

DATE: 10 September 2026
DESIGNER: Alex Naper
PROJECT No: SES 08126 Rev C
PROJECT NAME: Cherry Orchard PH3- Waterman Moylan



MF derived from: 0.92×0.95 or 0.92×0.99 (LMF (Low pollution environment & 72 month cleaning cycle) $\times$ LLMF $\times$ LSF) LLMF & LSF values @ 100,000 hours & 25 degrees C Ta.
Step Sections:
TIC - Designed in accordance with EN12464-2:2024 22.10.
OMC - Lux levels meet requirements of Part M.
Ramp Sections:
TIC - Designed in accordance with EN13201-2:2015 Category P3.
OMC - Lux levels meet requirements of Part M.

Residential areas:
TIC: Designed in accordance with EN13201-2:2015 Category P3

Road Crossing Points (non signalised): Illuminance levels chieve recommendations of EN13201-2:2015 Category C4 or EN13201-2:2015 Category C3.
OMC: Designed in accordance with EN13201-2:2015 Category P4.

Rev A: Updated red line.
Rev B: Updated red line.
Rev C: Updated layout.

Outdoor Lighting Report

PREPARED BY: Sabre Electrical Services Ltd.
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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	707888.33	732875.00	200.50	181.17	1.50	1.50
2	Grid 2	707948.14	732891.58	65.91	79.50	1.50	1.50
3	Grid 3	707996.57	732851.22	1.67	4.07	0.56	0.41
4	Grid 4	708028.70	732813.30	1.67	2.49	0.56	0.36
5	Grid 5	708021.96	732806.18	1.67	2.49	0.56	0.36
6	Grid 6	708015.56	732799.80	1.67	3.48	0.56	0.35
7	Grid 7	708047.14	732828.97	1.67	1.04	0.56	0.15
8	Grid 8	707979.36	732866.18	22.68	9.59	1.62	0.96
9	Grid 9	707949.84	732893.33	4.85	4.81	0.97	0.96
10	Grid 10	708020.46	732964.19	7.63	5.66	1.27	1.42
11	Grid 11	708068.24	732930.90	27.00	87.00	1.50	1.50
12	Grid 12	708014.59	732795.38	1.67	1.99	0.56	0.33
13	Grid 13	708038.13	732837.99	1.97	7.64	0.66	1.27
14	Grid 14	707958.30	732895.53	1.64	1.80	0.33	0.60
15	Grid 15	707956.69	732893.32	10.31	2.30	1.15	0.77

Luminaires

Luminaire A Data



Supplier	C U Phosco
Type	P862-256-R2E-730-W3-350-88W
Lamp(s)	730SS
Lamp Flux (klm)	12.35
File Name	P862-256-R2E-730-W3-350-88W.ies
Maintenance Factor	0.87
Imax70,80,90(cd/klm)	458.4, 47.0, 0.0
No. in Project	8

Luminaire D Data



Supplier	C U Phosco
Type	E950-28-P4A-730-C600-15W
Lamp(s)	730N
Lamp Flux (klm)	2.25
File Name	E950-28-P4A-730-C600-15W.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	659.3, 183.1, 0.3
No. in Project	3

Luminaire F Data



Supplier	C U Phosco
Type	E950-28-P4A-730-C350-9W
Lamp(s)	730N
Lamp Flux (klm)	1.37
File Name	E950-28-P4A-730-C0350-9W.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	659.3, 183.1, 0.3
No. in Project	11

Luminaire I Data



Supplier	C U Phosco
Type	P863-128-R2E-730-W3-375-49W
Lamp(s)	730SS
Lamp Flux (klm)	6.92
File Name	P863-128-R2E-730-W3-375-49W.ies
Maintenance Factor	0.87
Imax70,80,90(cd/klm)	463.7, 84.3, 0.0
No. in Project	4

Luminaires

Luminaire J Data



Supplier	Holophane Europe
Type	VMXII.1.LA053.V1.L4L4.W043 (TZ)
Lamp(s)	LED C.5000 Lumens
Lamp Flux (klm)	5.84
File Name	VMXII.1.LA053.V1.L4L4.W043 (TZ).IES
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	292.5, 18.3, 0.0
No. in Project	7

Luminaire K Data



Supplier	C U Phosco
Type	E950-28-SP-730-C0800-20W
Lamp(s)	730N
Lamp Flux (klm)	2.72
File Name	E950-28-SP-730-C0800-20W.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	42.3, 27.0, 4.4
No. in Project	2

Luminaire L Data



Supplier	C U Phosco
Type	E950-28-P4A-730-C200-5W
Lamp(s)	730N
Lamp Flux (klm)	0.77
File Name	E950-28-P4A-730-C0200-5W.ies
Maintenance Factor	0.87
Imax70,80,90(cd/klm)	659.3, 183.1, 0.3
No. in Project	12

Luminaire M Data

Supplier	
Type	
Lamp(s)	
Lamp Flux (klm)	2.50
File Name	L34 narrow beam custom optic.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	762.6, 243.6, 18.9
No. in Project	4

Luminaire O Data



Supplier	C U Phosco
Type	E950-28-SP-730-C0200-5W
Lamp(s)	730N
Lamp Flux (klm)	0.72
File Name	E950-28-SP-730-C0200-5W.ies
Maintenance Factor	0.87
Imax70,80,90(cd/klm)	42.3, 27.0, 4.4
No. in Project	5

Luminaire P Data



Supplier	C U Phosco
Type	P863-128-F2B-730-W3-475-62W
Lamp(s)	730SS
Lamp Flux (klm)	8.39
File Name	P863-128-F2B-730-W3-475-62W.ies
Maintenance Factor	0.85
Imax70,80,90(cd/klm)	461.8, 61.8, 0.8
No. in Project	3

