

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: P853713

Luminaire Tested: SQ2-F-100U-125D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853713
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-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

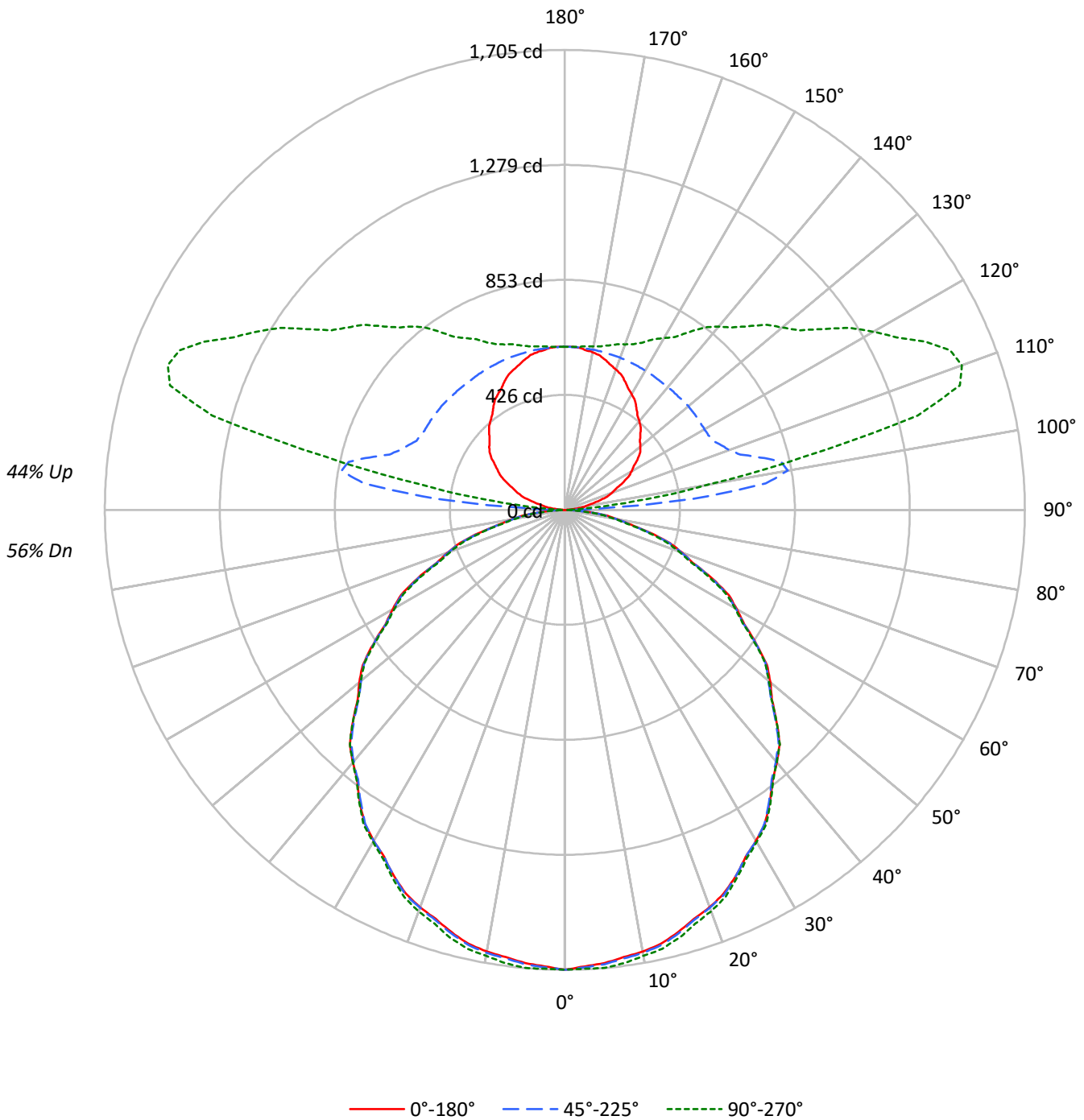
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8551.5 lumens
Efficiency: N/A
Efficacy: 104.5 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: 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: P853713
CATALOG NUMBER: SQ2-F-100U-125D-930-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P853713

