

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: P854193

Luminaire Tested: SQ2-PR1-075U-125D-930-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854193  
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-125D-930-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 750 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

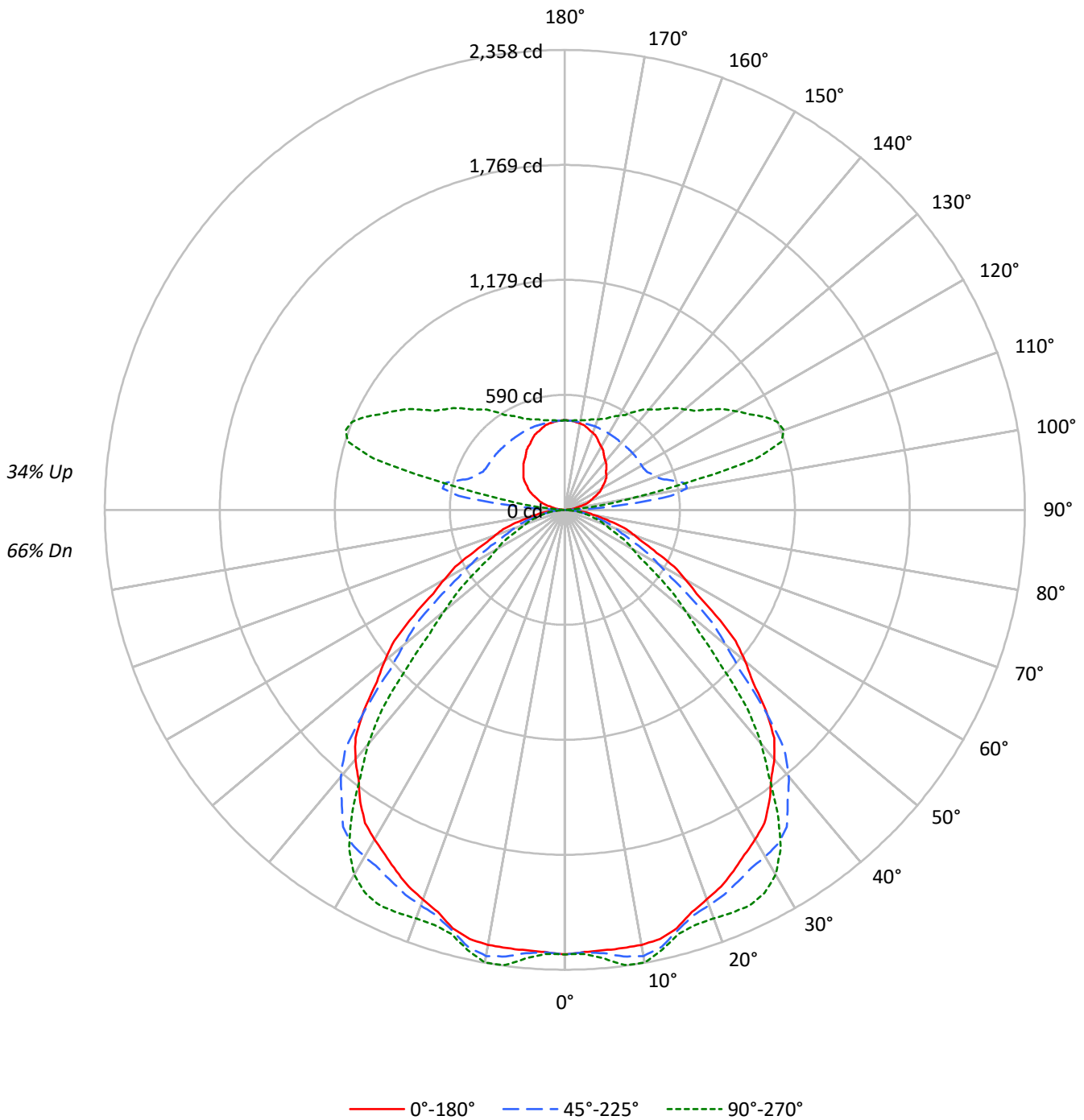
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8322.1 lumens  
Efficiency: N/A  
Efficacy: 114.8 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): 72.5  
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	111	111	111	111	104	104	104	104	92	92	92	81	81	81	71	71	71	66
1	102	98	94	91	96	93	89	86	82	80	78	73	71	69	64	63	61	57
2	94	87	81	76	88	82	77	72	73	69	66	65	62	59	57	55	53	49
3	86	77	70	64	81	73	66	61	65	60	56	58	54	51	51	48	46	43
4	79	69	61	55	74	65	58	53	58	53	48	52	48	44	46	43	40	37
5	73	61	54	48	69	58	51	46	53	47	42	47	42	39	42	38	35	33
6	67	55	47	42	63	53	45	40	48	42	37	43	38	34	38	34	31	29
7	62	50	42	37	59	48	41	36	43	37	33	39	34	31	35	31	28	26
8	58	46	38	33	55	44	37	32	40	34	30	36	31	27	32	28	25	23
9	54	42	35	30	51	40	33	29	37	31	27	33	28	25	30	26	23	21
10	51	39	31	27	48	37	30	26	34	28	24	31	26	23	28	24	21	19

