

Installation : 46 Henry Street - External Lighting.

Project number : 136558/FO/2023
Customer : Fresh Fuel (Ancoats) Ltd
Processed by : Paul Hindle
Date : 26.06.2025

Project description:

The below calculations demonstrate the lux plots for the new installation of external wall mounted and window lighting on 46 Henry Street Block.

This scheme meets those requirements by:

- Using 2700K warm white lights with anti-glare features
- Preventing overspill with shielded, fixed luminaires
- Confirming compliance with ILP GN01/21 lighting guidance
- Committing to post-installation verification and reporting.

Lighting calculations confirm that vertical illuminance at nearby residential façades will remain within the ILP GN01/21 recommended limits for Environmental Zone E3, with maximum expected levels below 10 lux pre-curfew and below 2 lux post-curfew. This further supports that the design will not create visual disturbance or compromise residential amenity.

The calculations are submitted to formally discharge Condition 10(a) of planning permission 136558/FO/2023. A separate verification report will be provided post-installation to address Condition 10(b), confirming that the installed scheme performs in accordance with the approved lighting design and maintains protection of neighbouring residential amenity.

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.

1 Luminaire data

1.1 ANSELL, ANSELL Lighting, DUGAS WALL LIGHT (!)

1.1.1 Data sheet

Manufacturer: ANSELL



! Ceiling mounted luminaire ANSELL Lighting, DUGAS WALL LIGHT

AREELEDWLD/OCTOW

AMENITY

Reef LED CCT Directional Wall Light

Supplied c/w Integral Driver

â€¢ Durable outdoor directional wall light

â€¢ Installation in either upward or downward orientation

â€¢ Only suitable for semi commercial applications

â€¢ Polycarbonate construction ideal for coastal applications

â€¢ CCT selectable between 3000K, 4000K and 5700K

â€¢ Unique lockable installation base plate with push fit loop-in loop-out terminals for ease of installation

â€¢ LED lifespan L70 54,000 hours

â€¢ Non-dimmable

â€¢ Suitable for both internal and external use

â€¢ 3 Year Product Warranty

â€¢ IP65

Luminaire data

Absolute Photometry

Luminaire efficacy : 4 lm/W

Classification : A40 ↓100.0% ↑0.0%

CIE Flux Codes : 54 83 97 100 100

UGR 4H 8H : 23.3 / 23.6

Control gear : Electronic ballast

Power : 50 W

Luminous flux : 200 lm

Equipped with

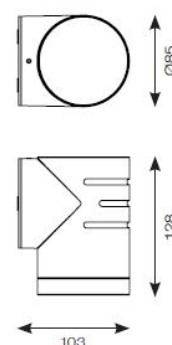
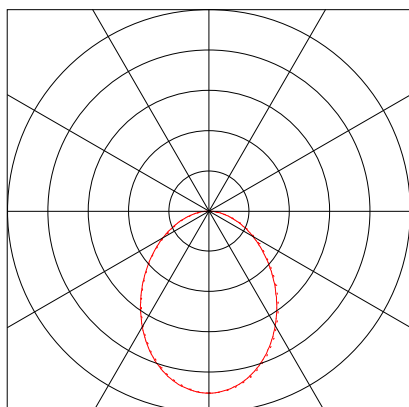
Quantity : 1

Designation : LED single 830

Colour : 3000K

Colour reproduction : --

Dimensions : Ø100 mm x 155 mm



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1 Luminaire data

1.2 Thorn, VIOO 1L120 740 ANT (96271769)

1.2.1 Data sheet

Manufacturer: Thorn

96271769 VIOO 1L120 740 ANT

Small LED floodlight for window surround illumination. 1 LED driven at a constant 1.2A. Body: die-cast aluminium (AB47100) with high corrosion resistance, painted dark grey. Front lens: polycarbonate. Class I electrical, IP65, IK10. Pre-wired with 1,5m H05-RNF cable. Complete with 4000K LED

Dimensions: 150 x 40 x 90 mm

Total power: 4.7 W

Luminaire luminous flux: 200 lm

Luminaire efficacy: 43 lm/W

Weight: 0.71 kg

Luminaire data

Absolute Photometry

Luminaire efficacy : 42.51 lm/W

Classification : E04 ↓0.0% ↑100.0%

CIE Flux Codes : --- 0 100

UGR 4H 8H : - / -

Power : 4.7 W

Luminous flux : 199.9 lm

Equipped with

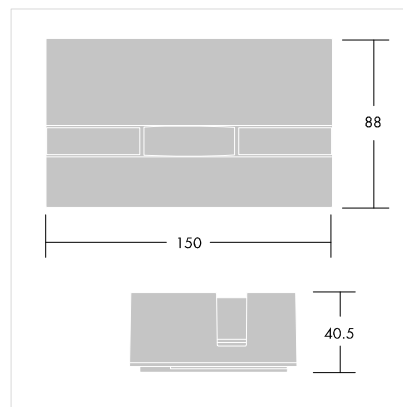
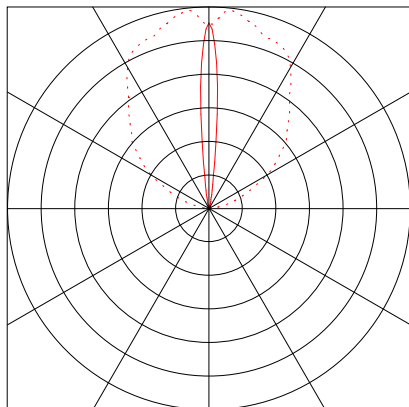
Quantity : 1

