

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: P853894

Luminaire Tested: SQ2-FB-125U-125D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853894  
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-125D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 1250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

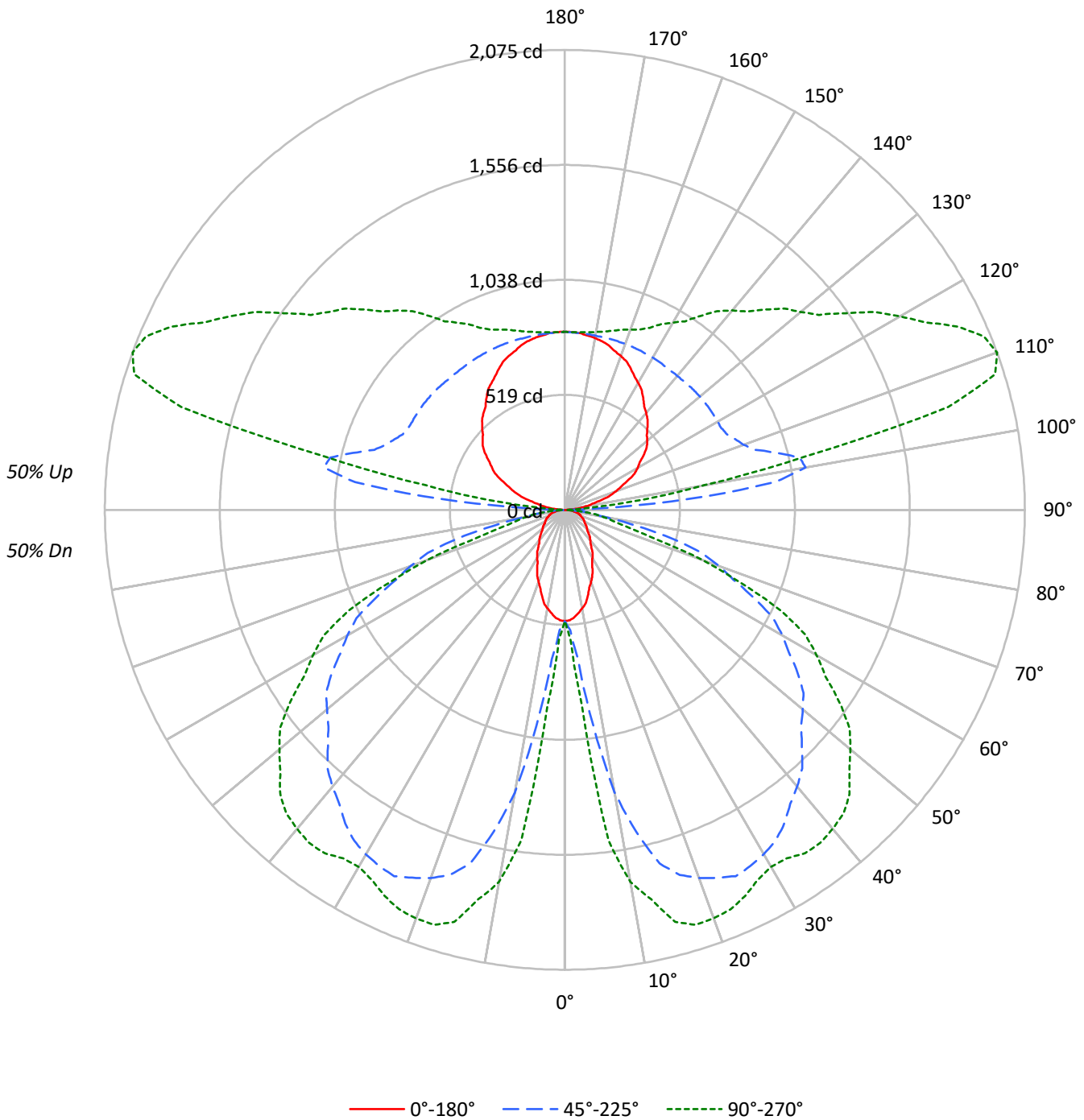
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9917.6 lumens  
Efficiency: N/A  
Efficacy: 106.5 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: General Diffuse  
  
Input Watts (W): 93.1  
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	0	
RCR																						
0	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50				
1	98	93	89	86	90	86	83	80	73	70	68	61	59	57	49	48	47	42				
2	89	81	75	69	81	75	69	65	63	59	56	53	50	47	43	41	39	34				
3	80	71	63	57	74	65	59	54	55	50	46	46	43	39	38	35	33	29				
4	73	62	54	48	67	58	50	45	49	43	39	41	37	33	33	30	28	24				
5	67	55	47	41	61	51	44	38	43	38	33	36	32	28	30	26	24	20				
6	62	49	41	35	56	46	38	33	39	33	29	33	28	25	27	23	21	18				
7	57	44	36	30	52	41	34	28	35	29	25	29	25	21	24	21	18	15				
8	52	40	32	26	48	37	30	25	32	26	22	27	22	19	22	18	16	13				
9	49	36	29	23	45	34	27	22	29	23	19	24	20	17	20	17	14	12				
10	45	33	26	21	42	31	24	20	26	21	17	22	18	15	18	15	13	11				

