

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: P853883

Luminaire Tested: SQ2-FB-100U-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P853883  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-FB-100U-125D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

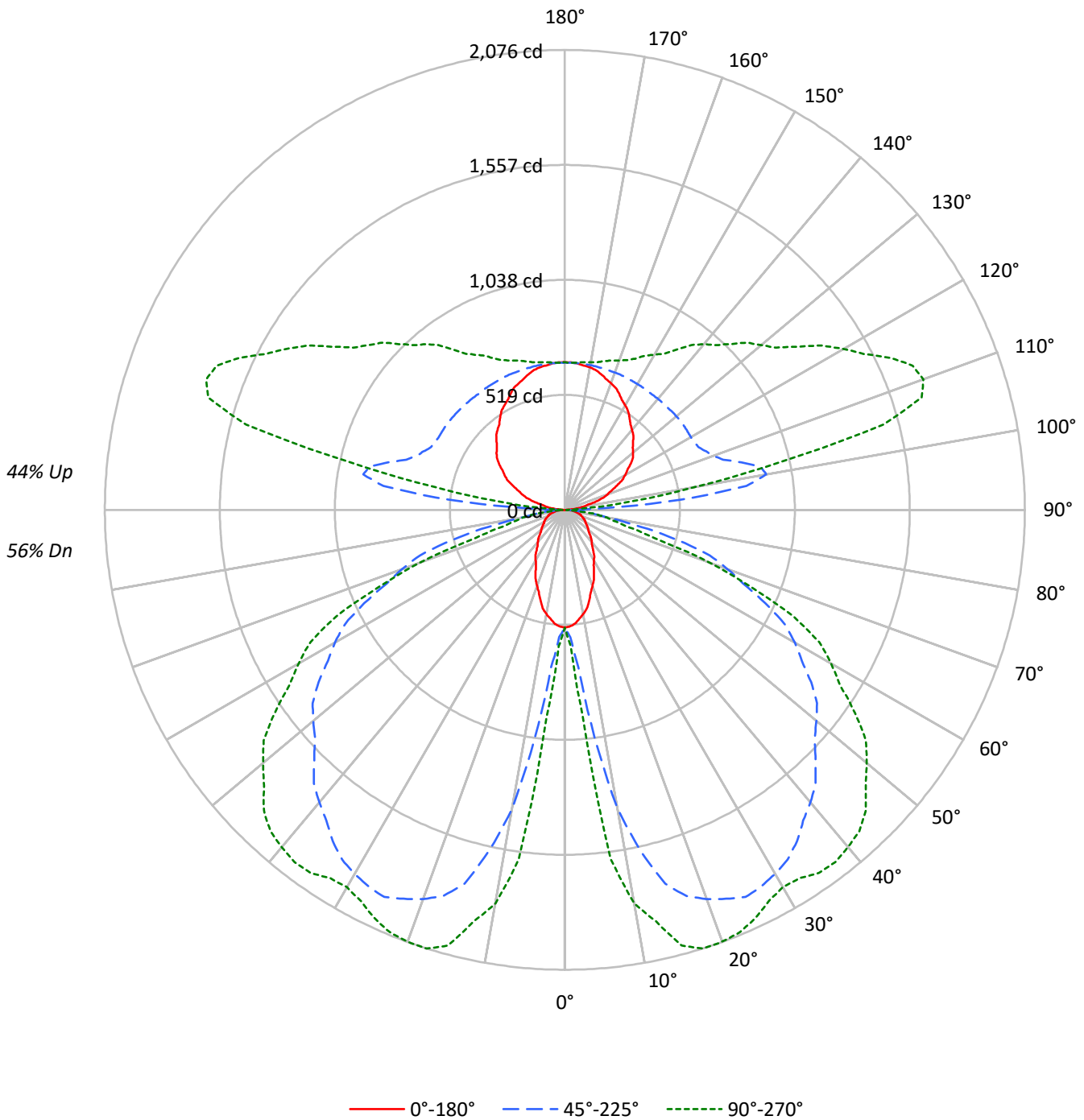
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9391.7 lumens  
Efficiency: N/A  
Efficacy: 114.8 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): 81.8  
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	109	109	109	109	101	101	101	101	87	87	87	74	74	74	62	62	62	56
1	99	94	90	87	92	88	84	81	76	73	71	64	63	61	54	53	52	47
2	90	82	76	70	83	76	71	66	66	62	58	56	53	50	47	45	43	38
3	81	72	64	58	75	67	60	55	58	52	48	49	45	42	41	38	36	32
4	74	63	55	48	69	59	51	46	51	45	40	43	39	35	36	33	30	27
5	68	56	47	41	63	52	44	39	45	39	34	39	34	30	32	29	26	23
6	62	50	41	35	58	46	39	33	40	34	30	35	30	26	29	25	22	20
7	57	45	36	31	53	42	34	29	36	30	26	31	26	23	26	23	20	17
8	53	40	32	27	49	38	31	25	33	27	23	28	24	20	24	20	17	15
9	49	37	29	24	46	34	27	22	30	24	20	26	21	18	22	18	15	13
10	46	34	26	21	43	31	25	20	28	22	18	24	19	16	20	17	14	12

