



Technical Submission Sheet

M&E Installation

No: TS012 External Lighting

MPH Ancoats – Oldham Road, Manchester. M40 7PS.

Project – Osborne Yard, Manchester. M40 7PS.

23/07/25

Specification Ref: Robus

Items for Approval (Description): Product info for complete system.

Curvera, Cosmic Asymmetric. Orb, Hawfinch.

Documentation details enclosed:

Tech Submission via Specialist

Status A - The above item(s) have been reviewed and are accepted.

Status B - The above item(s) have been reviewed and are accepted subject to the following comments:

Status C - The above item(s) have been rejected for the following reasons:

On behalf of ALLPHASE LTD:

On behalf of :.....

Signed:.....

Signed:.....

Print:....Jason Lewis.....

Print:.....

**ALLPHASE, The Ballroom, Royal George Building, 2 Regent Street, Knutsford,
Cheshire, WA16 6GR**

M: 07925 132244

E: Jason@all-phase.co.uk

Registered in England No: 15399276

Osbourne House Manchester - EDM04

Installation : EDM04 Edmundson birmingham

Project number : LD-251106-REVA
Customer : ROBUS
Processed by : Olena Tsizh
Date : 11.07.2025

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 0.75m
A. Mounting height at 2.8m

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.

Object : Osbourne House Manchester - EDM04
Installation : EDM04 Edmundson birmingham
Project number : LD-251106-REVA
Date : 11.07.2025

1 Luminaire data

1.1 ROBUS, Curvera (RCV0630-04)

1.1.1 Data sheet

Manufacturer: ROBUS

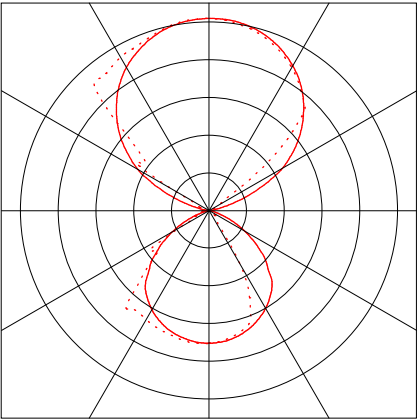


RCV0630-04 desk luminaire Curvera
CURVERA 2x3W LED Up/Down Wall Light, IP65, 3000K, Double, Black

CCT 3000K

Luminaire data	
Absolute Photometry	
Luminaire efficacy	: 99.68 lm/W
Classification	: D53 ↓37.0% ↑63.0%
CIE Flux Codes	: 60 90 98 37 100
UGR 4H 8H	: 20.2 / 21.3
Control gear	: Electronic ballast
Power	: 6.22 W
Luminous flux	: 620 lm
Dimensions	: 215 mm x 66 mm x 80 mm

Equipped with	
Quantity	: 1
Designation	: LED
Colour	: 3000
Socket	: -
Colour reproduction	: 80



Object : Osbourne House Manchester - EDM04
Installation : EDM04 Edmundson birmingham
Project number : LD-251106-REVA
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1 Luminaire data

1.2 ROBUS, Cosmic Asymmetric (RCM5030AS-04)

1.2.1 Data sheet

Manufacturer: ROBUS

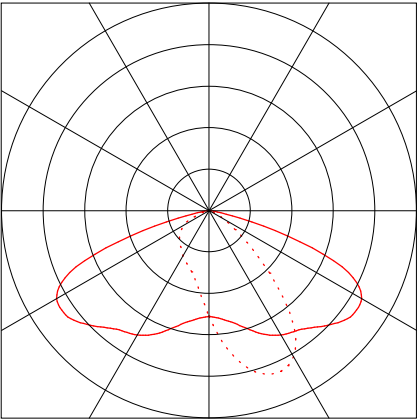


RCM5030AS-04 desk luminaire Cosmic Asymmetric
COSMIC 50W LED Flood Light IP65 Black 3000K Asymmetric

CCT 3000K

Luminaire data	
Absolute Photometry	
Luminaire efficacy	: 101.63 lm/W
Classification	: A40 ↓99.9% ↑0.1%
CIE Flux Codes	: 46 82 99 100 100
UGR 4H 8H	: 36.0 / 25.8
Control gear	: Electronic ballast
Power	: 52.05 W
Luminous flux	: 5290 lm
Dimensions	: 275 mm x 261 mm x 40 mm

Equipped with	
Quantity	: 1
Designation	: LED
Colour	: 3000
Socket	: -
Colour reproduction	: 80



Object : Osbourne House Manchester - EDM04
Installation : EDM04 Edmundson birmingham
Project number : LD-251106-REVA
Date : 11.07.2025

1 Luminaire data

1.3 ROBUS, Orb (!RRB14CCT3E-01PCELL)

1.3.1 Data sheet

Manufacturer: ROBUS

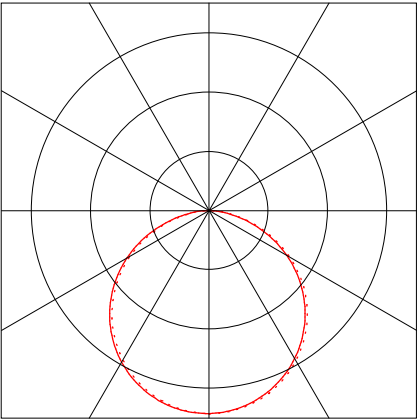


!RRB14CCT3E-01PCELL ceiling mounted luminaire Orb
ORB 14W LED Surface Mount CCT3 Selectable IP65 White 3000K 400K 6500K Emergency

CCT 3000K

Luminaire data	
Absolute Photometry	
Luminaire efficacy	: 80.59 lm/W
Classification	: A40 ↓99.8% ↑0.2%
CIE Flux Codes	: 46 78 95 100 100
UGR 4H 8H	: 23.2 / 23.3
Control gear	: Electronic ballast
Power	: 14.146 W
Luminous flux	: 1140 lm
Dimensions	: Ø285 mm x 60 mm

Equipped with	
Quantity	: 1
Designation	: LED
Colour	: 3000
Socket	: -
Colour reproduction	: 80



Emergency Lighting
Light source from normal operation with reduced flux
Luminous flux : 160 lm

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1 Luminaire data

1.4 ROBUS, Orb (!RRB14CCT3-01PCELL)

1.4.1 Data sheet

Manufacturer: ROBUS

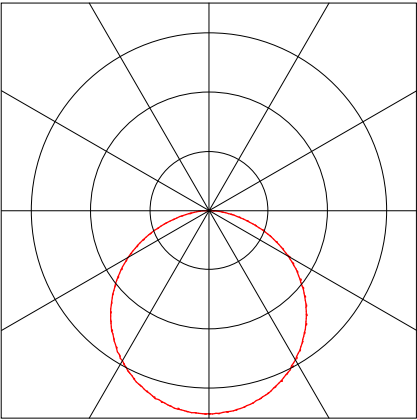


!RRB14CCT3-01PCELL ceiling mounted luminaire Orb
ORB 14W LED Surface Mount CCT3 Selectable IP65 White 3000K 400K 6500K

CCT 3000K

Luminaire data
Absolute Photometry : 88.89 lm/W
Luminaire efficacy : A40 ↓99.8% ↑0.2%
Classification : 47 78 95 100 100
CIE Flux Codes : 23.7 / 23.7
UGR 4H 8H : Electronic ballast
Control gear : 13.838 W
Power : 1230 lm
Dimensions : Ø285 mm x 60 mm

Equipped with
Quantity : 1
Designation : LED
Colour : 3000
Socket : -
Colour reproduction : 80



