

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: P855234

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

Issue Date: 7/12/2024

**Test Information**

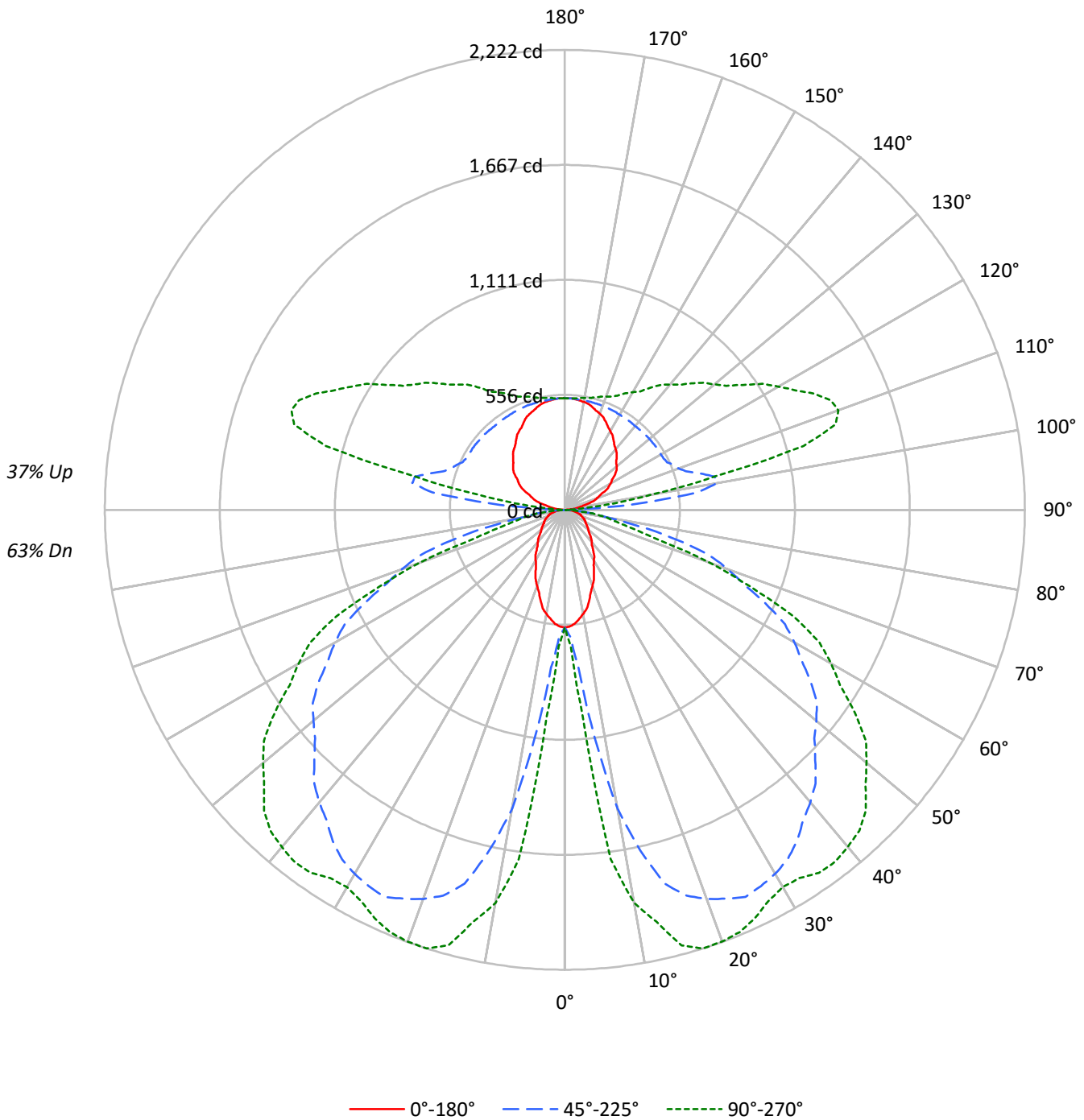
Test Method: LM-79-2019  
Report Number: P855234  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G2-2308-131-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-FB-075U-125D-835-UNV-STD-W-4  
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: 8959.4 lumens  
Efficiency: N/A  
Efficacy: 123.6 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°	9177	9177	9177
5°	8947	12402	16256
10°	8379	24017	31634
15°	7584	31248	36409
20°	6716	34374	38130
25°	5940	36761	38756
30°	5250	37860	39234
35°	4687	38518	42180
40°	4262	38883	44816
45°	3930	39064	46928
50°	3707	39815	47780
55°	3614	40850	48158
60°	3707	41391	47924
65°	3866	40825	46567
70°	4003	39479	35221
75°	4435	35458	19432
80°	4575	18299	18047
85°	4557	12671	7595

