

DATE: 23 September 2024
DESIGNER: CK
PROJECT No: 25141
PROJECT NAME: The Longpoint Loughrea



Note: Lux levels are deliberately kept to minimum levels due to adjacent environmental areas. Uniformities are also below recommended levels in some areas to ensure lux levels are dropping off at boundaries to SPA.

Site Lighting Calculations P01

Layout Report

General Data

Dimensions in Metres Angles in Degrees
Grid Origin 156.8m x -2.6m
Area 108.2m x 155.6m
Sample Spacing 1.50m x 1.51m

Luminaires



Luminaire A Data

| | |
|----------------------|--------------------------------------|
| Supplier | Cree Lighting |
| Type | SYSA02210A308 - 12W |
| Lamp(s) | OSQV3K812W |
| Lamp Flux (klm) | 1.75 |
| File Name | SYSA02210A308 - 12W-126-QL20-R07.IES |
| Maintenance Factor | 0.86 |
| Imax70,80,90(cd/klm) | 280.2, 34.7, 0.0 |
| Lamp S/P Ratio | 1.27 |
| No. in Project | 16 |



Luminaire B Data

| | |
|----------------------|--------------------------------------|
| Supplier | Cree Lighting |
| Type | SYSA02210A308 - 12W |
| Lamp(s) | OSQV3K812W |
| Lamp Flux (klm) | 1.75 |
| File Name | SYSA02210A308 - 12W-126-QL20-R07.IES |
| Maintenance Factor | 0.86 |
| Imax70,80,90(cd/klm) | 280.2, 34.7, 0.0 |
| Lamp S/P Ratio | 1.27 |
| No. in Project | 14 |



Luminaire C Data

| | |
|----------------------|--------------------------------------|
| Supplier | Cree Lighting |
| Type | SYSA02210A308 - 20W |
| Lamp(s) | OSQV3K820W |
| Lamp Flux (klm) | 2.96 |
| File Name | SYSA02210A308 - 20W-126-QL20-R07.IES |
| Maintenance Factor | 0.86 |
| Imax70,80,90(cd/klm) | 280.2, 34.7, 0.0 |
| Lamp S/P Ratio | 1.27 |
| No. in Project | 9 |

Luminaire D Data

| | |
|----------------------|---|
| Supplier | |
| Type | FW 12L35 827 NR C95 BP 3550 LV SP N7 CL1 T60F ANT ADC MT |
| Lamp(s) | FW12L35-740NR 15W |
| LampFlux(klm)/Colour | 1.49 2700/80 |
| File Name | TL_FW24L35NR740.LDT |
| Maintenance Factor | 0.86 |
| Imax70,80,90(cd/klm) | 558.3, 85.9, 0.0 |
| Lamp S/P Ratio | 0.00 |
| No. in Project | 2 |

Layout

| ID | Type | X | Y | Height | Angle | Tilt | Cant | Out-reach | Target X | Target Y | Target Z |
|----|------|--------|--------|--------|--------|------|------|-----------|----------|----------|----------|
| 1 | B | 241.93 | 84.83 | 5.00 | 204.00 | 0.00 | 0.00 | 1.00 | | | |
| 2 | B | 237.79 | 96.85 | 5.00 | 202.00 | 0.00 | 0.00 | 1.00 | | | |
| 3 | B | 232.22 | 112.59 | 5.00 | 204.00 | 0.00 | 0.00 | 1.00 | | | |
| 4 | B | 246.55 | 78.34 | 5.00 | 284.00 | 0.00 | 0.00 | 1.00 | | | |
| 5 | B | 262.26 | 83.67 | 5.00 | 285.00 | 0.00 | 0.00 | 1.00 | | | |
| 6 | B | 278.31 | 94.19 | 5.00 | 200.00 | 0.00 | 0.00 | 1.00 | | | |
| 7 | B | 274.28 | 111.84 | 5.00 | 202.00 | 0.00 | 0.00 | 1.00 | | | |
| 8 | B | 267.29 | 125.90 | 5.00 | 210.00 | 0.00 | 0.00 | 1.00 | | | |
| 9 | B | 242.56 | 87.68 | 5.00 | 20.00 | 0.00 | 0.00 | 1.00 | | | |
| 10 | B | 237.58 | 101.81 | 5.00 | 21.00 | 0.00 | 0.00 | 1.00 | | | |

