

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: P853903

Luminaire Tested: SQ2-FB-150U-100D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853903  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-FB-150U-100D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

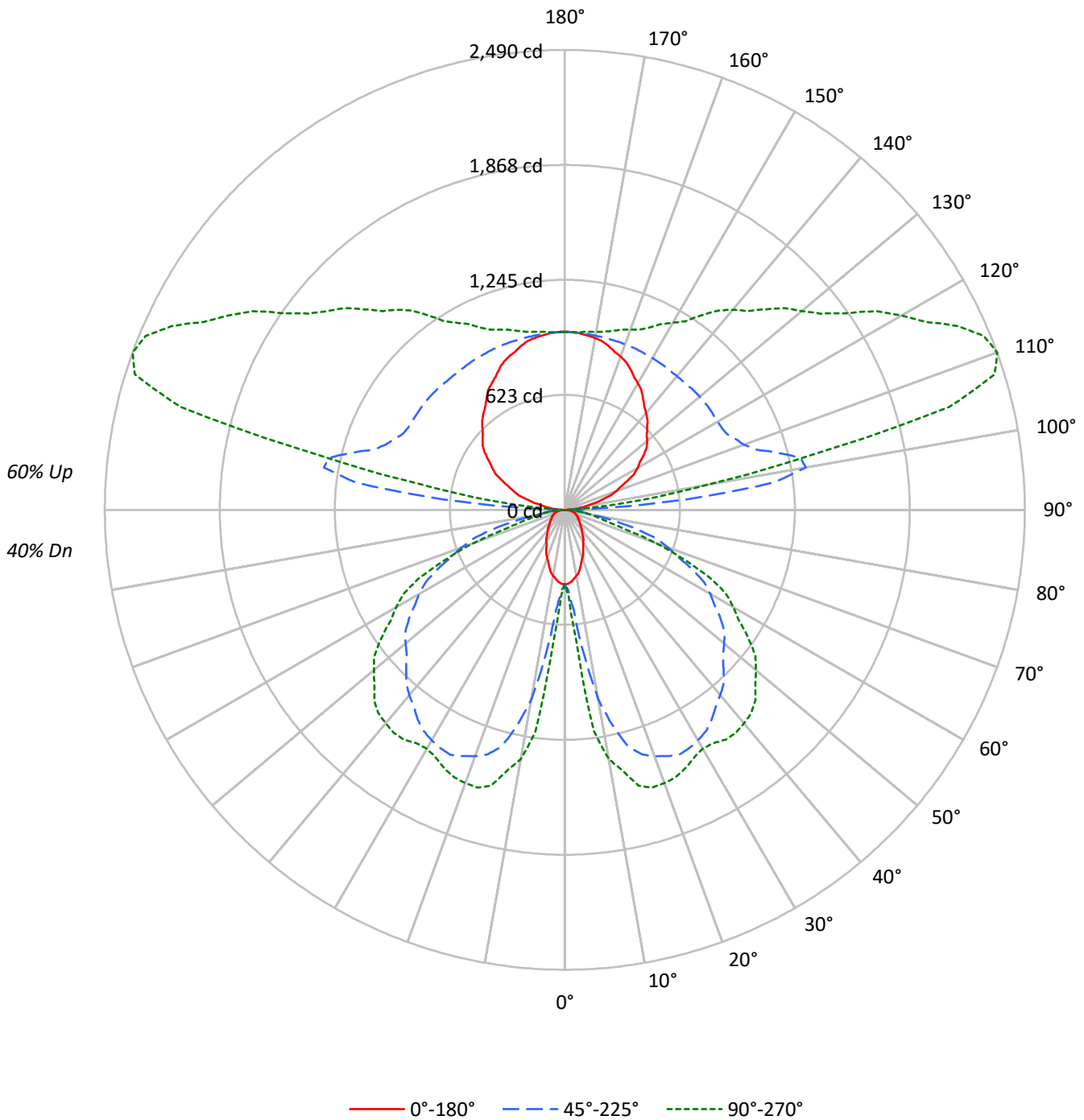
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9933.4 lumens  
Efficiency: N/A  
Efficacy: 105.5 lumens/watt  
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56  
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

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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	0
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	39	34
2	87	79	73	68	79	72	67	62	59	55	52	47	45	42	36	34	33	28
3	79	69	62	56	71	63	57	52	52	47	43	41	38	35	32	29	27	23
4	72	61	53	47	65	56	49	43	46	41	36	36	33	30	28	25	23	19
5	66	54	46	40	59	49	42	37	41	35	31	32	28	25	25	22	20	16
6	60	48	40	34	54	44	37	32	36	31	27	29	25	22	22	19	17	14
7	55	43	35	30	50	40	32	27	33	27	23	26	22	19	20	17	15	12
8	51	39	31	26	46	36	29	24	30	24	20	24	20	17	18	15	13	11
9	48	35	28	23	43	32	26	21	27	22	18	22	18	15	17	14	12	10
10	44	32	25	20	40	30	23	19	25	20	16	20	16	13	15	13	11	9

