

DATE: 23 September 2019
DESIGNER: Declan Doyle
PROJECT No: KE/RE/CCK/01 rev 4
PROJECT NAME: Capdoo & Abbeylands Clane Co. Kildare



Lighting to class P3
Entrance (conflict zone) to class C4

Dimming to 2A regime, S/P Ratio 1.47

A) CREE XSPME B type 2SH DY1, 3.32klm, 21w CLO
B) CREE XSPME B type 4ME DY1, 3.32klm, 21w CLO
C) CREE XSPME B type 3SH DY3, 4.67klm, 31w CLO

C/W 7 pin NEMA socket for photocell & field adjuster (DQ-N/Y-N)
mounted on 6m columns

Outdoor Lighting Report

PREPARED BY: Astrotek lighting Ltd.,
M50 Business park,
Ballymount,
Dublin 12.

Tel: 01 4568009
Email: declan.doyle@rexel.ie
Web: www.astrotek.ie

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	Estate North	428.59	772.26	391.89	252.87	1.57	1.50
2	Estate South	417.96	569.94	373.72	202.32	1.49	1.50
3	Estate Entrance - conflict...	406.89	842.04	21.74	36.86	1.45	1.47

Luminaires

Luminaire A Data

Supplier	
Type	XSPME - B - Type 2SH - DY1 4K
Lamp(s)	3MD-SA1400 M DY1 4K
LampFlux(klm)/Colour	3.32 4000/70
File Name	XSPME022SHB40K_24DY1-PL12371-011A.LDT
Maintenance Factor	0.76
Imax70,80,90(cd/klm)	389.0, 13.6, 0.0
Lamp S/P Ratio	1.47
No. in Project	23

Luminaire B Data

Supplier	
Type	XSPME - B - Type 4ME - DY1 4K
Lamp(s)	3MD-SA1400 M DY1 4K
LampFlux(klm)/Colour	3.32 4000/70
File Name	XSPME024MEB40K_24DY1-PL12371-014A.LDT
Maintenance Factor	0.76
Imax70,80,90(cd/klm)	370.1, 147.1, 0.0
Lamp S/P Ratio	1.47
No. in Project	32

Luminaire C Data

Supplier	
Type	XSPME - B - Type 3SH - DY3 4K
Lamp(s)	3MD-SA1400 M DY3 4K
LampFlux(klm)/Colour	4.67 4000/70
File Name	XSPME023SHB40K_24DY3-PL12371-012A.LDT
Maintenance Factor	0.76
Imax70,80,90(cd/klm)	334.5, 193.4, 0.0
Lamp S/P Ratio	1.47
No. in Project	47

Layout

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
1	C	637.46	890.06	6.00	159.00	5.00	0.00	0.00			
2	C	601.39	820.85	6.00	338.00	6.00	0.00	0.00			
3	C	606.12	786.01	6.00	50.00	5.00	0.00	0.00			
4	A	540.75	901.49	6.00	241.00	5.00	0.00	0.00			
5	A	555.14	877.94	6.00	153.00	5.00	0.00	0.00			
6	A	537.09	873.39	6.00	65.00	0.00	0.00	0.00			
7	A	543.36	849.64	6.00	157.00	5.00	0.00	0.00			
8	C	529.29	832.38	6.00	65.00	6.00	0.00	0.00			

