

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: P853714

Luminaire Tested: SQ2-F-100U-125D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

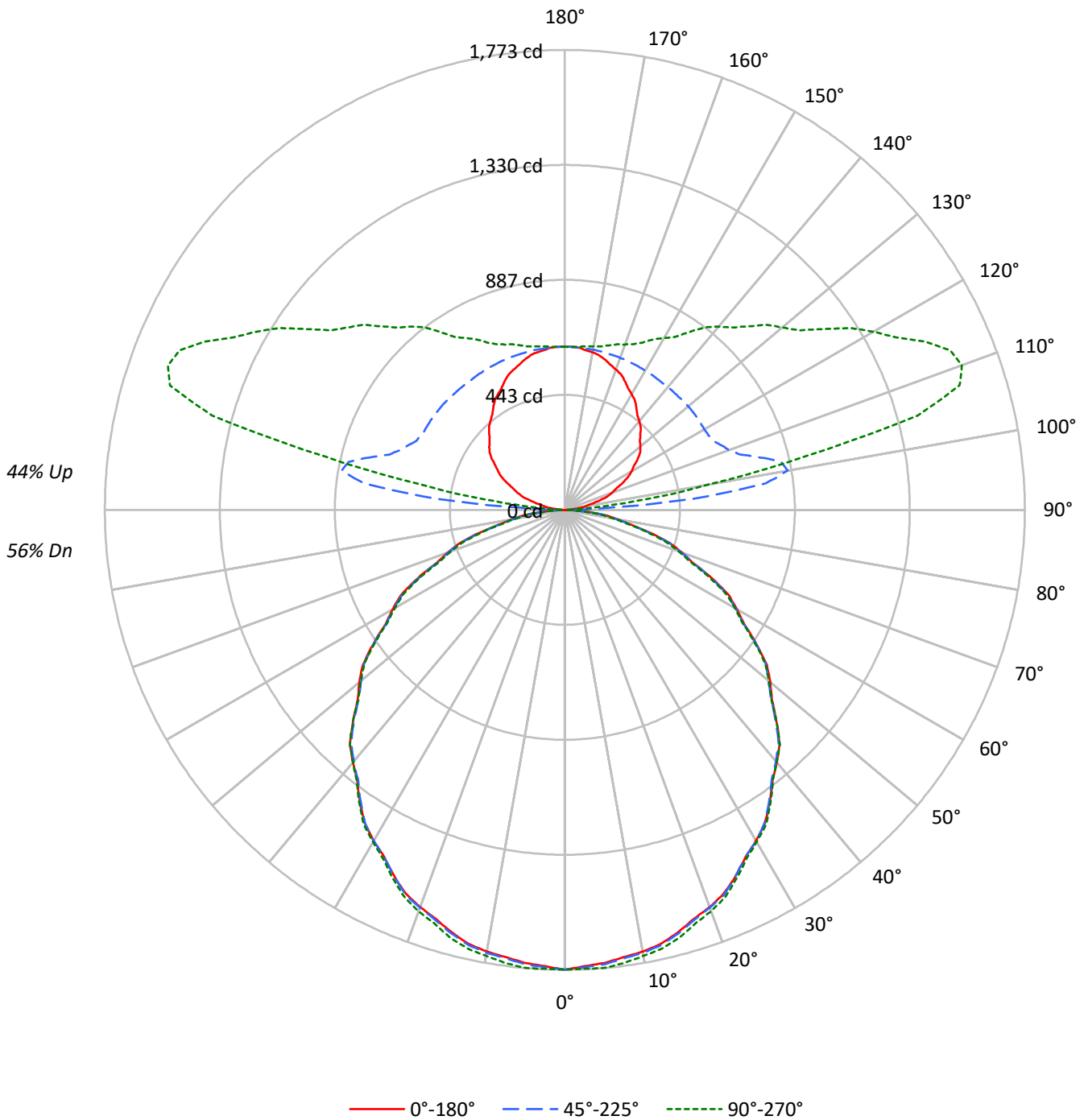
Test Method: LM-79-2019  
Report Number: P853714  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-F-100U-125D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8891.2 lumens  
Efficiency: N/A  
Efficacy: 108.7 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: General Diffuse  
  
Input Watts (W): 81.8  
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: P853714  
CATALOG NUMBER: SQ2-F-100U-125D-935-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P853714

CATALOG NUMBER: SQ2-F-100U-125D-935-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	50	30	10	0	
RCR																						
0	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	56				56
1	99	95	91	87	92	88	85	81	76	73	71	65	63	61	54	53	52	47				47
2	90	82	76	71	83	77	71	67	66	62	58	56	53	51	47	45	43	39				39
3	82	72	65	59	76	67	61	55	58	53	49	50	46	43	42	39	37	33				33
4	75	64	56	50	69	60	52	47	52	46	42	44	40	36	37	34	31	28				28
5	69	57	49	42	64	53	46	40	46	40	36	40	35	31	34	30	27	24				24
6	63	51	43	37	59	48	40	35	42	36	31	36	31	27	30	27	24	21				21
7	58	46	38	32	54	43	36	31	38	32	27	33	28	24	28	24	21	19				19
8	54	42	34	28	50	39	32	27	34	28	24	30	25	22	25	22	19	17				17
9	51	38	30	25	47	36	29	24	31	26	22	27	23	19	23	20	17	15				15
10	47	35	28	23	44	33	26	22	29	23	20	25	21	18	22	18	15	14				14