CATALOG NUMBER: SQ2-F-100U-125D-930-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				
1	99	95	91	87	92	88	85	81	76	73	71	65	63	61	54	53	52	47				
2	90	82	76	71	83	77	71	67	66	62	58	56	53	51	47	45	43	39				
3	82	72	65	59	76	67	61	55	58	53	49	50	46	43	42	39	37	33				
4	75	64	56	50	69	60	52	47	52	46	42	44	40	36	37	34	31	28				
5	69	57	49	42	64	53	46	40	46	40	36	40	35	31	34	30	27	24				
6	63	51	43	37	59	48	40	35	42	36	31	36	31	27	30	27	24	21				
7	58	46	38	32	54	43	36	31	38	32	27	33	28	24	28	24	21	19				
8	54	42	34	28	50	39	32	27	34	28	24	30	25	22	25	22	19	17				
9	51	38	30	25	47	36	29	24	31	26	22	27	23	19	23	20	17	15				
10	47	35	28	23	44	33	26	22	29	23	20	25	21	18	22	18	15	14				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	27527	27527	27527
5°	27331	27407	27632
10°	27266	27343	27534
15°	27101	27178	27450
20°	26940	26979	27218
25°	26690	26690	26856
30°	26416	26416	26502
35°	26097	26004	26187
40°	25752	25653	25752
45°	25352	25245	25352
50°	24970	24739	24797
55°	24389	24324	24192
60°	23776	23628	23476
65°	23072	22808	22541
70°	21711	21602	21163
75°	20430	19994	19420
80°	18140	17713	17062
85°	14635	13338	12486

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 25507 cd/sqm



TEST NUMBER: P853713

CATALOG NUMBER: SQ2-F-100U-125D-930-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.2	1.9
10°-20°	460.5	5.4
20°-30°	692.8	8.1
30°-40°	829.0	9.7
40°-50°	855.3	10.0
50°-60°	771.6	9.0
60°-70°	588.8	6.9
70°-80°	338.5	4.0
80°-90°	89.4	1.0
90°-100°	252.6	3.0
100°-110°	764.0	8.9
110°-120°	745.8	8.7
120°-130°	609.5	7.1
130°-140°	497.5	5.8
140°-150°	387.3	4.5
150°-160°	279.2	3.3
160°-170°	170.9	2.0
170°-180°	57.7	0.7
0°-30°	1314.5	15.4
0°-40°	2143.5	25.1
0°-60°	3770.4	44.1
0°-90°	4787.1	56.0
90°-120°	1762.4	20.6
90°-150°	3256.6	38.1
90°-180°	3764.0	44.0
0°-180°	8551.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1705	1705	1705	1705	1705	
5°	1686	1709	1691	1694	1705	160
15°	1621	1642	1626	1633	1642	457
25°	1498	1514	1498	1501	1508	690
35°	1324	1333	1319	1324	1329	828
45°	1110	1117	1106	1108	1110	857
55°	866	871	864	859	859	775
65°	604	602	597	592	590	594
75°	328	325	320	314	311	345
85°	79	74	72	65	67	91
90°	0	2	11	7	6	5
95°	31	99	477	176	111	37
105°	133	187	750	1425	1354	140
115°	236	282	607	1256	1475	234
125°	330	367	598	992	1167	294
135°	396	438	594	855	962	307
145°	462	497	594	736	804	290
155°	527	545	598	660	685	243
165°	576	583	601	624	631	162
175°	603	603	604	609	607	57
180°	605	605	605	605	605	



TEST NUMBER: P853713

CATALOG NUMBER: SQ2-F-100U-125D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1704.9	1704.9	1704.9	1704.9	1704.9
2.5°	1693.8	1713.8	1697.5	1701.2	1703.1
5°	1686.3	1709.0	1691.0	1693.6	1704.9
7.5°	1672.4	1696.9	1677.0	1681.5	1694.2
10°	1663.1	1685.8	1667.8	1670.3	1679.4
12.5°	1648.2	1671.0	1652.9	1657.3	1666.4
15°	1621.3	1641.7	1625.9	1633.1	1642.2
17.5°	1590.2	1612.0	1594.4	1600.6	1608.3
20°	1567.9	1586.0	1570.2	1572.8	1584.1
22.5°	1540.0	1558.2	1544.2	1544.9	1554.4
25°	1498.2	1514.1	1498.2	1500.7	1507.5
27.5°	1450.3	1464.0	1450.3	1452.8	1458.7
30°	1416.9	1430.5	1416.9	1419.3	1421.5
32.5°	1379.7	1391.5	1377.9	1380.3	1386.2
35°	1324.0	1333.1	1319.3	1324.1	1328.6
37.5°	1264.5	1271.3	1259.9	1262.3	1266.4
40°	1221.8	1228.6	1217.1	1219.5	1221.8
42.5°	1179.0	1184.0	1172.5	1175.0	1179.0
45°	1110.3	1117.1	1105.6	1108.0	1110.3
47.5°	1040.6	1044.7	1035.0	1033.3	1037.4
50°	994.1	996.4	984.9	984.9	987.2
52.5°	944.0	946.2	938.4	934.7	937.0
55°	866.4	870.9	864.1	859.4	859.4
57.5°	788.4	792.4	783.7	781.4	780.9
60°	736.3	738.6	731.7	729.3	727.0
62.5°	684.3	684.7	677.8	675.4	673.1
65°	603.9	601.7	597.0	592.3	590.0
67.5°	513.8	516.1	511.5	504.0	504.0
70°	459.9	462.2	457.6	448.3	448.3
72.5°	407.9	406.5	403.7	396.2	392.5
75°	327.5	325.2	320.5	313.5	311.3
77.5°	247.1	244.9	242.5	233.7	235.5
80°	195.1	192.8	190.5	183.5	183.5
82.5°	148.7	144.6	142.2	135.2	135.2
85°	79.0	74.4	72.0	65.1	67.4
87.5°	22.3	20.9	20.9	16.2	16.0
90°	0.0	1.9	11.4	6.6	5.7
92.5°	10.6	42.9	154.2	51.1	36.8
95°	31.3	99.1	476.7	176.1	111.1
97.5°	60.6	126.1	751.3	497.1	302.7
100°	78.8	142.9	839.4	811.5	545.0
102.5°	99.3	161.2	821.2	1138.2	907.4
105°	132.9	186.8	750.1	1424.6	1354.1
107.5°	164.8	216.3	681.8	1453.0	1534.7
110°	186.1	235.3	647.6	1417.2	1565.8