Layout Continued

| ID | Type | X | Y | Height | Angle | Tilt | Cant | Out-reach | Target X | Target Y | Target Z |
|----|------|--------|--------|--------|--------|------|------|-----------|----------|----------|----------|
| 11 | B | 231.86 | 118.44 | 5.00 | 21.00 | 0.00 | 0.00 | 1.00 | | | |
| 12 | B | 250.62 | 119.11 | 5.00 | 18.00 | 0.00 | 0.00 | 1.00 | | | |
| 13 | B | 255.33 | 105.37 | 5.00 | 22.00 | 0.00 | 0.00 | 1.00 | | | |
| 14 | B | 260.35 | 91.15 | 5.00 | 23.00 | 0.00 | 0.00 | 1.00 | | | |
| 15 | A | 212.13 | 142.49 | 5.00 | 31.00 | 0.00 | 0.00 | 1.00 | | | |
| 16 | A | 230.27 | 138.59 | 5.00 | 298.00 | 0.00 | 0.00 | 1.00 | | | |
| 17 | A | 204.03 | 157.89 | 5.00 | 25.00 | 0.00 | 0.00 | 1.00 | | | |
| 18 | A | 197.06 | 168.11 | 5.00 | 40.00 | 0.00 | 0.00 | 1.00 | | | |
| 19 | A | 204.32 | 181.78 | 5.00 | 315.00 | 0.00 | 0.00 | 1.00 | | | |
| 20 | A | 219.71 | 185.64 | 5.00 | 214.00 | 0.00 | 0.00 | 1.00 | | | |
| 21 | A | 229.48 | 170.87 | 5.00 | 217.00 | 0.00 | 0.00 | 1.00 | | | |
| 22 | A | 237.41 | 155.17 | 5.00 | 209.00 | 0.00 | 0.00 | 1.00 | | | |
| 23 | A | 225.86 | 150.39 | 5.00 | 210.00 | 0.00 | 0.00 | 1.00 | | | |
| 24 | A | 219.39 | 159.73 | 5.00 | 112.00 | 0.00 | 0.00 | 1.00 | | | |
| 25 | A | 211.17 | 173.28 | 5.00 | 304.00 | 0.00 | 0.00 | 1.00 | | | |
| 26 | C | 242.42 | 129.82 | 5.00 | 118.00 | 0.00 | 0.00 | 1.00 | | | |
| 27 | C | 169.01 | 68.43 | 5.00 | 338.00 | 0.00 | 0.00 | 1.00 | | | |
| 28 | C | 159.31 | 48.77 | 5.00 | 341.00 | 0.00 | 0.00 | 1.00 | | | |
| 29 | A | 131.35 | 59.67 | 5.00 | 78.00 | 0.00 | 0.00 | 1.00 | | | |
| 30 | C | 168.33 | 7.17 | 5.00 | 190.00 | 0.00 | 0.00 | 1.00 | | | |
| 31 | C | 181.38 | 90.38 | 5.00 | 319.00 | 0.00 | 0.00 | 1.00 | | | |
| 32 | C | 198.51 | 113.12 | 5.00 | 314.00 | 0.00 | 0.00 | 1.00 | | | |
| 33 | C | 217.18 | 124.53 | 5.00 | 288.00 | 0.00 | 0.00 | 1.00 | | | |
| 34 | C | 259.96 | 141.57 | 5.00 | 125.00 | 0.00 | 0.00 | 1.00 | | | |
| 35 | C | 158.43 | 26.16 | 5.00 | 11.00 | 0.00 | 0.00 | 1.00 | | | |
| 36 | A | 150.99 | 54.13 | 5.00 | 76.00 | 0.00 | 0.00 | 1.00 | | | |
| 37 | A | 134.12 | 69.90 | 5.00 | 302.00 | 0.00 | 0.00 | 1.00 | | | |
| 38 | A | 163.11 | 69.97 | 5.00 | 256.00 | 0.00 | 0.00 | 1.00 | | | |
| 39 | A | 148.80 | 74.00 | 5.00 | 253.00 | 0.00 | 0.00 | 1.00 | | | |
| 40 | D | 101.78 | 65.21 | 4.00 | 116.00 | 0.00 | 0.00 | 1.00 | | | |
| 41 | D | 185.61 | 111.86 | 4.00 | 115.00 | 0.00 | 0.00 | 1.00 | | | |

Layout Report

General Data

Dimensions in Metres Angles in Degrees
Grid Origin 44.3m x 45.0m
Area 174.1m x 173.3m
Sample Spacing 1.49m x 1.49m

