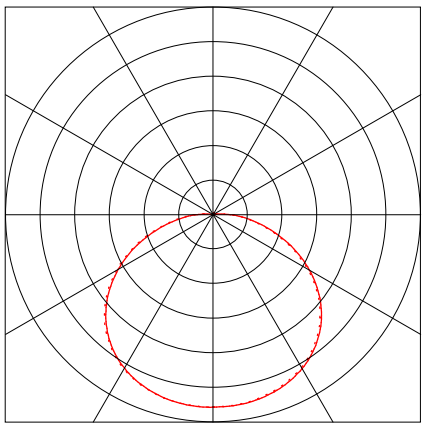
!RX100E-01PCELL GOLF EXPRESS MODULAR 9W 13W 18W Multiwattage CCT3 IP65 White 3000K 4000K 6000K

Luminaire data

Luminaire efficiency	:	100%
Luminaire efficacy	:	112.58 lm/W
Classification	:	A30 ↓98.1% ↑1.9%
CIE Flux Codes	:	41 73 92 98 100
UGR 4H 8H	:	27.0 / 27.0
Power	:	17.8 W
Luminous flux	:	2004 lm
Dimensions	:	Ø326 mm x 85 mm

Equipped with

Quantity	:	1
Designation	:	LED
Colour	:	4000K
Luminous flux	:	2004 lm
Colour reproduction	:	86.6



Emergency Lighting
Light source from normal operation with reduced flux
Luminous flux : 170 lm

Object : Osbourne House Manchester - EDM04
Installation : EDM04 Edmundson birmingham
Project number : LD-251106-REVB
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2 Exterior 1

2.1 Summary, Exterior 1

2.1.1 Result overview, Oldham road side



General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	52104 lm
Total power	462.8 W
Total power per area (10724.69 m²)	0.04 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	8.3 lx
Minimum illuminance	E_{min}	0.3 lx
Maximum illuminance	E_{max}	26 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:29.7 (0.03)
Diversity U_d	E_{min}/E_{max}	1:92.8 (0.01)

Type No.\Make

LEDGroup Robus

1 20 x Order No. : !RX100-01PCELL+Eyelid
Luminaire name : GOLF EXPRESS MODULAR 9W 13W 18W Multiwattage CCT3 IP65 White 30 00K 4000K 6000K
Equipment : 1 x LED 17.8 W / 2004 lm

2 4E x Order No. : !RX100-01PCELL -- Emergency Lighting --
Luminaire name : GOLF EXPRESS MODULAR 9W 13W 18W Multiwattage CCT3 IP65 White 30 00K 4000K 6000K
Equipment : 1 x LED 17.8 W / 2004 lm

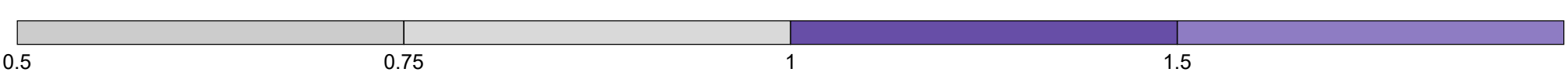
3 2E x Order No. : !RX100E-01PCELL -- Emergency Lighting --
Luminaire name : GOLF EXPRESS MODULAR 9W 13W 18W Multiwattage CCT3 IP65 White 30 00K 4000K 6000K
Equipment : 1 x LED 17.8 W / 2004 lm
Emergency : 170 lm (8.5 %)

Object	:	Osbourne House Manchester - EDM04
Installation	:	EDM04 Edmundson birmingham
Project number	:	LD-251106-REVB
Date	:	17.02.2026

2.1 Summary, Exterior 1

2.1.2 Result overview, Oldham road opposite side (near church)





Illuminance [lx]

General

Calculation algorithm used		Average indirect fraction
Maintenance factor		0.80
Total luminous flux		52104 lm
Total power		462.8 W
Total power per area (10724.69 m²)		0.04 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	1.33 lx
Minimum illuminance	E_{min}	0.56 lx
Maximum illuminance	E_{max}	1.84 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:2.37 (0.42)
Diversity U_d	E_{min}/E_{max}	1:3.28 (0.31)

Type No.\Make

LEDGroup Robus

1 20 x
Order No. : !RX100-01PCELL+Eyelid
Luminaire name : GOLF EXPRESS MODULAR 9W 13W 18W Multiwattage CCT3 IP65 White 30 00K 4000K 6000K
Equipment : 1 x LED 17.8 W / 2004 lm

2 4E x
Order No. : !RX100-01PCELL -- Emergency Lighting --
Luminaire name : GOLF EXPRESS MODULAR 9W 13W 18W Multiwattage CCT3 IP65 White 30 00K 4000K 6000K
Equipment : 1 x LED 17.8 W / 2004 lm

3 2E x
Order No. : !RX100E-01PCELL -- Emergency Lighting --
Luminaire name : GOLF EXPRESS MODULAR 9W 13W 18W Multiwattage CCT3 IP65 White 30 00K 4000K 6000K
Equipment : 1 x LED 17.8 W / 2004 lm
Emergency : 170 lm (8.5 %)

Object	:	Osbourne House Manchester - EDM04
Installation	:	EDM04 Edmundson birmingham
Project number	:	LD-251106-REVB
Date	:	17.02.2026

2.1 Summary, Exterior 1

2.1.3 Result overview, apartment side



General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	52104 lm
Total power	462.8 W
Total power per area (10724.69 m²)	0.04 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	21.8 lx
Minimum illuminance	E_{min}	0.5 lx
Maximum illuminance	E_{max}	96.6 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:40.4 (0.02)
Diversity U_d	E_{min}/E_{max}	1:179 (0.01)

