

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: P518756

Luminaire Tested: **SQ4-BB-100U-125D-830-1D-UNV-STD-W-4**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P518756  
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-125D-830-1D-UNV-STD-W-4  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

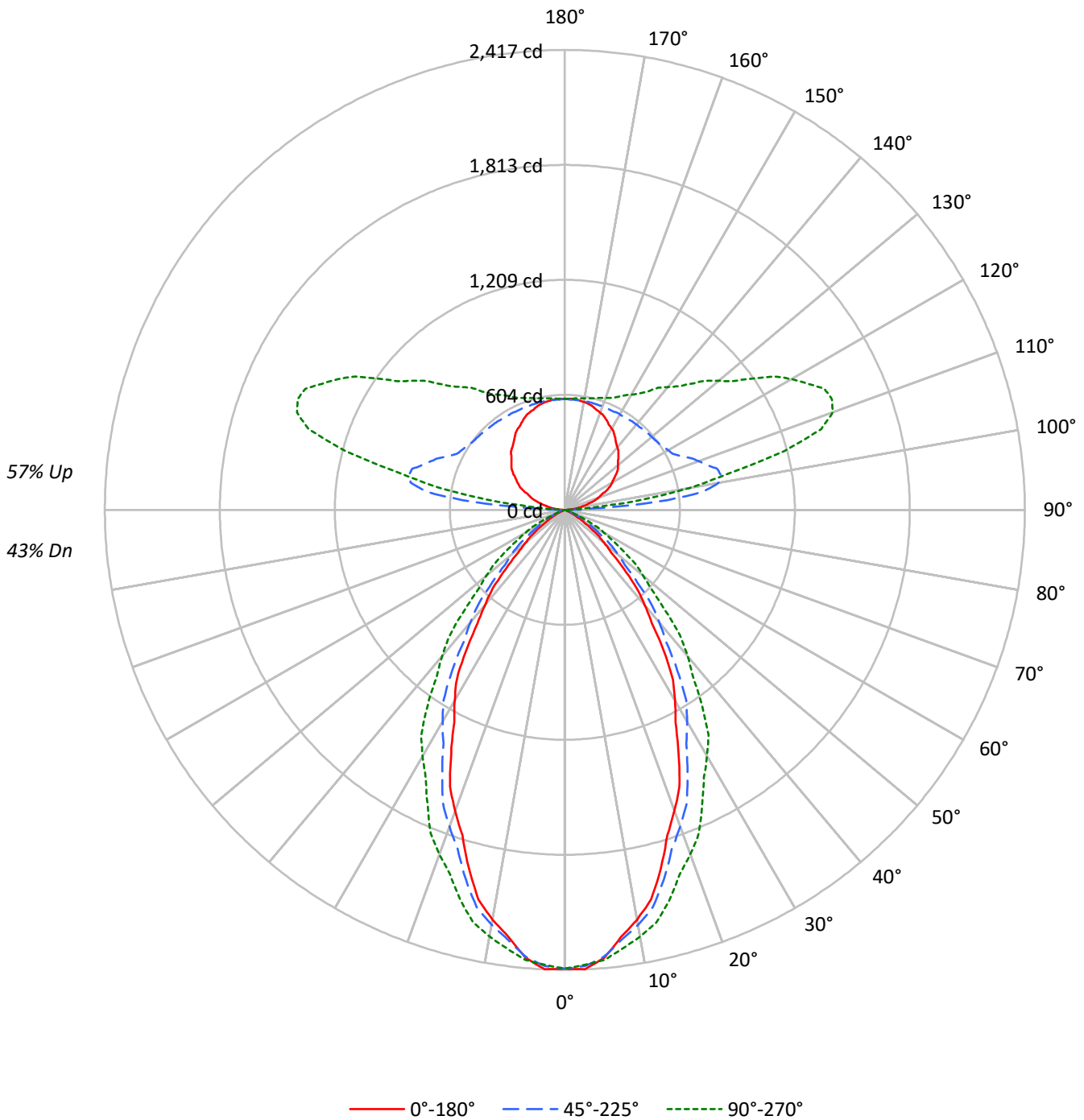
Lumens per Lamp: N/A  
Luminaire Lumens: 6668.8 lumens  
Efficiency: N/A  
Efficacy: 97.1 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97  
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')  
CIE Type: General Diffuse

