

1CP01

DRUMMOND STREET LIGHT BRIDGE - LIGHT ASSESSMENT

Document no: 1CP01-MDS-EN-REP-SS08_SL41_B1-000001 C01

Revision	Author	Reviewed by	Approved by	Date	Revision Details
C01	W Millar-Smith	W Reed-Wright	R Williams	11.02.22	First Issue – Planning Application

STAKEHOLDER REVIEW REQUIRED (SRR)	PURPOSE OF SRR
☐ COUNTY/DISTRICT/LONDON BOROUGH COUNCIL ☐ LOV ☐ LUL ☐ NRL ☐ TFL ☐ UTILITIES COMPANY ☐ OTHER	☐ ACCEPTANCE ☐ APPROVAL ☐ NO OBJECTION ☐ CONSENT

HS2 Euston Station

Installation : Street Signage Lighting Levels

Project number : D1196-02

Customer :

Processed by : LH

Date : 08.02.2022

Project Description:

1. Calculation shown on 10m wide strip, 60m long (30m each way from archway)
2. Vertical calculation planes shown to boundary on all 4 sides
3. No detail available for sign material, so 50% transmission rate assumed
4. Results summary:
 - Light levels on the ground are at approx 18 lux immediately in front of the archway, down to 0.1 lux at 30m away
 - Vertical illumination levels 30m away from the archway are approx 1 lux

Statement of Facts

The light box is 4100mm wide, 900mm high and 200 mm deep

sitting to the centre of the light box 3301mm above FFL.

There will be 20 x Super Orbis Gen 3 LED modules in each light box and 1 x Oshino 700mA driver

The 20 No. Lights will be spaced evenly throughout the box.

The LED Colour Temperature will be 6500K.

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 Exterior 1

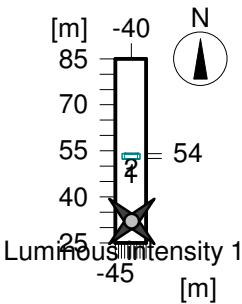
1.1 Description, Exterior 1

1.1.1 Floor plan



1.1 Calculation results, Exterior 1

1.1.2 Luminous intensity: Luminous intensity 1

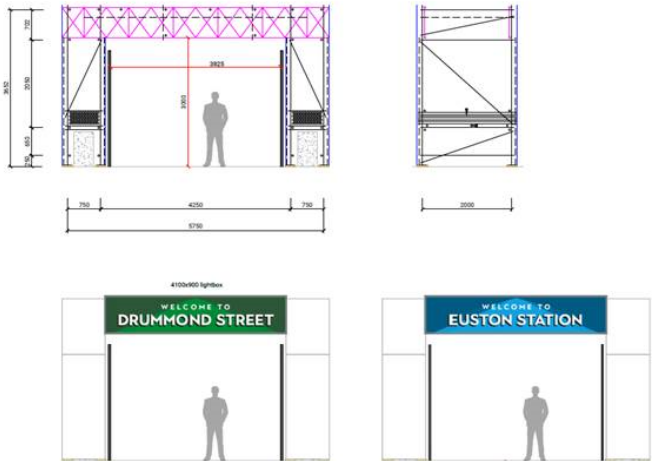


Measuring point for luminous intensity: Luminous intensity 1
Position : x = -39.60 m, y = 32.00 m, z = 1.20 m

Output criteria:

