

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: P854433

Luminaire Tested: SQ2-WBN-050U-125D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854433
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G3-2308-130-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBN-050U-125D-930-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

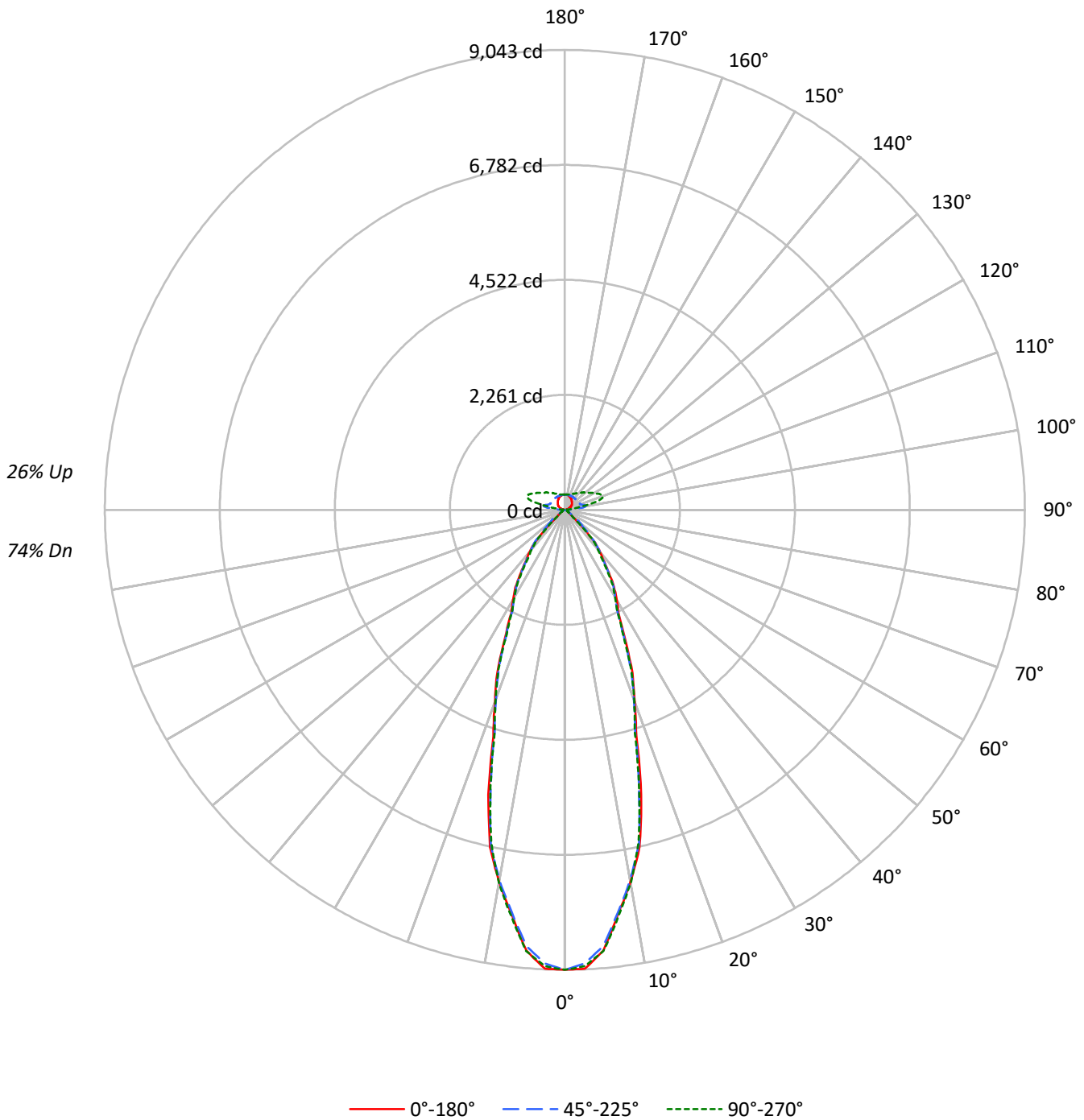
Lumens per Lamp: N/A
Luminaire Lumens: 7127.2 lumens
Efficiency: N/A
Efficacy: 110.5 lumens/watt
Spacing Criteria (0/90/45): 0.59 / 0.58 / 0.63
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 64.5
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	113	113	113	113	107	107	107	107	96	96	96	87	87	87	78	78	78	74
1	106	103	100	98	101	98	96	94	90	88	86	81	80	79	74	73	72	69
2	100	95	90	86	95	91	87	83	83	80	78	76	74	72	70	68	67	64
3	94	87	82	77	90	84	79	75	77	74	71	71	69	66	66	64	62	59
4	89	81	75	70	85	78	72	68	72	68	65	67	64	61	62	60	58	55
5	84	75	69	64	80	72	67	63	68	63	60	63	60	57	59	56	54	52
6	79	70	63	59	76	68	62	58	63	59	55	60	56	53	56	53	51	48
7	75	65	59	55	72	63	58	54	60	55	51	56	52	49	53	50	47	46
8	71	61	55	51	68	60	54	50	56	52	48	53	49	46	50	47	45	43
9	68	58	52	48	65	56	51	47	53	49	45	51	47	44	48	45	42	41
10	64	54	49	45	62	53	48	44	50	46	43	48	44	41	46	42	40	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	146013	146013	146013
5°	140979	139576	141137
10°	121858	121280	122147
15°	96968	93910	94287
20°	68885	67976	68470
25°	49558	48587	48243
30°	37865	36849	36760
35°	29723	29219	28460
40°	22521	22215	21134
45°	12602	15057	11246
50°	4433	9269	3908
55°	2711	5058	2573
60°	2073	2641	1918
65°	1899	1960	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: 15057 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	785.0	11.0
10°-20°	1560.2	21.9
20°-30°	1292.0	18.1
30°-40°	929.5	13.0
40°-50°	473.5	6.6
50°-60°	123.3	1.7
60°-70°	51.1	0.7
70°-80°	28.4	0.4
80°-90°	8.8	0.1
90°-100°	120.3	1.7
100°-110°	381.5	5.4
110°-120°	374.1	5.2
120°-130°	304.4	4.3
130°-140°	248.2	3.5
140°-150°	193.5	2.7
150°-160°	139.4	2.0
160°-170°	85.2	1.2
170°-180°	28.8	0.4
0°-30°	3637.1	51.0
0°-40°	4566.6	64.1
0°-60°	5163.4	72.4
0°-90°	5251.7	73.7
90°-120°	875.9	12.3
90°-150°	1622.1	22.8
