

DATE: 9 July 2024
DESIGNER: Karol Drapala
PROJECT No: KE/RE/KOW/01
PROJECT NAME: Kilnap old Whitechurch road



Lighting to IS EN 13201-2: 2015
Residential Lighting to Class P4, walkway lighting to class P4
Estate Entrances / Conflict Zone lighting to class C3
3000k colour temp.
A) Philips Lumistreet Gen2 Eco LED30 L96 DW 3.00klm
B) Philips Lumistreet Gen2 Eco LED94 L92 DW 9.40klm
C) Philips Lumistreet Gen2 micro BGP291 DRXN1 1.00klm
C/W Nema 7 Pin Socket & photocell
6m Columns - estate & walkways, 8m columns main road

Outdoor Lighting Report

PREPARED BY: Karol Drapala
Lighting Designer

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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	Estate	566653.54	574777.27	262.57	245.98	1.49	1.50
2	Estate Entrance / Conflict...	566804.52	574886.08	10.20	9.31	1.46	1.33
3	Estate Entrance / Conflict...	566800.17	574951.28	10.43	9.96	1.49	1.42
4	Walkway	566598.53	574974.36	16.80	37.10	1.40	1.48

Luminaires

Luminaire A Data

Supplier	
Type	LumiStreet gen2 Eco
Lamp(s)	LED30 L96@100kh /730 T25
Lamp Flux (klm)	3.00
File Name	BGS010 T25 FP LED30 L96@100kh-730 D W.ies
Maintenance Factor	0.80
Imax70,80,90(cd/klm)	689.8, 26.2, 0.0
No. in Project	27

Luminaire B Data

Supplier	
Type	LumiStreet gen2 Eco
Lamp(s)	LED94 L92@100kh /730 T25
Lamp Flux (klm)	9.40
File Name	BGS010 T25 FP LED94 L92@100kh-730 D W.ies
Maintenance Factor	0.80
Imax70,80,90(cd/klm)	661.9, 25.1, 0.0
No. in Project	2



Luminaire C Data

Supplier	Philips
Type	BGP291 DRXN1
Lamp(s)	LED-HB 5.2S 730
Lamp Flux (klm)	1.00
File Name	LumiStreet Gen2 Micro_BGP291_DRXN1_1000_6LED_5.2S_CLO_L90_730.ies
Maintenance Factor	0.80
Imax70,80,90(cd/klm)	1155.3, 26.3, 0.0
No. in Project	2

Layout

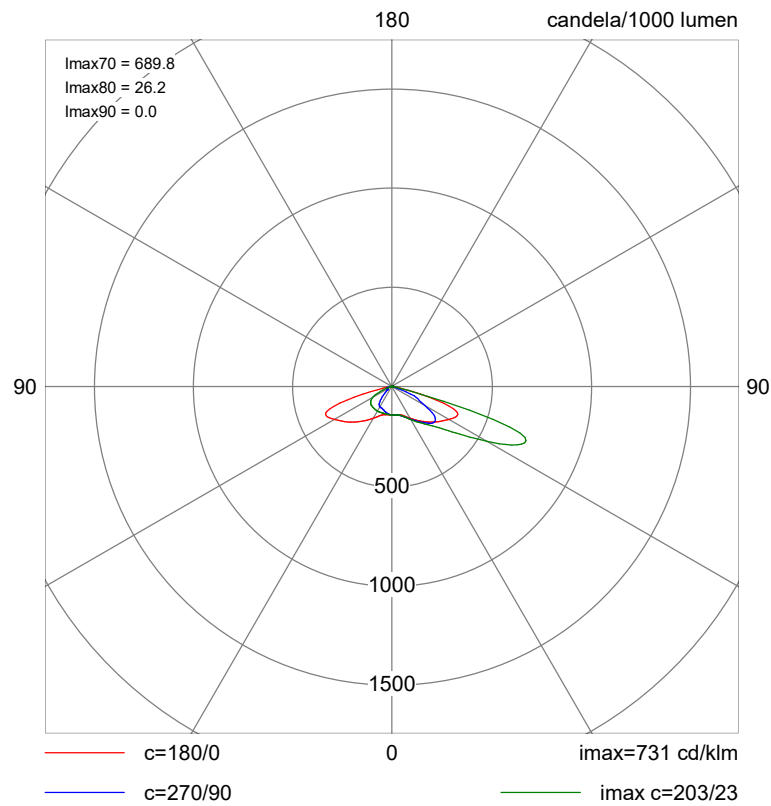
ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	A	566792.47	574950.65	6.00	90.00	0.00	0.00	0.40			
2	A	566760.32	574949.74	6.00	90.00	0.00	0.00	0.40			
3	A	566727.37	574958.18	6.00	273.00	0.00	0.00	0.40			
4	A	566716.57	574981.74	6.00	223.00	0.00	0.00	0.40			
5	A	566688.82	574968.27	6.00	313.00	0.00	0.00	0.40			
6	A	566707.13	574939.46	6.00	123.00	0.00	0.00	0.40			
7	A	566682.16	574921.40	6.00	125.00	0.00	0.00	0.40			

