

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: P518732

Luminaire Tested: **SQ4-BB-100U-100D-830-1D-UNV-STD-W-4**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P518732  
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-100D-830-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

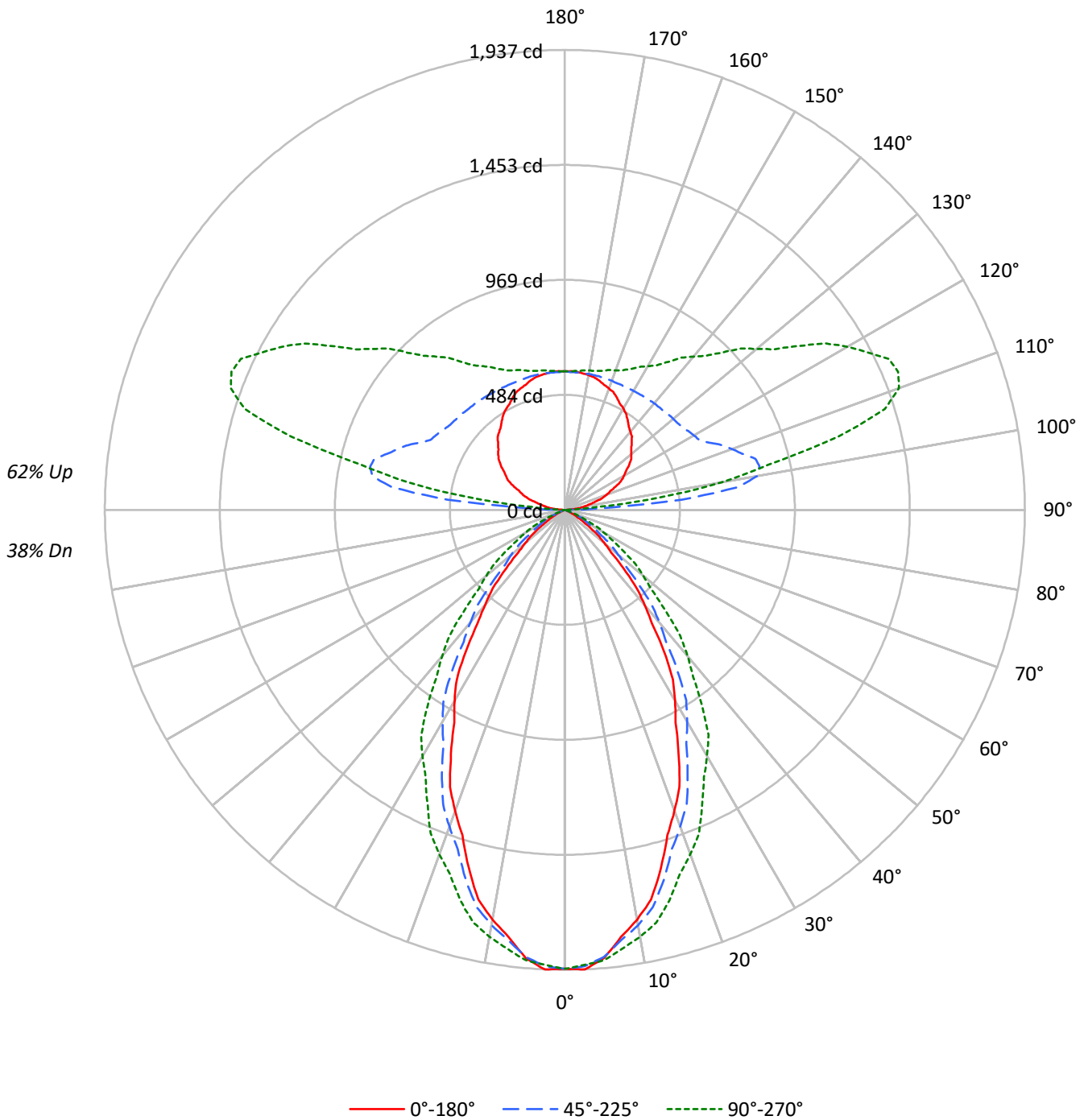
Lumens per Lamp: N/A  
Luminaire Lumens: 6097.9 lumens  
Efficiency: N/A  
Efficacy: 105.3 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 57.9  
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