90°-180°	1875.0	26.3
0°-180°	7127.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9043	9043	9043	9043	9043	
5°	8698	8686	8612	8736	8708	784
15°	5801	5735	5618	5658	5641	1575
25°	2782	2777	2727	2703	2708	1308
35°	1508	1517	1482	1458	1444	946
45°	552	635	659	613	492	441
55°	96	112	180	104	91	95
65°	50	51	51	48	46	50
75°	27	27	27	26	26	29
85°	8	8	6	8	6	8
90°	0	1	3	3	3	1
95°	16	49	218	81	52	19
105°	66	93	376	716	687	70
115°	119	141	304	631	743	117
125°	164	184	299	495	583	146
135°	198	218	297	426	480	153
145°	232	249	297	367	400	145
155°	264	273	298	328	341	122
165°	288	290	299	311	313	81
175°	301	300	301	303	302	29
180°	302	302	302	302	302	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9043.4	9043.4	9043.4	9043.4	9043.4
2.5°	9029.2	9014.2	8927.9	8999.3	8981.8
5°	8698.4	8685.9	8611.8	8736.3	8708.1
7.5°	8015.3	8026.0	7982.6	8092.6	8062.5
10°	7432.7	7460.9	7397.4	7557.0	7450.3
12.5°	6789.7	6771.5	6727.4	6752.1	6693.1
15°	5801.1	5735.2	5618.2	5657.9	5640.7
17.5°	4672.6	4698.1	4596.6	4592.3	4572.9
20°	4009.1	4017.0	3956.2	3988.2	3985.0
22.5°	3475.2	3476.8	3399.2	3446.0	3417.8
25°	2781.8	2777.1	2727.3	2703.3	2708.0
27.5°	2281.3	2261.8	2224.2	2240.0	2228.4
30°	2031.0	2015.3	1976.5	1985.8	1971.7
32.5°	1806.4	1807.1	1767.3	1762.6	1752.2
35°	1508.0	1517.4	1482.4	1458.0	1443.9
37.5°	1241.7	1250.5	1220.9	1185.3	1173.4
40°	1068.5	1074.7	1054.0	1012.1	1002.7
42.5°	879.8	906.1	885.9	846.3	825.6
45°	551.9	635.0	659.4	613.3	492.5
47.5°	279.1	394.3	470.4	347.4	228.8
50°	176.5	256.5	369.0	208.9	155.6
52.5°	135.4	176.5	294.5	154.3	124.8
55°	96.3	111.9	179.7	104.0	91.4
57.5°	74.4	83.2	107.5	78.8	70.9
60°	64.2	70.4	81.8	67.2	59.4
62.5°	57.8	61.5	66.4	57.0	54.2
65°	49.7	51.3	51.3	48.1	46.5
67.5°	42.4	43.9	43.6	42.0	40.4
70°	38.5	40.1	38.5	36.9	35.3
72.5°	33.4	34.9	33.4	33.0	31.4
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	2.8	3.1	3.1	3.1
90°	0.0	0.9	2.8	2.8	2.8
92.5°	5.3	21.1	67.4	22.5	15.8
95°	16.1	48.6	218.4	81.0	52.2
97.5°	30.0	63.1	370.0	231.2	141.9
100°	39.9	71.5	421.7	384.4	249.8
102.5°	50.5	80.6	412.6	564.5	432.1
105°	66.5	93.4	376.1	716.4	686.6
107.5°	82.4	107.3	341.3	732.2	772.3
110°	93.1	117.2	323.9	714.0	788.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	103.7	126.4	314.0	682.5	776.9