2. Only the first 2 luminaires will be listed.

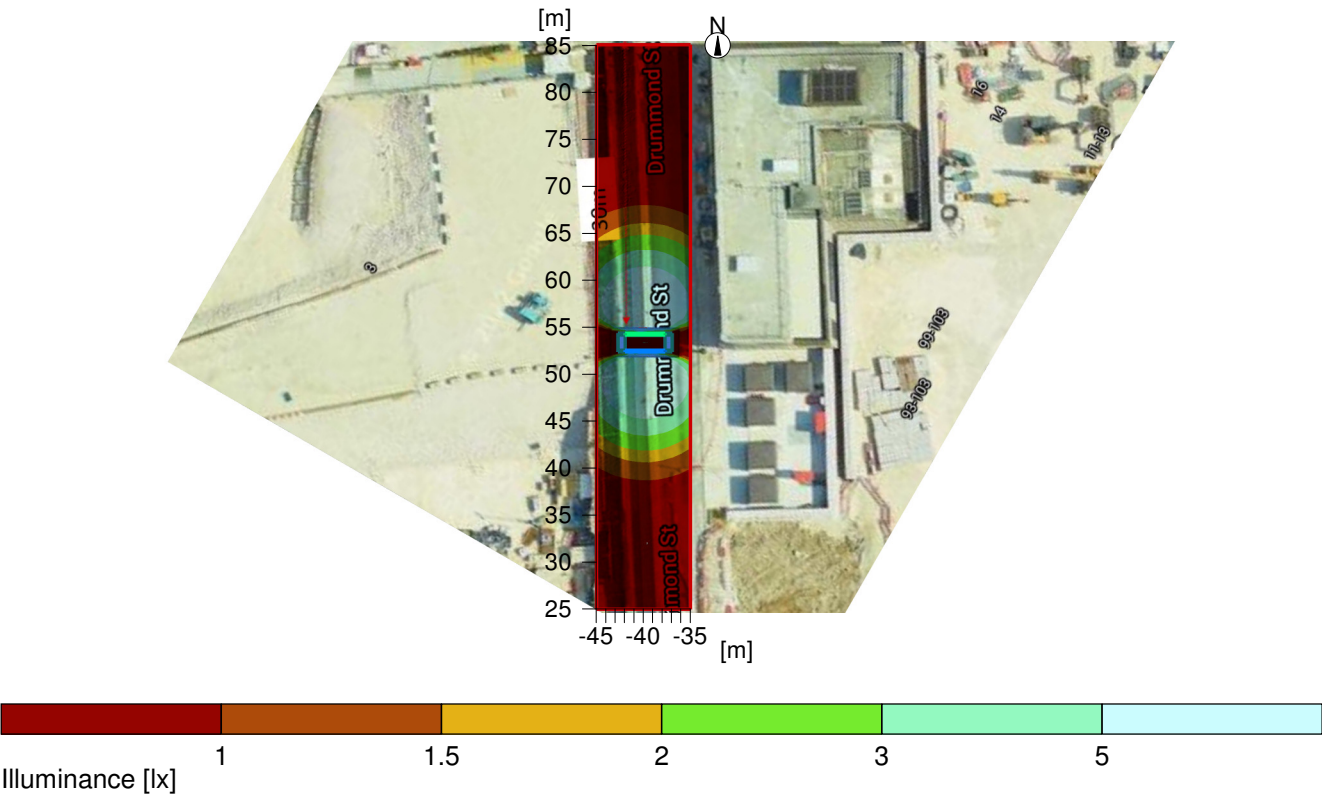
No.	Luminaire	Position			Lumin. intensity
		x[m]	y[m]	z[m]	I[kcd]
1	Bespoke Box Signlight, Bespoke Box Signlight.Idt	-39.83	52.44	3.45	1.073



1 Exterior 1

1.2 Summary, Exterior 1

1.2.1 Result overview, Evaluation area 1



General

Calculation algorithm used
photometric centre height.
Maintenance factor

Average indirect fraction with light colours
3.45 m
0.80

Evaluation area 1

Reference plane 1.1

	Horizontal
Em	2.28 lx
Emin	0 lx
Emin/Eav (Uo)	---
Emin/Emax (Ud)	---
Position	0.00 m

Major surfaces

	Em	Uo
m 1.5 (Ceiling)	4.12 lx	---
m 1.1 (Wall)	1.12 lx	0.93
m 1.2 (Wall)	2.42 lx	0.06
m 1.3 (Wall)	0.89 lx	0.95
m 1.4 (Wall)	2.3 lx	0.04

