

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: P853715

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

Issue Date: 7/12/2024

**Test Information**

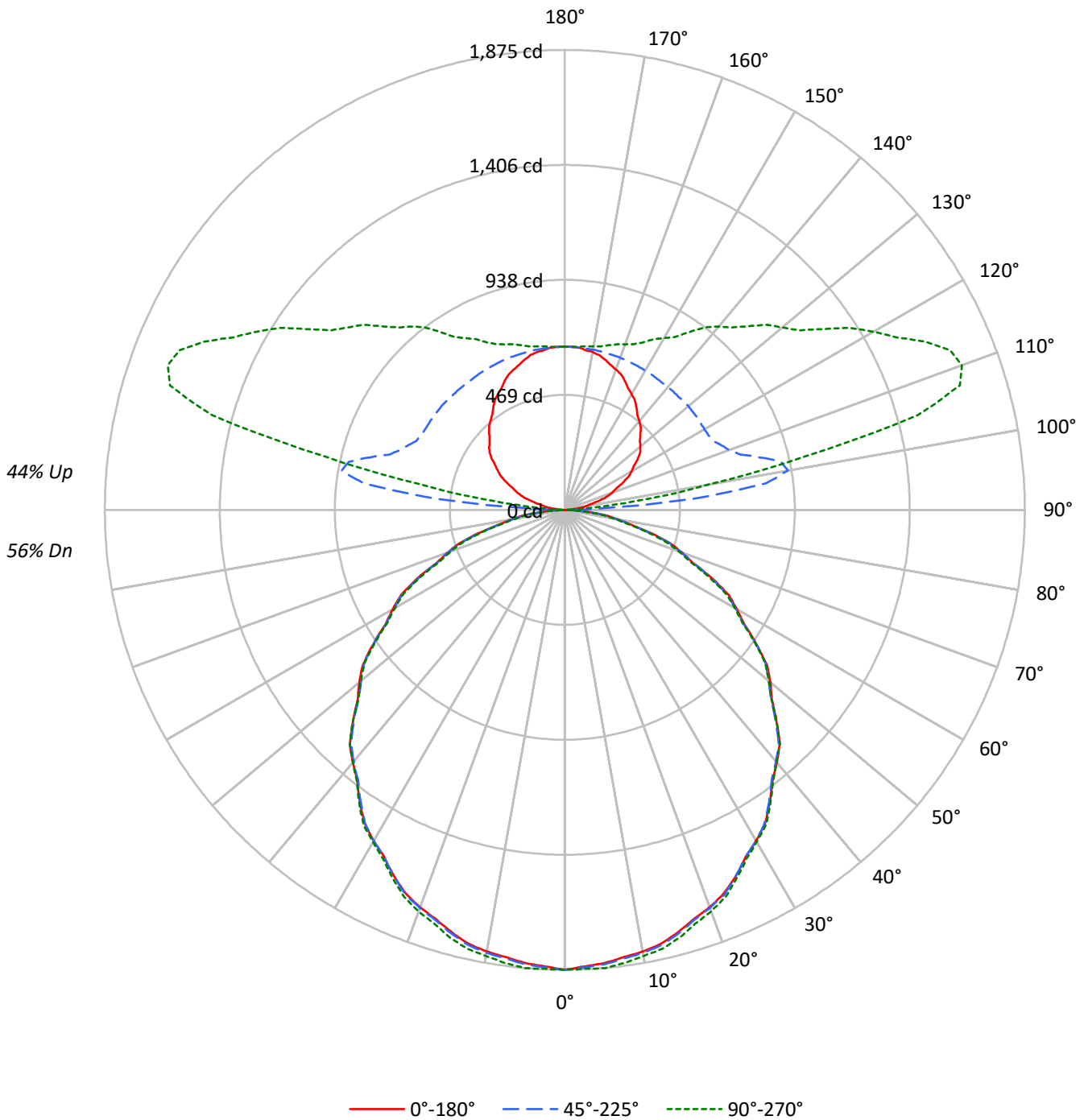
Test Method: LM-79-2019  
Report Number: P853715  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-F-100U-125D-940-UNV-STD-W-4  
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: 9404.8 lumens  
Efficiency: N/A  
Efficacy: 115.0 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36  
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

