



**Thor Bollard**

An elegant vandal resistant asymmetrical slim bollard with high performance optic. For Electronic, fixed output control gear. IP66 Electrical Class I. Column and Base: aluminium (EW AW 6060). Canopy: die-cast aluminium (EN AC 47100). Diffuser: Clear anti UV polycarbonate. Gear box: polycarbonate. Canopy and Column colour: powder coated dark grey (close to RAL7043). Ready to install prewired luminaires. Connection box required, to be ordered separately. Complete with 4000K LED.

Dimensions: 160 x 160 x 1017 mm  
Total power: 11 W  
Weight: 9.3 kg

Lamp position: STD - standard  
Light Source: LED  
Luminaire luminous flux: 813 lm  
Luminaire efficacy: 74 lm/W  
Ballast: 1x EL2  
Colour Rendering Index min.: 70  
LOR: 1.00 ULOR: 0.07 DLOR: 0.93

Correlated colour temperature\*: 4000 Kelvin  
Chromaticity tolerance (Initial MacAdam): 5  
Rated useful life (L10): 100000h L90 at 25°C  
Ballast: 1x EL2  
Luminaire input power\*: 11 W  
Dimming: TLDO

TLG\_ADLB\_F\_SUMPDR\_MGR.jpg  
TLG\_ADLB\_M\_SUMPDR\_MGR.jpg  
TLA\_AD8810L25AS14K032\_DC.jpg

LUMINAIRE TYPE 'A' - BOLLARD DATA SHEET

**R2L2**

A small size LED road lighting luminaire with 12 LEDs driven at 500mA with narrow beam optic. Electronic, fixed output control gear. Class I electrical. IP66, IK08. Housing: die-cast aluminium, powder coated textured light grey. Diffuser: tempered flat glass. Screws: stainless steel. Eccentricity treated. Post top (Ø60/76mm, tilted 0°/5°/10°) or lateral (Ø34/42/48/60mm, tilted 0°/5°/10°/15°) mounting. Complete with 4000K LED.

Dimensions: 655 x 362 x 155 mm  
Total power: 21 W  
Weight: 9.08 kg  
Soc: 0.05 m²

Lamp position: STD - standard  
Light Source: LED  
Luminaire luminous flux: 2290 lm  
Luminaire efficacy: 109 lm/W  
Ballast: 1x EL2  
Colour Rendering Index min.: 70  
LOR: 1.00 ULOR: 0.00 DLOR: 0.93

Correlated colour temperature\*: 4000 Kelvin  
Chromaticity tolerance (Initial MacAdam): 5  
Rated useful life (L10): 100000h L90 at 25°C  
Ballast: 1x EL2  
Luminaire input power\*: 21 W Lambda = 0.95  
Dimming: TLDO

TLG\_R2L2\_M\_LD6.jpg  
TLG\_R2L2\_F\_SPOB.jpg  
TLA\_RS12L50NR4K033\_DC.jpg

LUMINAIRE TYPE 'B' - COLUMN DATA SHEET  
(TO BE MOUNTED ON 4m COLUMNS)

CYCLE SHELTERS TO BE PROVIDED WITH SMALL BULKHEAD LUMINAIRE CONTROLLED VIA PIR

**DIALux**  
Willingdon School

1 11 \* Thorn 96264242 THOR B S 10L25 740 ASY CL1 MGR [STD] (11.0 W; 1xLED 11 W)  
2 4 \* Thorn 96268405 R2L2 S 12L50 NR 740 CL1 [STD] (21.0 W; 1xLED 21 W)

**Isolines**

- 0.1 lx
- 0.2 lx
- 0.3 lx
- 0.5 lx
- 1.0 lx
- 5.0 lx

- EXTERNAL LIGHTING CONTROL**
- All external lighting shall be controlled via 7 day timeclock and photocell over ride.
  - lighting column luminaire to be "smart" with integrated microwave sensor and dimming ballast.
  - The lighting columns shall be on 100% when movement is detected then after a period of inactivity the lighting shall dim down to a pre-set level around 20% until movement is detected again.

- HAZARD NOTES:**
- Based on record information only. Other services may exist. Confirm all buried services by detection and slit trench.
  - Contaminated ground conditions. Risk of ingestion of toxic materials. Refer desk study report and any subsequent physical surveys. Further site investigations may identify contamination or hotspots. Provide suitable welfare facilities based on assessment of risks.
  - Buried high voltage and low voltage electric cables. Risk of explosion, electrocution and fire. Carry out surveys in accordance with HSG 47 (Avoiding Danger From Underground Services). Employ safe system of work including using hand, rather than power tools or machine implements, provide full scanning of the area to detect services using a cable detector, effectively mark the location of cables and ensure the work is properly supervised.
  - Buried gas supplies. Risk of explosion, uncontrolled pressure release and fire. Carry out surveys in accordance with HSG 47 (Avoiding Danger From Underground Services). Employ safe system of work including using hand, rather than power tools or machine implements, provide full scanning of the area to detect buried services where materials are suitable, effectively mark the location of pipework and ensure the work is properly supervised.
  - Buried water supplies. Risk of contamination of water supplies if pipework damaged. Risk of uncontrolled pressure release and collapse of trenches if ruptured. Carry out surveys in accordance with HSG 47 (Avoiding Danger From Underground Services). Employ safe system of work including using hand, rather than power tools or machine implements, provide full scanning of the area to detect buried services where materials are suitable, effectively mark the location of pipework and ensure the work is properly supervised.
  - Buried communications cables. Risk of interrupting emergency communications. Carry out surveys in accordance with HSG 47 (Avoiding Danger From Underground Services). Employ safe system of work including using hand, rather than power tools or machine implements, provide full scanning of the area to detect buried services where materials are suitable, effectively mark the location of cables and pipework and ensure the work is properly supervised.
- ADVICE TO CONTRACTORS ON AVOIDING DANGER FROM BURIED ELECTRICITY CABLES**
- Do have cable drawings with you on site and check them before you start the excavation.
  - Do have a cable locator tool on site and use it to help you.
  - Mark out the location of electricity cables.
  - Do not use a mechanical excavator within 0.5m of electricity cables.
  - Use spades and shovels in preference to other tools.
  - Never disturb electricity cables and joints or their protective covers.
- REPORTING DAMAGED CABLES: EDF Energy 0800 780078
- These basic safety precautions are explained in detail in the HSE booklet HSG47 - Avoiding Danger from Underground Services, a copy of which may be obtained from your supervisor or HMSO.

Suite 29, Level 6  
New England House  
New England Street  
Brighton  
BN1 4GH  
Tel: 01273 626247  
Fax: 01273 626248  
Email: mail@pjrservices.co.uk

**PJR**  
BUILDING SERVICES  
DESIGN ENGINEERS

**Client:** EAST SUSSEX COUNTY COUNCIL

**Project:** WILLINGDON SCHOOL  
BROAD ROAD  
WILLINGDON

**Title:** LOWER CAR PARK  
LIGHTING LAYOUT WITH  
PHOTOMETRIC DATA

**Drawn:** MJN

**Checked:** CM

**Date:** DECEMBER 2017

**Scale:** 1:100 @ A1

**Drawing Number:** M15/06/501 | **Rev:** A

**Amendments:**  
'A' 12.12.17 External lighting controls added. Cycle shelter lighting note added.

**Notes:**

- Under no circumstances should scaled dimensions be used for setting out.
- All dimensions to be checked on site.
- This drawing to be read in conjunction with architects drawings.
- This drawing is copyright and shall not be reproduced without permission.