

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: P854469

Luminaire Tested: SQ2-WBN-100U-125D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854469
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-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

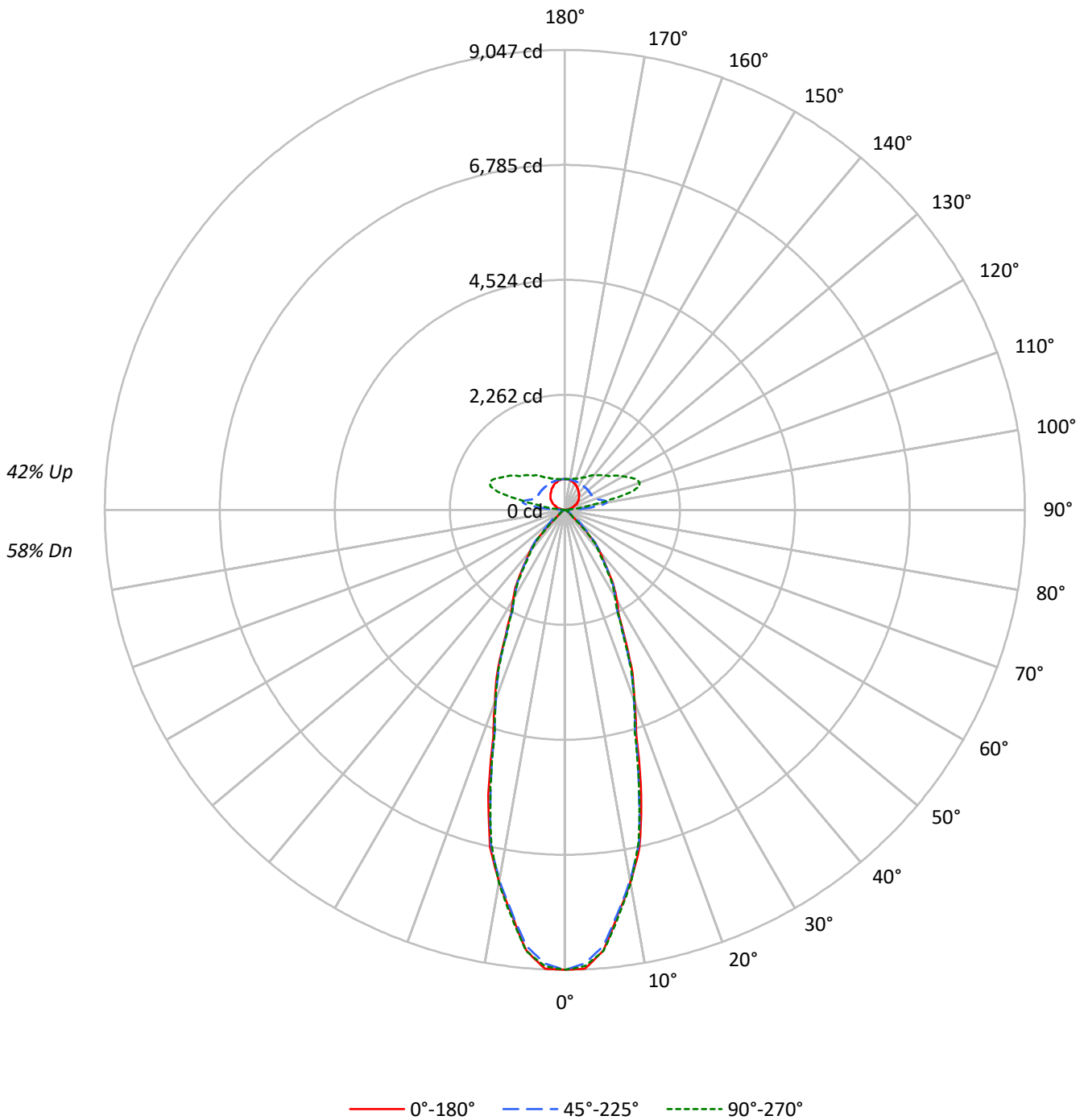
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9019.1 lumens
Efficiency: N/A
Efficacy: 109.6 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°	146076	146076	146076
5°	141041	139636	141197
10°	121911	121331	122200
15°	97010	93951	94327
20°	68914	68005	68501
25°	49579	48608	48264
30°	37882	36864	36775
35°	29737	29231	28472
40°	22529	22226	21142
45°	12606	15061	11250
50°	4433	9271	3911
55°	2711	5061	2576
60°	2073	2645	1918
65°	1903	1964	1777
70°	1817	1817	1666
75°	1703	1703	1603
80°	1488	1488	1488
85°	1482	1186	1186

