

DATE: 30/09/2022
DESIGNER: James Duffin BA (Hons) IEng MILP
PROJECT No: EVO20010723-AC-101-A
PROJECT NAME: Lower Acre Parcel 1.1, OHH

ENERVEO

Parcel 1.1 - Private Roads
One Horton Heath

Road Lighting Class - P4

Lantern - Urbis Schreder Axia 3.1
Colour Temperature - 3000K
Maintenance Factor - 0.85

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 - Private Road 1 - ...	448865.40	116157.13	105.00	135.00	1.50	1.50
2	Grid 2 - Private Road 2 - ...	448874.61	116193.82	30.00	96.00	1.50	1.50
3	Grid 3 - Private Road 3 - ...	448922.65	116078.53	27.00	69.00	1.50	1.50
4	Grid 4 - Private Road 4 - ...	448937.56	116134.85	66.00	18.00	1.50	1.50
5	Grid 5 - Private Road 5 - ...	448964.23	116179.91	66.00	18.00	1.50	1.50
6	Grid 6 - Private Road 6 - ...	448985.13	116220.07	72.00	18.00	1.50	1.50
7	Grid 7 - Private Road 7 - ...	449006.67	116271.73	78.00	18.00	1.50	1.50
8	Grid 8 - Private Road 8 - ...	449029.43	116322.85	90.00	21.00	1.50	1.50
9	Grid 9 - Private Road 9 - ...	449051.65	116364.88	75.00	21.00	1.50	1.50
10	Grid 10 - Vertical Plot 18...	448906.06	116179.89	11.03	5.00	1.38	1.25
11	Grid 11 - Vertical Plot 98...	448939.58	116089.98	6.00	5.00	1.50	1.25
12	Grid 12 - Vertical Plot 10...	448949.01	116132.30	5.84	5.00	1.46	1.25
13	Grid 13 - Vertical Plot 75...	448976.50	116190.68	9.88	5.00	1.41	1.25
14	Grid 14 - Vertical Plot 85...	448980.73	116177.65	9.71	5.00	1.39	1.25
15	Grid 15 - Vertical Plot 61...	448996.96	116226.11	9.89	5.00	1.41	1.25
16	Grid 16 - Vertical Plot 72...	449000.98	116213.20	11.00	5.00	1.38	1.25
17	Grid 17 - Vertical Plot 43...	449019.25	116279.23	9.78	5.00	1.40	1.25
18	Grid 18 - Vertical Plot 39...	449049.75	116316.68	9.82	5.00	1.40	1.25
19	Grid 19 - Vertical Plot 24...	449043.74	116329.95	11.50	5.00	1.44	1.25
20	Grid 20 - Vertical Plot 37...	449073.35	116302.95	5.94	5.00	1.49	1.25

Luminaires

Luminaire A Data

Supplier	Urbis Schreder
Type	AXIA 3.1 5295 Integrated lenses Rear louvers 8 OSLO SQUARE G
Lamp(s)	8 OSLO SQUARE GIANT@850mA WW 730 230V 00-53-394
LampFlux(klm)/Colour	1.94 WW 3000K/70
File Name	AXIA 3.1 5295 8 OSLO SQUARE GIANT 850mA WW 730 22.8W 457592 Integrated...
Maintenance Factor	0.85
Imax70,80,90(cd/klm)	842.8, 11.9, 0.0
No. in Project	11

Luminaire B Data

Supplier	Urbis Schreder
Type	AXIA 3.1 5295 Integrated lenses Rear louvers 16 OSLO SQUARE
Lamp(s)	16 OSLO SQUARE GIANT@300mA WW 730 230V 01-37-041
LampFlux(klm)/Colour	1.59 WW 3000K/70
File Name	AXIA 3.1 5295 16 OSLO SQUARE GIANT T 300mA WW 730 16.1W 457592 Integrated...
Maintenance Factor	0.85
Imax70,80,90(cd/klm)	842.8, 11.9, 0.0
No. in Project	13

