



PROJECT TITLE:	PROPOSED PART 10 RESIDENTIAL DEVELOPMENT, DUNDRUM CENTRAL DEVELOPMENT, DUNDRUM ROAD, DUBLIN 14
APPLICANT DETAILS:	DÚN LAOGHAIRE-RATHDOWN COUNTY COUNCIL, IN PARTNERSHIP WITH THE LAND DEVELOPMENT AGENCY
DOCUMENT TITLE:	PUBLIC LIGHTING REPORT
DOCUMENT NUMBER:	CMHD-EDC-00-XX-RP-PL-3000

DATE: 19 September 2024

DESIGNER: Michael O'Callaghan

PROJECT No: D20004

PROJECT NAME: Proposed Part 10 Residential Development, Dundrum Central Development, Dundrum Road, Dublin 14



In Accordance with:

Guidance Notes for Planners, Engineers, Architects, and
Developers (Bat Conservation Ireland, 2010)

Bats and Lighting in the UK – Bats and the Built Environment
Series (Institute of Lighting Professionals, September 2018).

Lighting to BS5489:1:2020

First 30 meters of Main Entrance to Class P3, Main Spine Road Lighting to Class
P4, Secondary Roads/Walkways to Class P4

Thurn Plurio/Urbis Schreder were selected for Calculation Purposes & Thus form
the basis of this report. All Luminaires to be selected in line with Public
Procurement Guidelines

Luminaire Performance Details(Lumen Output/Colour Temp etc) on Pages 2-3

Public 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	-29.08	-218.02	350.91	338.72	1.50	1.50
2	Grid 2	-252.40	-23.66	185.96	234.01	1.50	1.50
3	Grid 3	-239.13	7.71	166.52	28.36	1.49	1.49
4	Grid 4	-34.74	-116.67	30.79	153.65	1.47	1.49
5	Grid 5	-34.06	-200.60	25.00	90.31	1.47	1.48
6	Grid 6	-26.51	-20.52	170.31	58.59	1.49	1.46
7	Grid 7	-5.41	-106.76	192.20	16.08	1.49	1.46
8	Grid 8	59.27	-74.47	46.86	76.80	1.46	1.48
9	Grid 9	140.01	20.49	96.81	119.63	1.49	1.50
10	Grid 10	82.27	-169.26	177.52	83.12	1.49	1.48

Luminaires

Luminaire A Data



Supplier	Thorn
Type	PLU O LED 18L35 WST BP CL1 D76 L730
Lamp(s)	LED_PLU2_WST_1697 21W
LampFlux(klm)/Colour	1.40 3000/70
File Name	96265499_(STD).LDT
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	933.3, 24.0, 0.0
No. in Project	70

Luminaire B Data



Supplier	Thorn
Type	PLU O LED 18L50 WST BP CL1 D76 L730
Lamp(s)	LED_PLU2_WST_2312 30W
LampFlux(klm)/Colour	2.31 3000/70
File Name	96265513_(STD).LDT
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	933.6, 24.0, 0.0
No. in Project	45

Luminaire C Data



Supplier	Thorn
Type	PLU O 18L105 NST BPSW CL1 D60 L730
Lamp(s)	LED_PLRL_NST_4290 63W
LampFlux(klm)/Colour	4.29 3000/70
File Name	96272352_(STD).LDT
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	1035.7, 26.4, 0.0
No. in Project	13

Luminaire D Data



Supplier	Thorn
Type	PLU O LED 18L35 WST BP CL1 D76 L730
Lamp(s)	LED_PLU2_WST_1697 21W
LampFlux(klm)/Colour	1.20 3000/70
File Name	96265499_(STD).LDT
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	933.3, 24.0, 0.0
No. in Project	60