Layout Continued

ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
9	C	556.23	818.01	6.00	64.00	5.00	0.00	0.00			
10	C	583.31	804.09	6.00	63.00	5.00	0.00	0.00			
11	C	502.03	845.84	6.00	60.00	5.00	0.00	0.00			
12	B	483.97	879.05	6.00	305.00	5.00	0.00	1.50			
13	B	449.93	910.81	6.00	326.00	5.00	0.00	0.00			
14	A	624.88	762.60	6.00	317.00	5.00	0.00	0.00			
15	B	502.46	892.10	6.00	315.00	5.00	0.00	1.50			
16	C	488.21	859.59	6.00	36.00	0.00	0.00	0.00			
17	B	469.16	872.59	6.00	280.00	5.00	0.00	1.50			
18	B	449.36	870.65	6.00	275.00	5.00	0.00	1.50			
19	B	524.42	928.96	6.00	341.00	5.00	0.00	1.50			
20	B	479.41	927.36	6.00	231.00	5.00	0.00	0.00			
21	A	521.33	978.25	6.00	240.00	5.00	0.00	0.00			
22	A	478.49	942.46	6.00	324.00	0.00	0.00	0.00			
23	A	495.88	964.73	6.00	320.00	0.00	0.00	0.00			
24	A	483.67	904.38	6.00	39.00	0.00	0.00	0.00			
25	A	491.84	890.32	6.00	128.00	0.00	0.00	0.00			
26	B	535.18	949.82	6.00	333.00	5.00	0.00	1.50			
27	C	638.11	775.19	6.00	236.00	5.00	0.00	0.00			
28	C	708.22	767.54	6.00	346.00	5.00	0.00	0.00			
29	C	691.29	730.22	6.00	347.00	5.00	0.00	0.00			
30	B	548.15	975.06	8.00	340.00	5.00	0.00	1.50			
31	B	558.00	998.30	8.00	338.00	5.00	0.00	1.50			
32	C	571.87	969.32	6.00	248.00	5.00	0.00	0.00			
33	C	631.06	930.13	6.00	71.00	5.00	0.00	0.00			
34	C	593.37	960.17	6.00	246.00	5.00	0.00	0.00			
35	B	669.85	914.77	6.00	63.00	5.00	0.00	1.00			
36	A	722.20	910.58	6.00	154.00	5.00	0.00	0.00			
37	C	638.33	911.05	6.00	335.00	6.00	0.00	0.00			
38	A	584.21	935.58	6.00	335.00	5.00	0.00	0.00			
39	A	581.19	914.70	6.00	37.00	5.00	0.00	0.00			
40	A	607.65	900.84	6.00	66.00	5.00	0.00	0.00			
41	A	626.29	735.83	6.00	174.00	5.00	0.00	0.00			
42	A	574.65	623.15	6.00	36.00	5.00	0.00	0.00			
43	B	564.84	634.48	6.00	39.00	5.00	0.00	0.00			
44	B	597.98	678.01	6.00	329.00	5.00	0.00	0.00			

Layout Continued

