



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 16no 3000K (warm white) LEDs driven at 460mA through a DALI dimming enabled driver, 7-Pin NEMA socket & type "52673" 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 8no 3000K (warm white) LEDs driven at 540mA through a DALI dimming enabled driver, 7-Pin NEMA socket & type "52673" 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 8W c/w 8no 3000K (warm white) LEDs driven at 270mA through a DALI dimming enabled driver, 7-Pin NEMA socket & type "52963" 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 8no 3000K (warm white) LEDs driven at 540mA through a DALI dimming enabled driver, 7-Pin NEMA socket & type "52673" optic. Flux: 2.10klm  
Elxon charge code: 42 0015 0000 100  
Wiltshire ref: C2.1-3K

KEY TO OTHER SYMBOLS

- 1mx1m adoptable pad adjoining the adoptable carriageway, built to Wiltshire CC specification
- Application site boundary
- Dark corridor boundary

DESIGN COMMENTARY

**Brief**  
This drawing is intended for planning purposes. It shows the basic equipment specification and design levels achieved by the street lighting proposal to be offered for adoption by Wiltshire County Council. The site shall be accessed from the infrastructure road at the south east of site. Currently there is no lighting design for this area to tie into.

**Design levels**  
BS EN 13201-2 2015  
Access roads: P4(Eav 5.00 - 7.50 lux, Emin 1.00 lux)  
Subsidiary roads: P5(Eav 3.00 - 4.50 lux, Emin 0.60lux)  
-Lighting class P4 selected in line with Wiltshire Council specification as well as Table A5 of BS 5489-1 2020 based on:  
Environmental zone E3, road speed 30 miles per hour and normal traffic flow (assumed based on size of development).  
Subsidiary roads are cut-de-sac's serving as access to dwellings only, traffic speed are expected to be low and traffic flow expected to be quiet.  
Independent foot paths are lit to P5 based on assumed normal traffic flow.

**Maintenance factor calculation**  
A maintenance factor of 0.80 is applied to all lighting in this calculation based on:  
LFF: 0.98 as per WCC specification  
LSF: 0.97 as per WCC specification  
LMF: 0.84 as per Table C1 of BS 5489-1 2020

