

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: P518401

Luminaire Tested: **SQ4-BB-050U-050D-835-1D-UNV-STD-W-6**

Issue Date: 4/29/2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P518401  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-536-21, 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-050U-050D-835-1D-UNV-STD-W-6  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

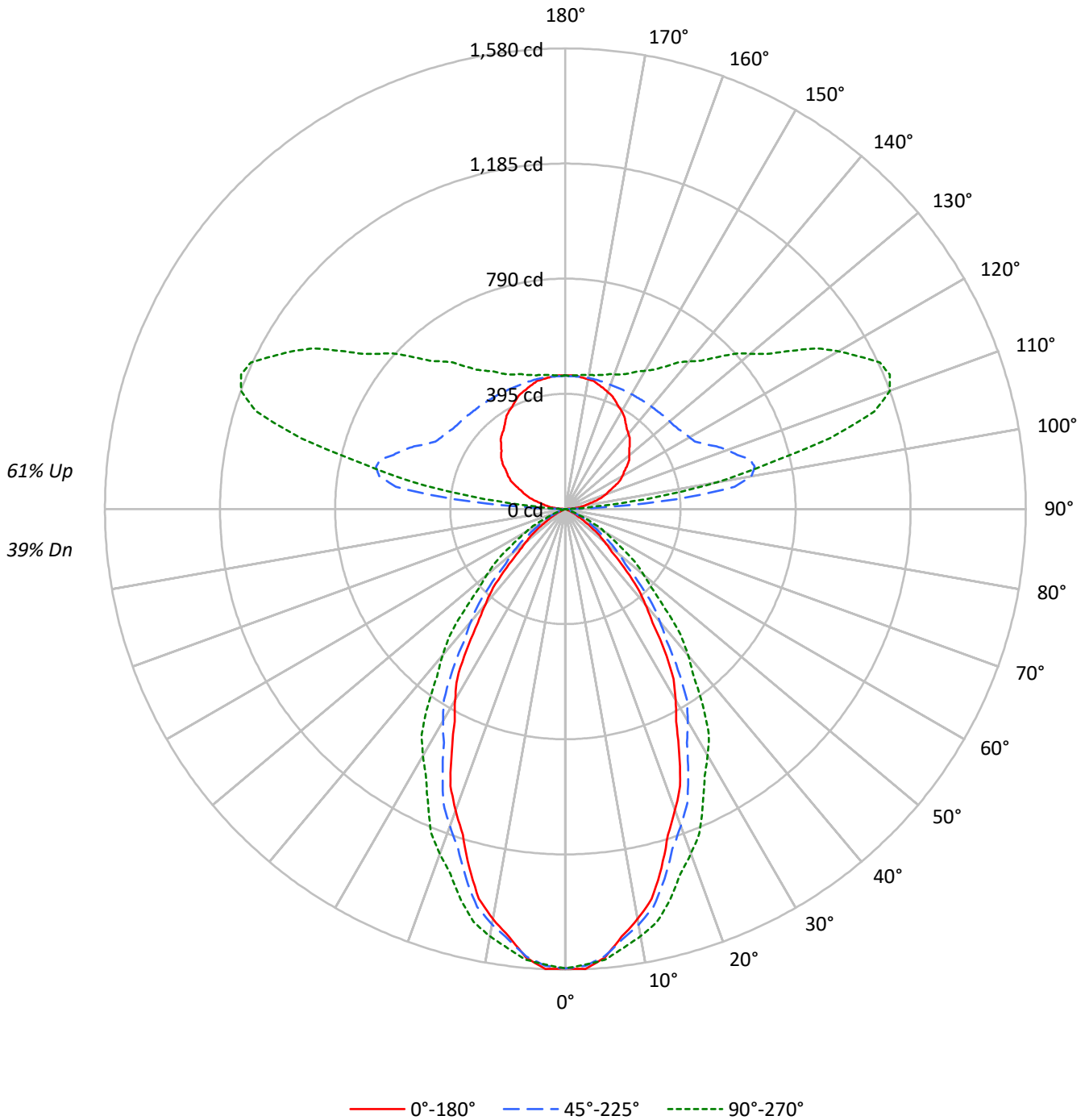
Lumens per Lamp: N/A  
Luminaire Lumens: 4869.9 lumens  
Efficiency: N/A  
Efficacy: 108.7 lumens/watt  
Spacing Criteria (0/90/45): 0.85 / 0.97 / 0.97  
Luminous Opening: Rectangular (W 0.29' x L: 6' x H: 0')  
CIE Type: Semi-Indirect