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	I	707905.05	732909.38	8.00	302.00	0.00	0.00	0.50			
2	I	707928.71	732933.69	8.00	313.00	0.00	0.00	0.50			
3	I	707951.70	732959.91	8.00	318.00	0.00	0.00	0.50			
4	I	707982.19	732974.81	8.00	121.00	0.00	0.00	0.50			
5	D	707934.69	732909.23	6.00	144.00	0.00	0.00	0.40			
6	D	707985.25	732960.74	6.00	142.00	0.00	0.00	0.40			
7	D	707959.08	732934.28	6.00	128.00	0.00	0.00	0.40			
8	O	708015.51	732794.89	6.00	228.00	0.00	0.00	0.40			
9	A	707924.60	732886.13	10.00	225.00	0.00	0.00	0.50			
10	A	707956.17	732852.88	10.00	225.00	0.00	0.00	0.50			
11	A	707987.62	732823.37	10.00	225.00	0.00	0.00	0.50			
12	A	707901.96	732869.57	10.00	46.00	0.00	0.00	0.50			
13	A	707922.81	732849.92	10.00	46.00	0.00	0.00	0.50			
14	A	707956.06	732817.16	10.00	46.00	0.00	0.00	0.50			
15	A	707983.37	732794.83	10.00	46.00	0.00	0.00	0.50			
16	J	708080.80	732929.24	6.00	119.00	0.00	0.00	0.50			
17	J	708072.63	732899.38	6.00	150.00	0.00	0.00	0.50			
18	J	708054.11	732877.94	6.00	136.00	0.00	0.00	0.50			
19	J	708054.32	732877.74	6.00	318.00	0.00	0.00	0.50			
20	J	708030.82	732869.08	6.00	319.00	0.00	0.00	0.50			
21	J	708022.03	732851.38	6.00	46.00	0.00	0.00	0.50			
22	J	708045.55	732832.36	6.00	55.00	0.00	0.00	0.50			
25	P	708013.43	732966.68	8.00	54.00	0.00	0.00	0.40			
26	P	708037.44	732949.57	8.00	71.00	0.00	0.00	0.40			
27	P	708064.70	732937.62	8.00	64.00	0.00	0.00	0.40			
28	F	708057.42	732912.86	6.00	344.00	0.00	0.00	0.40			
29	F	708054.01	732931.94	6.00	308.00	0.00	0.00	0.40			
30	F	708045.43	732894.81	6.00	308.00	0.00	0.00	0.40			
31	F	708021.06	732868.81	6.00	320.00	0.00	0.00	0.40			
32	F	708005.84	732853.09	6.00	308.00	0.00	0.00	0.40			
33	F	708013.74	732836.18	6.00	43.00	0.00	0.00	0.40			
34	F	708026.93	732822.93	6.00	51.00	0.00	0.00	0.40			
35	F	708038.46	732823.91	6.00	291.00	0.00	0.00	0.40			
36	F	708039.05	732815.91	6.00	223.00	0.00	0.00	0.40			
37	F	708030.90	732807.01	6.00	219.00	0.00	0.00	0.40			
38	F	708028.36	732794.02	6.00	219.00	0.00	0.00	0.40			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
39	O	708016.57	732801.23	6.00	308.00	0.00	0.00	0.40			
40	O	708022.68	732807.25	6.00	308.00	0.00	0.00	0.40			
41	O	708029.24	732814.52	6.00	319.00	0.00	0.00	0.40			
42	L	707964.93	732898.92	5.00	315.00	0.00	0.00	0.40			
5m 43	M	707953.44	732893.21	5.00	315.00	0.00	0.00	0.40			
44	L	707972.88	732883.28	5.00	235.00	0.00	0.00	0.40			
45	L	707978.54	732914.04	5.00	324.00	0.00	0.00	0.40			
46	L	707997.66	732928.83	5.00	306.00	0.00	0.00	0.40			
47	L	708017.76	732915.39	5.00	253.00	0.00	0.00	0.40			
48	L	707975.80	732895.69	5.00	315.00	0.00	0.00	0.40			
49	L	707990.99	732912.70	5.00	302.00	0.00	0.00	0.40			
50	L	708003.18	732901.23	5.00	350.00	0.00	0.00	0.40			
51	L	708012.89	732898.68	5.00	128.60	0.00	0.00	0.40			
52	L	707994.02	732877.93	5.00	121.00	0.00	0.00	0.40			
53	L	707994.59	732867.50	5.00	228.00	0.00	0.00	0.40			
54	L	708008.30	732922.72	5.00	271.00	0.00	0.00	0.40			
55	M	707989.22	732858.98	5.00	227.00	0.00	0.00	0.40			
56	K	707999.73	732851.87	5.00	133.00	0.00	0.00	0.40			
57	M	707985.16	732867.48	5.00	143.00	0.00	0.00	0.40			
58	O	708048.70	732828.02	5.00	132.00	0.00	0.00	0.40			
57	K	707960.26	732896.32	5.00	225.00	5.00	0.00	0.40			
60	A	708022.74	732788.05	10.00	225.00	0.00	0.00	0.50			
59	M	707961.74	732888.28	5.00	47.00	0.00	0.00	0.40			

Horizontal Illuminance (lux)

Grid 1

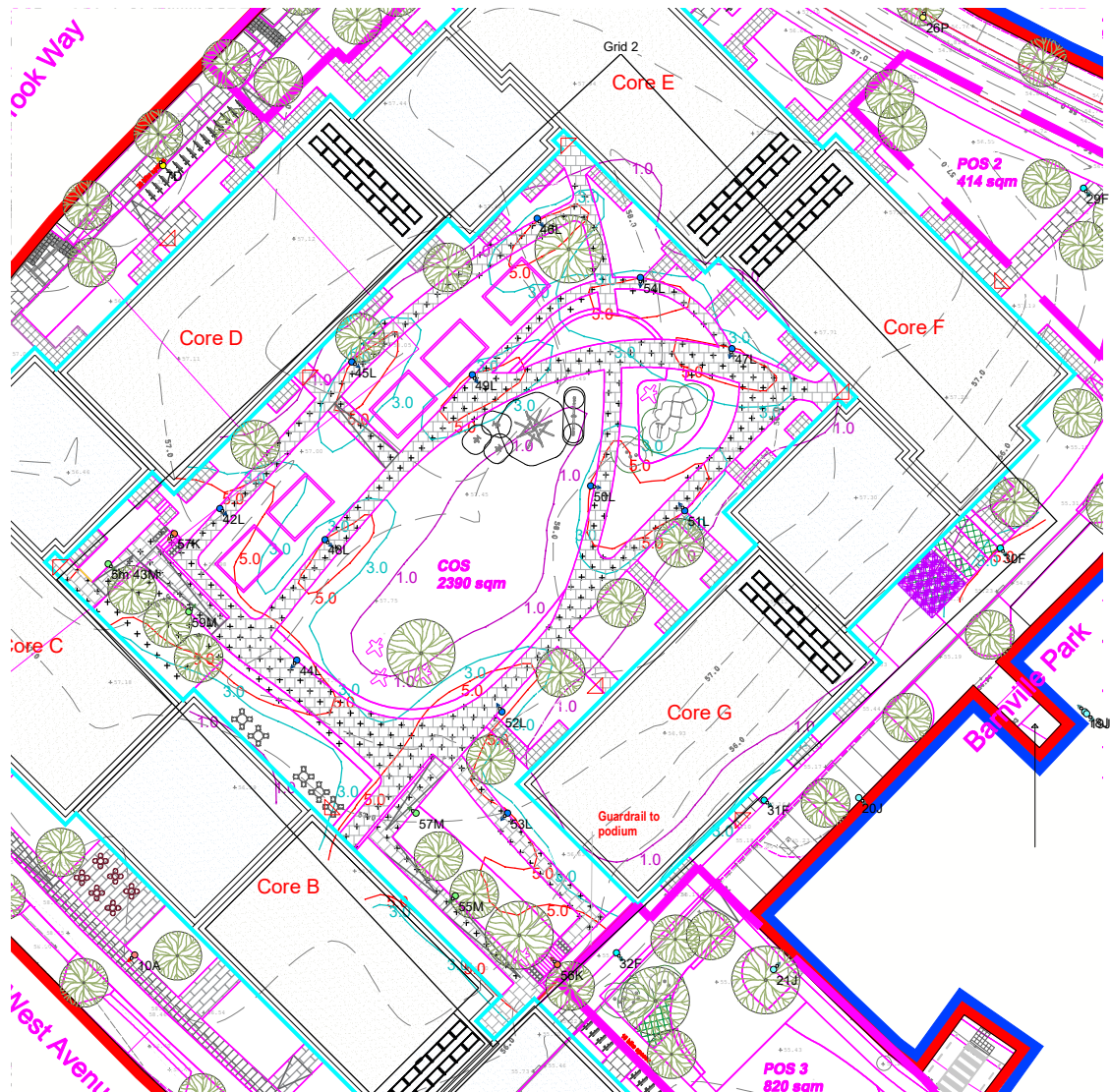


Results

Eav	7.37
Emin	1.49
Emax	43.72
Emin/Emax	0.03
Emin/Eav	0.20

Horizontal Illuminance (lux)