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	A	-187.95	190.78	6.00	213.00	0.00	0.00	0.00			
2	A	-178.02	173.08	6.00	213.00	0.00	0.00	0.00			
3	A	-168.08	155.46	6.00	213.00	0.00	0.00	0.00			
4	A	-155.28	140.63	6.00	228.00	0.00	0.00	0.00			
5	A	-140.60	126.40	6.00	213.00	0.00	0.00	0.00			
6	A	-129.39	109.61	6.00	213.00	0.00	0.00	0.00			
7	A	-119.14	92.24	6.00	202.00	0.00	0.00	0.00			
8	A	-203.02	160.40	6.00	308.00	0.00	0.00	0.00			
9	A	-181.88	155.12	6.00	234.00	0.00	0.00	0.00			
10	A	-162.28	146.58	6.00	220.00	0.00	0.00	0.00			
11	A	-157.01	128.14	6.00	213.00	0.00	0.00	0.00			
12	A	-150.99	115.94	6.00	213.00	0.00	0.00	0.00			
13	A	-136.97	96.15	6.00	213.00	0.00	0.00	0.00			
14	A	-123.79	82.80	6.00	213.00	0.00	0.00	0.00			
15	A	-114.63	71.89	6.00	232.00	0.00	0.00	0.00			
16	A	-97.18	61.95	6.00	246.00	0.00	0.00	0.00			
17	A	-83.02	52.49	6.00	222.00	0.00	0.00	0.00			
18	A	-67.46	36.77	6.00	213.00	0.00	0.00	0.00			
19	D	-218.90	51.05	6.00	178.00	0.00	0.00	0.00			
20	C	-187.33	31.00	6.00	270.00	0.00	0.00	0.00			
21	C	-230.10	13.54	6.00	112.00	0.00	0.00	0.00			
22	C	-210.68	30.56	6.00	270.00	0.00	0.00	0.00			
23	A	-108.67	92.45	6.00	291.00	0.00	0.00	0.00			
24	A	-91.07	98.76	6.00	266.00	0.00	0.00	0.00			
25	C	-170.97	16.20	6.00	88.00	0.00	0.00	0.00			
26	C	-153.25	31.67	6.00	270.00	0.00	0.00	0.00			
27	A	-131.88	32.03	6.00	270.00	0.00	0.00	0.00			
28	A	-110.12	32.46	6.00	285.00	0.00	0.00	0.00			
29	A	-91.21	32.99	6.00	270.00	0.00	0.00	0.00			
30	A	-76.01	33.41	6.00	270.00	0.00	0.00	0.00			
31	C	-224.36	31.51	6.00	208.00	0.00	0.00	0.00			
32	A	-101.59	75.84	6.00	252.00	0.00	0.00	0.00			
33	A	-79.81	62.39	6.00	243.00	0.00	0.00	0.00			
34	A	-65.26	52.31	6.00	246.00	0.00	0.00	0.00			
35	B	-64.77	27.77	6.00	225.00	0.00	0.00	0.00			
36	B	-64.32	16.33	6.00	90.00	0.00	0.00	0.00			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
37	D	-216.48	67.56	6.00	170.00	0.00	0.00	0.00			
38	D	-213.34	86.39	6.00	165.00	0.00	0.00	0.00			
39	D	-209.49	107.74	6.00	130.00	0.00	0.00	0.00			
40	A	-98.15	109.27	6.00	291.00	0.00	0.00	0.00			
41	A	-163.79	139.73	6.00	176.00	0.00	0.00	0.00			
42	B	121.02	126.67	6.00	140.00	0.00	0.00	0.00			
43	B	137.52	130.60	6.00	110.00	0.00	0.00	0.00			
44	B	170.38	140.99	6.00	118.00	0.00	0.00	0.00			
45	B	194.72	150.79	6.00	102.00	0.00	0.00	0.00			
46	B	187.54	144.56	6.00	197.00	0.00	0.00	0.00			
47	B	185.63	126.44	6.00	18.00	0.00	0.00	0.00			
48	C	191.36	109.23	6.00	14.00	0.00	0.00	0.00			
49	B	197.23	90.41	6.00	18.00	0.00	0.00	0.00			
50	C	202.01	74.32	6.00	339.00	0.00	0.00	0.00			
51	C	189.40	61.15	6.00	329.00	0.00	0.00	0.00			
52	B	168.77	42.35	6.00	295.00	0.00	0.00	0.00			
53	C	150.14	36.37	6.00	290.00	0.00	0.00	0.00			
54	A	138.62	24.87	6.00	22.00	0.00	0.00	0.00			
55	B	125.82	116.83	6.00	208.00	0.00	0.00	0.00			
56	A	123.47	85.63	6.00	349.00	0.00	0.00	0.00			
57	A	129.03	64.82	6.00	23.00	0.00	0.00	0.00			
58	A	132.57	48.12	6.00	39.00	0.00	0.00	0.00			
59	A	147.10	3.13	6.00	25.00	0.00	0.00	0.00			
60	A	153.11	-16.56	6.00	13.00	0.00	0.00	0.00			
61	A	145.61	-43.38	6.00	284.00	0.00	0.00	0.00			
62	A	132.49	-47.49	6.00	289.00	0.00	0.00	0.00			
63	A	114.07	-53.13	6.00	285.00	0.00	0.00	0.00			
