

DATE: 1 June 2020
DESIGNER: Steve Higham
PROJECT No: SHD065
PROJECT NAME: off Wildhouse Lane, Milnrow



Development Layout Reference – 8764-(04)207-Site Layout

In accordance with Rochdale design brief 'Document Reference:
P0067-19-00-1039-01'

Lighting Classification – P4 (BS5489-1:2013, Table A.5)
S/P ratio of light source – N/A
Luminaire Maintenance Factor – 0.81

Desired Lighting Levels:
Eav = 5.00 to 7.50 lux
Emin > 1.00 lux
Emin/Eav > 0.20

Outdoor Lighting Report

PREPARED BY: SHD Lighting Consultancy Ltd
15 Boundary Drive
Bradley Fold
Bolton
BL2 6SE
www.shdlighting.co.uk
info@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	117.40	128.89	58.60	81.00	1.50	1.50
2	Grid 2	208.30	41.00	57.00	102.00	1.50	1.50
3	Grid 3	136.90	107.20	75.00	27.00	1.50	1.50
4	Grid 4	139.94	46.30	42.00	81.00	1.50	1.50
5	Grid 5	141.77	38.96	72.00	24.00	1.50	1.50
6	Grid 6	143.20	29.81	72.00	24.00	1.50	1.50
7	Grid 7	170.02	-60.33	30.00	84.00	1.50	1.50
8	Grid 8	62.57	-78.26	264.00	295.12	1.50	1.50

Luminaires

Luminaire A Data

Supplier	Oldham Council - Holophane
Type	VMX.2.LA043.V1.F4Q1.W026
Lamp(s)	LED C.4000 Lumens
Lamp Flux (klm)	3.72
File Name	VMX.2.LA043.V1.F4Q1.W026.IES
Maintenance Factor	0.81
Lum. Int. Class	G4
Lamp S/P Ratio	1.18
No. in Project	19

Layout

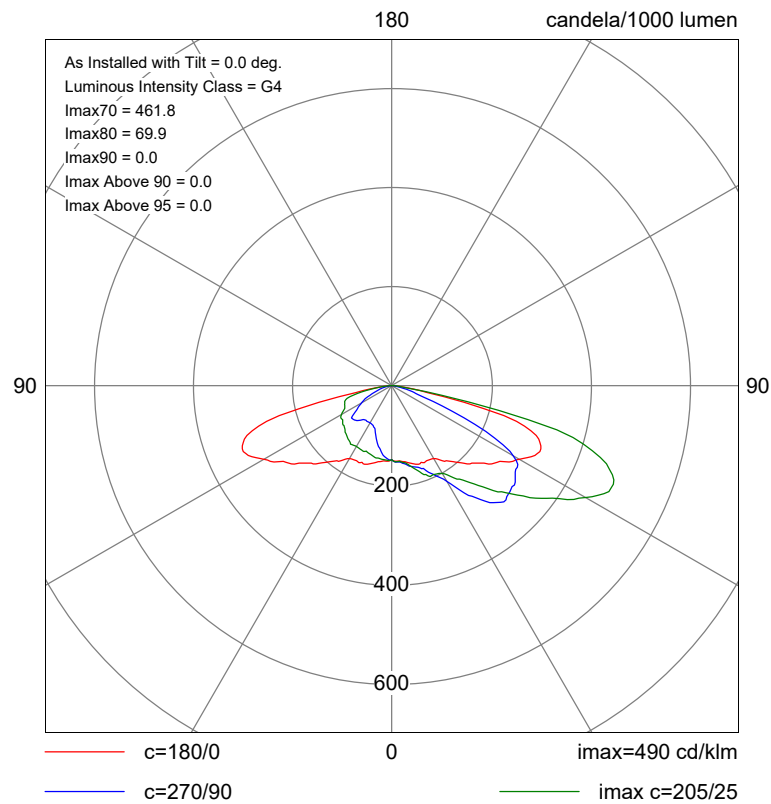
ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	A	156.69	189.00	6.00	200.00	0.00	0.00	0.37			
2	A	156.13	163.69	6.00	107.00	0.00	0.00	0.37			
3	A	140.71	145.50	6.00	149.00	0.00	0.00	0.37			
4	A	123.34	113.57	6.00	358.00	0.00	0.00	0.37			
5	A	155.19	111.53	6.00	89.00	0.00	0.00	0.37			
6	A	194.74	111.47	6.00	90.00	0.00	0.00	0.37			
7	A	215.03	129.16	6.00	12.00	0.00	0.00	0.37			
8	A	223.68	106.91	6.00	6.00	0.00	0.00	0.37			
9	A	223.85	73.61	6.00	30.00	0.00	0.00	0.37			
10	A	234.95	52.84	6.00	124.00	0.00	0.00	0.37			
11	A	210.32	52.85	6.00	264.00	0.00	0.00	0.37			
12	A	177.22	46.89	6.00	88.00	0.00	0.00	0.37			
13	A	143.93	49.88	6.00	34.00	0.00	0.00	0.37			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
14	A	175.07	29.11	6.00	235.00	0.00	0.00	0.37			
15	A	198.56	6.37	6.00	58.00	0.00	0.00	0.37			
16	A	210.32	-23.37	6.00	144.00	0.00	0.00	0.37			
17	A	127.61	82.76	6.00	17.00	0.00	0.00	0.37			
18	A	185.58	-42.10	6.00	255.00	0.00	0.00	0.37			
19	A	195.33	-61.98	6.00	158.00	0.00	0.00	0.37			

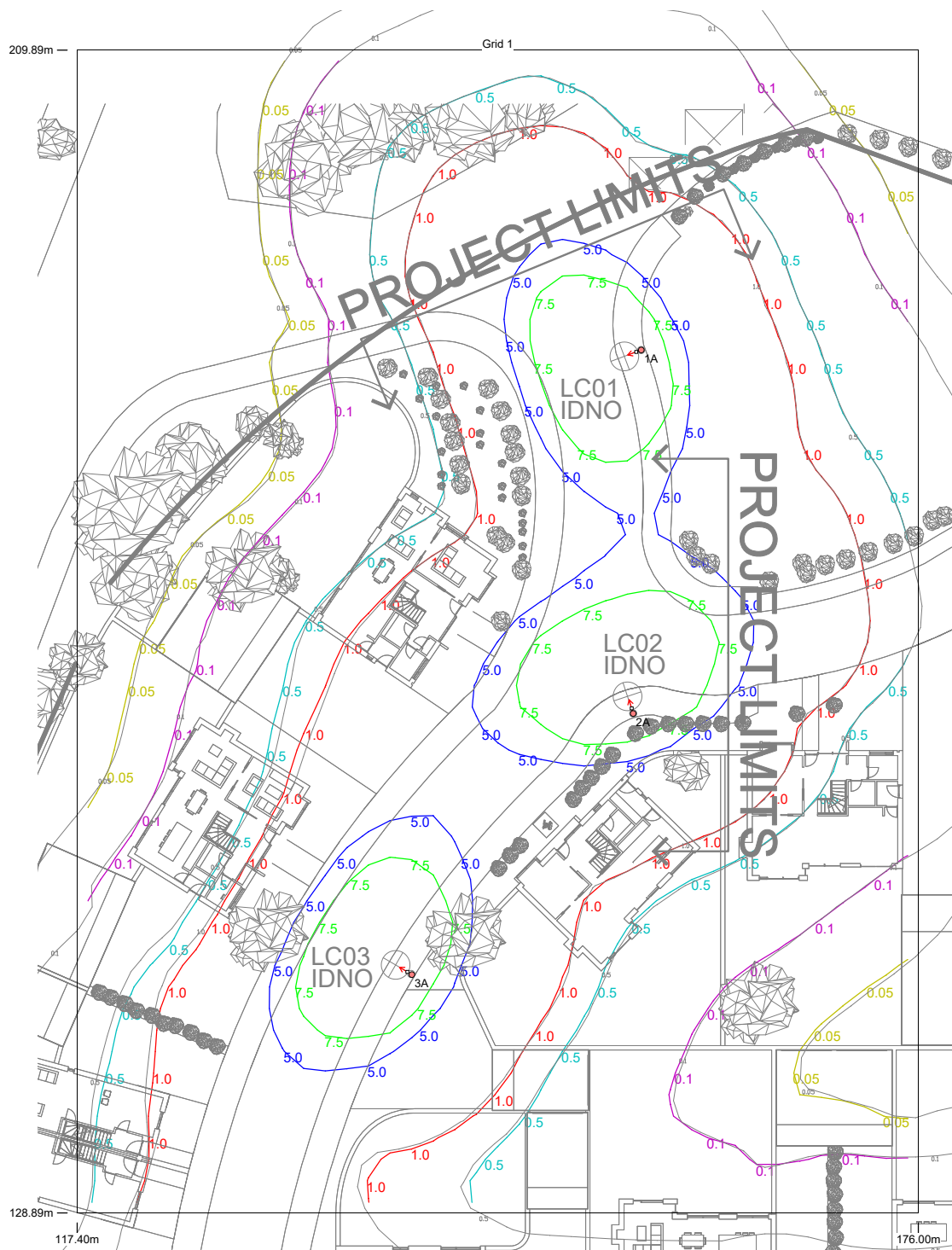
Polar Diagram

Luminaire A VMX.2.LA043.V1.F4Q1.W026



Horizontal Illuminance (lux)

