

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: P853556

Luminaire Tested: SQ2-BBM-125U-100D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853556  
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-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

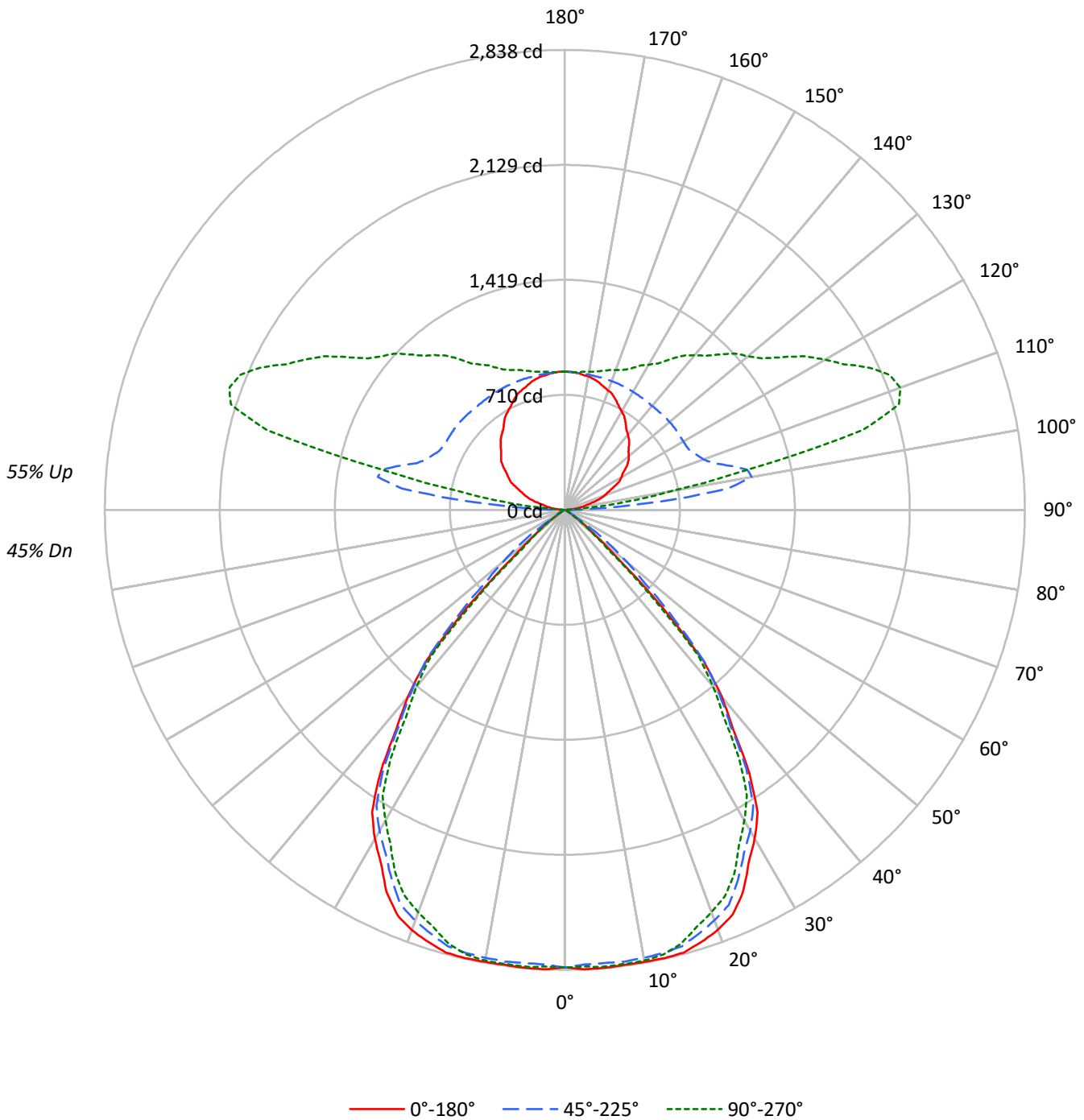
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9482.4 lumens  
Efficiency: N/A  
Efficacy: 115.6 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