64	A	170.39	-56.74	6.00	288.00	0.00	0.00	0.00			
65	A	159.00	-36.58	6.00	16.00	0.00	0.00	0.00			
66	A	86.99	-57.14	6.00	308.00	0.00	0.00	0.00			
67	B	-42.19	12.77	6.00	208.00	0.00	0.00	0.00			
68	B	-33.74	-24.24	6.00	240.00	0.00	0.00	0.00			
69	B	-31.39	-41.01	6.00	217.00	0.00	0.00	0.00			
70	B	-26.29	-54.58	6.00	225.00	0.00	0.00	0.00			
71	B	-20.95	-70.66	6.00	220.00	0.00	0.00	0.00			
72	B	-31.96	-107.00	6.00	285.00	0.00	0.00	0.00			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
73	B	-38.03	-117.75	6.00	155.00	0.00	0.00	0.00			
74	B	-49.91	-130.90	6.00	15.00	0.00	0.00	0.00			
75	C	-45.42	-148.55	6.00	36.00	0.00	0.00	0.00			
76	C	-41.28	-163.79	6.00	65.00	0.00	0.00	0.00			
77	B	-34.57	-190.36	6.00	21.00	0.00	0.00	0.00			
78	A	26.70	-86.79	6.00	285.00	0.00	0.00	0.00			
79	A	71.01	-138.79	6.00	177.00	0.00	0.00	0.00			
80	A	70.62	-126.94	6.00	172.00	0.00	0.00	0.00			
81	A	69.99	-117.41	6.00	174.00	0.00	0.00	0.00			
82	A	69.46	-104.68	6.00	182.00	0.00	0.00	0.00			
83	A	68.87	-93.11	6.00	175.00	0.00	0.00	0.00			
84	B	-1.29	-105.15	6.00	102.00	0.00	0.00	0.00			
85	D	74.07	-58.46	6.00	312.00	0.00	0.00	0.00			
86	B	48.23	-79.85	6.00	284.00	0.00	0.00	0.00			
87	B	67.78	-63.57	6.00	168.00	0.00	0.00	0.00			
88	B	61.57	-21.07	6.00	2.00	0.00	0.00	0.00			
89	B	64.89	-2.67	6.00	162.00	0.00	0.00	0.00			
90	A	49.25	5.47	6.00	87.00	0.00	0.00	0.00			
91	D	30.27	7.31	6.00	73.00	0.00	0.00	0.00			
92	A	-44.63	23.97	6.00	43.00	0.00	0.00	0.00			
93	D	-28.31	20.13	6.00	73.00	0.00	0.00	0.00			
94	D	19.69	8.97	6.00	90.00	0.00	0.00	0.00			
95	D	2.25	12.85	6.00	73.00	0.00	0.00	0.00			
96	D	-15.19	17.32	6.00	73.00	0.00	0.00	0.00			
97	B	-29.60	36.89	6.00	286.00	0.00	0.00	0.00			
98	B	-10.64	43.11	6.00	287.00	0.00	0.00	0.00			
99	A	9.84	49.55	6.00	287.00	0.00	0.00	0.00			
100	A	28.95	55.69	6.00	287.00	0.00	0.00	0.00			
101	A	47.75	61.68	6.00	287.00	0.00	0.00	0.00			
102	A	67.55	67.75	6.00	287.00	0.00	0.00	0.00			
103	B	86.35	73.67	6.00	283.00	0.00	0.00	0.00			
104	B	105.16	79.81	6.00	297.00	0.00	0.00	0.00			
105	B	74.45	-72.23	6.00	302.00	0.00	0.00	0.00			
106	B	-18.10	-182.97	6.00	195.00	0.00	0.00	0.00			
107	A	-59.77	36.07	6.00	354.00	0.00	0.00	0.00			
108	B	7.28	-121.21	6.00	190.00	0.00	0.00	0.00			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
109	A	13.39	-139.92	6.00	205.00	0.00	0.00	0.00			
110	A	19.62	-160.01	6.00	201.00	0.00	0.00	0.00			
111	A	25.28	-178.07	6.00	180.00	0.00	0.00	0.00			
112	A	62.85	-157.16	6.00	162.00	0.00	0.00	0.00			
113	A	61.51	-167.53	6.00	181.00	0.00	0.00	0.00			
114	B	62.34	-43.58	6.00	353.00	0.00	0.00	0.00			
115	D	132.17	-100.66	6.00	18.00	0.00	0.00	0.00			
116	A	200.03	-52.40	6.00	113.00	0.00	0.00	0.00			
117	A	214.09	-48.31	6.00	111.00	0.00	0.00	0.00			
118	D	81.93	-83.06	6.00	300.00	0.00	0.00	0.00			
119	D	100.32	-77.36	6.00	295.00	0.00	0.00	0.00			
120	D	121.17	-70.75	6.00	295.00	0.00	0.00	0.00			
121	D	162.28	-113.99	6.00	90.00	0.00	0.00	0.00			
122	D	183.93	-113.10	6.00	87.00	0.00	0.00	0.00			
123	D	110.37	-63.68	6.00	90.00	0.00	0.00	0.00			
124	D	58.98	13.91	6.00	295.00	0.00	0.00	0.00			
125	D	83.01	21.44	6.00	295.00	0.00	0.00	0.00			
126	D	111.23	30.29	6.00	295.00	0.00	0.00	0.00			
