

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: P853831

Luminaire Tested: SQ2-FB-025U-100D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853831  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-9, G2-2308-131-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-FB-025U-100D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

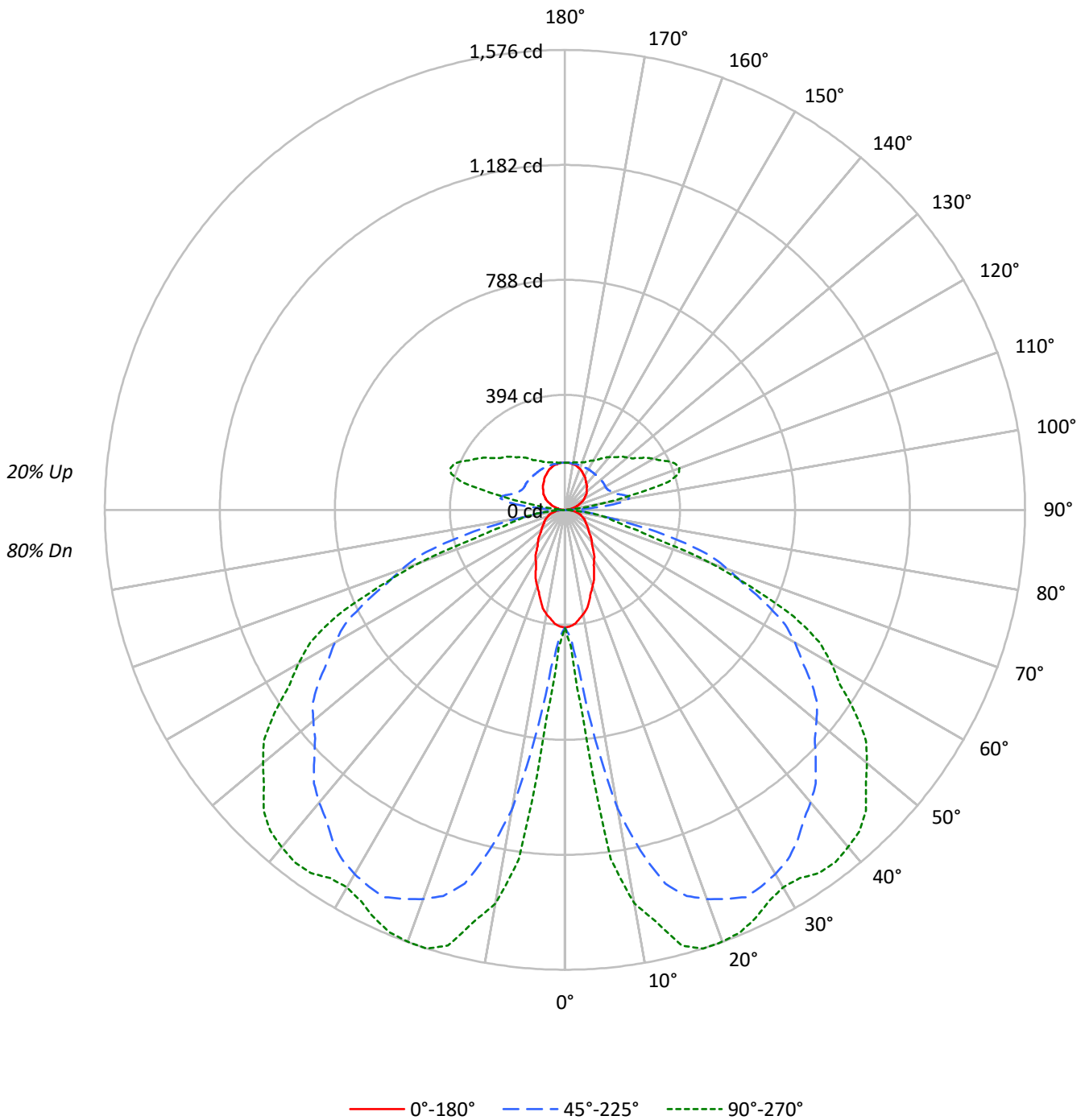
Lumens per Lamp: N/A  
Luminaire Lumens: 4989.9 lumens  
Efficiency: N/A  
Efficacy: 110.9 lumens/watt  
Spacing Criteria (0/90/45): 0.84 / 2.98 / 2.56  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 45  
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	114	114	114	114	109	109	109	109	100	100	100	91	91	91	84	84	84	80
1	104	100	95	92	99	95	92	88	87	85	82	80	78	76	74	72	70	67
2	94	86	80	74	90	83	77	72	76	71	67	70	66	62	64	61	58	55
3	86	75	67	61	82	72	65	59	66	60	55	61	56	52	56	52	49	46
4	78	66	57	51	74	63	56	49	58	52	47	54	48	44	49	45	41	38
5	71	59	50	43	68	56	48	42	52	45	40	48	42	37	44	39	35	33
6	66	52	43	37	62	50	42	36	46	39	34	43	37	32	40	34	31	28
7	60	47	38	32	58	45	37	31	42	35	30	39	33	28	36	31	27	24
8	56	43	34	28	53	41	33	28	38	31	26	35	29	25	33	27	24	21
9	52	39	31	25	50	37	30	24	35	28	23	32	26	22	30	25	21	19
10	49	35	28	22	46	34	27	22	32	25	21	30	24	20	28	23	19	17

