

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: P853858

Luminaire Tested: SQ2-FB-075U-125D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853858  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-FB-075U-125D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 750 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

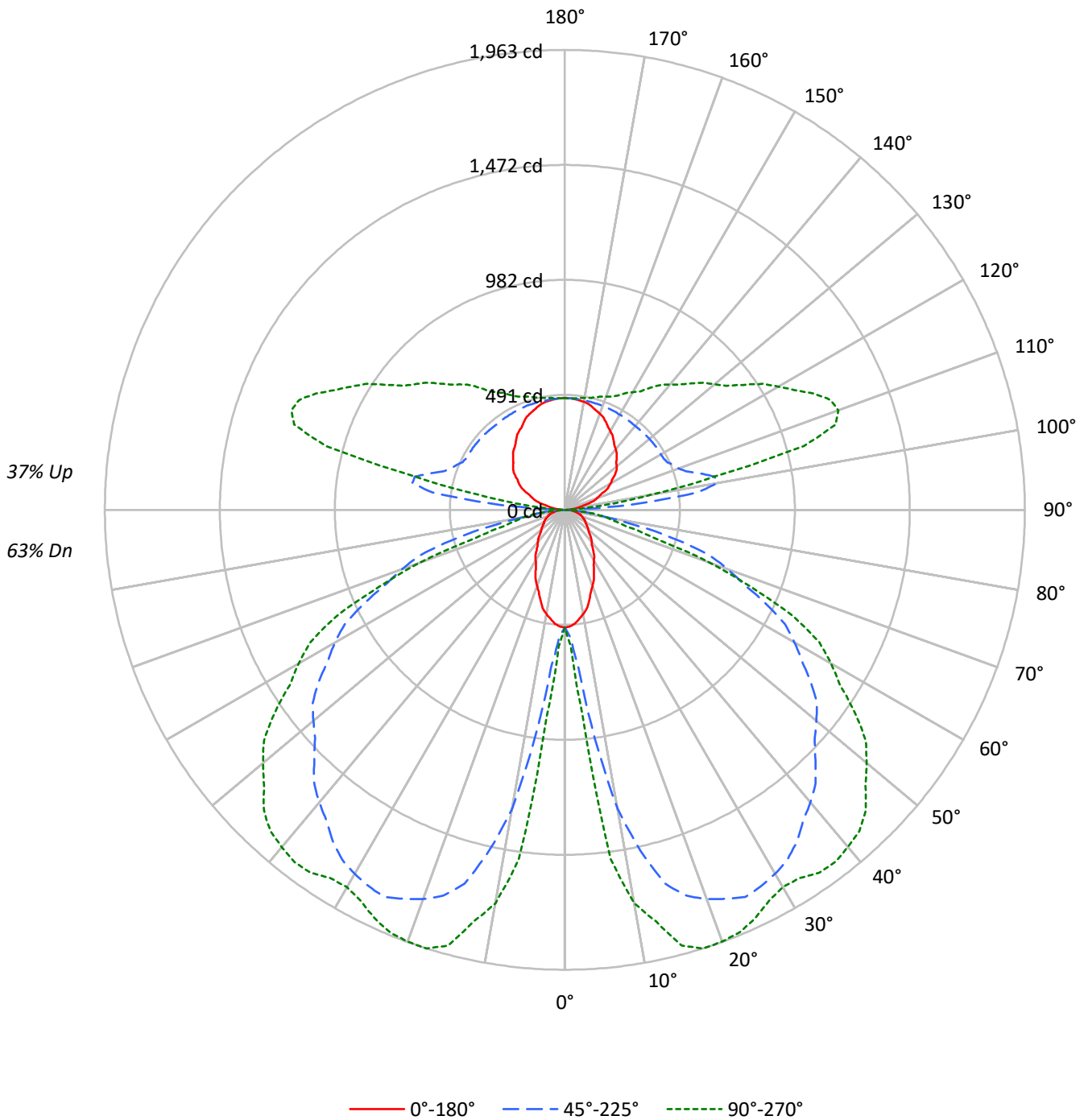
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7917.0 lumens  
Efficiency: N/A  
Efficacy: 109.2 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): 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	110	110	110	110	103	103	103	103	90	90	90	79	79	79	68	68	68	63
1	100	96	92	88	94	90	87	83	79	76	74	69	67	65	60	58	57	52
2	91	83	77	71	85	78	72	68	69	64	60	60	57	54	52	49	47	43
3	83	73	65	59	77	68	61	56	60	55	50	52	48	45	45	42	39	36
4	75	64	56	49	70	60	53	47	53	47	42	46	42	38	40	36	33	30
5	69	57	48	42	64	53	46	40	47	41	36	41	36	32	36	32	29	26
6	63	50	42	36	59	48	40	34	42	36	31	37	32	28	32	28	25	22
7	58	45	37	31	54	43	35	30	38	32	27	33	28	24	29	25	22	19
8	54	41	33	27	50	39	31	26	34	28	24	30	25	21	26	22	19	17
9	50	37	29	24	47	35	28	23	31	25	21	28	23	19	24	20	17	15
10	47	34	26	21	44	32	25	21	29	23	19	25	21	17	22	18	15	13

