

DATE: 12 September 2024
DESIGNER: SHD Lighting Consultancy Ltd
PROJECT No: SHD1718
PROJECT NAME: Dalzell Street Moor Row



Solar street lighting design.

31 x 6m lighting columns, each with a post top mounted at 0° tilt.

DW Windsor Sierra Midi 30w solar warm white LED luminaire with PIR motion sensors

Outdoor Lighting Report

PREPARED BY: SHD Lighting Consultancy Ltd
Contact: info@shdlighting.co.uk
Phone: 07834 490 192
Website: www.shdlighting.co.uk

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	300406.21	514545.65	406.76	198.33	1.63	1.49
2	Grid 2	300422.19	514601.98	105.00	51.00	1.50	1.50
3	Grid 3	300518.63	514630.08	48.00	66.00	1.50	1.50
4	Grid 4	300522.77	514584.82	90.00	60.00	1.50	1.50
5	Grid 5	300597.32	514633.34	33.00	69.00	1.50	1.50
6	Grid 6	300625.72	514603.46	54.00	72.00	1.50	1.50
7	Grid 7	300699.38	514675.05	39.00	45.00	1.50	1.50
8	Grid 8	300702.64	514606.71	54.00	51.00	1.50	1.50
9	Grid 9	300670.98	514643.40	129.00	51.00	1.50	1.50
10	Grid 10	300772.46	514595.77	30.00	54.00	1.50	1.50

Luminaires

Luminaire A Data

Supplier	D W Windsor
Type	Sierra Solar Midi 30W 3000K Wide Road Type 1
Lamp(s)	LED
Lamp Flux (klm)	5.66
File Name	Sierra Solar Midi 30W 3000K Wide Road Type 1.IES
Maintenance Factor	0.84
Lum. Int. Class	G2
No. in Project	31

Layout

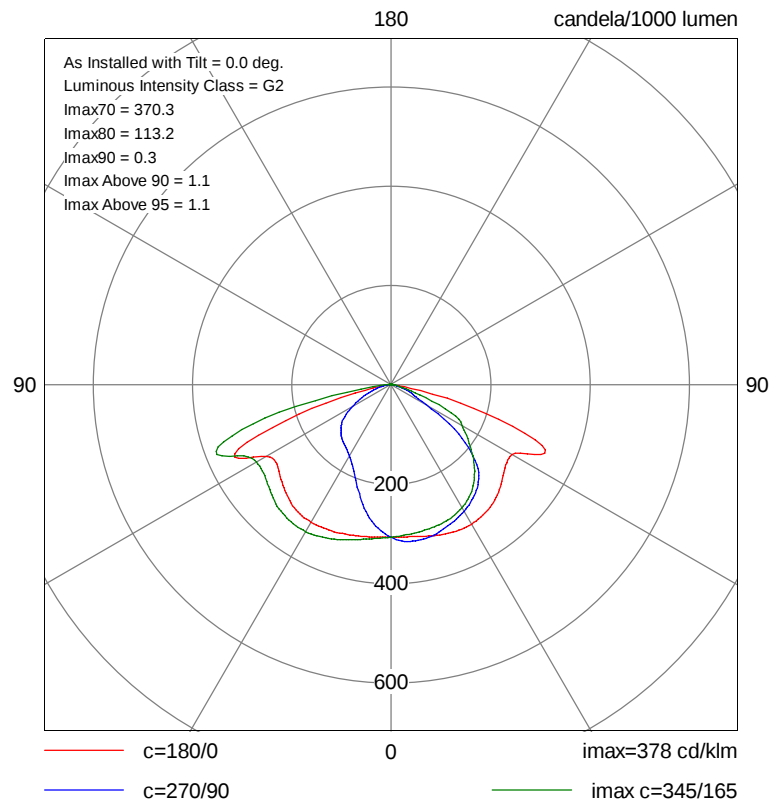
ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	A	300431.10	514640.08	6.00	293.00	0.00	0.00	0.70			
2	A	300455.17	514643.22	6.00	254.00	0.00	0.00	0.70			
3	A	300481.90	514626.44	6.00	242.00	0.00	0.00	0.70			
4	A	300507.95	514617.45	6.00	270.00	0.00	0.00	0.70			
5	A	300537.16	514611.33	6.00	102.00	0.00	0.00	0.70			
6	A	300551.90	514627.15	6.00	187.00	0.00	0.00	0.70			
7	A	300535.87	514648.37	6.00	22.00	0.00	0.00	0.70			
8	A	300527.52	514661.97	6.00	96.00	0.00	0.00	0.70			
9	A	300532.26	514680.10	6.00	4.00	0.00	0.00	0.70			
10	A	300574.29	514617.25	6.00	108.00	0.00	0.00	0.70			
11	A	300575.47	514604.83	6.00	3.00	0.00	0.00	0.70			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
12	A	300596.02	514610.11	6.00	186.00	0.00	0.00	0.70			
13	A	300599.20	514637.44	6.00	306.00	0.00	0.00	0.70			
14	A	300615.77	514666.74	6.00	186.00	0.00	0.00	0.70			
15	A	300619.76	514645.65	6.00	139.00	0.00	0.00	0.70			
16	A	300612.75	514692.63	6.00	189.00	0.00	0.00	0.70			
17	A	300635.89	514648.99	6.00	32.00	0.00	0.00	0.70			
18	A	300645.90	514667.14	6.00	278.00	0.00	0.00	0.70			
19	A	300672.10	514655.98	6.00	91.00	0.00	0.00	0.70			
20	A	300703.62	514658.84	6.00	100.00	0.00	0.00	0.70			
21	A	300654.23	514644.80	6.00	278.00	0.00	0.00	0.70			
22	A	300659.22	514625.65	6.00	190.00	0.00	0.00	0.70			
23	A	300647.95	514610.25	6.00	47.00	0.00	0.00	0.70			
24	A	300717.31	514691.44	6.00	190.00	0.00	0.00	0.70			
25	A	300724.43	514647.55	6.00	192.00	0.00	0.00	0.70			
26	A	300729.01	514624.80	6.00	108.00	0.00	0.00	0.70			
27	A	300731.31	514671.42	6.00	275.00	0.00	0.00	0.70			
28	A	300762.80	514668.98	6.00	109.00	0.00	0.00	0.70			
29	A	300777.90	514680.21	6.00	211.00	0.00	0.00	0.70			
30	A	300787.08	514656.51	6.00	183.00	0.00	0.00	0.70			
31	A	300792.11	514624.90	6.00	178.00	0.00	0.00	0.70			

