

DATE: 10 June 2023
DESIGNER: MMA Lighting Consultancy Ltd
PROJECT No: MMA17811
PROJECT NAME: Roman Fields, Campdown



Roman Fields, Campdown - Area Calculation - R0

6m standard steel columns with Philips Luma Gen2 Micro Lanterns

Side Roads Lighting Class P5 selected in accordance with BS5489
-1:2020

Results Required
Eav = 3.00 to 4.50 Lux
Emin = 0.60 Lux

Base drawing number used in this calculation "CB_62_265_001
Planning Layout REV A"

Outdoor Lighting Report

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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	Grid 1	468803.92	107047.99	202.18	87.00	1.50	1.50
2	Grid 2	468741.80	106922.73	86.74	160.00	1.50	1.50
3	Grid 3	468987.71	106971.34	159.41	96.15	1.50	1.50
4	Grid 4	468830.54	106975.62	176.51	72.00	1.50	1.50
5	Grid 5	469130.62	106959.81	117.00	66.00	1.50	1.50
6	Grid 6	469143.67	106850.69	201.15	85.30	1.50	1.50
7	Grid 7	468996.18	106787.23	114.00	135.00	1.50	1.50
8	Grid 8	468903.25	106633.97	161.79	188.07	1.50	1.50

Luminaires

Luminaire A Data



Supplier	Philips
Type	BGP702 DW50 BL1
Lamp(s)	LED-HB 5.2S 730
Lamp Flux (klm)	4.60
File Name	Luma Gen2 Micro_BGP702_DW50 BL1_46 00_20LED_5.2S_CLO_L90_730.ies
Maintenance Factor	0.85
Lum. Int. Class	G3
No. in Project	30

Luminaire B Data



Supplier	Philips
Type	BGP702 DM10 BL1
Lamp(s)	LED-HB 5.2S 730
Lamp Flux (klm)	2.20
File Name	Luma Gen2 Micro_BGP702_DM10 BL1_22 00_10LED_5.2S_CLO_L90_730.ies
Maintenance Factor	0.85
Lum. Int. Class	G3
No. in Project	17

Luminaire C Data



Supplier	Philips
Type	BGP702 DW50 BL1
Lamp(s)	LED-HB 5.2S 730
Lamp Flux (klm)	2.60
File Name	Luma Gen2 Micro_BGP702_DW50 BL1_26 00_20LED_5.2S_CLO_L90_730.ies
Maintenance Factor	0.85
Lum. Int. Class	G3
No. in Project	29

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	A	468844.25	107167.03	6.00	198.00	0.00	0.00	0.40			
2	A	468830.46	107153.60	6.00	66.00	0.00	0.00	0.40			
3	A	468859.24	107153.84	6.00	245.00	0.00	0.00	0.40			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