Luminaire C Data

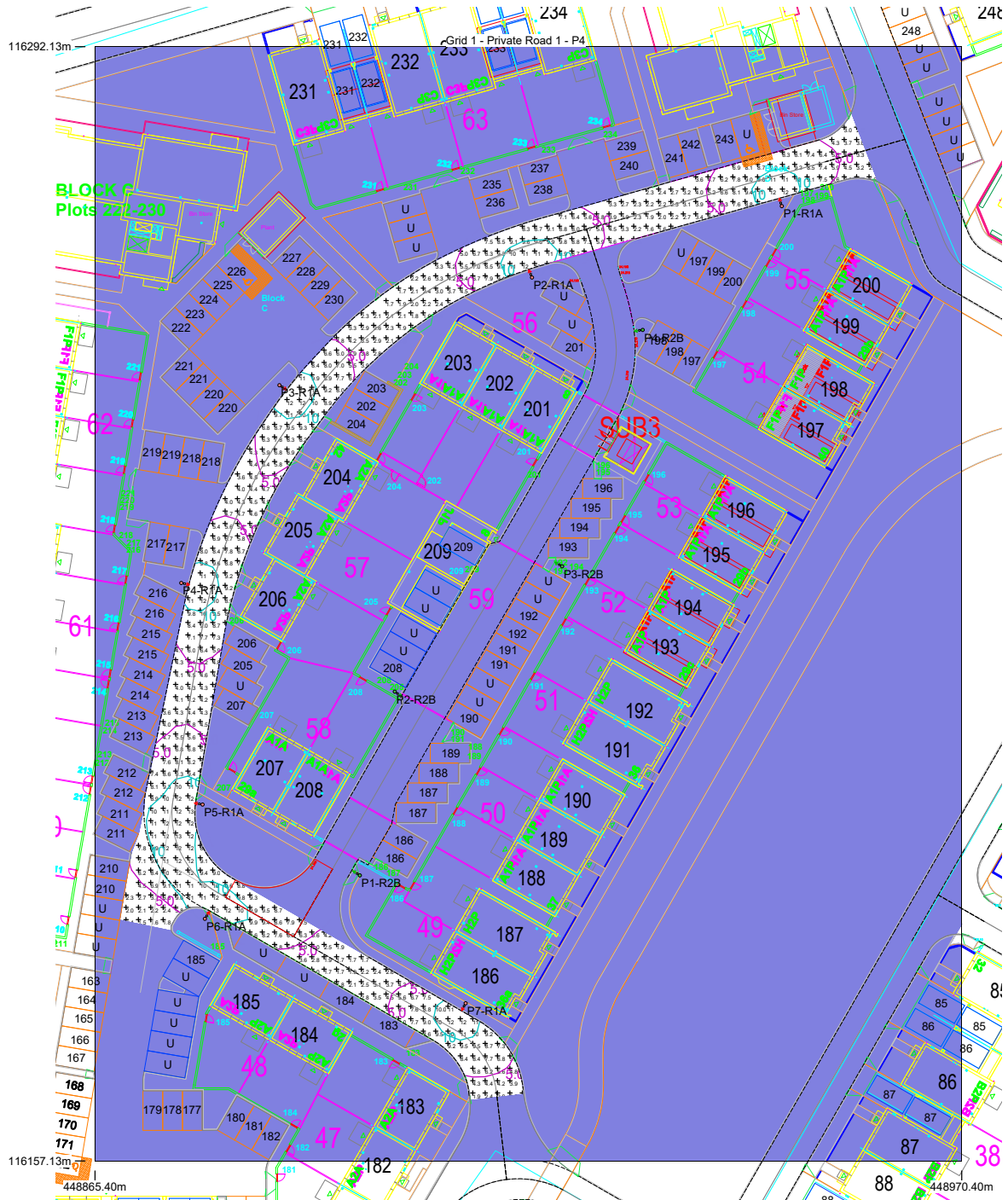
Supplier	Urbis Schreder
Type	AXIA 3.1 5295 Integrated lenses Rear louvers 16 OSLO SQUARE
Lamp(s)	16 OSLO SQUARE GIANT@200mA WW 730 230V 01-37-041
LampFlux(klm)/Colour	1.09 WW 3000K/70
File Name	AXIA 3.1 5295 16 OSLO SQUARE GIANT T 200mA WW 730 11.2W 457592 Integrated...
Maintenance Factor	0.85
Imax70,80,90(cd/klm)	842.8, 11.9, 0.0
No. in Project	9

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
P1-R1	A	448948.59	116272.82	6.00	108.00	0.00	0.00	0.40			
P2-R1	A	448918.33	116264.17	6.00	112.00	0.00	0.00	0.40			
P3-R1	A	448887.74	116251.12	6.00	328.00	0.00	0.00	0.40			
P4-R1	A	448875.85	116227.16	6.00	348.00	0.00	0.00	0.40			
P5-R1	A	448878.43	116200.33	6.00	170.00	0.00	0.00	0.40			
P6-R1	A	448878.71	116186.49	6.00	59.00	0.00	0.00	0.40			
P7-R1	A	448910.29	116176.25	6.00	241.00	0.00	0.00	0.40			
P1-R2	B	448897.48	116191.75	6.00	147.00	0.00	0.00	0.40			
P4-R2	B	448931.74	116257.83	6.00	189.00	0.00	0.00	0.40			
P2-R2	B	448901.71	116213.99	6.00	326.00	0.00	0.00	0.40			
P3-R2	B	448921.99	116229.19	6.00	151.00	0.00	0.00	0.40			
P1-R4	C	448952.11	116132.38	6.00	57.00	0.00	0.00	0.40			
P3-R4	C	448985.53	116113.21	6.00	60.00	0.00	0.00	0.40			
P2-R4	C	448973.79	116127.82	6.00	239.00	0.00	0.00	0.40			
P2-R5	B	448997.60	116166.95	6.00	59.00	0.00	0.00	0.40			
P1-R5	B	448975.32	116189.04	6.00	241.00	0.00	0.00	0.40			
P1-R3	B	448937.04	116129.61	6.00	150.00	0.00	0.00	0.40			
P2-R3	B	448923.61	116105.31	6.00	0.00	0.00	0.00	0.40			
P3-R3	C	448935.31	116087.93	6.00	198.00	0.00	0.00	0.40			
P3-R5	B	449014.53	116153.94	6.00	63.00	0.00	0.00	0.40			
P1-R6	C	448993.14	116220.20	6.00	59.00	0.00	0.00	0.40			
P2-R6	C	449012.46	116209.36	6.00	59.00	0.00	0.00	0.40			
P3-R6	C	449026.36	116201.27	6.00	59.00	0.00	0.00	0.40			
P4-R6	C	449048.84	116197.73	6.00	243.00	0.00	0.00	0.40			
P1-R7	C	449017.11	116272.65	6.00	60.00	0.00	0.00	0.40			
P2-R7	A	449048.35	116262.36	6.00	241.00	0.00	0.00	0.40			
P3-R7	A	449067.29	116250.20	6.00	241.00	0.00	0.00	0.40			
P1-R8	B	449041.85	116323.25	6.00	60.00	0.00	0.00	0.40			
P2-R8	B	449073.71	116312.34	6.00	239.00	0.00	0.00	0.40			
P3-R8	A	449098.13	116299.74	6.00	237.00	0.00	0.00	0.40			
P3-R9	A	449103.38	116348.49	6.00	66.00	0.00	0.00	0.40			
P1-R9	B	449066.88	116375.36	6.00	246.00	0.00	0.00	0.40			
P2-R9	B	449088.99	116366.03	6.00	244.00	0.00	0.00	0.40			

