

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: P518715

Luminaire Tested: **SQ4-BB-100U-075D-840-1D-UNV-STD-W-12**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P518715  
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-840-1D-UNV-STD-W-12  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

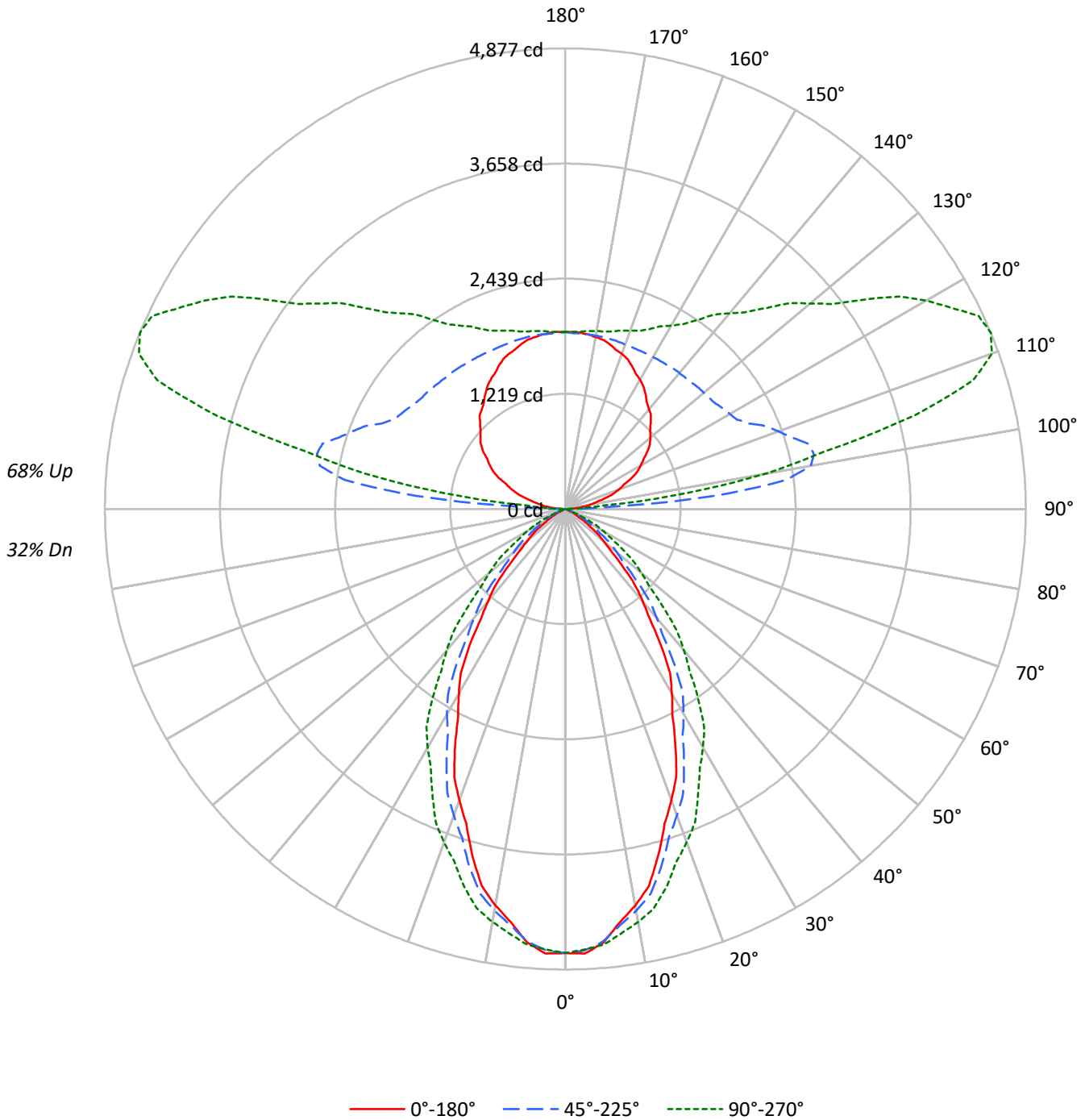
Lumens per Lamp: N/A  
Luminaire Lumens: 17783.4 lumens  
Efficiency: N/A  
Efficacy: 115.9 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97  
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 153.4  
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: P518715  
CATALOG NUMBER: SQ4-BB-100U-075D-840-1D-UNV-STD-W-12

