

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: P853520

Luminaire Tested: SQ2-BBM-075U-100D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853520
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G3-2104-222-3)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-BBM-075U-100D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 750 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

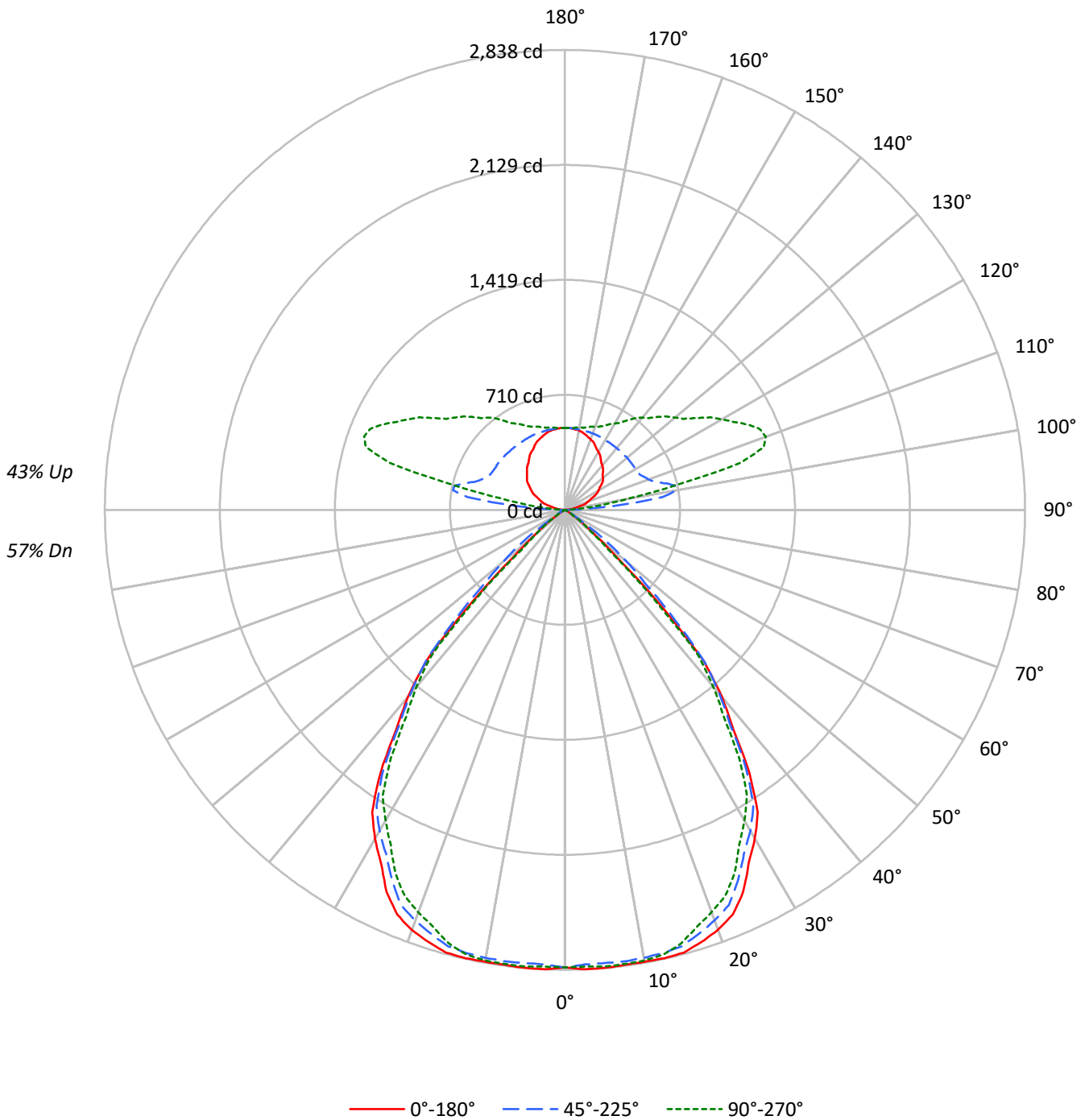
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7358.5 lumens
Efficiency: N/A
Efficacy: 119.8 lumens/watt
Spacing Criteria (0/90/45): 1.22 / 1.17 / 1.16
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 61.4
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	0
RCR																		
0	109	109	109	109	101	101	101	101	87	87	87	75	75	75	63	63	63	57
1	102	98	95	92	95	92	89	87	80	78	76	69	68	67	59	58	58	53
2	95	89	84	79	88	83	79	75	73	70	67	64	61	60	55	54	52	48
3	88	80	74	69	82	75	70	66	67	63	60	59	56	53	51	49	47	44
4	82	73	66	61	76	69	63	58	61	57	53	54	51	48	47	45	43	40
5	76	66	59	54	71	63	56	52	56	51	48	50	46	43	44	41	39	36
6	71	60	53	48	66	57	51	46	51	46	43	46	42	39	41	38	36	33
7	66	55	48	43	62	53	46	42	47	42	39	43	39	36	38	35	33	30
8	62	51	44	39	58	48	42	38	44	39	35	39	36	33	35	32	30	28
9	58	47	40	36	55	45	39	35	41	36	32	37	33	30	33	30	28	26
10	55	44	37	33	51	42	36	32	38	33	30	34	30	28	31	28	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	45585	45585	45585
5°	45981	45485	45861
10°	46427	46011	46306
15°	47281	46591	46308
20°	47402	46347	45402
25°	46340	44963	44078
30°	43684	42638	41277
35°	39135	38447	36904
40°	31748	31213	29988
45°	19322	21907	17342
50°	6164	12381	5634
55°	2145	4495	2204
60°	171	1298	36
65°	0	80	0
70°	0	0	0
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 21907 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	269.8	3.7
10°-20°	789.0	10.7
20°-30°	1163.0	15.8
30°-40°	1191.0	16.2
40°-50°	686.3	9.3
50°-60°	120.2	1.6
60°-70°	4.6	0.1
70°-80°	0.0	0.0
80°-90°	0.6	0.0
90°-100°	191.4	2.6
100°-110°	634.6	8.6
110°-120°	629.9	8.6
120°-130°	513.0	7.0
130°-140°	417.0	5.7
140°-150°	323.8	4.4
150°-160°	233.3	3.2
160°-170°	142.9	1.9
170°-180°	48.3	0.7
0°-30°	2221.8	30.2
0°-40°	3412.7	46.4
0°-60°	4219.2	57.3
