

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: P853554

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

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853554  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G3-2104-222-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-BBM-125U-100D-930-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

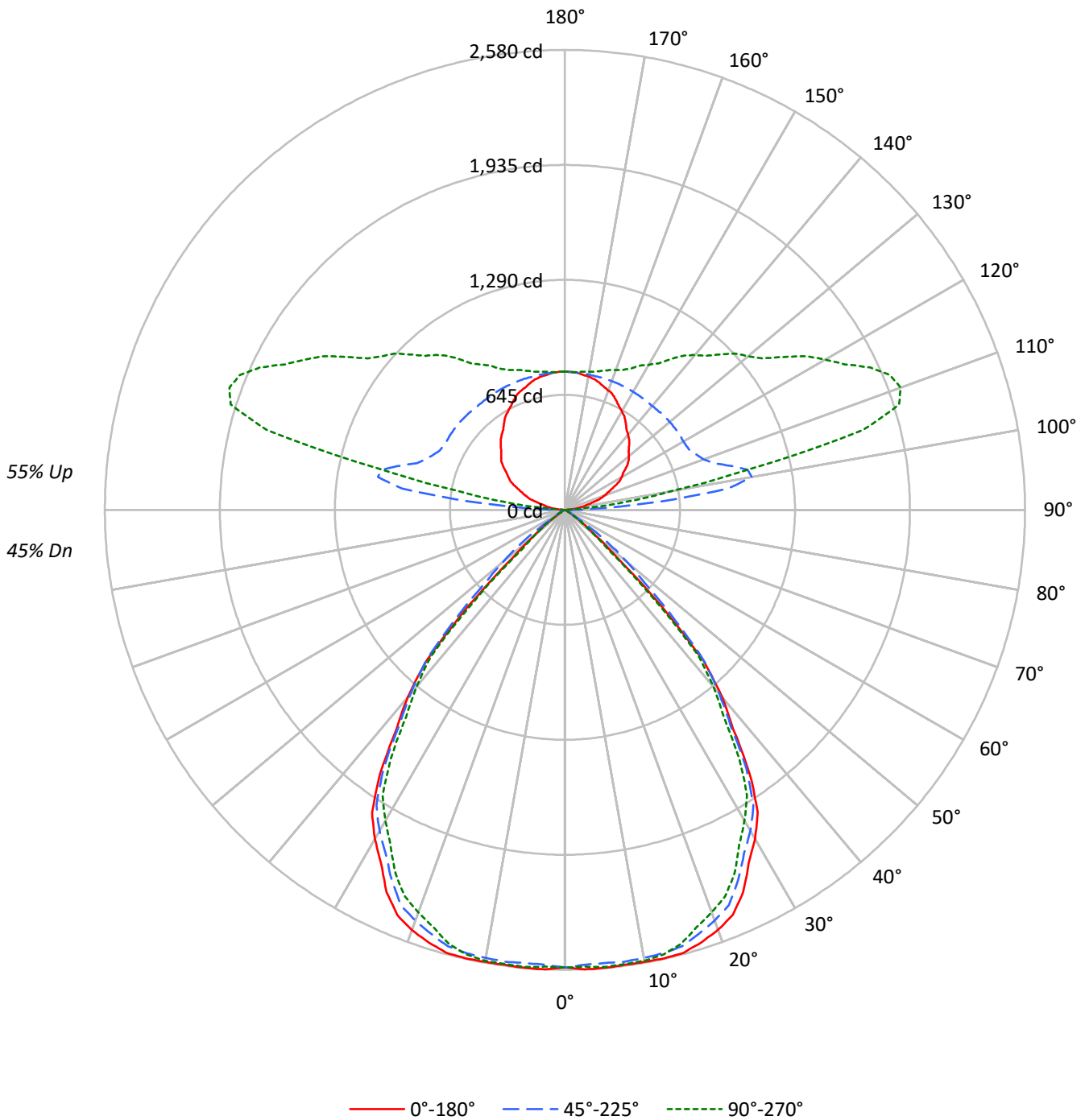
Lumens per Lamp: N/A  
Luminaire Lumens: 8622.1 lumens  
Efficiency: N/A  
Efficacy: 105.1 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 82  
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: P853554

