

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P853544

Luminaire Tested: SQ2-BBM-100U-100D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853544
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G3-2104-222-3)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBM-100U-100D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

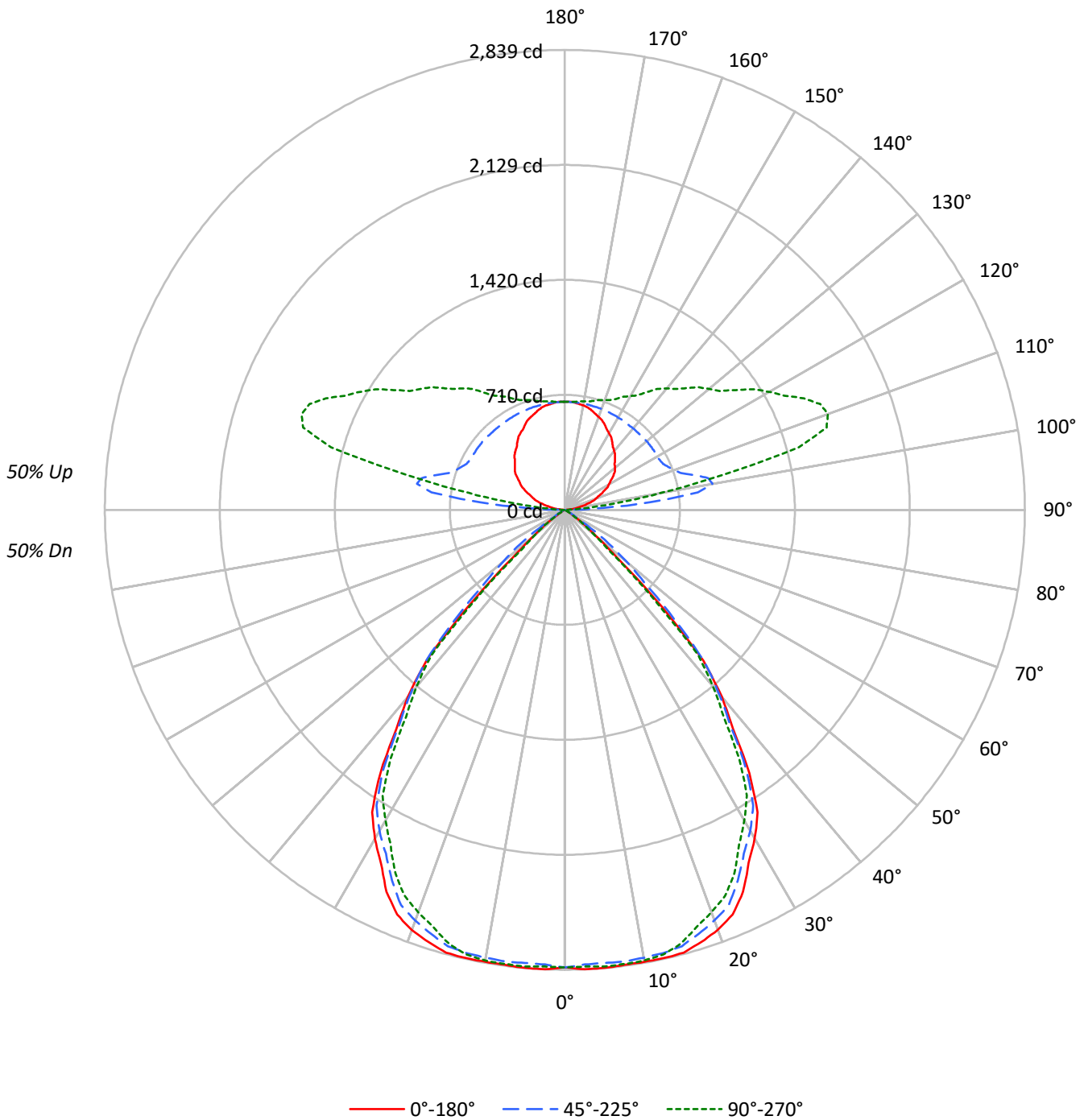
Lumens per Lamp: N/A
Luminaire Lumens: 8380.9 lumens
Efficiency: N/A
Efficacy: 118.5 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 70.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P853544

CATALOG NUMBER: SQ2-BBM-100U-100D-940-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P853544

