

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

Brand: CORELITE

Report Number: P521048

Luminaire Tested: SQ4-BB-050U-075D-92765-1D-UNV-STD-W-4\_6500K

Issue Date: 5-5-2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P521048  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2101-105-51, G2-2009-966-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 5-5-2021  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ4-BB-050U-075D-92765-1D-UNV-STD-W-4\_6500K  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: 2700K-6500K CCT, 90 CRI LEDS, TUNED TO 6500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4414.1 lumens  
Efficiency: N/A  
Efficacy: 93.1 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

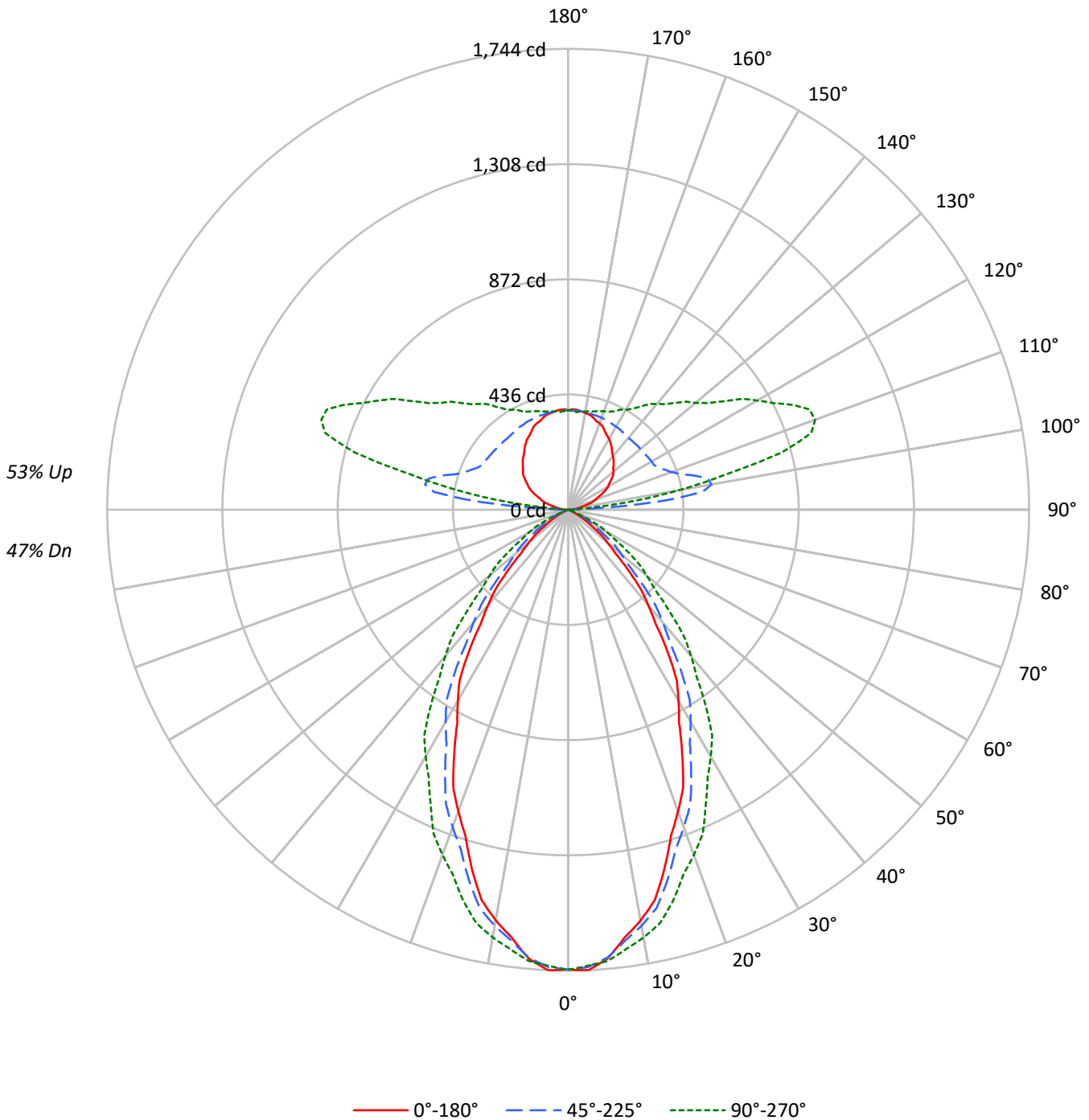
Input Watts (W): 47.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



