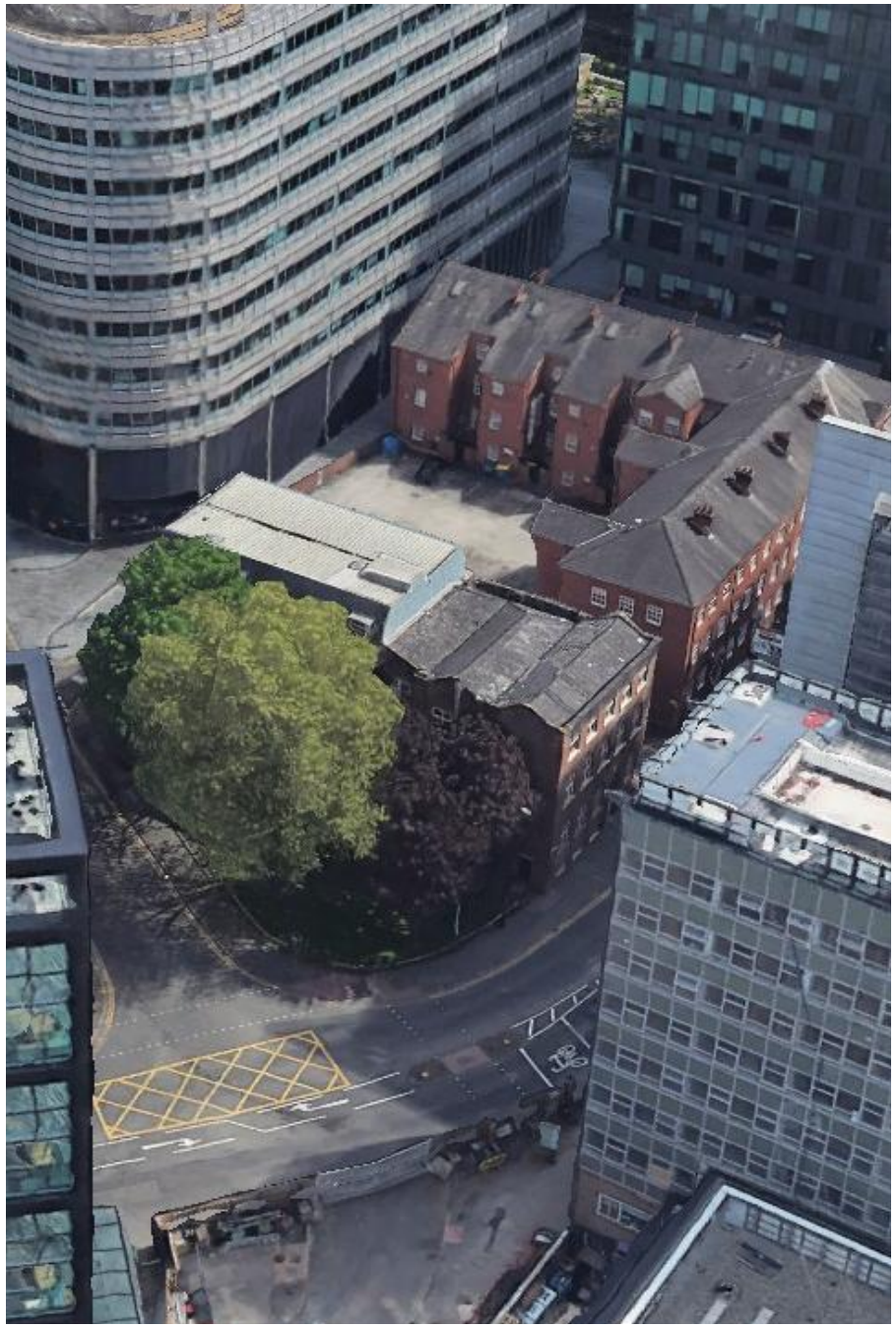




External Lighting Summary Report

76 Quay Street, Manchester

12931-CBG-XX-XX-RP-Y-00001

Revision P02 : 14th October 2025

CBG Light Perceptions

1. Proposed Lighting Scheme

CBG LIGHT PERCEPTIONS

PROPOSED LIGHTING SCHEME

Quay Street PD has appointed CBG Consultants to produce an external lighting design for the façade of the building at 76 Quay Street in Manchester.

