

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: P521058

Luminaire Tested: SQ4-BB-050U-100D-92765-1D-UNV-STD-W-4\_4500K

Issue Date: 5-5-2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P521058  
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\_4500K  
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 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4895.0 lumens  
Efficiency: N/A  
Efficacy: 84.3 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

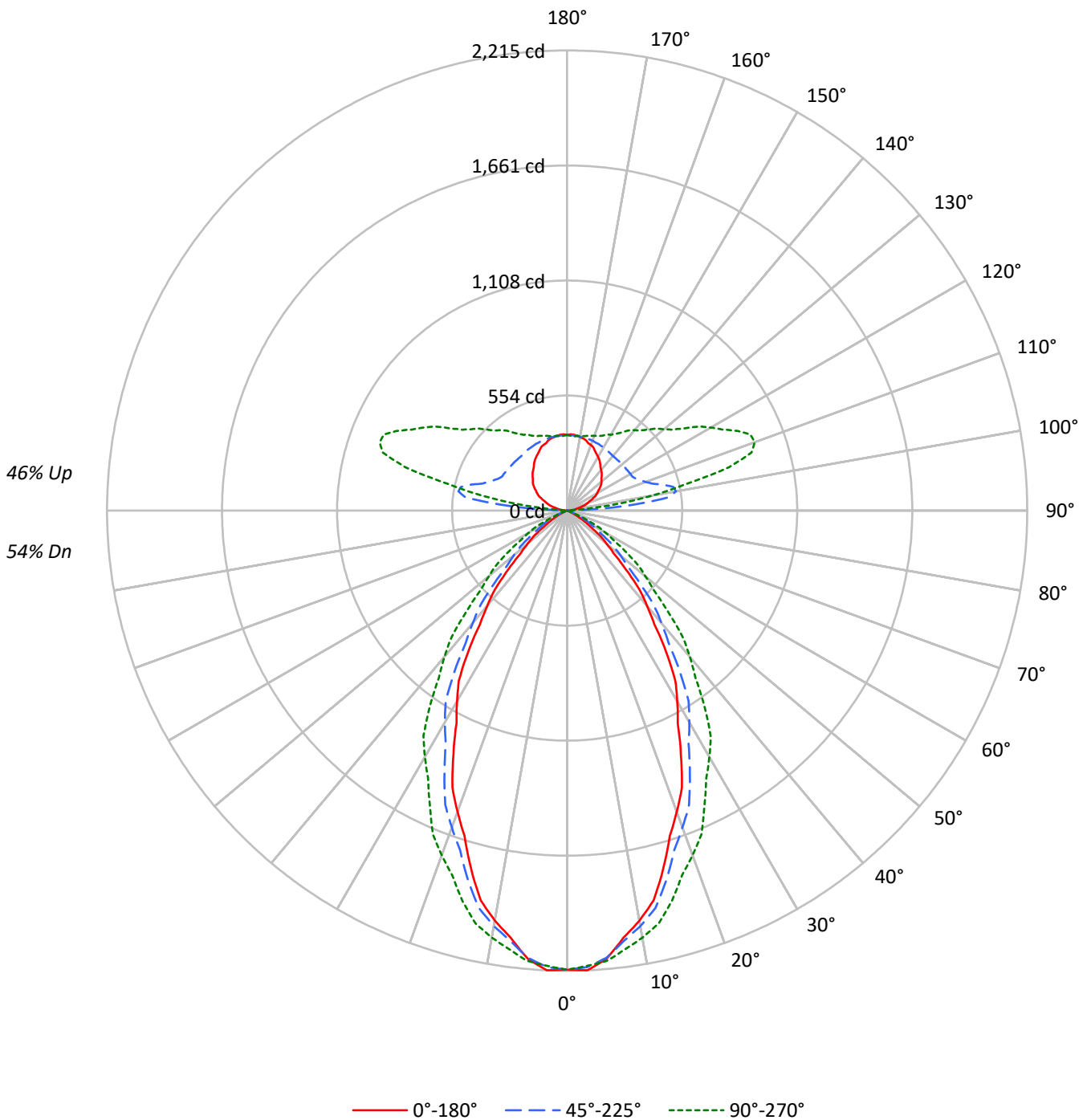
Input Watts (W): 58.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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	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°	20391	20391	20391
5°	20062	20013	20161
10°	18772	19023	19553
15°	17066	17607	18588
20°	15149	15936	17332
25°	13192	14237	15925
30°	11300	12541	14592
35°	9370	10646	12982
40°	7199	8513	11062
45°	5203	6446	8901
50°	3545	4804	7059
55°	2305	3474	5487
60°	1321	2447	3965
65°	349	1493	2008
70°	173	461	577
75°	75	39	0
80°	58	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8901 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	201.7	4.1
10°-20°	515.8	10.5
20°-30°	645.7	13.2
30°-40°	596.4	12.2
40°-50°	400.8	8.2
50°-60°	207.0	4.2
60°-70°	64.8	1.3
70°-80°	4.1	0.1
80°-90°	0.1	0.0
90°-100°	165.7	3.4
100°-110°	471.4	9.6
110°-120°	451.7	9.2
120°-130°	357.5	7.3
130°-140°	286.9	5.9
140°-150°	224.6	4.6
150°-160°	164.4	3.4
160°-170°	101.8	2.1
170°-180°	34.5	0.7
0°-30°	1363.2	27.8
0°-40°	1959.7	40.0
0°-60°	2567.4	52.5
0°-90°	2636.4	53.9
90°-120°	1088.8	22.2
90°-150°	1957.8	40.0
90°-180°	2259.0	46.1
0°-180°	4895.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2210	2210	2210	2210	2210	
5°	2166	2144	2161	2169	2177	201
15°	1787	1780	1843	1905	1946	498
25°	1296	1306	1398	1494	1564	594
35°	832	853	945	1056	1153	515
45°	399	423	494	590	682	313
55°	143	167	216	277	341	134
65°	16	31	68	82	92	27
75°	2	2	1	0	0	3
85°	0	0	0	0	0	0
90°	0	0	0	0	0	1
95°	18	71	321	111	68	21
105°	73	111	480	849	807	78
115°	136	165	364	772	906	134
125°	192	213	348	577	690	172
135°	235	255	344	487	551	181
145°	277	291	346	422	460	173
155°	317	324	355	381	397	146
165°	350	351	359	366	372	98
175°	366	364	363	361	358	35
180°	364	364	364	364	364	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2210.1	2210.1	2210.1	2210.1	2210.1
2.5°	2215.2	2194.3	2199.8	2199.7	2193.8
5°	2166.2	2144.3	2160.9	2168.6	2176.9
7.5°	2074.7	2057.6	2089.5	2113.4	2130.7
10°	2003.7	1989.1	2030.5	2063.1	2087.1
12.5°	1921.6	1910.3	1960.3	2005.1	2035.8
15°	1786.7	1780.4	1843.3	1905.2	1946.0
17.5°	1642.1	1641.9	1713.7	1790.6	1839.7
20°	1542.9	1546.0	1623.1	1707.8	1765.3
22.5°	1443.7	1451.0	1533.3	1621.6	1687.4
25°	1295.9	1306.4	1398.5	1494.2	1564.3
27.5°	1153.9	1169.2	1266.2	1365.6	1450.9
30°	1060.7	1078.4	1177.2	1281.9	1369.7
32.5°	969.1	990.3	1086.5	1197.2	1286.7
35°	831.9	852.8	945.2	1056.4	1152.6
37.5°	690.1	710.6	800.8	910.3	1014.3
40°	597.7	620.7	706.8	812.9	918.5
42.5°	513.9	536.9	617.8	722.1	821.8
45°	398.8	422.9	494.0	590.2	682.2
47.5°	303.4	329.6	392.0	479.0	562.8
50°	247.0	273.1	334.7	411.3	491.8
52.5°	201.7	227.0	282.5	354.7	428.5
55°	143.3	167.3	216.0	277.3	341.1
57.5°	99.0	119.7	163.4	214.6	264.5
60°	71.6	91.5	132.6	174.1	214.9
62.5°	47.7	65.9	106.1	137.9	165.3
65°	16.0	30.7	68.4	82.5	92.0
67.5°	8.1	9.8	35.9	37.9	41.1
70°	6.4	6.4	17.1	18.2	21.4
72.5°	4.7	4.7	6.8	8.8	9.4
75°	2.1	2.1	1.1	0.0	0.0
77.5°	1.1	1.1	0.9	0.0	0.0
80°	1.1	1.1	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°	5.5	29.3	68.0	19.8	14.9
95°	18.0	71.4	320.7	111.0	68.4
97.5°	33.0	83.6	494.0	353.5	242.2
100°	43.5	90.9	531.6	538.4	414.7
102.5°	55.2	98.7	523.3	689.2	581.2
105°	73.3	111.1	480.4	848.6	806.7
107.5°	91.7	125.6	430.4	893.5	930.8
110°	104.4	136.1	401.6	876.3	960.1

