

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: P853690

Luminaire Tested: SQ2-F-075U-125D-835-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

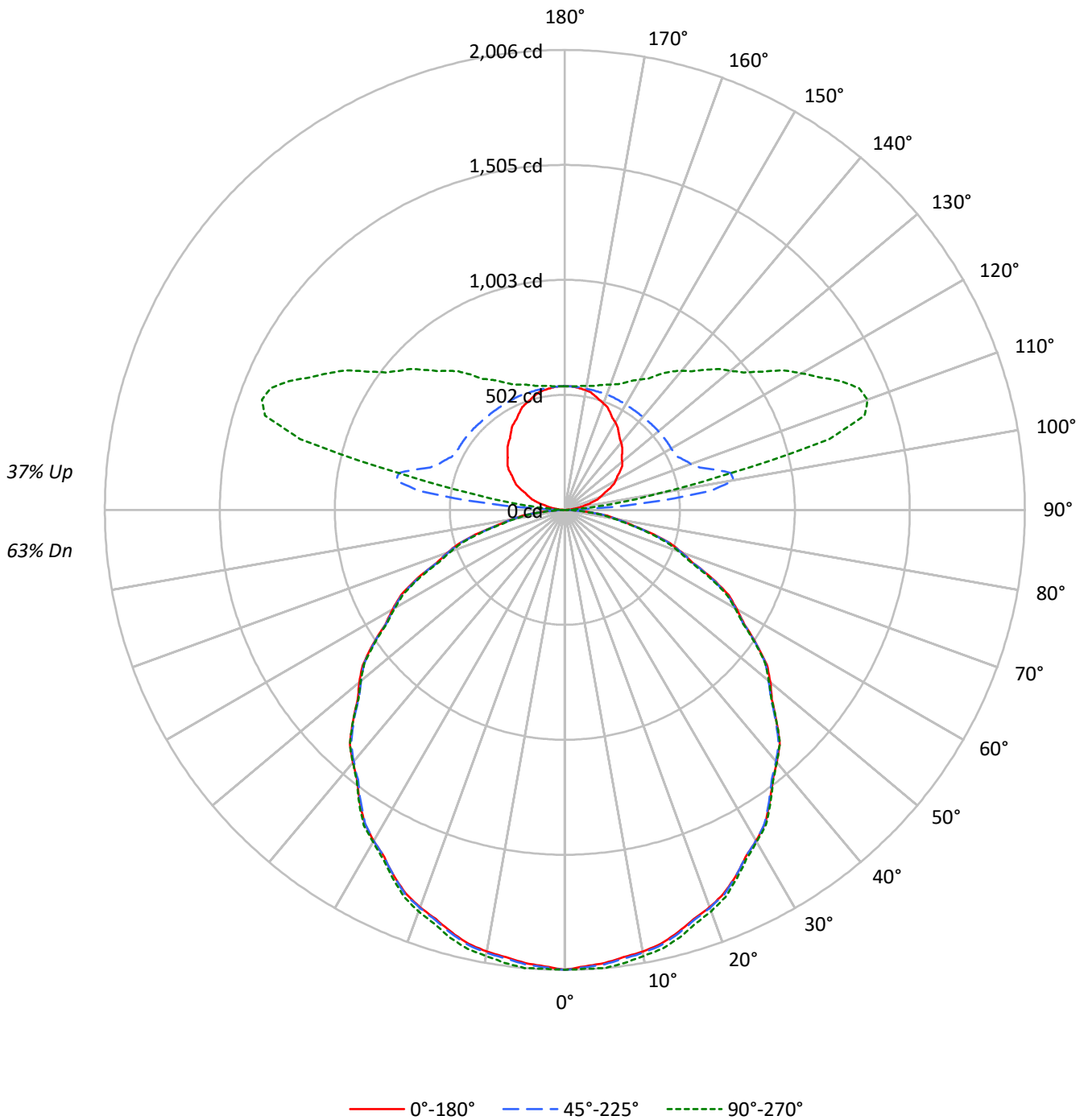
Test Method: LM-79-2019  
Report Number: P853690  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-F-075U-125D-835-UNV-STD-W-4  
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: 8973.4 lumens  
Efficiency: N/A  
Efficacy: 123.8 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: 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	50	30	10
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	84	77	72	85	79	73	68	69	65	61	60	57	54	52	50	48	44		
3	83	73	66	60	78	69	62	57	61	55	51	53	49	46	46	43	40	37		
4	76	65	57	50	71	61	54	48	54	48	43	47	43	39	41	38	35	31		
5	70	58	49	43	65	54	47	41	48	42	37	42	38	34	37	33	30	27		
6	64	52	43	37	60	49	41	36	43	37	33	38	33	29	33	30	26	24		
7	59	47	39	33	56	44	37	31	39	33	29	35	30	26	31	26	23	21		
8	55	42	34	29	52	40	33	28	36	30	25	32	27	23	28	24	21	19		
9	51	39	31	26	48	37	30	25	33	27	23	29	24	21	26	22	19	17		
10	48	36	28	23	45	34	27	22	30	25	21	27	22	19	24	20	17	15		