The present report summarises the proposed scheme, including the specification of the luminaires and their positioning, as well as the illuminance levels of the intended lighting scheme impact on the surrounding buildings.

Luminaire Specification

Cylindrical luminaires with up and down light distribution will be mounted at 4.71m height. A narrow 14° beam angle will help reduce the light spill beyond the façade. The 3000K colour temperature will also ensure that white light emissions are limited whilst providing good visibility.

A non-maintained emergency luminaire is also proposed outside the final exit door on the west facing façade. This has been included in the modelling and results to allow for the worst-case scenario. However, it would only operate in the event of a power failure.

Refer to Luminaire Schedule reference 12931-CBG-XX-XX-SH-Y-20001 and to Proposed Lighting Layout reference 12931-CBG-XX-XX-DR-Y-20001 for the full specification and layout.

The specification of the illuminated signs on the front façade has been estimated and modelled as 3000K LED lamps of 470lm back lighting the 400x400mm signs on the sides of the entrance door, and 1410lm back lighting the letters of the sign above the same door, as a worst-case scenario.

Lighting Controls

The façade lighting will be controlled by a photocell and a timeclock to ensure that these are only turned on when daylight is not sufficient during operating hours and that they are turned off after 11pm and before 6am.

Illuminated signs are proposed to remain on during the night.

An override switch will allow the user to turn them on and off if required for particular events.



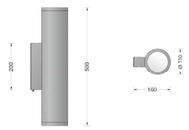
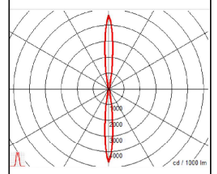
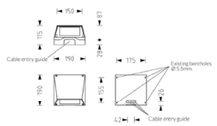
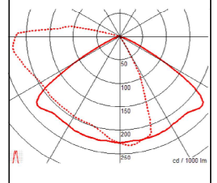
Figure 1. Proposed façade luminaire installed at another project.

CBG LIGHT PERCEPTIONS

LIGHTING EQUIPMENT SCHEDULE

Document Information		Issue Information	
Project Name:	76 Quay Street, Manchester - External Lighting	**Status:**	RIBA Stage 4
Document Name:	Proposed Lighting Equipment Schedule	**Revision:**	P02
Document Reference:	12931-CBG-XX-XX-SH-Y-00001	**Date:**	14/10/2025
Drawing References:	12931-CBG-XX-XX-DR-Y-20001	**Prepared by:**	MH
		Checked by:	SLH
		Approved by:	SLH

Luminaires:

Reference	Description	Image	Luminaire Size	Mounting	Manufacturer	Technical Specification	Polar Curve	Control	Unit Cost	Quantity	Total Cost
LW1	Wall Luminaire		Height: 500 mm Diameter: 110 mm Depth: 160 mm 	Wall Mounted	Manufacturer: Bega Product Name: Wall Luminaire Product Code: 24009 Contact: Gemma Gandar +44 (0) 7535 178903 +44 (0) 1306 882 098 gemma.gandar@bega.com	Lamp Type: LED Colour Temperature: 3000K CRI: 80 Delivered Lumens: 1650lm @700mA (dip switch to be adjusted by the contractor on site) Efficiency: 75 lm/W Power Consumption: 40W Light Distribution: 14° Beam Angle Finish: Graphite IP Rating IP65 IK Rating: IK10 Accessories: N/A		Integral DALI Driver - Mains Switching	£846.00	12	£10,152.00
LE1	Emergency Wall Luminaire		Height: 190 mm Width: 190 mm Depth: 115 mm 	Wall Mounted	Manufacturer: Arlico Product Name: Xander Product Code: XAN-19-065/PGG/3W/OA/3ST Contact: Megan Honey +44 (0)23 8202 2100 team@arli.co	Lamp Type: LED Colour Temperature: 6500K CRI: 70 min. Delivered Lumens: 398 lm Efficiency: 117 lm/W Power Consumption: 3.4 W Light Distribution: Open Area Distribution Finish: Graphite Grey IP Rating IP56 IK Rating: IK08 Accessories: 3hr integral emergency battery		Non-maintained Self-test	£368.00	1	£368.00
										TOTAL:	£10,520.00