Luminaires

Luminaire D Data

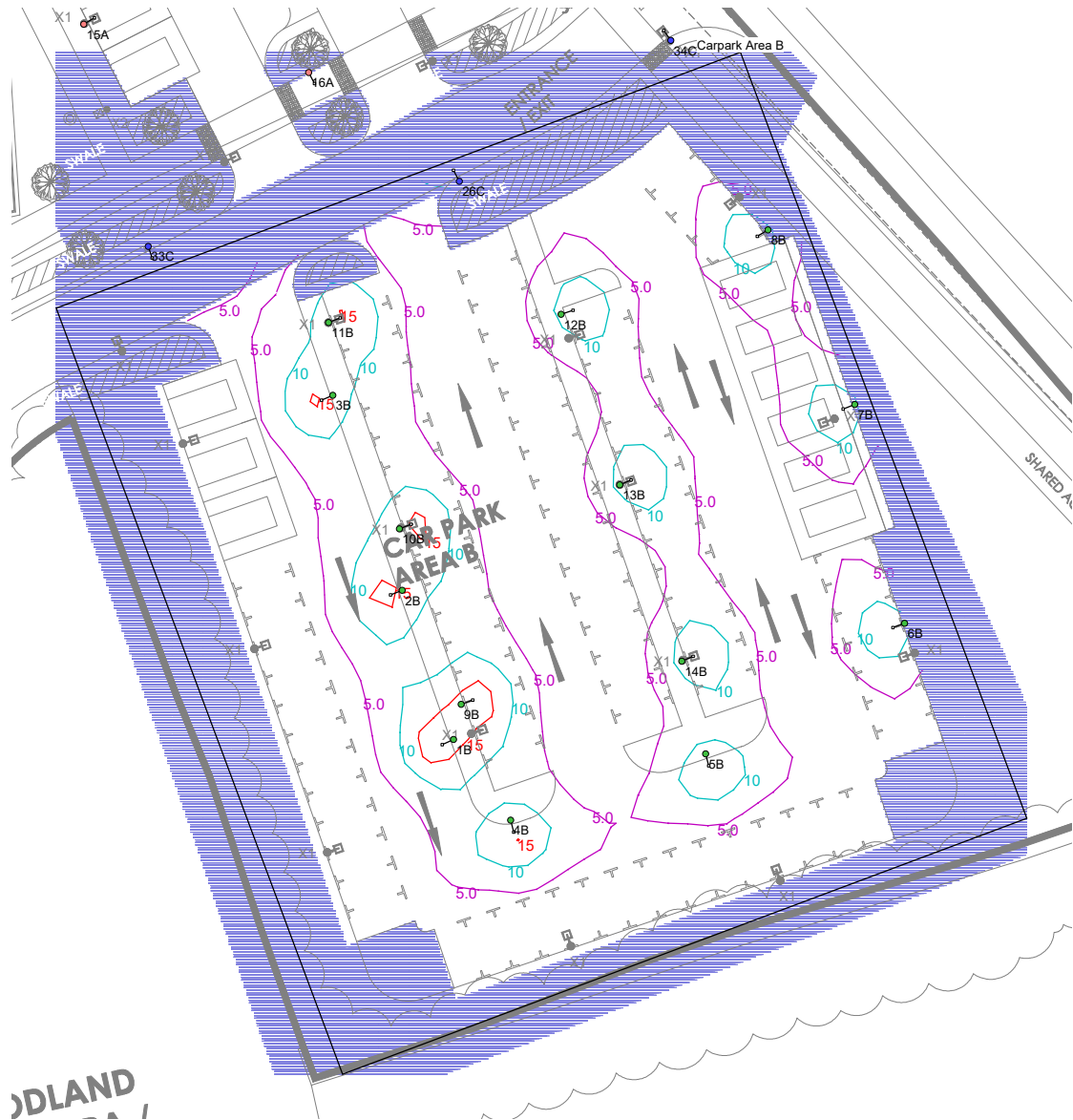
| | |
|----------------------|---|
| Supplier | |
| Type | FW 12L35 827 NR C95 BP 3550 LV SP N7 CL1 T80F ANT ADC MT |
| Lamp(s) | FW12L35-740NR 15W |
| LampFlux(klm)/Colour | 1.49 2700/80 |
| File Name | TL_FW24L35NR740.LDT |
| Maintenance Factor | 0.86 |
| Imax70,80,90(cd/klm) | 558.3, 85.9, 0.0 |
| Lamp S/P Ratio | 0.00 |
| No. in Project | 10 |

Layout

| ID | Type | X | Y | Height | Angle | Tilt | Cant | Out-reach | Target X | Target Y | Target Z |
|----|------|--------|--------|--------|--------|------|------|-----------|----------|----------|----------|
| 1 | D | 64.53 | 51.47 | 5.00 | 297.00 | 0.00 | 0.00 | 1.00 | | | |
| 2 | D | 120.93 | 80.39 | 5.00 | 292.00 | 0.00 | 0.00 | 1.00 | | | |
| 41 | D | 168.30 | 102.45 | 5.00 | 115.00 | 0.00 | 0.00 | 1.00 | | | |
| 43 | D | 93.86 | 61.00 | 5.00 | 115.00 | 0.00 | 0.00 | 1.00 | | | |
| 44 | D | 140.36 | 91.58 | 5.00 | 299.00 | 0.00 | 0.00 | 1.00 | | | |
| 47 | D | 194.67 | 120.73 | 5.00 | 299.00 | 0.00 | 0.00 | 1.00 | | | |
| 48 | D | 216.16 | 132.06 | 5.00 | 203.00 | 0.00 | 0.00 | 1.00 | | | |
| 50 | D | 202.37 | 158.48 | 5.00 | 211.00 | 0.00 | 0.00 | 1.00 | | | |
| 51 | D | 193.74 | 179.73 | 5.00 | 149.00 | 0.00 | 0.00 | 1.00 | | | |
| 52 | D | 201.93 | 208.28 | 5.00 | 176.00 | 0.00 | 0.00 | 1.00 | | | |