TEST NUMBER: P521048

CATALOG NUMBER: SQ4-BB-050U-075D-92765-1D-UNV-STD-W-4\_6500K

### Luminous Intensity Polar Plot



TEST NUMBER: P521048

CATALOG NUMBER: SQ4-BB-050U-075D-92765-1D-UNV-STD-W-4\_6500K

**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	50	30	10	0	
RCR																						
0	106	106	106	106	98	98	98	98	82	82	82	67	67	67	53	53	53	47				47
1	99	95	92	89	91	88	85	83	74	72	70	61	60	59	50	49	48	43				43
2	91	85	80	76	84	79	74	71	67	64	61	56	54	52	46	45	43	39				39
3	85	76	70	65	78	71	66	61	61	57	54	51	48	46	42	41	39	35				35
4	78	69	62	57	72	64	58	53	55	51	47	47	44	41	39	37	35	32				32
5	73	62	55	50	67	58	52	47	50	46	42	43	40	37	36	34	32	29				29
6	67	57	49	44	62	53	47	42	46	41	38	40	36	33	33	31	29	26				26
7	63	52	45	40	58	49	42	38	42	37	34	37	33	30	31	29	27	24				24
8	59	47	40	36	54	45	38	34	39	34	31	34	30	28	29	26	24	22				22
9	55	44	37	32	51	41	35	31	36	31	28	32	28	25	27	25	23	21				21
10	52	41	34	29	48	38	32	28	34	29	26	29	26	23	25	23	21	19				19

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

	0°	45°	90°
0°	16057	16057	16057
5°	15799	15759	15877
10°	14783	14979	15398
15°	13439	13865	14637
20°	11929	12549	13648
25°	10389	11211	12540
30°	8898	9876	11491
35°	7378	8383	10224
40°	5669	6704	8711
45°	4098	5076	7009
50°	2792	3782	5559
55°	1814	2736	4321
60°	1041	1926	3122
65°	275	1177	1581
70°	138	364	453
75°	61	29	0
80°	43	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7009 cd/sqm

TEST NUMBER: P521048

CATALOG NUMBER: SQ4-BB-050U-075D-92765-1D-UNV-STD-W-4\_6500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	158.8	3.6
10°-20°	406.2	9.2
20°-30°	508.5	11.5
30°-40°	469.7	10.6
40°-50°	315.6	7.1
50°-60°	163.0	3.7
60°-70°	51.1	1.2
70°-80°	3.2	0.1
80°-90°	0.1	0.0
90°-100°	171.5	3.9
100°-110°	488.0	11.1
110°-120°	467.6	10.6
120°-130°	370.1	8.4
130°-140°	297.0	6.7
140°-150°	232.5	5.3
150°-160°	170.1	3.9
160°-170°	105.4	2.4
170°-180°	35.8	0.8
0°-30°	1073.5	24.3
0°-40°	1543.2	35.0
0°-60°	2021.8	45.8
0°-90°	2076.1	47.0
90°-120°	1127.1	25.5
90°-150°	2026.7	45.9
90°-180°	2338.0	53.0
0°-180°	4414.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1740	1740	1740	1740	1740	
5°	1706	1689	1702	1708	1714	158
15°	1407	1402	1452	1500	1532	392
25°	1020	1029	1101	1177	1232	468
35°	655	672	744	832	908	406
45°	314	333	389	465	537	247
55°	113	132	170	218	269	105
65°	13	24	54	65	72	21
75°	2	2	1	0	0	2
85°	0	0	0	0	0	0
90°	0	0	0	0	0	1
95°	19	74	332	115	71	21
105°	76	115	497	878	835	80
115°	141	170	377	799	938	139
125°	199	221	360	597	714	178
135°	243	264	356	504	570	188
145°	287	302	358	437	476	179
155°	328	335	367	395	411	151
165°	362	364	371	379	385	102
175°	379	377	376	374	371	36
180°	376	376	376	376	376	