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### 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	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°	45589	45589	45589
5°	45986	45490	45866
10°	46430	46016	46309
15°	47286	46596	46313
20°	47407	46352	45407
25°	46344	44969	44083
30°	43688	42642	41281
35°	39139	38451	36908
40°	31752	31217	29990
45°	19324	21909	17344
50°	6164	12383	5634
55°	2145	4495	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: 21909 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	269.8	2.8
10°-20°	789.1	8.3
20°-30°	1163.1	12.3
30°-40°	1191.1	12.6
40°-50°	686.3	7.2
50°-60°	120.2	1.3
60°-70°	4.6	0.0
70°-80°	0.0	0.0
80°-90°	1.2	0.0
90°-100°	325.9	3.4
100°-110°	1061.2	11.2
110°-120°	1049.7	11.1
120°-130°	857.8	9.0
130°-140°	701.1	7.4
140°-150°	546.1	5.8
150°-160°	393.6	4.2
160°-170°	240.6	2.5
170°-180°	81.2	0.9
0°-30°	2222.0	23.4
0°-40°	3413.1	36.0
0°-60°	4219.6	44.5
0°-90°	4225.5	44.6
90°-120°	2436.8	25.7
90°-150°	4541.8	47.9
90°-180°	5257.0	55.4
0°-180°	9482.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2824	2824	2824	2824	2824	
5°	2837	2831	2807	2840	2830	271
15°	2829	2852	2788	2787	2771	797
25°	2601	2621	2524	2501	2474	1187
35°	1986	1974	1951	1904	1872	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	3	7	6	6	2
95°	44	134	597	213	131	51
105°	180	260	1051	2008	1901	192
115°	333	398	856	1765	2076	330
125°	463	516	845	1393	1642	412
135°	560	618	841	1202	1356	432
145°	654	702	838	1036	1134	409
155°	746	771	844	927	962	344
165°	814	822	846	878	888	229
175°	849	849	849	855	853	81
180°	852	852	852	852	852	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2823.6	2823.6	2823.6	2823.6	2823.6
2.5°	2838.0	2830.5	2808.4	2831.0	2821.0
5°	2837.3	2831.1	2806.7	2840.3	2829.9
7.5°	2832.0	2830.6	2811.7	2838.1	2826.3
10°	2832.0	2837.2	2806.7	2834.0	2824.6
12.5°	2833.7	2845.5	2801.6	2822.9	2809.4
15°	2828.9	2851.6	2787.6	2787.2	2770.7
17.5°	2797.1	2824.0	2743.4	2721.5	2699.4
20°	2759.1	2790.1	2697.7	2666.5	2642.7
22.5°	2704.0	2734.2	2640.1	2604.7	2580.9
25°	2601.4	2621.1	2524.2	2501.4	2474.5
27.5°	2455.9	2467.4	2392.2	2352.7	2328.5
30°	2343.3	2351.6	2287.2	2244.2	2214.2
32.5°	2213.0	2209.6	2162.8	2119.0	2090.7
35°	1985.7	1974.3	1950.8	1903.5	1872.5
37.5°	1706.2	1704.1	1680.8	1639.9	1607.4
40°	1506.5	1504.4	1481.1	1444.6	1422.9
42.5°	1264.4	1303.7	1276.3	1231.5	1218.1
45°	846.3	946.7	959.5	911.6	759.6
47.5°	436.7	570.8	668.2	520.5	360.5
50°	245.4	344.7	493.0	279.1	224.3
52.5°	160.0	208.0	344.0	178.2	150.6
55°	76.2	91.7	159.7	86.6	78.3
57.5°	27.3	42.2	69.8	42.8	26.4
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	0.6	1.5	1.3	1.3
90°	0.0	3.1	7.3	6.3	6.3
92.5°	15.1	54.2	173.4	57.1	44.0
95°	44.0	134.2	597.4	213.0	131.0
97.5°	82.8	174.6	1013.9	617.5	376.9
100°	108.0	198.1	1170.7	1043.9	677.1
102.5°	136.5	223.4	1151.4	1544.4	1174.3
105°	180.3	260.2	1051.2	2007.8	1901.2
107.5°	227.6	302.9	956.1	2048.0	2160.9
110°	262.0	330.7	910.8	1998.1	2202.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	290.5	358.4	882.3	1908.0	2171.0
115°	333.3	397.9	856.3	1764.7	2076.3
117.5°	377.3	435.5	846.2	1633.5	1943.6
120°	402.5	459.9	843.7	1552.7	1853.0
122.5°	426.8	483.3	844.5	1482.7	1762.5
125°	463.3	516.5	844.8	1393.3	1642.3
127.5°	494.5	549.0	844.5	1326.4	1534.0
130°	514.6	569.9	843.7	1288.1	1473.6
132.5°	532.2	590.0	842.9	1252.6	1426.7
135°	559.7	618.1	840.6	1202.5	1356.2
137.5°	586.5	645.3	838.3	1151.6	1288.1
140°	605.8	662.2	837.4	1117.0	1246.2
142.5°	624.2	678.1	837.4	1084.0	1199.2
145°	654.0	702.2	838.5	1035.6	1134.0
147.5°	682.9	724.7	839.9	994.5	1070.5
150°	702.2	739.1	841.6	969.9	1034.5
152.5°	721.5	751.8	842.5	951.2	1002.6
155°	746.2	770.8	843.7	927.3	962.1
157.5°	769.7	787.3	845.0	909.7	934.1
160°	784.0	798.3	845.8	898.7	918.1
162.5°	796.5	807.6	845.8	889.3	903.9
165°	814.4	821.5	845.8	877.5	887.7
167.5°	826.9	831.4	846.0	868.6	873.9
170°	835.3	837.4	846.9	862.6	864.7
172.5°	841.2	842.4	848.5	859.2	858.8
175°	848.9	848.9	848.9	855.2	853.1
177.5°	852.1	851.3	850.4	854.5	851.3
180°	852.1	852.1	852.1	852.1	852.1