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	116.5	146.7	382.3	835.7	955.2
115°	136.2	164.6	364.3	771.7	906.2
117.5°	153.5	180.1	353.6	701.8	844.3
120°	167.3	189.6	352.5	661.9	798.4
122.5°	178.3	200.6	349.8	626.8	753.6
125°	192.2	213.1	347.7	577.0	689.9
127.5°	207.2	226.8	346.6	547.2	640.2
130°	215.0	234.6	344.9	526.5	607.6
132.5°	223.3	242.3	344.9	510.3	584.9
135°	235.0	254.6	343.5	487.4	550.9
137.5°	246.1	265.1	343.4	468.0	522.9
140°	254.4	274.0	342.9	451.9	504.6
142.5°	263.8	280.1	344.5	439.0	486.4
145°	277.2	291.4	346.3	421.8	459.7
147.5°	288.7	302.4	349.4	404.4	437.1
150°	298.6	308.1	350.5	398.7	421.7
152.5°	306.4	316.4	351.6	390.9	412.3
155°	316.6	324.0	354.6	381.2	396.8
157.5°	329.3	333.8	355.3	376.8	387.9
160°	335.9	339.3	358.1	373.5	382.9
162.5°	339.8	343.7	358.6	370.7	378.0
165°	349.8	351.1	358.8	366.5	371.9
167.5°	356.5	355.3	361.9	365.4	367.6
170°	358.8	358.1	360.8	361.6	364.3
172.5°	363.7	361.4	362.5	360.5	362.6
175°	366.4	364.3	362.9	360.8	358.1
177.5°	367.5	364.2	362.5	360.3	360.8
180°	363.6	363.6	363.6	363.6	363.6

(END OF REPORT)