Grid 1

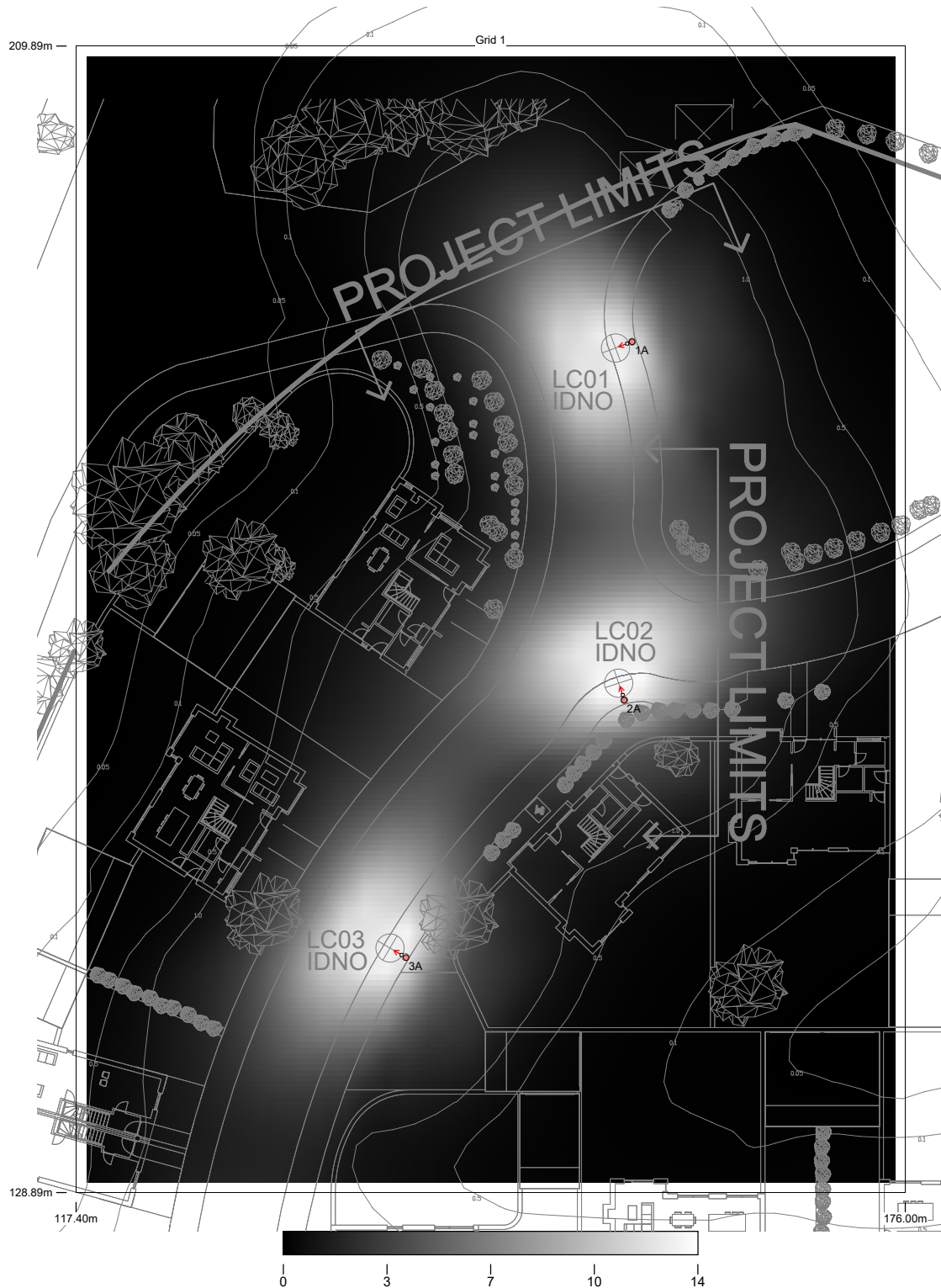


Results

Eav	6.58
Emin	1.38
Emax	13.76
Emin/Emax	0.10
Emin/Eav	0.21

Horizontal Illuminance (lux)

Grid 1

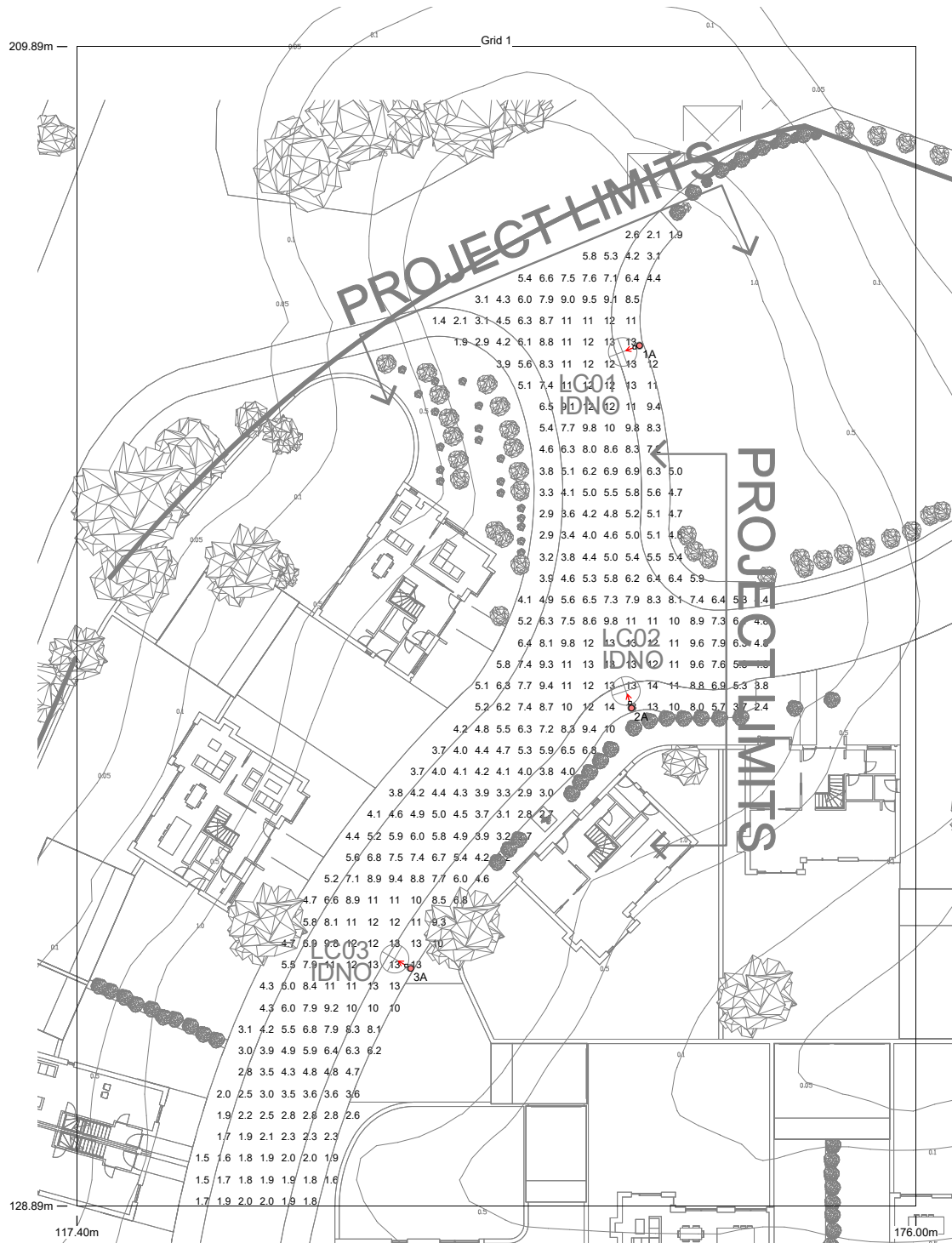


Results

Eav	6.58
Emin	1.38
Emax	13.76
Emin/Emax	0.10
Emin/Eav	0.21

Horizontal Illuminance (lux)