Object : Osbourne House Manchester - EDM04
Installation : EDM04 Edmundson birmingham
Project number : LD-251106-REVA
Date : 11.07.2025

1 Luminaire data

1.5 ROBUS, Hawfinch (RHF0730-25)

1.5.1 Data sheet

Manufacturer: ROBUS

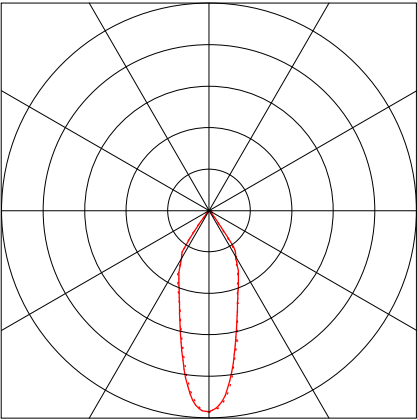


RHF0730-25 floor-recessed luminaires Hawfinch
HAWFINCH Spike Light 7W LED, IP65, 3000K, Die-cast Aluminium Dark Grey

CCT 3000K

Luminaire data	
Absolute Photometry	
Luminaire efficacy	: 60.19 lm/W
Classification	: A70 ↓99.9% ↑0.1%
CIE Flux Codes	: 95 99 100 100 100
UGR 4H 8H	: 16.4 / 17.0
Control gear	: Electronic ballast
Power	: 8.64 W
Luminous flux	: 519.8 lm
Dimensions	: 108 mm x 76 mm x 0.0 mm

Equipped with	
Quantity	: 1
Designation	: LED
Colour	: 3000
Socket	: -
Colour reproduction	: 80

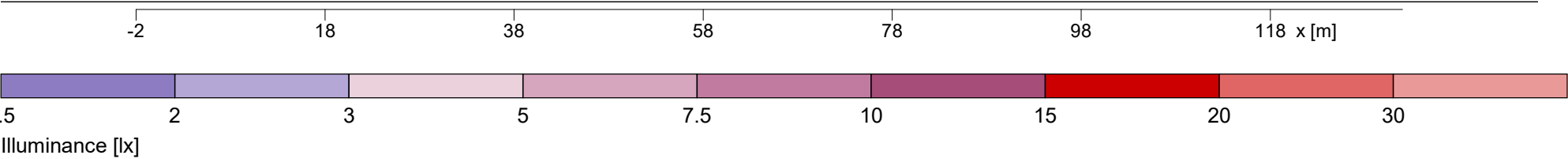
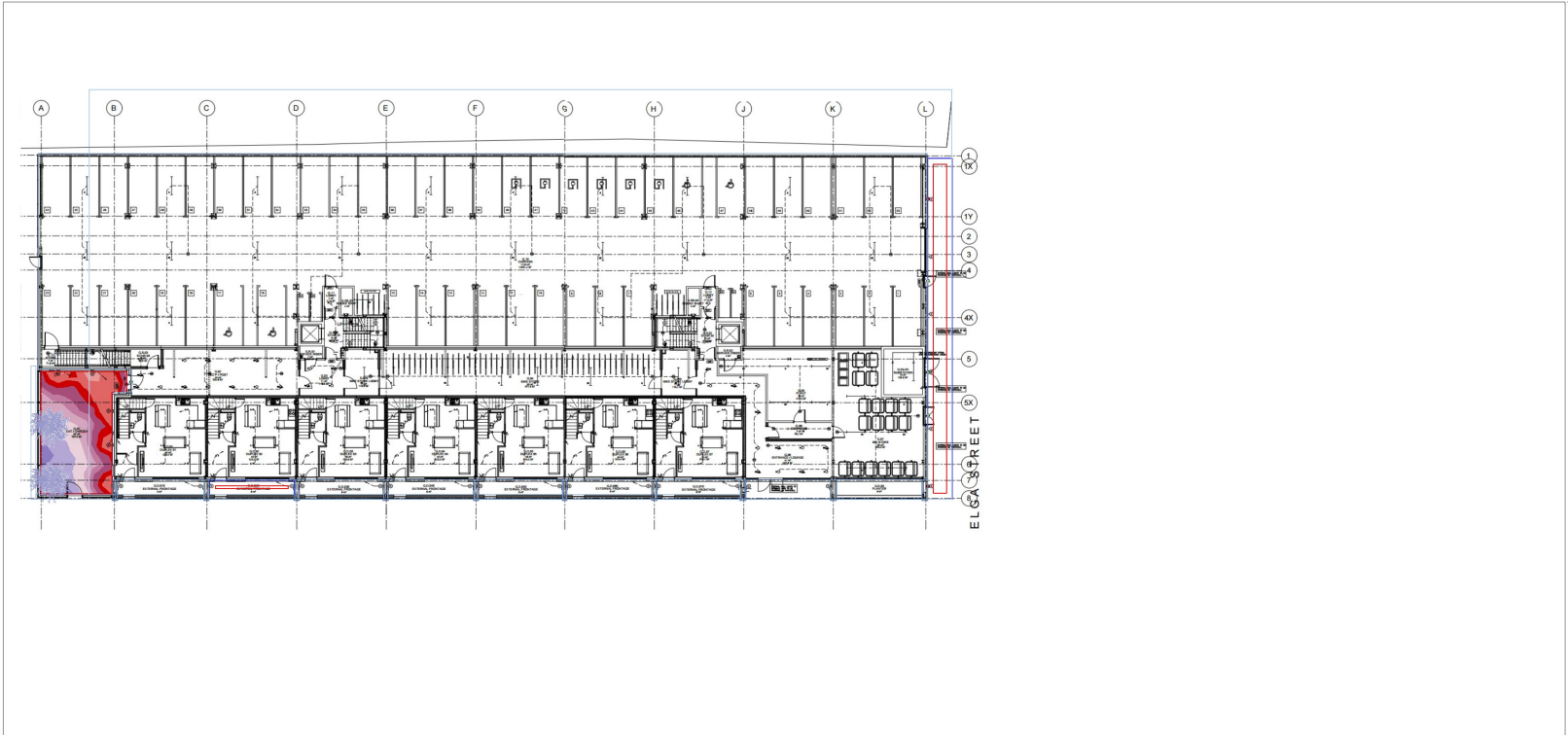


Object : Osbourne House Manchester - EDM04
Installation : EDM04 Edmundson birmingham
Project number : LD-251106-REVA
Date : 11.07.2025

2 Exterior 1

2.1 Summary, Exterior 1

2.1.1 Result overview, Garden



General	
Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total lamp luminous flux	1660 lm
Luminaire luminous flux	1660 lm
Total power	23.5 W
Total power per area (66.39 m²)	0.35 W/m² (3.09 W/m²/100lx)

Garden	Garden
	Horizontal
$\bar{E}_m$	11.4 lx
E_{min}	1.9 lx
$E_{min}/\bar{E}_m (U_o)$	0.16
$E_{min}/E_{max} (U_d)$	0.06
Position	0.00 m

