

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: P518728

Luminaire Tested: **SQ4-BB-100U-075D-940-1D-UNV-STD-W-4**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P518728  
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-940-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

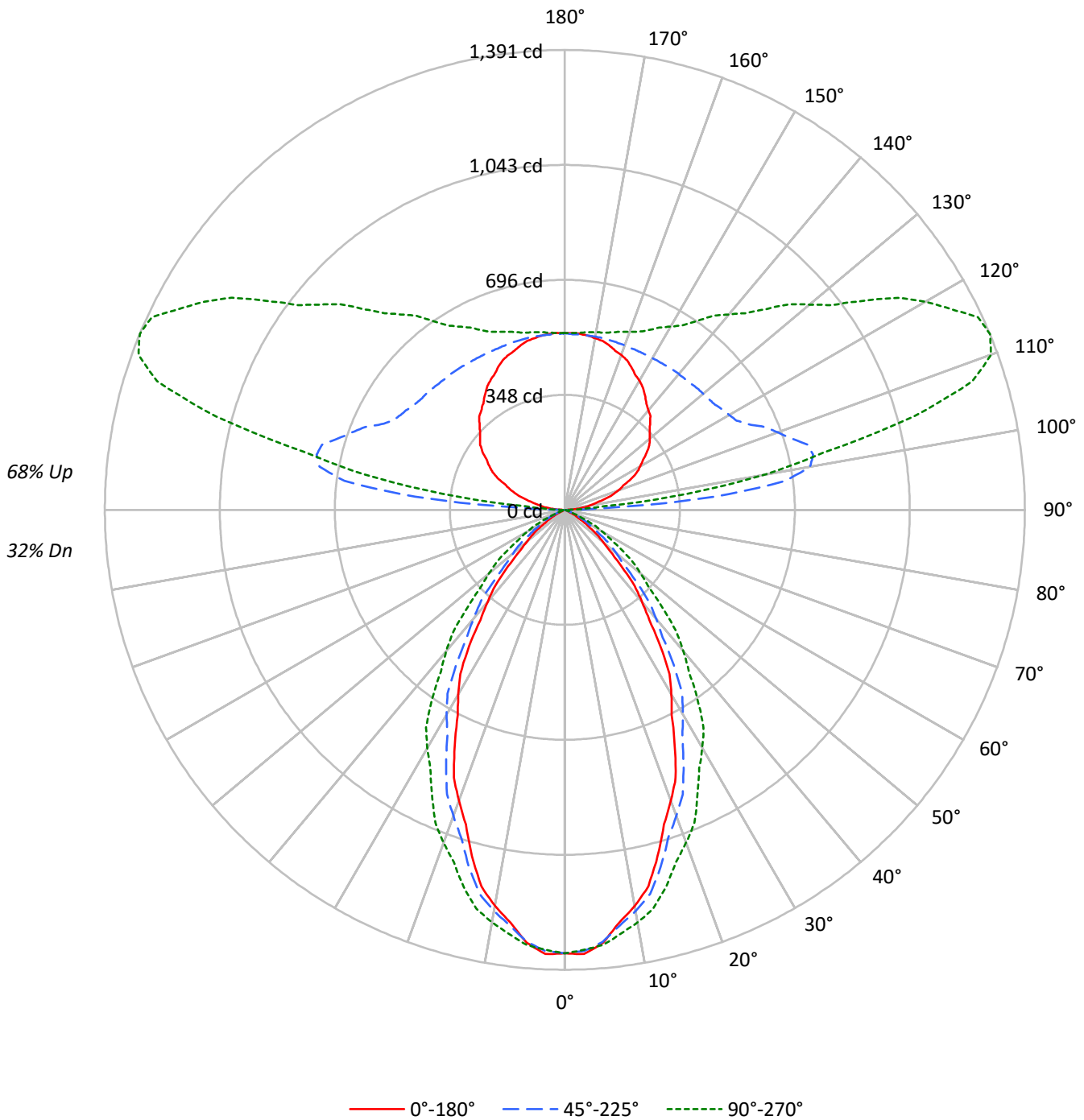
Lumens per Lamp: N/A  
Luminaire Lumens: 5073.4 lumens  
Efficiency: N/A  
Efficacy: 103.3 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 49.1  
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	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°	12377	12377	12377
5°	12178	12148	12238
10°	11394	11547	11869
15°	10359	10687	11282
20°	9195	9673	10520
25°	8008	8642	9666
30°	6859	7613	8857
35°	5687	6462	7880
40°	4370	5167	6715
45°	3159	3912	5403
50°	2152	2915	4284
55°	1399	2109	3330
60°	803	1485	2408
65°	212	906	1218
70°	105	281	351
75°	46	21	0
80°	32	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	122.4	2.4
10°-20°	313.1	6.2
20°-30°	392.0	7.7
30°-40°	362.0	7.1
40°-50°	243.3	4.8
50°-60°	125.7	2.5
60°-70°	39.3	0.8
70°-80°	2.5	0.0
80°-90°	1.1	0.0
90°-100°	250.2	4.9
100°-110°	690.9	13.6
110°-120°	712.5	14.0
120°-130°	572.6	11.3
130°-140°	450.0	8.9
140°-150°	345.1	6.8
150°-160°	248.0	4.9
160°-170°	151.7	3.0
170°-180°	51.1	1.0
0°-30°	827.5	16.3
0°-40°	1189.5	23.4
0°-60°	1558.4	30.7
0°-90°	1601.4	31.6
90°-120°	1653.6	32.6
90°-150°	3021.2	59.5
90°-180°	3472.0	68.4
0°-180°	5073.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1342	1342	1342	1342	1342	
5°	1315	1302	1312	1316	1321	122
15°	1084	1081	1119	1156	1181	302
25°	787	793	849	907	950	361
35°	505	518	574	641	700	313
45°	242	257	300	358	414	190
55°	87	102	131	168	207	81
65°	10	19	42	50	56	16
75°	1	1	1	0	0	2
85°	0	0	0	0	0	0
90°	2	3	7	8	8	3
95°	37	135	454	187	121	39
105°	123	190	760	1160	1093	131
115°	221	267	612	1212	1378	217
125°	303	344	555	939	1102	269
135°	364	404	540	761	858	282
145°	422	452	533	648	697	264
155°	476	492	528	581	599	219
165°	516	522	531	552	556	145
175°	534	535	532	540	538	51
180°	534	534	534	534	534	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1341.5	1341.5	1341.5	1341.5	1341.5
2.5°	1344.6	1331.9	1335.3	1335.2	1331.6
5°	1314.9	1301.6	1311.7	1316.3	1321.4
7.5°	1259.3	1248.9	1268.3	1282.8	1293.3
10°	1216.2	1207.4	1232.5	1252.3	1266.9
12.5°	1166.4	1159.5	1189.9	1217.1	1235.7
