

**DATE:** 21 May 2025  
**DESIGNER:** SHD Lighting Consultancy Limited  
**PROJECT No:** SHD2164  
**PROJECT NAME:** Hinchley Road, Manchester



CAD layout reference: SL-01 - SITE LAYOUT PLAN REV B (25.03.25)

Lighting classification: P4 (BS 5489-1: 2020, Table A.5)

Minimum maintained average illuminance (Eav): >5.00 lux <7.50 lux

Minimum illuminance (Emin): >1.00 lux

Lighting uniformity (Emin/Eav): >0.20 (20%)

## **Outdoor Lighting Report**

**PREPARED BY:** SHD Lighting Consultancy Ltd  
Contact: [info@shdlighting.co.uk](mailto:info@shdlighting.co.uk)  
Phone: 07834 490 192  
Website: [www.shdlighting.co.uk](http://www.shdlighting.co.uk)

## 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: Whole Area          | 387734.60 | 403014.49 | 214.00    | 226.35    | 1.50       | 1.50       |
| 2  | Grid 2: Lighting Class P4   | 387820.98 | 403192.11 | 48.00     | 21.00     | 1.50       | 1.50       |
| 3  | Grid 3: Lighting Class P... | 387806.31 | 403163.79 | 45.00     | 36.00     | 1.50       | 1.50       |
| 4  | Grid 4: Lighting Class P... | 387779.30 | 403122.42 | 51.00     | 36.00     | 1.50       | 1.50       |
| 5  | Grid 5: Lighting Class P... | 387815.86 | 403121.52 | 27.00     | 48.00     | 1.50       | 1.50       |
| 6  | Grid 6: Lighting Class P... | 387916.27 | 403120.45 | 27.00     | 51.00     | 1.50       | 1.50       |
| 7  | Grid 7: Lighting Class P... | 387785.75 | 403069.93 | 144.00    | 24.00     | 1.50       | 1.50       |
| 8  | Grid 8: Lighting Class P... | 387819.28 | 403031.82 | 27.00     | 54.00     | 1.50       | 1.50       |

### Luminaires



### Luminaire A Data

|                    |                                                                 |
|--------------------|-----------------------------------------------------------------|
| Supplier           | Philips                                                         |
| Type               | BGP702 DW50                                                     |
| Lamp(s)            | LED-HB 5.2S 740                                                 |
| Lamp Flux (klm)    | 4.00                                                            |
| File Name          | Luma Gen2 Micro_BGP702_DW50_4000_20<br>LED_5.2S_CLO_L90_740.ies |
| Maintenance Factor | 0.84                                                            |
| Lum. Int. Class    | G3                                                              |
| No. in Project     | 15                                                              |

