

DATE: 10 September 2024
DESIGNER: Declan Doyle
PROJECT No: KE/RE/GGC/01 rev 3
PROJECT NAME: Glyntown Glanmire Cork lighting



Lighting to IS EN 13201:2-2015

Estate lighting to class P3, Main road lighting to class M4
Entrance (conflict zone) lighting to class C3
Zebra crossing to class S2 - 4000k
Estate lighting - 3000k, Main road lighting - 3000K
Dimming to U14 protocol (70/35 for zebra crossing)

- 1) Philips Lumistreet eco DW 2.70klm, 19w CLO
- 2) Philips Luma Micro BGP702 DRXN1 1.61klm, 10w CLO
- 3) Philips Luma Mini BGP702 DW50 6.00klm, 36w CLO
- 4) Philips Digi street BGP760 DPL1 20LE 4.60klm, 27w CLO

6m columns estate/zebra crossing, 8m columns main road
c/w nema 7 pin socket & photocell

Outdoor Lighting Report

PREPARED BY: Declan Doyle
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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	site	382.68	149.00	277.58	214.28	1.49	1.50
2	E Cliff road 1	551.18	388.65	13.70	44.87	1.37	1.50
3	E Cliff road 2	486.33	361.50	18.82	76.31	1.45	1.50
4	E Cliff road 3	518.77	236.12	18.52	119.62	1.42	1.50
5	E Cliff road 4	483.17	191.61	13.55	66.81	1.36	1.48
6	Entrance	515.35	248.84	12.26	20.14	1.36	1.44
7	Crossing path	507.89	283.03	6.00	3.32	1.50	1.11
8	Rear of path west	506.18	282.51	3.42	2.00	1.14	1.00
9	Kerb edge west	507.88	283.03	3.31	2.00	1.10	1.00
10	Rear of path east	514.35	288.48	3.15	2.00	1.05	1.00
11	Kerb edge east	512.62	288.02	3.34	2.00	1.11	1.00
12	Center path	509.76	287.10	3.32	2.00	1.11	1.00

Luminaires

Luminaire A Data

Supplier	
Type	LumiStreet gen2 Eco
Lamp(s)	LED27 L96@100kh /730 T25
Lamp Flux (klm)	2.70
File Name	BGS010 T25 FP LED27 L96@100kh-730 D W.ies
Maintenance Factor	0.80
Imax70,80,90(cd/klm)	689.8, 26.2, 0.0
No. in Project	31



Luminaire B Data

Supplier	Philips
Type	BGP702 DRXN1
Lamp(s)	LED-HB 5.2S 730
Lamp Flux (klm)	1.60
File Name	Luma Gen2 Micro_BGP702_DRXN1_1600_6LED_5.2S_CLO_L90_730.ies
Maintenance Factor	0.80
Imax70,80,90(cd/klm)	1103.8, 20.6, 0.0
No. in Project	7



Luminaire C Data

Supplier	Philips
Type	BGP702 DW50
Lamp(s)	LED-HB 5.2S 730
Lamp Flux (klm)	6.00
File Name	Luma Gen2 Micro_BGP702_DW50_6000_20LED_5.2S_CLO_L90_730.ies
Maintenance Factor	0.84
Imax70,80,90(cd/klm)	595.5, 51.0, 0.0
No. in Project	13



Luminaire D Data

Supplier	Philips
Type	BGP760_DPL1_4600_20LED_5.1S_CLO_L90_NW.ies
Lamp(s)	LED-HB 5.1S NW
Lamp Flux (klm)	4.60
File Name	DigiStreet Micro_BGP760_DPL1_4600_20LED_5.1S_CLO_L90_NW.ies
Maintenance Factor	0.80
Imax70,80,90(cd/klm)	247.8, 31.8, 0.0
No. in Project	2





Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	A	418.68	342.67	6.00	286.00	0.00	0.00	0.00			
2	A	426.26	333.70	6.00	196.00	0.00	0.00	0.00			
3	A	437.19	342.43	6.00	108.00	0.00	0.00	0.00			
4	A	444.85	368.17	6.00	244.00	0.00	0.00	0.00			
5	A	444.93	356.00	6.00	196.00	0.00	0.00	0.00			
6	A	459.66	366.10	6.00	194.00	0.00	0.00	0.00			
7	A	455.81	347.92	6.00	104.00	0.00	0.00	0.00			
8	A	480.01	350.72	6.00	106.00	0.00	0.00	0.00			
9	A	467.34	360.52	6.00	284.00	0.00	0.00	0.00			
10	A	402.25	337.95	6.00	286.00	0.00	0.00	0.00			
11	A	399.50	322.13	6.00	107.00	0.00	0.00	0.00			
12	A	367.60	339.14	6.00	19.00	0.00	0.00	0.00			
13	A	380.79	343.91	6.00	202.00	0.00	0.00	0.00			
14	A	373.89	322.74	6.00	22.00	0.00	0.00	0.00			
15	A	398.37	311.87	6.00	200.00	0.00	0.00	0.00			
16	A	381.65	302.70	6.00	14.00	0.00	0.00	0.00			
17	A	387.52	282.39	6.00	18.00	0.00	0.00	0.00			
18	A	404.24	271.14	6.00	196.00	0.00	0.00	0.00			
19	A	393.62	261.38	6.00	14.00	0.00	0.00	0.00			
20	A	420.59	253.52	6.00	104.00	0.00	0.00	0.00			
21	A	440.31	267.61	6.00	197.00	0.00	0.00	0.00			
22	A	424.68	273.52	6.00	287.00	0.00	0.00	0.00			
23	A	450.56	253.79	6.00	268.00	0.00	0.00	0.00			
24	A	472.21	252.29	6.00	275.00	0.00	0.00	0.00			
25	A	493.07	258.90	6.00	286.00	0.00	0.00	0.00			
26	A	510.18	265.42	6.00	352.00	0.00	0.00	0.00			
27	A	424.72	353.35	6.00	18.00	0.00	0.00	0.00			
28	B	422.15	292.73	6.00	286.00	0.00	0.00	0.00			
29	A	388.53	334.19	6.00	287.00	0.00	0.00	0.00			
30	B	389.76	358.91	6.00	284.00	0.00	0.00	0.00			
31	B	409.46	364.63	6.00	287.00	0.00	0.00	0.00			
32	A	458.77	381.93	6.00	290.00	0.00	0.00	0.00			
33	B	488.30	386.86	6.00	289.00	0.00	0.00	0.00			
34	B	516.06	392.10	6.00	107.00	0.00	0.00	0.00			
35	B	549.90	395.46	6.00	103.00	0.00	0.00	0.00			
36	B	532.44	391.55	6.00	96.00	0.00	0.00	0.00			

