

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: P521044

Luminaire Tested: SQ4-BB-050U-075D-92765-1D-UNV-STD-W-4\_4000K

Issue Date: 5-5-2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P521044  
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\_4000K  
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 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4196.4 lumens  
Efficiency: N/A  
Efficacy: 88.0 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

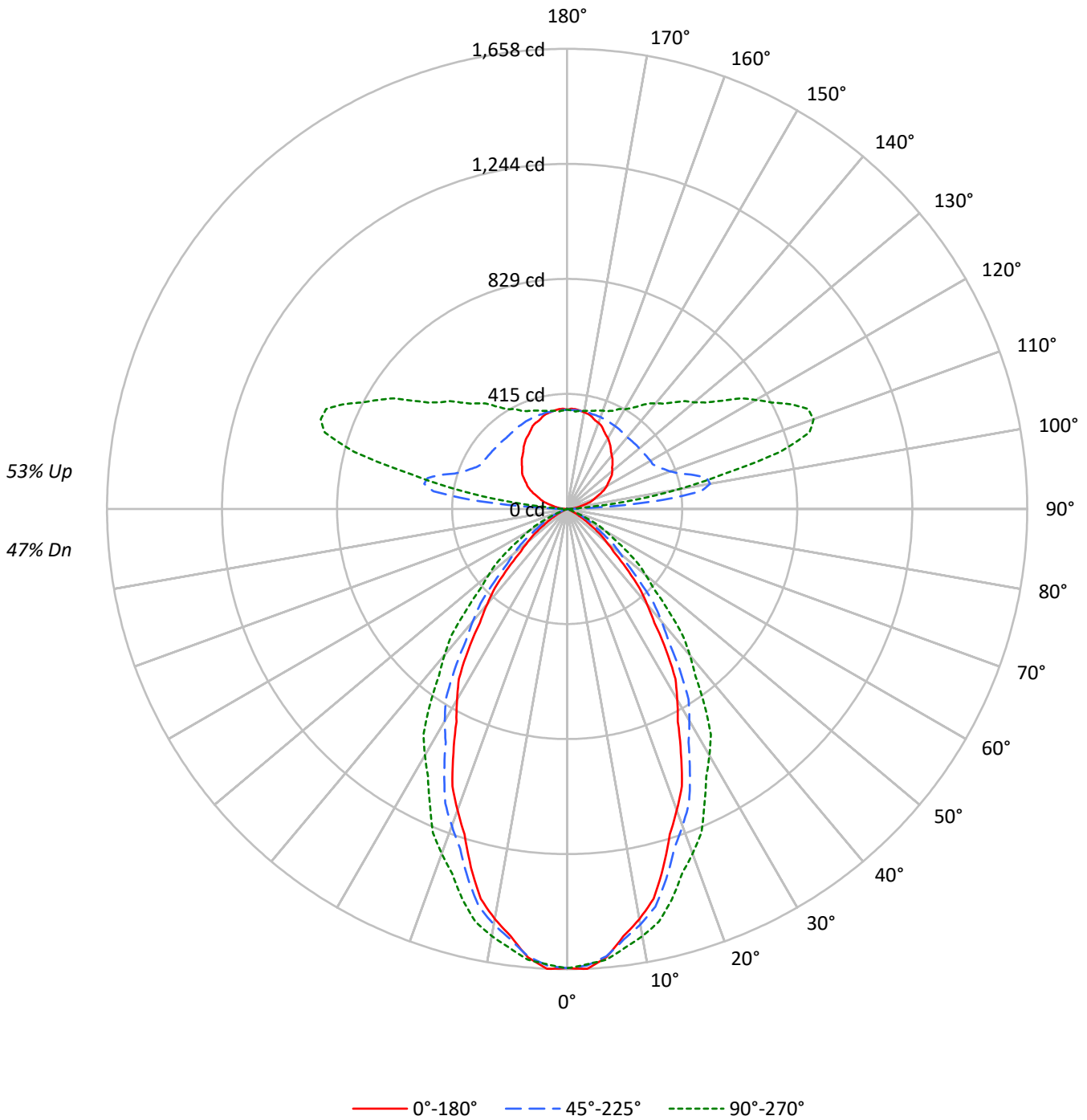
Input Watts (W): 47.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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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°	15265	15265	15265
5°	15019	14982	15093
10°	14053	14241	14638
15°	12776	13181	13915
20°	11340	11930	12975
25°	9876	10658	11922
30°	8459	9389	10924
35°	7014	7970	9719
40°	5390	6372	8281
45°	3896	4825	6664
50°	2654	3596	5285
55°	1726	2601	4107
60°	989	1832	2969
65°	262	1118	1502
70°	129	345	432
75°	57	29	0
80°	43	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6664 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	151.0	3.6
10°-20°	386.1	9.2
20°-30°	483.4	11.5
30°-40°	446.5	10.6
40°-50°	300.0	7.1
50°-60°	155.0	3.7
60°-70°	48.5	1.2
70°-80°	3.1	0.1
80°-90°	0.1	0.0
90°-100°	163.0	3.9
100°-110°	463.9	11.1
110°-120°	444.5	10.6
120°-130°	351.8	8.4
130°-140°	282.4	6.7
140°-150°	221.1	5.3
150°-160°	161.8	3.9
160°-170°	100.2	2.4
170°-180°	34.0	0.8
0°-30°	1020.5	24.3
0°-40°	1467.1	35.0
0°-60°	1922.1	45.8
0°-90°	1973.7	47.0
90°-120°	1071.5	25.5
90°-150°	1926.7	45.9
90°-180°	2223.0	53.0
0°-180°	4196.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1654	1654	1654	1654	1654	
5°	1622	1605	1618	1624	1630	150
15°	1338	1333	1380	1426	1457	373
25°	970	978	1047	1119	1171	445
35°	623	638	708	791	863	386
45°	299	317	370	442	511	235
55°	107	125	162	208	255	100
65°	12	23	51	62	69	20
75°	2	2	1	0	0	2
85°	0	0	0	0	0	0
90°	0	0	0	0	0	1
95°	18	70	316	109	67	20
105°	72	109	473	835	794	76
115°	134	162	358	760	892	132
125°	189	210	342	568	679	169
135°	231	251	338	480	542	178
145°	273	287	341	415	452	170
155°	312	319	349	375	390	144
165°	344	346	353	361	366	97
175°	360	358	357	355	352	34
180°	358	358	358	358	358	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1654.5	1654.5	1654.5	1654.5	1654.5
2.5°	1658.4	1642.7	1646.8	1646.7	1642.4
5°	1621.7	1605.3	1617.7	1623.5	1629.7
7.5°	1553.2	1540.4	1564.2	1582.1	1595.1
10°	1500.0	1489.1	1520.1	1544.5	1562.5
12.5°	1438.6	1430.1	1467.5	1501.0	1524.1
15°	1337.6	1332.9	1380.0	1426.3	1456.8
17.5°	1229.3	1229.2	1283.0	1340.5	1377.3
20°	1155.0	1157.4	1215.1	1278.5	1321.5
22.5°	1080.8	1086.2	1147.8	1214.0	1263.3
25°	970.1	978.0	1047.0	1118.6	1171.1
27.5°	863.8	875.3	947.9	1022.3	1086.2
30°	794.0	807.4	881.3	959.6	1025.4
32.5°	725.5	741.3	813.4	896.3	963.3
35°	622.7	638.4	707.6	790.9	862.9
37.5°	516.6	532.0	599.5	681.5	759.3
40°	447.5	464.7	529.1	608.5	687.6
42.5°	384.7	401.9	462.5	540.6	615.2
45°	298.6	316.6	369.8	441.8	510.7
47.5°	227.2	246.7	293.4	358.6	421.4
50°	184.9	204.5	250.5	307.9	368.2
52.5°	151.0	169.9	211.5	265.6	320.8
55°	107.3	125.3	161.7	207.6	255.3
57.5°	74.1	89.6	122.3	160.6	198.0
60°	53.6	68.5	99.3	130.4	160.9
62.5°	35.7	49.3	79.4	103.2	123.7
65°	12.0	23.0	51.2	61.8	68.8
67.5°	6.1	7.3	26.9	28.4	30.7
70°	4.8	4.8	12.8	13.7	16.0
72.5°	3.5	3.5	5.1	6.6	7.0
75°	1.6	1.6	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°	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0
92.5°	5.4	28.9	66.9	19.5	14.7
95°	17.7	70.2	315.6	109.3	67.3
97.5°	32.5	82.3	486.1	347.8	238.4
100°	42.9	89.4	523.1	529.9	408.2
102.5°	54.3	97.1	515.0	678.3	572.0
105°	72.1	109.4	472.8	835.1	793.9
107.5°	90.2	123.6	423.5	879.3	916.0
110°	102.7	134.0	395.2	862.4	944.9