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 15061 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	785.3	8.7
10°-20°	1560.8	17.3
20°-30°	1292.6	14.3
30°-40°	929.9	10.3
40°-50°	473.7	5.3
50°-60°	123.3	1.4
60°-70°	51.1	0.6
70°-80°	28.4	0.3
80°-90°	9.5	0.1
90°-100°	252.6	2.8
100°-110°	764.0	8.5
110°-120°	745.8	8.3
120°-130°	609.5	6.8
130°-140°	497.5	5.5
140°-150°	387.3	4.3
150°-160°	279.2	3.1
160°-170°	170.9	1.9
170°-180°	57.7	0.6
0°-30°	3638.7	40.3
0°-40°	4568.6	50.7
0°-60°	5165.6	57.3
0°-90°	5254.7	58.3
90°-120°	1762.4	19.5
90°-150°	3256.6	36.1
90°-180°	3764.0	41.7
0°-180°	9019.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9047	9047	9047	9047	9047	
5°	8702	8690	8616	8740	8712	785
15°	5804	5738	5621	5660	5643	1575
25°	2783	2778	2728	2704	2709	1309
35°	1509	1518	1483	1459	1444	947
45°	552	635	660	614	493	441
55°	96	112	180	104	92	95
65°	50	51	51	48	46	50
75°	27	27	27	26	26	29
85°	8	8	6	8	6	8
90°	0	2	11	7	6	2
95°	31	99	477	176	111	37
105°	133	187	750	1425	1354	140
115°	236	282	607	1256	1475	234
125°	330	367	598	992	1167	294
135°	396	438	594	855	962	307
145°	462	497	594	736	804	290
155°	527	545	598	660	685	243
165°	576	583	601	624	631	162
175°	603	603	604	609	607	57
180°	605	605	605	605	605	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9047.3	9047.3	9047.3	9047.3	9047.3
2.5°	9033.1	9018.1	8931.7	9003.2	8985.6
5°	8702.2	8689.6	8615.5	8740.1	8711.8
7.5°	8018.8	8029.5	7986.0	8096.1	8066.0
10°	7435.9	7464.1	7400.5	7560.2	7453.5
12.5°	6792.6	6774.4	6730.3	6755.0	6696.0
15°	5803.6	5737.7	5620.6	5660.4	5643.1
17.5°	4674.7	4700.1	4598.6	4594.3	4574.8
20°	4010.8	4018.7	3957.9	3989.9	3986.8
22.5°	3476.7	3478.3	3400.6	3447.5	3419.2
25°	2783.0	2778.3	2728.5	2704.5	2709.2
27.5°	2282.3	2262.8	2225.1	2240.9	2229.3
30°	2031.9	2016.2	1977.3	1986.6	1972.5
32.5°	1807.2	1807.8	1768.0	1763.3	1753.0
35°	1508.7	1518.1	1483.0	1458.6	1444.5
37.5°	1242.3	1251.0	1221.4	1185.8	1173.9
40°	1068.9	1075.2	1054.5	1012.5	1003.1
42.5°	880.2	906.5	886.3	846.6	825.9
45°	552.1	635.3	659.6	613.6	492.7
47.5°	279.3	394.5	470.6	347.5	228.9
50°	176.5	256.6	369.1	209.0	155.7
52.5°	135.5	176.6	294.7	154.4	124.9
55°	96.3	112.0	179.8	104.0	91.5
57.5°	74.5	83.3	107.5	78.8	70.9
60°	64.2	70.5	81.9	67.2	59.4
62.5°	57.8	61.5	66.4	57.1	54.2
65°	49.8	51.3	51.4	48.1	46.5
67.5°	42.4	43.9	43.7	42.0	40.4
70°	38.5	40.1	38.5	36.9	35.3
72.5°	33.4	35.0	33.4	33.0	31.5
75°	27.3	27.3	27.3	25.7	25.7
77.5°	21.2	21.5	19.9	19.9	18.6
80°	16.0	17.6	16.0	16.0	16.0
82.5°	13.5	13.8	12.2	12.2	12.2
85°	8.0	8.0	6.4	8.0	6.4
87.5°	2.6	2.9	4.8	3.9	3.7
90°	0.0	1.9	11.4	6.6	5.7
92.5°	10.6	42.9	154.2	51.1	36.8
95°	31.3	99.1	476.7	176.1	111.1
97.5°	60.6	126.1	751.3	497.1	302.7
100°	78.8	142.9	839.4	811.5	545.0
102.5°	99.3	161.2	821.2	1138.2	907.4
105°	132.9	186.8	750.1	1424.6	1354.1
107.5°	164.8	216.3	681.8	1453.0	1534.7
110°	186.1	235.3	647.6	1417.2	1565.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	206.6	254.3	627.1	1357.4	1545.3
115°	236.4	281.9	606.8	1255.5	1474.6
117.5°	266.1	309.1	599.5	1160.1	1384.4
120°	285.8	326.7	597.3	1104.5	1319.9
122.5°	304.0	342.7	597.3	1055.5	1254.5
125°	330.4	366.7	598.2	991.5	1167.0
127.5°	351.9	389.4	597.3	943.3	1092.9
130°	365.6	404.6	597.3	915.6	1051.1
132.5°	377.7	417.5	596.5	890.3	1015.4
135°	396.0	437.7	594.4	855.1	961.9
137.5°	416.3	456.0	594.4	817.5	916.5
140°	429.2	468.2	594.4	793.1	886.9
142.5°	442.1	479.6	593.7	770.8	852.7
145°	462.4	496.8	594.4	735.6	804.3
147.5°	482.7	511.9	595.6	706.5	759.3
150°	495.7	522.6	596.3	690.4	734.9
152.5°	507.8	531.8	597.1	676.5	712.9
155°	527.0	544.6	598.2	659.6	684.6
157.5°	543.7	558.0	599.4	647.0	664.5
160°	553.6	565.7	600.1	639.3	652.3
162.5°	563.5	572.6	600.9	632.5	643.2
165°	576.4	582.9	601.1	624.0	631.4
167.5°	587.4	590.7	602.2	617.5	620.6
170°	593.5	595.3	603.0	614.4	615.3
172.5°	597.3	598.4	603.0	611.3	611.5
175°	603.0	603.0	603.9	608.6	606.8
177.5°	605.6	604.9	604.1	606.3	604.9
180°	604.9	604.9	604.9	604.9	604.9

