

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: P853712

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

Issue Date: 7/12/2024

**Test Information**

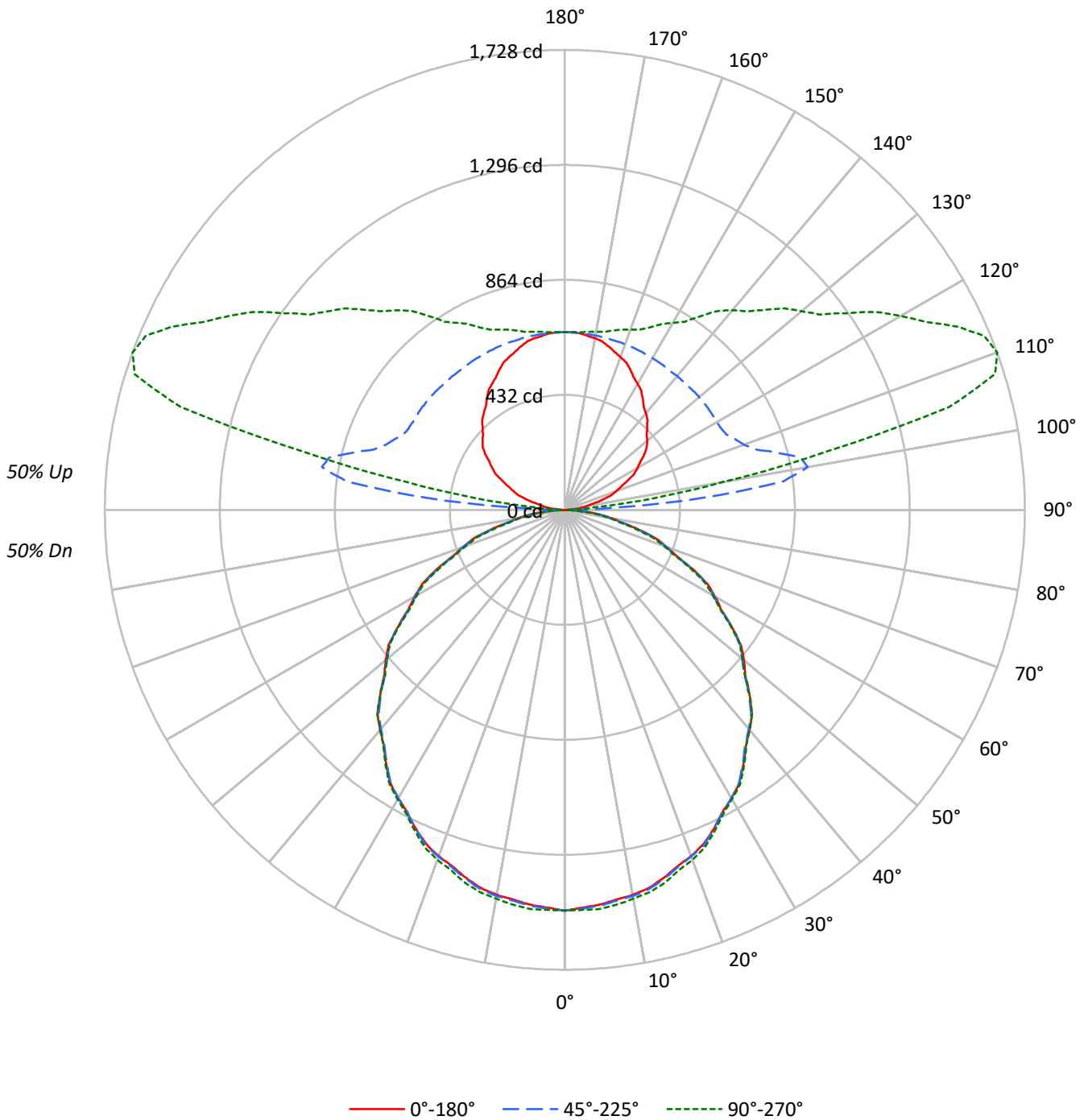
Test Method: LM-79-2019  
Report Number: P853712  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-F-100U-100D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8382.9 lumens  
Efficiency: N/A  
Efficacy: 119.4 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): 70.2  
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	107	107	107	107	99	99	99	99	84	84	84	69	69	69	57	57	57	50
1	98	93	89	86	90	86	83	80	73	71	68	61	59	58	50	49	47	42
2	89	81	75	70	82	75	70	65	64	60	56	53	50	48	44	42	40	35
3	81	71	64	58	74	66	60	54	56	51	47	47	43	40	38	36	34	30
4	74	63	55	49	68	58	51	46	50	44	40	42	38	34	34	31	29	25
5	68	56	48	42	62	52	45	39	44	39	34	37	33	30	31	28	25	22
6	62	50	42	36	57	47	39	34	40	34	30	34	29	26	28	25	22	19
7	58	45	37	32	53	42	35	30	36	30	26	31	26	23	25	22	19	17
8	54	41	33	28	49	38	31	26	33	27	23	28	24	20	23	20	17	15
9	50	37	30	25	46	35	28	23	30	25	21	26	21	18	21	18	16	13
10	46	34	27	22	43	32	25	21	28	22	19	24	19	16	20	17	14	12

