

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: P854425

Luminaire Tested: SQ2-WBN-050U-050D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854425
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-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

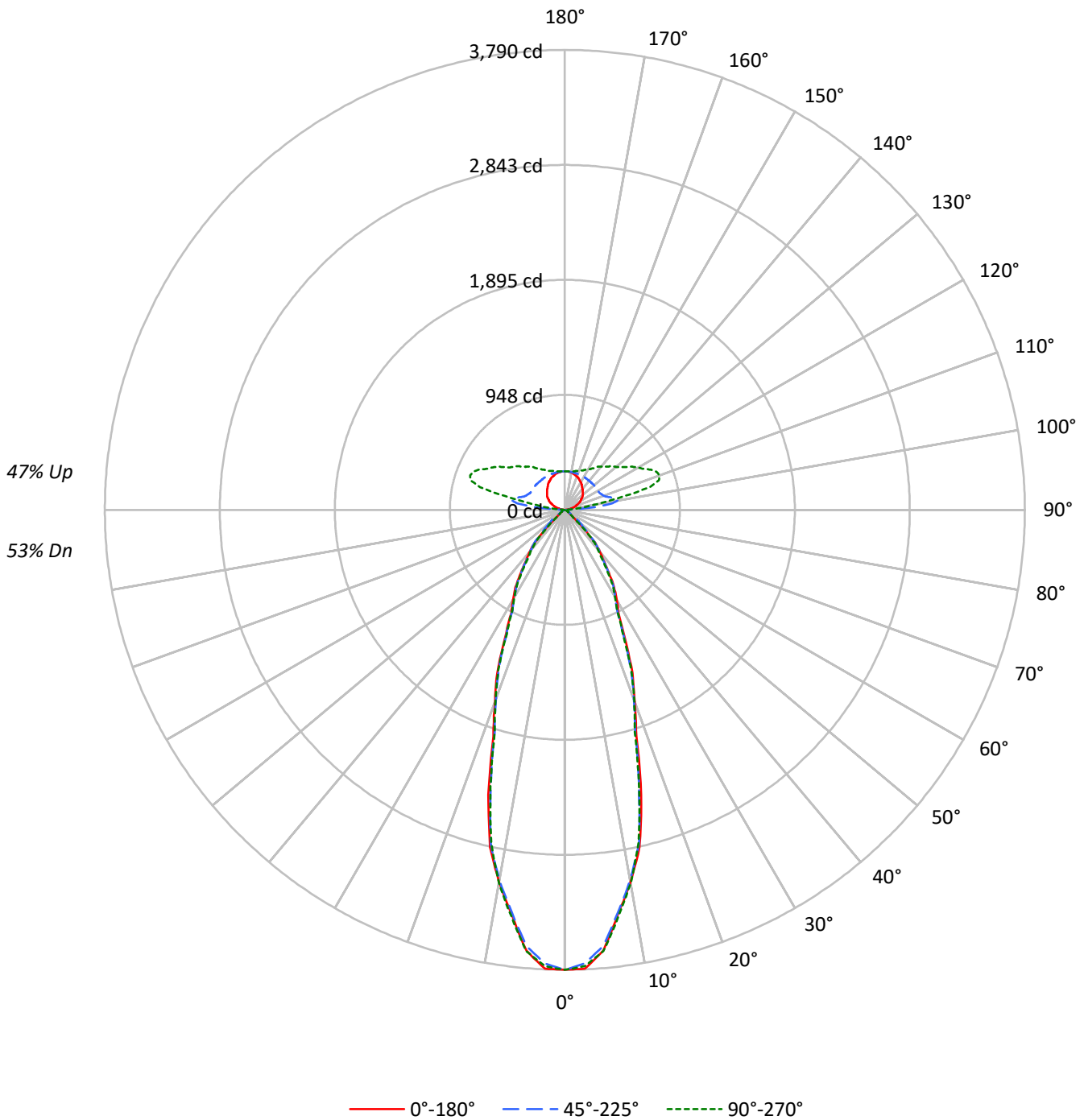
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4176.0 lumens
Efficiency: N/A
Efficacy: 126.9 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): 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	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°	61198	61198	61198
5°	59088	58499	59154
10°	51073	50831	51195
15°	40642	39360	39519
20°	28871	28490	28697
25°	20770	20364	20220
30°	15871	15444	15407
35°	12459	12246	11929
40°	9438	9312	8857
45°	5281	6311	4713
50°	1859	3886	1638
55°	1134	2120	1078
60°	869	1108	804
65°	795	821	745
70°	760	760	699
75°	711	711	674
80°	623	623	623
85°	630	500	500