### Layout

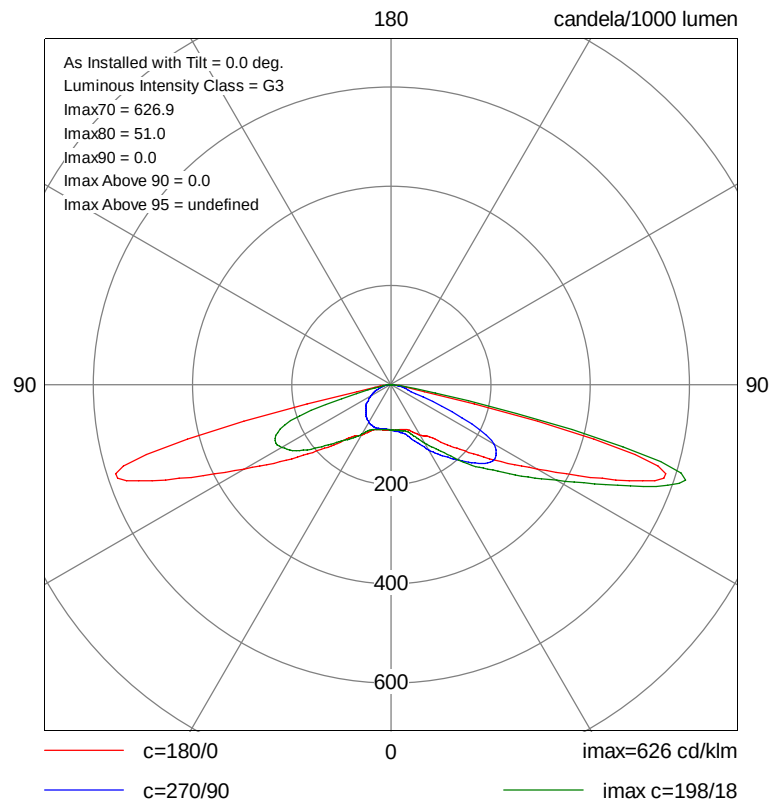
| ID | Type | X         | Y         | Height | Angle  | Tilt | Cant | Out-reach | Target X | Target Y | Target Z |
|----|------|-----------|-----------|--------|--------|------|------|-----------|----------|----------|----------|
| 1  | A    | 387804.50 | 403208.36 | 6.00   | 249.00 | 0.00 | 0.00 | 0.40      |          |          |          |
| 2  | A    | 387826.89 | 403210.96 | 6.00   | 289.00 | 0.00 | 0.00 | 0.40      |          |          |          |
| 3  | A    | 387788.27 | 403189.97 | 6.00   | 335.00 | 0.00 | 0.00 | 0.40      |          |          |          |
| 4  | A    | 387776.87 | 403164.92 | 6.00   | 337.00 | 0.00 | 0.00 | 0.40      |          |          |          |
| 5  | A    | 387764.79 | 403136.90 | 6.00   | 37.00  | 0.00 | 0.00 | 0.40      |          |          |          |
| 6  | A    | 387804.68 | 403160.69 | 6.00   | 232.00 | 0.00 | 0.00 | 0.40      |          |          |          |
| 7  | A    | 387824.17 | 403129.43 | 6.00   | 36.00  | 0.00 | 0.00 | 0.40      |          |          |          |
| 8  | A    | 387918.51 | 403142.54 | 6.00   | 237.00 | 0.00 | 0.00 | 0.40      |          |          |          |
| 9  | A    | 387888.46 | 403164.47 | 6.00   | 247.00 | 0.00 | 0.00 | 0.40      |          |          |          |
| 10 | A    | 387848.75 | 403129.50 | 6.00   | 131.00 | 0.00 | 0.00 | 0.40      |          |          |          |
| 11 | A    | 387857.67 | 403154.89 | 6.00   | 321.00 | 0.00 | 0.00 | 0.40      |          |          |          |
| 12 | A    | 387808.61 | 403109.32 | 6.00   | 305.00 | 0.00 | 0.00 | 0.40      |          |          |          |
| 13 | A    | 387778.79 | 403086.05 | 6.00   | 305.00 | 0.00 | 0.00 | 0.40      |          |          |          |

**Layout Continued**

| ID | Type | X         | Y         | Height | Angle  | Tilt | Cant | Out-reach | Target X | Target Y | Target Z |
|----|------|-----------|-----------|--------|--------|------|------|-----------|----------|----------|----------|
| 14 | A    | 387803.24 | 403072.77 | 6.00   | 218.00 | 0.00 | 0.00 | 0.40      |          |          |          |
| 15 | A    | 387823.21 | 403047.42 | 6.00   | 214.00 | 0.00 | 0.00 | 0.40      |          |          |          |