Excluding VAT and carriage costs

Notes :

1. This schedule should be read in conjunction with all other contract documentation.
2. Final lengths of all linear systems are to be verified on site by contractors and checked with the lighitng consultant prior to ordering.
3. Costs shown in this schedule is for budgetting purposes only. The contractor shall ensure quantities are correct and obtain quotations from the suppliers.

These details are confidential to illustrate the engineering services only for the purpose intended. Arrange to suit current architectural and structural details which may vary to some degree from these details. This drawing must be viewed and printed using Adobe Acrobat Version 9.0 or above when using as a PDF format.
Do not scale from this drawing in either paper or digital format. To check the drawing has been printed at the intended scale this bar should be 25mm long at A3, 50mm long at A1 and 75mm long at A0.

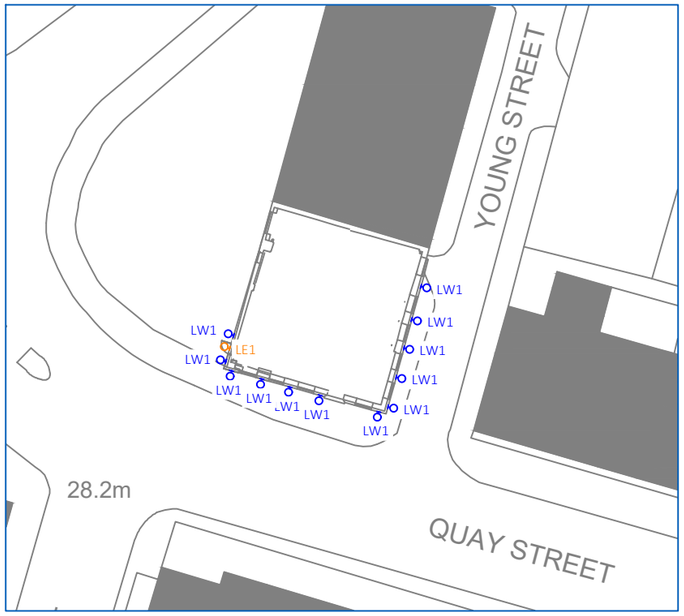
Notes

1. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH ALL OTHER CONTRACT DOCUMENTATION.
2. CONTRACTORS WILL BE REQUIRED TO VERIFY ALL SETTING OUT AND OTHER MEASUREMENTS ON SITE.
3. THE SETTING OUT OF ALL LIGHT FITTINGS, CONTROLS AND ACCESSORIES IS TO BE SUPERVISED BY THE LIGHTING CONSULTANT.

