

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: P853545

Luminaire Tested: SQ2-BBM-100U-125D-930-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853545  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G3-2104-222-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-BBM-100U-125D-930-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

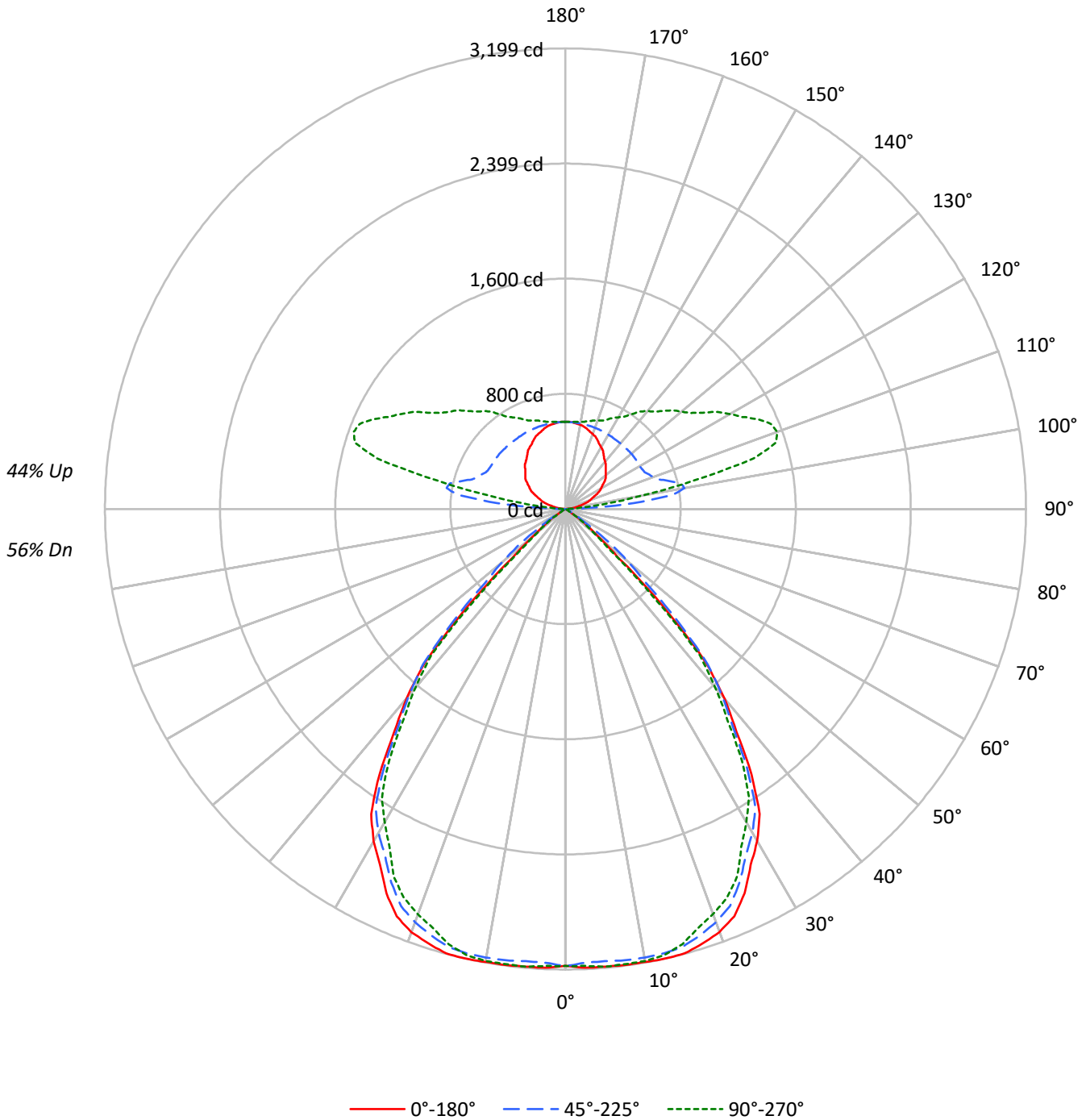
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8558.2 lumens  
Efficiency: N/A  
Efficacy: 103.9 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.18 / 1.17  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 82.4  
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: P853545

