

DATE: 30 August 2022
DESIGNER: Graham Sheehan
PROJECT No: SES 11822
PROJECT NAME: Hickeys Lane Ashbourne Grandbind



Designed in accordance with ISEN13201-2:2015 Class P4 for residential areas and P2

Outdoor Lighting Report

PREPARED BY: Sabre Electrical Services Ltd.
Unit 11 Bellevue Ind. Est.
Finglas
Dublin 11.
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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	198.00	94.00	374.00	323.00	1.50	1.50
2	Grid 2	572.00	94.00	90.00	201.00	1.50	1.50
3	Grid 3	198.00	417.00	374.00	320.00	1.50	1.50
4	Grid 4	572.11	417.00	208.44	246.00	1.50	1.50

Luminaires

Luminaire A Data

Supplier	
Type	E950-28-P4A-730-C600-16W
Lamp(s)	730N
Lamp Flux (klm)	2.25
File Name	E950-28-P4A-730-C0600-16W.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	659.3, 183.1, 0.3
No. in Project	146

Luminaire B Data

Supplier	
Type	E950-28-R3P-730-C250-8W
Lamp(s)	730N
Lamp Flux (klm)	0.95
File Name	E950-28-R3P-730-C0250-8W.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	900.6, 60.7, 0.3
No. in Project	28

Luminaire C Data

Supplier	
Type	E950-28-F2A-730-C700-18W
Lamp(s)	730N
Lamp Flux (klm)	2.62
File Name	E950-28-F2A-730-C0700-18W.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	623.6, 113.9, 0.3
No. in Project	25