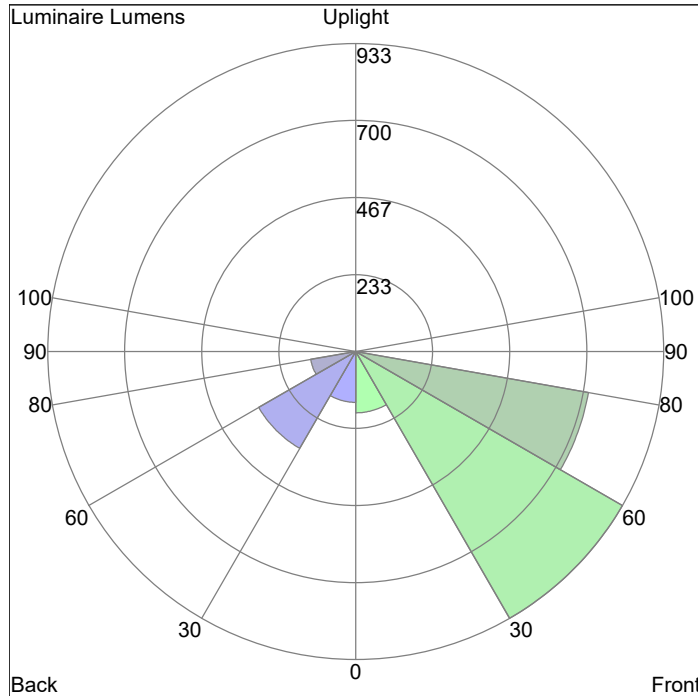


Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
37	C	498.13	214.71	6.00	330.00	0.00	0.00	1.00			
38	C	511.58	239.37	6.00	330.00	0.00	0.00	1.00			
39	C	483.25	189.12	6.00	329.00	0.00	0.00	1.00			
40	C	529.43	239.31	6.00	197.00	0.00	0.00	1.00			
41	A	513.84	254.98	6.00	60.00	0.00	0.00	0.00			
42	C	522.80	264.64	8.00	200.00	0.00	0.00	1.00			
43	C	551.57	391.01	8.00	302.00	0.00	0.00	1.00			
44	C	502.67	327.63	8.00	193.00	0.00	0.00	1.00			
45	C	500.85	351.41	8.00	153.00	0.00	0.00	1.00			
46	C	515.30	364.10	8.00	112.00	0.00	0.00	1.00			
47	C	529.94	380.30	8.00	295.00	0.00	0.00	1.00			
48	C	565.15	402.94	8.00	326.00	0.00	0.00	1.00			
49	C	576.25	421.31	8.00	342.00	0.00	0.00	1.00			
50	C	500.38	303.34	6.00	18.00	0.00	0.00	1.00			
51	D	507.80	281.78	6.00	13.00	0.00	0.00	0.00			
52	D	512.66	289.27	6.00	194.00	0.00	0.00	0.00			
53	A	406.43	295.34	6.00	198.00	0.00	0.00	0.00			

Luminaire Classification System (LCS) Graphs

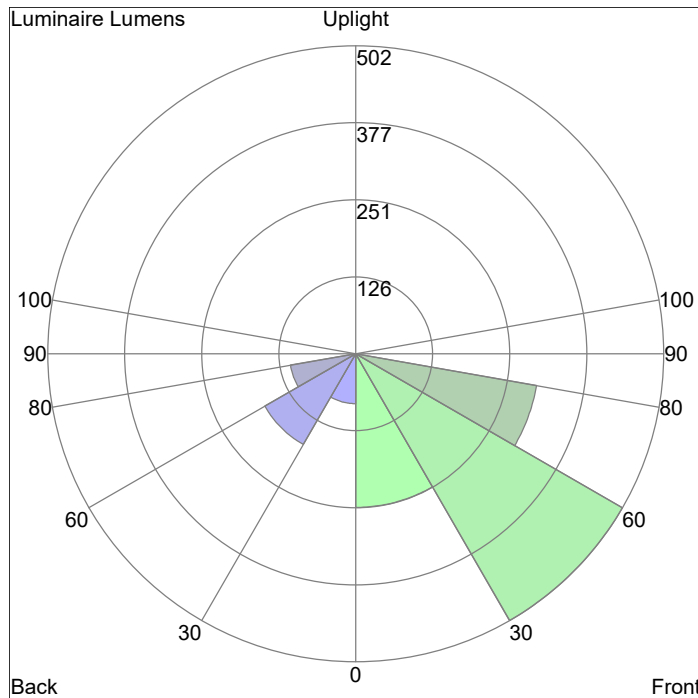
Luminaire A LumiStreet gen2 Eco



LCS	Lumens	%Lamp	%Lum
FL	186.3	6.9	7.5
FM	933.4	34.6	37.6
FH	716.4	26.5	28.9
FVH	8.6	0.3	0.3
BL	154.5	5.7	6.2
BM	339.0	12.6	13.7
BH	138.2	5.1	5.6
BVH	5.8	0.2	0.2
UL	0.0	0.0	0.0
UH	0.0	0.0	0.0
Total	2482.1	91.9	100.0