127	D	129.66	36.05	6.00	295.00	0.00	0.00	0.00			
128	D	129.17	-91.19	6.00	18.00	0.00	0.00	0.00			
129	D	79.13	1.86	6.00	16.00	0.00	0.00	0.00			
130	D	84.48	-14.08	6.00	15.00	0.00	0.00	0.00			
131	D	94.19	-44.95	6.00	20.00	0.00	0.00	0.00			
132	D	125.75	-81.05	6.00	18.00	0.00	0.00	0.00			
133	D	-194.93	128.16	6.00	275.00	0.00	0.00	0.00			
134	D	-183.66	131.59	6.00	299.00	0.00	0.00	0.00			
135	D	-199.17	122.41	6.00	95.00	0.00	0.00	0.00			
136	D	-187.91	125.56	6.00	111.00	0.00	0.00	0.00			
137	D	-177.21	129.89	6.00	108.00	0.00	0.00	0.00			
138	D	-72.76	66.55	6.00	105.00	0.00	0.00	0.00			
139	D	-59.76	70.79	6.00	102.00	0.00	0.00	0.00			
140	A	207.09	-50.03	6.00	111.00	0.00	0.00	0.00			
141	A	192.27	-54.77	6.00	99.00	0.00	0.00	0.00			
142	D	209.62	-111.77	6.00	95.00	0.00	0.00	0.00			
143	D	134.10	-74.34	6.00	149.00	0.00	0.00	0.00			
144	D	148.24	-63.71	6.00	295.00	0.00	0.00	0.00			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
145	D	161.52	-54.93	6.00	295.00	0.00	0.00	0.00			
146	B	139.93	-113.42	6.00	45.00	0.00	0.00	0.00			
147	D	147.79	-103.19	6.00	180.00	0.00	0.00	0.00			
148	B	141.39	-83.46	6.00	130.00	0.00	0.00	0.00			
149	D	143.25	-89.76	6.00	180.00	0.00	0.00	0.00			
150	D	-207.06	124.08	6.00	330.00	0.00	0.00	0.00			
151	D	-213.52	121.45	6.00	325.00	0.00	0.00	0.00			
152	D	101.22	27.10	6.00	295.00	0.00	0.00	0.00			
153	D	-25.21	-113.69	6.00	108.00	0.00	0.00	0.00			
154	B	-54.99	-8.38	6.00	13.00	0.00	0.00	0.00			
155	B	-12.64	-95.26	6.00	235.00	0.00	0.00	0.00			
156	A	97.47	-60.83	6.00	288.00	0.00	0.00	0.00			
157	B	128.45	103.84	6.00	208.00	0.00	0.00	0.00			
158	B	154.66	136.21	6.00	110.00	0.00	0.00	0.00			
159	A	-201.25	15.53	6.00	93.00	0.00	0.00	0.00			
160	A	-134.34	16.76	6.00	93.00	0.00	0.00	0.00			
161	D	-37.22	-2.07	6.00	280.00	0.00	0.00	0.00			
162	D	-20.33	-0.96	6.00	280.00	0.00	0.00	0.00			
163	A	-68.12	106.37	6.00	295.00	0.00	0.00	0.00			
164	C	-102.55	19.80	6.00	84.00	0.00	0.00	0.00			
165	B	-16.46	-85.37	6.00	225.00	0.00	0.00	0.00			
166	D	-33.89	-142.86	6.00	155.00	0.00	0.00	0.00			
167	D	-8.34	-0.46	6.00	280.00	0.00	0.00	0.00			
168	D	3.71	0.09	6.00	280.00	0.00	0.00	0.00			
169	D	15.93	0.67	6.00	280.00	0.00	0.00	0.00			
170	D	28.99	3.16	6.00	280.00	0.00	0.00	0.00			
171	D	141.00	-121.15	6.00	0.00	0.00	0.00	0.00			
172	D	130.60	-141.66	6.00	100.00	0.00	0.00	0.00			
173	A	182.08	-59.73	6.00	112.00	0.00	0.00	0.00			
174	D	187.18	48.78	6.00	322.00	0.00	0.00	0.00			
175	A	10.73	-187.19	6.00	108.00	0.00	0.00	0.00			
176	B	-39.12	-66.90	6.00	16.00	0.00	0.00	0.00			
177	B	-33.43	-85.35	6.00	18.00	0.00	0.00	0.00			
178	B	-50.42	-22.52	6.00	15.00	0.00	0.00	0.00			
179	B	-41.59	-50.81	6.00	21.00	0.00	0.00	0.00			
180	B	-59.57	6.09	6.00	11.00	0.00	0.00	0.00			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
181	D	89.52	-29.77	6.00	20.00	0.00	0.00	0.00			
182	D	108.71	-148.72	6.00	100.00	0.00	0.00	0.00			
183	D	88.46	-154.59	6.00	100.00	0.00	0.00	0.00			
184	A	-11.89	-188.15	6.00	176.00	0.00	0.00	0.00			
185	D	-192.90	4.51	6.00	108.00	0.00	0.00	0.00			
186	D	-101.41	6.42	6.00	108.00	0.00	0.00	0.00			
187	D	-185.63	4.51	6.00	83.00	0.00	0.00	0.00			
188	D	-94.18	6.10	6.00	67.00	0.00	0.00	0.00			