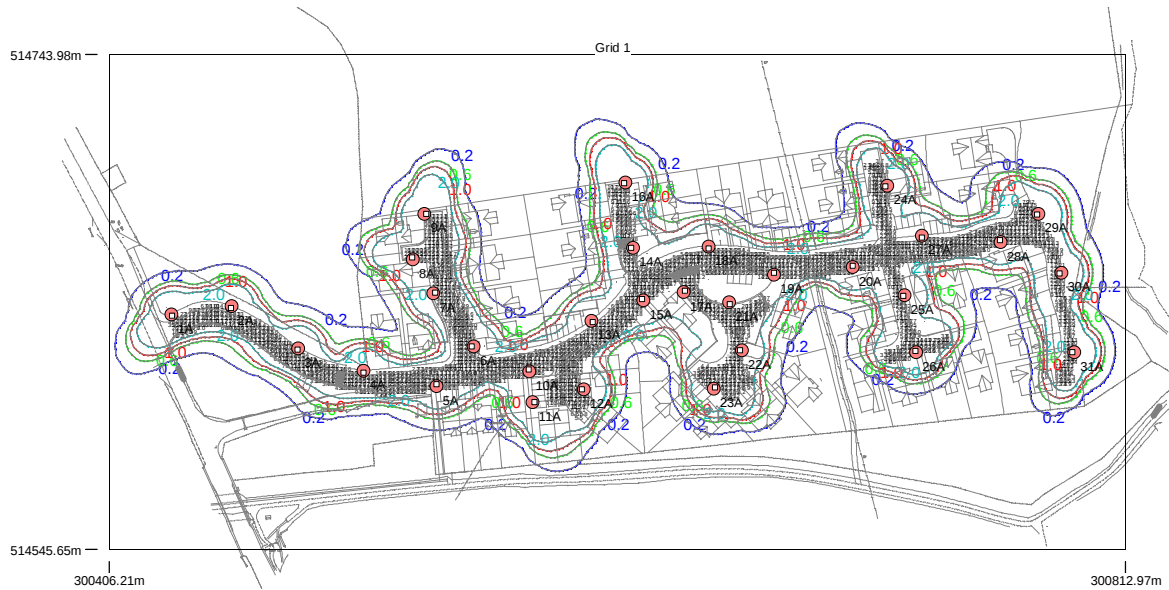
Polar Diagram

Luminaire A Sierra Solar Midi 30W 3000K Wide Road Type 1



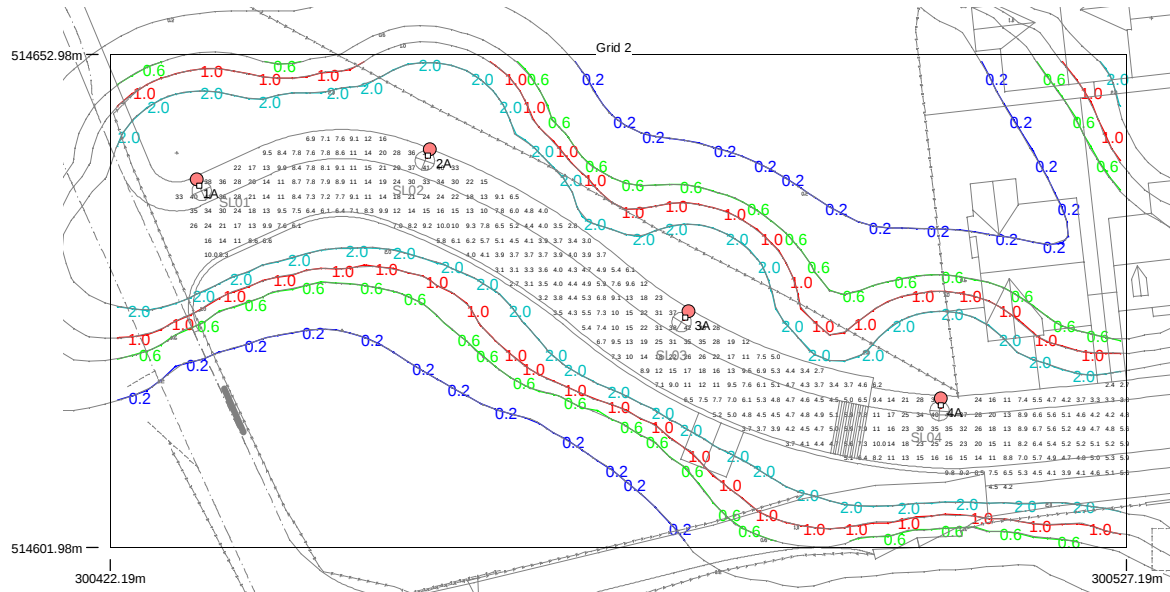
Horizontal Illuminance (lux)