Grid 2



Results

Eav	8.87
Emin	1.75
Emax	175.49
Emin/Emax	0.01
Emin/Eav	0.20

Horizontal Illuminance (lux)

Grid 3

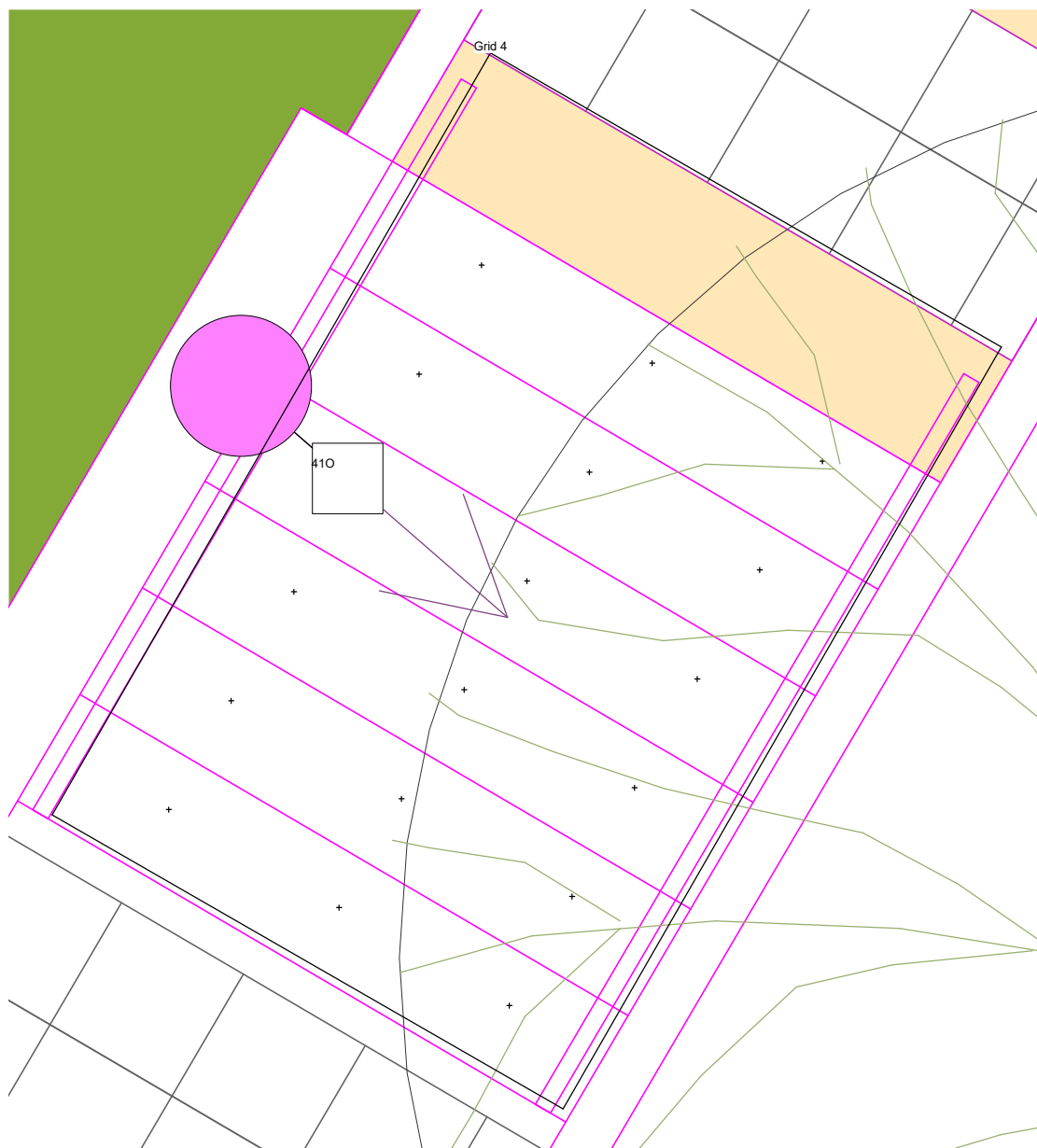


Results

Eav	104.10
Emin	41.15
Emax	187.78
Emin/Emax	0.22
Emin/Eav	0.40

Horizontal Illuminance (lux)

Grid 4

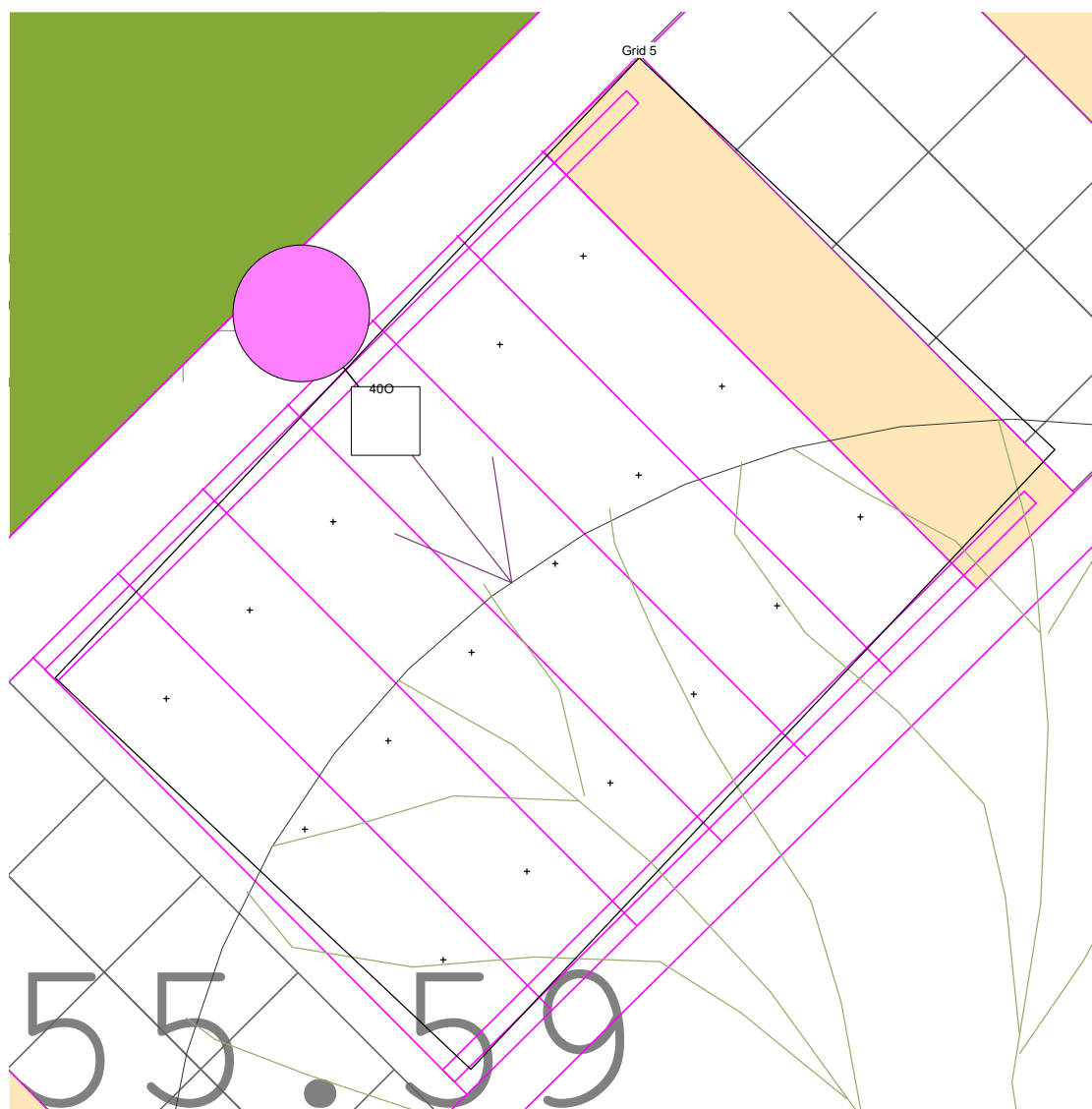


Results

Eav	28.35
Emin	18.31
Emax	39.46
Emin/Emax	0.46
Emin/Eav	0.65

Horizontal Illuminance (lux)