Horizontal Illuminance (lux)

Carpark Area B

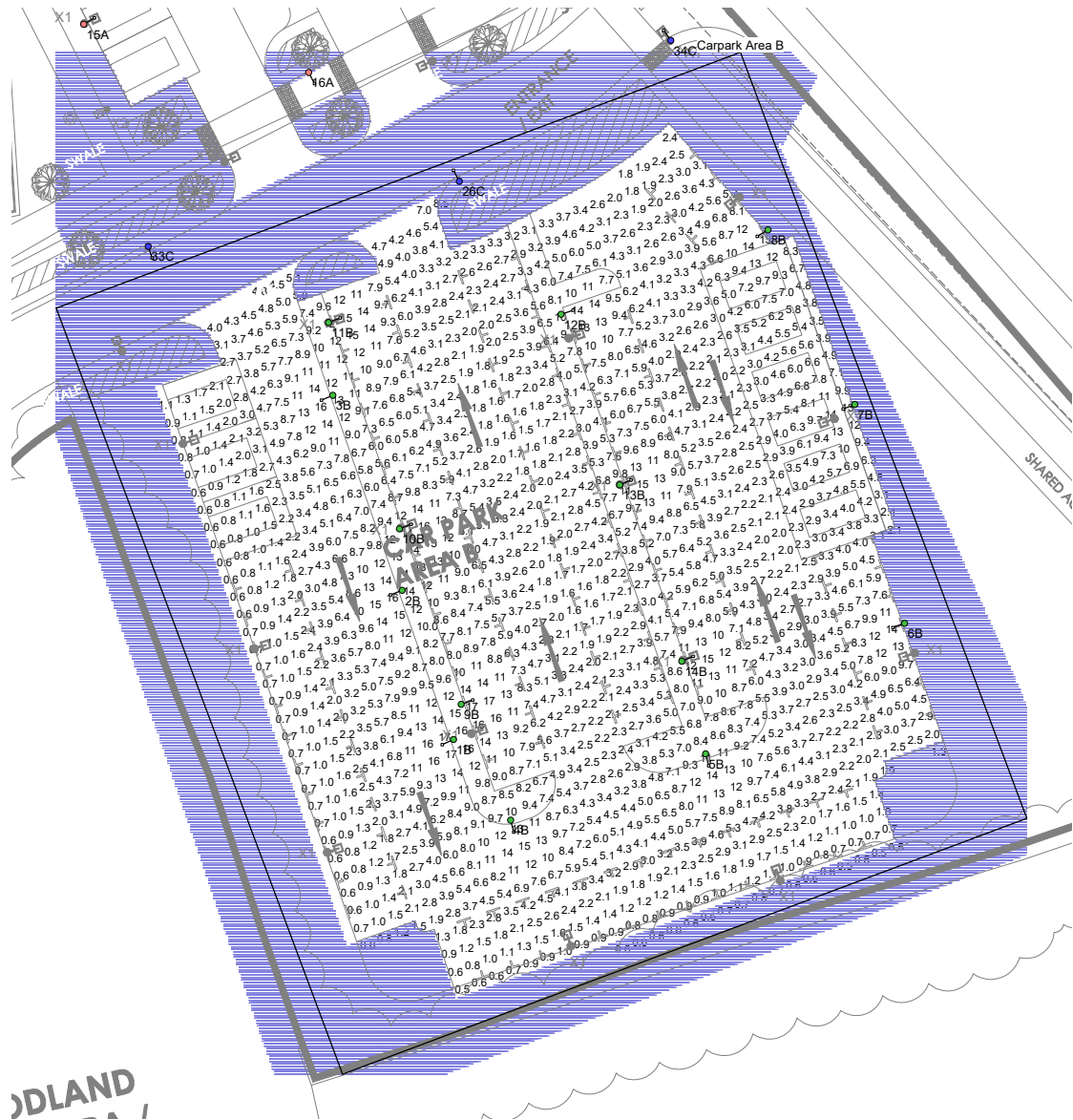


Results

| | |
|-----------|-------|
| Eav | 5.04 |
| Emin | 0.45 |
| Emax | 16.88 |
| Emin/Emax | 0.03 |
| Emin/Eav | 0.09 |
| | |

Horizontal Illuminance (lux)

Carpark Area B



Results

| | |
|-----------|-------|
| Eav | 5.04 |
| Emin | 0.45 |
| Emax | 16.88 |
| Emin/Emax | 0.03 |
| Emin/Eav | 0.09 |
| | |

Horizontal Illuminance (lux)