Input Watts (W): 44.8  
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: P518401  
CATALOG NUMBER: SQ4-BB-050U-050D-835-1D-UNV-STD-W-6

### Luminous Intensity Polar Plot





TEST NUMBER: P518401

CATALOG NUMBER: SQ4-BB-050U-050D-835-1D-UNV-STD-W-6

**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	61	61	61	46	46	46	39
1	97	93	90	87	88	85	82	79	69	68	66	55	54	53	42	42	41	35
2	89	83	77	73	81	76	71	67	63	59	57	50	48	47	39	38	37	32
3	82	74	68	63	75	68	62	58	56	53	49	46	43	41	36	34	33	29
4	76	66	60	54	69	61	55	51	51	47	43	42	39	37	33	31	30	26
5	70	60	53	47	64	55	49	44	46	42	38	38	35	33	31	29	27	24
6	65	54	47	42	59	50	44	39	42	38	34	35	32	29	28	26	25	22
7	61	50	42	37	55	46	40	35	39	34	31	32	29	27	26	24	22	20
8	56	45	38	33	52	42	36	32	36	31	28	30	27	24	25	22	21	18
9	53	42	35	30	48	39	33	29	33	29	25	28	25	22	23	21	19	17
10	49	38	32	27	45	36	30	26	31	26	23	26	23	20	22	19	18	16

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

	0°	45°	90°
0°	9694	9694	9694
5°	9538	9515	9586
10°	8924	9044	9296
15°	8114	8371	8837
20°	7202	7576	8240
25°	6272	6769	7571
30°	5372	5962	6938
35°	4454	5062	6172
40°	3422	4047	5259
45°	2474	3064	4232
50°	1685	2284	3357
55°	1096	1651	2608
60°	629	1164	1886
65°	166	710	955
70°	83	219	275
75°	36	19	0
80°	28	0	0
85°	0	0	0



TEST NUMBER: P518401

CATALOG NUMBER: SQ4-BB-050U-050D-835-1D-UNV-STD-W-6

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	143.8	3.0
10°-20°	367.8	7.6
20°-30°	460.5	9.5
30°-40°	425.3	8.7
40°-50°	285.8	5.9
50°-60°	147.6	3.0
60°-70°	46.2	0.9
70°-80°	2.9	0.1
80°-90°	1.8	0.0
90°-100°	219.7	4.5
100°-110°	596.8	12.3
110°-120°	613.6	12.6
120°-130°	490.6	10.1
130°-140°	385.5	7.9
140°-150°	295.6	6.1
150°-160°	212.5	4.4
160°-170°	130.0	2.7
170°-180°	43.8	0.9
0°-30°	972.2	20.0
0°-40°	1397.5	28.7
0°-60°	1831.0	37.6
0°-90°	1882.0	38.6
90°-120°	1430.0	29.4
90°-150°	2601.6	53.4
90°-180°	2988.0	61.4
0°-180°	4869.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1576	1576	1576	1576	1576	
5°	1545	1529	1541	1546	1552	143
15°	1274	1270	1315	1359	1388	355
25°	924	932	997	1066	1116	424
35°	593	608	674	753	822	367
45°	284	302	352	421	486	223
55°	102	119	154	198	243	95
65°	11	22	49	59	66	19
75°	2	2	1	0	0	2
85°	0	0	0	0	0	0
90°	2	6	10	13	13	2
95°	32	120	383	166	112	34
105°	106	165	656	999	940	113
115°	188	229	525	1045	1190	186
125°	259	295	475	801	945	231
135°	312	346	462	652	736	241
145°	360	386	456	554	596	226
155°	408	422	453	498	512	188
165°	441	447	455	474	475	125
175°	458	459	456	462	461	43
180°	458	458	458	458	458	



