

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: P855467

Luminaire Tested: SQ2-F-150U-100D-840-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

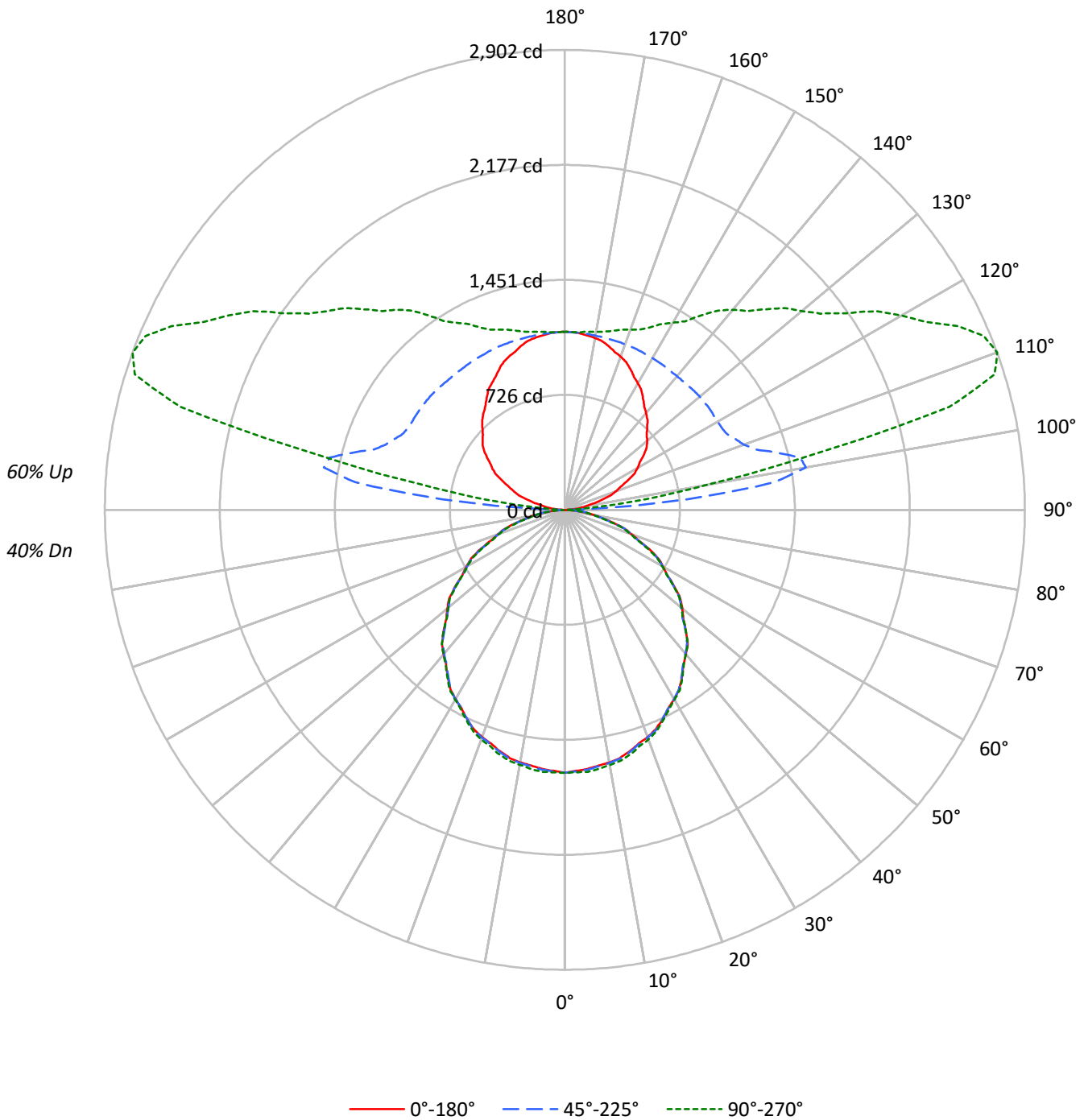
Test Method: LM-79-2019  
Report Number: P855467  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G2-2308-131-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-F-150U-100D-840-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11588.0 lumens  
Efficiency: N/A  
Efficacy: 123.0 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): 94.2  
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	105	105	105	105	95	95	95	95	78	78	78	62	62	62	47	47	47	40
1	95	91	87	84	87	83	80	77	68	66	64	54	53	51	41	40	40	34
2	87	79	73	68	79	72	67	63	59	56	52	47	45	43	36	35	33	28
3	79	70	62	57	72	64	57	52	52	48	44	42	39	36	32	30	28	24
4	72	62	54	48	65	56	49	44	46	41	37	37	33	31	29	26	24	20
5	66	55	47	41	60	50	43	38	41	36	32	33	29	26	26	23	21	17
6	61	49	41	35	55	45	38	33	37	32	28	30	26	23	23	20	18	15
7	56	44	36	31	51	40	33	29	34	28	24	27	23	20	21	18	16	13
8	52	40	32	27	47	37	30	25	31	25	22	25	21	18	19	17	14	12
9	48	36	29	24	44	33	27	22	28	23	19	23	19	16	18	15	13	11
10	45	33	26	21	41	31	24	20	26	21	17	21	17	14	17	14	12	10

