

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: P853899

Luminaire Tested: SQ2-FB-150U-075D-930-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853899  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-FB-150U-075D-930-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

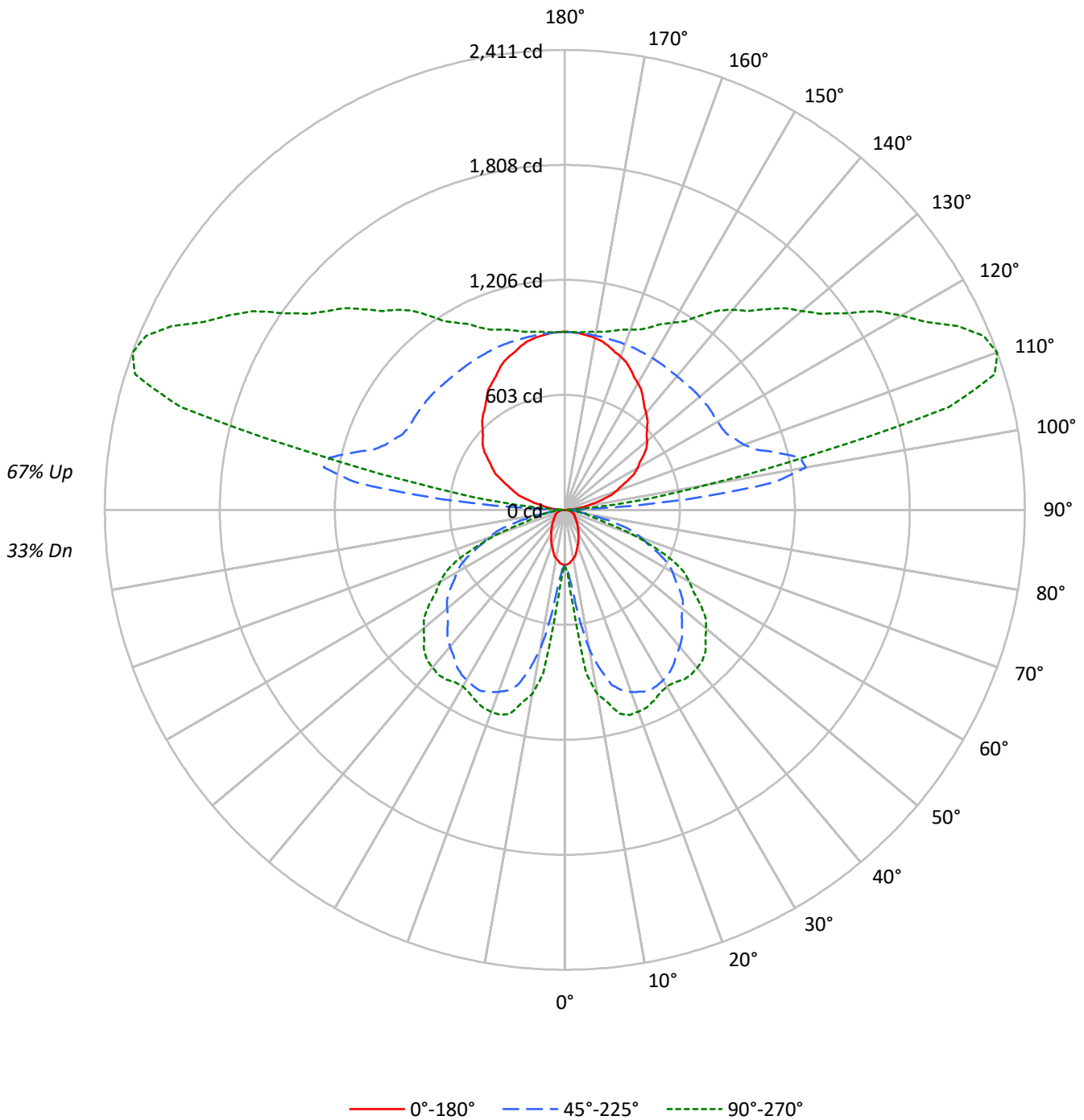
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8608.9 lumens  
Efficiency: N/A  
Efficacy: 103.3 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-Indirect  
  
Input Watts (W): 83.3  
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	103	103	103	103	93	93	93	93	74	74	74	57	57	57	41	41	41	33
1	94	90	86	82	84	81	78	75	65	62	60	50	48	47	36	35	34	28
2	85	78	72	67	77	70	65	61	56	53	50	43	41	39	31	30	28	23
3	78	68	61	55	70	62	55	50	49	45	41	38	35	32	27	25	24	19
4	71	60	52	46	63	54	48	42	43	39	35	33	30	27	24	22	20	16
5	65	53	45	39	58	48	41	36	39	33	30	30	26	23	21	19	17	14
6	59	47	39	34	53	43	36	31	34	29	25	27	23	20	19	17	15	12
7	55	42	35	29	49	39	32	27	31	26	22	24	20	17	17	15	13	10
8	50	38	31	25	45	35	28	23	28	23	19	22	18	15	16	13	11	9
9	47	35	27	22	42	32	25	21	26	21	17	20	16	14	15	12	10	8
10	44	32	25	20	39	29	22	18	23	19	15	18	15	12	13	11	9	7