Type No.\Make

LEDGroup Robus

1 20 x
Order No. : !RX100-01PCELL+Eyelid
Luminaire name : GOLF EXPRESS MODULAR 9W 13W 18W Multiwattage CCT3 IP65 White 30 00K 4000K 6000K
Equipment : 1 x LED 17.8 W / 2004 lm

2 4E x
Order No. : !RX100-01PCELL -- Emergency Lighting --
Luminaire name : GOLF EXPRESS MODULAR 9W 13W 18W Multiwattage CCT3 IP65 White 30 00K 4000K 6000K
Equipment : 1 x LED 17.8 W / 2004 lm

3 2E x
Order No. : !RX100E-01PCELL -- Emergency Lighting --
Luminaire name : GOLF EXPRESS MODULAR 9W 13W 18W Multiwattage CCT3 IP65 White 30 00K 4000K 6000K
Equipment : 1 x LED 17.8 W / 2004 lm
Emergency : 170 lm (8.5 %)

Object	:	Osbourne House Manchester - EDM04
Installation	:	EDM04 Edmundson birmingham
Project number	:	LD-251106-REVB
Date	:	17.02.2026

2.1 Summary, Exterior 1

2.1.4 Result overview, Helga street side



General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total luminous flux	52104 lm
Total power	462.8 W
Total power per area (10724.69 m²)	0.04 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	9.5 lx
Minimum illuminance	E_{min}	0.2 lx
Maximum illuminance	E_{max}	30.7 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:38.2 (0.03)
Diversity U_d	E_{min}/E_{max}	1:124 (0.01)

Type No.\Make

LEDGroup Robus

1 20 x
Order No. : !RX100-01PCELL+Eyelid
Luminaire name : GOLF EXPRESS MODULAR 9W 13W 18W Multiwattage CCT3 IP65 White 30 00K 4000K 6000K
Equipment : 1 x LED 17.8 W / 2004 lm

2 4E x
Order No. : !RX100-01PCELL -- Emergency Lighting --
Luminaire name : GOLF EXPRESS MODULAR 9W 13W 18W Multiwattage CCT3 IP65 White 30 00K 4000K 6000K
Equipment : 1 x LED 17.8 W / 2004 lm

3 2E x
Order No. : !RX100E-01PCELL -- Emergency Lighting --
Luminaire name : GOLF EXPRESS MODULAR 9W 13W 18W Multiwattage CCT3 IP65 White 30 00K 4000K 6000K
Equipment : 1 x LED 17.8 W / 2004 lm
Emergency : 170 lm (8.5 %)

Object	:	Osbourne House Manchester - EDM04
Installation	:	EDM04 Edmundson birmingham
Project number	:	LD-251106-REVB
Date	:	17.02.2026

2.1 Summary, Exterior 1

2.1.5 Result overview, Garden



General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Luminaire luminous flux	0.00 lm

Garden	**Garden**
	Horizontal
$\bar{E}_m$	35.5 lx
E_{min}	4.5 lx
$E_{min}/\bar{E}_m$ (U_o)	0.13
E_{min}/E_{max} (U_d)	0.05
Position	0.00 m

Type No.\Make

LEDGroup Robus

1 20 x
Order No. : !RX100-01PCELL+Eyelid
Luminaire name : GOLF EXPRESS MODULAR 9W 13W 18W Multiwattage CCT3 IP65 White 30 00K 4000K 6000K
Equipment : 1 x LED 17.8 W / 2004 lm

2 4E x
Order No. : !RX100-01PCELL -- Emergency Lighting --
Luminaire name : GOLF EXPRESS MODULAR 9W 13W 18W Multiwattage CCT3 IP65 White 30 00K 4000K 6000K
Equipment : 1 x LED 17.8 W / 2004 lm

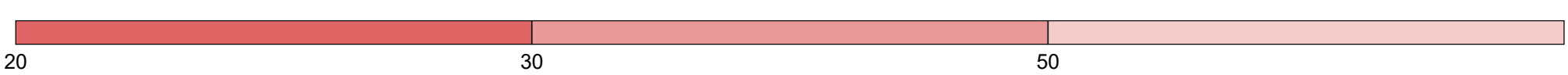
3 2E x
Order No. : !RX100E-01PCELL -- Emergency Lighting --
Luminaire name : GOLF EXPRESS MODULAR 9W 13W 18W Multiwattage CCT3 IP65 White 30 00K 4000K 6000K
Equipment : 1 x LED 17.8 W / 2004 lm
Emergency : 170 lm (8.5 %)

Object	:	Osbourne House Manchester - EDM04
Installation	:	EDM04 Edmundson birmingham
Project number	:	LD-251106-REVB
Date	:	17.02.2026

2.1 Summary, Exterior 1

2.1.6 Result overview, External frontage





General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total lamp luminous flux	4008.00 lm
Luminaire luminous flux	4007.93 lm
Total power	35.6 W
Total power per area (8.97 m²)	3.97 W/m² (10.03 W/m²/100lx)

External frontage	**External frontage**
	Horizontal
$\bar{E}_m$	39.6 lx
E_{min}	25.6 lx
$E_{min}/\bar{E}_m$ (U_o)	0.65
E_{min}/E_{max} (U_d)	0.46
Position	0.00 m

Type No.\Make

		LEDGroup Robus	
1	2 x	Order No.	: !RX100-01PCELL+Eyelid
		Luminaire name	: GOLF EXPRESS MODULAR 9W 13W 18W Multiwattage CCT3 IP65 White 3000K 4000K 6000K
		Equipment	: 1 x LED 17.8 W / 2004 lm

