

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: P854470

Luminaire Tested: SQ2-WBN-100U-125D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

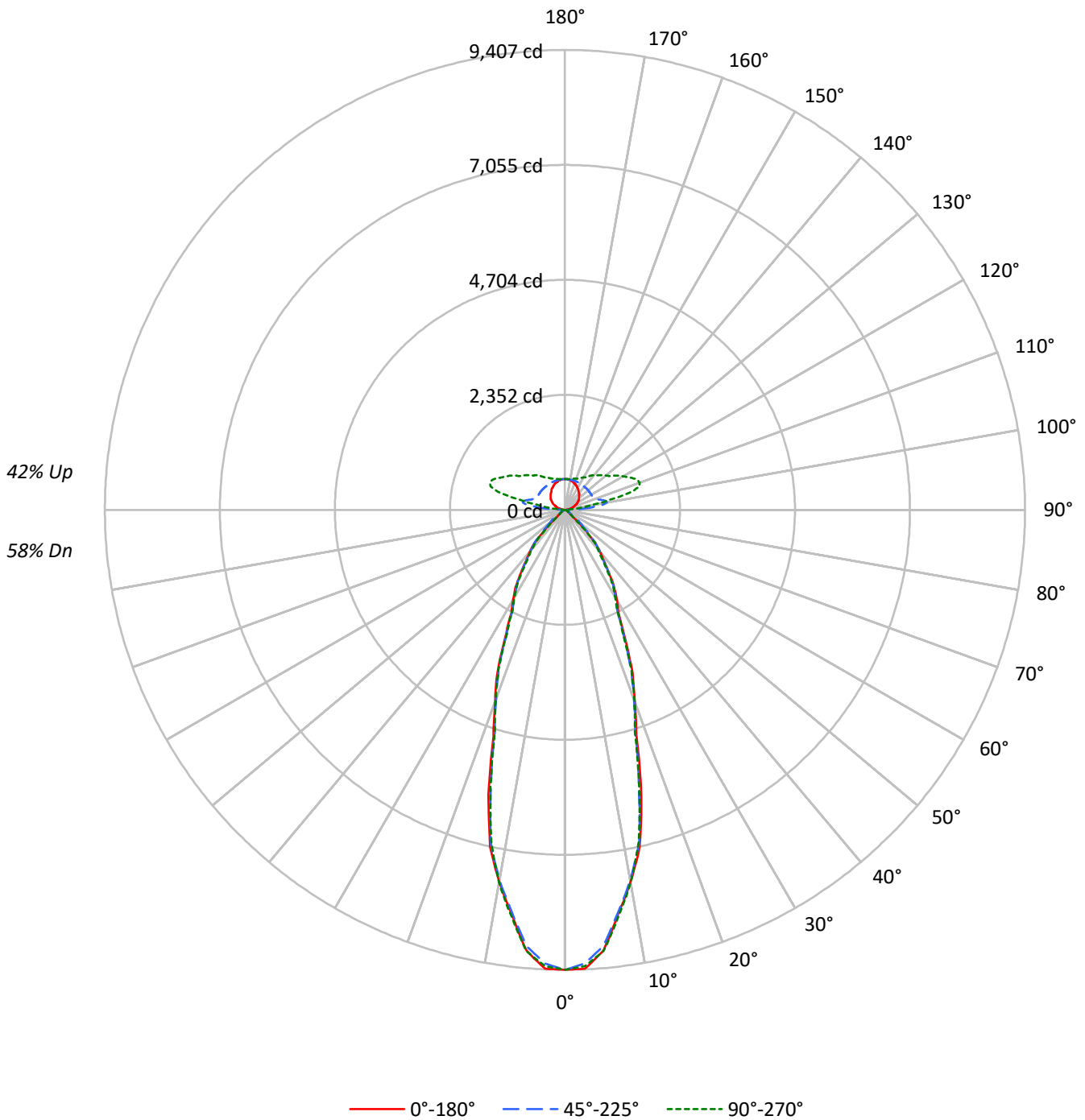
Test Method: LM-79-2019  
Report Number: P854470  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G3-2308-130-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-WBN-100U-125D-935-UNV-STD-W-4  
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: 9377.3 lumens  
Efficiency: N/A  
Efficacy: 113.9 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				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	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°	151877	151877	151877
5°	146642	145182	146804
10°	126752	126151	127054
15°	100862	97683	98073
20°	71651	70706	71221
25°	51549	50537	50181
30°	39386	38329	38236
35°	30918	30392	29603
40°	23425	23109	21983
45°	13107	15659	11698
50°	4612	9640	4067
55°	2818	5261	2677
60°	2154	2748	1992
65°	1975	2040	1849
70°	1888	1888	1733
75°	1772	1772	1666
80°	1553	1553	1553
85°	1538	1241	1241