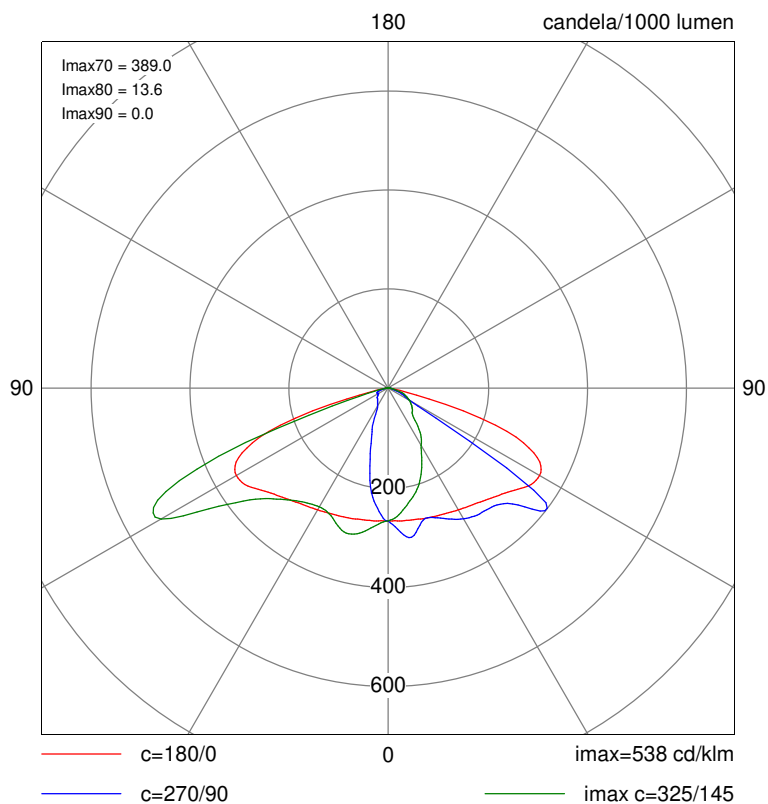
ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
45	B	598.20	618.53	6.00	85.00	5.00	0.00	0.00			
46	B	591.00	648.61	6.00	355.00	5.00	0.00	0.00			
47	B	609.74	657.42	6.00	175.00	5.00	0.00	0.00			
48	A	625.55	704.82	6.00	166.00	5.00	0.00	0.00			
49	C	696.53	664.82	6.00	164.00	5.00	0.00	0.00			
50	C	685.73	689.98	6.00	355.00	5.00	0.00	0.00			
51	C	700.68	684.35	6.00	180.00	5.00	0.00	0.00			
52	C	684.75	630.37	6.00	158.00	5.00	0.00	0.00			
53	B	625.76	629.91	6.00	264.00	5.00	0.00	0.00			
54	B	610.03	631.36	6.00	268.00	5.00	0.00	0.00			
55	B	648.35	627.83	6.00	262.00	5.00	0.00	0.00			
56	C	686.15	758.03	6.00	253.00	5.00	0.00	0.00			
57	C	701.17	702.70	6.00	155.00	5.00	0.00	1.00			
58	C	612.35	849.41	6.00	343.00	5.00	0.00	0.00			
59	C	623.79	874.55	6.00	332.00	5.00	0.00	0.00			
60	B	703.78	889.54	6.00	52.00	5.00	0.00	0.00			
61	B	471.76	909.67	6.00	149.00	5.00	0.00	0.00			
62	C	690.76	851.72	6.00	345.00	5.00	0.00	0.00			
63	B	617.48	675.08	6.00	146.00	5.00	0.00	0.00			
64	C	608.73	939.82	6.00	68.00	0.00	0.00	0.00			
65	B	426.55	867.40	6.00	247.00	5.00	0.00	1.50			
66	C	679.25	823.39	6.00	339.00	5.00	0.00	0.00			
67	C	661.65	768.61	6.00	299.00	5.00	0.00	0.00			
68	A	537.77	961.70	6.00	149.00	0.00	0.00	0.00			
69	C	680.45	655.99	6.00	332.00	5.00	0.00	0.00			
70	A	515.84	960.43	6.00	60.00	0.00	0.00	0.00			
71	B	516.34	909.43	6.00	329.00	5.00	0.00	1.50			
72	B	734.11	932.16	6.00	242.00	5.00	0.00	0.00			
73	C	657.01	931.59	6.00	245.00	5.00	0.00	0.00			
74	B	687.05	903.99	6.00	51.00	5.00	0.00	1.00			
75	C	712.77	874.69	6.00	150.00	5.00	0.00	0.00			
76	B	734.34	878.82	6.00	225.00	5.00	0.00	0.00			
77	C	667.92	795.30	6.00	346.00	5.00	0.00	0.00			
78	B	752.58	863.53	6.00	231.00	5.00	0.00	0.00			
79	C	668.73	634.17	6.00	342.00	5.00	0.00	0.00			
80	B	717.52	893.28	6.00	223.00	5.00	0.00	0.00			