Designation : LED_VIOO_4K

Colour : 4000

Colour reproduction : 70

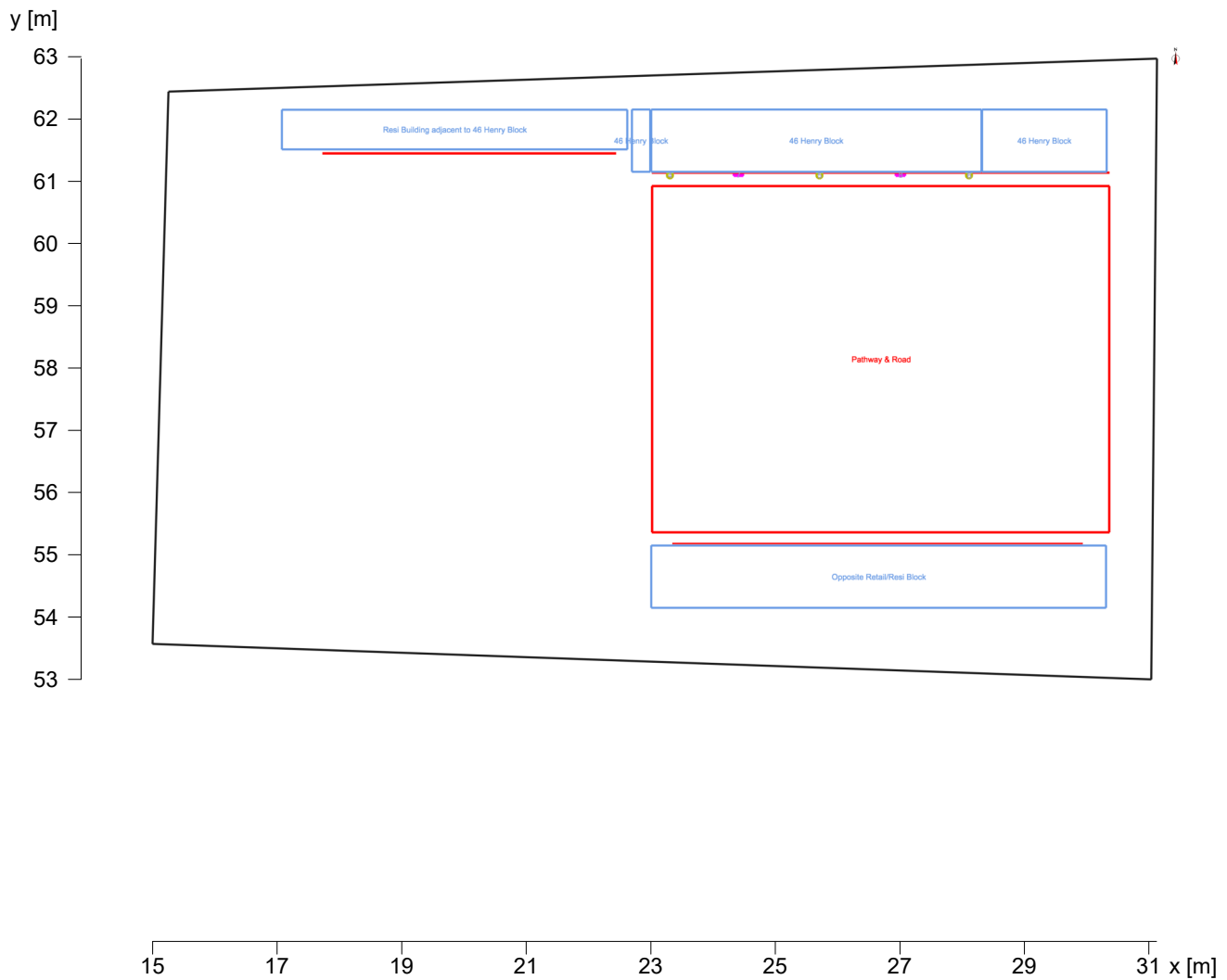
Dimensions : 150 mm x 40 mm x 90 mm



2 Exterior 1

2.1 Description, Exterior 1

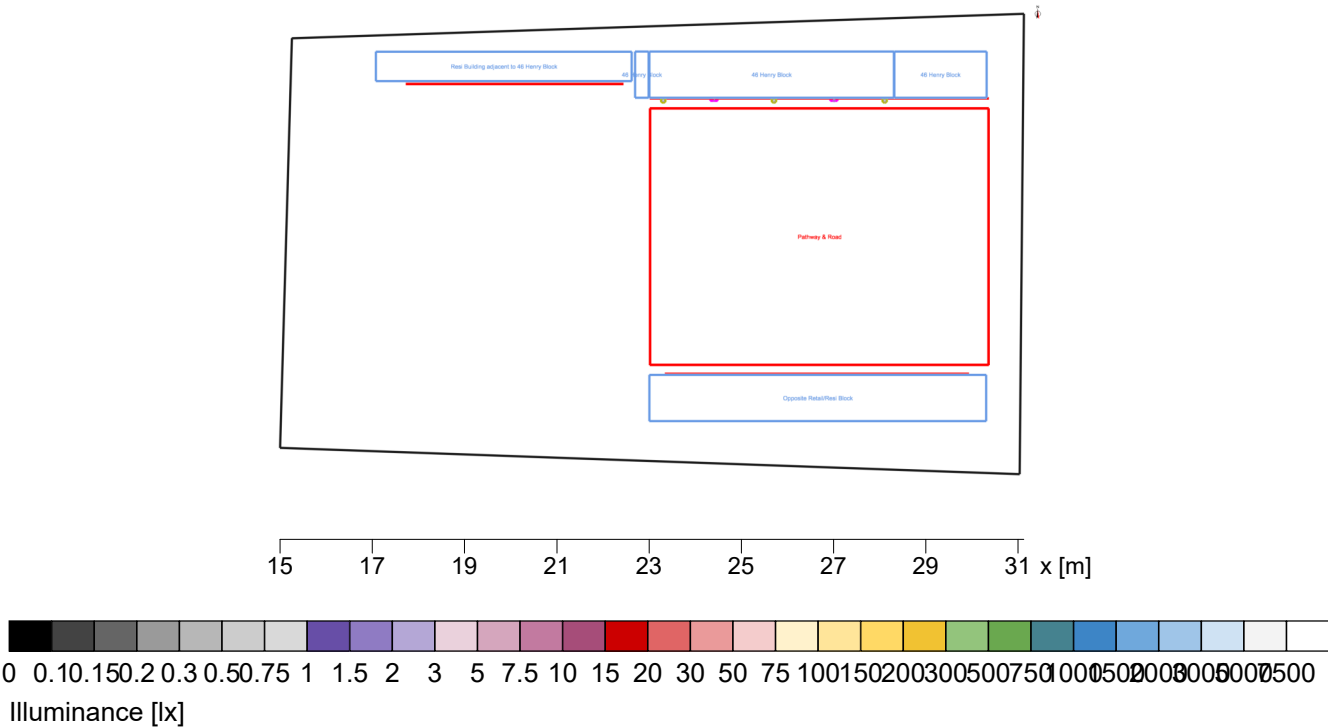
2.1.1 Floor plan



2 Exterior 1

2.2 Summary, Exterior 1

2.2.1 Result overview, 46 Henry Block Facade



General

Calculation algorithm used	Average indirect fraction
