

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-830-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

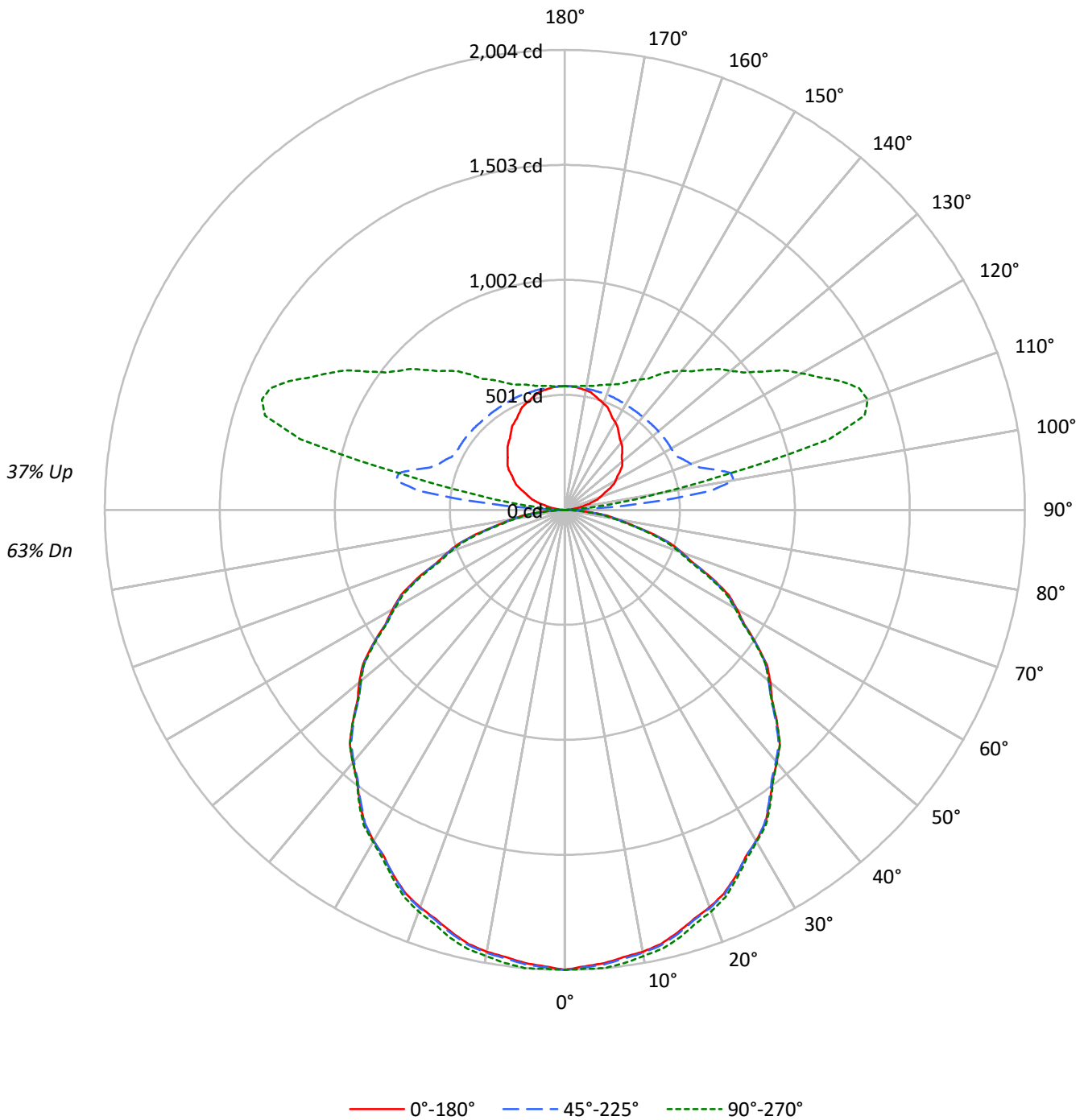
Test Method: LM-79-2019  
Report Number: P853690  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-F-075U-125D-830-UNV-STD-W-4  
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: 8965.3 lumens  
Efficiency: N/A  
Efficacy: 123.7 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				
RC	80					70					50					30				
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	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°	32359	32359	32359
5°	32130	32217	32483
10°	32054	32142	32367
15°	31858	31950	32269
20°	31668	31716	31998
25°	31376	31376	31572
30°	31055	31055	31155
35°	30677	30569	30786
40°	30273	30157	30273
45°	29803	29679	29803
50°	29353	29082	29150
55°	28670	28594	28439
60°	27952	27774	27600
65°	27121	26812	26495
70°	25525	25398	24878
75°	24017	23506	22826
80°	21330	20818	20056
85°	17191	15691	14653

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 29985 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	189.5	2.1
10°-20°	541.3	6.0
20°-30°	814.4	9.1
30°-40°	974.5	10.9
40°-50°	1005.5	11.2
50°-60°	907.1	10.1
60°-70°	692.2	7.7
70°-80°	398.0	4.4
80°-90°	104.3	1.2
90°-100°	203.9	2.3
100°-110°	676.0	7.5
110°-120°	670.9	7.5
120°-130°	546.5	6.1
130°-140°	444.1	5.0
140°-150°	344.9	3.8
150°-160°	248.5	2.8
160°-170°	152.2	1.7
170°-180°	51.4	0.6
0°-30°	1545.2	17.2
0°-40°	2519.7	28.1
0°-60°	4432.3	49.4
0°-90°	5626.7	62.8
90°-120°	1550.9	17.3
90°-150°	2886.4	32.2
90°-180°	3339.0	37.2
0°-180°	8965.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2004	2004	2004	2004	2004	
5°	1982	2009	1988	1991	2004	188
15°	1906	1930	1911	1920	1930	538
25°	1761	1780	1761	1764	1772	811
35°	1556	1567	1551	1557	1562	973
45°	1305	1313	1300	1302	1305	1007
55°	1018	1024	1016	1010	1010	911
65°	710	707	702	696	694	698
75°	385	382	377	369	366	406
85°	93	88	85	76	79	107
90°	0	1	3	4	4	5
95°	29	86	370	132	88	33
105°	118	169	677	1276	1193	125
115°	211	252	545	1134	1326	209
125°	295	327	535	891	1050	262
135°	353	389	530	765	863	273