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

	0°	45°	90°
0°	28620	28620	28620
5°	28417	28494	28729
10°	28350	28429	28627
15°	28177	28257	28540
20°	28008	28051	28301
25°	27750	27750	27923
30°	27466	27466	27555
35°	27133	27037	27228
40°	26774	26673	26774
45°	26359	26250	26359
50°	25962	25721	25782
55°	25357	25289	25154
60°	24723	24564	24409
65°	23988	23713	23435
70°	22575	22461	22003
75°	21241	20792	20187
80°	18866	18410	17741
85°	15209	13875	12968

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 26521 cd/sqm



TEST NUMBER: P853714

CATALOG NUMBER: SQ2-F-100U-125D-935-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	167.6	1.9
10°-20°	478.8	5.4
20°-30°	720.3	8.1
30°-40°	861.9	9.7
40°-50°	889.3	10.0
50°-60°	802.3	9.0
60°-70°	612.2	6.9
70°-80°	352.0	4.0
80°-90°	93.0	1.0
90°-100°	262.6	3.0
100°-110°	794.4	8.9
110°-120°	775.4	8.7
120°-130°	633.7	7.1
130°-140°	517.2	5.8
140°-150°	402.6	4.5
150°-160°	290.3	3.3
160°-170°	177.7	2.0
170°-180°	60.0	0.7
0°-30°	1366.7	15.4
0°-40°	2228.6	25.1
0°-60°	3920.1	44.1
0°-90°	4977.3	56.0
90°-120°	1832.4	20.6
90°-150°	3386.0	38.1
90°-180°	3914.0	44.0
0°-180°	8891.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1773	1773	1773	1773	1773	
5°	1753	1777	1758	1761	1773	166
15°	1686	1707	1690	1698	1707	476
25°	1558	1574	1558	1560	1567	717
35°	1377	1386	1372	1377	1381	861
45°	1154	1162	1150	1152	1154	891
55°	901	906	898	894	894	805
65°	628	626	621	616	613	617
75°	340	338	333	326	324	359
85°	82	77	75	68	70	95
90°	0	2	12	7	6	5
95°	33	103	496	183	116	39
105°	138	194	780	1481	1408	145
115°	246	293	631	1305	1533	243
125°	344	381	622	1031	1213	305
135°	412	455	618	889	1000	319
145°	481	516	618	765	836	301
155°	548	566	622	686	712	252
165°	599	606	625	649	656	169
175°	627	627	628	633	631	59
180°	629	629	629	629	629	



TEST NUMBER: P853714

CATALOG NUMBER: SQ2-F-100U-125D-935-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1772.6	1772.6	1772.6	1772.6	1772.6
2.5°	1761.0	1781.8	1764.9	1768.8	1770.7
5°	1753.3	1776.9	1758.1	1760.8	1772.6
7.5°	1738.8	1764.3	1743.7	1748.3	1761.5
10°	1729.2	1752.8	1734.0	1736.6	1746.1
12.5°	1713.7	1737.3	1718.5	1723.1	1732.5
15°	1685.7	1706.9	1690.5	1698.0	1707.4
17.5°	1653.3	1676.0	1657.7	1664.1	1672.2
20°	1630.1	1649.0	1632.6	1635.2	1647.1
22.5°	1601.2	1620.1	1605.5	1606.2	1616.1
25°	1557.7	1574.2	1557.7	1560.3	1567.4
27.5°	1507.9	1522.1	1507.9	1510.5	1516.6
30°	1473.2	1487.3	1473.2	1475.6	1478.0
32.5°	1434.5	1446.8	1432.6	1435.2	1441.3
35°	1376.6	1386.0	1371.7	1376.7	1381.4
37.5°	1314.7	1321.8	1309.9	1312.4	1316.7
40°	1270.3	1277.4	1265.5	1267.9	1270.3
42.5°	1225.9	1231.1	1219.1	1221.6	1225.9
45°	1154.4	1161.5	1149.6	1152.0	1154.4
47.5°	1081.9	1086.2	1076.1	1074.3	1078.6
50°	1033.6	1036.0	1024.0	1024.0	1026.4
52.5°	981.5	983.8	975.7	971.9	974.2
55°	900.8	905.5	898.4	893.6	893.6
57.5°	819.7	823.9	814.8	812.4	811.9
60°	765.6	767.9	760.7	758.3	755.9
62.5°	711.5	711.9	704.7	702.2	699.9
65°	627.9	625.5	620.7	615.8	613.4
67.5°	534.2	536.6	531.8	524.1	524.1
70°	478.2	480.5	475.8	466.1	466.1
72.5°	424.1	422.7	419.7	411.9	408.1
75°	340.5	338.2	333.3	326.0	323.6
77.5°	257.0	254.6	252.1	243.0	244.9
80°	202.9	200.5	198.0	190.8	190.8
82.5°	154.6	150.3	147.8	140.6	140.6
85°	82.1	77.4	74.9	67.7	70.0
87.5°	23.2	21.7	21.7	16.8	16.6
90°	0.0	1.9	11.8	6.9	5.9
92.5°	11.1	44.7	160.3	53.2	38.3
95°	32.6	103.0	495.6	183.1	115.5
97.5°	63.0	131.1	781.1	516.9	314.7
100°	81.9	148.5	872.7	843.7	566.7
102.5°	103.3	167.6	853.8	1183.4	943.4
105°	138.2	194.2	779.9	1481.2	1407.8
107.5°	171.4	224.9	708.9	1510.7	1595.6
110°	193.5	244.7	673.3	1473.5	1628.0