Carpark Area A

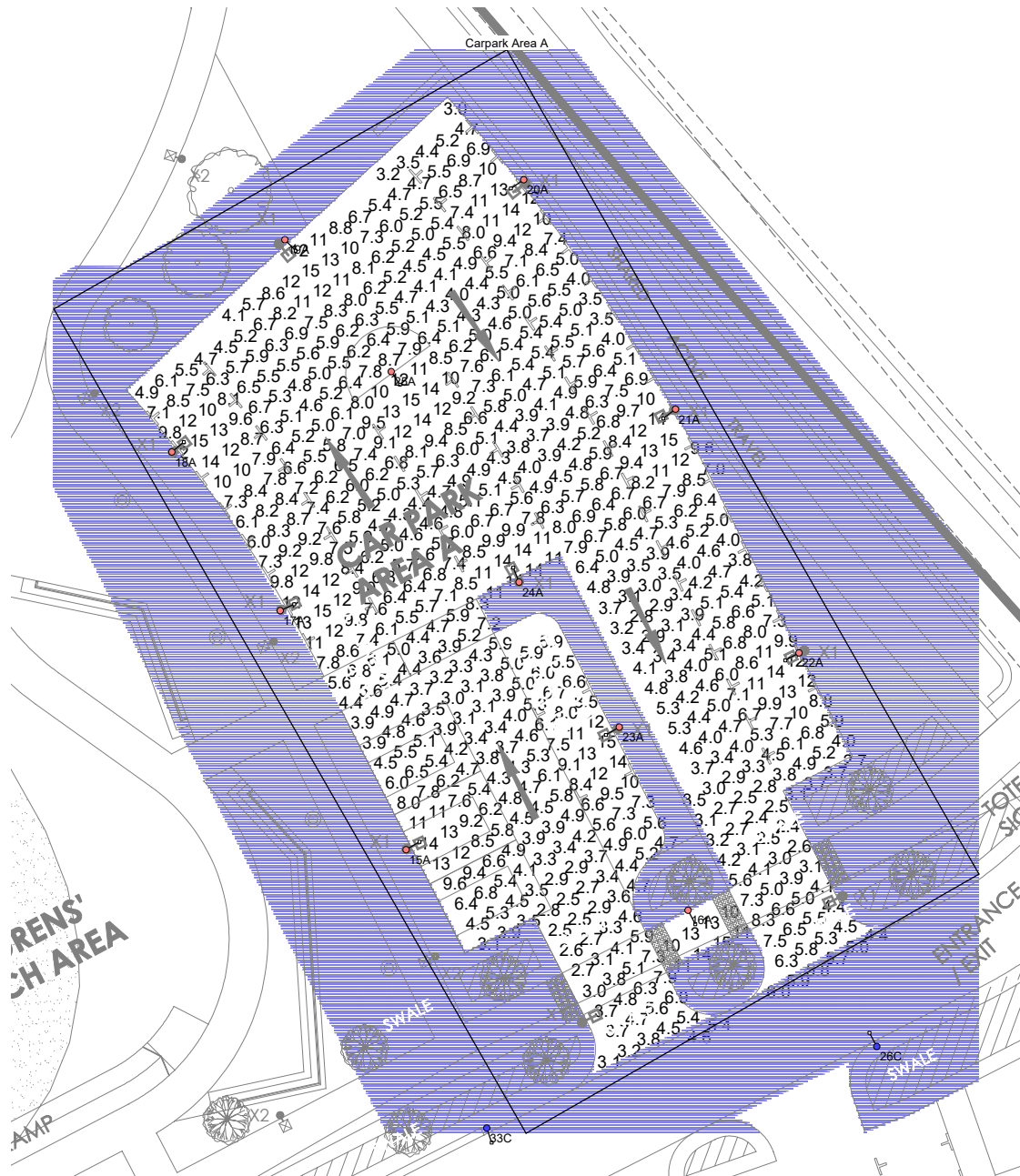


Results

| | |
|-----------|-------|
| Eav | 6.47 |
| Emin | 2.38 |
| Emax | 15.16 |
| Emin/Emax | 0.16 |
| Emin/Eav | 0.37 |

Horizontal Illuminance (lux)