Grid 1

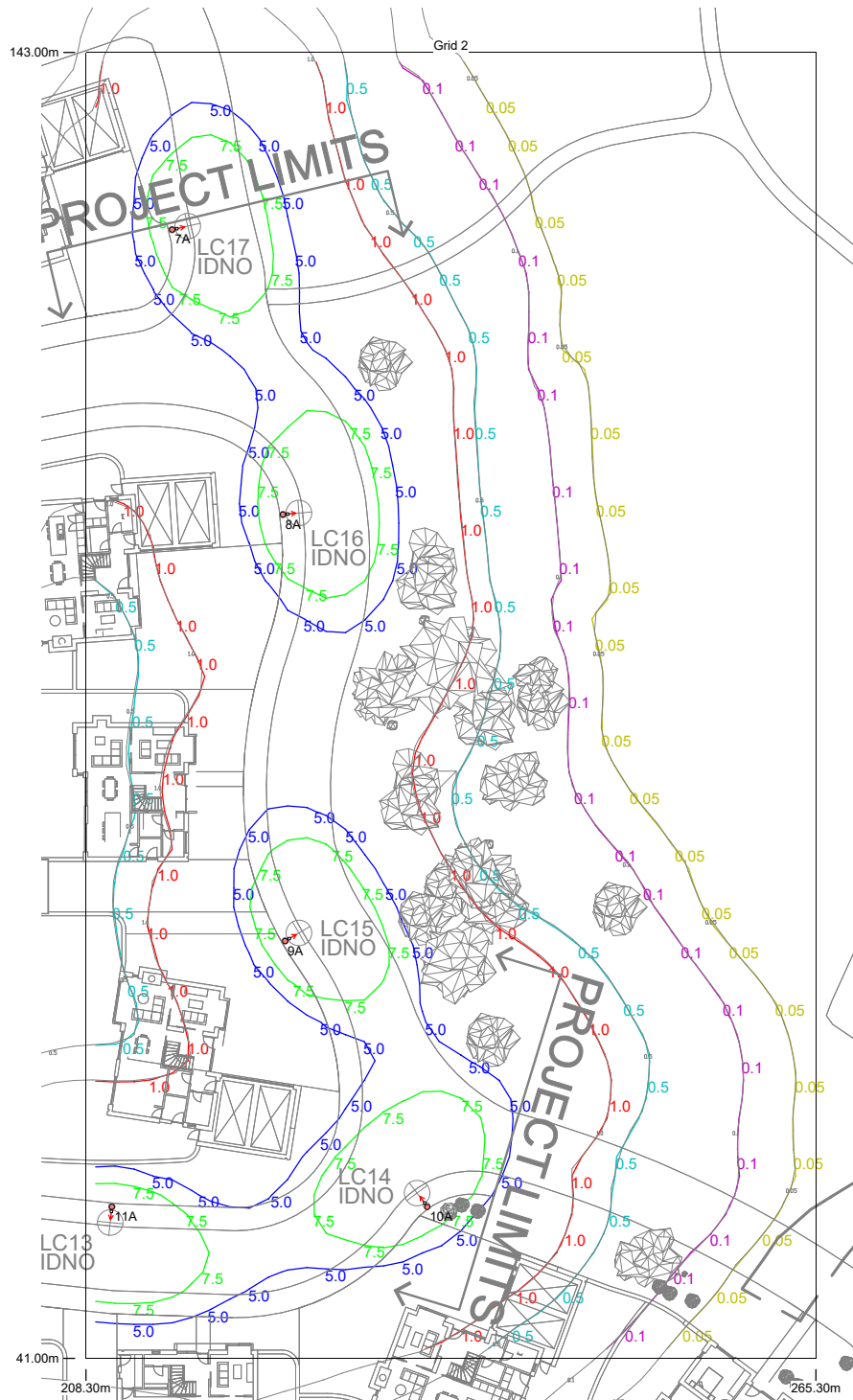


Results

Eav	6.58
Emin	1.38
Emax	13.76
Emin/Emax	0.10
Emin/Eav	0.21

Horizontal Illuminance (lux)

Grid 2

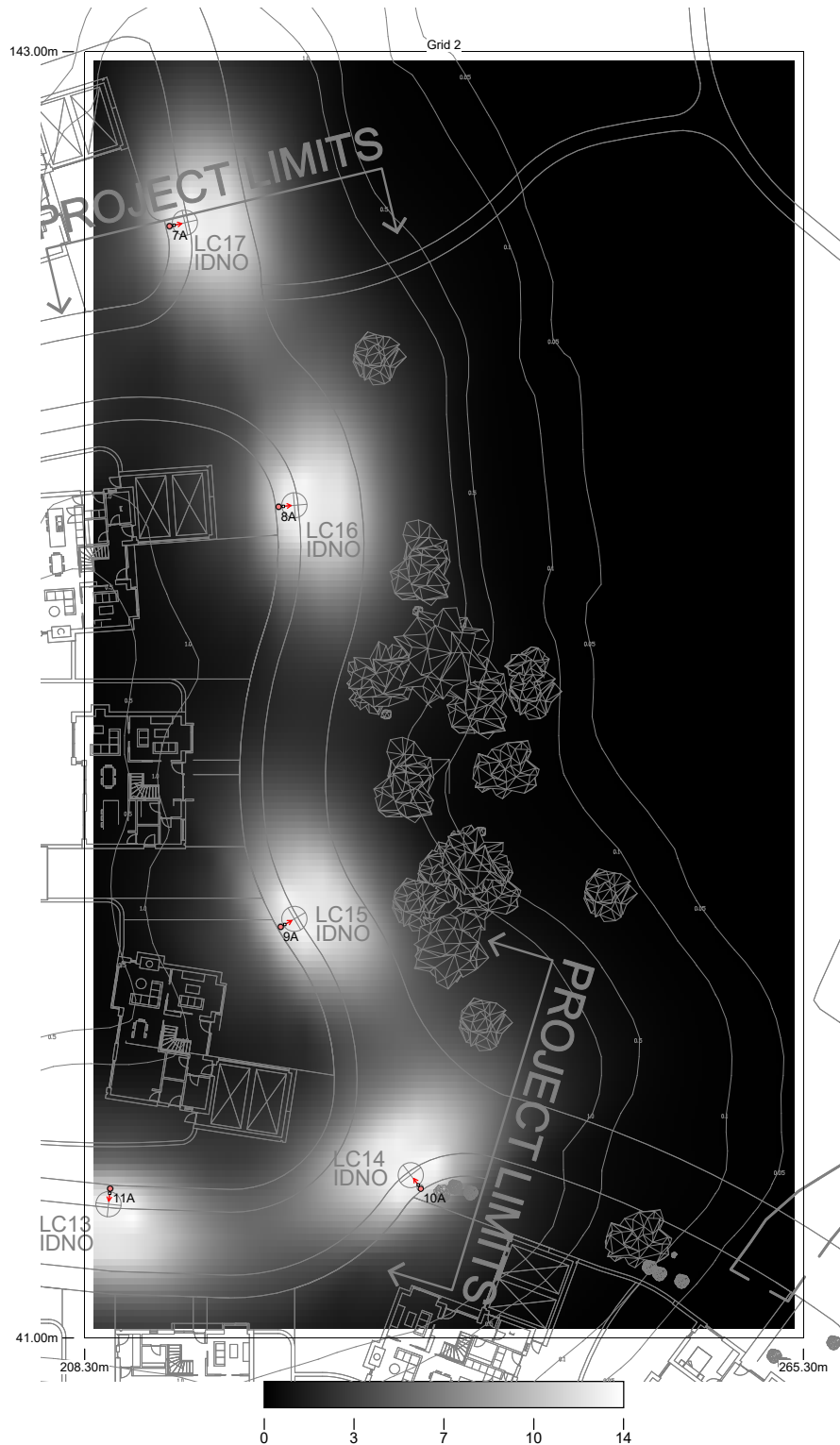


Results

Eav	7.27
Emin	1.86
Emax	13.77
Emin/Emax	0.13
Emin/Eav	0.26

Horizontal Illuminance (lux)

Grid 2



Results

Eav	7.27
Emin	1.86
Emax	13.77
Emin/Emax	0.13
Emin/Eav	0.26

Horizontal Illuminance (lux)

Grid 2

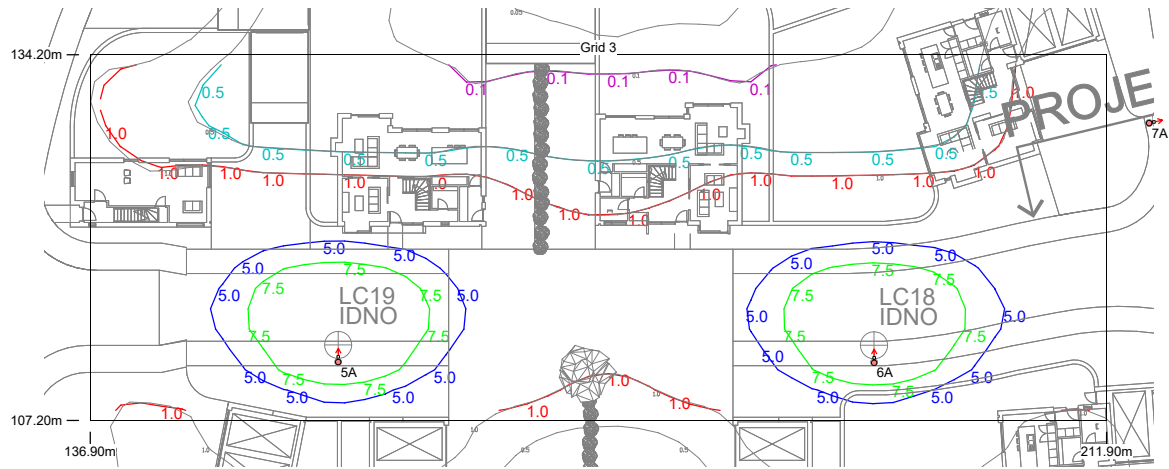


Results

Eav	7.27
Emin	1.86
Emax	13.77
Emin/Emax	0.13
Emin/Eav	0.26

Horizontal Illuminance (lux)