Grid 1



Horizontal Illuminance (lux)

Grid 2

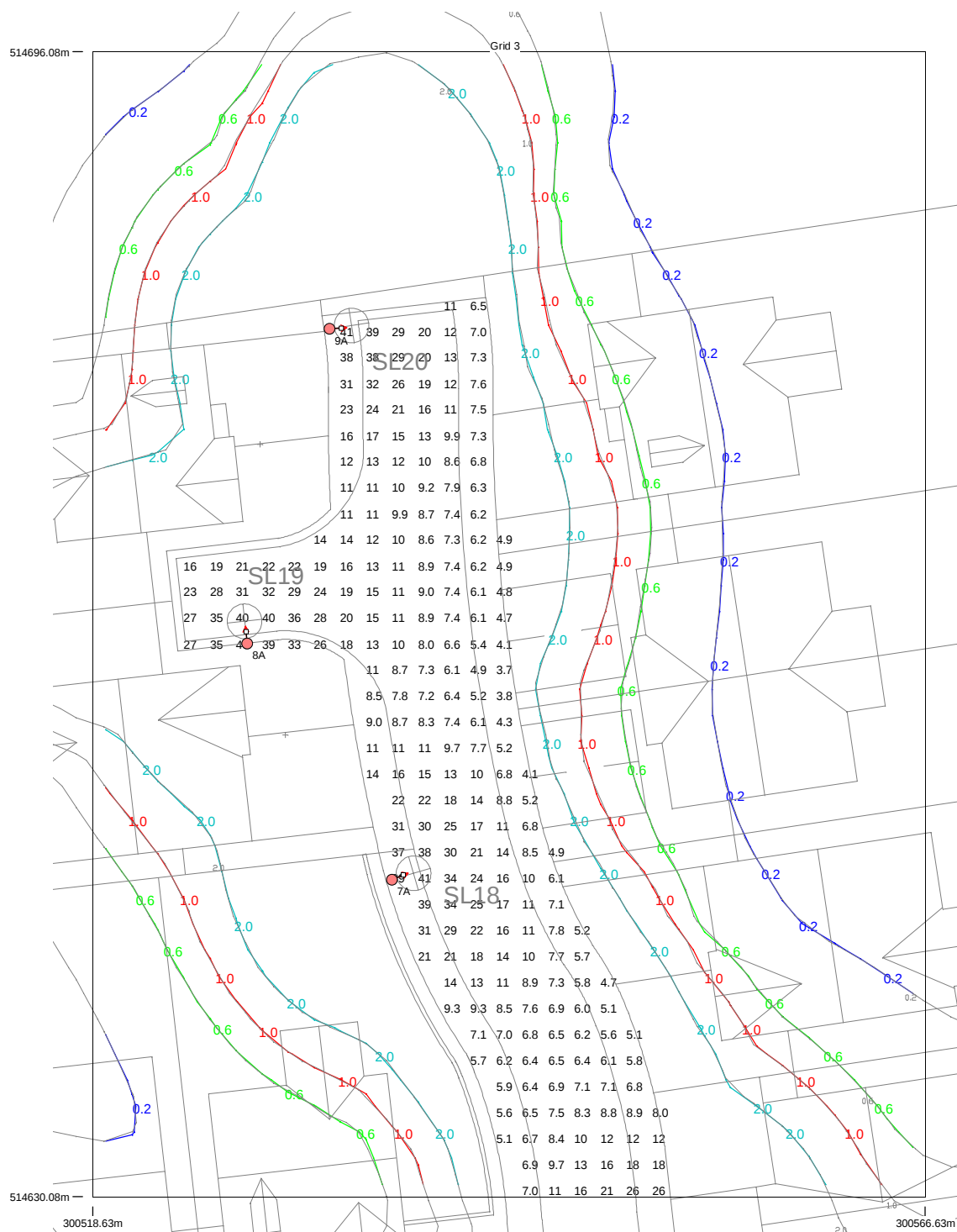


Results

Eav	12.29
Emin	2.43
Emax	41.54
Emin/Emax	0.06
Emin/Eav	0.20

Horizontal Illuminance (lux)