145°	410	440	529	658	720	257
155°	468	484	532	588	610	216
165°	514	519	535	556	562	145
175°	537	537	538	542	540	51
180°	539	539	539	539	539	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2004.2	2004.2	2004.2	2004.2	2004.2
2.5°	1991.1	2014.6	1995.5	1999.9	2002.0
5°	1982.4	2009.0	1987.8	1990.8	2004.2
7.5°	1966.0	1994.8	1971.5	1976.7	1991.6
10°	1955.1	1981.8	1960.5	1963.5	1974.2
12.5°	1937.6	1964.3	1943.0	1948.2	1958.8
15°	1905.9	1929.9	1911.4	1919.8	1930.5
17.5°	1869.3	1895.0	1874.3	1881.5	1890.7
20°	1843.1	1864.4	1845.9	1848.8	1862.3
22.5°	1810.4	1831.8	1815.2	1816.0	1827.2
25°	1761.2	1779.9	1761.2	1764.1	1772.2
27.5°	1704.9	1721.0	1704.9	1707.8	1714.7
30°	1665.7	1681.6	1665.7	1668.4	1671.1
32.5°	1621.9	1635.8	1619.8	1622.7	1629.6
35°	1556.4	1567.1	1550.9	1556.6	1561.9
37.5°	1486.5	1494.5	1481.0	1483.9	1488.7
40°	1436.3	1444.3	1430.8	1433.5	1436.3
42.5°	1386.1	1391.9	1378.4	1381.2	1386.1
45°	1305.2	1313.2	1299.8	1302.5	1305.2
47.5°	1223.2	1228.1	1216.7	1214.6	1219.5
50°	1168.6	1171.3	1157.8	1157.8	1160.5
52.5°	1109.7	1112.3	1103.2	1098.9	1101.5
55°	1018.5	1023.8	1015.8	1010.3	1010.3
57.5°	926.8	931.5	921.2	918.5	918.0
60°	865.6	868.2	860.1	857.4	854.7
62.5°	804.5	804.9	796.8	793.9	791.3
65°	709.9	707.2	701.8	696.2	693.5
67.5°	604.0	606.7	601.3	592.6	592.6
70°	540.7	543.3	538.0	527.0	527.0
72.5°	479.5	477.9	474.5	465.7	461.4
75°	385.0	382.4	376.8	368.6	365.9
77.5°	290.6	287.9	285.0	274.7	276.9
80°	229.4	226.7	223.9	215.7	215.7
82.5°	174.8	169.9	167.1	159.0	159.0
85°	92.8	87.5	84.7	76.5	79.1
87.5°	26.2	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	101.6	32.9	27.7
95°	29.1	85.8	369.5	131.8	88.2
97.5°	53.4	112.7	645.0	376.2	237.8
100°	70.3	127.1	746.9	641.5	425.3
102.5°	89.1	144.2	740.6	980.4	740.6
105°	118.4	168.6	676.6	1276.4	1193.4
107.5°	148.2	193.0	615.2	1306.5	1369.5
110°	165.2	210.0	583.9	1276.7	1404.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	183.1	226.9	565.1	1223.9	1386.6
115°	211.0	252.5	544.9	1134.1	1326.2
117.5°	238.7	275.5	537.4	1048.4	1249.9
120°	255.6	291.7	534.8	994.7	1190.1
122.5°	270.8	306.0	534.8	950.5	1131.1
125°	294.8	327.4	534.8	891.2	1050.5