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

### Luminous Intensity Polar Plot





TEST NUMBER: P853554

CATALOG NUMBER: SQ2-BBM-125U-100D-930-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	106	106	106	106	97	97	97	97	80	80	80	65	65	65	51	51	51	45
1	98	95	91	89	90	87	84	82	73	71	69	60	59	58	48	47	47	41
2	91	85	80	75	84	78	74	70	66	63	61	55	53	51	44	43	42	37
3	84	76	70	65	77	71	65	61	60	56	53	50	48	46	41	40	38	34
4	78	69	62	57	72	64	58	54	55	50	47	46	43	41	38	36	35	31
5	72	62	55	50	67	58	52	47	50	45	42	42	39	37	35	33	31	28
6	67	57	50	44	62	53	47	42	46	41	38	39	36	33	33	30	29	26
7	63	52	45	40	58	48	42	38	42	37	34	36	33	30	30	28	26	24
8	58	47	40	36	54	44	38	34	39	34	31	33	30	27	28	26	24	22
9	55	44	37	32	51	41	35	31	36	31	28	31	27	25	26	24	22	20
10	51	40	34	29	47	38	32	28	33	29	25	29	25	23	25	22	20	18

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

	0°	45°	90°
0°	41453	41453	41453
5°	41814	41362	41705
10°	42219	41840	42109
15°	42995	42369	42111
20°	43105	42146	41287
25°	42140	40889	40084
30°	39724	38773	37535
35°	35589	34962	33559
40°	28871	28384	27269
45°	17571	19922	15771
50°	5606	11261	5122
55°	1951	4090	2004
60°	155	1182	32
65°	0	73	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: 19922 cd/sqm



TEST NUMBER: P853554

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

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	245.4	2.8
10°-20°	717.5	8.3
20°-30°	1057.6	12.3
30°-40°	1083.0	12.6
40°-50°	624.1	7.2
50°-60°	109.3	1.3
60°-70°	4.2	0.0
70°-80°	0.0	0.0
80°-90°	1.1	0.0
90°-100°	296.4	3.4
100°-110°	964.9	11.2
110°-120°	954.5	11.1
120°-130°	780.0	9.0
130°-140°	637.5	7.4
140°-150°	496.5	5.8
150°-160°	357.9	4.2
160°-170°	218.8	2.5
170°-180°	73.8	0.9
0°-30°	2020.4	23.4
0°-40°	3103.4	36.0
0°-60°	3836.8	44.5
0°-90°	3842.1	44.6
90°-120°	2215.8	25.7
90°-150°	4129.8	47.9
90°-180°	4780.0	55.4
0°-180°	8622.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2567	2567	2567	2567	2567	
5°	2580	2574	2552	2583	2573	246
15°	2572	2593	2535	2534	2519	724
25°	2365	2383	2295	2274	2250	1080
35°	1806	1795	1774	1731	1703	1108
45°	770	861	872	829	691	589
55°	69	83	145	79	71	77
65°	0	1	2	1	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	3	7	6	6	2
95°	40	122	543	194	119	47
105°	164	237	956	1826	1729	175
115°	303	362	779	1605	1888	300
125°	421	470	768	1267	1493	375
135°	509	562	764	1093	1233	393
145°	595	638	762	942	1031	372
155°	678	701	767	843	875	313
165°	740	747	769	798	807	209
175°	772	772	772	778	776	73
180°	775	775	775	775	775	

TEST NUMBER: P853554

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

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2567.4	2567.4	2567.4	2567.4	2567.4
2.5°	2580.5	2573.7	2553.6	2574.1	2565.1
5°	2579.9	2574.3	2552.0	2582.6	2573.2
7.5°	2575.1	2573.8	2556.6	2580.6	2569.9
10°	2575.1	2579.8	2552.0	2576.8	2568.4
12.5°	2576.6	2587.4	2547.4	2566.7	2554.5
15°	2572.2	2592.9	2534.7	2534.4	2519.3
17.5°	2543.4	2567.8	2494.5	2474.6	2454.5
20°	2508.7	2536.9	2452.9	2424.5	2402.9
22.5°	2458.7	2486.2	2400.6	2368.4	2346.7
25°	2365.4	2383.3	2295.2	2274.4	2250.0
27.5°	2233.0	2243.6	2175.1	2139.2	2117.2
30°	2130.7	2138.2	2079.7	2040.6	2013.3
32.5°	2012.2	2009.2	1966.6	1926.7	1901.0
35°	1805.6	1795.2	1773.8	1730.8	1702.6
37.5°	1551.4	1549.5	1528.3	1491.1	1461.6
40°	1369.8	1367.9	1346.7	1313.6	1293.8
42.5°	1149.7	1185.4	1160.5	1119.8	1107.6
45°	769.5	860.8	872.5	828.9	690.7
47.5°	397.1	519.0	607.6	473.2	327.8
50°	223.2	313.5	448.3	253.8	203.9
52.5°	145.4	189.1	312.8	162.0	137.0
55°	69.3	83.4	145.3	78.7	71.2
57.5°	24.8	38.4	63.5	38.9	24.0
60°	4.8	16.1	36.6	11.3	1.0
62.5°	1.7	4.7	21.2	3.0	1.0
65°	0.0	0.9	1.9	0.9	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	0.6	1.3	1.1	1.1
90°	0.0	2.8	6.7	5.7	5.7
92.5°	13.7	49.3	157.6	52.0	40.0
95°	40.0	122.0	543.2	193.7	119.1
97.5°	75.3	158.8	921.9	561.5	342.7
100°	98.2	180.2	1064.5	949.2	615.6
102.5°	124.1	203.1	1047.0	1404.3	1067.7
105°	163.9	236.6	955.9	1825.6	1728.7
107.5°	207.0	275.4	869.3	1862.2	1964.9
110°	238.2	300.7	828.2	1816.8	2002.2



