

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: P853540

Luminaire Tested: SQ2-BBM-100U-075D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

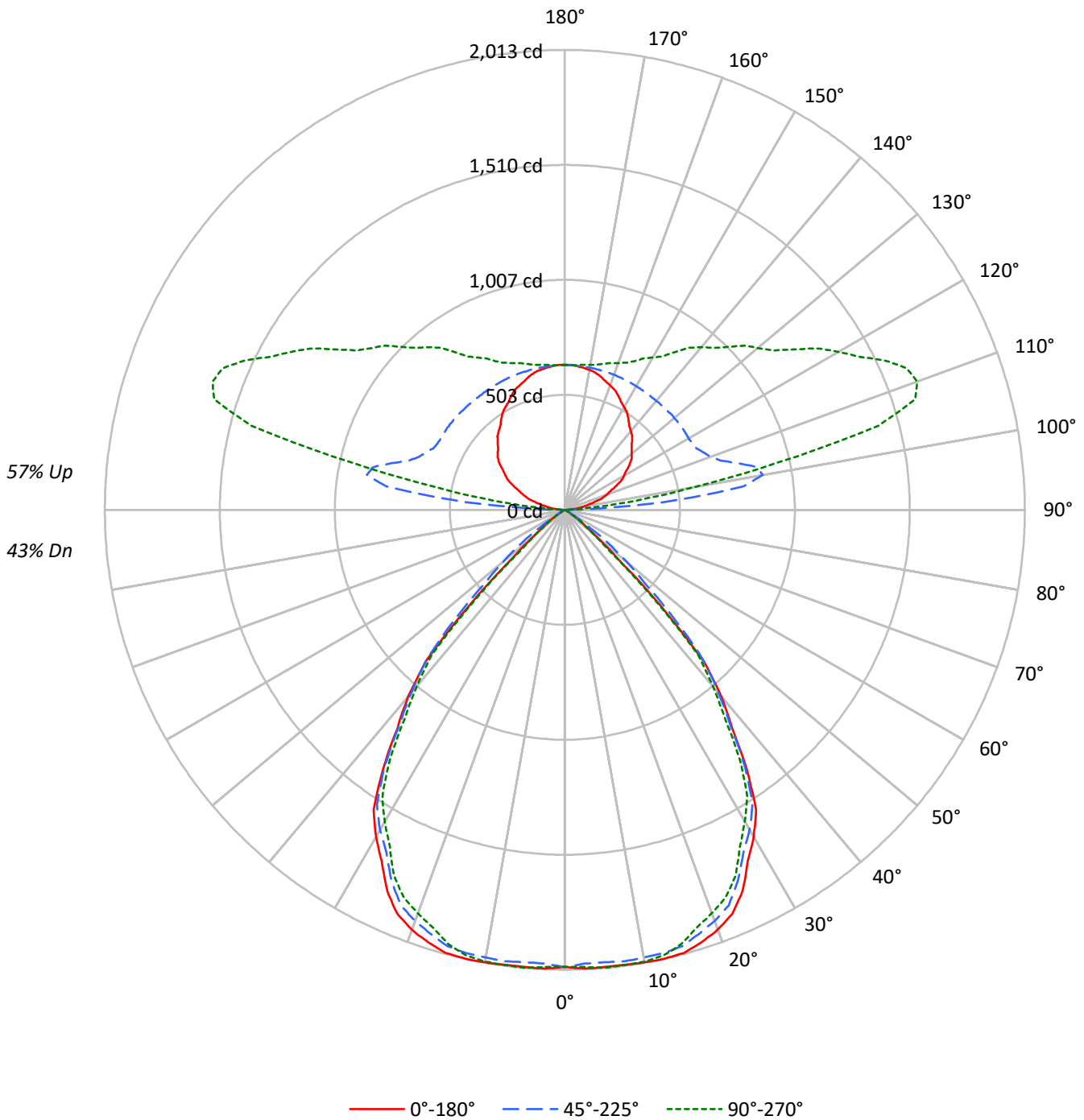
Test Method: LM-79-2019  
Report Number: P853540  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G3-2104-222-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-BBM-100U-075D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6937.7 lumens  
Efficiency: N/A  
Efficacy: 115.2 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): 60.2  
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	96	96	96	96	80	80	80	64	64	64	50	50	50	43
1	98	94	91	88	90	87	84	81	72	70	69	59	58	57	47	46	45	40
2	91	84	79	75	83	78	73	70	65	62	60	54	52	50	43	42	41	36
3	84	76	70	65	77	70	65	61	59	56	52	49	47	45	40	38	37	33
4	78	68	62	56	71	63	58	53	54	50	46	45	42	40	37	35	34	30
5	72	62	55	50	66	58	51	47	49	45	41	42	38	36	34	32	31	27
6	67	56	49	44	62	52	46	42	45	40	37	38	35	32	32	30	28	25
7	62	51	44	39	57	48	42	37	41	37	33	35	32	29	30	27	25	23
8	58	47	40	35	54	44	38	34	38	33	30	33	29	27	28	25	23	21
9	54	43	36	32	50	41	35	30	35	31	27	30	27	24	26	23	21	19
10	51	40	33	29	47	37	32	28	33	28	25	28	25	22	24	22	20	18