Grid 3

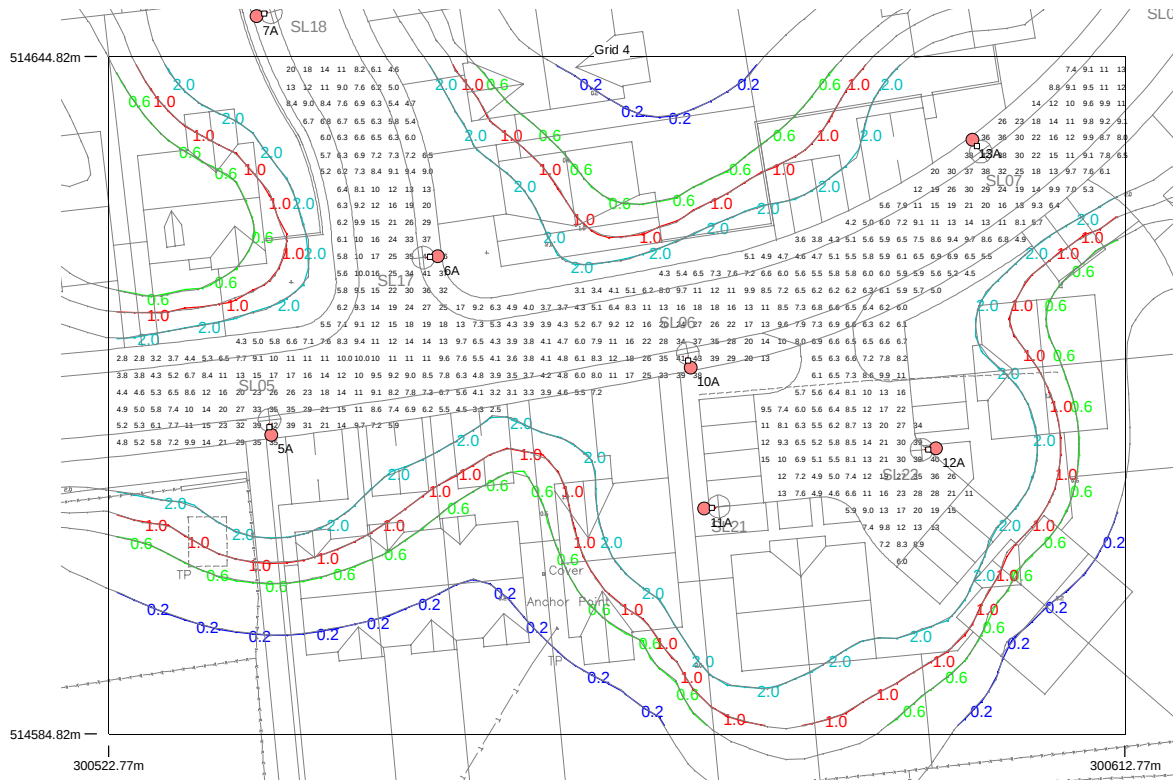


Results

Eav	14.34
Emin	3.73
Emax	41.49
Emin/Emax	0.09
Emin/Eav	0.26

Horizontal Illuminance (lux)

