

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: P521046

Luminaire Tested: SQ4-BB-050U-075D-92765-1D-UNV-STD-W-4\_5000K

Issue Date: 5-5-2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P521046  
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\_5000K  
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 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4311.2 lumens  
Efficiency: N/A  
Efficacy: 90.6 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

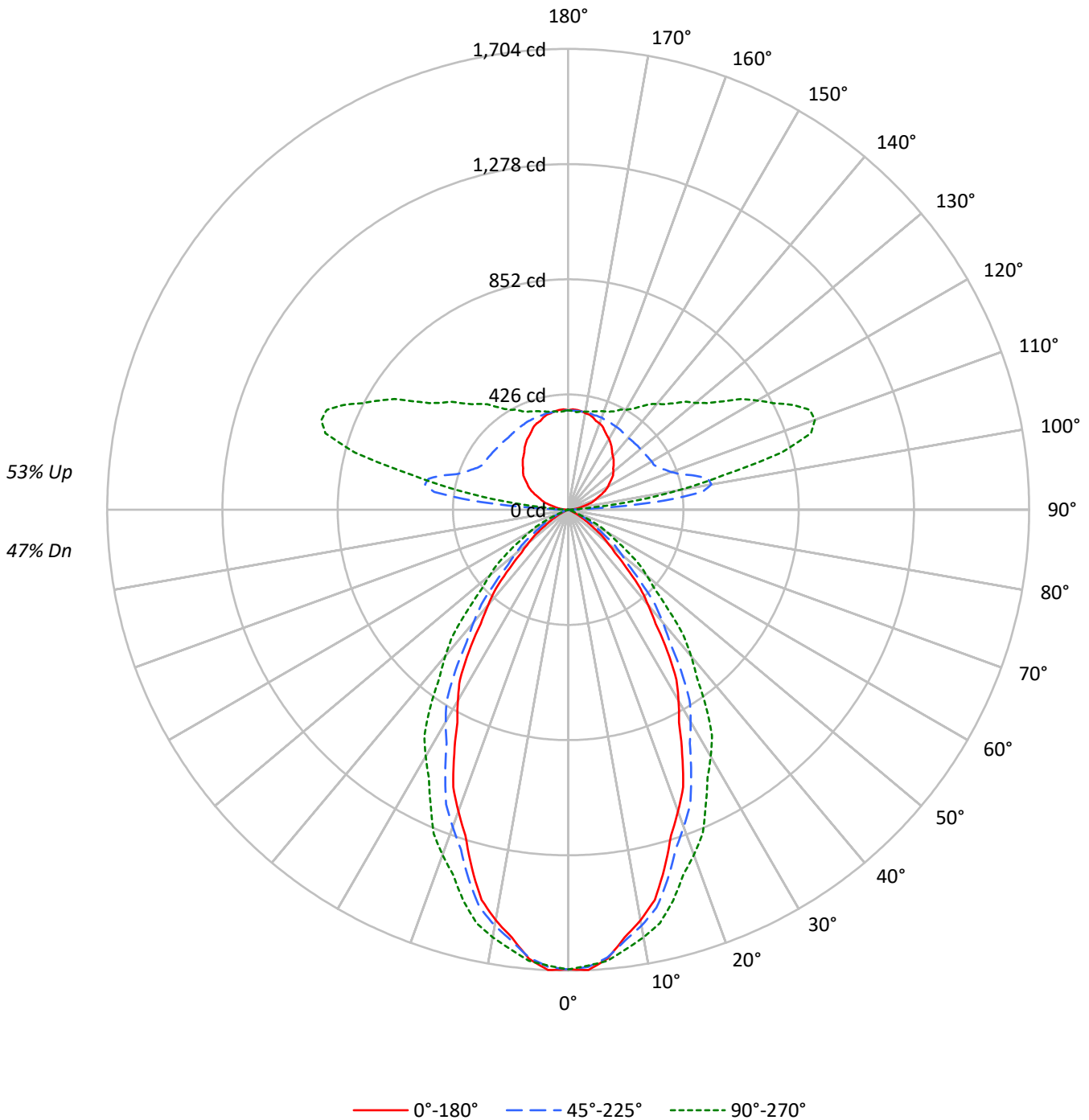
Input Watts (W): 47.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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	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°	15683	15683	15683
5°	15430	15393	15506
10°	14438	14631	15038
15°	13126	13542	14296
20°	11651	12256	13330
25°	10146	10950	12248
30°	8691	9646	11222
35°	7206	8188	9985
40°	5537	6547	8508
45°	4002	4957	6846
50°	2727	3695	5430
55°	1773	2672	4219
60°	1017	1882	3050
65°	269	1148	1543
70°	132	356	442
75°	57	29	0
80°	43	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6846 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	155.1	3.6
10°-20°	396.7	9.2
20°-30°	496.6	11.5
30°-40°	458.7	10.6
40°-50°	308.2	7.1
50°-60°	159.2	3.7
60°-70°	49.9	1.2
70°-80°	3.1	0.1
80°-90°	0.1	0.0
90°-100°	167.5	3.9
100°-110°	476.6	11.1
110°-120°	456.7	10.6
120°-130°	361.4	8.4
130°-140°	290.1	6.7
140°-150°	227.1	5.3
150°-160°	166.2	3.9
160°-170°	102.9	2.4
170°-180°	34.9	0.8
0°-30°	1048.5	24.3
0°-40°	1507.2	35.0
0°-60°	1974.7	45.8
0°-90°	2027.7	47.0
90°-120°	1100.8	25.5
90°-150°	1979.5	45.9
90°-180°	2283.0	53.0
0°-180°	4311.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1700	1700	1700	1700	1700	
5°	1666	1649	1662	1668	1674	154
15°	1374	1369	1418	1465	1497	383
25°	997	1005	1076	1149	1203	457
35°	640	656	727	812	886	396
45°	307	325	380	454	525	241
55°	110	129	166	213	262	103
65°	12	24	53	64	71	21
75°	2	2	1	0	0	2
85°	0	0	0	0	0	0
90°	0	0	0	0	0	1
95°	18	72	324	112	69	21
105°	74	112	486	858	816	78
115°	138	166	368	780	916	136
125°	194	216	352	583	698	174
135°	238	257	347	493	557	183
145°	280	295	350	426	465	175
155°	320	328	358	385	401	148
165°	354	355	363	370	376	99
175°	370	368	367	365	362	35
180°	368	368	368	368	368	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1699.8	1699.8	1699.8	1699.8	1699.8
2.5°	1703.8	1687.7	1691.9	1691.8	1687.3
5°	1666.1	1649.2	1662.0	1667.9	1674.3
7.5°	1595.7	1582.5	1607.1	1625.5	1638.8
10°	1541.1	1529.8	1561.7	1586.8	1605.2
12.5°	1477.9	1469.3	1507.7	1542.1	1565.8
15°	1374.2	1369.3	1417.8	1465.3	1496.7
17.5°	1263.0	1262.8	1318.1	1377.2	1415.0
20°	1186.7	1189.1	1248.3	1313.5	1357.7
22.5°	1110.4	1116.0	1179.3	1247.2	1297.9
25°	996.7	1004.7	1075.6	1149.2	1203.1
27.5°	887.5	899.2	973.8	1050.3	1115.9
30°	815.8	829.5	905.4	985.9	1053.4
32.5°	745.4	761.6	835.7	920.8	989.6
35°	639.8	655.9	727.0	812.5	886.5
37.5°	530.8	546.5	615.9	700.2	780.1
40°	459.7	477.4	543.6	625.2	706.4
42.5°	395.2	412.9	475.2	555.4	632.1
45°	306.7	325.2	379.9	453.9	524.7
47.5°	233.4	253.5	301.5	368.4	432.9
50°	190.0	210.1	257.4	316.4	378.3
52.5°	155.1	174.6	217.3	272.8	329.6
55°	110.2	128.7	166.1	213.3	262.3
57.5°	76.2	92.1	125.7	165.0	203.5
60°	55.1	70.4	102.0	133.9	165.3
62.5°	36.7	50.7	81.6	106.1	127.1
65°	12.3	23.6	52.6	63.5	70.7
67.5°	6.2	7.5	27.6	29.2	31.6
70°	4.9	4.9	13.2	14.0	16.4
72.5°	3.6	3.6	5.3	6.8	7.2
75°	1.6	1.6	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°	5.6	29.6	68.8	20.0	15.1
95°	18.2	72.2	324.3	112.2	69.2
97.5°	33.4	84.5	499.4	357.4	244.9
100°	44.0	91.9	537.4	544.4	419.3
102.5°	55.8	99.8	529.1	696.8	587.6
105°	74.1	112.3	485.7	858.0	815.6
107.5°	92.7	127.0	435.1	903.4	941.1
110°	105.5	137.6	406.1	886.0	970.8