Layout Continued

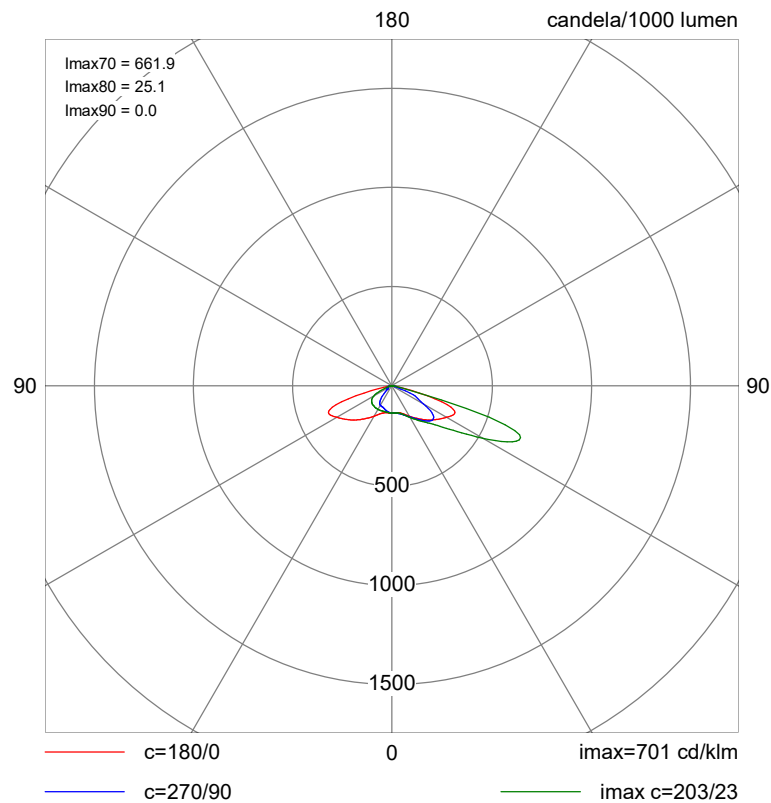
ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
8	A	566657.19	574903.34	6.00	123.00	0.00	0.00	0.40			
9	A	566647.40	574888.69	6.00	43.00	0.00	0.00	0.40			
10	A	566629.64	574913.27	6.00	43.00	0.00	0.00	0.40			
11	A	566611.86	574937.57	6.00	43.00	0.00	0.00	0.40			
12	A	566594.29	574961.86	6.00	43.00	0.00	0.00	0.40			
13	A	566579.67	574981.73	6.00	43.00	0.00	0.00	0.40			
14	A	566615.48	574976.89	6.00	127.00	0.00	0.00	0.40			
15	A	566639.72	574994.66	6.00	127.00	0.00	0.00	0.40			
16	A	566664.83	575012.80	6.00	127.00	0.00	0.00	0.40			
17	A	566689.79	575030.83	6.00	127.00	0.00	0.00	0.40			
18	A	566717.96	575036.28	6.00	93.00	0.00	0.00	0.40			
19	A	566742.76	575030.67	6.00	67.00	0.00	0.00	0.40			
20	A	566760.95	575016.41	6.00	39.00	0.00	0.00	0.40			
21	A	566774.85	574992.73	6.00	30.00	0.00	0.00	0.40			
22	A	566778.01	574970.27	6.00	10.00	0.00	0.00	0.40			
23	A	566797.96	574893.78	6.00	270.00	0.00	0.00	0.40			
24	A	566765.11	574892.46	6.00	308.00	0.00	0.00	0.40			
25	A	566663.78	574950.13	6.00	313.00	0.00	0.00	0.40			
26	A	566752.84	574879.32	6.00	37.00	0.00	0.00	0.40			
27	A	566638.68	574931.79	6.00	313.00	0.00	0.00	0.40			
28	B	566815.22	574891.25	8.00	186.00	0.00	0.00	0.40			
29	B	566810.68	574956.72	8.00	186.00	0.00	0.00	0.40			
30	C	566595.63	574982.60	6.00	217.00	0.00	0.00	0.40			
31	C	566591.93	574992.10	8.00	173.00	0.00	0.00	0.40			