Carpark Area A

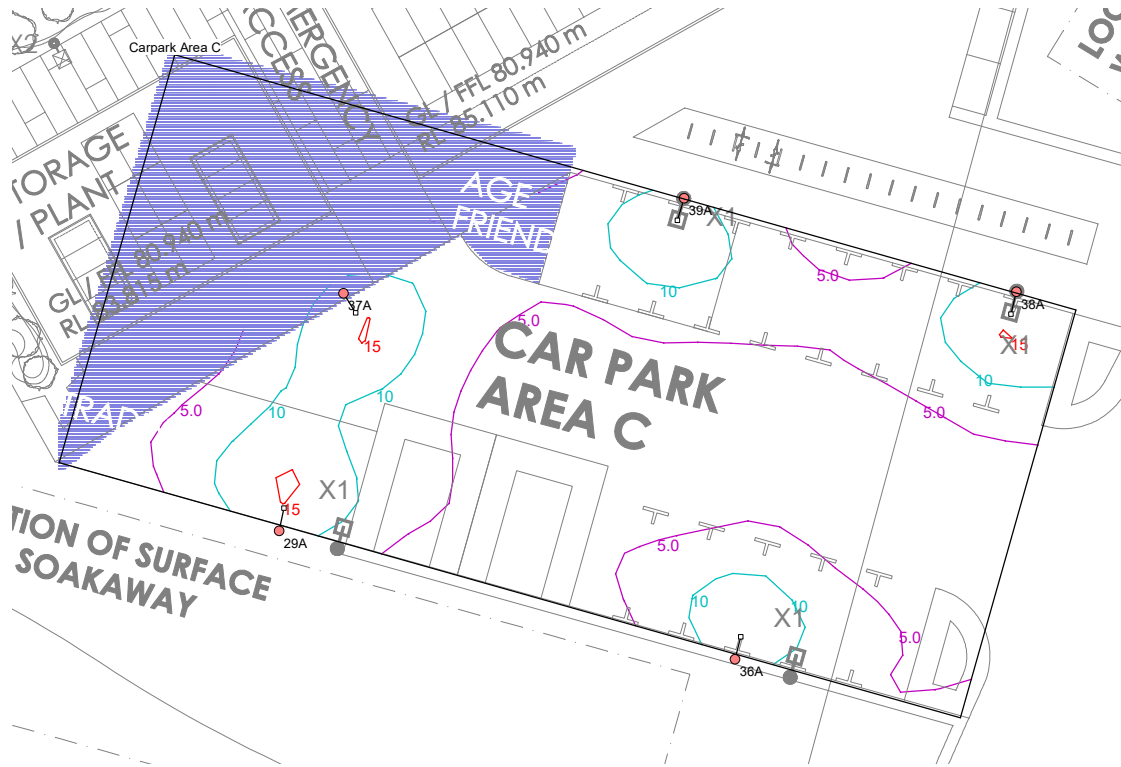


Results

| | |
|------------------------------------|-------|
| Eav | 6.47 |
| Emin | 2.38 |
| E _{max} | 15.16 |
| E _{min} /E _{max} | 0.16 |
| E _{min} /E _{av} | 0.37 |

Horizontal Illuminance (lux)

Carpark Area C

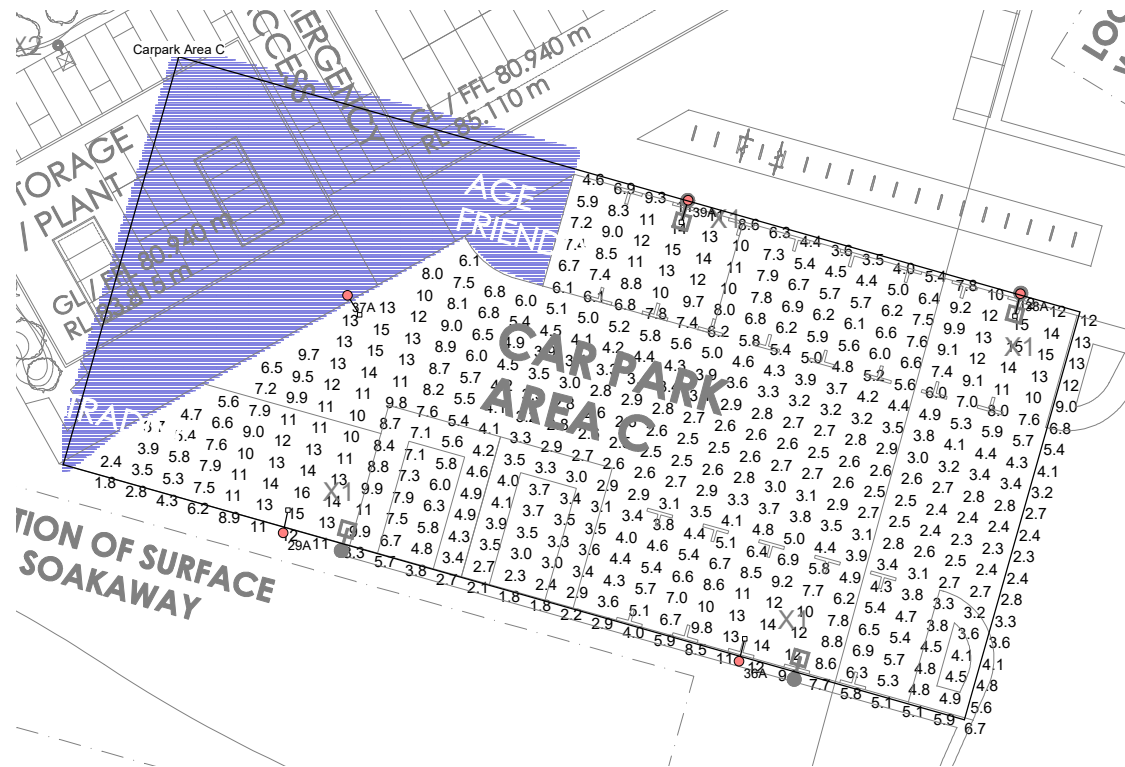


Results

| | |
|------------------------------------|-------|
| Eav | 6.29 |
| Emin | 1.78 |
| E _{max} | 15.61 |
| E _{min} /E _{max} | 0.11 |
| E _{min} /E _{av} | 0.28 |
| | |

