

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: P855416

Luminaire Tested: SQ2-FB-125U-075D-840-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855416  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G2-2308-131-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-FB-125U-075D-840-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 750 LUMENS PER FOOT  
UPLIGHT 1250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

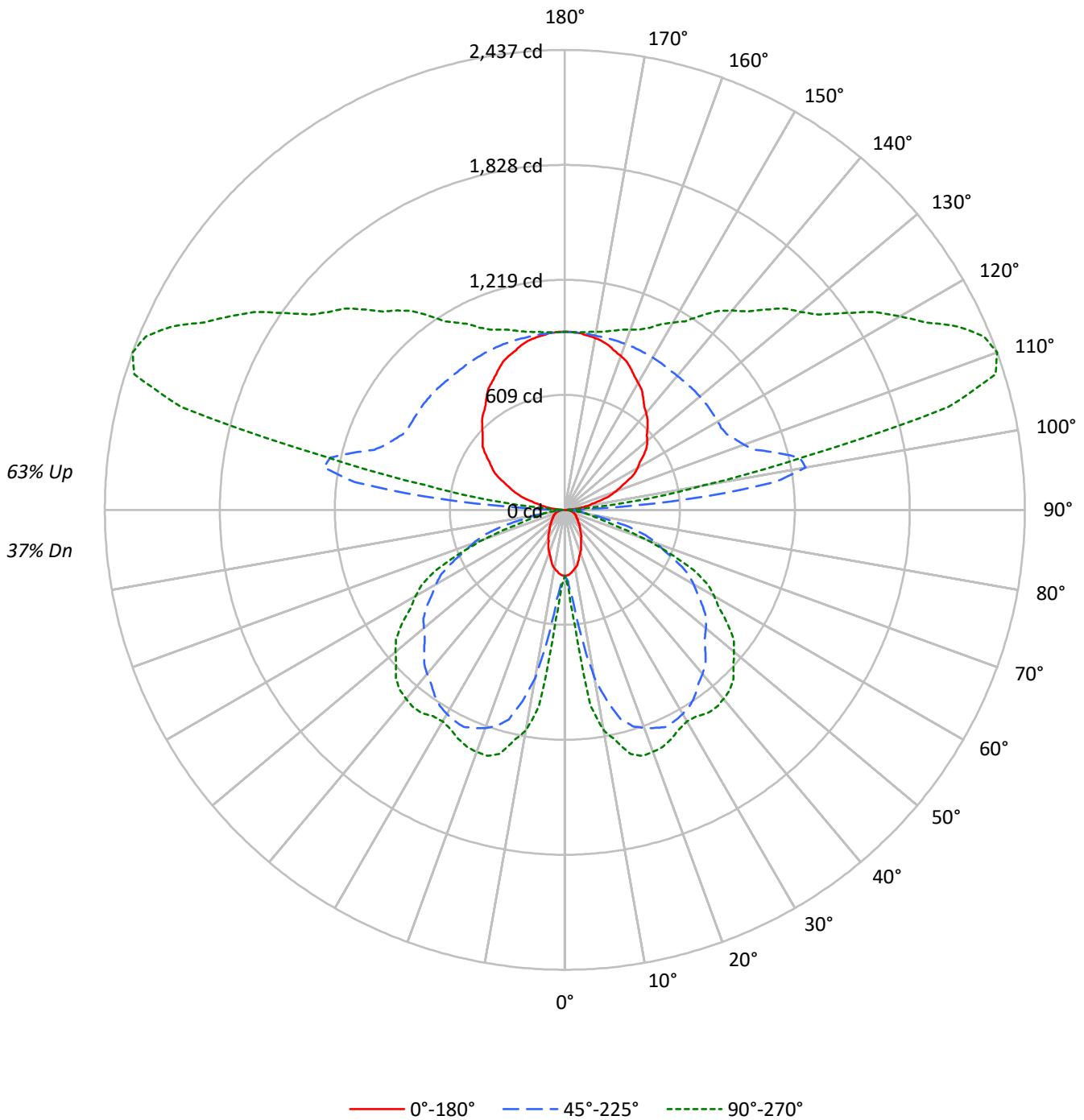
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9274.9 lumens  
Efficiency: N/A  
Efficacy: 131.4 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): 70.6  
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	104	104	104	104	94	94	94	94	76	76	76	60	60	60	44	44	44	37
1	95	91	87	83	86	82	79	76	67	64	62	52	51	49	39	38	37	31
2	86	79	73	67	78	71	66	62	58	54	51	46	43	41	34	32	31	26
3	78	69	61	56	71	63	56	51	51	46	42	40	37	34	30	28	26	21
4	71	61	53	47	64	55	48	43	45	40	36	35	32	29	26	24	22	18
5	65	54	45	39	59	49	42	36	40	34	30	31	28	25	23	21	19	15
6	60	48	40	34	54	44	36	31	36	30	26	28	24	21	21	18	16	13
7	55	43	35	29	50	39	32	27	32	27	23	25	21	18	19	16	14	11
8	51	39	31	26	46	35	28	24	29	24	20	23	19	16	17	15	13	10
9	47	35	28	23	43	32	25	21	26	21	18	21	17	14	16	13	11	9
10	44	32	25	20	40	29	23	19	24	19	16	19	15	13	15	12	10	8

