

DATE: 5 July 2022
DESIGNER: Thomas McCormack / Ross Traynor
PROJECT No: 21039
PROJECT NAME: Tubber Lane 3



Designed in accordance with ISEN13201-2-2015 CLASS P4 & in accordance with South Dublin County Council Public Lighting Specification Rev 0 2016.

The following recommendations from ecological impact assessment 15th December 2021 have been implemented in this design :

- All luminaires are CU-Phosco LED type which will lack UV/IP elements
- LED's are directional with dimming capability and zero % upward light. Lights will be reduced to 75% output between 12am and 6am.
- Along the pedestrian access footpaths closest to the boundary the E950 fitting with 2700k colour temperature has been used.. 3000k used in the remaining areas.
- Baffles will be utilised where necessary and are outlined on drawing to restrict light spill into dwellings & surrounding vegetation

PUBLIC LIGHTING REPORT

PREPARED BY: McElligott Consulting Engineers

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	5922.39	1055.51	273.33	371.03	1.49	1.50
2	Grid 2	5594.06	757.38	336.90	303.08	1.50	1.49

Luminaires



Luminaire A Data

Supplier	
Type	E950-28-R3P-727-C250-8W
Lamp(s)	727N
Lamp Flux (klm)	0.93
File Name	E950-28-R3P-727-C0250-8W.ies
Maintenance Factor	0.84
Imax70,80,90(cd/klm)	900.6, 60.7, 0.3
No. in Project	30

Luminaire B Data

Supplier	C U Phosco
Type	P852-12-P4-WW-CA0750-29W
Lamp(s)	730C WW
Lamp Flux (klm)	3.32
File Name	P852-12-P4-WW-CA0750-29W.ies
Maintenance Factor	0.84
Imax70,80,90(cd/klm)	730.4, 161.4, 0.8
No. in Project	71



Luminaire C Data

Supplier	C U Phosco
Type	P852-12-R3B-WW-CA0200-9W
Lamp(s)	730C WW
Lamp Flux (klm)	1.04
File Name	P852-12-R3B-WW-CA0200-9W.ies
Maintenance Factor	0.84
Imax70,80,90(cd/klm)	876.7, 56.5, 1.7
No. in Project	17



Luminaire D Data

Supplier	C U Phosco
Type	P852-12-P4-WW-CA0900-34W
Lamp(s)	730C WW
Lamp Flux (klm)	3.84
File Name	P852-12-P4-WW-CA0900-34W.ies
Maintenance Factor	0.84
Imax70,80,90(cd/klm)	730.4, 161.4, 0.8
No. in Project	24



Luminaire E Data

Supplier	C U Phosco
Type	P852-12-R3B-WW-CA0350-15W
Lamp(s)	730C WW
Lamp Flux (klm)	1.74
File Name	P852-12-R3B-WW-CA0350-15W.ies
Maintenance Factor	0.84
Imax70,80,90(cd/klm)	876.7, 56.5, 1.7
No. in Project	6