CATALOG NUMBER: SQ2-BBM-100U-100D-940-UNV-STD-W-4

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	107	107	107	107	99	99	99	99	84	84	84	69	69	69	57	57	57	50
1	100	96	93	90	92	89	87	84	76	74	73	64	63	62	53	52	52	46
2	93	87	82	77	86	81	76	73	69	66	64	59	57	55	49	48	47	42
3	86	78	72	67	80	73	68	63	63	59	56	54	51	49	46	44	42	39
4	80	71	64	59	74	66	60	56	58	53	50	50	47	44	42	40	38	35
5	74	64	57	52	69	60	54	49	53	48	44	46	42	40	39	37	35	32
6	69	58	51	46	64	55	49	44	48	44	40	42	39	36	36	34	32	29
7	64	53	46	41	60	50	44	40	44	40	36	39	35	33	34	31	29	27
8	60	49	42	37	56	46	40	36	41	36	33	36	32	30	32	29	27	25
9	56	45	38	34	52	43	37	32	38	33	30	34	30	27	29	27	25	23
10	53	42	35	31	49	40	34	30	35	31	27	31	28	25	28	25	23	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	45601	45601	45601
5°	45997	45499	45877
10°	46442	46025	46321
15°	47296	46608	46323
20°	47417	46362	45417
25°	46355	44979	44094
30°	43697	42653	41290
35°	39149	38461	36918
40°	31759	31223	29997
45°	19329	21916	17349
50°	6167	12386	5634
55°	2145	4498	2204
60°	171	1298	36
65°	0	80	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 21916 cd/sqm



TEST NUMBER: P853544

CATALOG NUMBER: SQ2-BBM-100U-100D-940-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	269.9	3.2
10°-20°	789.3	9.4
20°-30°	1163.4	13.9
30°-40°	1191.4	14.2
40°-50°	686.5	8.2
50°-60°	120.2	1.4
60°-70°	4.6	0.1
70°-80°	0.0	0.0
80°-90°	1.5	0.0
90°-100°	278.8	3.3
100°-110°	843.2	10.1
110°-120°	823.1	9.8
120°-130°	672.6	8.0
130°-140°	549.0	6.6
140°-150°	427.4	5.1
150°-160°	308.1	3.7
160°-170°	188.6	2.3
170°-180°	63.7	0.8
0°-30°	2222.5	26.5
0°-40°	3413.9	40.7
0°-60°	4220.6	50.4
0°-90°	4226.8	50.4
90°-120°	1945.0	23.2
90°-150°	3594.0	42.9
90°-180°	4154.0	49.6
0°-180°	8380.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2824	2824	2824	2824	2824	
5°	2838	2832	2807	2841	2831	271
15°	2830	2852	2788	2788	2771	797
25°	2602	2622	2525	2502	2475	1188
35°	1986	1975	1951	1904	1873	1219
45°	846	947	960	912	760	648
55°	76	92	160	87	78	85
65°	0	1	2	1	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	2	13	7	6	2
95°	35	109	526	194	123	41
105°	147	206	828	1572	1494	154
115°	261	311	670	1386	1627	258
125°	365	405	660	1094	1288	324
135°	437	483	656	944	1062	338
145°	510	548	656	812	888	320
155°	582	601	660	728	756	268
165°	636	643	663	689	697	179
175°	665	665	666	672	670	63
180°	668	668	668	668	668	



TEST NUMBER: P853544

CATALOG NUMBER: SQ2-BBM-100U-100D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2824.3	2824.3	2824.3	2824.3	2824.3
2.5°	2838.6	2831.2	2809.0	2831.6	2821.7
5°	2838.0	2831.8	2807.3	2840.9	2830.6
7.5°	2832.7	2831.3	2812.4	2838.8	2827.0
10°	2832.7	2837.9	2807.3	2834.6	2825.3
12.5°	2834.4	2846.2	2802.2	2823.5	2810.1
15°	2829.5	2852.3	2788.3	2787.9	2771.3
17.5°	2797.8	2824.7	2744.0	2722.2	2700.0
20°	2759.7	2790.7	2698.3	2667.1	2643.3
22.5°	2704.7	2734.9	2640.8	2605.3	2581.5
25°	2602.0	2621.7	2524.8	2502.0	2475.1
27.5°	2456.4	2468.0	2392.7	2353.2	2329.0
30°	2343.8	2352.1	2287.8	2244.8	2214.7
32.5°	2213.5	2210.2	2163.3	2119.5	2091.2
35°	1986.2	1974.8	1951.3	1904.0	1873.0
37.5°	1706.6	1704.5	1681.2	1640.3	1607.8
40°	1506.8	1504.8	1481.4	1445.0	1423.2
42.5°	1264.7	1304.0	1276.6	1231.8	1218.4
45°	846.5	946.9	959.8	911.9	759.8
47.5°	436.8	570.9	668.3	520.6	360.6
50°	245.5	344.8	493.1	279.2	224.3
52.5°	160.0	208.0	344.1	178.2	150.7
55°	76.2	91.7	159.8	86.6	78.3
57.5°	27.3	42.2	69.8	42.8	26.5
60°	5.3	17.7	40.2	12.4	1.1
62.5°	1.9	5.2	23.3	3.3	1.1
65°	0.0	1.0	2.1	1.0	0.0
67.5°	0.0	0.8	0.8	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.4	2.5	1.5	1.3
90°	0.0	2.0	12.6	7.3	6.3
92.5°	11.7	47.4	170.2	56.4	40.7
95°	34.6	109.4	526.1	194.3	122.6
97.5°	66.9	139.2	829.1	548.6	334.1
100°	87.0	157.7	926.4	895.6	601.5
102.5°	109.6	177.9	906.2	1256.1	1001.4
105°	146.7	206.1	827.9	1572.2	1494.3
107.5°	181.9	238.7	752.4	1603.5	1693.7
110°	205.4	259.7	714.7	1564.1	1728.0