Horizontal Illuminance (lux)

Grid 1



Results

Eav	6.15
Emin	1.40
E _{max}	19.28
E _{min} /E _{max}	0.07
E _{min} /E _{av}	0.23

Horizontal Illuminance (lux)

Grid 2

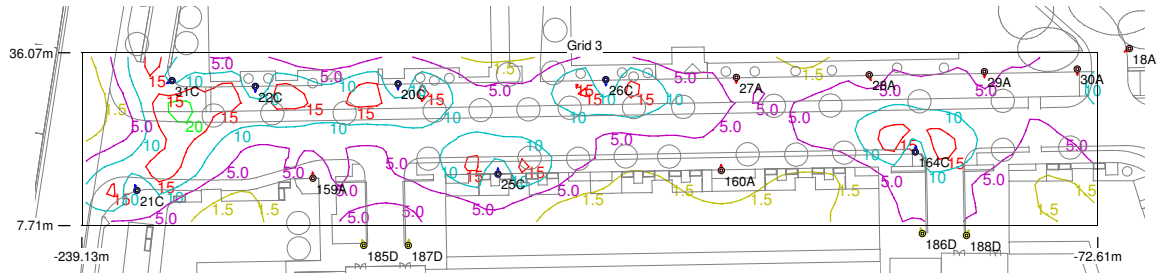


Results

Eav	6.84
Emin	1.78
Emax	21.71
Emin/Emax	0.08
Emin/Eav	0.26

Horizontal Illuminance (lux)

Grid 3

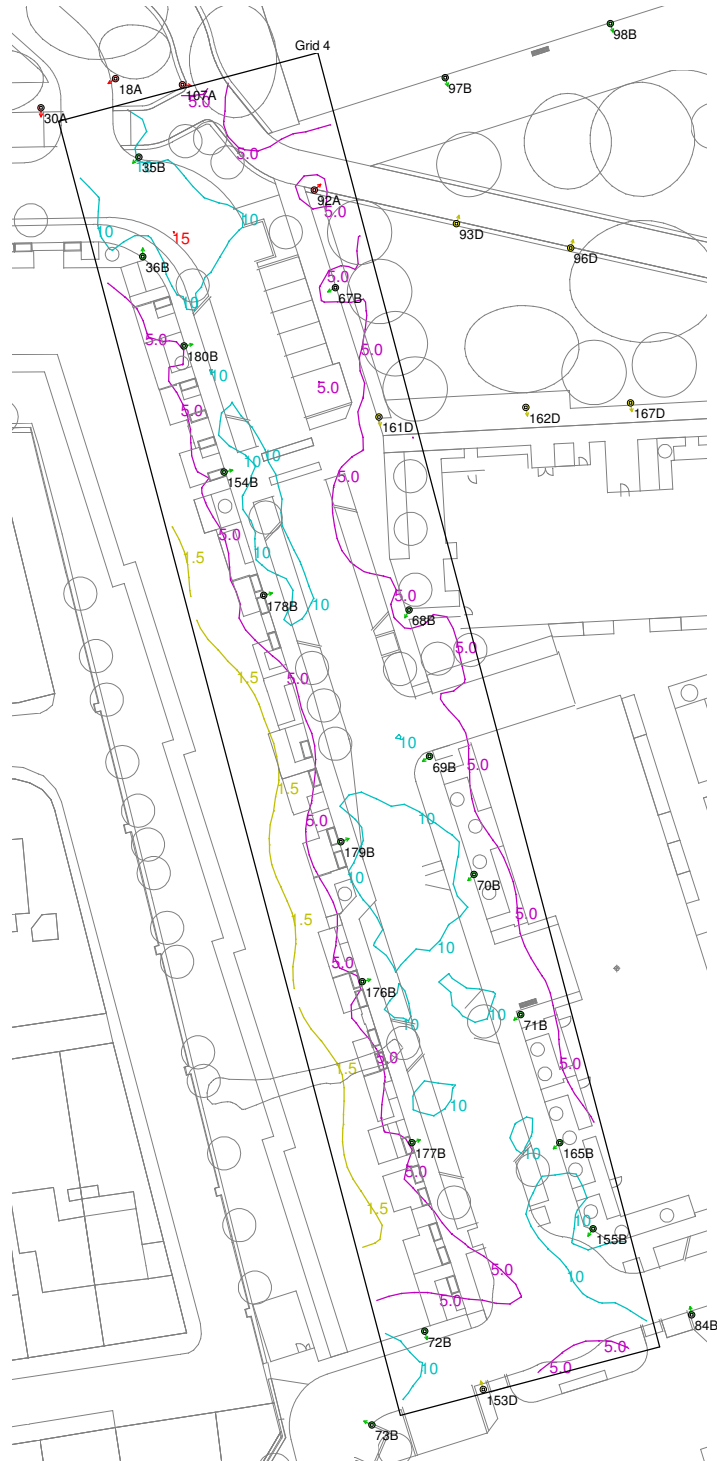


Results

Eav	8.23
Emin	1.71
Emax	21.43
Emin/Emax	0.08
Emin/Eav	0.21

Horizontal Illuminance (lux)

