# PI Manchester West Didsbury

## Installation : External Lighting

Project number : C8804
Customer : Whitbread PLC
Processed by : James Shannon
Date : 01.07.2026

The following values are based on precise calculations performed on calibrated lamps and luminaires, and their configurations, whereby gradual, unavoidable deviations can occur in practice. All guarantee claims are excluded for the specified data.

This exclusion of liability applies irrespective of the legal grounds for both damages and consequential damages suffered by users and third parties.

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# 1 Luminaire data

## 1.1 Ansell, STREETLIGHTS - Onix Street Light (AONIXLED/2)

### 1.1.1 Data sheet

**Manufacturer: Ansell**

**AONIXLED/2 Post Top Lantern STREETLIGHTS - Onix Street Light**
AONIXLED/2
FLOODLIGHTING
Onix LED Street Light
LED 27W - Cool White

Supplied c/w Integral Driver

• Die-cast aluminium construction for optimal heat dissipation for optimal performance
• UV stabilized polycarbonate cover
• Tooless gear tray removal for ease of maintenance
• Built in anti-tamper isolation facility
• Compatible with post top or side entry utility 76mm spigot
• IK10 Rated
• G3 Glare Rating
• Surge protection
• Available in standard, complete with photocell option
• LED lifespan L70 50,000 hours

Options
/PC Electronic Photocell

Accessories
AONIXLED/SBA 48-60mm Spigot Bracket

Operating Temp -20°C to 50°C

• 5 Year Product Warranty
• IP66

**Luminaire data**

| | | |
|---|---|---|
| Absolute Photometry | | |
| Luminaire efficacy | : | 145.03 lm/W |
| Classification | : | A30 ↓100% ↑0% |
| CIE Flux Codes | : | 36 75 98 100 99 |
| UGR 4H 8H | : | 25.8 / 14.3 |
| Control gear | : | Electronic ballast |
| Power | : | 27.14 W |
| Luminous flux | : | 3897 lm |
| Dimensions | : | 515 mm x 220 mm x 129 mm |

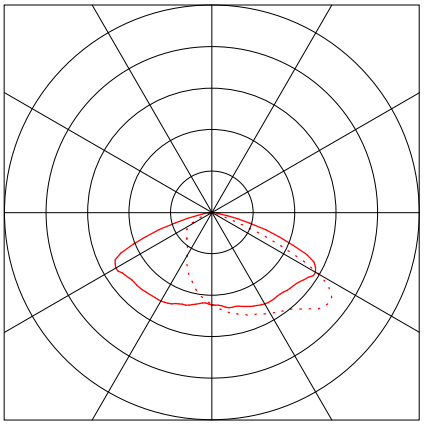
**Equipped with**

| | | |
|---|---|---|
| Quantity | : | 1 |
| Designation | : | LED |
| Colour | : | |
| Socket | : | -- |

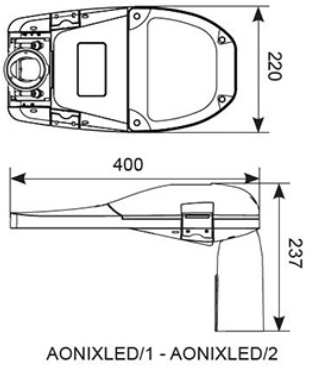
# 1 Luminaire data

## 1.1 Ansell, STREETLIGHTS - Onix Street Light (AONIXLED/2)

### 1.1.1 Data sheet








AONIXLED/1 - AONIXLED/2

# 1 Luminaire data

## 1.2 Ansell, BULKHEADS - Vision 3 G... (AVIL/1/GR (18W ...)

### 1.2.1 Data sheet

**Manufacturer: Ansell**

**AVIL/1/GR (18W 3000K)** **Ceiling mounted luminaire** **BULKHEADS - Vision 3 Graphite**
AVIL/1/GR
Vision 3 LED

• IP65 CCT polycarbonate luminaire suitable for healthcare, educational, commercial and industrial applications
• CCT selectable between 3000K and 4000K and power selectable; offering a choice of 2 outputs, in one luminaire
• UV stabilised polycarbonate constructions allows installation into areas exposed to adverse weather conditions
• Top, bottom and side conduit entry covers retain sleek appearance when not in use
• Clip in gear tray ensures quick installation
• Corridor function options available for effective reduction in energy consumption
• Dimmable, Photocell, MWS and Emergency options available
• Powered by Tridonic
• 20W LED lifespanL70 56,000 hours
• Non-dimmable