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

	0°	45°	90°
0°	36792	36792	36792
5°	36742	36969	37422
10°	37130	38082	38653
15°	37118	37312	37623
20°	36519	37077	38314
25°	36416	37449	39891
30°	36376	38283	40274
35°	36031	39100	37497
40°	35201	37648	32998
45°	33307	33043	26094
50°	30280	27015	20245
55°	26612	22232	15758
60°	23027	17777	12975
65°	19878	14732	11358
70°	17873	13048	10088
75°	16375	11304	9276
80°	14254	9075	9075
85°	10319	8170	4298

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 36004 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	220.1	2.6
10°-20°	637.0	7.7
20°-30°	984.7	11.8
30°-40°	1184.3	14.2
40°-50°	1063.4	12.8
50°-60°	712.4	8.6
60°-70°	414.4	5.0
70°-80°	212.8	2.6
80°-90°	53.0	0.6
90°-100°	173.5	2.1
100°-110°	575.1	6.9
110°-120°	570.7	6.9
120°-130°	464.9	5.6
130°-140°	377.8	4.5
140°-150°	293.4	3.5
150°-160°	211.4	2.5
160°-170°	129.5	1.6
170°-180°	43.7	0.5
0°-30°	1841.7	22.1
0°-40°	3026.0	36.4
0°-60°	4801.9	57.7
0°-90°	5482.1	65.9
90°-120°	1319.3	15.9
90°-150°	2455.4	29.5
90°-180°	2840.0	34.1
0°-180°	8322.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2279	2279	2279	2279	2279	
5°	2267	2306	2281	2286	2309	216
15°	2221	2311	2232	2239	2251	624
25°	2044	2126	2102	2180	2239	943
35°	1828	1844	1984	1946	1902	1140
45°	1459	1577	1447	1220	1143	1116
55°	945	982	790	610	560	850
65°	520	532	386	313	297	526
75°	262	256	181	153	149	279
85°	56	44	44	30	23	69
90°	0	1	3	4	4	3
95°	25	73	314	112	75	28
105°	101	143	576	1086	1015	106
115°	180	215	463	965	1128	177
125°	251	279	455	758	894	223
135°	300	331	451	650	734	232
145°	348	374	450	560	612	219
155°	398	412	453	500	518	183
165°	437	442	455	473	478	123
175°	457	457	458	461	460	43
180°	459	459	459	459	459	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2278.7	2278.7	2278.7	2278.7	2278.7
2.5°	2269.4	2296.6	2271.2	2273.2	2278.7
5°	2267.0	2305.7	2281.0	2286.1	2308.9
7.5°	2266.6	2321.5	2309.8	2323.9	2353.9
10°	2264.7	2330.6	2322.8	2325.8	2357.6
12.5°	2253.6	2330.3	2294.9	2292.1	2309.3
15°	2220.6	2311.4	2232.2	2239.4	2250.8
17.5°	2162.5	2257.5	2182.0	2207.6	2229.9
20°	2125.4	2218.5	2157.9	2191.3	2229.9
22.5°	2091.9	2185.0	2135.6	2182.3	2235.5
25°	2044.1	2125.8	2102.1	2180.1	2239.2
27.5°	1993.9	2042.0	2070.1	2174.6	2215.9
30°	1951.1	1982.9	2053.4	2144.3	2160.2
32.5°	1904.7	1923.8	2031.1	2078.4	2058.0
35°	1828.0	1843.9	1983.7	1945.5	1902.4
37.5°	1737.0	1769.7	1877.3	1767.5	1717.9
40°	1670.1	1724.6	1786.2	1622.3	1565.6
42.5°	1588.3	1675.5	1665.4	1456.7	1387.2
45°	1458.7	1576.8	1447.1	1220.0	1142.8
47.5°	1305.9	1427.2	1214.8	1012.0	939.8
50°	1205.5	1303.2	1075.5	885.5	806.0
52.5°	1103.3	1173.7	956.5	766.7	694.5
55°	945.4	981.7	789.8	609.8	559.8
57.5°	800.4	823.6	645.3	492.5	455.7
60°	713.1	729.0	550.5	431.4	401.8
62.5°	633.2	645.5	474.3	379.5	357.2
65°	520.3	531.7	385.6	313.2	297.3
67.5°	430.6	436.6	317.3	260.3	245.3
70°	378.6	380.9	276.4	225.1	213.7
72.5°	332.2	329.0	237.4	195.4	187.7
75°	262.5	255.7	181.2	153.2	148.7
77.5°	196.0	188.8	127.3	118.0	118.0
80°	153.3	144.2	97.6	97.6	97.6
82.5°	114.3	101.6	75.3	75.2	73.4
85°	55.7	44.4	44.1	30.0	23.2
87.5°	14.9	15.1	6.1	6.3	6.3
90°	0.0	0.9	2.8	3.8	3.8
92.5°	7.6	29.3	86.4	28.0	23.6
95°	24.7	73.0	314.3	112.2	75.0
97.5°	45.4	95.9	548.7	320.0	202.3
100°	59.8	108.1	635.3	545.7	361.8
102.5°	75.8	122.6	630.0	833.9	630.0
105°	100.7	143.4	575.5	1085.8	1015.2
107.5°	126.1	164.2	523.3	1111.4	1165.1
110°	140.6	178.6	496.7	1086.1	1194.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	155.7	193.1	480.7	1041.1	1179.5
115°	179.5	214.8	463.4	964.8	1128.2
117.5°	203.0	234.4	457.2	891.8	1063.3
120°	217.5	248.1	454.9	846.1	1012.4
122.5°	230.4	260.3	454.9	808.6	962.2
125°	250.7	278.6	454.9	758.1	893.6
127.5°	267.4	294.7	453.8	719.8	835.7
130°	277.3	306.1	453.0	697.5	801.5
132.5°	286.4	316.0	452.2	679.1	772.7
135°	300.1	330.7	451.1	650.5	734.1
137.5°	314.9	344.4	450.0	623.0	696.7
140°	324.8	353.6	449.2	604.6	672.4
142.5°	333.9	362.0	450.0	586.2	646.5
145°	348.5	374.5	450.1	559.6	612.5
147.5°	364.3	386.0	450.3	537.1	576.5
150°	374.2	393.7	451.1	524.0	557.5
152.5°	383.3	402.0	451.9	513.2	540.0
155°	397.9	411.8	453.0	500.0	518.5
157.5°	412.2	422.9	454.1	490.5	503.7
160°	419.8	429.0	454.9	483.6	493.8
162.5°	427.4	434.4	454.9	479.0	487.0
165°	436.9	441.5	454.9	473.0	477.7
167.5°	445.6	448.0	455.8	467.7	470.1
170°	450.1	451.1	455.8	465.4	466.3
172.5°	453.2	454.1	456.6	463.1	463.3
175°	456.8	456.8	457.7	460.6	459.6
177.5°	458.7	458.7	457.9	459.4	457.9
180°	458.7	458.7	458.7	458.7	458.7