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	114.7	144.4	376.2	822.4	940.0
115°	134.0	161.9	358.5	759.5	891.8
117.5°	151.0	177.2	348.0	690.7	830.9
120°	164.6	186.6	346.9	651.3	785.7
122.5°	175.5	197.5	344.2	616.8	741.6
125°	189.1	209.7	342.2	567.8	678.9
127.5°	203.9	223.2	341.1	538.5	630.1
130°	211.6	230.9	339.5	518.1	598.0
132.5°	219.7	238.5	339.5	502.2	575.6
135°	231.3	250.6	338.1	479.6	542.2
137.5°	242.2	260.9	338.0	460.5	514.6
140°	250.3	269.6	337.4	444.7	496.6
142.5°	259.6	275.7	339.0	432.1	478.6
145°	272.8	286.8	340.8	415.1	452.4
147.5°	284.1	297.6	343.8	398.0	430.2
150°	293.9	303.2	344.9	392.3	415.0
152.5°	301.5	311.3	346.0	384.7	405.7
155°	311.6	318.9	349.0	375.2	390.5
157.5°	324.1	328.5	349.7	370.9	381.8
160°	330.6	333.9	352.4	367.6	376.9
162.5°	334.4	338.3	352.9	364.8	372.0
165°	344.2	345.5	353.1	360.7	366.0
167.5°	350.9	349.7	356.2	359.6	361.8
170°	353.1	352.4	355.1	355.8	358.5
172.5°	358.0	355.7	356.7	354.7	356.9
175°	360.5	358.5	357.1	355.0	352.4
177.5°	361.6	358.4	356.7	354.6	355.1
180°	357.8	357.8	357.8	357.8	357.8

(END OF REPORT)