

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: P853734

Luminaire Tested: SQ2-F-150U-100D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853734
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-100D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

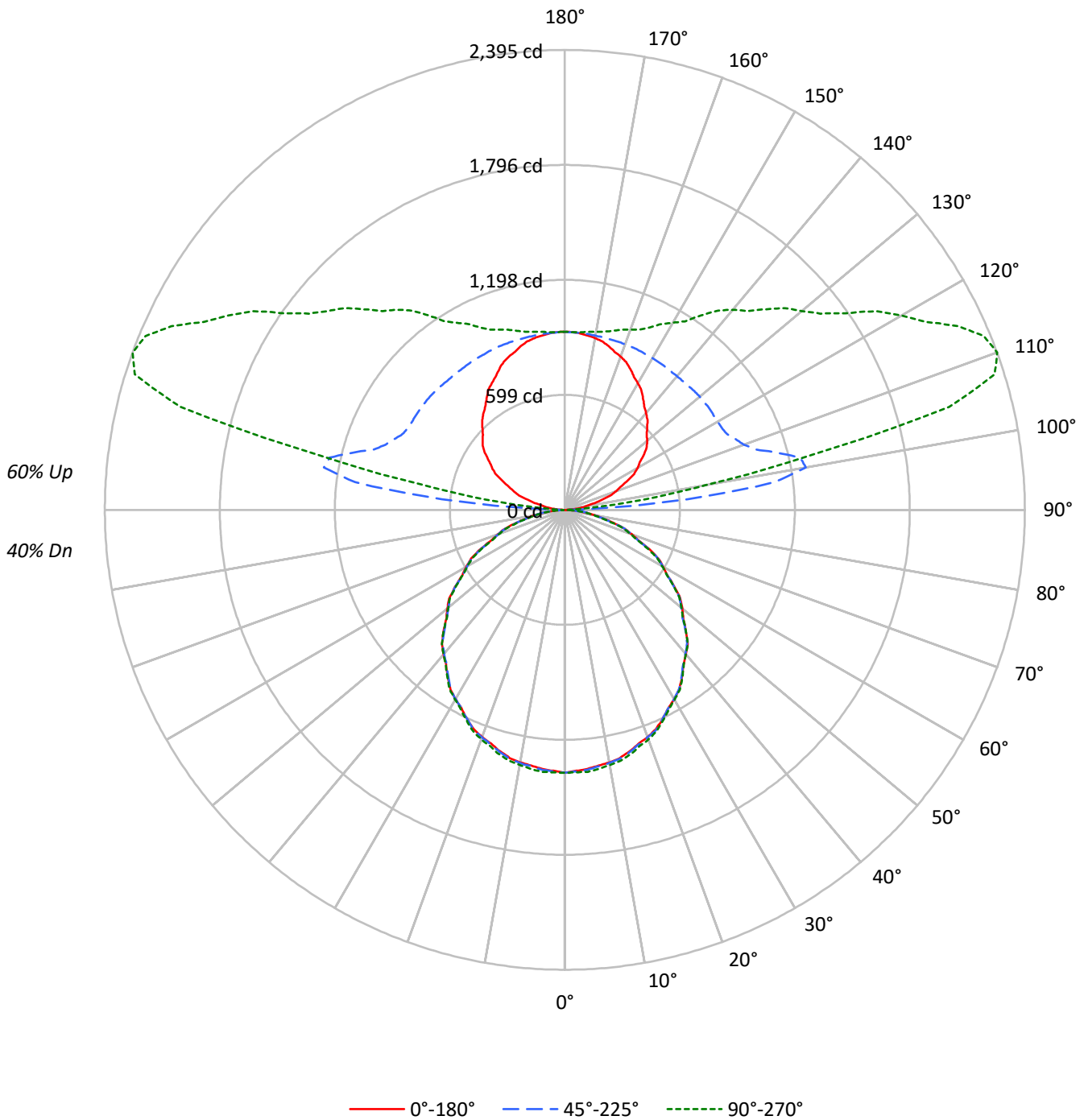
Lumens per Lamp: N/A
Luminaire Lumens: 9563.5 lumens
Efficiency: N/A
Efficacy: 101.5 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 94.2
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: P853734