BUG rating=B1-U0-G1

Luminaire B BGP702 DRXN1

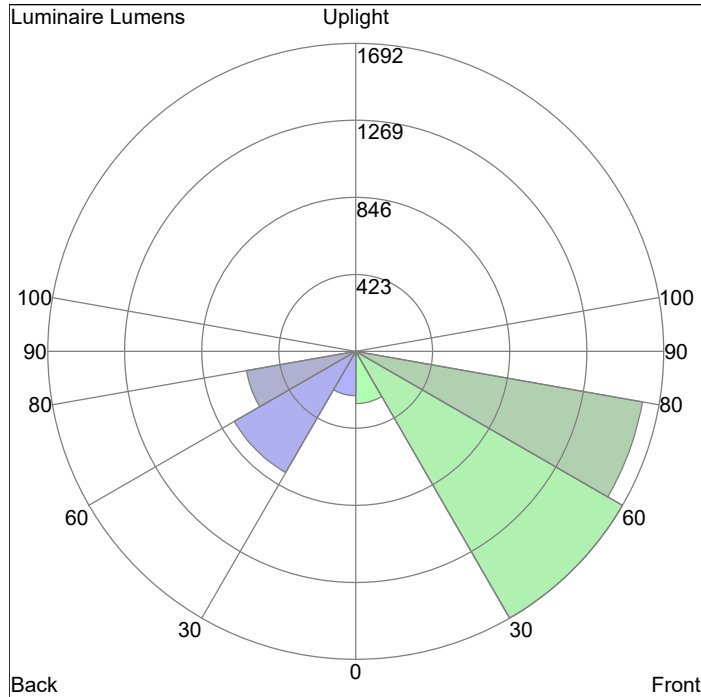


LCS	Lumens	%Lamp	%Lum
FL	250.6	15.7	17.7
FM	502.0	31.4	35.4
FH	299.4	18.7	21.1
FVH	2.7	0.2	0.2
BL	81.5	5.1	5.8
BM	170.9	10.7	12.1
BH	107.8	6.7	7.6
BVH	1.7	0.1	0.1
UL	0.0	0.0	0.0
UH	0.0	0.0	0.0
Total	1416.6	88.5	100.0

BUG rating=B1-U0-G0

Luminaire Classification System (LCS) Graphs Continued

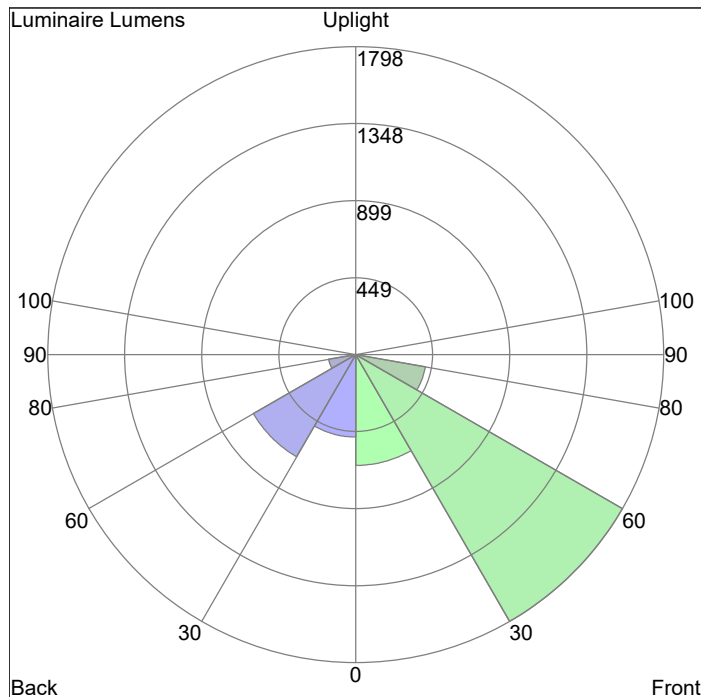
Luminaire C BGP702 DW50



LCS	Lumens	%Lamp	%Lum
FL	287.7	4.8	5.5
FM	1691.7	28.2	32.4
FH	1599.1	26.7	30.6
FVH	16.6	0.3	0.3
BL	244.3	4.1	4.7
BM	768.8	12.8	14.7
BH	608.5	10.1	11.6
BVH	9.2	0.2	0.2
UL	0.0	0.0	0.0
UH	0.0	0.0	0.0
Total	5226.2	87.1	100.0

BUG rating=B2-U0-G2

Luminaire D BGP760 DPL1 4600 20LED 5.1S CLO L90 NW.ies



LCS	Lumens	%Lamp	%Lum
FL	647.2	14.1	15.4
FM	1797.8	39.1	42.8
FH	413.5	9.0	9.8
FVH	11.0	0.2	0.3
BL	481.7	10.5	11.5
BM	688.5	15.0	16.4
BH	159.3	3.5	3.8
BVH	6.5	0.1	0.2
UL	0.0	0.0	0.0
UH	0.0	0.0	0.0
Total	4205.3	91.4	100.0

BUG rating=B2-U0-G1

Horizontal Illuminance (lux)

