

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: P853687

Luminaire Tested: SQ2-F-075U-100D-830-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853687  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-F-075U-100D-830-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 750 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

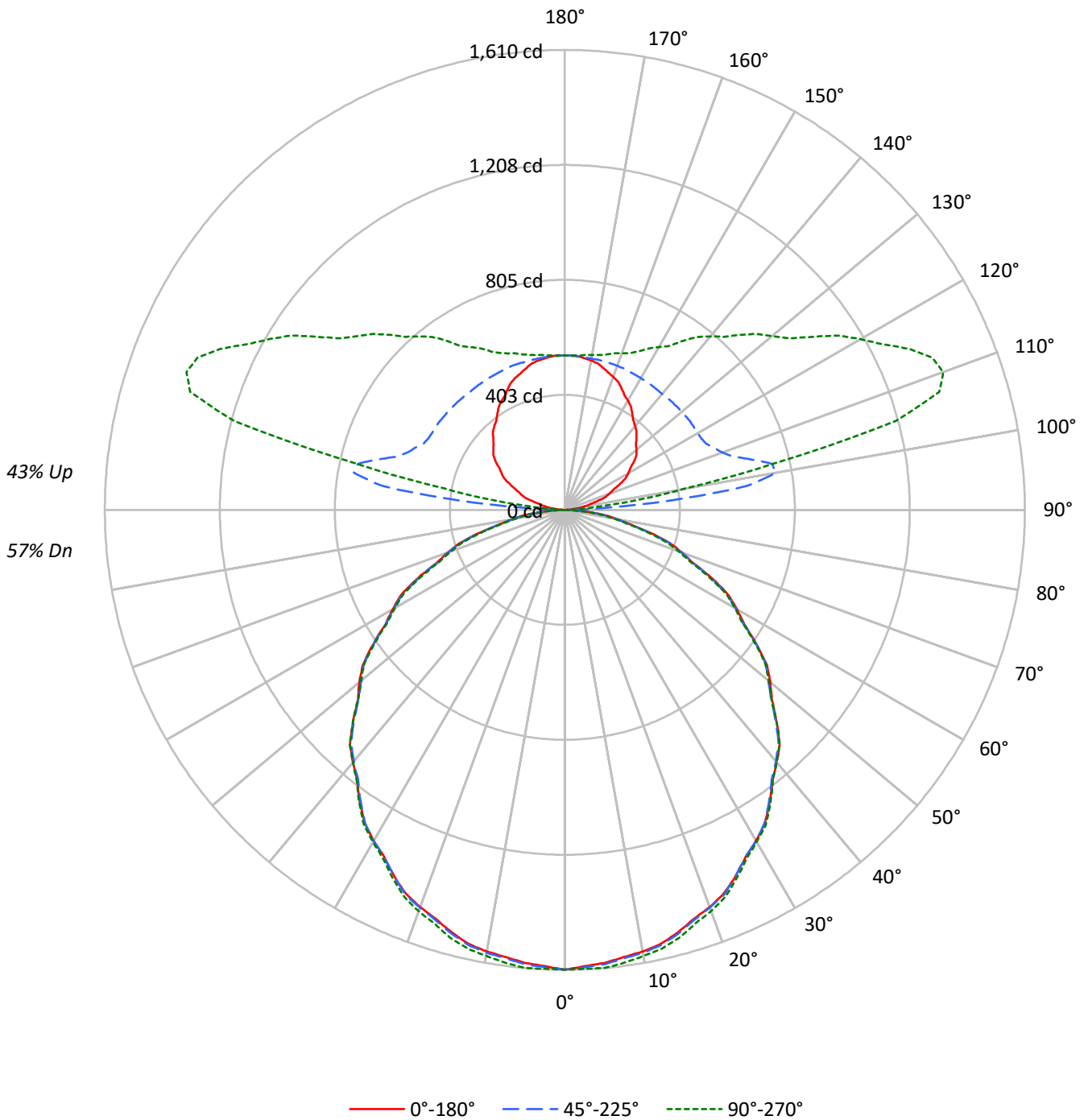
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7869.2 lumens  
Efficiency: N/A  
Efficacy: 129.2 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): 60.9  
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	0	
RCR																						
0	109	109	109	109	101	101	101	101	87	87	87	75	75	75	63	63	63	57				57
1	99	95	91	87	92	88	85	82	76	74	72	66	64	62	55	54	53	48				48
2	90	83	76	71	84	77	72	67	67	63	59	57	54	51	49	46	44	40				40
3	82	72	65	59	76	68	61	56	59	54	49	51	47	43	43	40	37	34				34
4	75	64	56	50	70	60	53	47	52	46	42	45	41	37	38	35	32	29				29
5	69	57	49	43	64	53	46	40	47	41	36	40	36	32	34	31	28	25				25
6	63	51	43	37	59	48	40	35	42	36	31	36	32	28	31	27	24	22				22
7	59	46	38	32	54	43	36	31	38	32	28	33	28	25	28	25	22	19				19
8	54	42	34	29	51	39	32	27	35	29	25	30	25	22	26	22	19	17				17
9	51	38	31	25	47	36	29	24	32	26	22	28	23	20	24	20	17	15				15
10	47	35	28	23	44	33	26	22	29	24	20	26	21	18	22	19	16	14				14