Layout Continued

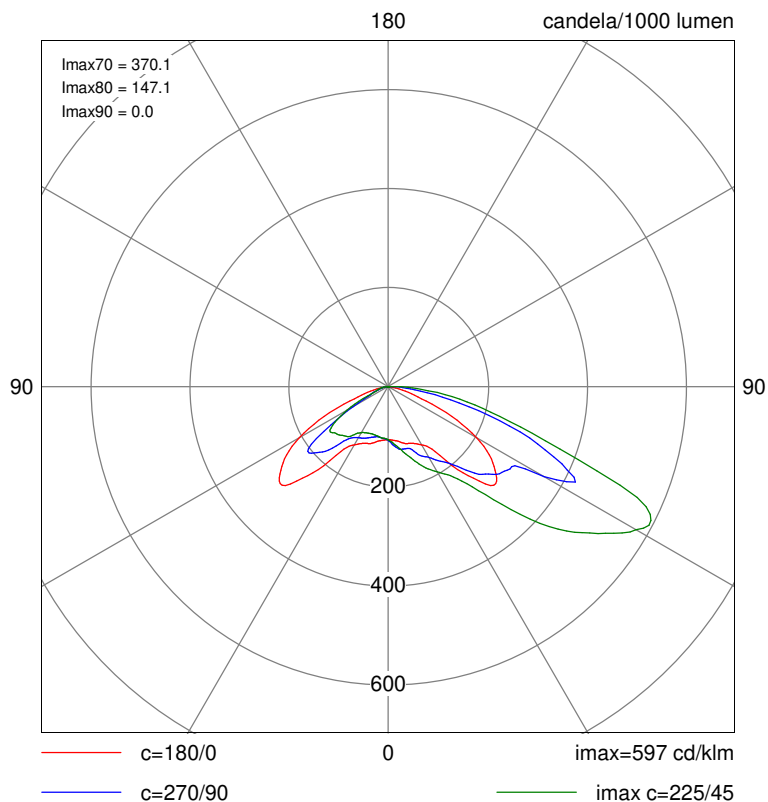
ID	Type	X	Y	Height	Angle	Tilt	Cant	Out-reach	Target X	Target Y	Target Z
81	B	759.42	890.80	6.00	236.00	5.00	0.00	1.00			
82	C	773.84	869.55	6.00	316.00	5.00	0.00	0.00			
83	C	794.47	888.92	6.00	311.00	5.00	0.00	0.00			
84	C	813.75	886.46	6.00	137.00	5.00	0.00	0.00			
85	C	795.41	869.49	6.00	135.00	5.00	0.00	0.00			
86	C	759.96	857.00	6.00	314.00	5.00	0.00	0.00			
87	C	762.03	838.66	6.00	131.00	5.00	0.00	0.00			
88	C	741.77	840.02	6.00	322.00	0.00	0.00	0.00			
89	C	741.10	821.93	6.00	154.00	5.00	0.00	0.00			
90	C	723.98	817.05	6.00	340.00	0.00	0.00	0.00			
91	C	732.77	796.56	6.00	163.00	0.00	0.00	0.00			
92	C	713.10	786.64	6.00	343.00	5.00	0.00	0.00			
93	C	670.42	613.39	6.00	118.00	5.00	0.00	0.00			
94	C	710.31	725.20	6.00	167.00	5.00	0.00	0.00			
95	C	712.26	745.35	6.00	166.00	5.00	0.00	0.00			
96	A	702.01	646.86	6.00	68.00	5.00	0.00	0.00			
97	A	705.70	632.24	6.00	344.00	5.00	0.00	0.00			
98	A	700.51	616.62	6.00	334.00	5.00	0.00	0.00			
99	A	689.62	601.05	6.00	330.00	5.00	0.00	0.00			
100	B	628.60	682.88	6.00	78.00	5.00	0.00	0.00			
101	B	641.21	680.53	6.00	78.00	5.00	0.00	0.00			
102	C	415.50	858.11	6.00	21.00	0.00	0.00	1.50			

Polar Diagrams

Luminaire A XSPME - B - Type 2SH - DY1 4K

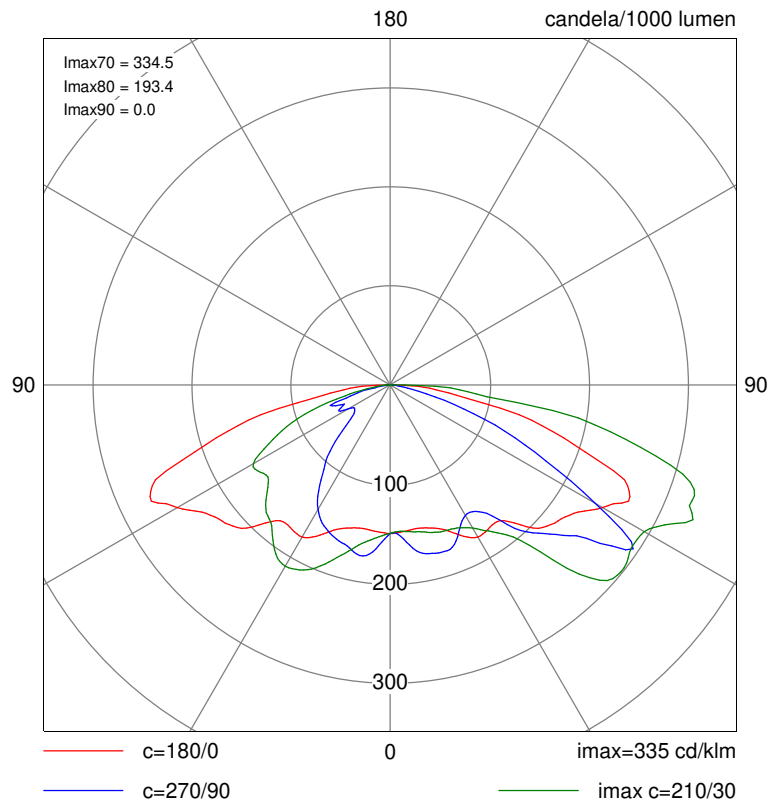


Luminaire B XSPME - B - Type 4ME - DY1 4K



Polar Diagrams Continued

Luminaire C XSPME - B - Type 3SH - DY3 4K



Horizontal Illuminance (lux)