site

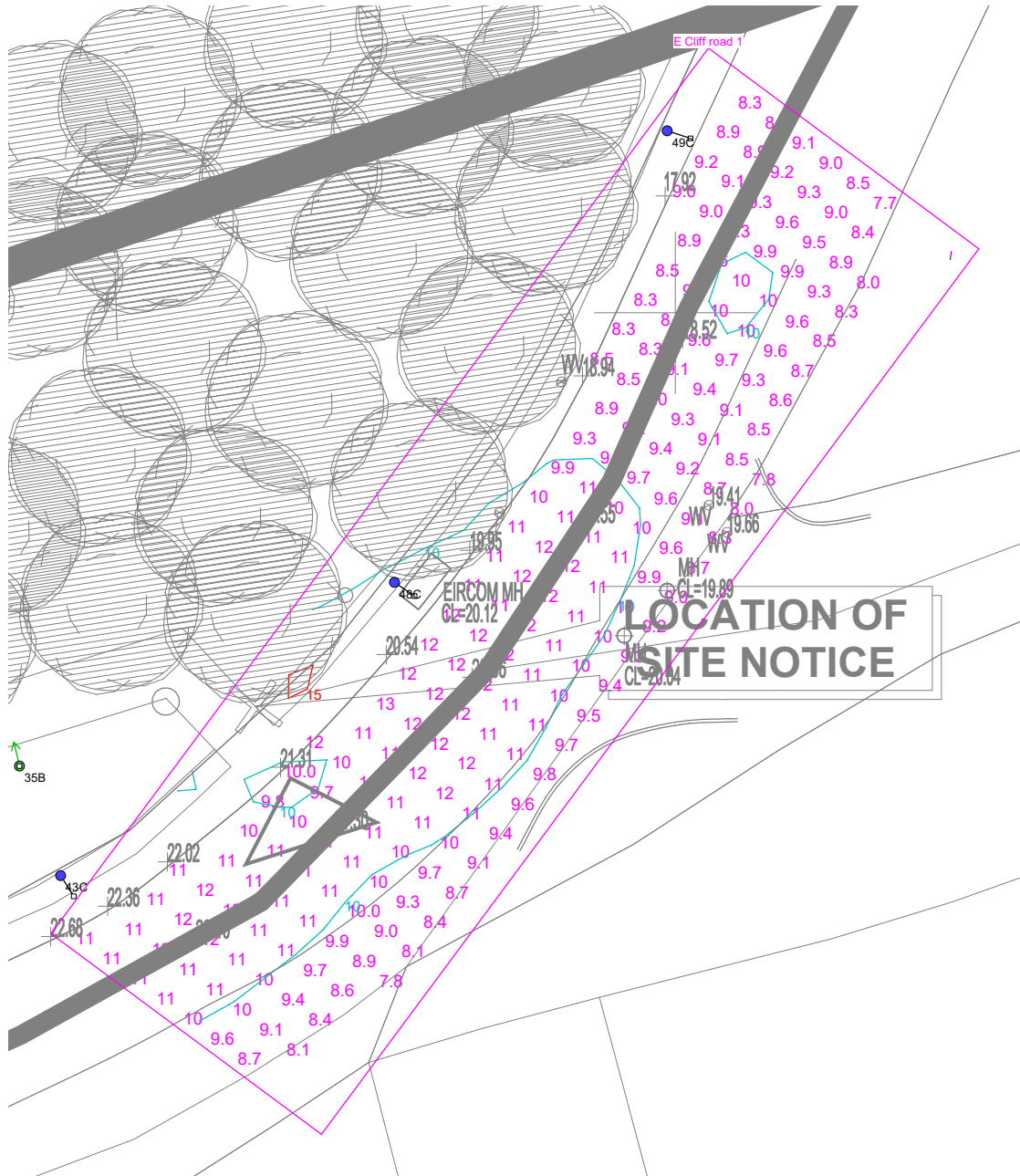


Results

Eav	8.18
Emin	1.86
E _{max}	17.12
E _{min} /E _{max}	0.11
E _{min} /E _{av}	0.23
E _{max} /E _{av}	2.09

Horizontal Illuminance (lux)

E Cliff road 1

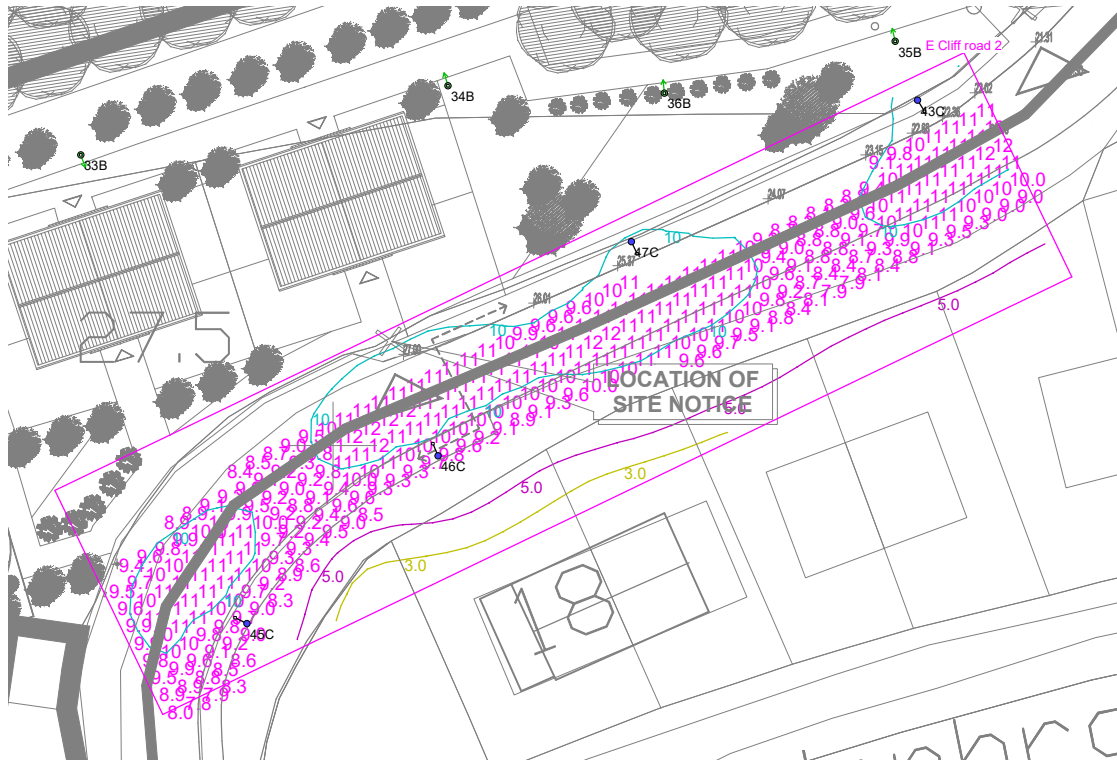


Results

Eav	10.04
Emin	7.75
Emax	12.73
Emin/Emax	0.61
Emin/Eav	0.77
Emax/Eav	1.27

Horizontal Illuminance (lux)