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

	0°	45°	90°
0°	8110	8110	8110
5°	7906	10960	14365
10°	7404	21223	27953
15°	6701	27612	32174
20°	5935	30374	33694
25°	5248	32484	34247
30°	4639	33454	34670
35°	4141	34036	37272
40°	3766	34360	39601
45°	3473	34520	41468
50°	3275	35183	42222
55°	3195	36099	42556
60°	3274	36577	42347
65°	3415	36076	41150
70°	3536	34886	31124
75°	3918	31335	17174
80°	4045	16169	15946
85°	4020	11189	6706

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 52.5°  
 Luminance: 42942 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	84.2	1.1
10°-20°	384.2	4.9
20°-30°	675.9	8.5
30°-40°	874.9	11.1
40°-50°	964.9	12.2
50°-60°	900.9	11.4
60°-70°	696.3	8.8
70°-80°	321.2	4.1
80°-90°	61.8	0.8
90°-100°	180.4	2.3
100°-110°	597.9	7.6
110°-120°	593.4	7.5
120°-130°	483.3	6.1
130°-140°	392.8	5.0
140°-150°	305.1	3.9
150°-160°	219.8	2.8
160°-170°	134.6	1.7
170°-180°	45.5	0.6
0°-30°	1144.2	14.5
0°-40°	2019.1	25.5
0°-60°	3885.0	49.1
0°-90°	4964.2	62.7
90°-120°	1371.7	17.3
90°-150°	2552.9	32.2
90°-180°	2953.0	37.3
0°-180°	7917.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	502	502	502	502	502	
5°	488	559	676	825	886	45
15°	401	790	1652	1849	1925	112
25°	295	1062	1823	1904	1922	135
35°	210	1025	1727	1787	1891	132
45°	152	785	1512	1736	1816	118
55°	114	468	1282	1474	1512	102
65°	89	264	944	1058	1077	88
75°	63	162	502	271	275	64
85°	22	48	60	41	36	23
90°	0	1	3	4	4	2
95°	26	76	327	117	78	29
105°	105	149	598	1129	1056	110
115°	187	223	482	1003	1173	184
125°	261	290	473	788	929	232
135°	312	344	469	676	763	241
145°	362	389	468	582	637	227
155°	414	428	471	520	539	191
165°	454	459	473	492	497	128
175°	475	475	476	479	478	45
180°	477	477	477	477	477	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	502.3	502.3	502.3	502.3	502.3
2.5°	498.5	519.2	542.9	570.2	581.5
5°	487.8	558.7	676.2	824.9	886.3
7.5°	469.0	613.0	983.4	1381.3	1504.1
10°	451.6	652.3	1294.5	1638.9	1705.0
12.5°	432.3	704.8	1489.6	1731.7	1799.7
15°	400.9	790.5	1651.9	1849.2	1924.8
17.5°	368.5	887.1	1727.2	1921.9	1963.0
20°	345.4	954.6	1767.8	1935.0	1961.0
22.5°	324.1	1005.1	1796.8	1923.5	1951.4
25°	294.6	1062.1	1823.4	1903.5	1922.4
27.5°	266.1	1077.0	1811.8	1864.4	1882.8
30°	248.8	1072.9	1794.4	1833.6	1859.6
32.5°	233.3	1061.2	1769.3	1807.3	1863.5
35°	210.1	1024.8	1726.8	1787.1	1891.0
37.5°	190.3	966.3	1670.7	1794.2	1894.4
40°	178.7	922.6	1630.2	1793.9	1878.9
42.5°	167.1	871.3	1583.8	1774.6	1859.6
45°	152.1	785.0	1511.8	1735.8	1816.1
47.5°	138.1	687.9	1445.2	1682.2	1740.8
50°	130.4	621.6	1400.7	1633.7	1680.9
52.5°	122.7	557.2	1356.3	1575.6	1619.1
55°	113.5	467.7	1282.4	1474.0	1511.8
57.5°	105.3	391.0	1198.4	1361.8	1392.5
60°	101.4	349.4	1132.7	1280.7	1311.4
62.5°	95.6	311.5	1059.2	1195.6	1224.4
65°	89.4	264.1	944.3	1058.2	1077.1
67.5°	80.7	229.0	822.1	891.8	856.4
70°	74.9	211.8	739.0	760.8	659.3
72.5°	71.0	192.9	648.2	590.7	398.5
75°	62.8	162.0	502.3	270.6	275.3
77.5°	51.2	125.3	330.4	207.8	212.0
80°	43.5	102.5	173.9	169.1	171.5
82.5°	35.7	79.7	119.8	124.5	121.2
85°	21.7	47.7	60.4	40.9	36.2
87.5°	7.7	17.4	10.3	10.5	10.5
90°	0.0	1.0	3.0	3.9	3.9
92.5°	7.9	30.5	89.9	29.1	24.5
95°	25.7	75.9	326.8	116.6	78.0
97.5°	47.2	99.7	570.5	332.7	210.3
100°	62.2	112.4	660.6	567.4	376.2
102.5°	78.8	127.5	655.0	867.1	655.0
105°	104.7	149.1	598.4	1128.9	1055.5
107.5°	131.1	170.7	544.1	1155.5	1211.3
110°	146.1	185.7	516.4	1129.2	1242.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	161.9	200.7	499.8	1082.5	1226.4
115°	186.6	223.3	481.9	1003.1	1173.0
117.5°	211.1	243.7	475.3	927.3	1105.5
120°	226.1	258.0	473.0	879.8	1052.6
122.5°	239.5	270.6	473.0	840.7	1000.4
125°	260.7	289.6	473.0	788.2	929.1
127.5°	278.1	306.4	471.8	748.4	868.9
130°	288.3	318.3	471.0	725.2	833.4
132.5°	297.8	328.5	470.2	706.0	803.3
135°	312.0	343.9	469.0	676.4	763.3
137.5°	327.4	358.1	467.8	647.7	724.4
140°	337.7	367.6	467.0	628.6	699.1
142.5°	347.2	376.3	467.8	609.5	672.2
145°	362.4	389.4	468.0	581.8	636.9
147.5°	378.8	401.4	468.2	558.4	599.4
150°	389.0	409.3	469.0	544.8	579.6
152.5°	398.5	418.0	469.8	533.6	561.4
155°	413.7	428.2	471.0	519.8	539.1
157.5°	428.5	439.7	472.2	510.0	523.7
160°	436.4	446.1	473.0	502.8	513.4
162.5°	444.3	451.7	473.0	498.0	506.3
165°	454.2	459.0	473.0	491.8	496.7
167.5°	463.3	465.8	474.0	486.3	488.8
170°	468.0	469.0	474.0	483.8	484.8
172.5°	471.2	472.2	474.7	481.5	481.7
175°	474.9	474.9	475.9	478.9	477.9
177.5°	476.9	476.9	476.1	477.7	476.1
180°	476.9	476.9	476.9	476.9	476.9