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

	0°	45°	90°
0°	32309	32309	32309
5°	32563	32206	32611
10°	32972	32628	32923
15°	33566	33063	32896
20°	33608	32904	32301
25°	32778	31940	31493
30°	30812	30141	29375
35°	27346	27129	26321
40°	22428	22049	21224
45°	13371	15726	12549
50°	4175	8726	3949
55°	1579	3099	1579
60°	97	872	32
65°	0	38	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: 15726 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	191.3	2.8
10°-20°	560.4	8.1
20°-30°	824.5	11.9
30°-40°	842.7	12.1
40°-50°	485.5	7.0
50°-60°	83.7	1.2
60°-70°	3.0	0.0
70°-80°	0.0	0.0
80°-90°	1.5	0.0
90°-100°	264.7	3.8
100°-110°	800.7	11.5
110°-120°	781.7	11.3
120°-130°	638.8	9.2
130°-140°	521.4	7.5
140°-150°	405.9	5.9
150°-160°	292.6	4.2
160°-170°	179.1	2.6
170°-180°	60.5	0.9
0°-30°	1576.3	22.7
0°-40°	2419.0	34.9
0°-60°	2988.2	43.1
0°-90°	2992.7	43.1
90°-120°	1847.1	26.6
90°-150°	3413.2	49.2
90°-180°	3945.0	56.9
0°-180°	6937.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2001	2001	2001	2001	2001	
5°	2009	2004	1987	2014	2012	192
15°	2008	2025	1978	1981	1968	565
25°	1840	1856	1793	1775	1768	840
35°	1387	1398	1376	1350	1335	857
45°	586	673	689	650	550	453
55°	56	64	110	62	56	59
65°	0	0	1	0	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	2	12	7	6	2
95°	33	104	500	185	116	39
105°	139	196	786	1493	1419	146
115°	248	296	636	1316	1546	245
125°	346	384	627	1039	1223	308
135°	415	459	623	896	1008	321
145°	485	521	623	771	843	304
155°	552	571	627	691	718	254
165°	604	611	630	654	662	170
175°	632	632	633	638	636	60
180°	634	634	634	634	634	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2001.1	2001.1	2001.1	2001.1	2001.1
2.5°	2009.9	2004.4	1988.3	2006.6	2002.7
5°	2009.1	2004.2	1987.1	2014.0	2012.1
7.5°	2007.9	2004.6	1992.5	2014.6	2009.7
10°	2011.1	2010.1	1990.1	2013.0	2008.1
12.5°	2012.7	2018.8	1987.7	2005.7	1996.9
15°	2008.1	2024.7	1978.0	1980.8	1968.0
17.5°	1985.7	2009.1	1947.0	1935.6	1917.6
20°	1956.0	1983.4	1915.0	1895.6	1879.9
22.5°	1914.4	1939.4	1874.1	1850.0	1837.5
25°	1839.9	1856.5	1792.9	1774.7	1767.8
27.5°	1734.4	1739.1	1691.2	1668.5	1659.7
30°	1652.7	1652.7	1616.7	1592.3	1575.6
32.5°	1557.4	1555.1	1529.4	1502.6	1485.9
35°	1387.4	1398.2	1376.4	1350.1	1335.4
37.5°	1203.4	1207.6	1191.0	1162.7	1150.4
40°	1064.1	1065.1	1046.1	1025.6	1007.0
42.5°	901.5	921.3	903.5	871.3	863.7
45°	585.6	672.7	688.7	650.4	549.6
47.5°	294.3	402.8	470.7	365.6	258.9
50°	166.2	230.8	347.4	193.4	157.2
52.5°	110.9	139.5	240.8	126.5	105.9
55°	56.1	63.9	110.1	61.9	56.1
57.5°	19.0	29.6	47.8	30.6	21.0
60°	3.0	12.8	27.0	9.8	1.0
62.5°	0.6	3.3	16.6	2.7	0.2
65°	0.0	0.0	1.0	0.0	0.0
67.5°	0.0	0.0	0.0	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	2.4	1.4	1.2
90°	0.0	1.9	11.9	6.9	6.0
92.5°	11.1	45.0	161.6	53.6	38.6
95°	32.8	103.9	499.6	184.6	116.4
97.5°	63.5	132.2	787.4	521.0	317.3
100°	82.6	149.7	879.7	850.5	571.2
102.5°	104.1	168.9	860.6	1192.9	951.0
105°	139.3	195.8	786.2	1493.1	1419.1
107.5°	172.8	226.7	714.5	1522.8	1608.4
110°	195.1	246.6	678.7	1485.4	1641.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	216.6	266.6	657.2	1422.6	1619.6
115°	247.8	295.5	635.9	1315.9	1545.5
117.5°	278.8	324.0	628.4	1215.9	1451.0
120°	299.5	342.4	626.0	1157.5	1383.3
122.5°	318.7	359.1	626.0	1106.2	1314.8
125°	346.3	384.3	627.0	1039.2	1223.1
127.5°	368.8	408.1	626.0	988.6	1145.4
130°	383.1	424.0	626.0	959.6	1101.7
132.5°	395.9	437.5	625.2	933.1	1064.2
135°	415.0	458.8	623.0	896.2	1008.1
137.5°	436.3	477.9	623.0	856.8	960.5
140°	449.8	490.7	623.0	831.2	929.5
142.5°	463.4	502.7	622.2	807.8	893.7
145°	484.7	520.7	623.0	770.9	842.9
147.5°	505.9	536.5	624.2	740.5	795.7
150°	519.5	547.7	625.0	723.6	770.3
152.5°	532.2	557.3	625.8	709.0	747.2
155°	552.3	570.8	627.0	691.2	717.5
157.5°	569.8	584.8	628.2	678.1	696.4
160°	580.2	592.8	629.0	670.1	683.7
162.5°	590.5	600.1	629.7	662.8	674.1
165°	604.1	610.9	629.9	654.0	661.8
167.5°	615.6	619.1	631.1	647.1	650.4
170°	622.0	623.9	631.9	643.9	644.9
172.5°	626.0	627.1	631.9	640.7	640.9
175°	631.9	631.9	632.9	637.9	635.9
177.5°	634.7	633.9	633.1	635.5	633.9
180°	633.9	633.9	633.9	633.9	633.9

