

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: P853678

Luminaire Tested: SQ2-F-050U-125D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

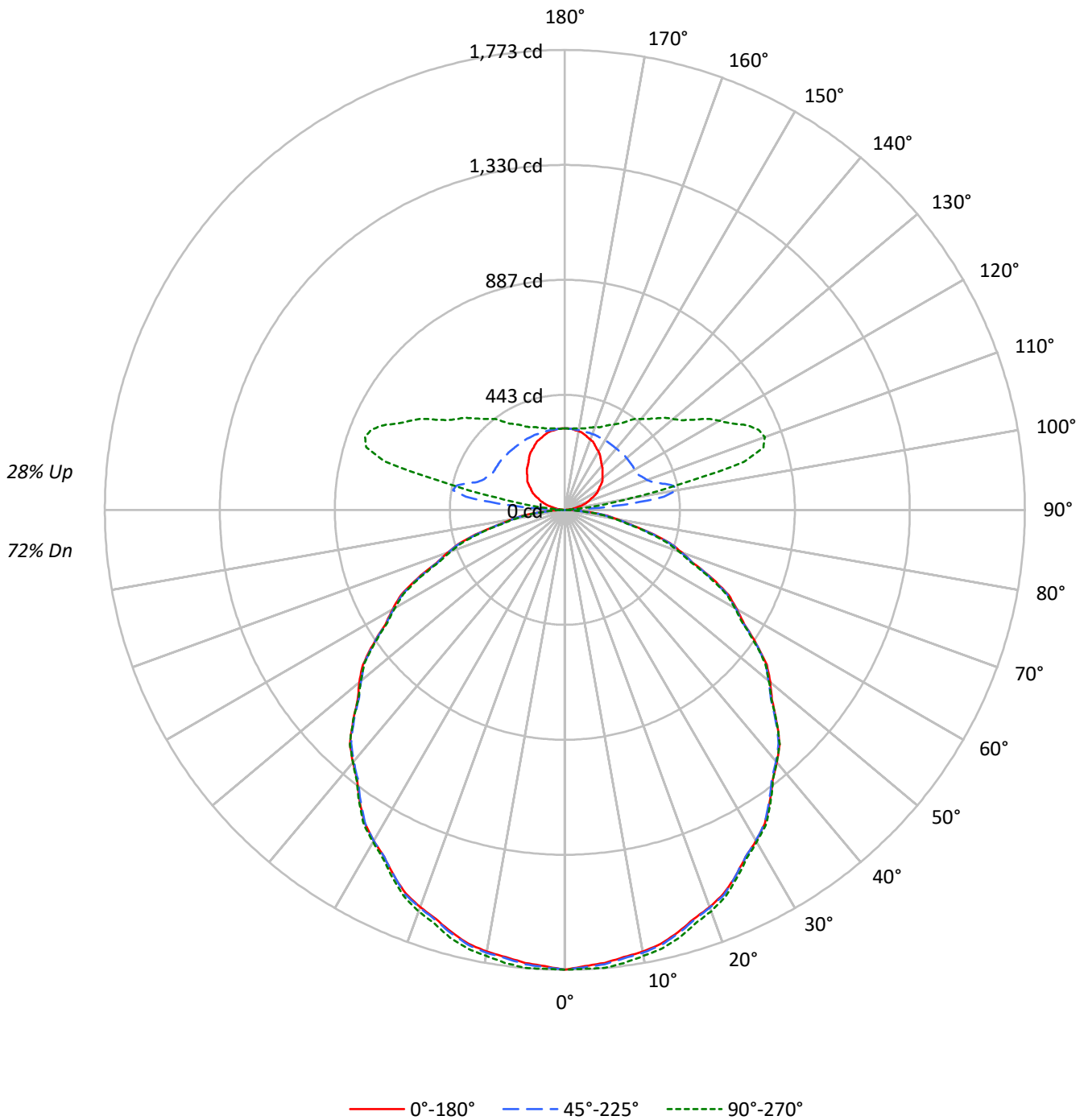
Test Method: LM-79-2019  
Report Number: P853678  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-13)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-F-050U-125D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6926.5 lumens  
Efficiency: N/A  
Efficacy: 108.2 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: Semi-Direct  
  
Input Watts (W): 64  
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	112	112	112	112	106	106	106	106	95	95	95	85	85	85	76	76	76	76	76	76	72	
1	102	98	94	90	97	93	89	86	84	81	78	75	73	71	67	65	64	64	64	64	60	
2	93	85	79	73	88	81	75	70	73	68	64	66	62	59	59	56	54	54	54	54	50	
3	85	75	67	61	80	71	64	59	64	59	54	58	53	50	52	48	45	45	45	45	42	
4	78	66	58	51	73	63	55	50	57	51	46	51	46	42	46	42	39	39	39	39	36	
5	71	59	50	44	67	56	48	43	51	45	40	46	41	37	42	37	34	34	34	34	31	
6	66	53	44	38	62	51	43	37	46	39	35	42	36	32	38	33	30	30	30	30	27	
7	61	48	39	34	57	46	38	33	42	35	30	38	32	28	34	30	26	26	26	26	24	
8	56	44	35	30	53	42	34	29	38	32	27	35	29	25	32	27	24	24	24	24	21	
9	53	40	32	27	50	38	31	26	35	29	24	32	27	23	29	25	21	21	21	21	19	
10	49	37	29	24	47	35	28	23	32	26	22	30	24	21	27	22	19	19	19	19	17	

