

DATE: 6 November 2025
DESIGNER: Dan Staunton
PROJECT No: 25-03-13-01C
PROJECT NAME: Belgard Square - Mixed Use



Development at Belgard Square, Dublin

IS EN 13201-2:2015 / BS 5489-1:2020
Pedestrian Areas - Class P2 / C4
1st Floor - Class P3

Pedestrian Crossings
>3.5 Times Road Lighting Classification (P1 / C3 Assumed)

Outdoor Lighting Report

Based on:
Lumen Output at 100,000 hours
Spot Lamp Replacement
Normal Environment
6 Year Cleaning Cycle
Ground is Level

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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	Pedestrian Areas	-20.36	-53.70	82.32	198.56	1.50	1.49
2	Pedestrian Crossing 1	16.25	-20.47	10.22	25.37	1.46	1.49
3	Pedestrian Crossing 2	25.67	88.50	10.01	17.70	1.43	1.47
4	1st Floor	216.03	5.05	94.24	73.35	1.50	1.50

Luminaires

Luminaire A Data

Supplier	
Type	Veelite Quad Series 36w LED Street Optic R01
Lamp(s)	16 LED 3000K G4
Lamp Flux (klm)	4.27
File Name	5QDA08LGA-R01-3K-G4.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	680.3, 387.6, 0.6
No. in Project	1

Luminaire B Data

Supplier	
Type	Veelite Quad Series 52w LED Symmetric
Lamp(s)	32 LED 3000K G4 500mA
Lamp Flux (klm)	6.36
File Name	5MTB16LGA-SYM.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	375.5, 40.5, 0.0
No. in Project	4

Luminaire C Data

Supplier	
Type	Veelite Metro Streetlight 102w LED Pedestrian Crossing (Left)
Lamp(s)	48 LED 4000K G4
Lamp Flux (klm)	14.85
File Name	5MTB20LGA-PXL.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	356.0, 67.8, 36.0
No. in Project	2

Luminaire D Data

Supplier	
Type	Veelite Metro Streetlight 52w LED Pedestrian Crossing (Left)
Lamp(s)	48 LED 4000K G4
Lamp Flux (klm)	7.90
File Name	5MTB20LGC-PXL.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	356.0, 67.8, 36.0
No. in Project	2

Luminaire E Data

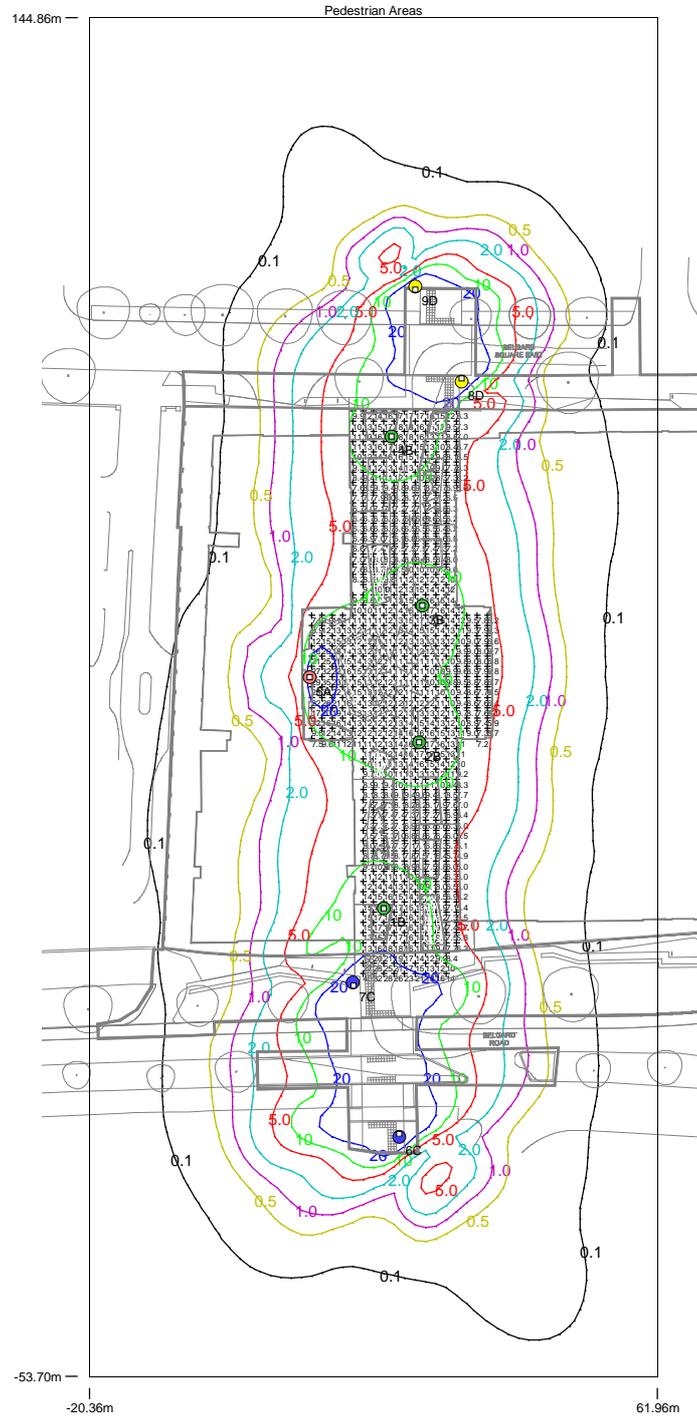
Supplier	
Type	Veelite Quad Series 36w LED Symmetric
Lamp(s)	16 LED 3000K G4
Lamp Flux (klm)	4.33
File Name	5QDA08LGA-3K-G4.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	375.5, 40.5, 0.0
No. in Project	5