Type No.\Make

1 Exterior 1

1.3 Calculation results, Exterior 1

1.3.1 Table, Reference plane 1.1 (E)

60	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1
55	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
50	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	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	0.4
	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5
45	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.6	0.6
	0.7	0.7	0.8	0.8	0.9	0.9	0.8	0.8	0.8	0.7
	0.8	0.9	1	1	1	1.1	1	1	0.9	0.8
	1	1.1	1.2	1.2	1.3	1.3	1.3	1.2	1.1	1
	1.2	1.3	1.5	1.6	1.6	1.6	1.6	1.5	1.4	1.2
40	1.4	1.6	1.8	2	2.1	2.1	2	1.9	1.7	1.5
	1.7	2	2.3	2.5	2.7	2.7	2.6	2.4	2.1	1.8
	2.1	2.5	2.9	3.3	3.5	3.6	3.3	3.1	2.6	2.2
	2.5	3.2	3.8	4.3	4.7	4.7	4.5	4	3.3	2.7
	3	3.9	4.9	5.8	6.3	6.4	5.9	5.2	4.2	3.3
35	3.5	4.8	6.4	7.8	8.7	8.9	8.1	6.9	5.2	3.9
	3.9	5.8	8	10.2	11.9	12.1	10.9	8.8	6.4	4.4
	4	6.4	9.6	13	15.3	15.8	13.9	10.5	7.3	4.6
	3.3	6.1	9.8	14.3	17.3	18.2	14.8	11.3	6.8	4
	1.8	3.4	6.7	9.8	12.7	13.7	11.2	7.8	4.2	2.2
30	0.3	0.3	0.8	1.9	2.6	1.9	1.8	1.2	0.9	0.5
	(0)	(0)	(0)	0.1	0.2	0.2	0.1		(0)	(0)
	(0)	0.2	(0)	0.9	0.3	0.9	1.1		0.2	0.1
	1.2	2.8	5	7.8	10.7	10.7	9	6.1	3.5	1.5
	3.1	5.6	9.3	13.3	17.6	17.3	15	10.7	6.4	3.7
25	3.9	6.4	9.8	13.6	15.9	16.6	14.5	11.1	7.5	4.6
	4	6	8.5	11.1	12.8	13	11.8	9.3	6.7	4.6
	3.6	5.1	6.8	8.4	9.5	9.7	8.9	7.4	5.7	4.1



