



KEY TO LUMINAIRE SYMBOLS - PROPOSED ADOPTABLE

Type "A1"
Proposed new adoptable LED luminaire mounted post top on 6m fixed steel column at 0° tilt
Lantern: Urbis Axia 3.1 23W c/w 16ro 3000K (warm white) LEDs driven at 540mA through a DALI dimming enabled driver, 7-Pin NEMA socket & type "S2673" optic. Flux: 3.65klm
Elxon charge code: 42 0023 0000 100
Wiltshire ref: C3.6-3K

Type "A2"
Full specification the same as type "A1", but lantern shall be installed with the manufacturer's rear louvers
Wiltshire ref: C3.6-3K-BL

Type "B1"
Proposed new adoptable LED luminaire mounted post top on 5m fixed steel column at 0° tilt
Lantern: Urbis Axia 3.1 15W c/w 8ro 3000K (warm white) LEDs driven at 540mA through a DALI dimming enabled driver, 7-Pin NEMA socket & type "S2673" optic. Flux: 2.10klm
Elxon charge code: 42 0015 0000 100
Wiltshire ref: C2.1-3K

Type "B2"
Full specification the same as type "B1", but lantern shall be installed with the manufacturer's rear louvers
Wiltshire ref: C2.1-3K-BL

Type "C1"
Proposed new adoptable LED luminaire mounted post top on 5m mid-hinged steel column at 0° tilt (Arrow on symbol shows suggested direction of lowering for maintenance)
Lantern: Urbis Axia 3.1 15W c/w 8ro 3000K (warm white) LEDs driven at 270mA through a DALI dimming enabled driver, 7-Pin NEMA socket & type "S2683" optic. Flux: 1.13klm
Elxon charge code: 42 0008 0000 100
Wiltshire ref: A1.1-3K

Type "C2"
Full specification the same as type "C1", but lantern shall be installed with the manufacturer's rear louvers
Wiltshire ref: A1.1-3K-BL

Type "D1"
Proposed new adoptable LED luminaire mounted post top on 5m mid-hinged steel column at 0° tilt (Arrow on symbol shows suggested direction of lowering for maintenance)
Lantern: Urbis Axia 3.1 15W c/w 8ro 3000K (warm white) LEDs driven at 540mA through a DALI dimming enabled driver, 7-Pin NEMA socket & type "S2613" optic. Flux: 2.10klm
Elxon charge code: 42 0015 0000 100
Wiltshire ref: C2.1-3K

KEY TO LUMINAIRE SYMBOLS - PROPOSED NON ADOPTABLE

Type "E1"
Proposed new LED luminaire mounted post top on 5m fixed steel column at 0° tilt
Lantern: TRT Optio Nano 13W with 12no 3000K (warm white) LEDs, DALI dimming enabled driver, 7-Pin NEMA socket & type "GR4" optic. Flux: 1.77klm
Elxon charge code: 42 0013 0000 100
Lantern ref: DPN12_LED-V1_13W_GR4_3000K_EXP

Type "F1"
Proposed new LED luminaire mounted post top on 5m mid-hinged steel column at 5° tilt (Arrow on symbol shows suggested direction of lowering for maintenance)
Lantern: TRT Optio Nano 13W with 12no 3000K (warm white) LEDs, DALI dimming enabled driver, 7-Pin NEMA socket & type "GR4" optic and the manufacturer's back light shield. Flux: 1.77klm
Elxon charge code: 42 0013 0000 100
Lantern ref: DPN12_LED-V1_13W_GR4_BS_3000K_EXP

KEY TO DOMESTIC EXTERNAL LUMINAIRE

Type "G1"
Domestic front porch light mounted at 2m height
Specification: Polin pir fixed wall downlight c/w 7W 3000K GU10 LED bulb and integral PIR sensor. Flux: 0.68klm

KEY TO OTHER SYMBOLS

1mx1m adoptable pad adjoining the adoptable carriageway, built to Wiltshire CC specification

Vertical illuminance grid position

Application site boundary

Dark corridor boundary

KEY TO ISOLUX CONTOURS

0.20 LUX
0.60 LUX
1.00 LUX
2.00 LUX
5.00 LUX

DESIGN COMMENTARY

Brief
This drawing is intended for ecological review. It shows the light spill produced by all external lighting proposed on site (adoptable and non-adoptable street lighting and domestic external lighting).

Ecology
A dark area plan has been produced for a wider development. Ref: 1878figure 6.4a 'half light lines and lighting'. 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 green. The document specifies that light spill into this areas will not exceed 0.2 Lux on the horizontal plane at ground level and 0.4 Lux on the vertical plane. 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, and shall be used for demonstration of compliance with the 3.40 lux threshold. Note: domestic external lighting is only modelled on plots near the dark corridors.

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
-All areas are lit to the lowest levels, deemed safe and appropriate for the visual task (P4 for access roads and P5 for all other areas)
-All street lighting use a warm white light source of 3000K
-All external light sources are LED with sharp cut off.
-Non adoptable street lighting is only provided to areas serving affordable housing and deemed necessary.
-Low column high 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 deemed to be the WCC residential dimming regime.
-No domestic rear garden lighting is proposed within this development.
-The proposed porch front light specification is a directional down light and operates using a PIR sensor.
-All adoptable street lighting is mounted post-top at 0° and emits negligible levels of direct upward light.

NOTES

1. 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.

2. This drawing must be printed in colour

3. All dimensions are in metres unless specified otherwise

PROJ	Updated landscaping layer	SEA	26/06/20
PROJ	FIRST ISSUE	MVO	24/06/20
PROJ	2nd ISSUE	DRW	24/06/20

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PROJECT
Ashton Park Phase 2
Trowbridge

TITLE
External Light
Spill Calculation

DRAWN	SCALE	DATE
MVO	1:500 AT A0	22/06/2026
DRAWING NUMBER	ISSUE	
P26062-DRG-PL-03	P02	

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