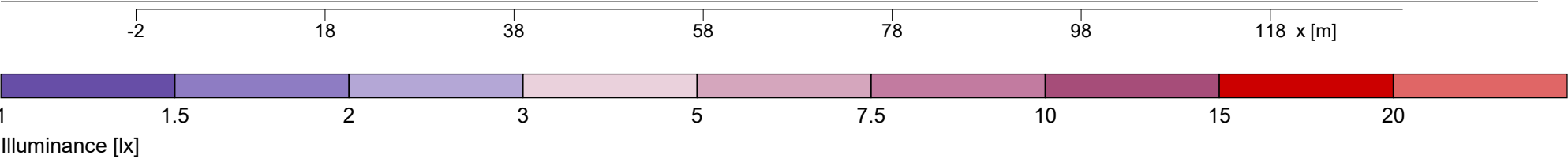
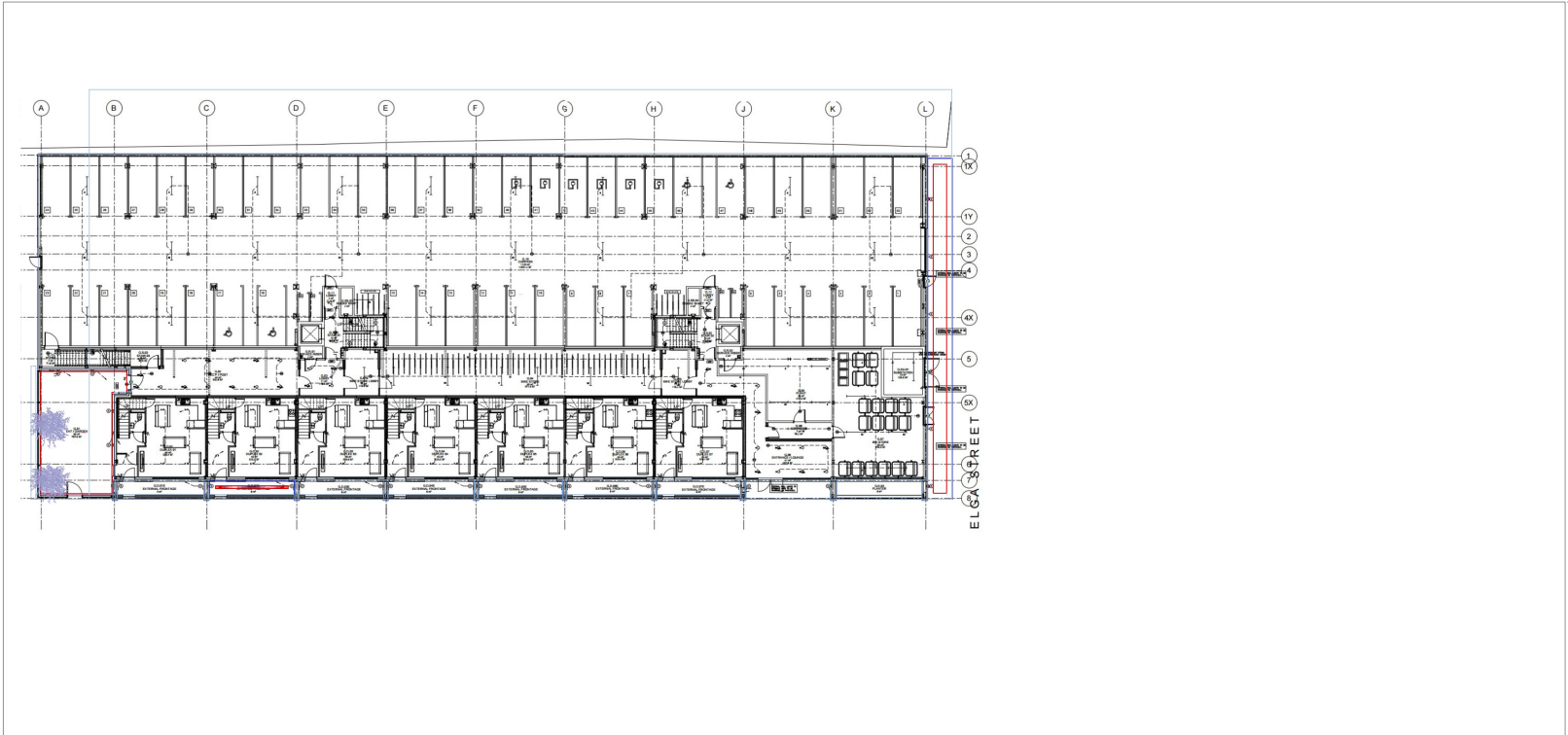
Type No. Make

1		1 x	ROBUS	
			Order No.	: RCV0630-04/CCT 3000K
			Luminaire name	: Curvera
			Equipment	: 1 x LED 6.22 W / 620 lm
5		2 x	Order No.	: RHF0730-25/CCT 3000K
			Luminaire name	: Hawfinch
			Equipment	: 1 x LED 8.64 W / 520 lm

Object : Osbourne House Manchester - EDM04
Installation : EDM04 Edmundson birmingham
Project number : LD-251106-REVA
Date : 11.07.2025

2.1 Summary, Exterior 1

2.1.2 Result overview, External frontage



General	
Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total lamp luminous flux	1240 lm
Luminaire luminous flux	1240 lm
Total power	12.4 W
Total power per area (8.97 m²)	1.39 W/m² (17.73 W/m²/100lx)

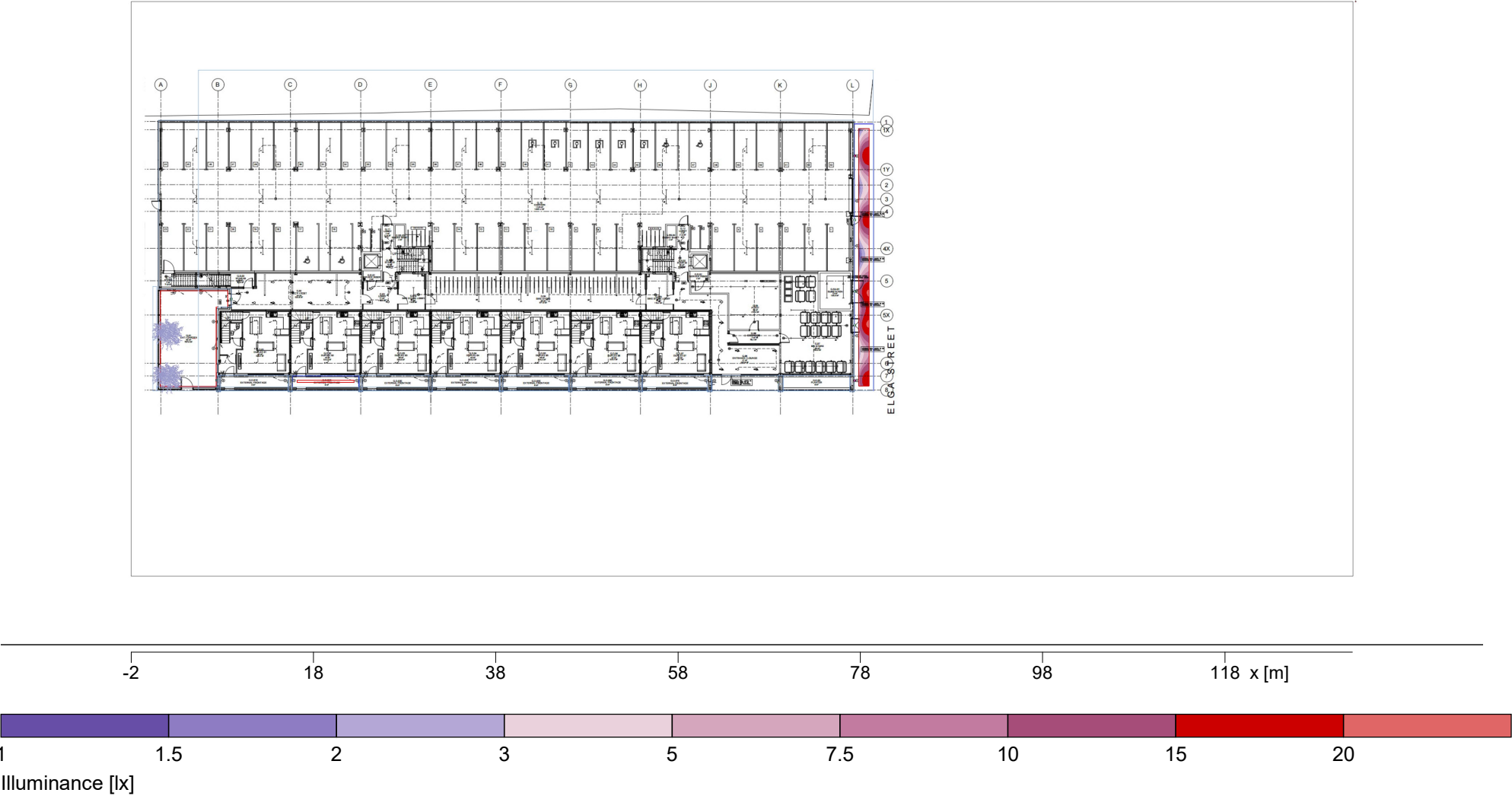
External frontage	External frontage
	Horizontal
$\bar{E}_m$	7.82 lx
E_{min}	1.32 lx
$E_{min}/\bar{E}_m (U_o)$	0.17
$E_{min}/E_{max} (U_d)$	0.05
Position	0.00 m

