

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: P521227

Luminaire Tested: SQ4-BB-100U-125D-92765-1D-UNV-STD-W-4\_4500K

Issue Date: 5-5-2021

**Test Information**

Test Method: LM-79-2019  
Report Number: P521227  
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-100U-125D-92765-1D-UNV-STD-W-4\_4500K  
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 1000 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: 7862.3 lumens  
Efficiency: N/A  
Efficacy: 89.2 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

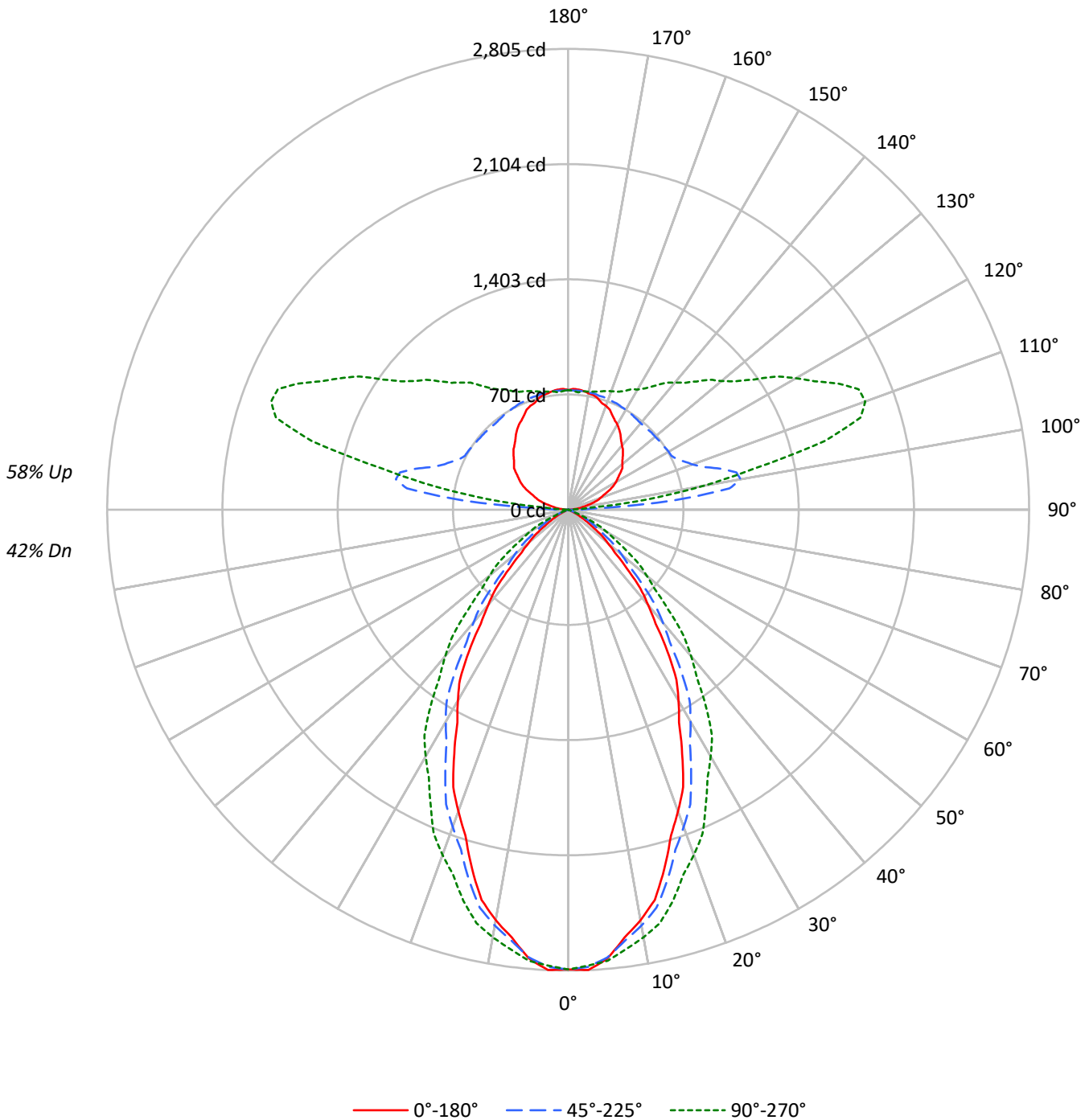
Input Watts (W): 88.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Luminous Intensity Polar Plot