Polar Diagrams

Luminaire A LumiStreet gen2 Eco

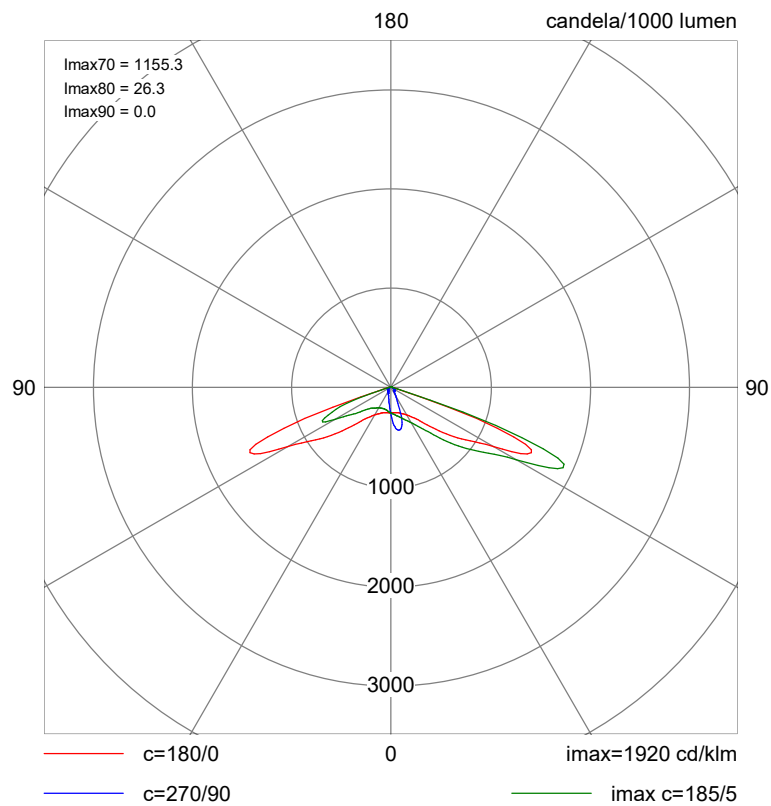


Luminaire B LumiStreet gen2 Eco



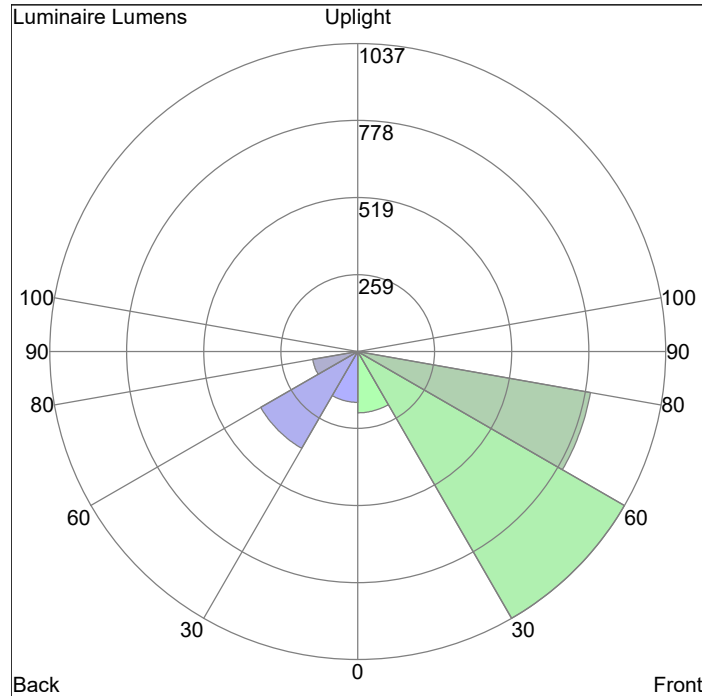
Polar Diagrams Continued

Luminaire C BGP291 DRXN1



Luminaire Classification System (LCS) Graphs

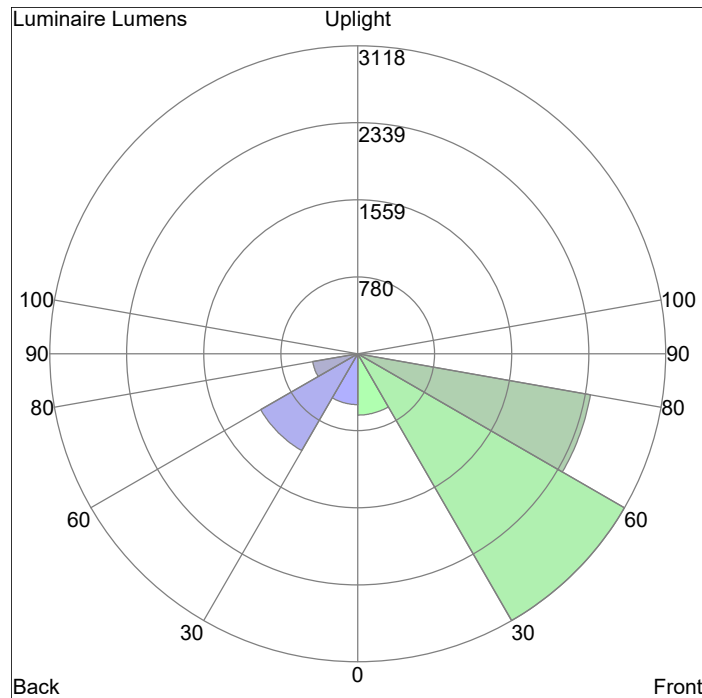
Luminaire A LumiStreet gen2 Eco



LCS	Lumens	%Lamp	%Lum
FL	207.0	6.9	7.5
FM	1037.1	34.6	37.6
FH	796.0	26.5	28.9
FVH	9.5	0.3	0.3