TEST NUMBER: P853713

CATALOG NUMBER: SQ2-F-100U-125D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	206.6	254.3	627.1	1357.4	1545.3
115°	236.4	281.9	606.8	1255.5	1474.6
117.5°	266.1	309.1	599.5	1160.1	1384.4
120°	285.8	326.7	597.3	1104.5	1319.9
122.5°	304.0	342.7	597.3	1055.5	1254.5
125°	330.4	366.7	598.2	991.5	1167.0
127.5°	351.9	389.4	597.3	943.3	1092.9
130°	365.6	404.6	597.3	915.6	1051.1
132.5°	377.7	417.5	596.5	890.3	1015.4
135°	396.0	437.7	594.4	855.1	961.9
137.5°	416.3	456.0	594.4	817.5	916.5
140°	429.2	468.2	594.4	793.1	886.9
142.5°	442.1	479.6	593.7	770.8	852.7
145°	462.4	496.8	594.4	735.6	804.3
147.5°	482.7	511.9	595.6	706.5	759.3
150°	495.7	522.6	596.3	690.4	734.9
152.5°	507.8	531.8	597.1	676.5	712.9
155°	527.0	544.6	598.2	659.6	684.6
157.5°	543.7	558.0	599.4	647.0	664.5
160°	553.6	565.7	600.1	639.3	652.3
162.5°	563.5	572.6	600.9	632.5	643.2
165°	576.4	582.9	601.1	624.0	631.4
167.5°	587.4	590.7	602.2	617.5	620.6
170°	593.5	595.3	603.0	614.4	615.3
172.5°	597.3	598.4	603.0	611.3	611.5
175°	603.0	603.0	603.9	608.6	606.8
177.5°	605.6	604.9	604.1	606.3	604.9
180°	604.9	604.9	604.9	604.9	604.9



TEST NUMBER: P853713

CATALOG NUMBER: SQ2-F-100U-125D-930-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	20.02	20.95	20.92	21.87	23.05	19.94	20.87	20.84	21.79	22.98
	3H	21.80	22.64	22.72	23.57	24.78	21.68	22.52	22.60	23.45	24.66
	4H	22.47	23.26	23.39	24.19	25.41	22.31	23.10	23.24	24.04	25.26
	6H	22.94	23.67	23.88	24.61	25.84	22.75	23.48	23.69	24.43	25.66
	8H	23.08	23.77	24.03	24.73	25.96	22.88	23.57	23.82	24.53	25.76
	12H	23.16	23.82	24.11	24.77	26.02	22.93	23.59	23.89	24.55	25.80
4H	2H	20.58	21.37	21.51	22.31	23.52	20.52	21.31	21.45	22.24	23.46
	3H	22.57	23.23	23.52	24.20	25.43	22.46	23.12	23.41	24.09	25.32
	4H	23.36	23.97	24.32	24.93	26.18	23.22	23.82	24.18	24.79	26.04
	6H	23.96	24.48	24.92	25.46	26.72	23.78	24.30	24.74	25.28	26.54
	8H	24.15	24.63	25.12	25.61	26.88	23.95	24.43	24.91	25.41	26.68
	12H	24.25	24.69	25.24	25.69	26.96	24.03	24.46	25.01	25.46	26.74
8H	4H	23.62	24.10	24.59	25.08	26.35	23.49	23.98	24.46	24.96	26.23
	6H	24.34	24.74	25.33	25.76	27.03	24.17	24.57	25.17	25.60	26.86
	8H	24.61	24.96	25.61	25.97	27.26	24.41	24.77	25.42	25.78	27.06
	12H	24.78	25.09	25.78	26.09	27.42	24.55	24.86	25.56	25.87	27.20
12H	4H	23.61	24.05	24.60	25.05	26.32	23.49	23.93	24.48	24.93	26.20
	6H	24.38	24.74	25.38	25.75	27.03	24.22	24.58	25.23	25.59	26.87
	8H	24.68	24.99	25.69	25.99	27.33	24.49	24.80	25.50	25.81	27.14