Object : Osbourne House Manchester - EDM04
Installation : EDM04 Edmundson birmingham
Project number : LD-251106-REVB
Date : 17.02.2026

2.1 Summary, Exterior 1

2.1.7 Result overview, Rear area



General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total lamp luminous flux	10020.00 lm
Luminaire luminous flux	10019.83 lm
Total power	89.0 W
Total power per area (61.91 m²)	1.44 W/m² (7.89 W/m²/100lx)

Rear area	**Rear area**
	Horizontal
$\bar{E}_m$	18.2 lx
E_{min}	3.9 lx
$E_{min}/\bar{E}_m$ (U_o)	0.22
E_{min}/E_{max} (U_d)	0.11
Position	0.00 m

Type No.\Make

LEDGroup Robus

2 3E x
Order No. : !RX100-01PCELL -- Emergency Lighting --
Luminaire name : GOLF EXPRESS MODULAR 9W 13W 18W Multiwattage CCT3 IP65 White 30 00K 4000K 6000K
Equipment : 1 x LED 17.8 W / 2004 lm

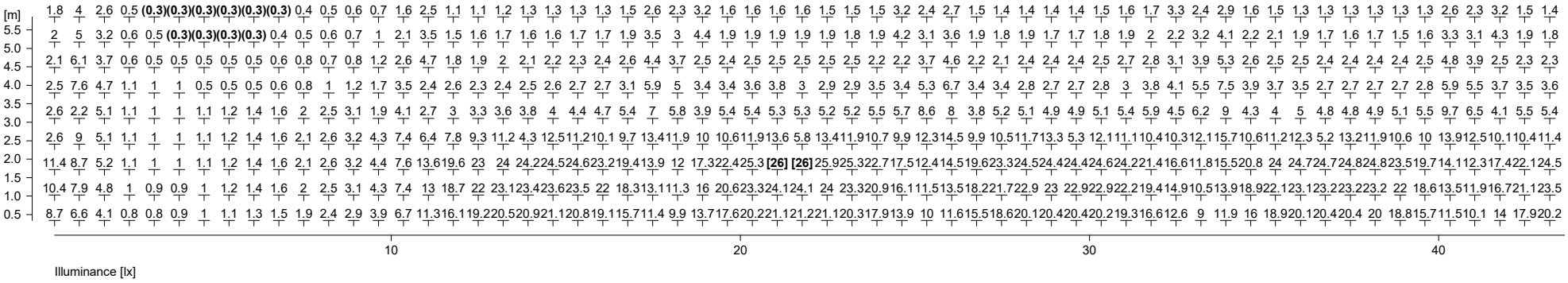
3 2E x
Order No. : !RX100E-01PCELL -- Emergency Lighting --
Luminaire name : GOLF EXPRESS MODULAR 9W 13W 18W Multiwattage CCT3 IP65 White 30 00K 4000K 6000K
Equipment : 1 x LED 17.8 W / 2004 lm
Emergency : 170 lm (8.5 %)

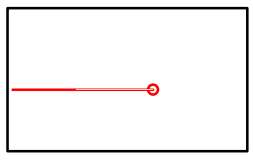
Object : Osbourne House Manchester - EDM04
Installation : EDM04 Edmundson birmingham
Project number : LD-251106-REVB
Date : 17.02.2026

2 Exterior 1

2.2 Calculation results, Exterior 1

2.2.1 Table, Oldham road side (E)





Part1

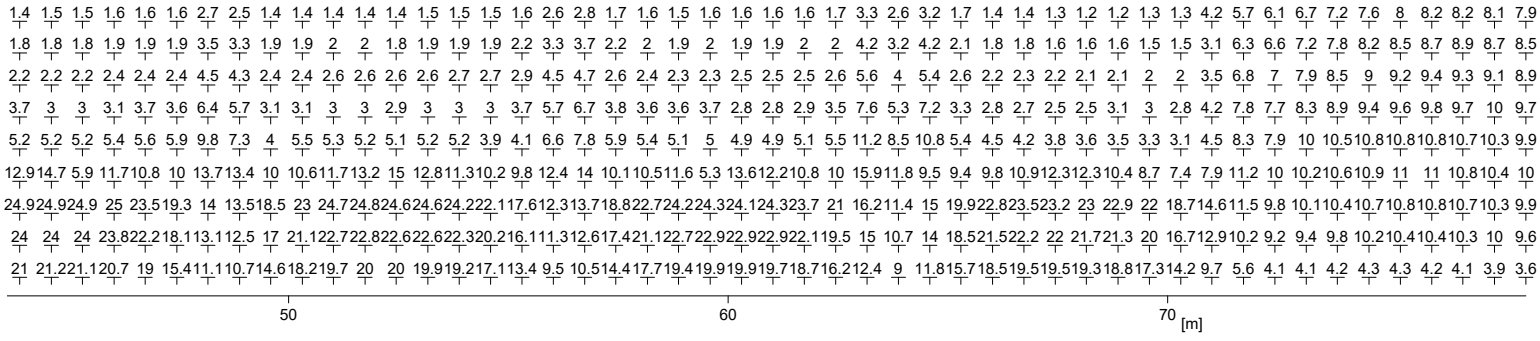
Average illuminance	$\bar{E}_m$	: 8.3 lx
Minimum illuminance	E_{min}	: 0.3 lx
Maximum illuminance	E_{max}	: 26 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	: 1 : 29.73 (0.03)
Diversity U_d	E_{min}/E_{max}	: 1 : 92.79 (0.01)