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	A	300.30	588.04	6.00	163.00	5.00	0.00	0.40			
2	A	286.02	588.23	6.00	348.00	5.00	0.00	0.40			
3	A	298.34	618.78	6.00	351.00	5.00	0.00	0.40			
4	B	280.28	643.94	5.00	90.00	0.00	0.00	0.40			
5	A	315.05	652.42	6.00	177.00	5.00	0.00	0.40			
6	A	295.39	643.84	6.00	352.00	5.00	0.00	0.40			
7	A	309.55	685.02	6.00	343.00	5.00	0.00	0.40			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
8	A	328.87	711.23	6.00	270.00	5.00	0.00	0.40			
9	A	367.95	705.53	6.00	260.00	5.00	0.00	0.40			
10	A	384.26	684.79	6.00	170.00	5.00	0.00	0.40			
11	B	331.02	656.30	5.00	80.00	0.00	0.00	0.40			
12	B	352.92	653.00	5.00	77.00	0.00	0.00	0.40			
13	A	380.22	657.78	6.00	171.00	5.00	0.00	0.40			
14	A	393.20	647.25	6.00	260.00	5.00	0.00	0.40			
15	A	428.52	641.94	6.00	261.00	5.00	0.00	0.40			
16	A	448.85	649.64	6.00	170.00	5.00	0.00	0.40			
17	C	452.11	696.03	6.00	262.00	5.00	0.00	0.40			
18	A	452.79	676.60	6.00	170.00	5.00	0.00	0.40			
19	C	462.05	630.95	6.00	170.00	5.00	0.00	0.40			
20	A	433.60	616.35	6.00	352.00	5.00	0.00	0.40			
21	A	431.75	592.92	6.00	30.00	5.00	0.00	0.40			
22	A	375.46	625.08	6.00	175.00	5.00	0.00	0.40			
23	A	370.36	591.79	6.00	171.00	5.00	0.00	0.40			
24	C	362.28	568.18	6.00	81.00	5.00	0.00	0.40			
25	C	511.93	657.55	6.00	36.00	5.00	0.00	0.40			
26	C	507.26	681.34	6.00	349.00	5.00	0.00	0.40			
27	A	445.59	618.44	6.00	85.00	5.00	0.00	0.40			
28	C	341.56	543.00	6.00	347.00	5.00	0.00	0.40			
29	C	330.11	524.08	6.00	355.00	5.00	0.00	0.40			
30	C	351.95	521.51	6.00	175.00	5.00	0.00	0.40			
31	C	326.80	502.13	6.00	347.00	5.00	0.00	0.40			
32	C	348.53	497.59	6.00	175.00	5.00	0.00	0.40			
33	C	350.73	468.42	6.00	261.00	5.00	0.00	0.40			
34	C	350.82	469.07	6.00	79.00	5.00	0.00	0.40			
35	C	376.01	465.54	6.00	80.00	5.00	0.00	0.40			
36	C	375.92	464.97	6.00	259.00	5.00	0.00	0.40			
37	C	401.25	461.38	6.00	79.00	5.00	0.00	0.40			
38	C	401.18	460.78	6.00	259.00	5.00	0.00	0.40			
39	A	346.46	446.20	6.00	263.00	5.00	0.00	0.40			
40	C	326.35	465.99	6.00	352.00	5.00	0.00	0.40			
41	C	315.97	451.31	6.00	286.00	5.00	0.00	0.40			
42	C	294.12	453.64	6.00	260.00	5.00	0.00	0.40			
43	C	270.35	457.09	6.00	262.00	5.00	0.00	0.40			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
44	C	241.58	449.17	6.00	81.00	5.00	0.00	0.40			
45	A	258.03	426.42	6.00	168.00	5.00	0.00	0.40			
46	A	254.41	403.85	6.00	170.00	5.00	0.00	0.40			
47	A	360.66	426.49	6.00	170.00	5.00	0.00	0.40			
48	A	557.46	646.26	6.00	210.00	5.00	0.00	0.40			
49	A	561.69	619.22	6.00	175.00	5.00	0.00	0.40			
50	A	548.90	594.67	6.00	348.00	5.00	0.00	0.40			
51	A	554.27	569.92	6.00	172.00	5.00	0.00	0.40			
52	A	536.52	549.16	6.00	102.00	5.00	0.00	0.40			
53	C	580.71	633.10	6.00	172.00	5.00	0.00	0.40			
54	A	513.09	547.61	6.00	111.00	5.00	0.00	0.40			
55	A	508.21	535.23	6.00	175.00	5.00	0.00	0.40			
56	A	485.47	553.70	6.00	262.00	5.00	0.00	0.40			
57	A	442.34	568.53	6.00	213.00	5.00	0.00	0.40			
58	A	461.70	557.29	6.00	262.00	5.00	0.00	0.40			
59	A	500.27	564.30	6.00	167.00	5.00	0.00	0.40			
60	A	485.48	578.91	6.00	347.00	5.00	0.00	0.40			
61	B	493.90	605.00	5.00	27.00	0.00	0.00	0.40			
62	A	592.08	578.69	6.00	259.00	5.00	0.00	0.40			
63	A	504.98	593.66	6.00	175.00	5.00	0.00	0.40			
64	A	612.04	580.00	6.00	152.00	5.00	0.00	0.40			
65	A	621.97	607.73	6.00	171.00	5.00	0.00	0.40			
66	A	625.07	628.66	6.00	168.00	5.00	0.00	0.40			
