

PROJECT |

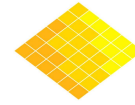
HUYTON INDUSTRIAL ESTATE LIVERPOOL

EXTERNAL LIGHTING DESIGN STATEMENT

M5198-DSS-XX-RP-E-60001

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1. EXTERNAL LIGHTING DESIGN STATEMENT

The external lighting design will ensure that it is concentrated in the appropriate areas and that upward lighting is minimised, reducing unnecessary light pollution, energy consumption and nuisance to neighbouring properties.

The exterior lighting will be designed in compliance with:

- BSEN12464-2:2014 Light and Lighting Part 2 : Outdoor Work Places
- BS5489-1:2013 Lighting of Roads and Public Amenity Areas
- Institution of Lighting Professionals guidance note1 for the reduction of obtrusive light (ILE GN01/21)
- International Commission on Illumination (CIE)150:2003
- Guide on the Limitation of the Effects of Obtrusive Light from Outdoor Lighting Installations.

The Environmental Zone for ILE GN01:2011 has been assessed as E3 for limitation guidance on obtrusive light for – Sky Glow, Light Trespass, Source Intensity & Building Luminance.

The external lighting will be designed in compliance with table 1 & 2 of the ILE Guidance notes for reduction of obtrusive light (ILE GNO1:2011).

BREEAM POL 04 Reduction of night time light pollution

The design will limit the following

- Average upward light ratio of the luminaires, to restrict sky glow
- Illuminance at nearby properties for which light trespass might be an issue
- Intensity of each light source in potentially obtrusive directions beyond the site boundaries

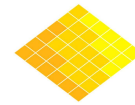
The car park / roadway / footpaths will be a mixture of LED lamp posts (with forward throw distribution, asymmetrical) and building mounted LED Flood lights

All luminaires have zero light pollution when mounted horizontally and have adjustable tilt angle and have been selected with beam to prevent light overspill into neighbouring houses

All lighting equipment will be controlled by photocell and /Time Clock controls to prevent operation during daylight hours, and enable reduced levels of lighting in low traffic areas during hours of darkness

Safety and security lighting used between 23:00 hours and 07:00 hours will comply with lower levels of lighting recommended during these hours in table 2 of the ILE guidance notes (ILE GNO1/21).

There is currently no facility within the design for illuminated advertising signage



Luminaire Selection

Luminaire efficiencies for the current stage external lighting design are as follows:

Luminaire Ref	Lamp Type	Height	Intensity Cd/1000Lm	Circuit Watts	Luminaire Lumens
EXT A	LED 33W	6.5M Building	394	33	4342
EXT B	LED 67W	6.5M Building	393	67	8684
EXT C	LED 100W	6.5M Building	397	100	13027
EXT D	LED 100W	6M Column	397	100	13027
EXT F	LED 270W	6.5M Building	882	270	25954
EXT G	LED 270W	8M Column	882	270	25954

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