

DATE: 22 May 2025
DESIGNER: B Cartledge
PROJECT No: SL 1300 001
PROJECT NAME: Trub Road, Rochdale



Street Lighting Design Compliant to BS 5489-1:2020
Section 38 Development Space, Lighting Category P4
5.00 Lux to 7.50 Lux (Average)
1.00 Lux (Minimum)
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Continuation of Existing Highway Spine Road  
Section 278  
(Trub Road to Canal Crossing)  
Lighting Category P3  
7.50 Lux to 11.25 Lux ( Average )  
1.50 Lux ( Minimum )  
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Outdoor Lighting Report

PREPARED BY: Cencode Limited
Independant Lighting Design & Consultancy
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briancartledge@cencode.com

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	388375.61	409981.43	37.47	24.52	1.50	1.44
2	Grid 2	388258.29	409955.38	30.91	36.38	1.47	1.46
3	Grid 3	388198.88	409955.36	59.41	38.13	1.49	1.47
4	Grid 4	388185.87	409973.02	13.01	30.32	1.45	1.44
5	Grid 5	388185.90	410003.34	26.65	61.93	1.48	1.47
6	Grid 6	388195.38	410065.27	33.19	61.72	1.44	1.47
7	Grid 7	388209.38	410126.99	51.94	12.48	1.48	1.39
8	Grid 8	388261.08	410061.31	16.99	61.62	1.42	1.47
9	Grid 9	388261.32	410122.93	16.68	61.57	1.39	1.47
10	Grid 10	388265.31	410184.50	16.13	64.09	1.47	1.49
11	Grid 11	388261.25	410248.58	24.13	37.00	1.42	1.48
12	Grid 12	388244.98	410020.40	28.02	40.91	1.47	1.46
13	Grid 13	388212.55	410034.25	32.43	14.61	1.47	1.46
14	Grid 14	388233.83	409926.82	32.60	28.56	1.48	1.43
15	Grid 15	388182.64	409896.24	49.42	30.08	1.50	1.43
16	Grid 16	388232.06	409898.57	27.28	28.25	1.44	1.49
17	Grid 17	388413.08	409989.29	50.12	35.35	1.47	1.47
18	Grid 18	388348.82	409981.31	26.79	15.46	1.49	1.41
19	Grid 19	388320.62	409979.26	28.20	12.83	1.48	1.43
20	Grid 20	388289.20	409970.36	31.42	20.87	1.50	1.49

Luminaire Data

Luminaire A Data

Supplier	
Type	VMXII.1.LA033.V1.F4Q1.W024.D1433
Lamp(s)	LED C.3000 Lumens
Lamp Flux (klm)	3.30
File Name	VMXII.1.LA033.V1.F4Q1.W024.D1433.IES
Maintenance Factor	0.80
Imax70,80,90(cd/klm)	466.3, 69.9, 0.0
No. in Project	25

Luminaire C Data

Supplier	
Type	VMXII.1.LA073.V2.F4Q1.W045.D1433
Lamp(s)	LED C.7000 Lumens
Lamp Flux (klm)	6.50
File Name	VMXII.1.LA073.V2.F4Q1.W045.D1433.IES
Maintenance Factor	0.87
Imax70,80,90(cd/klm)	466.3, 69.9, 0.0
No. in Project	2

Luminaire D Data

Supplier	
Type	VMXII.1.LA043.V1.F4Q1.W027.D1433
Lamp(s)	LED C.4000 Lumens
Lamp Flux (klm)	3.70
File Name	VMXII.1.LA043.V1.F4Q1.W027.D1433.IES
Maintenance Factor	0.87
Imax70,80,90(cd/klm)	466.3, 69.9, 0.0
No. in Project	1

Luminaire E Data

Supplier	
Type	VMXII.1.LA073.V2.F4Q1.W052.D1433
Lamp(s)	LED C.7000 Lumens
Lamp Flux (klm)	7.40
File Name	VMXII.1.LA073.V2.F4Q1.W052.D1433.IES
Maintenance Factor	0.87
Imax70,80,90(cd/klm)	466.3, 69.9, 0.0
No. in Project	2

Luminaires

Luminaire F Data

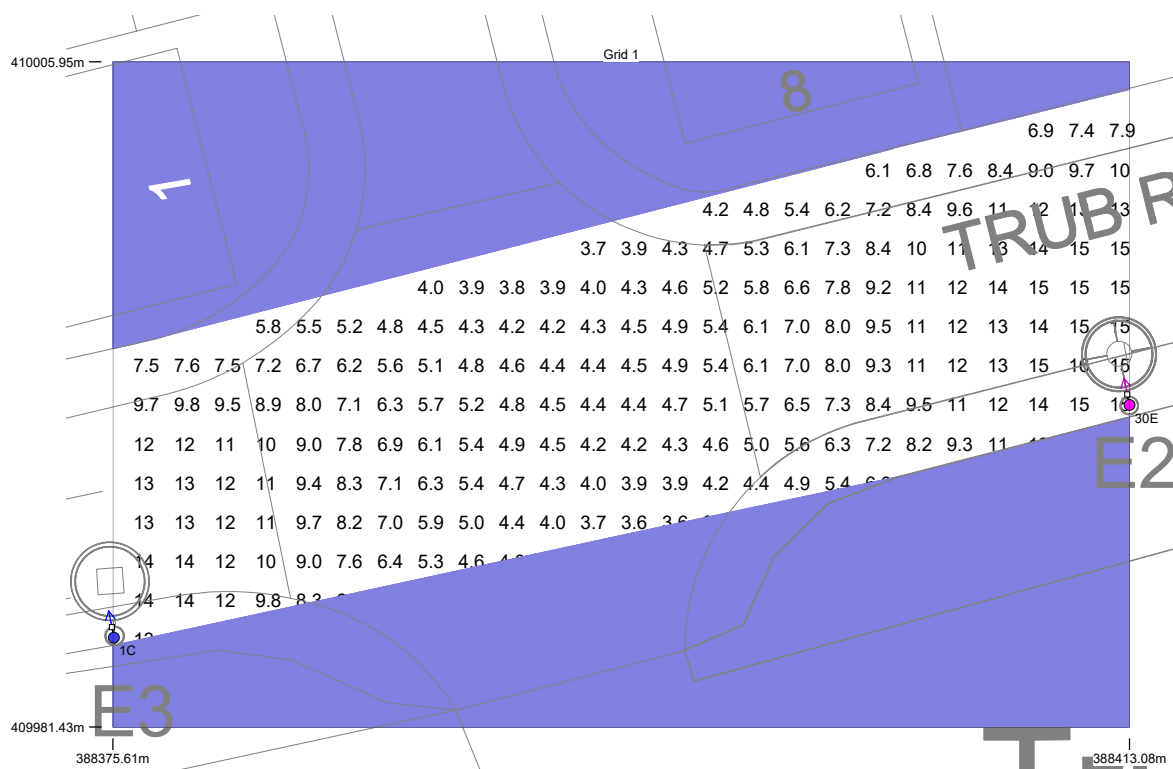
Supplier	
Type	VMXII.1.LA033.V1.F4Q1.W024.D1433
Lamp(s)	LED C.3000 Lumens
Lamp Flux (klm)	3.30
File Name	VMXII.1.LA033.V1.F4Q1.W024.D1433.IES
Maintenance Factor	0.80
Imax70,80,90(cd/klm)	466.3, 69.9, 0.0
No. in Project	1