4	A	468888.08	107145.40	6.00	270.00	0.00	0.00	0.40			
5	A	468918.04	107144.87	6.00	265.00	0.00	0.00	0.40			
6	A	468947.28	107138.66	6.00	253.00	0.00	0.00	0.40			
7	A	468971.00	107119.32	6.00	70.00	0.00	0.00	0.40			
8	A	468999.25	107110.52	6.00	74.00	0.00	0.00	0.40			
9	A	469034.14	107101.33	6.00	74.00	0.00	0.00	0.40			
10	A	469057.75	107096.11	6.00	77.00	0.00	0.00	0.40			
11	A	469084.66	107086.74	6.00	62.00	0.00	0.00	0.40			
12	A	469107.09	107069.09	6.00	42.00	0.00	0.00	0.40			
13	A	469131.07	107048.37	6.00	202.00	0.00	0.00	0.40			
14	A	469139.35	107020.08	6.00	189.00	0.00	0.00	0.40			
15	A	469143.31	106990.33	6.00	189.00	0.00	0.00	0.40			
16	A	469136.64	106961.63	6.00	9.00	0.00	0.00	0.40			
17	A	469140.70	106931.79	6.00	9.00	0.00	0.00	0.40			
18	A	469144.07	106906.25	6.00	7.00	0.00	0.00	0.40			
19	A	469143.50	106882.86	6.00	356.00	0.00	0.00	0.40			
20	A	469151.53	106856.08	6.00	174.00	0.00	0.00	0.40			
21	A	469155.98	106824.41	6.00	212.00	0.00	0.00	0.40			
22	A	469172.33	106797.25	6.00	193.00	0.00	0.00	0.40			
23	A	469128.19	106812.96	6.00	331.00	0.00	0.00	0.40			
24	A	469113.87	106789.92	6.00	324.00	0.00	0.00	0.40			
25	A	469190.59	106773.86	6.00	238.00	0.00	0.00	0.40			
26	A	469216.69	106761.07	6.00	90.00	0.00	0.00	0.40			
27	A	469255.65	106769.28	6.00	270.00	0.00	0.00	0.40			
28	B	469246.71	106756.49	6.00	0.00	0.00	0.00	0.40			
29	A	469088.35	106775.60	6.00	56.00	0.00	0.00	0.40			
30	A	469064.63	106792.89	6.00	56.00	0.00	0.00	0.40			
31	A	469036.67	106813.26	6.00	56.00	0.00	0.00	0.40			
32	C	468979.34	107108.41	6.00	332.00	0.00	0.00	0.40			
33	C	468962.38	107085.30	6.00	309.00	0.00	0.00	0.40			
34	C	468933.68	107070.65	6.00	287.00	0.00	0.00	0.40			
35	C	468906.44	107061.06	6.00	78.00	0.00	0.00	0.40			
36	C	468883.82	107080.93	6.00	247.00	0.00	0.00	0.40			
37	C	468854.96	107090.28	6.00	254.00	0.00	0.00	0.40			
38	C	468826.06	107079.80	6.00	112.00	0.00	0.00	0.40			
39	C	468804.03	107064.74	6.00	130.00	0.00	0.00	0.40			