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

	0°	45°	90°
0°	8578	8578	8578
5°	8363	11593	15195
10°	7832	22448	29568
15°	7089	29207	34033
20°	6277	32129	35641
25°	5553	34360	36225
30°	4905	35386	36672
35°	4380	36001	39425
40°	3984	36343	41890
45°	3674	36516	43863
50°	3464	37216	44661
55°	3381	38185	45017
60°	3465	38689	44792
65°	3610	38158	43526
70°	3739	36902	32922
75°	4142	33144	18166
80°	4277	17099	16867
85°	4261	11838	7095

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 52.5°  
 Luminance: 45422 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	89.0	0.9
10°-20°	406.4	4.3
20°-30°	714.9	7.6
30°-40°	925.4	9.9
40°-50°	1020.7	10.9
50°-60°	953.0	10.1
60°-70°	736.5	7.8
70°-80°	339.7	3.6
80°-90°	66.1	0.7
90°-100°	277.8	3.0
100°-110°	840.2	8.9
110°-120°	820.3	8.7
120°-130°	670.3	7.1
130°-140°	547.1	5.8
140°-150°	425.9	4.5
150°-160°	307.0	3.3
160°-170°	187.9	2.0
170°-180°	63.5	0.7
0°-30°	1210.3	12.9
0°-40°	2135.7	22.7
0°-60°	4109.4	43.8
0°-90°	5251.7	55.9
90°-120°	1938.3	20.6
90°-150°	3581.6	38.1
90°-180°	4140.0	44.1
0°-180°	9391.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	531	531	531	531	531	
5°	516	591	715	873	938	48
15°	424	836	1747	1956	2036	118
25°	312	1123	1929	2014	2033	143
35°	222	1084	1826	1890	2000	140
45°	161	830	1599	1836	1921	125
55°	120	495	1356	1559	1599	108
65°	94	279	999	1119	1139	93
75°	66	171	531	286	291	68
85°	23	50	64	43	38	24
90°	0	2	12	7	6	3
95°	34	109	524	194	122	41
105°	146	205	825	1567	1489	154
115°	260	310	667	1381	1622	257
125°	363	403	658	1090	1283	323
135°	436	481	654	940	1058	337
145°	509	546	654	809	884	319
155°	580	599	658	725	753	267
165°	634	641	661	686	694	179
175°	663	663	664	669	667	63
180°	665	665	665	665	665	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	531.3	531.3	531.3	531.3	531.3
2.5°	527.3	549.2	574.3	603.1	615.1
5°	516.0	591.0	715.3	872.6	937.5
7.5°	496.1	648.5	1040.2	1461.1	1591.0
10°	477.7	690.0	1369.2	1733.6	1803.5
12.5°	457.3	745.5	1575.7	1831.7	1903.7
15°	424.1	836.2	1747.3	1956.1	2036.0
17.5°	389.8	938.3	1827.0	2032.9	2076.3
20°	365.3	1009.7	1869.9	2046.8	2074.3
22.5°	342.8	1063.2	1900.6	2034.6	2064.1
25°	311.7	1123.4	1928.7	2013.5	2033.4
27.5°	281.5	1139.3	1916.4	1972.1	1991.5
30°	263.1	1134.9	1898.0	1939.5	1967.0
32.5°	246.8	1122.5	1871.5	1911.7	1971.1
35°	222.2	1084.0	1826.5	1890.3	2000.2
37.5°	201.3	1022.1	1767.2	1897.9	2003.8
40°	189.0	975.8	1724.3	1897.5	1987.5
42.5°	176.8	921.6	1675.3	1877.1	1967.0
45°	160.9	830.3	1599.2	1836.1	1921.0
47.5°	146.1	727.6	1528.7	1779.4	1841.3
50°	137.9	657.5	1481.6	1728.0	1778.0
52.5°	129.8	589.4	1434.6	1666.6	1712.6
55°	120.1	494.7	1356.5	1559.2	1599.2
57.5°	111.4	413.6	1267.6	1440.5	1473.0
60°	107.3	369.6	1198.1	1354.7	1387.1
62.5°	101.2	329.5	1120.4	1264.7	1295.2
65°	94.5	279.4	998.8	1119.4	1139.3
67.5°	85.3	242.2	869.6	943.3	905.8
70°	79.2	224.1	781.7	804.8	697.4
72.5°	75.1	204.0	685.6	624.8	421.5
75°	66.4	171.3	531.3	286.2	291.2
77.5°	54.2	132.6	349.5	219.8	224.3
80°	46.0	108.4	183.9	178.9	181.4
82.5°	37.8	84.3	126.7	131.7	128.2
85°	23.0	50.5	63.9	43.3	38.3
87.5°	8.2	18.6	12.7	11.7	11.5
90°	0.0	2.0	12.5	7.3	6.3
92.5°	11.7	47.2	169.6	56.2	40.5
95°	34.5	109.0	524.2	193.7	122.2
97.5°	66.6	138.7	826.2	546.7	332.9
100°	86.7	157.1	923.2	892.5	599.4
102.5°	109.2	177.2	903.1	1251.8	997.9
105°	146.2	205.4	825.0	1566.8	1489.2
107.5°	181.3	237.9	749.8	1597.9	1687.8
110°	204.7	258.8	712.2	1558.7	1722.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	227.2	279.7	689.7	1492.8	1699.5
115°	260.0	310.1	667.3	1380.8	1621.8
117.5°	292.6	340.0	659.4	1275.9	1522.6
120°	314.3	359.3	656.9	1214.7	1451.6
122.5°	334.4	376.9	656.9	1160.8	1379.7
125°	363.4	403.2	657.9	1090.4	1283.4
127.5°	387.0	428.3	656.9	1037.4	1202.0
130°	402.1	444.9	656.9	1007.0	1156.0
132.5°	415.4	459.1	656.0	979.1	1116.8
135°	435.5	481.4	653.7	940.4	1057.9
137.5°	457.8	501.5	653.7	899.1	1008.0
140°	472.0	514.9	653.7	872.2	975.4
142.5°	486.2	527.5	652.9	847.7	937.8
145°	508.6	546.4	653.7	809.0	884.5
147.5°	530.9	563.0	655.0	777.0	835.0
150°	545.1	574.7	655.8	759.3	808.3
152.5°	558.5	584.8	656.7	744.0	784.1
155°	579.6	599.0	657.9	725.4	752.9
157.5°	598.0	613.7	659.2	711.6	730.8
160°	608.8	622.1	660.0	703.1	717.4
162.5°	619.7	629.7	660.8	695.6	707.4
165°	633.9	641.0	661.0	686.3	694.5
167.5°	646.0	649.7	662.3	679.1	682.5
170°	652.7	654.7	663.1	675.7	676.7
172.5°	656.9	658.1	663.1	672.3	672.5
175°	663.1	663.1	664.2	669.3	667.3
177.5°	666.0	665.2	664.4	666.8	665.2
180°	665.2	665.2	665.2	665.2	665.2



