

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: P521294

Luminaire Tested: SQ4-BB-150U-050D-92765-1D-UNV-STD-W-4\_5700K

Issue Date: 5-5-2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P521294  
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-150U-050D-92765-1D-UNV-STD-W-4\_5700K  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: 2700K-6500K CCT, 90 CRI LEDS, TUNED TO 5700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8395.9 lumens  
Efficiency: N/A  
Efficacy: 117.3 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: Semi-Indirect

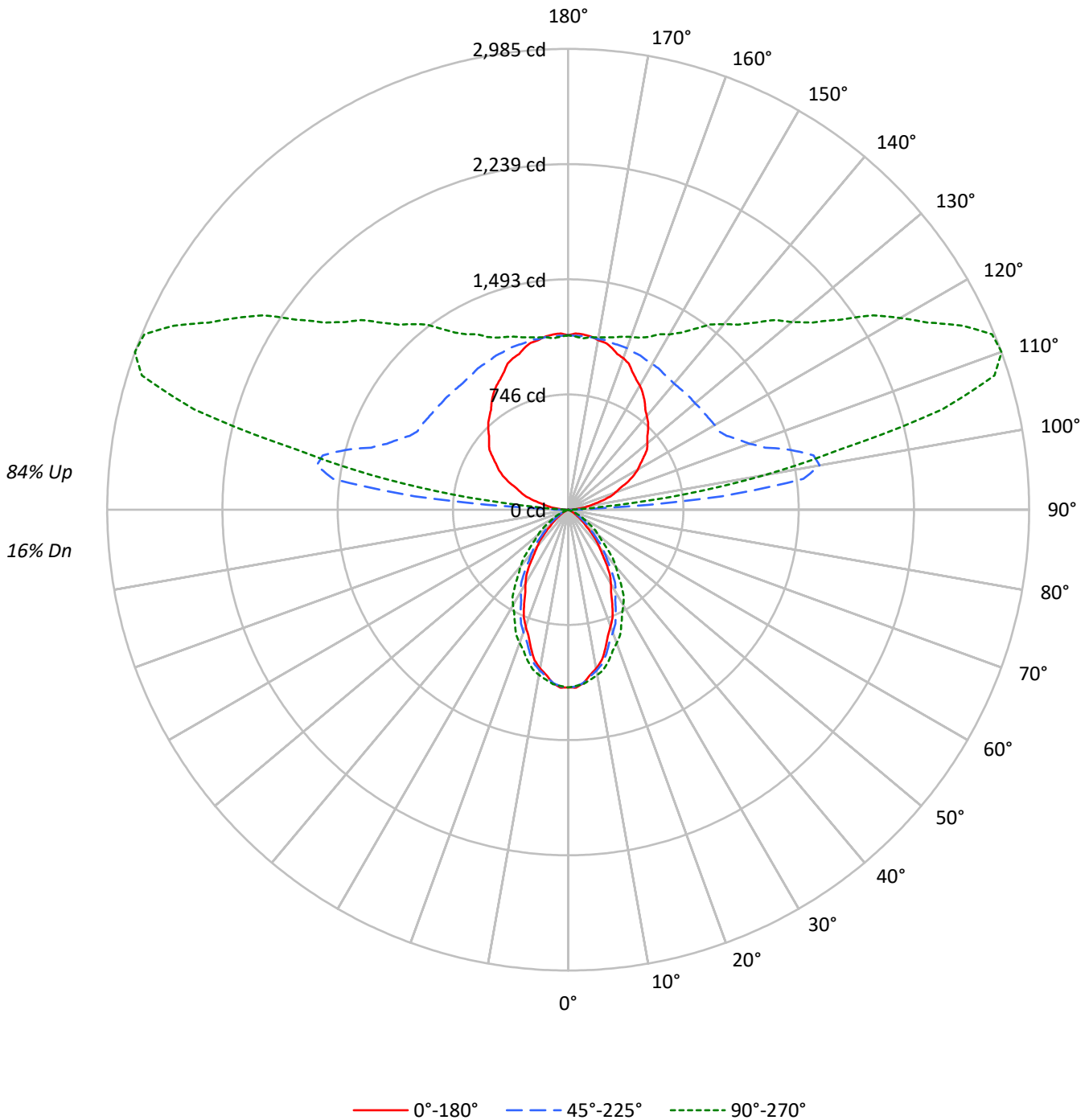
Input Watts (W): 71.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Luminous Intensity Polar Plot



