

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: P854436

Luminaire Tested: SQ2-WBN-075U-050D-930-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

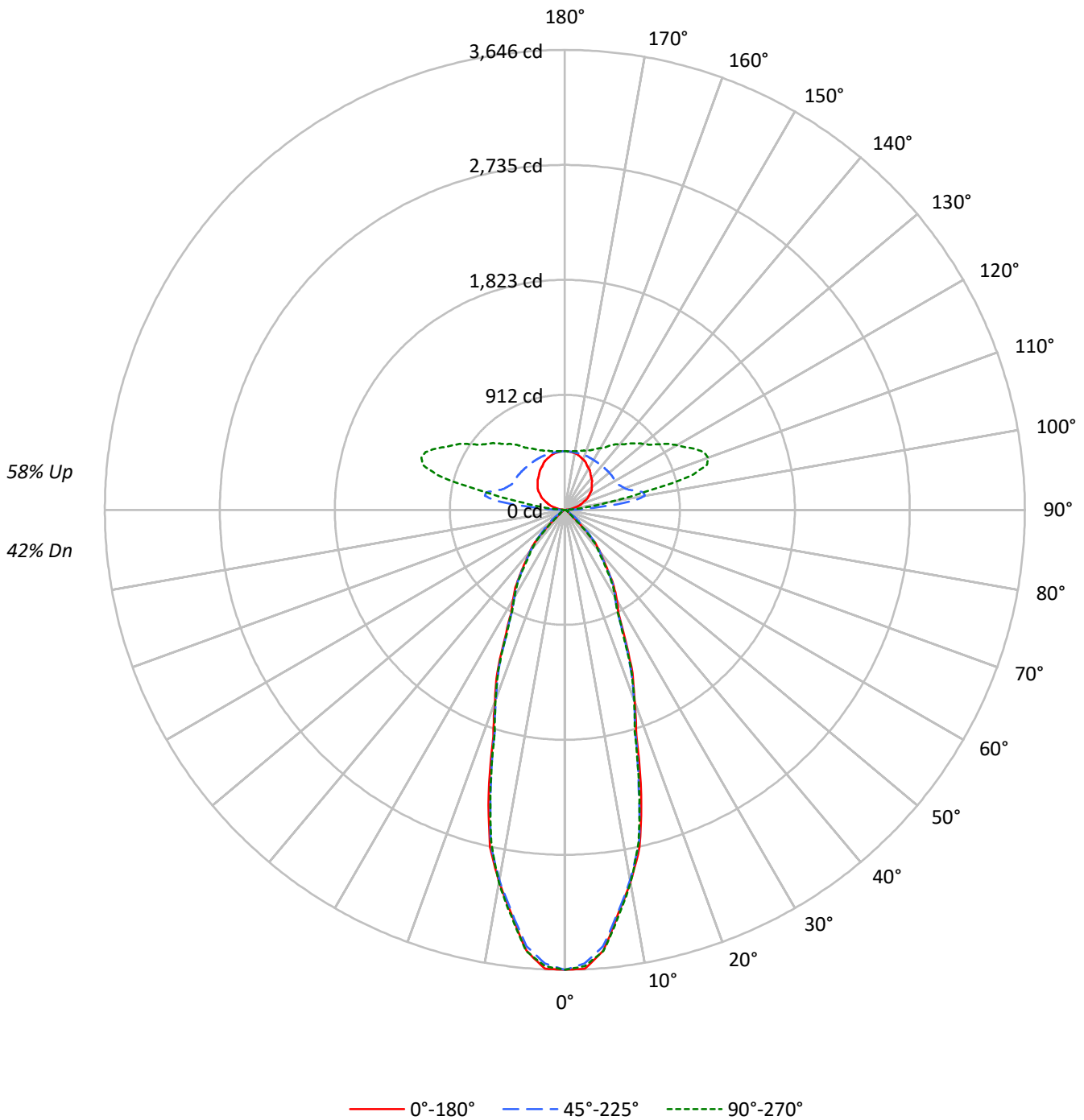
Test Method: LM-79-2019  
Report Number: P854436  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G3-2308-130-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-WBN-075U-050D-930-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 750 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4993.4 lumens  
Efficiency: N/A  
Efficacy: 120.6 lumens/watt  
Spacing Criteria (0/90/45): 0.59 / 0.58 / 0.63  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 41.4  
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	50	30	10	0	
RCR																						
0	105	105	105	105	96	96	96	96	79	79	79	63	63	63	49	49	49	42				42
1	98	94	91	88	90	87	84	82	72	70	69	59	58	57	46	46	45	40				40
2	91	85	80	76	83	78	74	71	66	63	60	54	52	51	44	42	42	37				37
3	85	77	71	66	78	71	66	62	60	57	54	50	48	46	41	39	38	34				34
4	79	70	64	59	72	65	59	55	56	52	48	47	44	42	38	37	35	32				32
5	74	64	57	52	68	60	54	49	51	47	44	43	41	38	36	34	33	30				30
6	69	59	52	47	63	55	49	45	48	43	40	41	38	35	34	32	31	28				28
7	65	54	48	43	60	51	45	41	44	40	37	38	35	33	32	30	29	26				26
8	61	50	44	39	56	47	41	37	41	37	34	36	33	30	31	29	27	25				25
9	57	47	40	36	53	44	38	34	39	34	31	34	31	28	29	27	25	23				23
10	54	44	37	33	50	41	36	32	36	32	29	32	29	27	28	26	24	22				22