0°-90°	4224.4	57.4
90°-120°	1456.0	19.8
90°-150°	2709.8	36.8
90°-180°	3134.0	42.6
0°-180°	7358.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2823	2823	2823	2823	2823	
5°	2837	2831	2806	2840	2830	270
15°	2829	2851	2787	2787	2770	797
25°	2601	2621	2524	2501	2474	1187
35°	1986	1974	1951	1903	1872	1218
45°	846	947	959	912	760	648
55°	76	92	160	87	78	85
65°	0	1	2	1	0	1
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	1	3	4	4	1
95°	27	80	347	124	83	31
105°	111	158	635	1198	1120	117
115°	198	237	512	1065	1245	196
125°	277	307	502	837	986	246
135°	331	365	498	718	810	256
145°	385	413	497	618	676	241
155°	439	454	500	552	572	202
165°	482	487	502	522	527	136
175°	504	504	505	508	507	48
180°	506	506	506	506	506	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2823.3	2823.3	2823.3	2823.3	2823.3
2.5°	2837.7	2830.2	2808.1	2830.7	2820.8
5°	2837.0	2830.8	2806.4	2840.0	2829.6
7.5°	2831.8	2830.3	2811.5	2837.8	2826.0
10°	2831.8	2836.9	2806.4	2833.7	2824.4
12.5°	2833.5	2845.2	2801.3	2822.6	2809.1
15°	2828.6	2851.3	2787.3	2787.0	2770.4
17.5°	2796.9	2823.7	2743.1	2721.2	2699.1
20°	2758.8	2789.8	2697.4	2666.2	2642.4
22.5°	2703.8	2734.0	2639.9	2604.4	2580.6
25°	2601.2	2620.8	2523.9	2501.1	2474.2
27.5°	2455.6	2467.2	2391.9	2352.4	2328.2
30°	2343.1	2351.3	2287.0	2244.0	2214.0
32.5°	2212.7	2209.4	2162.6	2118.8	2090.4
35°	1985.5	1974.1	1950.6	1903.4	1872.3
37.5°	1706.0	1704.0	1680.7	1639.7	1607.2
40°	1506.3	1504.3	1480.9	1444.5	1422.8
42.5°	1264.3	1303.6	1276.1	1231.4	1218.0
45°	846.2	946.6	959.4	911.6	759.5
47.5°	436.7	570.7	668.1	520.4	360.5
50°	245.4	344.7	492.9	279.1	224.3
52.5°	159.9	207.9	344.0	178.1	150.6
55°	76.2	91.7	159.7	86.6	78.3
57.5°	27.3	42.2	69.8	42.8	26.4
60°	5.3	17.7	40.2	12.4	1.1
62.5°	1.9	5.2	23.3	3.3	1.1
65°	0.0	1.0	2.1	1.0	0.0
67.5°	0.0	0.8	0.8	0.0	0.0
70°	0.0	0.0	0.0	0.0	0.0
72.5°	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.2	0.6	0.8	0.8
90°	0.0	1.0	3.1	4.2	4.2
92.5°	8.4	32.4	95.4	30.9	26.0
95°	27.2	80.5	346.9	123.8	82.8
97.5°	50.1	105.8	605.6	353.2	223.2
100°	66.0	119.3	701.2	602.2	399.3
102.5°	83.6	135.3	695.3	920.3	695.3
105°	111.1	158.2	635.1	1198.3	1120.4
107.5°	139.2	181.2	577.5	1226.5	1285.8
110°	155.1	197.1	548.1	1198.6	1318.5



