

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: P854901

Luminaire Tested: SQ2-PR1-075U-100D-830-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854901  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PR1-075U-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: -

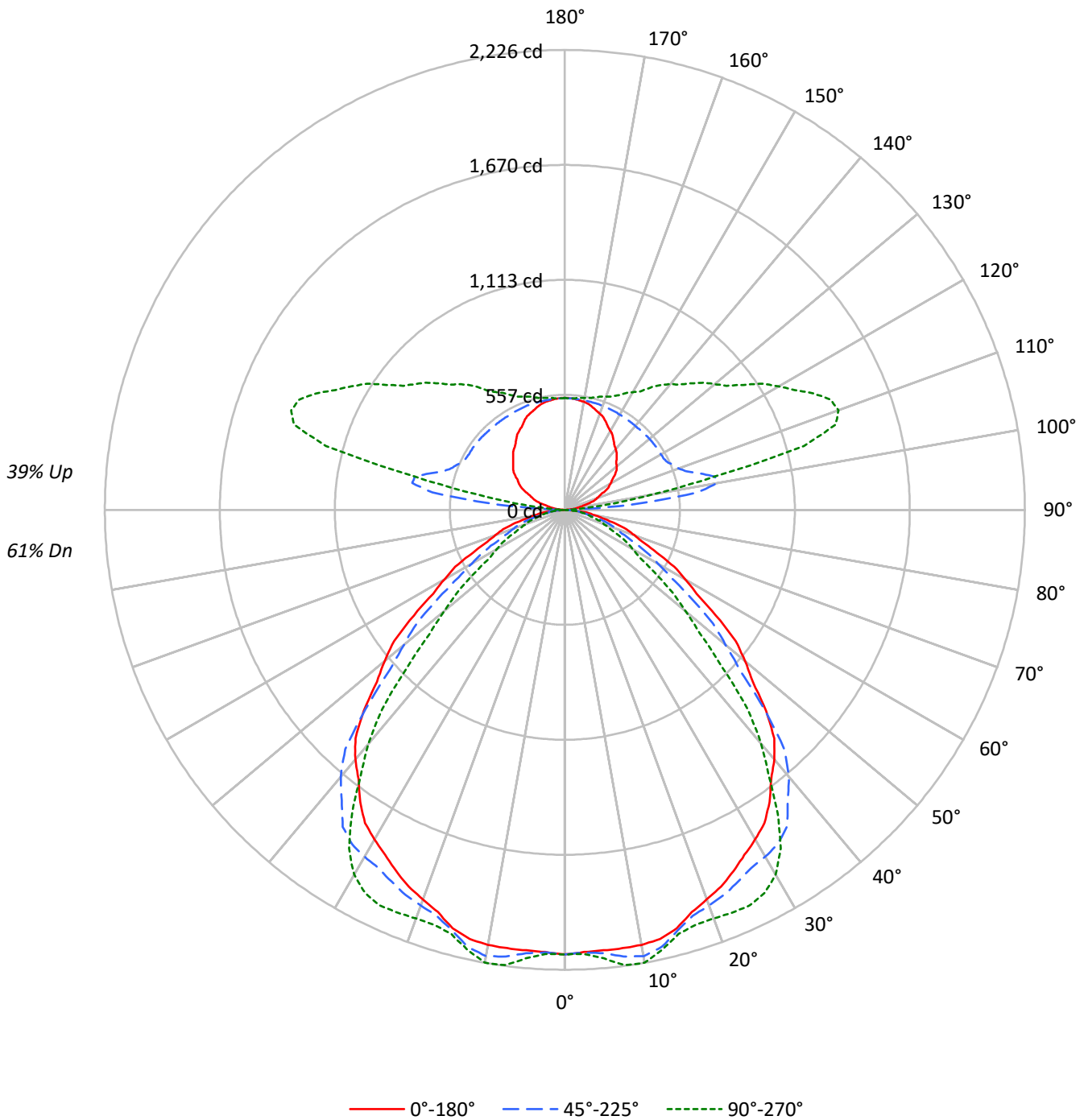
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8525.9 lumens  
Efficiency: N/A  
Efficacy: 140.0 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.34 / 1.36  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: Semi-Direct  
  