Layout Continued

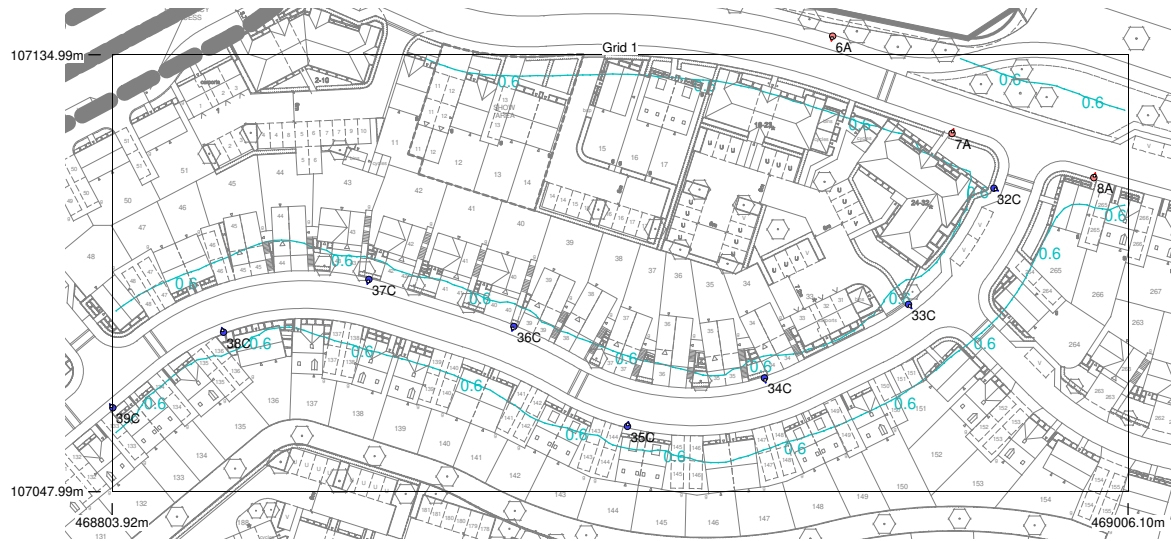
ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
40	C	468774.66	107051.22	6.00	323.00	0.00	0.00	0.40			
41	C	468772.20	107024.03	6.00	175.00	0.00	0.00	0.40			
42	C	468780.77	106998.19	6.00	220.00	0.00	0.00	0.40			
43	B	468798.57	106970.12	6.00	191.00	0.00	0.00	0.40			
44	C	468801.07	106939.72	6.00	99.00	0.00	0.00	0.40			
45	C	469110.52	107042.70	6.00	293.00	0.00	0.00	0.40			
46	C	469087.53	107023.82	6.00	113.00	0.00	0.00	0.40			
47	C	469056.46	107020.96	6.00	292.00	0.00	0.00	0.40			
48	C	469026.04	107001.79	6.00	97.00	0.00	0.00	0.40			
49	C	469000.33	107012.33	6.00	256.00	0.00	0.00	0.40			
50	C	468966.20	107016.86	6.00	274.00	0.00	0.00	0.40			
51	C	468936.46	107010.01	6.00	280.00	0.00	0.00	0.40			
52	C	468903.65	107008.69	6.00	263.00	0.00	0.00	0.40			
53	C	468871.31	107007.77	6.00	67.00	0.00	0.00	0.40			
54	C	469153.08	106977.76	6.00	98.00	0.00	0.00	0.40			
55	C	469177.42	106990.24	6.00	278.00	0.00	0.00	0.40			
56	B	469212.73	106997.89	6.00	278.00	0.00	0.00	0.40			
57	B	469158.34	106879.95	6.00	265.00	0.00	0.00	0.40			
58	C	469187.81	106881.29	6.00	277.00	0.00	0.00	0.40			
59	C	469218.48	106886.19	6.00	282.00	0.00	0.00	0.40			
60	C	469248.22	106901.35	6.00	295.00	0.00	0.00	0.40			
61	C	469277.57	106906.77	6.00	277.00	0.00	0.00	0.40			
62	B	469304.94	106910.42	6.00	278.00	0.00	0.00	0.40			
63	B	469078.40	106800.54	6.00	143.00	0.00	0.00	0.40			
64	B	469091.90	106831.03	6.00	176.00	0.00	0.00	0.40			
65	B	469094.88	106863.49	6.00	179.00	0.00	0.00	0.40			
66	B	469096.07	106896.30	6.00	187.00	0.00	0.00	0.40			
67	C	469079.24	106896.15	6.00	272.00	0.00	0.00	0.40			
68	B	469046.77	106894.56	6.00	275.00	0.00	0.00	0.40			
69	C	469016.28	106890.95	6.00	3.00	0.00	0.00	0.40			
70	B	469034.89	106798.44	6.00	321.00	0.00	0.00	0.40			
71	B	469012.01	106768.68	6.00	127.00	0.00	0.00	0.40			
72	B	468984.42	106772.99	6.00	219.00	0.00	0.00	0.40			
73	B	468979.34	106752.09	6.00	124.00	0.00	0.00	0.40			
74	B	468950.12	106736.51	6.00	339.00	0.00	0.00	0.40			
75	B	469002.33	106747.12	6.00	214.00	0.00	0.00	0.40			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
76	B	469014.26	106727.70	6.00	105.00	0.00	0.00	0.40			

Horizontal Illuminance (lux)