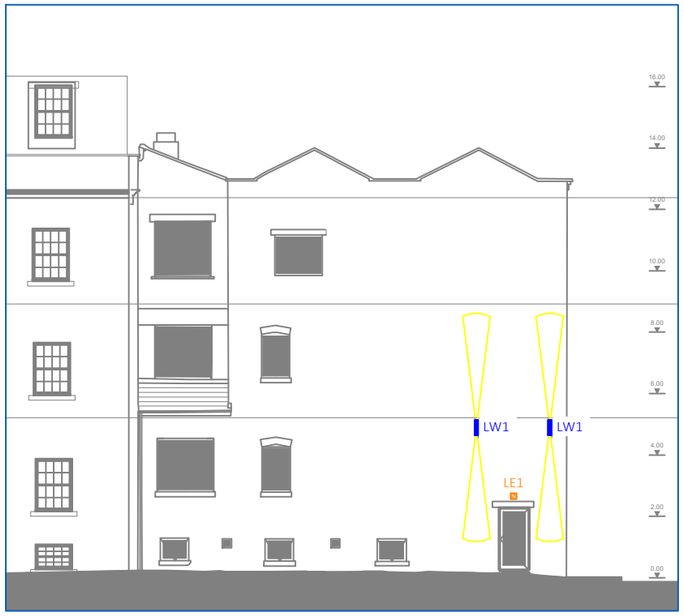
LEGEND

LW1 — WALL MOUNTED UP AND DOWN CYLINDRICAL LUMINAIRE

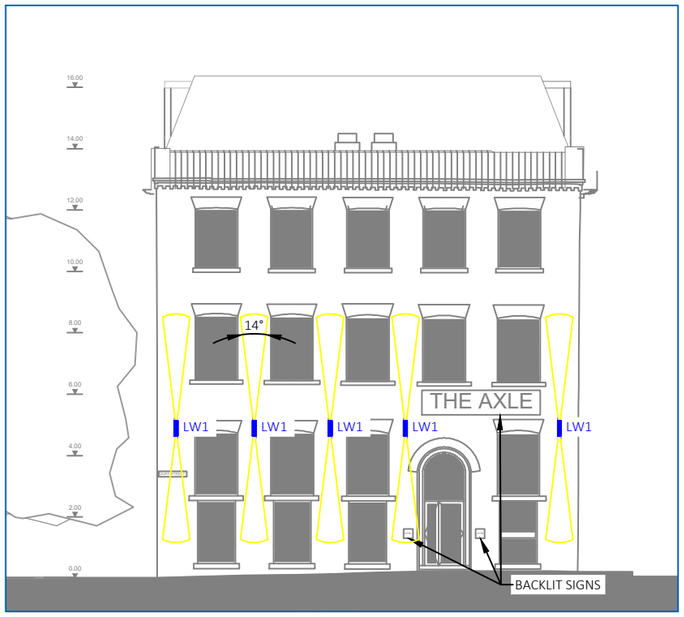
LE1 — EMERGENCY WALL MOUNTED LUMINAIRE



FLOORPLAN (SCALE 1:500)



WEST SIDE ELEVATION ON GARTSIDE STREET (SCALE 1:200)



FRONT ELEVATION ON QUAY STREET (SCALE 1:200)



EAST SIDE ELEVATION ON YOUNG STREET (SCALE 1:200)

0 1:200 20m

REV	AMENDMENTS	DRAWN	CHECKED	APPROVED	DATE
P01	STAGE 4 ISSUE	MH	SLH	SLH	02/10/2025

CLIENT
QUAY STREET PD LTD

ARCHITECT
JH.A

PROJECT
76 QUAY STREET, MANCHESTER - EXTERNAL LIGHTING

TITLE
PROPOSED LIGHTING LAYOUT

CBG LIGHT PERCEPTIONS
www.cbgc.com
OXFORD | LONDON | CAMBRIDGE
MANCHESTER | BIRMINGHAM

DRAWING NUMBER
12931-CBG-XX-XX-DR-Y-20001

SCALE
AS INDICATED@A3

STATUS
PRELIMINARY

REVISION
P01

DO NOT SCALE

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2. Illuminance Results

ILLUMINANCE RESULTS

The proposed scheme has been modelled on the software Relux with the manufacturer's data to ensure that illuminance levels are limited on the neighboring properties.