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

	0°	45°	90°
0°	25988	25988	25988
5°	25804	25875	26088
10°	25742	25814	25994
15°	25586	25660	25917
20°	25433	25471	25697
25°	25197	25197	25356
30°	24940	24940	25022
35°	24636	24551	24723
40°	24312	24219	24312
45°	23934	23834	23934
50°	23574	23355	23410
55°	23026	22964	22838
60°	22446	22307	22165
65°	21784	21532	21280
70°	20497	20394	19978
75°	19289	18883	18334
80°	17127	16718	16104
85°	13801	12597	11764

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 24083 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	152.2	1.9
10°-20°	434.7	5.5
20°-30°	654.1	8.3
30°-40°	782.6	9.9
40°-50°	807.5	10.3
50°-60°	728.5	9.3
60°-70°	555.9	7.1
70°-80°	319.6	4.1
80°-90°	83.9	1.1
90°-100°	204.6	2.6
100°-110°	678.4	8.6
110°-120°	673.3	8.6
120°-130°	548.4	7.0
130°-140°	445.7	5.7
140°-150°	346.1	4.4
150°-160°	249.4	3.2
160°-170°	152.7	1.9
170°-180°	51.6	0.7
0°-30°	1241.0	15.8
0°-40°	2023.6	25.7
0°-60°	3559.6	45.2
0°-90°	4519.0	57.4
90°-120°	1556.3	19.8
90°-150°	2896.5	36.8
90°-180°	3350.0	42.6
0°-180°	7869.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1610	1610	1610	1610	1610	
5°	1592	1614	1596	1599	1610	151
15°	1531	1550	1535	1542	1550	432
25°	1414	1430	1414	1417	1423	651
35°	1250	1258	1246	1250	1254	782
45°	1048	1055	1044	1046	1048	809
55°	818	822	816	811	811	731
65°	570	568	564	559	557	560
75°	309	307	303	296	294	326
85°	74	70	68	62	64	86
90°	0	1	3	4	4	4
95°	29	86	371	132	88	33
105°	119	169	679	1281	1198	125
115°	212	253	547	1138	1331	209
125°	296	329	537	894	1054	263
135°	354	390	532	767	866	274
145°	411	442	531	660	723	258
155°	469	486	534	590	612	216
165°	515	521	537	558	564	145
175°	539	539	540	543	542	51
180°	541	541	541	541	541	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1609.6	1609.6	1609.6	1609.6	1609.6
2.5°	1599.1	1618.0	1602.6	1606.2	1607.9
5°	1592.1	1613.5	1596.5	1598.8	1609.6
7.5°	1578.9	1602.1	1583.4	1587.5	1599.5
10°	1570.1	1591.6	1574.5	1576.9	1585.5
12.5°	1556.1	1577.6	1560.5	1564.6	1573.2
15°	1530.7	1550.0	1535.1	1541.9	1550.5
17.5°	1501.3	1521.8	1505.2	1511.1	1518.3
20°	1480.2	1497.4	1482.4	1484.9	1495.6
22.5°	1453.9	1471.1	1457.9	1458.5	1467.5
25°	1414.4	1429.5	1414.4	1416.8	1423.3
27.5°	1369.3	1382.1	1369.3	1371.6	1377.1
30°	1337.7	1350.6	1337.7	1339.9	1342.1
32.5°	1302.6	1313.8	1300.8	1303.2	1308.7
35°	1249.9	1258.5	1245.6	1250.0	1254.3
37.5°	1193.8	1200.3	1189.4	1191.7	1195.5
40°	1153.5	1159.9	1149.1	1151.3	1153.5
42.5°	1113.1	1117.9	1107.0	1109.3	1113.1
45°	1048.2	1054.7	1043.8	1046.1	1048.2
47.5°	982.4	986.3	977.2	975.5	979.4
50°	938.5	940.7	929.8	929.8	932.0
52.5°	891.2	893.3	886.0	882.5	884.6
55°	818.0	822.2	815.8	811.3	811.3
57.5°	744.3	748.1	739.9	737.7	737.3
60°	695.1	697.3	690.8	688.6	686.4
62.5°	646.0	646.5	639.9	637.7	635.5
65°	570.2	568.0	563.6	559.1	557.0
67.5°	485.0	487.2	482.9	475.9	475.9
70°	434.2	436.3	432.0	423.2	423.2
72.5°	385.1	383.7	381.1	374.0	370.6
75°	309.2	307.1	302.7	296.0	293.9
77.5°	233.4	231.2	229.0	220.7	222.4
80°	184.2	182.0	179.8	173.2	173.2
82.5°	140.3	136.5	134.2	127.6	127.6
85°	74.5	70.3	68.0	61.5	63.5
87.5°	21.0	19.6	18.2	14.9	14.9
90°	0.0	1.1	3.4	4.5	4.5
92.5°	8.9	34.6	102.0	33.0	27.8
95°	29.2	86.0	370.9	132.3	88.5
97.5°	53.6	113.2	647.3	377.5	238.6
100°	70.6	127.5	749.5	643.7	426.8
102.5°	89.4	144.6	743.2	983.8	743.2
105°	118.7	169.1	678.8	1280.8	1197.6
107.5°	148.8	193.7	617.3	1311.1	1374.4
110°	165.8	210.8	585.9	1281.1	1409.3