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	B	22.29	14.77	6.00	0.00	0.00	0.00	0.00			
2	B	27.42	39.04	6.00	0.00	0.00	0.00	0.00			
3	B	27.89	59.00	6.00	4.00	0.00	0.00	0.00			
4	B	23.36	83.71	6.00	181.00	0.00	0.00	0.00			
5	A	11.58	48.53	6.00	0.00	0.00	0.00	0.00			
6	C	24.52	-18.65	8.00	92.00	0.00	0.00	0.50			
7	C	17.82	3.96	8.00	275.00	0.00	0.00	0.50			
8	D	33.55	91.66	6.00	93.00	0.00	0.00	0.50			
9	D	26.83	105.61	6.00	268.00	0.00	0.00	0.50			
10	E	236.77	31.43	5.00	272.00	0.00	0.00	0.00			
11	E	271.04	52.23	5.00	0.00	0.00	0.00	0.00			
12	E	276.82	35.05	5.00	359.00	0.00	0.00	0.00			
13	E	244.61	52.69	5.00	337.00	0.00	0.00	0.00			
14	E	252.99	36.31	5.00	359.00	0.00	0.00	0.00			

Horizontal Illuminance (lux)

Pedestrian Areas

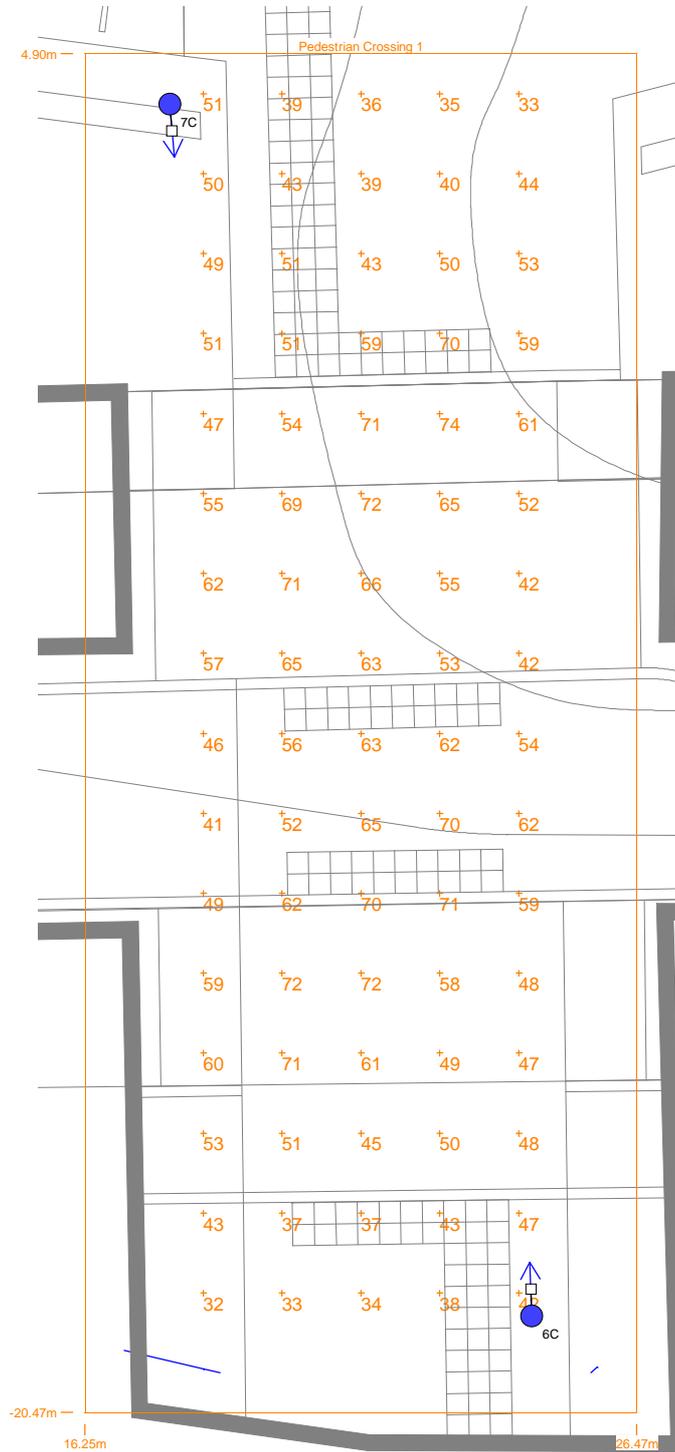


Results

Eav	11.41
Emin	4.94
Emax	40.34
Emin/Emax	0.12
Emin/Eav	0.43

Horizontal Illuminance (lux)