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

	0°	45°	90°
0°	4660	4660	4660
5°	4543	6297	8253
10°	4254	12193	16060
15°	3850	15863	18484
20°	3409	17450	19357
25°	3016	18661	19675
30°	2664	19220	19919
35°	2379	19553	21413
40°	2165	19739	22753
45°	1996	19833	23825
50°	1881	20213	24257
55°	1835	20738	24451
60°	1883	21012	24329
65°	1960	20726	23641
70°	2030	20044	17882
75°	2252	18004	9869
80°	2325	9289	9159
85°	2316	6428	3853

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 52.5°  
 Luminance: 24671 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	48.4	0.6
10°-20°	220.7	2.6
20°-30°	388.3	4.5
30°-40°	502.6	5.8
40°-50°	554.4	6.4
50°-60°	517.6	6.0
60°-70°	400.0	4.6
70°-80°	184.5	2.1
80°-90°	36.3	0.4
90°-100°	355.3	4.1
100°-110°	1163.6	13.5
110°-120°	1150.4	13.4
120°-130°	940.4	10.9
130°-140°	767.4	8.9
140°-150°	597.2	6.9
150°-160°	430.0	5.0
160°-170°	263.1	3.1
170°-180°	88.9	1.0
0°-30°	657.4	7.6
0°-40°	1160.0	13.5
0°-60°	2231.9	25.9
0°-90°	2852.8	33.1
90°-120°	2669.3	31.0
90°-150°	4974.2	57.8
90°-180°	5756.0	66.9
0°-180°	8608.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	289	289	289	289	289	
5°	280	321	388	474	509	26
15°	230	454	949	1062	1106	64
25°	169	610	1048	1094	1104	78
35°	121	589	992	1027	1086	76
45°	87	451	869	997	1043	68
55°	65	269	737	847	869	59
65°	51	152	542	608	619	50
75°	36	93	289	156	158	37
85°	12	27	35	24	21	13
90°	1	3	8	7	8	3
95°	50	144	646	230	150	57
105°	202	288	1155	2194	2085	213
115°	364	435	938	1939	2276	360
125°	507	565	925	1529	1796	451
135°	611	675	917	1319	1487	472
145°	714	766	915	1134	1243	447
155°	814	841	921	1015	1054	375
165°	888	897	925	961	971	250
175°	929	929	930	936	934	88
180°	933	933	933	933	933	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	288.6	288.6	288.6	288.6	288.6
2.5°	286.4	298.3	311.9	327.6	334.1
5°	280.3	321.0	388.5	473.9	509.2
7.5°	269.4	352.2	565.0	793.6	864.1
10°	259.5	374.8	743.7	941.6	979.6
12.5°	248.4	404.9	855.8	994.9	1033.9
15°	230.3	454.2	949.0	1062.4	1105.8
17.5°	211.7	509.6	992.3	1104.1	1127.7
20°	198.4	548.4	1015.6	1111.7	1126.6
22.5°	186.2	577.5	1032.3	1105.1	1121.1
25°	169.3	610.2	1047.5	1093.6	1104.4
27.5°	152.9	618.8	1040.9	1071.1	1081.7
30°	142.9	616.4	1030.9	1053.4	1068.4
32.5°	134.0	609.7	1016.5	1038.3	1070.6
35°	120.7	588.7	992.0	1026.7	1086.4
37.5°	109.3	555.1	959.9	1030.8	1088.3
40°	102.7	530.0	936.5	1030.6	1079.5
42.5°	96.0	500.6	909.9	1019.5	1068.4
45°	87.4	451.0	868.6	997.3	1043.4
47.5°	79.4	395.2	830.3	966.4	1000.1
50°	74.9	357.1	804.7	938.5	965.7
52.5°	70.5	320.1	779.2	905.2	930.2
55°	65.2	268.7	736.7	846.8	868.6
57.5°	60.5	224.6	688.5	782.4	800.0
60°	58.3	200.7	650.7	735.8	753.4
62.5°	54.9	178.9	608.5	686.9	703.4
65°	51.3	151.7	542.5	608.0	618.8
67.5°	46.3	131.5	472.3	512.3	492.0
70°	43.0	121.7	424.6	437.1	378.8
72.5°	40.8	110.8	372.4	339.4	228.9
75°	36.1	93.1	288.6	155.5	158.2
77.5°	29.4	72.0	189.8	119.4	121.8
80°	25.0	58.9	99.9	97.2	98.5
82.5°	20.5	45.8	68.8	71.6	69.7
85°	12.5	27.4	34.7	23.5	20.8
87.5°	4.6	10.4	7.1	6.9	7.1
90°	1.0	2.8	7.7	6.7	7.7
92.5°	16.3	59.4	182.5	59.3	47.5
95°	49.8	144.5	646.0	230.1	149.5
97.5°	90.5	190.6	1108.4	670.5	415.6
100°	118.9	214.4	1282.4	1145.2	759.1
102.5°	151.1	244.4	1263.3	1687.5	1308.1
105°	202.2	288.5	1155.0	2194.3	2084.7
107.5°	252.7	331.8	1049.3	2241.7	2362.3
110°	285.6	362.5	998.7	2186.6	2410.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	317.1	391.7	968.1	2090.6	2377.6
115°	364.2	435.4	938.4	1939.0	2276.4
117.5°	410.0	476.6	927.0	1790.0	2132.6
120°	439.9	502.7	924.0	1703.1	2036.8
122.5°	466.8	528.1	924.0	1628.2	1937.9
125°	507.0	565.1	924.9	1529.1	1796.2
127.5°	541.2	600.4	923.8	1456.0	1688.5
130°	562.6	622.6	923.0	1411.8	1621.7
132.5°	581.8	643.3	920.7	1373.8	1564.2
135°	610.6	675.2	917.3	1318.8	1486.6
137.5°	640.8	704.9	915.2	1261.5	1413.2
140°	662.3	724.2	914.4	1225.3	1368.7
142.5°	683.8	741.9	914.4	1186.7	1316.6
145°	714.1	766.5	915.3	1134.4	1243.1
147.5°	745.9	789.6	916.7	1089.0	1171.1
150°	765.8	804.2	918.2	1062.6	1132.0
152.5°	785.8	819.7	919.0	1040.9	1098.2
155°	813.7	840.9	921.1	1015.0	1054.3
157.5°	838.9	858.5	923.2	994.6	1023.1
160°	855.0	870.9	924.0	983.0	1005.4
162.5°	868.8	881.7	924.0	973.6	990.1
165°	888.5	896.9	924.9	960.6	970.9
167.5°	905.2	909.3	926.1	950.6	956.2
170°	914.4	916.3	926.8	945.1	947.0
172.5°	921.3	922.4	929.1	941.2	941.6
175°	928.8	928.8	929.7	936.4	934.5
177.5°	932.6	931.8	931.1	935.6	932.6
180°	932.6	932.6	932.6	932.6	932.6