Grid 3

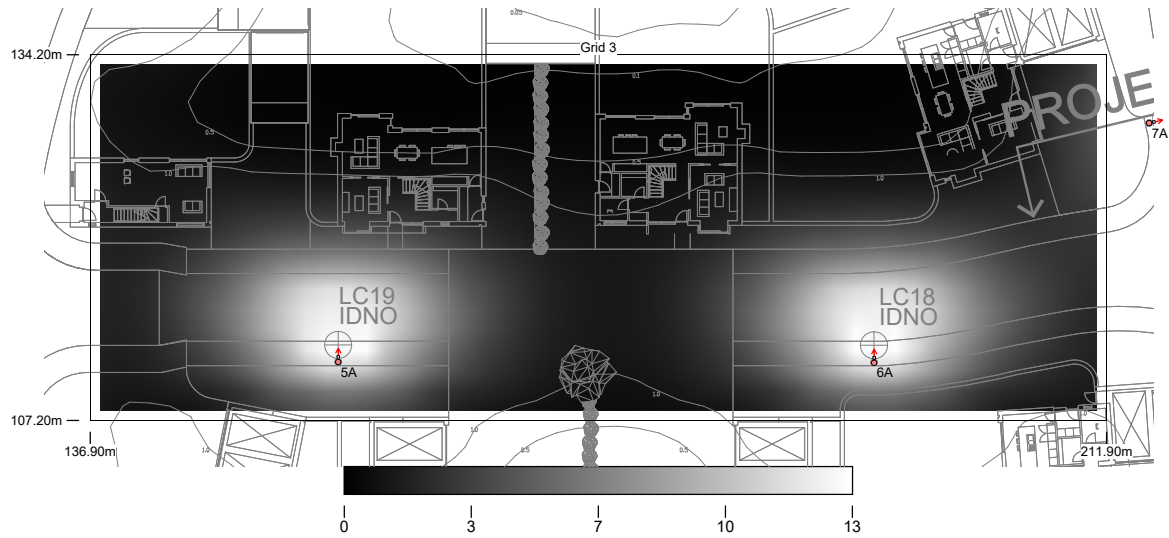


Results

Eav	5.32
Emin	1.19
Emax	13.04
Emin/Emax	0.09
Emin/Eav	0.22

Horizontal Illuminance (lux)

Grid 3

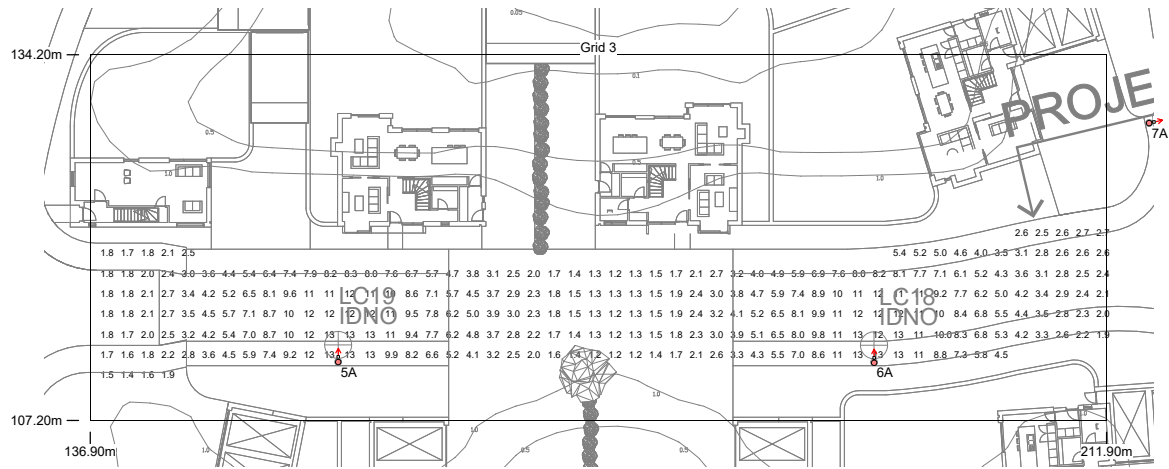


Results

Eav	5.32
Emin	1.19
Emax	13.04
Emin/Emax	0.09
Emin/Eav	0.22

Horizontal Illuminance (lux)

Grid 3

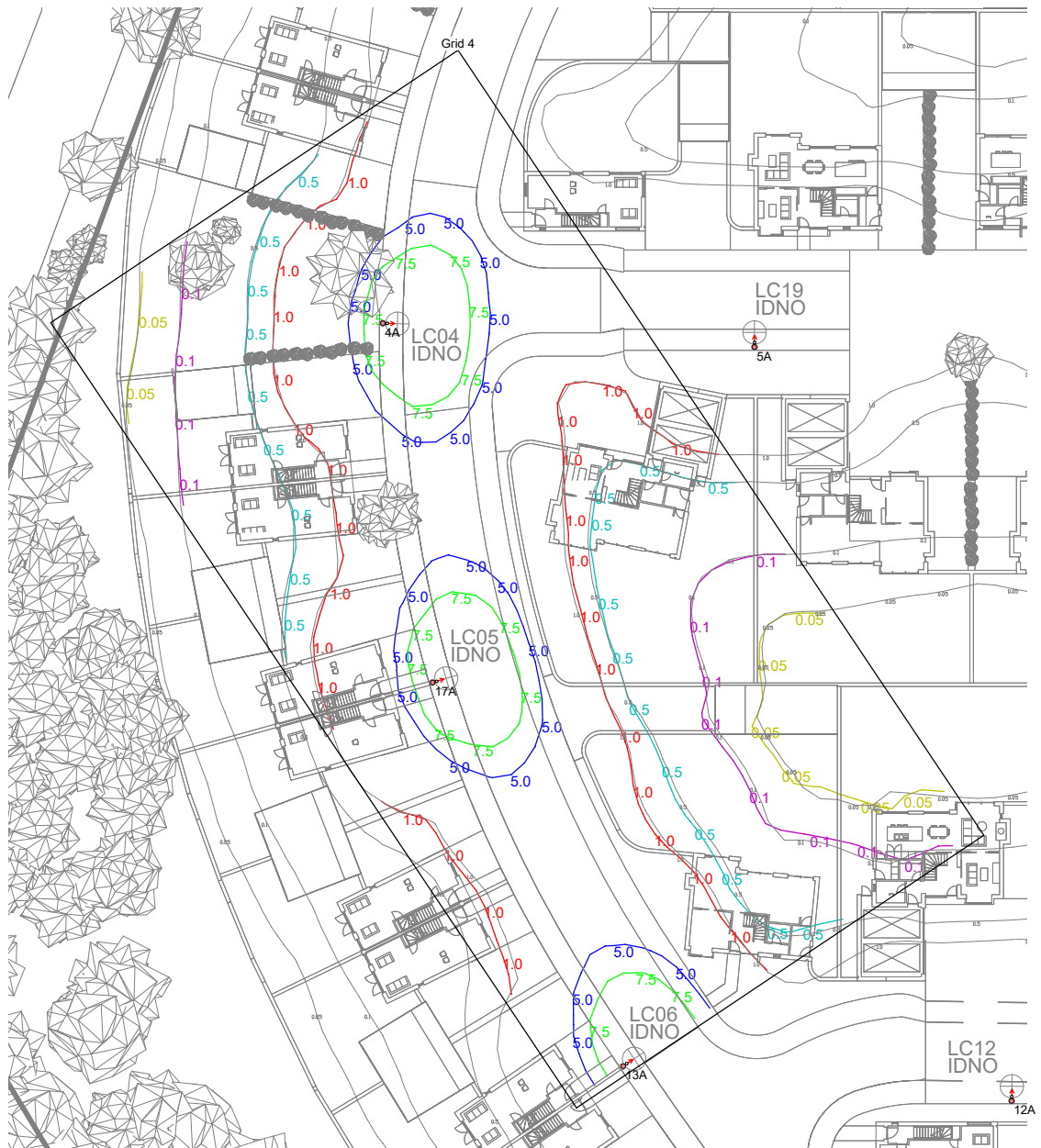


Results

Eav	5.32
Emin	1.19
Emax	13.04
Emin/Emax	0.09
Emin/Eav	0.22

Horizontal Illuminance (lux)

