

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: P853730

Luminaire Tested: SQ2-F-150U-050D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

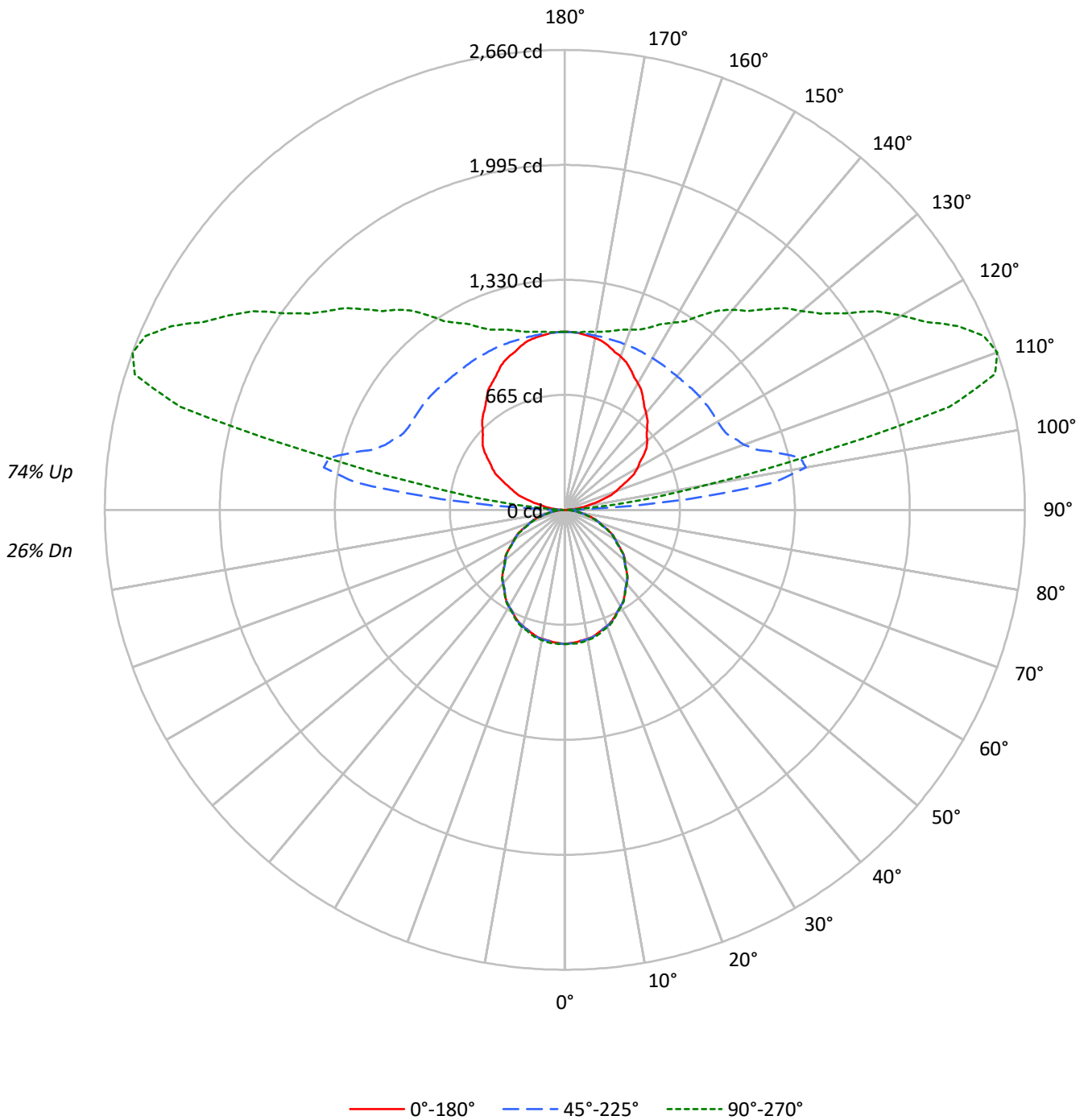
Test Method: LM-79-2019  
Report Number: P853730  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-F-150U-050D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8532.6 lumens  
Efficiency: N/A  
Efficacy: 114.7 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): 74.4  
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

TEST NUMBER: P853730  
CATALOG NUMBER: SQ2-F-150U-050D-940-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P853730

CATALOG NUMBER: SQ2-F-150U-050D-940-UNV-STD-W-4

**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	101	101	101	101	90	90	90	90	70	70	70	51	51	51	34	34	34	26
1	92	88	84	81	82	79	75	73	61	59	57	45	43	42	30	29	28	21
2	84	77	71	66	74	69	64	59	53	50	47	39	37	35	26	25	24	18
3	76	67	60	55	68	60	54	49	47	43	39	34	32	29	23	21	20	15
4	70	59	52	46	62	53	47	42	41	37	33	31	28	25	20	19	17	13
5	64	53	45	39	57	47	41	36	37	32	28	27	24	22	18	16	15	11
6	59	47	39	34	52	42	36	31	33	28	25	25	21	19	17	15	13	10
7	54	42	35	29	48	38	31	27	30	25	22	22	19	16	15	13	11	9
8	50	38	31	26	44	34	28	23	27	22	19	20	17	15	14	12	10	8
9	46	35	28	23	41	31	25	21	25	20	17	19	15	13	13	11	9	7
10	43	32	25	20	39	29	22	18	23	18	15	17	14	12	12	10	8	6