TEST NUMBER: P853715  
CATALOG NUMBER: SQ2-F-100U-125D-940-UNV-STD-W-4

### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20				20				20	
RC	80									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	95	91	87	92	88	85	81	76	73	71	65	63	61	54	53	52	47	
2	90	82	76	71	83	77	71	67	66	62	58	56	53	51	47	45	43	39	
3	82	72	65	59	76	67	61	55	58	53	49	50	46	43	42	39	37	33	
4	75	64	56	50	69	60	52	47	52	46	42	44	40	36	37	34	31	28	
5	69	57	49	42	64	53	46	40	46	40	36	40	35	31	34	30	27	24	
6	63	51	43	37	59	48	40	35	42	36	31	36	31	27	30	27	24	21	
7	58	46	38	32	54	43	36	31	38	32	27	33	28	24	28	24	21	19	
8	54	42	34	28	50	39	32	27	34	28	24	30	25	22	25	22	19	17	
9	51	38	30	25	47	36	29	24	31	26	22	27	23	19	23	20	17	15	
10	47	35	28	23	44	33	26	22	29	23	20	25	21	18	22	18	15	14	

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

	0°	45°	90°
0°	30273	30273	30273
5°	30058	30141	30389
10°	29988	30072	30280
15°	29805	29890	30190
20°	29627	29672	29935
25°	29354	29354	29535
30°	29052	29052	29147
35°	28700	28600	28801
40°	28321	28214	28321
45°	27882	27766	27882
50°	27462	27206	27271
55°	26821	26750	26607
60°	26150	25985	25820
65°	25375	25081	24791
70°	23877	23755	23273
75°	22470	21990	21354
80°	19954	19479	18763
85°	16098	14672	13727

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 28053 cd/sqm



TEST NUMBER: P853715

CATALOG NUMBER: SQ2-F-100U-125D-940-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	177.2	1.9
10°-20°	506.4	5.4
20°-30°	762.0	8.1
30°-40°	911.7	9.7
40°-50°	940.7	10.0
50°-60°	848.6	9.0
60°-70°	647.6	6.9
70°-80°	372.3	4.0
80°-90°	98.3	1.0
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°	1445.6	15.4
0°-40°	2357.3	25.1
0°-60°	4146.6	44.1
0°-90°	5264.8	56.0
90°-120°	1938.3	20.6
90°-150°	3581.6	38.1
90°-180°	4140.0	44.0
0°-180°	9404.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1875	1875	1875	1875	1875	
5°	1855	1880	1860	1862	1875	176
15°	1783	1806	1788	1796	1806	503
25°	1648	1665	1648	1650	1658	759
35°	1456	1466	1451	1456	1461	910
45°	1221	1229	1216	1219	1221	942
55°	953	958	950	945	945	852
65°	664	662	656	651	649	653
75°	360	358	352	345	342	380
85°	87	82	79	72	74	101
90°	0	2	12	7	6	5
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	