## Polar Diagram

### Luminaire A BGP702 DW50



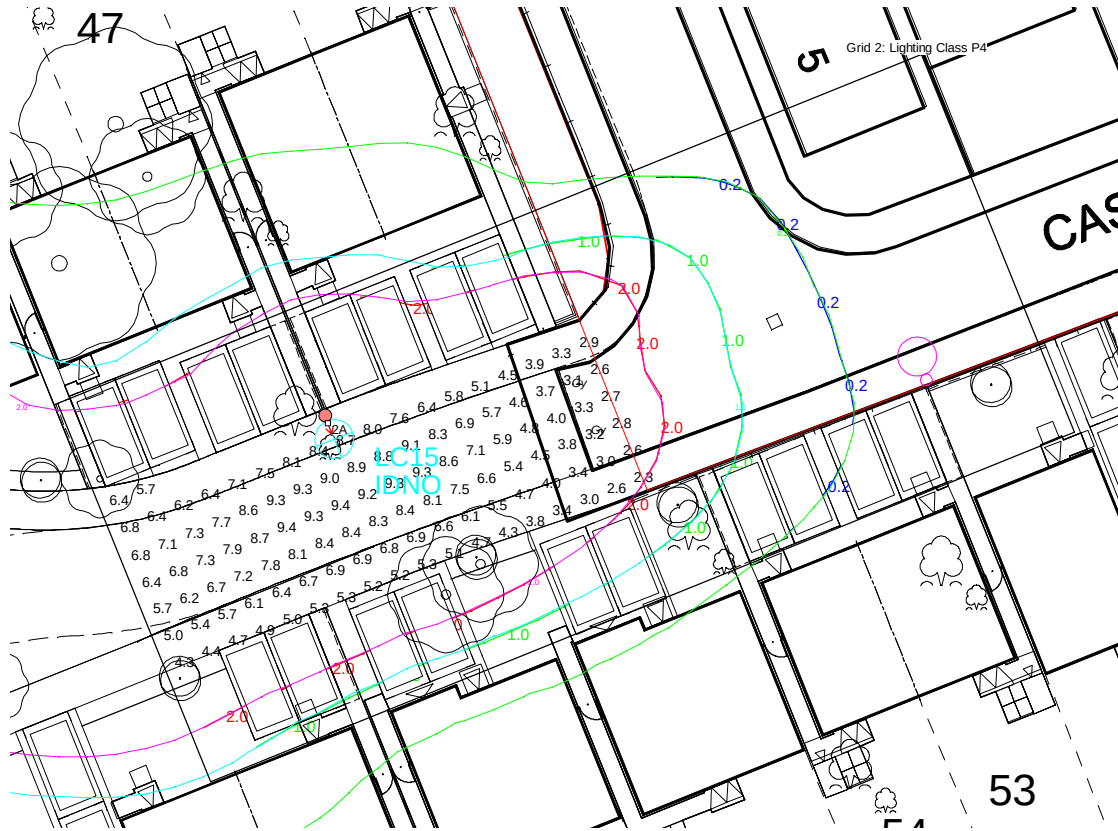
## Horizontal Illuminance (lux)