**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	1.4
10°-20°	308.5	6.2
20°-30°	542.8	10.9
30°-40°	702.6	14.1
40°-50°	774.9	15.5
50°-60°	723.5	14.5
60°-70°	559.2	11.2
70°-80°	257.9	5.2
80°-90°	49.7	1.0
90°-100°	65.4	1.3
100°-110°	203.4	4.1
110°-120°	199.0	4.0
120°-130°	162.5	3.3
130°-140°	132.9	2.7
140°-150°	103.7	2.1
150°-160°	74.9	1.5
160°-170°	45.8	0.9
170°-180°	15.4	0.3
0°-30°	918.9	18.4
0°-40°	1621.6	32.5
0°-60°	3120.1	62.5
0°-90°	3986.9	79.9
90°-120°	467.8	9.4
90°-150°	867.0	17.4
90°-180°	1003.0	20.1
0°-180°	4989.9	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°	0	1	3	3	3	1
95°	9	26	120	44	29	10
105°	36	50	200	382	365	38
115°	64	75	163	335	393	63
125°	88	98	161	264	309	78
135°	106	118	160	228	256	82
145°	124	134	160	197	214	78
155°	142	147	161	177	182	65
165°	156	157	162	167	168	44
175°	162	162	162	163	162	15
180°	162	162	162	162	162	



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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°	6.2	14.0	8.4	8.4	8.4
90°	0.0	1.0	3.0	3.0	3.0
92.5°	3.2	11.1	37.9	12.4	10.1
95°	8.9	26.4	120.0	44.3	28.8
97.5°	16.3	34.3	198.7	123.7	77.9
100°	21.8	38.3	224.1	209.6	139.8
102.5°	27.4	43.1	219.3	299.3	235.0
105°	35.7	50.2	200.3	382.3	364.9
107.5°	44.0	57.6	182.0	388.7	407.9
110°	49.6	63.1	172.5	379.6	417.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	55.1	67.9	167.8	363.2	411.1
115°	63.5	75.1	162.6	335.4	392.6
117.5°	71.6	82.2	160.4	308.9	367.4
120°	76.3	87.0	159.6	293.8	350.0
122.5°	81.1	91.8	160.4	281.0	332.5
125°	88.2	97.9	160.6	263.8	309.3
127.5°	94.0	103.9	160.6	250.9	289.7
130°	97.2	107.8	160.6	243.7	278.6
132.5°	101.1	111.8	159.8	237.3	269.9
135°	106.1	117.7	159.6	227.7	255.8
137.5°	111.8	122.5	159.6	218.1	243.7
140°	115.0	125.7	159.6	211.7	235.0
142.5°	119.0	128.9	159.6	205.3	226.2
145°	123.9	133.6	159.6	196.7	214.2
147.5°	129.9	138.2	160.6	188.7	202.5
150°	133.8	140.6	160.6	184.7	195.3
152.5°	137.0	143.0	160.6	180.7	189.8
155°	141.8	146.6	160.6	176.6	182.4
157.5°	146.5	150.2	160.6	173.0	176.7
160°	149.7	152.6	160.6	170.6	173.5
162.5°	152.1	154.2	160.6	169.0	171.1
165°	155.7	156.6	161.6	166.6	168.5
167.5°	157.8	158.0	160.6	165.2	166.2
170°	158.6	159.6	160.6	163.6	164.6
172.5°	160.2	160.4	161.4	162.8	163.0
175°	161.6	161.6	161.6	162.6	161.6
177.5°	161.6	161.6	161.6	161.6	161.6
180°	161.6	161.6	161.6	161.6	161.6

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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	15.95	17.21	16.59	17.87	18.64	24.68	25.95	25.33	26.61	27.38
	3H	16.71	17.85	17.37	18.52	19.32	26.34	27.48	26.99	28.15	28.95
	4H	17.03	18.10	17.70	18.79	19.60	26.54	27.61	27.21	28.30	29.11
	6H	17.26	18.26	17.96	18.95	19.78	26.64	27.64	27.33	28.33	29.16
	8H	17.33	18.28	18.04	19.00	19.83	26.66	27.61	27.36	28.32	29.15
	12H	17.38	18.28	18.09	18.99	19.85	26.64	27.55	27.35	28.26	29.12
4H	2H	20.39	21.47	21.07	22.15	22.97	25.17	26.25	25.86	26.94	27.75
	3H	21.37	22.26	22.06	22.99	23.82	27.04	27.94	27.73	28.66	29.49
	4H	21.67	22.48	22.38	23.21	24.07	27.29	28.11	28.01	28.83	29.70
	6H	21.82	22.53	22.55	23.28	24.15	27.47	28.17	28.20	28.92	29.79
	8H	21.85	22.51	22.59	23.26	24.15	27.50	28.16	28.24	28.91	29.79
	12H	21.87	22.46	22.62	23.23	24.12	27.49	28.09	28.25	28.86	29.75
8H	4H	22.88	23.54	23.61	24.28	25.17	27.45	28.11	28.18	28.85	29.74
	6H	23.13	23.68	23.90	24.47	25.36	27.67	28.22	28.44	29.01	29.89
	8H	23.21	23.69	23.99	24.49	25.39	27.74	28.22	28.52	29.01	29.92
	12H	23.26	23.68	24.04	24.46	25.42	27.75	28.18	28.53	28.96	29.92
12H	4H	22.91	23.51	23.67	24.28	25.17	27.42	28.01	28.18	28.78	29.67
	6H	23.23	23.72	24.01	24.51	25.41	27.66	28.15	28.44	28.94	29.84
	8H	23.36	23.78	24.14	24.56	25.53	27.75	28.17	28.53	28.95	29.92