Grid 1

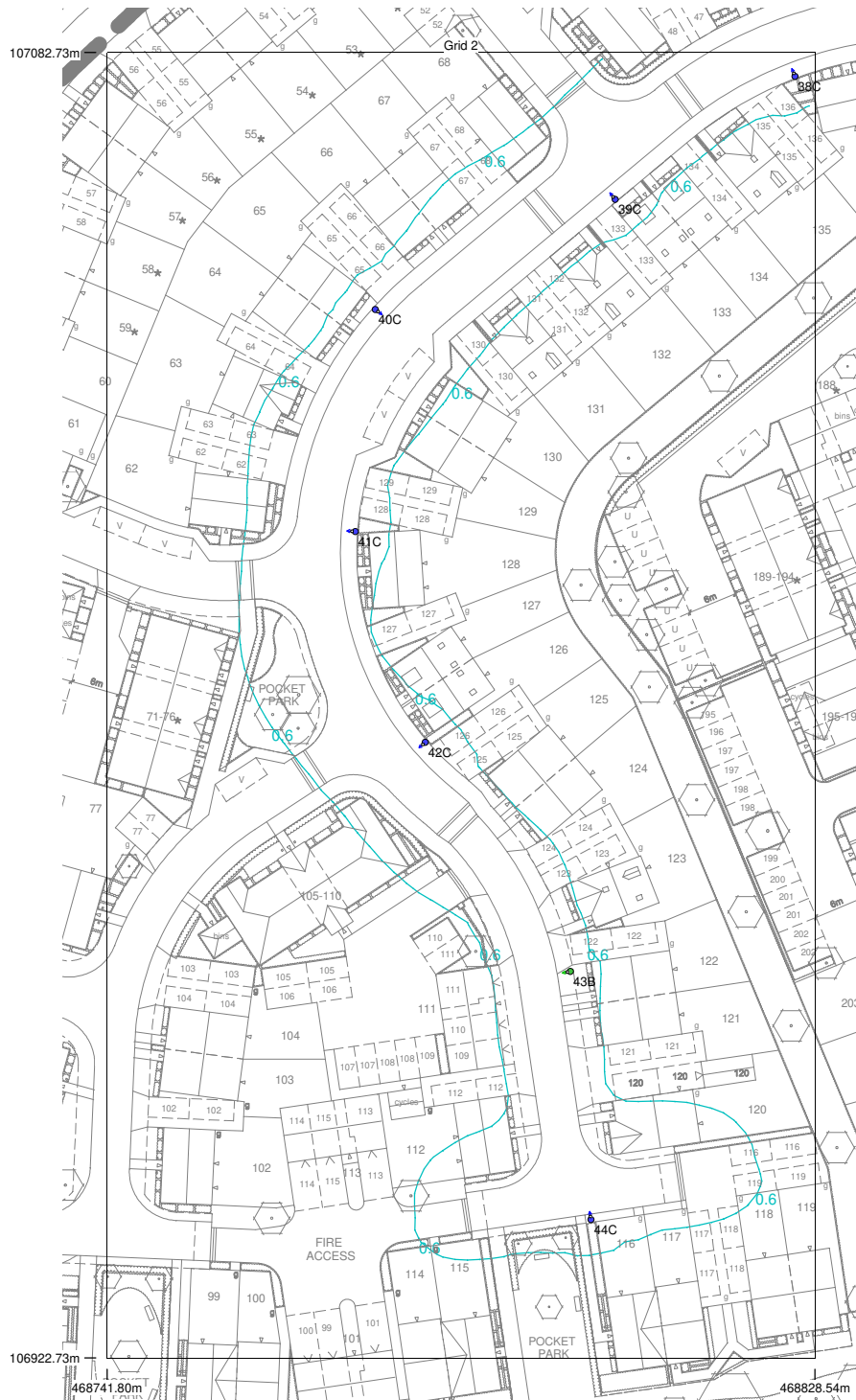


Results

Eav	3.25
Emin	0.75
E _{max}	6.70
Emin/E _{max}	0.11
Emin/Eav	0.23

Horizontal Illuminance (lux)