Grid 1: Whole Area



## Horizontal Illuminance (lux)

Grid 2: Lighting Class P4

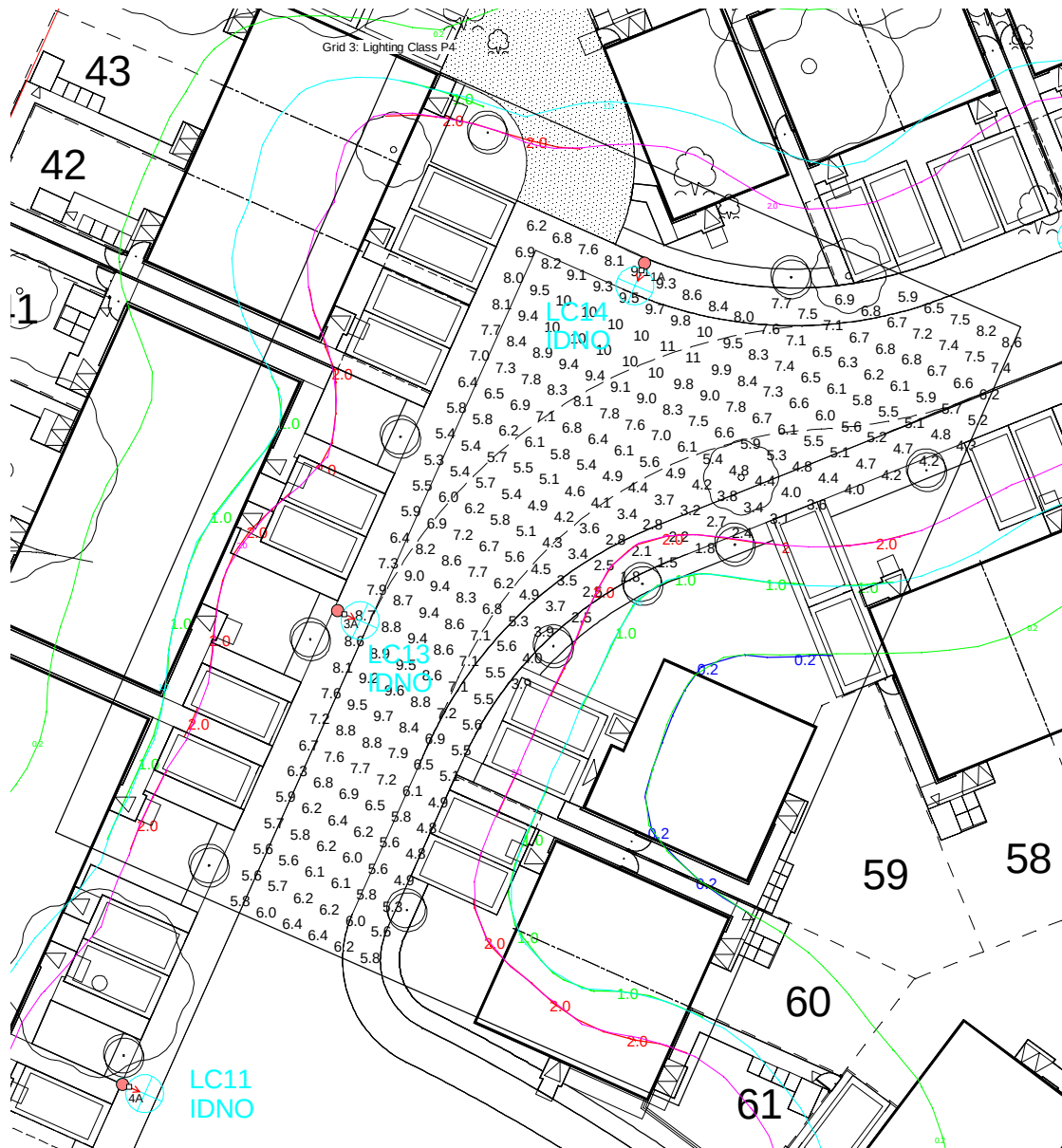


### Results

|           |      |
|-----------|------|
| Eav       | 6.14 |
| Emin      | 2.26 |
| Emax      | 9.39 |
| Emin/Emax | 0.24 |
| Emin/Eav  | 0.37 |
|           |      |