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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	15.05	16.00	15.95	16.93	18.11	23.79	24.74	24.69	25.66	26.84
	3H	15.79	16.64	16.70	17.57	18.78	25.42	26.27	26.33	27.20	28.41
	4H	16.10	16.90	17.02	17.84	19.05	25.61	26.41	26.53	27.35	28.56
	6H	16.32	17.06	17.26	18.00	19.23	25.70	26.44	26.63	27.38	28.61
	8H	16.38	17.08	17.32	18.05	19.27	25.70	26.41	26.65	27.37	28.60
	12H	16.41	17.08	17.36	18.04	19.29	25.68	26.35	26.63	27.30	28.56
4H	2H	19.46	20.27	20.40	21.21	22.42	24.25	25.05	25.18	25.99	27.20
	3H	20.41	21.08	21.35	22.04	23.28	26.08	26.75	27.02	27.72	28.95
	4H	20.69	21.30	21.65	22.27	23.52	26.32	26.93	27.27	27.90	29.15
	6H	20.83	21.36	21.80	22.34	23.60	26.47	27.00	27.44	27.99	29.24
	8H	20.85	21.35	21.82	22.33	23.59	26.50	26.99	27.47	27.97	29.24
	12H	20.85	21.29	21.84	22.29	23.56	26.48	26.92	27.47	27.92	29.19
8H	4H	21.88	22.37	22.84	23.35	24.62	26.45	26.94	27.42	27.92	29.19
	6H	22.12	22.52	23.11	23.54	24.81	26.66	27.06	27.65	28.08	29.35
	8H	22.19	22.55	23.19	23.56	24.84	26.72	27.08	27.72	28.09	29.37
	12H	22.22	22.53	23.23	23.54	24.87	26.72	27.03	27.72	28.03	29.37
12H	4H	21.90	22.34	22.89	23.34	24.61	26.40	26.85	27.39	27.84	29.12
	6H	22.21	22.57	23.22	23.58	24.87	26.64	27.00	27.64	28.01	29.29
	8H	22.32	22.64	23.33	23.64	24.97	26.71	27.03	27.72	28.03	29.36