TEST NUMBER: P853544

CATALOG NUMBER: SQ2-BBM-100U-100D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	228.0	280.7	692.1	1498.0	1705.4
115°	260.9	311.1	669.6	1385.6	1627.4
117.5°	293.6	341.2	661.7	1280.3	1527.9
120°	315.4	360.5	659.1	1218.9	1456.6
122.5°	335.5	378.2	659.1	1164.8	1384.5
125°	364.7	404.6	660.2	1094.2	1287.9
127.5°	388.4	429.8	659.1	1041.0	1206.2
130°	403.5	446.5	659.1	1010.5	1160.1
132.5°	416.9	460.7	658.3	982.5	1120.7
135°	437.0	483.1	656.0	943.7	1061.5
137.5°	459.4	503.3	656.0	902.2	1011.5
140°	473.7	516.7	656.0	875.3	978.8
142.5°	487.9	529.3	655.2	850.7	941.0
145°	510.3	548.3	656.0	811.8	887.6
147.5°	532.8	564.9	657.3	779.7	837.9
150°	547.0	576.7	658.1	761.9	811.1
152.5°	560.4	586.9	658.9	746.6	786.8
155°	581.6	601.1	660.2	727.9	755.6
157.5°	600.0	615.8	661.5	714.1	733.3
160°	610.9	624.3	662.3	705.6	719.9
162.5°	621.8	631.9	663.1	698.0	709.9
165°	636.1	643.3	663.3	688.7	696.9
167.5°	648.2	651.9	664.6	681.4	684.9
170°	655.0	657.0	665.4	678.0	679.1
172.5°	659.1	660.4	665.4	674.7	674.9
175°	665.4	665.4	666.5	671.7	669.6
177.5°	668.4	667.5	666.7	669.2	667.5
180°	667.5	667.5	667.5	667.5	667.5



TEST NUMBER: P853544

CATALOG NUMBER: SQ2-BBM-100U-100D-940-UNV-STD-W-4

CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	1.14	1.85	2.13	2.82	4.10	0.61	1.31	1.60	2.29	3.57
	3H	0.95	1.57	1.95	2.56	3.86	0.41	1.04	1.41	2.03	3.33
	4H	0.84	1.43	1.85	2.42	3.73	0.31	0.90	1.32	1.89	3.20
	6H	0.73	1.27	1.75	2.26	3.58	0.20	0.74	1.22	1.73	3.05
	8H	0.67	1.18	1.70	2.19	3.51	0.14	0.65	1.16	1.66	2.97
	12H	0.61	1.09	1.64	2.10	3.43	0.08	0.56	1.11	1.56	2.90
4H	2H	0.85	1.44	1.87	2.43	3.74	0.32	0.91	1.34	1.90	3.21
	3H	0.65	1.13	1.67	2.15	3.47	0.12	0.60	1.14	1.62	2.94
	4H	0.53	0.98	1.56	1.99	3.33	0.00	0.45	1.03	1.46	2.80
	6H	0.42	0.80	1.46	1.83	3.18	0.00	0.27	0.93	1.30	2.65
	8H	0.36	0.71	1.40	1.74	3.09	0.00	0.18	0.87	1.21	2.56
	12H	0.29	0.60	1.34	1.64	3.00	0.00	0.07	0.81	1.11	2.47
8H	4H	0.36	0.71	1.40	1.74	3.09	0.00	0.18	0.87	1.21	2.56
	6H	0.24	0.53	1.30	1.60	2.95	0.00	0.00	0.77	1.07	2.42
	8H	0.18	0.43	1.25	1.49	2.86	0.00	0.00	0.72	0.96	2.33
	12H	0.11	0.33	1.18	1.38	2.80	0.00	0.00	0.65	0.85	2.27
12H	4H	0.29	0.60	1.34	1.64	3.00	0.00	0.07	0.81	1.11	2.47
	6H	0.18	0.43	1.25	1.49	2.86	0.00	0.00	0.72	0.96	2.33
	8H	0.11	0.33	1.18	1.38	2.80	0.00	0.00	0.65	0.85	2.27