

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: P854471

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

Issue Date: 7/12/2024

**Test Information**

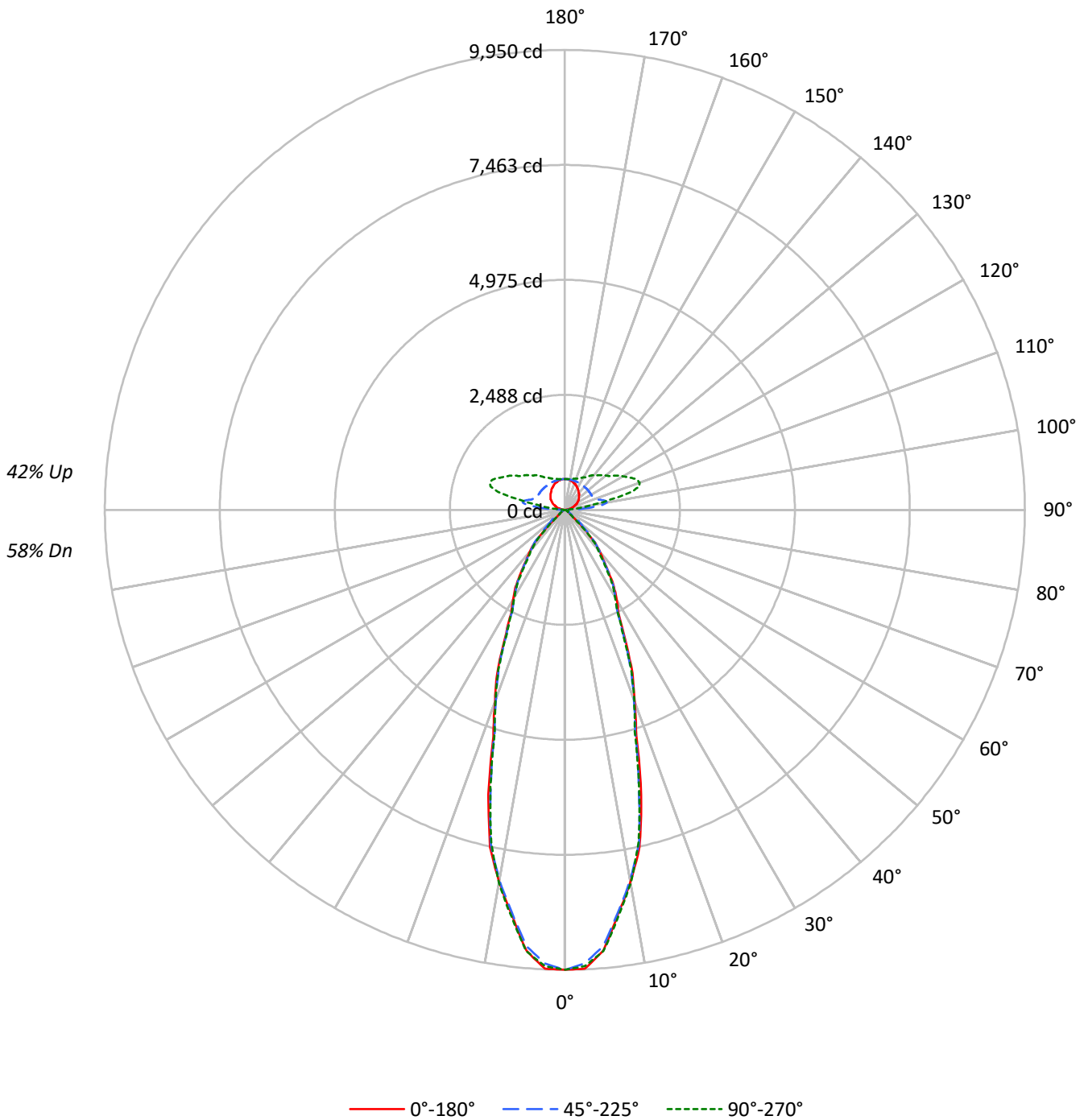
Test Method: LM-79-2019  
Report Number: P854471  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G3-2308-130-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-WBN-100U-125D-940-UNV-STD-W-4  
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: 9919.1 lumens  
Efficiency: N/A  
Efficacy: 120.5 lumens/watt  
Spacing Criteria (0/90/45): 0.59 / 0.58 / 0.63  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 82.3  
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					
RC	80					70					50					30					
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	
RCR																					
0	109	109	109	109	102	102	102	102	88	88	88	75	75	75	64	64	64	58			
1	102	99	96	93	95	93	90	88	81	79	78	70	69	68	60	60	59	54			
2	96	90	85	81	89	85	81	77	75	72	69	65	63	62	57	56	54	50			
3	90	82	76	72	84	78	73	69	69	65	62	61	58	56	54	52	50	47			
4	84	75	69	64	79	71	66	62	64	60	57	57	54	52	51	48	47	44			
5	79	70	63	58	74	66	60	56	60	55	52	53	50	48	48	45	44	41			
6	74	64	58	53	70	61	56	51	56	51	48	50	47	44	45	43	41	38			
7	70	60	53	49	66	57	51	47	52	47	44	47	44	41	43	40	38	36			
8	66	56	49	45	62	53	48	44	49	44	41	45	41	39	41	38	36	34			
9	62	52	46	42	59	50	45	41	46	42	38	42	39	36	39	36	34	32			
10	59	49	43	39	56	47	42	38	44	39	36	40	37	34	37	34	32	30			

