

DATE: 13 April 2022
DESIGNER: Alex Naper
PROJECT No: SES 14620 Rev E
PROJECT NAME: Broomfield - Birchwell Developments



Residential areas designed to EN13201-2:2015 Category P4.

Rev A: Updated Site Layout
Rev B: Updated site boundary line
Rev C: Updated site layout
Rev D: Updated site layout.
Rev E : Updated as per comments.

Outdoor Lighting Report

PREPARED BY: Sabre Electrical Services Ltd.
Unit 11,
Bellview Industrial Estate,
Tolka Valley Road,
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	722228.71	744814.80	301.00	271.00	1.50	1.50
2	Grid 2	722181.50	744541.20	372.39	271.00	1.50	1.50
3	Grid 3	721932.96	744028.83	199.39	326.29	1.50	1.50

Luminaires



Luminaire A Data

Supplier	C U Phosco
Type	P852-12-P4-NW-CB0550-21W
Lamp(s)	740C NW
Lamp Flux (klm)	2.72
File Name	P852-12-P4-NW-CB0550-21W.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	760.6, 161.3, 0.8
No. in Project	78



Luminaire B Data

Supplier	C U Phosco
Type	P852-12-P4-NW-CB0200-9W
Lamp(s)	740C NW
Lamp Flux (klm)	1.09
File Name	P852-12-P4-NW-CB0200-9W.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	760.6, 161.3, 0.8
No. in Project	28



Luminaire C Data

Supplier	C U Phosco
Type	P852-12-C1-NW-D0450-18W
Lamp(s)	740P NW
Lamp Flux (klm)	2.09
File Name	P852-12-C1-NW-D0450-18W.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	477.7, 52.2, 0.0
No. in Project	5



Luminaire D Data

Supplier	C U Phosco
Type	P852-6-R3B-NW-D0350-8W
Lamp(s)	740P NW
Lamp Flux (klm)	0.83
File Name	P852-6-R3B-NW-D0350-8W.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	941.4, 25.5, 0.0
No. in Project	2



Luminaire E Data

Supplier	C U Phosco
Type	P852-12-F2-NW-CB0450-18W
Lamp(s)	740C NW
Lamp Flux (klm)	2.24
File Name	P852-12-F2-NW-CB0450-18W.ies
Maintenance Factor	0.83
Imax70,80,90(cd/klm)	761.9, 260.5, 34.9
No. in Project	10