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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	20.68	21.64	21.50	22.48	23.51	17.40	18.37	18.22	19.20	20.23
	3H	21.92	22.78	22.75	23.62	24.68	18.48	19.34	19.31	20.18	21.24
	4H	22.38	23.19	23.22	24.04	25.11	18.88	19.69	19.73	20.54	21.61
	6H	22.70	23.45	23.56	24.30	25.38	19.22	19.97	20.08	20.82	21.90
	8H	22.78	23.49	23.65	24.37	25.45	19.31	20.02	20.18	20.89	21.97
	12H	22.82	23.49	23.69	24.36	25.47	19.32	20.00	20.19	20.86	21.97
4H	2H	20.77	21.58	21.62	22.43	23.50	17.98	18.80	18.84	19.65	20.72
	3H	22.25	22.92	23.11	23.81	24.89	19.26	19.93	20.12	20.82	21.90
	4H	22.85	23.46	23.73	24.34	25.45	19.77	20.38	20.65	21.26	22.37
	6H	23.31	23.83	24.20	24.74	25.85	20.21	20.74	21.10	21.64	22.76
	8H	23.44	23.93	24.34	24.83	25.96	20.34	20.83	21.23	21.73	22.85
	12H	23.50	23.94	24.41	24.86	25.99	20.36	20.80	21.28	21.72	22.85
8H	4H	22.88	23.37	23.78	24.27	25.40	20.08	20.58	20.98	21.47	22.60
	6H	23.44	23.84	24.36	24.78	25.91	20.62	21.03	21.54	21.97	23.10
	8H	23.63	23.99	24.56	24.93	26.07	20.81	21.17	21.74	22.10	23.24
	12H	23.74	24.06	24.67	24.98	26.18	20.88	21.19	21.81	22.12	23.31
12H	4H	22.85	23.29	23.76	24.21	25.34	20.11	20.55	21.02	21.46	22.60
	6H	23.42	23.78	24.35	24.71	25.86	20.68	21.04	21.61	21.98	23.12
	8H	23.64	23.96	24.57	24.88	26.08	20.90	21.21	21.83	22.14	23.33