

EXTERNAL LIGHTING REPORT

Proposed Industrial Building

Rear of 20 Norcot Road, Reading, RG30 6BU

Prepared for: Planning Submission

Prepared by: The Keen Partnership

Drawings Referenced:

- Proposed Ground Floor Plan — 9213-107

9213-107 Proposed Ground Floor ...

- Location Plan — 9213-100

9213-100 Location Plan

- Proposed Elevations — 9213-109

9213-109 Proposed Elevations

- Proposed Side Elevations — 9213-110

9213-110 Proposed Side Elevatio...

1. Introduction

This report provides details of the proposed external lighting strategy associated with the redevelopment of the site to provide a new industrial workshop building.

The site is located to the rear of residential properties and therefore the lighting design has been carefully developed to ensure:

- Safe operation of the industrial premises
- Appropriate security lighting
- Protection of neighbouring residential amenity
- Compliance with recognised lighting standards
- Minimal light spill and glare

The lighting scheme has been designed in accordance with:

- Institution of Lighting Professionals (ILP) Guidance Notes GN01
- BS EN 12464-2 Lighting of Outdoor Workplaces
- National Planning Policy Framework (NPPF)

- Local Planning Authority amenity policies

2. Site Context

The development comprises a back-land industrial workshop building with surrounding yard areas accessed via an existing route.

The proposed lighting positions are indicated on the Proposed Ground Floor Plan (Drawing 9213-107)

9213-107 Proposed Ground Floor ...

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The surrounding area consists predominantly of residential dwellings. Therefore, under ILP guidance the site is considered to fall within:

Environmental Zone E2 — Low District Brightness (Suburban / Residential)

3. Lighting Design Principles

The lighting design follows the key principles below:

1. Provide safe illumination for industrial access and operation.
2. Use commercial-grade industrial luminaires suitable for the building use.
3. Direct all lighting downward to prevent nuisance to neighbours.
4. Avoid high-level columns or floodlighting.
5. Use warm colour temperature to reduce visual impact.
6. Ensure lighting operates only when required via automatic controls.
7. Minimise sky glow and ecological impact.

4. Proposed Industrial External Lighting

The development will utilise **commercial-grade industrial LED wall-mounted lighting** rather than domestic fittings, ensuring durability and appropriate illumination levels while maintaining residential protection.

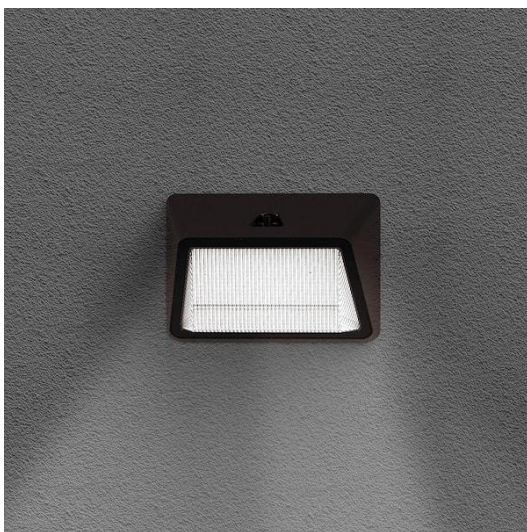
Two types of luminaires are proposed.

4.1 Industrial LED Wall Pack Luminaires (Primary Lighting)

The main external lighting around yard areas and building elevations will consist of **full cut-off industrial LED wall pack luminaires**.

These provide controlled downward illumination suitable for industrial environments.

3CCT Selectable / Multi-wattage
(3000K/4000K/5000K) / (25W/40W/60W)





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Indicative Specification

Parameter	Specification
Type	Commercial LED Wall Pack
Power	20W – 40W

Parameter	Specification
Lumens	2,000 – 5,000 lm
Colour Temperature	3000K Warm White (max)
Mounting Height	3.0m – 4.0m
Beam	Downward only (full cut-off)
Upward Light	0%
IP Rating	IP65+
Impact Rating	IK08 / IK10
Housing	Die-cast aluminium
Finish	Dark Grey / Black (RAL 7016)
Lifespan	50,000 hours

These fittings are widely used in industrial developments and provide effective illumination with controlled light distribution.

4.2 Industrial Bulkhead Lighting with PIR Sensors (Secondary Lighting)

At pedestrian entrances and staff access points, industrial bulkhead luminaires incorporating PIR sensors will be installed.





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Specification

Parameter	Specification
Type	Industrial LED Bulkhead with PIR
Power	12W – 18W
Lumens	1,000 – 1,800 lm
Colour Temperature	3000K
Mounting Height	2.5m – 3m
Sensor Range	Up to 8m
IP Rating	IP65

Parameter	Specification
Impact Rating	IK08
Finish	Black / Grey
Upward Light	0%

These fittings ensure lights are only activated when required, reducing unnecessary illumination.

5. Lighting Levels

The lighting levels will be appropriate for an industrial yard environment but remain modest to protect neighbours.

Typical illumination:

Area	Target Lux
Entrances	20 – 30 lux
Pedestrian routes	10 – 20 lux
Yard circulation	10 – 30 lux

General security lighting 5 – 10 lux

These values are consistent with BS EN 12464-2 recommendations for outdoor workplaces.

6. Lighting Controls

All external lighting will incorporate intelligent controls to minimise impact on surrounding residential properties.

Control measures include:

- PIR motion detection
- Photocell daylight sensors
- Automatic time-delay switch-off
- Zoned circuits
- Manual override for maintenance only

- Capability for night-time curfew if required

Lights will not remain permanently illuminated outside operational periods.

7. Residential Amenity Protection

Because the development is located close to residential dwellings, significant mitigation has been incorporated.

Measures include:

- Warm white lighting ($\leq 3000\text{K}$)
- Full cut-off luminaires
- Downward beam orientation
- Low mounting heights
- No lighting columns
- No floodlighting
- Motion-activated operation
- Shielded industrial fittings

Predicted effects beyond the site boundary are negligible.

8. Obtrusive Light Compliance

The lighting design complies with ILP GN01 limits for Environmental Zone E2:

Parameter	Compliance
Light Trespass	Within limits
Glare	Low
Sky Glow	None
Source Intensity	Controlled
Residential Impact Acceptable	

9. Ecology Considerations

The lighting design minimises ecological disturbance by:

- Using warm colour temperature
- Limiting operating hours
- Avoiding upward light
- Using motion activation
- Avoiding excessive brightness

No significant ecological impact is anticipated.

10. Compliance Statement

The proposed lighting scheme complies with:

- ILP Guidance Notes GN01
- BS EN 12464-2 Outdoor Workplace Lighting
- NPPF Amenity Principles
- Local Planning Policy

The lighting will not result in unacceptable light pollution or harm to neighbouring occupiers.

11. Conclusion

The proposed industrial lighting strategy provides appropriate illumination for the safe operation of the site while protecting nearby residential amenity.

Key conclusions:

- Commercial industrial lighting used
- Full cut-off downward luminaires
- Motion-activated controls
- Minimal light spill beyond site
- Compliance with recognised standards

The lighting scheme is therefore considered acceptable in planning terms.