

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: P521056

Luminaire Tested: SQ4-BB-050U-100D-92765-1D-UNV-STD-W-4\_3500K

Issue Date: 5-5-2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P521056  
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-100D-92765-1D-UNV-STD-W-4\_3500K  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: 2700K-6500K CCT, 90 CRI LEDS, TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4730.7 lumens  
Efficiency: N/A  
Efficacy: 81.3 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: General Diffuse

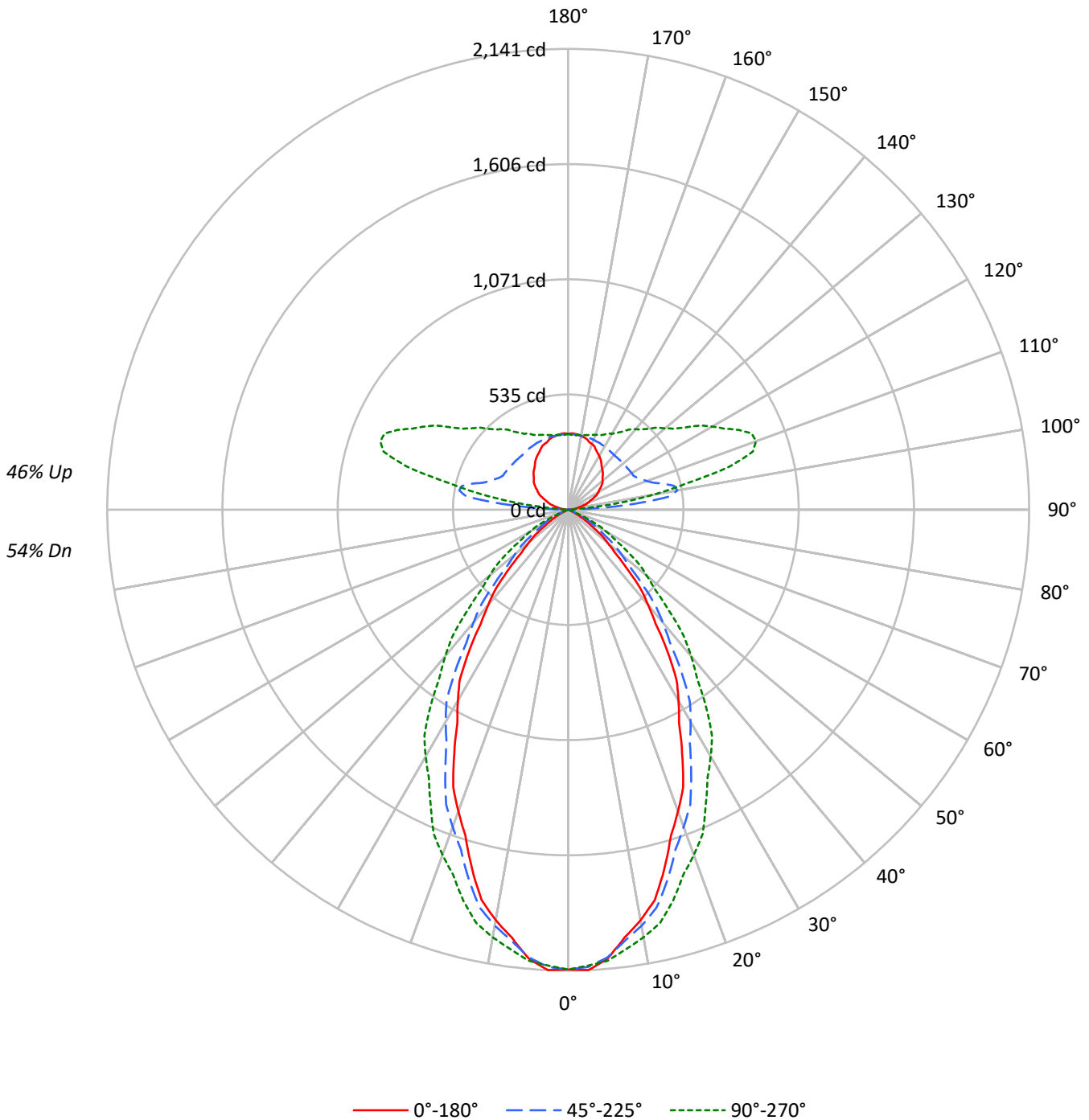
Input Watts (W): 58.2  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