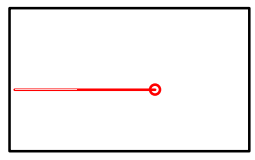
Object : Osbourne House Manchester - EDM04
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2 Exterior 1

2.2 Calculation results, Exterior 1

2.2.1 Table, Oldham road side (E)



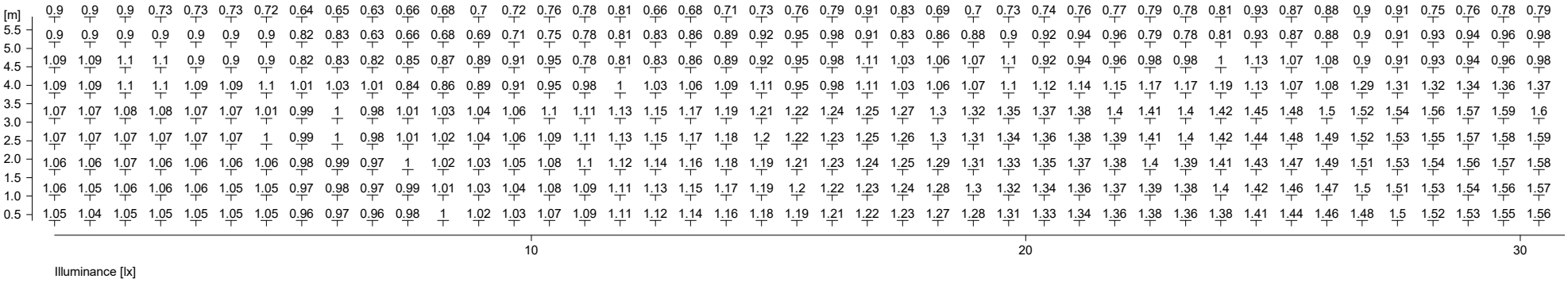


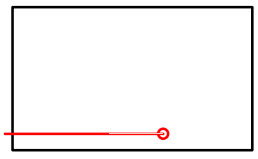
Part2

Object : Osbourne House Manchester - EDM04
Installation : EDM04 Edmundson birmingham
Project number : LD-251106-REVB
Date : 17.02.2026

2.2 Calculation results, Exterior 1

2.2.2 Table, Oldham road opposite side (near church) (E)





Part1

Average illuminance	$\bar{E}_m$	: 1.33 lx
Minimum illuminance	E_{min}	: 0.56 lx
Maximum illuminance	E_{max}	: 1.84 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	: 1 : 2.37 (0.42)
Diversity U_d	E_{min}/E_{max}	: 1 : 3.28 (0.31)

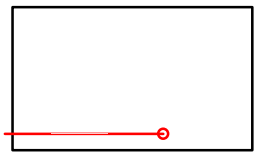
Object	:	Osbourne House Manchester - EDM04
Installation	:	EDM04 Edmundson birmingham
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2.2 Calculation results, Exterior 1

2.2.2 Table, Oldham road opposite side (near church) (E)

0.81	0.81	0.83	0.93	0.83	0.86	0.86	0.7	**(0.56)**	0.57	0.57	0.58	0.58	0.75	0.75	0.74	0.73	0.73	0.74	0.74	0.74	0.74	0.75	0.74	0.81	0.88	0.87	0.89	0.89	0.71	0.69	0.66	0.66	0.66	0.57	0.66	0.65	0.63	0.62	0.75	0.74	0.73	0.72	0.81	0.86
1	0.81	0.83	0.93	0.83	0.86	0.86	1.05	1.07	1.07	1.08	1.1	0.9	0.91	0.91	0.74	0.73	0.73	0.91	0.91	0.91	0.91	0.91	0.9	0.81	0.88	0.87	0.89	0.89	0.88	0.88	0.85	1.01	1.02	0.73	0.81	0.8	0.78	0.94	0.93	0.92	0.9	0.89	0.98	0.86
1.2	1.2	1.22	1.32	1.22	1.25	1.25	1.06	1.06	1.07	1.08	1.29	1.29	1.31	1.31	1.3	1.29	1.29	1.1	1.1	1.1	1.1	0.91	0.9	0.81	1.06	1.05	1.07	1.07	1.06	1.05	1.02	1.21	1.22	1.12	1.2	1.19	1.16	1.14	1.13	0.92	0.9	0.88	0.97	0.86
1.2	1.2	1.22	1.32	1.22	1.44	1.45	1.45	1.46	1.47	1.47	1.48	1.29	1.31	1.3	1.3	1.29	1.29	1.49	1.5	1.49	1.49	1.49	1.29	1.2	1.27	1.44	1.47	1.47	1.26	1.25	1.22	1.21	1.21	1.12	1.2	1.18	1.16	1.34	1.33	1.31	1.3	1.28	1.36	1.24
1.61	1.61	1.62	1.63	1.64	1.67	1.68	1.69	1.69	1.7	1.7	1.71	1.69	1.71	1.72	1.72	1.72	1.72	1.73	1.73	1.72	1.72	1.72	1.7	1.7	1.69	1.68	1.7	1.7	1.69	1.68	1.65	1.64	1.63	1.62	1.62	1.61	1.59	1.58	1.57	1.55	1.54	1.52	1.49	1.46
1.61	1.6	1.61	1.62	1.63	1.67	1.67	1.68	1.69	1.69	1.69	1.7	1.69	1.71	1.71	1.72	1.71	1.72	1.72	1.72	1.72	1.71	1.71	1.69	1.69	1.68	1.67	1.7	1.7	1.69	1.68	1.64	1.63	1.62	1.61	1.62	1.6	1.59	1.57	1.56	1.54	1.53	1.51	1.49	1.45
1.6	1.59	1.6	1.61	1.62	1.66	1.66	1.67	1.68	1.68	1.68	1.69	1.68	1.7	1.7	1.71	1.71	1.71	1.72	1.71	1.71	1.71	1.7	1.68	1.68	1.67	1.66	1.69	1.69	1.68	1.67	1.63	1.62	1.61	1.6	1.61	1.59	1.58	1.56	1.55	1.53	1.52	1.5	1.48	1.44
1.58	1.58	1.59	1.6	1.61	1.64	1.65	1.66	1.66	1.67	1.67	1.67	1.67	1.69	1.69	1.69	1.69	1.69	1.7	1.7	1.7	1.69	1.69	1.67	1.67	1.66	1.65	1.67	1.67	1.66	1.66	1.62	1.61	1.6	1.59	1.59	1.58	1.56	1.55	1.54	1.52	1.5	1.49	1.46	1.43
1.57	1.56	1.58	1.59	1.59	1.63	1.63	1.64	1.65	1.66	1.65	1.66	1.65	1.67	1.68	1.68	1.68	1.68	1.69	1.68	1.68	1.68	1.67	1.65	1.65	1.65	1.64	1.66	1.66	1.65	1.64	1.6	1.59	1.59	1.58	1.58	1.57	1.55	1.54	1.52	1.51	1.49	1.47	1.45	1.42