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

	0°	45°	90°
0°	6513	6513	6513
5°	6350	8802	11537
10°	5946	17044	22450
15°	5382	22176	25839
20°	4766	24395	27060
25°	4215	26088	27505
30°	3725	26867	27844
35°	3325	27334	29934
40°	3025	27594	31805
45°	2790	27725	33305
50°	2630	28256	33907
55°	2567	28991	34179
60°	2632	29376	34010
65°	2743	28974	33047
70°	2837	28018	24996
75°	3144	25165	13793
80°	3245	12980	12803
85°	3242	8985	5391

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 52.5°  
 Luminance: 34487 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.6	0.7
10°-20°	308.5	3.1
20°-30°	542.8	5.5
30°-40°	702.6	7.1
40°-50°	774.9	7.8
50°-60°	723.5	7.3
60°-70°	559.2	5.6
70°-80°	257.9	2.6
80°-90°	50.3	0.5
90°-100°	367.1	3.7
100°-110°	1201.9	12.1
110°-120°	1188.3	12.0
120°-130°	971.3	9.8
130°-140°	792.7	8.0
140°-150°	616.9	6.2
150°-160°	444.2	4.5
160°-170°	271.7	2.7
170°-180°	91.8	0.9
0°-30°	918.9	9.3
0°-40°	1621.6	16.3
0°-60°	3120.1	31.4
0°-90°	3987.5	40.1
90°-120°	2757.3	27.8
90°-150°	5138.2	51.7
90°-180°	5946.0	59.9
0°-180°	9933.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	403	403	403	403	403	
5°	392	449	543	662	712	36
15°	322	635	1327	1485	1546	90
25°	237	853	1464	1529	1544	109
35°	169	823	1387	1435	1519	106
45°	122	630	1214	1394	1459	95
55°	91	376	1030	1184	1214	82
65°	72	212	758	850	865	70
75°	50	130	403	217	221	52
85°	18	38	48	33	29	18
90°	1	3	8	7	8	3
95°	52	149	667	238	154	58
105°	209	298	1193	2267	2153	220
115°	376	450	969	2003	2351	372
125°	524	584	955	1580	1855	466
135°	631	698	948	1362	1536	488
145°	738	792	946	1172	1284	462
155°	841	869	952	1048	1089	387
165°	918	926	955	992	1003	259
175°	959	959	960	967	965	91
180°	963	963	963	963	963	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	403.4	403.4	403.4	403.4	403.4
2.5°	400.3	417.0	436.0	457.9	467.0
5°	391.8	448.7	543.1	662.5	711.8
7.5°	376.7	492.3	789.8	1109.3	1208.0
10°	362.7	523.9	1039.6	1316.2	1369.3
12.5°	347.2	566.0	1196.3	1390.7	1445.4
15°	322.0	634.9	1326.7	1485.1	1545.8
17.5°	296.0	712.4	1387.2	1543.5	1576.5
20°	277.4	766.6	1419.8	1554.1	1574.9
22.5°	260.3	807.2	1443.0	1544.8	1567.2
25°	236.6	853.0	1464.4	1528.7	1543.9
27.5°	213.7	865.0	1455.1	1497.3	1512.1
30°	199.8	861.6	1441.1	1472.6	1493.5
32.5°	187.4	852.3	1420.9	1451.4	1496.6
35°	168.7	823.0	1386.8	1435.2	1518.7
37.5°	152.8	776.0	1341.8	1441.0	1521.4
40°	143.5	740.9	1309.2	1440.7	1509.0
42.5°	134.2	699.7	1272.0	1425.2	1493.5
45°	122.2	630.4	1214.2	1394.1	1458.6
47.5°	110.9	552.4	1160.6	1351.0	1398.0
50°	104.7	499.2	1124.9	1312.0	1349.9
52.5°	98.5	447.5	1089.3	1265.4	1300.3
55°	91.2	375.6	1029.9	1183.8	1214.2
57.5°	84.6	314.0	962.4	1093.7	1118.4
60°	81.5	280.6	909.7	1028.5	1053.2
62.5°	76.8	250.1	850.7	960.2	983.4
65°	71.8	212.1	758.4	849.9	865.0
67.5°	64.8	183.9	660.2	716.2	687.8
70°	60.1	170.1	593.5	611.0	529.5
72.5°	57.0	154.9	520.6	474.4	320.0
75°	50.4	130.1	403.4	217.3	221.1
77.5°	41.1	100.7	265.3	166.9	170.3
80°	34.9	82.3	139.6	135.8	137.7
82.5°	28.7	64.0	96.2	100.0	97.4
85°	17.5	38.3	48.5	32.9	29.1
87.5°	6.4	14.4	9.3	9.1	9.3
90°	1.0	2.9	7.9	7.0	7.9
92.5°	16.8	61.4	188.5	61.3	49.1
95°	51.5	149.3	667.3	237.7	154.5
97.5°	93.5	196.9	1144.9	692.6	429.3
100°	122.8	221.5	1324.7	1183.0	784.1
102.5°	156.0	252.5	1304.9	1743.1	1351.3
105°	208.9	298.0	1193.0	2266.7	2153.4
107.5°	261.0	342.7	1083.9	2315.6	2440.1
110°	295.0	374.4	1031.7	2258.7	2490.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	327.5	404.6	1000.0	2159.5	2456.0
115°	376.2	449.8	969.3	2002.9	2351.4
117.5°	423.6	492.3	957.6	1849.0	2202.9
120°	454.4	519.3	954.4	1759.3	2103.9
122.5°	482.2	545.5	954.4	1681.9	2001.7
125°	523.7	583.8	955.4	1579.5	1855.4
127.5°	559.0	620.2	954.2	1504.0	1744.1
130°	581.2	643.1	953.4	1458.4	1675.2
132.5°	601.0	664.5	951.1	1419.1	1615.8
135°	630.7	697.5	947.5	1362.3	1535.6
137.5°	662.0	728.2	945.3	1303.1	1459.8
140°	684.1	748.0	944.5	1265.7	1413.8
142.5°	706.3	766.3	944.5	1225.8	1360.0
145°	737.6	791.8	945.5	1171.8	1284.1
147.5°	770.5	815.6	946.9	1124.9	1209.7
150°	791.1	830.8	948.5	1097.6	1169.3
152.5°	811.7	846.7	949.3	1075.2	1134.4
155°	840.6	868.6	951.5	1048.4	1089.1
157.5°	866.5	886.8	953.6	1027.4	1056.8
160°	883.1	899.6	954.4	1015.4	1038.6
162.5°	897.4	910.8	954.4	1005.7	1022.7
165°	917.8	926.5	955.4	992.3	1002.9
167.5°	935.0	939.3	956.6	981.9	987.7
170°	944.5	946.5	957.4	976.3	978.2
172.5°	951.7	952.8	959.8	972.3	972.6
175°	959.4	959.4	960.4	967.3	965.3
177.5°	963.3	962.6	961.8	966.4	963.3
180°	963.3	963.3	963.3	963.3	963.3