Type No. Make

ROBUS	
1 2 x	Order No. : RCV0630-04/CCT 3000K
	Luminaire name : Curvera
	Equipment : 1 x LED 6.22 W / 620 lm

2.1 Summary, Exterior 1

2.1.3 Result overview, Rear area



General	
Calculation algorithm used	Average indirect fraction
Maintenance factor	0.80
Total lamp luminous flux	5880 lm
Luminaire luminous flux	5880 lm
Total power	70.1 W
Total power per area (61.91 m²)	1.13 W/m² (11.79 W/m²/100lx)

Rear area	Rear area
	Horizontal
$\bar{E}_m$	9.6 lx
E_{min}	1.43 lx
$E_{min}/\bar{E}_m (U_o)$	0.15
$E_{min}/E_{max} (U_d)$	0.07
Position	0.00 m

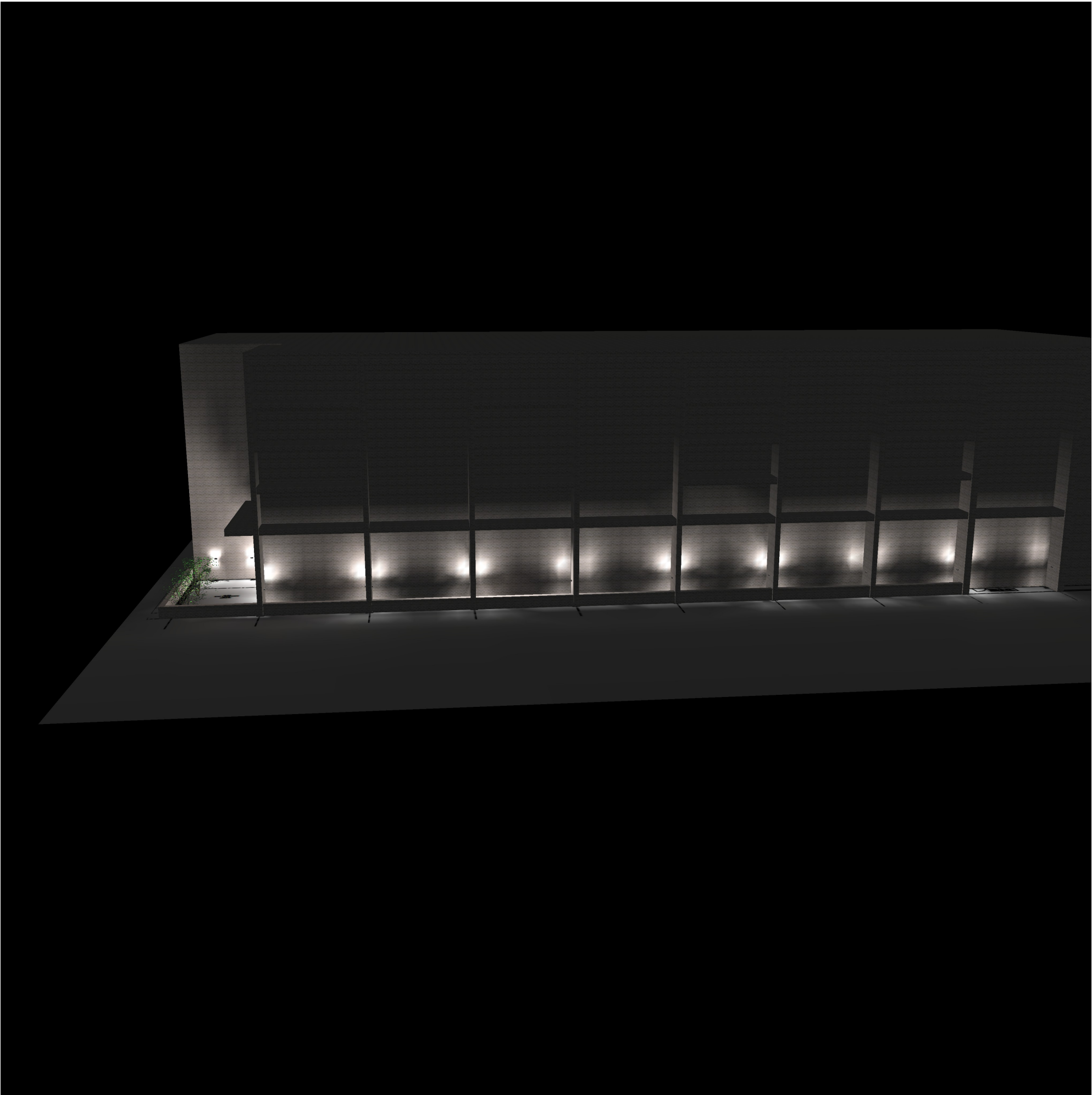
Type No. Make

		ROBUS	
3	3E x	Order No.	: !RRB14CCT3E-01PCELL/CCT 3000K
		Luminaire name	: Orb
		Equipment	: 1 x LED 14.15 W / 1140 lm
		Emergency	: 160 lm (14.0 %)
			-- Emergency Lighting --
4	2 x	Order No.	: !RRB14CCT3-01PCELL/CCT 3000K
		Luminaire name	: Orb
		Equipment	: 1 x LED 13.84 W / 1230 lm