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

	0°	45°	90°
0°	160651	160651	160651
5°	155114	153569	155286
10°	134074	133438	134392
15°	106689	103326	103739
20°	75790	74790	75336
25°	54526	53457	53080
30°	41661	40542	40444
35°	32704	32148	31312
40°	24778	24443	23252
45°	13865	16566	12374
50°	4878	10198	4300
55°	2981	5565	2832
60°	2280	2906	2109
65°	2090	2159	1956
70°	2002	2002	1832
75°	1871	1871	1759
80°	1646	1646	1646
85°	1630	1315	1315

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 16566 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	863.7	8.7
10°-20°	1716.6	17.3
20°-30°	1421.5	14.3
30°-40°	1022.7	10.3
40°-50°	521.0	5.3
50°-60°	135.6	1.4
60°-70°	56.3	0.6
70°-80°	31.2	0.3
80°-90°	10.5	0.1
90°-100°	277.8	2.8
100°-110°	840.2	8.5
110°-120°	820.3	8.3
120°-130°	670.3	6.8
130°-140°	547.1	5.5
140°-150°	425.9	4.3
150°-160°	307.0	3.1
160°-170°	187.9	1.9
170°-180°	63.5	0.6
0°-30°	4001.8	40.3
0°-40°	5024.4	50.7
0°-60°	5681.1	57.3
0°-90°	5779.0	58.3
90°-120°	1938.3	19.5
90°-150°	3581.6	36.1
90°-180°	4140.0	41.7
0°-180°	9919.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	9950	9950	9950	9950	9950	
5°	9570	9557	9475	9612	9581	863
15°	6383	6310	6182	6225	6206	1733
25°	3061	3056	3001	2974	2980	1440
35°	1659	1670	1631	1604	1589	1041
45°	607	699	726	675	542	485
55°	106	123	198	114	101	104
65°	55	56	56	53	51	55
75°	30	30	30	28	28	32
85°	9	9	7	9	7	9
90°	0	2	12	7	6	2
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°	9950.0	9950.0	9950.0	9950.0	9950.0
2.5°	9934.5	9917.9	9822.9	9901.5	9882.2
5°	9570.5	9556.7	9475.2	9612.2	9581.1
7.5°	8818.9	8830.6	8782.9	8903.9	8870.8
10°	8177.8	8208.9	8139.0	8314.6	8197.2
12.5°	7470.4	7450.3	7401.9	7429.0	7364.1
15°	6382.7	6310.2	6181.5	6225.2	6206.2
17.5°	5141.1	5169.1	5057.4	5052.7	5031.3
20°	4411.0	4419.7	4352.8	4388.0	4384.6
22.5°	3823.6	3825.3	3739.9	3791.5	3760.4
25°	3060.7	3055.5	3000.7	2974.3	2979.5
27.5°	2510.0	2488.6	2447.2	2464.5	2451.8