TEST NUMBER: P853715

CATALOG NUMBER: SQ2-F-100U-125D-940-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1875.0	1875.0	1875.0	1875.0	1875.0
2.5°	1862.8	1884.8	1866.9	1871.0	1873.0
5°	1854.6	1879.6	1859.7	1862.5	1875.0
7.5°	1839.3	1866.2	1844.4	1849.3	1863.3
10°	1829.1	1854.0	1834.2	1836.9	1846.9
12.5°	1812.7	1837.7	1817.8	1822.6	1832.6
15°	1783.1	1805.6	1788.2	1796.1	1806.1
17.5°	1748.8	1772.8	1753.4	1760.3	1768.8
20°	1724.3	1744.3	1726.9	1729.7	1742.2
22.5°	1693.7	1713.6	1698.3	1699.0	1709.5
25°	1647.7	1665.2	1647.7	1650.4	1657.9
27.5°	1595.1	1610.0	1595.1	1597.8	1604.3
30°	1558.3	1573.3	1558.3	1560.9	1563.4
32.5°	1517.4	1530.4	1515.4	1518.1	1524.6
35°	1456.1	1466.1	1451.0	1456.2	1461.2
37.5°	1390.7	1398.2	1385.6	1388.2	1392.7
40°	1343.7	1351.2	1338.6	1341.2	1343.7
42.5°	1296.7	1302.2	1289.5	1292.2	1296.7
45°	1221.1	1228.6	1216.0	1218.6	1221.1
47.5°	1144.4	1148.9	1138.3	1136.4	1140.9
50°	1093.3	1095.8	1083.1	1083.2	1085.7
52.5°	1038.2	1040.7	1032.0	1028.0	1030.5
55°	952.8	957.8	950.3	945.2	945.2
57.5°	867.0	871.5	861.9	859.3	858.8
60°	809.8	812.3	804.7	802.1	799.6
62.5°	752.6	753.1	745.4	742.8	740.3
65°	664.2	661.7	656.5	651.4	648.9
67.5°	565.1	567.6	562.5	554.3	554.3
70°	505.8	508.3	503.2	493.0	493.0
72.5°	448.6	447.1	444.0	435.7	431.7
75°	360.2	357.7	352.5	344.8	342.3
77.5°	271.8	269.3	266.7	257.0	259.0
80°	214.6	212.1	209.5	201.8	201.8
82.5°	163.5	159.0	156.3	148.7	148.7
85°	86.9	81.9	79.2	71.6	74.1
87.5°	24.5	22.9	22.9	17.8	17.6
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



TEST NUMBER: P853715

CATALOG NUMBER: SQ2-F-100U-125D-940-UNV-STD-W-4

**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

TEST NUMBER: P853715

CATALOG NUMBER: SQ2-F-100U-125D-940-UNV-STD-W-4

**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	20.35	21.28	21.25	22.20	23.38	20.27	21.20	21.17	22.12	23.31
	3H	22.13	22.97	23.05	23.90	25.11	22.01	22.85	22.93	23.78	24.99
	4H	22.80	23.59	23.72	24.52	25.74	22.64	23.43	23.57	24.37	25.59
	6H	23.27	24.00	24.21	24.94	26.17	23.08	23.81	24.02	24.76	25.99
	8H	23.41	24.10	24.36	25.07	26.29	23.21	23.90	24.15	24.86	26.09
	12H	23.49	24.15	24.44	25.10	26.35	23.26	23.92	24.22	24.88	26.13
4H	2H	20.91	21.70	21.84	22.64	23.85	20.85	21.64	21.78	22.57	23.79
	3H	22.90	23.56	23.85	24.53	25.76	22.79	23.45	23.74	24.42	25.65
	4H	23.69	24.30	24.65	25.26	26.52	23.55	24.15	24.51	25.12	26.37
	6H	24.29	24.81	25.26	25.80	27.05	24.11	24.63	25.08	25.61	26.87
	8H	24.48	24.96	25.45	25.94	27.21	24.28	24.76	25.25	25.74	27.01
	12H	24.58	25.02	25.57	26.02	27.29	24.36	24.79	25.34	25.79	27.07
8H	4H	23.95	24.43	24.92	25.41	26.68	23.82	24.31	24.79	25.29	26.56
	6H	24.67	25.07	25.66	26.09	27.36	24.50	24.91	25.50	25.93	27.19
	8H	24.94	25.29	25.94	26.30	27.59	24.74	25.10	25.75	26.11	27.39
	12H	25.11	25.42	26.12	26.42	27.76	24.88	25.19	25.89	26.20	27.53
12H	4H	23.94	24.38	24.93	25.38	26.65	23.82	24.26	24.81	25.26	26.53
	6H	24.71	25.07	25.72	26.08	27.36	24.55	24.91	25.56	25.92	27.20
	8H	25.01	25.32	26.02	26.32	27.66	24.82	25.14	25.83	26.14	27.47