BL	171.6	5.7	6.2
BM	376.6	12.6	13.7
BH	153.5	5.1	5.6
BVH	6.5	0.2	0.2
UL	0.0	0.0	0.0
UH	0.0	0.0	0.0
Total	2757.9	91.9	100.0

BUG rating=B1-U0-G1

Luminaire B LumiStreet gen2 Eco

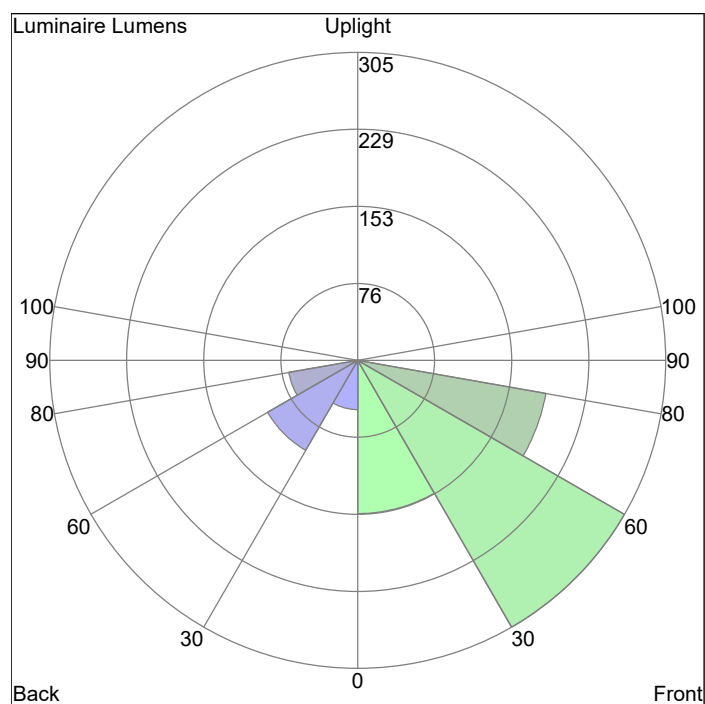


LCS	Lumens	%Lamp	%Lum
FL	622.3	6.6	7.5
FM	3118.2	33.2	37.6
FH	2393.4	25.5	28.9
FVH	28.7	0.3	0.3
BL	516.0	5.5	6.2
BM	1132.5	12.0	13.7
BH	461.6	4.9	5.6
BVH	19.5	0.2	0.2
UL	0.0	0.0	0.0
UH	0.0	0.0	0.0
Total	8292.3	88.2	100.0