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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	104	104	104	104	95	95	95	95	77	77	77	60	60	60	45	45	45	38
1	96	93	89	86	87	84	82	79	69	67	65	55	54	53	42	41	41	35
2	89	83	77	73	81	75	71	67	62	59	56	50	48	46	38	37	36	31
3	82	74	67	62	75	68	62	58	56	52	49	45	43	41	35	34	33	28
4	76	66	59	54	69	61	55	50	51	46	43	41	38	36	33	31	29	25
5	70	60	53	47	64	55	49	44	46	42	38	38	35	32	30	28	27	23
6	65	54	47	42	59	50	44	39	42	37	34	35	31	29	28	26	24	21
7	60	49	42	37	55	46	39	35	39	34	31	32	29	26	26	24	22	19
8	56	45	38	33	51	42	36	31	36	31	28	30	26	24	24	22	20	18
9	53	41	35	30	48	38	32	28	33	28	25	28	24	22	23	20	19	16
10	49	38	32	27	45	36	30	26	30	26	23	26	22	20	21	19	17	15

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

	0°	45°	90°
0°	17833	17833	17833
5°	17547	17503	17633
10°	16417	16637	17101
15°	14925	15399	16256
20°	13249	13937	15159
25°	11538	12452	13927
30°	9883	10969	12762
35°	8194	9311	11354
40°	6295	7444	9675
45°	4551	5637	7784
50°	3100	4201	6175
55°	2015	3039	4798
60°	1157	2140	3469
65°	306	1305	1755
70°	151	405	504
75°	68	32	0
80°	48	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	176.4	2.9
10°-20°	451.1	7.4
20°-30°	564.7	9.3
30°-40°	521.6	8.6
40°-50°	350.5	5.7
50°-60°	181.0	3.0
60°-70°	56.7	0.9
70°-80°	3.6	0.1
80°-90°	1.3	0.0
90°-100°	273.2	4.5
100°-110°	754.3	12.4
110°-120°	777.9	12.8
120°-130°	625.1	10.3
130°-140°	491.3	8.1
140°-150°	376.8	6.2
150°-160°	270.8	4.4
160°-170°	165.6	2.7
170°-180°	55.8	0.9
0°-30°	1192.3	19.6
0°-40°	1713.9	28.1
0°-60°	2245.4	36.8
0°-90°	2307.0	37.8
90°-120°	1805.5	29.6
90°-150°	3298.7	54.1
90°-180°	3791.0	62.2
0°-180°	6097.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1933	1933	1933	1933	1933	
5°	1895	1875	1890	1897	1904	176
15°	1563	1557	1612	1666	1702	435
25°	1133	1142	1223	1307	1368	520
35°	728	746	827	924	1008	451
45°	349	370	432	516	597	274
55°	125	146	189	242	298	117
65°	14	27	60	72	80	24
75°	2	2	1	0	0	3
85°	0	0	0	0	0	0
90°	2	4	8	8	9	3
95°	40	148	496	204	133	43
105°	134	207	830	1267	1193	143
115°	241	291	668	1323	1505	237
125°	330	376	606	1025	1203	294
135°	398	441	589	830	936	308
145°	461	493	582	707	761	289
155°	520	537	577	634	654	240
165°	563	570	580	602	607	159
175°	584	584	581	589	587	55
180°	584	584	584	584	584	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1932.9	1932.9	1932.9	1932.9	1932.9
2.5°	1937.4	1919.1	1923.9	1923.8	1918.7
5°	1894.6	1875.4	1889.9	1896.6	1903.9
7.5°	1814.5	1799.5	1827.4	1848.4	1863.5