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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	15.42	16.44	16.25	17.30	18.38	24.16	25.18	24.99	26.04	27.12
	3H	16.16	17.08	17.01	17.95	19.05	25.79	26.71	26.64	27.58	28.68
	4H	16.47	17.34	17.33	18.22	19.33	25.98	26.85	26.84	27.73	28.84
	6H	16.70	17.50	17.57	18.38	19.51	26.07	26.88	26.95	27.76	28.89
	8H	16.76	17.52	17.64	18.43	19.55	26.08	26.85	26.97	27.75	28.88
	12H	16.79	17.52	17.68	18.42	19.57	26.06	26.79	26.95	27.68	28.84
4H	2H	19.84	20.71	20.71	21.58	22.70	24.62	25.49	25.49	26.37	27.48
	3H	20.79	21.51	21.67	22.42	23.55	26.46	27.19	27.34	28.09	29.22
	4H	21.08	21.74	21.97	22.64	23.80	26.71	27.37	27.60	28.27	29.43
	6H	21.22	21.79	22.13	22.72	23.88	26.86	27.43	27.77	28.36	29.52
	8H	21.25	21.78	22.16	22.70	23.87	26.89	27.42	27.80	28.35	29.52
	12H	21.25	21.72	22.18	22.67	23.84	26.87	27.35	27.80	28.29	29.47
8H	4H	22.27	22.80	23.18	23.72	24.89	26.84	27.37	27.75	28.29	29.46
	6H	22.51	22.95	23.45	23.92	25.09	27.05	27.49	27.99	28.46	29.63
	8H	22.59	22.97	23.53	23.93	25.12	27.11	27.50	28.06	28.46	29.65
	12H	22.62	22.96	23.57	23.91	25.15	27.12	27.46	28.07	28.41	29.64
12H	4H	22.29	22.77	23.22	23.72	24.89	26.80	27.28	27.73	28.22	29.40
	6H	22.61	23.00	23.56	23.95	25.14	27.04	27.43	27.98	28.38	29.57
	8H	22.72	23.06	23.67	24.01	25.25	27.11	27.45	28.06	28.40	29.64