

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: P853857

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

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853857  
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-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: -

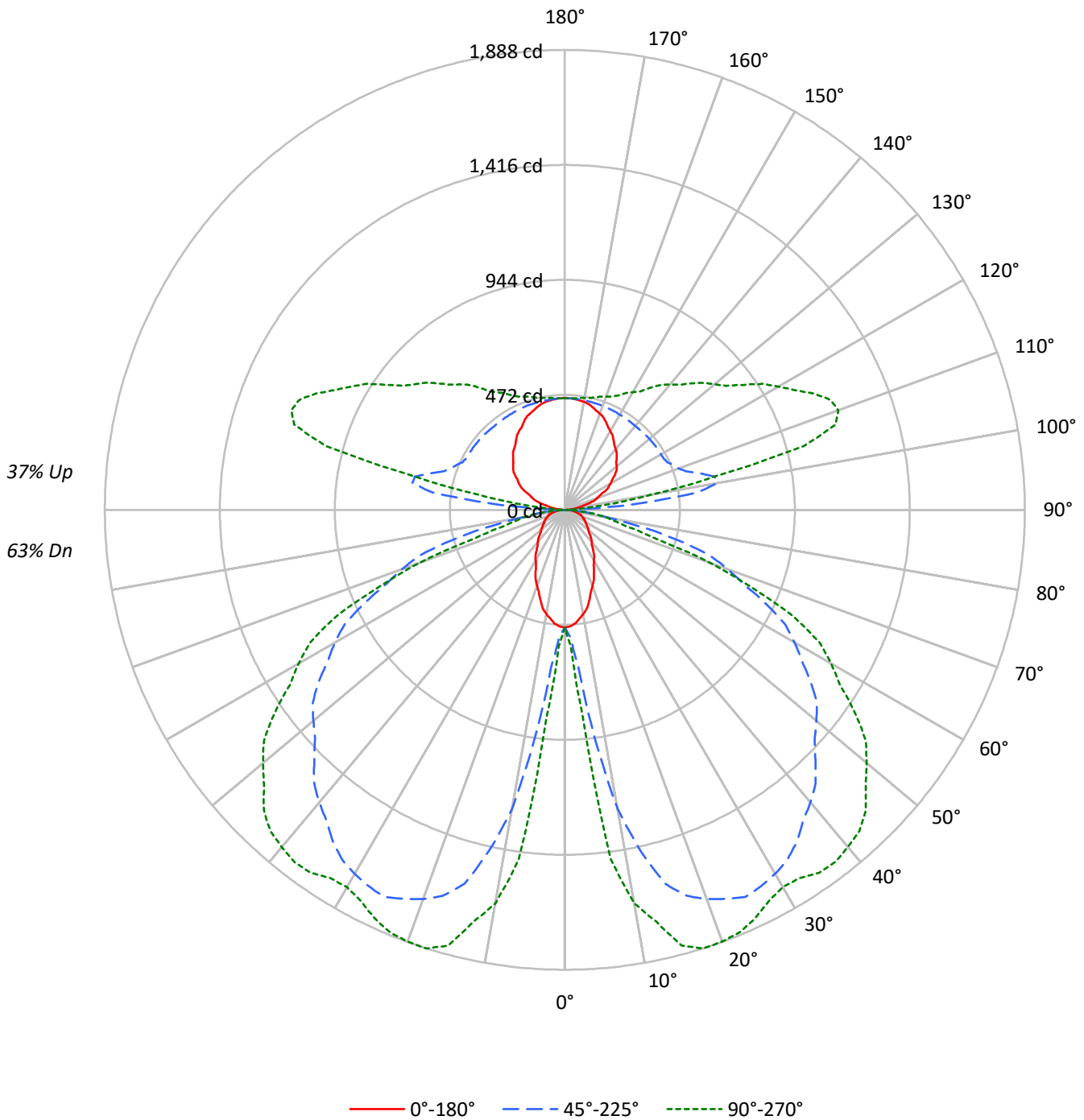
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7614.6 lumens  
Efficiency: N/A  
Efficacy: 105.0 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										
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	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°	7800	7800	7800
5°	7605	10541	13817
10°	7122	20412	26886
15°	6445	26557	30945
20°	5708	29215	32407
25°	5049	31242	32938
30°	4460	32175	33346
35°	3983	32735	35847
40°	3623	33046	38088
45°	3341	33202	39884
50°	3150	33840	40609
55°	3074	34719	40932
60°	3152	35179	40729
65°	3282	34697	39580
70°	3399	33555	29934
75°	3768	30137	16519
80°	3887	15546	15332
85°	3872	10763	6447