2 Exterior 1

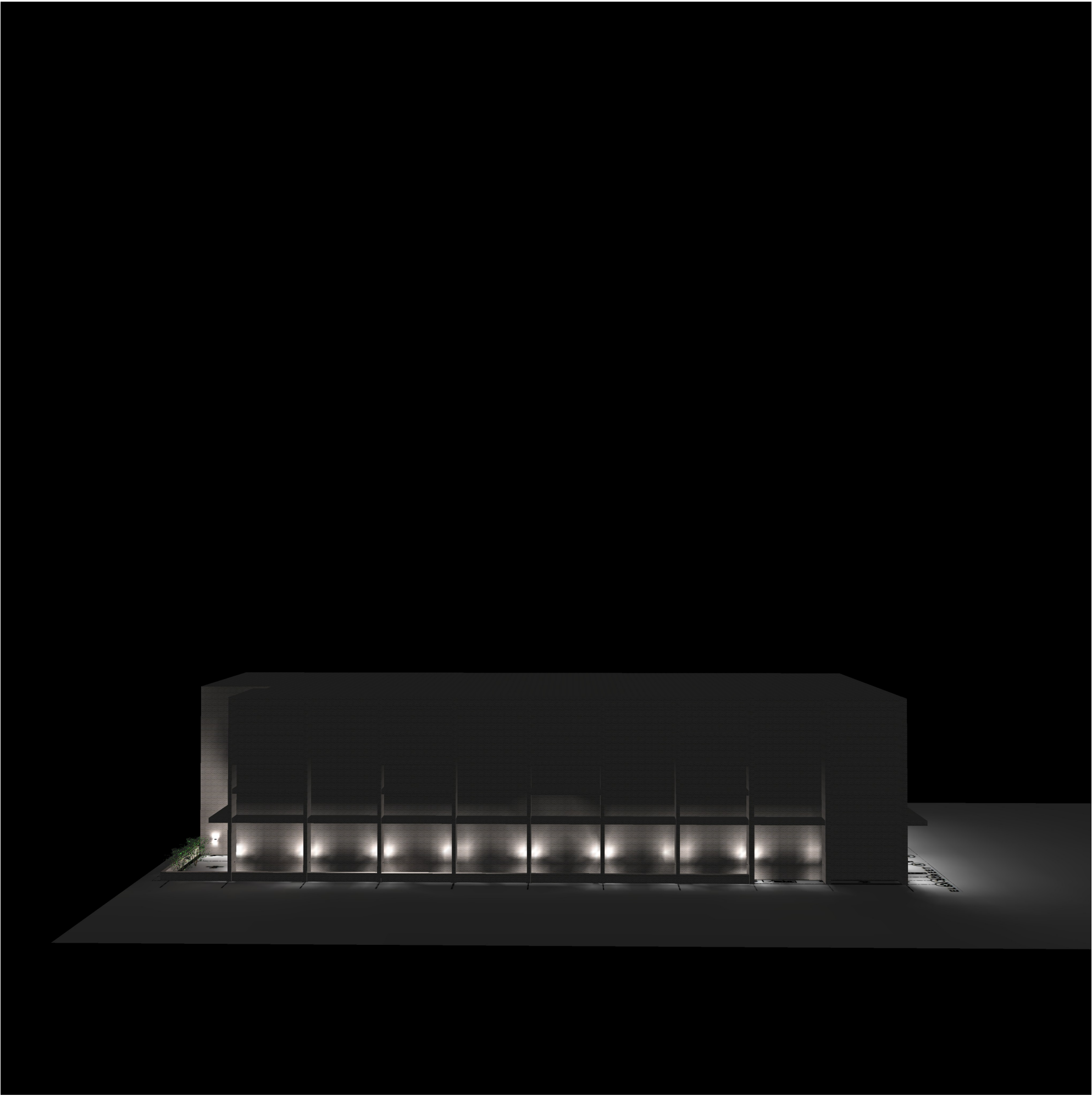
2.2 Calculation results, Exterior 1

2.2.1 3D luminance, View 1



Luminance in the scene
Minimum: : 0 cd/m²
Maximum: : 199 cd/m²

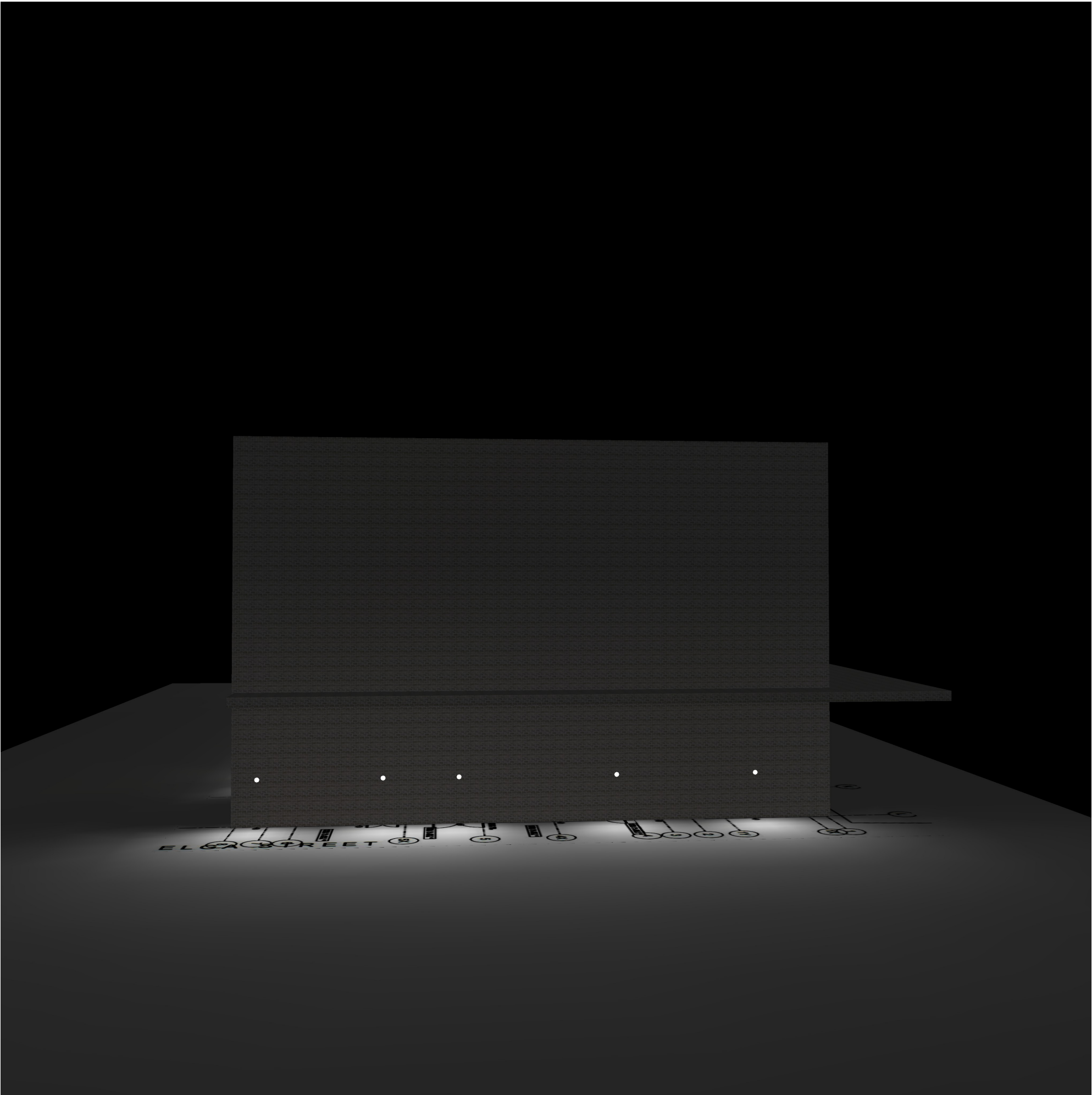
2.2 Calculation results, Exterior 1
2.2.2 3D luminance, View from the front



Luminance in the scene
Minimum: : 0 cd/m²
Maximum: : 199 cd/m²

2.2 Calculation results, Exterior 1

2.2.3 3D luminance, View 5



Luminance in the scene

Minimum:

