

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: P521188

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

Issue Date: 5-5-2021

Test Information

Test Method: LM-79-2019
Report Number: P521188
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-050D-92765-1D-UNV-STD-W-4_4500K
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE WITH BLACK BAFFLE
DOWNLIGHT 500 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: 5863.5 lumens
Efficiency: N/A
Efficacy: 110.4 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

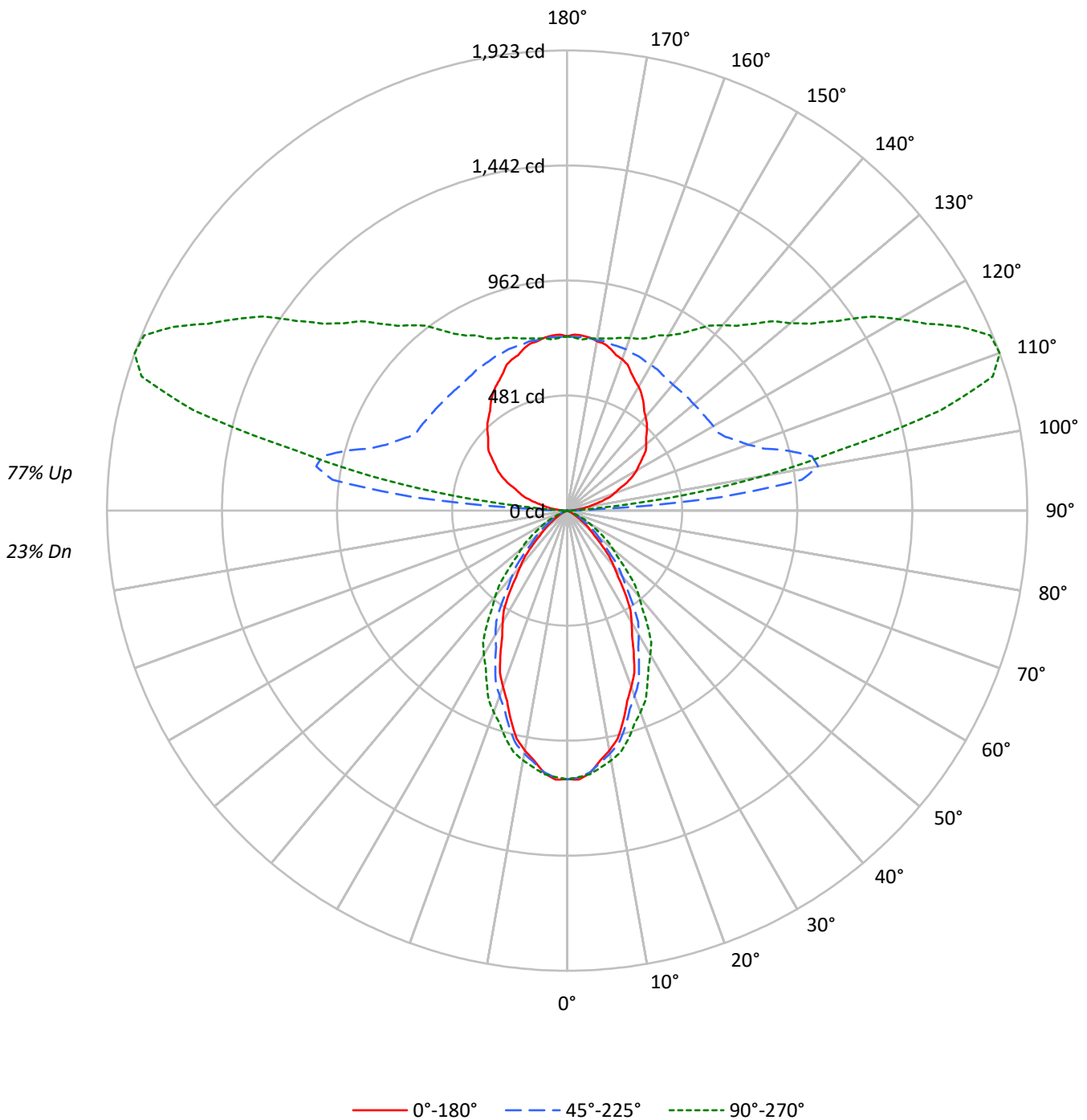
Input Watts (W): 53.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	101	101	101	101	89	89	89	89	68	68	68	49	49	49	31	31	31	23				
1	93	89	85	82	82	79	76	74	61	59	57	44	43	42	29	28	28	21				
2	85	78	73	68	75	70	66	62	54	51	49	40	38	37	26	25	25	19				
3	78	70	63	58	69	62	57	53	49	45	42	36	34	32	24	23	22	17				
4	72	62	55	50	64	56	50	45	44	40	36	32	30	28	22	21	20	15				
5	66	56	48	43	59	50	44	39	39	35	32	30	27	25	20	19	18	14				
6	61	50	43	37	54	45	39	34	36	31	28	27	24	22	19	17	16	13				
7	56	45	38	33	50	41	35	30	33	28	25	25	22	20	17	16	15	12				
8	52	41	34	29	47	37	31	27	30	25	22	23	20	18	16	15	13	11				
9	49	38	31	26	44	34	28	24	27	23	20	21	18	16	15	13	12	10				
10	46	35	28	24	41	31	26	22	25	21	18	20	17	15	14	12	11	9				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10357	10357	10357
5°	10190	10165	10240
10°	9535	9662	9932
15°	8668	8943	9441
20°	7695	8094	8804
25°	6700	7232	8089
30°	5740	6371	7412
35°	4759	5407	6595
40°	3657	4324	5619
45°	2643	3274	4521
50°	1801	2440	3585
55°	1171	1765	2786
60°	672	1242	2015
65°	177	760	1020
70°	89	235	294
75°	39	18	0
80°	27	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4521 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.4	1.7
10°-20°	262.0	4.5
20°-30°	328.0	5.6
30°-40°	303.0	5.2
40°-50°	203.6	3.5
50°-60°	105.2	1.8
60°-70°	32.9	0.6