Part1

Height of the reference plane

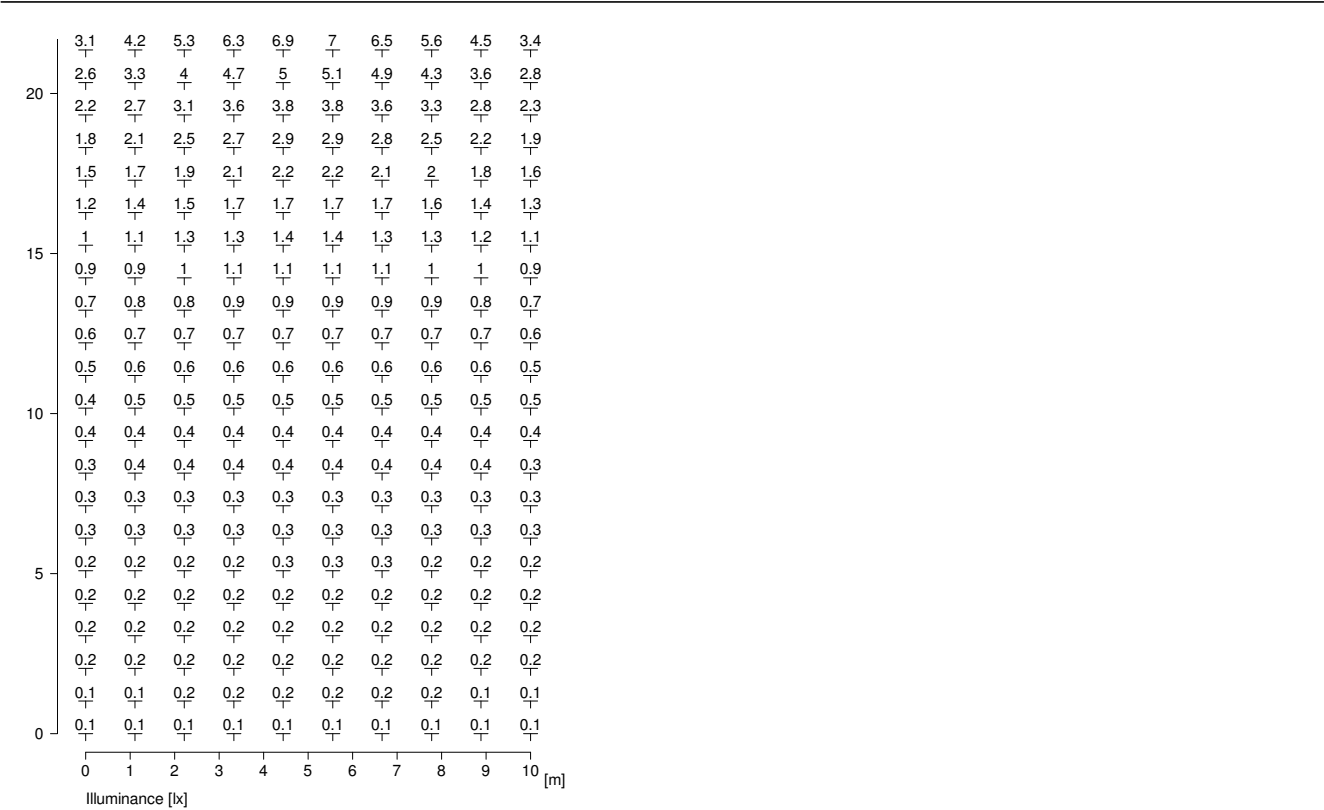
Average illuminance	Eav	: 0.00 m
Minimum illuminance	Emin	: 2.3 lx
Maximum illuminance	Emax	: 0 lx
Uniformity Uo	Emin/Eav	: 18.2 lx
Diversity Ud	Emin/Emax	: ---
		: ---