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

	0°	45°	90°
0°	8110	8110	8110
5°	7906	10960	14365
10°	7404	21223	27953
15°	6701	27612	32174
20°	5935	30374	33694
25°	5248	32484	34247
30°	4639	33454	34670
35°	4141	34036	37272
40°	3766	34360	39601
45°	3473	34520	41468
50°	3275	35183	42222
55°	3195	36099	42556
60°	3274	36577	42347
65°	3415	36076	41150
70°	3536	34886	31124
75°	3918	31335	17174
80°	4045	16169	15946
85°	4020	11189	6706

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 52.5°  
 Luminance: 42942 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	84.2	0.8
10°-20°	384.2	3.9
20°-30°	675.9	6.8
30°-40°	874.9	8.8
40°-50°	964.9	9.7
50°-60°	900.9	9.1
60°-70°	696.3	7.0
70°-80°	321.2	3.2
80°-90°	62.2	0.6
90°-100°	307.1	3.1
100°-110°	999.7	10.1
110°-120°	988.9	10.0
120°-130°	808.2	8.1
130°-140°	660.5	6.7
140°-150°	514.5	5.2
150°-160°	370.8	3.7
160°-170°	226.7	2.3
170°-180°	76.5	0.8
0°-30°	1144.2	11.5
0°-40°	2019.1	20.4
0°-60°	3885.0	39.2
0°-90°	4964.7	50.1
90°-120°	2295.8	23.1
90°-150°	4278.9	43.1
90°-180°	4953.0	49.9
0°-180°	9917.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	502	502	502	502	502	
5°	488	559	676	825	886	45
15°	401	790	1652	1849	1925	112
25°	295	1062	1823	1904	1922	135
35°	210	1025	1727	1787	1891	132
45°	152	785	1512	1736	1816	118
55°	114	468	1282	1474	1512	102
65°	89	264	944	1058	1077	88
75°	63	162	502	271	275	64
85°	22	48	60	41	36	23
90°	0	3	7	6	6	3
95°	42	126	563	201	123	48
105°	170	245	990	1892	1791	181
115°	314	375	807	1663	1956	311
125°	436	487	796	1313	1547	388
135°	527	582	792	1133	1278	407
145°	616	662	790	976	1068	386
155°	703	726	795	874	906	324
165°	767	774	797	827	836	216
175°	800	800	800	806	804	76
180°	803	803	803	803	803	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	502.3	502.3	502.3	502.3	502.3
2.5°	498.5	519.2	542.9	570.2	581.5
5°	487.8	558.7	676.2	824.9	886.3
7.5°	469.0	613.0	983.4	1381.3	1504.1
10°	451.6	652.3	1294.5	1638.9	1705.0
12.5°	432.3	704.8	1489.6	1731.7	1799.7
15°	400.9	790.5	1651.9	1849.2	1924.8
17.5°	368.5	887.1	1727.2	1921.9	1963.0
20°	345.4	954.6	1767.8	1935.0	1961.0
22.5°	324.1	1005.1	1796.8	1923.5	1951.4
25°	294.6	1062.1	1823.4	1903.5	1922.4
27.5°	266.1	1077.0	1811.8	1864.4	1882.8
30°	248.8	1072.9	1794.4	1833.6	1859.6
32.5°	233.3	1061.2	1769.3	1807.3	1863.5
35°	210.1	1024.8	1726.8	1787.1	1891.0
37.5°	190.3	966.3	1670.7	1794.2	1894.4
40°	178.7	922.6	1630.2	1793.9	1878.9
42.5°	167.1	871.3	1583.8	1774.6	1859.6
45°	152.1	785.0	1511.8	1735.8	1816.1
47.5°	138.1	687.9	1445.2	1682.2	1740.8
50°	130.4	621.6	1400.7	1633.7	1680.9
52.5°	122.7	557.2	1356.3	1575.6	1619.1
55°	113.5	467.7	1282.4	1474.0	1511.8
57.5°	105.3	391.0	1198.4	1361.8	1392.5
60°	101.4	349.4	1132.7	1280.7	1311.4
62.5°	95.6	311.5	1059.2	1195.6	1224.4
65°	89.4	264.1	944.3	1058.2	1077.1
67.5°	80.7	229.0	822.1	891.8	856.4
70°	74.9	211.8	739.0	760.8	659.3
72.5°	71.0	192.9	648.2	590.7	398.5
75°	62.8	162.0	502.3	270.6	275.3
77.5°	51.2	125.3	330.4	207.8	212.0
80°	43.5	102.5	173.9	169.1	171.5
82.5°	35.7	79.7	119.8	124.5	121.2
85°	21.7	47.7	60.4	40.9	36.2
87.5°	7.7	17.8	11.0	10.8	10.8
90°	0.0	2.9	6.9	5.9	5.9
92.5°	14.2	51.1	163.3	53.8	41.5
95°	41.5	126.4	562.8	200.7	123.4
97.5°	78.0	164.5	955.2	581.8	355.1
100°	101.7	186.7	1102.9	983.5	637.9
102.5°	128.6	210.4	1084.8	1455.0	1106.3
105°	169.8	245.1	990.4	1891.6	1791.2
107.5°	214.5	285.3	900.7	1929.4	2035.8
110°	246.9	311.5	858.1	1882.4	2074.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	273.7	337.6	831.2	1797.6	2045.3
115°	314.0	374.8	806.7	1662.6	1956.1
117.5°	355.5	410.3	797.2	1538.9	1831.1
120°	379.2	433.2	794.9	1462.9	1745.7
122.5°	402.1	455.4	795.7	1396.9	1660.4
125°	436.4	486.6	795.9	1312.7	1547.3
127.5°	465.9	517.2	795.7	1249.6	1445.2
130°	484.8	537.0	794.9	1213.5	1388.3
132.5°	501.4	555.9	794.1	1180.1	1344.1
135°	527.3	582.3	791.9	1132.9	1277.7
137.5°	552.6	608.0	789.7	1084.9	1213.5
140°	570.7	623.8	788.9	1052.4	1174.0
142.5°	588.1	638.9	788.9	1021.3	1129.8
145°	616.1	661.5	789.9	975.7	1068.4
147.5°	643.4	682.8	791.3	936.9	1008.5
150°	661.6	696.3	792.9	913.7	974.6
152.5°	679.7	708.3	793.7	896.1	944.6
155°	703.0	726.2	794.9	873.6	906.4
157.5°	725.2	741.8	796.1	857.0	880.0
160°	738.6	752.1	796.8	846.6	865.0
162.5°	750.4	760.9	796.8	837.8	851.5
165°	767.2	774.0	796.8	826.7	836.3
167.5°	779.1	783.3	797.0	818.3	823.3
170°	787.0	788.9	797.8	812.7	814.6
172.5°	792.5	793.7	799.4	809.5	809.1
175°	799.8	799.8	799.8	805.7	803.8
177.5°	802.8	802.0	801.2	805.1	802.0
180°	802.8	802.8	802.8	802.8	802.8