Horizontal Illuminance (lux)

Grid 1 - Private Road 1 - P4

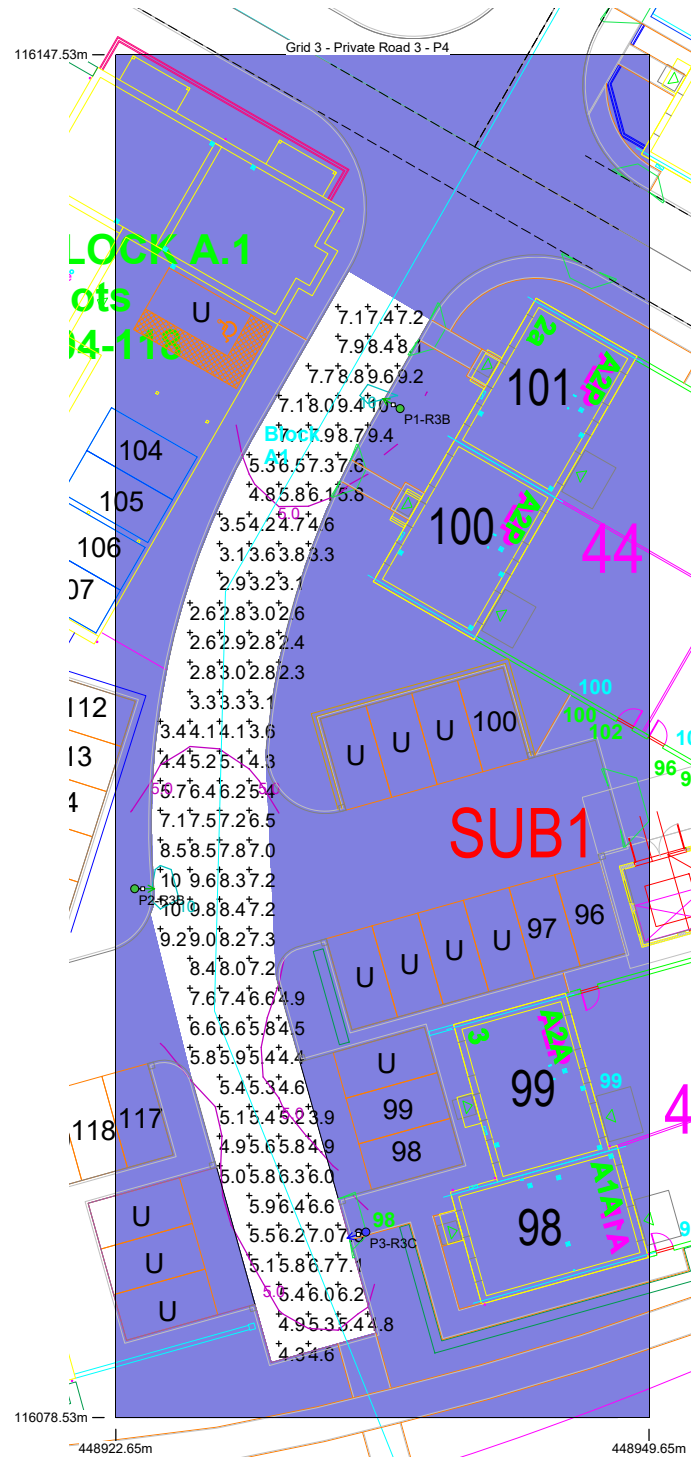


Results

Eav	6.60
Emin	1.25
Emax	12.82
Emin/Emax	0.10
Emin/Eav	0.19

Horizontal Illuminance (lux)

