

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: P853710

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853710
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-100D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

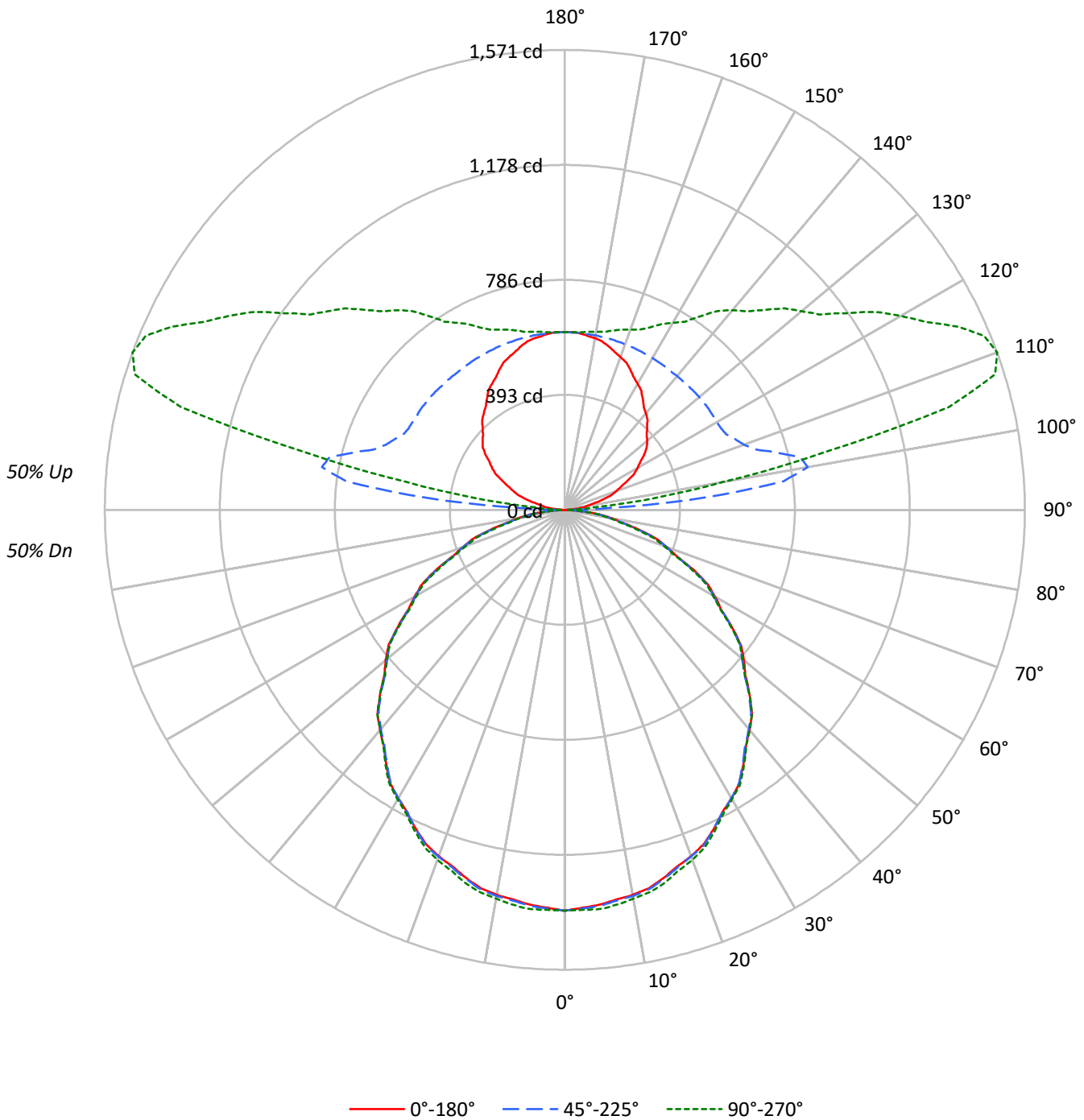
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7622.3 lumens
Efficiency: N/A
Efficacy: 108.6 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): 70.2
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

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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
RCR																				
0	107	107	107	107	99	99	99	99	84	84	84	69	69	69	57	57	57	50		
1	98	93	89	86	90	86	83	80	73	71	68	61	59	58	50	49	47	42		
2	89	81	75	70	82	75	70	65	64	60	56	53	50	48	44	42	40	35		
3	81	71	64	58	74	66	60	54	56	51	47	47	43	40	38	36	34	30		
4	74	63	55	49	68	58	51	46	50	44	40	42	38	34	34	31	29	25		
5	68	56	48	42	62	52	45	39	44	39	34	37	33	30	31	28	25	22		
6	62	50	42	36	57	47	39	34	40	34	30	34	29	26	28	25	22	19		
7	58	45	37	32	53	42	35	30	36	30	26	31	26	23	25	22	19	17		
8	54	41	33	28	49	38	31	26	33	27	23	28	24	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	17	14	12		