1 Exterior 1

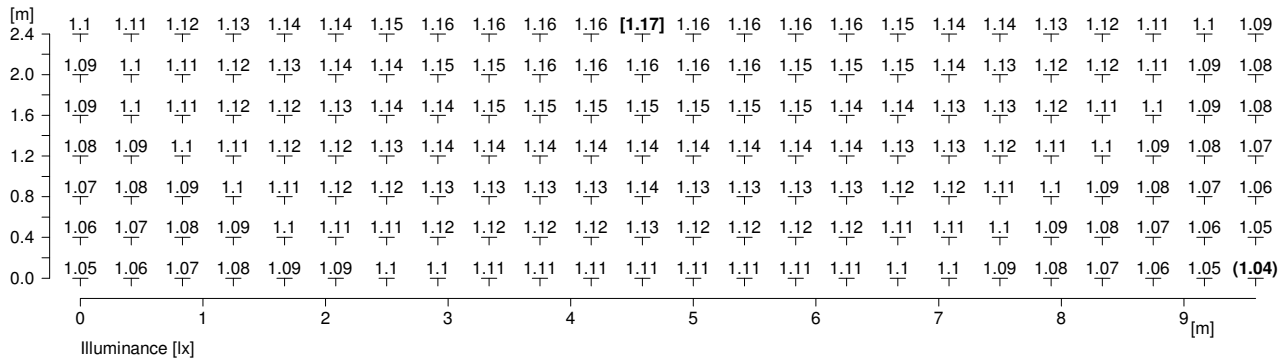
1.3 Calculation results, Exterior 1

1.3.1 Table, Reference plane 1.1 (E)



1.3 Calculation results, Exterior 1

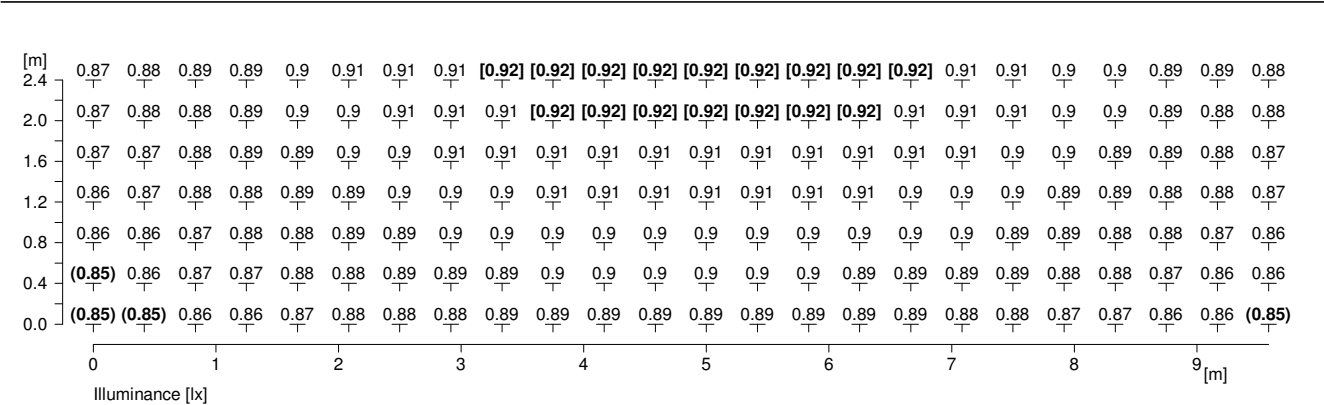
1.3.2 Table, Evaluation area 1, Measuring area 1 (Wall) (E)



Average illuminance	Eav	: 1.12 lx
Minimum illuminance	Emin	: 1.04 lx
Maximum illuminance	Emax	: 1.17 lx
Uniformity Uo	Emin/Eav	: 1 : 1.07 (0.93)
Diversity Ud	Emin/Emax	: 1 : 1.12 (0.89)