Maintenance factor	0.74
Total luminous flux	1600 lm
Total power	309.4 W
Total power per area (150.18 m²)	2.06 W/m²

Illuminance

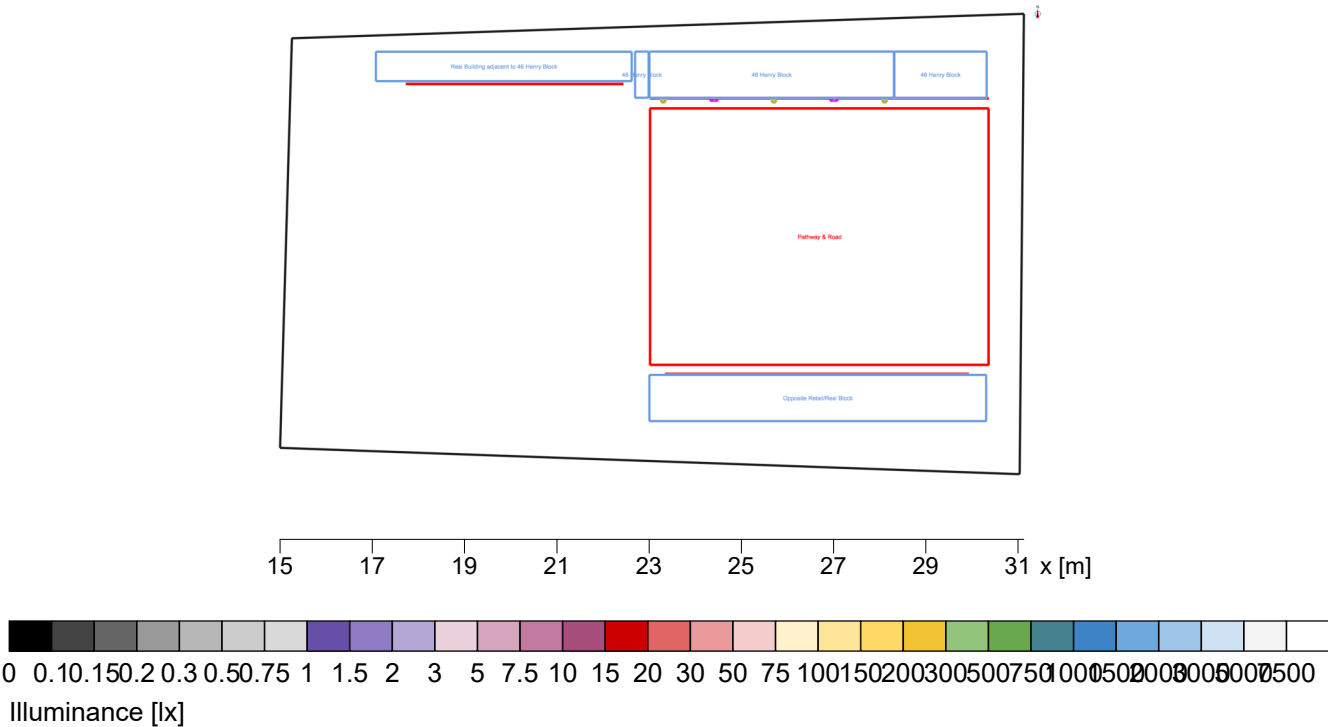
Average illuminance	$\bar{E}_m$	8 lx
Minimum illuminance	E_{min}	0 lx
Maximum illuminance	E_{max}	230 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:21.8 (0.05)
Diversity U_d	E_{min}/E_{max}	1:590 (0)