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

	0°	45°	90°
0°	5646	5646	5646
5°	5504	7629	10000
10°	5155	14773	19461
15°	4665	19221	22397
20°	4131	21146	23457
25°	3654	22611	23840
30°	3229	23288	24134
35°	2884	23692	25945
40°	2624	23918	27566
45°	2418	24032	28866
50°	2281	24493	29391
55°	2224	25129	29627
60°	2280	25462	29479
65°	2376	25112	28646
70°	2459	24283	21663
75°	2726	21815	11959
80°	2817	11260	11093
85°	2816	7799	4668

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 52.5°  
 Luminance: 29893 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	58.6	0.6
10°-20°	267.4	2.9
20°-30°	470.5	5.1
30°-40°	609.0	6.6
40°-50°	671.7	7.2
50°-60°	627.2	6.8
60°-70°	484.7	5.2
70°-80°	223.6	2.4
80°-90°	43.8	0.5
90°-100°	360.7	3.9
100°-110°	1174.5	12.7
110°-120°	1161.7	12.5
120°-130°	949.4	10.2
130°-140°	775.9	8.4
140°-150°	604.4	6.5
150°-160°	435.6	4.7
160°-170°	266.3	2.9
170°-180°	89.8	1.0
0°-30°	796.5	8.6
0°-40°	1405.6	15.2
0°-60°	2704.4	29.2
0°-90°	3456.5	37.3
90°-120°	2696.9	29.1
90°-150°	5026.6	54.2
90°-180°	5818.0	62.7
0°-180°	9274.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	350	350	350	350	350	
5°	340	389	471	574	617	32
15°	279	550	1150	1287	1340	78
25°	205	739	1269	1325	1338	94
35°	146	713	1202	1244	1316	92
45°	106	546	1052	1208	1264	82
55°	79	326	893	1026	1052	71
65°	62	184	657	737	750	61
75°	44	113	350	188	192	45
85°	15	33	42	29	25	16
90°	0	3	8	7	7	3
95°	49	148	661	236	145	57
105°	200	288	1163	2222	2104	213
115°	369	440	948	1953	2298	365
125°	513	572	935	1542	1818	456
135°	619	684	930	1331	1501	479
145°	724	777	928	1146	1255	453
155°	826	853	934	1026	1065	380
165°	901	909	936	971	982	254
175°	940	940	940	946	944	89
180°	943	943	943	943	943	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	349.7	349.7	349.7	349.7	349.7
2.5°	346.9	361.5	377.9	396.9	404.9
5°	339.6	388.9	470.7	574.3	617.0
7.5°	326.4	426.8	684.6	961.6	1047.0
10°	314.4	454.2	901.1	1140.9	1187.0
12.5°	300.9	490.6	1037.0	1205.5	1252.8
15°	279.1	550.3	1149.9	1287.3	1339.9
17.5°	256.5	617.5	1202.3	1337.9	1366.4
20°	240.4	664.5	1230.7	1347.1	1365.2
22.5°	225.6	699.7	1250.8	1339.0	1358.4
25°	205.1	739.3	1269.2	1325.1	1338.2
27.5°	185.3	749.7	1261.2	1297.8	1310.6
30°	173.2	746.9	1249.1	1276.5	1294.5
32.5°	162.5	738.7	1231.6	1258.1	1297.2
35°	146.3	713.3	1202.0	1244.1	1316.3
37.5°	132.5	672.7	1163.1	1249.1	1318.8
40°	124.5	642.3	1134.8	1248.7	1307.9
42.5°	116.3	606.5	1102.5	1235.3	1294.5
45°	105.9	546.5	1052.5	1208.4	1264.2
47.5°	96.1	478.9	1006.0	1171.0	1211.8
50°	90.8	432.7	975.1	1137.2	1170.1
52.5°	85.4	387.8	944.2	1096.9	1127.1
55°	79.0	325.6	892.7	1026.1	1052.5
57.5°	73.3	272.2	834.2	948.1	969.4
60°	70.6	243.2	788.5	891.5	912.9
62.5°	66.5	216.8	737.3	832.3	852.4
65°	62.2	183.9	657.3	736.7	749.8
67.5°	56.2	159.4	572.3	620.8	596.1
70°	52.1	147.4	514.4	529.7	458.9
72.5°	49.4	134.3	451.2	411.2	277.4
75°	43.7	112.7	349.7	188.3	191.7
77.5°	35.7	87.3	229.9	144.6	147.7
80°	30.3	71.3	121.1	117.7	119.3
82.5°	24.9	55.5	83.4	86.7	84.4
85°	15.2	33.2	42.1	28.6	25.2
87.5°	5.4	12.6	8.4	8.2	8.2
90°	0.0	3.4	8.2	7.0	7.0
92.5°	16.7	60.0	191.8	63.3	48.7
95°	48.7	148.5	661.1	235.8	145.0
97.5°	91.6	193.2	1122.2	683.4	417.1
100°	119.5	219.3	1295.7	1155.4	749.4
102.5°	151.0	247.2	1274.4	1709.3	1299.7
105°	199.5	288.0	1163.4	2222.1	2104.1
107.5°	252.0	335.2	1058.1	2266.6	2391.6
110°	290.0	365.9	1008.0	2211.3	2437.1