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	0
RCR																		
0	110	110	110	110	103	103	103	103	89	89	89	77	77	77	66	66	66	61
1	101	97	93	90	94	91	88	85	80	77	75	69	67	66	60	58	57	53
2	93	85	80	75	86	80	75	71	71	67	63	62	59	56	53	51	49	45
3	85	76	69	63	79	71	65	60	63	58	54	55	51	48	48	45	43	39
4	78	68	60	54	73	64	57	52	56	51	47	50	45	42	43	40	37	34
5	72	61	53	47	67	57	50	45	51	45	41	45	40	37	39	36	33	30
6	66	55	47	41	62	52	44	39	46	40	36	41	36	33	36	32	29	27
7	62	49	42	36	58	47	40	35	42	36	32	37	32	29	33	29	26	24
8	57	45	37	32	54	43	36	31	38	33	28	34	29	26	30	26	24	21
9	53	41	34	29	50	39	32	28	35	30	26	31	27	23	28	24	21	19
10	50	38	31	26	47	36	29	25	32	27	23	29	25	21	26	22	20	18

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

	0°	45°	90°
0°	34735	34735	34735
5°	34689	34903	35329
10°	35056	35954	36493
15°	35042	35226	35519
20°	34477	35005	36173
25°	34379	35356	37661
30°	34342	36143	38024
35°	34016	36914	35400
40°	33232	35544	31154
45°	31444	31195	24638
50°	28587	25503	19113
55°	25123	20991	14877
60°	21739	16785	12248
65°	18770	13910	10724
70°	16872	12321	9522
75°	15458	10674	8752
80°	13454	8563	8563
85°	9744	7725	4057