CATALOG NUMBER: SQ2-F-150U-100D-930-UNV-STD-W-4

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
RCR																				
0	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40		
1	95	91	87	84	87	83	80	77	68	66	64	54	53	51	41	40	40	34		
2	87	79	73	68	79	72	67	63	59	56	52	47	45	43	36	35	33	28		
3	79	70	62	57	72	64	57	52	52	48	44	42	39	36	32	30	28	24		
4	72	62	54	48	65	56	49	44	46	41	37	37	33	31	29	26	24	20		
5	66	55	47	41	60	50	43	38	41	36	32	33	29	26	26	23	21	17		
6	61	49	41	35	55	45	38	33	37	32	28	30	26	23	23	20	18	15		
7	56	44	36	31	51	40	33	29	34	28	24	27	23	20	21	18	16	13		
8	52	40	32	27	47	37	30	25	31	25	22	25	21	18	19	17	14	12		
9	48	36	29	24	44	33	27	22	28	23	19	23	19	16	18	15	13	11		
10	45	33	26	21	41	31	24	20	26	21	17	21	17	14	17	14	12	10		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	22107	22107	22107
5°	21950	22011	22191
10°	21899	21959	22112
15°	21765	21827	22046
20°	21636	21667	21859
25°	21435	21435	21569
30°	21215	21215	21285
35°	20958	20885	21031
40°	20681	20603	20681
45°	20361	20276	20361
50°	20055	19869	19914
55°	19586	19533	19429
60°	19094	18975	18855
65°	18529	18315	18101
70°	17438	17349	16995
75°	16407	16057	15596
80°	14570	14226	13705
85°	11745	10708	10022

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 20486 cd/sqm



TEST NUMBER: P853734

CATALOG NUMBER: SQ2-F-150U-100D-930-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.4	1.4
10°-20°	369.8	3.9
20°-30°	556.4	5.8
30°-40°	665.8	7.0
40°-50°	686.9	7.2
50°-60°	619.7	6.5
60°-70°	472.9	4.9
70°-80°	271.9	2.8
80°-90°	72.0	0.8
90°-100°	353.0	3.7
100°-110°	1156.0	12.1
110°-120°	1142.9	12.0
120°-130°	934.2	9.8
130°-140°	762.4	8.0
140°-150°	593.3	6.2
150°-160°	427.2	4.5
160°-170°	261.4	2.7
170°-180°	88.3	0.9
0°-30°	1055.7	11.0
0°-40°	1721.4	18.0
0°-60°	3028.0	31.7
0°-90°	3844.8	40.2
90°-120°	2651.9	27.7
90°-150°	4941.9	51.7
90°-180°	5719.0	59.8
0°-180°	9563.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1369	1369	1369	1369	1369	
5°	1354	1373	1358	1360	1369	129
15°	1302	1318	1306	1312	1319	367
25°	1203	1216	1203	1205	1211	554
35°	1063	1071	1060	1063	1067	665
45°	892	897	888	890	892	688
55°	696	700	694	690	690	622
65°	485	483	479	476	474	477
75°	263	261	257	252	250	277
85°	63	60	58	52	54	73
90°	1	3	8	7	8	5
95°	50	144	642	229	149	56
105°	201	287	1148	2180	2071	212
115°	362	433	932	1926	2262	357
125°	504	562	919	1519	1784	448
135°	607	671	911	1310	1477	469
145°	709	762	909	1127	1235	445
155°	808	836	915	1008	1048	372
165°	883	891	919	954	965	249
175°	923	923	924	930	928	88
180°	926	926	926	926	926	

TEST NUMBER: P853734

CATALOG NUMBER: SQ2-F-150U-100D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1369.2	1369.2	1369.2	1369.2	1369.2
2.5°	1360.3	1376.3	1363.3	1366.3	1367.8
5°	1354.3	1372.6	1358.1	1360.1	1369.2
7.5°	1343.1	1362.8	1346.9	1350.4	1360.7
10°	1335.7	1353.9	1339.4	1341.4	1348.7
12.5°	1323.7	1342.0	1327.5	1331.0	1338.3
15°	1302.1	1318.5	1305.8	1311.6	1318.9
17.5°	1277.1	1294.6	1280.4	1285.4	1291.6
20°	1259.2	1273.8	1261.0	1263.1	1272.2
22.5°	1236.8	1251.4	1240.2	1240.7	1248.4
25°	1203.2	1216.0	1203.2	1205.2	1210.7
27.5°	1164.8	1175.7	1164.8	1166.8	1171.5
30°	1137.9	1148.9	1137.9	1139.8	1141.7
32.5°	1108.1	1117.6	1106.6	1108.6	1113.3
35°	1063.3	1070.6	1059.6	1063.4	1067.0
37.5°	1015.6	1021.0	1011.8	1013.8	1017.0
40°	981.2	986.7	977.5	979.4	981.2
42.5°	946.9	950.9	941.7	943.6	946.9
45°	891.7	897.2	888.0	889.9	891.7
47.5°	835.7	839.0	831.2	829.8	833.1
50°	798.4	800.2	791.0	791.0	792.8
52.5°	758.1	759.9	753.6	750.7	752.5
55°	695.8	699.5	693.9	690.2	690.2
57.5°	633.1	636.4	629.4	627.5	627.2
60°	591.3	593.2	587.6	585.7	583.9
62.5°	549.6	549.9	544.3	542.4	540.6
65°	485.0	483.2	479.4	475.6	473.8
67.5°	412.6	414.5	410.8	404.8	404.8
70°	369.4	371.2	367.5	360.0	360.0
72.5°	327.6	326.5	324.2	318.2	315.3
75°	263.0	261.2	257.4	251.8	250.0
77.5°	198.5	196.7	194.8	187.7	189.2
80°	156.7	154.9	153.0	147.4	147.4
82.5°	119.4	116.1	114.2	108.6	108.6
85°	63.4	59.8	57.8	52.3	54.1
87.5°	18.1	17.0	16.4	13.3	13.5
90°	1.0	2.8	7.6	6.7	7.6
92.5°	16.2	59.0	181.3	59.0	47.2
95°	49.5	143.6	641.8	228.6	148.6
97.5°	89.9	189.3	1101.2	666.2	412.9
100°	118.1	213.0	1274.1	1137.8	754.2
102.5°	150.1	242.8	1255.1	1676.5	1299.6
105°	200.9	286.6	1147.5	2180.1	2071.1
107.5°	251.0	329.6	1042.5	2227.2	2346.9
110°	283.8	360.1	992.2	2172.4	2394.9