CATALOG NUMBER: SQ2-BBM-100U-125D-930-UNV-STD-W-4

### Luminous Intensity Polar Plot





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**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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	56
1	101	98	95	92	94	91	89	86	79	77	76	68	67	66	58	57	56	52
2	94	88	83	79	88	83	78	75	72	69	66	63	61	59	54	52	51	47
3	88	80	74	69	82	75	70	65	66	62	59	58	55	52	50	48	46	43
4	81	72	66	60	76	68	62	58	60	56	52	53	50	47	46	44	42	39
5	76	66	59	54	71	62	56	51	55	51	47	49	45	43	43	40	38	35
6	70	60	53	48	66	57	51	46	51	46	42	45	41	39	40	37	35	32
7	66	55	48	43	62	52	46	41	47	42	38	42	38	35	37	34	32	30
8	62	51	44	39	58	48	42	37	43	38	35	39	35	32	35	32	29	27
9	58	47	40	35	54	44	38	34	40	35	32	36	32	29	32	29	27	25
10	54	43	37	32	51	41	35	31	37	32	29	34	30	27	30	27	25	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	51258	51258	51258
5°	51718	51081	51718
10°	52378	51875	52269
15°	53434	52617	52329
20°	53740	52488	51483
25°	52438	50986	50219
30°	49657	48404	46831
35°	44408	43367	42157
40°	36166	35639	34185
45°	22076	25010	19886
50°	7204	13996	6335
55°	2457	4940	2539
60°	187	1424	61
65°	38	73	0
70°	0	47	0
75°	0	0	0
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 25051 cd/sqm



TEST NUMBER: P853545

CATALOG NUMBER: SQ2-BBM-100U-125D-930-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	303.8	3.5
10°-20°	892.1	10.4
20°-30°	1318.4	15.4
30°-40°	1355.0	15.8
40°-50°	782.6	9.1
50°-60°	135.6	1.6
60°-70°	5.1	0.1
70°-80°	0.1	0.0
80°-90°	1.4	0.0
90°-100°	252.6	3.0
100°-110°	764.0	8.9
110°-120°	745.8	8.7
120°-130°	609.5	7.1
130°-140°	497.5	5.8
140°-150°	387.3	4.5
150°-160°	279.2	3.3
160°-170°	170.9	2.0
170°-180°	57.7	0.7
0°-30°	2514.3	29.4
0°-40°	3869.3	45.2
0°-60°	4787.6	55.9
0°-90°	4794.1	56.0
90°-120°	1762.4	20.6
90°-150°	3256.6	38.1
90°-180°	3764.0	44.0
0°-180°	8558.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3175	3175	3175	3175	3175	
5°	3191	3182	3152	3198	3191	305
15°	3197	3220	3148	3153	3131	901
25°	2944	2970	2862	2829	2819	1346
35°	2253	2254	2200	2166	2139	1386
45°	967	1097	1095	1037	871	739
55°	87	101	176	100	90	98
65°	1	1	2	1	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	2	11	7	6	1
95°	31	99	477	176	111	37
105°	133	187	750	1425	1354	140
115°	236	282	607	1256	1475	234
125°	330	367	598	992	1167	294
135°	396	438	594	855	962	307
145°	462	497	594	736	804	290
155°	527	545	598	660	685	243
165°	576	583	601	624	631	162
175°	603	603	604	609	607	57
180°	605	605	605	605	605	



TEST NUMBER: P853545

CATALOG NUMBER: SQ2-BBM-100U-125D-930-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3174.7	3174.7	3174.7	3174.7	3174.7
2.5°	3189.3	3180.3	3154.7	3183.7	3177.0
5°	3191.0	3181.6	3151.7	3197.6	3191.0
7.5°	3194.1	3188.2	3162.6	3198.6	3188.1
10°	3194.8	3195.8	3164.1	3195.6	3188.1
12.5°	3199.4	3208.6	3161.1	3186.3	3173.5
15°	3196.7	3220.2	3147.8	3153.1	3130.6
17.5°	3164.5	3198.3	3105.4	3082.7	3054.6
20°	3127.7	3161.4	3054.8	3024.4	2996.3
22.5°	3062.5	3099.2	2985.0	2951.6	2925.7
25°	2943.5	2969.8	2862.0	2829.2	2818.9
27.5°	2787.0	2796.4	2713.0	2669.6	2645.4
30°	2663.5	2661.6	2596.3	2546.6	2511.9
32.5°	2510.8	2520.2	2454.4	2407.7	2372.3
35°	2253.0	2253.9	2200.2	2166.0	2138.8
37.5°	1952.2	1947.5	1910.4	1864.4	1849.0
40°	1715.9	1722.4	1690.9	1638.8	1621.9
42.5°	1441.9	1485.3	1463.0	1401.6	1380.9
45°	966.8	1097.1	1095.3	1036.9	870.9
47.5°	494.7	657.9	756.0	592.1	397.3
50°	286.8	389.9	557.2	307.6	252.2
52.5°	181.7	230.8	396.1	199.9	167.8
55°	87.3	101.3	175.5	99.5	90.2
57.5°	31.8	47.4	77.9	48.4	34.1
60°	5.8	19.8	44.1	13.2	1.9
62.5°	1.9	5.5	25.7	3.4	1.2
65°	1.0	1.0	1.9	0.9	0.0
67.5°	0.0	0.9	1.0	0.0	0.0
70°	0.0	0.9	1.0	0.0	0.0
72.5°	0.0	0.2	0.2	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	2.3	1.3	1.1
90°	0.0	1.9	11.4	6.6	5.7
92.5°	10.6	42.9	154.2	51.1	36.8
95°	31.3	99.1	476.7	176.1	111.1
97.5°	60.6	126.1	751.3	497.1	302.7
100°	78.8	142.9	839.4	811.5	545.0
102.5°	99.3	161.2	821.2	1138.2	907.4
105°	132.9	186.8	750.1	1424.6	1354.1
107.5°	164.8	216.3	681.8	1453.0	1534.7
110°	186.1	235.3	647.6	1417.2	1565.8



