

CALCULATION RESULTS
REF: P26123-LRA-C02-V1

Vertical 1
Results - Horizontal Illuminance (lux)
Eav= 0.15
Emin= 0.00
Emax= 1.49
Emin/Emax= 0.00
Emin/Eav= 0.01
Emax/Eav= 9.65

Vertical 2
Results - Horizontal Illuminance (lux)
Eav= 0.04
Emin= 0.01
Emax= 0.15
Emin/Emax= 0.06
Emin/Eav= 0.19
Emax/Eav= 3.43

Vertical 3
Results - Horizontal Illuminance (lux)
Eav= 0.14
Emin= 0.00
Emax= 0.95
Emin/Emax= 0.00
Emin/Eav= 0.03
Emax/Eav= 7.03

Vertical 4
Results - Horizontal Illuminance (lux)
Eav= 0.04
Emin= 0.00
Emax= 0.11
Emin/Emax= 0.04
Emin/Eav= 0.13
Emax/Eav= 2.99

KEY TO ISOLUX CONTOURS

0.50 LUX
1.00 LUX
2.00 LUX
5.00 LUX

Bespoke non-adoptable
lighting design to
maintain dark corridor,
TBC

KEY TO LUMINAIRE SYMBOLS - PROPOSED ADOPTABLE

- Type "A1"**
Proposed new adoptable LED luminaire mounted post top on 5m fixed steel column at 0° tilt
Lantern: Urbis Axia 3.1 14.9W c/w 8no 2700K (very warm white) LEDs driven at 540mA through a DALI dimming enabled driver, 7-Pin NEMA socket, type "52673" optic and the manufacturer's side louvers. Flux: 1.34klm
Elxon charge code: 42 0015 0000 100
Wiltshire ref: C2.1-27K-SL
- Type "A1"**
Proposed new adoptable LED luminaire mounted post top on 6m fixed steel column at 0° tilt
Lantern: Urbis Axia 3.1 24.6W c/w 16no 2700K (warm white) LEDs driven at 460mA through a DALI dimming enabled driver, 7-Pin NEMA socket & type "52673" optic. Flux: 2.28klm
Elxon charge code: 42 0023 0000 100
Wiltshire ref: C3.6-27K-SL
- Type "C1"**
Proposed new adoptable LED luminaire mounted post top on 5m fixed steel column at 0° tilt
Lantern: Urbis Axia 3.1 7W c/w 8no 2700K (very warm white) LEDs driven at 270mA through a DALI dimming enabled driver, 7-Pin NEMA socket, type "52663" optic and with the manufacturer's rear louvers. Flux: 1.08klm
Elxon charge code: 42 0008 0000 100
Wiltshire ref: B1.0-27K-BL

KEY TO OTHER SYMBOLS

- Dark corridor boundary
Application site boundary
Vertical illuminance grid position

DESIGN COMMENTARY

Brief
This drawing is intended for ecological review. It shows the light spill generated by the proposed external lighting near the dark corridor and provides an example of how lighting will be managed across the rest of the site.

Ecology
A dark corridor plan has been produced for a wider development as an example.
Ref: "0736-1011 Ecology Sensitive Lighting Strategy-A1L".
This document identifies all dark corridors within the site.
The extent of the dark zone relative to this site are shown on the drawing in dark green.
The document specifies that light spill into this area should be 5 metre wide to hedges and ditches and will not exceed 0.5 Lux on the horizontal plane at ground level.
To demonstrate this, horizontal illuminance is shown as 'isolux contour' lines overlaid on the site plan and vertical grid positions are shown on the drawing with a corresponding table of results. The 'Emax' figure in the results table advises the maximum point illuminance value calculated on the grid on the vertical plane.

Maintenance factor calculation
A maintenance factor of 1.00 is applied to all lighting in this calculation which models the light produced with all lighting switched on at full power on day 1 of installation.

Light spill mitigation strategy
-A 5 metre and 6 metre columns has been placed in the spine road near the dark corridor (normally 6 metre minimum per Wiltshire CC standards) and equipped with the manufacturer side louver assembly.
-All areas are lit to the lowest levels deemed safe and appropriate for the visual task (P4 for spine roads and P5 for all other areas)
-All street lighting close to dark corridors use a very warm white light source of 2700K
-All external light sources are LED with sharp cut off
-Low column height are used (5 metre and 6 metre only).
-Columns located near dark corridors are 5 metres, positioned facing directly away from the dark corridor and equipped with the manufacturer rear louver assembly.
-All street lighting will be dimmed to the WCC residential diming regime.
-All adoptable street lighting is mounted post-top at 0° and emits negligible levels of direct upward light.

NOTES

- This drawing is intended for planning purposes and is not intended for construction. No element of this design shall be purchased or constructed until approval is granted by the overseeing authority.
- This drawing must be printed in colour
- All dimensions are in metres unless specified otherwise

P01 Original for review	MVO	DPL	12.08.26
Rev DESCRIPTION	DRWN	CHK	DATE

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CLIENT/CUSTOMER

BARRATT HOMES

PROJECT

New Farm, Westbury
Road, Warminster

TITLE

External Light
Spill Calculation

DRAWN

MVO

SCALE

1:250 @ A1

DATE

12.08.26

DRAWING NUMBER

P26123-DRG-PL-02

ISSUE

P01

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