

Industrials REIT

Rose Kiln Court, Reading

External Lighting Statement

Last Updated 24/03/2022

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Document Control

Document Authority

Prepared by	Andrew Bailey
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Document History

Issue	Issue Date	Status
Issue 01	24/03/2022	Preliminary Issue

1.0 Introduction

This external lighting statement report has been commissioned and prepared in support of an outline planning application for the installation of exterior lighting associated Rose Kiln Court, Reading.

The external lighting strategy will aim to deliver the following objectives:

- Create a safe, secure and accessible environment for all users of the proposed facility.
- Minimise the impact on the existing environment through the use of good design principles.
- Maintain conditions favourable to the local wildlife by building an understanding of their needs and incorporating the necessary measures into the design.
- Adopt a holistically sustainable approach to selection and specification of the lighting.
- Adopt a controls approach that will allow lighting levels to be modified to suit specific use and unused zones to be switched off in the event that they are not being fully utilised.

The external lighting strategy sets out principles to ensure that the lighting solutions are as sustainable as possible, recognising resource constraints, biodiversity and ecology, access and inclusion, carbon reduction and health and well-being. It promotes low lifetime cost solutions and the recycling and reuse of lighting components when they have reached the end of their life.

The strategy will ensure that the external lighting is as transparent as possible by adopting lighting designs which minimise the number of columns required to achieve necessary lighting levels.

2.0 Design Standards and Legislation

The external lighting design for each plot will comply with the following key standards where applicable:

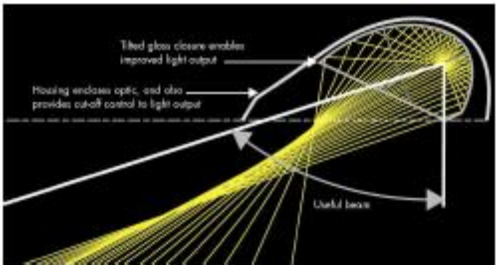
- Building Regulations.
- CIBSE lighting guides and recommendations.
- ILE lighting guides and recommendations.
- British Standards guides and recommendations.
- CIE Standards guides and recommendations.
- BREEAM recommendations for lighting control and light pollution minimisation.
- Lighting design limits set by the ILE/CIE for the environmental lighting zones E1 - E4 where appropriate.
- Bats and Lighting in the UK.

3.0 Lighting Scheme

The design of the development will seek to minimise the impact on climate change and incorporate measures to enable it to cope with anticipated changes in temperature and weather as outlined below.



Champion 3272 Adjustable Beam & Optional baffle



Key Impact Appraisal	
Security and Safety	All floodlighting will provide secure and safe use of the facility for staff, visitors, and vehicles
Adjacent Development	Tight illumination control and compliance with 'Dark Skies' recommendations will minimize any impact on the adjacent development and existing amenities. These measures will ensure that there are no increased levels of illumination at the site boundaries.
Wildlife and Ecology	The design of the flood lighting will take full consideration of the of the local wildlife and ecology and will adopt the methods of mitigation listed in Section 4.0
Carbon Emissions	Luminaires, controls, and lamps will be selected to provide energy efficient solutions to minimise carbon emissions.

4.0 Ecological Considerations

External lighting should be designed to minimise disturbance to wildlife by avoiding potentially suitable foraging habitats and movement corridors such as tree lines, hedgerows, and areas of open water where feasible.

A combination of the following measures should also be used:-

- Avoid unnecessary lighting especially around the boundary of the development.
- Use low level and/or hooded lamps, baffles and shields where necessary to ensure spill is minimised.
- Use low intensity lighting will be used where possible.
- Use movement sensors over the night-time period to ensure lighting is only on when required.
- The retained brook corridor and any areas set aside for ecology mitigation will not be subject to adverse levels of lighting (i.e. in excess of 1 lux).

The following measures will be taken to ensure mitigation of lighting impacts on wildlife:-

- Lighting will be positioned to avoid sensitive areas.
- LED lamps will be utilized throughout.
- Lighting will only be directed where it is required, and baffles or louvers will be added to minimise light spill.
- Lighting columns will be kept to minimum height.
- All lighting will be computer modelled to predict light spill and patterns.
- Asymmetric beams will be used on all floodlights.
- Zoning of illuminated areas will minimise light usage.

5.0 Lamps, Maintenance and Control

The luminaires will be selected using LED Lamp sources throughout to achieve the optimum balance between efficiency, life expectancy, aesthetics, and control requirements for each lighting situation.

It is confirmed that the column mounted luminaires will be 6m in height and that the building mounted luminaires are modelled as being attached at 4m height.

Lighting control strategies will make use of time and zone setting control systems to minimise the energy use and improve lamp life whilst ensuring a safe and secure environment.

Lamp Data Lamp Type	Colour Appearance	Colour Rendering Index Ra (sun= 100)	Efficiency (lumens/watt)	Rated Life (hours)
Light-Emitting Diodes LED (in array form)	White (Also blue, amber, green and red)	70 White Good (Although colour varies between manufacturing batches)	85 – 100 High	50,000–70,000 (Can be limited by driver life to 20,000–50,000)

6.0 Lighting Designs

6.1 Development External Lighting Design Proposals

External Lighting

Luminaire Types

- Column Mounted Luminaire
- Facade Mounted Floodlight
- XC** Column Mounted
- XX** Head Type
- X** Column Height
- XX** Number of Heads
- XW** Facade Mounted

Drawing to be read in conjunction with luminaire schedule & MEP services performance specification

Where required external lighting luminaires shall have cow / back shields to reduce light nuisance to adjacent residential accommodation and woodland/nature areas

External lighting to comply with CIBSE SL Lighting Guide requirements

Service yard and car park luminaires will comprise of free standing column mounted and wall mounted floodlights

Building perimeter security and emergency lighting will comprise of wall mounted bulkheads

XW1 Luminaires to be mounted at a height of 4m



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Hannan Associates
MEP Design Solutions

Hannan Associates Ltd
Beta House, Alphington Drive,
Manchester Road, Denton
M34 3SH
Tel: +44 (0)161 337 2320
Email: info@hannan-uk.com
Web: www.hannan-uk.com

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Hannan Associates, Beta House, Alphagate Drive
Manchester Road, Denton, Manchester, M34 3SH

Tel: (0)161 337 2200 :: Web: www.hannan-uk.com :: Twitter: @hannanassociate