Grid 5

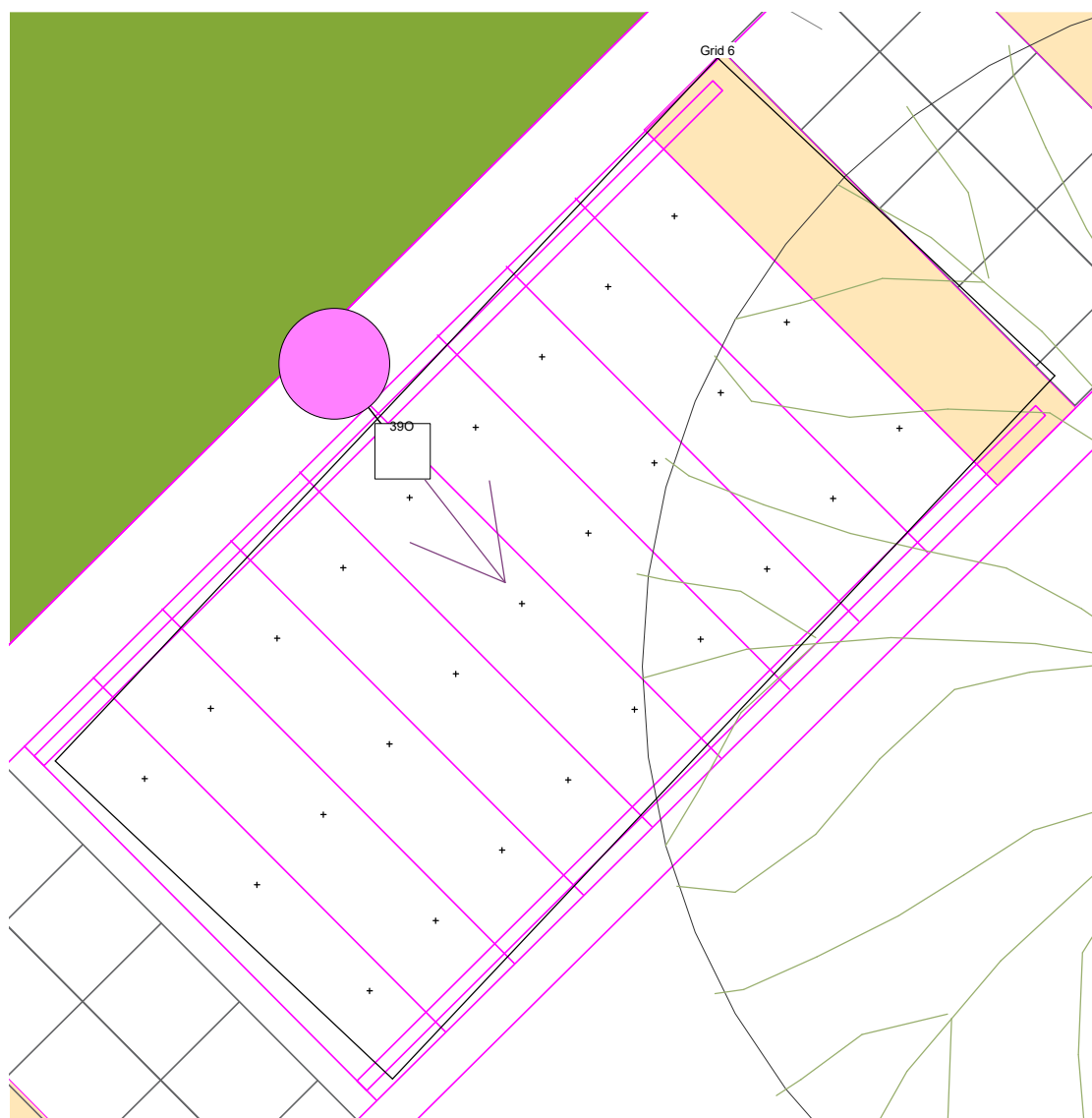


Results

Eav	27.67
Emin	18.01
Emax	38.98
Emin/Emax	0.46
Emin/Eav	0.65

Horizontal Illuminance (lux)