15°	1084.5	1080.7	1118.9	1156.5	1181.2
17.5°	996.8	996.6	1040.2	1086.9	1116.7
20°	936.5	938.4	985.2	1036.6	1071.5
22.5°	876.3	880.7	930.7	984.3	1024.3
25°	786.6	792.9	848.9	907.0	949.5
27.5°	700.4	709.7	768.6	828.9	880.7
30°	643.8	654.6	714.6	778.1	831.4
32.5°	588.3	601.1	659.5	726.7	781.0
35°	504.9	517.6	573.7	641.3	699.6
37.5°	418.9	431.3	486.1	552.6	615.7
40°	362.8	376.8	429.0	493.4	557.5
42.5°	311.9	325.9	375.0	438.3	498.8
45°	242.1	256.7	299.8	358.2	414.1
47.5°	184.2	200.1	237.9	290.7	341.6
50°	149.9	165.8	203.1	249.7	298.5
52.5°	122.4	137.8	171.5	215.3	260.1
55°	87.0	101.6	131.1	168.3	207.0
57.5°	60.1	72.7	99.2	130.2	160.6
60°	43.5	55.5	80.5	105.7	130.5
62.5°	28.9	40.0	64.4	83.7	100.3
65°	9.7	18.6	41.5	50.1	55.8
67.5°	4.9	5.9	21.8	23.0	24.9
70°	3.9	3.9	10.4	11.1	13.0
72.5°	2.9	2.9	4.2	5.3	5.7
75°	1.3	1.3	0.6	0.0	0.0
77.5°	0.6	0.6	0.5	0.0	0.0
80°	0.6	0.6	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°	0.3	0.7	1.4	1.5	1.7
90°	1.7	3.4	6.8	7.7	8.5
92.5°	15.4	63.9	114.2	41.7	32.5
95°	36.8	135.4	454.0	186.6	121.4
97.5°	60.9	151.7	672.5	517.8	375.0
100°	78.7	161.4	753.2	758.6	616.4
102.5°	95.8	172.5	769.0	937.3	802.5
105°	123.1	190.0	760.1	1160.4	1092.7
107.5°	152.2	211.7	717.7	1268.0	1292.7
110°	172.7	226.2	684.8	1291.1	1371.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	191.2	242.7	654.1	1272.9	1391.2
115°	220.6	266.6	612.2	1211.9	1378.2
117.5°	246.2	292.0	584.6	1126.0	1315.3
120°	263.3	308.5	573.7	1067.9	1258.5
122.5°	279.8	322.9	564.8	1013.7	1194.2
125°	302.7	344.5	554.9	939.1	1102.1
127.5°	322.2	364.0	549.1	876.0	1016.6
130°	335.2	377.0	546.3	837.4	965.3
132.5°	347.5	387.3	543.6	805.0	920.8
135°	364.2	403.5	539.5	760.6	857.6
137.5°	383.0	418.8	537.4	723.3	806.1
140°	393.3	428.4	536.1	698.5	771.2
142.5°	404.9	437.4	534.7	676.4	740.4
145°	422.4	451.6	532.7	647.5	696.8
147.5°	439.1	464.7	530.8	623.1	661.4
150°	451.4	472.3	530.1	608.6	639.5
152.5°	461.0	480.6	529.4	596.2	621.7
155°	476.2	492.1	528.4	581.0	599.3
157.5°	490.2	502.5	528.6	569.9	582.4
160°	498.5	509.3	529.2	563.6	572.8
162.5°	505.3	514.8	529.9	558.1	565.3
165°	515.6	522.2	530.9	551.6	555.7
167.5°	523.4	527.4	531.8	547.6	548.9
170°	527.5	530.9	531.8	545.5	545.5
172.5°	530.9	533.0	531.8	542.7	542.1
175°	534.4	535.2	531.8	539.5	537.8
177.5°	535.7	535.1	531.6	536.4	535.0
180°	534.4	534.4	534.4	534.4	534.4

(END OF REPORT)