10°	1752.4	1739.6	1775.8	1804.3	1825.4
12.5°	1680.6	1670.7	1714.5	1753.6	1780.5
15°	1562.6	1557.1	1612.2	1666.3	1701.9
17.5°	1436.2	1436.0	1498.8	1566.0	1609.0
20°	1349.4	1352.1	1419.5	1493.6	1543.9
22.5°	1262.6	1269.0	1341.0	1418.2	1475.8
25°	1133.4	1142.5	1223.2	1306.8	1368.1
27.5°	1009.2	1022.5	1107.4	1194.4	1269.0
30°	927.7	943.2	1029.6	1121.1	1197.9
32.5°	847.6	866.1	950.3	1047.1	1125.3
35°	727.5	745.8	826.7	924.0	1008.1
37.5°	603.5	621.5	700.4	796.2	887.1
40°	522.7	542.9	618.1	710.9	803.3
42.5°	449.4	469.5	540.3	631.5	718.7
45°	348.8	369.8	432.0	516.2	596.6
47.5°	265.4	288.2	342.8	418.9	492.3
50°	216.0	238.9	292.7	359.8	430.2
52.5°	176.4	198.5	247.1	310.2	374.8
55°	125.3	146.3	188.9	242.5	298.3
57.5°	86.6	104.7	142.9	187.6	231.4
60°	62.7	80.0	116.0	152.3	188.0
62.5°	41.7	57.6	92.8	120.6	144.6
65°	14.0	26.8	59.8	72.2	80.4
67.5°	7.1	8.6	31.4	33.2	35.9
70°	5.6	5.6	15.0	16.0	18.7
72.5°	4.1	4.1	6.0	7.7	8.2
75°	1.9	1.9	0.9	0.0	0.0
77.5°	0.9	0.9	0.7	0.0	0.0
80°	0.9	0.9	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°	0.4	0.7	1.5	1.7	1.9
90°	1.9	3.7	7.5	8.4	9.3
92.5°	16.8	69.7	124.7	45.5	35.5
95°	40.1	147.8	495.7	203.8	132.6
97.5°	66.5	165.6	734.3	565.3	409.4
100°	85.9	176.2	822.4	828.2	673.1
102.5°	104.6	188.3	839.6	1023.3	876.2
105°	134.4	207.4	829.9	1267.0	1193.0
107.5°	166.2	231.2	783.6	1384.5	1411.5
110°	188.6	247.0	747.8	1409.7	1497.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	208.7	265.0	714.1	1389.8	1519.0
115°	240.8	291.1	668.4	1323.2	1504.8
117.5°	268.9	318.9	638.3	1229.5	1436.1
120°	287.5	336.8	626.4	1166.0	1374.1
122.5°	305.4	352.5	616.7	1106.8	1303.9
125°	330.5	376.1	605.9	1025.3	1203.3
127.5°	351.8	397.4	599.5	956.4	1110.0
130°	365.9	411.6	596.5	914.3	1053.9
132.5°	379.4	422.8	593.5	878.9	1005.4
135°	397.7	440.6	589.1	830.4	936.3
137.5°	418.2	457.3	586.8	789.8	880.1
140°	429.4	467.8	585.3	762.6	842.0
142.5°	442.1	477.5	583.8	738.5	808.4
145°	461.2	493.1	581.6	707.0	760.8
147.5°	479.5	507.4	579.5	680.4	722.2
150°	492.9	515.7	578.8	664.5	698.3
152.5°	503.4	524.7	578.0	650.9	678.9
155°	520.0	537.3	576.9	634.3	654.4
157.5°	535.3	548.6	577.1	622.2	635.9
160°	544.2	556.1	577.9	615.4	625.5
162.5°	551.7	562.1	578.6	609.4	617.2
165°	562.9	570.2	579.7	602.2	606.8
167.5°	571.5	575.9	580.7	597.9	599.3
170°	576.0	579.6	580.7	595.6	595.6
172.5°	579.7	581.9	580.7	592.6	591.9
175°	583.5	584.4	580.7	589.0	587.2
177.5°	584.9	584.2	580.5	585.7	584.2
180°	583.5	583.5	583.5	583.5	583.5

(END OF REPORT)