

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: P853682

Luminaire Tested: SQ2-F-075U-050D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

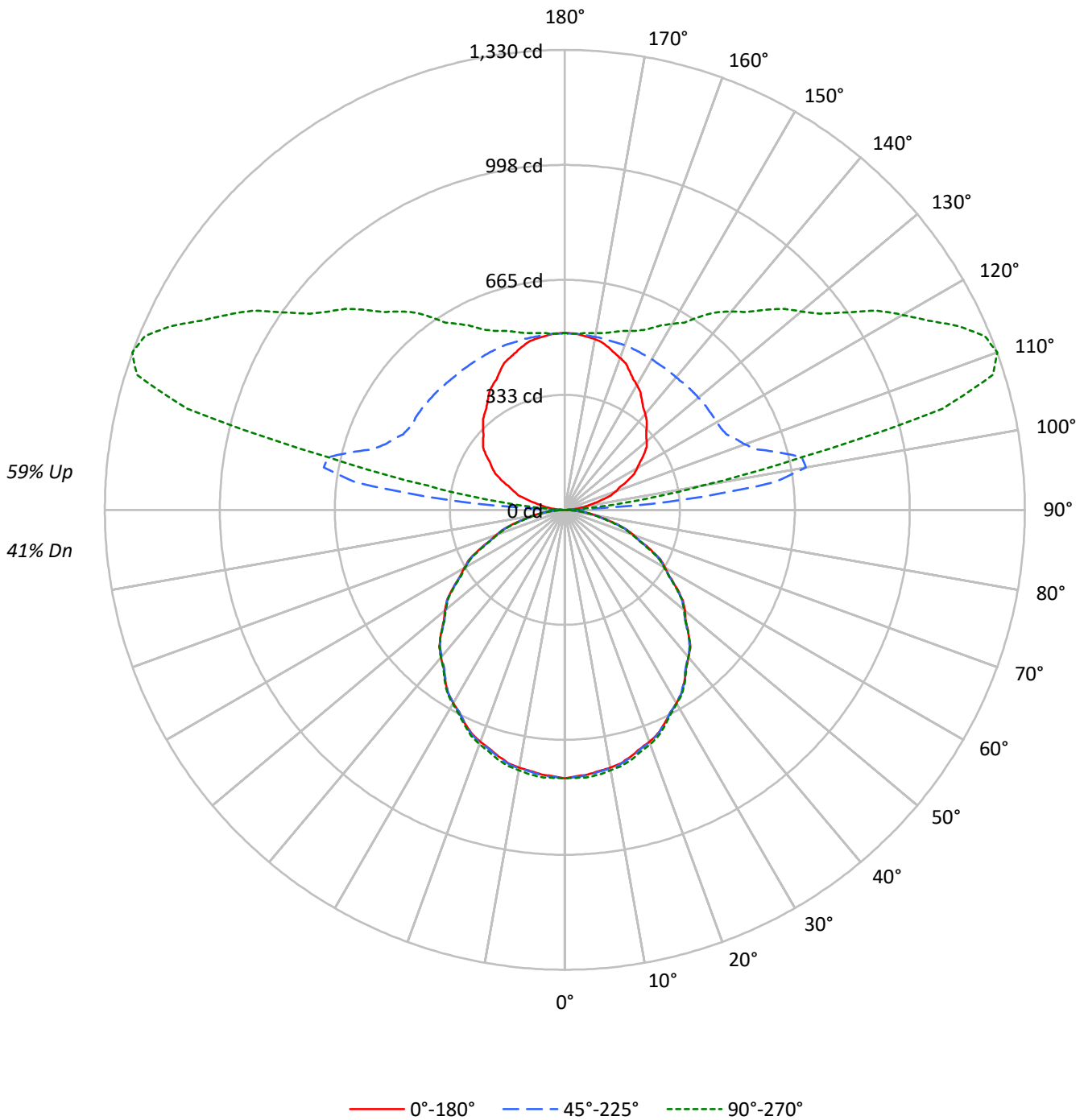
Test Method: LM-79-2019  
Report Number: P853682  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-F-075U-050D-940-UNV-STD-W-4  
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: 5342.8 lumens  
Efficiency: N/A  
Efficacy: 130.0 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 41.1  
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	
RCR																					
0	105	105	105	105	96	96	96	96	78	78	78	62	62	62	48	48	48	41			
1	96	91	87	84	87	83	80	77	68	66	64	55	53	52	42	41	40	34			
2	87	80	73	68	79	73	67	63	60	56	53	48	45	43	37	35	33	28			
3	79	70	62	57	72	64	57	52	53	48	44	42	39	36	32	30	28	24			
4	72	62	54	48	66	56	50	44	47	41	37	37	34	31	29	26	24	20			
5	66	55	47	41	60	50	43	38	42	36	32	33	30	27	26	23	21	18			
6	61	49	41	35	55	45	38	33	37	32	28	30	26	23	23	21	18	15			
7	56	44	36	31	51	41	34	29	34	28	24	27	23	20	21	19	16	14			
8	52	40	32	27	47	37	30	25	31	25	22	25	21	18	20	17	15	12			
9	49	36	29	24	44	34	27	22	28	23	19	23	19	16	18	15	13	11			
10	45	33	26	21	41	31	24	20	26	21	17	21	17	15	17	14	12	10			