Grid 4

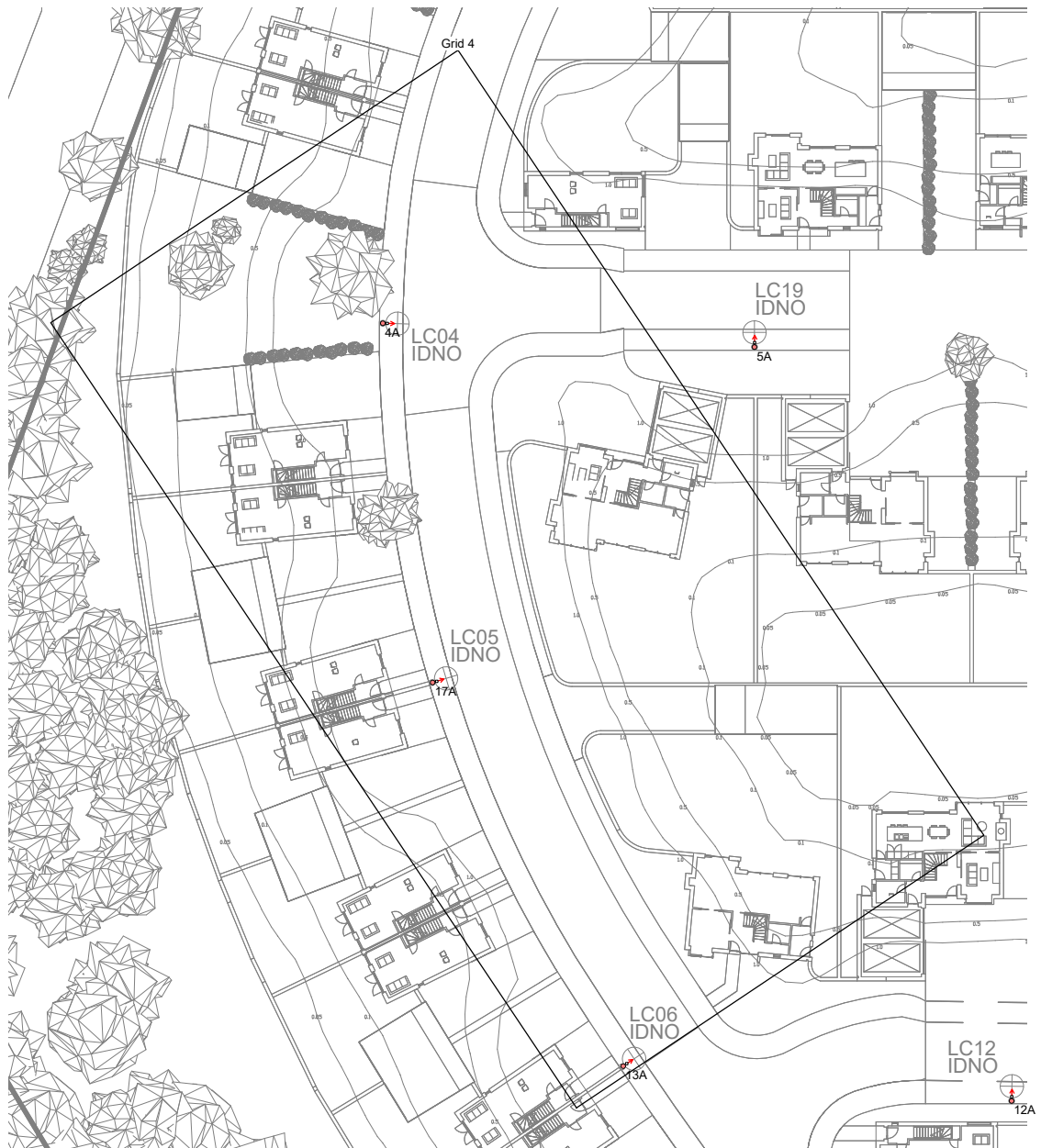


Results

Eav	5.31
Emin	1.49
E _{max}	13.33
E _{min} /E _{max}	0.11
E _{min} /E _{av}	0.28

Horizontal Illuminance (lux)

Grid 4

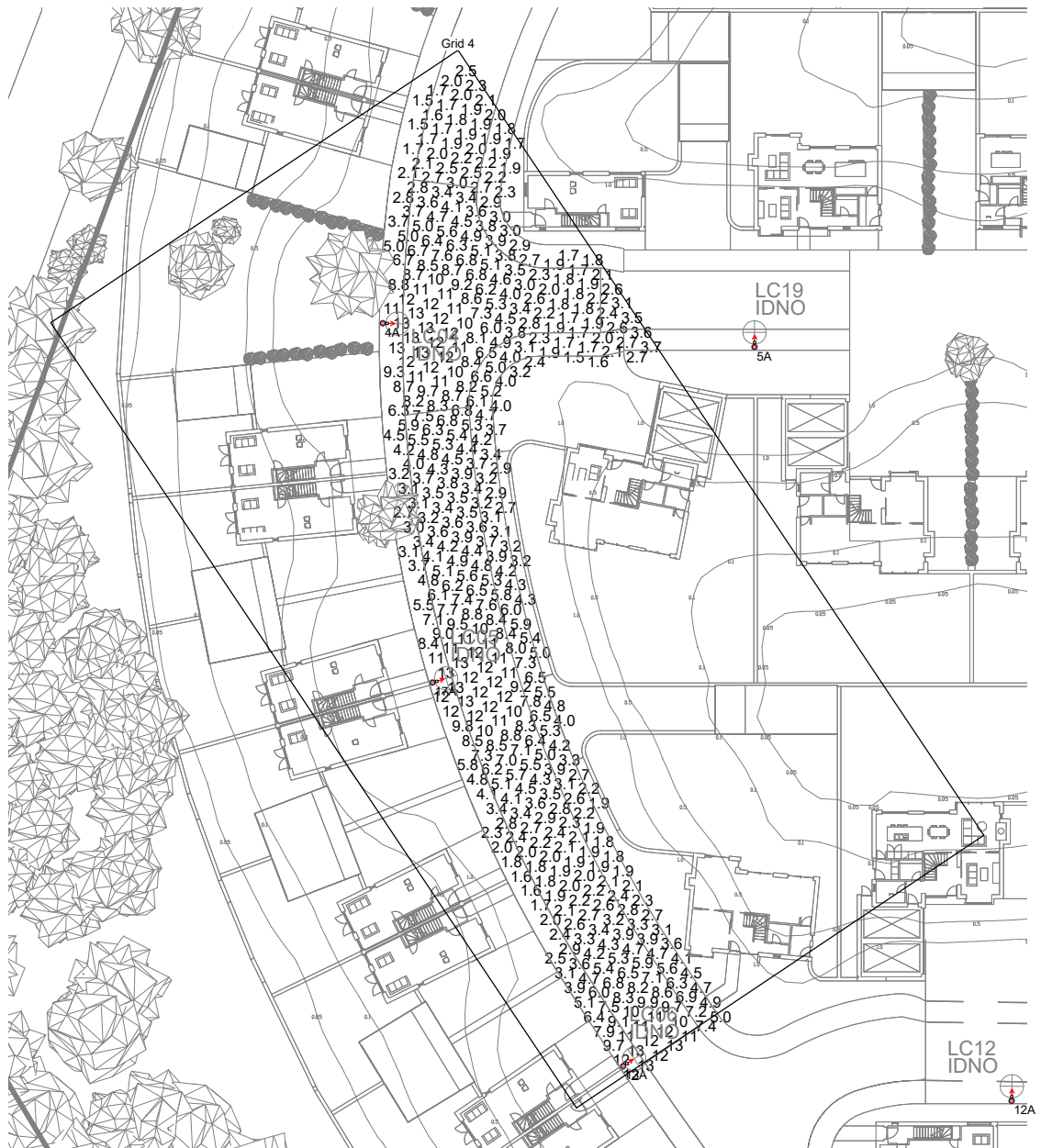


Results

Eav	5.31
Emin	1.49
Emax	13.33
Emin/Emax	0.11
Emin/Eav	0.28

Horizontal Illuminance (lux)

Grid 4

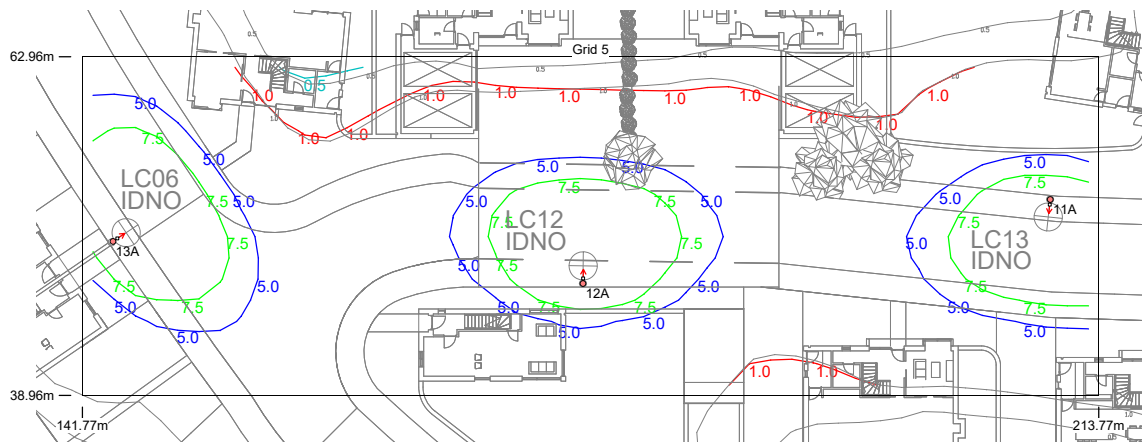


Results

Eav	5.31
Emin	1.49
Emax	13.33
Emin/Emax	0.11
Emin/Eav	0.28

Horizontal Illuminance (lux)

Grid 5

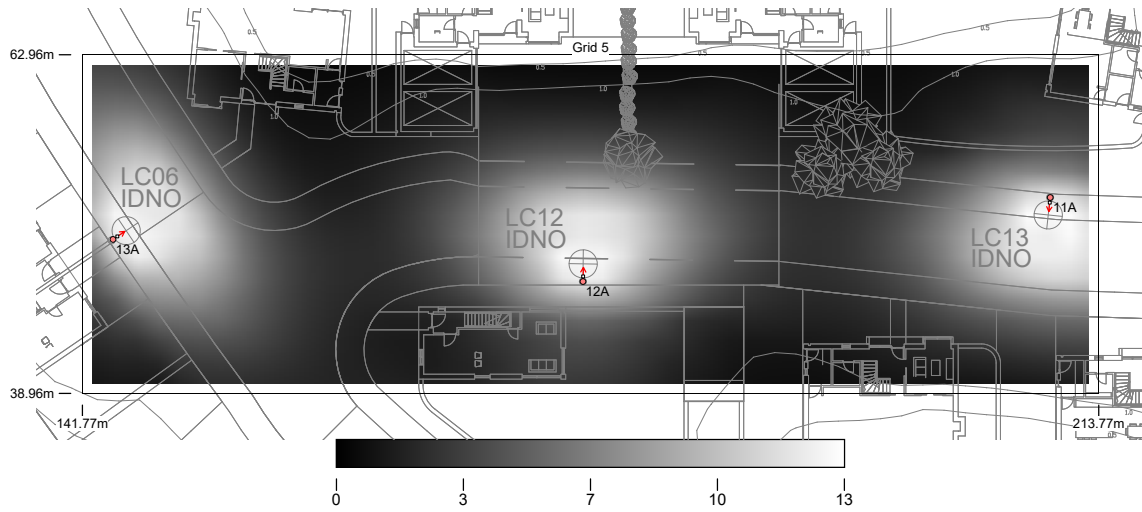


Results

Eav	6.19
Emin	1.60
Emax	13.49
Emin/Emax	0.12
Emin/Eav	0.26

Horizontal Illuminance (lux)