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	C	388375.65	409984.73	8.00	101.00	0.00	0.00	0.40			
2	D	388348.81	409982.12	8.00	86.00	0.00	0.00	0.40			
3	F	388289.15	409980.20	6.00	283.00	0.00	0.00	0.40			
4	A	388258.34	409980.51	6.00	266.00	0.00	0.00	0.40			
5	C	388320.80	409982.18	8.00	103.00	0.00	0.00	0.40			
6	A	388226.29	409974.55	6.00	87.00	0.00	0.00	0.40			
7	A	388193.13	409977.49	6.00	82.00	0.00	0.00	0.40			
8	A	388197.86	410003.33	6.00	176.00	0.00	0.00	0.40			
9	A	388200.61	410033.43	6.00	177.00	0.00	0.00	0.40			
10	A	388204.96	410065.33	6.00	167.00	0.00	0.00	0.40			
11	A	388210.19	410096.16	6.00	171.00	0.00	0.00	0.40			
12	A	388211.88	410128.40	6.00	312.00	0.00	0.00	0.40			
13	A	388236.10	410130.00	6.00	86.00	0.00	0.00	0.40			
14	A	388263.48	410122.95	6.00	1.00	0.00	0.00	0.40			
15	A	388263.38	410153.57	6.00	354.00	0.00	0.00	0.40			
16	A	388275.10	410184.40	6.00	175.00	0.00	0.00	0.40			
17	A	388277.55	410216.49	6.00	179.00	0.00	0.00	0.40			
18	A	388271.07	410247.17	6.00	352.00	0.00	0.00	0.40			
19	A	388272.68	410275.42	6.00	311.00	0.00	0.00	0.40			
20	A	388272.55	410092.10	6.00	174.00	0.00	0.00	0.40			
21	A	388270.69	410061.16	6.00	176.00	0.00	0.00	0.40			
22	A	388268.23	410028.49	6.00	177.00	0.00	0.00	0.40			
23	A	388245.01	410043.34	6.00	266.00	0.00	0.00	0.40			
24	A	388212.59	410037.36	6.00	82.00	0.00	0.00	0.40			
25	A	388262.36	409955.37	6.00	180.00	0.00	0.00	0.40			
26	A	388256.28	409926.68	6.00	152.00	0.00	0.00	0.40			
27	A	388232.10	409912.53	6.00	87.00	0.00	0.00	0.40			
28	A	388195.58	409924.39	6.00	263.00	0.00	0.00	0.40			
29	A	388198.09	409904.56	6.00	178.00	0.00	0.00	0.40			
30	E	388413.07	409993.30	8.00	102.00	0.00	0.00	0.40			
31	E	388451.97	410001.75	8.00	102.00	0.00	0.00	0.40			

Horizontal Illuminance (lux)

Grid 1

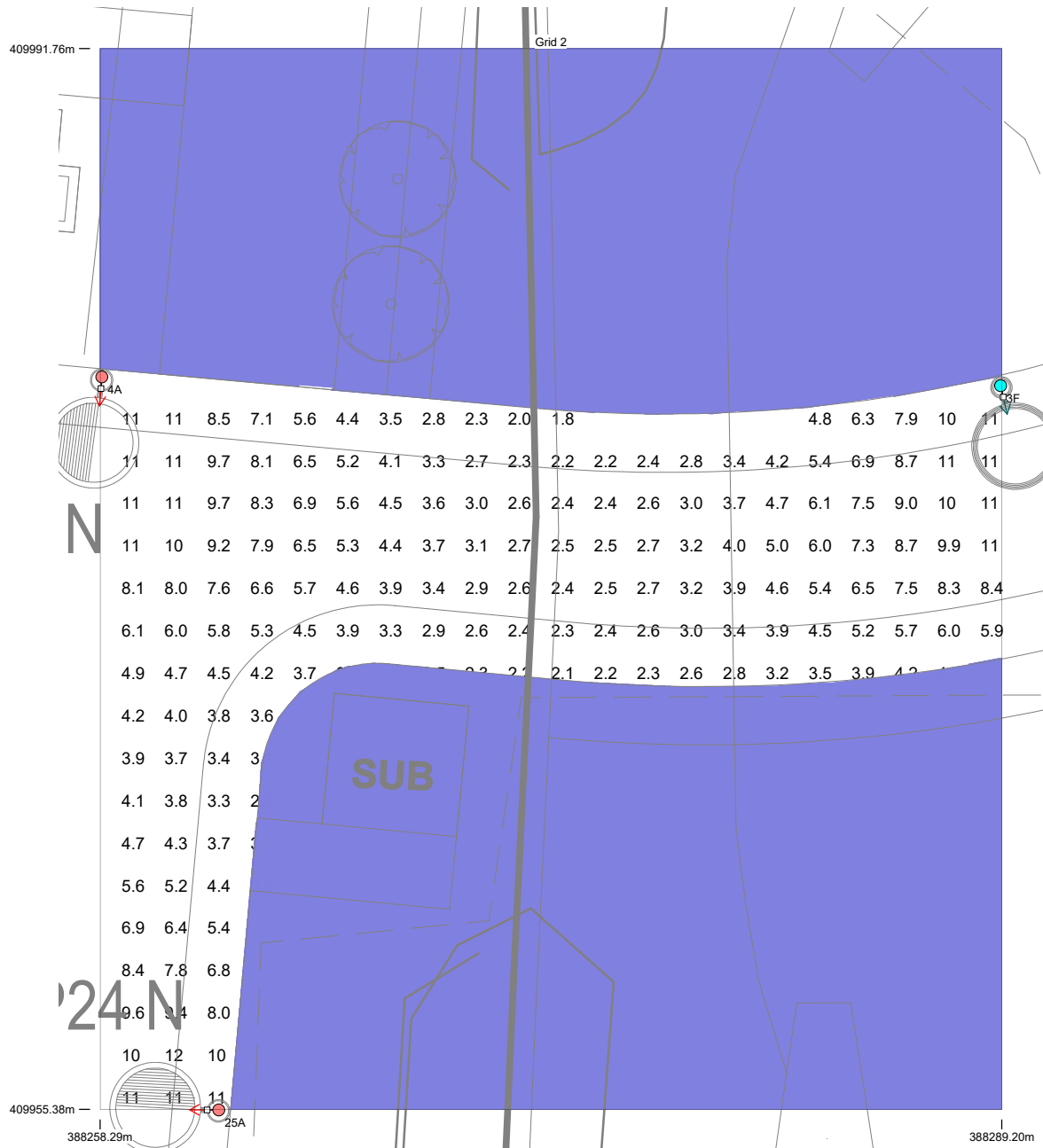


Results

Eav	7.97
Emin	3.56
E _{max}	15.76
Emin/E _{max}	0.23
Emin/Eav	0.45

Horizontal Illuminance (lux)