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 6311 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	329.0	7.9
10°-20°	653.9	15.7
20°-30°	541.5	13.0
30°-40°	389.6	9.3
40°-50°	198.5	4.8
50°-60°	51.7	1.2
60°-70°	21.4	0.5
70°-80°	11.9	0.3
80°-90°	3.9	0.1
90°-100°	126.6	3.0
100°-110°	401.7	9.6
110°-120°	393.9	9.4
120°-130°	320.5	7.7
130°-140°	261.3	6.3
140°-150°	203.8	4.9
150°-160°	146.8	3.5
160°-170°	89.7	2.1
170°-180°	30.3	0.7
0°-30°	1524.4	36.5
0°-40°	1914.0	45.8
0°-60°	2164.1	51.8
0°-90°	2201.4	52.7
90°-120°	922.2	22.1
90°-150°	1707.8	40.9
90°-180°	1975.0	47.3
0°-180°	4176.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3790	3790	3790	3790	3790	
5°	3646	3640	3609	3662	3650	329
15°	2431	2404	2355	2371	2364	660
25°	1166	1164	1143	1133	1135	548
35°	632	636	621	611	605	397
45°	231	266	276	257	206	185
55°	40	47	75	44	38	40
65°	21	22	22	20	20	21
75°	11	11	11	11	11	12
85°	3	3	3	3	3	4
90°	0	1	3	3	3	1
95°	17	51	230	85	55	20
105°	70	98	396	754	723	74
115°	125	148	320	665	782	123
125°	173	194	315	521	614	154
135°	209	230	313	448	505	161
145°	244	263	313	387	421	153
155°	278	288	314	345	359	128
165°	303	306	315	327	330	85
175°	317	316	317	319	318	30
180°	318	318	318	318	318	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3790.3	3790.3	3790.3	3790.3	3790.3
2.5°	3784.4	3778.1	3741.9	3771.9	3764.5
5°	3645.7	3640.5	3609.4	3661.6	3649.8
7.5°	3359.4	3363.9	3345.7	3391.8	3379.2
10°	3115.2	3127.1	3100.4	3167.3	3122.6
12.5°	2845.7	2838.1	2819.6	2830.0	2805.2
15°	2431.4	2403.8	2354.7	2371.4	2364.2
17.5°	1958.4	1969.1	1926.6	1924.8	1916.6
20°	1680.3	1683.6	1658.1	1671.6	1670.2
22.5°	1456.5	1457.2	1424.7	1444.3	1432.5
25°	1165.9	1164.0	1143.1	1133.0	1135.0
27.5°	956.2	948.0	932.2	938.8	934.0
30°	851.3	844.7	828.4	832.3	826.4
32.5°	757.1	757.4	740.7	738.7	734.4
35°	632.1	636.0	621.3	611.1	605.2
37.5°	520.4	524.1	511.7	496.8	491.8
40°	447.8	450.4	441.8	424.2	420.2
42.5°	368.7	379.8	371.3	354.7	346.0
45°	231.3	266.2	276.4	257.1	206.4
47.5°	117.0	165.3	197.1	145.6	95.9
50°	74.0	107.5	154.7	87.6	65.2
52.5°	56.8	74.0	123.5	64.7	52.3
55°	40.3	46.9	75.3	43.6	38.3
57.5°	31.2	34.9	45.1	33.0	29.7
60°	26.9	29.5	34.3	28.2	24.9
62.5°	24.2	25.8	27.8	23.9	22.7
65°	20.8	21.5	21.5	20.2	19.5
67.5°	17.8	18.4	18.3	17.6	16.9
70°	16.1	16.8	16.1	15.5	14.8
72.5°	14.0	14.6	14.0	13.8	13.2
75°	11.4	11.4	11.4	10.8	10.8
77.5°	8.9	9.0	8.3	8.3	7.8
80°	6.7	7.4	6.7	6.7	6.7
82.5°	5.6	5.8	5.1	5.1	5.1
85°	3.4	3.4	2.7	3.3	2.7
87.5°	1.1	1.3	1.7	1.7	1.7
90°	0.0	1.0	3.0	3.0	3.0
92.5°	5.6	22.2	71.0	23.6	16.6
95°	17.0	51.2	230.0	85.3	55.0
97.5°	31.6	66.4	389.6	243.4	149.4
100°	42.0	75.2	444.0	404.7	263.0
102.5°	53.2	84.9	434.4	594.4	455.0
105°	70.0	98.3	396.0	754.2	722.9
107.5°	86.8	113.0	359.4	770.9	813.1
110°	98.0	123.4	341.0	751.7	829.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	109.2	133.0	330.6	718.6	817.9
115°	125.0	148.5	320.0	664.6	781.9
117.5°	140.4	162.7	315.8	612.6	730.9
120°	150.0	171.5	315.0	580.5	694.9
122.5°	159.6	180.3	315.0	554.8	661.3
125°	173.0	193.5	315.0	521.1	613.9
127.5°	184.8	204.5	315.0	495.0	574.1
130°	192.0	212.5	315.0	479.6	550.9
132.5°	199.2	219.7	314.2	467.4	531.8
135°	209.0	229.5	313.0	448.2	505.0
137.5°	218.6	240.1	312.8	429.9	480.6
140°	225.0	246.5	312.0	417.0	463.0
142.5°	233.0	253.7	312.8	404.1	447.0
145°	244.0	262.6	313.0	386.7	421.0
147.5°	255.0	270.8	313.2	371.4	399.4
150°	263.0	275.7	314.0	362.5	385.0
152.5°	269.4	280.5	314.0	355.2	373.8
155°	278.0	287.8	314.0	345.3	359.0
157.5°	287.2	293.8	315.0	339.2	348.6
160°	292.0	297.8	315.0	335.1	343.0
162.5°	296.8	301.1	315.0	331.9	337.4
165°	303.0	305.9	315.0	327.0	330.0
167.5°	308.8	309.6	316.0	323.6	326.2
170°	312.0	312.0	316.0	322.0	323.0
172.5°	313.6	314.4	316.0	320.4	320.6
175°	317.0	316.0	317.0	318.9	318.0
177.5°	318.0	317.2	317.2	318.7	317.2
180°	318.0	318.0	318.0	318.0	318.0