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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	0.55	1.23	1.58	2.25	3.60	0.01	0.69	1.05	1.71	3.07
	3H	0.35	0.95	1.40	1.98	3.36	0.00	0.42	0.86	1.45	2.83
	4H	0.24	0.81	1.30	1.84	3.23	0.00	0.28	0.77	1.31	2.70
	6H	0.13	0.65	1.20	1.69	3.09	0.00	0.12	0.67	1.16	2.55
	8H	0.07	0.57	1.14	1.62	3.01	0.00	0.03	0.61	1.08	2.48
	12H	0.01	0.48	1.08	1.52	2.94	0.00	0.00	0.55	0.99	2.40
4H	2H	0.25	0.82	1.32	1.85	3.24	0.00	0.29	0.79	1.32	2.71
	3H	0.05	0.52	1.12	1.58	2.98	0.00	0.00	0.59	1.05	2.45
	4H	0.00	0.36	1.01	1.41	2.84	0.00	0.00	0.48	0.88	2.31
	6H	0.00	0.19	0.91	1.26	2.68	0.00	0.00	0.38	0.73	2.15
	8H	0.00	0.10	0.84	1.17	2.60	0.00	0.00	0.31	0.64	2.07
	12H	0.00	0.00	0.78	1.07	2.51	0.00	0.00	0.25	0.54	1.98
8H	4H	0.00	0.10	0.84	1.17	2.60	0.00	0.00	0.31	0.64	2.07
	6H	0.00	0.00	0.74	1.03	2.46	0.00	0.00	0.21	0.50	1.93
	8H	0.00	0.00	0.69	0.92	2.37	0.00	0.00	0.16	0.39	1.84
	12H	0.00	0.00	0.62	0.81	2.30	0.00	0.00	0.09	0.28	1.77
12H	4H	0.00	0.00	0.78	1.07	2.51	0.00	0.00	0.25	0.54	1.98
	6H	0.00	0.00	0.69	0.92	2.37	0.00	0.00	0.16	0.39	1.84
	8H	0.00	0.00	0.62	0.81	2.30	0.00	0.00	0.09	0.28	1.77