Grid 3 - Private Road 3 - P4

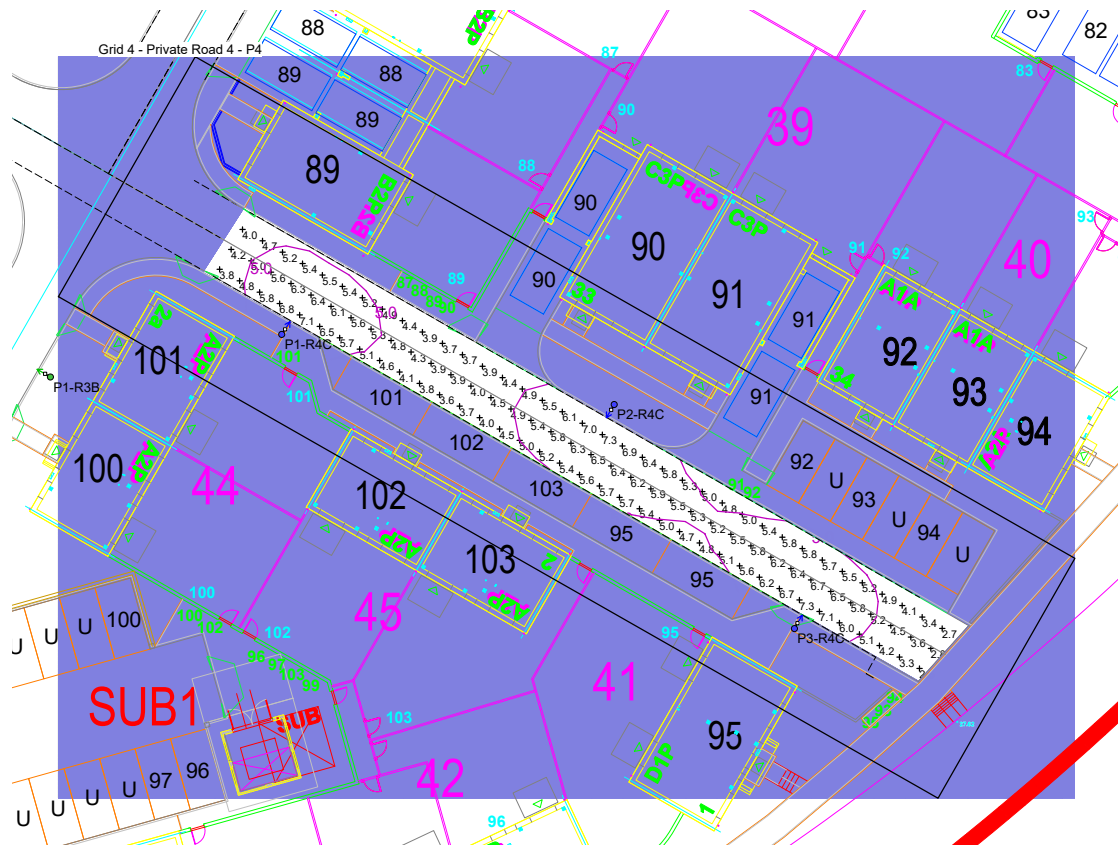


Results

Eav	5.93
Emin	2.31
Emax	10.40
Emin/Emax	0.22
Emin/Eav	0.39

Horizontal Illuminance (lux)