67	A	615.87	651.83	6.00	348.00	5.00	0.00	0.40			
68	A	622.73	244.49	6.00	123.00	5.00	0.00	0.40			
69	A	598.44	229.86	6.00	124.00	5.00	0.00	0.40			
70	A	565.29	235.05	6.00	272.00	5.00	0.00	0.40			
71	A	595.73	214.33	6.00	175.00	5.00	0.00	0.40			
72	A	594.77	179.08	6.00	180.00	5.00	0.00	0.40			
73	A	593.23	151.90	6.00	155.00	5.00	0.00	0.40			
74	A	581.31	183.50	6.00	355.00	5.00	0.00	0.40			
75	A	577.78	161.43	6.00	352.00	5.00	0.00	0.40			
76	A	591.75	120.51	6.00	159.00	5.00	0.00	0.40			
77	A	557.61	146.62	6.00	72.00	5.00	0.00	0.40			
78	A	555.55	224.12	6.00	90.00	5.00	0.00	0.40			
79	A	527.07	155.65	6.00	73.00	5.00	0.00	0.40			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
80	A	495.47	164.96	6.00	73.00	5.00	0.00	0.40			
81	A	514.43	180.17	6.00	349.00	5.00	0.00	0.40			
82	A	529.55	187.67	6.00	171.00	5.00	0.00	0.40			
83	A	515.60	220.35	6.00	349.00	5.00	0.00	0.40			
84	A	528.02	209.67	6.00	170.00	5.00	0.00	0.40			
85	A	536.03	238.89	6.00	269.00	5.00	0.00	0.40			
86	A	463.52	174.21	6.00	73.00	5.00	0.00	0.40			
87	A	460.01	198.88	6.00	169.00	5.00	0.00	0.40			
88	A	469.22	227.69	6.00	170.00	5.00	0.00	0.40			
89	A	455.97	231.92	6.00	349.00	5.00	0.00	0.40			
90	A	506.69	239.59	6.00	259.00	5.00	0.00	0.40			
91	A	481.16	243.41	6.00	261.00	5.00	0.00	0.40			
92	A	469.04	259.24	6.00	178.00	5.00	0.00	0.40			
93	A	444.00	269.04	6.00	80.00	5.00	0.00	0.40			
94	A	424.12	283.59	6.00	260.00	5.00	0.00	0.40			
95	A	463.22	292.35	6.00	349.00	5.00	0.00	0.40			
96	A	467.04	318.59	6.00	349.00	5.00	0.00	0.40			
97	C	479.05	276.68	6.00	85.00	5.00	0.00	0.40			
98	B	500.53	278.61	5.00	80.00	0.00	0.00	0.40			
99	B	522.45	258.78	5.00	349.00	0.00	0.00	0.40			
100	B	520.94	275.40	5.00	80.00	0.00	0.00	0.40			
101	A	404.00	275.09	6.00	82.00	5.00	0.00	0.40			
102	A	382.59	289.81	6.00	258.00	5.00	0.00	0.40			
103	A	357.40	282.08	6.00	79.00	5.00	0.00	0.40			
104	A	335.38	299.95	6.00	349.00	5.00	0.00	0.40			
105	A	319.87	286.86	6.00	83.00	5.00	0.00	0.40			
106	A	339.35	339.67	6.00	349.00	5.00	0.00	0.40			
107	A	349.47	324.00	6.00	175.00	5.00	0.00	0.40			
108	A	364.44	349.35	6.00	258.00	5.00	0.00	0.40			
109	A	398.06	344.39	6.00	258.00	5.00	0.00	0.40			
110	A	377.17	336.04	6.00	82.00	5.00	0.00	0.40			
111	A	410.71	331.99	6.00	105.00	5.00	0.00	0.40			
112	A	431.36	330.33	6.00	172.00	5.00	0.00	0.40			
113	B	426.94	300.65	5.00	167.00	0.00	0.00	0.40			
114	A	416.07	361.22	6.00	353.00	5.00	0.00	0.40			
115	A	426.38	382.33	6.00	193.00	5.00	0.00	0.40			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
116	A	400.88	387.43	6.00	84.00	5.00	0.00	0.40			
117	A	416.90	399.34	6.00	259.00	5.00	0.00	0.40			
118	A	379.33	404.82	6.00	258.00	5.00	0.00	0.40			
119	A	359.79	393.59	6.00	78.00	5.00	0.00	0.40			
120	B	342.04	388.29	5.00	318.00	0.00	0.00	0.40			
121	A	341.91	417.85	6.00	348.00	5.00	0.00	0.40			
122	A	347.35	368.76	6.00	199.00	5.00	0.00	0.40			
123	A	318.09	371.14	6.00	79.00	5.00	0.00	0.40			
124	A	286.30	375.89	6.00	82.00	5.00	0.00	0.40			
125	A	259.62	379.92	6.00	76.00	5.00	0.00	0.40			
126	A	235.71	392.81	6.00	258.00	5.00	0.00	0.40			
127	A	258.99	442.22	6.00	170.00	5.00	0.00	0.40			
128	A	470.24	337.97	6.00	245.00	5.00	0.00	0.40			
129	A	498.29	336.23	6.00	258.00	5.00	0.00	0.40			
130	A	524.40	333.79	6.00	293.00	5.00	0.00	0.40			
131	A	546.49	328.84	6.00	263.00	5.00	0.00	0.40			
132	A	530.73	357.34	6.00	354.00	5.00	0.00	0.40			
133	A	533.16	385.73	6.00	27.00	5.00	0.00	0.40			