Grid 4

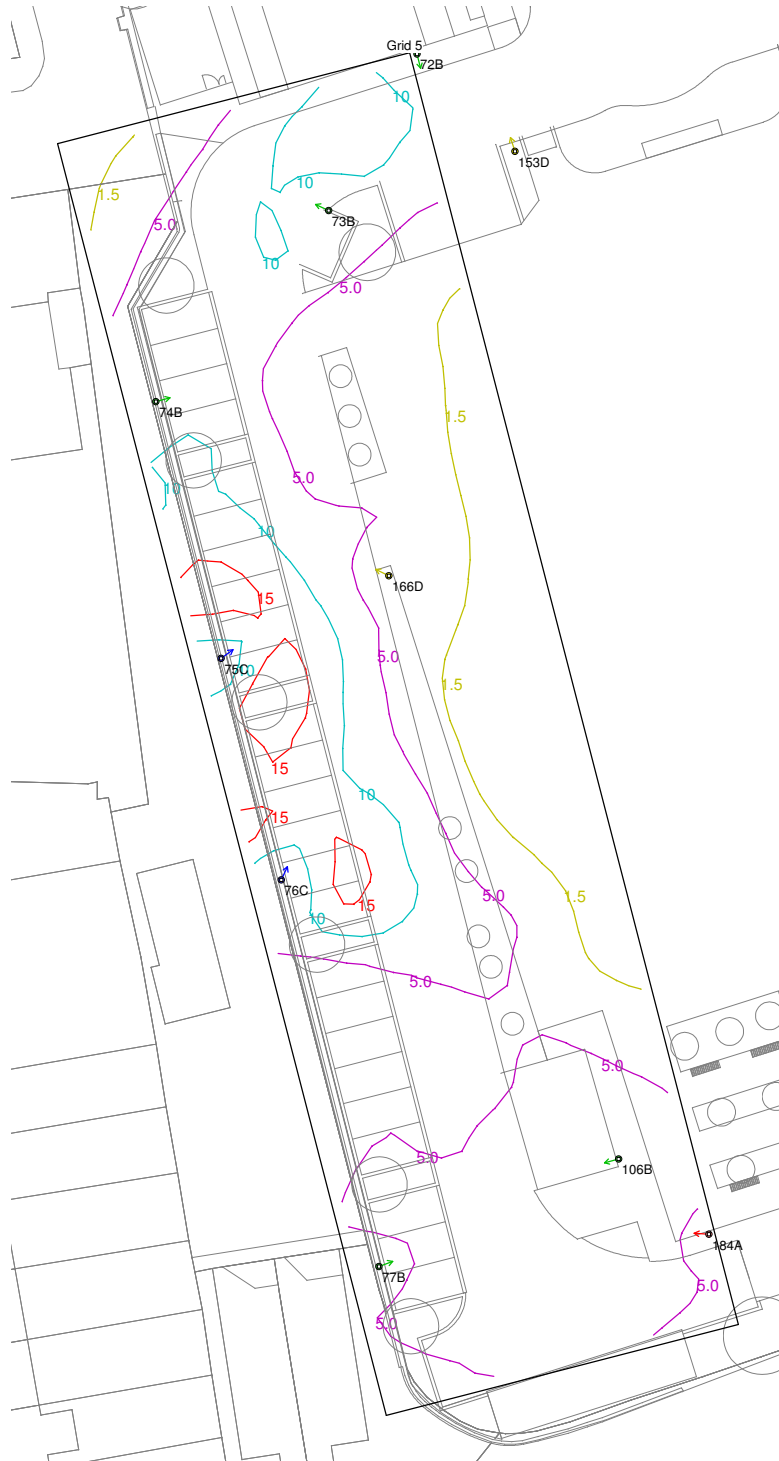


Results

Eav	8.68
Emin	3.31
Emax	15.02
Emin/Emax	0.22
Emin/Eav	0.38

Horizontal Illuminance (lux)

Grid 5

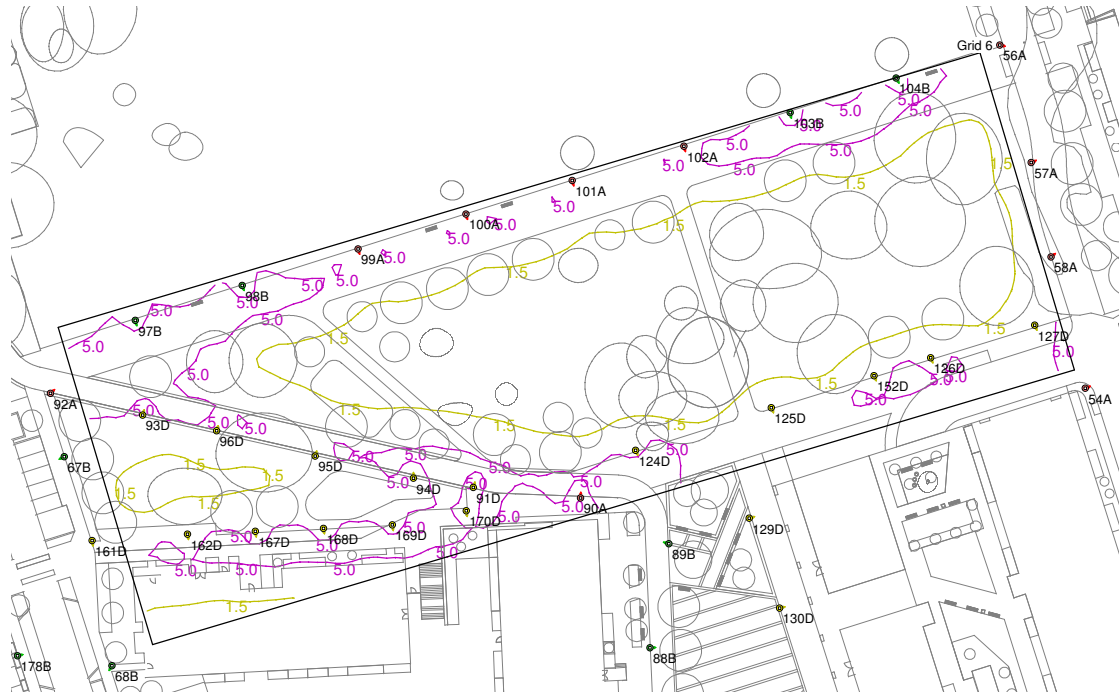


Results

Eav	7.17
Emin	2.30
Emax	18.27
Emin/Emax	0.13
Emin/Eav	0.32

Horizontal Illuminance (lux)