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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	1.45	2.14	2.42	3.10	4.35	1.07	1.76	2.04	2.72	3.97
	3H	2.49	3.11	3.48	4.08	5.35	2.07	2.68	3.05	3.65	4.92
	4H	2.91	3.50	3.91	4.47	5.75	2.49	3.07	3.49	4.04	5.33
	6H	3.23	3.76	4.23	4.74	6.03	2.82	3.35	3.83	4.33	5.62
	8H	3.32	3.83	4.34	4.82	6.11	2.92	3.43	3.93	4.42	5.71
	12H	3.39	3.87	4.41	4.86	6.16	2.97	3.45	3.98	4.43	5.74
4H	2H	1.66	2.24	2.67	3.22	4.50	1.34	1.92	2.34	2.89	4.17
	3H	2.96	3.44	3.97	4.44	5.73	2.59	3.06	3.59	4.07	5.36
	4H	3.52	3.96	4.53	4.95	6.27	3.14	3.58	4.16	4.58	5.89
	6H	3.97	4.34	5.00	5.36	6.68	3.60	3.98	4.63	4.99	6.31
	8H	4.13	4.48	5.15	5.49	6.81	3.76	4.10	4.78	5.11	6.44
	12H	4.23	4.55	5.27	5.57	6.90	3.84	4.15	4.88	5.18	6.51
8H	4H	3.66	4.01	4.68	5.02	6.34	3.32	3.67	4.35	4.68	6.01
	6H	4.25	4.53	5.29	5.58	6.91	3.91	4.19	4.95	5.24	6.57
	8H	4.49	4.74	5.55	5.78	7.12	4.15	4.39	5.20	5.43	6.78
	12H	4.69	4.90	5.74	5.93	7.32	4.31	4.53	5.37	5.56	6.95
12H	4H	3.63	3.94	4.67	4.97	6.30	3.31	3.62	4.35	4.65	5.97
	6H	4.27	4.52	5.32	5.56	6.90	3.94	4.19	5.00	5.23	6.57
	8H	4.54	4.76	5.60	5.79	7.18	4.21	4.42	5.26	5.46	6.85