134	A	543.05	406.61	6.00	167.00	5.00	0.00	0.40			
135	A	510.73	400.74	6.00	258.00	5.00	0.00	0.40			
136	A	484.91	407.20	6.00	213.00	5.00	0.00	0.40			
137	A	467.05	400.95	6.00	356.00	5.00	0.00	0.40			
138	A	486.66	429.78	6.00	169.00	5.00	0.00	0.40			
139	A	464.86	451.50	6.00	83.00	5.00	0.00	0.40			
140	A	488.40	462.51	6.00	349.00	5.00	0.00	0.40			
141	A	493.25	494.68	6.00	351.00	5.00	0.00	0.40			
142	A	496.67	518.21	6.00	348.00	5.00	0.00	0.40			
143	A	475.97	520.98	6.00	259.00	5.00	0.00	0.40			
144	A	545.63	639.23	6.00	22.00	5.00	0.00	0.40			
145	A	432.20	560.63	6.00	33.00	5.00	0.00	0.40			
146	A	667.69	634.81	6.00	348.00	5.00	0.00	0.40			
147	A	684.04	642.10	6.00	175.00	5.00	0.00	0.40			
148	A	679.86	615.24	6.00	170.00	5.00	0.00	0.40			
149	A	661.67	595.15	6.00	354.00	5.00	0.00	0.40			
150	A	654.65	575.00	6.00	353.00	5.00	0.00	0.40			
151	A	696.42	603.55	6.00	82.00	5.00	0.00	0.40			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
152	C	712.85	616.02	6.00	351.00	5.00	0.00	0.40			
153	C	697.00	618.44	6.00	350.00	5.00	0.00	0.40			
154	A	735.18	609.41	6.00	121.00	5.00	0.00	0.40			
155	A	634.21	558.58	6.00	304.00	5.00	0.00	0.40			
156	A	608.29	559.93	6.00	260.00	5.00	0.00	0.40			
157	A	605.19	544.85	6.00	83.00	5.00	0.00	0.40			
158	A	653.14	554.40	6.00	124.00	5.00	0.00	0.40			
159	B	609.51	568.14	5.00	170.00	5.00	0.00	0.40			
160	A	679.60	576.70	6.00	267.00	5.00	0.00	0.40			
161	A	695.52	585.52	6.00	297.00	5.00	0.00	0.40			
162	A	714.63	597.10	6.00	300.00	5.00	0.00	0.40			
163	A	735.43	609.05	6.00	293.00	5.00	0.00	0.40			
164	A	752.48	621.13	6.00	302.00	5.00	0.00	0.40			
165	A	736.85	587.14	6.00	41.00	5.00	0.00	0.40			
166	A	745.79	571.52	6.00	34.00	5.00	0.00	0.40			
167	A	756.26	589.57	6.00	209.00	5.00	0.00	0.40			
168	A	697.88	555.59	6.00	186.00	5.00	0.00	0.40			
169	A	683.20	531.53	6.00	354.00	5.00	0.00	0.40			
170	A	689.52	505.32	6.00	151.00	5.00	0.00	0.40			
171	A	661.32	490.97	6.00	113.00	5.00	0.00	0.40			
172	A	628.38	510.51	6.00	349.00	5.00	0.00	0.40			
173	A	623.51	479.99	6.00	350.00	5.00	0.00	0.40			
174	A	631.47	531.70	6.00	352.00	5.00	0.00	0.40			
175	A	568.87	551.21	6.00	317.00	5.00	0.00	0.40			
176	A	635.24	487.44	6.00	70.00	5.00	0.00	0.40			
177	A	564.52	582.87	6.00	258.00	5.00	0.00	0.40			
178	B	567.14	566.99	5.00	240.00	0.00	0.00	0.40			
179	B	548.31	535.95	5.00	265.00	0.00	0.00	0.40			
180	B	523.09	537.74	5.00	265.00	0.00	0.00	0.40			
181	A	563.85	525.53	6.00	352.00	5.00	0.00	0.40			
182	A	558.53	489.27	6.00	352.00	5.00	0.00	0.40			
183	A	553.92	459.02	6.00	352.00	5.00	0.00	0.40			
184	A	544.51	436.29	6.00	318.00	5.00	0.00	0.40			
185	B	485.26	539.29	5.00	299.00	0.00	0.00	0.40			
186	B	464.27	531.17	5.00	274.00	0.00	0.00	0.40			
187	B	451.53	513.71	5.00	352.00	0.00	0.00	0.40			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
188	B	447.37	485.36	5.00	352.00	0.00	0.00	0.40			
189	B	440.79	462.02	5.00	320.00	0.00	0.00	0.40			
190	B	422.47	453.27	5.00	267.00	0.00	0.00	0.40			
191	B	447.33	450.67	5.00	167.00	0.00	0.00	0.40			
192	B	442.70	432.55	5.00	191.00	0.00	0.00	0.40			
193	B	445.77	413.53	5.00	167.00	0.00	0.00	0.40			
194	B	439.38	396.92	5.00	145.00	0.00	0.00	0.40			
195	B	431.07	546.23	5.00	167.00	0.00	0.00	0.40			
196	B	420.91	555.20	5.00	63.00	0.00	0.00	0.40			
197	B	425.80	526.92	5.00	167.00	0.00	0.00	0.40			
198	B	428.36	508.14	5.00	193.00	0.00	0.00	0.40			
199	B	425.49	482.52	5.00	145.00	0.00	0.00	0.40			