Grid 6

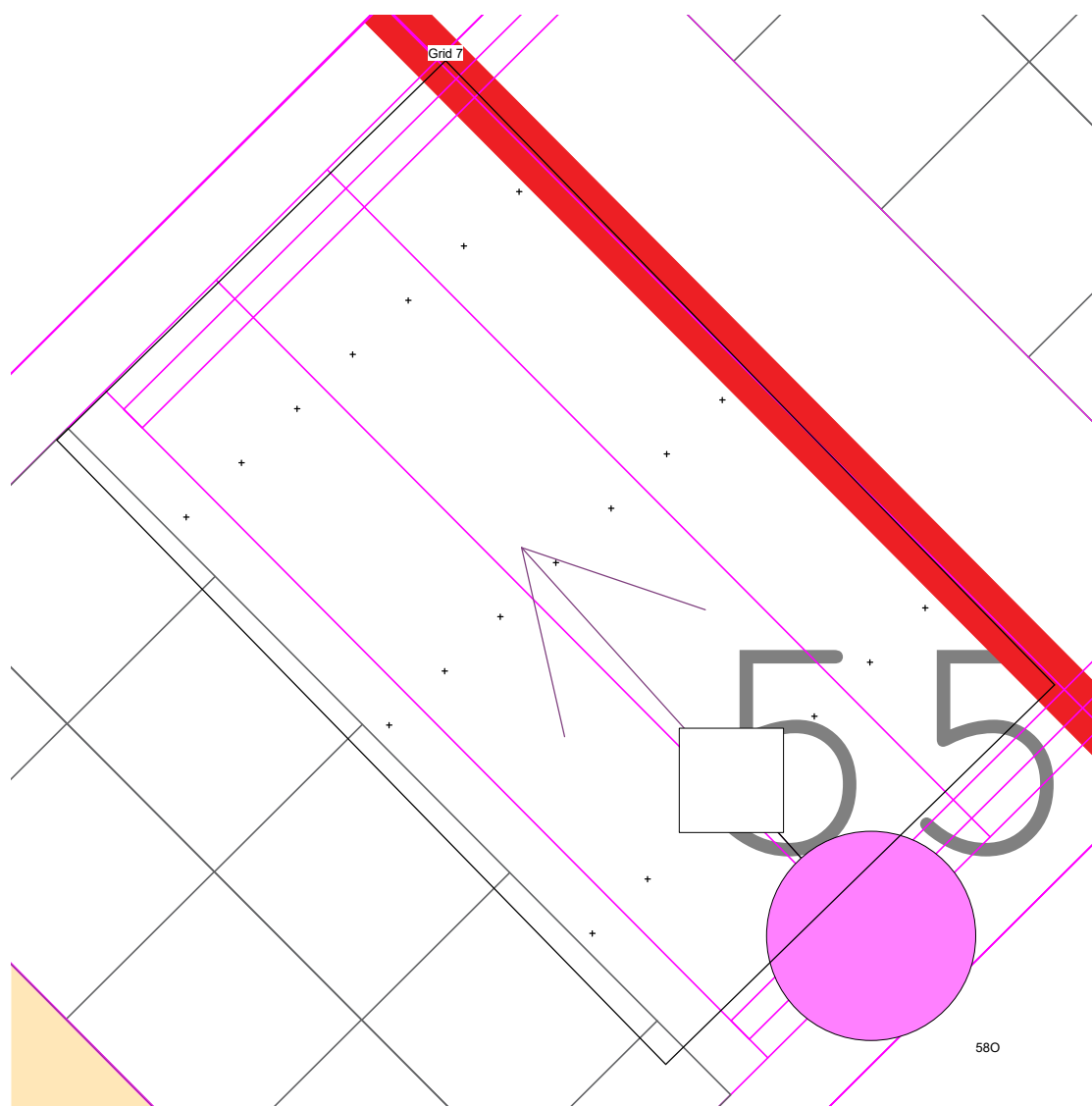


Results

Eav	27.19
Emin	14.48
Emax	41.37
Emin/Emax	0.35
Emin/Eav	0.53

Horizontal Illuminance (lux)

Grid 7

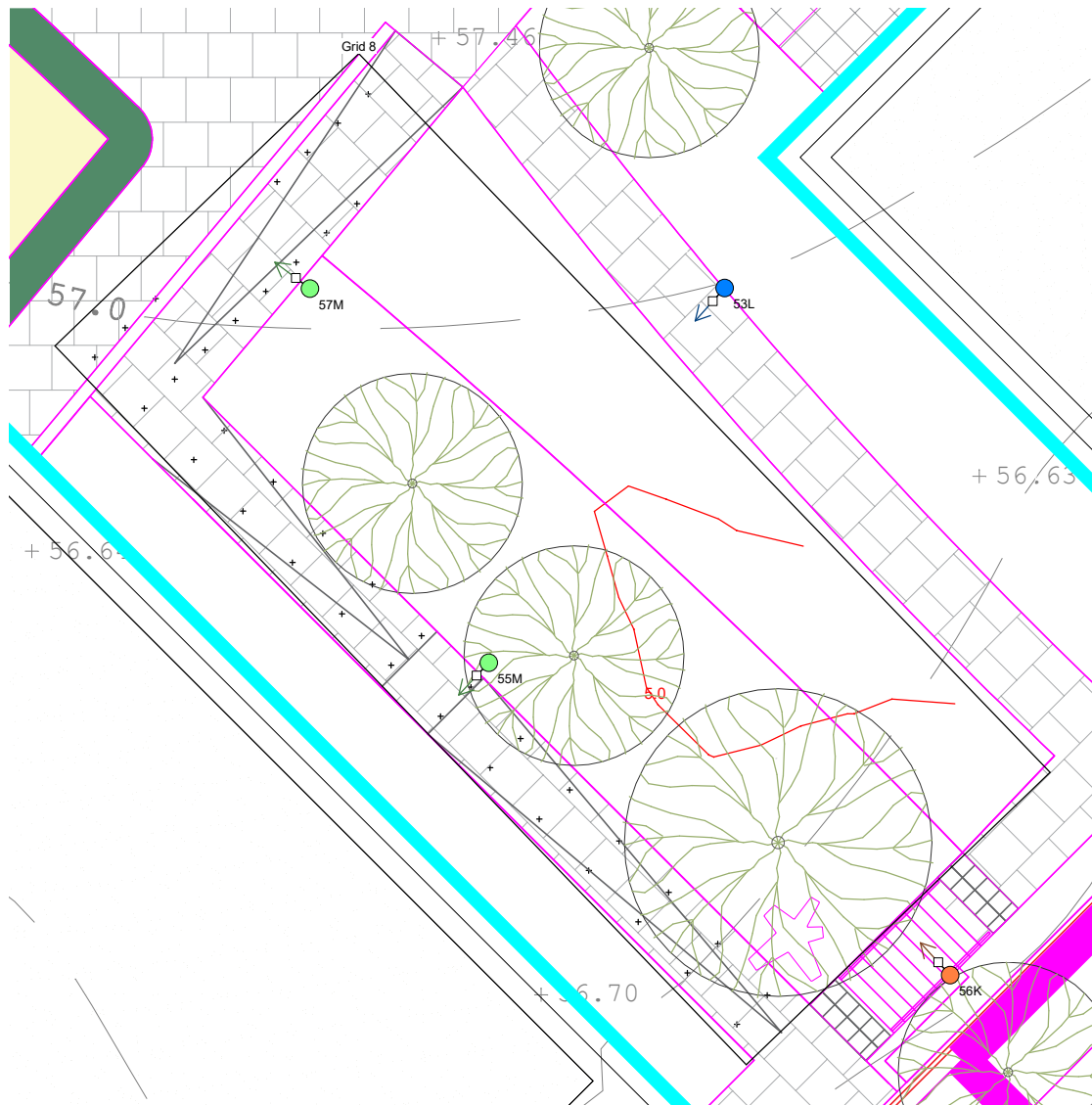


Results

Eav	45.16
Emin	29.17
Emax	57.70
Emin/Emax	0.51
Emin/Eav	0.65

Horizontal Illuminance (lux)

