

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: P854424

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854424
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-050D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

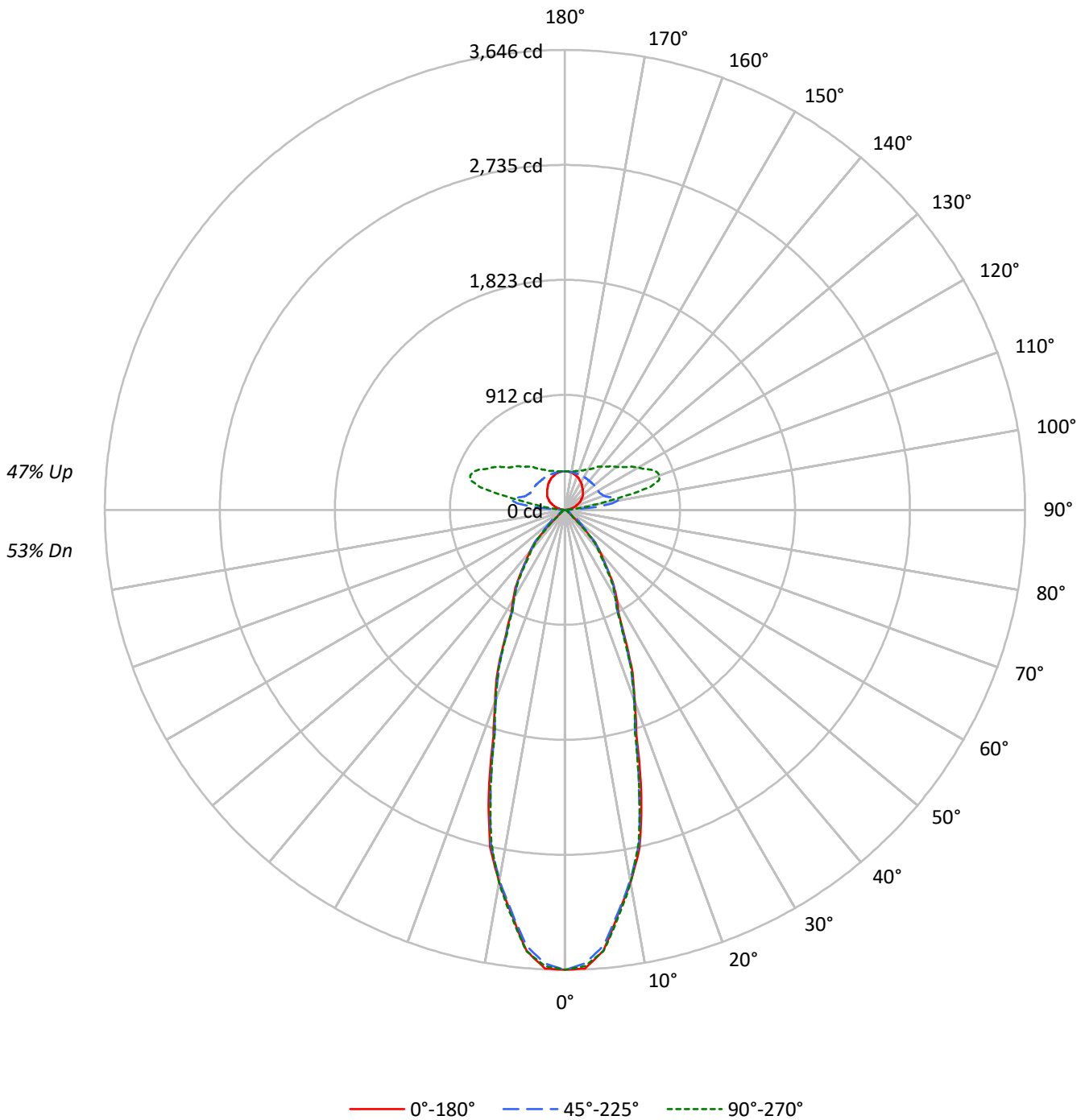
Lumens per Lamp: N/A
Luminaire Lumens: 4016.4 lumens
Efficiency: N/A
Efficacy: 122.1 lumens/watt
Spacing Criteria (0/90/45): 0.59 / 0.58 / 0.63
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 32.9
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	108	108	108	108	100	100	100	100	85	85	85	71	71	71	59	59	59	53
1	101	97	94	92	93	91	88	86	78	76	74	66	65	64	55	55	54	49
2	94	88	83	79	87	82	78	75	72	69	66	62	60	58	52	51	50	46
3	88	80	75	70	82	75	70	66	66	62	59	57	55	53	49	48	46	42
4	82	74	67	62	77	69	64	59	61	57	54	53	51	48	46	44	43	40
5	77	68	61	56	72	64	58	54	57	52	49	50	47	44	44	42	40	37
6	72	62	56	51	68	59	53	49	53	48	45	47	44	41	41	39	37	35
7	68	58	51	47	64	55	49	45	49	45	42	44	41	38	39	37	35	33
8	64	54	47	43	60	51	46	42	46	42	39	42	38	36	37	35	33	31
9	61	50	44	40	57	48	42	39	44	39	36	39	36	33	35	33	31	29
10	57	47	41	37	54	45	40	36	41	37	34	37	34	31	34	31	29	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	58860	58860	58860
5°	56832	56264	56893
10°	49122	48890	49239
15°	39089	37857	38007
20°	27768	27402	27601
25°	19978	19586	19447
30°	15264	14853	14818
35°	11982	11779	11471
40°	9078	8956	8519
45°	5080	6069	4532
50°	1786	3735	1575
55°	1092	2038	1039
60°	836	1066	772
65°	764	791	718
70°	732	732	670
75°	686	686	643
80°	604	604	604
85°	593	482	482