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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	0.00	0.00	0.20	0.85	2.23	0.00	0.00	0.00	0.47	1.84
	3H	0.00	0.00	0.01	0.59	1.99	0.00	0.00	0.00	0.20	1.60
	4H	0.00	0.00	0.00	0.45	1.86	0.00	0.00	0.00	0.06	1.47
	6H	0.00	0.00	0.00	0.30	1.71	0.00	0.00	0.00	0.00	1.33
	8H	0.00	0.00	0.00	0.22	1.63	0.00	0.00	0.00	0.00	1.25
	12H	0.00	0.00	0.00	0.13	1.56	0.00	0.00	0.00	0.00	1.17
4H	2H	0.00	0.00	0.00	0.46	1.86	0.00	0.00	0.00	0.07	1.48
	3H	0.00	0.00	0.00	0.18	1.60	0.00	0.00	0.00	0.00	1.21
	4H	0.00	0.00	0.00	0.02	1.46	0.00	0.00	0.00	0.00	1.07
	6H	0.00	0.00	0.00	0.00	1.30	0.00	0.00	0.00	0.00	0.92
	8H	0.00	0.00	0.00	0.00	1.22	0.00	0.00	0.00	0.00	0.83
	12H	0.00	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00	0.74
8H	4H	0.00	0.00	0.00	0.00	1.22	0.00	0.00	0.00	0.00	0.83
	6H	0.00	0.00	0.00	0.00	1.08	0.00	0.00	0.00	0.00	0.69
	8H	0.00	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.00	0.60
	12H	0.00	0.00	0.00	0.00	0.92	0.00	0.00	0.00	0.00	0.54
12H	4H	0.00	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00	0.74
	6H	0.00	0.00	0.00	0.00	0.99	0.00	0.00	0.00	0.00	0.60
	8H	0.00	0.00	0.00	0.00	0.92	0.00	0.00	0.00	0.00	0.54