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	C	722363.87	744946.44	6.00	339.00	5.00	0.00	0.40			
2	C	722372.51	744958.42	6.00	252.00	5.00	0.00	0.40			
3	C	722340.87	744960.01	6.00	70.00	5.00	0.00	0.40			
4	A	722351.28	744979.45	6.00	352.00	5.00	0.00	0.40			
5	A	722356.20	745010.05	6.00	345.00	5.00	0.00	0.40			
6	A	722381.24	745006.23	6.00	254.00	5.00	0.00	0.40			
7	A	722380.72	744990.87	6.00	80.00	5.00	0.00	0.40			
8	A	722416.36	744997.49	6.00	259.00	5.00	0.00	0.40			
9	A	722413.67	744982.59	6.00	78.00	5.00	0.00	0.40			
10	A	722359.45	745041.07	6.00	352.00	5.00	0.00	0.40			
11	A	722371.46	745069.37	6.00	346.00	5.00	0.00	0.40			
12	A	722379.16	745094.84	6.00	256.00	5.00	0.00	0.40			
13	A	722430.27	745023.16	6.00	339.00	5.00	0.00	0.40			
14	A	722440.18	745003.10	6.00	167.00	5.00	0.00	0.40			
15	A	722449.17	745039.14	6.00	171.00	5.00	0.00	0.40			
16	A	722440.61	745065.26	6.00	339.00	5.00	0.00	0.40			
17	A	722402.00	744957.54	6.00	298.00	5.00	0.00	0.40			
18	A	722459.99	744966.33	6.00	279.00	5.00	0.00	0.40			
19	A	722432.11	744963.95	6.00	314.00	5.00	0.00	0.40			
20	A	722411.78	744930.36	6.00	185.00	5.00	0.00	0.40			
21	A	722414.98	744895.99	6.00	177.00	5.00	0.00	0.40			
22	A	722420.61	744876.79	6.00	93.00	5.00	0.00	0.40			
24	A	722410.67	744857.24	6.00	188.00	5.00	0.00	0.40			
25	A	722399.33	744827.74	6.00	5.00	5.00	0.00	0.40			
26	A	722390.38	744849.01	6.00	91.00	5.00	0.00	0.40			
27	A	722358.72	744849.01	6.00	89.00	5.00	0.00	0.40			
29	A	722296.51	744856.74	6.00	273.00	5.00	0.00	0.40			
30	A	722266.57	744856.63	6.00	308.00	5.00	0.00	0.40			
31	D	722261.71	744863.49	5.00	191.00	0.00	0.00	0.40			
32	D	722247.80	744876.63	5.00	45.00	0.00	0.00	0.40			
33	A	722326.72	744851.67	6.00	97.00	5.00	0.00	0.40			
36	B	722412.87	745081.87	5.00	76.00	0.00	0.00	0.40			
37	B	722436.96	745075.93	5.00	76.00	0.00	0.00	0.40			
38	B	722485.30	744865.28	5.00	4.00	0.00	0.00	0.40			
39	B	722483.94	744890.59	5.00	204.00	0.00	0.00	0.40			
40	B	722479.33	744915.09	5.00	6.00	0.00	0.00	0.40			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
41	B	722476.81	744940.94	5.00	7.00	0.00	0.00	0.40			
42	B	722468.19	744973.78	5.00	3.00	0.00	0.00	0.40			
43	B	722462.59	745002.26	5.00	2.00	0.00	0.00	0.40			
44	B	722457.19	745029.85	5.00	0.00	0.00	0.00	0.40			
45	B	722452.64	745056.57	5.00	10.00	0.00	0.00	0.40			
46	B	722261.92	744828.32	5.00	182.00	0.00	0.00	0.40			
47	A	722471.92	744884.42	6.00	108.00	5.00	0.00	0.40			
48	C	722220.04	744765.14	6.00	82.00	5.00	0.00	0.40			
49	A	722251.62	744768.70	6.00	100.00	5.00	0.00	0.40			
50	A	722262.76	744757.91	6.00	10.00	5.00	0.00	0.40			
51	A	722278.91	744772.89	6.00	103.00	5.00	0.00	0.40			
52	A	722316.34	744776.76	6.00	92.00	5.00	0.00	0.40			
53	A	722351.18	744771.60	6.00	72.00	5.00	0.00	0.40			
54	A	722385.41	744769.73	6.00	96.00	5.00	0.00	0.40			
55	A	722421.21	744777.55	6.00	186.00	5.00	0.00	0.40			
56	A	722424.61	744753.21	6.00	193.00	5.00	0.00	0.40			
57	A	722411.43	744701.77	6.00	9.00	5.00	0.00	0.40			
58	A	722416.53	744721.74	6.00	173.00	5.00	0.00	0.40			
59	A	722432.76	744686.72	6.00	225.00	5.00	0.00	0.40			
60	A	722458.09	744670.06	6.00	99.00	5.00	0.00	0.40			
64	A	722489.34	744674.74	6.00	94.00	5.00	0.00	0.40			
65	A	722514.11	744646.56	6.00	7.00	5.00	0.00	0.40			
66	A	722517.40	744672.04	6.00	187.00	5.00	0.00	0.40			
67	E	722520.64	744620.46	6.00	104.00	5.00	0.00	0.40			
68	E	722445.47	744639.94	6.00	90.00	5.00	0.00	0.40			
69	A	722447.23	744659.20	6.00	192.00	5.00	0.00	0.40			