40 50 60



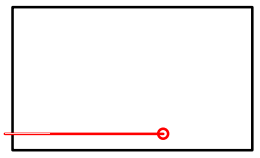
Object : Osbourne House Manchester - EDM04
Installation : EDM04 Edmundson birmingham
Project number : LD-251106-REVB
Date : 17.02.2026

2.2 Calculation results, Exterior 1

2.2.2 Table, Oldham road opposite side (near church) (E)

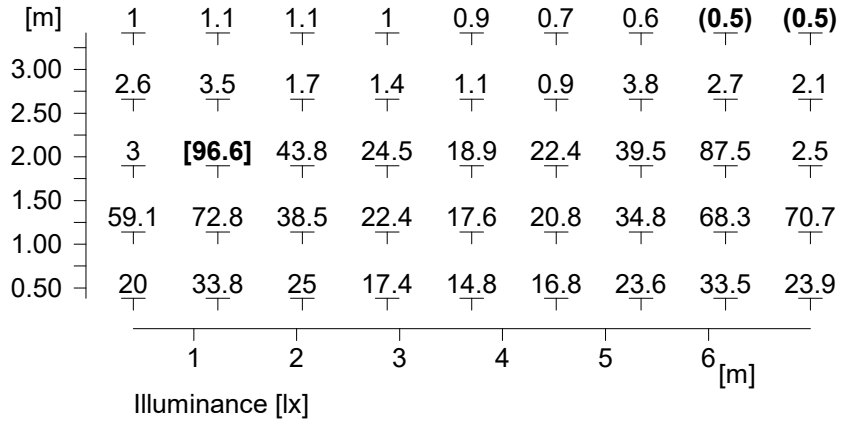
1.04	1.04	1.02	1.03	1.01	1.01	1	0.99	0.96	0.96	0.96	1.13	1.21	1.34	1.33	1.31	1.29	1.35	1.34	1.33	1.32	1.45	1.44	1.44	1.43	1.42	1.4	1.38	1.37	1.52	1.51	1.49	1.47	1.46	1.44	1.42
1.04	1.04	1.02	1.03	1.01	1.01	1.17	1.17	1.13	1.12	1.12	1.29	1.37	1.35	1.34	1.49	1.47	1.53	1.51	1.5	1.49	1.46	1.45	1.63	1.62	1.61	1.59	1.56	1.55	1.53	1.51	1.5	1.48	1.46	1.44	1.42
1.23	1.23	1.21	1.22	1.2	1.19	1.17	1.16	1.13	1.31	1.32	1.48	1.56	1.54	1.52	1.5	1.47	1.52	1.71	1.7	1.69	1.66	1.64	1.63	1.62	1.61	1.59	1.56	1.55	1.53	1.71	1.7	1.68	1.66	1.63	1.61
1.24	1.23	1.39	1.41	1.39	1.38	1.37	1.36	1.33	1.32	1.31	1.48	1.74	1.73	1.72	1.69	1.67	1.73	1.71	1.7	1.69	1.66	1.64	1.63	1.81	1.81	1.79	1.76	1.75	1.73	1.72	1.7	1.68	1.66	1.64	1.61
1.65	1.66	1.64	1.66	1.64	1.63	1.62	1.61	1.57	1.56	1.55	1.81	1.82	1.81	1.81	1.79	1.78	**[1.84]**	**[1.84]**	**[1.84]**	1.83	1.81	1.8	1.79	1.79	1.78	1.76	1.74	1.73	1.72	1.7	1.68	1.66	1.64	1.62	1.6
1.65	1.65	1.63	1.65	1.63	1.63	1.62	1.61	1.57	1.56	1.55	1.81	1.82	1.81	1.8	1.79	1.78	**[1.84]**	**[1.84]**	1.83	1.83	1.81	1.8	1.79	1.78	1.77	1.76	1.74	1.73	1.71	1.7	1.68	1.66	1.64	1.62	1.6
1.64	1.64	1.62	1.64	1.62	1.62	1.61	1.59	1.56	1.54	1.54	1.8	1.8	1.8	1.79	1.78	1.76	1.83	1.83	1.82	1.81	1.79	1.78	1.78	1.77	1.76	1.75	1.73	1.72	1.7	1.69	1.67	1.65	1.63	1.61	1.59
1.62	1.62	1.61	1.63	1.61	1.6	1.59	1.58	1.54	1.53	1.53	1.79	1.79	1.78	1.78	1.77	1.75	1.82	1.82	1.81	1.81	1.78	1.78	1.77	1.76	1.76	1.74	1.72	1.71	1.7	1.68	1.67	1.65	1.63	1.61	1.58
1.61	1.61	1.6	1.62	1.6	1.59	1.58	1.57	1.53	1.52	1.51	1.77	1.78	1.77	1.77	1.76	1.74	1.81	1.81	1.8	1.8	1.77	1.77	1.76	1.76	1.75	1.73	1.72	1.7	1.69	1.68	1.66	1.64	1.62	1.6	1.58

