

VICTORIA HOUSE EXTERNAL LIGHTING

External Lighting Assessment
Ref: P1389-EXT-001

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AMENDMENT HISTORY



REVISION	DESCRIPTION	DATE	AUTHOR	CHECKED
A	Initial Issue	Sept 2022	B. Quinn	B. Duckworth

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1 EXECUTIVE SUMMARY

The aim of this lighting environmental impact report at Victoria House was to identify the physical effects that the feature external lighting may have on the surrounding areas.

The design goal was to provide horizontal feature illumination which will also act as functional for the external landscaped area and entrance to the rear of the building.

Any adverse nuisance spill light and/or glare impact to the surrounding residences has been minimised and controlled while fulfilling the functional needs of the project.

The lighting design proposed by Reform provides an optimal combination of luminaire choice, height, location, and controls to achieve the required illumination on the escape route whilst avoiding light pollution and associated light spill.

The calculations demonstrate no adverse impact to residents above existing ambient values of illumination already in place.

In conclusion, the proposal to provide external lighting at Victoria House appears to be achievable without an adverse impact on residents living within the immediate area.

2 INTRODUCTION

The design goal was to provide horizontal feature illumination which will also act as functional for the external landscaped area and entrance to the rear of the building during non-daylight hours which provides a safe method of passage without any potential nuisance lighting to the surrounding residents.

The basis of this report is to acknowledge, consider and apply the specific requirements of the Institute of Lighting Professionals (ILP) Guidance Note on the Reduction of Obtrusive Light to said lighting design.

2.1 SITE LOCATION & CONTEXT

Victoria house is a residential building within Manchester. The 24-story development consists of 175 apartments and rooftop penthouses.

To the northeast of the proposed development is where Great Ancoats St transitions into Trinity Way dual carriageway.

To the southwest of the proposed development is warehousing and derelict ground. This is the location where the lighting will be installed.

To the southeast of the proposed development is a new hotel currently under construction

To the northwest of the proposed development is Longacre St, a car park, Chapeltown St and then some 7 storey apartment blocks.

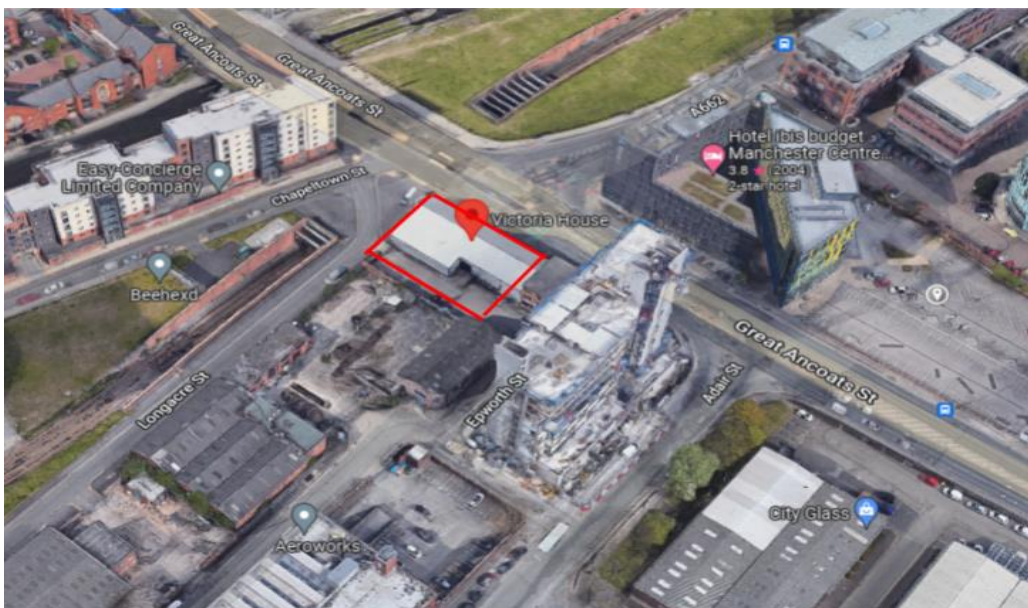


Figure 1: Victoria House Location Map

The proposed lighting is to provide horizontal feature illumination which will also act as functional for the external landscaped area and entrance to the rear of the building during non-daylight hours which provides a safe method of passage without any potential nuisance lighting to the surrounding residents. This is to be via luminaires suspended on a catenary wire.

3 LEGISLATION & DESIGN GUIDANCE PERFORMANCE CRITERIA

3.1 INSTITUTE OF LIGHTING PROFESSIONALS GUIDANCE GN1/20 NOTE ON THE REDUCTION OF OBTRUSIVE LIGHT 2020

The Institution of Lighting Professionals (ILP) is the UK and Ireland's largest and most influential professional lighting association.

The ILP have produced considerable design guidance with regard to obtrusive light, which is considered an industry standard in the avoidance of obtrusive light being present in external lighting installations.

In addition to wasted energy due to poorly controlled and misdirected light, the potential to cause a nuisance to surrounding areas through glare and sky glow have a potential adverse impact on local wildlife.

It is recommended that Local Planning Authorities specify the following environmental zones for exterior lighting control within their Development Plans.

Zone	Surrounding	Lighting Environment	Examples
E0	Protected	Dark	UNESCO Starlight Reserves, IDA Dark Sky Parks
E1	Natural	Intrinsically dark	National Parks, Areas of Outstanding Natural Beauty etc
E2	Rural	Low district brightness	Village or relatively dark outer suburban locations
E3	Suburban	Medium district brightness	Small town centres or suburban locations
E4	Urban	High district brightness	Town/city centres with high levels of night- time activity

The proposed site location is in a natural Zone E4 environmental zone as the area is considered to be high district brightness.