Grid 2



Results

Eav	5.44
Emin	1.84
Emax	11.57
Emin/Emax	0.16
Emin/Eav	0.34

Horizontal Illuminance (lux)

Grid 3

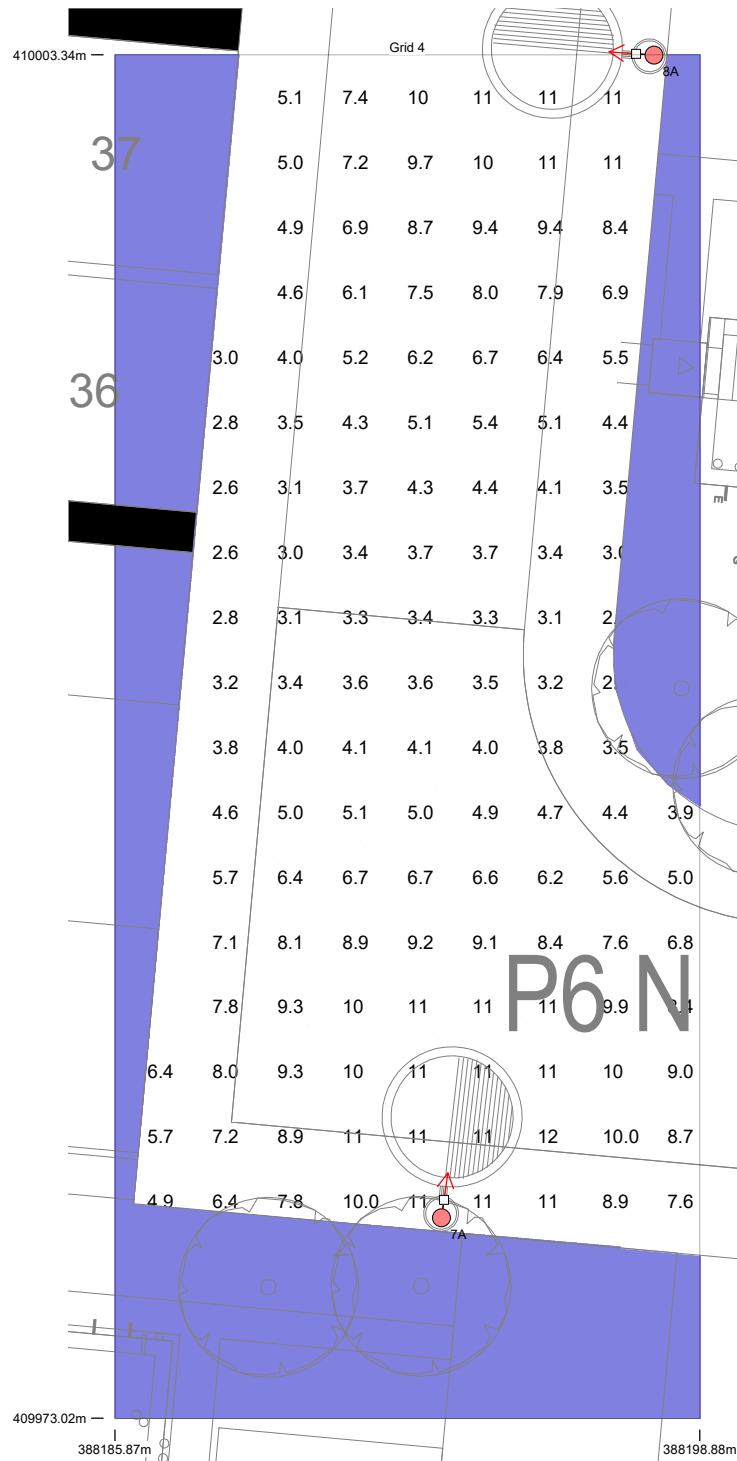


Results

Eav	5.11
Emin	1.98
Emax	11.46
Emin/Emax	0.17
Emin/Eav	0.39

Horizontal Illuminance (lux)

Grid 4



Results

Eav	6.58
Emin	2.60
Emax	11.62
Emin/Emax	0.22
Emin/Eav	0.40

Horizontal Illuminance (lux)

Grid 5



Results

Eav	5.91
Emin	2.30
Emax	11.79
Emin/Emax	0.19
Emin/Eav	0.39

Horizontal Illuminance (lux)

Grid 6

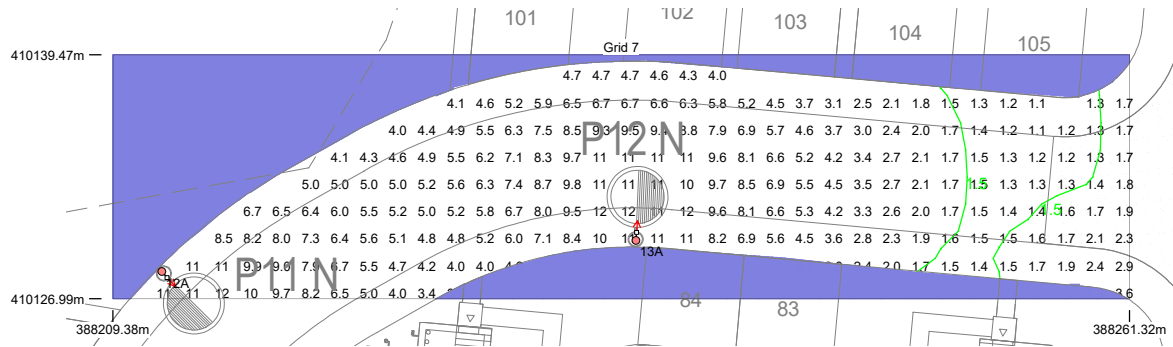


Results

Eav	5.54
Emin	2.13
Emax	11.70
Emin/Emax	0.18
Emin/Eav	0.39

Horizontal Illuminance (lux)

