

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: P518714

Luminaire Tested: **SQ4-BB-100U-075D-835-1D-UNV-STD-W-8**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P518714  
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-075D-835-1D-UNV-STD-W-8  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

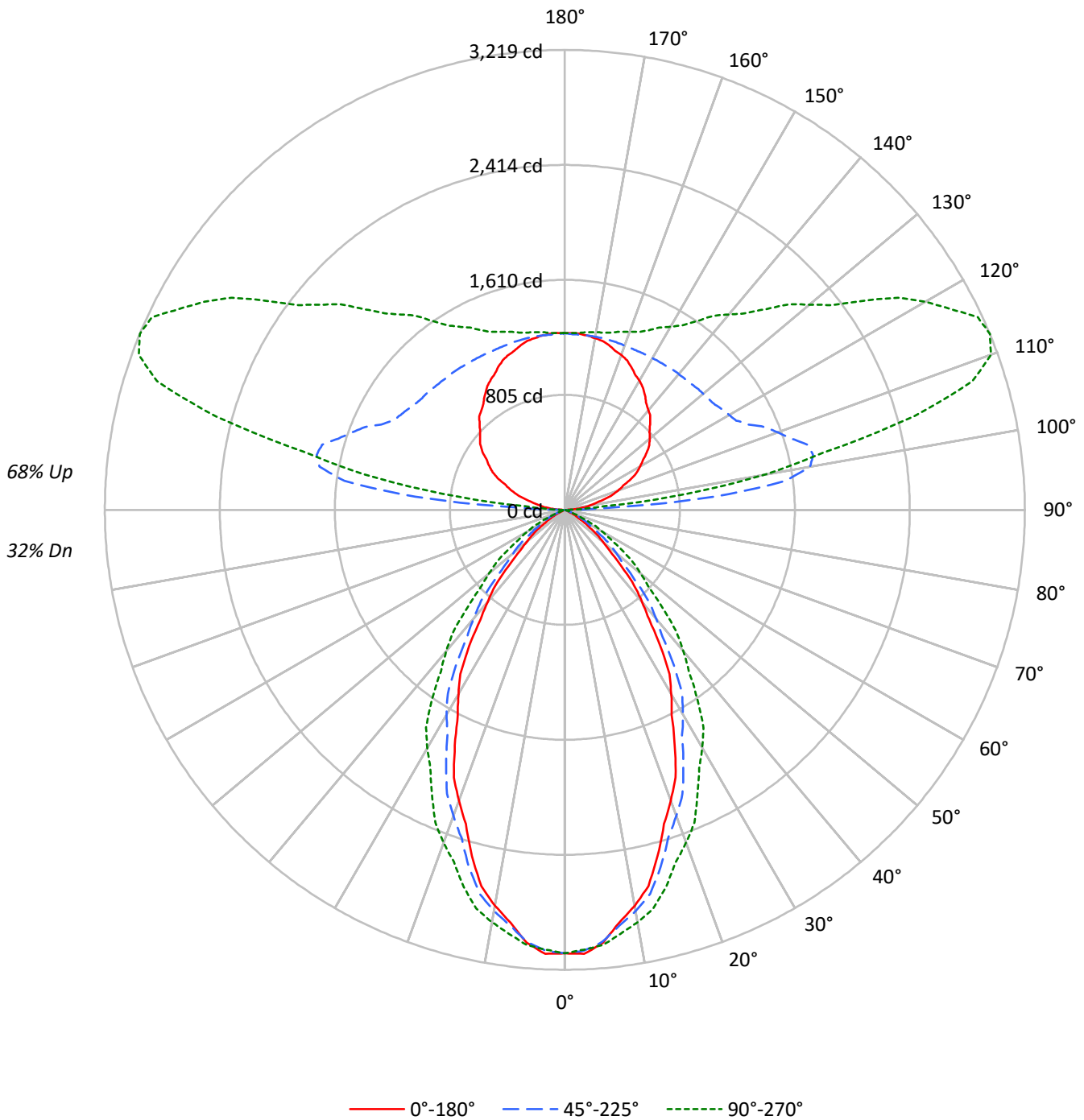
Lumens per Lamp: N/A  
Luminaire Lumens: 11737.5 lumens  
Efficiency: N/A  
Efficacy: 113.0 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97  
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 103.9  
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