Options
/SM3 Self Test Emergency
/DM3 Dali Emergency
/MWS Integral Microwave Sensor
/MWS/M3 Integral Microwave Sensor Emergency

Powered by TRIDONIC

• Suitable for external use only
• 5 Year Product Warranty
• IP65

**Luminaire data**

| | | |
|---|---|---|
| Absolute Photometry | | |
| Luminaire efficacy | : | 111.67 lm/W |
| Classification | : | A41 ↓97% ↑3% |
| CIE Flux Codes | : | 44 74 92 97 100 |
| UGR 4H 8H | : | 20.8 / 20.8 |
| Control gear | : | Electronic ballast |
| Power | : | 18 W |
| Luminous flux | : | 2012 lm |
| Dimensions | : | Ø350 mm x 110 mm |

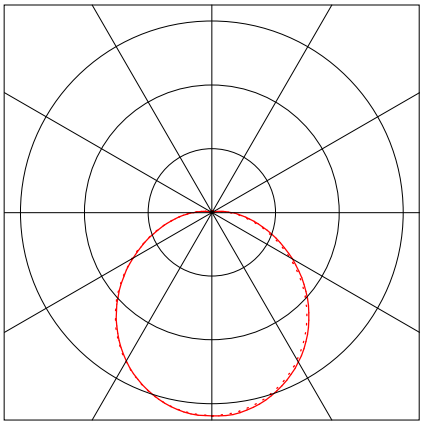
**Equipped with**

| | | |
|---|---|---|
| Quantity | : | 1 |
| Designation | : | LED single 830 |
| Colour | : | 3000K |
| Colour reproduction | : | -- |

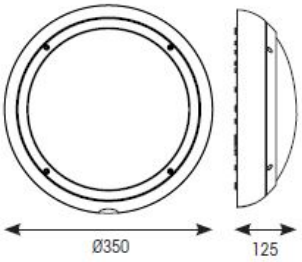
# 1 Luminaire data

## 1.2 Ansell, BULKHEADS - Vision 3 G... (AVIL/1/GR (18W ...)

### 1.2.1 Data sheet







# 1 Luminaire data

## 1.3 ASD, Litehouse Bollard Opal (LHR-B1PL4LED35)

### 1.3.1 Data sheet

**Manufacturer: ASD**

**LHR-B1PL4LED35 Bollard / pole mounted luminaires Litehouse Bollard Opal**

Specification:
ASD Lighting Litehouse Bollard. Robust External root mounted bollard luminaire High impact PVC body. Polycarbonate head and opal lens.
IP65. 4000K. Applications not limited to: Pathways; Parking; residential; commercial; industrial; transport.

3 hour emergency available. Emergency lumens:194
LHR-B1PL4LED35 suffix M for emergency option.

Other options: Powder coated extruded aluminium body.
Access door. 180' Cut off shields. Pinline halo effect. Photocell. Fixing kits

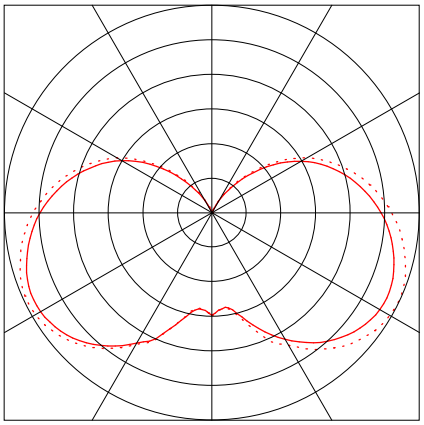
**Luminaire data**

| | | |
|---|---|---|
| Absolute Photometry | | |
| Luminaire efficacy | : | 78.25 lm/W |
| Classification | : | B11 ↓65% ↑35% |
| CIE Flux Codes | : | 20 47 74 65 100 |
| UGR 4H 8H | : | 19.9 / 20.2 |
| Control gear | : | LED-Driver |
| Power | : | 13.4 W |
| Luminous flux | : | 1049 lm |