Grid 5

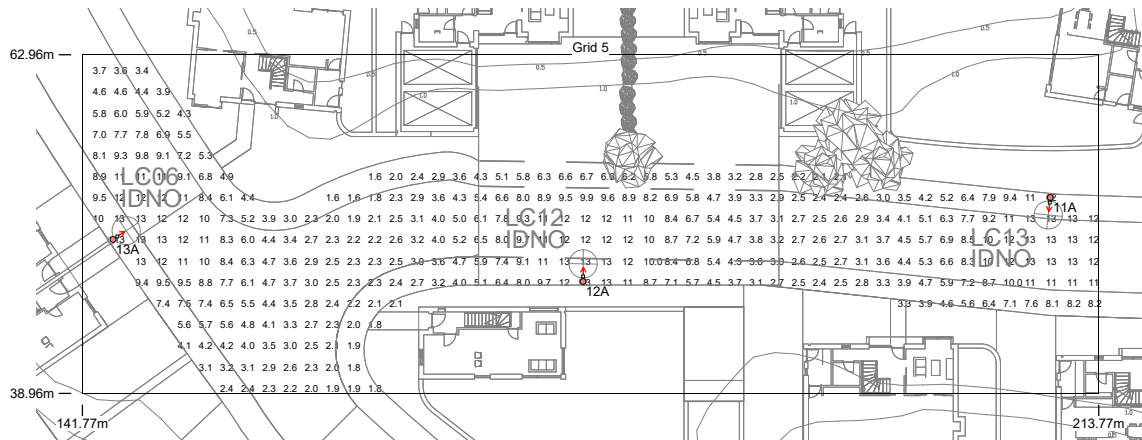


Results

Eav	6.19
Emin	1.60
Emax	13.49
Emin/Emax	0.12
Emin/Eav	0.26

Horizontal Illuminance (lux)

Grid 5

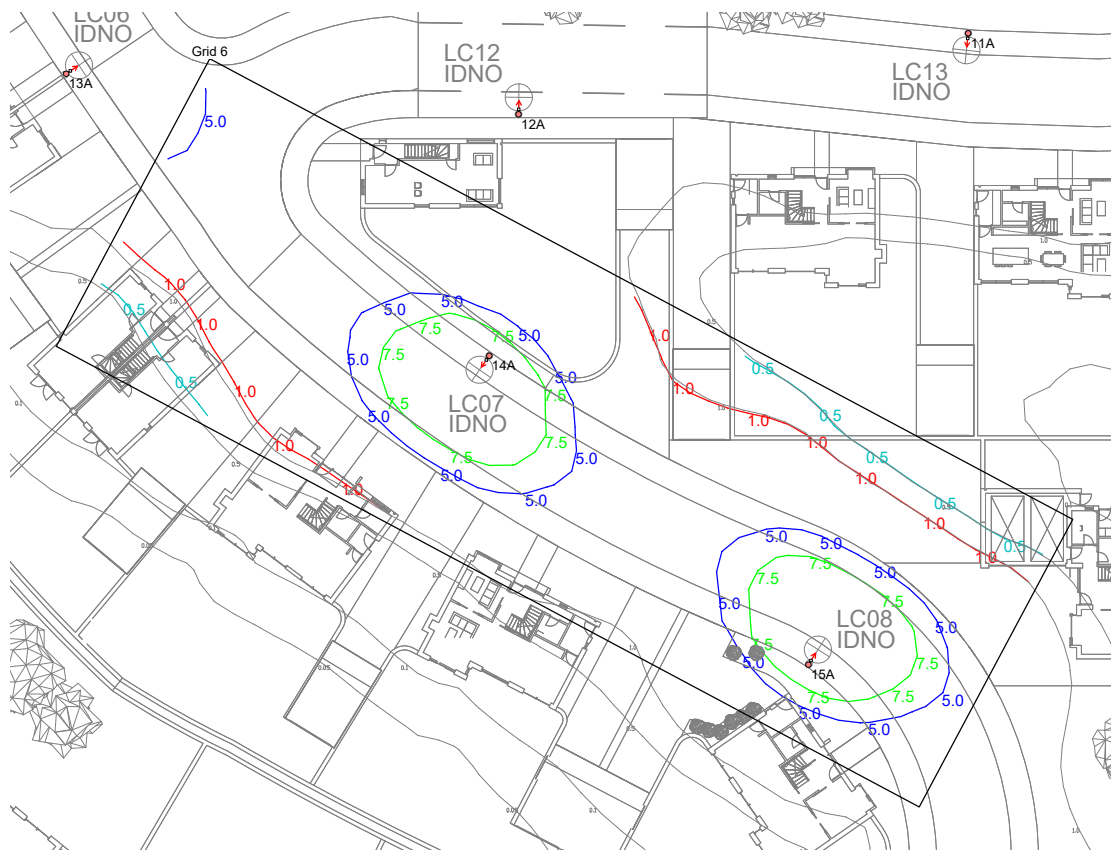


Results

Eav	6.19
Emin	1.60
Emax	13.49
Emin/Emax	0.12
Emin/Eav	0.26

Horizontal Illuminance (lux)

Grid 6

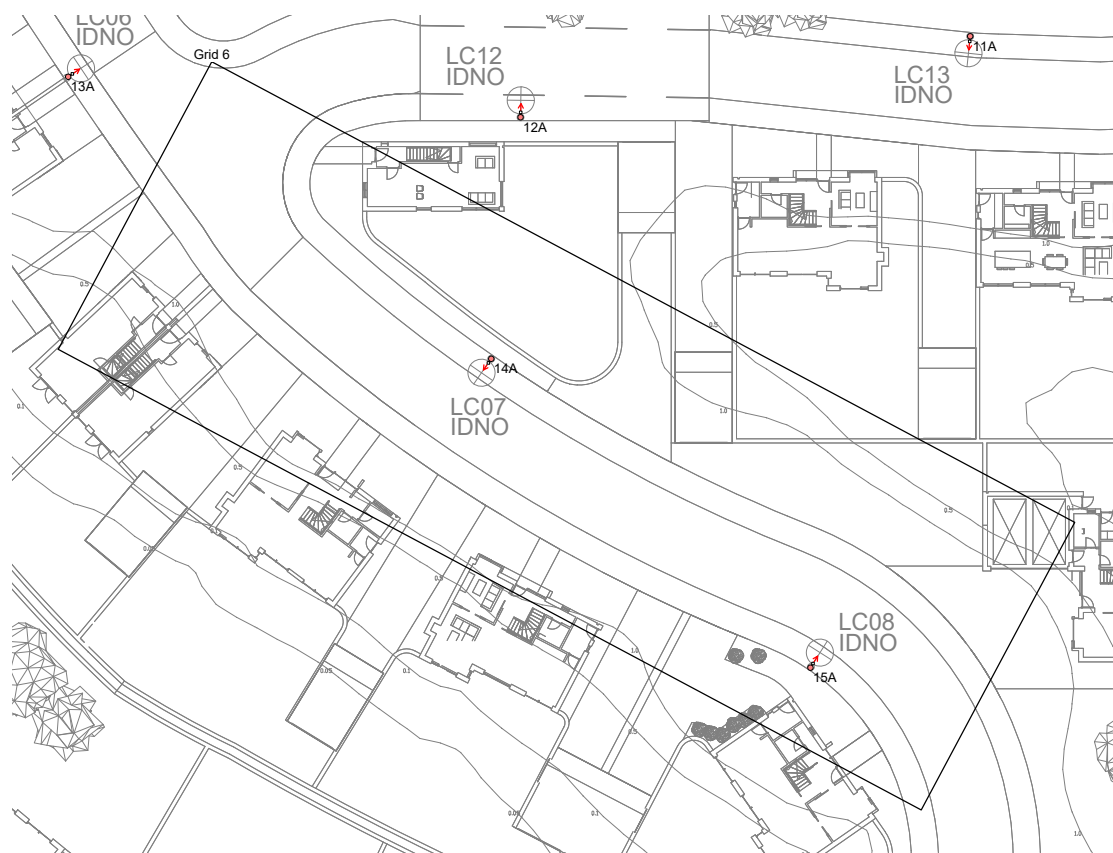


Results

Eav	5.41
Emin	1.25
Emax	13.39
Emin/Emax	0.09
Emin/Eav	0.23

Horizontal Illuminance (lux)