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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	4.99	5.71	5.92	6.62	7.79	4.60	5.32	5.53	6.23	7.40
	3H	6.04	6.68	6.98	7.60	8.79	5.60	6.24	6.54	7.16	8.35
	4H	6.46	7.06	7.42	7.99	9.19	6.02	6.63	6.98	7.55	8.75
	6H	6.78	7.33	7.74	8.26	9.47	6.36	6.91	7.32	7.84	9.05
	8H	6.87	7.39	7.84	8.34	9.55	6.46	6.98	7.42	7.93	9.13
	12H	6.94	7.43	7.91	8.37	9.60	6.51	7.00	7.47	7.94	9.17
4H	2H	5.21	5.81	6.17	6.74	7.94	4.88	5.48	5.84	6.41	7.61
	3H	6.51	7.00	7.47	7.96	9.17	6.12	6.62	7.08	7.58	8.79
	4H	7.07	7.52	8.04	8.47	9.71	6.68	7.13	7.65	8.08	9.32
	6H	7.52	7.90	8.50	8.88	10.12	7.14	7.52	8.12	8.50	9.74
	8H	7.68	8.03	8.66	9.00	10.25	7.29	7.65	8.28	8.62	9.87
	12H	7.78	8.10	8.78	9.09	10.34	7.38	7.70	8.37	8.68	9.94
8H	4H	7.21	7.57	8.19	8.54	9.79	6.86	7.22	7.84	8.19	9.44
	6H	7.79	8.09	8.80	9.10	10.35	7.45	7.74	8.45	8.75	10.00
	8H	8.04	8.29	9.05	9.29	10.56	7.68	7.94	8.70	8.94	10.21
	12H	8.23	8.45	9.24	9.44	10.76	7.85	8.08	8.87	9.07	10.38
12H	4H	7.19	7.51	8.18	8.49	9.74	6.85	7.17	7.84	8.15	9.40
	6H	7.82	8.07	8.83	9.07	10.34	7.48	7.73	8.49	8.74	10.00
	8H	8.09	8.31	9.10	9.30	10.62	7.75	7.97	8.76	8.96	10.28