

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: P853671

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

Issue Date: 7/12/2024

**Test Information**

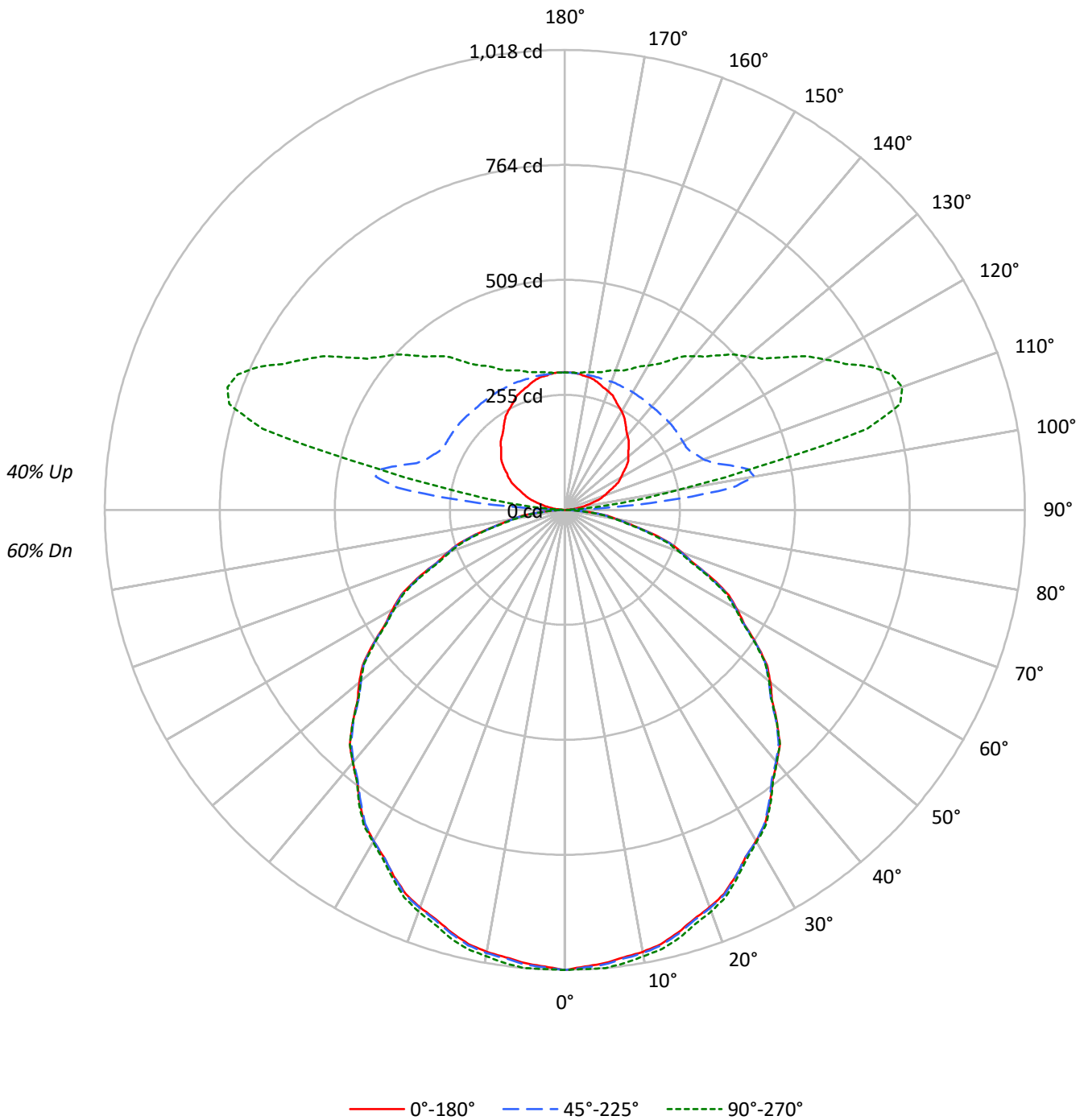
Test Method: LM-79-2019  
Report Number: P853671  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-F-050U-075D-930-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4749.8 lumens  
Efficiency: N/A  
Efficacy: 114.5 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-Direct  
  