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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	14.34	15.23	15.29	16.20	17.47	23.08	23.97	24.03	24.94	26.21
	3H	15.07	15.87	16.04	16.85	18.14	24.70	25.50	25.66	26.48	27.77
	4H	15.38	16.13	16.35	17.11	18.41	24.88	25.64	25.86	26.62	27.92
	6H	15.59	16.29	16.58	17.28	18.59	24.97	25.67	25.96	26.66	27.97
	8H	15.65	16.31	16.65	17.32	18.63	24.98	25.64	25.97	26.64	27.95
	12H	15.68	16.31	16.68	17.31	18.65	24.95	25.58	25.95	26.58	27.91
4H	2H	18.74	19.50	19.73	20.48	21.78	23.52	24.28	24.51	25.26	26.56
	3H	19.68	20.31	20.67	21.32	22.64	25.35	25.98	26.35	26.99	28.31
	4H	19.96	20.54	20.97	21.54	22.88	25.59	26.17	26.59	27.17	28.51
	6H	20.10	20.59	21.11	21.62	22.96	25.74	26.23	26.75	27.26	28.60
	8H	20.12	20.58	21.13	21.60	22.95	25.76	26.23	26.78	27.25	28.60
	12H	20.11	20.53	21.15	21.57	22.92	25.74	26.16	26.77	27.19	28.55
8H	4H	21.14	21.60	22.16	22.63	23.98	25.71	26.17	26.73	27.20	28.55
	6H	21.38	21.76	22.42	22.83	24.17	25.92	26.30	26.96	27.36	28.71
	8H	21.45	21.79	22.50	22.84	24.20	25.98	26.32	27.03	27.37	28.73
	12H	21.48	21.77	22.53	22.82	24.23	25.97	26.27	27.03	27.31	28.72
12H	4H	21.16	21.58	22.19	22.62	23.97	25.67	26.08	26.70	27.12	28.48
	6H	21.47	21.81	22.52	22.86	24.23	25.90	26.24	26.95	27.29	28.65
	8H	21.58	21.87	22.63	22.92	24.33	25.97	26.26	27.02	27.31	28.72