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

	0°	45°	90°
0°	28620	28620	28620
5°	28417	28494	28729
10°	28350	28429	28627
15°	28177	28257	28540
20°	28008	28051	28301
25°	27750	27750	27923
30°	27466	27466	27555
35°	27133	27037	27228
40°	26774	26673	26774
45°	26359	26250	26359
50°	25962	25721	25782
55°	25357	25289	25154
60°	24723	24564	24409
65°	23988	23713	23435
70°	22575	22461	22003
75°	21241	20792	20187
80°	18866	18410	17741
85°	15209	13875	12968

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 22.5°  
 Vertical Angle: 45°  
 Luminance: 26521 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	167.6	2.4
10°-20°	478.8	6.9
20°-30°	720.3	10.4
30°-40°	861.9	12.4
40°-50°	889.3	12.8
50°-60°	802.3	11.6
60°-70°	612.2	8.8
70°-80°	352.0	5.1
80°-90°	92.2	1.3
90°-100°	125.1	1.8
100°-110°	396.7	5.7
110°-120°	389.0	5.6
120°-130°	316.5	4.6
130°-140°	258.1	3.7
140°-150°	201.2	2.9
150°-160°	145.0	2.1
160°-170°	88.6	1.3
170°-180°	29.9	0.4
0°-30°	1366.7	19.7
0°-40°	2228.6	32.2
0°-60°	3920.1	56.6
0°-90°	4976.5	71.8
90°-120°	910.7	13.1
90°-150°	1686.5	24.3
90°-180°	1950.0	28.2
0°-180°	6926.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1773	1773	1773	1773	1773	
5°	1753	1777	1758	1761	1773	166
15°	1686	1707	1690	1698	1707	476
25°	1558	1574	1558	1560	1567	717
35°	1377	1386	1372	1377	1381	861
45°	1154	1162	1150	1152	1154	891
55°	901	906	898	894	894	805
65°	628	626	621	616	613	617
75°	340	338	333	326	324	359
85°	82	77	75	68	70	95
90°	0	1	3	3	3	4
95°	17	51	227	84	54	19
105°	69	97	391	745	714	73
115°	123	147	316	656	772	122
125°	171	191	311	515	606	152
135°	206	227	309	443	499	159
145°	241	259	309	382	416	151
155°	274	284	310	341	354	127
165°	299	302	311	323	326	84
175°	313	312	313	315	314	30
180°	314	314	314	314	314	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1772.6	1772.6	1772.6	1772.6	1772.6
2.5°	1761.0	1781.8	1764.9	1768.8	1770.7
5°	1753.3	1776.9	1758.1	1760.8	1772.6
7.5°	1738.8	1764.3	1743.7	1748.3	1761.5
10°	1729.2	1752.8	1734.0	1736.6	1746.1
12.5°	1713.7	1737.3	1718.5	1723.1	1732.5
15°	1685.7	1706.9	1690.5	1698.0	1707.4
17.5°	1653.3	1676.0	1657.7	1664.1	1672.2
20°	1630.1	1649.0	1632.6	1635.2	1647.1
22.5°	1601.2	1620.1	1605.5	1606.2	1616.1
25°	1557.7	1574.2	1557.7	1560.3	1567.4
27.5°	1507.9	1522.1	1507.9	1510.5	1516.6
30°	1473.2	1487.3	1473.2	1475.6	1478.0
32.5°	1434.5	1446.8	1432.6	1435.2	1441.3
35°	1376.6	1386.0	1371.7	1376.7	1381.4
37.5°	1314.7	1321.8	1309.9	1312.4	1316.7
40°	1270.3	1277.4	1265.5	1267.9	1270.3
42.5°	1225.9	1231.1	1219.1	1221.6	1225.9
45°	1154.4	1161.5	1149.6	1152.0	1154.4
47.5°	1081.9	1086.2	1076.1	1074.3	1078.6
50°	1033.6	1036.0	1024.0	1024.0	1026.4
52.5°	981.5	983.8	975.7	971.9	974.2
55°	900.8	905.5	898.4	893.6	893.6
57.5°	819.7	823.9	814.8	812.4	811.9
60°	765.6	767.9	760.7	758.3	755.9
62.5°	711.5	711.9	704.7	702.2	699.9
65°	627.9	625.5	620.7	615.8	613.4
67.5°	534.2	536.6	531.8	524.1	524.1
70°	478.2	480.5	475.8	466.1	466.1
72.5°	424.1	422.7	419.7	411.9	408.1
75°	340.5	338.2	333.3	326.0	323.6
77.5°	257.0	254.6	252.1	243.0	244.9
80°	202.9	200.5	198.0	190.8	190.8
82.5°	154.6	150.3	147.8	140.6	140.6
85°	82.1	77.4	74.9	67.7	70.0
87.5°	23.2	21.5	19.9	16.0	16.0
90°	0.0	1.0	3.0	3.0	3.0
92.5°	5.5	21.9	70.1	23.3	16.4
95°	16.8	50.6	227.1	84.2	54.3
97.5°	31.2	65.6	384.7	240.4	147.5
100°	41.5	74.3	438.4	399.7	259.7
102.5°	52.5	83.8	428.9	587.0	449.3
105°	69.1	97.1	391.0	744.8	713.9
107.5°	85.7	111.6	354.9	761.3	803.0
110°	96.8	121.9	336.7	742.3	819.6



