

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: P518701

Luminaire Tested: **SQ4-BB-100U-050D-935-1D-UNV-STD-W-6**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P518701  
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-935-1D-UNV-STD-W-6  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: 3500K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

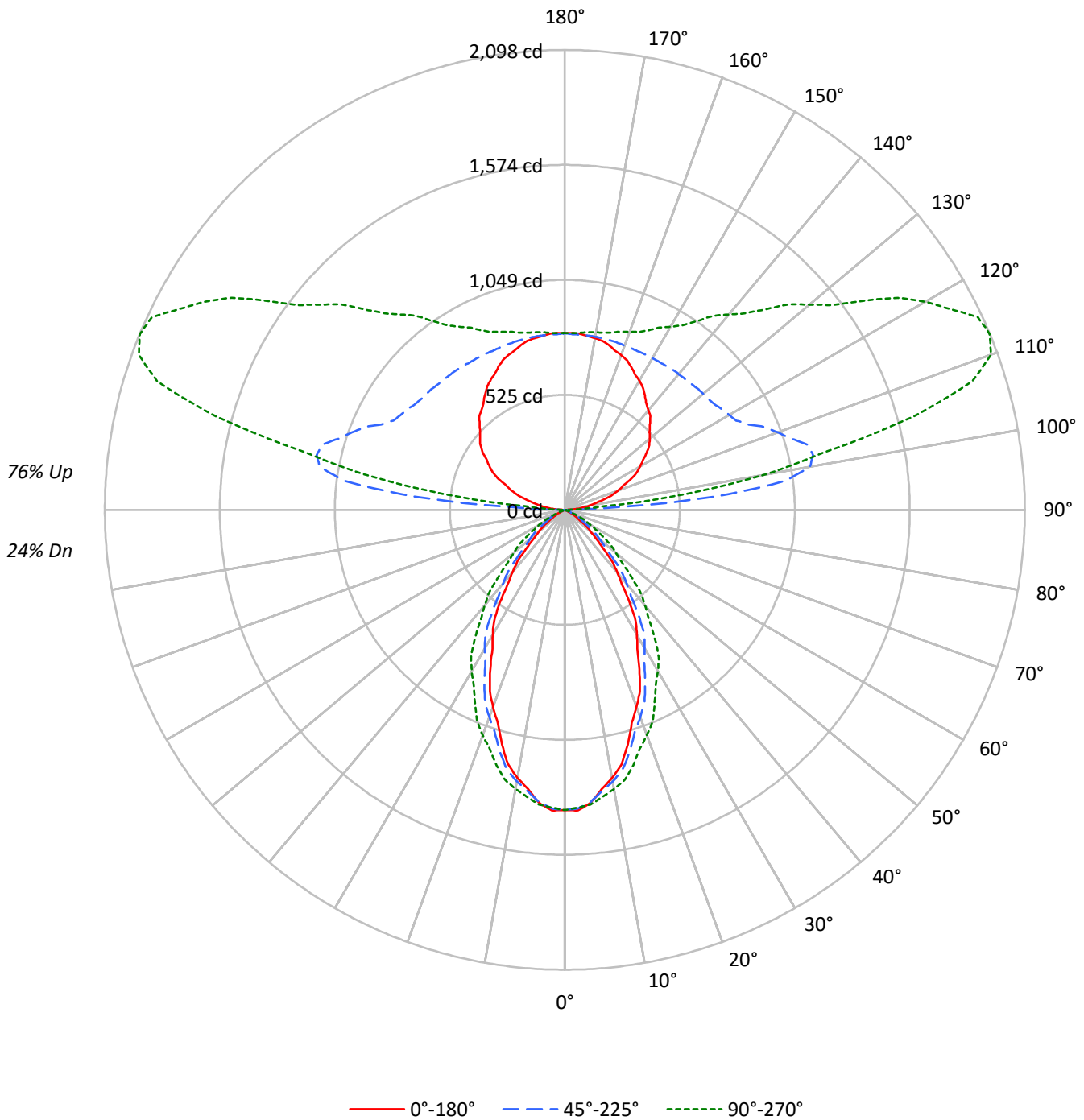
Lumens per Lamp: N/A  
Luminaire Lumens: 6869.9 lumens  
Efficiency: N/A  
Efficacy: 106.8 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97  
Luminous Opening: Rectangular (W 0.29' x L: 6' x H: 0')  
CIE Type: Semi-Indirect