Grid 4

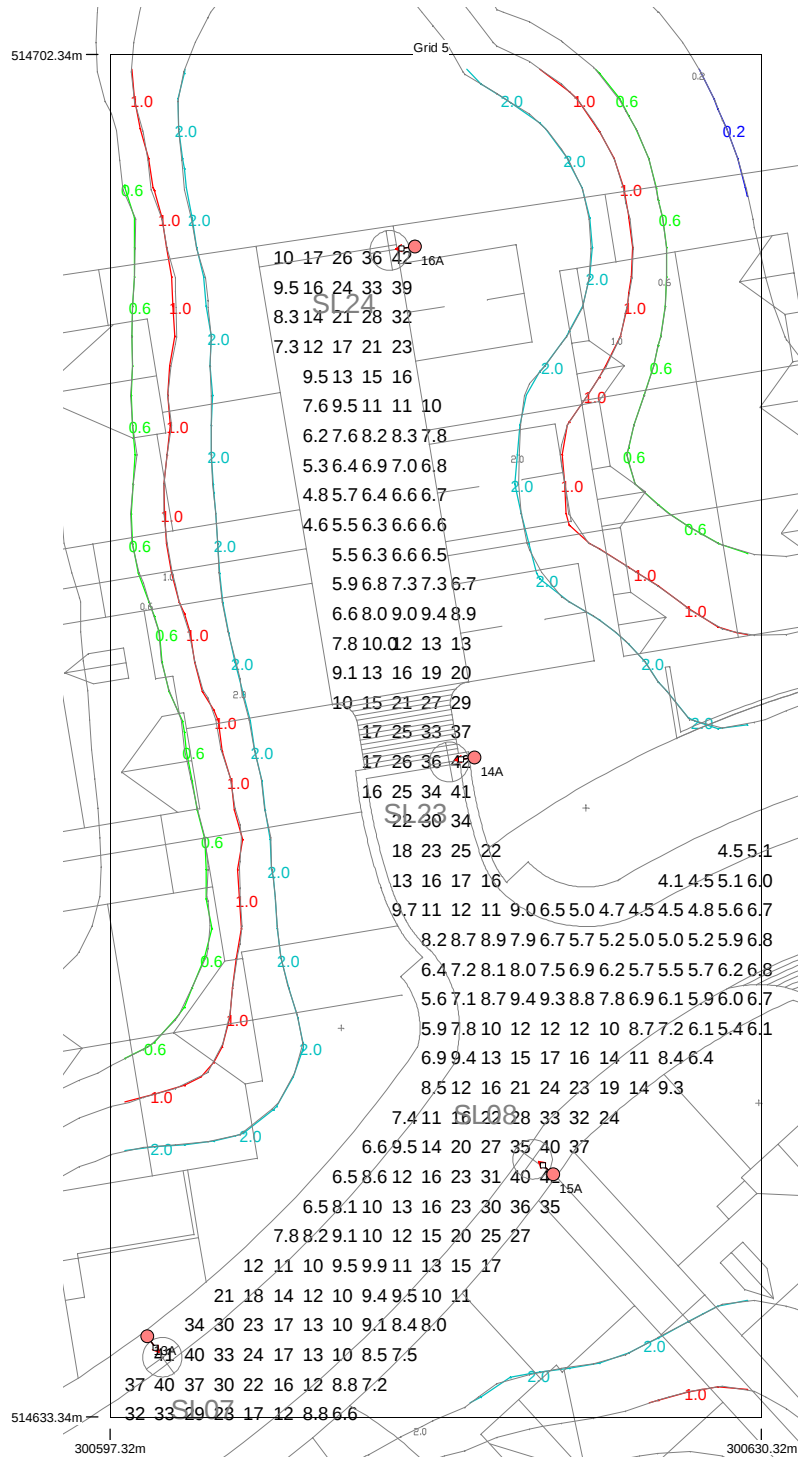


Results

Eav	12.39
Emin	2.47
Emax	43.47
Emin/Emax	0.06
Emin/Eav	0.20

Horizontal Illuminance (lux)