Input Watts (W): 41.5  
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					
RC	80					70					50					30					
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	
RCR																					
0	110	110	110	110	102	102	102	102	89	89	89	77	77	77	65	65	65	60			
1	100	95	91	88	93	89	86	83	78	75	73	67	65	64	58	56	55	50			
2	91	83	77	71	85	78	72	68	68	64	60	59	56	53	50	48	46	42			
3	83	73	65	59	77	68	62	56	60	55	50	52	48	44	45	42	39	35			
4	76	64	56	50	70	61	53	48	53	47	43	46	42	38	40	36	33	30			
5	69	57	49	43	65	54	46	41	47	41	37	41	37	33	36	32	29	26			
6	64	51	43	37	59	48	41	35	43	37	32	37	32	29	32	28	25	23			
7	59	46	38	33	55	44	36	31	39	33	28	34	29	25	29	26	23	20			
8	55	42	34	29	51	40	33	28	35	29	25	31	26	23	27	23	20	18			
9	51	39	31	26	48	36	29	25	32	27	22	29	24	20	25	21	18	16			
10	48	35	28	23	45	33	27	22	30	24	20	26	22	18	23	19	17	15			

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

	0°	45°	90°
0°	16443	16443	16443
5°	16326	16371	16506
10°	16287	16333	16446
15°	16187	16234	16396
20°	16091	16115	16258
25°	15943	15943	16042
30°	15778	15778	15830
35°	15589	15534	15642
40°	15382	15323	15382
45°	15143	15079	15143
50°	14915	14777	14812
55°	14567	14528	14452
60°	14202	14111	14024
65°	13780	13624	13463
70°	12968	12902	12642
75°	12202	11946	11597
80°	10832	10581	10191
85°	8744	7966	7447

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 15237 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	96.3	2.0
10°-20°	275.1	5.8
20°-30°	413.8	8.7
30°-40°	495.2	10.4
40°-50°	510.9	10.8
50°-60°	460.9	9.7
60°-70°	351.7	7.4
70°-80°	202.2	4.3
80°-90°	53.2	1.1
90°-100°	121.3	2.6
100°-110°	384.6	8.1
110°-120°	377.1	7.9
120°-130°	306.9	6.5
130°-140°	250.2	5.3
140°-150°	195.1	4.1
150°-160°	140.6	3.0
160°-170°	85.9	1.8
170°-180°	29.0	0.6
0°-30°	785.2	16.5
0°-40°	1280.3	27.0
0°-60°	2252.1	47.4
0°-90°	2859.2	60.2
90°-120°	883.0	18.6
90°-150°	1635.1	34.4
90°-180°	1891.0	39.8
0°-180°	4749.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1018	1018	1018	1018	1018	
5°	1007	1021	1010	1012	1018	96
15°	968	981	971	976	981	273
25°	895	904	895	896	900	412
35°	791	796	788	791	794	495
45°	663	667	660	662	663	512
55°	518	520	516	513	513	463
65°	361	359	357	354	352	355
75°	196	194	192	187	186	206
85°	47	44	43	39	40	55
90°	0	1	3	3	3	3
95°	16	49	220	82	53	19
105°	67	94	379	722	692	71
115°	120	142	306	636	749	118
125°	166	185	302	499	588	147
135°	200	220	300	429	483	154
145°	234	251	300	370	403	146
155°	266	276	301	331	344	123
165°	290	293	302	313	316	82
175°	304	302	304	305	304	29
180°	304	304	304	304	304	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1018.4	1018.4	1018.4	1018.4	1018.4
2.5°	1011.7	1023.7	1014.0	1016.2	1017.3
5°	1007.3	1020.9	1010.1	1011.6	1018.4
7.5°	999.0	1013.6	1001.7	1004.4	1012.0
10°	993.4	1007.0	996.2	997.7	1003.1
12.5°	984.5	998.1	987.3	989.9	995.4
15°	968.4	980.7	971.2	975.5	980.9
17.5°	949.9	962.9	952.4	956.1	960.7
20°	936.5	947.4	937.9	939.5	946.2
22.5°	919.9	930.7	922.4	922.8	928.5
25°	894.9	904.4	894.9	896.4	900.5
27.5°	866.3	874.5	866.3	867.8	871.3
30°	846.3	854.5	846.3	847.8	849.1
32.5°	824.2	831.2	823.0	824.5	828.0
35°	790.9	796.3	788.1	790.9	793.6
37.5°	755.3	759.4	752.6	754.0	756.4
40°	729.8	733.9	727.0	728.4	729.8
42.5°	704.3	707.3	700.4	701.8	704.3
45°	663.2	667.3	660.4	661.8	663.2
47.5°	621.6	624.0	618.3	617.2	619.6
50°	593.8	595.2	588.3	588.3	589.7
52.5°	563.9	565.2	560.5	558.3	559.7
55°	517.5	520.2	516.1	513.4	513.4
57.5°	470.9	473.3	468.1	466.7	466.5
60°	439.8	441.2	437.0	435.6	434.3
62.5°	408.7	409.0	404.9	403.4	402.1
65°	360.7	359.4	356.6	353.8	352.4
67.5°	306.9	308.3	305.5	301.1	301.1
70°	274.7	276.1	273.3	267.8	267.8
72.5°	243.6	242.8	241.1	236.7	234.5
75°	195.6	194.3	191.5	187.3	185.9
77.5°	147.6	146.3	144.9	139.6	140.7
80°	116.5	115.2	113.8	109.6	109.6
82.5°	88.8	86.4	84.9	80.8	80.8
85°	47.2	44.5	43.0	38.9	40.2
87.5°	13.3	12.4	11.7	9.5	9.5
90°	0.0	0.9	2.9	2.9	2.9
92.5°	5.4	21.3	68.0	22.6	15.9
95°	16.3	49.0	220.2	81.7	52.7
97.5°	30.3	63.6	373.0	233.1	143.0
100°	40.2	72.0	425.1	387.5	251.8
102.5°	50.9	81.3	415.9	569.1	435.6
105°	67.0	94.2	379.1	722.1	692.1
107.5°	83.1	108.2	344.1	738.1	778.5
110°	93.8	118.2	326.4	719.7	794.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	104.5	127.4	316.5	688.0	783.1
115°	119.7	142.1	306.3	636.3	748.6
117.5°	134.4	155.8	302.3	586.5	699.8
120°	143.6	164.2	301.6	555.8	665.3
122.5°	152.8	172.6	301.6	531.1	633.2
125°	165.6	185.3	301.6	498.9	587.8
127.5°	176.9	195.8	301.6	473.9	549.7
130°	183.8	203.5	301.6	459.2	527.5
132.5°	190.7	210.4	300.8	447.5	509.1
135°	200.1	219.7	299.6	429.2	483.4
137.5°	209.3	229.9	299.5	411.6	460.1
140°	215.4	236.0	298.7	399.2	443.2
142.5°	223.1	242.9	299.5	386.9	427.9
145°	233.6	251.4	299.6	370.3	403.0
147.5°	244.1	259.3	299.8	355.6	382.4
150°	251.8	263.9	300.6	347.0	368.6
152.5°	257.9	268.6	300.6	340.1	357.8
155°	266.1	275.5	300.6	330.6	343.7
157.5°	274.9	281.3	301.6	324.7	333.7
160°	279.5	285.2	301.6	320.9	328.4
162.5°	284.1	288.3	301.6	317.8	323.0
165°	290.1	292.9	301.6	313.1	315.9
167.5°	295.6	296.4	302.5	309.8	312.3
170°	298.7	298.7	302.5	308.3	309.2
172.5°	300.2	301.0	302.5	306.7	306.9
175°	303.5	302.5	303.5	305.4	304.4
177.5°	304.4	303.7	303.7	305.2	303.7
180°	304.4	304.4	304.4	304.4	304.4