BUG rating=B3-U0-G2

Luminaire Classification System (LCS) Graphs Continued

Luminaire C BGP291 DRXN1

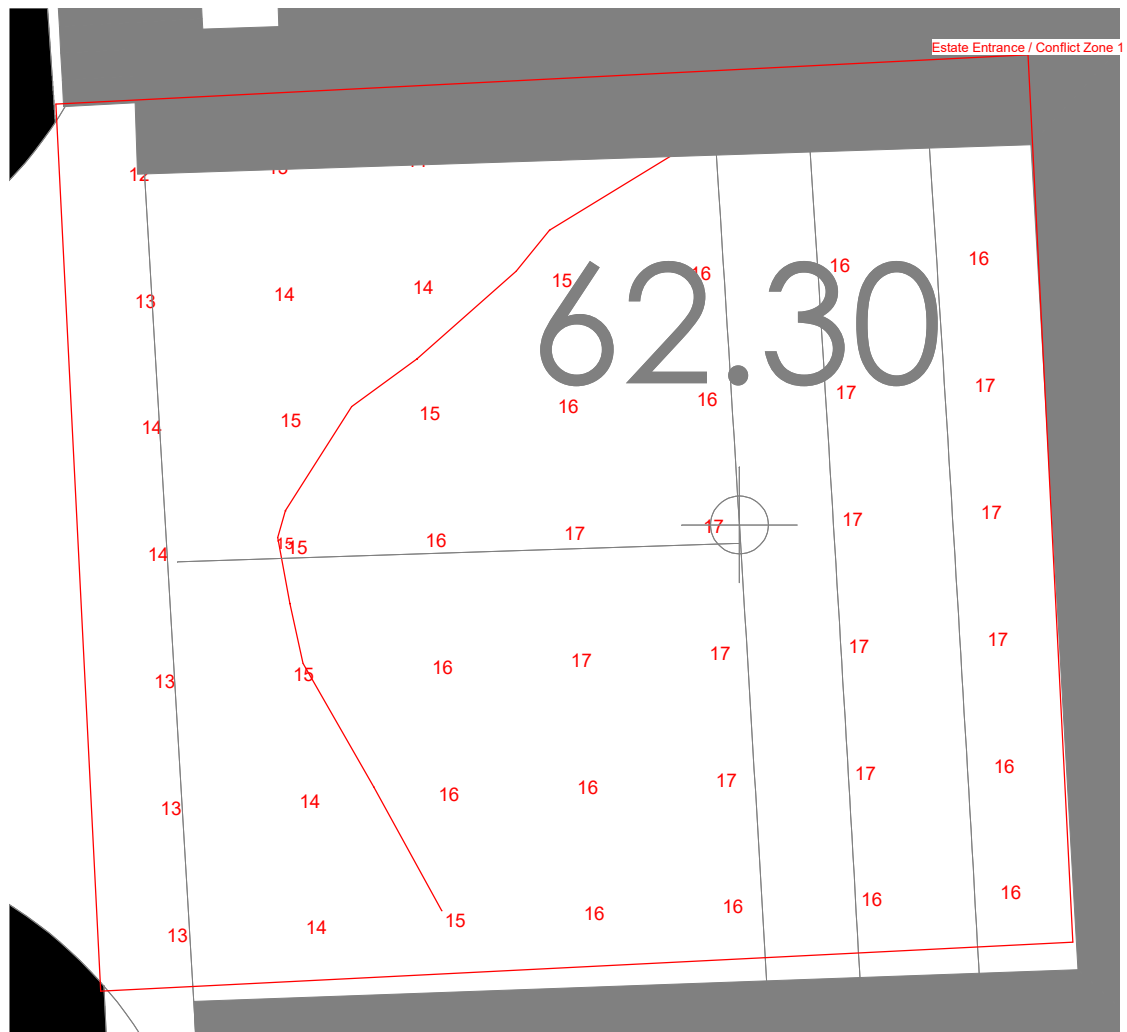


LCS	Lumens	%Lamp	%Lum
FL	151.9	15.2	17.4
FM	305.0	30.5	35.0
FH	189.2	18.9	21.7
FVH	2.3	0.2	0.3
BL	48.9	4.9	5.6
BM	102.9	10.3	11.8
BH	69.1	6.9	7.9
BVH	1.4	0.1	0.2
UL	0.0	0.0	0.0
UH	0.0	0.0	0.0
Total	870.8	87.1	100.0

