

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: P853672

Luminaire Tested: SQ2-F-050U-075D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

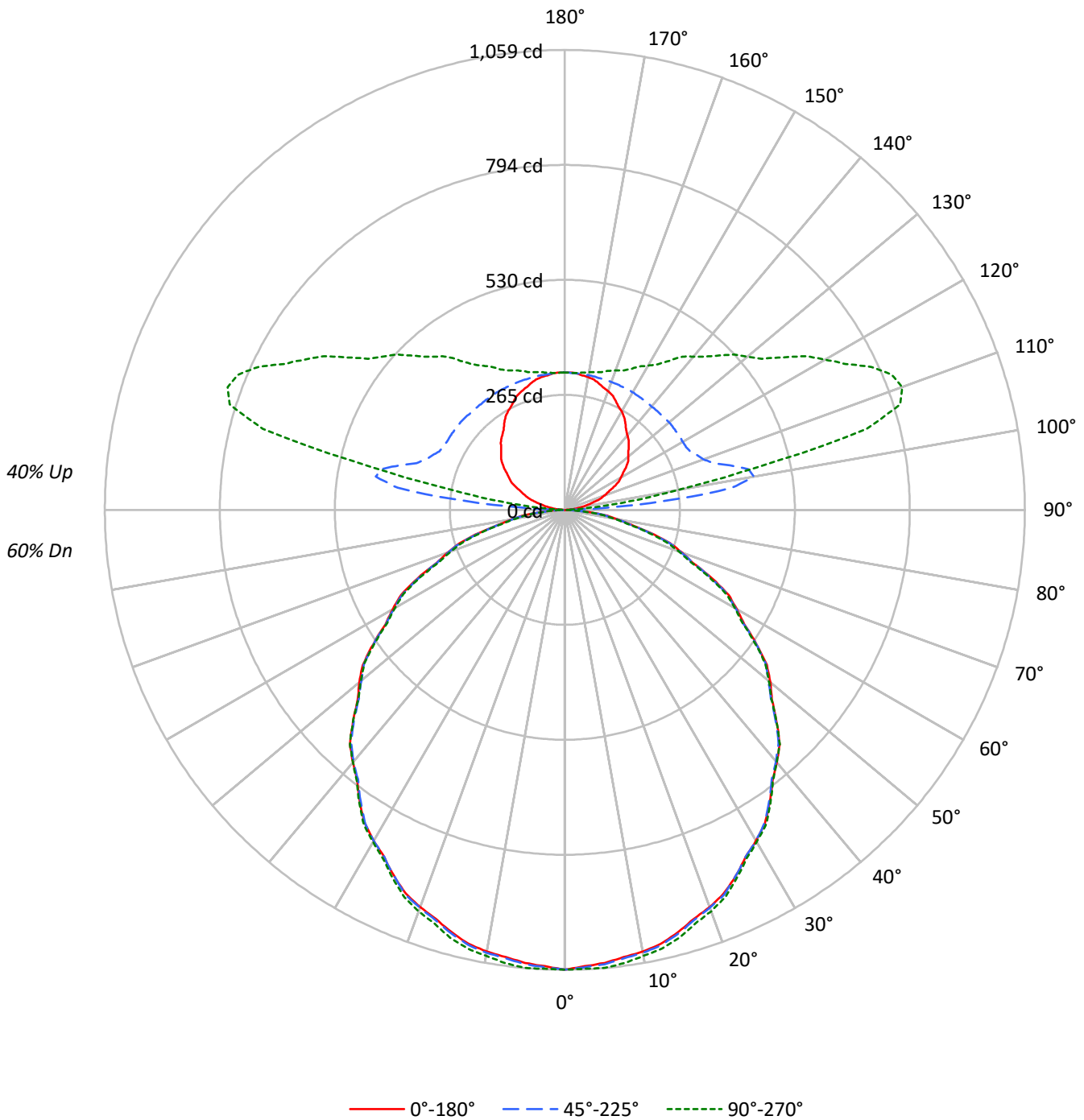
Test Method: LM-79-2019  
Report Number: P853672  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-F-050U-075D-935-UNV-STD-W-4  
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: 4938.3 lumens  
Efficiency: N/A  
Efficacy: 119.0 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-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					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	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°	17095	17095	17095
5°	16974	17021	17161
10°	16934	16982	17100
15°	16831	16879	17048
20°	16730	16756	16904
25°	16577	16577	16678
30°	16406	16406	16460
35°	16208	16151	16263
40°	15993	15932	15993
45°	15744	15680	15744
50°	15508	15362	15400
55°	15147	15105	15026
60°	14767	14673	14580
65°	14330	14162	13998
70°	13482	13416	13143
75°	12689	12420	12059
80°	11269	11000	10600
85°	9077	8281	7744