Grid 6

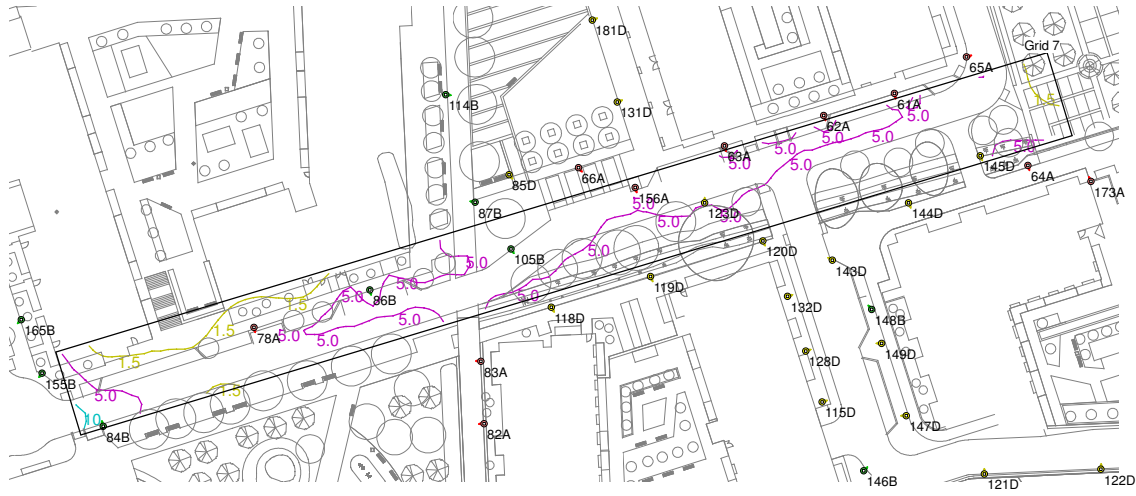


Results

Eav	5.10
Emin	2.43
E _{max}	8.77
E _{min} /E _{max}	0.28
E _{min} /E _{av}	0.48

Horizontal Illuminance (lux)

