

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  
(formerly Eaton)

Brand: CORELITE

Report Number: P518694

Luminaire Tested: **SQ4-BB-100U-050D-840-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P518694  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-23, G2-2009-966-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/29/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: CORELITE  
Catalog Number: SQ4-BB-100U-050D-840-1D-UNV-STD-W-8  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

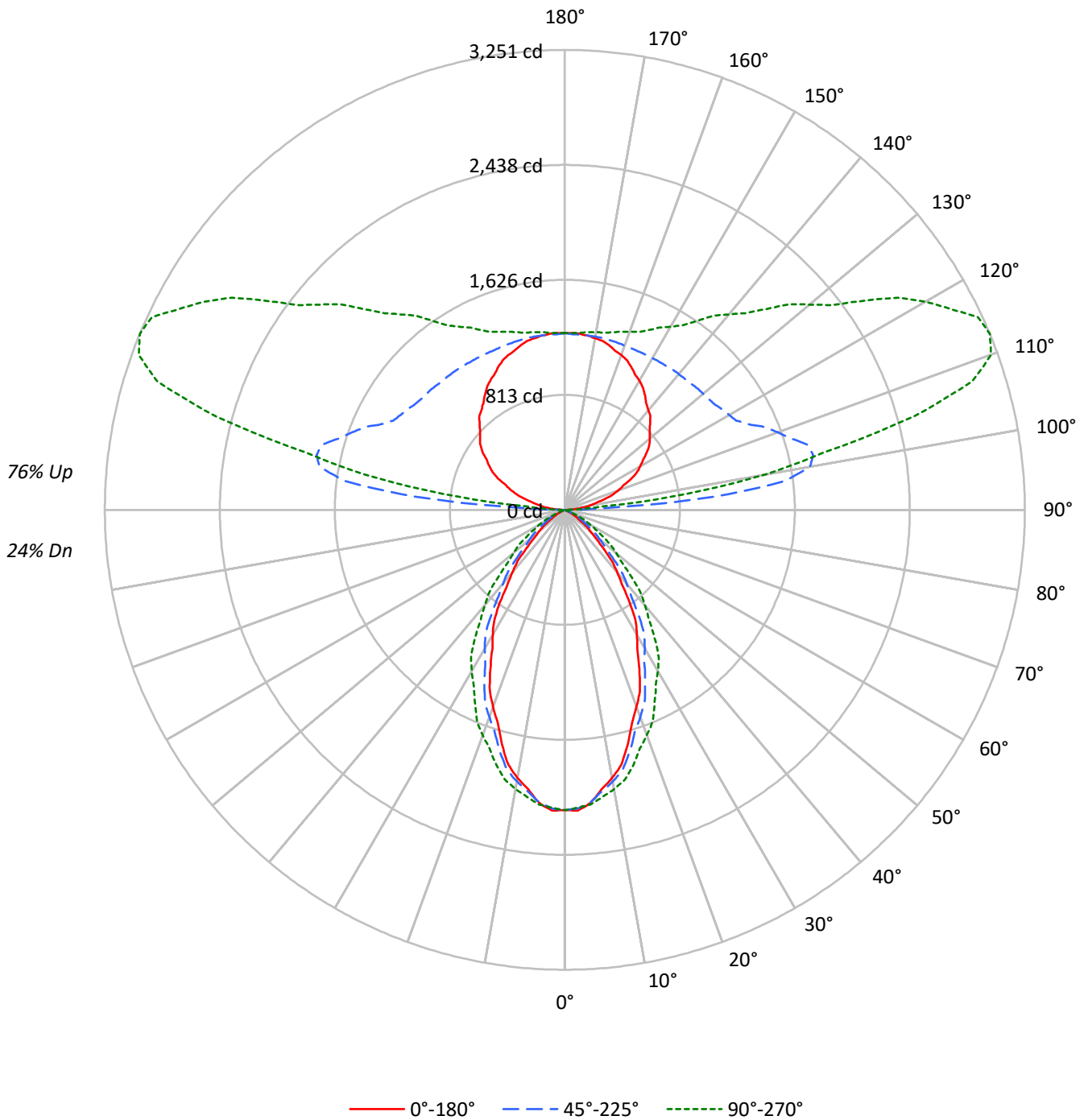
Lumens per Lamp: N/A  
Luminaire Lumens: 10648.1 lumens  
Efficiency: N/A  
Efficacy: 125.7 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97  
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 84.7  
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	0
RCR																		
0	101	101	101	101	90	90	90	90	69	69	69	50	50	50	32	32	32	24
1	93	89	86	82	82	79	77	74	61	60	58	45	44	43	30	29	29	22
2	85	79	73	69	76	70	66	62	55	52	49	40	39	37	27	26	25	20
3	78	70	63	58	70	63	57	53	49	45	42	36	34	32	25	24	23	18
4	72	62	55	50	64	56	50	45	44	40	37	33	31	28	23	21	20	16
5	66	56	49	43	59	50	44	39	40	36	32	30	27	25	21	19	18	15
6	61	50	43	38	55	45	39	35	36	32	28	27	25	22	19	18	17	13
7	57	46	38	33	51	41	35	31	33	29	25	25	22	20	18	16	15	12
8	53	41	34	30	47	38	31	27	30	26	23	23	20	18	17	15	14	11
9	49	38	31	26	44	34	28	24	28	23	20	21	19	17	16	14	13	10
10	46	35	28	24	41	32	26	22	26	21	19	20	17	15	15	13	12	10

