

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: P853681

Luminaire Tested: SQ2-F-075U-050D-840-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

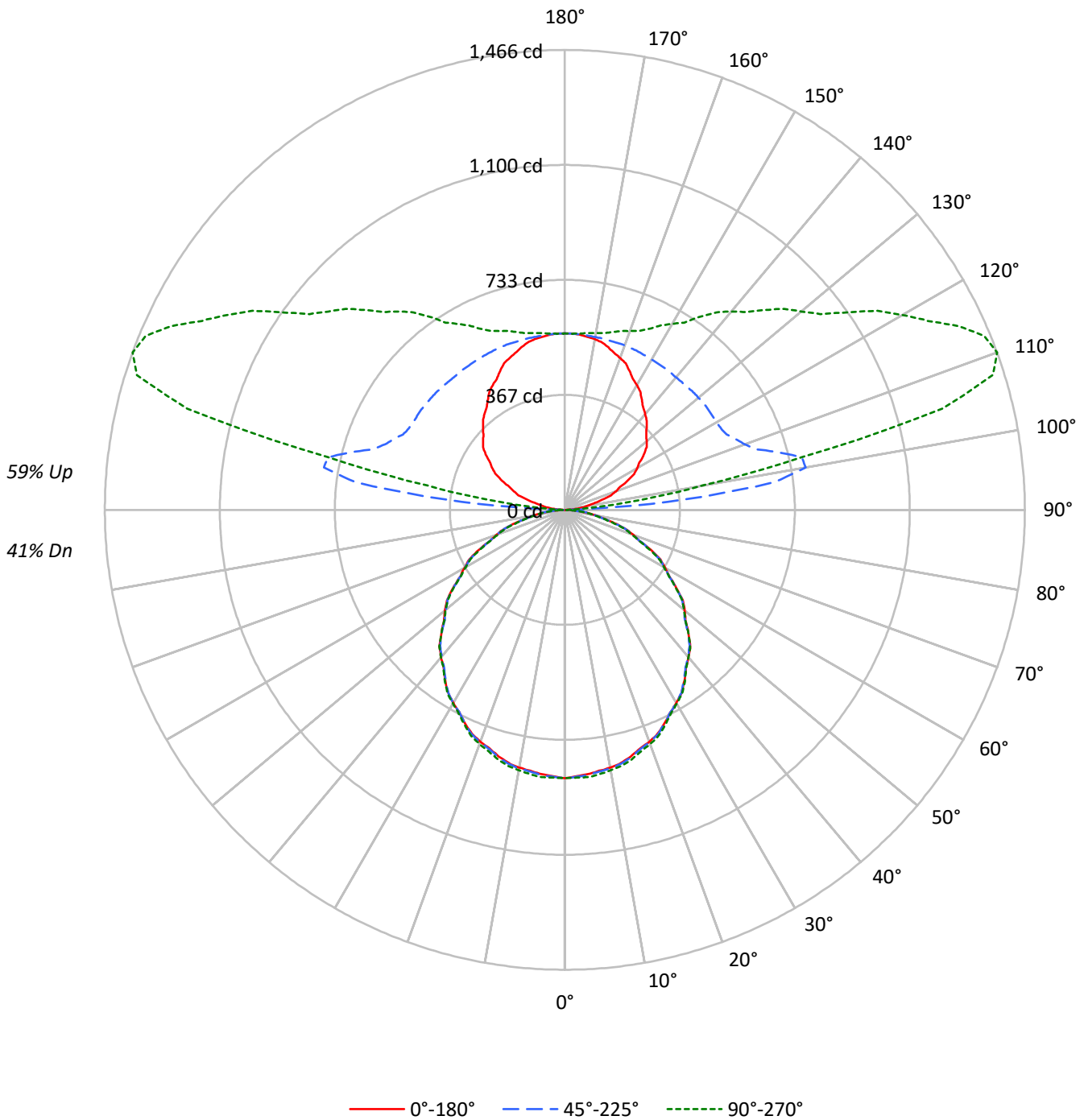
Test Method: LM-79-2019  
Report Number: P853681  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-F-075U-050D-840-UNV-STD-W-4  
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: 5886.5 lumens  
Efficiency: N/A  
Efficacy: 143.2 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	0
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°	13811	13811	13811
5°	13713	13750	13864
10°	13680	13719	13814
15°	13598	13636	13772
20°	13515	13536	13656
25°	13392	13392	13473
30°	13254	13254	13297
35°	13094	13046	13139
40°	12920	12872	12920
45°	12721	12666	12721
50°	12529	12411	12441
55°	12237	12203	12138
60°	11929	11854	11780
65°	11576	11442	11308
70°	10891	10839	10617
75°	10249	10031	9744
80°	9103	8889	8563
85°	7336	6688	6262