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

	0°	45°	90°
0°	26788	26788	26788
5°	26597	26669	26890
10°	26534	26607	26793
15°	26372	26449	26713
20°	26215	26254	26488
25°	25972	25972	26135
30°	25706	25706	25790
35°	25395	25306	25484
40°	25058	24963	25058
45°	24669	24567	24669
50°	24300	24074	24129
55°	23736	23668	23541
60°	23137	22995	22846
65°	22453	22197	21933
70°	21125	21021	20592
75°	19881	19463	18896
80°	17648	17229	16597
85°	14227	12968	12134

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 24822 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	156.8	1.4
10°-20°	448.1	3.9
20°-30°	674.2	5.8
30°-40°	806.7	7.0
40°-50°	832.3	7.2
50°-60°	750.9	6.5
60°-70°	573.0	4.9
70°-80°	329.4	2.8
80°-90°	87.2	0.8
90°-100°	427.8	3.7
100°-110°	1400.7	12.1
110°-120°	1384.8	12.0
120°-130°	1132.0	9.8
130°-140°	923.8	8.0
140°-150°	718.9	6.2
150°-160°	517.6	4.5
160°-170°	316.7	2.7
170°-180°	107.0	0.9
0°-30°	1279.1	11.0
0°-40°	2085.8	18.0
0°-60°	3669.0	31.7
0°-90°	4658.6	40.2
90°-120°	3213.3	27.7
90°-150°	5988.0	51.7
90°-180°	6929.0	59.8
0°-180°	11588.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1659	1659	1659	1659	1659	
5°	1641	1663	1646	1648	1659	156
15°	1578	1598	1582	1589	1598	445
25°	1458	1473	1458	1460	1467	671
35°	1288	1297	1284	1288	1293	806
45°	1080	1087	1076	1078	1080	834
55°	843	848	841	836	836	754
65°	588	586	581	576	574	578
75°	319	316	312	305	303	336
85°	77	72	70	63	66	89
90°	1	3	9	8	9	6
95°	60	174	778	277	180	68
105°	244	347	1390	2642	2510	256
115°	438	524	1130	2334	2740	433
125°	610	680	1113	1841	2162	543
135°	735	813	1104	1588	1790	569
145°	860	923	1102	1366	1496	539
155°	980	1012	1109	1222	1269	451
165°	1070	1080	1113	1156	1169	301
175°	1118	1118	1119	1127	1125	106
180°	1123	1123	1123	1123	1123	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1659.1	1659.1	1659.1	1659.1	1659.1
2.5°	1648.2	1667.7	1651.8	1655.6	1657.3
5°	1641.0	1663.1	1645.5	1648.0	1659.1
7.5°	1627.5	1651.4	1632.0	1636.3	1648.7
10°	1618.4	1640.5	1622.9	1625.4	1634.2
12.5°	1603.9	1626.1	1608.5	1612.7	1621.5
15°	1577.7	1597.6	1582.3	1589.3	1598.1
17.5°	1547.4	1568.6	1551.5	1557.6	1565.0
20°	1525.7	1543.5	1528.0	1530.5	1541.6
22.5°	1498.6	1516.3	1502.7	1503.4	1512.6
25°	1457.9	1473.4	1457.9	1460.4	1467.0
27.5°	1411.4	1424.6	1411.4	1413.7	1419.5
30°	1378.8	1392.1	1378.8	1381.1	1383.3
32.5°	1342.7	1354.2	1340.8	1343.2	1349.0
35°	1288.4	1297.2	1283.9	1288.5	1292.9
37.5°	1230.5	1237.2	1226.0	1228.3	1232.3
40°	1188.9	1195.6	1184.4	1186.7	1188.9
42.5°	1147.3	1152.2	1141.0	1143.4	1147.3
45°	1080.4	1087.1	1075.9	1078.2	1080.4
47.5°	1012.6	1016.6	1007.3	1005.5	1009.5
50°	967.4	969.6	958.4	958.4	960.6
52.5°	918.6	920.8	913.2	909.6	911.8
55°	843.2	847.5	840.8	836.3	836.3
57.5°	767.2	771.1	762.6	760.4	760.0
60°	716.5	718.7	712.1	709.7	707.5
62.5°	665.9	666.4	659.6	657.3	655.1
65°	587.7	585.5	581.0	576.3	574.1
67.5°	500.0	502.2	497.7	490.5	490.5
70°	447.5	449.7	445.3	436.2	436.2
72.5°	396.9	395.5	392.9	385.5	382.0
75°	318.7	316.5	312.0	305.1	302.9
77.5°	240.5	238.3	236.0	227.5	229.2
80°	189.8	187.6	185.3	178.5	178.5
82.5°	144.6	140.7	138.3	131.6	131.6
85°	76.8	72.5	70.0	63.4	65.5
87.5°	21.9	20.6	19.9	16.1	16.3
90°	1.2	3.4	9.2	8.2	9.2
92.5°	19.6	71.6	219.7	71.4	57.2
95°	60.0	174.0	777.7	277.0	180.1
97.5°	109.0	229.5	1334.3	807.2	500.3
100°	143.1	258.1	1543.8	1378.7	913.8
102.5°	181.8	294.3	1520.7	2031.4	1574.8
105°	243.5	347.3	1390.3	2641.6	2509.6
107.5°	304.2	399.4	1263.2	2698.6	2843.7
110°	343.8	436.3	1202.3	2632.3	2901.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	381.7	471.5	1165.4	2516.7	2862.2
115°	438.4	524.2	1129.6	2334.2	2740.3
117.5°	493.7	573.7	1116.0	2154.8	2567.3
120°	529.6	605.2	1112.3	2050.3	2451.9
122.5°	562.0	635.7	1112.3	1960.1	2332.8
125°	610.3	680.4	1113.4	1840.8	2162.3
127.5°	651.5	722.8	1112.0	1752.8	2032.6
130°	677.3	749.5	1111.1	1699.6	1952.3
132.5°	700.4	774.4	1108.4	1653.8	1883.1
135°	735.0	812.9	1104.2	1587.6	1789.6
137.5°	771.5	848.6	1101.7	1518.6	1701.3
140°	797.3	871.7	1100.7	1475.0	1647.6
142.5°	823.1	893.0	1100.7	1428.5	1584.9
145°	859.6	922.8	1101.9	1365.6	1496.5
147.5°	897.9	950.5	1103.5	1311.0	1409.8
150°	921.9	968.2	1105.4	1279.1	1362.7
152.5°	946.0	986.7	1106.3	1253.0	1322.0
155°	979.6	1012.3	1108.9	1221.8	1269.2
157.5°	1009.8	1033.5	1111.3	1197.3	1231.6
160°	1029.2	1048.4	1112.3	1183.3	1210.4
162.5°	1045.8	1061.4	1112.3	1172.0	1191.9
165°	1069.6	1079.7	1113.4	1156.4	1168.8
167.5°	1089.7	1094.7	1114.8	1144.3	1151.1
170°	1100.7	1103.1	1115.8	1137.8	1140.0
172.5°	1109.1	1110.4	1118.6	1133.1	1133.5
175°	1118.1	1118.1	1119.3	1127.3	1125.0
177.5°	1122.6	1121.8	1120.9	1126.2	1122.6
180°	1122.6	1122.6	1122.6	1122.6	1122.6