Pedestrian Crossing 1

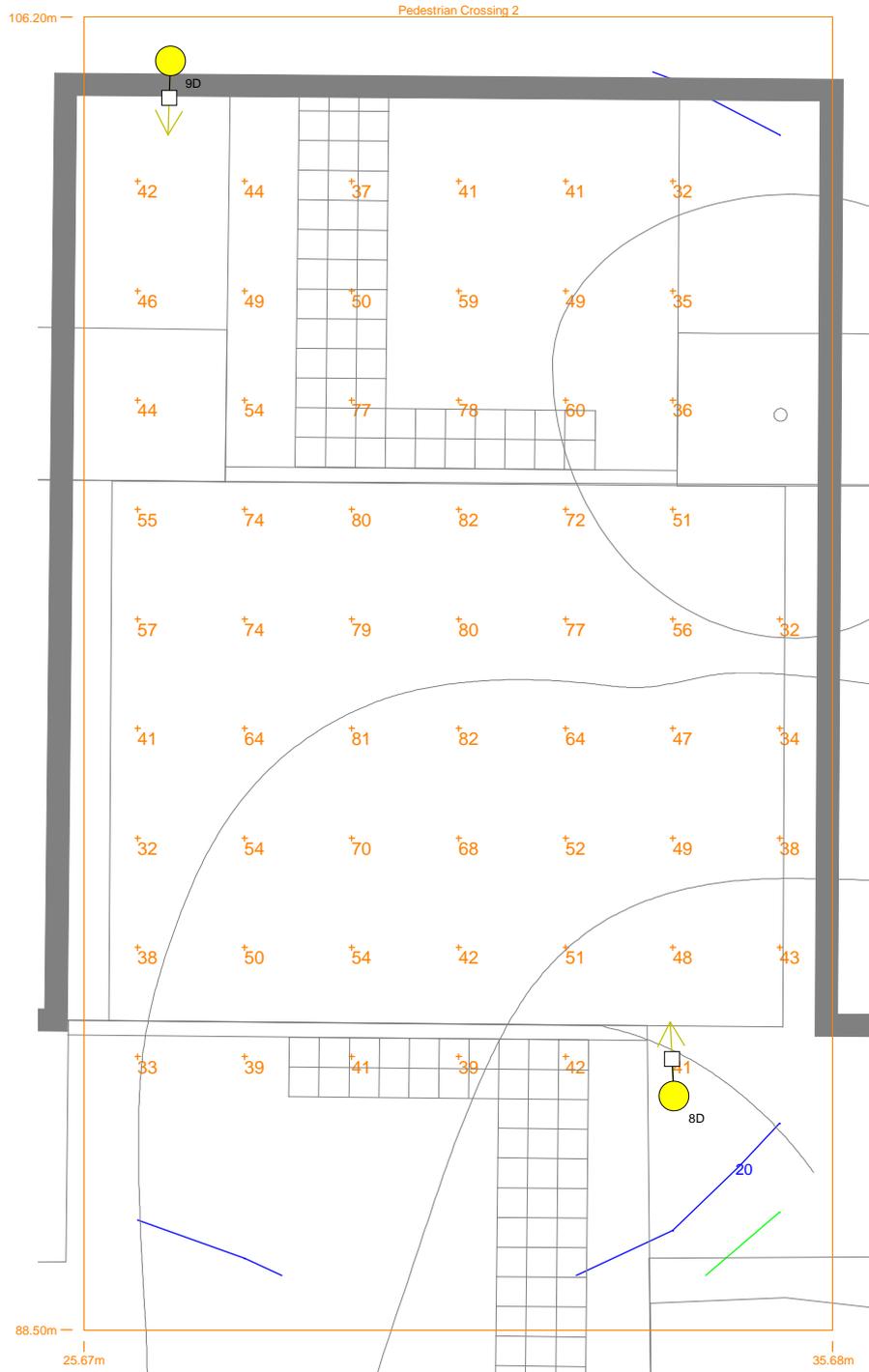


Results

Eav	53.20
Emin	31.96
E _{max}	74.24
E _{min} /E _{max}	0.43
E _{min} /E _{av}	0.60

Horizontal Illuminance (lux)

Pedestrian Crossing 2