127.5°	314.4	346.4	533.4	846.2	982.4
130°	326.0	359.9	532.5	819.9	942.3
132.5°	336.7	371.4	531.6	798.2	908.2
135°	352.8	388.8	530.3	764.8	863.0
137.5°	370.2	404.9	528.9	732.3	819.0
140°	381.8	415.6	528.0	710.7	790.4
142.5°	392.6	425.5	528.9	689.1	760.0
145°	409.7	440.3	529.1	657.8	720.1
147.5°	428.3	453.8	529.4	631.4	677.7
150°	439.8	462.8	530.3	616.0	655.3
152.5°	450.6	472.6	531.2	603.3	634.7
155°	467.7	484.1	532.5	587.7	609.5
157.5°	484.5	497.1	533.9	576.6	592.1
160°	493.4	504.4	534.8	568.5	580.5
162.5°	502.3	510.7	534.8	563.1	572.4
165°	513.5	519.0	534.8	556.1	561.6
167.5°	523.8	526.7	535.9	549.8	552.7
170°	529.1	530.3	535.9	547.0	548.1
172.5°	532.8	533.9	536.7	544.4	544.6
175°	536.9	536.9	538.1	541.5	540.3
177.5°	539.2	539.2	538.3	540.1	538.3
180°	539.2	539.2	539.2	539.2	539.2



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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	21.14	22.15	21.98	23.01	24.08	21.07	22.07	21.90	22.93	24.01
	3H	22.93	23.84	23.78	24.71	25.81	22.81	23.72	23.66	24.59	25.69
	4H	23.60	24.45	24.47	25.33	26.44	23.45	24.30	24.31	25.18	26.29
	6H	24.08	24.86	24.95	25.75	26.87	23.89	24.68	24.77	25.56	26.69
	8H	24.22	24.97	25.10	25.87	27.00	24.02	24.77	24.90	25.67	26.79
	12H	24.30	25.01	25.19	25.91	27.06	24.07	24.79	24.97	25.69	26.84
4H	2H	21.71	22.56	22.58	23.44	24.55	21.65	22.50	22.52	23.38	24.49
	3H	23.71	24.42	24.59	25.33	26.46	23.60	24.32	24.49	25.23	26.35
	4H	24.51	25.16	25.40	26.06	27.22	24.36	25.01	25.26	25.92	27.07
	6H	25.11	25.67	26.01	26.60	27.75	24.93	25.49	25.83	26.42	27.57
	8H	25.30	25.82	26.21	26.75	27.92	25.09	25.62	26.01	26.54	27.71
	12H	25.41	25.88	26.34	26.82	28.00	25.18	25.65	26.11	26.59	27.77
8H	4H	24.77	25.29	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	25.32	25.76	26.26	26.73	27.89
	8H	25.76	26.14	26.71	27.10	28.29	25.57	25.95	26.51	26.91	28.10
	12H	25.93	26.27	26.89	27.22	28.46	25.71	26.05	26.66	27.00	28.23
12H	4H	24.77	25.24	25.70	26.18	27.36	24.65	25.12	25.58	26.06	27.24
	6H	25.53	25.92	26.48	26.88	28.06	25.38	25.76	26.32	26.72	27.91
	8H	25.84	26.17	26.79	27.12	28.36	25.65	25.99	26.60	26.94	28.17