Grid 8

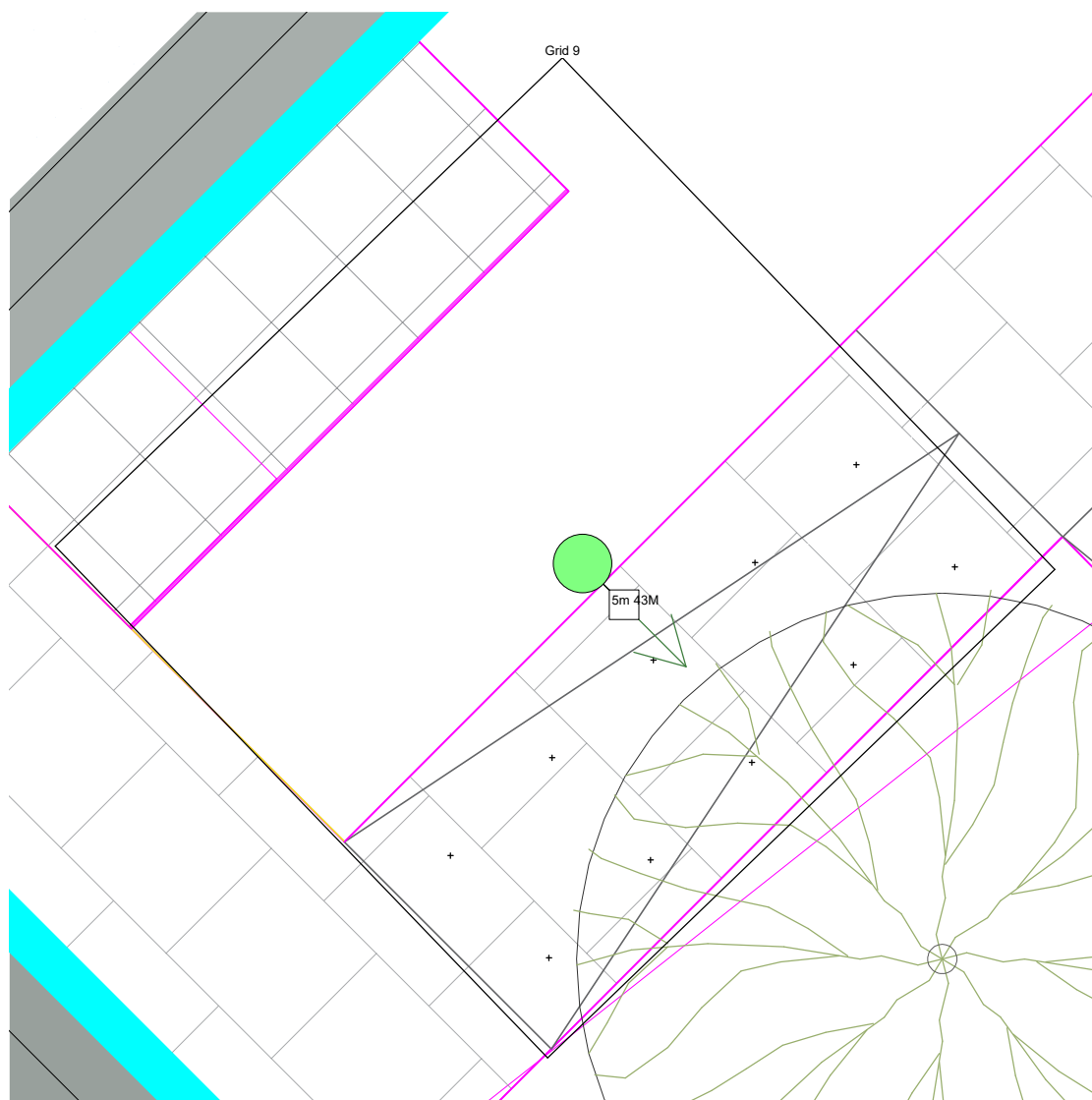


Results

Eav	20.02
Emin	12.02
E _{max}	28.28
E _{min} /E _{max}	0.42
E _{min} /E _{av}	0.60

Horizontal Illuminance (lux)

Grid 9

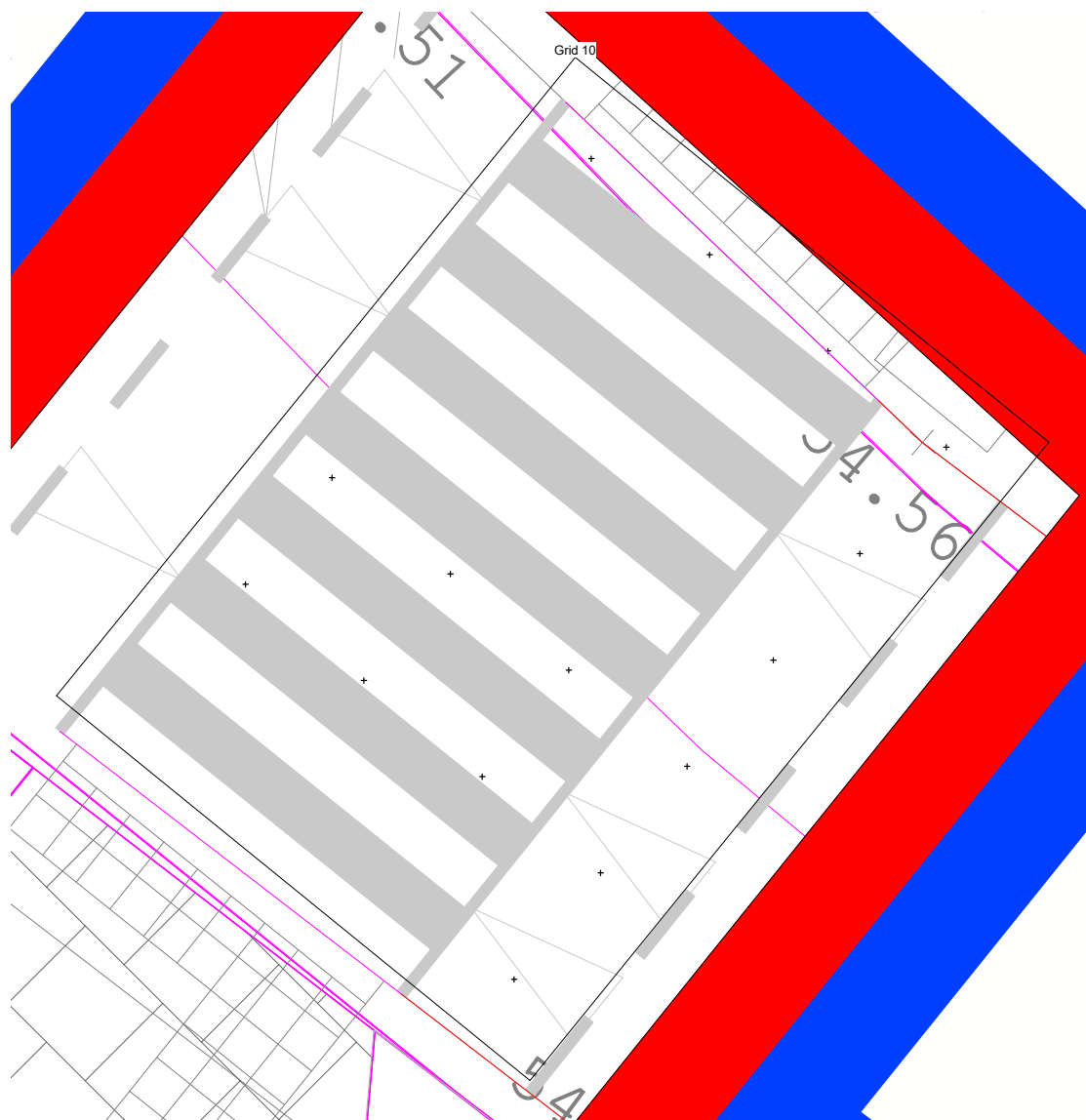


Results

Eav	28.38
Emin	22.80
Emax	35.95
Emin/Emax	0.63
Emin/Eav	0.80

Horizontal Illuminance (lux)