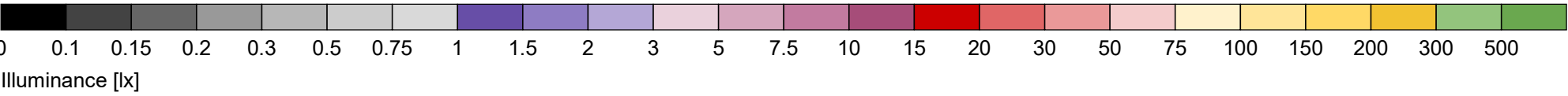
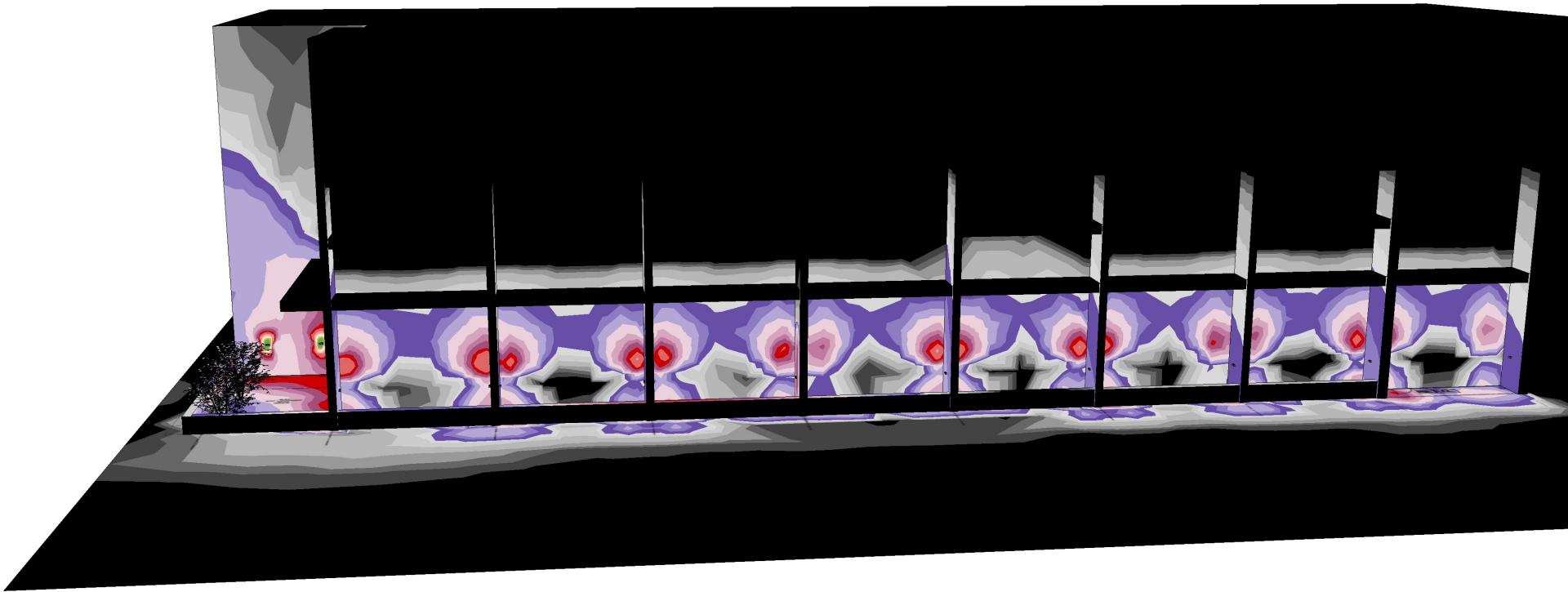
Maximum:

: 0 cd/m²

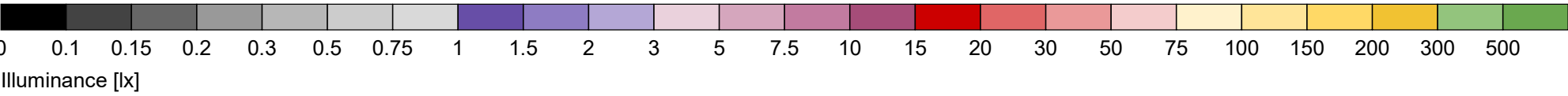
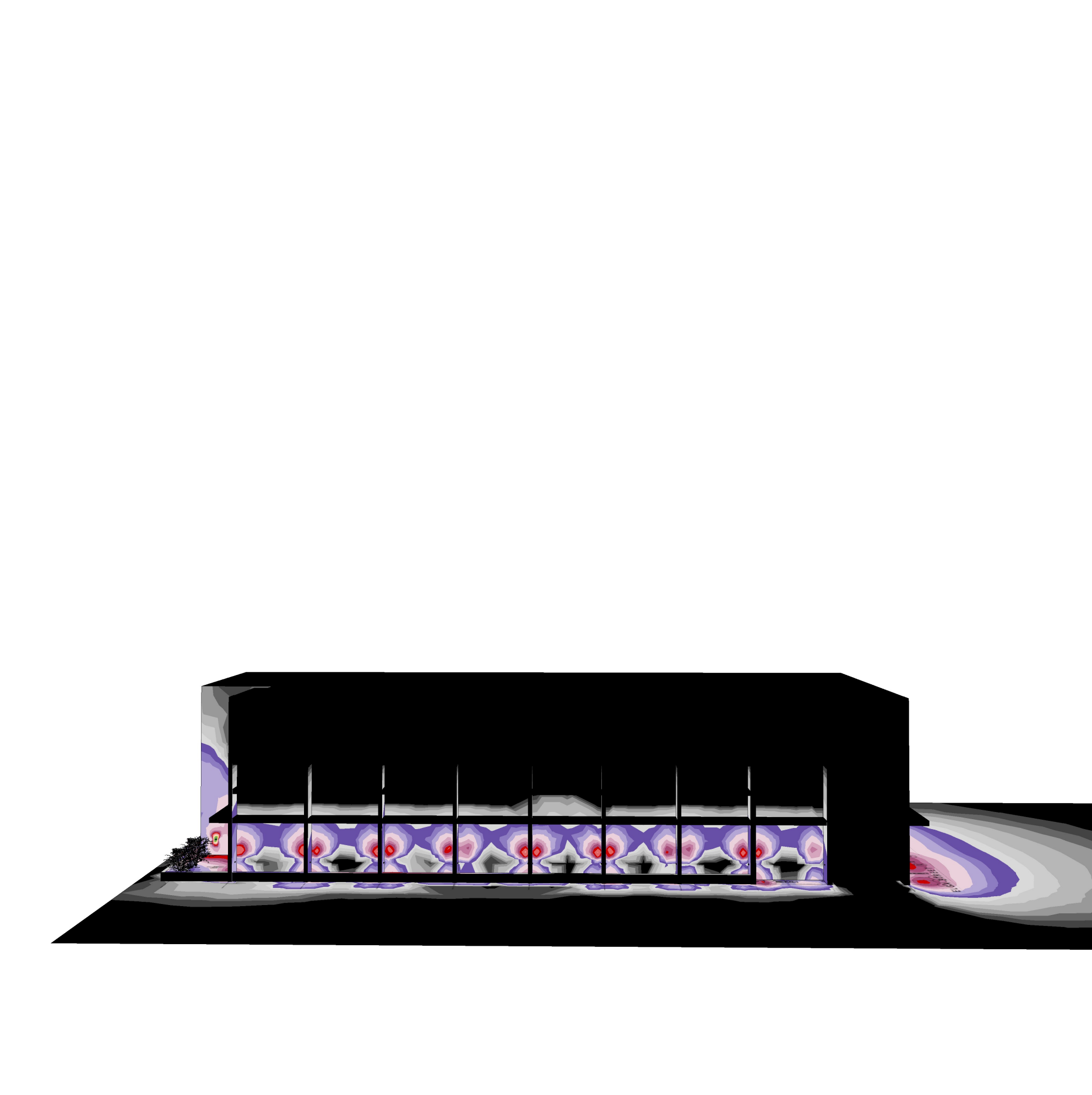
: 199 cd/m²