TEST NUMBER: P521056

CATALOG NUMBER: SQ4-BB-050U-100D-92765-1D-UNV-STD-W-4\_3500K

### Luminous Intensity Polar Plot



TEST NUMBER: P521056

CATALOG NUMBER: SQ4-BB-050U-100D-92765-1D-UNV-STD-W-4\_3500K

**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	108	108	108	108	100	100	100	100	85	85	85		72	72	72		60	60	60	54
1	101	97	94	91	93	90	88	85	78	76	74		66	65	64		56	55	54	49
2	93	87	82	78	87	81	77	73	71	67	65		61	58	56		51	50	49	44
3	86	78	72	67	80	73	68	64	64	60	57		55	53	50		47	46	44	40
4	80	71	64	59	75	66	60	56	58	54	50		51	48	45		44	42	40	36
5	74	64	57	52	69	60	54	49	53	49	45		47	43	40		41	38	36	33
6	69	59	51	46	65	55	49	44	49	44	40		43	39	36		38	35	33	30
7	65	54	46	41	60	51	44	40	45	40	36		40	36	33		35	32	30	28
8	60	49	42	37	56	47	40	36	42	37	33		37	33	30		33	30	28	25
9	57	46	39	34	53	43	37	33	39	34	30		35	31	28		31	28	25	23
10	53	42	36	31	50	40	34	30	36	31	28		32	28	26		29	26	24	22

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

	0°	45°	90°
0°	19706	19706	19706
5°	19390	19342	19485
10°	18142	18384	18897
15°	16493	17016	17964
20°	14640	15401	16750
25°	12749	13759	15390
30°	10921	12120	14102
35°	9054	10289	12546
40°	6957	8226	10690
45°	5029	6229	8602
50°	3426	4642	6822
55°	2228	3357	5302
60°	1277	2364	3833
65°	338	1443	1941
70°	167	445	558
75°	75	36	0
80°	53	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8602 cd/sqm

TEST NUMBER: P521056

CATALOG NUMBER: SQ4-BB-050U-100D-92765-1D-UNV-STD-W-4\_3500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	194.9	4.1
10°-20°	498.5	10.5
20°-30°	624.1	13.2
30°-40°	576.4	12.2
40°-50°	387.3	8.2
50°-60°	200.1	4.2
60°-70°	62.7	1.3
70°-80°	3.9	0.1
80°-90°	0.1	0.0
90°-100°	160.1	3.4
100°-110°	455.6	9.6
110°-120°	436.5	9.2
120°-130°	345.5	7.3
130°-140°	277.3	5.9
140°-150°	217.1	4.6
150°-160°	158.8	3.4
160°-170°	98.4	2.1
170°-180°	33.4	0.7
0°-30°	1317.5	27.8
0°-40°	1893.9	40.0
0°-60°	2481.3	52.5
0°-90°	2547.9	53.9
90°-120°	1052.2	22.2
90°-150°	1892.1	40.0
90°-180°	2183.0	46.1
0°-180°	4730.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2136	2136	2136	2136	2136	
5°	2094	2072	2088	2096	2104	194
15°	1727	1721	1782	1841	1881	481
25°	1252	1262	1352	1444	1512	574
35°	804	824	914	1021	1114	498
45°	385	409	477	570	659	303
55°	138	162	209	268	330	129
65°	16	30	66	80	89	26
75°	2	2	1	0	0	3
85°	0	0	0	0	0	0
90°	0	0	0	0	0	1
95°	17	69	310	107	66	20
105°	71	107	464	820	780	75
115°	132	159	352	746	876	130
125°	186	206	336	558	667	166
135°	227	246	332	471	532	175
145°	268	282	335	408	444	167
155°	306	313	343	368	384	141
165°	338	339	347	354	359	95
175°	354	352	351	349	346	34
180°	351	351	351	351	351	