30°	2234.6	2217.4	2174.6	2184.9	2169.3
32.5°	1987.5	1988.2	1944.5	1939.3	1927.9
35°	1659.2	1669.6	1631.0	1604.1	1588.6
37.5°	1366.2	1375.9	1343.3	1304.1	1291.0
40°	1175.6	1182.5	1159.7	1113.6	1103.2
42.5°	968.0	997.0	974.7	931.1	908.3
45°	607.2	698.7	725.5	674.8	541.9
47.5°	307.1	433.8	517.5	382.2	251.7
50°	194.2	282.2	406.0	229.9	171.2
52.5°	149.0	194.2	324.1	169.8	137.3
55°	105.9	123.2	197.7	114.4	100.6
57.5°	81.9	91.6	118.3	86.6	78.0
60°	70.6	77.5	90.0	73.9	65.3
62.5°	63.5	67.7	73.1	62.8	59.7
65°	54.7	56.4	56.5	52.9	51.2
67.5°	46.6	48.3	48.0	46.2	44.5
70°	42.4	44.1	42.4	40.6	38.8
72.5°	36.7	38.4	36.7	36.3	34.6
75°	30.0	30.0	30.0	28.2	28.2
77.5°	23.3	23.6	21.9	21.9	20.5
80°	17.7	19.4	17.7	17.7	17.7
82.5°	14.8	15.2	13.4	13.4	13.4
85°	8.8	8.8	7.1	8.8	7.1
87.5°	2.8	3.2	5.3	4.3	4.1
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	5.32	6.04	6.25	6.95	8.12	4.93	5.65	5.86	6.56	7.73
	3H	6.37	7.01	7.31	7.93	9.12	5.93	6.57	6.87	7.49	8.68
	4H	6.79	7.39	7.75	8.32	9.52	6.35	6.95	7.31	7.88	9.08
	6H	7.11	7.66	8.07	8.59	9.80	6.69	7.24	7.65	8.17	9.38
	8H	7.21	7.73	8.17	8.68	9.88	6.79	7.31	7.76	8.26	9.47
	12H	7.27	7.77	8.24	8.71	9.94	6.84	7.33	7.81	8.28	9.50
4H	2H	5.54	6.14	6.50	7.07	8.27	5.21	5.81	6.17	6.74	7.94
	3H	6.84	7.33	7.80	8.29	9.50	6.45	6.95	7.42	7.91	9.12
	4H	7.40	7.85	8.37	8.80	10.04	7.01	7.46	7.98	8.41	9.65
	6H	7.85	8.24	8.83	9.21	10.45	7.47	7.86	8.45	8.83	10.07
	8H	8.01	8.37	8.99	9.34	10.58	7.63	7.99	8.61	8.95	10.20
	12H	8.11	8.43	9.11	9.42	10.67	7.71	8.03	8.71	9.02	10.27
8H	4H	7.54	7.90	8.52	8.87	10.12	7.19	7.55	8.17	8.52	9.77
	6H	8.13	8.42	9.13	9.43	10.68	7.78	8.07	8.78	9.08	10.33
	8H	8.37	8.63	9.39	9.63	10.89	8.02	8.28	9.04	9.28	10.54
	12H	8.56	8.78	9.57	9.78	11.09	8.19	8.41	9.21	9.41	10.72
12H	4H	7.52	7.84	8.51	8.82	10.07	7.17	7.49	8.17	8.48	9.73
	6H	8.15	8.41	9.16	9.41	10.67	7.81	8.07	8.83	9.07	10.34
	8H	8.42	8.65	9.44	9.64	10.95	8.08	8.31	9.10	9.30	10.62