

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: P853542

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

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853542  
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-930-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

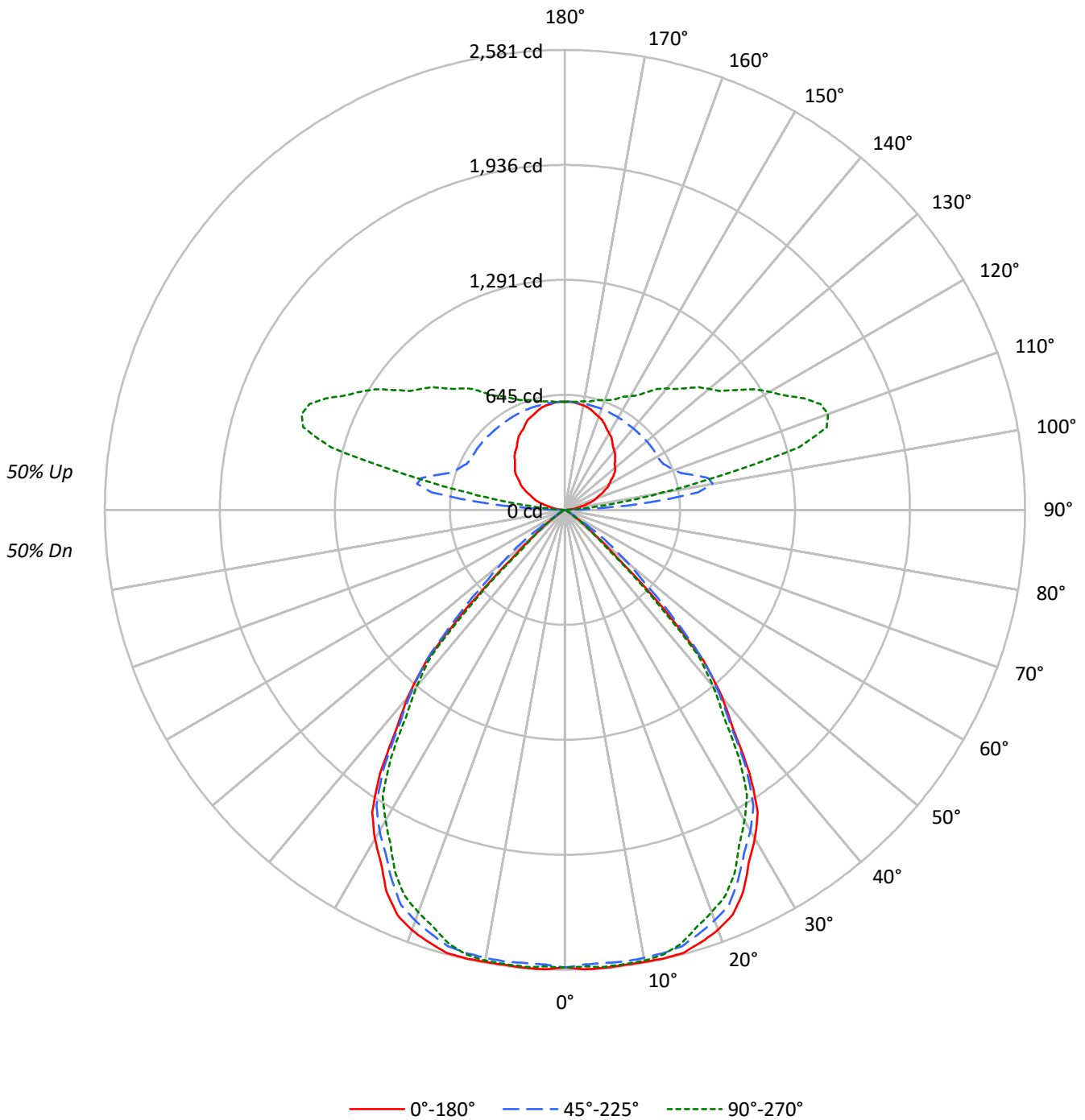
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7620.5 lumens  
Efficiency: N/A  
Efficacy: 107.8 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