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

	0°	45°	90°
0°	32389	32389	32389
5°	32157	32246	32512
10°	32083	32172	32396
15°	31886	31978	32298
20°	31696	31746	32027
25°	31404	31404	31600
30°	31083	31083	31183
35°	30705	30597	30813
40°	30300	30184	30300
45°	29830	29707	29830
50°	29381	29107	29175
55°	28696	28620	28468
60°	27978	27800	27622
65°	27148	26835	26521
70°	25549	25416	24902
75°	24036	23531	22845
80°	21348	20837	20074
85°	17210	15709	14672

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 30013 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	189.6	2.1
10°-20°	541.8	6.0
20°-30°	815.2	9.1
30°-40°	975.4	10.9
40°-50°	1006.4	11.2
50°-60°	907.9	10.1
60°-70°	692.8	7.7
70°-80°	398.3	4.4
80°-90°	104.4	1.2
90°-100°	204.1	2.3
100°-110°	676.6	7.5
110°-120°	671.6	7.5
120°-130°	547.0	6.1
130°-140°	444.6	5.0
140°-150°	345.2	3.8
150°-160°	248.7	2.8
160°-170°	152.3	1.7
170°-180°	51.5	0.6
0°-30°	1546.6	17.2
0°-40°	2522.0	28.1
0°-60°	4436.3	49.4
0°-90°	5631.8	62.8
90°-120°	1552.3	17.3
90°-150°	2889.0	32.2
90°-180°	3342.0	37.2
0°-180°	8973.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2006	2006	2006	2006	2006	
5°	1984	2011	1990	1993	2006	188
15°	1908	1932	1913	1922	1932	538
25°	1763	1782	1763	1766	1774	812
35°	1558	1568	1552	1558	1563	974
45°	1306	1314	1301	1304	1306	1008
55°	1019	1025	1017	1011	1011	911
65°	711	708	702	697	694	699
75°	385	383	377	369	366	406
85°	93	88	85	77	79	108
90°	0	1	3	4	4	5
95°	29	86	370	132	88	33
105°	118	169	677	1278	1194	125
115°	211	253	545	1135	1327	209
125°	295	328	535	892	1051	262
135°	353	389	531	766	864	273
145°	410	441	530	658	721	257
155°	468	485	533	588	610	216
165°	514	519	535	557	562	145
175°	537	537	539	542	541	51
180°	540	540	540	540	540	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2006.0	2006.0	2006.0	2006.0	2006.0
2.5°	1992.9	2016.4	1997.3	2001.7	2003.8
5°	1984.1	2010.9	1989.6	1992.6	2006.0
7.5°	1967.7	1996.6	1973.3	1978.5	1993.4
10°	1956.9	1983.6	1962.3	1965.2	1976.0
12.5°	1939.3	1966.0	1944.8	1950.0	1960.6
15°	1907.6	1931.6	1913.1	1921.6	1932.2
17.5°	1871.0	1896.7	1876.0	1883.2	1892.4
20°	1844.7	1866.1	1847.6	1850.5	1864.0
22.5°	1812.0	1833.4	1816.9	1817.7	1828.9
25°	1762.8	1781.5	1762.8	1765.7	1773.8
27.5°	1706.4	1722.5	1706.4	1709.4	1716.3
30°	1667.2	1683.1	1667.2	1669.9	1672.6
32.5°	1623.4	1637.3	1621.2	1624.2	1631.1
35°	1557.8	1568.5	1552.3	1558.0	1563.3
37.5°	1487.8	1495.8	1482.4	1485.2	1490.1
40°	1437.6	1445.6	1432.1	1434.8	1437.6
42.5°	1387.3	1393.2	1379.6	1382.4	1387.3
45°	1306.4	1314.4	1301.0	1303.7	1306.4
47.5°	1224.3	1229.2	1217.8	1215.7	1220.6
50°	1169.7	1172.4	1158.8	1158.8	1161.5
52.5°	1110.7	1113.3	1104.2	1099.9	1102.5
55°	1019.4	1024.7	1016.7	1011.3	1011.3
57.5°	927.6	932.4	922.1	919.4	918.8
60°	866.4	869.0	860.9	858.1	855.4
62.5°	805.2	805.6	797.5	794.7	792.1
65°	710.6	707.9	702.4	696.9	694.2
67.5°	604.5	607.3	601.8	593.1	593.1
70°	541.2	543.8	538.4	527.5	527.5
72.5°	479.9	478.4	475.0	466.1	461.8
75°	385.3	382.7	377.2	368.9	366.2
77.5°	290.8	288.1	285.3	275.0	277.1
80°	229.6	226.9	224.1	215.9	215.9
82.5°	175.0	170.1	167.3	159.1	159.1
85°	92.9	87.6	84.8	76.6	79.2
87.5°	26.3	24.3	22.5	18.3	18.3
90°	0.0	1.1	3.4	4.4	4.4
92.5°	8.9	34.5	101.7	32.9	27.7
95°	29.1	85.9	369.8	132.0	88.3
97.5°	53.4	112.8	645.6	376.5	238.0
100°	70.4	127.2	747.6	642.1	425.7
102.5°	89.2	144.3	741.2	981.3	741.2
105°	118.5	168.7	677.2	1277.5	1194.5
107.5°	148.4	193.2	615.7	1307.6	1370.8
110°	165.3	210.1	584.4	1277.9	1405.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	183.2	227.1	565.6	1225.0	1387.9
115°	211.2	252.7	545.3	1135.2	1327.4
117.5°	238.9	275.8	537.9	1049.4	1251.1
120°	255.9	292.0	535.3	995.6	1191.2
122.5°	271.0	306.2	535.3	951.4	1132.1
125°	295.0	327.7	535.3	892.0	1051.4
127.5°	314.7	346.7	533.9	846.9	983.3
130°	326.3	360.2	533.0	820.7	943.1
132.5°	337.0	371.8	532.1	799.0	909.1
135°	353.1	389.2	530.8	765.5	863.8
137.5°	370.5	405.2	529.4	733.0	819.8
140°	382.2	416.0	528.5	711.4	791.1
142.5°	392.9	425.8	529.4	689.7	760.7
145°	410.1	440.7	529.6	658.4	720.8
147.5°	428.7	454.2	529.8	631.9	678.3
150°	440.2	463.2	530.8	616.5	655.9
152.5°	451.0	473.0	531.7	603.9	635.3
155°	468.2	484.6	533.0	588.2	610.1
157.5°	484.9	497.6	534.4	577.1	592.7
160°	493.9	504.8	535.3	569.0	581.0
162.5°	502.8	511.2	535.3	563.6	573.0
165°	514.0	519.4	535.3	556.6	562.1
167.5°	524.3	527.1	536.4	550.3	553.2
170°	529.6	530.8	536.4	547.5	548.6
172.5°	533.2	534.4	537.2	544.9	545.1
175°	537.4	537.4	538.6	542.0	540.8
177.5°	539.7	539.7	538.8	540.6	538.8
180°	539.7	539.7	539.7	539.7	539.7