Grid 5

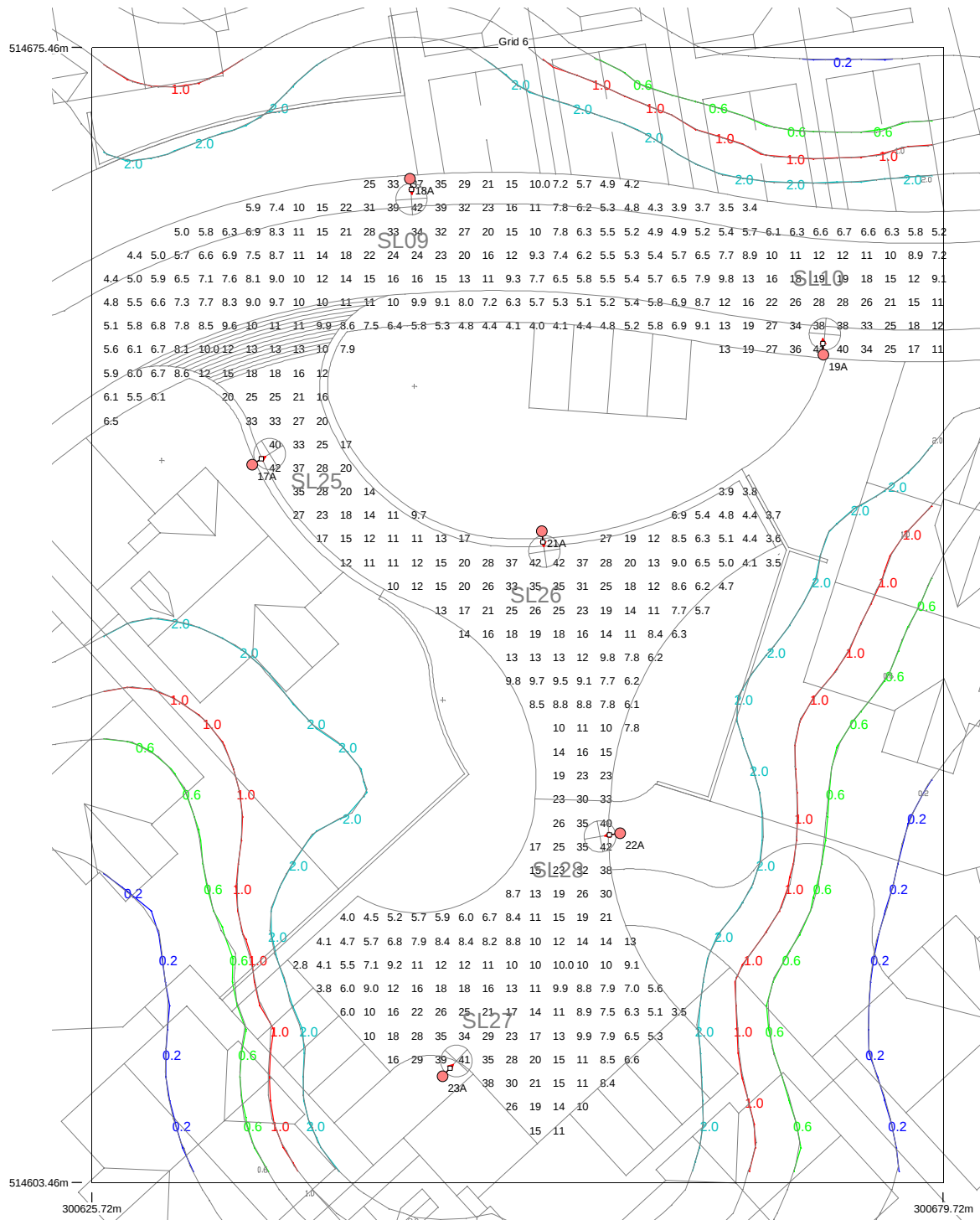


Results

Eav	14.60
Emin	4.11
Emax	42.13
Emin/Emax	0.10
Emin/Eav	0.28

Horizontal Illuminance (lux)

Grid 6

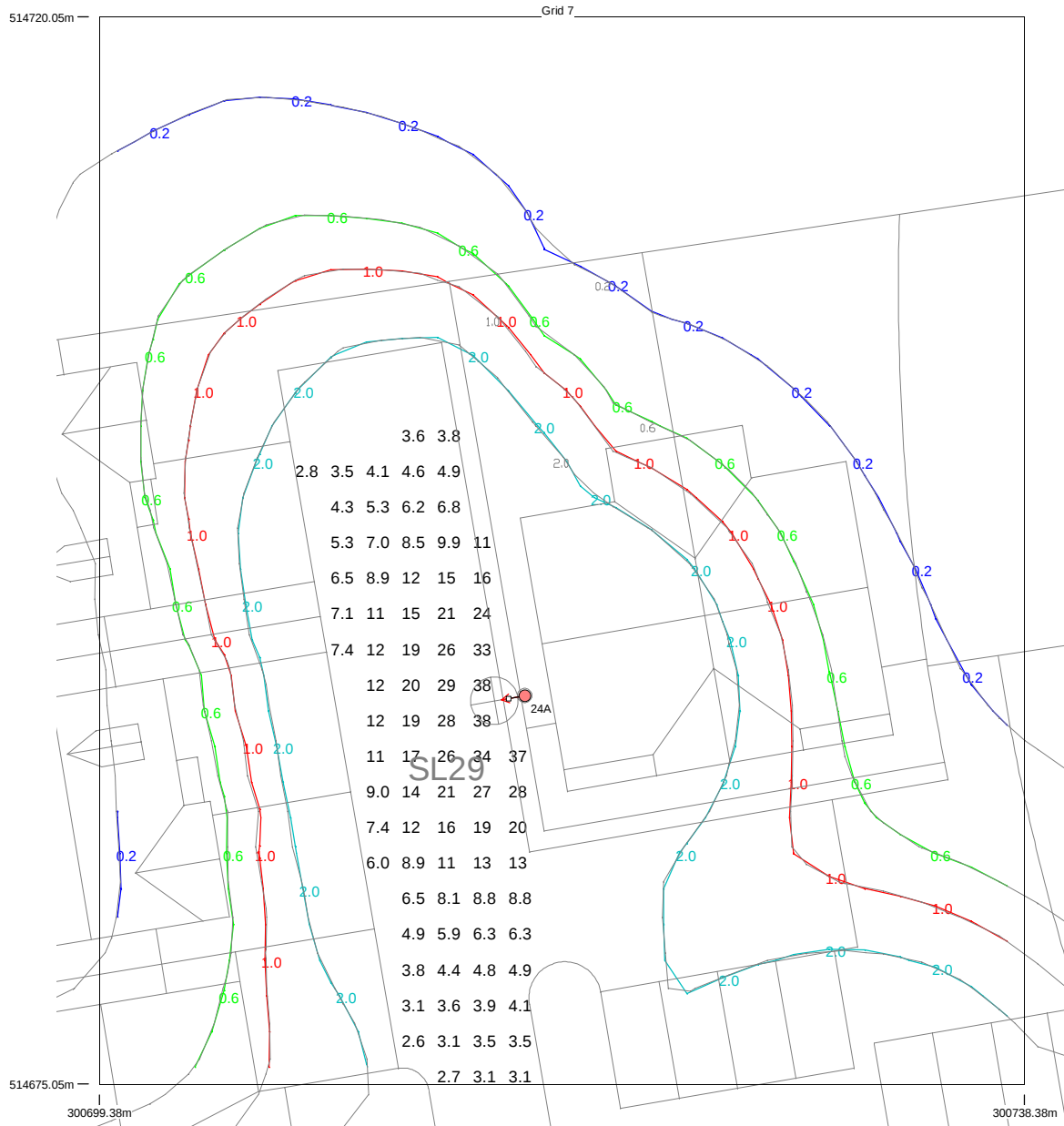


Results

Eav	14.29
Emin	2.81
Emax	42.16
Emin/Emax	0.07
Emin/Eav	0.20

Horizontal Illuminance (lux)