TEST NUMBER: P518714  
CATALOG NUMBER: SQ4-BB-100U-075D-835-1D-UNV-STD-W-8

### Luminous Intensity Polar Plot





TEST NUMBER: P518714

CATALOG NUMBER: SQ4-BB-100U-075D-835-1D-UNV-STD-W-8

**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	103	103	103	103	92	92	92	92	73	73	73	55	55	55	39	39	39	32
1	95	91	88	85	85	82	79	77	66	64	62	50	49	48	36	36	35	29
2	87	81	75	71	78	73	69	65	59	56	53	46	44	42	33	32	31	26
3	80	72	66	60	72	65	60	56	53	49	46	41	39	37	31	29	28	23
4	74	64	57	52	67	59	53	48	48	44	40	38	35	33	28	27	25	21
5	68	58	51	45	62	53	47	42	43	39	36	34	31	29	26	24	23	19
6	63	52	45	40	57	48	42	37	39	35	32	31	28	26	24	22	21	18
7	59	48	40	35	53	44	37	33	36	32	28	29	26	24	22	20	19	16
8	55	43	36	32	49	40	34	30	33	29	25	27	24	21	21	19	17	15
9	51	40	33	28	46	37	31	27	31	26	23	25	22	19	19	17	16	14
10	48	37	30	26	43	34	28	24	28	24	21	23	20	18	18	16	15	13

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

	0°	45°	90°
0°	14317	14317	14317
5°	14087	14052	14157
10°	13181	13357	13729
15°	11983	12363	13051
20°	10637	11189	12170
25°	9263	9997	11181
30°	7934	8806	10245
35°	6579	7475	9115
40°	5054	5977	7767
45°	3654	4526	6250
50°	2489	3373	4957
55°	1618	2439	3852
60°	928	1718	2784
65°	246	1049	1409
70°	121	324	405
75°	53	27	0
80°	40	0	0
85°	0	0	0



TEST NUMBER: P518714

CATALOG NUMBER: SQ4-BB-100U-075D-835-1D-UNV-STD-W-8

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	283.2	2.4
10°-20°	724.3	6.2
20°-30°	906.8	7.7
30°-40°	837.6	7.1
40°-50°	562.8	4.8
50°-60°	290.7	2.5
60°-70°	91.1	0.8
70°-80°	5.7	0.0
80°-90°	2.7	0.0
90°-100°	579.0	4.9
100°-110°	1598.3	13.6
110°-120°	1648.4	14.0
120°-130°	1324.6	11.3
130°-140°	1041.0	8.9
140°-150°	798.4	6.8
150°-160°	573.8	4.9
160°-170°	350.9	3.0
170°-180°	118.3	1.0
0°-30°	1914.4	16.3
0°-40°	2751.9	23.4
0°-60°	3605.4	30.7
0°-90°	3704.9	31.6
90°-120°	3825.6	32.6
90°-150°	6989.6	59.5
90°-180°	8033.0	68.4
0°-180°	11737.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3104	3104	3104	3104	3104	
5°	3042	3011	3034	3045	3057	282
15°	2509	2500	2589	2676	2733	699
25°	1820	1834	1964	2098	2197	834
35°	1168	1198	1327	1484	1619	724
45°	560	594	694	829	958	440
55°	201	235	303	389	479	188
65°	22	43	96	116	129	38
75°	3	3	2	0	0	4
85°	0	0	0	0	0	0
90°	4	8	16	18	20	6
95°	85	313	1050	432	281	91
105°	285	440	1758	2685	2528	303
115°	510	617	1416	2804	3189	501
125°	700	797	1284	2172	2550	623
135°	843	934	1248	1760	1984	652
145°	977	1045	1232	1498	1612	612
155°	1102	1138	1222	1344	1387	508
165°	1193	1208	1228	1276	1286	336
175°	1236	1238	1230	1248	1244	117
180°	1236	1236	1236	1236	1236	