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 6069 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	316.4	7.9
10°-20°	628.9	15.7
20°-30°	520.8	13.0
30°-40°	374.7	9.3
40°-50°	190.9	4.8
50°-60°	49.7	1.2
60°-70°	20.6	0.5
70°-80°	11.4	0.3
80°-90°	3.8	0.1
90°-100°	121.8	3.0
100°-110°	386.3	9.6
110°-120°	378.8	9.4
120°-130°	308.3	7.7
130°-140°	251.4	6.3
140°-150°	196.0	4.9
150°-160°	141.2	3.5
160°-170°	86.3	2.1
170°-180°	29.1	0.7
0°-30°	1466.2	36.5
0°-40°	1840.9	45.8
0°-60°	2081.4	51.8
0°-90°	2117.3	52.7
90°-120°	887.0	22.1
90°-150°	1642.6	40.9
90°-180°	1899.0	47.3
0°-180°	4016.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3646	3646	3646	3646	3646	
5°	3506	3501	3472	3522	3510	316
15°	2338	2312	2265	2281	2274	635
25°	1121	1120	1099	1090	1092	527
35°	608	612	598	588	582	381
45°	222	256	266	247	198	178
55°	39	45	72	42	37	38
65°	20	21	21	19	19	20
75°	11	11	11	10	10	12
85°	3	3	3	3	3	3
90°	0	1	3	3	3	1
95°	16	49	221	82	53	19
105°	67	95	381	725	695	71
115°	120	143	308	639	752	119
125°	166	186	303	501	590	148
135°	201	221	301	431	486	155
145°	235	252	301	372	405	147
155°	267	277	302	332	345	123
165°	291	294	303	314	317	82
175°	305	304	305	307	306	29
180°	306	306	306	306	306	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3645.5	3645.5	3645.5	3645.5	3645.5
2.5°	3639.8	3633.7	3598.9	3627.8	3620.7
5°	3506.5	3501.4	3471.5	3521.7	3510.3
7.5°	3231.1	3235.4	3217.9	3262.3	3250.1
10°	2996.2	3007.6	2982.0	3046.3	3003.3
12.5°	2737.0	2729.7	2711.9	2721.9	2698.1
15°	2338.5	2311.9	2264.8	2280.8	2273.8
17.5°	1883.6	1893.9	1853.0	1851.2	1843.4
20°	1616.1	1619.3	1594.8	1607.7	1606.4
22.5°	1400.9	1401.5	1370.3	1389.1	1377.8
25°	1121.4	1119.5	1099.4	1089.8	1091.6
27.5°	919.6	911.8	896.6	903.0	898.3
30°	818.7	812.4	796.7	800.5	794.8
32.5°	728.2	728.4	712.4	710.5	706.3
35°	607.9	611.7	597.6	587.7	582.0
37.5°	500.6	504.1	492.1	477.8	473.0
40°	430.7	433.2	424.9	408.0	404.2
42.5°	354.7	365.3	357.1	341.1	332.8
45°	222.5	256.0	265.8	247.2	198.5
47.5°	112.5	158.9	189.6	140.0	92.2
50°	71.1	103.4	148.7	84.2	62.7
52.5°	54.6	71.1	118.7	62.2	50.3
55°	38.8	45.1	72.4	41.9	36.9
57.5°	30.0	33.5	43.3	31.7	28.6
60°	25.9	28.4	33.0	27.1	23.9
62.5°	23.3	24.8	26.8	23.0	21.9
65°	20.0	20.7	20.7	19.4	18.8
67.5°	17.1	17.7	17.6	16.9	16.3
70°	15.5	16.2	15.5	14.9	14.2
72.5°	13.5	14.1	13.5	13.3	12.7
75°	11.0	11.0	11.0	10.3	10.3
77.5°	8.5	8.7	8.0	8.0	7.5
80°	6.5	7.1	6.5	6.5	6.5
82.5°	5.4	5.6	4.9	4.9	4.9
85°	3.2	3.2	2.6	3.2	2.6
87.5°	1.0	1.2	1.6	1.6	1.6
90°	0.0	0.9	2.9	2.9	2.9
92.5°	5.4	21.4	68.3	22.7	16.0
95°	16.3	49.3	221.2	82.0	52.9
97.5°	30.4	63.9	374.7	234.1	143.7
100°	40.4	72.4	427.0	389.3	252.9
102.5°	51.2	81.6	417.8	571.7	437.6
105°	67.3	94.6	380.8	725.4	695.3
107.5°	83.5	108.7	345.6	741.4	782.1
110°	94.2	118.7	327.9	723.0	798.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	105.0	128.0	317.9	691.1	786.7
115°	120.2	142.8	307.7	639.2	752.1
117.5°	135.0	156.5	303.7	589.2	703.0
120°	144.3	164.9	302.9	558.4	668.4
122.5°	153.5	173.4	302.9	533.6	636.1
125°	166.4	186.1	302.9	501.2	590.5
127.5°	177.7	196.7	302.9	476.0	552.2
130°	184.6	204.4	302.9	461.3	529.9
132.5°	191.6	211.3	302.2	449.6	511.4
135°	201.0	220.7	301.0	431.1	485.7
137.5°	210.2	230.9	300.8	413.5	462.2
140°	216.4	237.1	300.1	401.1	445.3
142.5°	224.1	244.0	300.8	388.7	429.9
145°	234.7	252.5	301.0	372.0	404.9
147.5°	245.2	260.5	301.2	357.2	384.1
150°	252.9	265.2	302.0	348.6	370.3
152.5°	259.1	269.8	302.0	341.6	359.5
155°	267.4	276.8	302.0	332.1	345.3
157.5°	276.2	282.6	302.9	326.2	335.3
160°	280.8	286.5	302.9	322.3	329.9
162.5°	285.4	289.6	302.9	319.2	324.5
165°	291.4	294.2	302.9	314.5	317.4
167.5°	297.0	297.7	303.9	311.3	313.7
170°	300.1	300.1	303.9	309.7	310.6
172.5°	301.6	302.3	303.9	308.1	308.3
175°	304.9	303.9	304.9	306.8	305.8
177.5°	305.8	305.1	305.1	306.6	305.1
180°	305.8	305.8	305.8	305.8	305.8