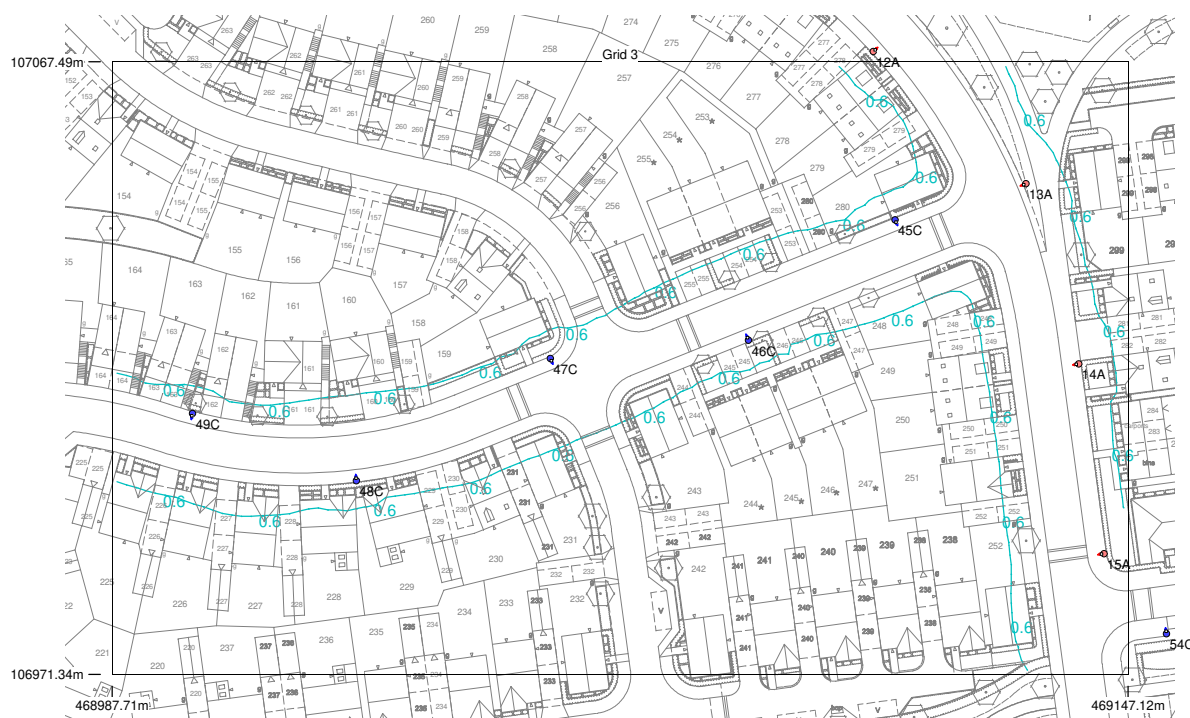
Grid 2



Results

Eav	3.26
Emin	0.89
Emax	10.48
Emin/Emax	0.08
Emin/Eav	0.27

Grid 3

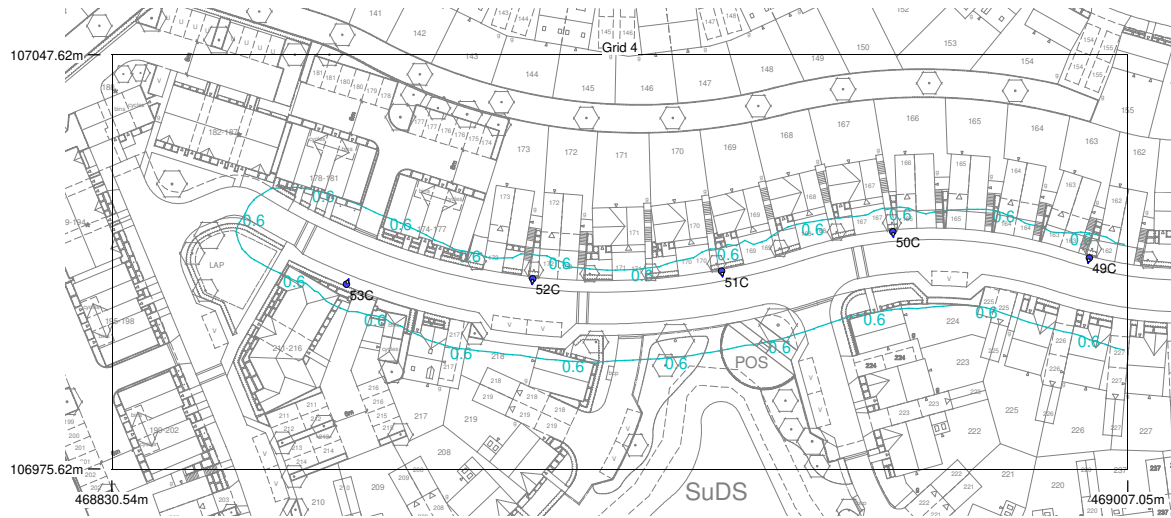


Results

Eav	3.34
Emin	1.79
E _{max}	7.64
Emin/E _{max}	0.23
Emin/Eav	0.54

Horizontal Illuminance (lux)