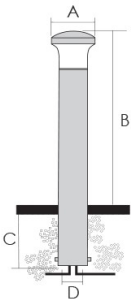
Dimensions : Ø250 mm x 205 mm

**Equipped with**

| | | |
|---|---|---|
| Quantity | : | 1 |
| Designation | : | LED |
| Colour | : | 4000K |
| Colour reproduction | : | 80 |








| Size | LHR |
|---|---|
| A | 260mm |
| B | 1015mm |
| C | 400mm |
| D | 153mm |

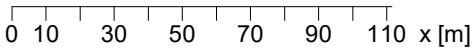
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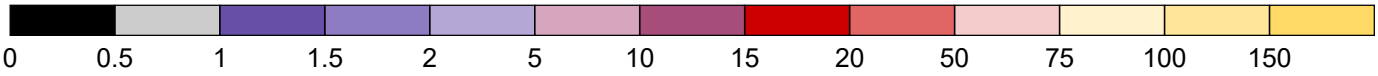
# 2 Exterior 1

## 2.1 Summary, Exterior 1

### 2.1.1 Result overview, Measuring area 1






Illuminance [lx]

**General**

| | |
|---|---|
| Calculation algorithm used | Average indirect fraction |
| Height of evaluation surface | 0.10 m |
| Maintenance factor | 0.80 |
| Total luminous flux | 13029.7998 lm |
| Total power | 112.5 W |
| Total power per area (12824.22 m²) | 0.01 W/m² |

**Illuminance**

| | | |
|---|---|---|
| Average illuminance | $\bar{E}_m$ | 10.1 lx |
| Minimum illuminance | $E_{min}$ | 1.51 lx |
| Maximum illuminance | $E_{max}$ | 22 lx |
| Uniformity $U_o$ | $E_{min}/\bar{E}_m$ | 1:6.65 (0.15) |
| Diversity $U_d$ | $E_{min}/E_{max}$ | 1:14.3 (0.07) |

**Type No.\Make**

| | | | |
|---|---|---|---|
| | | **Ansell** | |
| 1 | 2 x | Order No. | : AONIXLED/2 |
| | | Luminaire name | : STREETLIGHTS - Onix Street Light |
| | | Equipment | : 1 x LED 27.14 W / 3936 lm |
| 3 | 1 x | Order No. | : AVIL/1/GR (18W 3000K) |
| | | Luminaire name | : BULKHEADS - Vision 3 Graphite |
| | | Equipment | : 1 x LED single 830 18 W / 2012 lm |

# 2 Exterior 1

## 2.1 Summary, Exterior 1

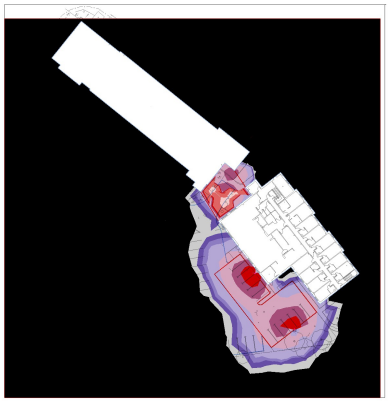
### 2.1.1 Result overview, Measuring area 1

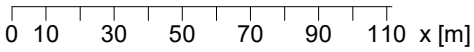
| | | | |
|---|---|---|---|
| | | **ASD** | |
| 4 | 3 x | Order No. | : LHR-B1PL4LED35 |
| | | Luminaire name | : Litehouse Bollard Opal |
| | | Equipment | : 1 x LED 13.4 W / 1048.6 lm |

