

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: P853685

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

Issue Date: 7/12/2024

**Test Information**

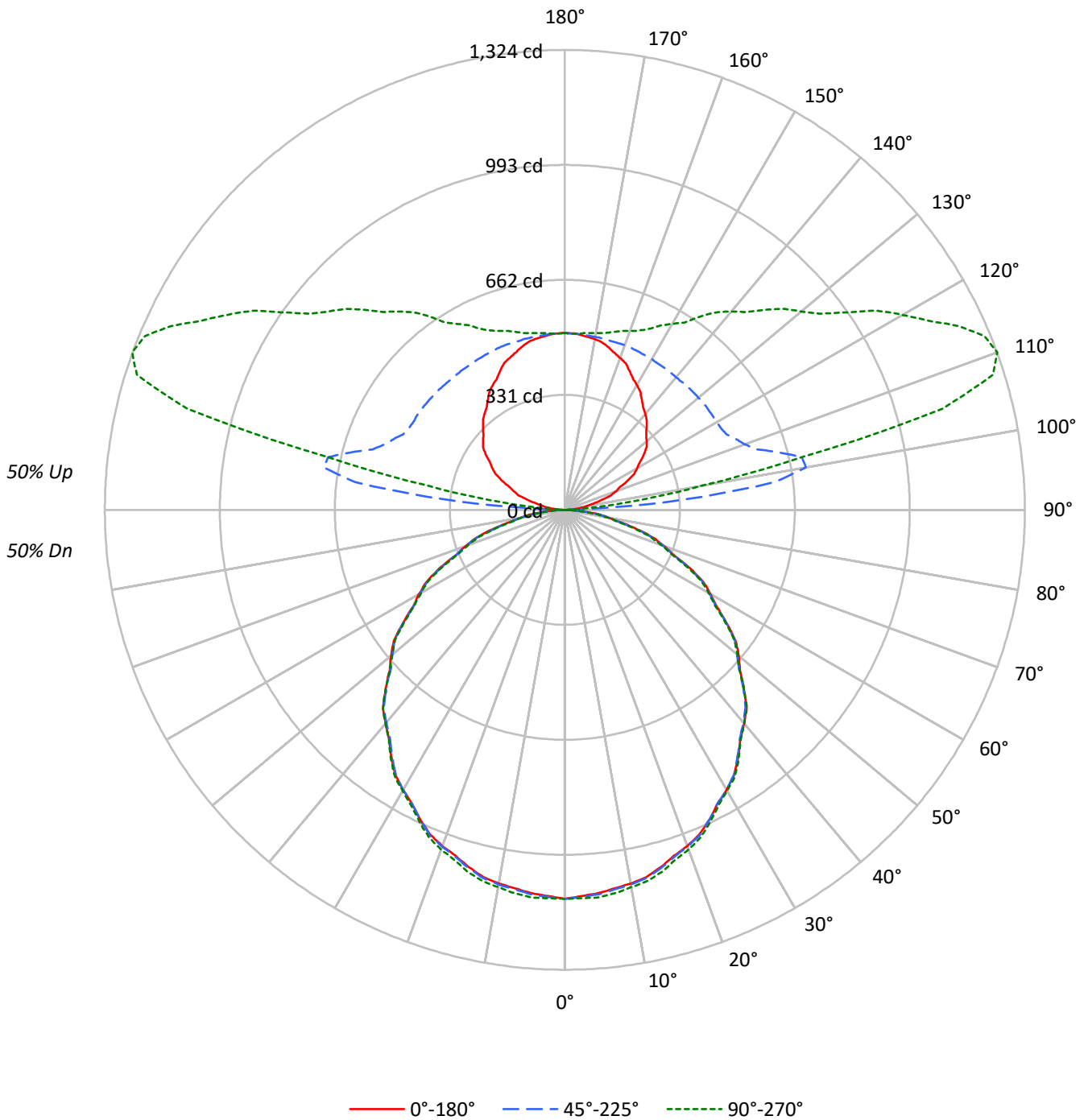
Test Method: LM-79-2019  
Report Number: P853685  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-F-075U-075D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 750 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6293.0 lumens  
Efficiency: N/A  
Efficacy: 125.9 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): 50  
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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50				
1	98	93	89	86	90	86	83	80	73	70	68	61	59	57	49	48	47	42				
2	89	81	75	70	82	75	70	65	64	60	56	53	50	48	43	41	39	35				
3	81	71	64	58	74	66	59	54	56	51	47	47	43	40	38	36	33	29				
4	74	63	55	49	68	58	51	46	50	44	40	42	37	34	34	31	29	25				
5	68	56	48	42	62	52	45	39	44	39	34	37	33	30	31	27	25	22				
6	62	50	42	36	57	47	39	34	40	34	30	34	29	26	28	24	22	19				
7	58	45	37	32	53	42	35	30	36	30	26	30	26	23	25	22	19	17				
8	53	41	33	28	49	38	31	26	33	27	23	28	23	20	23	20	17	15				
9	50	37	30	25	46	35	28	23	30	25	21	26	21	18	21	18	16	13				
10	46	34	27	22	43	32	25	21	28	22	19	24	19	16	20	16	14	12				