2.2 Calculation results, Exterior 1

2.2.4 3D pseudo colours, View 1 (E)

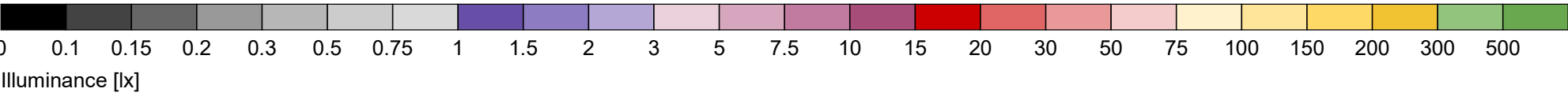
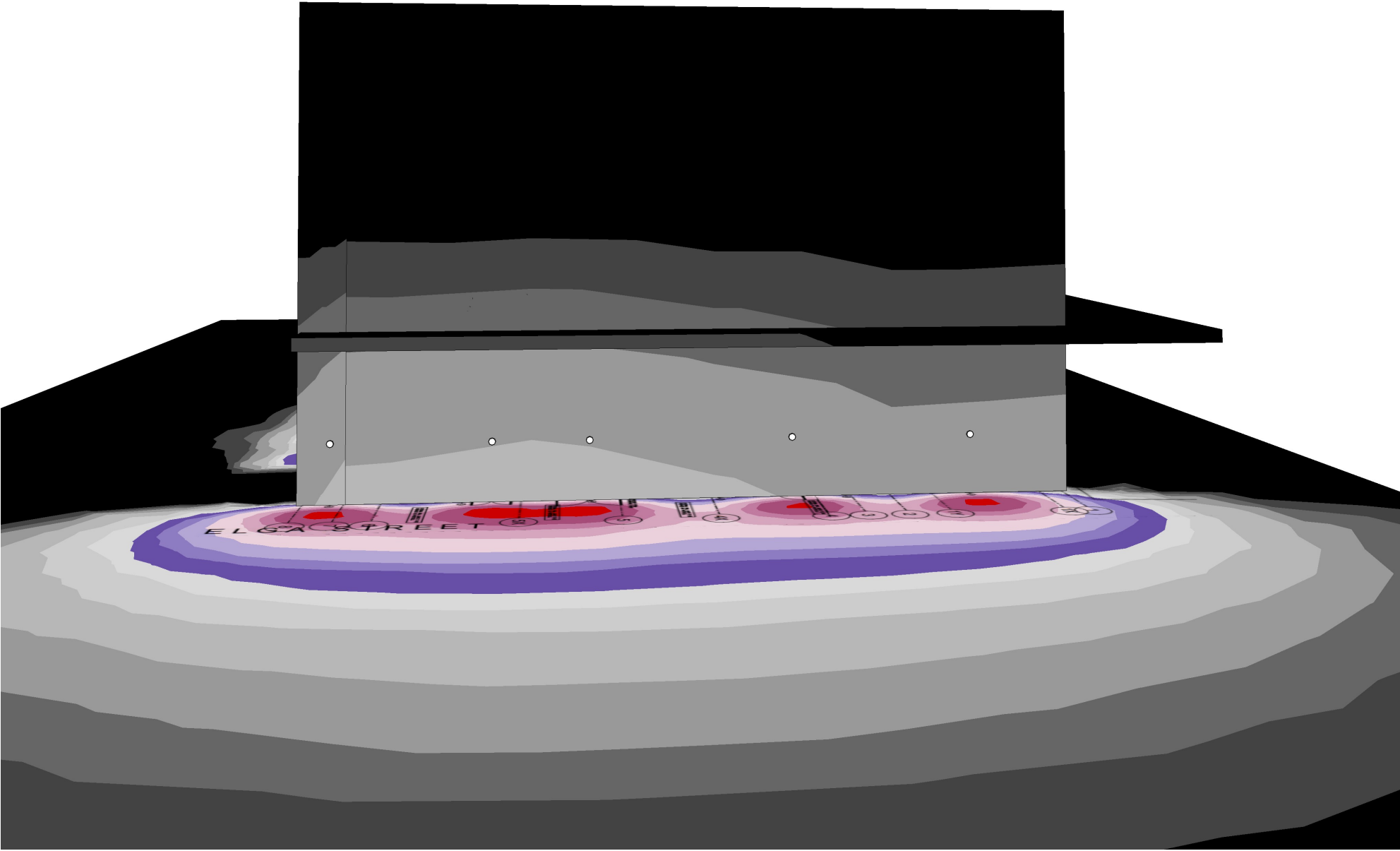


2.2 Calculation results, Exterior 1
2.2.5 3D pseudo colours, View from the front (E)



2.2 Calculation results, Exterior 1

2.2.6 3D pseudo colours, View 5 (E)



NOTES

- ALL LUMINAIRES WITHIN APARTMENTS SHALL BE COMPLETE WITH DIMMABLE DRIVERS.
- ALL LIGHTING CIRCUITS WITHIN APARTMENTS SHALL BE COMPLETE WITH DIMMER SWITCHES.
- LUMINAIRE MANUFACTURER TO ENSURE THAT ALL DIMMER SWITCHES ARE COMPATIBLE WITH LED LAMPS.

LEGEND

- A ○ F TYPE DOWNLIGHT IP65 760LM 8W 4000K DIMMABLE DRIVER
- B ○ 1500LM 15W 4000K STANDARD DRIVER
- BE ○ 1500LM 15W 4000K EMERGENCY DRIVER
- B1 ○ 2000LM 22W 4000K STANDARD DRIVER
- B1E ○ 2000LM 22W 4000K EMERGENCY DRIVER
- ⊙ BULKHEAD IP65 317mm 2100LM 24W 4000K STANDARD DRIVER
- ⊙ BE BULKHEAD IP65 317mm 2100LM 24W 4000K EMERGENCY DRIVER
- D — SINGLE IP65 1540mm 3400LM 24W 4000K STANDARD DRIVER
- DE — SINGLE IP65 1540mm 3400LM 24W 4000K 3HR EMERGENCY PACK
- F ○ PENDANT LIGHT FITTING (LOW ENERGY)
- EXIT ILLUMINATED EMERGENCY EXIT SIGN WITH ARROW
- LEGEND
- SINGLE GANG LIGHT SWITCH 'n' DENOTES GANG
- 2 WAY LIGHT SWITCH 'n' DENOTES GANG
- KEYSWITCH & CONTACTOR TO CONTROL LANDLORDS AREA CLEANERS SOCKET RING MAIN
- VANITY UNIT LIGHTING SUPPLIED FROM BATHROOM LIGHTING CIRCUIT
- CEILING MOUNTED PIR DETECTOR
- MICROWAVE SWITCH FOR CORRIDOR LIGHTING

