

**DATE:** 12 March 2025  
**DESIGNER:** MMA Lighting Consultancy Ltd  
**PROJECT No:** MMA19265  
**PROJECT NAME:** John Barker Place



John Barker Place S38 - Area Calculation - R0

6m Hertfordshire CC Specification Columns with Urbis Axia 2.1  
4000K LED Luminaires and integrated rear shields.

BS5489-1:2020 Lighting Class: P4  
Minimum maintained average illuminance (Eav): =5.00 =7.50lux  
Minimum illuminance (Emin): >1.00 lux  
Uniformity (Uo) = 0.20 (20%) Lux

Base drawing number used in this calculation '4121 - Phase 3 - Site  
Plan -03-03-25"

## **Outdoor Lighting Report**

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## Layout Report

### General Data

Dimensions in Metres Angles in Degrees

### Calculation Grids

| ID | Grid Name | X         | Y         | X' Length | Y' Length | X' Spacing | Y' Spacing |
|----|-----------|-----------|-----------|-----------|-----------|------------|------------|
| 1  | Grid 1    | 517537.98 | 230200.98 | 72.18     | 76.51     | 1.50       | 1.50       |
| 2  | Grid 2    | 517481.72 | 230164.24 | 90.00     | 30.00     | 1.50       | 1.50       |
| 3  | Grid 3    | 517483.09 | 230165.17 | 27.00     | 75.00     | 1.50       | 1.50       |

### Luminaires

#### Luminaire A Data

|                    |                                                                               |
|--------------------|-------------------------------------------------------------------------------|
| Supplier           | Urbis                                                                         |
| Type               | AXIA 2.1 5187 8 OSLOM SQUARE GIANT @820mA NW 740 230V 00-36-648               |
| Lamp(s)            | 8 OSLOM SQUARE GIANT@820mA NW 7 40 230V 00-36-648 [CJOIO8STDA]                |
| Lamp Flux (klm)    | 3.12                                                                          |
| File Name          | AXIA 2.1 5187 8 OSLOM SQUARE GIANT 8 20mA NW 740 23.1W 7x5 III-Medium 4346... |
| Maintenance Factor | 0.76                                                                          |
| Lum. Int. Class    | G3                                                                            |
| No. in Project     | 9                                                                             |

#### Luminaire B Data

|                    |                                                                               |
|--------------------|-------------------------------------------------------------------------------|
| Supplier           | Urbis                                                                         |
| Type               | AXIA 2.1 5167 8 OSLOM SQUARE GIANT @700mA NW 740 230V 00-36-648               |
| Lamp(s)            | 8 OSLOM SQUARE GIANT@700mA NW 7 40 230V 00-36-648 [CJOIO8STDA]                |
| Lamp Flux (klm)    | 2.75                                                                          |
| File Name          | AXIA 2.1 5167 8 OSLOM SQUARE GIANT 7 00mA NW 740 19.7W 7x5 III-Medium 4343... |
| Maintenance Factor | 0.76                                                                          |
| Lum. Int. Class    | G2                                                                            |
| No. in Project     | 3                                                                             |

### Layout

| ID | Type | X         | Y         | Height | Angle  | Tilt | Cant | Out-reach | Target X | Target Y | Target Z |
|----|------|-----------|-----------|--------|--------|------|------|-----------|----------|----------|----------|
| 1  | A    | 517573.15 | 230259.56 | 6.00   | 300.00 | 0.00 | 0.00 | 0.40      |          |          |          |
| 2  | A    | 517551.08 | 230235.21 | 6.00   | 119.00 | 0.00 | 0.00 | 0.40      |          |          |          |
| 3  | A    | 517516.21 | 230255.04 | 6.00   | 30.00  | 0.00 | 0.00 | 0.40      |          |          |          |
| 4  | A    | 517532.14 | 230231.03 | 6.00   | 31.00  | 0.00 | 0.00 | 0.40      |          |          |          |
| 5  | B    | 517528.90 | 230250.98 | 6.00   | 120.00 | 0.00 | 0.00 | 0.40      |          |          |          |
| 6  | A    | 517533.32 | 230219.13 | 6.00   | 302.00 | 0.00 | 0.00 | 0.40      |          |          |          |
| 7  | A    | 517509.54 | 230204.77 | 6.00   | 300.00 | 0.00 | 0.00 | 0.40      |          |          |          |
| 8  | A    | 517488.06 | 230191.35 | 6.00   | 302.00 | 0.00 | 0.00 | 0.40      |          |          |          |
| 9  | A    | 517488.71 | 230205.04 | 6.00   | 210.00 | 0.00 | 0.00 | 0.40      |          |          |          |
| 10 | A    | 517474.40 | 230229.98 | 6.00   | 211.00 | 0.00 | 0.00 | 0.40      |          |          |          |
| 11 | B    | 517468.32 | 230221.29 | 6.00   | 300.00 | 0.00 | 0.00 | 0.40      |          |          |          |
| 12 | B    | 517478.48 | 230206.36 | 6.00   | 300.00 | 0.00 | 0.00 | 0.40      |          |          |          |

## Horizontal Illuminance (lux)

Grid 1



### Results

|           |       |
|-----------|-------|
| Eav       | 5.34  |
| Emin      | 1.27  |
| Emax      | 10.73 |
| Emin/Emax | 0.12  |
| Emin/Eav  | 0.24  |

## Horizontal Illuminance (lux)

Grid 2



### Results

|           |       |
|-----------|-------|
| Eav       | 5.67  |
| Emin      | 1.68  |
| Emax      | 10.90 |
| Emin/Emax | 0.15  |
| Emin/Eav  | 0.30  |
|           |       |

## Horizontal Illuminance (lux)

Grid 3



### Results

|           |       |
|-----------|-------|
| Eav       | 5.90  |
| Emin      | 1.25  |
| Emax      | 11.21 |
| Emin/Emax | 0.11  |
| Emin/Eav  | 0.21  |