Grid 7

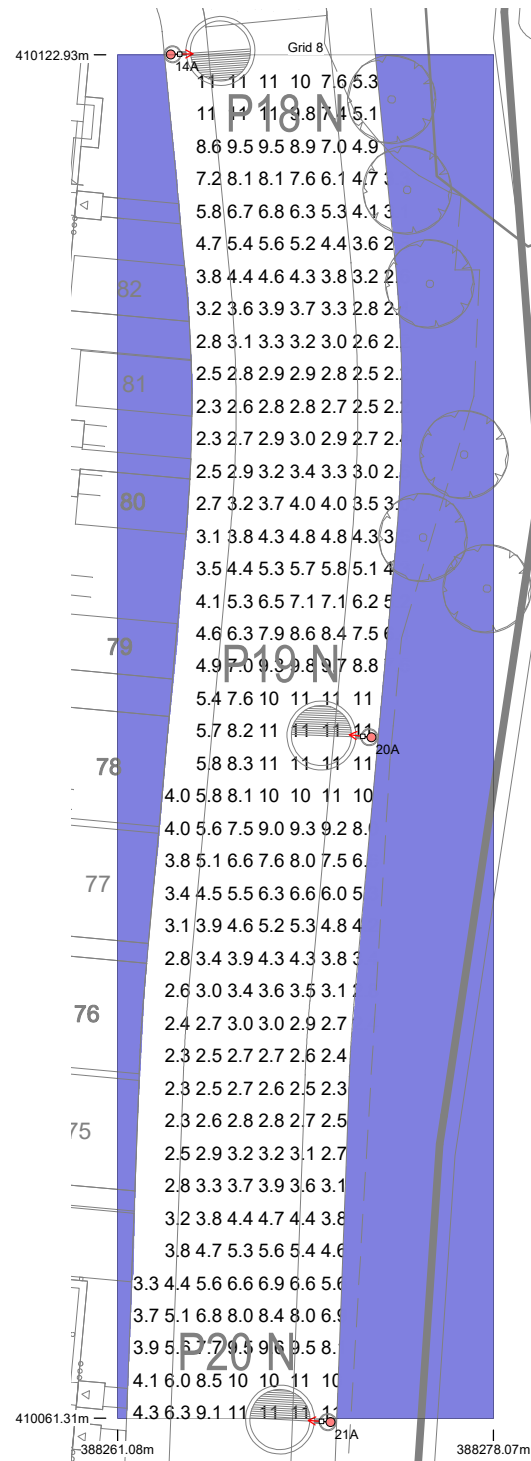


Results

Eav	5.20
Emin	1.10
Emax	11.71
Emin/Emax	0.09
Emin/Eav	0.21

Horizontal Illuminance (lux)

Grid 8

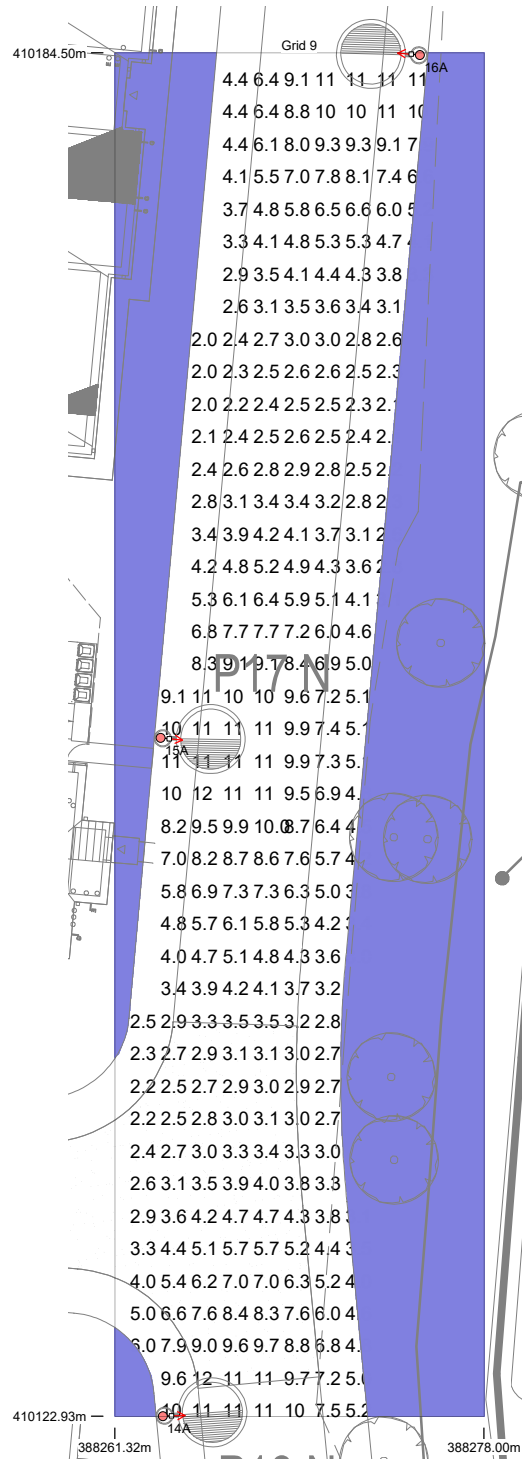


Results

Eav	5.42
Emin	2.18
Emax	11.39
Emin/Emax	0.19
Emin/Eav	0.40

Horizontal Illuminance (lux)

Grid 9

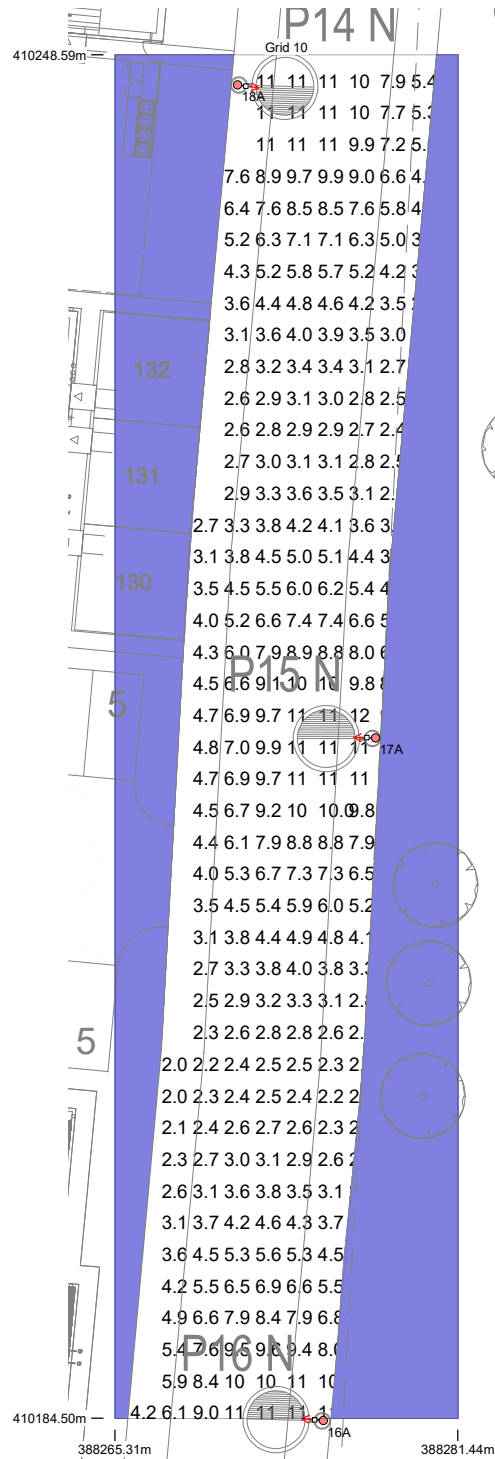


Results

Eav	5.45
Emin	1.97
Emax	11.71
Emin/Emax	0.17
Emin/Eav	0.36

Horizontal Illuminance (lux)