E Cliff road 2



Results

Eav	10.05
Emin	7.76
Emax	11.90
Emin/Emax	0.65
Emin/Eav	0.77
Emax/Eav	1.18

Horizontal Illuminance (lux)

E Cliff road 3

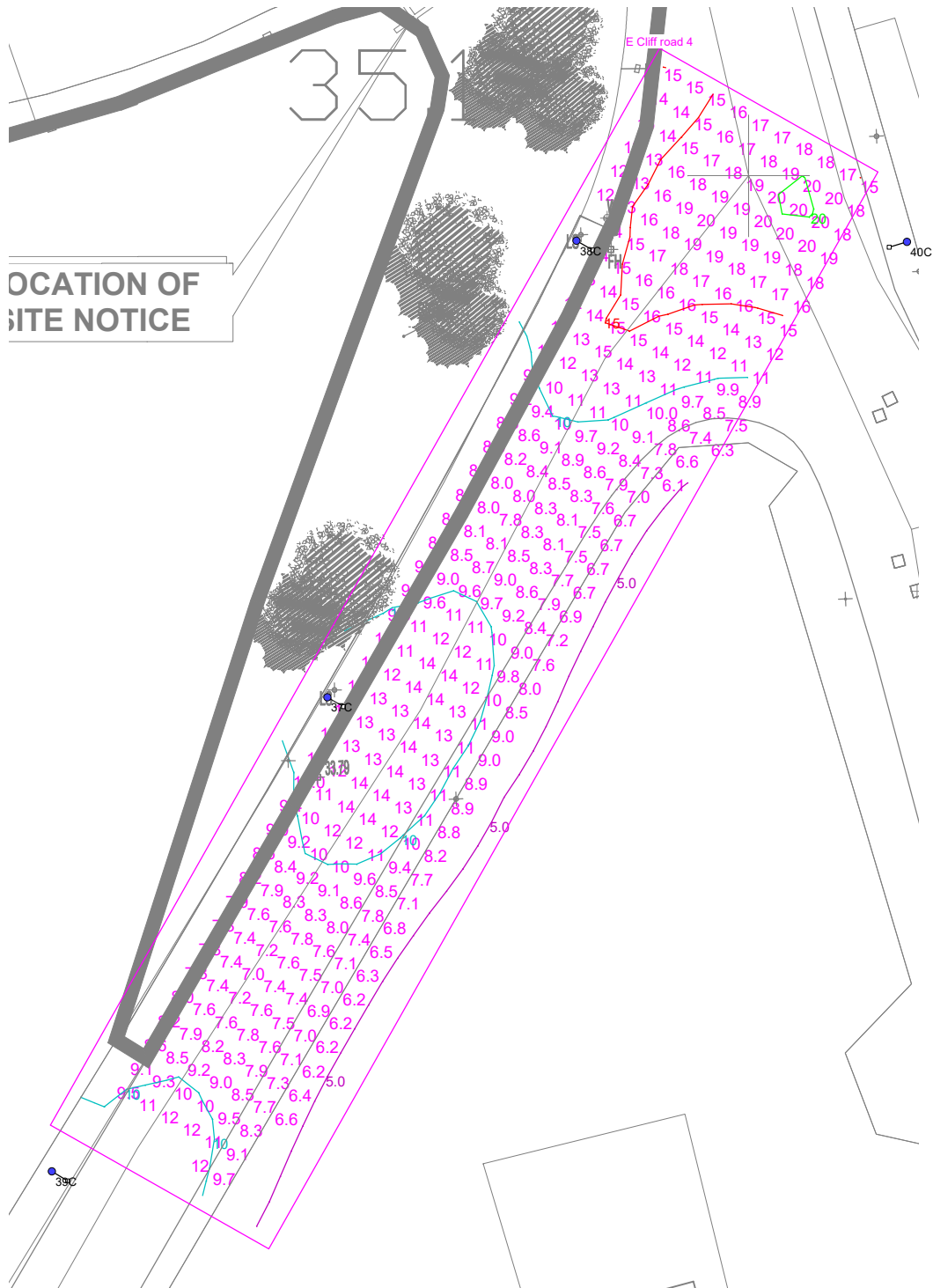


Results

Eav	14.11
Emin	5.58
E _{max}	67.85
E _{min} /E _{max}	0.08
E _{min} /E _{av}	0.40
E _{max} /E _{av}	4.81

Horizontal Illuminance (lux)