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	D	5890.67	1237.43	6.00	108.00	0.00	0.00	0.40			
2	D	5897.67	1262.29	6.00	278.00	0.00	0.00	0.40			
3	D	5862.21	1250.03	6.00	297.00	0.00	0.00	0.40			
4	D	5861.59	1224.35	6.00	117.00	0.00	0.00	0.40			
5	D	5829.70	1235.06	6.00	305.00	0.00	0.00	0.40			
6	D	5832.24	1208.36	6.00	117.00	0.00	0.00	0.40			
7	D	5802.37	1221.40	6.00	301.00	0.00	0.00	0.40			
8	D	5805.91	1194.84	6.00	112.00	0.00	0.00	0.40			
9	D	5773.03	1206.29	6.00	300.00	0.00	0.00	0.40			
10	D	5777.10	1180.20	6.00	113.00	0.00	0.00	0.40			
11	D	5738.49	1188.87	6.00	295.00	0.00	0.00	0.40			
12	D	5746.92	1164.89	6.00	113.00	5.00	0.00	0.40			
13	D	5721.53	1204.22	6.00	205.00	0.00	0.00	0.40			
14	D	5710.16	1173.60	6.00	26.00	0.00	0.00	0.40			
15	B	5725.60	1144.22	6.00	20.00	0.00	0.00	0.40			
16	B	5750.92	1138.43	6.00	210.00	0.00	0.00	0.40			
17	D	5707.29	1226.51	6.00	212.00	0.00	0.00	0.40			
18	D	5693.51	1202.51	6.00	26.00	0.00	0.00	0.40			
19	D	5684.48	1250.83	6.00	223.00	0.00	0.00	0.40			
20	D	5672.36	1232.31	6.00	45.00	0.00	0.00	0.40			
21	D	5664.11	1271.76	6.00	227.00	0.00	0.00	0.40			
22	D	5643.96	1260.37	6.00	50.00	0.00	0.00	0.40			
23	D	5635.53	1295.76	6.00	235.00	0.00	0.00	0.40			
24	D	5611.04	1285.69	6.00	61.00	0.00	0.00	0.40			
25	D	5606.14	1313.25	6.00	240.00	0.00	0.00	0.40			
26	D	5585.09	1298.25	6.00	61.00	0.00	0.00	0.40			
27	B	5586.90	1277.54	6.00	129.00	0.00	0.00	0.40			
28	C	5605.64	1278.57	6.00	65.00	0.00	0.00	0.40			
29	C	5606.21	1220.15	6.00	132.00	0.00	0.00	0.40			
30	B	5704.11	1150.04	6.00	117.00	0.00	0.00	0.40			
31	B	5661.67	1151.43	6.00	295.00	5.00	0.00	0.40			
32	B	5691.93	1167.29	6.00	203.00	0.00	0.00	0.40			
33	B	5664.92	1132.61	6.00	115.00	5.00	0.00	0.40			
34	B	5678.87	1190.37	6.00	201.00	0.00	0.00	0.40			
35	B	5659.07	1217.25	6.00	223.00	0.00	0.00	0.40			
36	B	5646.31	1231.69	6.00	221.00	0.00	0.00	0.40			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
37	C	5627.63	1247.16	5.00	216.00	0.00	0.00	0.40			
38	C	5621.94	1234.70	6.00	135.00	5.00	0.00	0.40			
39	C	5620.98	1180.02	6.00	204.00	0.00	0.00	0.40			
40	C	5629.51	1161.22	6.00	204.00	0.00	0.00	0.40			
41	C	5652.86	1117.62	6.00	202.00	0.00	0.00	0.40			
42	C	5662.50	1096.56	6.00	205.00	0.00	0.00	0.40			
43	B	5691.64	1075.43	6.00	296.00	5.00	0.00	0.40			
44	C	5716.00	1076.68	6.00	115.00	5.00	0.00	0.40			
45	B	5738.53	1114.02	6.00	27.00	0.00	0.00	0.40			
46	B	5763.46	1109.89	6.00	204.00	0.00	0.00	0.40			
47	C	5726.33	1096.72	6.00	297.00	0.00	0.00	0.40			
48	B	5741.11	1082.16	6.00	117.00	0.00	0.00	0.40			
49	B	5756.55	1084.64	6.00	24.00	0.00	0.00	0.40			
50	B	5764.40	1055.28	6.00	24.00	0.00	0.00	0.40			
51	B	5794.38	1071.02	6.00	115.00	0.00	0.00	0.40			
52	B	5785.01	1088.08	6.00	296.00	0.00	0.00	0.40			
53	B	5788.38	1055.14	6.00	204.00	0.00	0.00	0.40			