TEST NUMBER: P518714

CATALOG NUMBER: SQ4-BB-100U-075D-835-1D-UNV-STD-W-8

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3103.6	3103.6	3103.6	3103.6	3103.6
2.5°	3110.8	3081.5	3089.2	3089.0	3080.8
5°	3042.0	3011.2	3034.5	3045.3	3057.1
7.5°	2913.5	2889.4	2934.2	2967.8	2992.2
10°	2813.8	2793.3	2851.4	2897.2	2930.9
12.5°	2698.5	2682.6	2752.9	2815.7	2858.9
15°	2509.0	2500.2	2588.6	2675.5	2732.7
17.5°	2306.0	2305.7	2406.6	2514.5	2583.5
20°	2166.7	2171.1	2279.3	2398.2	2479.0
22.5°	2027.3	2037.6	2153.2	2277.2	2369.7
25°	1819.8	1834.5	1964.0	2098.3	2196.7
27.5°	1620.4	1641.9	1778.1	1917.7	2037.5
30°	1489.5	1514.5	1653.2	1800.1	1923.4
32.5°	1361.0	1390.6	1525.8	1681.2	1806.9
35°	1168.2	1197.5	1327.3	1483.6	1618.6
37.5°	969.1	997.8	1124.6	1278.4	1424.3
40°	839.3	871.6	992.5	1141.5	1289.8
42.5°	721.6	753.9	867.6	1014.0	1154.1
45°	560.1	593.8	693.7	828.8	958.0
47.5°	426.1	462.8	550.5	672.6	790.4
50°	346.8	383.6	470.0	577.6	690.7
52.5°	283.2	318.7	396.7	498.2	601.8
55°	201.2	235.0	303.3	389.4	479.0
57.5°	139.0	168.1	229.4	301.3	371.5
60°	100.6	128.5	186.2	244.5	301.8
62.5°	67.0	92.5	148.9	193.7	232.1
65°	22.5	43.1	96.1	115.9	129.1
67.5°	11.4	13.8	50.5	53.3	57.7
70°	9.0	9.0	24.0	25.6	30.0
72.5°	6.6	6.6	9.6	12.3	13.2
75°	3.0	3.0	1.5	0.0	0.0
77.5°	1.5	1.5	1.2	0.0	0.0
80°	1.5	1.5	0.0	0.0	0.0
82.5°	0.3	0.3	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	7.8	15.8	17.8	19.8
92.5°	35.6	147.8	264.3	96.4	75.2
95°	85.1	313.3	1050.3	431.7	280.9
97.5°	140.8	350.9	1555.9	1197.9	867.6
100°	182.0	373.5	1742.6	1755.0	1426.2
102.5°	221.5	399.1	1779.0	2168.4	1856.6
105°	284.8	439.6	1758.5	2684.6	2527.9
107.5°	352.1	489.8	1660.4	2933.5	2990.8
110°	399.6	523.3	1584.4	2987.1	3172.8



TEST NUMBER: P518714

CATALOG NUMBER: SQ4-BB-100U-075D-835-1D-UNV-STD-W-8

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	442.3	561.4	1513.2	2944.8	3218.7
115°	510.3	616.7	1416.3	2803.7	3188.6
117.5°	569.7	675.7	1352.6	2605.1	3043.0
120°	609.2	713.7	1327.3	2470.7	2911.7
122.5°	647.2	747.0	1306.7	2345.2	2762.9
125°	700.2	796.9	1283.7	2172.5	2549.7
127.5°	745.3	842.0	1270.3	2026.6	2351.9
130°	775.4	872.1	1264.0	1937.3	2233.2
132.5°	803.9	895.9	1257.6	1862.3	2130.3
135°	842.6	933.5	1248.1	1759.6	1984.0
137.5°	886.2	968.9	1243.4	1673.4	1864.9
140°	909.9	991.1	1240.2	1615.9	1784.2
142.5°	936.8	1011.8	1237.1	1564.8	1713.0
145°	977.1	1044.8	1232.3	1498.0	1612.1
147.5°	1015.9	1075.1	1228.0	1441.6	1530.2
150°	1044.4	1092.8	1226.4	1408.0	1479.6
152.5°	1066.6	1111.8	1224.8	1379.2	1438.4
155°	1101.8	1138.5	1222.4	1344.1	1386.6
157.5°	1134.2	1162.4	1222.8	1318.4	1347.4
160°	1153.2	1178.3	1224.4	1304.0	1325.3
162.5°	1169.0	1191.1	1226.0	1291.2	1307.9
165°	1192.8	1208.2	1228.4	1276.1	1285.7
167.5°	1211.0	1220.2	1230.3	1266.8	1269.9
170°	1220.4	1228.2	1230.3	1262.0	1262.0
172.5°	1228.4	1233.0	1230.3	1255.6	1254.1
175°	1236.3	1238.2	1230.3	1248.1	1244.2
177.5°	1239.4	1237.9	1229.9	1240.9	1237.9
180°	1236.3	1236.3	1236.3	1236.3	1236.3

(END OF REPORT)