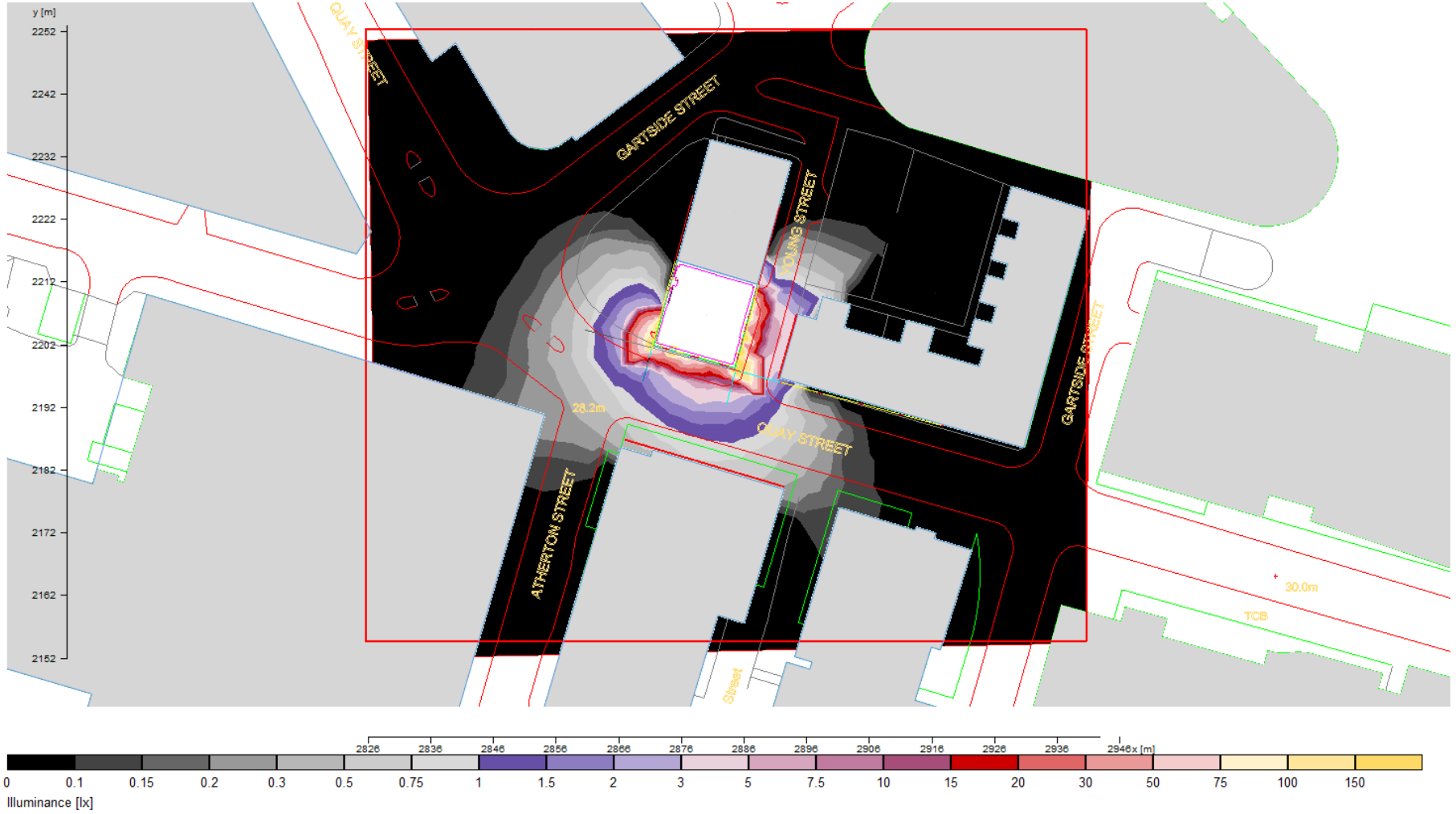


Figure 2. Horizontal illuminance values at ground level produced by the proposed façade scheme at 76 Quay Street.

CBG LIGHT PERCEPTIONS

ILLUMINANCE RESULTS

The vertical illuminance on the façade of the nearest properties does not exceed the maximum recommended value of 25 lux pre-curfew in Guidance Note 01/21 The Reduction of Obtrusive Light by the ILP.