TEST NUMBER: P521056

CATALOG NUMBER: SQ4-BB-050U-100D-92765-1D-UNV-STD-W-4\_3500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2135.9	2135.9	2135.9	2135.9	2135.9
2.5°	2140.9	2120.7	2126.0	2125.9	2120.2
5°	2093.6	2072.3	2088.4	2095.8	2103.9
7.5°	2005.1	1988.5	2019.4	2042.5	2059.2
10°	1936.5	1922.3	1962.3	1993.8	2017.1
12.5°	1857.1	1846.2	1894.5	1937.8	1967.5
15°	1726.7	1720.7	1781.5	1841.3	1880.7
17.5°	1587.0	1586.8	1656.2	1730.5	1778.0
20°	1491.1	1494.1	1568.6	1650.5	1706.0
22.5°	1395.2	1402.3	1481.8	1567.2	1630.8
25°	1252.4	1262.5	1351.6	1444.1	1511.8
27.5°	1115.2	1129.9	1223.7	1319.8	1402.2
30°	1025.1	1042.3	1137.7	1238.8	1323.7
32.5°	936.6	957.0	1050.1	1157.0	1243.5
35°	803.9	824.1	913.5	1021.0	1113.9
37.5°	666.9	686.7	774.0	879.8	980.2
40°	577.6	599.9	683.0	785.6	887.6
42.5°	496.6	518.9	597.1	697.8	794.2
45°	385.4	408.7	477.4	570.4	659.3
47.5°	293.3	318.5	378.8	462.9	544.0
50°	238.7	264.0	323.4	397.5	475.3
52.5°	194.9	219.3	273.0	342.8	414.2
55°	138.5	161.7	208.7	268.0	329.6
57.5°	95.7	115.7	157.9	207.4	255.6
60°	69.2	88.4	128.1	168.3	207.7
62.5°	46.1	63.7	102.5	133.3	159.8
65°	15.5	29.6	66.1	79.8	88.9
67.5°	7.9	9.5	34.7	36.6	39.7
70°	6.2	6.2	16.5	17.6	20.7
72.5°	4.5	4.5	6.6	8.5	9.1
75°	2.1	2.1	1.0	0.0	0.0
77.5°	1.0	1.0	0.8	0.0	0.0
80°	1.0	1.0	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°	5.3	28.3	65.7	19.1	14.4
95°	17.4	69.0	310.0	107.3	66.1
97.5°	31.9	80.8	477.4	341.6	234.1
100°	42.1	87.8	513.7	520.4	400.8
102.5°	53.3	95.4	505.7	666.1	561.7
105°	70.8	107.4	464.3	820.1	779.6
107.5°	88.6	121.4	415.9	863.5	899.6
110°	100.9	131.6	388.1	846.9	927.9

TEST NUMBER: P521056

CATALOG NUMBER: SQ4-BB-050U-100D-92765-1D-UNV-STD-W-4\_3500K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	112.6	141.8	369.4	807.6	923.1
115°	131.6	159.0	352.1	745.8	875.8
117.5°	148.3	174.0	341.8	678.3	815.9
120°	161.7	183.2	340.7	639.6	771.6
122.5°	172.4	193.9	338.0	605.8	728.3
125°	185.7	206.0	336.0	557.6	666.7
127.5°	200.3	219.2	335.0	528.9	618.7
130°	207.8	226.7	333.4	508.8	587.2
132.5°	215.8	234.2	333.4	493.2	565.3
135°	227.1	246.1	332.0	471.0	532.4
137.5°	237.8	256.2	331.9	452.3	505.3
140°	245.8	264.8	331.3	436.7	487.7
142.5°	254.9	270.7	333.0	424.3	470.0
145°	267.9	281.6	334.7	407.7	444.2
147.5°	279.0	292.3	337.6	390.9	422.5
150°	288.6	297.7	338.7	385.3	407.5
152.5°	296.1	305.7	339.8	377.8	398.4
155°	306.0	313.1	342.7	368.4	383.5
157.5°	318.3	322.6	343.4	364.2	374.9
160°	324.7	327.9	346.0	361.0	370.1
162.5°	328.4	332.2	346.6	358.2	365.3
165°	338.0	339.3	346.7	354.2	359.4
167.5°	344.6	343.4	349.8	353.2	355.3
170°	346.7	346.1	348.7	349.4	352.1
172.5°	351.5	349.3	350.3	348.4	350.5
175°	354.1	352.1	350.7	348.7	346.0
177.5°	355.1	352.0	350.3	348.2	348.7
180°	351.4	351.4	351.4	351.4	351.4

(END OF REPORT)