Horizontal Illuminance (lux)

Grid 1



Results

Eav	5.72
Emin	1.13
Emax	16.45
Emin/Emax	0.07
Emin/Eav	0.20

Horizontal Illuminance (lux)

Grid 1

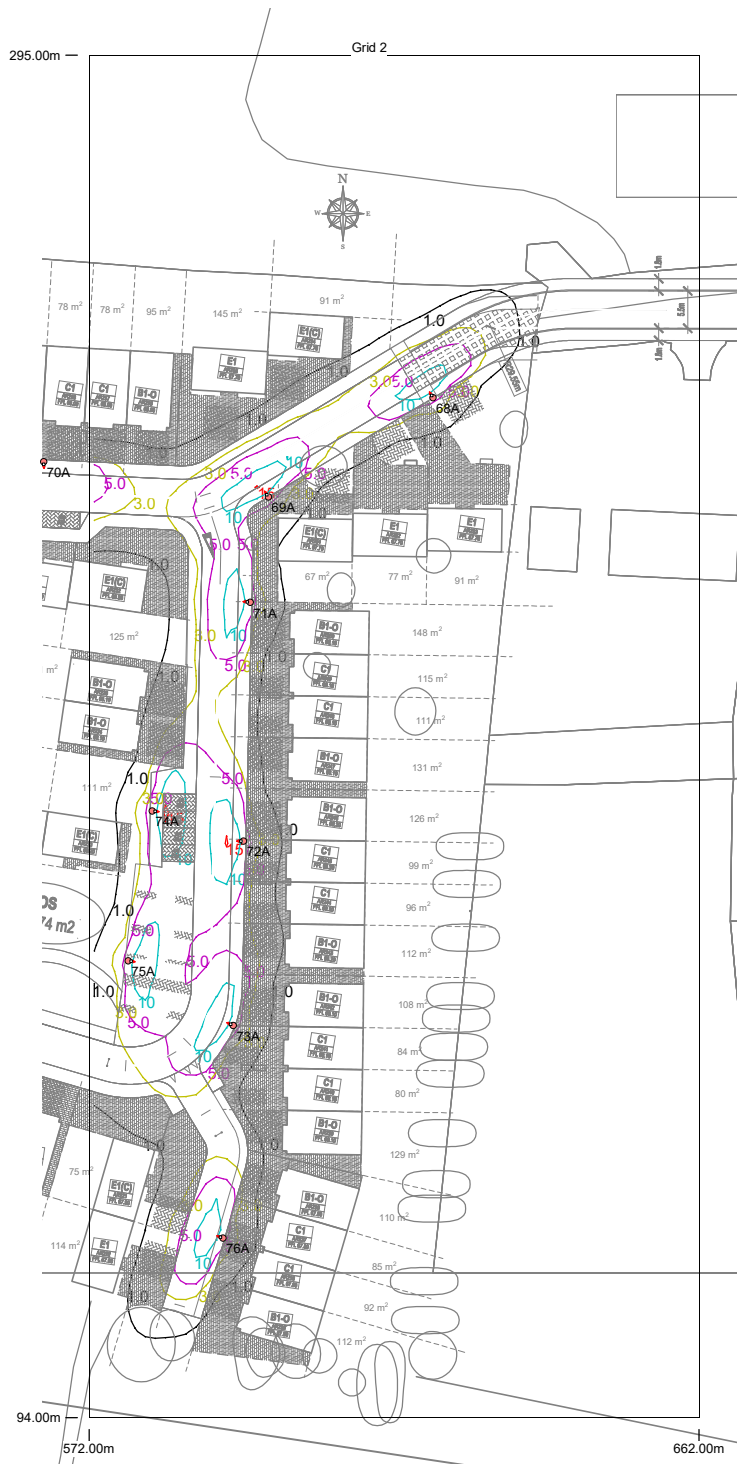


Results

Eav	5.72
Emin	1.13
Emax	16.45
Emin/Emax	0.07
Emin/Eav	0.20

Horizontal Illuminance (lux)