54	B	5818.11	1087.49	6.00	115.00	0.00	0.00	0.40			
55	B	5855.74	1115.08	6.00	294.00	5.00	0.00	0.40			
56	B	5897.18	1095.48	6.00	20.00	5.00	0.00	0.40			
57	B	5890.09	1130.64	6.00	294.00	5.00	0.00	0.40			
58	B	5892.53	1153.74	6.00	24.00	5.00	0.00	0.40			
59	B	5877.25	1178.78	6.00	30.00	5.00	0.00	0.40			
60	B	5859.49	1180.45	6.00	115.00	5.00	0.00	0.40			
61	B	5843.47	1189.57	6.00	293.00	5.00	0.00	0.40			
62	B	5826.51	1165.47	6.00	115.00	5.00	0.00	0.40			
63	C	5867.13	1200.59	6.00	297.00	5.00	0.00	0.40			
64	B	5797.42	1167.98	6.00	299.00	5.00	0.00	0.40			
65	B	5780.11	1143.78	6.00	115.00	5.00	0.00	0.40			
66	C	5767.58	1157.78	6.00	297.00	5.00	0.00	0.40			
67	B	5908.91	1066.44	6.00	357.00	0.00	0.00	0.40			
68	A	5925.18	1073.07	6.00	269.00	0.00	0.00	0.40			
69	B	5887.45	1055.79	6.00	295.00	0.00	0.00	0.40			
70	B	5786.81	1007.82	6.00	25.00	0.00	0.00	0.40			
71	B	5801.28	1027.21	6.00	207.00	0.00	0.00	0.40			
72	B	5816.26	996.16	6.00	204.00	0.00	0.00	0.40			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
73	B	5800.76	977.00	6.00	32.00	0.00	0.00	0.40			
74	B	5754.75	1020.80	6.00	115.00	0.00	0.00	0.40			
75	B	5831.55	962.04	6.00	202.00	0.00	0.00	0.40			
76	B	5815.56	942.33	6.00	30.00	0.00	0.00	0.40			
77	B	5844.53	924.55	6.00	193.00	0.00	0.00	0.40			
78	B	5825.64	909.01	6.00	13.00	0.00	0.00	0.40			
79	B	5768.18	1042.87	6.00	297.00	0.00	0.00	0.40			
80	B	5726.79	1005.93	6.00	112.00	5.00	0.00	0.40			
81	B	5690.82	1035.26	6.00	207.00	0.00	0.00	0.40			
82	B	5710.48	983.01	6.00	204.00	0.00	0.00	0.40			
83	B	5681.27	1000.17	6.00	292.00	5.00	0.00	0.40			
84	B	5682.60	1017.80	6.00	25.00	0.00	0.00	0.40			
85	A	5670.49	1045.71	5.00	301.00	0.00	0.00	0.40			
86	A	5650.84	1020.72	5.00	319.00	0.00	0.00	0.40			
87	A	5647.76	988.36	5.00	16.00	0.00	0.00	0.40			
88	C	5610.04	1203.47	6.00	204.00	0.00	0.00	0.40			
89	B	5666.38	979.83	6.00	120.00	0.00	0.00	0.40			
90	E	5654.16	960.71	6.00	168.00	0.00	0.00	0.40			
91	B	5716.30	950.14	6.00	20.00	0.00	0.00	0.40			
92	B	5712.75	918.01	6.00	358.00	5.00	0.00	0.40			
93	B	5716.86	880.25	6.00	169.00	0.00	0.00	0.40			
94	B	5711.50	835.16	6.00	173.00	0.00	0.00	0.40			
95	B	5679.78	829.96	6.00	259.00	0.00	0.00	0.40			
96	B	5710.18	811.39	6.00	81.00	5.00	0.00	0.40			
97	B	5665.13	816.33	6.00	78.00	0.00	0.00	0.40			
98	E	5647.59	842.83	6.00	215.00	0.00	0.00	0.40			
99	E	5644.99	885.03	6.00	175.00	0.00	0.00	0.40			
100	E	5651.23	937.11	6.00	171.00	0.00	0.00	0.40			
101	B	5741.06	824.80	6.00	260.00	0.00	0.00	0.40			
102	B	5754.39	808.17	6.00	84.00	5.00	0.00	0.40			
103	A	5761.45	793.64	5.00	139.00	0.00	0.00	0.40			
104	A	5678.46	807.93	5.00	170.00	0.00	0.00	0.40			
105	B	5789.12	848.03	6.00	172.00	0.00	0.00	0.40			
106	B	5773.37	837.05	6.00	351.00	0.00	0.00	0.40			
107	B	5777.82	875.57	6.00	352.00	0.00	0.00	0.40			
108	B	5795.13	896.10	6.00	170.00	0.00	0.00	0.40			