Type No. Make

ANSELL	
1 6 x	Order No. : !
	Luminaire name : ANSELL Lighting, DUGAS WALL LIGHT
	Equipment : 1 x LED single 830 50 W / 200 lm
Thorn	
2 2 x	Order No. : 96271769
	Luminaire name : VIOO 1L120 740 ANT
	Equipment : 1 x LED_VIOO_4K 5 W / 200 lm

2.2 Summary, Exterior 1

2.2.2 Result overview, Resi Block Wlndow Facade Next to 46 Henry block Facade



General		
Calculation algorithm used	Average indirect fraction	
Maintenance factor	0.74	
Total luminous flux	1600 lm	
Total power	309.4 W	
Total power per area (150.18 m²)	2.06 W/m²	

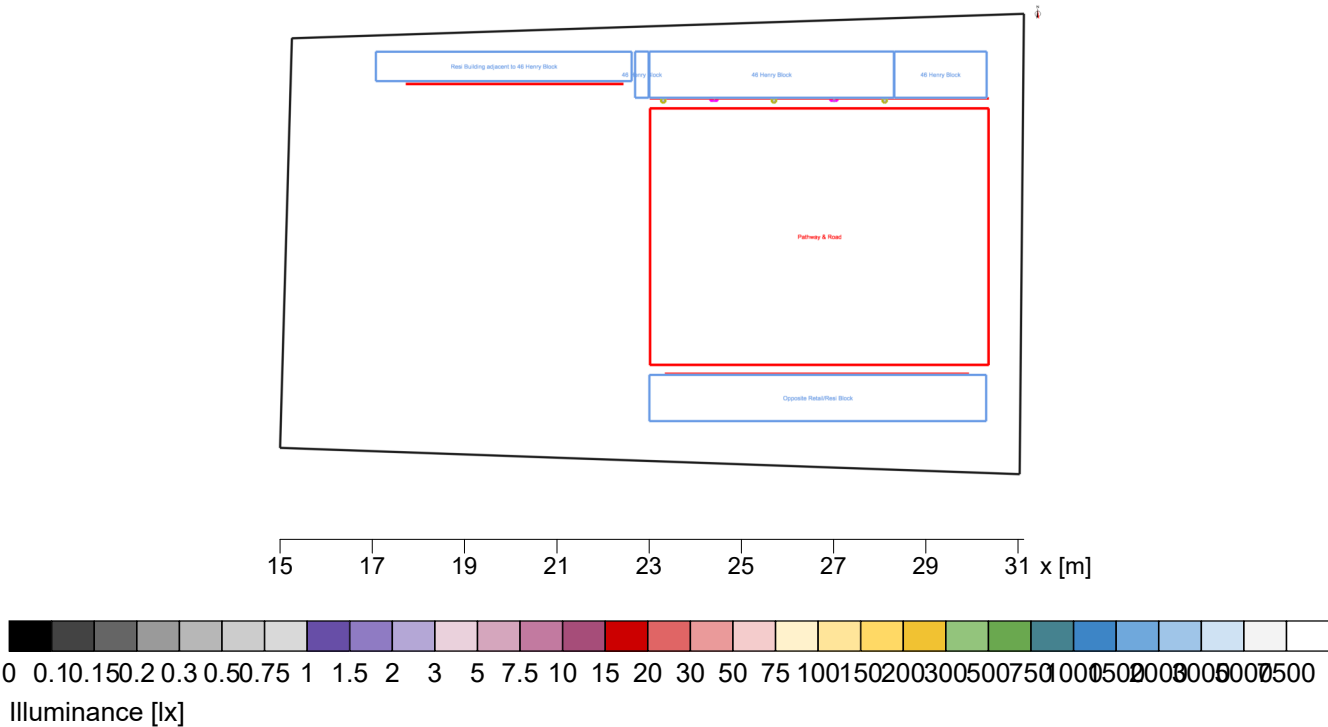
Illuminance		
Average illuminance	$\bar{E}_m$	0.24 lx
Minimum illuminance	E_{min}	0.09 lx
Maximum illuminance	E_{max}	0.69 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:2.63 (0.38)
Diversity U_d	E_{min}/E_{max}	1:7.47 (0.13)

Type No. Make

1		ANSELL
	6 x	Order No. : !
		Luminaire name : ANSELL Lighting, DUGAS WALL LIGHT
		Equipment : 1 x LED single 830 50 W / 200 lm
2		Thorn
	2 x	Order No. : 96271769
		Luminaire name : VIOO 1L120 740 ANT
		Equipment : 1 x LED_VIOO_4K 5 W / 200 lm

2.2 Summary, Exterior 1

2.2.3 Result overview, Opposite Retail Unit



General	
Calculation algorithm used	Average indirect fraction
Maintenance factor	0.74
Total luminous flux	1600 lm
Total power	309.4 W
Total power per area (150.18 m²)	2.06 W/m²

