



KEY TO LUMINAIRE SYMBOLS

Proposed new adoptable lighting

- Type A
8m column with LED Luminaire mounted post-top at 0°
Luminaire: Urbis Schreder AXIA 3.1 38W c/w 3000K
LEDs driven at 760mA, DALI enabled driver, 7-pin
NEMA socket and type '52673' optic. Flux: 5.56klm
Wiltshire ref: Axia3.1-C5.5-3K
- Type B
8m column with LED Luminaire mounted post-top at 0°
Luminaire: Urbis Schreder AXIA 3.1 38W c/w 2700K
LEDs driven at 760mA, DALI enabled driver, 7-pin
NEMA socket, type '52673' optic and fitted with the
manufacturer's rear louvre assembly. Flux: 5.27klm
Wiltshire ref: Axia3.1-C5.2-27K-BL
- Type C
6m column with LED Luminaire mounted post-top at 0°
Luminaire: Urbis Schreder AXIA 3.1 23W c/w 3000K
LEDs driven at 460mA, DALI enabled driver, 7-pin
NEMA socket, type '52673' optic and fitted with the
manufacturer's rear louvre assembly. Flux: 3.65klm
Wiltshire ref: Axia3.1-C3.6-3K
- Type D
6m Belisha Beacon with LED luminaire mounted
post-top at 0°
Luminaire: Urbis Schreder AMPERA EVO 23.6W c/w
10no 4000K (neutral white) LEDs driven at
700mA, DALI enabled driver, 7-pin NEMA socket and
type '5370' (zebra left) optic. Flux: 2.99klm

Proposed lighting from adjoining phases, shown
for tie in purposes only (All adjoining proposal
currently at planning stage - positions and
specification subject to change)

- 6m column with LED Luminaire mounted post-top at 0°
Luminaire: Urbis Schreder AXIA 3.1 23W c/w 3000K
LEDs driven and type '52673' optic Flux: 3.65klm
Wiltshire ref: Axia3.1-C3.6-3K
- 5m column with LED Luminaire mounted post-top at 0°
Luminaire: Urbis Schreder AXIA 3.1 15W c/w 3000K
LEDs driven and type '52673' optic Flux: 3.65klm
Wiltshire ref: Axia3.1-C2.1-3K

KEY TO LUMINAIRE SYMBOLS

- 1mx1m adoptable pad constructed to WCC specification
- Dark corridor (0.20 lx horizontal, 0.40 lux vertical limit)

DESIGN COMMENTARY

Brief
This drawing is for planning purposes only, and shows
calculated lux levels produced on day 1 of installation, for
ecological review.

A 'Dark corridors' plan has been produced which is overlaid on
the drawing. Lux level constraints for the dark corridor are 0.20
lux on the horizontal plane, and 0.40 lux on the vertical plane,
as suggested within ILPGN08 - *Bats And Artificial Lighting at
Night*.

Horizontal illuminance (Eh) is shown as isolux contours on the
drawing and associated key, vertical illuminance (Ev) grid
positions are shown, with a corresponding results table. All
vertical illuminance grids are 8m high, and have a point
spacing of 1mx1m

Environmental zone - E3
Selected based on size of wider development (2000+ houses)
meaning the area, post-development will be in an area of
increased district brightness in line with an 'E3' level

Design levels - Roads
Target Lighting class (BSEN13201-2:2015): P4 (Eav: 5lx -
7.5lx, Emin: 1.0lx)
As per Table A.5 of BS5489-1:2020:
Road speed: 30mph (As confirmed by the client)
Traffic flow: busy (vehicular)
Environmental zone: 'E3'

Design levels - Zebra Crossing
Target light levels are as suggested within ILTR12.
Average illuminance on the carpet: >17.5lx (3.5x road average
design level)
Vertical point illuminance at the centre and kerbline: >10 lux
(2x road average level)
Vertical point illuminance at the rear of the pedestrian waiting
area: >7.5lx (1.5x road average design level)

Maintenance factor
1.00 - to show light spill at its worst case (on day 1 of
installation with all lighting on at full power)

Ecological mitigation
a) All luminaires use LED light sources with sharp optical
cutoff
b) all light sources are mounted at 0° and emit negligible direct
upward light
c) All street lighting will be dimmed to the Wiltshire CC
residential dimming regime, which reduces output to 75% from
20:00, further reducing to 50% output at 23:00, therefore light
spill at full power will only be for a short duration of time during
the autumn and winter months
d) The luminaire specification at the far north of site uses a
lower LED colour temperature of 2700K and is fitted with the
manufacturer's rear louvre assembly to reduce light spill to the
dark corridor beyond

Commentary on light spill
Light spill is contained to within the 0.20 lux Eh and 0.40 lux
Ev in all areas within site except for the zebra crossing.
The zebra crossing is positioned within the dark corridor. Lux
levels for zebra crossings, when implementing the strategy
suggested in ILPTR12, are multiples of that of the rest of the
road, therefore both horizontal and vertical illuminance levels
exceed the stipulated thresholds for effective ecological
mitigation in this area.

NOTES

- This drawing is intended for planning purposes only and is
not to be used for purchasing or construction. Any purchases
or construction works prior to receipt of technical approval from
Wiltshire County Council, following review by their nominated
highways lighting team, are at the developer's risk
- This drawing must be printed in colour
- At present, no formal risk assessment has been undertaken
for this site, other than a risk assessment to determine
appropriate design levels

KEY TO ISOLUX CONTOURS

- 0.20 LUX
- 0.50 LUX
- 1.00 LUX
- 2.00 LUX
- 5.00 LUX

P02	New landscaping layer	SDL	DPL	12.08.26
P01	First issue	SDL	DPL	29.07.26
Rev	DESCRIPTION	DRWN	CHK	DATE

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BARRAT HOMES / PERSIMMON HOMES

PROJECT
ASHTON PARK
INFRASTRUCTURE PH2

TITLE
ADOPTABLE LIGHTING
LIGHT SPILL DRAWING (NO MF)

DRAWN SDL	SCALE 1: 500 @ A1	DATE 29.07.26
DRAWING NUMBER P26050-DRG-PL-02-02	ISSUE P02	

DO NOT SCALE FROM THIS DRAWING

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CALCULATION RESULTS
REF: P26050-LRA-C02-V1

Ev1
Results - Horizontal Illuminance (lux)
Eav= 0.04
Emin= 0.01
Emax= 0.14
Emin/Emax= 0.05
Emin/Eav= 0.16
Emax/Eav= 3.13

Ev2
Results - Horizontal Illuminance (lux)
Eav= 0.10
Emin= 0.01
Emax= 0.39
Emin/Emax= 0.02
Emin/Eav= 0.08
Emax/Eav= 4.05

Ev 3
Results - Horizontal Illuminance (lux)
Eav= 0.10
Emin= 0.01
Emax= 0.39
Emin/Emax= 0.03
Emin/Eav= 0.12
Emax/Eav= 4.00

Ev 4 (Crossing North)
Results - Horizontal Illuminance (lux)
Eav= 0.22
Emin= 0.05
Emax= 0.40
Emin/Emax= 0.12
Emin/Eav= 0.22
Emax/Eav= 1.82

Ev 5 (Crossing South)
Results - Horizontal Illuminance (lux)
Eav= 0.16
Emin= 0.01
Emax= 0.38
Emin/Emax= 0.10
Emin/Eav= 0.23
Emax/Eav= 2.36

CUT LINE
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