70 80 [m]



2.2 Calculation results, Exterior 1

2.2.3 Table, apartment side (E)





Average illuminance	$\bar{E}_m$	: 21.8 lx
Minimum illuminance	E_{min}	: 0.5 lx
Maximum illuminance	E_{max}	: 96.6 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	: 1 : 40.39 (0.02)
Diversity U_d	E_{min}/E_{max}	: 1 : 179.15 (0.01)

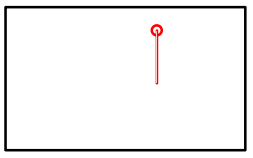
Object	:	Osbourne House Manchester - EDM04
Installation	:	EDM04 Edmundson birmingham
Project number	:	LD-251106-REVB
Date	:	17.02.2026

2.2 Calculation results, Exterior 1

2.2.4 Table, Helga street side (E)

[m]																																						
5.5	**(0.2)**	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.4	0.4
5.0	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5
4.5	0.3	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.6	0.6	0.6	0.5
4.0	0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	0.9	0.9	0.9	0.9	1	1	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.7	0.7	0.7	0.6
3.5	0.4	0.5	0.6	0.6	0.7	0.7	0.8	0.8	0.8	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.9	1	1	1.1	1.1	1.1	1.1	1.1	1	1	1	0.9	0.9	0.9	0.8	0.8	0.7
3.0	10.1	12.6	15.1	17.4	19.1	20	20	19.5	18.8	18.3	18.4	19.1	20.2	21.3	22	21.9	21.2	20.1	19	18.3	18.3	19.2	20.8	23	25.4	27.5	29.2	30.2	**[30.7]**	30.6	30.1	28.9	27.4	25.7	24.3	23.3	22.9	22.8	22.5	21.8	20.3
2.5	10	12.4	14.9	17.2	18.9	19.8	19.8	19.2	18.5	18.1	18.2	18.9	20	21	21.7	21.7	21	19.9	18.8	18.1	18.1	19	20.6	22.7	25.1	27.2	28.8	29.9	30.3	30.3	29.7	28.6	27.1	25.5	24	23.1	22.6	22.5	22.3	21.5	20
2.0	9.5	11.7	14	16.1	17.7	18.6	18.6	18.1	17.5	17.1	17.2	17.9	18.9	19.8	20.4	20.4	19.7	18.7	17.8	17.2	17.2	18	19.5	21.5	23.7	25.6	27.2	28.1	28.5	28.5	28	27	25.6	24	22.7	21.8	21.4	21.3	21	20.3	18.9
1.5	8.5	10.4	12.3	14.3	15.8	16.5	16.6	16	15.5	15.3	15.4	16	17	17.8	18.3	18.2	17.5	16.7	15.9	15.4	15.5	16.2	17.7	19.5	21.3	23	24.2	25.1	25.5	25.5	25	24.2	23	21.7	20.6	19.7	19.4	19.1	18.8	18.1	16.8
1.0																																								
0.5																																								
	2.5				5.0				7.5				10.0				12.5				15.0				17.5				20.0				22.5				25.0				27.5	[m]