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

	0°	45°	90°
0°	9792	9792	9792
5°	9634	9611	9682
10°	9014	9135	9390
15°	8195	8455	8926
20°	7274	7652	8323
25°	6335	6837	7647
30°	5426	6022	7007
35°	4499	5112	6234
40°	3457	4088	5312
45°	2499	3095	4274
50°	1702	2307	3390
55°	1107	1668	2635
60°	635	1174	1904
65°	168	717	964
70°	84	221	277
75°	37	18	0
80°	27	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	193.7	1.8
10°-20°	495.4	4.7
20°-30°	620.2	5.8
30°-40°	572.8	5.4
40°-50°	384.9	3.6
50°-60°	198.8	1.9
60°-70°	62.3	0.6
70°-80°	3.9	0.0
80°-90°	2.7	0.0
90°-100°	584.8	5.5
100°-110°	1614.4	15.2
110°-120°	1664.9	15.6
120°-130°	1337.9	12.6
130°-140°	1051.5	9.9
140°-150°	806.4	7.6
150°-160°	579.6	5.4
160°-170°	354.4	3.3
170°-180°	119.5	1.1
0°-30°	1309.3	12.3
0°-40°	1882.1	17.7
0°-60°	2465.8	23.2
0°-90°	2534.7	23.8
90°-120°	3864.1	36.3
90°-150°	7060.0	66.3
90°-180°	8113.0	76.2
0°-180°	10648.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2123	2123	2123	2123	2123	
5°	2080	2059	2075	2083	2091	193
15°	1716	1710	1770	1830	1869	478
25°	1245	1255	1343	1435	1502	571
35°	799	819	908	1015	1107	495
45°	383	406	474	567	655	301
55°	138	161	207	266	328	128
65°	15	30	66	79	88	26
75°	2	2	1	0	0	3
85°	0	0	0	0	0	0
90°	4	8	16	18	20	6
95°	86	316	1061	436	284	92
105°	288	444	1776	2712	2553	306
115°	516	623	1430	2832	3221	507
125°	707	805	1297	2194	2575	629
135°	851	943	1261	1777	2004	659
145°	987	1055	1245	1513	1628	618
155°	1113	1150	1235	1358	1401	513
165°	1205	1220	1241	1289	1299	340
175°	1249	1251	1243	1261	1257	119
180°	1249	1249	1249	1249	1249	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2122.6	2122.6	2122.6	2122.6	2122.6
2.5°	2127.5	2107.5	2112.8	2112.6	2107.0
5°	2080.5	2059.4	2075.4	2082.8	2090.8
7.5°	1992.6	1976.1	2006.8	2029.8	2046.4
10°	1924.4	1910.4	1950.1	1981.4	2004.5
12.5°	1845.6	1834.7	1882.7	1925.7	1955.2
15°	1716.0	1709.9	1770.4	1829.8	1869.0
17.5°	1577.1	1576.9	1645.9	1719.7	1766.9
20°	1481.8	1484.8	1558.8	1640.2	1695.4
22.5°	1386.5	1393.6	1472.6	1557.4	1620.7
25°	1244.6	1254.7	1343.2	1435.1	1502.4
27.5°	1108.2	1122.9	1216.1	1311.6	1393.5
30°	1018.7	1035.8	1130.6	1231.1	1315.5
32.5°	930.8	951.1	1043.5	1149.8	1235.8
