

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: P853704

Luminaire Tested: SQ2-F-100U-050D-930-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

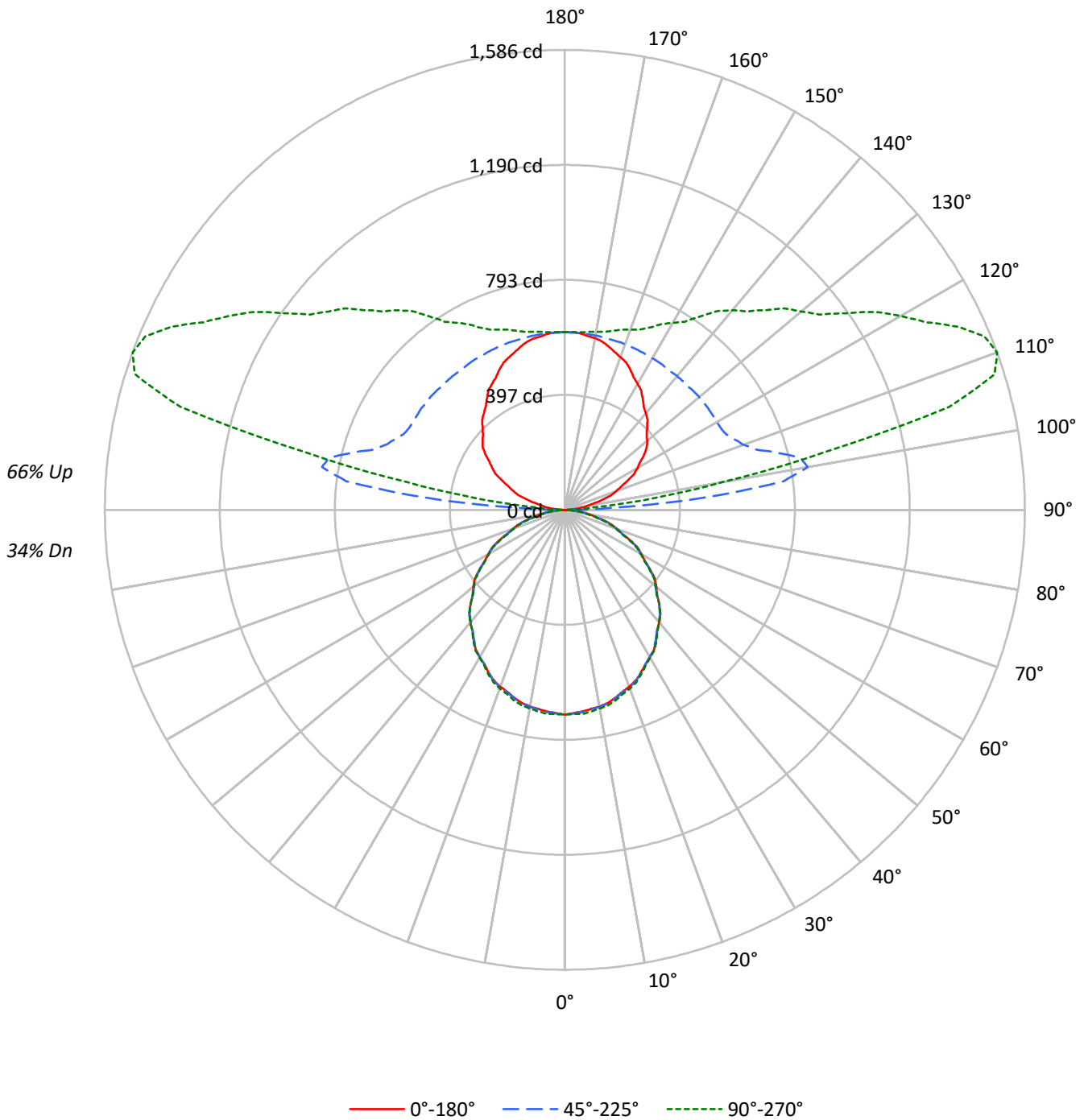
Test Method: LM-79-2019  
Report Number: P853704  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-F-100U-050D-930-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5794.8 lumens  
Efficiency: N/A  
Efficacy: 115.0 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: Semi-Indirect  
  