TEST NUMBER: P518401

CATALOG NUMBER: SQ4-BB-050U-050D-835-1D-UNV-STD-W-6

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1576.1	1576.1	1576.1	1576.1	1576.1
2.5°	1579.8	1564.9	1568.8	1568.7	1564.5
5°	1544.8	1529.2	1541.0	1546.5	1552.5
7.5°	1479.6	1467.3	1490.1	1507.2	1519.5
10°	1428.9	1418.5	1448.0	1471.3	1488.4
12.5°	1370.4	1362.3	1398.0	1429.9	1451.8
15°	1274.2	1269.7	1314.6	1358.7	1387.8
17.5°	1171.1	1170.9	1222.1	1276.9	1312.0
20°	1100.3	1102.5	1157.5	1217.9	1258.9
22.5°	1029.5	1034.8	1093.4	1156.4	1203.4
25°	924.2	931.6	997.4	1065.6	1115.5
27.5°	822.9	833.8	903.0	973.9	1034.7
30°	756.4	769.1	839.5	914.1	976.8
32.5°	691.1	706.2	774.9	853.8	917.6
35°	593.2	608.1	674.1	753.4	822.0
37.5°	492.1	506.7	571.1	649.2	723.3
40°	426.2	442.6	504.0	579.7	655.0
42.5°	366.5	382.9	440.6	514.9	586.1
45°	284.4	301.6	352.3	420.9	486.5
47.5°	216.4	235.0	279.5	341.6	401.4
50°	176.1	194.8	238.7	293.3	350.8
52.5°	143.8	161.9	201.5	253.0	305.6
55°	102.2	119.3	154.0	197.8	243.2
57.5°	70.6	85.4	116.5	153.0	188.6
60°	51.1	65.3	94.6	124.2	153.3
62.5°	34.0	47.0	75.6	98.4	117.9
65°	11.4	21.9	48.8	58.9	65.6
67.5°	5.8	7.0	25.6	27.0	29.3
70°	4.6	4.6	12.2	13.0	15.3
72.5°	3.4	3.4	4.9	6.3	6.7
75°	1.5	1.5	0.8	0.0	0.0
77.5°	0.8	0.8	0.6	0.0	0.0
80°	0.8	0.8	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°	0.3	1.2	2.1	2.6	2.6
90°	1.5	5.8	10.3	13.2	13.2
92.5°	13.2	60.1	104.5	44.9	38.0
95°	32.4	120.1	382.6	166.5	111.8
97.5°	53.6	132.7	586.5	456.3	320.5
100°	67.7	141.1	648.9	657.8	531.2
102.5°	81.8	149.4	665.4	813.5	701.9
105°	105.9	164.9	656.3	999.2	940.2
107.5°	131.0	183.0	618.3	1095.1	1111.5
110°	148.6	196.1	590.0	1114.0	1184.5

TEST NUMBER: P518401

CATALOG NUMBER: SQ4-BB-050U-050D-835-1D-UNV-STD-W-6

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	163.9	209.1	561.8	1098.3	1204.5
115°	188.3	228.6	525.3	1045.1	1190.4
117.5°	211.3	249.9	502.0	969.6	1133.3
120°	226.6	264.0	491.5	918.9	1081.5
122.5°	239.5	277.0	484.4	868.2	1025.0
125°	259.0	294.9	475.3	800.8	944.7
127.5°	276.3	312.0	470.3	749.7	873.1
130°	286.9	321.5	467.9	717.6	828.4
132.5°	297.5	332.1	465.6	690.3	788.4
135°	311.9	346.5	462.0	652.3	735.7
137.5°	327.5	358.9	460.3	618.7	688.9
140°	337.0	367.2	459.1	597.4	660.7
142.5°	346.4	374.3	457.9	580.6	633.6
145°	360.5	386.4	456.1	554.2	595.9
147.5°	376.4	398.5	454.7	533.4	566.2
150°	387.0	405.7	454.7	521.5	547.4
152.5°	395.2	411.6	453.5	510.8	532.1
155°	407.6	422.0	453.2	497.7	512.1
157.5°	419.6	430.9	453.2	488.8	499.7
160°	426.7	436.8	453.2	482.8	491.5
162.5°	433.8	441.5	454.4	478.1	484.4
165°	441.4	447.2	454.7	473.8	475.3
167.5°	449.4	452.2	456.1	468.8	470.0
170°	451.7	454.6	456.1	466.4	466.4
172.5°	454.1	455.8	456.1	464.1	464.1
175°	457.6	459.1	456.1	462.0	460.6
177.5°	458.8	458.8	455.3	459.9	457.6
180°	457.6	457.6	457.6	457.6	457.6

(END OF REPORT)