Grid 4 - Private Road 4 - P4

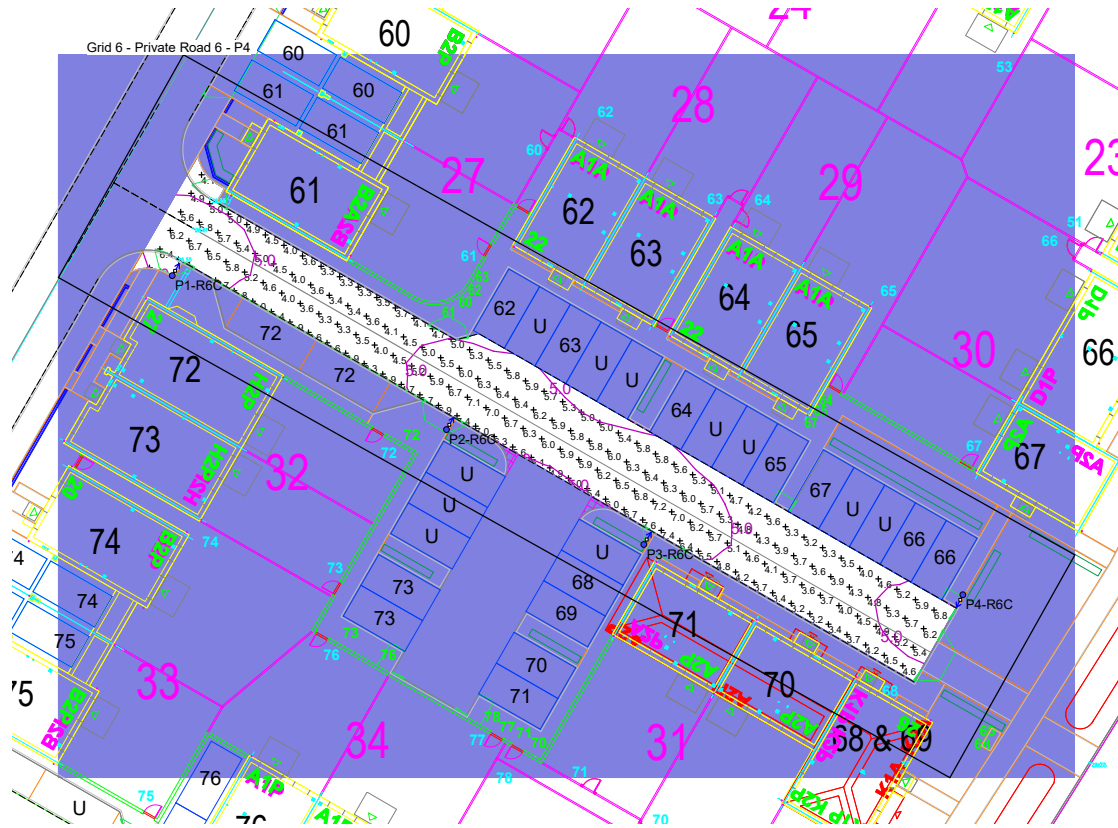


Results

Eav	5.19
Emin	2.52
Emax	7.34
Emin/Emax	0.34
Emin/Eav	0.49

Horizontal Illuminance (lux)

Grid 6 - Private Road 6 - P4

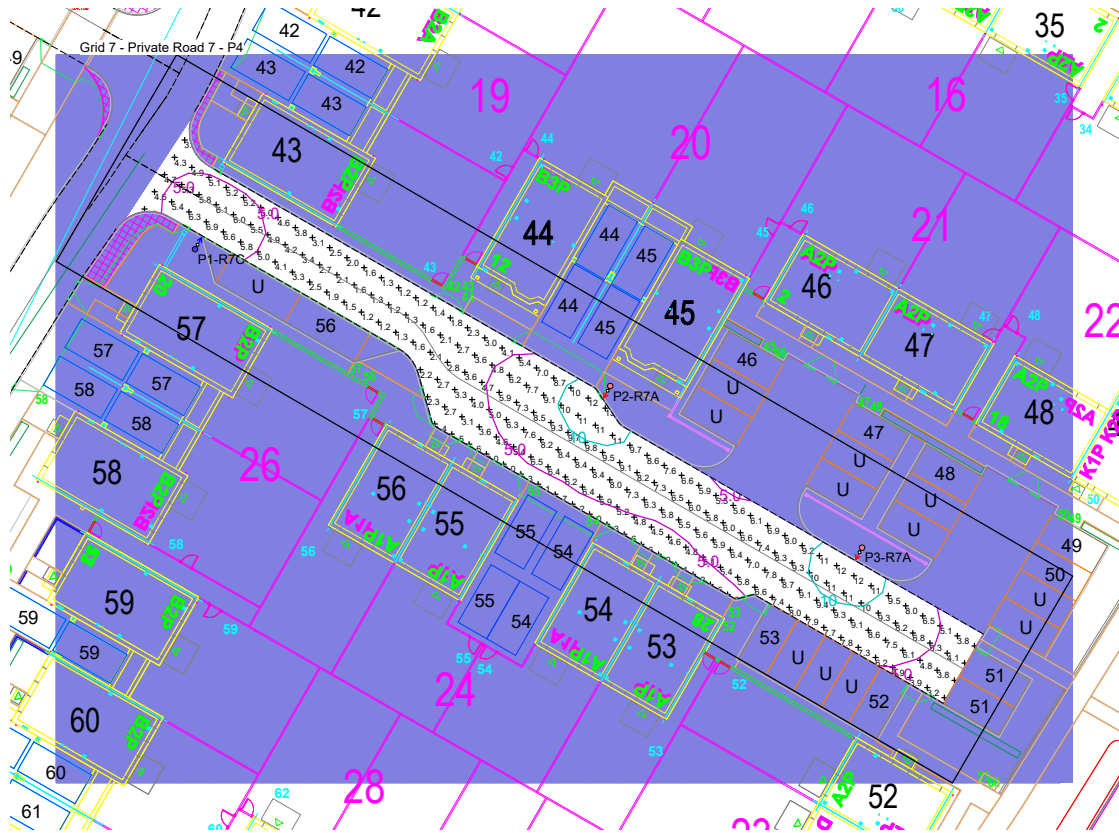


Results

Eav	5.01
Emin	2.62
Emax	7.59
Emin/Emax	0.35
Emin/Eav	0.52

Horizontal Illuminance (lux)