Grid 6

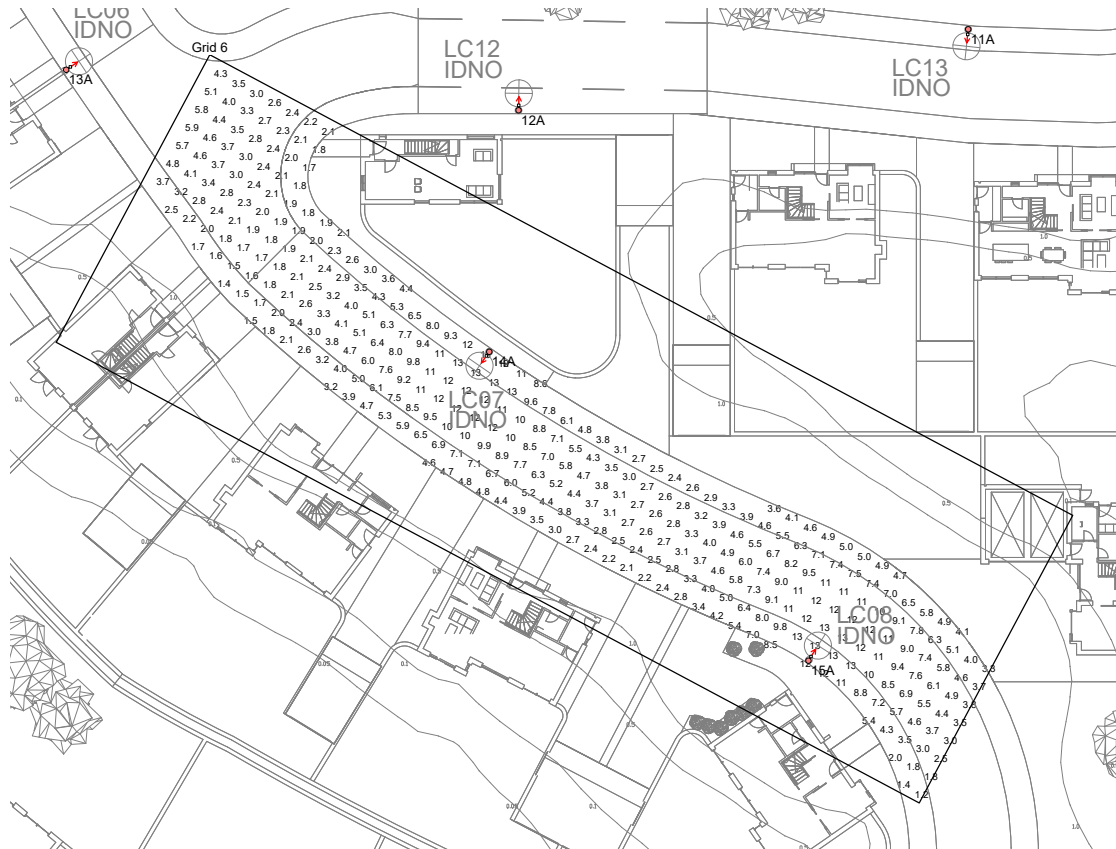


Results

Eav	5.41
Emin	1.25
E _{max}	13.39
E _{min} /E _{max}	0.09
E _{min} /E _{av}	0.23

Horizontal Illuminance (lux)

Grid 6

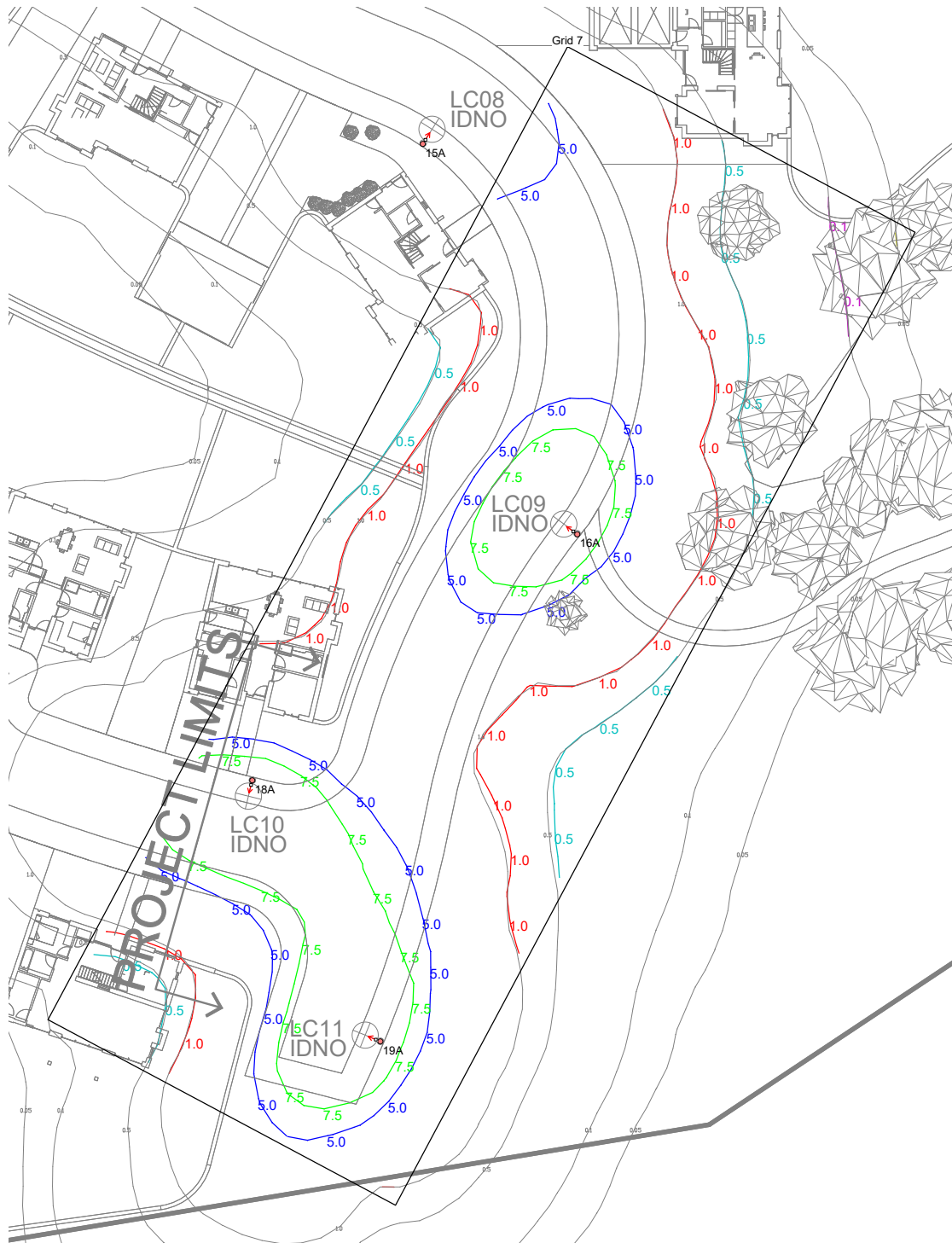


Results

Eav	5.41
Emin	1.25
Emax	13.39
Emin/Emax	0.09
Emin/Eav	0.23

Horizontal Illuminance (lux)

Grid 7

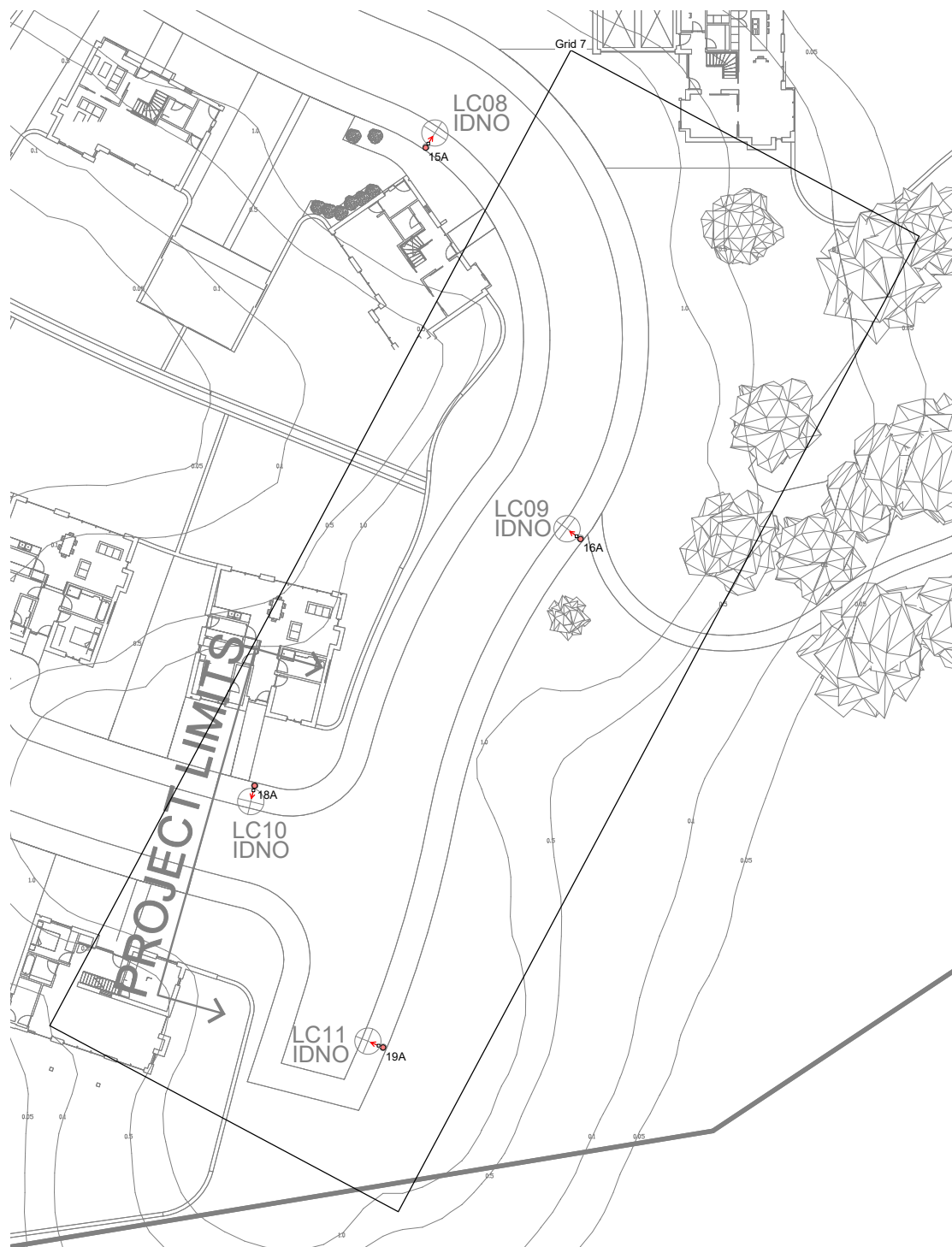


Results

Eav	6.06
Emin	1.22
Emax	13.50
Emin/Emax	0.09
Emin/Eav	0.20

Horizontal Illuminance (lux)