Grid 10

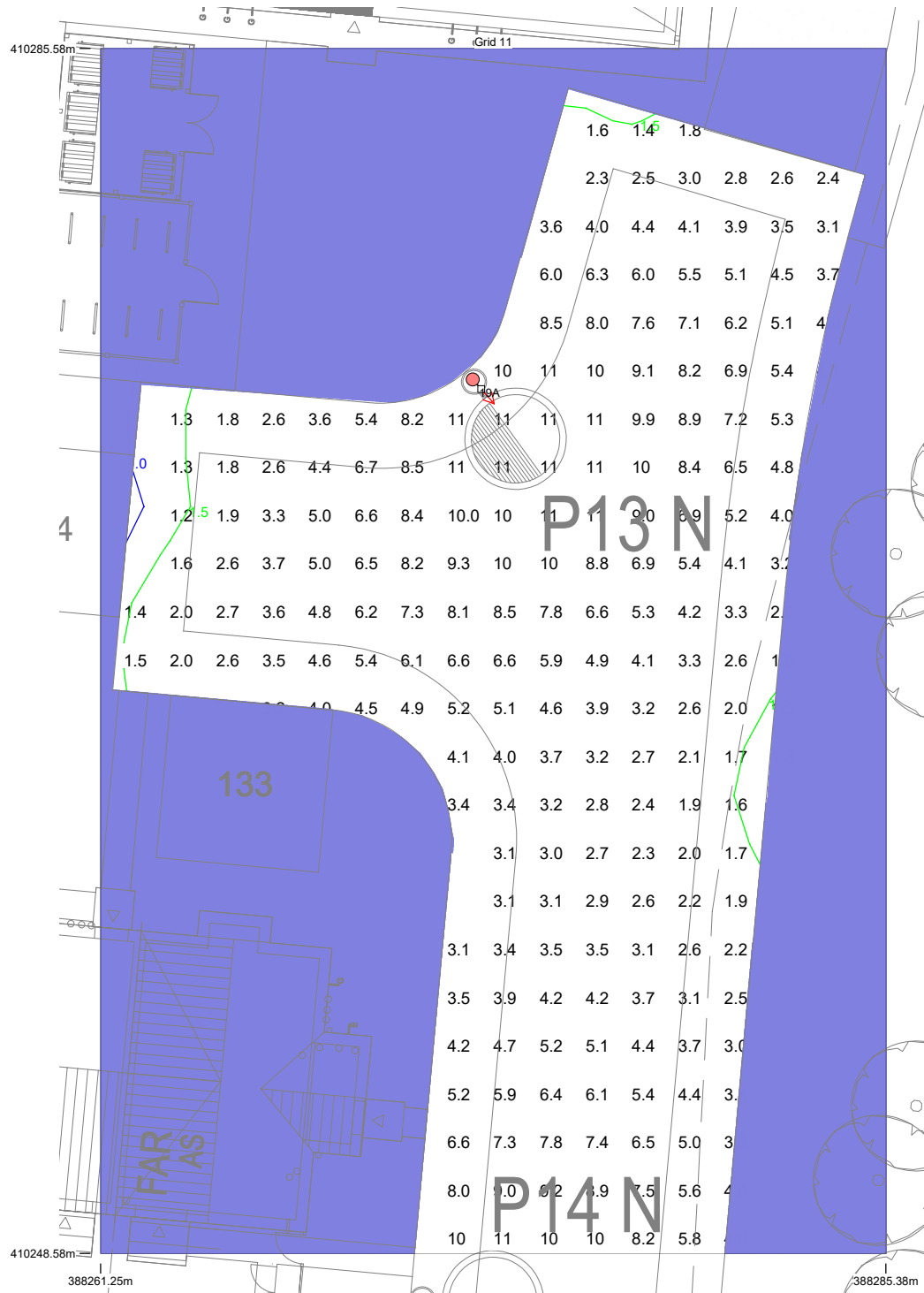


Results

Eav	5.55
Emin	1.95
Emax	11.51
Emin/Emax	0.17
Emin/Eav	0.35

Horizontal Illuminance (lux)

Grid 11



Results

Eav	5.17
Emin	1.19
Emax	11.45
Emin/Emax	0.10
Emin/Eav	0.23

Horizontal Illuminance (lux)

Grid 12

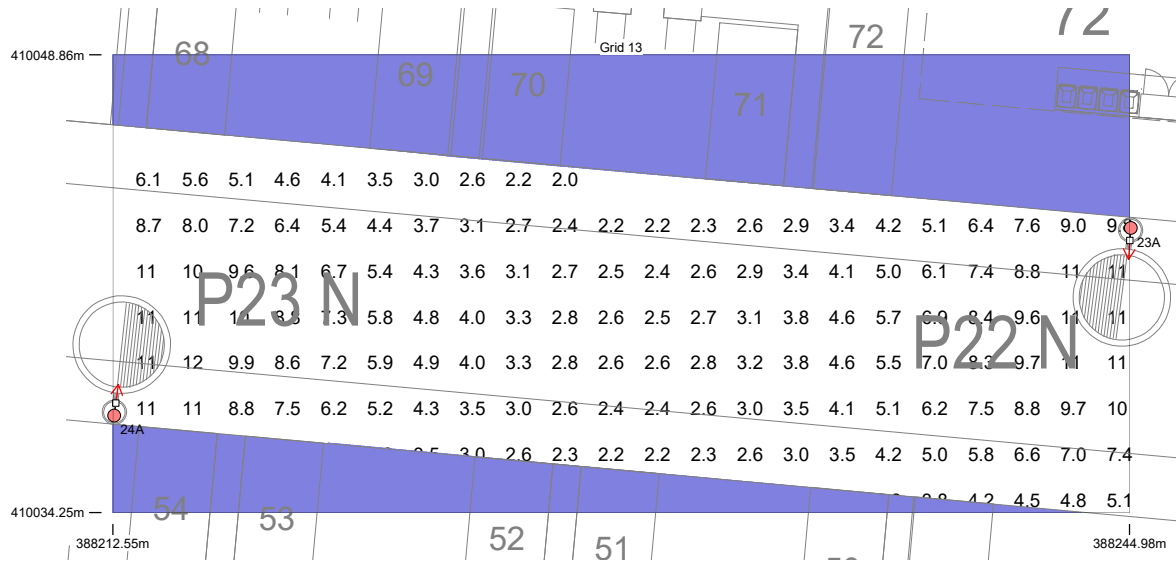


Results

Eav	5.91
Emin	1.96
Emax	11.71
Emin/Emax	0.17
Emin/Eav	0.33

Horizontal Illuminance (lux)