Grid 7 - Private Road 7 - P4

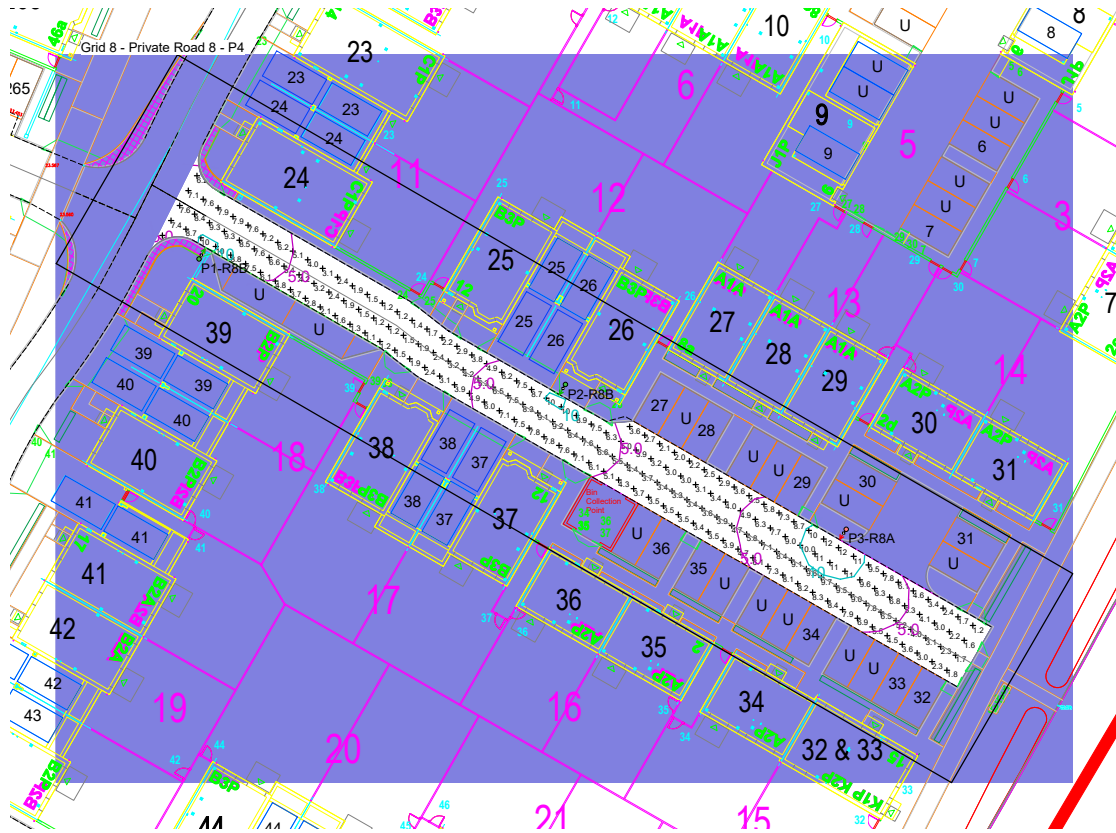


Results

Eav	5.55
Emin	1.17
Emax	12.53
Emin/Emax	0.09
Emin/Eav	0.21

Horizontal Illuminance (lux)

Grid 8 - Private Road 8 - P4

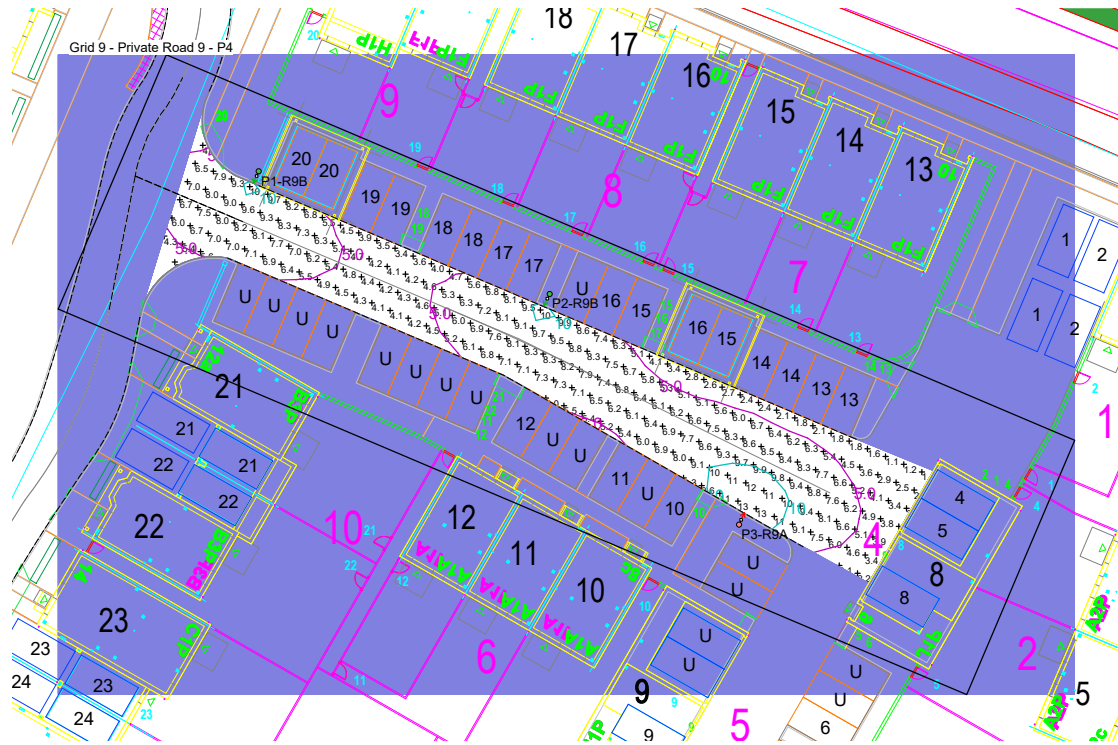


Results

Eav	5.44
Emin	1.14
Emax	12.48
Emin/Emax	0.09
Emin/Eav	0.21

Horizontal Illuminance (lux)

Grid 9 - Private Road 9 - P4



Results

Eav	6.32
Emin	1.06
Emax	12.60
Emin/Emax	0.08
Emin/Eav	0.17

Illuminance (lux)