Grid 7

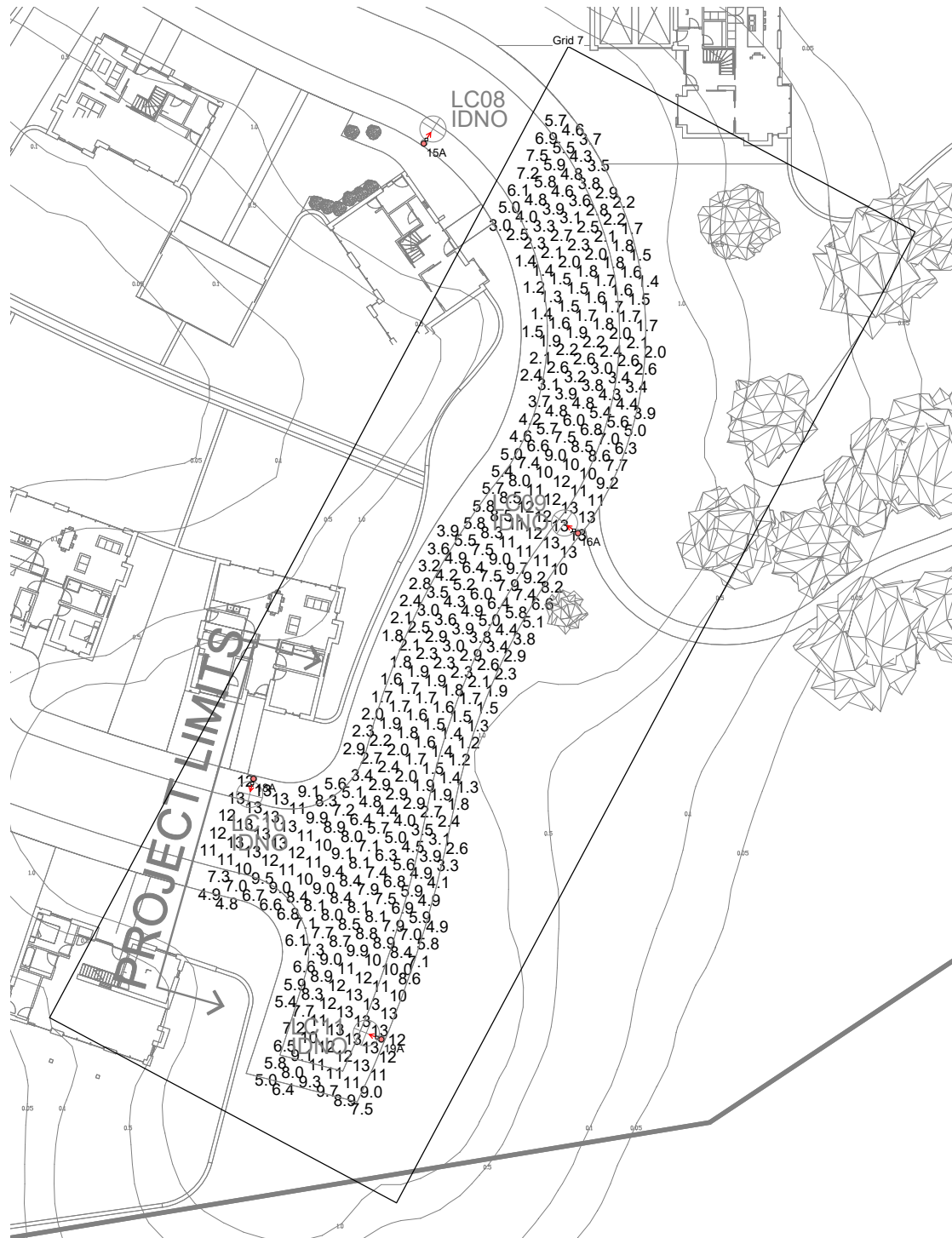


Results

Eav	6.06
Emin	1.22
Emax	13.50
Emin/Emax	0.09
Emin/Eav	0.20

Horizontal Illuminance (lux)

Grid 7

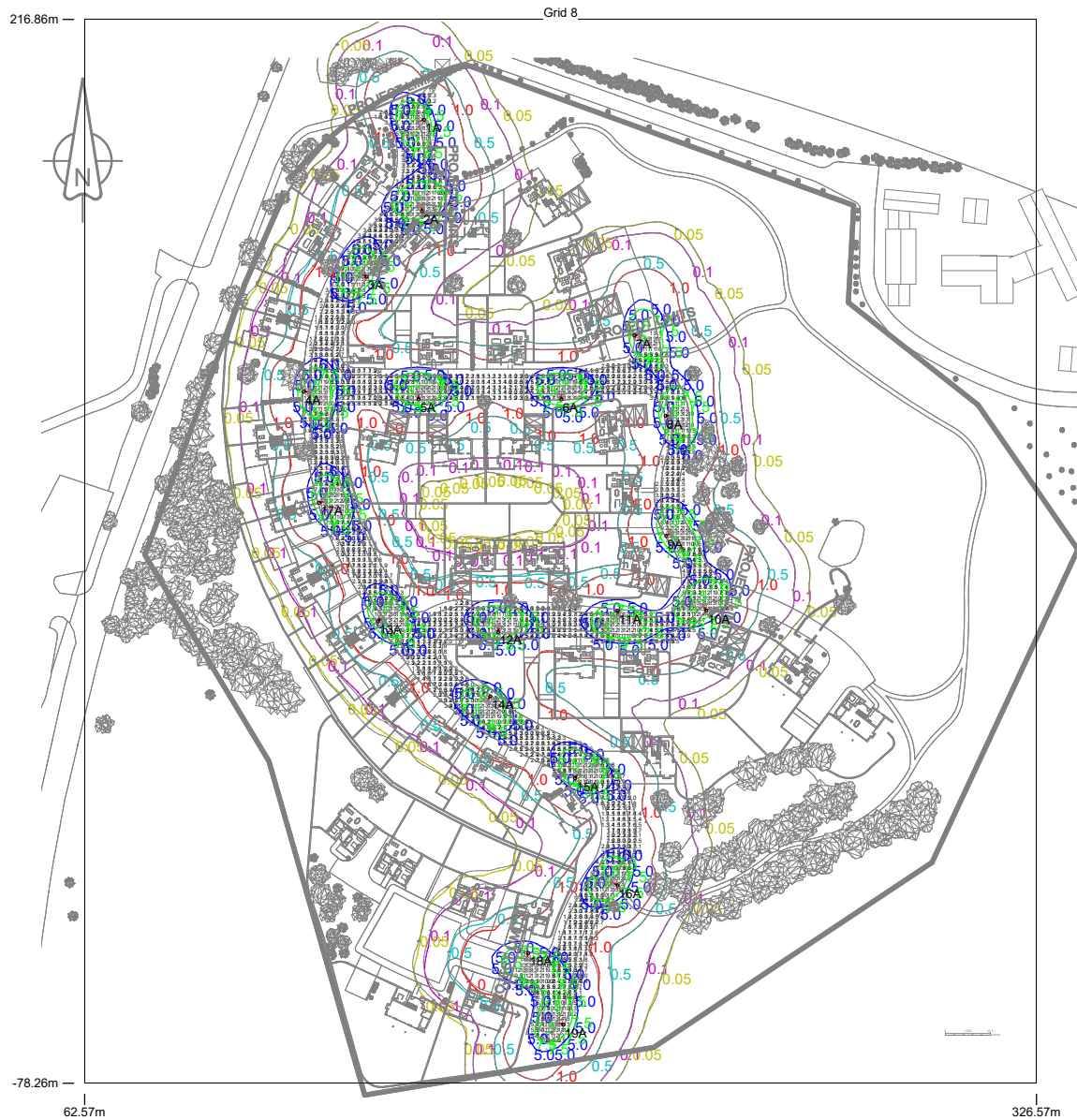


Results

Eav	6.06
Emin	1.22
Emax	13.50
Emin/Emax	0.09
Emin/Eav	0.20

Horizontal Illuminance (lux)

Grid 8



Results

Eav	6.20
Emin	1.14
E _{max}	13.74
E _{min} /E _{max}	0.08
E _{min} /E _{av}	0.18

Horizontal Illuminance (lux)

Grid 8



Results

Eav	6.20
Emin	1.14
Emax	13.74
Emin/Emax	0.08
Emin/Eav	0.18

Horizontal Illuminance (lux)

Grid 8



Results

Eav	6.20
Emin	1.14
Emax	13.74
Emin/Emax	0.08
Emin/Eav	0.18