Grid 13

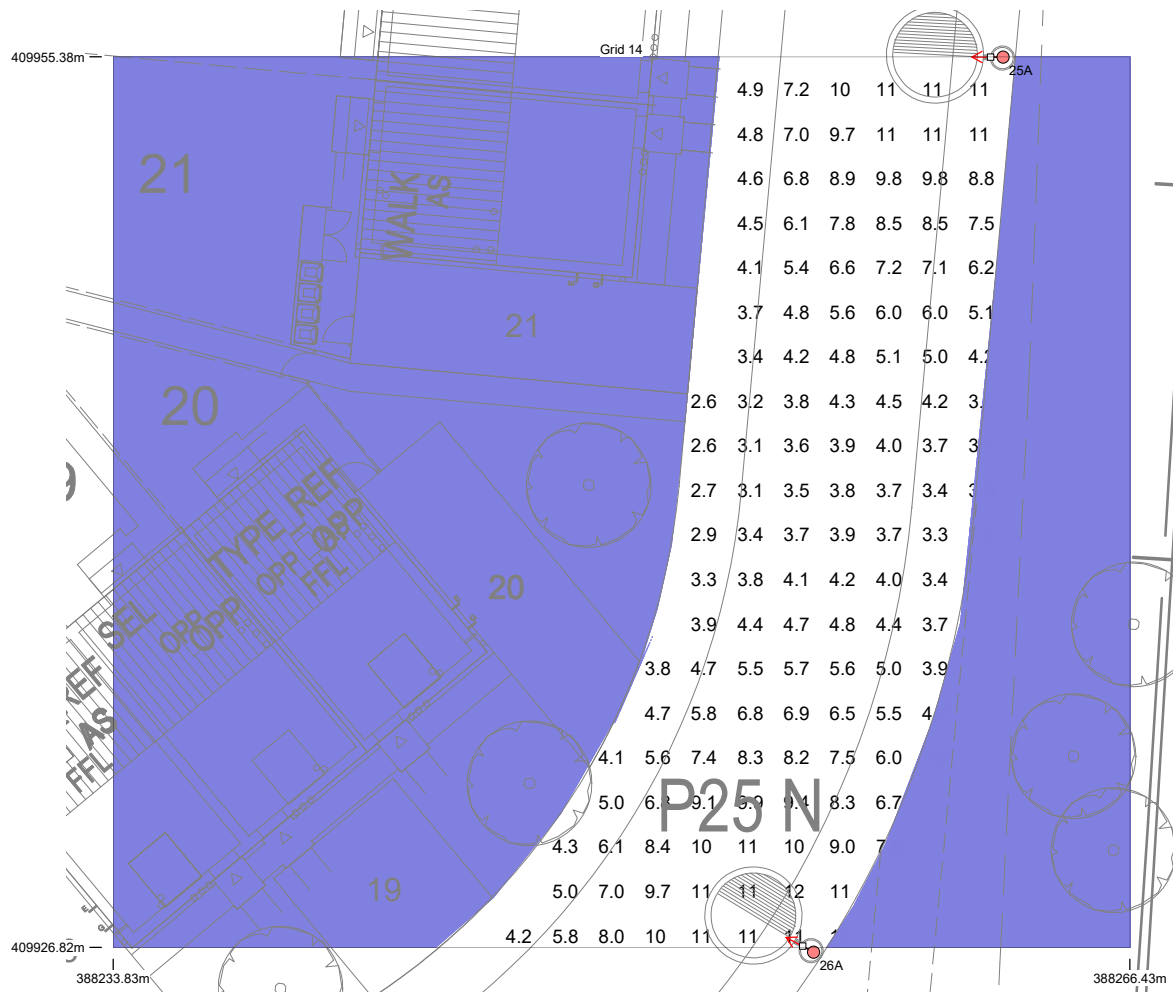


Results

Eav	5.48
Emin	2.02
Emax	11.63
Emin/Emax	0.17
Emin/Eav	0.37

Horizontal Illuminance (lux)

Grid 14

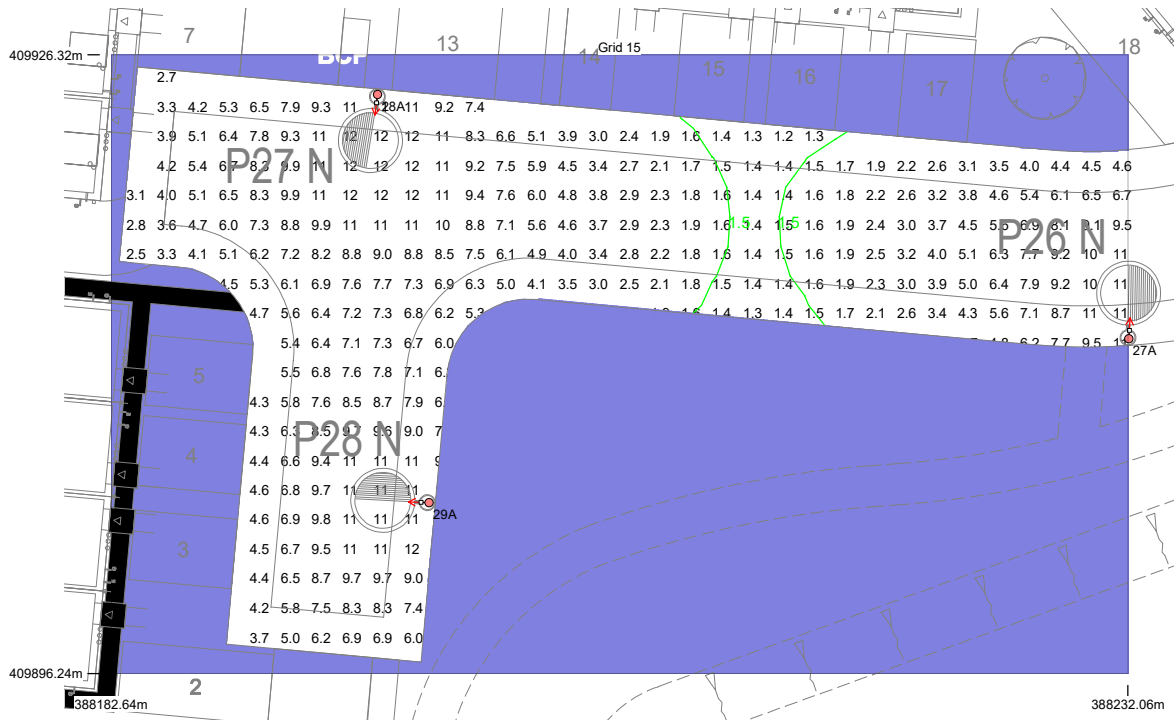


Results

Eav	6.18
Emin	2.63
Emax	11.67
Emin/Emax	0.23
Emin/Eav	0.43

Horizontal Illuminance (lux)