70°-80°	2.1	0.0
80°-90°	0.0	0.0
90°-100°	331.9	5.7
100°-110°	944.4	16.1
110°-120°	904.8	15.4
120°-130°	716.1	12.2
130°-140°	574.8	9.8
140°-150°	450.0	7.7
150°-160°	329.3	5.6
160°-170°	203.9	3.5
170°-180°	69.2	1.2
0°-30°	692.4	11.8
0°-40°	995.4	17.0
0°-60°	1304.1	22.2
0°-90°	1339.2	22.8
90°-120°	2181.1	37.2
90°-150°	3921.9	66.9
90°-180°	4524.0	77.2
0°-180°	5863.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1123	1123	1123	1123	1123	
5°	1100	1089	1098	1102	1106	102
15°	908	904	936	968	988	253
25°	658	664	710	759	795	302
35°	422	433	480	537	586	262
45°	203	215	251	300	346	159
55°	73	85	110	141	173	68
65°	8	16	35	42	47	14
75°	1	1	0	0	0	2
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°	1122.6	1122.6	1122.6	1122.6	1122.6
2.5°	1125.2	1114.6	1117.4	1117.3	1114.3
5°	1100.3	1089.2	1097.6	1101.5	1105.7
7.5°	1053.8	1045.1	1061.3	1073.5	1082.3
10°	1017.8	1010.3	1031.3	1047.9	1060.1
12.5°	976.1	970.3	995.7	1018.4	1034.1
15°	907.5	904.3	936.3	967.7	988.4
17.5°	834.1	834.0	870.5	909.5	934.5
20°	783.7	785.3	824.4	867.4	896.7
22.5°	733.3	737.0	778.8	823.7	857.1
25°	658.2	663.5	710.4	759.0	794.6
27.5°	586.1	593.9	643.1	693.7	737.0
30°	538.8	547.8	598.0	651.1	695.7
32.5°	492.3	503.0	551.9	608.1	653.6
35°	422.5	433.2	480.1	536.6	585.5
37.5°	350.5	360.9	406.8	462.4	515.2
40°	303.6	315.3	359.0	412.9	466.5
42.5°	261.0	272.7	313.8	366.8	417.4
45°	202.6	214.8	250.9	299.8	346.5
47.5°	154.1	167.4	199.1	243.3	285.9
50°	125.5	138.7	170.0	208.9	249.8
52.5°	102.4	115.3	143.5	180.2	217.7
55°	72.8	85.0	109.7	140.9	173.2
57.5°	50.3	60.8	83.0	109.0	134.4
60°	36.4	46.5	67.3	88.5	109.2
62.5°	24.2	33.5	53.9	70.1	84.0
65°	8.1	15.6	34.8	41.9	46.7
67.5°	4.1	5.0	18.2	19.3	20.9
70°	3.3	3.3	8.7	9.3	10.9
72.5°	2.4	2.4	3.5	4.5	4.8
75°	1.1	1.1	0.5	0.0	0.0
77.5°	0.5	0.5	0.4	0.0	0.0
80°	0.5	0.5	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°	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)