CALCULATION RESULTS  
REF: P26062-LRA-PL-C01-V1

|                                                                                                                                                          |                                                                                                                                                              |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Grid 1</b><br>Results - Horizontal Illuminance (lux)<br>Eav= 4.99<br>Emin= 1.53<br>Emax= 11.05<br>Emin/Emax= 0.14<br>Emin/Eav= 0.31<br>Emax/Eav= 2.22 | <b>Grid 10</b><br>Results - Horizontal Illuminance (lux)<br>Eav= 4.00<br>Emin= 0.85<br>Emax= 9.12<br>Emin/Emax= 0.09<br>Emin/Eav= 0.21<br>Emax/Eav= 2.28     |
| <b>Grid 2</b><br>Results - Horizontal Illuminance (lux)<br>Eav= 3.21<br>Emin= 0.76<br>Emax= 9.46<br>Emin/Emax= 0.08<br>Emin/Eav= 0.24<br>Emax/Eav= 2.95  | <b>Grid 11</b><br>Results - Horizontal Illuminance (lux)<br>Eav= 3.66<br>Emin= 0.84<br>Emax= 9.17<br>Emin/Emax= 0.09<br>Emin/Eav= 0.24<br>Emax/Eav= 2.51     |
| <b>Grid 3</b><br>Results - Horizontal Illuminance (lux)<br>Eav= 6.26<br>Emin= 1.22<br>Emax= 16.00<br>Emin/Emax= 0.08<br>Emin/Eav= 0.20<br>Emax/Eav= 2.56 | <b>Grid 12</b><br>Results - Horizontal Illuminance (lux)<br>Eav= 3.89<br>Emin= 0.83<br>Emax= 9.12<br>Emin/Emax= 0.09<br>Emin/Eav= 0.21<br>Emax/Eav= 2.37     |
| <b>Grid 4</b><br>Results - Horizontal Illuminance (lux)<br>Eav= 3.64<br>Emin= 0.75<br>Emax= 8.96<br>Emin/Emax= 0.08<br>Emin/Eav= 0.21<br>Emax/Eav= 2.46  | <b>Footpath 1</b><br>Results - Horizontal Illuminance (lux)<br>Eav= 3.82<br>Emin= 1.16<br>Emax= 11.72<br>Emin/Emax= 0.10<br>Emin/Eav= 0.30<br>Emax/Eav= 3.07 |
| <b>Grid 5</b><br>Results - Horizontal Illuminance (lux)<br>Eav= 3.46<br>Emin= 0.71<br>Emax= 8.91<br>Emin/Emax= 0.08<br>Emin/Eav= 0.21<br>Emax/Eav= 2.57  | <b>Footpath 2</b><br>Results - Horizontal Illuminance (lux)<br>Eav= 4.20<br>Emin= 1.20<br>Emax= 14.40<br>Emin/Emax= 0.08<br>Emin/Eav= 0.29<br>Emax/Eav= 3.43 |
| <b>Grid 6</b><br>Results - Horizontal Illuminance (lux)<br>Eav= 5.03<br>Emin= 1.16<br>Emax= 11.59<br>Emin/Emax= 0.10<br>Emin/Eav= 0.23<br>Emax/Eav= 2.30 | <b>Footpath 3</b><br>Results - Horizontal Illuminance (lux)<br>Eav= 4.47<br>Emin= 0.94<br>Emax= 13.21<br>Emin/Emax= 0.07<br>Emin/Eav= 0.21<br>Emax/Eav= 2.96 |
| <b>Grid 7</b><br>Results - Horizontal Illuminance (lux)<br>Eav= 5.14<br>Emin= 1.16<br>Emax= 11.6<br>Emin/Emax= 0.16<br>Emin/Eav= 0.33<br>Emax/Eav= 2.08  | <b>Footpath 4</b><br>Results - Horizontal Illuminance (lux)<br>Eav= 4.39<br>Emin= 0.90<br>Emax= 12.98<br>Emin/Emax= 0.07<br>Emin/Eav= 0.20<br>Emax/Eav= 2.96 |
| <b>Grid 8</b><br>Results - Horizontal Illuminance (lux)<br>Eav= 3.80<br>Emin= 0.81<br>Emax= 10.90<br>Emin/Emax= 0.07<br>Emin/Eav= 0.21<br>Emax/Eav= 2.87 | <b>Footpath 5</b><br>Results - Horizontal Illuminance (lux)<br>Eav= 4.48<br>Emin= 0.79<br>Emax= 13.22<br>Emin/Emax= 0.06<br>Emin/Eav= 0.18<br>Emax/Eav= 2.95 |
| <b>Grid 9</b><br>Results - Horizontal Illuminance (lux)<br>Eav= 5.14<br>Emin= 1.45<br>Emax= 12.60<br>Emin/Emax= 0.11<br>Emin/Eav= 0.28<br>Emax/Eav= 2.45 |                                                                                                                                                              |

KEY TO ISOLUX CONTOURS

- 0.6 LUX
- 1 LUX
- 2 LUX
- 5 LUX

Horizontal Illuminance (lux)

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 FIRST ISSUE

Rev. DESCRIPTION

MVO

SDI

23/06/2026

DRWN

CHK

DATE

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CLIENT/CUSTOMER

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PROJECT

Ashton Park Phase 2  
Trowbridge

TITLE

Adoptable Street  
Lighting Calculation

DRAWN

MVO

SCALE

1: 500 AT A1

DATE

15/06/2026

DRAWING NUMBER

P26062-DRG-PL-01 SHEET 2

ISSUE

P01

DO NOT SCALE FROM THIS DRAWING

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