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	321.5	396.6	976.5	2111.7	2402.7
115°	368.8	440.3	947.7	1953.1	2297.8
117.5°	417.6	482.0	936.5	1807.8	2151.0
120°	445.4	508.9	933.7	1718.5	2050.8
122.5°	472.3	534.9	934.7	1641.0	1950.5
125°	512.7	571.6	934.9	1542.1	1817.7
127.5°	547.3	607.6	934.7	1467.9	1697.8
130°	569.5	630.8	933.7	1425.6	1630.9
132.5°	589.0	653.0	932.8	1386.4	1578.9
135°	619.4	684.1	930.3	1330.9	1501.0
137.5°	649.1	714.2	927.8	1274.5	1425.6
140°	670.5	732.8	926.8	1236.3	1379.1
142.5°	690.8	750.5	926.8	1199.8	1327.3
145°	723.8	777.1	928.0	1146.2	1255.0
147.5°	755.9	802.1	929.6	1100.6	1184.7
150°	777.2	818.0	931.4	1073.5	1144.9
152.5°	798.5	832.1	932.3	1052.7	1109.6
155°	825.9	853.1	933.7	1026.3	1064.8
157.5°	851.9	871.4	935.1	1006.8	1033.7
160°	867.6	883.5	936.1	994.6	1016.1
162.5°	881.5	893.9	936.1	984.3	1000.4
165°	901.3	909.2	936.1	971.1	982.4
167.5°	915.2	920.2	936.3	961.2	967.2
170°	924.5	926.7	937.2	954.7	956.9
172.5°	931.0	932.3	939.1	951.0	950.5
175°	939.5	939.5	939.5	946.4	944.2
177.5°	943.0	942.1	941.2	945.7	942.1
180°	943.0	943.0	943.0	943.0	943.0



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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	11.78	12.56	12.84	13.62	15.06	20.52	21.29	21.57	22.36	23.80
	3H	12.51	13.20	13.57	14.27	15.73	22.13	22.83	23.20	23.90	25.36
	4H	12.80	13.46	13.88	14.53	16.00	22.31	22.97	23.39	24.04	25.51
	6H	13.01	13.62	14.10	14.70	16.17	22.39	23.00	23.48	24.07	25.55
	8H	13.07	13.65	14.16	14.74	16.21	22.39	22.97	23.48	24.06	25.53
	12H	13.09	13.64	14.19	14.73	16.22	22.36	22.91	23.46	24.00	25.49
4H	2H	16.17	16.83	17.25	17.90	19.37	20.95	21.61	22.03	22.68	24.15
	3H	17.09	17.64	18.18	18.74	20.22	22.77	23.32	23.86	24.42	25.89
	4H	17.37	17.88	18.47	18.97	20.47	23.00	23.51	24.10	24.59	26.09
	6H	17.50	17.93	18.60	19.04	20.54	23.14	23.57	24.25	24.69	26.18
	8H	17.52	17.92	18.62	19.03	20.54	23.16	23.57	24.27	24.67	26.18
	12H	17.51	17.87	18.63	18.99	20.50	23.13	23.50	24.26	24.62	26.13
8H	4H	18.54	18.94	19.65	20.05	21.56	23.11	23.51	24.22	24.62	26.13
	6H	18.77	19.11	19.90	20.25	21.76	23.31	23.65	24.44	24.79	26.30
	8H	18.84	19.13	19.98	20.26	21.79	23.37	23.66	24.51	24.79	26.32
	12H	18.87	19.12	20.00	20.25	21.81	23.36	23.62	24.50	24.74	26.30
12H	4H	18.55	18.92	19.68	20.04	21.55	23.06	23.42	24.18	24.54	26.06
	6H	18.87	19.16	20.00	20.29	21.81	23.29	23.59	24.43	24.71	26.24
	8H	18.97	19.22	20.10	20.35	21.91	23.36	23.61	24.50	24.74	26.30