Layout Continued

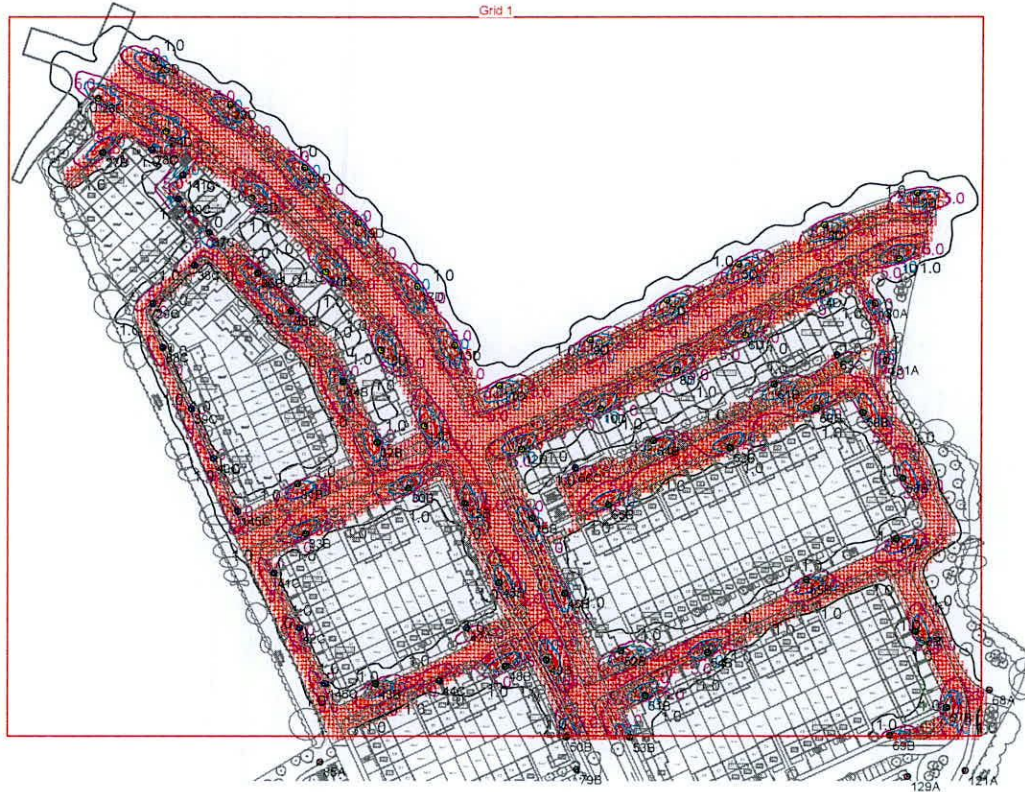
ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
109	B	5783.63	922.03	6.00	352.00	0.00	0.00	0.40			
110	A	5786.69	821.35	5.00	133.00	0.00	0.00	0.40			
111	B	5794.82	946.27	6.00	204.00	5.00	0.00	0.40			
112	B	5776.75	939.41	6.00	27.00	0.00	0.00	0.40			
113	A	5802.71	886.04	5.00	144.00	0.00	0.00	0.40			
114	B	5735.25	934.89	6.00	115.00	0.00	0.00	0.40			
115	A	5856.89	941.20	5.00	140.00	3.00	0.00	0.40			
116	A	5867.12	957.96	5.00	154.00	0.00	0.00	0.40			
117	A	5875.96	979.06	5.00	159.00	0.00	0.00	0.40			
118	A	5885.92	997.26	5.00	136.00	5.00	0.00	0.40			
119	A	5901.56	1016.73	5.00	150.00	5.00	0.00	0.40			
120	A	5882.87	1015.97	5.00	298.00	5.00	0.00	0.40			
121	A	5916.08	1042.47	5.00	154.00	5.00	0.00	0.40			
122	A	5856.76	966.27	5.00	202.00	5.00	0.00	0.40			
123	A	5860.00	1005.62	5.00	298.00	5.00	0.00	0.40			
124	A	5842.52	998.34	5.00	201.00	5.00	0.00	0.40			
125	A	5845.66	1010.16	5.00	203.00	5.00	0.00	0.40			
126	B	5875.71	1034.33	6.00	114.00	0.00	0.00	0.40			
127	B	5844.85	1036.58	6.00	289.00	0.00	0.00	0.40			
128	B	5834.31	1014.41	6.00	118.00	0.00	0.00	0.40			
129	A	5894.28	1040.27	5.00	25.00	5.00	0.00	0.40			
130	A	5881.65	1220.22	5.00	208.00	0.00	0.00	0.40			
131	A	5885.91	1198.64	5.00	173.00	0.00	0.00	0.40			
132	B	5758.02	955.33	6.00	297.00	0.00	0.00	0.40			
133	B	5787.08	968.88	5.00	298.00	0.00	0.00	0.40			
134	A	5810.07	900.78	5.00	285.00	0.00	0.00	0.40			
135	A	5809.94	849.03	5.00	171.00	0.00	0.00	0.40			
136	A	5815.69	870.85	5.00	155.00	0.00	0.00	0.40			
137	A	5827.08	888.37	5.00	165.00	0.00	0.00	0.40			
138	A	5664.14	1020.75	5.00	200.00	0.00	0.00	0.40			
139	A	5657.16	1005.97	5.00	117.00	0.00	0.00	0.40			
140	C	5615.63	1259.86	5.00	221.00	0.00	0.00	0.40			
141	C	5617.48	1269.05	5.00	134.00	0.00	0.00	0.40			
142	A	5848.75	983.09	5.00	198.00	0.00	0.00	0.40			
143	B	5820.27	1024.89	6.00	298.00	0.00	0.00	0.40			
144	A	5803.16	836.16	5.00	138.00	0.00	0.00	0.40			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
145	C	5638.79	1141.18	6.00	204.00	0.00	0.00	0.40			
146	C	5672.20	1075.49	6.00	204.00	0.00	0.00	0.40			
147	E	5648.24	911.07	6.00	169.00	0.00	0.00	0.40			
148	E	5643.05	867.61	6.00	171.00	0.00	0.00	0.40			