FOR CONTINUATION SEE DRAWING No M2215-63-E-00-02

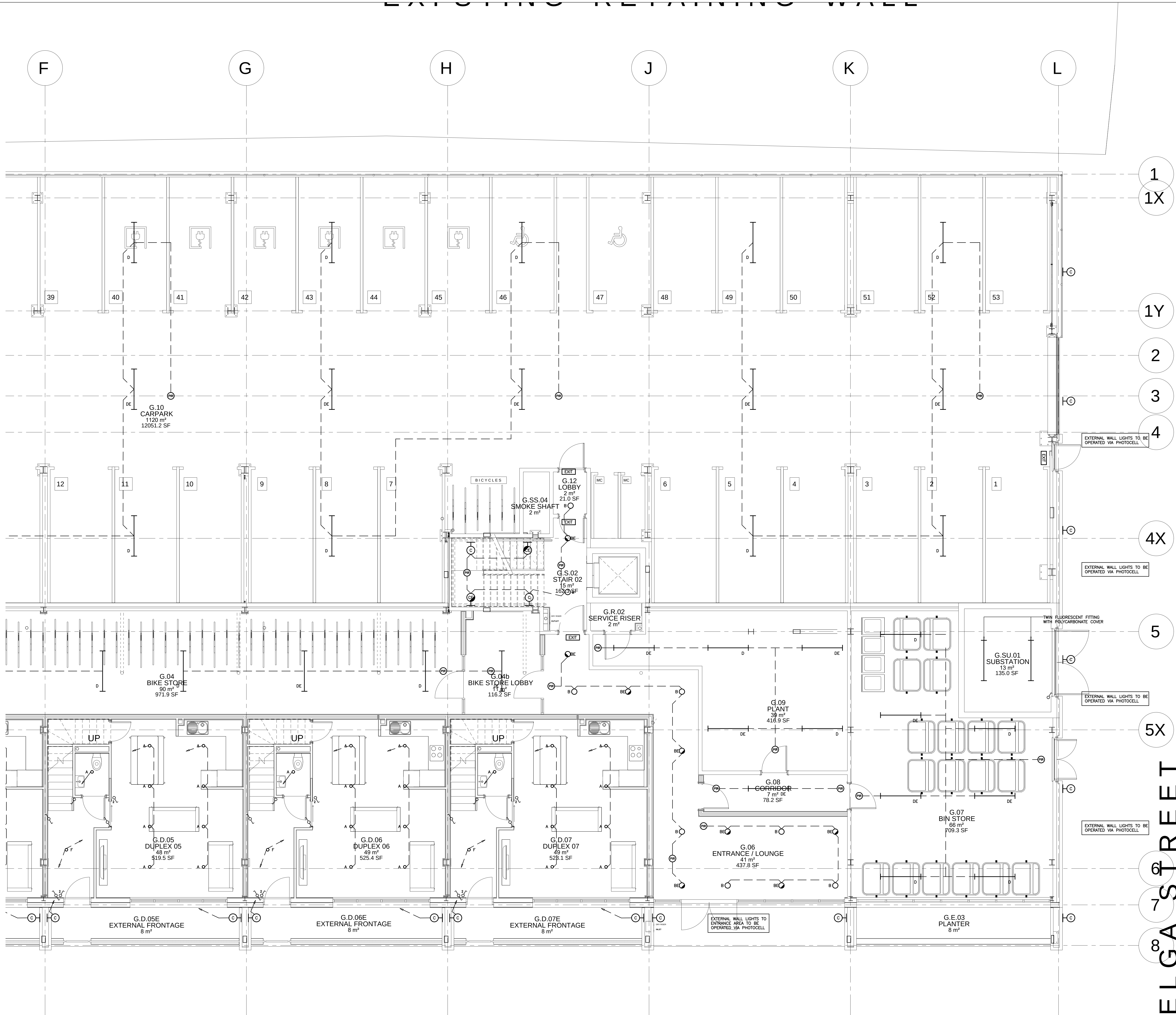
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T3	REVISED DUE TO ADDITION OF 2ND DUPLEX APARTMENTS	NOV 23	DRD	SD
T2	AMENDED IN ACCORDANCE WITH REVISED ARCHITECTS LAYOUT.	AUG 22	DRD	SD
T1	TENDER ISSUE	AUG 21	DRD	SD
P2	AMENDED IN ACCORDANCE WITH REVISED ARCHITECTS LAYOUT	JUN 21	DRD	SD
P1	PRELIMINARY ISSUE	FEB 21	DRD	SD
REV	REVISION	DATE	DRAWN	CHK

CLIENT	MPH ANCOATS LIMITED
PROJECT	RESIDENTIAL DEVELOPMENT OSBORNE YARD OLDHAM ROAD
DRAWING TITLE	GROUND FLOOR LIGHTING AND EMERGENCY LIGHTING Sheet 1 of 2

DRDESIGN LLP
ENGINEERING • DESIGN • CONSULTANTS
5th FLOOR, WATERMAN COURT,
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MANCHESTER, M2 2BZ
Tel: 0161-457-0430 Fax: 0161-457-0001
email: enquiries@dr-design.co.uk
web: www.dr-design.co.uk

DATE	FEB 2021	SCALE	1:50
DRAWN	DRD	ORIGINAL DRAWING SIZE A0	
CHECKED	SD	DRAWING NUMBER	M2215-63-E-00-01
		REV	C1

FOR CONTINUATION SEE DRAWING No M2215-63-E-00-01



HELGA STREET

- THIS DRAWING IS CONFIDENTIAL AND IS THE PROPERTY OF D. B. DESIGN LLP IT MUST NOT BE DISCLOSED TO A THIRD PARTY COPIED OR LENT WITHOUT WRITTEN CONSENT
- NOTES
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- LEGEND
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 - B ○ 1500LM 15W 4000K STANDARD DRIVER
 - BE ○ 1500LM 15W 4000K EMERGENCY DRIVER
 - B1 ○ 2000LM 22W 4000K STANDARD DRIVER
 - B1E ○ 2000LM 22W 4000K EMERGENCY DRIVER
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 - CEILING MOUNTED PIR DETECTOR
 - MICROWAVE SWITCH FOR CORRIDOR LIGHTING

C1	CONSTRUCTION ISSUE	NOV 24	DRD	SD
T4	REVISED DUE TO ADDITION OF 2ND. DUPLEX APARTMENTS	NOV 23	DRD	SD
T3	EXTERNAL LIGHTING TO HELGA ST. ELEVATION ADDED	AUG 22	DRD	SD
T2	AMENDED IN ACCORDANCE WITH REVISED ARCHITECTS LAYOUT.	AUG 22	DRD	SD
T1	TENDER ISSUE	AUG 21	DRD	SD
P2	AMENDED IN ACCORDANCE WITH REVISED ARCHITECTS LAYOUT	JUN 21	DRD	SD
P1	PRELIMINARY ISSUE	FEB 21	DRD	SD
REV	REVISION	DATE	DRAWN	CHK
CLIENT				
MPH ANCOATS LIMITED				
PROJECT				
RESIDENTIAL DEVELOPMENT OSBORNE YARD OLDHAM ROAD				
DRAWING TITLE				
GROUND FLOOR LIGHTING AND EMERGENCY LIGHTING Sheet 2 of 2				
DR DESIGN LLP ENGINEERING - DESIGN - CONSULTANTS 5th FLOOR, IMPERIAL COURT, BUILDING 2, EXCHANGE QUAY, MANCHESTER, M3 3EP Tel: 0161-457-2430 Fax: 0161-457-2001 email: enquiries@dr-design.co.uk web: www.dr-design.co.uk				
DATE	FEB 2021	SCALE	1:50	
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CHECKED	SD	DRAWING NUMBER	M2215-63-E-00-02	REV