Input Watts (W): 50.4  
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	103	103	103	103	93	93	93	93	75	75	75	57	57	57	42	42	42	34
1	94	90	86	83	85	81	78	75	65	63	61	50	49	47	37	36	35	29
2	86	78	72	67	77	71	66	61	57	53	50	44	42	39	32	31	29	24
3	78	69	62	56	70	62	56	51	50	46	42	39	36	33	28	26	25	20
4	71	61	53	47	64	55	48	43	44	39	36	34	31	28	25	23	21	17
5	65	54	46	40	59	49	42	37	40	34	31	31	27	24	23	20	18	15
6	60	48	40	35	54	44	37	32	35	30	26	28	24	21	20	18	16	13
7	55	43	36	30	50	39	33	28	32	27	23	25	21	19	19	16	14	11
8	51	39	32	26	46	36	29	24	29	24	20	23	19	17	17	15	13	10
9	48	36	28	23	43	33	26	22	27	22	18	21	17	15	16	13	11	9
10	44	33	26	21	40	30	24	19	24	20	16	19	16	13	15	12	10	8

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

	0°	45°	90°
0°	11399	11399	11399
5°	11318	11349	11443
10°	11290	11322	11401
15°	11221	11254	11366
20°	11155	11172	11270
25°	11052	11052	11120
30°	10938	10938	10974
35°	10805	10768	10843
40°	10663	10623	10663
45°	10497	10453	10497
50°	10339	10243	10268
55°	10100	10072	10018
60°	9846	9784	9720
65°	9555	9444	9333
70°	8988	8946	8762
75°	8459	8278	8041
80°	7513	7336	7066
85°	6058	5521	5169

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 10563 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.7	1.2
10°-20°	190.7	3.3
20°-30°	286.9	5.0
30°-40°	343.3	5.9
40°-50°	354.2	6.1
50°-60°	319.5	5.5
60°-70°	243.8	4.2
70°-80°	140.2	2.4
80°-90°	37.7	0.7
90°-100°	255.8	4.4
100°-110°	773.7	13.4
110°-120°	755.2	13.0
120°-130°	617.2	10.7
130°-140°	503.8	8.7
140°-150°	392.2	6.8
150°-160°	282.7	4.9
160°-170°	173.1	3.0
170°-180°	58.4	1.0
0°-30°	544.3	9.4
0°-40°	887.5	15.3
0°-60°	1561.2	26.9
0°-90°	1982.9	34.2
90°-120°	1784.7	30.8
90°-150°	3297.8	56.9
90°-180°	3812.0	65.8
0°-180°	5794.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	706	706	706	706	706	
5°	698	708	700	701	706	66
15°	671	680	673	676	680	189
25°	620	627	620	621	624	286
35°	548	552	546	548	550	343
45°	460	463	458	459	460	355
55°	359	361	358	356	356	321
65°	250	249	247	245	244	246
75°	136	135	133	130	129	143
85°	33	31	30	27	28	38
90°	0	2	12	7	6	3
95°	32	100	483	178	112	38
105°	135	189	760	1443	1371	141
115°	239	286	614	1271	1493	237
125°	335	371	606	1004	1182	297
135°	401	443	602	866	974	310
145°	468	503	602	745	814	293
155°	534	552	606	668	693	246
165°	584	590	609	632	639	164
175°	611	611	612	616	614	58
180°	612	612	612	612	612	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	706.0	706.0	706.0	706.0	706.0
2.5°	701.3	709.6	702.9	704.4	705.2
5°	698.3	707.7	700.2	701.3	706.0
7.5°	692.5	702.7	694.4	696.3	701.5
10°	688.6	698.1	690.6	691.6	695.4
12.5°	682.5	691.9	684.4	686.2	690.0
15°	671.3	679.8	673.3	676.2	680.0
17.5°	658.4	667.5	660.2	662.8	665.9
20°	649.2	656.7	650.2	651.2	655.9
22.5°	637.7	645.2	639.4	639.7	643.6
25°	620.4	626.9	620.4	621.4	624.2
27.5°	600.5	606.2	600.5	601.6	604.0
30°	586.7	592.3	586.7	587.7	588.6
32.5°	571.3	576.2	570.5	571.6	574.0
35°	548.2	552.0	546.3	548.3	550.1
37.5°	523.6	526.4	521.7	522.7	524.4
40°	505.9	508.7	504.0	505.0	505.9
42.5°	488.2	490.3	485.5	486.5	488.2
45°	459.7	462.6	457.8	458.8	459.7
47.5°	430.9	432.6	428.6	427.8	429.5
50°	411.6	412.6	407.8	407.8	408.8
52.5°	390.9	391.8	388.6	387.0	388.0
55°	358.8	360.6	357.8	355.9	355.9
57.5°	326.4	328.1	324.5	323.5	323.4
60°	304.9	305.8	303.0	302.0	301.0
62.5°	283.3	283.5	280.7	279.7	278.7
65°	250.1	249.1	247.2	245.2	244.3
67.5°	212.7	213.7	211.8	208.7	208.7
70°	190.4	191.4	189.5	185.6	185.6
72.5°	168.9	168.3	167.2	164.0	162.5
75°	135.6	134.7	132.7	129.8	128.9
77.5°	102.3	101.4	100.4	96.8	97.5
80°	80.8	79.9	78.9	76.0	76.0
82.5°	61.6	59.9	58.9	56.0	56.0
85°	32.7	30.8	29.8	27.0	27.9
87.5°	9.2	8.9	10.0	7.5	7.3
90°	0.0	1.9	11.5	6.7	5.8
92.5°	10.8	43.5	156.2	51.8	37.3
95°	31.7	100.4	482.7	178.3	112.5
97.5°	61.3	127.7	760.8	503.4	306.5
100°	79.8	144.7	850.0	821.8	551.9
102.5°	100.6	163.2	831.5	1152.6	918.8
105°	134.6	189.1	759.6	1442.6	1371.2
107.5°	166.9	219.0	690.4	1471.3	1554.0
110°	188.5	238.3	655.8	1435.2	1585.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	209.2	257.6	635.0	1374.5	1564.8
115°	239.4	285.5	614.4	1271.4	1493.3
117.5°	269.4	313.0	607.1	1174.8	1401.9
120°	289.4	330.8	604.8	1118.4	1336.5
122.5°	307.9	347.0	604.8	1068.8	1270.4
125°	334.6	371.3	605.8	1004.0	1181.7
127.5°	356.3	394.3	604.8	955.2	1106.7
130°	370.2	409.7	604.8	927.2	1064.4
132.5°	382.5	422.7	604.0	901.5	1028.3
135°	401.0	443.3	601.9	865.9	974.0
137.5°	421.5	461.8	601.9	827.9	928.1
140°	434.6	474.1	601.9	803.1	898.1
142.5°	447.7	485.7	601.2	780.5	863.5
145°	468.3	503.1	601.9	744.9	814.4
147.5°	488.8	518.4	603.1	715.4	768.8
150°	501.9	529.2	603.8	699.1	744.2
152.5°	514.2	538.5	604.6	685.1	721.9
155°	533.7	551.5	605.8	667.9	693.3
157.5°	550.6	565.1	606.9	655.2	672.9
160°	560.6	572.8	607.7	647.4	660.6
162.5°	570.6	579.8	608.5	640.4	651.3
165°	583.7	590.2	608.7	631.9	639.4
167.5°	594.8	598.2	609.8	625.3	628.5
170°	601.0	602.8	610.6	622.1	623.1
172.5°	604.8	605.9	610.6	619.0	619.2
175°	610.6	610.6	611.5	616.3	614.4
177.5°	613.3	612.5	611.7	614.0	612.5
180°	612.5	612.5	612.5	612.5	612.5