Grid 15

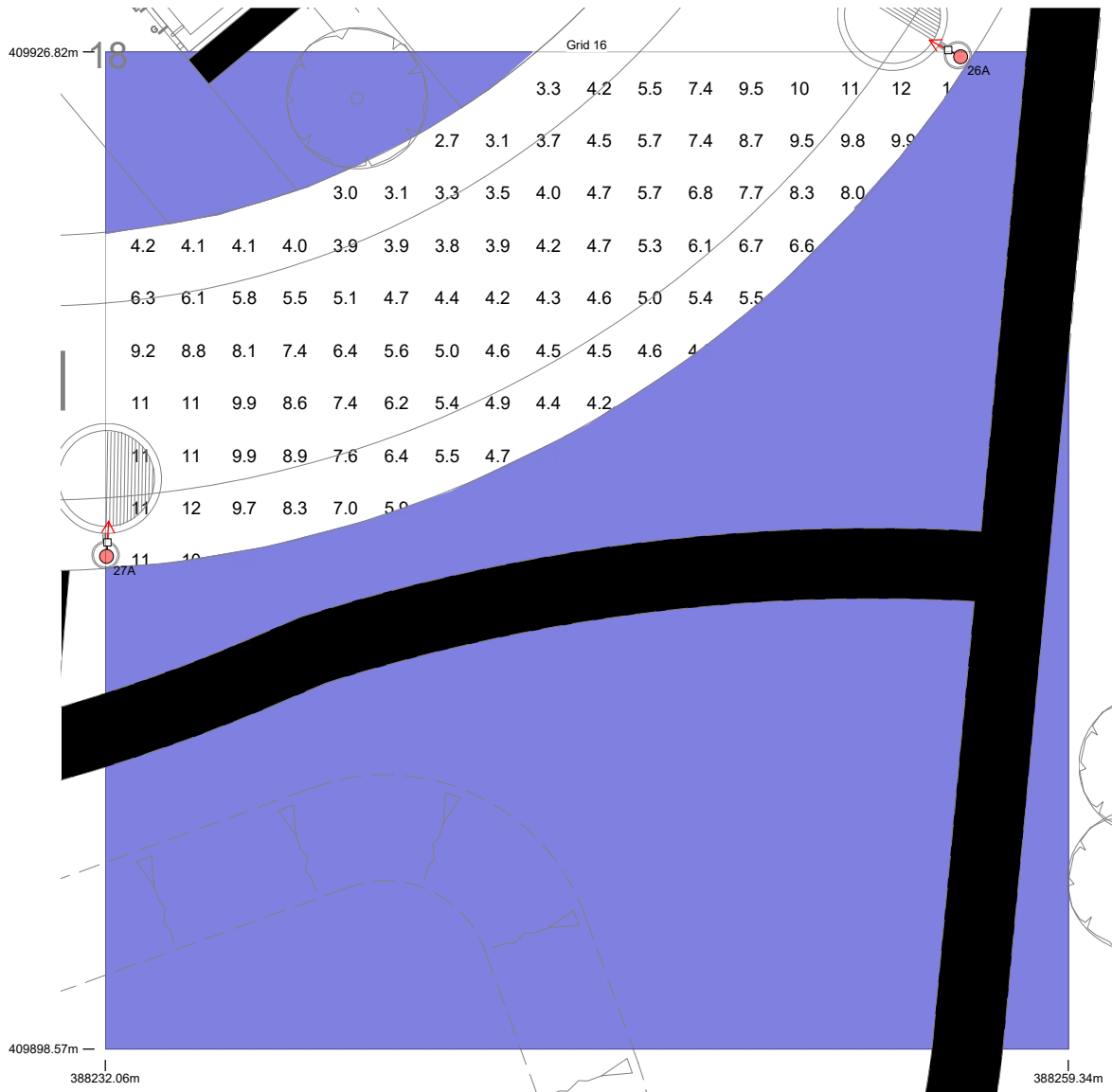


Results

Eav	5.98
Emin	1.24
Emax	12.32
Emin/Emax	0.10
Emin/Eav	0.21

Horizontal Illuminance (lux)

Grid 16

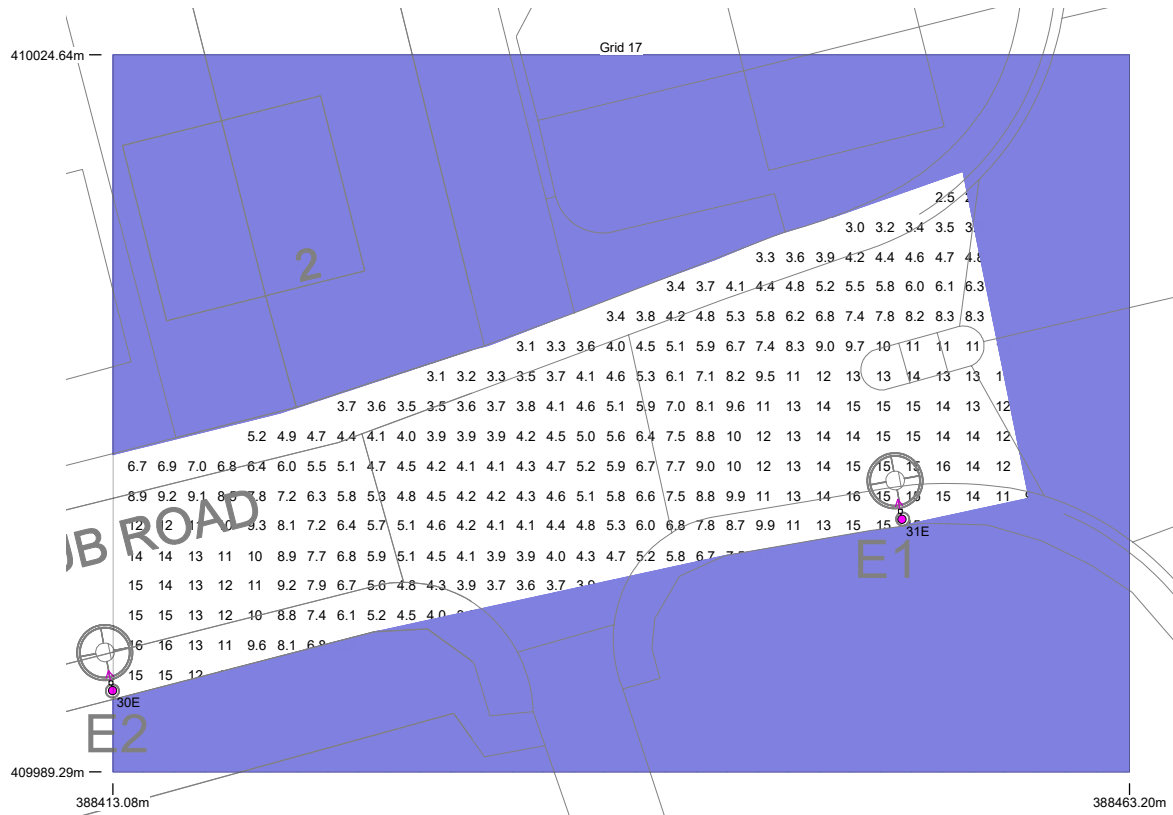


Results

Eav	6.47
Emin	2.71
Emax	11.87
Emin/Emax	0.23
Emin/Eav	0.42

Horizontal Illuminance (lux)