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	117.8	148.3	386.5	844.9	965.7
115°	137.7	166.4	368.3	780.3	916.2
117.5°	155.2	182.1	357.6	709.6	853.6
120°	169.1	191.7	356.4	669.2	807.2
122.5°	180.3	202.9	353.6	633.7	761.9
125°	194.3	215.5	351.5	583.4	697.5
127.5°	209.5	229.3	350.4	553.3	647.3
130°	217.4	237.2	348.7	532.3	614.3
132.5°	225.7	245.0	348.7	516.0	591.4
135°	237.6	257.4	347.3	492.8	557.0
137.5°	248.8	268.1	347.2	473.1	528.6
140°	257.2	277.0	346.6	456.9	510.2
142.5°	266.7	283.2	348.3	443.9	491.7
145°	280.3	294.6	350.1	426.5	464.8
147.5°	291.9	305.8	353.2	408.9	442.0
150°	301.9	311.5	354.3	403.1	426.3
152.5°	309.7	319.9	355.5	395.2	416.8
155°	320.1	327.6	358.5	385.4	401.2
157.5°	332.9	337.5	359.2	381.0	392.2
160°	339.7	343.1	362.0	377.6	387.2
162.5°	343.6	347.5	362.6	374.8	382.2
165°	353.6	355.0	362.7	370.5	376.0
167.5°	360.5	359.3	365.9	369.5	371.7
170°	362.7	362.0	364.8	365.6	368.3
172.5°	367.8	365.4	366.5	364.4	366.6
175°	370.4	368.4	366.9	364.8	362.0
177.5°	371.5	368.2	366.5	364.3	364.8
180°	367.6	367.6	367.6	367.6	367.6

(END OF REPORT)