## Horizontal Illuminance (lux)

Grid 3: Lighting Class P4

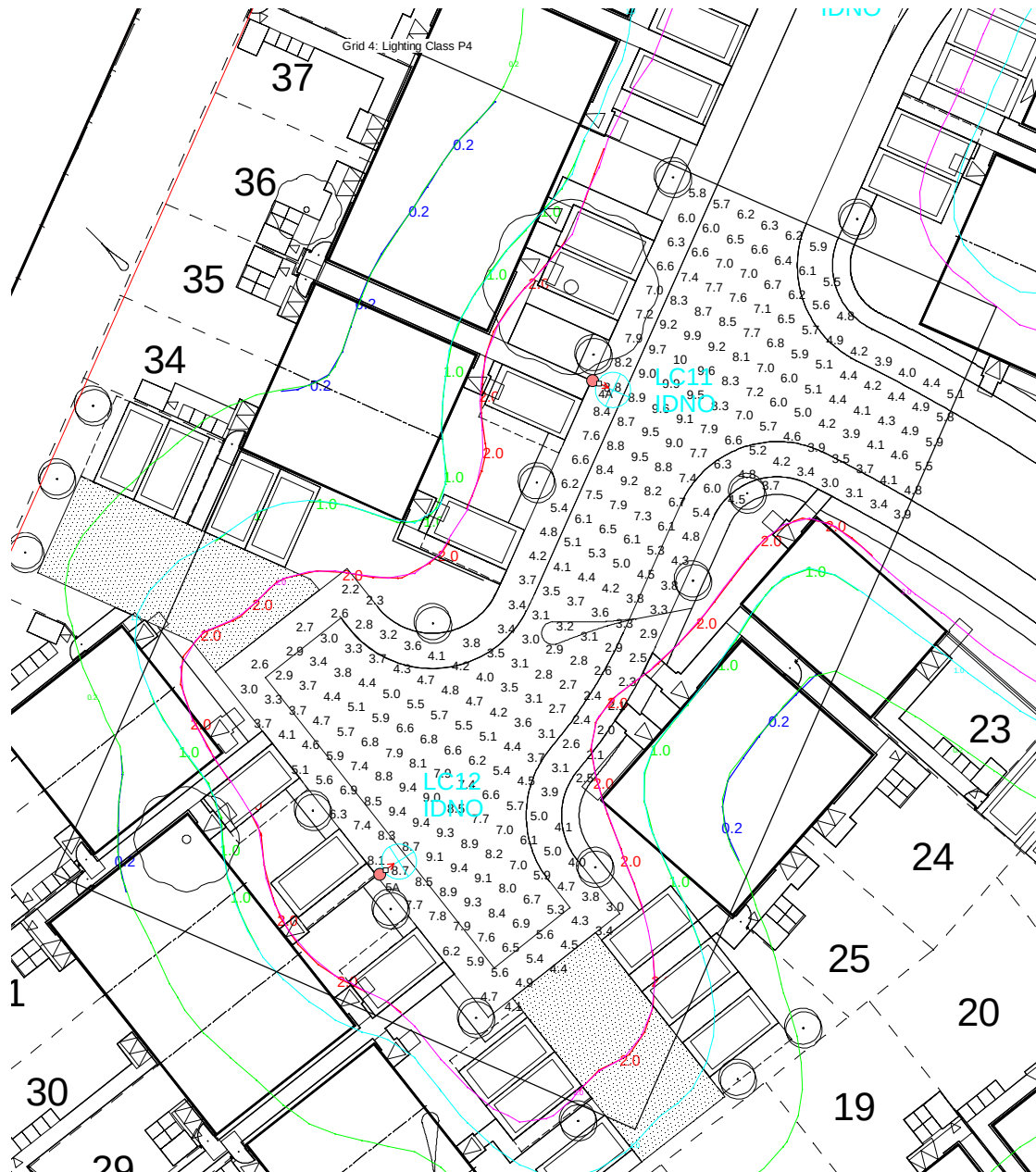


### Results

|           |       |
|-----------|-------|
| Eav       | 6.57  |
| Emin      | 1.53  |
| Emax      | 10.73 |
| Emin/Emax | 0.14  |
| Emin/Eav  | 0.23  |
|           |       |