Horizontal Illuminance (lux)

Carpark Area C



Results

| | |
|-----------|-------|
| Eav | 6.29 |
| Emin | 1.78 |
| Emax | 15.61 |
| Emin/Emax | 0.11 |
| Emin/Eav | 0.28 |
| | |

Horizontal Illuminance (lux)

Central Roadway

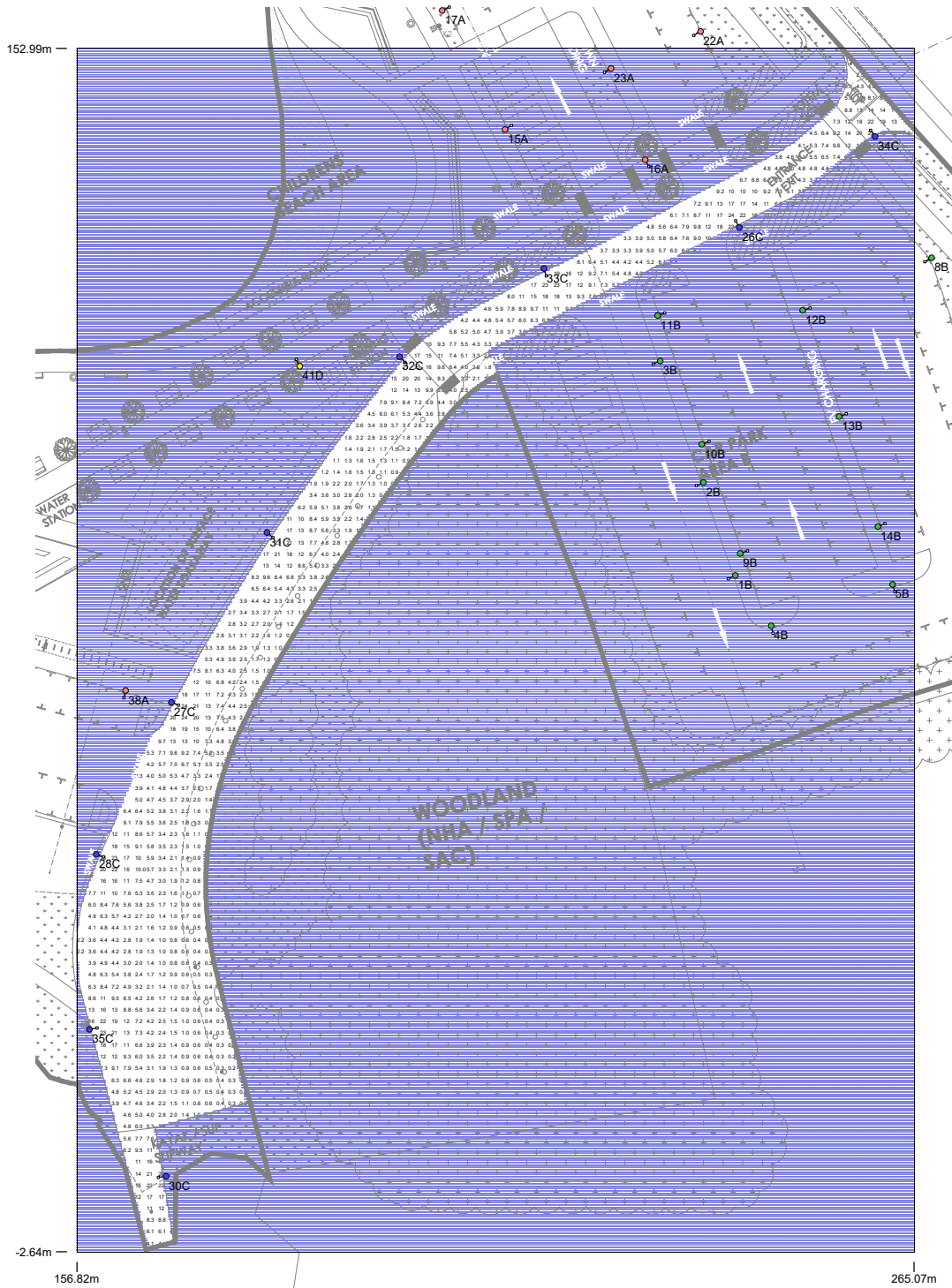


Results

| | |
|-----------|-------|
| Eav | 5.90 |
| Emin | 0.20 |
| Emax | 24.40 |
| Emin/Emax | 0.01 |
| Emin/Eav | 0.03 |