E Cliff road 4

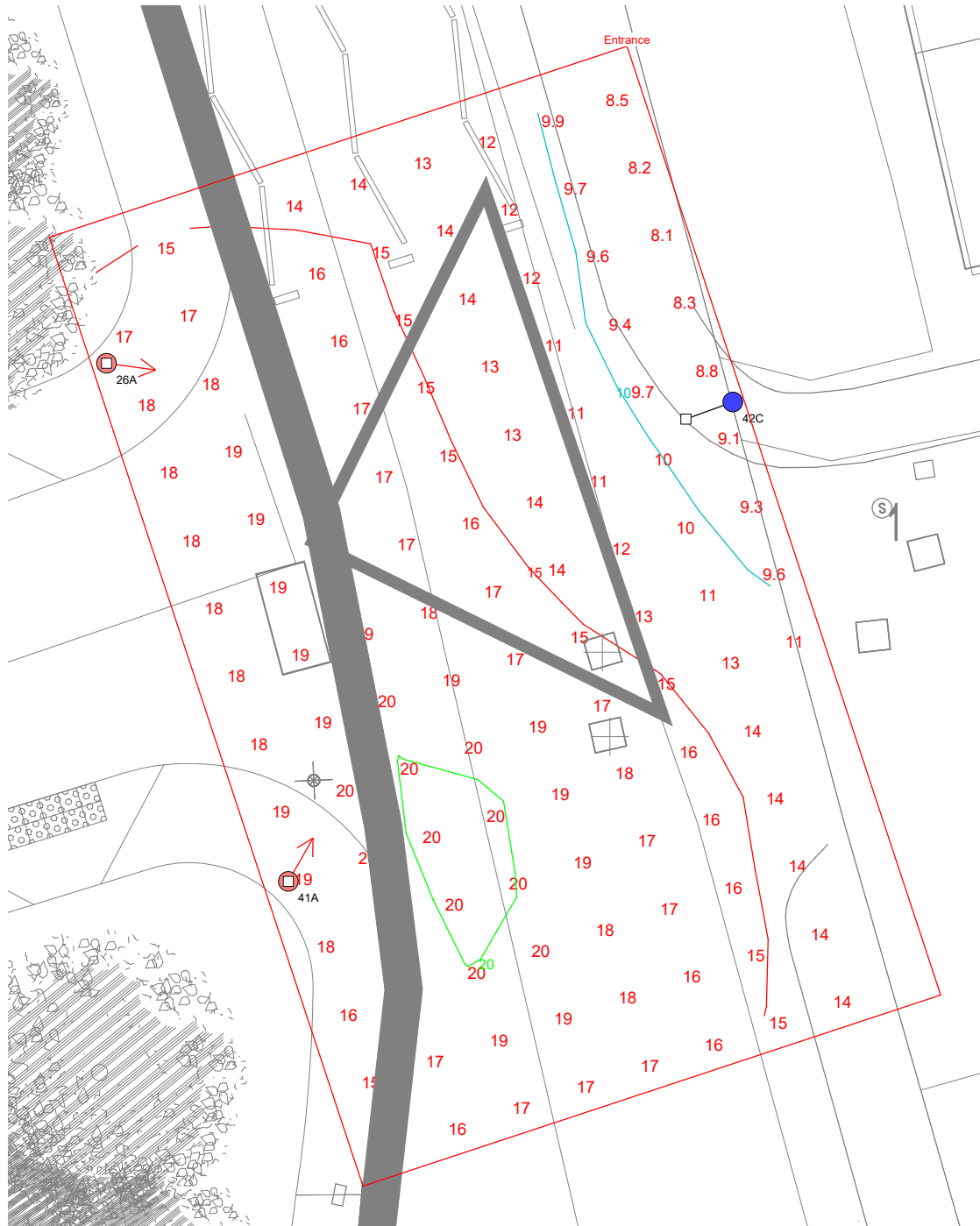


Results

Eav	11.27
Emin	6.10
Emax	20.34
Emin/Emax	0.30
Emin/Eav	0.54
Emax/Eav	1.80

Horizontal Illuminance (lux)

Entrance

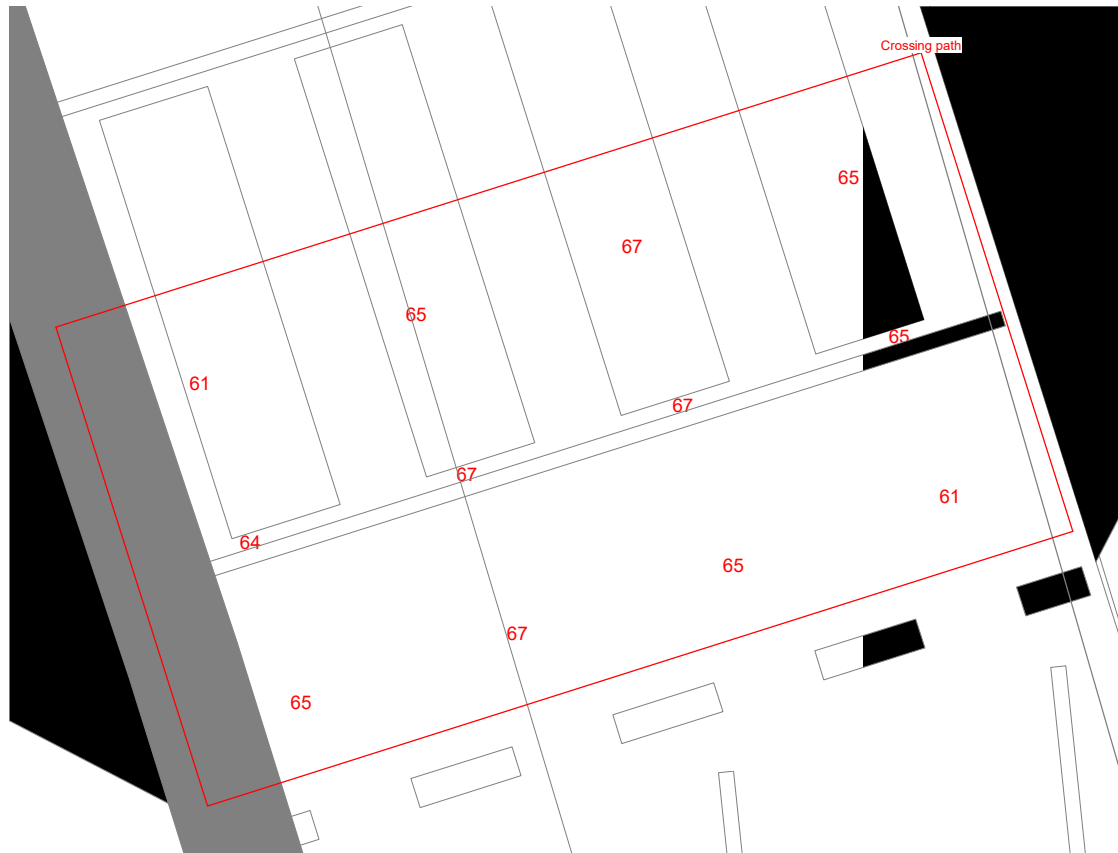


Results

Eav	15.57
Emin	8.07
Emax	20.24
Emin/Emax	0.40
Emin/Eav	0.52
Emax/Eav	1.30

Horizontal Illuminance (lux)