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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	10.62	11.37	11.71	12.45	13.94	19.36	20.10	20.44	21.19	22.68
	3H	11.34	12.01	12.44	13.10	14.61	20.97	21.64	22.07	22.73	24.24
	4H	11.64	12.27	12.74	13.37	14.88	21.15	21.78	22.25	22.88	24.39
	6H	11.85	12.43	12.96	13.53	15.06	21.23	21.81	22.34	22.91	24.43
	8H	11.90	12.46	13.02	13.57	15.09	21.23	21.78	22.34	22.90	24.42
	12H	11.93	12.45	13.05	13.56	15.11	21.19	21.72	22.32	22.83	24.37
4H	2H	15.01	15.64	16.12	16.73	18.25	19.79	20.42	20.90	21.52	23.03
	3H	15.93	16.45	17.05	17.58	19.11	21.60	22.13	22.72	23.25	24.78
	4H	16.21	16.69	17.33	17.80	19.35	21.83	22.32	22.96	23.43	24.98
	6H	16.33	16.74	17.46	17.88	19.42	21.97	22.39	23.10	23.52	25.06
	8H	16.35	16.73	17.48	17.86	19.42	21.99	22.38	23.12	23.51	25.06
	12H	16.33	16.68	17.48	17.82	19.39	21.96	22.31	23.11	23.45	25.01
8H	4H	17.37	17.76	18.50	18.88	20.44	21.94	22.33	23.07	23.46	25.01
	6H	17.60	17.92	18.75	19.09	20.64	22.14	22.46	23.29	23.63	25.18
	8H	17.67	17.95	18.83	19.10	20.67	22.20	22.48	23.36	23.63	25.20
	12H	17.69	17.94	18.85	19.08	20.69	22.19	22.43	23.35	23.58	25.19
12H	4H	17.38	17.73	18.53	18.87	20.43	21.89	22.24	23.03	23.38	24.94
	6H	17.69	17.97	18.85	19.12	20.70	22.12	22.40	23.28	23.55	25.12
	8H	17.79	18.04	18.96	19.18	20.79	22.18	22.43	23.35	23.57	25.18