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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									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	50	30	10	50	30	10	0										
RCR																																					
0	99	99	99	99	87	87	87	87	65	65	65	44	44	44	25	25	25	16																			
1	91	87	83	80	80	77	74	71	57	56	54	40	39	38	23	23	22	15																			
2	83	77	71	67	73	68	63	59	51	48	46	35	34	32	21	20	20	13																			
3	76	68	61	56	67	60	55	50	45	42	39	32	30	28	19	18	17	12																			
4	70	60	53	48	61	53	48	43	41	37	34	29	26	24	18	16	16	11																			
5	64	54	46	41	56	48	42	37	36	32	29	26	23	21	16	15	14	10																			
6	59	48	41	36	52	43	37	32	33	29	26	24	21	19	15	14	13	9																			
7	55	44	36	31	48	39	33	28	30	26	23	22	19	17	14	12	11	8																			
8	51	40	32	28	45	35	29	25	27	23	20	20	17	15	13	11	10	8																			
9	47	36	29	25	42	32	26	22	25	21	18	18	16	14	12	10	9	7																			
10	44	33	26	22	39	30	24	20	23	19	16	17	14	12	11	10	9	7																			

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

	0°	45°	90°
0°	10621	10621	10621
5°	10450	10425	10502
10°	9778	9908	10185
15°	8889	9171	9682
20°	7890	8300	9028
25°	6871	7416	8295
30°	5886	6533	7600
35°	4880	5545	6762
40°	3749	4433	5762
45°	2710	3357	4636
50°	1847	2502	3677
55°	1200	1810	2858
60°	688	1275	2065
65°	183	777	1046
70°	89	240	299
75°	39	21	0
80°	32	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4636 cd/sqm

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CATALOG NUMBER: SQ4-BB-150U-050D-92765-1D-UNV-STD-W-4\_5700K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	105.1	1.3
10°-20°	268.7	3.2
20°-30°	336.3	4.0
30°-40°	310.7	3.7
40°-50°	208.8	2.5
50°-60°	107.8	1.3
60°-70°	33.8	0.4
70°-80°	2.1	0.0
80°-90°	0.0	0.0
90°-100°	515.2	6.1
100°-110°	1465.8	17.5
110°-120°	1404.4	16.7
120°-130°	1111.5	13.2
130°-140°	892.2	10.6
140°-150°	698.5	8.3
150°-160°	511.1	6.1
160°-170°	316.6	3.8
170°-180°	107.4	1.3
0°-30°	710.1	8.5
0°-40°	1020.7	12.2
0°-60°	1337.3	15.9
0°-90°	1373.3	16.4
90°-120°	3385.4	40.3
90°-150°	6087.6	72.5
90°-180°	7023.0	83.6
0°-180°	8395.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1151	1151	1151	1151	1151	
5°	1128	1117	1126	1130	1134	105
15°	931	927	960	992	1014	259
25°	675	680	728	778	815	309
35°	433	444	492	550	600	268
45°	208	220	257	307	355	163
55°	75	87	112	144	178	70
65°	8	16	36	43	48	14
75°	1	1	1	0	0	2
85°	0	0	0	0	0	0
90°	0	0	0	0	0	2
95°	56	222	997	345	213	64
105°	228	346	1494	2639	2508	241
115°	423	512	1133	2400	2818	417
125°	598	663	1081	1794	2145	535
135°	731	792	1068	1516	1713	564
145°	862	906	1077	1312	1429	538
155°	984	1008	1103	1185	1234	455
165°	1088	1092	1116	1140	1156	306
175°	1139	1133	1128	1122	1113	108
180°	1131	1131	1131	1131	1131	