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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	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°	41463	41463	41463
5°	41823	41371	41715
10°	42228	41850	42119
15°	43005	42379	42121
20°	43115	42156	41297
25°	42150	40898	40093
30°	39733	38782	37545
35°	35597	34970	33567
40°	28877	28391	27276
45°	17575	19927	15773
50°	5606	11263	5124
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: 19927 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	245.4	3.2
10°-20°	717.7	9.4
20°-30°	1057.8	13.9
30°-40°	1083.3	14.2
40°-50°	624.2	8.2
50°-60°	109.3	1.4
60°-70°	4.2	0.1
70°-80°	0.0	0.0
80°-90°	1.4	0.0
90°-100°	253.5	3.3
100°-110°	766.7	10.1
110°-120°	748.4	9.8
120°-130°	611.6	8.0
130°-140°	499.2	6.6
140°-150°	388.6	5.1
150°-160°	280.2	3.7
160°-170°	171.5	2.3
170°-180°	57.9	0.8
0°-30°	2020.9	26.5
0°-40°	3104.2	40.7
0°-60°	3837.7	50.4
0°-90°	3843.3	50.4
90°-120°	1768.6	23.2
90°-150°	3268.0	42.9
90°-180°	3778.0	49.6
0°-180°	7620.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2568	2568	2568	2568	2568	
5°	2580	2575	2553	2583	2574	246
15°	2573	2594	2535	2535	2520	724
25°	2366	2384	2296	2275	2250	1080
35°	1806	1796	1774	1731	1703	1108
45°	770	861	873	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	2	11	7	6	1
95°	31	100	478	177	112	37
105°	133	187	753	1430	1359	140
115°	237	283	609	1260	1480	235
125°	332	368	600	995	1171	295
135°	397	439	596	858	965	308
145°	464	498	596	738	807	291
155°	529	546	600	662	687	243
165°	578	585	603	626	634	163
175°	605	605	606	611	609	57
180°	607	607	607	607	607	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2568.0	2568.0	2568.0	2568.0	2568.0
2.5°	2581.1	2574.3	2554.2	2574.7	2565.7
5°	2580.5	2574.9	2552.6	2583.2	2573.8
7.5°	2575.7	2574.4	2557.2	2581.2	2570.5
10°	2575.7	2580.4	2552.6	2577.4	2569.0
12.5°	2577.2	2588.0	2548.0	2567.3	2555.1
15°	2572.8	2593.5	2535.3	2535.0	2519.9
17.5°	2544.0	2568.4	2495.1	2475.2	2455.1
20°	2509.3	2537.5	2453.5	2425.1	2403.5
22.5°	2459.3	2486.8	2401.2	2368.9	2347.3
25°	2366.0	2383.8	2295.7	2275.0	2250.5
27.5°	2233.6	2244.1	2175.6	2139.7	2117.7
30°	2131.2	2138.7	2080.2	2041.1	2013.8
32.5°	2012.7	2009.6	1967.0	1927.2	1901.4
35°	1806.0	1795.6	1774.2	1731.3	1703.0
37.5°	1551.8	1549.9	1528.7	1491.5	1461.9
40°	1370.1	1368.2	1347.0	1313.9	1294.1
42.5°	1150.0	1185.7	1160.8	1120.1	1107.8
45°	769.7	861.0	872.7	829.1	690.8
47.5°	397.2	519.1	607.7	473.3	327.9
50°	223.2	313.5	448.4	253.8	204.0
52.5°	145.5	189.1	312.9	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	24.1
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	0.4	2.3	1.3	1.1
90°	0.0	1.9	11.4	6.6	5.7
92.5°	10.7	43.1	154.7	51.3	37.0
95°	31.4	99.5	478.3	176.7	111.5
97.5°	60.8	126.6	753.9	498.9	303.8
100°	79.1	143.4	842.3	814.3	546.9
102.5°	99.7	161.7	824.0	1142.2	910.5
105°	133.4	187.4	752.8	1429.6	1358.8
107.5°	165.4	217.0	684.1	1458.0	1540.0
110°	186.8	236.1	649.8	1422.2	1571.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	207.3	255.2	629.3	1362.1	1550.7
115°	237.3	282.9	608.9	1259.9	1479.8
117.5°	267.0	310.2	601.6	1164.2	1389.3
120°	286.8	327.8	599.3	1108.3	1324.5
122.5°	305.1	343.9	599.3	1059.2	1258.9
125°	331.6	367.9	600.3	995.0	1171.1
127.5°	353.1	390.8	599.3	946.5	1096.7
130°	366.8	406.0	599.3	918.8	1054.8
132.5°	379.0	418.9	598.6	893.4	1019.0
135°	397.3	439.3	596.5	858.1	965.2
137.5°	417.7	457.6	596.5	820.4	919.7
140°	430.7	469.8	596.5	795.9	890.0
142.5°	443.6	481.3	595.7	773.5	855.7
145°	464.0	498.5	596.5	738.1	807.1
147.5°	484.4	513.7	597.6	709.0	761.9
150°	497.4	524.4	598.4	692.8	737.5
152.5°	509.6	533.6	599.2	678.9	715.4
155°	528.8	546.5	600.3	661.8	687.0
157.5°	545.6	559.9	601.4	649.3	666.8
160°	555.5	567.6	602.2	641.6	654.6
162.5°	565.4	574.6	603.0	634.7	645.5
165°	578.4	584.9	603.2	626.2	633.6
167.5°	589.4	592.8	604.3	619.6	622.8
170°	595.5	597.4	605.1	616.5	617.4
172.5°	599.3	600.5	605.1	613.4	613.6
175°	605.1	605.1	606.0	610.7	608.9
177.5°	607.7	607.0	606.2	608.5	607.0
180°	607.0	607.0	607.0	607.0	607.0