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 12796 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.9	1.4
10°-20°	231.0	3.9
20°-30°	347.6	5.9
30°-40°	415.9	7.1
40°-50°	429.1	7.3
50°-60°	387.1	6.6
60°-70°	295.4	5.0
70°-80°	169.8	2.9
80°-90°	44.9	0.8
90°-100°	212.8	3.6
100°-110°	705.6	12.0
110°-120°	700.3	11.9
120°-130°	570.4	9.7
130°-140°	463.6	7.9
140°-150°	360.0	6.1
150°-160°	259.4	4.4
160°-170°	158.8	2.7
170°-180°	53.7	0.9
0°-30°	659.5	11.2
0°-40°	1075.4	18.3
0°-60°	1891.7	32.1
0°-90°	2401.8	40.8
90°-120°	1618.8	27.5
90°-150°	3012.8	51.2
90°-180°	3485.0	59.2
0°-180°	5886.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	855	855	855	855	855	
5°	846	858	848	850	855	80
15°	814	824	816	819	824	229
25°	752	760	752	753	756	346
35°	664	669	662	664	667	415
45°	557	560	555	556	557	430
55°	435	437	434	431	431	389
65°	303	302	300	297	296	298
75°	164	163	161	157	156	173
85°	40	37	36	33	34	46
90°	0	1	4	5	5	3
95°	30	90	386	138	92	35
105°	124	176	706	1332	1246	130
115°	220	264	569	1184	1384	218
125°	308	342	558	930	1096	273
135°	368	406	553	798	901	285
145°	428	460	552	687	752	268
155°	488	505	556	614	636	225
165°	536	542	558	580	586	151
175°	560	560	562	565	564	53
180°	563	563	563	563	563	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	855.4	855.4	855.4	855.4	855.4
2.5°	849.8	859.8	851.7	853.5	854.5
5°	846.1	857.5	848.4	849.7	855.4
7.5°	839.1	851.4	841.4	843.6	850.0
10°	834.4	845.8	836.8	838.0	842.6
12.5°	827.0	838.4	829.3	831.5	836.1
15°	813.5	823.7	815.8	819.4	823.9
17.5°	797.8	808.8	799.9	803.1	806.9
20°	786.6	795.7	787.8	789.1	794.8
22.5°	772.7	781.8	774.8	775.1	779.9
25°	751.7	759.6	751.7	753.0	756.3
27.5°	727.7	734.6	727.7	729.0	731.9
30°	710.9	717.8	710.9	712.1	713.2
32.5°	692.2	698.2	691.3	692.6	695.5
35°	664.3	668.8	661.9	664.3	666.6
37.5°	634.4	637.8	632.1	633.3	635.4
40°	613.0	616.4	610.7	611.8	613.0
42.5°	591.6	594.1	588.3	589.5	591.6
45°	557.1	560.4	554.7	555.9	557.1
47.5°	522.1	524.2	519.3	518.4	520.5
50°	498.8	500.0	494.1	494.1	495.3
52.5°	473.6	474.8	470.8	469.0	470.1
55°	434.7	437.0	433.5	431.2	431.2
57.5°	395.5	397.6	393.2	392.0	391.8
60°	369.4	370.6	367.1	365.9	364.8
62.5°	343.3	343.6	340.1	338.9	337.7
65°	303.0	301.8	299.5	297.2	296.0
67.5°	257.8	259.0	256.6	252.9	252.9
70°	230.7	231.9	229.6	224.9	224.9
72.5°	204.6	203.9	202.5	198.8	197.0
75°	164.3	163.2	160.8	157.3	156.2
77.5°	124.0	122.8	121.7	117.2	118.2
80°	97.9	96.7	95.6	92.1	92.1
82.5°	74.6	72.5	71.3	67.8	67.8
85°	39.6	37.3	36.1	32.6	33.8
87.5°	11.2	10.5	10.0	8.4	8.4
90°	0.0	1.2	3.5	4.7	4.7
92.5°	9.3	36.0	106.1	34.4	28.9
95°	30.3	89.5	385.7	137.6	92.1
97.5°	55.7	117.7	673.3	392.6	248.2
100°	73.4	132.6	779.5	669.5	444.0
102.5°	93.0	150.5	773.0	1023.2	773.0
105°	123.5	176.0	706.1	1332.3	1245.7
107.5°	154.8	201.5	642.0	1363.6	1429.5
110°	172.5	219.2	609.4	1332.6	1465.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	191.1	236.9	589.8	1277.5	1447.2
115°	220.3	263.5	568.6	1183.8	1384.4
117.5°	249.2	287.6	560.9	1094.3	1304.7
120°	266.9	304.4	558.1	1038.3	1242.2
122.5°	282.7	319.4	558.1	992.2	1180.7
125°	307.7	341.8	558.1	930.1	1096.5
127.5°	328.2	361.6	556.7	883.3	1025.4
130°	340.3	375.6	555.8	855.9	983.5
132.5°	351.5	387.7	554.8	833.3	948.1
135°	368.3	405.8	553.4	798.2	900.7
137.5°	386.4	422.6	552.1	764.4	854.8
140°	398.6	433.9	551.1	741.8	825.0
142.5°	409.8	444.1	552.1	719.3	793.3
145°	427.7	459.5	552.3	686.7	751.6
147.5°	447.0	473.6	552.5	659.0	707.3
150°	459.2	483.1	553.4	643.0	684.0
152.5°	470.2	493.3	554.4	629.8	662.5
155°	488.2	505.3	555.8	613.5	636.2
157.5°	505.7	519.0	557.2	601.9	618.0
160°	515.0	526.4	558.1	593.4	605.9
162.5°	524.3	533.1	558.1	587.7	597.5
165°	536.0	541.7	558.1	580.4	586.1
167.5°	546.7	549.7	559.3	573.8	576.8
170°	552.3	553.4	559.3	571.0	572.1
172.5°	556.0	557.2	560.2	568.1	568.4
175°	560.4	560.4	561.6	565.1	563.9
177.5°	562.8	562.8	561.8	563.7	561.8
180°	562.8	562.8	562.8	562.8	562.8