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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	18.42	19.20	19.45	20.25	21.65	18.34	19.13	19.37	20.17	21.57
	3H	20.19	20.90	21.24	21.95	23.37	20.07	20.78	21.12	21.83	23.25
	4H	20.85	21.52	21.90	22.57	24.00	20.69	21.36	21.75	22.42	23.85
	6H	21.31	21.93	22.38	22.99	24.43	21.13	21.74	22.19	22.80	24.24
	8H	21.45	22.04	22.52	23.11	24.55	21.25	21.83	22.32	22.91	24.34
	12H	21.52	22.08	22.60	23.15	24.61	21.30	21.85	22.37	22.92	24.38
4H	2H	18.96	19.63	20.02	20.68	22.11	18.90	19.57	19.96	20.62	22.05
	3H	20.94	21.50	22.01	22.58	24.02	20.83	21.39	21.90	22.47	23.91
	4H	21.73	22.24	22.80	23.31	24.78	21.58	22.10	22.66	23.17	24.63
	6H	22.31	22.75	23.40	23.85	25.31	22.13	22.57	23.22	23.67	25.13
	8H	22.50	22.91	23.58	24.00	25.47	22.29	22.71	23.38	23.79	25.27
	12H	22.60	22.97	23.70	24.07	25.55	22.37	22.74	23.47	23.84	25.32
8H	4H	21.97	22.38	23.05	23.47	24.94	21.84	22.25	22.93	23.34	24.81
	6H	22.68	23.02	23.79	24.15	25.62	22.51	22.86	23.62	23.98	25.46
	8H	22.95	23.25	24.06	24.36	25.85	22.75	23.05	23.87	24.16	25.66
	12H	23.11	23.37	24.23	24.48	26.01	22.88	23.15	24.00	24.25	25.78
12H	4H	21.96	22.33	23.06	23.43	24.91	21.84	22.21	22.94	23.31	24.79
	6H	22.72	23.02	23.84	24.13	25.62	22.56	22.86	23.68	23.97	25.47
	8H	23.01	23.28	24.13	24.38	25.91	22.83	23.09	23.95	24.20	25.73