Grid 2

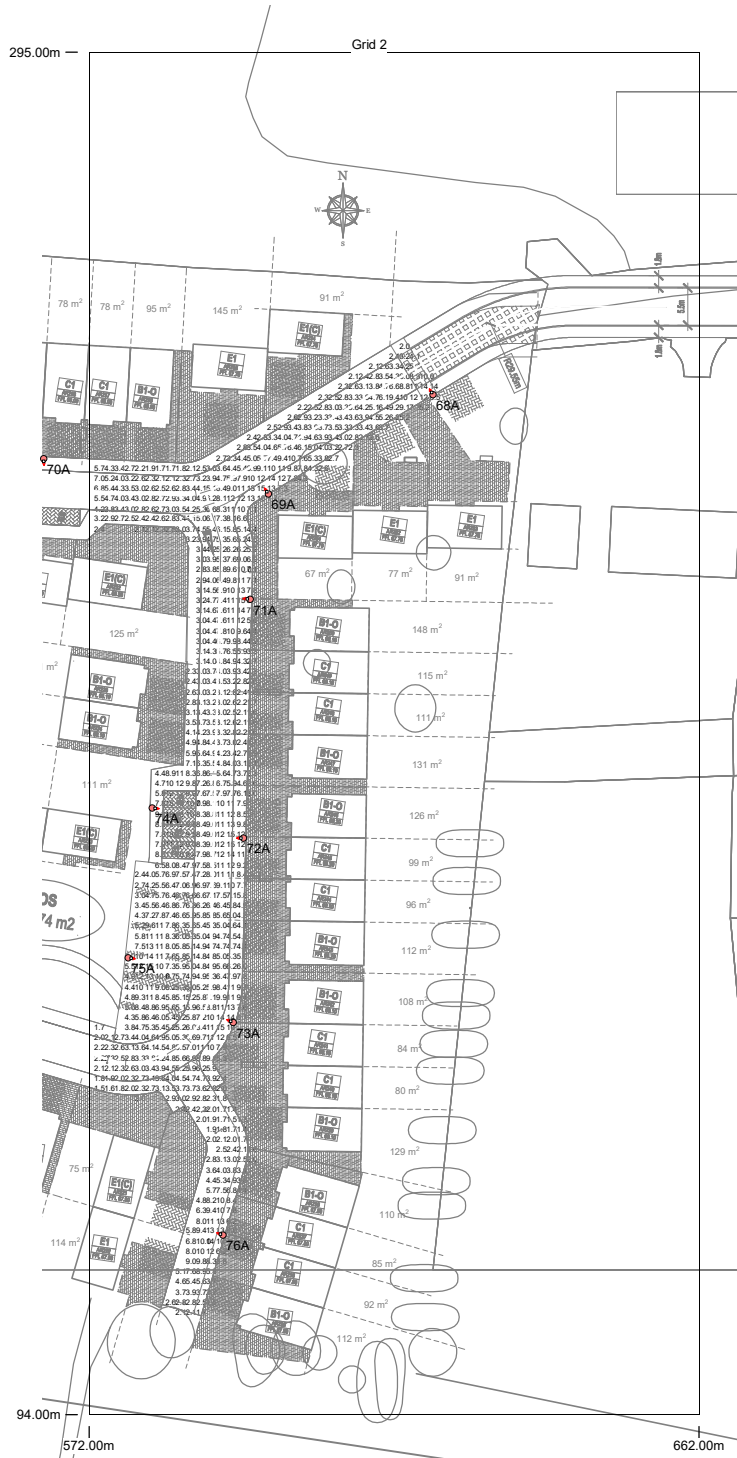


Results

Eav	5.78
Emin	1.25
E _{max}	16.02
Emin/E _{max}	0.08
Emin/Eav	0.22

Horizontal Illuminance (lux)