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

	0°	45°	90°
0°	18083	18083	18083
5°	17955	18005	18152
10°	17911	17962	18087
15°	17804	17854	18033
20°	17698	17723	17881
25°	17533	17533	17642
30°	17353	17353	17411
35°	17144	17083	17203
40°	16916	16853	16916
45°	16655	16584	16655
50°	16405	16252	16289
55°	16023	15978	15893
60°	15619	15523	15423
65°	15156	14984	14808
70°	14261	14191	13903
75°	13425	13138	12757
80°	11920	11632	11204
85°	9615	8762	8207

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 16758 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	105.9	1.7
10°-20°	302.5	4.8
20°-30°	455.1	7.2
30°-40°	544.6	8.7
40°-50°	561.9	8.9
50°-60°	506.9	8.1
60°-70°	386.8	6.1
70°-80°	222.4	3.5
80°-90°	58.5	0.9
90°-100°	192.3	3.1
100°-110°	637.5	10.1
110°-120°	632.7	10.1
120°-130°	515.4	8.2
130°-140°	418.8	6.7
140°-150°	325.3	5.2
150°-160°	234.4	3.7
160°-170°	143.5	2.3
170°-180°	48.5	0.8
0°-30°	863.5	13.7
0°-40°	1408.1	22.4
0°-60°	2476.9	39.4
0°-90°	3144.6	50.0
90°-120°	1462.5	23.2
90°-150°	2722.0	43.3
90°-180°	3148.0	50.0
0°-180°	6293.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1120	1120	1120	1120	1120	
5°	1108	1123	1111	1113	1120	105
15°	1065	1078	1068	1073	1079	300
25°	984	995	984	986	990	453
35°	870	876	867	870	873	544
45°	729	734	726	728	729	563
55°	569	572	568	565	565	509
65°	397	395	392	389	388	390
75°	215	214	211	206	204	227
85°	52	49	47	43	44	60
90°	0	1	3	4	4	3
95°	27	81	348	124	83	31
105°	112	159	638	1204	1126	118
115°	199	238	514	1070	1251	197
125°	278	309	504	840	991	247
135°	333	367	500	721	814	257
145°	386	415	499	620	679	242
155°	441	457	502	554	575	203
165°	484	489	504	524	530	137
175°	506	506	508	511	510	48
180°	508	508	508	508	508	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1120.0	1120.0	1120.0	1120.0	1120.0
2.5°	1112.7	1125.8	1115.1	1117.6	1118.8
5°	1107.8	1122.7	1110.9	1112.6	1120.0
7.5°	1098.6	1114.8	1101.7	1104.6	1113.0
10°	1092.5	1107.5	1095.6	1097.3	1103.2
12.5°	1082.8	1097.7	1085.8	1088.7	1094.7
15°	1065.1	1078.5	1068.1	1072.8	1078.8
17.5°	1044.6	1059.0	1047.4	1051.5	1056.5
20°	1030.0	1041.9	1031.5	1033.2	1040.7
22.5°	1011.7	1023.6	1014.4	1014.9	1021.1
25°	984.2	994.6	984.2	985.8	990.3
27.5°	952.8	961.7	952.8	954.4	958.3
30°	930.8	939.8	930.8	932.4	933.9
32.5°	906.4	914.1	905.2	906.8	910.7
35°	869.8	875.7	866.7	869.8	872.8
37.5°	830.7	835.2	827.6	829.2	831.9
40°	802.6	807.1	799.6	801.1	802.6
42.5°	774.5	777.8	770.3	771.9	774.5
45°	729.4	733.9	726.3	727.9	729.4
47.5°	683.6	686.3	679.9	678.8	681.5
50°	653.1	654.6	647.0	647.0	648.5
52.5°	620.1	621.6	616.5	614.1	615.5
55°	569.2	572.1	567.6	564.6	564.6
57.5°	517.9	520.6	514.8	513.3	513.0
60°	483.7	485.2	480.7	479.1	477.6
62.5°	449.5	449.8	445.3	443.7	442.2
65°	396.7	395.2	392.2	389.1	387.6
67.5°	337.5	339.0	336.0	331.1	331.1
70°	302.1	303.6	300.6	294.5	294.5
72.5°	267.9	267.1	265.2	260.3	257.9
75°	215.2	213.7	210.6	206.0	204.5
77.5°	162.4	160.9	159.3	153.5	154.7
80°	128.2	126.7	125.1	120.5	120.5
82.5°	97.7	95.0	93.4	88.8	88.8
85°	51.9	48.9	47.3	42.8	44.3
87.5°	14.6	13.7	12.8	10.6	10.6
90°	0.0	1.0	3.2	4.2	4.2
92.5°	8.4	32.5	95.8	31.1	26.1
95°	27.4	80.9	348.5	124.3	83.2
97.5°	50.3	106.3	608.3	354.8	224.2
100°	66.3	119.9	704.3	604.9	401.1
102.5°	84.0	135.9	698.4	924.5	698.4
105°	111.6	159.0	638.0	1203.7	1125.5
107.5°	139.8	182.0	580.1	1232.1	1291.6
110°	155.8	198.0	550.6	1204.0	1324.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	172.7	214.0	532.9	1154.2	1307.6
115°	199.0	238.1	513.8	1069.6	1250.7
117.5°	225.1	259.9	506.8	988.7	1178.7
120°	241.1	275.1	504.3	938.0	1122.3
122.5°	255.4	288.6	504.3	896.4	1066.7
125°	277.9	308.8	504.3	840.4	990.7
127.5°	296.5	326.7	503.0	798.0	926.5
130°	307.4	339.3	502.2	773.3	888.6
132.5°	317.5	350.3	501.3	752.8	856.6
135°	332.7	366.7	500.1	721.2	813.8
137.5°	349.1	381.8	498.8	690.6	772.3
140°	360.1	392.0	498.0	670.2	745.4
142.5°	370.2	401.3	498.8	649.8	716.8
145°	386.4	415.2	499.0	620.4	679.1
147.5°	403.9	427.9	499.2	595.4	639.1
150°	414.8	436.4	500.1	580.9	618.0
152.5°	424.9	445.7	500.9	569.0	598.6
155°	441.1	456.6	502.2	554.2	574.8
157.5°	456.9	468.9	503.5	543.8	558.4
160°	465.3	475.6	504.3	536.1	547.5
162.5°	473.8	481.6	504.3	531.0	539.9
165°	484.3	489.4	504.3	524.4	529.6
167.5°	494.0	496.7	505.4	518.5	521.1
170°	499.0	500.1	505.4	515.9	516.9
172.5°	502.4	503.4	506.2	513.4	513.6
175°	506.4	506.4	507.5	510.6	509.6
177.5°	508.5	508.5	507.7	509.3	507.7
180°	508.5	508.5	508.5	508.5	508.5