Grid 10

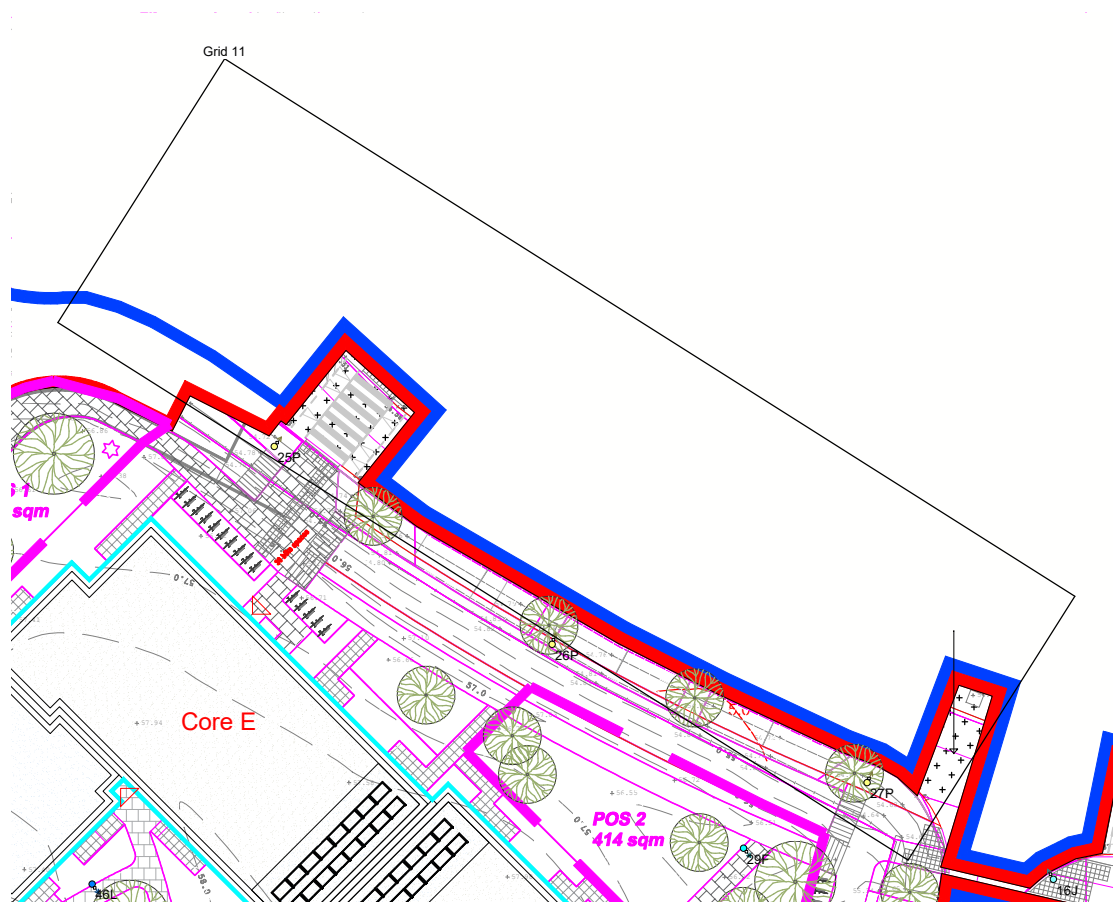


Results

Eav	15.18
Emin	11.15
E _{max}	19.13
Emin/E _{max}	0.58
Emin/Eav	0.73

Horizontal Illuminance (lux)

Grid 11

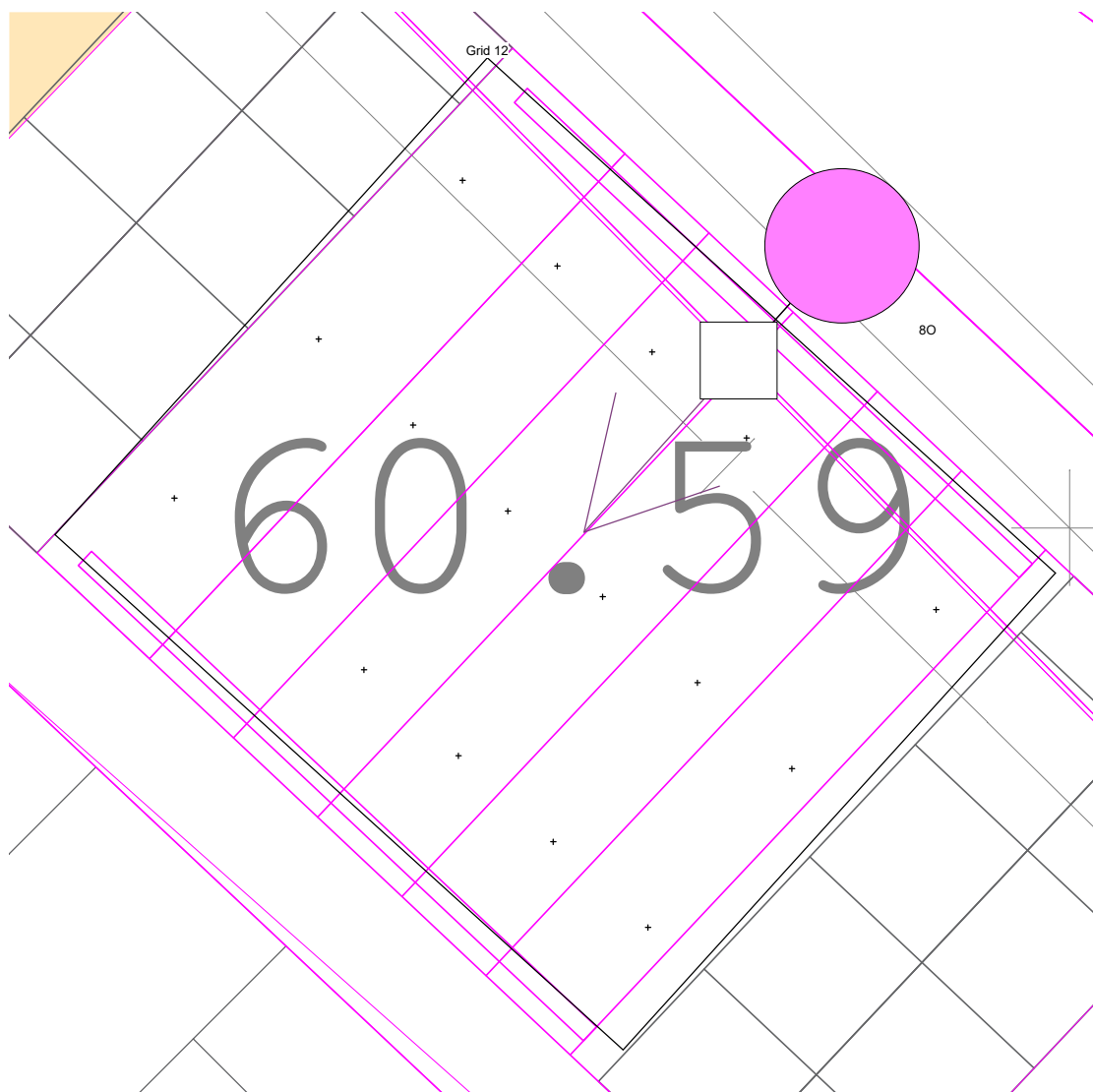


Results

Eav	11.33
Emin	3.15
Emax	20.43
Emin/Emax	0.15
Emin/Eav	0.28

Horizontal Illuminance (lux)