1.3 Calculation results, Exterior 1

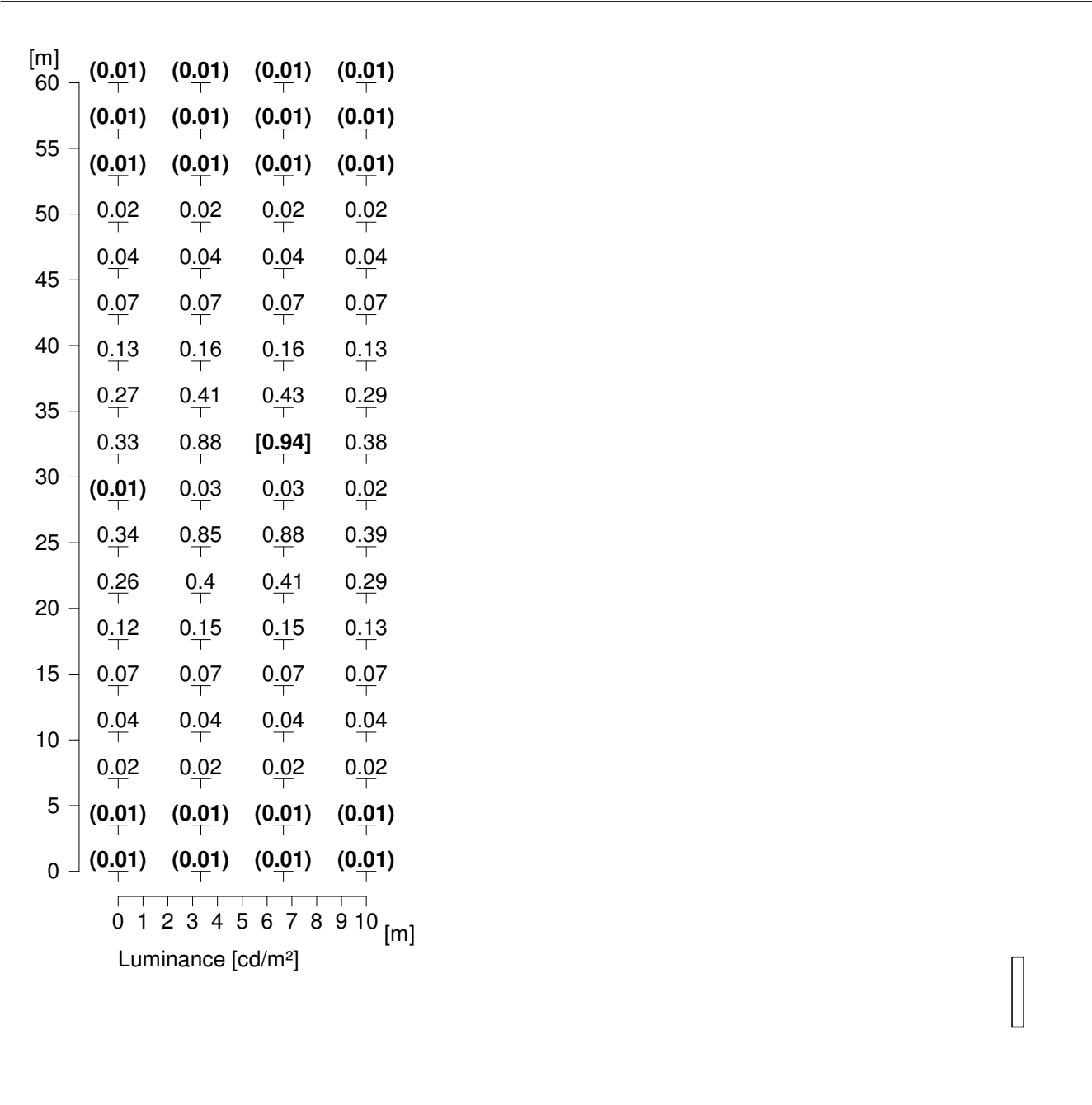
1.3.3 Table, Evaluation area 1, Measuring area 3 (Wall) (E)



Average illuminance	Eav	: 0.89 lx
Minimum illuminance	Emin	: 0.85 lx
Maximum illuminance	Emax	: 0.92 lx
Uniformity Uo	Emin/Eav	: 1 : 1.06 (0.95)
Diversity Ud	Emin/Emax	: 1 : 1.09 (0.92)

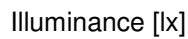
1.3 Calculation results, Exterior 1

1.3.4 Table, Floor (L)



Average luminance	Lav	: 0.14 cd/m²
Minimum luminance	Lmin	: 0.01 cd/m²
Maximum luminance	Lmax	: 0.94 cd/m²