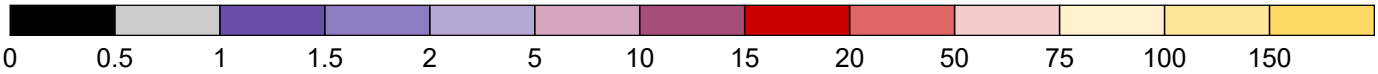
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## 2.1 Summary, Exterior 1

### 2.1.2 Result overview, Measuring area 2






**General**

| | |
|---|---|
| Calculation algorithm used | Average indirect fraction |
| Height of evaluation surface | 0.10 m |
| Maintenance factor | 0.80 |
| Total luminous flux | 13029.7998 lm |
| Total power | 112.5 W |
| Total power per area (12824.22 m²) | 0.01 W/m² |

**Illuminance**

| | | |
|---|---|---|
| Average illuminance | $\bar{E}_m$ | 0.91 lx |
| Minimum illuminance | $E_{min}$ | 0.00 lx |
| Maximum illuminance | $E_{max}$ | 58 lx |
| Uniformity $U_o$ | $E_{min}/\bar{E}_m$ | 1:--- (---) |
| Diversity $U_d$ | $E_{min}/E_{max}$ | 1:--- (---) |

**Type No.\Make**

1 2 x — **Ansell**
Order No. : AONIXLED/2
Luminaire name : STREETLIGHTS - Onix Street Light
Equipment : 1 x LED 27.14 W / 3936 lm

3 1 x
Order No. : AVIL/1/GR (18W 3000K)
Luminaire name : BULKHEADS - Vision 3 Graphite
Equipment : 1 x LED single 830 18 W / 2012 lm

## 2.1 Summary, Exterior 1

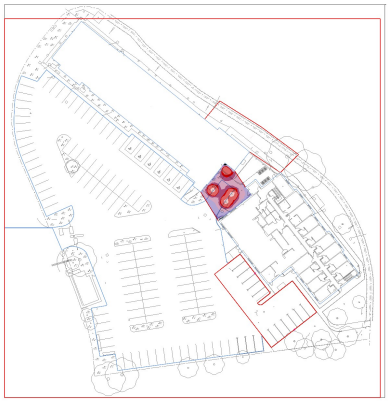
### 2.1.2 Result overview, Measuring area 2

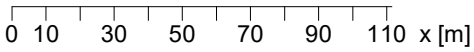
| | | | |
|---|---|---|---|
| | | **ASD** | |
| 4 | 3 x | Order No. | : LHR-B1PL4LED35 |
| | | Luminaire name | : Litehouse Bollard Opal |
| | | Equipment | : 1 x LED 13.4 W / 1048.6 lm |

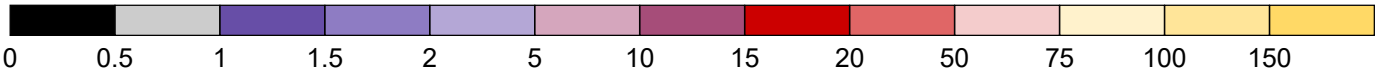
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## 2.1 Summary, Exterior 1

### 2.1.3 Result overview, Measuring area 3






Illuminance [lx]

**General**

| | |
|---|---|
| Calculation algorithm used | Average indirect fraction |
| Height of evaluation surface | 0.10 m |
| Maintenance factor | 0.80 |
| Total luminous flux | 13029.7998 lm |
| Total power | 112.5 W |
| Total power per area (12824.22 m²) | 0.01 W/m² |

**Illuminance**

| | | |
|---|---|---|
| Average illuminance | $\bar{E}_m$ | 14.1 lx |
| Minimum illuminance | $E_{min}$ | 0.91 lx |
| Maximum illuminance | $E_{max}$ | 66 lx |
| Uniformity $U_o$ | $E_{min}/\bar{E}_m$ | 1:15.5 (0.06) |
| Diversity $U_d$ | $E_{min}/E_{max}$ | 1:72.2 (0.01) |