Crossing path

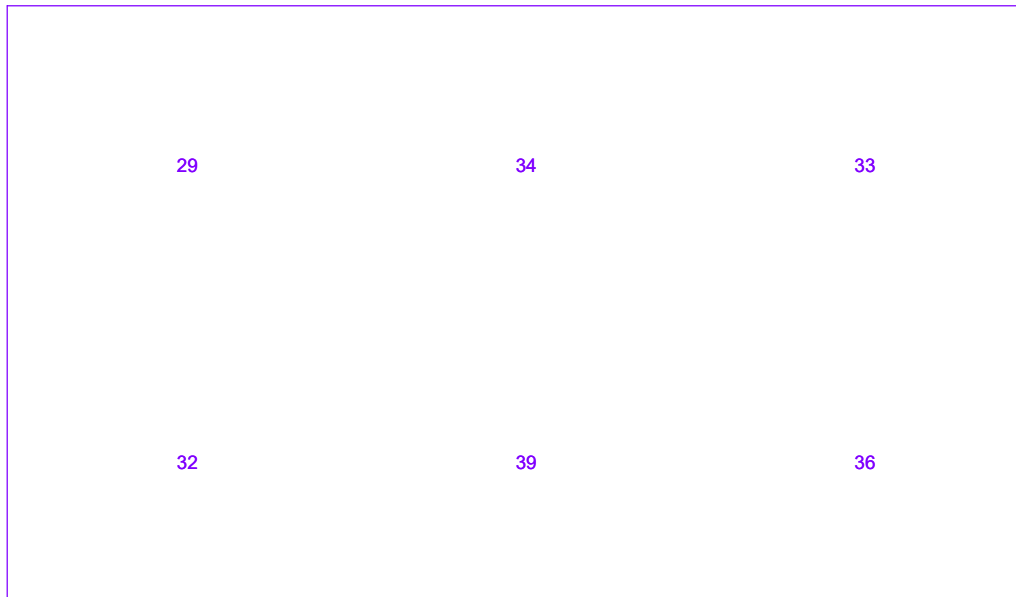


Results

Eav	64.90
Emin	61.11
Emax	66.96
Emin/Emax	0.91
Emin/Eav	0.94
Emax/Eav	1.03

Illuminance (lux)

Rear of path west

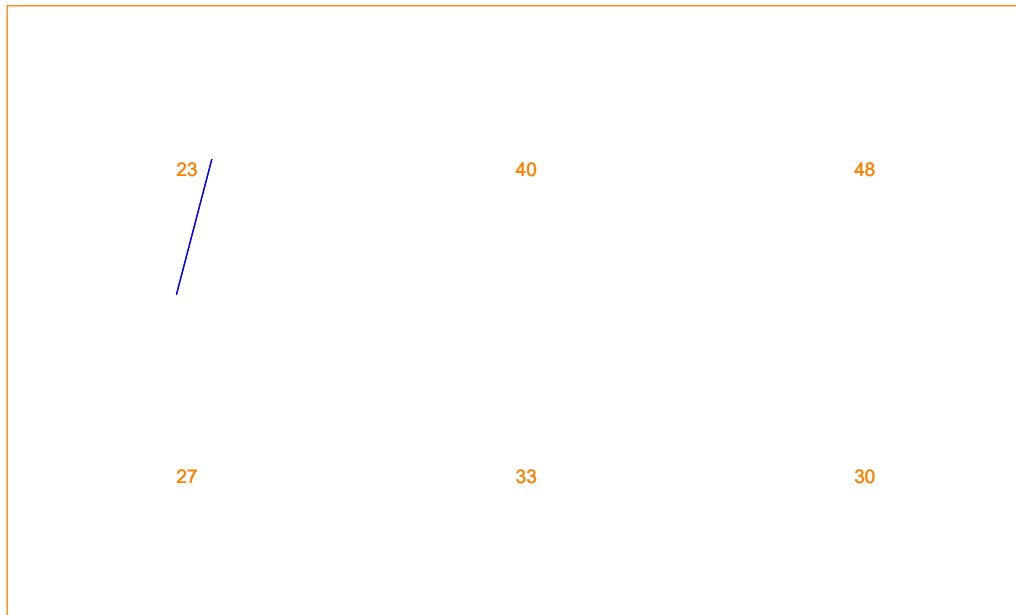


Results

Eav	33.87
Emin	28.95
Emax	38.73
Emin/Emax	0.75
Emin/Eav	0.85
Emax/Eav	1.14

Illuminance (lux)