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	107.8	131.4	326.4	709.6	807.7
115°	123.4	146.6	316.0	656.3	772.2
117.5°	138.6	160.6	311.8	605.0	721.8
120°	148.1	169.4	311.0	573.3	686.3
122.5°	157.6	178.1	311.0	547.8	653.1
125°	170.8	191.1	311.0	514.6	606.3
127.5°	182.5	202.0	311.0	488.8	567.0
130°	189.6	209.9	311.0	473.6	544.1
132.5°	196.7	217.0	310.3	461.6	525.1
135°	206.4	226.6	309.1	442.7	498.7
137.5°	215.9	237.1	308.9	424.5	474.6
140°	222.2	243.4	308.1	411.8	457.2
142.5°	230.1	250.5	308.9	399.1	441.4
145°	240.9	259.3	309.1	381.9	415.7
147.5°	251.8	267.4	309.3	366.8	394.4
150°	259.7	272.2	310.1	358.0	380.2
152.5°	266.0	277.0	310.1	350.8	369.1
155°	274.5	284.2	310.1	341.0	354.5
157.5°	283.6	290.2	311.0	335.0	344.2
160°	288.3	294.1	311.0	331.0	338.7
162.5°	293.1	297.3	311.0	327.8	333.2
165°	299.2	302.1	311.0	323.0	325.9
167.5°	304.9	305.7	312.0	319.6	322.1
170°	308.1	308.1	312.0	318.0	318.9
172.5°	309.7	310.4	312.0	316.4	316.6
175°	313.0	312.1	313.0	315.0	314.0
177.5°	314.0	313.2	313.2	314.8	313.2
180°	314.0	314.0	314.0	314.0	314.0

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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	21.42	22.54	22.16	23.30	24.22	21.34	22.46	22.08	23.23	24.14
	3H	23.22	24.23	23.97	25.00	25.95	23.10	24.11	23.86	24.88	25.83
	4H	23.89	24.84	24.66	25.62	26.59	23.74	24.69	24.51	25.47	26.43
	6H	24.37	25.25	25.16	26.04	27.02	24.19	25.07	24.97	25.86	26.83
	8H	24.52	25.35	25.31	26.17	27.14	24.32	25.15	25.11	25.96	26.94
	12H	24.60	25.40	25.40	26.20	27.21	24.38	25.18	25.18	25.98	26.99
4H	2H	22.00	22.95	22.78	23.74	24.70	21.94	22.89	22.72	23.67	24.64
	3H	24.01	24.81	24.80	25.63	26.60	23.90	24.70	24.69	25.52	26.50
	4H	24.81	25.54	25.62	26.35	27.36	24.67	25.39	25.47	26.21	27.22
	6H	25.42	26.04	26.24	26.89	27.90	25.24	25.86	26.06	26.71	27.72
	8H	25.61	26.20	26.44	27.04	28.06	25.41	26.00	26.23	26.83	27.86
	12H	25.73	26.25	26.57	27.11	28.14	25.50	26.03	26.34	26.89	27.92
8H	4H	25.08	25.67	25.91	26.51	27.53	24.95	25.54	25.78	26.38	27.40
	6H	25.81	26.30	26.66	27.18	28.20	25.64	26.13	26.50	27.01	28.04
	8H	26.08	26.51	26.94	27.39	28.43	25.89	26.32	26.75	27.19	28.24
	12H	26.26	26.64	27.13	27.51	28.61	26.03	26.41	26.90	27.28	28.38
12H	4H	25.09	25.62	25.93	26.47	27.51	24.97	25.49	25.81	26.35	27.38
	6H	25.86	26.29	26.72	27.16	28.21	25.70	26.13	26.56	27.00	28.05
	8H	26.16	26.54	27.03	27.41	28.51	25.97	26.36	26.84	27.22	28.32