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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	16.18	16.97	17.21	18.01	19.41	16.10	16.89	17.13	17.93	19.33
	3H	17.95	18.67	18.99	19.71	21.13	17.83	18.55	18.87	19.59	21.01
	4H	18.61	19.28	19.66	20.33	21.76	18.46	19.13	19.51	20.18	21.60
	6H	19.08	19.70	20.14	20.75	22.19	18.89	19.51	19.95	20.57	22.00
	8H	19.21	19.80	20.28	20.87	22.30	19.01	19.60	20.08	20.67	22.10
	12H	19.28	19.85	20.36	20.91	22.36	19.06	19.62	20.13	20.69	22.14
4H	2H	16.72	17.40	17.78	18.45	19.87	16.66	17.33	17.72	18.38	19.81
	3H	18.70	19.27	19.77	20.34	21.78	18.59	19.16	19.66	20.24	21.67
	4H	19.49	20.01	20.56	21.07	22.53	19.35	19.86	20.42	20.93	22.39
	6H	20.08	20.52	21.16	21.61	23.06	19.90	20.34	20.98	21.43	22.88
	8H	20.26	20.68	21.34	21.76	23.23	20.06	20.47	21.14	21.56	23.03
	12H	20.36	20.74	21.46	21.83	23.31	20.13	20.51	21.23	21.61	23.08
8H	4H	19.73	20.15	20.81	21.23	22.70	19.61	20.02	20.69	21.10	22.57
	6H	20.45	20.79	21.55	21.91	23.38	20.28	20.62	21.39	21.75	23.21
	8H	20.71	21.01	21.82	22.12	23.60	20.52	20.82	21.63	21.93	23.41
	12H	20.88	21.14	21.99	22.24	23.77	20.65	20.91	21.77	22.02	23.54
12H	4H	19.72	20.10	20.82	21.19	22.67	19.60	19.98	20.70	21.07	22.55
	6H	20.49	20.79	21.60	21.90	23.38	20.33	20.63	21.44	21.74	23.22
	8H	20.78	21.04	21.89	22.15	23.67	20.59	20.86	21.71	21.96	23.48