Kerb edge west

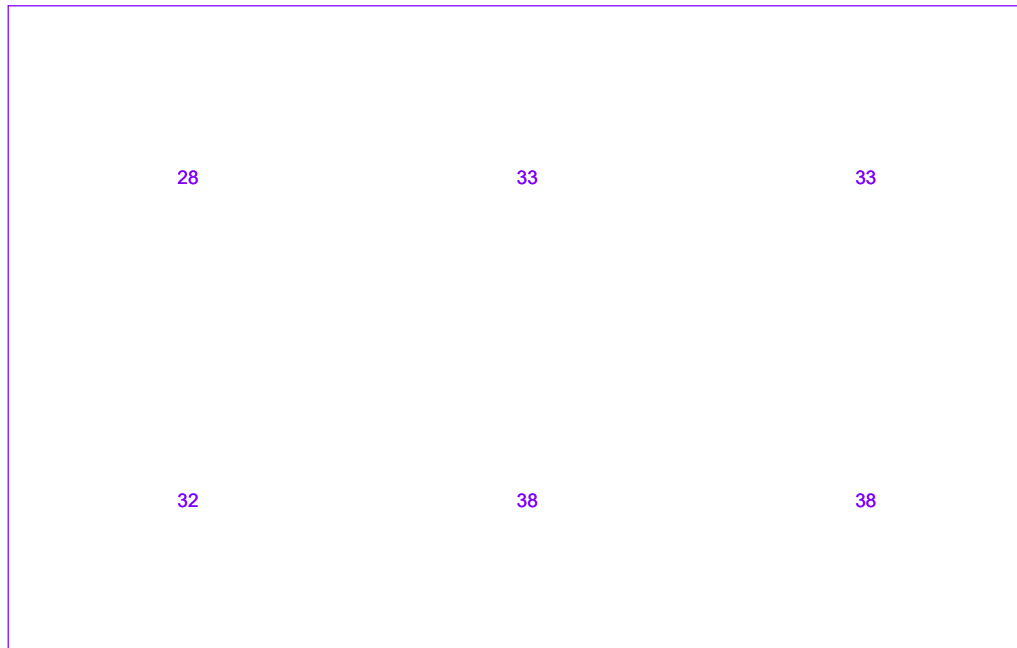


Results

Eav	33.61
Emin	23.22
Emax	47.55
Emin/Emax	0.49
Emin/Eav	0.69
Emax/Eav	1.41

Illuminance (lux)

Rear of path east

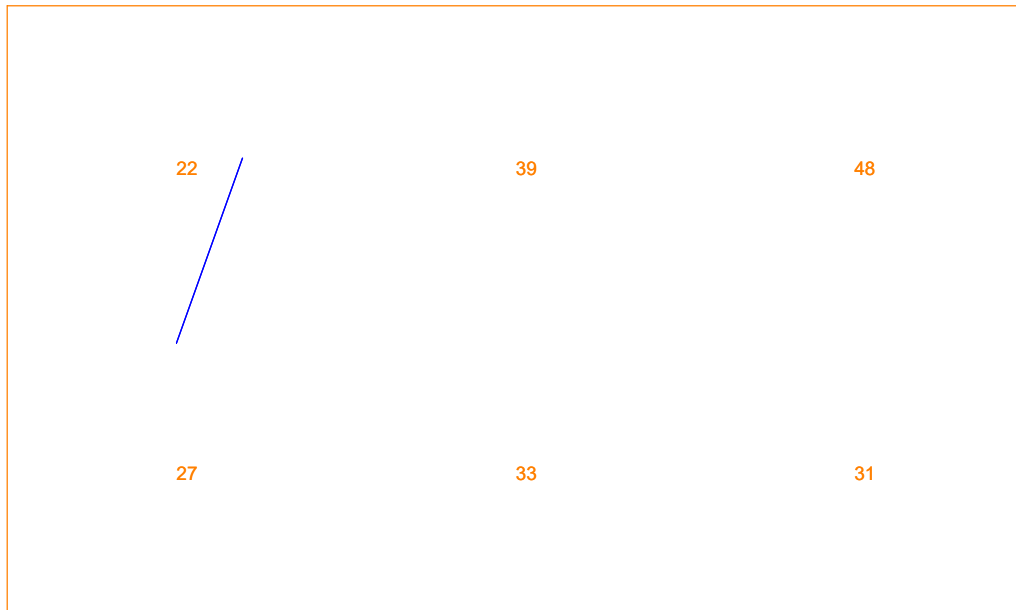


Results

Eav	33.86
Emin	28.35
Emax	38.35
Emin/Emax	0.74
Emin/Eav	0.84
Emax/Eav	1.13

Illuminance (lux)

Kerb edge east

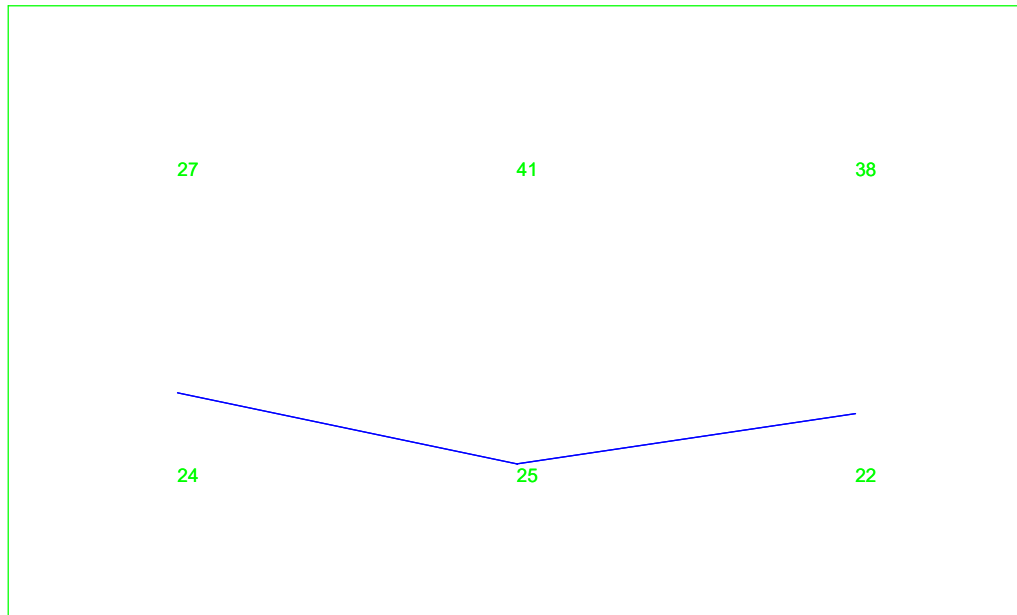


Results

Eav	33.34
Emin	21.57
E _{max}	47.70
Emin/E _{max}	0.45
Emin/Eav	0.65
E _{max} /Eav	1.43

Illuminance (lux)

Center path



Results

Eav	29.64
Emin	22.43
E _{max}	41.36
E _{min} /E _{max}	0.54
E _{min} /E _{av}	0.76
E _{max} /E _{av}	1.40