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	183.7	227.7	567.1	1228.2	1391.4
115°	211.8	253.4	546.7	1138.1	1330.9
117.5°	239.5	276.6	539.3	1052.1	1254.2
120°	256.5	292.7	536.6	998.1	1194.2
122.5°	271.8	307.1	536.6	953.9	1135.1
125°	295.8	328.6	536.6	894.2	1054.2
127.5°	315.4	347.7	535.2	849.1	985.8
130°	327.1	361.1	534.3	822.9	945.6
132.5°	337.8	372.7	533.4	801.1	911.4
135°	354.0	390.2	532.1	767.4	866.0
137.5°	371.5	406.4	530.8	734.9	821.9
140°	383.2	417.1	529.9	713.2	793.1
142.5°	393.9	426.9	530.8	691.5	762.7
145°	411.1	441.9	531.1	660.2	722.6
147.5°	429.8	455.4	531.3	633.6	680.0
150°	441.4	464.4	532.1	618.1	657.6
152.5°	452.1	474.3	533.0	605.5	637.0
155°	469.4	485.8	534.3	589.7	611.7
157.5°	486.2	499.0	535.7	578.7	594.2
160°	495.1	506.1	536.6	570.5	582.5
162.5°	504.2	512.4	536.6	565.1	574.5
165°	515.3	520.8	536.6	558.0	563.5
167.5°	525.6	528.5	537.7	551.6	554.6
170°	531.1	532.1	537.7	548.9	550.1
172.5°	534.6	535.7	538.6	546.2	546.4
175°	538.9	538.9	540.0	543.3	542.3
177.5°	541.1	541.1	540.2	541.9	540.2
180°	541.1	541.1	541.1	541.1	541.1



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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	19.94	20.89	20.83	21.80	22.96	19.86	20.81	20.75	21.72	22.88
	3H	21.73	22.58	22.63	23.50	24.68	21.61	22.46	22.51	23.38	24.56
	4H	22.39	23.19	23.31	24.12	25.31	22.24	23.04	23.15	23.97	25.16
	6H	22.86	23.61	23.79	24.54	25.74	22.68	23.42	23.61	24.35	25.56
	8H	23.01	23.71	23.94	24.66	25.87	22.80	23.51	23.74	24.46	25.66
	12H	23.08	23.75	24.02	24.70	25.93	22.86	23.53	23.80	24.47	25.71
4H	2H	20.50	21.31	21.42	22.23	23.43	20.44	21.24	21.36	22.17	23.36
	3H	22.50	23.17	23.43	24.13	25.33	22.39	23.06	23.32	24.02	25.23
	4H	23.29	23.90	24.23	24.86	26.09	23.15	23.76	24.09	24.71	25.95
	6H	23.89	24.42	24.84	25.39	26.62	23.71	24.24	24.66	25.21	26.44
	8H	24.08	24.57	25.03	25.54	26.79	23.87	24.37	24.83	25.34	26.59
	12H	24.18	24.63	25.16	25.61	26.87	23.95	24.40	24.93	25.39	26.64
8H	4H	23.55	24.04	24.50	25.01	26.26	23.42	23.91	24.38	24.88	26.13
	6H	24.27	24.68	25.25	25.69	26.93	24.10	24.51	25.08	25.52	26.77
	8H	24.54	24.90	25.53	25.90	27.16	24.34	24.70	25.33	25.70	26.97
	12H	24.71	25.03	25.70	26.02	27.33	24.48	24.80	25.48	25.79	27.10
12H	4H	23.54	23.99	24.52	24.98	26.23	23.42	23.87	24.40	24.85	26.11
	6H	24.31	24.67	25.30	25.67	26.94	24.15	24.51	25.14	25.51	26.78
	8H	24.61	24.93	25.60	25.92	27.23	24.42	24.74	25.42	25.73	27.04