**Type No.\Make**

| | | |
|---|---|---|
| | **Ansell** | |
| 1 2 x | Order No. | : AONIXLED/2 |
| | Luminaire name | : STREETLIGHTS - Onix Street Light |
| | Equipment | : 1 x LED 27.14 W / 3936 lm |
| 3 1 x | Order No. | : AVIL/1/GR (18W 3000K) |
| | Luminaire name | : BULKHEADS - Vision 3 Graphite |
| | Equipment | : 1 x LED single 830 18 W / 2012 lm |

## 2.1 Summary, Exterior 1

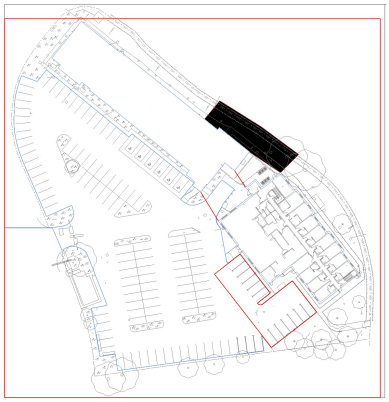
### 2.1.3 Result overview, Measuring area 3

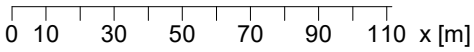
| | | | |
|---|---|---|---|
| | | **ASD** | |
| 4 | 3 x | Order No. | : LHR-B1PL4LED35 |
| | | Luminaire name | : Litehouse Bollard Opal |
| | | Equipment | : 1 x LED 13.4 W / 1048.6 lm |

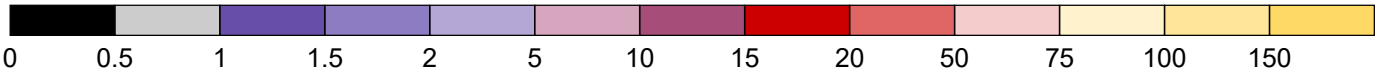
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## 2.1 Summary, Exterior 1

### 2.1.4 Result overview, Bat Box Location






Illuminance [lx]

**General**

| | |
|---|---|
| Calculation algorithm used | Average indirect fraction |
| Height of evaluation surface | 0.00 m |
| Maintenance factor | 0.80 |
| Total luminous flux | 13029.7998 lm |
| Total power | 112.5 W |
| Total power per area (12824.22 m²) | 0.01 W/m² |

**Illuminance**

| | | |
|---|---|---|
| Average illuminance | $\bar{E}_m$ | 0.00 lx |
| Minimum illuminance | $E_{min}$ | 0.00 lx |
| Maximum illuminance | $E_{max}$ | 0.00 lx |
| Uniformity $U_o$ | $E_{min}/\bar{E}_m$ | 1:--- (---) |
| Diversity $U_d$ | $E_{min}/E_{max}$ | 1:--- (---) |

**Type No.\Make**

| | | | |
|---|---|---|---|
| | | **Ansell** | |
| 1 | 2 x | Order No. | : AONIXLED/2 |
| | | Luminaire name | : STREETLIGHTS - Onix Street Light |
| | | Equipment | : 1 x LED 27.14 W / 3936 lm |
| 3 | 1 x | Order No. | : AVIL/1/GR (18W 3000K) |
| | | Luminaire name | : BULKHEADS - Vision 3 Graphite |
| | | Equipment | : 1 x LED single 830 18 W / 2012 lm |

## 2.1 Summary, Exterior 1

### 2.1.4 Result overview, Bat Box Location

| | | | |
|---|---|---|---|
| | | **ASD** | |
| 4 | 3 x | Order No. | : LHR-B1PL4LED35 |
| | | Luminaire name | : Litehouse Bollard Opal |
| | | Equipment | : 1 x LED 13.4 W / 1048.6 lm |

# 2 Exterior 1

## 2.2 Calculation results, Exterior 1

### 2.2.1 3D pseudo colours, View 1 (E)