Grid 10 - Veritcal Plot 186

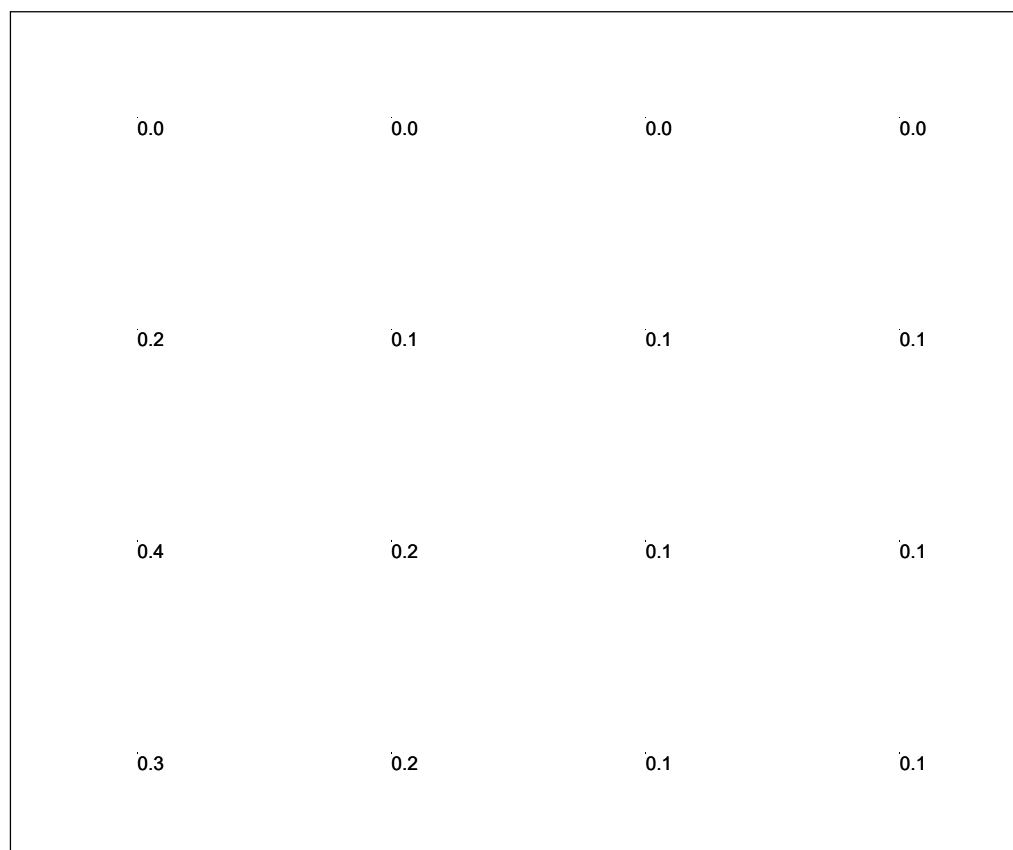
0.5	0.9	1.1	3.3	3.5	1.1	1.2	0.6
0.2	0.5	1.1	1.9	1.9	1.1	0.4	0.2
0.3	0.3	0.6	0.8	0.9	0.7	0.3	0.5
0.3	0.5	0.8	1.1	1.2	1.0	0.7	0.5

Results

Eav	0.95
Emin	0.24
E _{max}	3.53
Emin/E _{max}	0.07
Emin/Eav	0.26

Illuminance (lux)

Grid 11 - Vertical Plot 98



Results

Eav	0.13
Emin	0.02
Emax	0.35
Emin/Emax	0.06
Emin/Eav	0.15

Illuminance (lux)

Grid 12 - Vertical Plot 101

0.1	0.1	0.0	0.0
0.3	0.1	0.2	0.1
0.3	0.1	0.1	0.1
0.2	0.1	0.1	0.1

Results

Eav	0.12
Emin	0.02
E _{max}	0.27
Emin/E _{max}	0.06
Emin/Eav	0.13

Illuminance (lux)

Grid 13 - Verical Plot 75

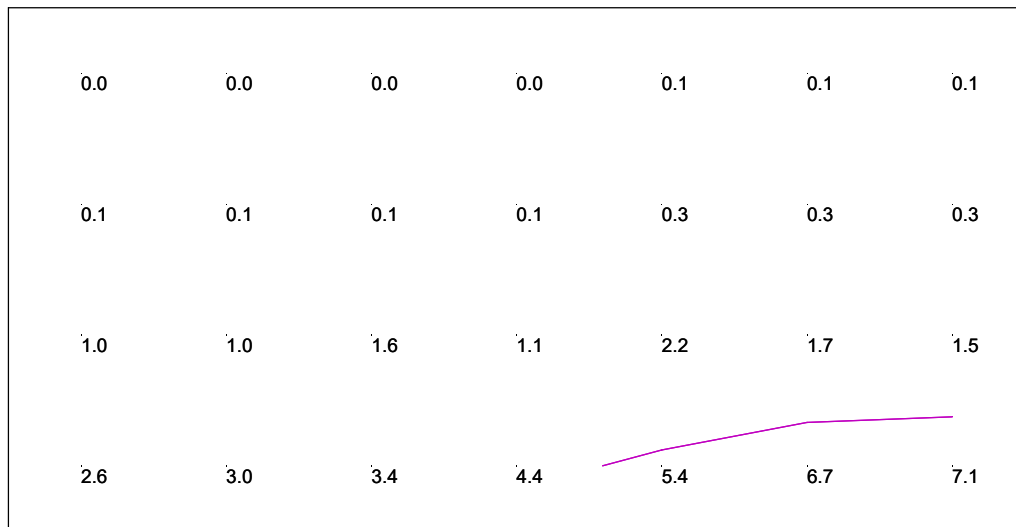
0.8	0.4	0.2	0.1	0.1	0.0	0.0
1.0	0.6	0.3	0.2	0.3	0.2	0.1
0.9	0.7	0.4	0.2	0.1	0.2	0.2
0.4	0.4	0.2	0.2	0.1	0.1	0.1