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

	0°	45°	90°
0°	24314	24314	24314
5°	24141	24208	24407
10°	24082	24150	24319
15°	23936	24005	24246
20°	23794	23830	24041
25°	23575	23575	23721
30°	23332	23332	23409
35°	23049	22969	23130
40°	22744	22658	22744
45°	22393	22299	22393
50°	22057	21851	21901
55°	21540	21484	21368
60°	21003	20870	20734
65°	20378	20145	19908
70°	19176	19081	18694
75°	18047	17661	17149
80°	16020	15639	15072
85°	12931	11782	11023

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 22530 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	142.3	1.7
10°-20°	406.7	4.9
20°-30°	611.9	7.3
30°-40°	732.2	8.7
40°-50°	755.5	9.0
50°-60°	681.5	8.1
60°-70°	520.1	6.2
70°-80°	299.0	3.6
80°-90°	79.2	0.9
90°-100°	278.8	3.3
100°-110°	843.2	10.1
110°-120°	823.1	9.8
120°-130°	672.6	8.0
130°-140°	549.0	6.5
140°-150°	427.4	5.1
150°-160°	308.1	3.7
160°-170°	188.6	2.2
170°-180°	63.7	0.8
0°-30°	1161.0	13.8
0°-40°	1893.2	22.6
0°-60°	3330.2	39.7
0°-90°	4228.5	50.4
90°-120°	1945.0	23.2
90°-150°	3594.0	42.9
90°-180°	4154.0	49.6
0°-180°	8382.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1506	1506	1506	1506	1506	
5°	1490	1510	1494	1496	1506	141
15°	1432	1450	1436	1442	1450	404
25°	1323	1337	1323	1326	1332	609
35°	1169	1177	1165	1170	1174	731
45°	981	987	977	979	981	757
55°	765	769	763	759	759	684
65°	533	531	527	523	521	524
75°	289	287	283	277	275	305
85°	70	66	64	58	60	81
90°	0	2	13	7	6	4
95°	35	109	526	194	123	41
105°	147	206	828	1572	1494	154
115°	261	311	670	1386	1627	258
125°	365	405	660	1094	1288	324
135°	437	483	656	944	1062	338
145°	510	548	656	812	888	320
155°	582	601	660	728	756	268
165°	636	643	663	689	697	179
175°	665	665	666	672	670	63
180°	668	668	668	668	668	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1505.9	1505.9	1505.9	1505.9	1505.9
2.5°	1496.0	1513.7	1499.3	1502.6	1504.2
5°	1489.5	1509.5	1493.6	1495.8	1505.9
7.5°	1477.1	1498.8	1481.2	1485.2	1496.4
10°	1468.9	1489.0	1473.0	1475.3	1483.3
12.5°	1455.8	1475.9	1459.9	1463.8	1471.8
15°	1432.0	1450.1	1436.1	1442.5	1450.5
17.5°	1404.5	1423.8	1408.2	1413.7	1420.5
20°	1384.8	1400.9	1386.9	1389.2	1399.2
22.5°	1360.2	1376.3	1363.9	1364.5	1372.9
25°	1323.3	1337.3	1323.3	1325.5	1331.5
27.5°	1281.0	1293.0	1281.0	1283.2	1288.4
30°	1251.5	1263.5	1251.5	1253.6	1255.6
32.5°	1218.6	1229.1	1217.0	1219.2	1224.4
35°	1169.4	1177.4	1165.3	1169.5	1173.5
37.5°	1116.9	1122.9	1112.8	1114.9	1118.5
40°	1079.1	1085.2	1075.0	1077.1	1079.1
42.5°	1041.4	1045.8	1035.6	1037.8	1041.4
45°	980.7	986.7	976.6	978.7	980.7
47.5°	919.1	922.7	914.2	912.6	916.2
50°	878.1	880.1	869.9	869.9	871.9
52.5°	833.8	835.8	828.8	825.6	827.6
55°	765.2	769.3	763.2	759.1	759.1
57.5°	696.3	699.9	692.2	690.1	689.7
60°	650.4	652.4	646.3	644.2	642.1
62.5°	604.4	604.8	598.7	596.6	594.6
65°	533.4	531.4	527.3	523.1	521.1
67.5°	453.8	455.8	451.8	445.2	445.2
70°	406.2	408.2	404.2	396.0	396.0
72.5°	360.3	359.1	356.6	349.9	346.7
75°	289.3	287.3	283.1	276.9	274.9
77.5°	218.3	216.3	214.2	206.4	208.0
80°	172.3	170.3	168.2	162.1	162.1
82.5°	131.3	127.7	125.6	119.4	119.4
85°	69.8	65.7	63.6	57.5	59.5
87.5°	19.7	18.5	18.9	14.6	14.4
90°	0.0	2.0	12.6	7.3	6.3
92.5°	11.7	47.4	170.2	56.4	40.7
95°	34.6	109.4	526.1	194.3	122.6
97.5°	66.9	139.2	829.1	548.6	334.1
100°	87.0	157.7	926.4	895.6	601.5
102.5°	109.6	177.9	906.2	1256.1	1001.4
105°	146.7	206.1	827.9	1572.2	1494.3
107.5°	181.9	238.7	752.4	1603.5	1693.7
110°	205.4	259.7	714.7	1564.1	1728.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	228.0	280.7	692.1	1498.0	1705.4
115°	260.9	311.1	669.6	1385.6	1627.4
117.5°	293.6	341.2	661.7	1280.3	1527.9
120°	315.4	360.5	659.1	1218.9	1456.6
122.5°	335.5	378.2	659.1	1164.8	1384.5
125°	364.7	404.6	660.2	1094.2	1287.9
127.5°	388.4	429.8	659.1	1041.0	1206.2
130°	403.5	446.5	659.1	1010.5	1160.1
132.5°	416.9	460.7	658.3	982.5	1120.7
135°	437.0	483.1	656.0	943.7	1061.5
137.5°	459.4	503.3	656.0	902.2	1011.5
140°	473.7	516.7	656.0	875.3	978.8
142.5°	487.9	529.3	655.2	850.7	941.0
145°	510.3	548.3	656.0	811.8	887.6
147.5°	532.8	564.9	657.3	779.7	837.9
150°	547.0	576.7	658.1	761.9	811.1
152.5°	560.4	586.9	658.9	746.6	786.8
155°	581.6	601.1	660.2	727.9	755.6
157.5°	600.0	615.8	661.5	714.1	733.3
160°	610.9	624.3	662.3	705.6	719.9
162.5°	621.8	631.9	663.1	698.0	709.9
165°	636.1	643.3	663.3	688.7	696.9
167.5°	648.2	651.9	664.6	681.4	684.9
170°	655.0	657.0	665.4	678.0	679.1
172.5°	659.1	660.4	665.4	674.7	674.9
175°	665.4	665.4	666.5	671.7	669.6
177.5°	668.4	667.5	666.7	669.2	667.5
180°	667.5	667.5	667.5	667.5	667.5