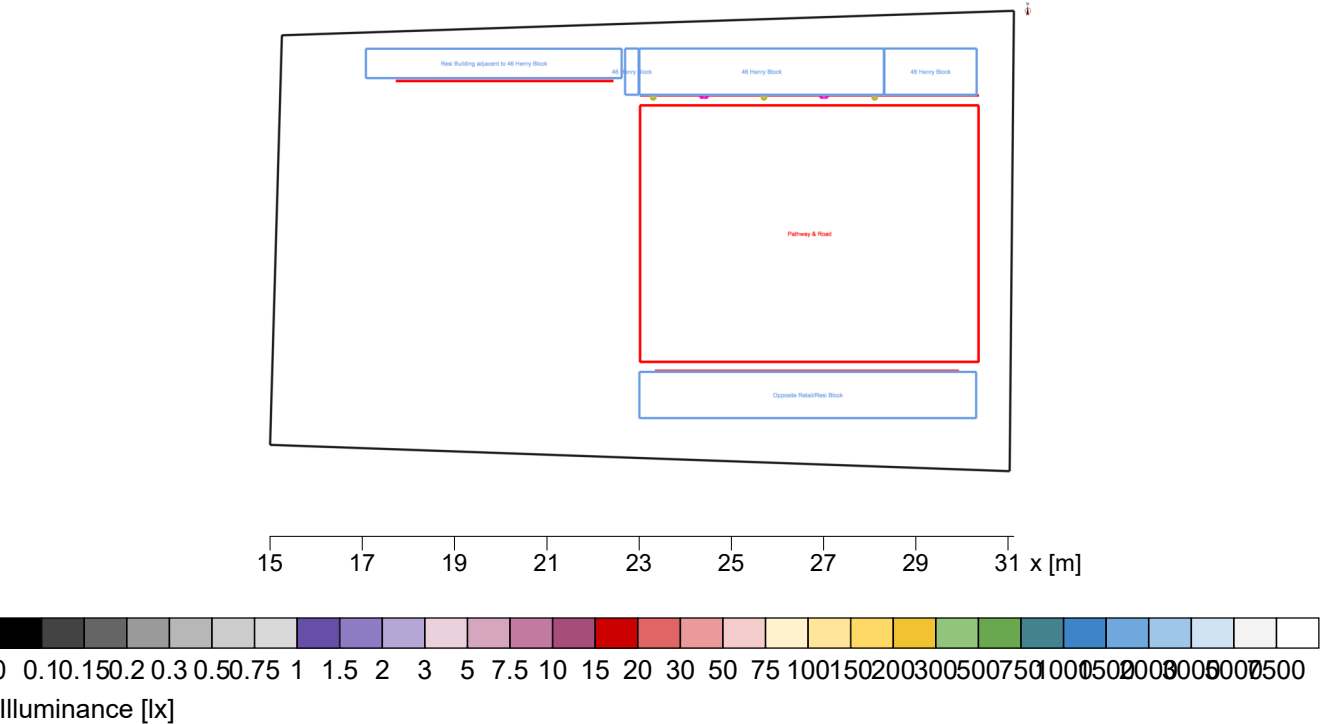
Illuminance	
Average illuminance	$\bar{E}_m$ 2.09 lx
Minimum illuminance	E_{min} 1.55 lx
Maximum illuminance	E_{max} 2.39 lx
Uniformity U_o	$E_{min}/\bar{E}_m$ 1:1.35 (0.74)
Diversity U_d	E_{min}/E_{max} 1:1.55 (0.65)

Type No. Make

1		ANSELL
	6 x	Order No. : !
		Luminaire name : ANSELL Lighting, DUGAS WALL LIGHT
		Equipment : 1 x LED single 830 50 W / 200 lm
2		Thorn
	2 x	Order No. : 96271769
		Luminaire name : VIOO 1L120 740 ANT
		Equipment : 1 x LED_VIOO_4K 5 W / 200 lm

2.2 Summary, Exterior 1

2.2.4 Result overview, Opposite Resi Windows



General		
Calculation algorithm used	Average indirect fraction	
Maintenance factor	0.74	
Total luminous flux	1600 lm	
Total power	309.4 W	
Total power per area (150.18 m²)	2.06 W/m²	

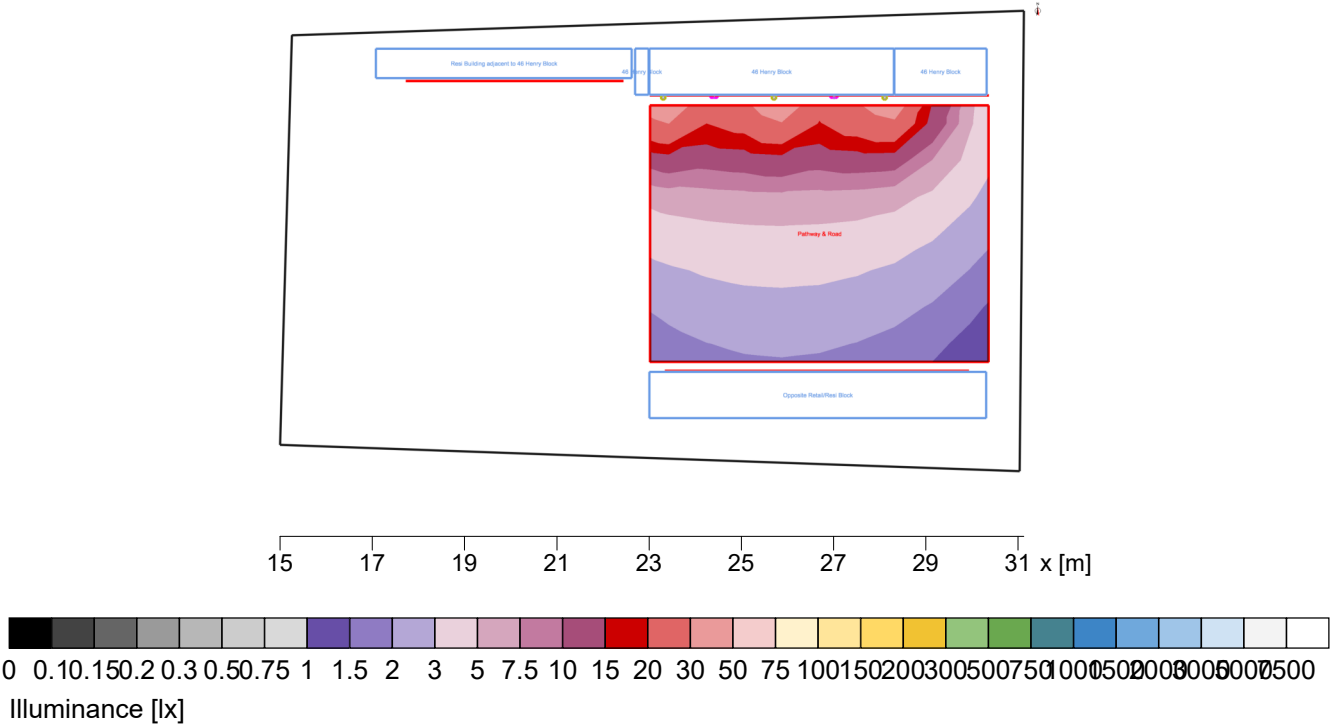
Illuminance		
Average illuminance	$\bar{E}_m$	0.67 lx
Minimum illuminance	E_{min}	0.14 lx
Maximum illuminance	E_{max}	1.94 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	1:4.77 (0.21)
Diversity U_d	E_{min}/E_{max}	1:13.8 (0.07)