Grid 2



Results

Eav	5.78
Emin	1.25
Emax	16.02
Emin/Emax	0.08
Emin/Eav	0.22

Horizontal Illuminance (lux)

Grid 3



Results

Eav	5.56
Emin	1.11
Emax	20.49
Emin/Emax	0.05
Emin/Eav	0.20

Horizontal Illuminance (lux)

Grid 3

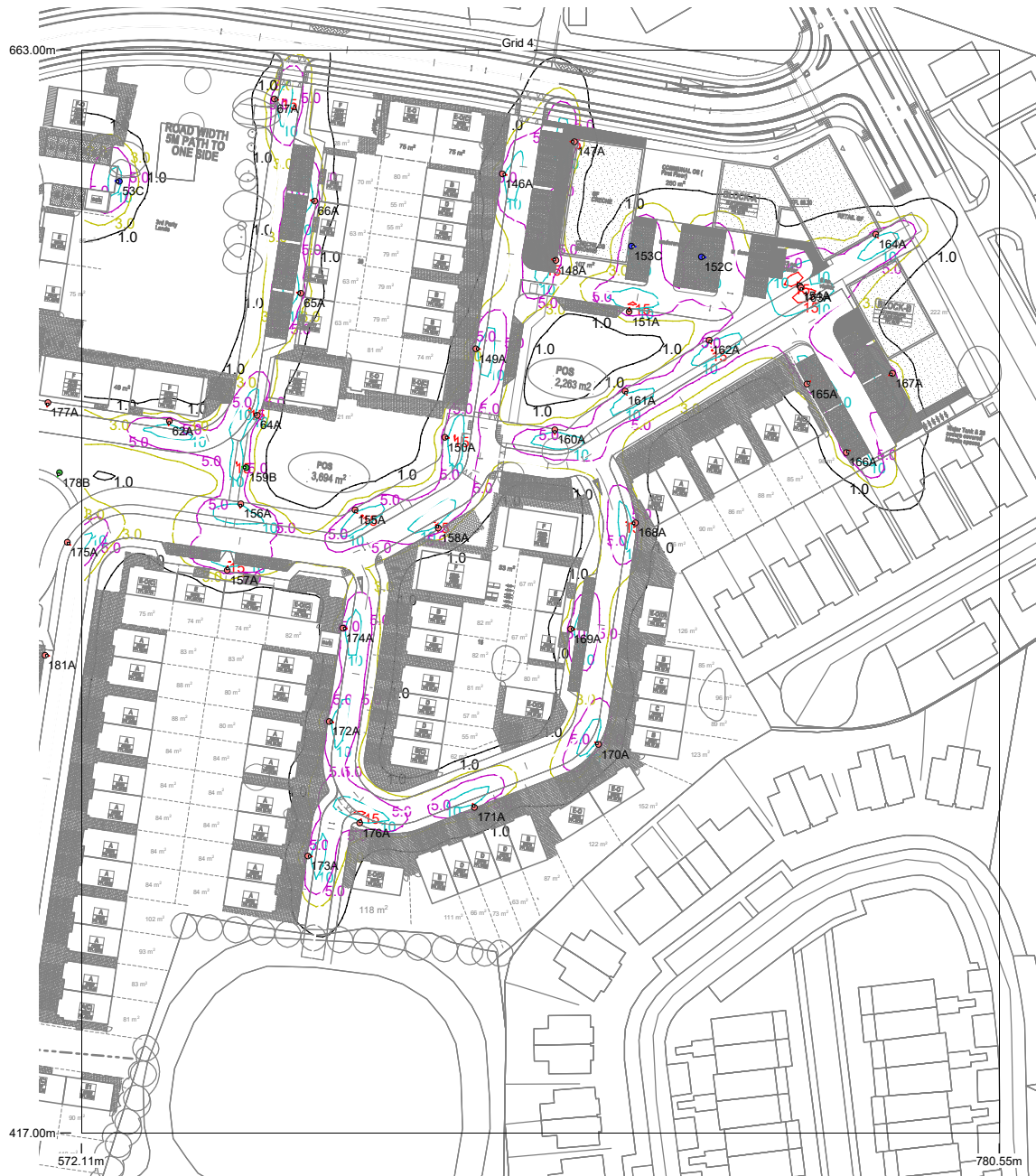


Results

Eav	5.56
Emin	1.11
Emax	20.49
Emin/Emax	0.05
Emin/Eav	0.20

Horizontal Illuminance (lux)