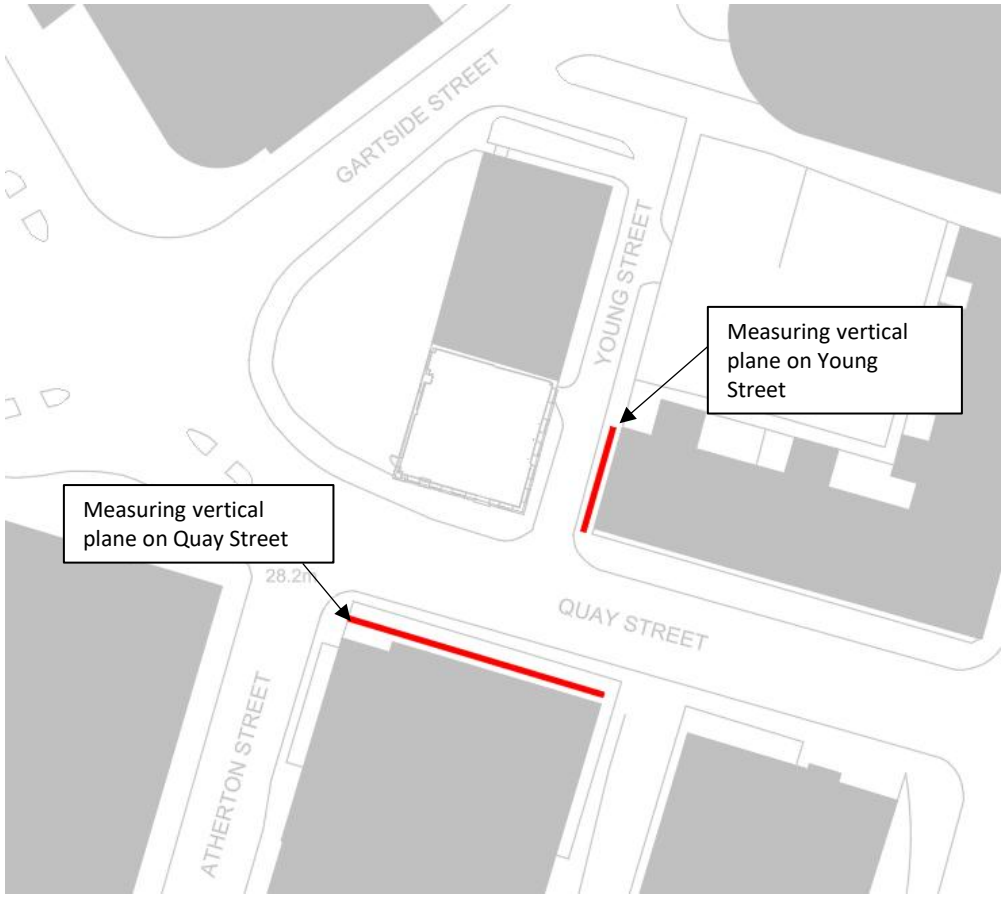


Figure 3. Location of measuring vertical planes.