TEST NUMBER: P853714

CATALOG NUMBER: SQ2-F-100U-125D-935-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	214.8	264.4	652.0	1411.3	1606.7
115°	245.8	293.1	630.9	1305.4	1533.2
117.5°	276.6	321.4	623.4	1206.2	1439.4
120°	297.2	339.6	621.0	1148.3	1372.3
122.5°	316.1	356.3	621.0	1097.4	1304.4
125°	343.6	381.2	622.0	1030.9	1213.3
127.5°	365.9	404.9	621.0	980.7	1136.3
130°	380.1	420.6	621.0	952.0	1092.9
132.5°	392.7	434.0	620.2	925.7	1055.8
135°	411.7	455.1	618.0	889.1	1000.1
137.5°	432.8	474.1	618.0	850.0	952.9
140°	446.2	486.8	618.0	824.6	922.1
142.5°	459.7	498.7	617.2	801.4	886.6
145°	480.8	516.5	618.0	764.8	836.2
147.5°	501.9	532.2	619.2	734.6	789.4
150°	515.4	543.3	620.0	717.8	764.1
152.5°	528.0	552.9	620.8	703.4	741.2
155°	547.9	566.3	622.0	685.8	711.8
157.5°	565.3	580.2	623.2	672.7	690.9
160°	575.6	588.1	623.9	664.7	678.2
162.5°	585.8	595.3	624.7	657.6	668.8
165°	599.3	606.0	624.9	648.8	656.5
167.5°	610.7	614.2	626.1	642.0	645.3
170°	617.0	619.0	626.9	638.8	639.7
172.5°	621.0	622.1	626.9	635.6	635.8
175°	626.9	626.9	627.9	632.8	630.9
177.5°	629.7	628.9	628.1	630.4	628.9
180°	628.9	628.9	628.9	628.9	628.9

-----



TEST NUMBER: P853714

CATALOG NUMBER: SQ2-F-100U-125D-935-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	20.15	21.08	21.06	22.01	23.19	20.08	21.01	20.98	21.93	23.11
	3H	21.94	22.77	22.85	23.71	24.91	21.82	22.66	22.73	23.59	24.79
	4H	22.60	23.39	23.53	24.33	25.55	22.45	23.24	23.38	24.18	25.39
	6H	23.07	23.80	24.01	24.75	25.98	22.89	23.62	23.83	24.56	25.79
	8H	23.21	23.91	24.16	24.87	26.10	23.01	23.71	23.96	24.67	25.89
	12H	23.29	23.95	24.24	24.91	26.16	23.07	23.73	24.02	24.68	25.94
4H	2H	20.71	21.50	21.65	22.44	23.66	20.65	21.44	21.58	22.38	23.60
	3H	22.71	23.37	23.65	24.34	25.57	22.60	23.26	23.54	24.23	25.46
	4H	23.50	24.10	24.45	25.07	26.32	23.36	23.96	24.31	24.92	26.18
	6H	24.09	24.61	25.06	25.60	26.85	23.91	24.43	24.88	25.42	26.67
	8H	24.28	24.77	25.25	25.75	27.02	24.08	24.57	25.05	25.55	26.82
	12H	24.39	24.83	25.38	25.82	27.10	24.16	24.60	25.15	25.60	26.87
8H	4H	23.75	24.24	24.72	25.22	26.49	23.63	24.11	24.60	25.09	26.36
	6H	24.47	24.88	25.47	25.90	27.16	24.31	24.71	25.30	25.73	27.00
	8H	24.74	25.10	25.74	26.11	27.39	24.55	24.90	25.55	25.91	27.20
	12H	24.91	25.23	25.92	26.23	27.56	24.68	25.00	25.69	26.00	27.33
12H	4H	23.75	24.19	24.74	25.19	26.46	23.63	24.07	24.62	25.06	26.34
	6H	24.52	24.87	25.52	25.88	27.17	24.36	24.71	25.36	25.72	27.01
	8H	24.81	25.13	25.82	26.13	27.46	24.63	24.94	25.63	25.94	27.27