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

	0°	45°	90°
0°	12536	12536	12536
5°	12446	12481	12584
10°	12418	12452	12539
15°	12341	12376	12500
20°	12268	12287	12395
25°	12155	12155	12230
30°	12029	12029	12070
35°	11883	11842	11925
40°	11727	11683	11727
45°	11545	11497	11545
50°	11371	11266	11293
55°	11105	11077	11018
60°	10827	10760	10692
65°	10506	10384	10265
70°	9885	9838	9635
75°	9301	9108	8840
80°	8266	8061	7773
85°	6669	6076	5687

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 11615 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.4	1.4
10°-20°	209.7	3.9
20°-30°	315.5	5.9
30°-40°	377.5	7.1
40°-50°	389.5	7.3
50°-60°	351.4	6.6
60°-70°	268.1	5.0
70°-80°	154.2	2.9
80°-90°	40.7	0.8
90°-100°	193.2	3.6
100°-110°	640.4	12.0
110°-120°	635.6	11.9
120°-130°	517.7	9.7
130°-140°	420.8	7.9
140°-150°	326.8	6.1
150°-160°	235.4	4.4
160°-170°	144.2	2.7
170°-180°	48.7	0.9
0°-30°	598.6	11.2
0°-40°	976.1	18.3
0°-60°	1717.0	32.1
0°-90°	2180.0	40.8
90°-120°	1469.2	27.5
90°-150°	2734.5	51.2
90°-180°	3163.0	59.2
0°-180°	5342.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	776	776	776	776	776	
5°	768	778	770	771	776	73
15°	738	748	740	744	748	208
25°	682	690	682	683	686	314
35°	603	607	601	603	605	377
45°	506	509	504	505	506	390
55°	394	397	394	391	391	353
65°	275	274	272	270	269	270
75°	149	148	146	143	142	157
85°	36	34	33	30	31	42
90°	0	1	3	4	4	3
95°	28	81	350	125	84	31
105°	112	160	641	1209	1131	118
115°	200	239	516	1074	1256	198
125°	279	310	507	844	995	248
135°	334	368	502	724	818	259
145°	388	417	501	623	682	243
155°	443	459	504	557	578	204
165°	486	492	507	527	532	137
175°	509	509	510	513	512	48
180°	511	511	511	511	511	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	776.4	776.4	776.4	776.4	776.4
2.5°	771.3	780.4	773.0	774.7	775.6
5°	767.9	778.3	770.1	771.2	776.4
7.5°	761.6	772.8	763.7	765.7	771.5
10°	757.4	767.7	759.5	760.6	764.8
12.5°	750.6	760.9	752.7	754.7	758.8
15°	738.3	747.6	740.4	743.7	747.8
17.5°	724.1	734.1	726.1	728.9	732.4
20°	714.0	722.3	715.1	716.2	721.4
22.5°	701.3	709.6	703.2	703.5	707.9
25°	682.3	689.5	682.3	683.4	686.5
27.5°	660.5	666.7	660.5	661.6	664.3
30°	645.2	651.4	645.2	646.3	647.4
32.5°	628.3	633.7	627.5	628.6	631.3
35°	602.9	607.1	600.8	603.0	605.0
37.5°	575.8	579.0	573.7	574.8	576.7
40°	556.4	559.5	554.3	555.4	556.4
42.5°	536.9	539.2	534.0	535.1	536.9
45°	505.6	508.7	503.5	504.6	505.6
47.5°	473.9	475.7	471.3	470.5	472.4
50°	452.7	453.8	448.5	448.5	449.6
52.5°	429.9	430.9	427.3	425.7	426.7
55°	394.5	396.6	393.5	391.4	391.4
57.5°	359.0	360.9	356.9	355.8	355.6
60°	335.3	336.3	333.2	332.1	331.1
62.5°	311.6	311.8	308.7	307.6	306.5
65°	275.0	274.0	271.8	269.7	268.7
67.5°	234.0	235.0	232.9	229.5	229.5
70°	209.4	210.5	208.4	204.1	204.1
72.5°	185.7	185.1	183.8	180.4	178.8
75°	149.1	148.1	146.0	142.8	141.7
77.5°	112.5	111.5	110.4	106.4	107.3
80°	88.9	87.8	86.7	83.6	83.6
82.5°	67.7	65.8	64.7	61.6	61.6
85°	36.0	33.9	32.8	29.6	30.7
87.5°	10.2	9.5	9.1	7.6	7.6
90°	0.0	1.0	3.2	4.2	4.2
92.5°	8.5	32.7	96.2	31.2	26.2
95°	27.5	81.3	350.1	124.9	83.6
97.5°	50.6	106.8	611.1	356.4	225.3
100°	66.6	120.4	707.6	607.7	403.0
102.5°	84.4	136.5	701.6	928.7	701.6
105°	112.1	159.7	640.9	1209.2	1130.6
107.5°	140.5	182.9	582.8	1237.7	1297.5
110°	156.5	198.9	553.1	1209.5	1330.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	173.5	215.0	535.4	1159.5	1313.6
115°	199.9	239.2	516.1	1074.5	1256.5
117.5°	226.1	261.1	509.1	993.2	1184.1
120°	242.2	276.3	506.6	942.3	1127.4
122.5°	256.6	289.9	506.6	900.6	1071.6
125°	279.2	310.2	506.6	844.3	995.2
127.5°	297.8	328.2	505.3	801.7	930.7
130°	308.8	340.9	504.5	776.8	892.6
132.5°	319.0	351.9	503.6	756.3	860.5
135°	334.2	368.3	502.4	724.5	817.6
137.5°	350.7	383.6	501.1	693.8	775.9
140°	361.7	393.8	500.3	673.3	748.8
142.5°	371.9	403.1	501.1	652.8	720.0
145°	388.2	417.1	501.3	623.2	682.2
147.5°	405.7	429.9	501.5	598.1	642.0
150°	416.7	438.4	502.4	583.6	620.8
152.5°	426.9	447.8	503.2	571.6	601.4
155°	443.1	458.7	504.5	556.8	577.5
157.5°	459.0	471.0	505.8	546.3	561.0
160°	467.5	477.8	506.6	538.6	550.0
162.5°	475.9	483.8	506.6	533.5	542.4
165°	486.5	491.7	506.6	526.8	532.0
167.5°	496.2	498.9	507.7	520.8	523.5
170°	501.3	502.4	507.7	518.3	519.3
172.5°	504.7	505.7	508.5	515.7	515.9
175°	508.7	508.7	509.8	512.9	511.9
177.5°	510.8	510.8	510.0	511.6	510.0
180°	510.8	510.8	510.8	510.8	510.8