Grid 7

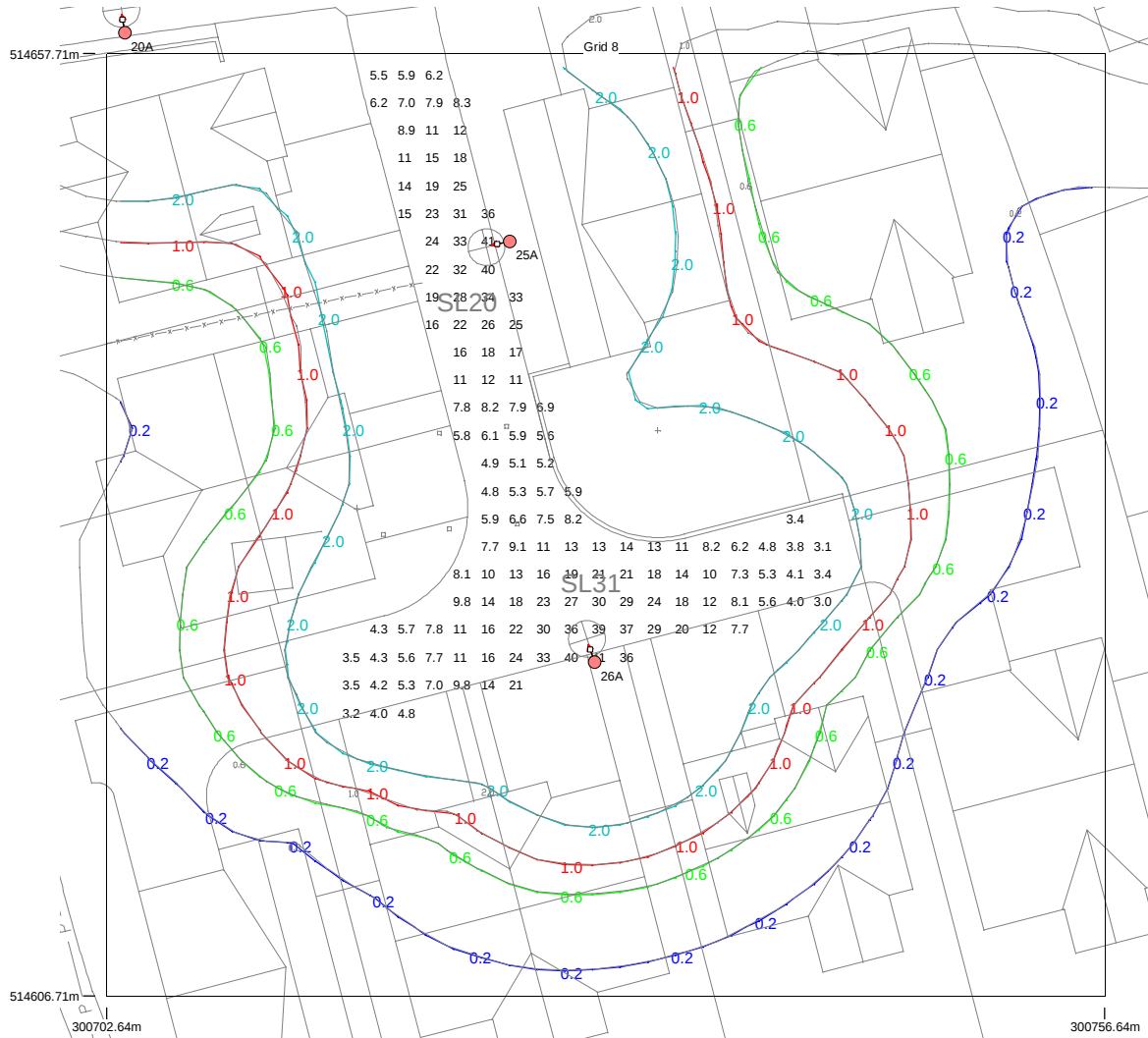


Results

Eav	11.93
Emin	2.62
Emax	37.97
Emin/Emax	0.07
Emin/Eav	0.22

Horizontal Illuminance (lux)