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

RF	20									20									20									20									
RC	80									70									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	0													
RCR																																					
0	105	105	105	105	96	96	96	96	79	79	79	64	64	64	49	49	49	42	42	42	42	42	42	42													
1	98	94	91	88	89	86	83	81	72	70	68	58	57	56	46	45	44	39	39	39	39	39	39	39													
2	90	84	79	74	82	77	73	69	65	61	59	53	51	49	42	41	40	35	35	35	35	35	35	35													
3	83	75	69	64	76	69	64	60	58	55	51	48	46	43	39	37	36	32	32	32	32	32	32	32													
4	77	68	61	55	71	62	57	52	53	49	45	44	41	39	36	34	32	29	29	29	29	29	29	29													
5	71	61	54	49	65	57	50	46	48	44	40	40	37	35	33	31	29	26	26	26	26	26	26	26													
6	66	55	48	43	61	51	45	41	44	39	36	37	34	31	31	28	27	24	24	24	24	24	24	24													
7	62	51	43	38	57	47	41	36	40	36	32	34	31	28	29	26	24	22	22	22	22	22	22	22													
8	57	46	39	34	53	43	37	33	37	33	29	32	28	26	27	24	22	20	20	20	20	20	20	20													
9	54	43	36	31	50	40	34	30	35	30	27	30	26	24	25	22	21	19	19	19	19	19	19	19													
10	50	39	33	28	47	37	31	27	32	28	24	28	24	22	23	21	19	17	17	17	17	17	17	17													

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

	0°	45°	90°
0°	25816	25816	25816
5°	25400	25337	25526
10°	23767	24084	24755
15°	21607	22292	23533
20°	19179	20176	21944
25°	16702	18026	20161
30°	14307	15878	18474
35°	11862	13479	16436
40°	9114	10777	14005
45°	6588	8160	11269
50°	4488	6082	8938
55°	2918	4398	6946
60°	1674	3098	5021
65°	443	1891	2541
70°	219	585	731
75°	96	50	0
80°	74	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 11269 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	255.4	3.2
10°-20°	653.0	8.3
20°-30°	817.5	10.4
30°-40°	755.1	9.6
40°-50°	507.4	6.5
50°-60°	262.1	3.3
60°-70°	82.1	1.0
70°-80°	5.2	0.1
80°-90°	0.1	0.0
90°-100°	331.9	4.2
100°-110°	944.4	12.0
110°-120°	904.8	11.5
120°-130°	716.1	9.1
130°-140°	574.8	7.3
140°-150°	450.0	5.7
150°-160°	329.3	4.2
160°-170°	203.9	2.6
170°-180°	69.2	0.9
0°-30°	1725.9	22.0
0°-40°	2481.1	31.6
0°-60°	3250.5	41.3
0°-90°	3337.9	42.5
90°-120°	2181.1	27.7
90°-150°	3921.9	49.9
90°-180°	4524.0	57.5
0°-180°	7862.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2798	2798	2798	2798	2798	
5°	2743	2715	2736	2746	2756	254
15°	2262	2254	2334	2412	2464	630
25°	1641	1654	1771	1892	1980	752
35°	1053	1080	1197	1338	1459	652
45°	505	535	625	747	864	397
55°	181	212	273	351	432	169
65°	20	39	87	104	116	34
75°	3	3	1	0	0	4
85°	0	0	0	0	0	0
90°	0	0	0	0	0	2
95°	36	143	642	222	137	41
105°	147	223	962	1700	1616	155
115°	273	330	730	1546	1815	269
125°	385	427	696	1156	1382	345
135°	471	510	688	976	1104	363
145°	555	584	694	845	921	347
155°	634	649	710	764	795	293
165°	701	703	719	734	745	197
175°	734	730	727	723	717	70
180°	728	728	728	728	728	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2798.1	2798.1	2798.1	2798.1	2798.1
2.5°	2804.6	2778.1	2785.1	2785.0	2777.5
5°	2742.6	2714.8	2735.8	2745.6	2756.2
7.5°	2626.7	2605.0	2645.4	2675.7	2697.7
10°	2536.9	2518.3	2570.7	2612.0	2642.4
12.5°	2432.9	2418.6	2481.9	2538.6	2577.5
15°	2262.1	2254.1	2333.8	2412.1	2463.8
17.5°	2079.0	2078.8	2169.7	2267.0	2329.2
20°	1953.4	1957.4	2054.9	2162.2	2235.0
22.5°	1827.8	1837.0	1941.2	2053.0	2136.4
25°	1640.7	1653.9	1770.7	1891.8	1980.5
27.5°	1460.9	1480.2	1603.1	1729.0	1837.0
30°	1342.9	1365.4	1490.4	1622.9	1734.1
32.5°	1227.0	1253.7	1375.6	1515.8	1629.1
35°	1053.2	1079.7	1196.7	1337.5	1459.3
37.5°	873.7	899.6	1013.9	1152.6	1284.1
40°	756.7	785.8	894.8	1029.2	1162.8
42.5°	650.6	679.7	782.2	914.2	1040.5
45°	504.9	535.4	625.4	747.2	863.7
47.5°	384.2	417.3	496.3	606.4	712.6
50°	312.7	345.8	423.7	520.8	622.7
52.5°	255.3	287.3	357.7	449.1	542.6
55°	181.4	211.8	273.4	351.1	431.8
57.5°	125.4	151.6	206.8	271.6	334.9
60°	90.7	115.8	167.9	220.5	272.1
62.5°	60.4	83.4	134.3	174.6	209.3
65°	20.3	38.8	86.6	104.5	116.4
67.5°	10.3	12.4	45.5	48.0	52.0
70°	8.1	8.1	21.7	23.1	27.1
72.5°	6.0	6.0	8.7	11.1	11.9
75°	2.7	2.7	1.4	0.0	0.0
77.5°	1.4	1.4	1.1	0.0	0.0
80°	1.4	1.4	0.0	0.0	0.0
82.5°	0.3	0.3	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°	11.1	58.7	136.3	39.7	29.9
95°	36.0	143.0	642.5	222.4	137.1
97.5°	66.2	167.5	989.5	708.1	485.2
100°	87.2	182.0	1064.8	1078.6	830.8
102.5°	110.5	197.7	1048.2	1380.6	1164.3
105°	146.8	222.6	962.4	1699.9	1616.0
107.5°	183.6	251.6	862.1	1789.9	1864.7
110°	209.1	272.7	804.5	1755.5	1923.4