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 15842 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.1	2.0
10°-20°	286.0	5.8
20°-30°	430.3	8.7
30°-40°	514.8	10.4
40°-50°	531.2	10.8
50°-60°	479.2	9.7
60°-70°	365.7	7.4
70°-80°	210.3	4.3
80°-90°	55.2	1.1
90°-100°	126.1	2.6
100°-110°	399.9	8.1
110°-120°	392.1	7.9
120°-130°	319.0	6.5
130°-140°	260.1	5.3
140°-150°	202.8	4.1
150°-160°	146.1	3.0
160°-170°	89.3	1.8
170°-180°	30.1	0.6
0°-30°	816.4	16.5
0°-40°	1331.2	27.0
0°-60°	2341.6	47.4
0°-90°	2972.8	60.2
90°-120°	918.0	18.6
90°-150°	1700.0	34.4
90°-180°	1966.0	39.8
0°-180°	4938.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1059	1059	1059	1059	1059	
5°	1047	1061	1050	1052	1059	99
15°	1007	1020	1010	1014	1020	284
25°	930	940	930	932	936	428
35°	822	828	819	822	825	514
45°	690	694	687	688	690	532
55°	538	541	537	534	534	481
65°	375	374	371	368	366	369
75°	203	202	199	195	193	214
85°	49	46	45	40	42	57
90°	0	1	3	3	3	3
95°	17	51	229	85	55	20
105°	70	98	394	751	720	73
115°	124	148	318	662	778	123
125°	172	193	314	519	611	153
135°	208	228	312	446	503	161
145°	243	261	312	385	419	152
155°	277	286	312	344	357	128
165°	302	304	314	326	328	85
175°	316	315	316	318	316	30
180°	316	316	316	316	316	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1058.8	1058.8	1058.8	1058.8	1058.8
2.5°	1051.9	1064.3	1054.2	1056.6	1057.7
5°	1047.3	1061.4	1050.2	1051.8	1058.8
7.5°	1038.6	1053.9	1041.5	1044.3	1052.2
10°	1032.9	1047.0	1035.8	1037.3	1043.0
12.5°	1023.6	1037.8	1026.5	1029.3	1034.9
15°	1006.9	1019.6	1009.8	1014.3	1019.9
17.5°	987.6	1001.1	990.2	994.0	998.8
20°	973.7	985.0	975.2	976.8	983.8
22.5°	956.4	967.7	959.0	959.4	965.4
25°	930.5	940.3	930.5	932.0	936.2
27.5°	900.7	909.2	900.7	902.3	905.9
30°	880.0	888.4	880.0	881.4	882.9
32.5°	856.9	864.2	855.7	857.3	860.9
35°	822.3	827.9	819.4	822.3	825.1
37.5°	785.3	789.6	782.4	783.9	786.5
40°	758.8	763.0	755.9	757.4	758.8
42.5°	732.2	735.4	728.2	729.7	732.2
45°	689.5	693.8	686.7	688.1	689.5
47.5°	646.3	648.8	642.8	641.7	644.3
50°	617.4	618.8	611.6	611.7	613.1
52.5°	586.3	587.7	582.8	580.5	581.9
55°	538.1	540.9	536.6	533.8	533.8
57.5°	489.6	492.1	486.7	485.3	485.0
60°	457.3	458.7	454.4	452.9	451.5
62.5°	425.0	425.3	420.9	419.5	418.1
65°	375.1	373.7	370.7	367.8	366.4
67.5°	319.1	320.5	317.7	313.0	313.0
70°	285.6	287.0	284.2	278.4	278.4
72.5°	253.3	252.5	250.7	246.1	243.8
75°	203.4	202.0	199.1	194.7	193.3
77.5°	153.5	152.1	150.6	145.1	146.3
80°	121.2	119.8	118.3	114.0	114.0
82.5°	92.3	89.8	88.3	84.0	84.0
85°	49.0	46.2	44.7	40.4	41.8
87.5°	13.8	12.9	12.1	9.8	9.8
90°	0.0	1.0	3.0	3.0	3.0
92.5°	5.6	22.1	70.7	23.5	16.5
95°	16.9	51.0	228.9	84.9	54.7
97.5°	31.5	66.1	387.8	242.3	148.7
100°	41.8	74.9	441.9	402.9	261.8
102.5°	53.0	84.5	432.4	591.7	452.9
105°	69.7	97.9	394.2	750.8	719.6
107.5°	86.4	112.5	357.7	767.4	809.4
110°	97.5	122.8	339.4	748.3	826.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	108.7	132.4	329.1	715.3	814.2
115°	124.4	147.8	318.5	661.6	778.4
117.5°	139.7	161.9	314.3	609.8	727.6
120°	149.3	170.7	313.5	577.9	691.8
122.5°	158.9	179.5	313.5	552.2	658.3
125°	172.2	192.6	313.5	518.7	611.1
127.5°	183.9	203.6	313.5	492.7	571.5
130°	191.1	211.5	313.5	477.4	548.4
132.5°	198.3	218.7	312.7	465.3	529.3
135°	208.0	228.5	311.5	446.2	502.7
137.5°	217.6	239.0	311.3	428.0	478.4
140°	224.0	245.4	310.5	415.1	460.8
142.5°	231.9	252.5	311.3	402.3	444.9
145°	242.9	261.4	311.5	385.0	419.0
147.5°	253.8	269.6	311.7	369.7	397.5
150°	261.8	274.4	312.5	360.8	383.2
152.5°	268.1	279.2	312.5	353.6	372.1
155°	276.7	286.4	312.5	343.7	357.3
157.5°	285.9	292.5	313.5	337.6	347.0
160°	290.6	296.5	313.5	333.6	341.4
162.5°	295.4	299.7	313.5	330.4	335.8
165°	301.6	304.5	313.5	325.5	328.5
167.5°	307.4	308.1	314.5	322.2	324.7
170°	310.5	310.5	314.5	320.5	321.5
172.5°	312.1	312.9	314.5	318.9	319.1
175°	315.5	314.6	315.5	317.5	316.5
177.5°	316.5	315.7	315.7	317.3	315.7
180°	316.5	316.5	316.5	316.5	316.5