Grid 8

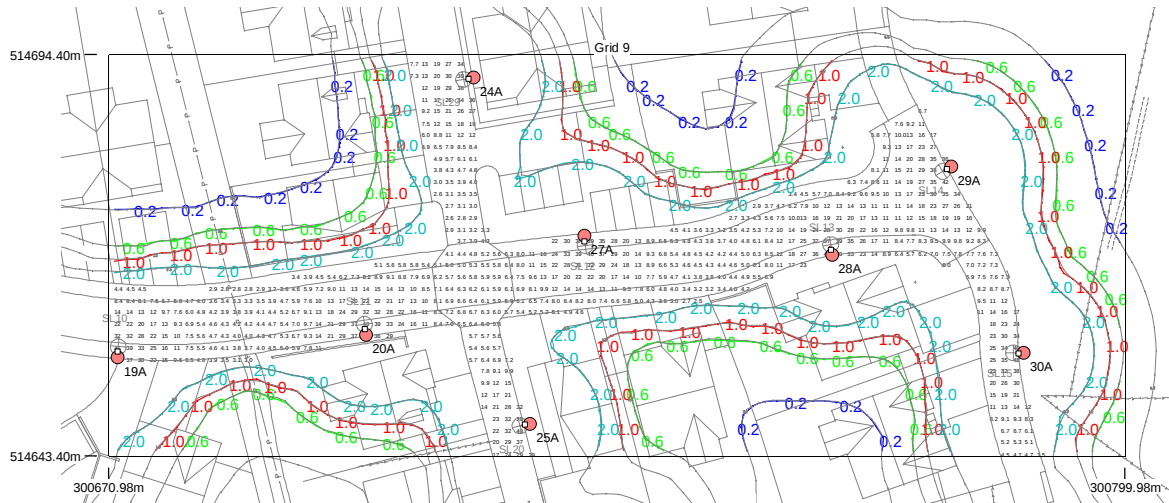


Results

Eav	14.52
Emin	3.02
E _{max}	40.78
E _{min} /E _{max}	0.07
E _{min} /E _{av}	0.21

Horizontal Illuminance (lux)

Grid 9

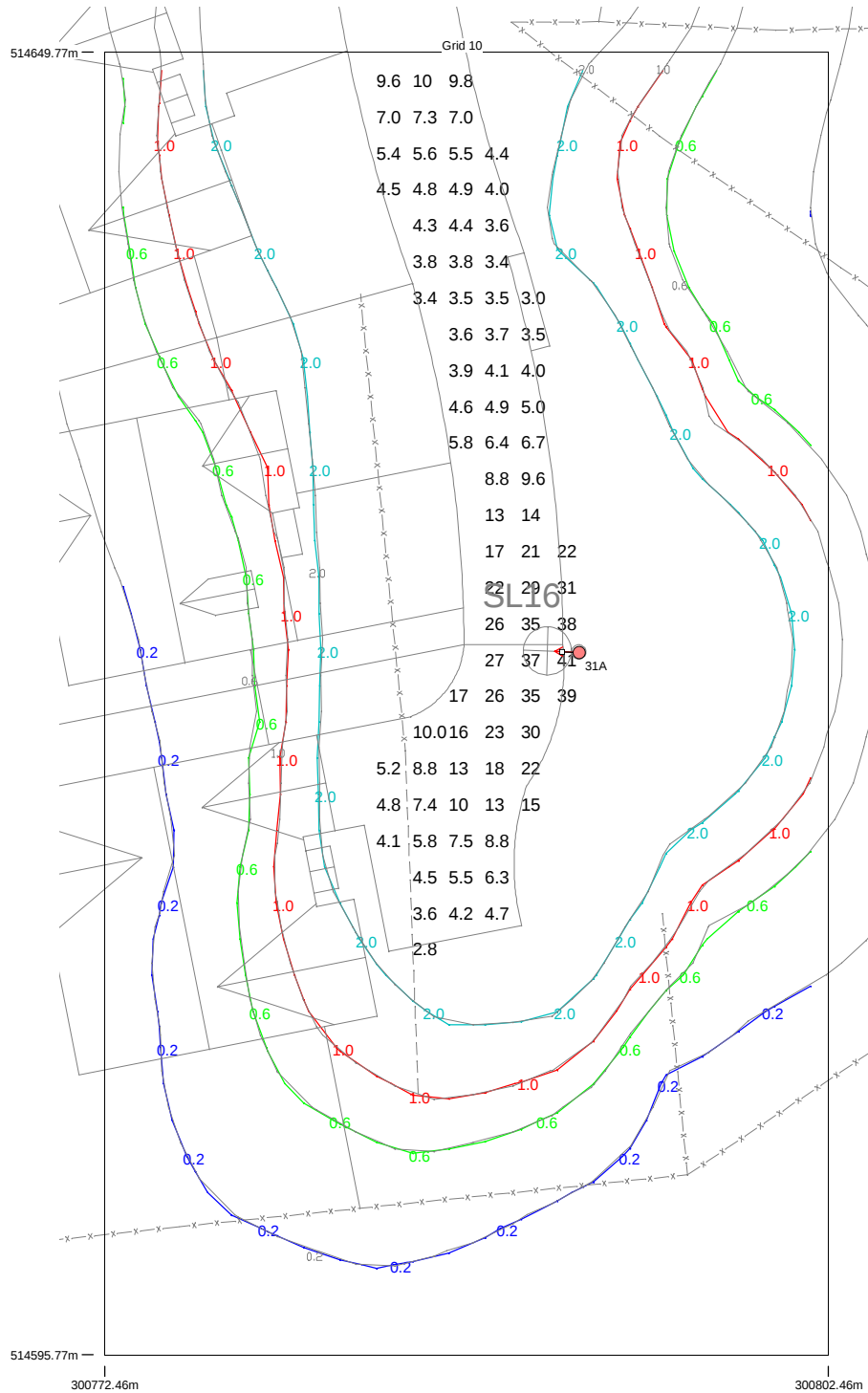


Results

Eav	12.86
Emin	2.52
Emax	42.85
Emin/Emax	0.06
Emin/Eav	0.20

Horizontal Illuminance (lux)

Grid 10



Results

Eav	11.66
Emin	2.85
Emax	41.26
Emin/Emax	0.07
Emin/Eav	0.24