Grid 4

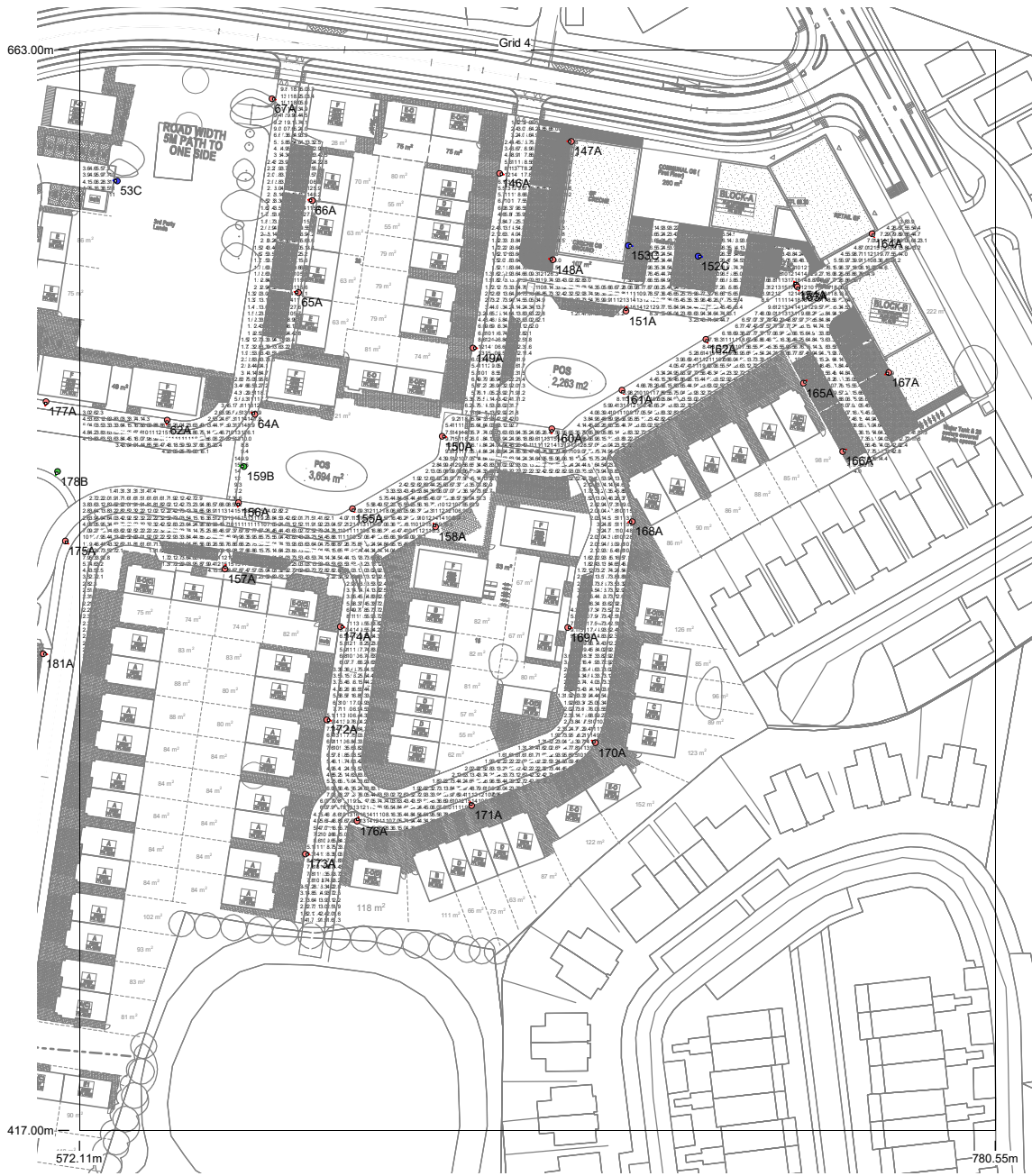


Results

Eav	5.96
Emin	1.21
E _{max}	18.44
E _{min} /E _{max}	0.07
E _{min} /E _{av}	0.20

Horizontal Illuminance (lux)

Grid 4



Results

Eav	5.96
Emin	1.21
Emax	18.44
Emin/Emax	0.07
Emin/Eav	0.20