35°	798.9	819.0	907.8	1014.6	1107.0
37.5°	662.8	682.4	769.2	874.3	974.1
40°	574.0	596.1	678.8	780.7	882.1
42.5°	493.5	515.6	593.3	693.5	789.3
45°	383.0	406.1	474.4	566.8	655.2
47.5°	291.4	316.5	376.5	460.0	540.6
50°	237.2	262.3	321.4	395.1	472.4
52.5°	193.7	218.0	271.3	340.7	411.6
55°	137.6	160.7	207.4	266.3	327.6
57.5°	95.1	115.0	156.9	206.1	254.1
60°	68.8	87.9	127.3	167.2	206.4
62.5°	45.8	63.3	101.9	132.5	158.8
65°	15.4	29.5	65.7	79.3	88.3
67.5°	7.8	9.4	34.5	36.4	39.4
70°	6.2	6.2	16.4	17.5	20.5
72.5°	4.5	4.5	6.6	8.4	9.0
75°	2.1	2.1	1.0	0.0	0.0
77.5°	1.0	1.0	0.8	0.0	0.0
80°	1.0	1.0	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°	0.8	1.6	3.2	3.6	4.0
90°	4.0	7.9	16.0	18.0	20.0
92.5°	36.0	149.3	266.9	97.4	75.9
95°	85.9	316.4	1060.9	436.1	283.7
97.5°	142.3	354.4	1571.6	1210.0	876.3
100°	183.8	377.2	1760.2	1772.6	1440.5
102.5°	223.8	403.1	1796.9	2190.2	1875.3
105°	287.7	444.0	1776.2	2711.6	2553.4
107.5°	355.6	494.7	1677.1	2963.1	3020.9
110°	403.6	528.6	1600.3	3017.1	3204.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	446.7	567.1	1528.4	2974.4	3251.0
115°	515.5	622.9	1430.5	2831.9	3220.7
117.5°	575.4	682.5	1366.2	2631.3	3073.6
120°	615.4	720.9	1340.6	2495.6	2941.0
122.5°	653.7	754.5	1319.8	2368.8	2790.7
125°	707.3	804.9	1296.7	2194.4	2575.3
127.5°	752.8	850.5	1283.1	2047.0	2375.5
130°	783.2	880.9	1276.7	1956.8	2255.7
132.5°	812.0	904.9	1270.3	1881.0	2151.8
135°	851.1	942.9	1260.7	1777.3	2003.9
137.5°	895.1	978.7	1255.9	1690.3	1883.7
140°	919.1	1001.1	1252.7	1632.2	1802.1
142.5°	946.2	1022.0	1249.5	1580.6	1730.2
145°	987.0	1055.4	1244.7	1513.1	1628.3
147.5°	1026.1	1085.9	1240.3	1456.1	1545.6
150°	1054.9	1103.7	1238.7	1422.2	1494.5
152.5°	1077.3	1123.0	1237.1	1393.1	1452.9
155°	1112.9	1150.0	1234.7	1357.6	1400.6
157.5°	1145.6	1174.1	1235.1	1331.7	1361.0
160°	1164.8	1190.2	1236.7	1317.1	1338.6
162.5°	1180.8	1203.1	1238.3	1304.2	1321.0
165°	1204.8	1220.4	1240.7	1288.9	1298.7
167.5°	1223.1	1232.5	1242.7	1279.5	1282.7
170°	1232.7	1240.5	1242.7	1274.7	1274.7
172.5°	1240.7	1245.4	1242.7	1268.3	1266.7
175°	1248.7	1250.7	1242.7	1260.6	1256.7
177.5°	1251.9	1250.3	1242.3	1253.4	1250.3
180°	1248.7	1248.7	1248.7	1248.7	1248.7

(END OF REPORT)