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



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.4	1.7
10°-20°	369.8	4.9
20°-30°	556.4	7.3
30°-40°	665.8	8.7
40°-50°	686.9	9.0
50°-60°	619.7	8.1
60°-70°	472.9	6.2
70°-80°	271.9	3.6
80°-90°	72.0	0.9
90°-100°	253.5	3.3
100°-110°	766.7	10.1
110°-120°	748.4	9.8
120°-130°	611.6	8.0
130°-140°	499.2	6.5
140°-150°	388.6	5.1
150°-160°	280.2	3.7
160°-170°	171.5	2.2
170°-180°	57.9	0.8
0°-30°	1055.7	13.8
0°-40°	1721.4	22.6
0°-60°	3028.0	39.7
0°-90°	3844.8	50.4
90°-120°	1768.6	23.2
90°-150°	3268.0	42.9
90°-180°	3778.0	49.6
0°-180°	7622.3	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°	0	2	11	7	6	4
95°	31	100	478	177	112	37
105°	133	187	753	1430	1359	140
115°	237	283	609	1260	1480	235
125°	332	368	600	995	1171	295
135°	397	439	596	858	965	308
145°	464	498	596	738	807	291
155°	529	546	600	662	687	243
165°	578	585	603	626	634	163
175°	605	605	606	611	609	57
180°	607	607	607	607	607	



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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°	17.9	16.8	17.2	13.3	13.1
90°	0.0	1.9	11.4	6.6	5.7
92.5°	10.7	43.1	154.7	51.3	37.0
95°	31.4	99.5	478.3	176.7	111.5
97.5°	60.8	126.6	753.9	498.9	303.8
100°	79.1	143.4	842.3	814.3	546.9
102.5°	99.7	161.7	824.0	1142.2	910.5
105°	133.4	187.4	752.8	1429.6	1358.8
107.5°	165.4	217.0	684.1	1458.0	1540.0
110°	186.8	236.1	649.8	1422.2	1571.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	207.3	255.2	629.3	1362.1	1550.7
115°	237.3	282.9	608.9	1259.9	1479.8
117.5°	267.0	310.2	601.6	1164.2	1389.3
120°	286.8	327.8	599.3	1108.3	1324.5
122.5°	305.1	343.9	599.3	1059.2	1258.9
125°	331.6	367.9	600.3	995.0	1171.1
127.5°	353.1	390.8	599.3	946.5	1096.7
130°	366.8	406.0	599.3	918.8	1054.8
132.5°	379.0	418.9	598.6	893.4	1019.0
135°	397.3	439.3	596.5	858.1	965.2
137.5°	417.7	457.6	596.5	820.4	919.7
140°	430.7	469.8	596.5	795.9	890.0
142.5°	443.6	481.3	595.7	773.5	855.7
145°	464.0	498.5	596.5	738.1	807.1
147.5°	484.4	513.7	597.6	709.0	761.9
150°	497.4	524.4	598.4	692.8	737.5
152.5°	509.6	533.6	599.2	678.9	715.4
155°	528.8	546.5	600.3	661.8	687.0
157.5°	545.6	559.9	601.4	649.3	666.8
160°	555.5	567.6	602.2	641.6	654.6
162.5°	565.4	574.6	603.0	634.7	645.5
165°	578.4	584.9	603.2	626.2	633.6
167.5°	589.4	592.8	604.3	619.6	622.8
170°	595.5	597.4	605.1	616.5	617.4
172.5°	599.3	600.5	605.1	613.4	613.6
175°	605.1	605.1	606.0	610.7	608.9
177.5°	607.7	607.0	606.2	608.5	607.0
180°	607.0	607.0	607.0	607.0	607.0



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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	18.77	19.64	19.72	20.61	21.87	18.69	19.56	19.64	20.53	21.80
	3H	20.55	21.33	21.51	22.31	23.60	20.43	21.21	21.39	22.19	23.48
	4H	21.21	21.95	22.18	22.93	24.23	21.05	21.80	22.03	22.78	24.07
	6H	21.68	22.36	22.66	23.35	24.66	21.49	22.18	22.48	23.16	24.47
	8H	21.81	22.47	22.81	23.47	24.78	21.61	22.27	22.61	23.27	24.57
	12H	21.89	22.51	22.89	23.51	24.84	21.67	22.29	22.67	23.29	24.62
4H	2H	19.32	20.06	20.30	21.04	22.34	19.26	20.00	20.24	20.98	22.28
	3H	21.31	21.93	22.30	22.94	24.25	21.20	21.82	22.19	22.83	24.14
	4H	22.10	22.67	23.10	23.67	25.00	21.95	22.52	22.95	23.53	24.86
	6H	22.69	23.18	23.70	24.21	25.54	22.51	23.00	23.52	24.03	25.35
	8H	22.88	23.33	23.89	24.35	25.70	22.67	23.13	23.69	24.15	25.50
	12H	22.98	23.39	24.01	24.43	25.78	22.75	23.17	23.78	24.20	25.55
8H	4H	22.35	22.80	23.36	23.82	25.17	22.22	22.68	23.23	23.70	25.04
	6H	23.06	23.44	24.10	24.51	25.85	22.90	23.28	23.94	24.34	25.68
	8H	23.33	23.67	24.38	24.71	26.07	23.14	23.47	24.18	24.52	25.88
	12H	23.50	23.79	24.55	24.84	26.24	23.27	23.57	24.32	24.61	26.01
12H	4H	22.34	22.75	23.37	23.79	25.14	22.22	22.63	23.25	23.67	25.02
	6H	23.11	23.44	24.15	24.49	25.85	22.95	23.28	23.99	24.33	25.69
	8H	23.40	23.69	24.45	24.74	26.14	23.21	23.51	24.26	24.55	25.96