BUG rating=B0-U0-G0

Horizontal Illuminance (lux)

Estate Entrance / Conflict Zone 1

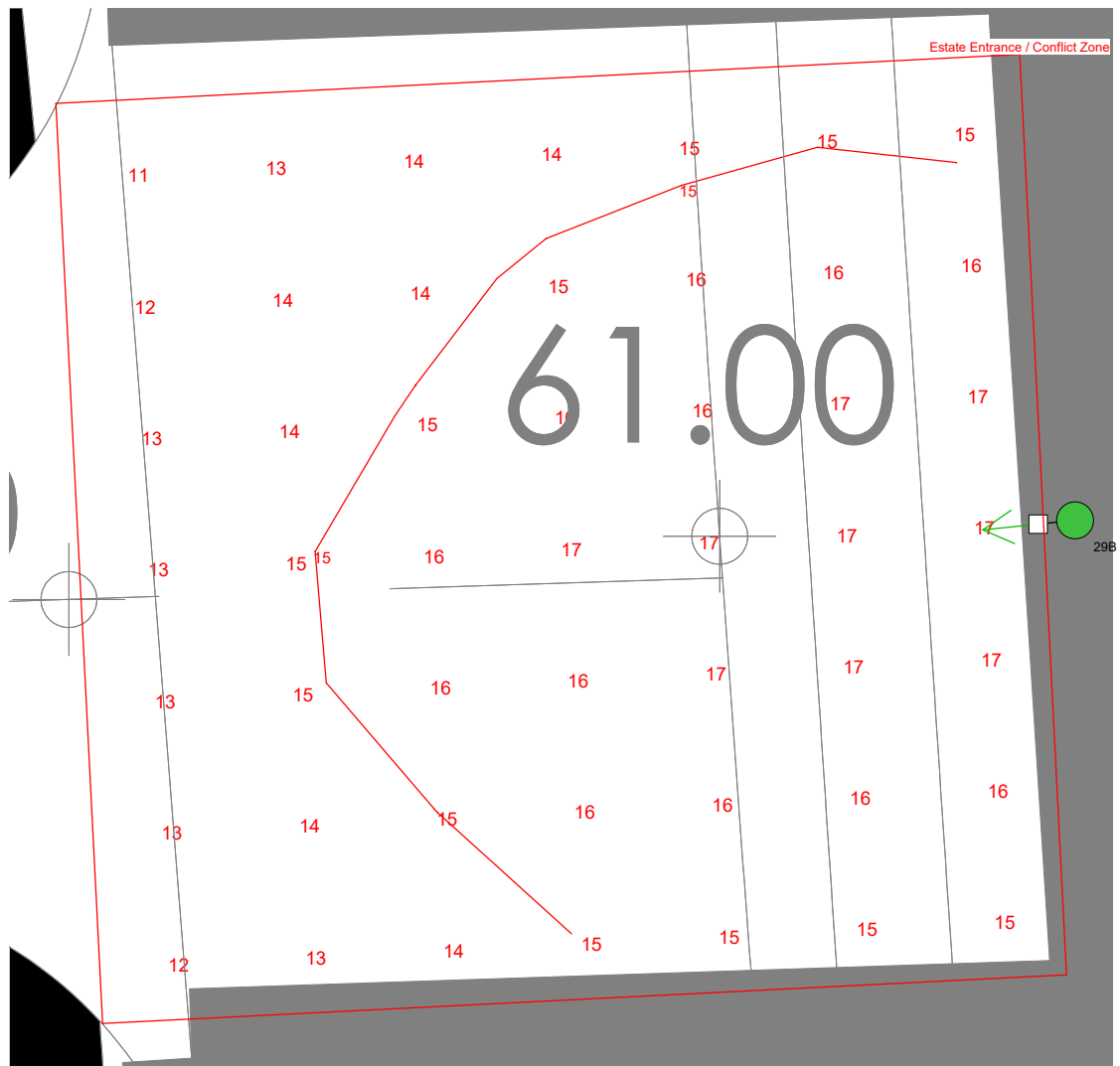


Results

Eav	15.36
Emin	11.88
Emax	17.35
Emin/Emax	0.68
Emin/Eav	0.77

Horizontal Illuminance (lux)