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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	12.60	13.40	13.63	14.44	15.84	21.33	22.13	22.37	23.18	24.58
	3H	13.32	14.04	14.37	15.09	16.51	22.95	23.67	23.99	24.72	26.14
	4H	13.62	14.30	14.67	15.35	16.78	23.13	23.81	24.18	24.86	26.29
	6H	13.83	14.46	14.90	15.52	16.96	23.21	23.84	24.28	24.89	26.34
	8H	13.89	14.48	14.96	15.56	16.99	23.21	23.81	24.28	24.88	26.32
	12H	13.92	14.48	14.99	15.55	17.01	23.18	23.75	24.26	24.82	26.28
4H	2H	16.99	17.67	18.05	18.72	20.15	21.77	22.45	22.83	23.50	24.93
	3H	17.92	18.48	18.98	19.56	21.01	23.59	24.15	24.66	25.24	26.68
	4H	18.20	18.71	19.27	19.79	21.25	23.82	24.34	24.90	25.41	26.88
	6H	18.32	18.77	19.41	19.86	21.32	23.96	24.41	25.05	25.51	26.96
	8H	18.34	18.76	19.43	19.85	21.32	23.99	24.40	25.07	25.49	26.97
	12H	18.33	18.71	19.43	19.81	21.29	23.96	24.33	25.06	25.44	26.92
8H	4H	19.36	19.78	20.45	20.87	22.34	23.94	24.35	25.02	25.44	26.91
	6H	19.60	19.94	20.71	21.07	22.54	24.14	24.48	25.25	25.61	27.08
	8H	19.67	19.97	20.78	21.08	22.57	24.20	24.50	25.31	25.61	27.10
	12H	19.69	19.96	20.81	21.06	22.59	24.19	24.45	25.31	25.56	27.09
12H	4H	19.38	19.75	20.48	20.86	22.34	23.88	24.26	24.99	25.36	26.84
	6H	19.69	19.99	20.81	21.10	22.60	24.12	24.42	25.23	25.53	27.02
	8H	19.79	20.06	20.91	21.16	22.69	24.18	24.45	25.30	25.56	27.08