Type No. Make

1		ANSELL	
	6 x	Order No.	: !
		Luminaire name	: ANSELL Lighting, DUGAS WALL LIGHT
		Equipment	: 1 x LED single 830 50 W / 200 lm
2		Thorn	
	2 x	Order No.	: 96271769
		Luminaire name	: VIOO 1L120 740 ANT
		Equipment	: 1 x LED_VIOO_4K 5 W / 200 lm

2.2 Summary, Exterior 1

2.2.5 Result overview, Pathway & Road



General

Calculation algorithm used	Average indirect fraction
Height of evaluation surface	0.00 m
Maintenance factor	0.74
Total luminous flux	1600 lm
Total power	309.4 W
Total power per area (150.18 m²)	2.06 W/m²

Illuminance

Average illuminance	$\bar{E}_m$	6.9 lx
Minimum illuminance	E_{min}	1.4 lx
Maximum illuminance	E_{max}	30 lx
Uniformity U_0	$E_{min}/\bar{E}_m$	1:5.11 (0.2)
Diversity U_d	E_{min}/E_{max}	1:22.1 (0.05)

Type No. Make

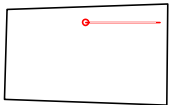
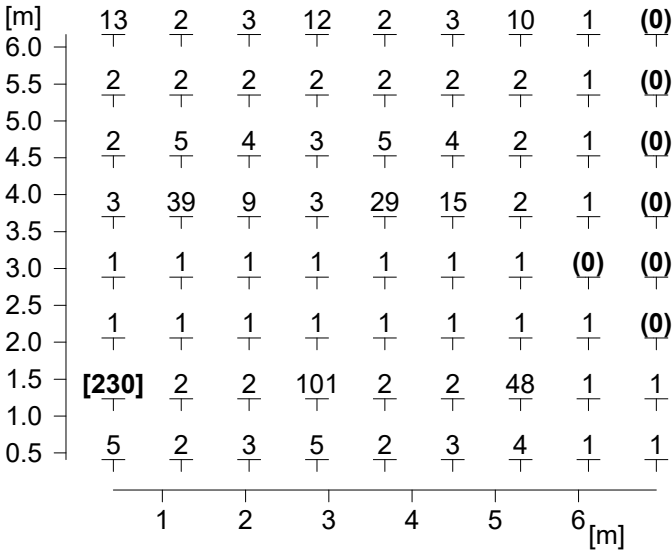
1		ANSELL
	6 x	Order No. : !
		Luminaire name : ANSELL Lighting, DUGAS WALL LIGHT
		Equipment : 1 x LED single 830 50 W / 200 lm
2		Thorn
	2 x	Order No. : 96271769
		Luminaire name : VIOO 1L120 740 ANT
		Equipment : 1 x LED_VIOO_4K 5 W / 200 lm