Input Watts (W): 68.7  
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	106	106	106	106	96	96	96	96	80	80	80	64	64	64	50	50	50	43
1	98	94	91	88	89	86	84	81	72	70	68	59	57	56	46	46	45	39
2	90	84	79	74	83	77	73	69	65	62	59	53	51	50	43	42	40	36
3	83	75	69	64	76	70	64	60	59	55	52	49	46	44	39	38	36	32
4	77	68	61	56	71	63	57	52	53	49	45	44	41	39	36	34	33	29
5	71	61	54	49	66	57	51	46	49	44	40	41	38	35	34	31	30	26
6	66	56	48	43	61	52	45	41	44	40	36	38	34	31	31	29	27	24
7	62	51	44	39	57	47	41	37	41	36	32	35	31	29	29	27	25	22
8	58	46	39	35	53	43	37	33	38	33	29	32	29	26	27	24	23	20
9	54	43	36	31	50	40	34	30	35	30	27	30	26	24	25	23	21	19
10	51	40	33	29	47	37	31	27	32	28	25	28	24	22	24	21	19	17

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

	0°	45°	90°
0°	22248	22248	22248
5°	21890	21837	21999
10°	20482	20755	21335
15°	18620	19211	20281
20°	16528	17387	18911
25°	14395	15535	17375
30°	12329	13684	15922
35°	10222	11616	14164
40°	7854	9287	12069
45°	5678	7033	9711
50°	3868	5242	7703
55°	2514	3791	5987
60°	1443	2670	4327
65°	382	1631	2190
70°	189	504	629
75°	82	43	0
80°	64	0	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	220.1	3.3
10°-20°	562.8	8.4
20°-30°	704.6	10.6
30°-40°	650.8	9.8
40°-50°	437.3	6.6
50°-60°	225.9	3.4
60°-70°	70.8	1.1
70°-80°	4.5	0.1
80°-90°	1.3	0.0
90°-100°	273.2	4.1
100°-110°	754.3	11.3
110°-120°	777.9	11.7
120°-130°	625.1	9.4
130°-140°	491.3	7.4
140°-150°	376.8	5.7
150°-160°	270.8	4.1
160°-170°	165.6	2.5
170°-180°	55.8	0.8
0°-30°	1487.4	22.3
0°-40°	2138.2	32.1
0°-60°	2801.3	42.0
0°-90°	2877.9	43.2
90°-120°	1805.5	27.1
90°-150°	3298.7	49.5
90°-180°	3791.0	56.8
0°-180°	6668.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2411	2411	2411	2411	2411	
5°	2364	2340	2358	2366	2375	219
15°	1949	1943	2011	2079	2123	543
25°	1414	1425	1526	1630	1707	648
35°	908	930	1031	1153	1258	562
45°	435	461	539	644	744	342
55°	156	183	236	303	372	146
65°	18	34	75	90	100	30
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°	2411.4	2411.4	2411.4	2411.4	2411.4
2.5°	2417.0	2394.2	2400.2	2400.1	2393.7
5°	2363.6	2339.6	2357.8	2366.1	2375.3
7.5°	2263.7	2245.0	2279.8	2305.9	2324.9
10°	2186.3	2170.3	2215.4	2251.0	2277.3
12.5°	2096.7	2084.4	2138.9	2187.7	2221.3
15°	1949.4	1942.6	2011.3	2078.8	2123.3
17.5°	1791.7	1791.5	1869.9	1953.7	2007.3
20°	1683.4	1686.9	1770.9	1863.4	1926.1
22.5°	1575.2	1583.2	1672.9	1769.3	1841.2
25°	1414.0	1425.4	1526.0	1630.4	1706.8
27.5°	1259.0	1275.7	1381.5	1490.0	1583.1
30°	1157.3	1176.7	1284.5	1398.6	1494.5
32.5°	1057.4	1080.5	1185.5	1306.3	1403.9
35°	907.6	930.5	1031.3	1152.7	1257.6
37.5°	752.9	775.3	873.8	993.3	1106.7
40°	652.1	677.2	771.1	886.9	1002.1
42.5°	560.7	585.8	674.1	787.8	896.7
45°	435.2	461.4	539.0	643.9	744.3
47.5°	331.1	359.6	427.7	522.6	614.1
50°	269.5	298.0	365.2	448.8	536.7
52.5°	220.0	247.6	308.2	387.1	467.6
55°	156.3	182.6	235.7	302.6	372.2
57.5°	108.0	130.6	178.3	234.1	288.6
60°	78.2	99.8	144.7	190.0	234.5
62.5°	52.0	71.9	115.7	150.5	180.4
65°	17.5	33.5	74.7	90.1	100.3
67.5°	8.9	10.7	39.2	41.4	44.8
70°	7.0	7.0	18.7	19.9	23.3
72.5°	5.1	5.1	7.5	9.6	10.3
75°	2.3	2.3	1.2	0.0	0.0
77.5°	1.2	1.2	0.9	0.0	0.0
80°	1.2	1.2	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)