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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	14.76	15.50	15.84	16.58	18.06	14.68	15.42	15.76	16.51	17.99
	3H	16.53	17.20	17.62	18.29	19.78	16.41	17.08	17.50	18.17	19.66
	4H	17.18	17.82	18.28	18.91	20.41	17.03	17.66	18.13	18.75	20.26
	6H	17.65	18.23	18.76	19.32	20.84	17.46	18.04	18.57	19.14	20.65
	8H	17.78	18.34	18.90	19.45	20.95	17.58	18.13	18.69	19.24	20.75
	12H	17.85	18.38	18.97	19.48	21.01	17.63	18.16	18.75	19.26	20.79
4H	2H	15.30	15.93	16.40	17.02	18.52	15.24	15.87	16.34	16.96	18.46
	3H	17.27	17.80	18.39	18.92	20.43	17.16	17.69	18.28	18.81	20.33
	4H	18.06	18.54	19.18	19.65	21.19	17.91	18.40	19.03	19.51	21.04
	6H	18.64	19.06	19.77	20.19	21.71	18.46	18.88	19.59	20.01	21.53
	8H	18.83	19.21	19.95	20.34	21.88	18.62	19.01	19.75	20.13	21.68
	12H	18.92	19.27	20.06	20.41	21.96	18.69	19.05	19.84	20.18	21.73
8H	4H	18.30	18.68	19.42	19.81	21.35	18.17	18.56	19.29	19.68	21.22
	6H	19.01	19.33	20.15	20.49	22.03	18.84	19.16	19.99	20.33	21.87
	8H	19.27	19.55	20.43	20.70	22.26	19.08	19.36	20.23	20.51	22.07
	12H	19.44	19.68	20.59	20.82	22.42	19.21	19.46	20.37	20.60	22.19
12H	4H	18.28	18.63	19.42	19.77	21.32	18.16	18.51	19.30	19.65	21.20
	6H	19.05	19.33	20.20	20.47	22.04	18.89	19.17	20.04	20.32	21.88
	8H	19.34	19.58	20.49	20.72	22.32	19.15	19.40	20.31	20.54	22.13