115°	118.7	141.0	303.9	631.2	742.7
117.5°	133.3	154.5	299.9	581.9	694.2
120°	142.5	162.9	299.2	551.4	660.0
122.5°	151.6	171.3	299.2	526.9	628.1
125°	164.3	183.8	299.2	494.9	583.1
127.5°	175.5	194.3	299.2	470.1	545.3
130°	182.3	201.8	299.2	455.5	523.3
132.5°	189.2	208.7	298.4	444.0	505.1
135°	198.5	218.0	297.3	425.7	479.6
137.5°	207.6	228.0	297.1	408.3	456.4
140°	213.7	234.1	296.3	396.1	439.7
142.5°	221.3	241.0	297.1	383.8	424.5
145°	231.7	249.4	297.3	367.3	399.8
147.5°	242.2	257.2	297.4	352.8	379.3
150°	249.8	261.8	298.2	344.3	365.6
152.5°	255.9	266.4	298.2	337.4	355.0
155°	264.0	273.3	298.2	327.9	340.9
157.5°	272.8	279.1	299.2	322.2	331.1
160°	277.3	282.9	299.2	318.3	325.8
162.5°	281.9	286.0	299.2	315.2	320.4
165°	287.8	290.5	299.2	310.6	313.4
167.5°	293.3	294.0	300.1	307.4	309.8
170°	296.3	296.3	300.1	305.8	306.8
172.5°	297.8	298.6	300.1	304.3	304.5
175°	301.1	300.1	301.1	302.9	302.0
177.5°	302.0	301.3	301.2	302.7	301.2
180°	302.0	302.0	302.0	302.0	302.0

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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	6.32	7.13	7.09	7.88	8.79	5.94	6.75	6.71	7.50	8.40
	3H	7.37	8.09	8.16	8.85	9.79	6.94	7.66	7.72	8.42	9.36
	4H	7.80	8.47	8.60	9.25	10.20	7.37	8.04	8.17	8.81	9.76
	6H	8.12	8.73	8.93	9.52	10.47	7.70	8.31	8.51	9.10	10.06
	8H	8.22	8.80	9.04	9.60	10.56	7.81	8.38	8.62	9.18	10.14
	12H	8.28	8.84	9.10	9.63	10.61	7.85	8.40	8.67	9.20	10.18
4H	2H	6.55	7.22	7.35	7.99	8.94	6.22	6.89	7.02	7.66	8.61
	3H	7.85	8.40	8.66	9.21	10.17	7.47	8.02	8.28	8.83	9.79
	4H	8.41	8.91	9.23	9.72	10.71	8.03	8.52	8.85	9.33	10.32
	6H	8.87	9.29	9.70	10.12	11.12	8.49	8.91	9.33	9.74	10.74
	8H	9.02	9.42	9.86	10.24	11.25	8.64	9.03	9.48	9.86	10.87
	12H	9.13	9.48	9.98	10.33	11.34	8.73	9.08	9.58	9.93	10.94
8H	4H	8.56	8.95	9.40	9.78	10.79	8.21	8.60	9.05	9.43	10.44
	6H	9.14	9.46	10.01	10.33	11.34	8.79	9.11	9.66	9.98	10.99
	8H	9.38	9.66	10.26	10.53	11.56	9.03	9.31	9.91	10.18	11.20
	12H	9.57	9.82	10.45	10.67	11.76	9.20	9.44	10.07	10.30	11.39
12H	4H	8.53	8.88	9.39	9.73	10.74	8.19	8.54	9.05	9.39	10.41
	6H	9.16	9.44	10.04	10.31	11.33	8.82	9.10	9.70	9.97	11.00
	8H	9.43	9.68	10.31	10.53	11.62	9.09	9.34	9.97	10.20	11.28