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

	0°	45°	90°
0°	58866	58866	58866
5°	56837	56271	56900
10°	49127	48895	49244
15°	39092	37860	38011
20°	27771	27404	27605
25°	19979	19588	19450
30°	15265	14855	14820
35°	11984	11779	11473
40°	9078	8956	8519
45°	5080	6069	4535
50°	1786	3738	1575
55°	1092	2038	1039
60°	836	1066	772
65°	764	791	718
70°	732	732	670
75°	686	686	643
80°	604	604	604
85°	593	482	482

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 6069 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	316.5	6.3
10°-20°	629.0	12.6
20°-30°	520.9	10.4
30°-40°	374.7	7.5
40°-50°	190.9	3.8
50°-60°	49.7	1.0
60°-70°	20.6	0.4
70°-80°	11.4	0.2
80°-90°	3.8	0.1
90°-100°	175.7	3.5
100°-110°	582.3	11.7
110°-120°	578.0	11.6
120°-130°	470.8	9.4
130°-140°	382.6	7.7
140°-150°	297.1	6.0
150°-160°	214.1	4.3
160°-170°	131.1	2.6
170°-180°	44.3	0.9
0°-30°	1466.3	29.4
0°-40°	1841.0	36.9
0°-60°	2081.6	41.7
0°-90°	2117.5	42.4
90°-120°	1336.0	26.8
90°-150°	2486.4	49.8
90°-180°	2876.0	57.6
0°-180°	4993.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3646	3646	3646	3646	3646	
5°	3507	3502	3472	3522	3511	316
15°	2339	2312	2265	2281	2274	635
25°	1122	1120	1100	1090	1092	528
35°	608	612	598	588	582	382
45°	222	256	266	247	199	178
55°	39	45	72	42	37	38
65°	20	21	21	19	19	20
75°	11	11	11	10	10	12
85°	3	3	3	3	3	3
90°	0	1	3	4	4	1
95°	25	74	318	114	76	29
105°	102	145	583	1100	1028	107
115°	182	218	469	977	1142	180
125°	254	282	461	768	905	226
135°	304	335	457	659	743	235
145°	353	379	456	567	620	221
155°	403	417	459	506	525	186
165°	442	447	461	479	484	125
175°	463	463	464	466	466	44
180°	464	464	464	464	464	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3645.9	3645.9	3645.9	3645.9	3645.9
2.5°	3640.2	3634.1	3599.3	3628.1	3621.0
5°	3506.8	3501.7	3471.9	3522.1	3510.7
7.5°	3231.4	3235.7	3218.2	3262.6	3250.4
10°	2996.5	3007.9	2982.3	3046.6	3003.6
12.5°	2737.3	2729.9	2712.2	2722.1	2698.3
15°	2338.7	2312.2	2265.0	2281.0	2274.0
17.5°	1883.8	1894.0	1853.1	1851.4	1843.6
20°	1616.3	1619.4	1594.9	1607.8	1606.6
22.5°	1401.0	1401.7	1370.4	1389.3	1377.9
25°	1121.5	1119.6	1099.5	1089.9	1091.8
27.5°	919.7	911.9	896.7	903.0	898.4
30°	818.8	812.5	796.8	800.6	794.9
32.5°	728.3	728.5	712.5	710.6	706.4
35°	608.0	611.8	597.6	587.8	582.1
37.5°	500.6	504.1	492.2	477.9	473.0
40°	430.7	433.3	424.9	408.0	404.2
42.5°	354.7	365.3	357.1	341.2	332.8
45°	222.5	256.0	265.8	247.3	198.6
47.5°	112.5	159.0	189.6	140.0	92.2
50°	71.1	103.4	148.8	84.2	62.7
52.5°	54.6	71.2	118.7	62.2	50.3
55°	38.8	45.1	72.4	41.9	36.9
57.5°	30.0	33.6	43.3	31.7	28.6
60°	25.9	28.4	33.0	27.1	23.9
62.5°	23.3	24.8	26.8	23.0	21.9
65°	20.0	20.7	20.7	19.4	18.8
67.5°	17.1	17.7	17.6	16.9	16.3
70°	15.5	16.2	15.5	14.9	14.2
72.5°	13.5	14.1	13.5	13.3	12.7
75°	11.0	11.0	11.0	10.3	10.3
77.5°	8.5	8.7	8.0	8.0	7.5
80°	6.5	7.1	6.5	6.5	6.5
82.5°	5.4	5.6	4.9	4.9	4.9
85°	3.2	3.2	2.6	3.2	2.6
87.5°	1.0	1.2	1.6	1.8	1.8
90°	0.0	0.9	2.9	3.8	3.8
92.5°	7.7	29.7	87.5	28.4	23.8
95°	25.0	73.9	318.3	113.6	76.0
97.5°	46.0	97.1	555.7	324.1	204.8
100°	60.6	109.5	643.4	552.6	366.4
102.5°	76.7	124.1	638.0	844.5	638.0
105°	101.9	145.2	582.8	1099.5	1028.0
107.5°	127.7	166.3	529.9	1125.4	1179.8
110°	142.3	180.9	503.0	1099.8	1209.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	157.7	195.5	486.8	1054.3	1194.4
115°	181.8	217.5	469.3	977.0	1142.5
117.5°	205.6	237.4	463.0	903.1	1076.7
120°	220.2	251.3	460.6	856.8	1025.1
122.5°	233.3	263.6	460.6	818.8	974.4
125°	253.9	282.1	460.6	767.7	904.9
127.5°	270.8	298.5	459.5	728.9	846.3
130°	280.8	310.0	458.7	706.3	811.7
132.5°	290.0	319.9	458.0	687.6	782.4
135°	303.9	334.9	456.8	658.7	743.4
137.5°	318.9	348.8	455.6	630.8	705.5
140°	328.9	358.0	454.9	612.2	680.9
142.5°	338.1	366.5	455.6	593.6	654.7
145°	352.9	379.3	455.8	566.7	620.3
147.5°	368.9	390.9	456.0	543.9	583.7
150°	378.9	398.6	456.8	530.7	564.5
152.5°	388.1	407.1	457.6	519.7	546.8
155°	402.9	417.0	458.7	506.3	525.1
157.5°	417.4	428.3	459.9	496.7	510.1
160°	425.1	434.5	460.6	489.7	500.1
162.5°	432.8	439.9	460.6	485.1	493.1
165°	442.4	447.1	460.6	479.0	483.7
167.5°	451.2	453.7	461.6	473.6	476.0
170°	455.8	456.8	461.6	471.2	472.2
172.5°	458.9	459.9	462.4	468.9	469.1
175°	462.6	462.6	463.5	466.4	465.5
177.5°	464.5	464.5	463.7	465.2	463.7
180°	464.5	464.5	464.5	464.5	464.5