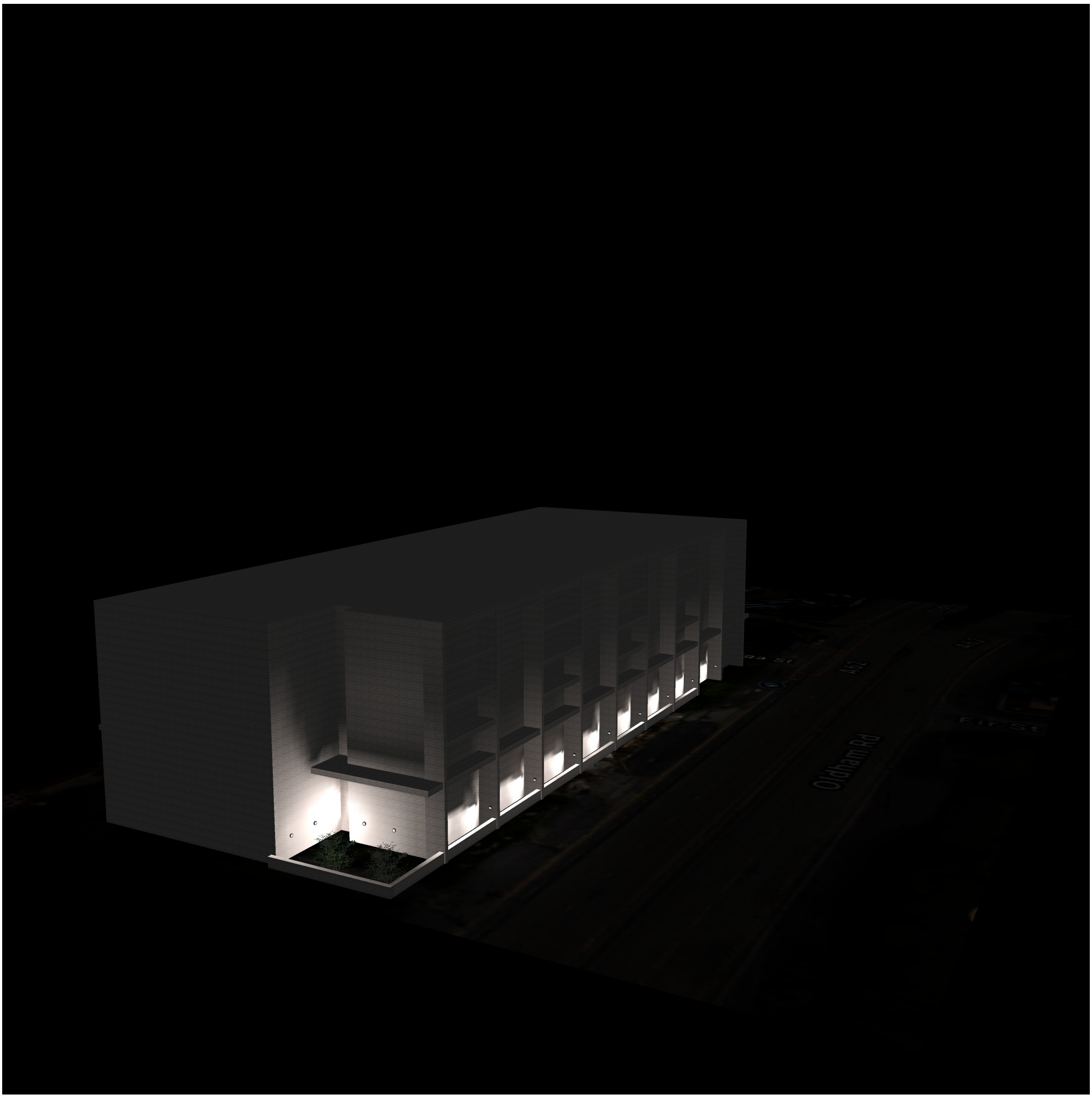
Illuminance [lx]



Average illuminance	$\bar{E}_m$	: 9.5 lx
Minimum illuminance	E_{min}	: 0.2 lx
Maximum illuminance	E_{max}	: 30.7 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	: 1 : 38.21 (0.03)
Diversity U_d	E_{min}/E_{max}	: 1 : 123.57 (0.01)