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 15659 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	816.5	8.7
10°-20°	1622.8	17.3
20°-30°	1343.9	14.3
30°-40°	966.8	10.3
40°-50°	492.5	5.3
50°-60°	128.2	1.4
60°-70°	53.2	0.6
70°-80°	29.5	0.3
80°-90°	9.9	0.1
90°-100°	262.6	2.8
100°-110°	794.4	8.5
110°-120°	775.4	8.3
120°-130°	633.7	6.8
130°-140°	517.2	5.5
140°-150°	402.6	4.3
150°-160°	290.3	3.1
160°-170°	177.7	1.9
170°-180°	60.0	0.6
0°-30°	3783.2	40.3
0°-40°	4750.0	50.7
0°-60°	5370.8	57.3
0°-90°	5463.4	58.3
90°-120°	1832.4	19.5
90°-150°	3386.0	36.1
90°-180°	3914.0	41.7
0°-180°	9377.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	9407	9407	9407	9407	9407	
5°	9048	9035	8958	9087	9058	816
15°	6034	5966	5844	5885	5867	1638
25°	2894	2889	2837	2812	2817	1361
35°	1569	1578	1542	1516	1502	984
45°	574	660	686	638	512	459
55°	100	116	187	108	95	98
65°	52	53	53	50	48	52
75°	28	28	28	27	27	30
85°	8	8	7	8	7	9
90°	0	2	12	7	6	2
95°	33	103	496	183	116	39
105°	138	194	780	1481	1408	145
115°	246	293	631	1305	1533	243
125°	344	381	622	1031	1213	305
135°	412	455	618	889	1000	319
145°	481	516	618	765	836	301
155°	548	566	622	686	712	252
165°	599	606	625	649	656	169
175°	627	627	628	633	631	59
180°	629	629	629	629	629	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	9406.6	9406.6	9406.6	9406.6	9406.6
2.5°	9391.9	9376.3	9286.5	9360.8	9342.5
5°	9047.8	9034.8	8957.7	9087.2	9057.8
7.5°	8337.3	8348.4	8303.2	8417.7	8386.3
10°	7731.2	7760.6	7694.5	7860.5	7749.6
12.5°	7062.4	7043.5	6997.6	7023.3	6961.9
15°	6034.1	5965.6	5843.9	5885.2	5867.2
17.5°	4860.3	4886.8	4781.2	4776.8	4756.5
20°	4170.1	4178.3	4115.1	4148.4	4145.1
22.5°	3614.8	3616.4	3535.7	3584.4	3555.1
25°	2893.6	2888.7	2836.8	2811.9	2816.8
27.5°	2372.9	2352.7	2313.5	2329.9	2317.9
30°	2112.6	2096.3	2055.9	2065.5	2050.9
32.5°	1879.0	1879.6	1838.3	1833.4	1822.6
35°	1568.6	1578.4	1541.9	1516.5	1501.9
37.5°	1291.6	1300.7	1269.9	1232.9	1220.5
40°	1111.4	1117.9	1096.4	1052.7	1043.0
42.5°	915.1	942.5	921.5	880.3	858.7
45°	574.0	660.5	685.8	637.9	512.3
47.5°	290.4	410.1	489.3	361.3	238.0
50°	183.6	266.8	383.8	217.3	161.9
52.5°	140.8	183.6	306.4	160.5	129.8
55°	100.1	116.4	186.9	108.2	95.1
57.5°	77.4	86.6	111.8	81.9	73.8
60°	66.7	73.3	85.1	69.9	61.7
62.5°	60.1	64.0	69.1	59.3	56.4
65°	51.7	53.4	53.4	50.0	48.4
67.5°	44.1	45.7	45.4	43.7	42.1
70°	40.0	41.7	40.0	38.3	36.7
72.5°	34.7	36.3	34.7	34.3	32.7
75°	28.4	28.4	28.4	26.7	26.7
77.5°	22.0	22.4	20.7	20.7	19.4
80°	16.7	18.3	16.7	16.7	16.7
82.5°	14.0	14.3	12.7	12.7	12.7
85°	8.3	8.3	6.7	8.3	6.7
87.5°	2.7	3.1	5.0	4.0	3.9
90°	0.0	1.9	11.8	6.9	5.9
92.5°	11.1	44.7	160.3	53.2	38.3
95°	32.6	103.0	495.6	183.1	115.5
97.5°	63.0	131.1	781.1	516.9	314.7
100°	81.9	148.5	872.7	843.7	566.7
102.5°	103.3	167.6	853.8	1183.4	943.4
105°	138.2	194.2	779.9	1481.2	1407.8
107.5°	171.4	224.9	708.9	1510.7	1595.6
110°	193.5	244.7	673.3	1473.5	1628.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	214.8	264.4	652.0	1411.3	1606.7
115°	245.8	293.1	630.9	1305.4	1533.2
117.5°	276.6	321.4	623.4	1206.2	1439.4
120°	297.2	339.6	621.0	1148.3	1372.3
122.5°	316.1	356.3	621.0	1097.4	1304.4
125°	343.6	381.2	622.0	1030.9	1213.3
127.5°	365.9	404.9	621.0	980.7	1136.3
130°	380.1	420.6	621.0	952.0	1092.9
132.5°	392.7	434.0	620.2	925.7	1055.8
135°	411.7	455.1	618.0	889.1	1000.1
137.5°	432.8	474.1	618.0	850.0	952.9
140°	446.2	486.8	618.0	824.6	922.1
142.5°	459.7	498.7	617.2	801.4	886.6
145°	480.8	516.5	618.0	764.8	836.2
147.5°	501.9	532.2	619.2	734.6	789.4
150°	515.4	543.3	620.0	717.8	764.1
152.5°	528.0	552.9	620.8	703.4	741.2
155°	547.9	566.3	622.0	685.8	711.8
157.5°	565.3	580.2	623.2	672.7	690.9
160°	575.6	588.1	623.9	664.7	678.2
162.5°	585.8	595.3	624.7	657.6	668.8
165°	599.3	606.0	624.9	648.8	656.5
167.5°	610.7	614.2	626.1	642.0	645.3
170°	617.0	619.0	626.9	638.8	639.7
172.5°	621.0	622.1	626.9	635.6	635.8
175°	626.9	626.9	627.9	632.8	630.9
177.5°	629.7	628.9	628.1	630.4	628.9
180°	628.9	628.9	628.9	628.9	628.9