3.2 LUMINAIRE SELECTION

The catenary luminaires proposed are the Reggiana Envios IP66. The 28W LED can downlight is manufactured from high pressure die-cast aluminium, a colour temperature of 3000°K and a colour rendering index exceeding 90 Ra.



Figure 2: Proposed LED Suspended Luminaire

3.3 LIGHTING CONTROLS

The lighting is to be controlled via a photocell and time clock to reduce wasted energy within day light hours. The lighting will be required to be on constantly throughout the night to provide a safe illuminated pedestrian access/egress route to this side of the building

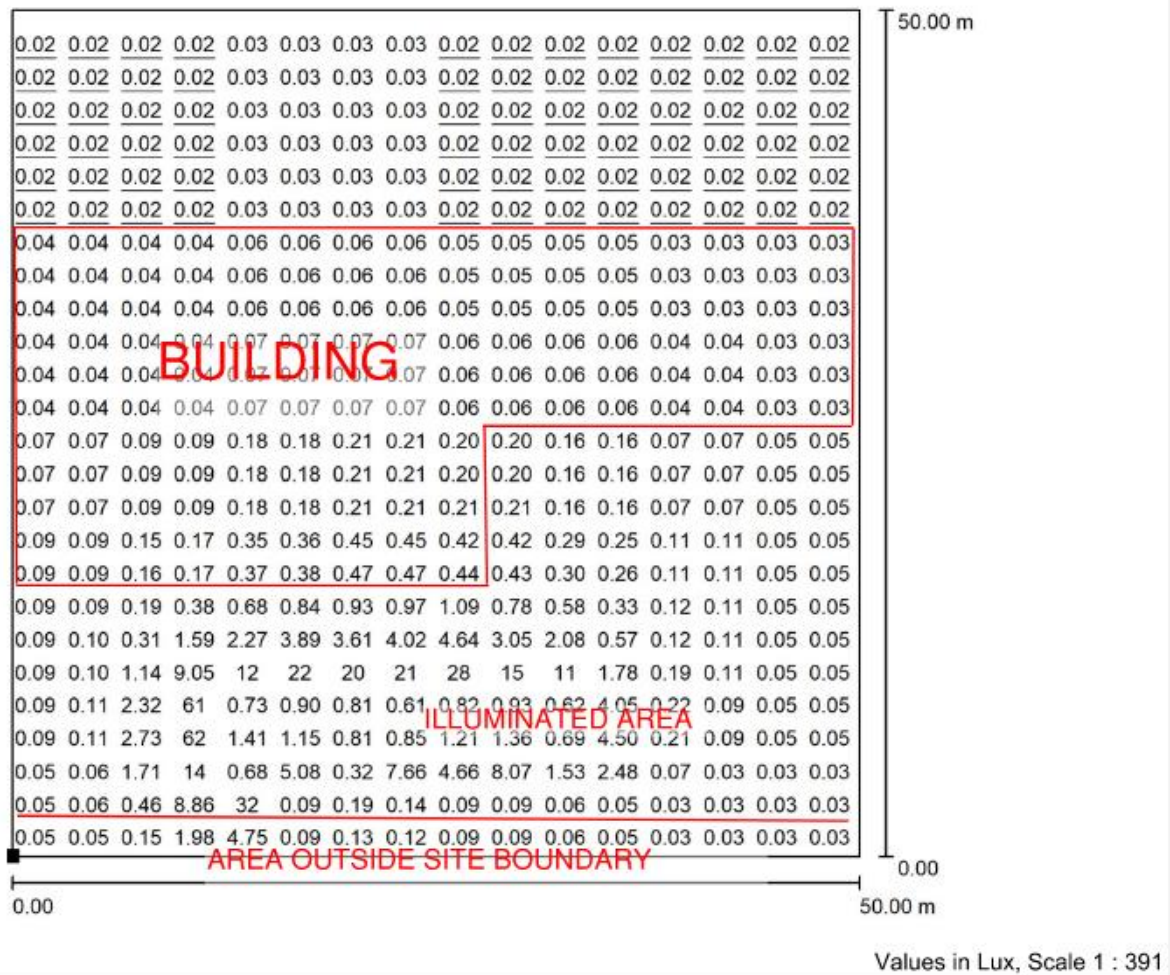
3.4 SKY GLOW & BACKSPILL

Sky glow and back spill from the proposed lighting has been negated due to the fact the luminaires have zero upward light component. All light output is directed in a downward direction.

4 APPENDICES

Appendix A:	External Lighting Layout – Showing Light Spill Levels
Appendix B:	External Elevations
Appendix C:	Luminaire Data Sheet

External Lighting Layout – Showing Spill Levels



Appendix B

External Elevations

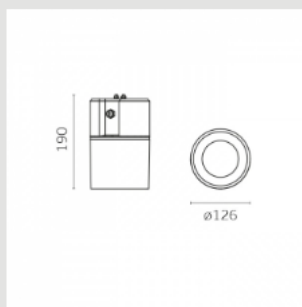


Appendix C

Luminaire Data Sheet

Reggiani

Products Projects Downloads LED Tec



28 IP66 IK08 Risk 1 850° NO RECYCLE 5 F ENEC CE
CB UK CA



▲ Previous product code: **0.HB87C.HQ28**

Number of light sources: 1

Light source: LED 25W 3360lm 134lm/W

Kelvin/CRI: 3000K / >90

SDCM/L80 B10: < 3 / 50000

Driver included: YES

Driver: On-Off 220/240 Vac 50/60 Hz

Total power consumption (LED + DRIVER): 35.1W

Beam angle: 32°

Optic direction: Fixed

Material: Die-cast aluminium

Mounting: Surface

Finishing: Metallised grey (Standard)

Weight: 2Kg

Notes: /