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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	233.5	293.8	765.7	1674.0	1913.4
115°	272.8	329.7	729.7	1545.9	1815.4
117.5°	307.4	360.8	708.4	1405.9	1691.3
120°	335.1	379.8	706.2	1325.8	1599.3
122.5°	357.3	401.9	700.7	1255.6	1509.6
125°	385.0	426.9	696.5	1155.8	1381.9
127.5°	415.1	454.4	694.3	1096.2	1282.5
130°	430.6	469.9	691.0	1054.7	1217.2
132.5°	447.3	485.4	691.0	1022.3	1171.7
135°	470.8	510.1	688.2	976.3	1103.6
137.5°	493.0	531.1	687.9	937.5	1047.4
140°	509.6	548.8	686.8	905.2	1010.8
142.5°	528.4	561.2	690.1	879.5	974.3
145°	555.3	583.7	693.7	845.0	920.8
147.5°	578.3	605.9	699.8	810.2	875.7
150°	598.2	617.2	702.0	798.6	844.7
152.5°	613.7	633.7	704.3	783.1	825.8
155°	634.2	649.1	710.4	763.7	794.8
157.5°	659.7	668.6	711.7	754.9	777.1
160°	673.0	679.7	717.3	748.2	767.1
162.5°	680.7	688.6	718.4	742.5	757.2
165°	700.7	703.4	718.7	734.1	745.0
167.5°	714.2	711.8	725.0	732.1	736.4
170°	718.7	717.3	722.8	724.3	729.7
172.5°	728.6	724.0	726.1	722.1	726.4
175°	733.9	729.8	727.0	722.7	717.3
177.5°	736.1	729.6	726.1	721.7	722.8
180°	728.4	728.4	728.4	728.4	728.4

(END OF REPORT)