Grid 12

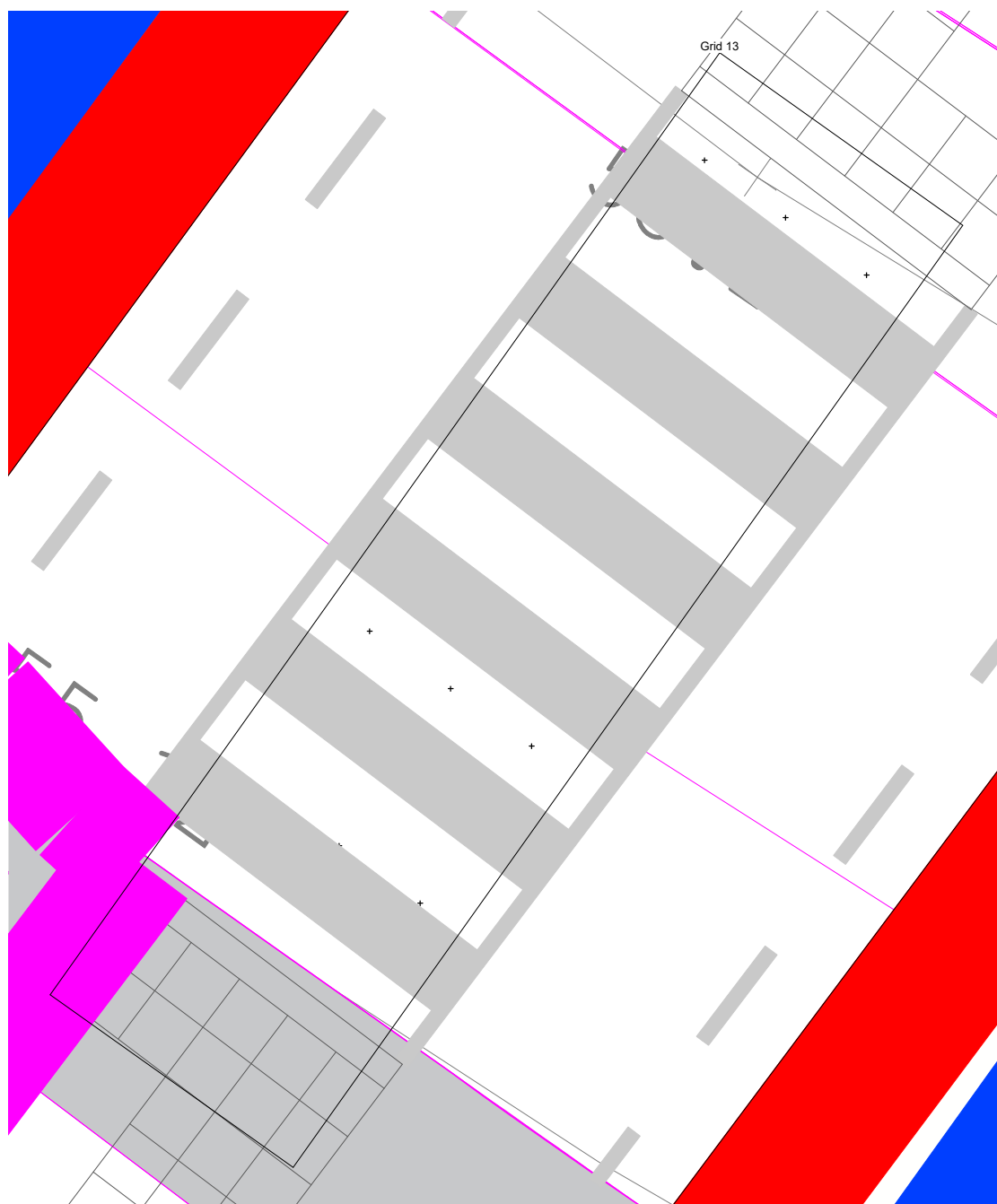


Results

Eav	40.19
Emin	30.47
E _{max}	49.77
E _{min} /E _{max}	0.61
E _{min} /E _{av}	0.76

Horizontal Illuminance (lux)

Grid 13

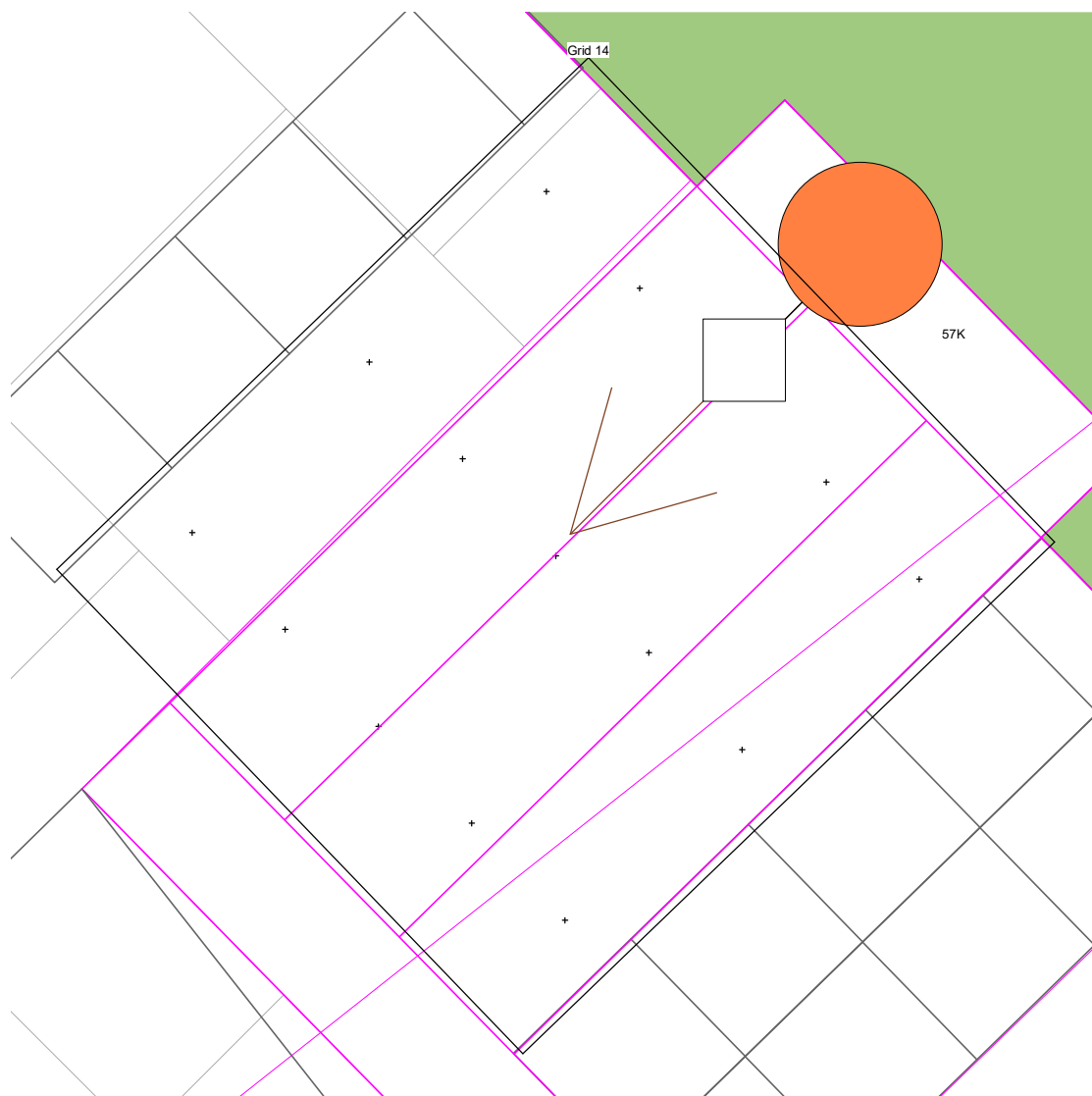


Results

Eav	12.85
Emin	8.28
E _{max}	16.56
Emin/E _{max}	0.50
Emin/Eav	0.64

Horizontal Illuminance (lux)

Grid 14



Results

Eav	156.03
Emin	114.90
E _{max}	195.88
E _{min} /E _{max}	0.59
E _{min} /E _{av}	0.74