Grid 4

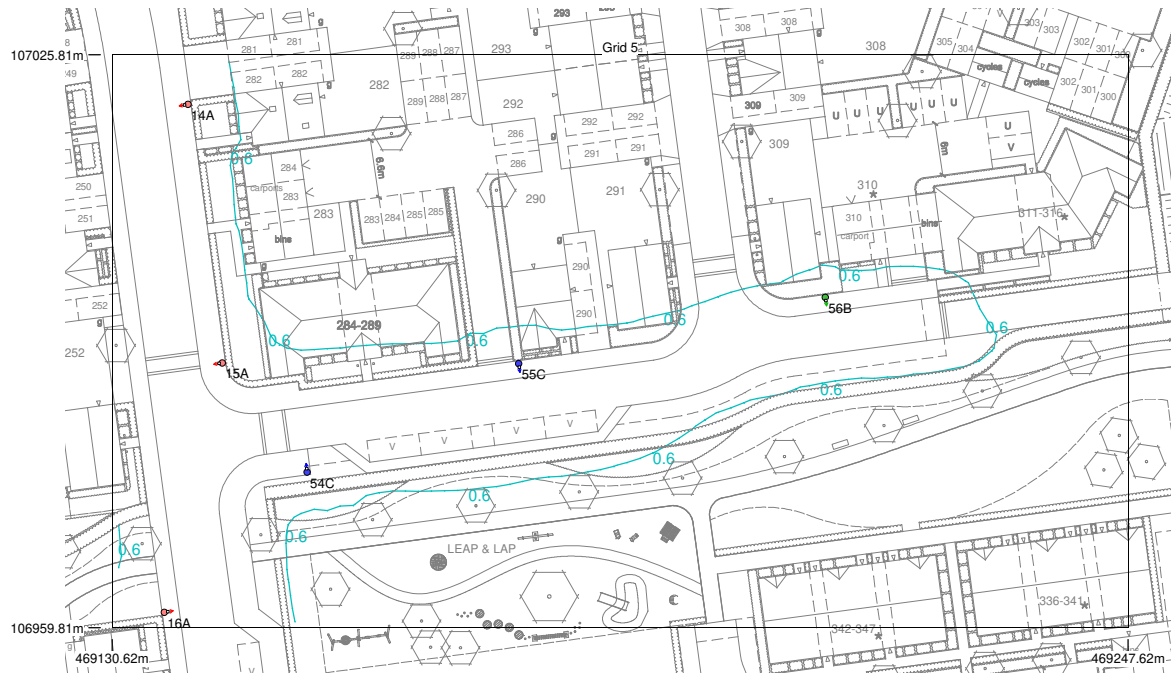


Results

Eav	3.03
Emin	1.30
Emax	4.85
Emin/Emax	0.27
Emin/Eav	0.43

Horizontal Illuminance (lux)

Grid 5

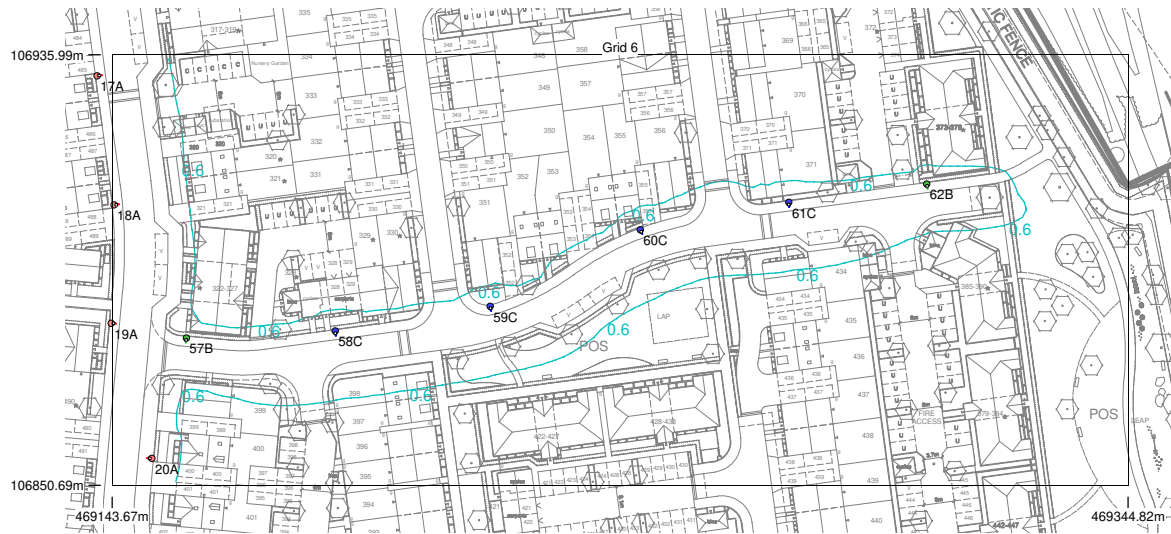


Results

Eav	3.58
Emin	0.99
Emax	10.38
Emin/Emax	0.10
Emin/Eav	0.28

Horizontal Illuminance (lux)