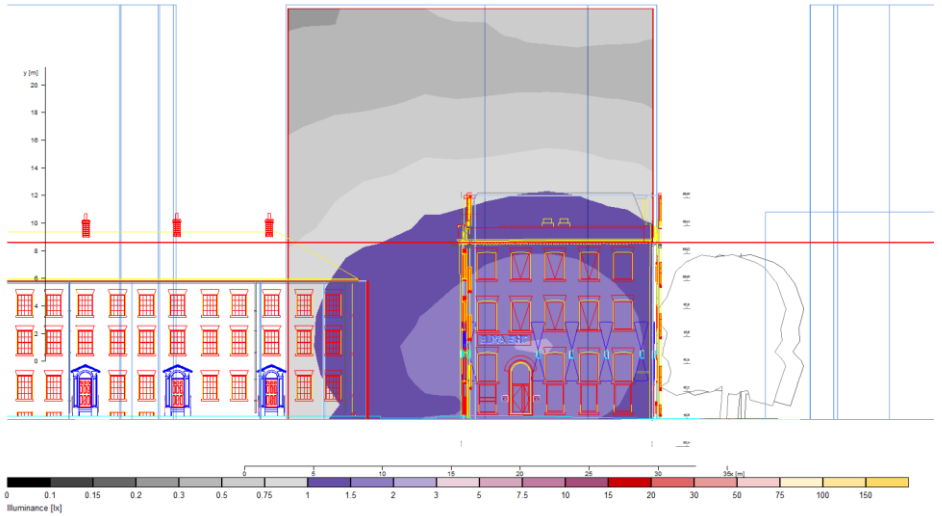


Figure 4. Vertical illuminance values at neighbouring property on Young Street, with a maximum 2.02 lux.

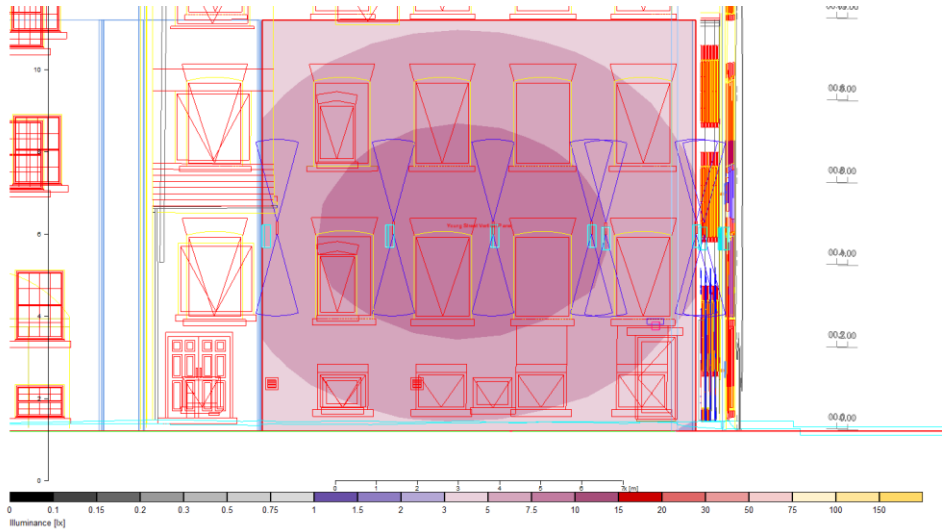


Figure 5. Vertical illuminance values at neighbouring property on Quay Street, with a maximum 9.35 lux.

CBG LIGHT PERCEPTIONS

GLOSSARY

Illuminance or E

Luminous flux incident on a surface, measured in lux. This is typically measured on the horizontal or vertical planes.

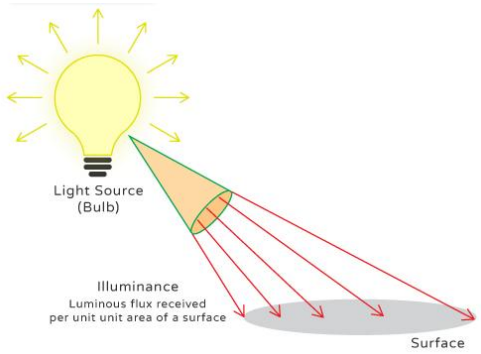


Figure 6. Graphical representation of the concept of illuminance.

Beam Angle

Distribution of the light from a source on a relevant plane, measured in degrees.



Figure 7. Image representing different beam angles on the vertical plane.

Correlated Colour Temperature or CCT

Temperature of a Planckian radiator whose radiation has the same chromaticity as that of a given stimulus 1, measured in Kelvin (K). Typical values for commercial luminaires are 2700K, 3000K or 4000K. The lower the colour temperature, the warmer the light source looks.



Figure 8. Image representing the CCT scale.

CBG LIGHT PERCEPTIONS