## Horizontal Illuminance (lux)

Grid 4: Lighting Class P4

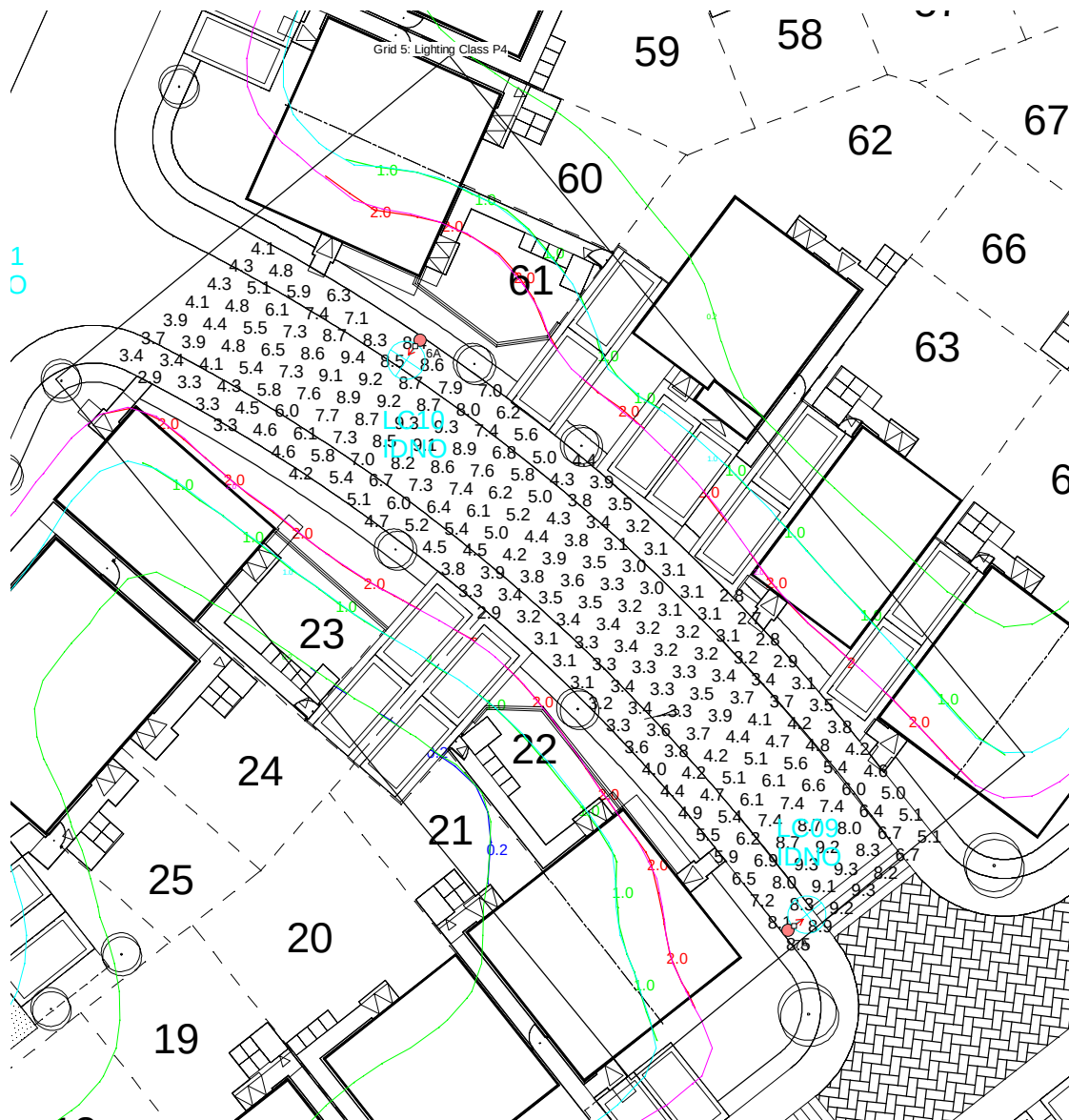


### Results

|           |       |
|-----------|-------|
| Eav       | 5.65  |
| Emin      | 1.98  |
| Emax      | 10.24 |
| Emin/Emax | 0.19  |
| Emin/Eav  | 0.35  |
|           |       |

## Horizontal Illuminance (lux)

Grid 5: Lighting Class P4

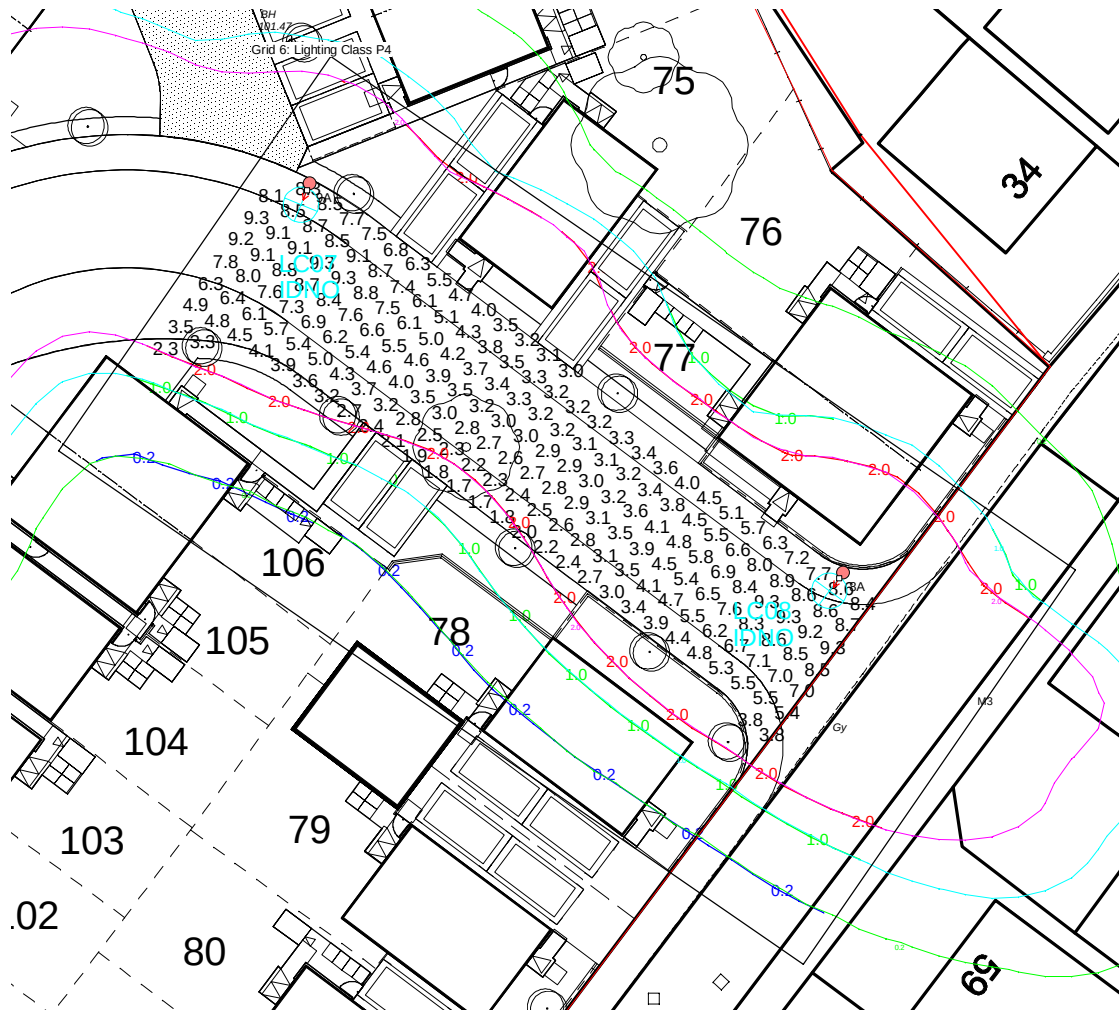


### Results

|           |      |
|-----------|------|
| Eav       | 5.37 |
| Emin      | 2.74 |
| Emax      | 9.40 |
| Emin/Emax | 0.29 |
| Emin/Eav  | 0.51 |
|           |      |