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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	0.81	1.52	1.80	2.49	3.77	0.28	0.98	1.27	1.96	3.24
	3H	0.62	1.24	1.62	2.23	3.53	0.08	0.71	1.08	1.70	3.00
	4H	0.51	1.10	1.52	2.09	3.40	0.00	0.57	0.99	1.56	2.87
	6H	0.40	0.94	1.42	1.93	3.25	0.00	0.41	0.89	1.40	2.72
	8H	0.34	0.85	1.37	1.86	3.18	0.00	0.32	0.83	1.33	2.64
	12H	0.28	0.76	1.31	1.77	3.10	0.00	0.23	0.78	1.23	2.57
4H	2H	0.52	1.11	1.54	2.10	3.41	0.00	0.58	1.01	1.57	2.88
	3H	0.32	0.80	1.34	1.82	3.14	0.00	0.27	0.81	1.29	2.61
	4H	0.21	0.65	1.23	1.66	3.00	0.00	0.11	0.70	1.13	2.47
	6H	0.09	0.47	1.14	1.50	2.85	0.00	0.00	0.60	0.97	2.32
	8H	0.03	0.38	1.07	1.41	2.76	0.00	0.00	0.54	0.88	2.23
	12H	0.00	0.27	1.01	1.32	2.67	0.00	0.00	0.48	0.78	2.14
8H	4H	0.03	0.38	1.07	1.41	2.76	0.00	0.00	0.54	0.88	2.23
	6H	0.00	0.20	0.97	1.27	2.62	0.00	0.00	0.44	0.74	2.09
	8H	0.00	0.10	0.92	1.16	2.53	0.00	0.00	0.39	0.63	2.00
	12H	0.00	0.00	0.85	1.05	2.47	0.00	0.00	0.32	0.52	1.94
12H	4H	0.00	0.27	1.01	1.32	2.67	0.00	0.00	0.48	0.78	2.14
	6H	0.00	0.10	0.92	1.16	2.53	0.00	0.00	0.39	0.63	2.00
	8H	0.00	0.00	0.85	1.05	2.47	0.00	0.00	0.32	0.52	1.94