Estate North



Results

Eav	6.17
Emin	1.21
Emax	20.19
Emin/Emax	0.06
Emin/Eav	0.20

Horizontal Illuminance (lux)

Estate South

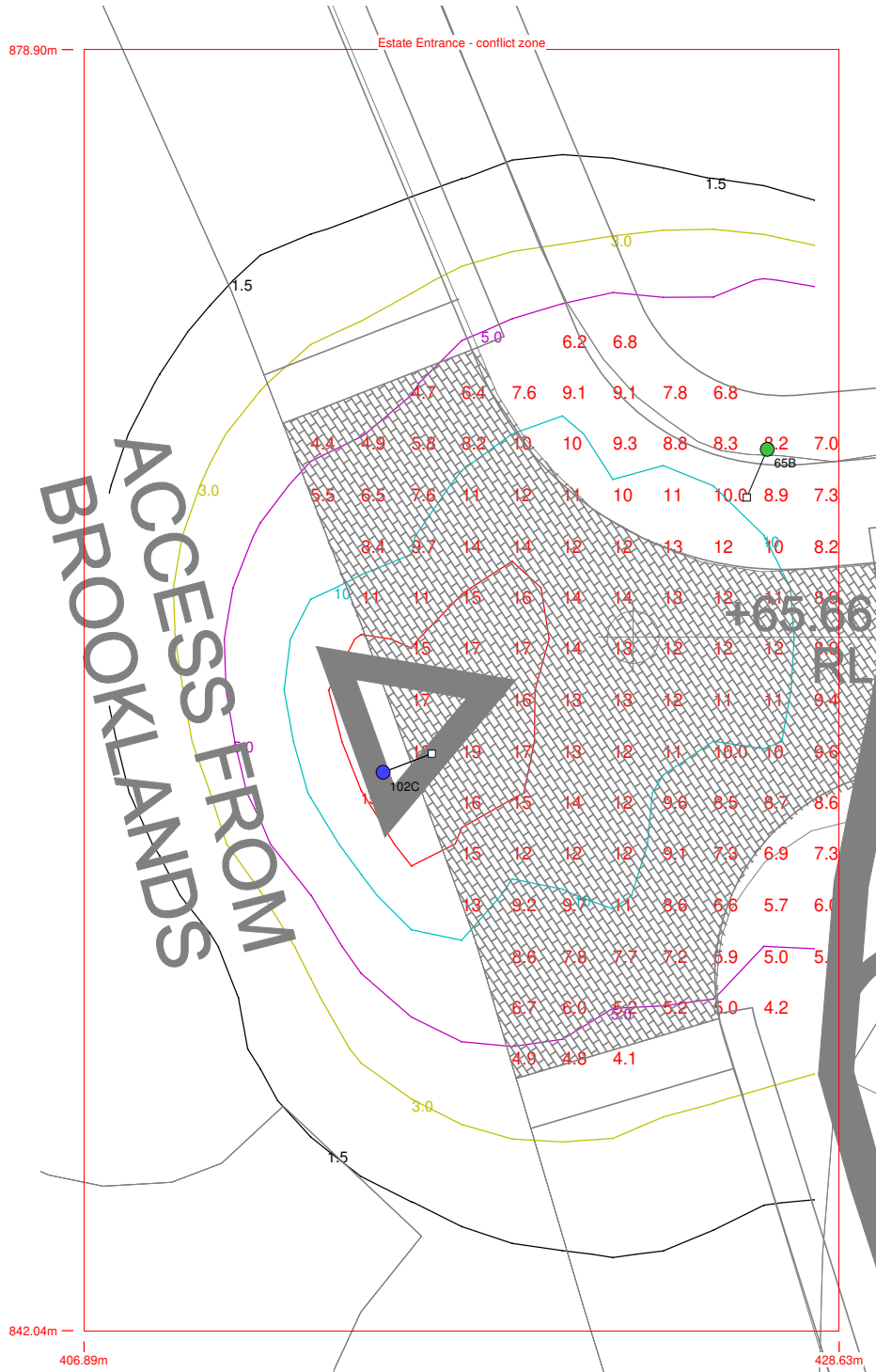


Results

Eav	7.14
Emin	1.67
Emax	20.39
Emin/Emax	0.08
Emin/Eav	0.23

Horizontal Illuminance (lux)

Estate Entrance - conflict zone



Results

Eav	10.02
Emin	4.11
Emax	18.87
Emin/Emax	0.22
Emin/Eav	0.41