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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	1.31	2.01	2.29	2.97	4.21	0.93	1.62	1.90	2.58	3.83
	3H	2.36	2.98	3.35	3.95	5.22	1.93	2.54	2.91	3.51	4.78
	4H	2.79	3.37	3.78	4.34	5.62	2.35	2.93	3.34	3.90	5.18
	6H	3.10	3.63	4.11	4.61	5.90	2.68	3.21	3.69	4.19	5.48
	8H	3.20	3.70	4.21	4.70	5.98	2.78	3.29	3.79	4.28	5.57
	12H	3.26	3.74	4.28	4.73	6.03	2.83	3.31	3.84	4.29	5.60
4H	2H	1.53	2.11	2.54	3.08	4.37	1.20	1.78	2.21	2.76	4.04
	3H	2.83	3.31	3.84	4.31	5.60	2.45	2.93	3.46	3.93	5.22
	4H	3.39	3.83	4.41	4.82	6.14	3.00	3.44	4.01	4.43	5.75
	6H	3.85	4.22	4.87	5.24	6.55	3.46	3.83	4.49	4.85	6.17
	8H	4.00	4.35	5.03	5.36	6.69	3.62	3.97	4.64	4.98	6.30
	12H	4.10	4.41	5.14	5.44	6.77	3.70	4.01	4.74	5.04	6.37
8H	4H	3.53	3.88	4.56	4.89	6.22	3.18	3.53	4.21	4.54	5.86
	6H	4.12	4.40	5.17	5.46	6.78	3.77	4.05	4.82	5.11	6.43
	8H	4.37	4.61	5.42	5.65	7.00	4.01	4.26	5.07	5.30	6.64
	12H	4.55	4.77	5.61	5.80	7.19	4.18	4.40	5.24	5.43	6.82
12H	4H	3.51	3.82	4.55	4.85	6.17	3.16	3.48	4.21	4.50	5.83
	6H	4.14	4.39	5.20	5.43	6.78	3.81	4.05	4.86	5.09	6.44
	8H	4.42	4.63	5.47	5.66	7.05	4.08	4.29	5.13	5.33	6.71

END OF REPORT