70	A	722396.15	744689.73	6.00	94.00	5.00	0.00	0.40			
71	A	722360.83	744685.12	6.00	0.00	5.00	0.00	0.40			
72	E	722364.97	744654.51	6.00	86.00	5.00	0.00	0.40			
73	A	722372.54	744698.50	6.00	256.00	5.00	0.00	0.40			
74	A	722330.86	744708.82	6.00	256.00	5.00	0.00	0.40			
75	A	722298.85	744702.81	6.00	101.00	5.00	0.00	0.40			
76	A	722268.15	744699.13	6.00	88.00	5.00	0.00	0.40			
77	A	722253.13	744691.83	6.00	152.00	5.00	0.00	0.40			
78	A	722234.58	744668.60	6.00	114.00	5.00	0.00	0.40			
79	A	722198.14	744664.48	6.00	83.00	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	722166.31	744673.96	6.00	49.00	5.00	0.00	0.40			
81	A	722267.65	744725.20	6.00	2.00	5.00	0.00	0.40			
82	A	722333.85	744798.80	6.00	354.00	5.00	0.00	0.40			
83	A	722329.46	744831.97	6.00	4.00	5.00	0.00	0.40			
77	A	722403.66	744797.38	6.00	4.00	5.00	0.00	0.40			
78	B	722471.37	744632.68	5.00	259.00	0.00	0.00	0.40			
86	B	722488.73	744840.27	5.00	359.00	0.00	0.00	0.40			
87	B	722440.71	744809.31	5.00	281.00	0.00	0.00	0.40			
88	B	722472.04	744813.70	5.00	275.00	0.00	0.00	0.40			
82	B	722496.93	744624.89	5.00	266.00	0.00	0.00	0.40			
90	B	722493.31	744814.41	5.00	5.00	0.00	0.00	0.40			
91	B	722498.26	744786.91	5.00	5.00	0.00	0.00	0.40			
92	B	722503.34	744732.65	5.00	5.00	0.00	0.00	0.40			
93	B	722508.01	744705.36	5.00	10.00	0.00	0.00	0.40			
94	A	722417.66	744808.50	6.00	184.00	5.00	0.00	0.40			
95	E	722502.90	744757.30	6.00	182.00	5.00	0.00	0.40			
97	E	722462.57	744758.40	6.00	279.00	5.00	0.00	0.40			
98	E	722437.31	744754.50	6.00	280.00	5.00	0.00	0.40			
99	B	722245.23	744725.08	5.00	7.00	0.00	0.00	0.40			
100	B	722247.40	744749.06	5.00	0.00	0.00	0.00	0.40			
101	B	722263.69	744804.16	5.00	177.00	0.00	0.00	0.40			
102	B	722263.33	744782.95	5.00	201.00	0.00	0.00	0.40			
103	C	722096.00	744305.60	6.00	332.00	5.00	0.00	0.40			
104	A	722072.70	744277.62	6.00	179.00	5.00	0.00	0.40			
105	A	722091.58	744290.56	6.00	101.00	5.00	0.00	0.40			
106	E	722092.21	744267.52	6.00	263.00	5.00	0.00	0.40			
107	A	722062.05	744261.85	6.00	351.00	5.00	0.00	0.40			
108	A	722068.49	744222.51	6.00	171.00	5.00	0.00	0.40			
109	A	722051.00	744204.73	6.00	348.00	5.00	0.00	0.40			
113	A	722058.72	744181.92	6.00	175.00	5.00	0.00	0.40			
114	A	722023.88	744189.75	6.00	262.00	5.00	0.00	0.40			
116	A	722045.48	744279.90	6.00	86.00	5.00	0.00	0.40			
117	A	722008.54	744282.70	6.00	87.00	5.00	0.00	0.40			
118	A	721991.86	744277.24	6.00	359.00	5.00	0.00	0.40			
119	A	721990.13	744250.11	6.00	358.00	5.00	0.00	0.40			
120	A	721998.32	744222.77	6.00	191.00	5.00	0.00	0.40			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
121	A	721989.15	744187.10	6.00	357.00	5.00	0.00	0.40			
122	A	721993.87	744151.22	6.00	172.00	5.00	0.00	0.40			
123	A	721991.39	744117.40	6.00	175.00	5.00	0.00	0.40			
124	A	722008.27	744098.82	6.00	268.00	5.00	0.00	0.40			
125	A	722045.64	744095.98	6.00	267.00	5.00	0.00	0.40			
126	E	722085.06	744099.20	6.00	84.00	5.00	0.00	0.40			
127	A	722062.54	744116.53	6.00	182.00	5.00	0.00	0.40			
129	A	722064.16	744153.19	6.00	199.00	5.00	0.00	0.40			
130	B	721977.59	744103.69	5.00	268.00	0.00	0.00	0.40			
131	B	721984.59	744282.32	5.00	104.00	0.00	0.00	0.40			
133	A	722445.15	744894.85	6.00	283.00	5.00	0.00	0.40			
120	B	722421.22	744645.10	5.00	264.00	0.00	0.00	0.40			
121	B	722392.30	744650.32	5.00	255.00	0.00	0.00	0.40			
122	E	722479.65	744761.12	6.00	283.00	5.00	0.00	0.40			
123	E	722068.22	744100.24	6.00	90.00	5.00	0.00	0.40			