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

	0°	45°	90°
0°	12536	12536	12536
5°	12446	12481	12584
10°	12418	12452	12539
15°	12341	12376	12500
20°	12268	12287	12395
25°	12155	12155	12230
30°	12029	12029	12070
35°	11883	11842	11925
40°	11727	11683	11727
45°	11545	11497	11545
50°	11371	11266	11293
55°	11105	11077	11018
60°	10827	10760	10692
65°	10506	10384	10265
70°	9885	9838	9635
75°	9301	9108	8840
80°	8266	8061	7773
85°	6669	6076	5687

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 11615 cd/sqm



TEST NUMBER: P853730

CATALOG NUMBER: SQ2-F-150U-050D-940-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.4	0.9
10°-20°	209.7	2.5
20°-30°	315.5	3.7
30°-40°	377.5	4.4
40°-50°	389.5	4.6
50°-60°	351.4	4.1
60°-70°	268.1	3.1
70°-80°	154.2	1.8
80°-90°	41.4	0.5
90°-100°	392.1	4.6
100°-110°	1284.0	15.0
110°-120°	1269.4	14.9
120°-130°	1037.7	12.2
130°-140°	846.8	9.9
140°-150°	659.0	7.7
150°-160°	474.5	5.6
160°-170°	290.3	3.4
170°-180°	98.1	1.1
0°-30°	598.6	7.0
0°-40°	976.1	11.4
0°-60°	1717.0	20.1
0°-90°	2180.6	25.6
90°-120°	2945.6	34.5
90°-150°	5489.1	64.3
90°-180°	6352.0	74.4
0°-180°	8532.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	776	776	776	776	776	
5°	768	778	770	771	776	73
15°	738	748	740	744	748	208
25°	682	690	682	683	686	314
35°	603	607	601	603	605	377
45°	506	509	504	505	506	390
55°	394	397	394	391	391	353
65°	275	274	272	270	269	270
75°	149	148	146	143	142	157
85°	36	34	33	30	31	42
90°	1	3	8	7	8	4
95°	55	160	713	254	165	62
105°	223	318	1274	2422	2300	235
115°	402	480	1036	2140	2512	397
125°	560	624	1021	1687	1982	498
135°	674	745	1012	1455	1640	521
145°	788	846	1010	1252	1372	494
155°	898	928	1016	1120	1164	413
165°	980	990	1021	1060	1071	276
175°	1025	1025	1026	1033	1031	97
180°	1029	1029	1029	1029	1029	



TEST NUMBER: P853730

CATALOG NUMBER: SQ2-F-150U-050D-940-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	776.4	776.4	776.4	776.4	776.4
2.5°	771.3	780.4	773.0	774.7	775.6
5°	767.9	778.3	770.1	771.2	776.4
7.5°	761.6	772.8	763.7	765.7	771.5
10°	757.4	767.7	759.5	760.6	764.8
12.5°	750.6	760.9	752.7	754.7	758.8
15°	738.3	747.6	740.4	743.7	747.8
17.5°	724.1	734.1	726.1	728.9	732.4
20°	714.0	722.3	715.1	716.2	721.4
22.5°	701.3	709.6	703.2	703.5	707.9
25°	682.3	689.5	682.3	683.4	686.5
27.5°	660.5	666.7	660.5	661.6	664.3
30°	645.2	651.4	645.2	646.3	647.4
32.5°	628.3	633.7	627.5	628.6	631.3
35°	602.9	607.1	600.8	603.0	605.0
37.5°	575.8	579.0	573.7	574.8	576.7
40°	556.4	559.5	554.3	555.4	556.4
42.5°	536.9	539.2	534.0	535.1	536.9
45°	505.6	508.7	503.5	504.6	505.6
47.5°	473.9	475.7	471.3	470.5	472.4
50°	452.7	453.8	448.5	448.5	449.6
52.5°	429.9	430.9	427.3	425.7	426.7
55°	394.5	396.6	393.5	391.4	391.4
57.5°	359.0	360.9	356.9	355.8	355.6
60°	335.3	336.3	333.2	332.1	331.1
62.5°	311.6	311.8	308.7	307.6	306.5
65°	275.0	274.0	271.8	269.7	268.7
67.5°	234.0	235.0	232.9	229.5	229.5
70°	209.4	210.5	208.4	204.1	204.1
72.5°	185.7	185.1	183.8	180.4	178.8
75°	149.1	148.1	146.0	142.8	141.7
77.5°	112.5	111.5	110.4	106.4	107.3
80°	88.9	87.8	86.7	83.6	83.6
82.5°	67.7	65.8	64.7	61.6	61.6
85°	36.0	33.9	32.8	29.6	30.7
87.5°	10.4	10.0	10.2	8.3	8.5
90°	1.1	3.1	8.5	7.4	8.5
92.5°	18.0	65.6	201.4	65.5	52.5
95°	55.0	159.5	712.9	253.9	165.0
97.5°	99.8	210.3	1223.1	739.9	458.6
100°	131.2	236.6	1415.2	1263.8	837.7
102.5°	166.7	269.7	1394.0	1862.2	1443.5
105°	223.2	318.3	1274.5	2421.5	2300.5
107.5°	278.8	366.1	1158.0	2473.8	2606.8
110°	315.2	400.0	1102.1	2412.9	2660.1