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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	15.84	16.63	16.87	17.67	19.07	15.76	16.56	16.79	17.60	18.99
	3H	17.62	18.33	18.66	19.38	20.79	17.50	18.21	18.54	19.26	20.67
	4H	18.27	18.95	19.33	20.00	21.42	18.12	18.79	19.17	19.84	21.27
	6H	18.74	19.36	19.80	20.41	21.85	18.55	19.17	19.62	20.23	21.66
	8H	18.88	19.47	19.94	20.54	21.97	18.67	19.26	19.74	20.33	21.76
	12H	18.95	19.51	20.02	20.57	22.03	18.72	19.29	19.80	20.35	21.80
4H	2H	16.38	17.06	17.44	18.11	19.53	16.32	17.00	17.38	18.05	19.47
	3H	18.37	18.93	19.43	20.01	21.44	18.26	18.82	19.32	19.90	21.33
	4H	19.15	19.67	20.23	20.74	22.19	19.01	19.53	20.08	20.59	22.05
	6H	19.74	20.18	20.82	21.27	22.73	19.56	20.00	20.64	21.09	22.55
	8H	19.92	20.34	21.01	21.42	22.89	19.72	20.14	20.81	21.22	22.69
	12H	20.02	20.40	21.12	21.50	22.97	19.80	20.17	20.90	21.27	22.74
8H	4H	19.39	19.81	20.48	20.89	22.36	19.27	19.68	20.35	20.77	22.23
	6H	20.11	20.45	21.21	21.58	23.04	19.94	20.29	21.05	21.41	22.88
	8H	20.38	20.68	21.49	21.78	23.27	20.18	20.48	21.29	21.59	23.08
	12H	20.54	20.81	21.66	21.91	23.43	20.31	20.58	21.43	21.68	23.20
12H	4H	19.38	19.76	20.48	20.86	22.33	19.26	19.64	20.36	20.74	22.21
	6H	20.15	20.45	21.26	21.56	23.04	19.99	20.29	21.10	21.40	22.89
	8H	20.44	20.71	21.56	21.81	23.33	20.26	20.52	21.37	21.62	23.15