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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	21.15	22.15	21.98	23.01	24.09	21.07	22.07	21.90	22.93	24.01
	3H	22.94	23.84	23.79	24.71	25.81	22.82	23.72	23.67	24.59	25.69
	4H	23.60	24.46	24.47	25.33	26.45	23.45	24.30	24.32	25.18	26.29
	6H	24.08	24.87	24.96	25.75	26.88	23.89	24.68	24.77	25.57	26.69
	8H	24.22	24.97	25.11	25.87	27.00	24.02	24.77	24.91	25.67	26.80
	12H	24.30	25.02	25.19	25.91	27.06	24.08	24.79	24.97	25.69	26.84
4H	2H	21.71	22.57	22.58	23.44	24.56	21.65	22.51	22.52	23.38	24.50
	3H	23.71	24.43	24.60	25.34	26.47	23.61	24.32	24.49	25.23	26.36
	4H	24.51	25.16	25.40	26.07	27.22	24.37	25.02	25.26	25.92	27.08
	6H	25.11	25.67	26.02	26.60	27.76	24.93	25.49	25.84	26.42	27.58
	8H	25.30	25.83	26.21	26.75	27.92	25.10	25.62	26.01	26.55	27.72
	12H	25.41	25.88	26.34	26.83	28.00	25.18	25.66	26.11	26.60	27.77
8H	4H	24.77	25.30	25.68	26.22	27.39	24.64	25.17	25.55	26.09	27.26
	6H	25.49	25.93	26.43	26.89	28.06	25.33	25.76	26.27	26.73	27.90
	8H	25.76	26.15	26.71	27.10	28.29	25.57	25.96	26.52	26.91	28.10
	12H	25.94	26.28	26.89	27.23	28.46	25.71	26.05	26.66	27.00	28.23
12H	4H	24.77	25.24	25.70	26.19	27.36	24.65	25.12	25.58	26.07	27.24
	6H	25.54	25.92	26.49	26.88	28.07	25.38	25.77	26.33	26.72	27.91
	8H	25.84	26.18	26.79	27.13	28.36	25.65	25.99	26.60	26.94	28.18