TEST NUMBER: P853545

CATALOG NUMBER: SQ2-BBM-100U-125D-930-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	206.6	254.3	627.1	1357.4	1545.3
115°	236.4	281.9	606.8	1255.5	1474.6
117.5°	266.1	309.1	599.5	1160.1	1384.4
120°	285.8	326.7	597.3	1104.5	1319.9
122.5°	304.0	342.7	597.3	1055.5	1254.5
125°	330.4	366.7	598.2	991.5	1167.0
127.5°	351.9	389.4	597.3	943.3	1092.9
130°	365.6	404.6	597.3	915.6	1051.1
132.5°	377.7	417.5	596.5	890.3	1015.4
135°	396.0	437.7	594.4	855.1	961.9
137.5°	416.3	456.0	594.4	817.5	916.5
140°	429.2	468.2	594.4	793.1	886.9
142.5°	442.1	479.6	593.7	770.8	852.7
145°	462.4	496.8	594.4	735.6	804.3
147.5°	482.7	511.9	595.6	706.5	759.3
150°	495.7	522.6	596.3	690.4	734.9
152.5°	507.8	531.8	597.1	676.5	712.9
155°	527.0	544.6	598.2	659.6	684.6
157.5°	543.7	558.0	599.4	647.0	664.5
160°	553.6	565.7	600.1	639.3	652.3
162.5°	563.5	572.6	600.9	632.5	643.2
165°	576.4	582.9	601.1	624.0	631.4
167.5°	587.4	590.7	602.2	617.5	620.6
170°	593.5	595.3	603.0	614.4	615.3
172.5°	597.3	598.4	603.0	611.3	611.5
175°	603.0	603.0	603.9	608.6	606.8
177.5°	605.6	604.9	604.1	606.3	604.9
180°	604.9	604.9	604.9	604.9	604.9



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**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	1.97	2.71	2.91	3.64	4.83	1.58	2.32	2.53	3.25	4.45
	3H	1.78	2.43	2.73	3.37	4.59	1.39	2.04	2.34	2.98	4.20
	4H	1.67	2.29	2.64	3.23	4.46	1.29	1.90	2.25	2.84	4.07
	6H	1.57	2.12	2.54	3.08	4.32	1.18	1.74	2.15	2.69	3.93
	8H	1.51	2.03	2.49	3.00	4.24	1.12	1.65	2.10	2.61	3.85
	12H	1.45	1.95	2.43	2.91	4.17	1.06	1.56	2.04	2.52	3.78
4H	2H	1.68	2.29	2.65	3.24	4.47	1.29	1.91	2.27	2.85	4.08
	3H	1.48	1.98	2.46	2.96	4.20	1.10	1.60	2.07	2.57	3.82
	4H	1.37	1.83	2.36	2.80	4.06	0.98	1.44	1.97	2.41	3.68
	6H	1.26	1.65	2.26	2.64	3.91	0.87	1.26	1.87	2.25	3.52
	8H	1.20	1.56	2.19	2.54	3.82	0.81	1.17	1.81	2.16	3.44
	12H	1.12	1.45	2.14	2.45	3.73	0.74	1.06	1.75	2.06	3.35
8H	4H	1.20	1.56	2.19	2.54	3.82	0.81	1.17	1.81	2.16	3.44
	6H	1.08	1.37	2.10	2.40	3.68	0.69	0.99	1.71	2.01	3.29
	8H	1.02	1.28	2.05	2.29	3.59	0.63	0.89	1.66	1.91	3.20
	12H	0.95	1.18	1.98	2.19	3.53	0.56	0.79	1.59	1.80	3.14
12H	4H	1.12	1.45	2.14	2.45	3.73	0.74	1.06	1.75	2.06	3.35
	6H	1.02	1.28	2.05	2.29	3.59	0.63	0.89	1.66	1.91	3.20
	8H	0.95	1.18	1.98	2.19	3.53	0.56	0.79	1.59	1.80	3.14