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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	19.10	19.97	20.05	20.94	22.20	19.02	19.89	19.97	20.86	22.13
	3H	20.88	21.66	21.84	22.64	23.93	20.76	21.54	21.72	22.52	23.81
	4H	21.54	22.28	22.51	23.26	24.56	21.38	22.13	22.36	23.11	24.41
	6H	22.01	22.69	22.99	23.68	24.99	21.82	22.51	22.81	23.49	24.80
	8H	22.15	22.80	23.14	23.80	25.11	21.94	22.60	22.94	23.60	24.91
	12H	22.22	22.84	23.22	23.84	25.17	22.00	22.62	23.00	23.62	24.95
4H	2H	19.65	20.39	20.63	21.38	22.67	19.59	20.33	20.57	21.31	22.61
	3H	21.64	22.26	22.63	23.27	24.58	21.53	22.15	22.52	23.16	24.47
	4H	22.43	23.00	23.43	24.00	25.33	22.28	22.85	23.28	23.86	25.19
	6H	23.02	23.51	24.03	24.54	25.87	22.84	23.33	23.85	24.36	25.69
	8H	23.21	23.66	24.22	24.68	26.03	23.00	23.46	24.02	24.48	25.83
	12H	23.31	23.72	24.34	24.76	26.11	23.08	23.50	24.11	24.53	25.88
8H	4H	22.68	23.13	23.69	24.15	25.50	22.55	23.01	23.56	24.03	25.37
	6H	23.39	23.77	24.43	24.84	26.18	23.23	23.61	24.27	24.67	26.01
	8H	23.66	24.00	24.71	25.04	26.40	23.47	23.80	24.51	24.85	26.21
	12H	23.83	24.12	24.88	25.17	26.57	23.60	23.90	24.65	24.94	26.34
12H	4H	22.67	23.08	23.70	24.12	25.47	22.55	22.96	23.58	24.00	25.35
	6H	23.44	23.77	24.48	24.82	26.18	23.28	23.61	24.32	24.66	26.02
	8H	23.73	24.03	24.78	25.07	26.47	23.54	23.84	24.59	24.88	26.29