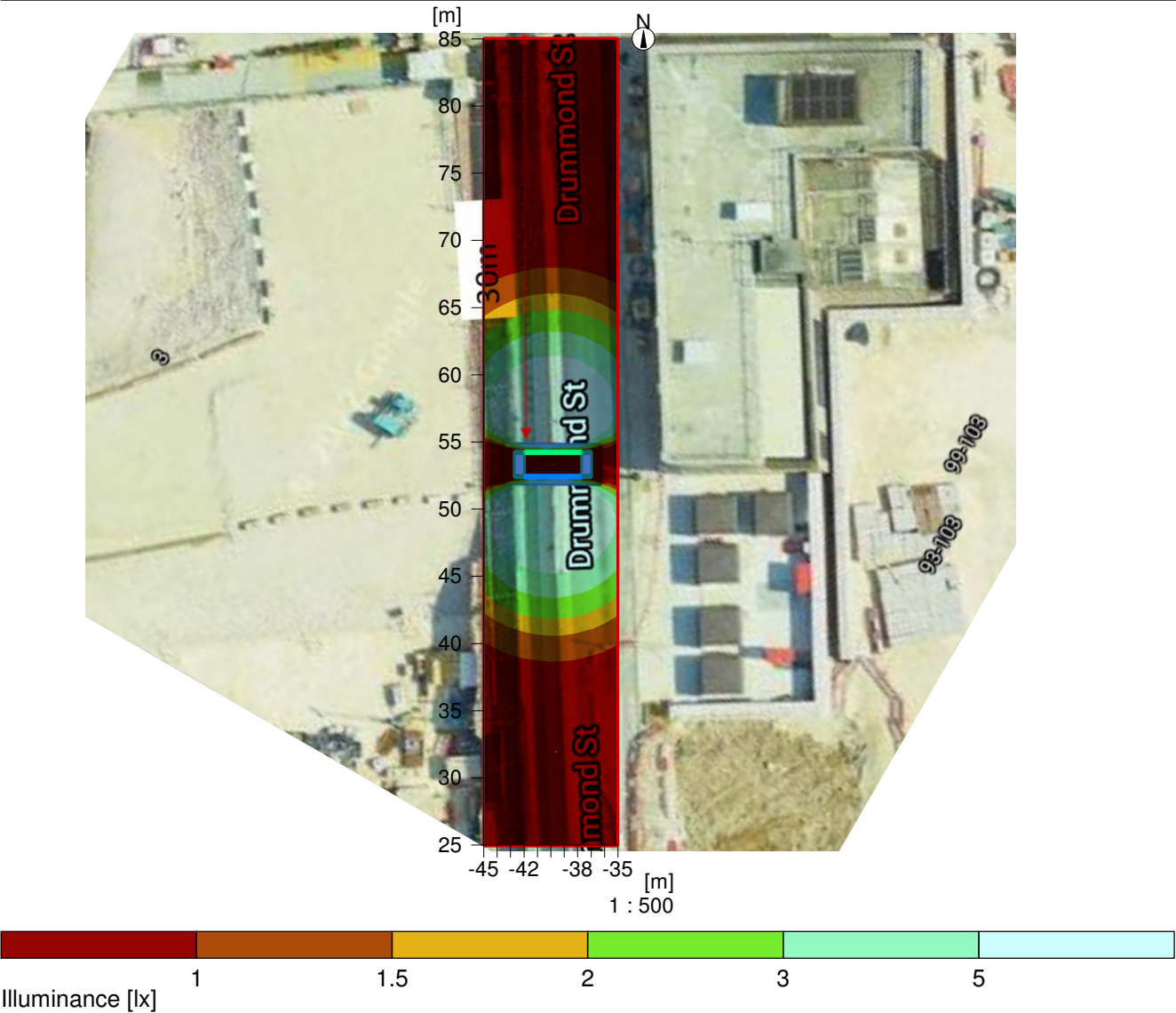
1.3.5 Isolines representation, Reference plane 1.1 (E)



Height of the reference plane		: 0.00 m
Average illuminance	Eav	: 2.3 lx
Minimum illuminance	Emin	: 0 lx
Maximum illuminance	Emax	: 18.2 lx
Uniformity Uo	Emin/Eav	: ---
Diversity Ud	Emin/Emax	: ---