Estate Entrance / Conflict Zone

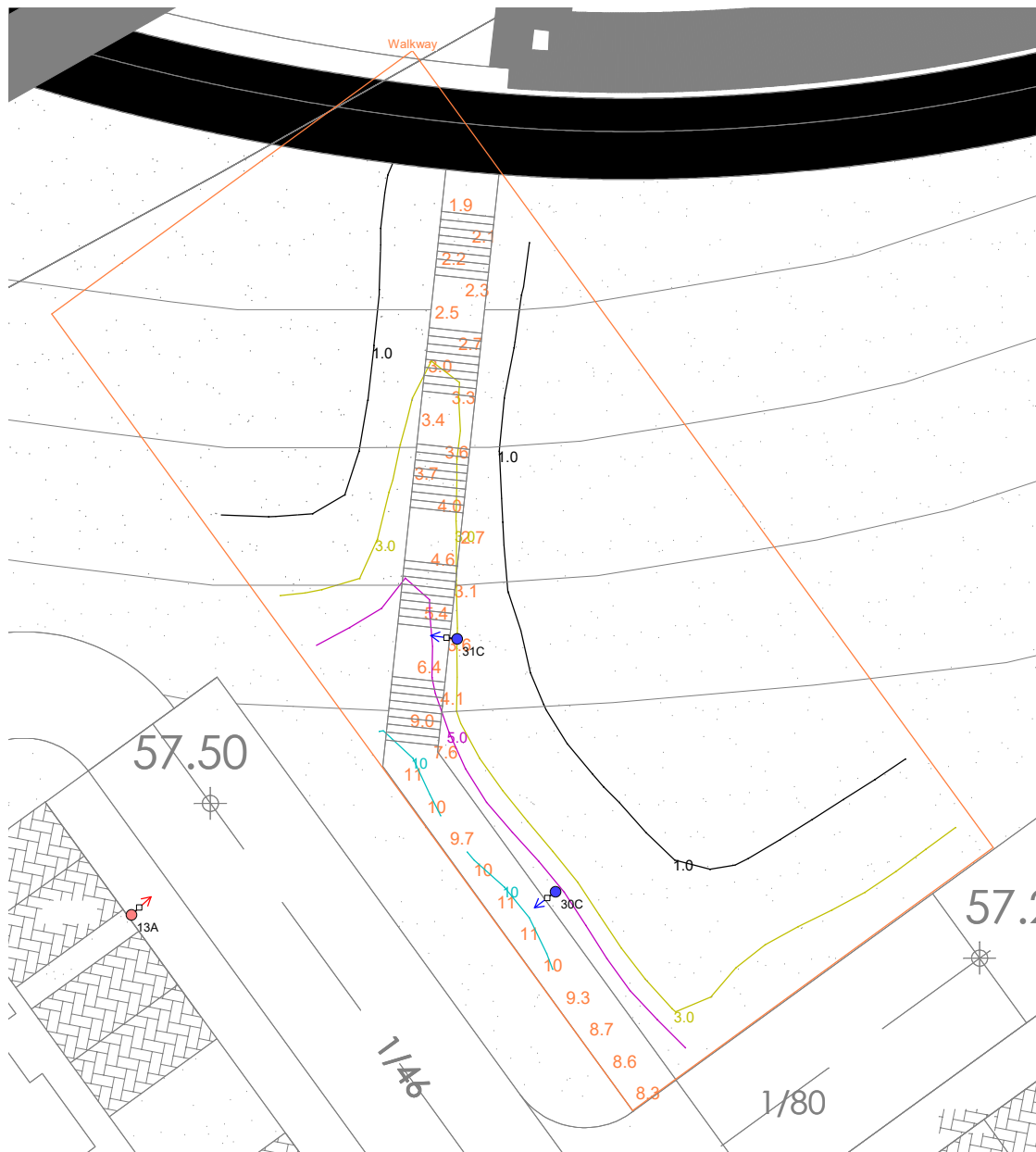


Results

Eav	15.04
Emin	11.45
Emax	17.27
Emin/Emax	0.66
Emin/Eav	0.76

Horizontal Illuminance (lux)

Walkway



Results

Eav	5.95
Emin	1.93
Emax	11.26
Emin/Emax	0.17
Emin/Eav	0.32