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CATALOG NUMBER: SQ4-BB-150U-050D-92765-1D-UNV-STD-W-4\_5700K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1151.2	1151.2	1151.2	1151.2	1151.2
2.5°	1153.8	1143.0	1145.8	1145.8	1142.7
5°	1128.3	1116.9	1125.6	1129.6	1133.9
7.5°	1080.7	1071.7	1088.4	1100.8	1109.8
10°	1043.7	1036.1	1057.6	1074.6	1087.1
12.5°	1000.9	995.0	1021.1	1044.4	1060.4
15°	930.6	927.4	960.1	992.4	1013.6
17.5°	855.3	855.2	892.6	932.7	958.3
20°	803.6	805.3	845.4	889.5	919.5
22.5°	752.0	755.8	798.6	844.6	878.9
25°	675.0	680.4	728.5	778.3	814.8
27.5°	601.0	609.0	659.5	711.3	755.8
30°	552.5	561.7	613.2	667.7	713.4
32.5°	504.8	515.8	566.0	623.6	670.2
35°	433.3	444.2	492.3	550.3	600.4
37.5°	359.4	370.1	417.1	474.2	528.3
40°	311.3	323.3	368.1	423.4	478.4
42.5°	267.7	279.6	321.8	376.1	428.1
45°	207.7	220.3	257.3	307.4	355.3
47.5°	158.1	171.7	204.2	249.5	293.2
50°	128.7	142.3	174.3	214.3	256.2
52.5°	105.0	118.2	147.1	184.8	223.2
55°	74.6	87.2	112.5	144.4	177.7
57.5°	51.6	62.4	85.1	111.8	137.8
60°	37.3	47.7	69.1	90.7	111.9
62.5°	24.8	34.3	55.2	71.8	86.1
65°	8.4	16.0	35.6	43.0	47.9
67.5°	4.2	5.1	18.7	19.8	21.4
70°	3.3	3.3	8.9	9.5	11.1
72.5°	2.5	2.5	3.6	4.6	4.9
75°	1.1	1.1	0.6	0.0	0.0
77.5°	0.6	0.6	0.4	0.0	0.0
80°	0.6	0.6	0.0	0.0	0.0
82.5°	0.1	0.1	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°	17.2	91.2	211.5	61.6	46.4
95°	55.9	221.9	997.3	345.2	212.8
97.5°	102.7	259.9	1535.9	1099.1	753.1
100°	135.4	282.5	1652.8	1674.2	1289.6
102.5°	171.5	306.9	1627.1	2143.0	1807.2
105°	227.8	345.5	1493.8	2638.6	2508.3
107.5°	285.0	390.5	1338.2	2778.3	2894.3
110°	324.6	423.3	1248.8	2724.8	2985.4

TEST NUMBER: P521294

CATALOG NUMBER: SQ4-BB-150U-050D-92765-1D-UNV-STD-W-4\_5700K

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	362.4	456.1	1188.6	2598.4	2970.0
115°	423.4	511.7	1132.7	2399.6	2817.8
117.5°	477.2	560.0	1099.6	2182.2	2625.2
120°	520.1	589.5	1096.2	2058.0	2482.5
122.5°	554.5	623.9	1087.6	1949.0	2343.2
125°	597.5	662.7	1081.1	1794.1	2145.0
127.5°	644.4	705.3	1077.7	1701.5	1990.7
130°	668.4	729.4	1072.5	1637.1	1889.3
132.5°	694.2	753.5	1072.5	1586.8	1818.8
135°	730.8	791.7	1068.2	1515.5	1713.0
137.5°	765.2	824.4	1067.8	1455.1	1625.8
140°	791.0	851.9	1066.1	1405.1	1569.0
142.5°	820.2	871.0	1071.2	1365.2	1512.3
145°	861.9	906.0	1076.8	1311.6	1429.3
147.5°	897.6	940.4	1086.3	1257.5	1359.2
150°	928.5	957.9	1089.7	1239.6	1311.1
152.5°	952.6	983.7	1093.2	1215.5	1281.9
155°	984.4	1007.5	1102.6	1185.4	1233.7
157.5°	1023.9	1037.8	1104.8	1171.7	1206.2
160°	1044.6	1055.1	1113.4	1161.3	1190.7
162.5°	1056.6	1068.8	1115.1	1152.6	1175.3
165°	1087.6	1091.8	1115.5	1139.5	1156.3
167.5°	1108.6	1104.8	1125.4	1136.3	1143.0
170°	1115.5	1113.4	1122.0	1124.3	1132.7
172.5°	1131.0	1123.8	1127.1	1120.8	1127.5
175°	1139.2	1132.8	1128.4	1121.8	1113.4
177.5°	1142.6	1132.5	1127.1	1120.3	1122.0
180°	1130.6	1130.6	1130.6	1130.6	1130.6

(END OF REPORT)