

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: P521198

Luminaire Tested: SQ4-BB-100U-075D-92765-1D-UNV-STD-W-4\_3000K

Issue Date: 5-5-2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P521198  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2101-105-51, G2-2009-966-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 5-5-2021  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-BB-100U-075D-92765-1D-UNV-STD-W-4\_3000K  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: 2700K-6500K CCT, 90 CRI LEDS, TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6162.9 lumens  
Efficiency: N/A  
Efficacy: 95.8 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

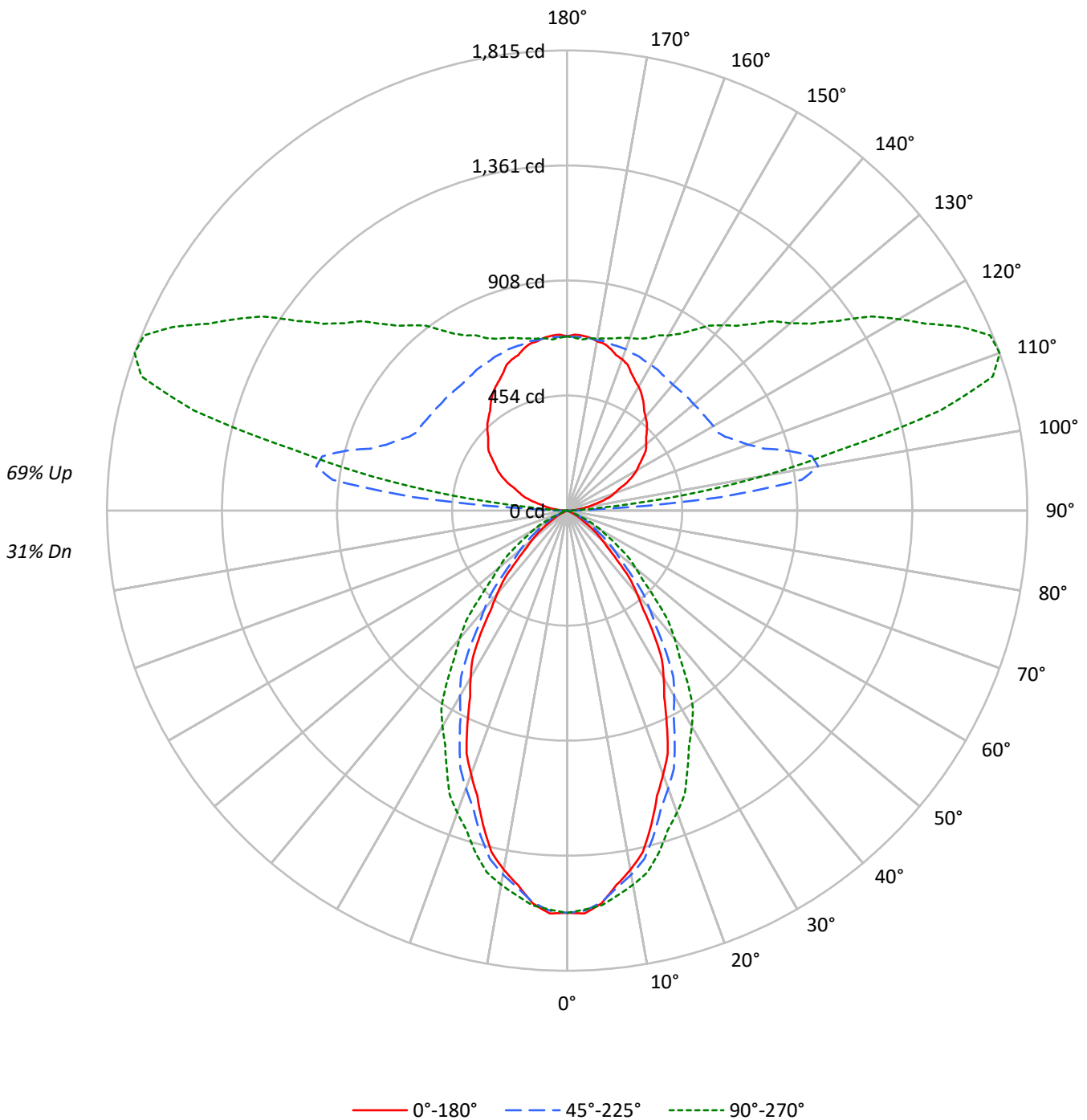
Input Watts (W): 64.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Luminous Intensity Polar Plot