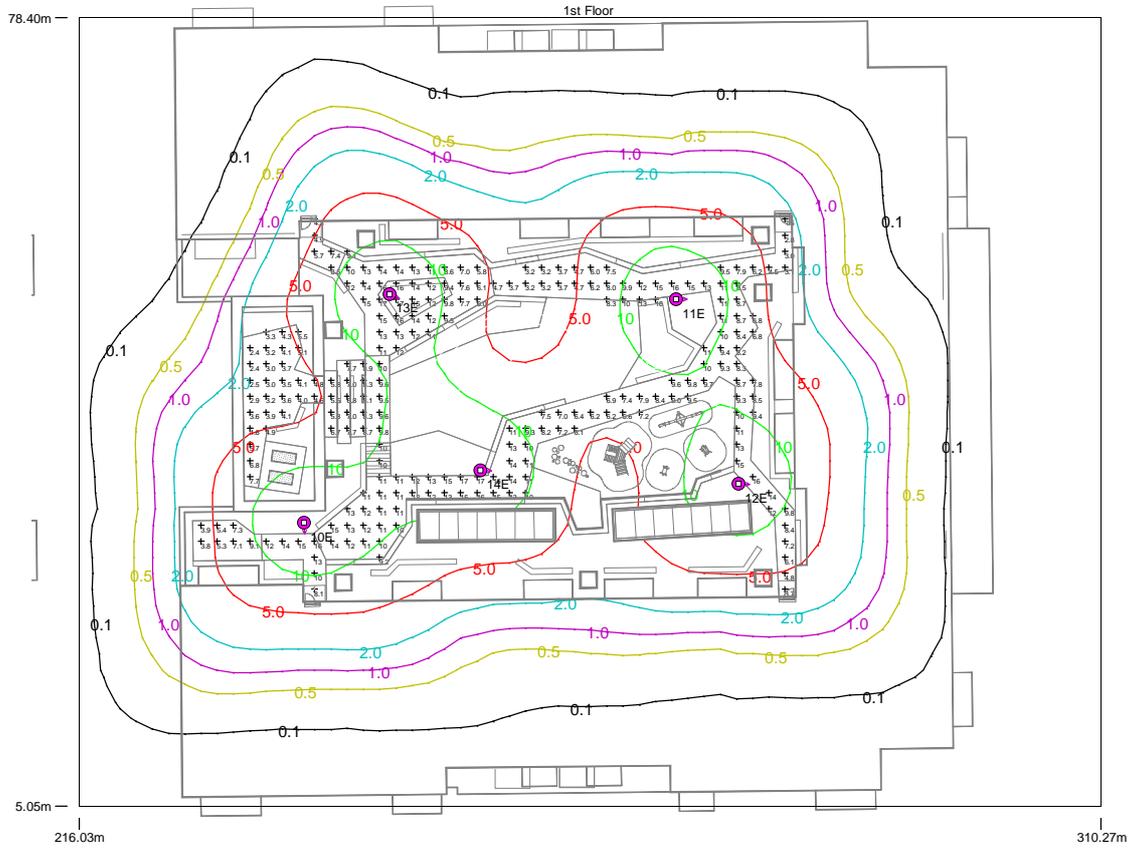


Results

Eav	53.10
Emin	31.96
Emax	82.28
Emin/Emax	0.39
Emin/Eav	0.60

Horizontal Illuminance (lux)

1st Floor



Results

Eav	9.09
Emin	2.37
E _{max}	17.28
E _{min} /E _{max}	0.14
E _{min} /E _{av}	0.26