1.3 Calculation results, Exterior 1

1.3.6 Pseudo colours, Reference plane 1.1 (E)

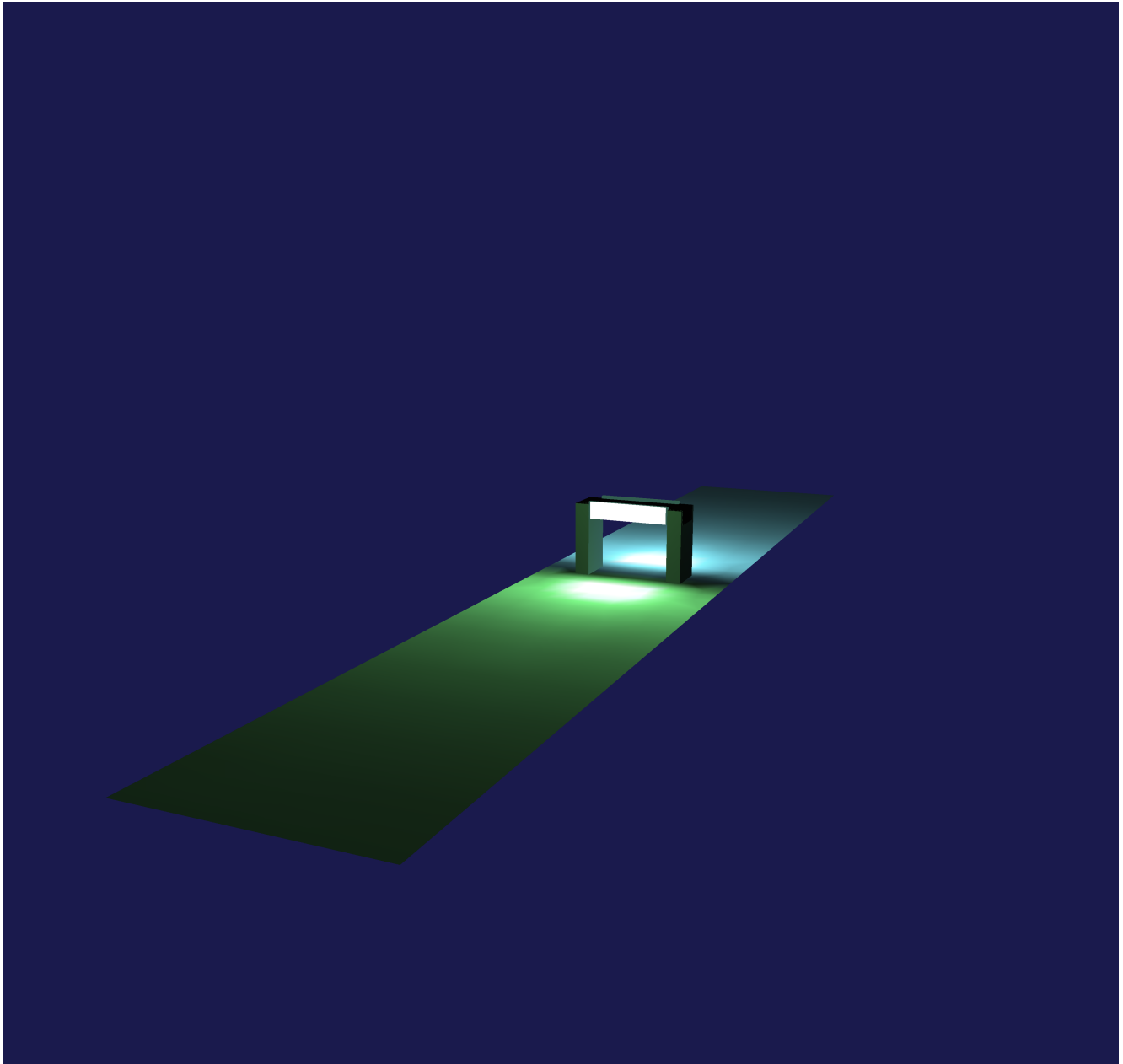


Height of the reference plane

Average illuminance	Eav	: 0.00 m
Minimum illuminance	Emin	: 2.3 lx
Maximum illuminance	Emax	: 0 lx
Uniformity Uo	Emin/Eav	: 18.2 lx
Diversity Ud	Emin/Emax	: ---
		: ---

1.3 Calculation results, Exterior 1

1.3.7 3D luminance, View 1



Luminance in the scene

Minimum: : 0 cd/m²

Maximum: : 0.94 cd/m²

1.3 Calculation results, Exterior 1

1.3.8 3D pseudo colours, View 1 (E)