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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20										
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	50	30	10	0														
RCR																																						
0	103	103	103	103	92	92	92	92	73	73	73	55	55	55	38	38	38	31																				
1	95	91	87	84	85	82	79	77	65	63	62	50	49	48	36	35	35	28																				
2	87	81	75	71	78	73	68	65	58	55	53	45	43	42	33	32	31	25																				
3	80	72	65	60	72	65	60	55	53	49	46	41	38	36	30	29	28	23																				
4	74	64	57	52	66	58	52	48	47	43	40	37	34	32	28	26	25	21																				
5	68	58	51	45	61	53	46	42	43	39	35	34	31	29	25	24	22	19																				
6	63	52	45	40	57	48	41	37	39	35	31	31	28	26	24	22	20	17																				
7	58	47	40	35	53	43	37	33	36	31	28	29	25	23	22	20	18	16																				
8	54	43	36	31	49	40	34	29	33	28	25	26	23	21	20	18	17	14																				
9	51	40	33	28	46	36	30	26	30	26	23	24	21	19	19	17	16	13																				
10	48	36	30	25	43	34	28	24	28	24	21	23	20	18	18	16	14	12																				

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

	0°	45°	90°
0°	14639	14639	14639
5°	14404	14368	14475
10°	13478	13657	14038
15°	12252	12641	13345
20°	10876	11441	12444
25°	9471	10222	11433
30°	8113	9004	10477
35°	6726	7643	9320
40°	5168	6111	7942
45°	3736	4628	6391
50°	2545	3449	5068
55°	1655	2495	3939
60°	948	1757	2847
65°	251	1072	1441
70°	124	332	415
75°	53	29	0
80°	43	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6391 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	144.8	2.3
10°-20°	370.3	6.0
20°-30°	463.6	7.5
30°-40°	428.2	6.9
40°-50°	287.7	4.7
50°-60°	148.6	2.4
60°-70°	46.5	0.8
70°-80°	2.9	0.0
80°-90°	0.1	0.0
90°-100°	313.2	5.1
100°-110°	891.3	14.5
110°-120°	853.9	13.9
120°-130°	675.9	11.0
130°-140°	542.5	8.8
140°-150°	424.7	6.9
150°-160°	310.7	5.0
160°-170°	192.5	3.1
170°-180°	65.3	1.1
0°-30°	978.7	15.9
0°-40°	1406.9	22.8
0°-60°	1843.3	29.9
0°-90°	1892.8	30.7
90°-120°	2058.5	33.4
90°-150°	3701.5	60.1
90°-180°	4270.0	69.3
0°-180°	6162.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1587	1587	1587	1587	1587	
5°	1555	1540	1551	1557	1563	144
15°	1283	1278	1323	1368	1397	357
25°	930	938	1004	1073	1123	427
35°	597	612	679	758	828	370
45°	286	304	355	424	490	225
55°	103	120	155	199	245	96
65°	12	22	49	59	66	19
75°	2	2	1	0	0	2
85°	0	0	0	0	0	0
90°	0	0	0	0	0	1
95°	34	135	606	210	129	39
105°	138	210	908	1604	1525	147
115°	258	311	689	1459	1713	253
125°	363	403	657	1091	1304	325
135°	444	481	650	922	1042	343
145°	524	551	655	798	869	327
155°	599	613	670	721	750	277
165°	661	664	678	693	703	186
175°	693	689	686	682	677	66
180°	687	687	687	687	687	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1586.7	1586.7	1586.7	1586.7	1586.7
2.5°	1590.4	1575.4	1579.4	1579.3	1575.1
5°	1555.3	1539.5	1551.4	1556.9	1562.9
7.5°	1489.5	1477.2	1500.1	1517.3	1529.8
10°	1438.6	1428.1	1457.8	1481.2	1498.4
12.5°	1379.6	1371.5	1407.4	1439.5	1461.6
15°	1282.7	1278.2	1323.4	1367.8	1397.1
17.5°	1179.0	1178.8	1230.4	1285.5	1320.8
20°	1107.7	1110.0	1165.3	1226.1	1267.4
22.5°	1036.5	1041.7	1100.8	1164.2	1211.5
25°	930.4	937.9	1004.1	1072.8	1123.1
27.5°	828.4	839.4	909.0	980.5	1041.7
30°	761.5	774.3	845.2	920.3	983.4
32.5°	695.8	711.0	780.1	859.5	923.8
35°	597.2	612.2	678.6	758.5	827.5
37.5°	495.4	510.2	575.0	653.6	728.2
40°	429.1	445.6	507.4	583.6	659.4
42.5°	368.9	385.4	443.5	518.4	590.0
45°	286.3	303.6	354.7	423.7	489.8
47.5°	217.9	236.6	281.4	343.9	404.1
50°	177.3	196.1	240.3	295.3	353.1
52.5°	144.8	162.9	202.8	254.7	307.7
55°	102.9	120.1	155.1	199.1	244.9
57.5°	71.1	85.9	117.3	154.0	189.9
60°	51.4	65.7	95.2	125.0	154.3
62.5°	34.2	47.3	76.2	99.0	118.7
65°	11.5	22.0	49.1	59.3	66.0
67.5°	5.8	7.0	25.8	27.2	29.5
70°	4.6	4.6	12.3	13.1	15.4
72.5°	3.4	3.4	4.9	6.3	6.8
75°	1.5	1.5	0.8	0.0	0.0
77.5°	0.8	0.8	0.6	0.0	0.0
80°	0.8	0.8	0.0	0.0	0.0
82.5°	0.2	0.2	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0
92.5°	10.5	55.4	128.6	37.4	28.2
95°	34.0	134.9	606.4	209.9	129.4
97.5°	62.5	158.1	933.9	668.3	457.9
100°	82.3	171.8	1005.0	1018.0	784.1
102.5°	104.3	186.6	989.3	1303.0	1098.8
105°	138.5	210.1	908.3	1604.4	1525.1
107.5°	173.3	237.4	813.7	1689.3	1759.9
110°	197.3	257.4	759.3	1656.8	1815.3