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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	18.72	19.69	19.58	20.58	21.70	18.64	19.61	19.50	20.50	21.62
	3H	20.51	21.38	21.38	22.28	23.42	20.39	21.26	21.26	22.16	23.30
	4H	21.17	22.00	22.06	22.90	24.05	21.02	21.85	21.91	22.75	23.90
	6H	21.65	22.41	22.55	23.32	24.48	21.46	22.23	22.36	23.13	24.30
	8H	21.79	22.52	22.70	23.44	24.61	21.59	22.31	22.50	23.24	24.40
	12H	21.87	22.56	22.78	23.48	24.67	21.64	22.34	22.56	23.26	24.45
4H	2H	19.28	20.11	20.18	21.01	22.16	19.22	20.05	20.12	20.95	22.10
	3H	21.28	21.97	22.19	22.90	24.07	21.17	21.86	22.08	22.80	23.96
	4H	22.07	22.71	22.99	23.63	24.83	21.93	22.56	22.85	23.49	24.68
	6H	22.67	23.22	23.60	24.17	25.36	22.49	23.04	23.42	23.99	25.18
	8H	22.86	23.37	23.80	24.32	25.53	22.66	23.17	23.59	24.12	25.32
	12H	22.97	23.43	23.92	24.39	25.61	22.74	23.20	23.70	24.17	25.38
8H	4H	22.33	22.84	23.27	23.79	25.00	22.21	22.72	23.14	23.66	24.87
	6H	23.05	23.48	24.01	24.46	25.67	22.89	23.31	23.85	24.30	25.51
	8H	23.32	23.70	24.29	24.67	25.90	23.13	23.50	24.10	24.48	25.71
	12H	23.50	23.83	24.47	24.80	26.07	23.27	23.60	24.24	24.57	25.84
12H	4H	22.33	22.79	23.28	23.75	24.97	22.21	22.67	23.16	23.63	24.85
	6H	23.10	23.47	24.07	24.45	25.68	22.94	23.31	23.91	24.29	25.52
	8H	23.40	23.73	24.37	24.70	25.97	23.21	23.54	24.18	24.51	25.78