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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	5.12	5.84	6.05	6.76	7.92	4.74	5.46	5.67	6.37	7.54
	3H	6.17	6.81	7.11	7.73	8.92	5.74	6.38	6.68	7.30	8.49
	4H	6.60	7.20	7.55	8.12	9.33	6.16	6.76	7.11	7.69	8.89
	6H	6.91	7.46	7.87	8.40	9.60	6.49	7.04	7.45	7.98	9.19
	8H	7.01	7.53	7.98	8.48	9.69	6.59	7.12	7.56	8.06	9.27
	12H	7.07	7.57	8.04	8.51	9.74	6.64	7.14	7.61	8.08	9.31
4H	2H	5.34	5.94	6.30	6.87	8.07	5.02	5.62	5.97	6.54	7.74
	3H	6.64	7.13	7.60	8.09	9.30	6.26	6.75	7.22	7.71	8.92
	4H	7.20	7.65	8.17	8.61	9.84	6.81	7.26	7.78	8.22	9.45
	6H	7.66	8.04	8.64	9.02	10.26	7.27	7.66	8.26	8.63	9.87
	8H	7.81	8.17	8.79	9.14	10.39	7.43	7.79	8.41	8.76	10.01
	12H	7.92	8.24	8.91	9.22	10.47	7.52	7.84	8.51	8.82	10.07
8H	4H	7.35	7.70	8.33	8.67	9.92	7.00	7.35	7.98	8.32	9.57
	6H	7.93	8.22	8.94	9.23	10.48	7.58	7.87	8.59	8.89	10.13
	8H	8.17	8.43	9.19	9.43	10.70	7.82	8.08	8.84	9.08	10.35
	12H	8.36	8.59	9.38	9.58	10.89	7.99	8.22	9.01	9.21	10.52
12H	4H	7.32	7.64	8.32	8.63	9.88	6.98	7.30	7.98	8.29	9.54
	6H	7.95	8.21	8.97	9.21	10.48	7.62	7.87	8.63	8.87	10.14
	8H	8.22	8.45	9.24	9.44	10.75	7.89	8.11	8.90	9.10	10.42