Grid 17

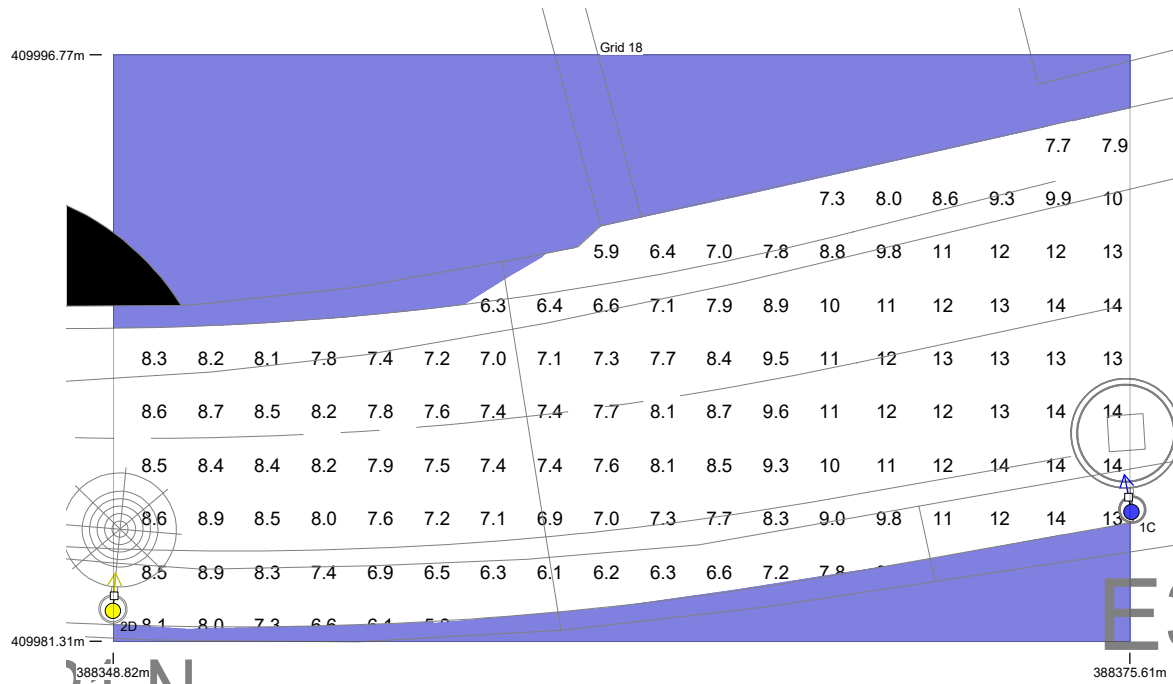


Results

Eav	7.86
Emin	2.49
Emax	16.13
Emin/Emax	0.15
Emin/Eav	0.32

Horizontal Illuminance (lux)

Grid 18

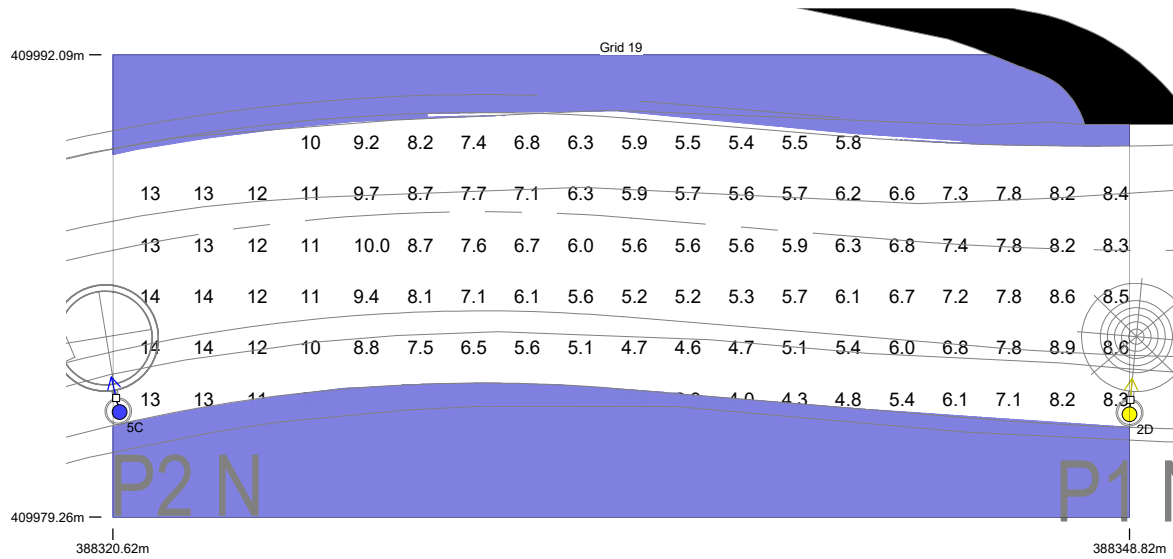


Results

Eav	8.99
Emin	5.49
Emax	14.44
Emin/Emax	0.38
Emin/Eav	0.61

Horizontal Illuminance (lux)

Grid 19

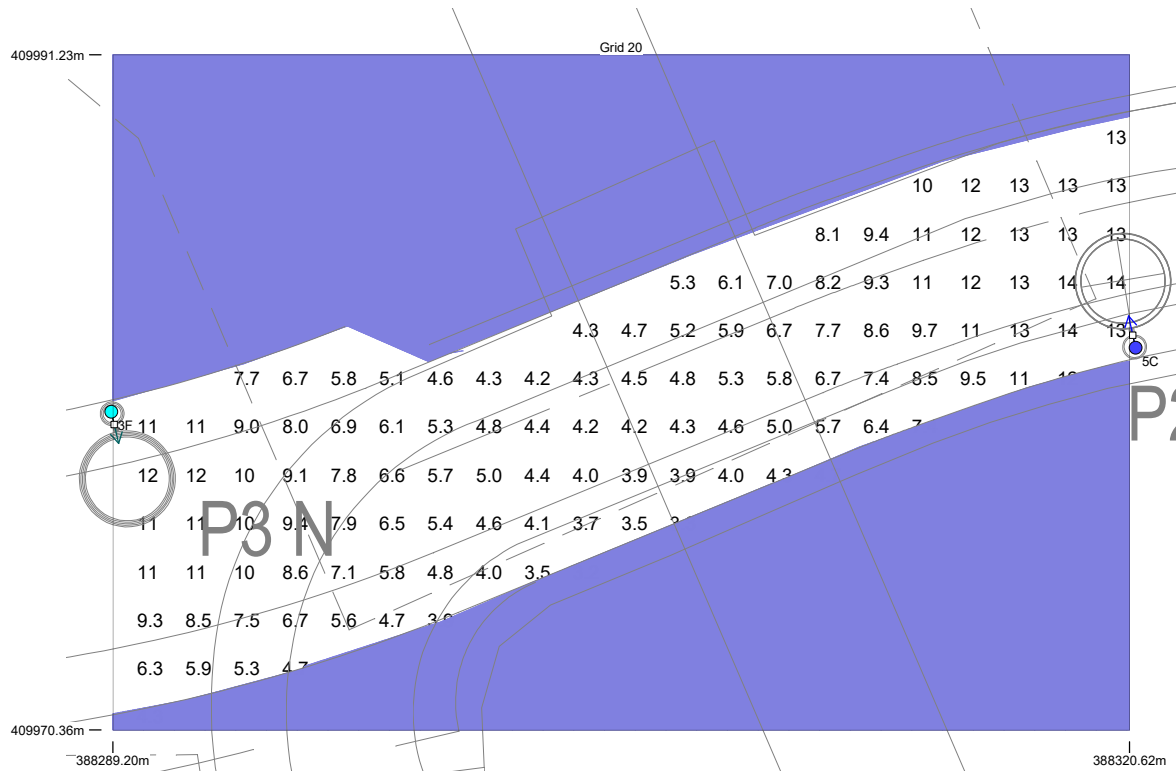


Results

Eav	7.81
Emin	3.89
Emax	14.23
Emin/Emax	0.27
Emin/Eav	0.50

Horizontal Illuminance (lux)

Grid 20



Results

Eav	7.58
Emin	3.18
Emax	13.90
Emin/Emax	0.23
Emin/Eav	0.42