Horizontal Illuminance (lux)

Grid 1

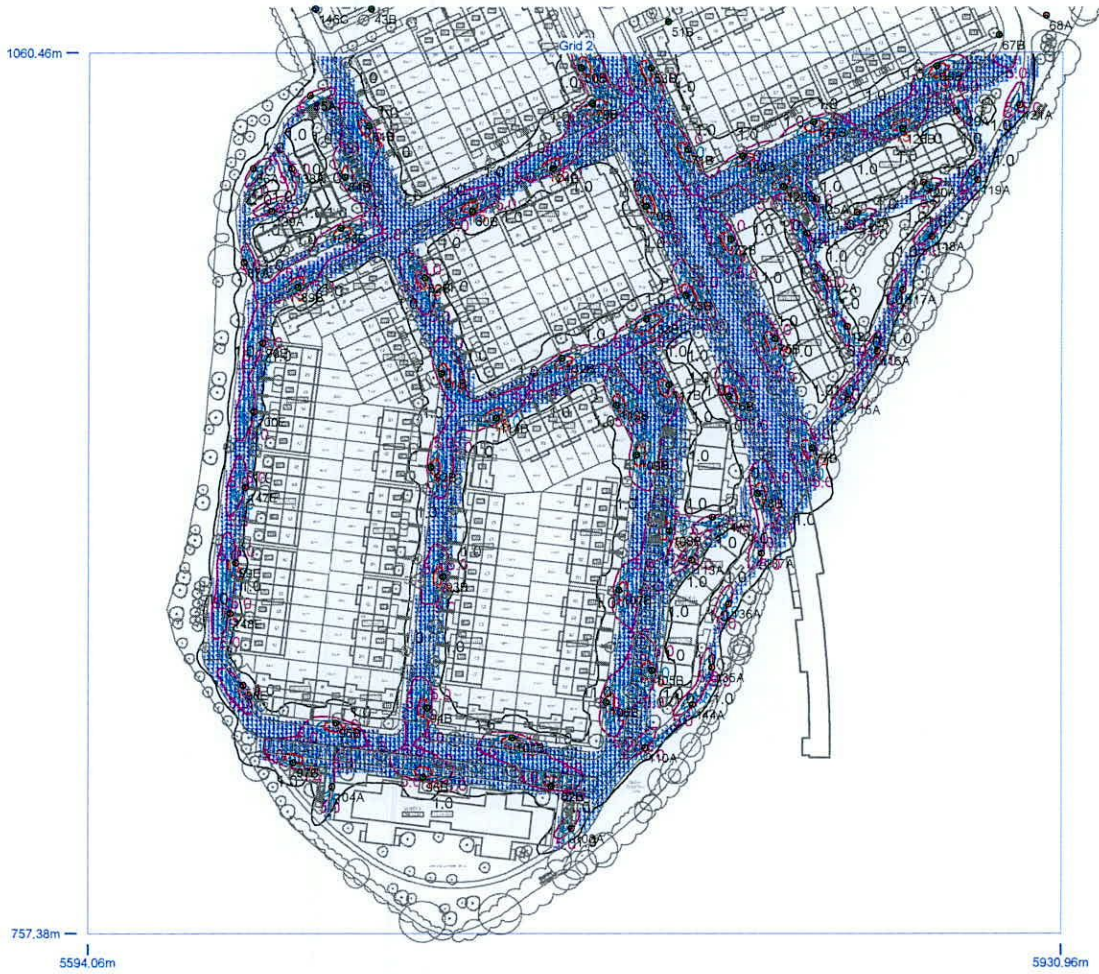


Results

Eav	5.88
Emin	1.05
Emax	25.69
Emin/Emax	0.04
Emin/Eav	0.18

Horizontal Illuminance (lux)

Grid 2



Results

Eav	6.02
Emin	1.07
Emax	30.61
Emin/Emax	0.03
Emin/Eav	0.18