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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	0.26	0.92	1.32	1.95	3.34	0.00	0.53	0.93	1.56	2.95
	3H	1.31	1.89	2.37	2.93	4.34	0.87	1.46	1.94	2.50	3.91
	4H	1.73	2.28	2.81	3.33	4.74	1.29	1.84	2.37	2.89	4.30
	6H	2.04	2.55	3.13	3.60	5.02	1.62	2.13	2.71	3.18	4.60
	8H	2.14	2.62	3.23	3.68	5.11	1.73	2.20	2.81	3.27	4.69
	12H	2.20	2.66	3.29	3.72	5.16	1.77	2.23	2.86	3.28	4.73
4H	2H	0.48	1.03	1.56	2.07	3.49	0.15	0.70	1.23	1.74	3.16
	3H	1.77	2.23	2.86	3.30	4.73	1.39	1.85	2.48	2.92	4.35
	4H	2.34	2.75	3.42	3.82	5.27	1.94	2.36	3.03	3.42	4.87
	6H	2.79	3.14	3.89	4.23	5.68	2.40	2.76	3.50	3.85	5.29
	8H	2.95	3.28	4.04	4.36	5.81	2.56	2.89	3.66	3.97	5.43
	12H	3.05	3.34	4.16	4.44	5.90	2.65	2.94	3.76	4.04	5.50
8H	4H	2.48	2.81	3.57	3.89	5.34	2.13	2.46	3.22	3.54	4.99
	6H	3.07	3.34	4.18	4.46	5.91	2.72	2.99	3.83	4.11	5.56
	8H	3.31	3.55	4.43	4.65	6.13	2.96	3.20	4.08	4.30	5.77
	12H	3.50	3.70	4.62	4.80	6.31	3.13	3.33	4.25	4.43	5.95
12H	4H	2.45	2.75	3.56	3.84	5.30	2.11	2.40	3.22	3.50	4.96
	6H	3.09	3.33	4.21	4.43	5.90	2.75	2.99	3.88	4.09	5.57
	8H	3.36	3.57	4.48	4.66	6.18	3.02	3.23	4.15	4.33	5.84