Grid 7

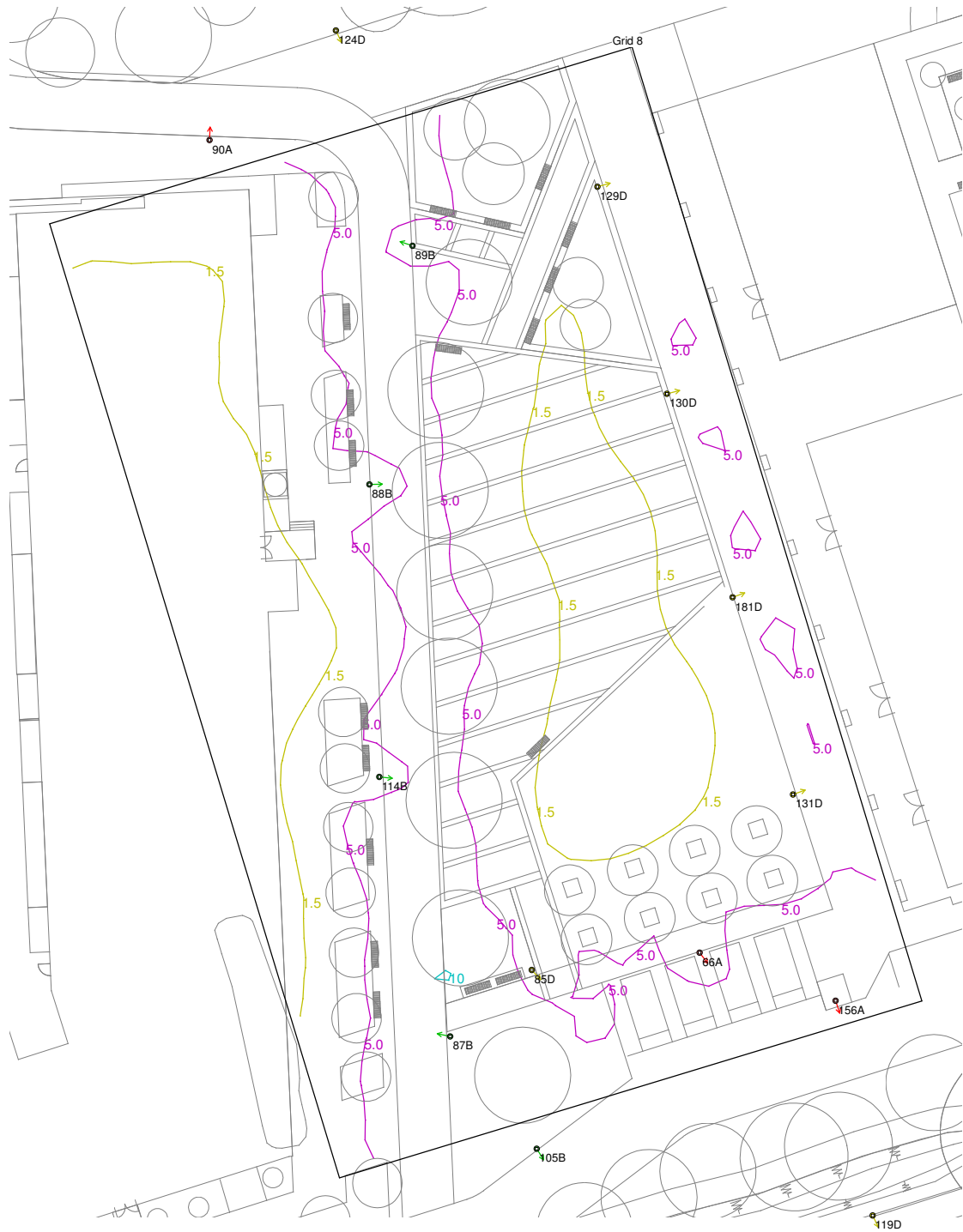


Results

Eav	5.17
Emin	1.61
Emax	11.25
Emin/Emax	0.14
Emin/Eav	0.31

Horizontal Illuminance (lux)

Grid 8



Results

Eav	5.19
Emin	2.31
Emax	10.23
Emin/Emax	0.23
Emin/Eav	0.45

Horizontal Illuminance (lux)

Grid 9

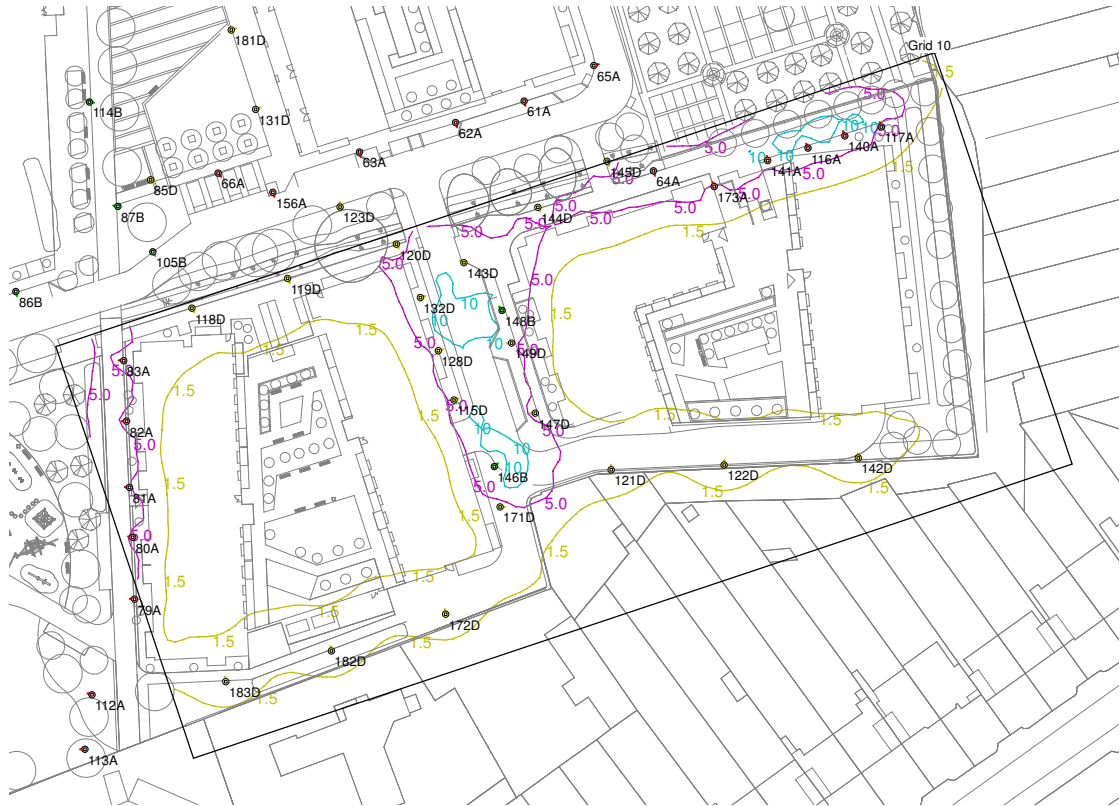


Results

Eav	6.62
Emin	1.53
Emax	19.12
Emin/Emax	0.08
Emin/Eav	0.23

Horizontal Illuminance (lux)

Grid 10



Results

Eav	6.00
Emin	1.81
Emax	13.05
Emin/Emax	0.14
Emin/Eav	0.30