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2 Exterior 1

2.3 Calculation results, Exterior 1

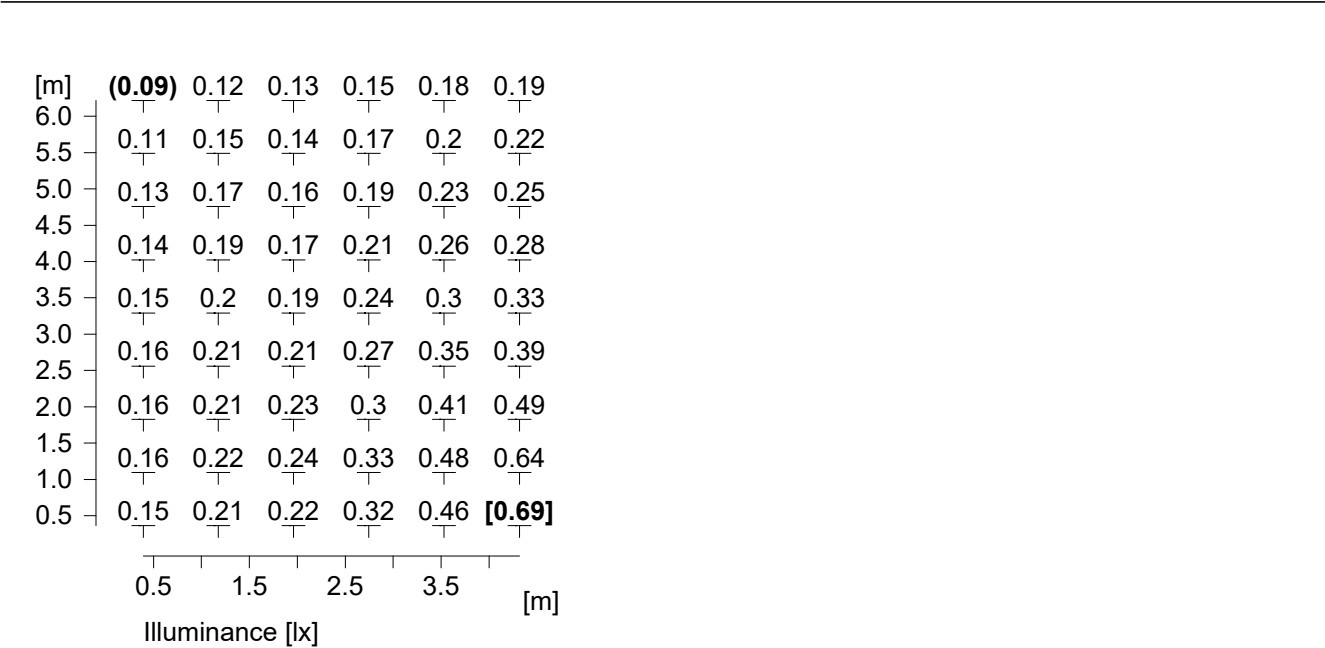
2.3.1 Table, 46 Henry Block Facade (E)



Average illuminance	$\bar{E}_m$	: 8 lx
Minimum illuminance	E_{min}	: 0 lx
Maximum illuminance	E_{max}	: 230 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	: 1 : 21.82 (0.05)

2.3 Calculation results, Exterior 1

2.3.2 Table, Resi Block Window Facade Next to 46 Henry block Facade (E)

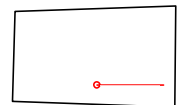
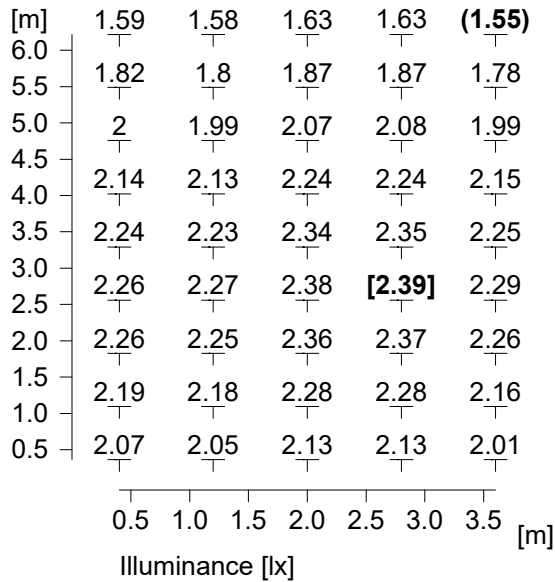


Average illuminance	$\bar{E}_m$	: 0.24 lx
Minimum illuminance	E_{min}	: 0.09 lx
Maximum illuminance	E_{max}	: 0.69 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	: 1 : 2.63 (0.38)

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2.3 Calculation results, Exterior 1

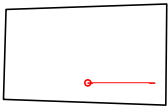
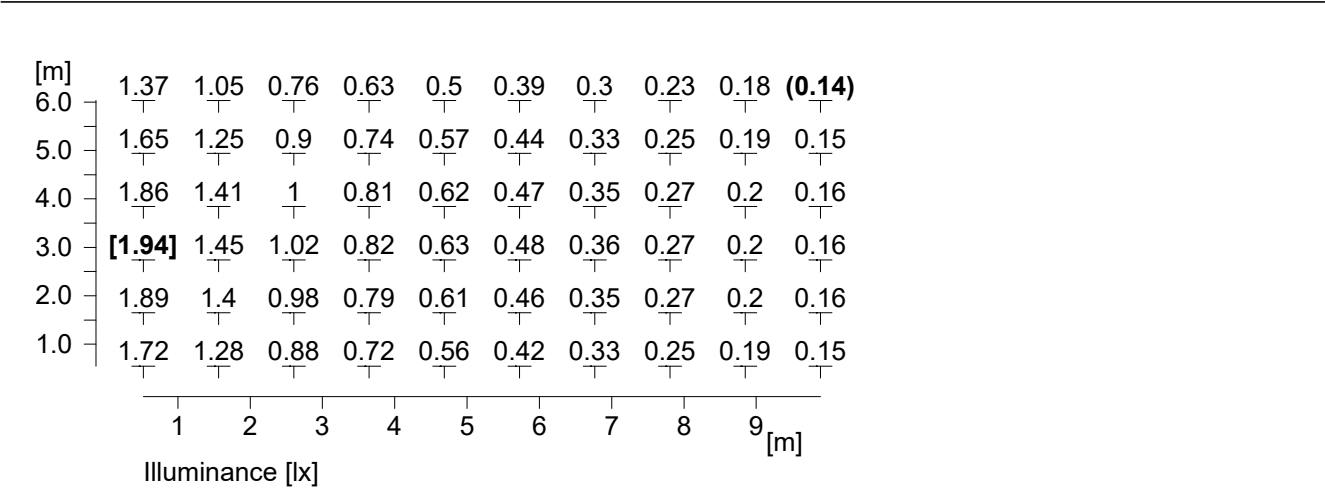
2.3.3 Table, Opposite Retail Unit (E)