TEST NUMBER: P853734

CATALOG NUMBER: SQ2-F-150U-100D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	315.0	389.1	961.8	2077.0	2362.1
115°	361.9	432.6	932.3	1926.4	2261.6
117.5°	407.4	473.5	921.0	1778.3	2118.8
120°	437.1	499.5	918.0	1692.1	2023.5
122.5°	463.7	524.6	918.0	1617.6	1925.3
125°	503.7	561.5	918.9	1519.2	1784.5
127.5°	537.6	596.5	917.8	1446.6	1677.5
130°	559.0	618.6	917.0	1402.6	1611.2
132.5°	578.0	639.1	914.7	1364.9	1554.1
135°	606.6	670.8	911.3	1310.3	1476.9
137.5°	636.7	700.4	909.2	1253.3	1404.0
140°	658.0	719.5	908.4	1217.4	1359.8
142.5°	679.3	737.1	908.4	1179.0	1308.0
145°	709.4	761.6	909.4	1127.1	1235.1
147.5°	741.0	784.4	910.7	1081.9	1163.5
150°	760.8	799.0	912.3	1055.7	1124.6
152.5°	780.7	814.4	913.0	1034.1	1091.1
155°	808.5	835.5	915.1	1008.4	1047.5
157.5°	833.4	853.0	917.2	988.1	1016.4
160°	849.4	865.2	918.0	976.6	998.9
162.5°	863.1	876.0	918.0	967.3	983.7
165°	882.7	891.1	918.9	954.4	964.6
167.5°	899.3	903.4	920.1	944.4	950.0
170°	908.4	910.3	920.8	939.0	940.8
172.5°	915.3	916.4	923.1	935.1	935.5
175°	922.7	922.7	923.7	930.3	928.4
177.5°	926.5	925.8	925.0	929.5	926.5
180°	926.5	926.5	926.5	926.5	926.5



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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	17.75	18.54	18.78	19.58	20.98	17.67	18.46	18.71	19.50	20.91
	3H	19.52	20.23	20.57	21.28	22.71	19.40	20.11	20.45	21.16	22.59
	4H	20.18	20.85	21.24	21.90	23.33	20.03	20.70	21.08	21.75	23.18
	6H	20.64	21.26	21.71	22.32	23.76	20.46	21.08	21.53	22.13	23.58
	8H	20.78	21.37	21.85	22.44	23.88	20.58	21.17	21.65	22.24	23.68
	12H	20.85	21.41	21.93	22.48	23.94	20.63	21.19	21.71	22.26	23.72
4H	2H	18.29	18.96	19.35	20.02	21.45	18.23	18.90	19.29	19.95	21.38
	3H	20.27	20.83	21.34	21.91	23.36	20.16	20.72	21.23	21.80	23.25
	4H	21.06	21.57	22.14	22.64	24.11	20.92	21.43	21.99	22.50	23.97
	6H	21.64	22.09	22.73	23.18	24.64	21.46	21.91	22.55	23.00	24.46
	8H	21.83	22.24	22.92	23.33	24.80	21.63	22.04	22.71	23.13	24.60
	12H	21.93	22.30	23.03	23.40	24.88	21.70	22.07	22.80	23.17	24.65
8H	4H	21.30	21.71	22.39	22.80	24.27	21.17	21.59	22.26	22.67	24.15
	6H	22.01	22.35	23.12	23.48	24.96	21.85	22.19	22.96	23.32	24.79
	8H	22.28	22.58	23.40	23.69	25.18	22.09	22.39	23.20	23.50	24.99
	12H	22.45	22.71	23.56	23.82	25.34	22.22	22.48	23.34	23.59	25.12
12H	4H	21.29	21.66	22.39	22.76	24.24	21.17	21.54	22.27	22.64	24.12
	6H	22.06	22.36	23.17	23.47	24.96	21.90	22.20	23.01	23.31	24.80
	8H	22.35	22.61	23.47	23.72	25.25	22.16	22.42	23.28	23.53	25.06