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				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°	8424	8424	8424
5°	8288	8267	8329
10°	7755	7858	8078
15°	7050	7273	7678
20°	6258	6583	7160
25°	5450	5881	6578
30°	4668	5181	6028
35°	3871	4398	5363
40°	2974	3516	4569
45°	2149	2663	3677
50°	1464	1985	2917
55°	952	1435	2266
60°	546	1011	1639
65°	144	617	830
70°	72	191	239
75°	31	17	0
80°	25	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	125.0	1.8
10°-20°	319.6	4.7
20°-30°	400.1	5.8
30°-40°	369.6	5.4
40°-50°	248.3	3.6
50°-60°	128.3	1.9
60°-70°	40.2	0.6
70°-80°	2.5	0.0
80°-90°	1.7	0.0
90°-100°	377.3	5.5
100°-110°	1041.6	15.2
110°-120°	1074.2	15.6
120°-130°	863.2	12.6
130°-140°	678.4	9.9
140°-150°	520.3	7.6
150°-160°	373.9	5.4
160°-170°	228.7	3.3
170°-180°	77.1	1.1
0°-30°	844.7	12.3
0°-40°	1214.3	17.7
0°-60°	1590.9	23.2
0°-90°	1635.3	23.8
90°-120°	2493.0	36.3
90°-150°	4554.9	66.3
90°-180°	5235.0	76.2
0°-180°	6869.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1370	1370	1370	1370	1370	
5°	1342	1329	1339	1344	1349	124
15°	1107	1103	1142	1181	1206	308
25°	803	810	867	926	969	368
35°	516	528	586	655	714	319
45°	247	262	306	366	423	194
55°	89	104	134	172	211	83
65°	10	19	42	51	57	17
75°	1	1	1	0	0	2
85°	0	0	0	0	0	0
90°	3	5	10	12	13	4
95°	55	204	684	281	183	59
105°	186	286	1146	1750	1647	197
115°	333	402	923	1827	2078	327
125°	456	519	837	1416	1662	406
135°	549	608	813	1147	1293	425
145°	637	681	803	976	1051	399
155°	718	742	797	876	904	331
165°	777	787	800	832	838	219
175°	806	807	802	813	811	77
180°	806	806	806	806	806	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1369.5	1369.5	1369.5	1369.5	1369.5
2.5°	1372.6	1359.7	1363.1	1363.0	1359.4
5°	1342.3	1328.7	1339.0	1343.7	1348.9
7.5°	1285.6	1275.0	1294.7	1309.6	1320.3
10°	1241.6	1232.5	1258.2	1278.4	1293.3
12.5°	1190.7	1183.7	1214.7	1242.4	1261.5
15°	1107.1	1103.2	1142.2	1180.6	1205.8
17.5°	1017.5	1017.4	1061.9	1109.5	1140.0
20°	956.0	958.0	1005.7	1058.2	1093.9
22.5°	894.6	899.1	950.1	1004.8	1045.6
25°	803.0	809.5	866.6	925.9	969.3
27.5°	715.0	724.5	784.6	846.2	899.1
30°	657.2	668.3	729.5	794.3	848.7
32.5°	600.5	613.6	673.3	741.8	797.3
35°	515.5	528.4	585.7	654.6	714.2
37.5°	427.6	440.3	496.2	564.1	628.5
40°	370.4	384.6	437.9	503.7	569.1
42.5°	318.4	332.7	382.8	447.4	509.2
45°	247.1	262.0	306.1	365.7	422.7
47.5°	188.0	204.2	242.9	296.8	348.8
50°	153.0	169.2	207.4	254.9	304.8
52.5°	125.0	140.6	175.0	219.8	265.5
55°	88.8	103.7	133.8	171.8	211.3
57.5°	61.4	74.2	101.2	132.9	163.9
60°	44.4	56.7	82.2	107.9	133.2
62.5°	29.5	40.8	65.7	85.5	102.4
65°	9.9	19.0	42.4	51.1	57.0
67.5°	5.0	6.1	22.3	23.5	25.4
70°	4.0	4.0	10.6	11.3	13.3
72.5°	2.9	2.9	4.2	5.4	5.8
75°	1.3	1.3	0.7	0.0	0.0
77.5°	0.7	0.7	0.5	0.0	0.0
80°	0.7	0.7	0.0	0.0	0.0
82.5°	0.1	0.1	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.5	1.0	2.1	2.3	2.6
90°	2.6	5.1	10.3	11.6	12.9
92.5°	23.2	96.3	172.2	62.8	49.0
95°	55.4	204.2	684.5	281.4	183.0
97.5°	91.8	228.7	1013.9	780.6	565.4
100°	118.6	243.4	1135.6	1143.7	929.4
102.5°	144.4	260.1	1159.3	1413.1	1209.9
105°	185.6	286.4	1145.9	1749.5	1647.4
107.5°	229.4	319.2	1082.0	1911.7	1949.0
110°	260.4	341.0	1032.5	1946.6	2067.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	288.2	365.9	986.1	1919.0	2097.5
115°	332.6	401.9	922.9	1827.1	2077.9
117.5°	371.2	440.3	881.4	1697.7	1983.0
120°	397.0	465.1	864.9	1610.1	1897.4
122.5°	421.8	486.8	851.5	1528.3	1800.5
125°	456.3	519.3	836.6	1415.8	1661.6
127.5°	485.7	548.7	827.8	1320.7	1532.6
130°	505.3	568.3	823.7	1262.5	1455.3
132.5°	523.9	583.9	819.6	1213.6	1388.3
135°	549.1	608.4	813.4	1146.7	1292.9
137.5°	577.5	631.4	810.3	1090.5	1215.3
140°	593.0	645.9	808.2	1053.0	1162.7
142.5°	610.5	659.4	806.2	1019.7	1116.3
145°	636.8	680.9	803.1	976.2	1050.6
147.5°	662.0	700.6	800.2	939.5	997.2
150°	680.6	712.1	799.2	917.6	964.2
152.5°	695.0	724.5	798.2	898.8	937.4
155°	718.0	741.9	796.6	875.9	903.6
157.5°	739.1	757.5	796.9	859.2	878.1
160°	751.5	767.9	797.9	849.8	863.6
162.5°	761.8	776.2	798.9	841.5	852.3
165°	777.3	787.4	800.5	831.6	837.9
167.5°	789.1	795.2	801.8	825.5	827.6
170°	795.3	800.4	801.8	822.4	822.4
172.5°	800.5	803.5	801.8	818.2	817.2
175°	805.6	806.9	801.8	813.3	810.8
177.5°	807.7	806.7	801.5	808.7	806.7
180°	805.6	805.6	805.6	805.6	805.6

(END OF REPORT)