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	171.9	213.1	530.5	1149.0	1301.7
115°	198.1	237.0	511.5	1064.8	1245.1
117.5°	224.1	258.7	504.5	984.2	1173.4
120°	240.0	273.8	502.0	933.8	1117.2
122.5°	254.3	287.3	502.0	892.4	1061.9
125°	276.7	307.4	502.0	836.6	986.2
127.5°	295.1	325.3	500.8	794.4	922.3
130°	306.0	337.8	499.9	769.8	884.6
132.5°	316.1	348.7	499.1	749.4	852.7
135°	331.2	365.0	497.8	717.9	810.2
137.5°	347.5	380.1	496.6	687.5	768.9
140°	358.4	390.2	495.7	667.2	742.0
142.5°	368.5	399.5	496.6	646.9	713.5
145°	384.6	413.3	496.8	617.6	676.0
147.5°	402.0	426.0	497.0	592.7	636.2
150°	412.9	434.5	497.8	578.3	615.2
152.5°	423.0	443.7	498.7	566.4	595.9
155°	439.1	454.5	499.9	551.8	572.2
157.5°	454.9	466.8	501.2	541.3	555.9
160°	463.2	473.5	502.0	533.7	545.0
162.5°	471.6	479.4	502.0	528.6	537.5
165°	482.1	487.2	502.0	522.1	527.2
167.5°	491.8	494.4	503.1	516.1	518.8
170°	496.8	497.8	503.1	513.6	514.6
172.5°	500.1	501.2	503.9	511.0	511.3
175°	504.1	504.1	505.2	508.3	507.3
177.5°	506.2	506.2	505.4	507.0	505.4
180°	506.2	506.2	506.2	506.2	506.2

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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	1.80	2.54	2.73	3.46	4.63	1.26	2.01	2.20	2.93	4.10
	3H	1.61	2.26	2.55	3.19	4.39	1.07	1.73	2.01	2.66	3.86
	4H	1.50	2.12	2.46	3.05	4.26	0.97	1.59	1.92	2.52	3.73
	6H	1.39	1.96	2.36	2.90	4.12	0.86	1.42	1.82	2.36	3.59
	8H	1.33	1.87	2.30	2.82	4.04	0.80	1.33	1.77	2.29	3.51
	12H	1.27	1.78	2.25	2.73	3.97	0.74	1.25	1.71	2.20	3.44
4H	2H	1.51	2.13	2.47	3.06	4.27	0.98	1.60	1.94	2.53	3.74
	3H	1.31	1.82	2.28	2.78	4.00	0.78	1.29	1.75	2.25	3.47
	4H	1.20	1.66	2.17	2.62	3.86	0.67	1.13	1.64	2.09	3.33
	6H	1.09	1.48	2.08	2.46	3.71	0.56	0.95	1.55	1.93	3.18
	8H	1.02	1.39	2.01	2.36	3.62	0.49	0.86	1.48	1.83	3.09
	12H	0.95	1.28	1.96	2.27	3.53	0.42	0.75	1.43	1.74	3.00
8H	4H	1.02	1.39	2.01	2.36	3.62	0.49	0.86	1.48	1.83	3.09
	6H	0.90	1.20	1.91	2.22	3.48	0.37	0.67	1.38	1.69	2.95
	8H	0.84	1.11	1.86	2.11	3.39	0.31	0.58	1.33	1.58	2.86
	12H	0.78	1.01	1.79	2.00	3.33	0.25	0.48	1.26	1.48	2.80
12H	4H	0.95	1.28	1.96	2.27	3.53	0.42	0.75	1.43	1.74	3.00
	6H	0.84	1.11	1.86	2.11	3.39	0.31	0.58	1.33	1.58	2.86
	8H	0.78	1.01	1.79	2.00	3.33	0.25	0.48	1.26	1.47	2.80