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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	18.58	19.56	19.44	20.44	21.56	18.50	19.48	19.37	20.36	21.48
	3H	20.37	21.25	21.25	22.14	23.28	20.25	21.13	21.13	22.02	23.17
	4H	21.04	21.86	21.93	22.76	23.92	20.88	21.71	21.77	22.61	23.77
	6H	21.51	22.27	22.41	23.18	24.35	21.33	22.09	22.23	23.00	24.16
	8H	21.65	22.38	22.56	23.31	24.47	21.45	22.18	22.36	23.10	24.27
	12H	21.73	22.42	22.65	23.34	24.53	21.51	22.20	22.42	23.12	24.31
4H	2H	19.15	19.98	20.04	20.88	22.03	19.09	19.91	19.98	20.81	21.97
	3H	21.15	21.84	22.05	22.77	23.94	21.04	21.73	21.94	22.66	23.83
	4H	21.94	22.57	22.86	23.50	24.69	21.80	22.43	22.71	23.36	24.55
	6H	22.54	23.08	23.47	24.03	25.23	22.36	22.90	23.29	23.85	25.05
	8H	22.73	23.24	23.66	24.18	25.39	22.52	23.03	23.46	23.98	25.19
	12H	22.83	23.29	23.79	24.26	25.47	22.61	23.07	23.56	24.03	25.24
8H	4H	22.20	22.71	23.13	23.65	24.86	22.07	22.58	23.00	23.53	24.73
	6H	22.92	23.34	23.88	24.33	25.54	22.75	23.18	23.71	24.16	25.37
	8H	23.19	23.56	24.16	24.54	25.76	22.99	23.37	23.96	24.35	25.57
	12H	23.36	23.69	24.33	24.66	25.93	23.13	23.46	24.11	24.43	25.71
12H	4H	22.20	22.66	23.15	23.62	24.83	22.07	22.54	23.03	23.50	24.71
	6H	22.96	23.34	23.93	24.31	25.54	22.80	23.18	23.77	24.16	25.38
	8H	23.26	23.59	24.24	24.56	25.83	23.08	23.40	24.05	24.38	25.65