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 52.5°  
 Luminance: 41301 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.9	1.1
10°-20°	369.5	4.9
20°-30°	650.1	8.5
30°-40°	841.5	11.1
40°-50°	928.1	12.2
50°-60°	866.5	11.4
60°-70°	669.7	8.8
70°-80°	308.9	4.1
80°-90°	59.4	0.8
90°-100°	173.5	2.3
100°-110°	575.1	7.6
110°-120°	570.7	7.5
120°-130°	464.9	6.1
130°-140°	377.8	5.0
140°-150°	293.4	3.9
150°-160°	211.4	2.8
160°-170°	129.5	1.7
170°-180°	43.7	0.6
0°-30°	1100.5	14.5
0°-40°	1942.0	25.5
0°-60°	3736.5	49.1
0°-90°	4774.6	62.7
90°-120°	1319.3	17.3
90°-150°	2455.4	32.2
90°-180°	2840.0	37.3
0°-180°	7614.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	483	483	483	483	483	
5°	469	537	650	793	852	44
15°	386	760	1589	1779	1851	107
25°	283	1022	1754	1831	1849	130
35°	202	986	1661	1719	1819	127
45°	146	755	1454	1670	1747	113
55°	109	450	1233	1418	1454	98
65°	86	254	908	1018	1036	84
75°	60	156	483	260	265	62
85°	21	46	58	39	35	22
90°	0	1	3	4	4	2
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°	483.1	483.1	483.1	483.1	483.1
2.5°	479.4	499.4	522.2	548.4	559.3
5°	469.2	537.3	650.4	793.4	852.5
7.5°	451.1	589.6	945.8	1328.5	1446.6
10°	434.4	627.4	1245.0	1576.3	1639.9
12.5°	415.8	677.9	1432.7	1665.5	1730.9
15°	385.6	760.3	1588.8	1778.6	1851.3
17.5°	354.5	853.2	1661.3	1848.4	1888.0
20°	332.2	918.1	1700.3	1861.1	1886.1
22.5°	311.7	966.7	1728.2	1850.0	1876.8
25°	283.4	1021.5	1753.7	1830.8	1848.9
27.5°	256.0	1035.9	1742.6	1793.1	1810.9
30°	239.2	1031.9	1725.8	1763.6	1788.6
32.5°	224.4	1020.7	1701.7	1738.2	1792.3
35°	202.1	985.6	1660.8	1718.8	1818.7
37.5°	183.0	929.3	1606.9	1725.7	1822.0
40°	171.9	887.3	1567.9	1725.4	1807.1
42.5°	160.7	838.0	1523.3	1706.8	1788.6
45°	146.3	755.0	1454.1	1669.5	1746.7
47.5°	132.9	661.6	1390.0	1617.9	1674.3
50°	125.4	597.8	1347.2	1571.2	1616.7
52.5°	118.0	535.9	1304.5	1515.4	1557.2
55°	109.2	449.8	1233.4	1417.7	1454.1
57.5°	101.3	376.1	1152.6	1309.8	1339.3
60°	97.6	336.0	1089.4	1231.8	1261.3
62.5°	92.0	299.6	1018.8	1149.9	1177.7
65°	85.9	254.0	908.2	1017.8	1036.0
67.5°	77.6	220.2	790.7	857.7	823.7
70°	72.0	203.7	710.8	731.8	634.1
72.5°	68.3	185.5	623.4	568.1	383.3
75°	60.4	155.8	483.1	260.3	264.8
77.5°	49.2	120.6	317.8	199.9	203.9
80°	41.8	98.6	167.2	162.6	164.9
82.5°	34.4	76.6	115.2	119.8	116.6
85°	20.9	45.9	58.1	39.4	34.8
87.5°	7.4	16.7	9.9	10.1	10.1
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	15.28	16.31	16.12	17.17	18.24	24.02	25.04	24.85	25.91	26.98
	3H	16.03	16.95	16.87	17.82	18.92	25.66	26.58	26.50	27.45	28.55
	4H	16.34	17.20	17.20	18.08	19.19	25.84	26.71	26.71	27.59	28.70
	6H	16.56	17.36	17.44	18.25	19.37	25.94	26.74	26.81	27.62	28.75
	8H	16.62	17.39	17.51	18.29	19.42	25.95	26.71	26.83	27.61	28.74
	12H	16.66	17.38	17.55	18.28	19.43	25.93	26.65	26.82	27.55	28.70
4H	2H	19.70	20.57	20.57	21.45	22.56	24.48	25.35	25.35	26.23	27.34
	3H	20.65	21.38	21.53	22.29	23.41	26.33	27.05	27.21	27.96	29.09
	4H	20.94	21.60	21.84	22.51	23.66	26.57	27.23	27.46	28.14	29.29
	6H	21.08	21.65	21.99	22.58	23.74	26.73	27.30	27.63	28.23	29.38
	8H	21.11	21.64	22.02	22.57	23.74	26.76	27.29	27.67	28.21	29.38
	12H	21.11	21.59	22.04	22.53	23.71	26.74	27.22	27.67	28.16	29.34
8H	4H	22.13	22.66	23.04	23.59	24.76	26.70	27.24	27.61	28.16	29.33
	6H	22.38	22.82	23.31	23.78	24.95	26.92	27.36	27.85	28.32	29.49
	8H	22.45	22.84	23.40	23.80	24.98	26.98	27.37	27.93	28.32	29.51
	12H	22.48	22.83	23.44	23.78	25.01	26.98	27.32	27.93	28.27	29.51
12H	4H	22.16	22.64	23.09	23.58	24.76	26.66	27.14	27.59	28.09	29.26
	6H	22.47	22.86	23.42	23.82	25.01	26.90	27.29	27.85	28.25	29.43
	8H	22.59	22.93	23.54	23.88	25.11	26.98	27.32	27.93	28.27	29.50