TEST NUMBER: P853730

CATALOG NUMBER: SQ2-F-150U-050D-940-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	349.9	432.2	1068.3	2307.0	2623.7
115°	401.9	480.5	1035.5	2139.7	2512.0
117.5°	452.5	525.9	1023.0	1975.3	2353.4
120°	485.5	554.8	1019.6	1879.4	2247.6
122.5°	515.1	582.7	1019.6	1796.7	2138.4
125°	559.5	623.6	1020.7	1687.4	1982.1
127.5°	597.2	662.5	1019.4	1606.7	1863.2
130°	620.9	687.1	1018.6	1558.0	1789.6
132.5°	642.0	709.9	1016.0	1516.0	1726.1
135°	673.7	745.1	1012.2	1455.4	1640.5
137.5°	707.2	777.9	1009.9	1392.1	1559.5
140°	730.9	799.1	1009.0	1352.2	1510.4
142.5°	754.6	818.7	1009.0	1309.5	1452.8
145°	788.0	845.9	1010.1	1251.9	1371.8
147.5°	823.1	871.3	1011.6	1201.7	1292.3
150°	845.1	887.5	1013.3	1172.6	1249.1
152.5°	867.1	904.5	1014.1	1148.6	1211.9
155°	898.0	928.0	1016.4	1120.0	1163.5
157.5°	925.7	947.4	1018.8	1097.5	1129.0
160°	943.5	961.0	1019.6	1084.7	1109.5
162.5°	958.7	973.0	1019.6	1074.4	1092.6
165°	980.5	989.8	1020.7	1060.1	1071.4
167.5°	998.9	1003.4	1021.9	1048.9	1055.2
170°	1009.0	1011.1	1022.8	1042.9	1045.0
172.5°	1016.7	1017.9	1025.3	1038.7	1039.1
175°	1024.9	1024.9	1026.0	1033.3	1031.2
177.5°	1029.1	1028.3	1027.4	1032.4	1029.1
180°	1029.1	1029.1	1029.1	1029.1	1029.1

-----



TEST NUMBER: P853730

CATALOG NUMBER: SQ2-F-150U-050D-940-UNV-STD-W-4

**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	13.90	14.58	15.04	15.71	17.30	13.82	14.51	14.96	15.64	17.22
	3H	15.67	16.28	16.82	17.42	19.02	15.55	16.16	16.70	17.30	18.90
	4H	16.32	16.90	17.48	18.04	19.64	16.17	16.75	17.32	17.89	19.49
	6H	16.78	17.31	17.94	18.45	20.07	16.59	17.13	17.76	18.27	19.88
	8H	16.91	17.42	18.08	18.58	20.18	16.71	17.22	17.88	18.38	19.98
	12H	16.98	17.46	18.15	18.61	20.24	16.76	17.24	17.93	18.39	20.02
4H	2H	14.43	15.01	15.60	16.15	17.75	14.37	14.95	15.53	16.09	17.69
	3H	16.40	16.89	17.57	18.05	19.67	16.29	16.78	17.46	17.94	19.56
	4H	17.18	17.63	18.36	18.78	20.42	17.04	17.49	18.21	18.64	20.27
	6H	17.76	18.14	18.94	19.32	20.94	17.58	17.96	18.76	19.14	20.76
	8H	17.95	18.30	19.12	19.47	21.11	17.74	18.10	18.92	19.27	20.91
	12H	18.04	18.36	19.23	19.54	21.19	17.81	18.14	19.00	19.31	20.96
8H	4H	17.42	17.77	18.59	18.94	20.58	17.29	17.65	18.47	18.81	20.45
	6H	18.13	18.42	19.32	19.63	21.27	17.96	18.25	19.16	19.46	21.10
	8H	18.39	18.65	19.59	19.83	21.49	18.20	18.45	19.40	19.64	21.30
	12H	18.55	18.78	19.76	19.96	21.65	18.32	18.55	19.53	19.73	21.42
12H	4H	17.40	17.72	18.59	18.90	20.55	17.28	17.60	18.47	18.78	20.43
	6H	18.17	18.42	19.37	19.61	21.27	18.01	18.26	19.21	19.45	21.11
	8H	18.45	18.68	19.66	19.86	21.55	18.26	18.49	19.47	19.68	21.36