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	220.3	277.3	722.7	1579.9	1805.9
115°	257.5	311.1	688.7	1459.0	1713.3
117.5°	290.1	340.5	668.6	1326.9	1596.2
120°	316.3	358.4	666.5	1251.3	1509.5
122.5°	337.2	379.3	661.3	1185.0	1424.8
125°	363.3	402.9	657.4	1090.9	1304.3
127.5°	391.8	428.9	655.3	1034.6	1210.4
130°	406.4	443.5	652.1	995.4	1148.8
132.5°	422.1	458.2	652.1	964.8	1105.9
135°	444.3	481.4	649.5	921.5	1041.6
137.5°	465.3	501.3	649.3	884.8	988.5
140°	480.9	518.0	648.2	854.4	954.0
142.5°	498.7	529.6	651.4	830.1	919.5
145°	524.1	550.9	654.8	797.5	869.1
147.5°	545.8	571.8	660.5	764.6	826.5
150°	564.6	582.5	662.6	753.8	797.2
152.5°	579.2	598.1	664.7	739.0	779.4
155°	598.6	612.6	670.4	720.8	750.2
157.5°	622.6	631.0	671.7	712.5	733.4
160°	635.1	641.5	677.0	706.1	724.0
162.5°	642.5	649.9	678.0	700.8	714.6
165°	661.3	663.8	678.3	692.9	703.1
167.5°	674.1	671.8	684.3	690.9	695.0
170°	678.3	677.0	682.2	683.6	688.7
172.5°	687.7	683.3	685.3	681.5	685.6
175°	692.7	688.8	686.1	682.1	677.0
177.5°	694.7	688.6	685.3	681.2	682.2
180°	687.4	687.4	687.4	687.4	687.4

(END OF REPORT)