TEST NUMBER: P853554

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

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	264.2	325.9	802.2	1734.9	1974.0
115°	303.1	361.8	778.6	1604.6	1887.9
117.5°	343.1	396.0	769.4	1485.3	1767.2
120°	365.9	418.1	767.2	1411.9	1684.9
122.5°	388.1	439.5	767.9	1348.2	1602.6
125°	421.2	469.7	768.1	1266.9	1493.3
127.5°	449.6	499.2	767.9	1206.0	1394.8
130°	467.9	518.2	767.2	1171.3	1339.9
132.5°	483.9	536.5	766.4	1139.0	1297.2
135°	508.9	562.0	764.3	1093.4	1233.2
137.5°	533.3	586.8	762.2	1047.1	1171.2
140°	550.8	602.1	761.4	1015.7	1133.1
142.5°	567.6	616.6	761.4	985.7	1090.4
145°	594.7	638.5	762.4	941.7	1031.1
147.5°	621.0	659.0	763.7	904.2	973.4
150°	638.5	672.1	765.3	881.9	940.6
152.5°	656.0	683.6	766.0	864.9	911.6
155°	678.5	700.9	767.2	843.2	874.8
157.5°	699.9	715.9	768.3	827.1	849.3
160°	712.8	725.9	769.1	817.1	834.8
162.5°	724.3	734.3	769.1	808.6	821.9
165°	740.5	747.0	769.1	797.9	807.2
167.5°	751.9	756.0	769.3	789.8	794.6
170°	759.5	761.4	770.0	784.4	786.2
172.5°	764.9	766.0	771.5	781.3	780.9
175°	771.9	771.9	771.9	777.6	775.7
177.5°	774.8	774.0	773.3	777.0	774.0
180°	774.8	774.8	774.8	774.8	774.8



TEST NUMBER: P853554

CATALOG NUMBER: SQ2-BBM-125U-100D-930-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	0.22	0.90	1.25	1.92	3.28	0.00	0.36	0.72	1.38	2.74
	3H	0.02	0.62	1.07	1.65	3.03	0.00	0.09	0.53	1.12	2.50
	4H	0.00	0.48	0.97	1.51	2.90	0.00	0.00	0.44	0.98	2.37
	6H	0.00	0.32	0.87	1.36	2.76	0.00	0.00	0.34	0.83	2.22
	8H	0.00	0.24	0.81	1.29	2.68	0.00	0.00	0.28	0.75	2.15
	12H	0.00	0.15	0.75	1.19	2.61	0.00	0.00	0.22	0.66	2.07
4H	2H	0.00	0.49	0.99	1.52	2.91	0.00	0.00	0.46	0.99	2.38
	3H	0.00	0.19	0.79	1.25	2.65	0.00	0.00	0.26	0.72	2.12
	4H	0.00	0.03	0.68	1.09	2.51	0.00	0.00	0.15	0.55	1.98
	6H	0.00	0.00	0.58	0.93	2.35	0.00	0.00	0.05	0.40	1.82
	8H	0.00	0.00	0.51	0.84	2.27	0.00	0.00	0.00	0.31	1.74
	12H	0.00	0.00	0.45	0.74	2.18	0.00	0.00	0.00	0.21	1.65
8H	4H	0.00	0.00	0.51	0.84	2.27	0.00	0.00	0.00	0.31	1.74
	6H	0.00	0.00	0.41	0.70	2.13	0.00	0.00	0.00	0.17	1.60
	8H	0.00	0.00	0.36	0.59	2.04	0.00	0.00	0.00	0.06	1.51
	12H	0.00	0.00	0.29	0.49	1.97	0.00	0.00	0.00	0.00	1.44
12H	4H	0.00	0.00	0.45	0.74	2.18	0.00	0.00	0.00	0.21	1.65
	6H	0.00	0.00	0.36	0.59	2.04	0.00	0.00	0.00	0.06	1.51
	8H	0.00	0.00	0.29	0.49	1.97	0.00	0.00	0.00	0.00	1.44