Results

Eav	0.30
Emin	0.01
E _{max}	0.98
Emin/E _{max}	0.02
Emin/Eav	0.05

Illuminance (lux)

Grid 14 - Vertical Plot 85

**Results**

Eav	1.58
Emin	0.01
Emax	7.11
Emin/Emax	0.00
Emin/Eav	0.01

Illuminance (lux)

Grid 15 - Verical Plot 61

0.1	0.1	0.0	0.0	0.0	0.0	0.0
0.2	0.2	0.2	0.1	0.1	0.1	0.1
1.1	1.1	1.8	0.9	1.3	1.0	1.3
5.0	5.0	4.1	3.5	3.0	3.2	3.3

Results

Eav	1.33
Emin	0.02
Emax	5.03
Emin/Emax	0.00
Emin/Eav	0.01

Illuminance (lux)

Grid 16 - Vertical Plot 72

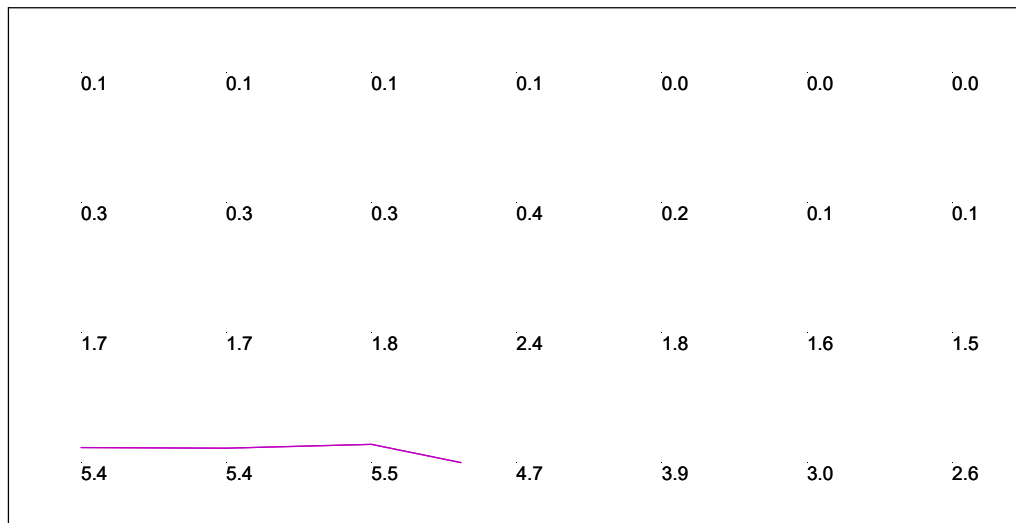
0.0	0.0	0.0	0.1	0.1	0.2	0.4	1.0
0.1	0.1	0.2	0.2	0.2	0.3	0.6	1.3
0.2	0.1	0.1	0.1	0.2	0.4	0.6	0.8
0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3

Results

Eav	0.27
Emin	0.01
E _{max}	1.33
Emin/E _{max}	0.01
Emin/Eav	0.05

Illuminance (lux)

Grid 17 - Vertical Plot 43

**Results**

Eav	1.61
Emin	0.02
Emax	5.52
Emin/Emax	0.00
Emin/Eav	0.01

Illuminance (lux)

Grid 18 - Verical Plot 39

0.0	0.0	0.0	0.2	0.2	0.5	1.1
0.1	0.2	0.3	0.3	0.3	0.7	1.4
0.1	0.1	0.1	0.2	0.3	0.6	0.8
0.1	0.1	0.1	0.1	0.2	0.3	0.4

Results

Eav	0.32
Emin	0.01
E _{max}	1.38
Emin/E _{max}	0.01
Emin/Eav	0.04

Illuminance (lux)

Grid 19 - Vertical Plot 24

**Results**

Eav	2.25
Emin	0.01
E _{max}	8.07
Emin/E _{max}	0.00
Emin/Eav	0.01

Illuminance (lux)

Grid 20 - Vertical Plot 37

0.1	0.1	0.1	0.1
0.1	0.1	0.1	0.1
0.7	0.6	0.5	0.5
2.7	3.0	2.6	2.4

Results

Eav	0.86
Emin	0.05
E _{max}	2.96
Emin/E _{max}	0.02
Emin/Eav	0.06