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 33992 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	207.8	2.4
10°-20°	601.4	7.1
20°-30°	929.6	10.9
30°-40°	1118.1	13.1
40°-50°	1004.0	11.8
50°-60°	672.6	7.9
60°-70°	391.2	4.6
70°-80°	200.9	2.4
80°-90°	50.1	0.6
90°-100°	204.6	2.4
100°-110°	678.4	8.0
110°-120°	673.3	7.9
120°-130°	548.4	6.4
130°-140°	445.7	5.2
140°-150°	346.1	4.1
150°-160°	249.4	2.9
160°-170°	152.7	1.8
170°-180°	51.6	0.6
0°-30°	1738.8	20.4
0°-40°	2856.9	33.5
0°-60°	4533.5	53.2
0°-90°	5175.7	60.7
90°-120°	1556.3	18.3
90°-150°	2896.5	34.0
90°-180°	3350.0	39.3
0°-180°	8525.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2151	2151	2151	2151	2151	
5°	2140	2177	2154	2158	2180	204
15°	2096	2182	2107	2114	2125	589
25°	1930	2007	1985	2058	2114	890
35°	1726	1741	1873	1837	1796	1076
45°	1377	1489	1366	1152	1079	1053
55°	892	927	746	576	528	802
65°	491	502	364	296	281	497
75°	248	241	171	145	140	263
85°	53	42	42	28	22	65
90°	0	1	3	4	4	3
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°	2151.3	2151.3	2151.3	2151.3	2151.3
2.5°	2142.6	2168.2	2144.3	2146.2	2151.3
5°	2140.3	2176.8	2153.5	2158.4	2179.8
7.5°	2139.9	2191.8	2180.7	2194.0	2222.4
10°	2138.2	2200.3	2193.0	2195.8	2225.9
12.5°	2127.6	2200.1	2166.7	2163.9	2180.2
15°	2096.4	2182.3	2107.4	2114.3	2124.9
17.5°	2041.6	2131.3	2060.0	2084.2	2105.3
20°	2006.6	2094.5	2037.3	2068.7	2105.3
22.5°	1975.0	2062.9	2016.2	2060.4	2110.5
25°	1929.8	2007.0	1984.6	2058.2	2114.0
27.5°	1882.4	1927.9	1954.3	2053.0	2092.0
30°	1842.0	1872.1	1938.6	2024.4	2039.5
32.5°	1798.2	1816.3	1917.6	1962.2	1943.0
35°	1725.8	1740.9	1872.8	1836.7	1796.0
37.5°	1639.9	1670.8	1772.4	1668.6	1621.9
40°	1576.7	1628.2	1686.4	1531.7	1478.1
42.5°	1499.6	1581.9	1572.4	1375.2	1309.6
45°	1377.1	1488.7	1366.2	1151.8	1079.0
47.5°	1232.9	1347.4	1146.9	955.5	887.2
50°	1138.1	1230.4	1015.3	836.0	760.9
52.5°	1041.7	1108.1	903.0	723.8	655.7
55°	892.5	926.8	745.7	575.7	528.5
57.5°	755.7	777.5	609.2	465.0	430.2
60°	673.2	688.2	519.8	407.3	379.3
62.5°	597.8	609.4	447.8	358.3	337.3
65°	491.3	501.9	364.1	295.7	280.7
67.5°	406.6	412.1	299.5	245.7	231.6
70°	357.4	359.5	261.0	212.4	201.7
72.5°	313.6	310.6	224.1	184.5	177.2
75°	247.8	241.4	171.1	144.6	140.3
77.5°	185.1	178.2	120.2	111.4	111.4
80°	144.7	136.1	92.1	92.1	92.1
82.5°	107.9	95.9	71.0	71.0	69.3
85°	52.6	41.9	41.7	28.4	21.9
87.5°	14.0	14.2	5.9	6.1	6.1
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	20.05	20.97	20.92	21.85	22.97	16.78	17.69	17.65	18.58	19.69
	3H	21.29	22.11	22.17	23.00	24.14	17.85	18.66	18.73	19.56	20.70
	4H	21.75	22.52	22.64	23.41	24.56	18.25	19.02	19.15	19.92	21.07
	6H	22.07	22.77	22.97	23.68	24.84	18.59	19.29	19.49	20.20	21.36
	8H	22.15	22.82	23.07	23.74	24.91	18.67	19.34	19.59	20.27	21.43
	12H	22.18	22.82	23.10	23.74	24.92	18.68	19.32	19.60	20.24	21.42
4H	2H	20.14	20.91	21.04	21.81	22.96	17.35	18.12	18.26	19.02	20.17
	3H	21.62	22.25	22.53	23.18	24.35	18.63	19.26	19.54	20.19	21.36
	4H	22.21	22.79	23.14	23.72	24.91	19.13	19.71	20.06	20.64	21.83
	6H	22.67	23.17	23.61	24.12	25.31	19.57	20.07	20.51	21.02	22.21
	8H	22.80	23.27	23.74	24.21	25.41	19.70	20.16	20.64	21.11	22.31
	12H	22.86	23.28	23.82	24.24	25.45	19.72	20.14	20.68	21.10	22.31
8H	4H	22.24	22.71	23.18	23.65	24.86	19.44	19.91	20.38	20.85	22.06
	6H	22.79	23.18	23.76	24.16	25.37	19.98	20.36	20.95	21.35	22.55
	8H	22.99	23.33	23.97	24.31	25.53	20.17	20.51	21.14	21.48	22.70
	12H	23.10	23.40	24.07	24.37	25.64	20.23	20.53	21.21	21.50	22.77
12H	4H	22.20	22.62	23.16	23.58	24.79	19.46	19.88	20.42	20.84	22.05
	6H	22.78	23.12	23.75	24.10	25.32	20.04	20.38	21.02	21.36	22.58
	8H	22.99	23.29	23.97	24.26	25.53	20.25	20.55	21.23	21.52	22.79