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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	18.02	18.90	18.98	19.87	21.14	17.95	18.82	18.90	19.79	21.06
	3H	19.80	20.59	20.77	21.57	22.86	19.69	20.47	20.65	21.45	22.74
	4H	20.46	21.21	21.44	22.19	23.49	20.31	21.05	21.29	22.04	23.34
	6H	20.93	21.62	21.93	22.61	23.92	20.75	21.43	21.74	22.42	23.74
	8H	21.07	21.72	22.07	22.73	24.04	20.87	21.52	21.87	22.53	23.84
	12H	21.15	21.77	22.15	22.77	24.10	20.92	21.54	21.93	22.54	23.88
4H	2H	18.58	19.32	19.56	20.30	21.60	18.51	19.26	19.50	20.24	21.54
	3H	20.56	21.18	21.56	22.20	23.51	20.46	21.08	21.45	22.09	23.41
	4H	21.35	21.92	22.36	22.93	24.27	21.21	21.78	22.22	22.79	24.12
	6H	21.95	22.43	22.96	23.46	24.80	21.77	22.25	22.78	23.28	24.62
	8H	22.13	22.59	23.15	23.61	24.96	21.93	22.39	22.95	23.41	24.76
	12H	22.24	22.65	23.27	23.69	25.04	22.01	22.42	23.04	23.46	24.82
8H	4H	21.60	22.06	22.62	23.08	24.43	21.48	21.93	22.49	22.96	24.31
	6H	22.32	22.70	23.36	23.76	25.11	22.15	22.53	23.20	23.60	24.95
	8H	22.59	22.92	23.64	23.97	25.34	22.40	22.73	23.44	23.78	25.15
	12H	22.76	23.05	23.81	24.10	25.51	22.53	22.82	23.58	23.87	25.28
12H	4H	21.60	22.01	22.63	23.05	24.40	21.48	21.89	22.51	22.93	24.28
	6H	22.36	22.70	23.41	23.75	25.12	22.21	22.54	23.25	23.59	24.96
	8H	22.66	22.95	23.71	24.00	25.41	22.47	22.76	23.52	23.81	25.22