### Luminous Intensity Polar Plot





TEST NUMBER: P518715

CATALOG NUMBER: SQ4-BB-100U-075D-840-1D-UNV-STD-W-12

**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°	14461	14461	14461
5°	14229	14193	14299
10°	13313	13491	13867
15°	12103	12487	13183
20°	10744	11302	12292
25°	9356	10097	11294
30°	8014	8895	10349
35°	6645	7550	9207
40°	5105	6037	7845
45°	3690	4571	6313
50°	2514	3407	5007
55°	1634	2464	3891
60°	937	1735	2813
65°	248	1060	1423
70°	122	327	409
75°	53	27	0
80°	41	0	0
85°	0	0	0



TEST NUMBER: P518715

CATALOG NUMBER: SQ4-BB-100U-075D-840-1D-UNV-STD-W-12

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	429.1	2.4
10°-20°	1097.4	6.2
20°-30°	1373.9	7.7
30°-40°	1269.0	7.1
40°-50°	852.7	4.8
50°-60°	440.4	2.5
60°-70°	137.9	0.8
70°-80°	8.7	0.0
80°-90°	4.0	0.0
90°-100°	877.2	4.9
100°-110°	2421.6	13.6
110°-120°	2497.4	14.0
120°-130°	2006.9	11.3
130°-140°	1577.2	8.9
140°-150°	1209.7	6.8
150°-160°	869.4	4.9
160°-170°	531.7	3.0
170°-180°	179.2	1.0
0°-30°	2900.4	16.3
0°-40°	4169.4	23.4
0°-60°	5462.6	30.7
0°-90°	5613.3	31.6
90°-120°	5796.2	32.6
90°-150°	10589.9	59.5
90°-180°	12170.0	68.4
0°-180°	17783.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4702	4702	4702	4702	4702	
5°	4609	4562	4598	4614	4632	427
15°	3801	3788	3922	4054	4140	1059
25°	2757	2779	2976	3179	3328	1264
35°	1770	1814	2011	2248	2452	1096
45°	848	900	1051	1256	1451	666
55°	305	356	460	590	726	284
65°	34	65	146	176	196	58
75°	4	4	2	0	0	6
85°	0	0	0	0	0	1
90°	6	12	24	27	30	9
95°	129	475	1591	654	426	138
105°	432	666	2664	4067	3830	459
115°	773	934	2146	4248	4831	760
125°	1061	1207	1945	3292	3863	944
135°	1277	1414	1891	2666	3006	988
145°	1480	1583	1867	2270	2442	927
155°	1669	1725	1852	2036	2101	769
165°	1807	1831	1861	1933	1948	509
175°	1873	1876	1864	1891	1885	178
180°	1873	1873	1873	1873	1873	