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 52.5°  
 Luminance: 48597 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.2	1.1
10°-20°	434.7	4.9
20°-30°	764.9	8.5
30°-40°	990.1	11.1
40°-50°	1092.0	12.2
50°-60°	1019.5	11.4
60°-70°	788.0	8.8
70°-80°	363.5	4.1
80°-90°	69.9	0.8
90°-100°	204.1	2.3
100°-110°	676.6	7.6
110°-120°	671.6	7.5
120°-130°	547.0	6.1
130°-140°	444.6	5.0
140°-150°	345.2	3.9
150°-160°	248.7	2.8
160°-170°	152.3	1.7
170°-180°	51.5	0.6
0°-30°	1294.9	14.5
0°-40°	2285.0	25.5
0°-60°	4396.5	49.1
0°-90°	5617.9	62.7
90°-120°	1552.3	17.3
90°-150°	2889.0	32.2
90°-180°	3342.0	37.3
0°-180°	8959.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	568	568	568	568	568	
5°	552	632	765	934	1003	51
15°	454	895	1869	2093	2178	126
25°	333	1202	2064	2154	2176	153
35°	238	1160	1954	2022	2140	150
45°	172	888	1711	1964	2055	133
55°	128	529	1451	1668	1711	116
65°	101	299	1069	1198	1219	99
75°	71	183	568	306	312	73
85°	25	54	68	46	41	26
90°	0	1	3	4	4	2
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°	568.4	568.4	568.4	568.4	568.4
2.5°	564.1	587.6	614.4	645.3	658.1
5°	552.0	632.3	765.2	933.5	1003.0
7.5°	530.8	693.7	1112.9	1563.2	1702.1
10°	511.1	738.2	1464.9	1854.7	1929.5
12.5°	489.2	797.6	1685.7	1959.7	2036.7
15°	453.7	894.6	1869.4	2092.7	2178.2
17.5°	417.0	1003.9	1954.6	2174.9	2221.5
20°	390.9	1080.3	2000.6	2189.8	2219.2
22.5°	366.8	1137.4	2033.4	2176.8	2208.3
25°	333.4	1201.9	2063.5	2154.1	2175.5
27.5°	301.1	1218.8	2050.3	2109.9	2130.7
30°	281.6	1214.2	2030.7	2075.0	2104.4
32.5°	264.0	1200.9	2002.3	2045.3	2108.9
35°	237.8	1159.7	1954.2	2022.4	2140.0
37.5°	215.4	1093.5	1890.7	2030.4	2143.8
40°	202.2	1044.1	1844.8	2030.1	2126.3
42.5°	189.1	986.0	1792.3	2008.3	2104.4
45°	172.1	888.4	1710.8	1964.3	2055.2
47.5°	156.3	778.5	1635.5	1903.7	1970.0
50°	147.6	703.4	1585.1	1848.8	1902.2
52.5°	138.9	630.6	1534.9	1783.0	1832.3
55°	128.4	529.3	1451.2	1668.1	1710.8
57.5°	119.2	442.5	1356.2	1541.1	1575.8
60°	114.8	395.4	1281.8	1449.3	1484.1
62.5°	108.2	352.5	1198.7	1353.0	1385.6
65°	101.2	298.9	1068.6	1197.5	1218.9
67.5°	91.3	259.2	930.3	1009.2	969.2
70°	84.8	239.7	836.3	861.0	746.1
72.5°	80.3	218.3	733.5	668.5	451.0
75°	71.1	183.3	568.4	306.2	311.5
77.5°	57.9	141.8	373.9	235.2	239.9
80°	49.2	116.0	196.8	191.4	194.1
82.5°	40.4	90.2	135.6	140.9	137.2
85°	24.6	54.0	68.4	46.3	41.0
87.5°	8.7	19.7	11.7	11.9	11.9
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	15.85	16.87	16.68	17.73	18.81	24.59	25.61	25.42	26.47	27.55
	3H	16.59	17.51	17.44	18.38	19.48	26.22	27.14	27.07	28.01	29.11
	4H	16.90	17.77	17.76	18.65	19.76	26.41	27.28	27.27	28.16	29.27
	6H	17.13	17.93	18.00	18.81	19.94	26.50	27.31	27.38	28.19	29.32
	8H	17.19	17.95	18.07	18.86	19.98	26.51	27.28	27.40	28.18	29.31
	12H	17.22	17.95	18.11	18.85	20.00	26.49	27.22	27.38	28.11	29.27
4H	2H	20.27	21.14	21.14	22.01	23.13	25.05	25.92	25.92	26.80	27.91
	3H	21.22	21.94	22.10	22.85	23.98	26.89	27.62	27.77	28.52	29.65
	4H	21.51	22.17	22.40	23.07	24.23	27.14	27.80	28.03	28.70	29.86
	6H	21.65	22.22	22.56	23.15	24.30	27.29	27.86	28.20	28.79	29.95
	8H	21.67	22.21	22.59	23.13	24.30	27.32	27.85	28.23	28.78	29.95
	12H	21.67	22.15	22.61	23.10	24.27	27.30	27.78	28.23	28.72	29.90
8H	4H	22.70	23.23	23.61	24.15	25.32	27.27	27.80	28.18	28.72	29.89
	6H	22.94	23.38	23.88	24.35	25.52	27.48	27.92	28.42	28.89	30.06
	8H	23.02	23.40	23.96	24.36	25.55	27.54	27.93	28.49	28.89	30.08
	12H	23.05	23.39	24.00	24.34	25.58	27.55	27.89	28.50	28.84	30.07
12H	4H	22.72	23.20	23.65	24.14	25.32	27.23	27.71	28.16	28.65	29.83
	6H	23.04	23.43	23.99	24.38	25.57	27.47	27.85	28.41	28.81	30.00
	8H	23.15	23.49	24.10	24.44	25.68	27.54	27.88	28.49	28.83	30.07