TEST NUMBER: P521048

CATALOG NUMBER: SQ4-BB-050U-075D-92765-1D-UNV-STD-W-4\_6500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1740.4	1740.4	1740.4	1740.4	1740.4
2.5°	1744.4	1728.0	1732.3	1732.2	1727.6
5°	1705.9	1688.6	1701.6	1707.7	1714.3
7.5°	1633.8	1620.3	1645.4	1664.2	1677.9
10°	1577.9	1566.4	1598.9	1624.6	1643.6
12.5°	1513.2	1504.3	1543.7	1578.9	1603.1
15°	1407.0	1402.0	1451.6	1500.3	1532.4
17.5°	1293.1	1293.0	1349.5	1410.0	1448.7
20°	1215.0	1217.5	1278.1	1344.8	1390.1
22.5°	1136.8	1142.6	1207.4	1277.0	1328.8
25°	1020.5	1028.7	1101.3	1176.7	1231.8
27.5°	908.7	920.7	997.1	1075.4	1142.6
30°	835.2	849.2	927.0	1009.4	1078.6
32.5°	763.2	779.8	855.6	942.8	1013.2
35°	655.1	671.5	744.3	831.9	907.7
37.5°	543.4	559.6	630.6	716.9	798.7
40°	470.7	488.8	556.6	640.1	723.3
42.5°	404.7	422.8	486.5	568.6	647.1
45°	314.1	333.0	389.0	464.7	537.2
47.5°	239.0	259.5	308.7	377.2	443.2
50°	194.5	215.1	263.5	323.9	387.3
52.5°	158.8	178.7	222.5	279.3	337.5
55°	112.8	131.8	170.1	218.4	268.6
57.5°	78.0	94.3	128.7	169.0	208.3
60°	56.4	72.1	104.4	137.1	169.2
62.5°	37.6	51.9	83.5	108.6	130.2
65°	12.6	24.2	53.9	65.0	72.4
67.5°	6.4	7.7	28.3	29.9	32.3
70°	5.1	5.1	13.5	14.4	16.8
72.5°	3.7	3.7	5.4	6.9	7.4
75°	1.7	1.7	0.8	0.0	0.0
77.5°	0.8	0.8	0.7	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°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0
92.5°	5.7	30.4	70.4	20.5	15.5
95°	18.6	73.9	332.0	114.9	70.8
97.5°	34.2	86.5	511.3	365.9	250.7
100°	45.1	94.1	550.3	557.4	429.3
102.5°	57.1	102.2	541.7	713.5	601.6
105°	75.8	115.0	497.3	878.4	835.1
107.5°	94.9	130.0	445.5	925.0	963.6
110°	108.1	140.9	415.7	907.2	993.9

TEST NUMBER: P521048

CATALOG NUMBER: SQ4-BB-050U-075D-92765-1D-UNV-STD-W-4\_6500K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	120.6	151.8	395.7	865.1	988.8
115°	141.0	170.4	377.1	798.9	938.1
117.5°	158.9	186.4	366.1	726.5	874.0
120°	173.2	196.3	364.9	685.1	826.5
122.5°	184.6	207.7	362.1	648.9	780.1
125°	198.9	220.6	359.9	597.3	714.1
127.5°	214.5	234.8	358.8	566.5	662.8
130°	222.5	242.8	357.1	545.0	629.0
132.5°	231.1	250.9	357.1	528.3	605.5
135°	243.3	263.6	355.6	504.5	570.3
137.5°	254.7	274.5	355.5	484.4	541.3
140°	263.3	283.6	354.9	467.8	522.4
142.5°	273.1	290.0	356.6	454.5	503.5
145°	286.9	301.6	358.5	436.7	475.8
147.5°	298.8	313.1	361.6	418.7	452.5
150°	309.1	318.9	362.8	412.7	436.5
152.5°	317.1	327.5	363.9	404.7	426.8
155°	327.7	335.4	367.1	394.6	410.7
157.5°	340.9	345.5	367.8	390.1	401.6
160°	347.8	351.3	370.7	386.6	396.4
162.5°	351.8	355.8	371.2	383.7	391.3
165°	362.1	363.5	371.4	379.4	385.0
167.5°	369.1	367.8	374.7	378.3	380.5
170°	371.4	370.7	373.5	374.3	377.1
172.5°	376.5	374.2	375.2	373.1	375.4
175°	379.2	377.1	375.7	373.5	370.7
177.5°	380.4	377.0	375.2	373.0	373.5
180°	376.4	376.4	376.4	376.4	376.4

(END OF REPORT)