Grid 6

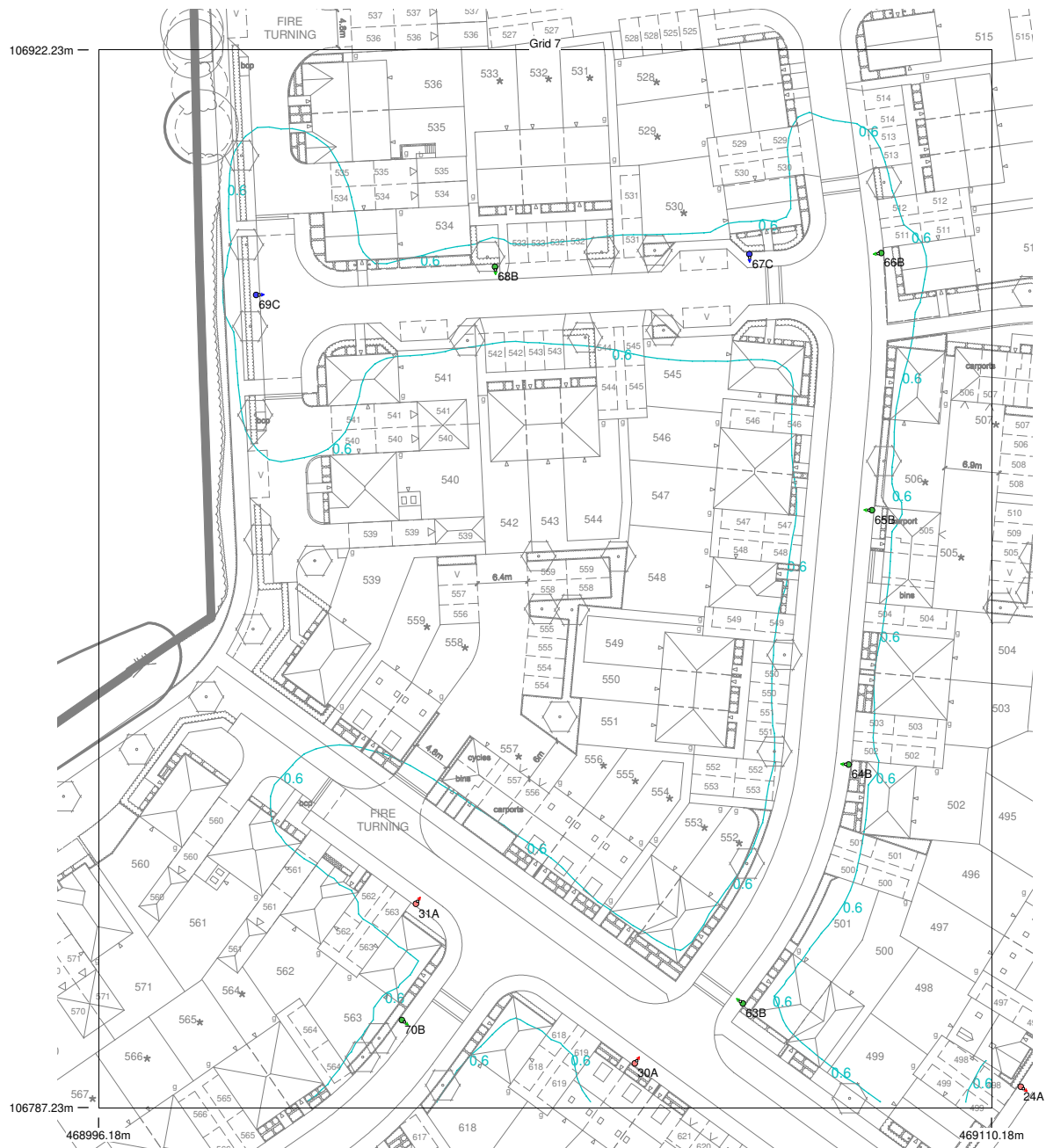


Results

Eav	3.54
Emin	1.29
Emax	11.23
Emin/Emax	0.12
Emin/Eav	0.37

Horizontal Illuminance (lux)

Grid 7



Results

Eav	3.77
Emin	0.86
Emax	12.19
Emin/Emax	0.07
Emin/Eav	0.23

Horizontal Illuminance (lux)

Grid 8



Results

Eav	4.00
Emin	0.82
Emax	10.70
Emin/Emax	0.08
Emin/Eav	0.21