Horizontal Illuminance (lux)

Central Roadway

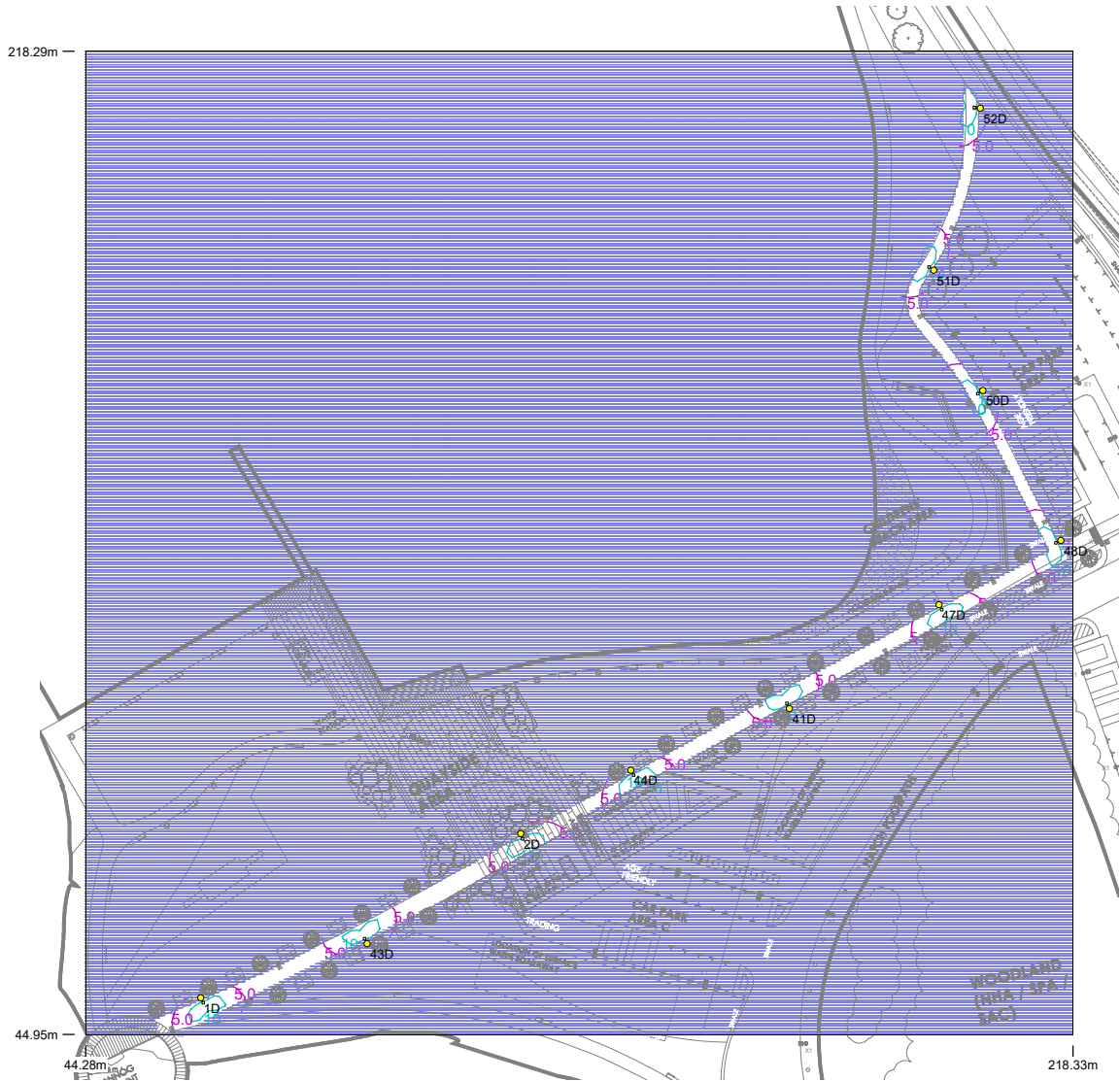


Results

| | |
|-----------|-------|
| Eav | 5.90 |
| Emin | 0.20 |
| Emax | 24.40 |
| Emin/Emax | 0.01 |
| Emin/Eav | 0.03 |

Horizontal Illuminance (lux)

Pedestrian Route



Results

| | |
|-----------|-------|
| Eav | 5.66 |
| Emin | 0.97 |
| Emax | 11.51 |
| Emin/Emax | 0.08 |
| Emin/Eav | 0.17 |
| | |

Horizontal Illuminance (lux)

Pedestrian Route



Results

| | |
|-----------|-------|
| Eav | 5.66 |
| Emin | 0.97 |
| Emax | 11.51 |
| Emin/Emax | 0.08 |
| Emin/Eav | 0.17 |