Horizontal Illuminance (lux)

Grid 1



Results

Eav	5.54
Emin	1.09
E _{max}	17.58
E _{min} /E _{max}	0.06
E _{min} /E _{av}	0.20

Horizontal Illuminance (lux)

Grid 2

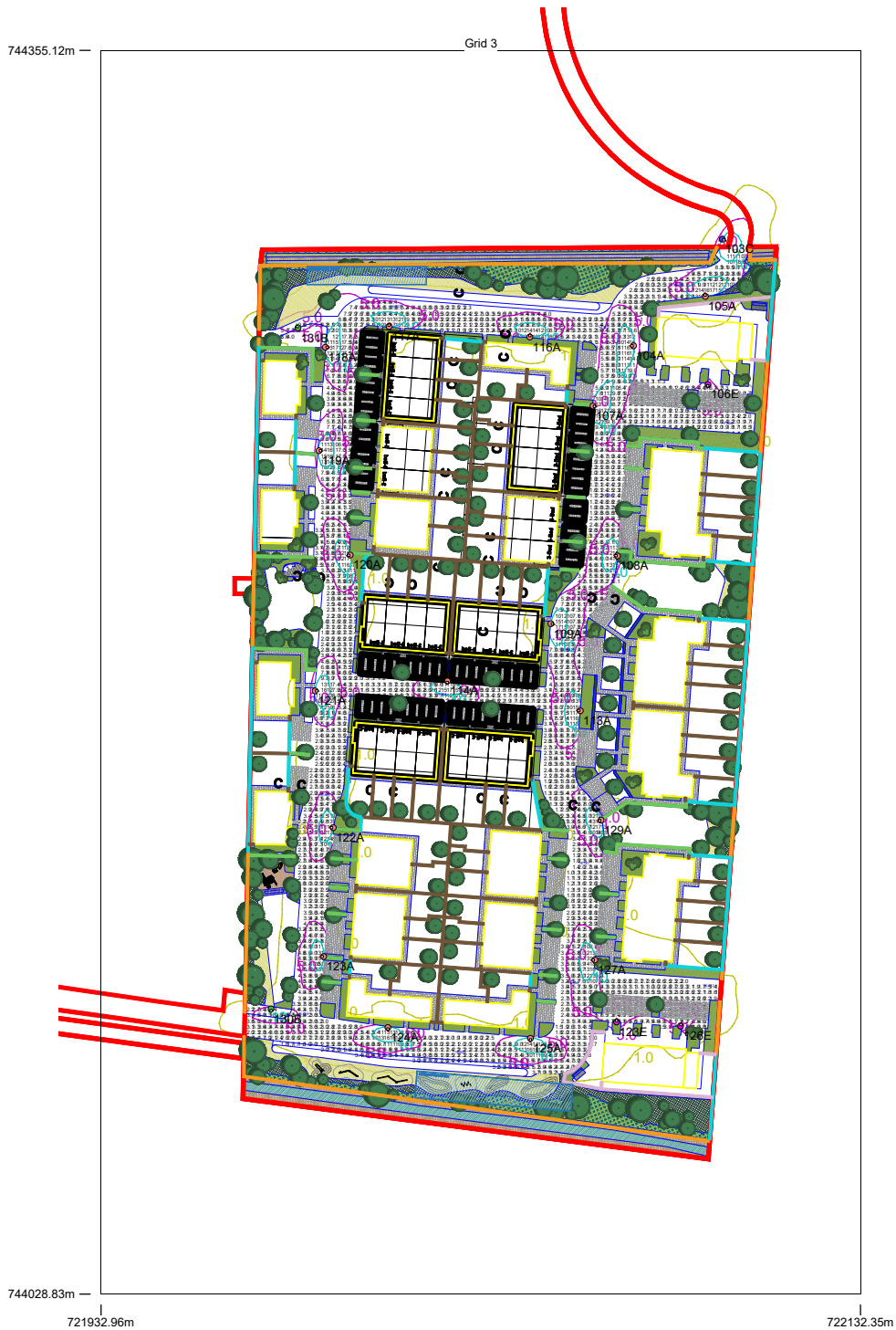


Results

Eav	5.20
Emin	1.06
Emax	18.19
Emin/Emax	0.06
Emin/Eav	0.20

Horizontal Illuminance (lux)

Grid 3



Results

Eav	5.29
Emin	1.04
Emax	17.96
Emin/Emax	0.06
Emin/Eav	0.20