2.2 Calculation results, Exterior 1

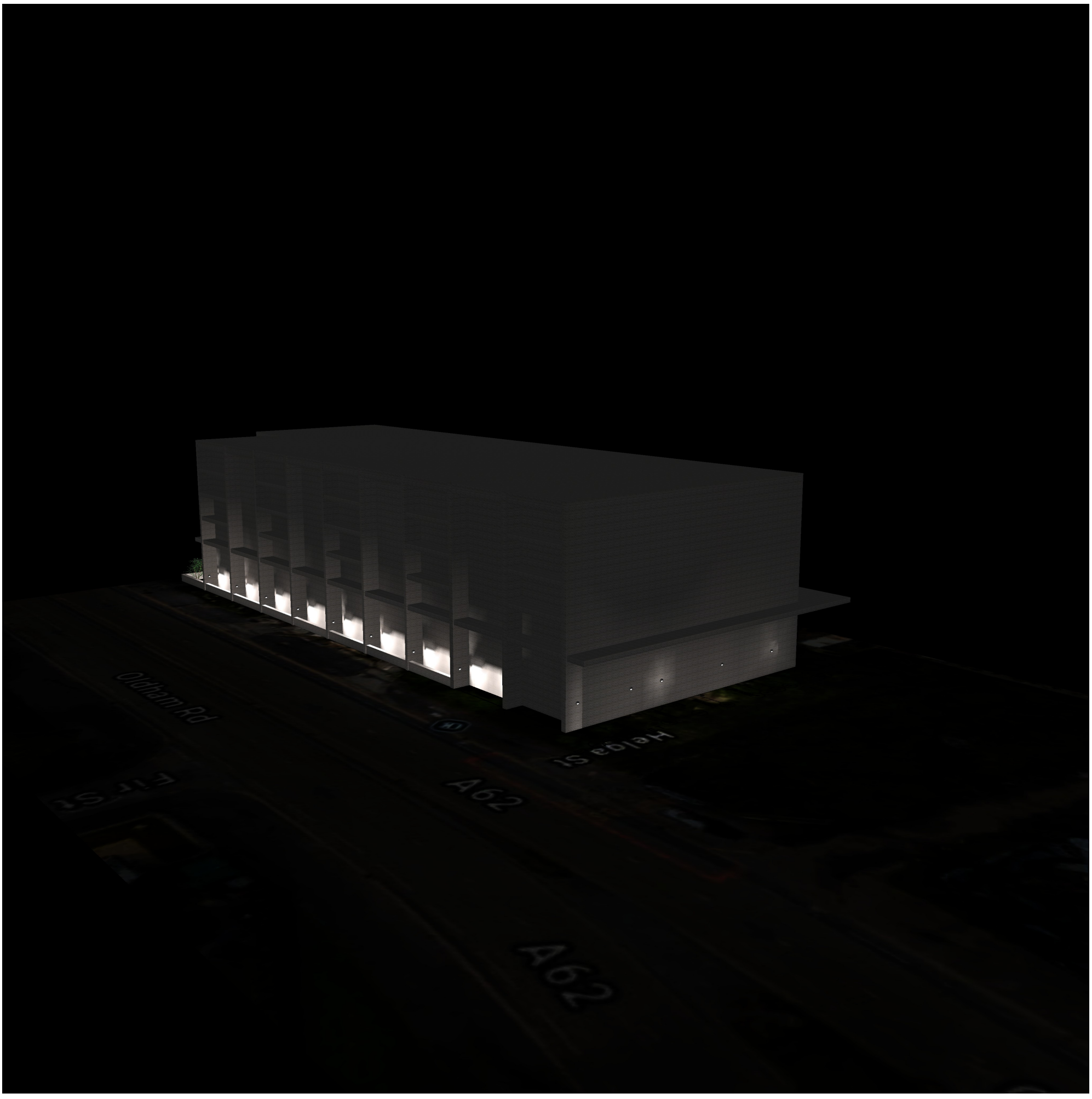
2.2.5 3D luminance, View 1



Luminance in the scene
Minimum: : 0 cd/m²
Maximum: : 20.9 cd/m²

2.2 Calculation results, Exterior 1

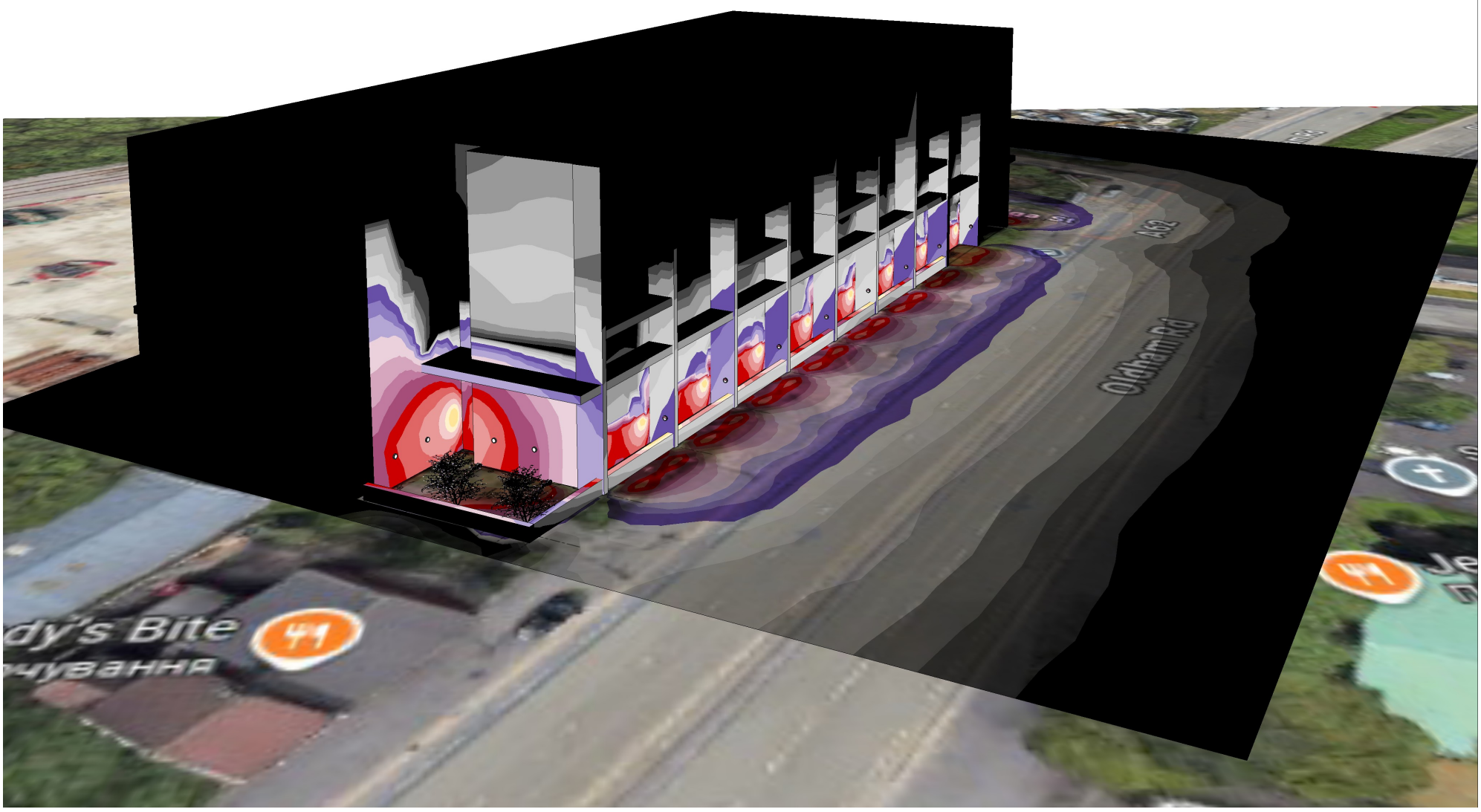
2.2.6 3D luminance, View 2

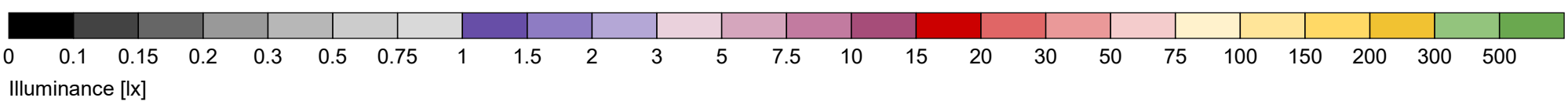


Luminance in the scene
Minimum: : 0 cd/m²
Maximum: : 20.9 cd/m²

2.2 Calculation results, Exterior 1

2.2.7 3D pseudo colours, View 1 (E)





2.2 Calculation results, Exterior 1

2.2.8 3D pseudo colours, View 2 (E)