TEST NUMBER: P518715

CATALOG NUMBER: SQ4-BB-100U-075D-840-1D-UNV-STD-W-12

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4702.3	4702.3	4702.3	4702.3	4702.3
2.5°	4713.2	4668.7	4680.4	4680.1	4667.7
5°	4609.0	4562.3	4597.6	4613.9	4631.7
7.5°	4414.3	4377.8	4445.6	4496.5	4533.5
10°	4263.2	4232.1	4320.1	4389.5	4440.6
12.5°	4088.5	4064.5	4170.8	4266.0	4331.4
15°	3801.4	3788.0	3922.0	4053.6	4140.4
17.5°	3493.8	3493.4	3646.2	3809.7	3914.2
20°	3282.7	3289.4	3453.3	3633.6	3755.9
22.5°	3071.6	3087.2	3262.2	3450.1	3590.3
25°	2757.2	2779.4	2975.6	3179.2	3328.2
27.5°	2455.1	2487.6	2694.0	2905.6	3087.1
30°	2256.7	2294.5	2504.7	2727.3	2914.2
32.5°	2062.0	2106.9	2311.8	2547.2	2737.6
35°	1769.9	1814.4	2011.0	2247.7	2452.4
37.5°	1468.2	1511.8	1703.9	1936.9	2158.0
40°	1271.7	1320.6	1503.7	1729.5	1954.2
42.5°	1093.3	1142.3	1314.4	1536.3	1748.5
45°	848.5	899.7	1051.0	1255.7	1451.4
47.5°	645.6	701.2	834.0	1019.1	1197.5
50°	525.5	581.1	712.0	875.2	1046.5
52.5°	429.0	482.9	601.0	754.7	911.8
55°	304.8	356.0	459.5	590.0	725.7
57.5°	210.7	254.7	347.6	456.5	562.8
60°	152.4	194.7	282.1	370.5	457.3
62.5°	101.5	140.2	225.7	293.4	351.7
65°	34.1	65.3	145.6	175.6	195.6
67.5°	17.3	20.8	76.4	80.7	87.4
70°	13.6	13.6	36.4	38.8	45.5
72.5°	10.0	10.0	14.6	18.7	20.0
75°	4.5	4.5	2.3	0.0	0.0
77.5°	2.3	2.3	1.8	0.0	0.0
80°	2.3	2.3	0.0	0.0	0.0
82.5°	0.5	0.5	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	1.2	2.4	4.8	5.4	6.0
90°	6.0	11.9	24.0	27.0	30.0
92.5°	53.9	223.9	400.4	146.1	113.9
95°	128.9	474.6	1591.4	654.1	425.6
97.5°	213.4	531.6	2357.4	1814.9	1314.4
100°	275.7	565.8	2640.3	2658.9	2160.8
102.5°	335.7	604.7	2695.4	3285.3	2812.9
105°	431.6	666.0	2664.2	4067.4	3830.0
107.5°	533.4	742.1	2515.6	4444.6	4531.3
110°	605.4	792.9	2400.5	4525.7	4807.0



TEST NUMBER: P518715

CATALOG NUMBER: SQ4-BB-100U-075D-840-1D-UNV-STD-W-12

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	670.1	850.6	2292.6	4461.6	4876.6
115°	773.2	934.4	2145.8	4247.9	4831.0
117.5°	863.1	1023.7	2049.3	3947.0	4610.4
120°	923.0	1081.3	2010.9	3743.3	4411.4
122.5°	980.6	1131.8	1979.8	3553.1	4186.1
125°	1060.9	1207.4	1945.0	3291.6	3863.0
127.5°	1129.2	1275.7	1924.6	3070.4	3563.3
130°	1174.8	1321.3	1915.0	2935.2	3383.5
132.5°	1217.9	1357.4	1905.4	2821.5	3227.7
135°	1276.7	1414.4	1891.0	2666.0	3005.9
137.5°	1342.6	1468.0	1883.9	2535.4	2825.5
140°	1378.6	1501.6	1879.1	2448.3	2703.2
142.5°	1419.3	1533.0	1874.3	2370.9	2595.3
145°	1480.5	1583.0	1867.1	2269.6	2442.5
147.5°	1539.2	1628.9	1860.5	2184.2	2318.4
150°	1582.4	1655.6	1858.1	2133.3	2241.7
152.5°	1615.9	1684.5	1855.7	2089.7	2179.3
155°	1669.3	1725.0	1852.1	2036.4	2100.8
157.5°	1718.4	1761.2	1852.7	1997.5	2041.5
160°	1747.2	1785.3	1855.1	1975.7	2007.9
162.5°	1771.2	1804.6	1857.5	1956.4	1981.6
165°	1807.1	1830.6	1861.1	1933.3	1948.0
167.5°	1834.7	1848.8	1864.1	1919.3	1924.0
170°	1849.1	1860.8	1864.1	1912.0	1912.0
172.5°	1861.1	1868.1	1864.1	1902.4	1900.0
175°	1873.1	1876.0	1864.1	1890.9	1885.1
177.5°	1877.9	1875.5	1863.5	1880.2	1875.5
180°	1873.1	1873.1	1873.1	1873.1	1873.1

(END OF REPORT)