Average illuminance	$\bar{E}_m$	: 2.09 lx
Minimum illuminance	E_{min}	: 1.55 lx
Maximum illuminance	E_{max}	: 2.39 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	: 1 : 1.35 (0.74)

2.3 Calculation results, Exterior 1

2.3.4 Table, Opposite Resi Windows (E)

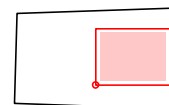
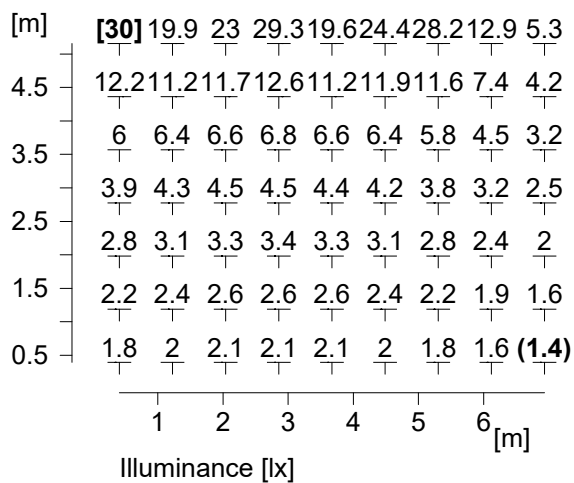


Average illuminance	$\bar{E}_m$	: 0.67 lx
Minimum illuminance	E_{min}	: 0.14 lx
Maximum illuminance	E_{max}	: 1.94 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	: 1 : 4.77 (0.21)

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2.3 Calculation results, Exterior 1

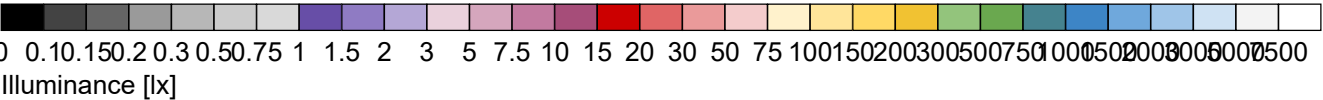
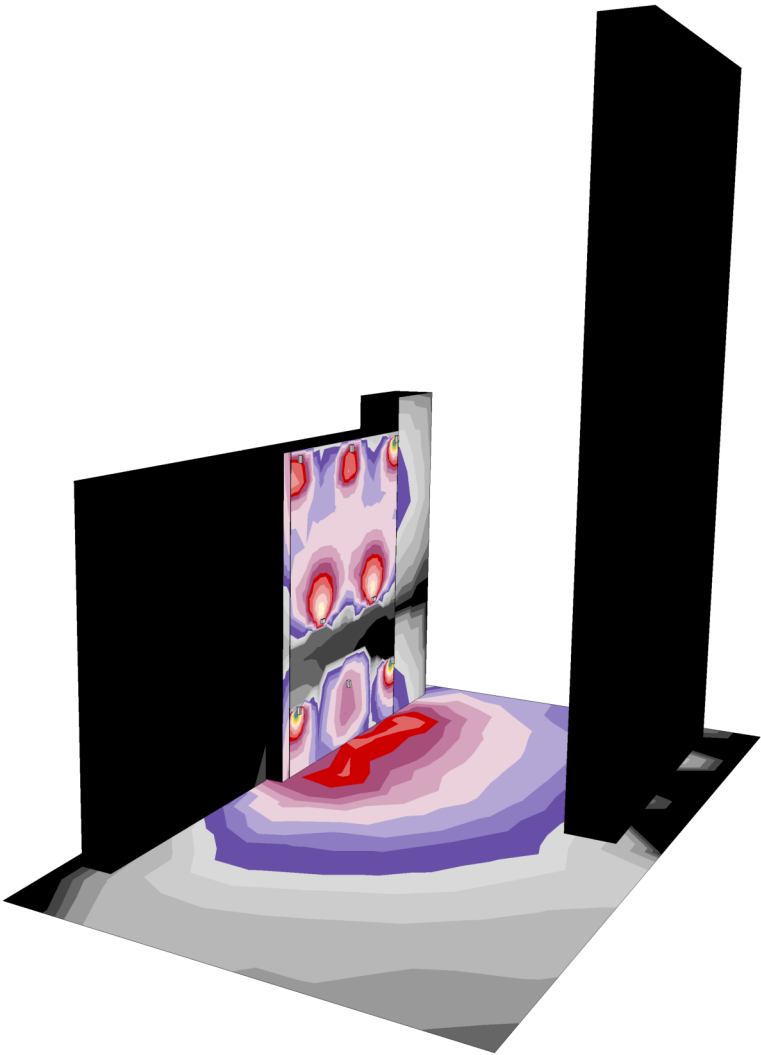
2.3.5 Table, Pathway & Road (E)



Height reference plane		: 0.00 m
Average illuminance	$\bar{E}_m$	: 6.9 lx
Minimum illuminance	E_{min}	: 1.4 lx
Maximum illuminance	E_{max}	: 30 lx
Uniformity U_o	$E_{min}/\bar{E}_m$	: 1 : 5.11 (0.20)

2.3 Calculation results, Exterior 1

2.3.6 3D pseudo colours, View 1 (E)



2.3 Calculation results, Exterior 1

2.3.7 3D pseudo colours, View 2 (E)