## Horizontal Illuminance (lux)

Grid 6: Lighting Class P4

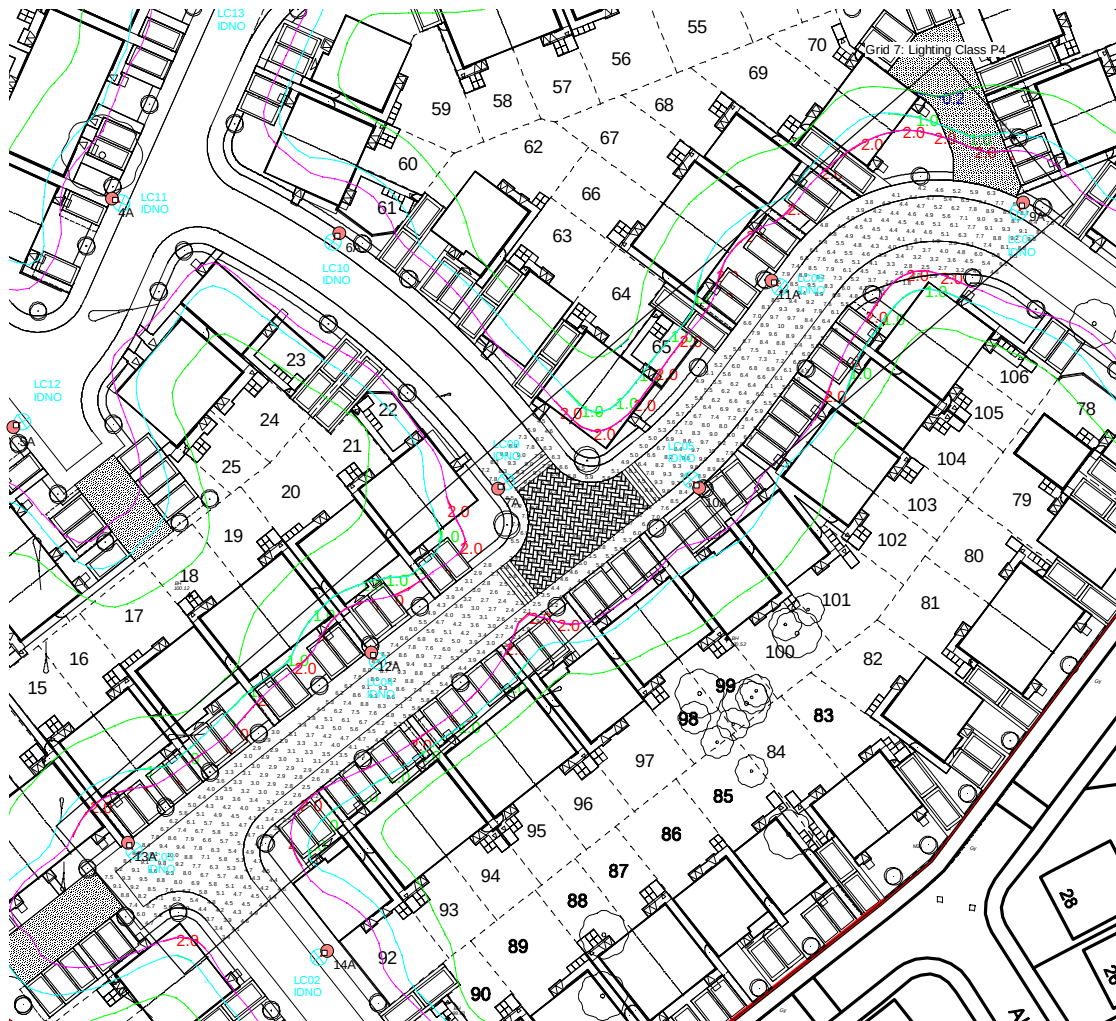


### Results

|           |      |
|-----------|------|
| Eav       | 5.15 |
| Emin      | 1.71 |
| Emax      | 9.32 |
| Emin/Emax | 0.18 |
| Emin/Eav  | 0.33 |
|           |      |

## Horizontal Illuminance (lux)

Grid 7: Lighting Class P4

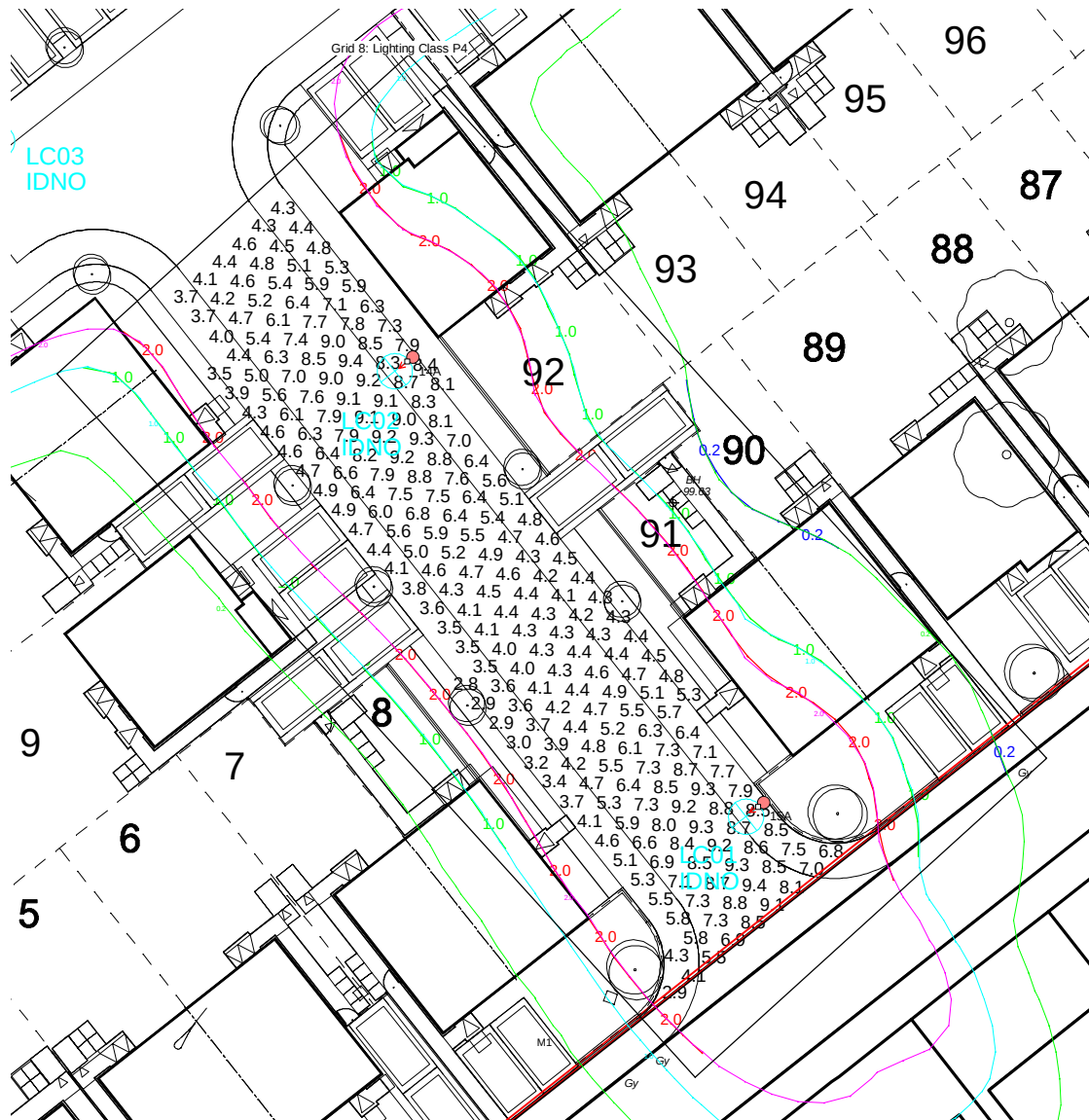


### Results

|           |       |
|-----------|-------|
| Eav       | 5.93  |
| Emin      | 1.80  |
| Emax      | 10.20 |
| Emin/Emax | 0.18  |
| Emin/Eav  | 0.30  |
|           |       |

## Horizontal Illuminance (lux)

Grid 8: Lighting Class P4



### Results

|           |      |
|-----------|------|
| Eav       | 5.93 |
| Emin      | 2.84 |
| Emax      | 9.42 |
| Emin/Emax | 0.30 |
| Emin/Eav  | 0.48 |
|           |      |