

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: P854449

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854449
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2308-130-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBN-050D-935-UNV-STD-W-4
Description: CORELITE SQ2 SURFACE LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
DIRECT ONLY
Light Source: -
Ballast/Driver: -

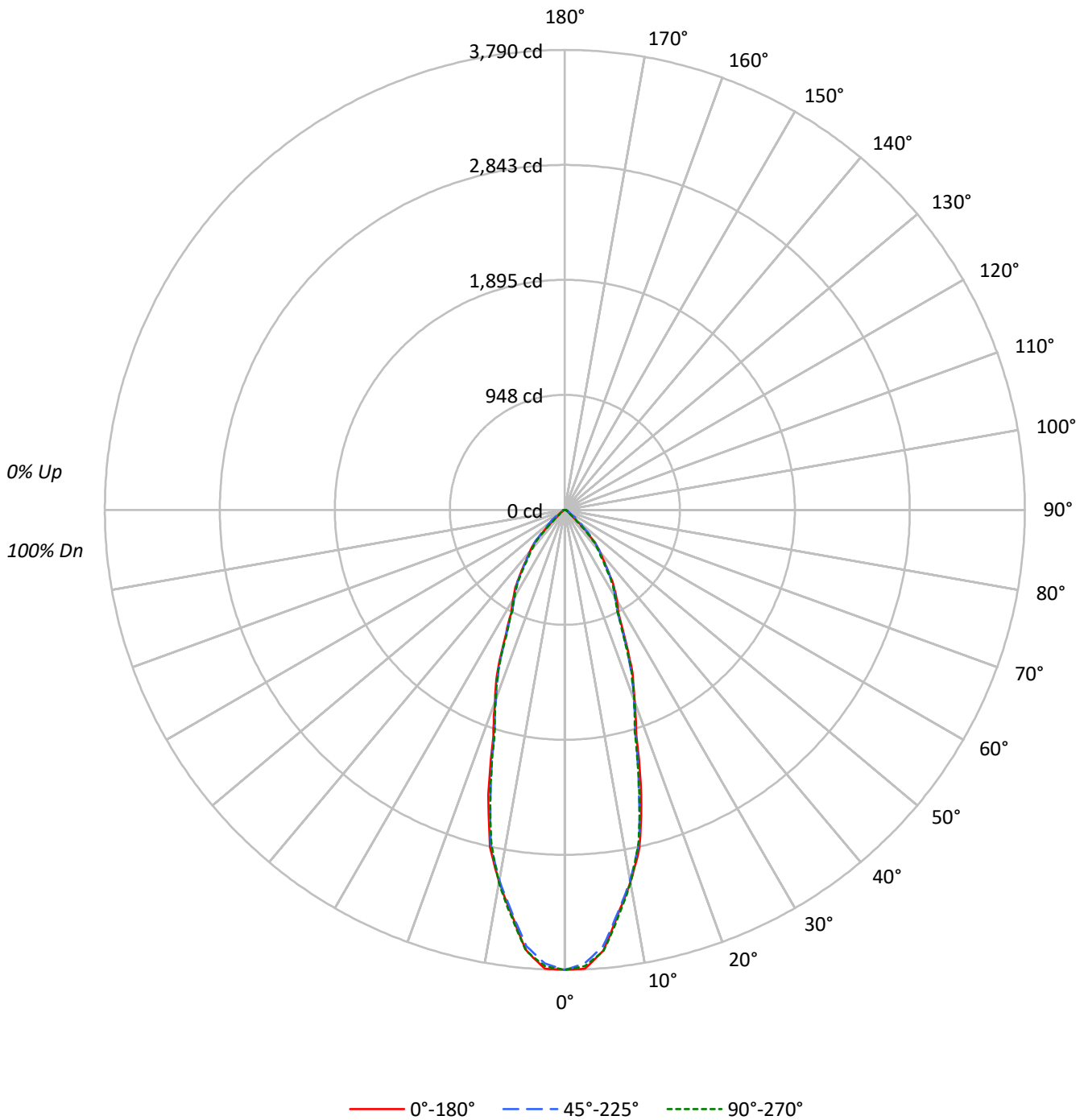
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2200.7 lumens
Efficiency: N/A
Efficacy: 121.6 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: Direct

Input Watts (W): 18.1
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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	113	111	108	106	111	108	106	104	104	103	101	101	99	98	97	96	95	93
2	108	103	99	95	105	101	97	94	98	95	92	95	92	90	92	90	88	87
3	102	96	91	87	100	94	90	86	92	88	85	89	86	83	87	84	82	81
4	97	90	84	80	95	88	83	79	86	82	78	84	81	78	82	79	77	75
5	92	84	78	74	91	83	78	74	81	77	73	80	76	72	78	75	72	70
6	88	79	73	69	86	78	73	69	77	72	68	75	71	68	74	70	67	66
7	84	75	69	64	82	74	68	64	73	68	64	71	67	64	70	66	63	62
8	80	71	65	61	79	70	64	60	69	64	60	68	63	60	67	63	60	58
9	76	67	61	57	75	66	61	57	65	60	57	65	60	57	64	60	57	55
10	73	64	58	54	72	63	58	54	62	57	54	62	57	54	61	57	54	52

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	61193	61193	61193
5°	59083	58495	59148
10°	51069	50826	51190
15°	40638	39356	39514
20°	28869	28488	28696
25°	20769	20363	20218
30°	15869	15443	15405
35°	12457	12244	11927
40°	9438	9310	8857
45°	5281	6309	4713
50°	1859	3883	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: 6309 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	329.0	14.9
10°-20°	653.8	29.7
20°-30°	541.5	24.6
30°-40°	389.5	17.7
40°-50°	198.4	9.0
50°-60°	51.7	2.3
60°-70°	21.4	1.0
70°-80°	11.9	0.5
80°-90°	3.5	0.2
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1524.3	69.3
0°-40°	1913.8	87.0
0°-60°	2163.9	98.3
0°-90°	2200.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2200.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3790	3790	3790	3790	3790	
5°	3645	3640	3609	3661	3649	329
15°	2431	2404	2354	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	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3790.0	3790.0	3790.0	3790.0	3790.0
2.5°	3784.0	3777.7	3741.5	3771.5	3764.1
5°	3645.4	3640.1	3609.1	3661.3	3649.4
7.5°	3359.1	3363.6	3345.4	3391.5	3378.9
10°	3114.9	3126.8	3100.1	3167.0	3122.3
12.5°	2845.5	2837.8	2819.4	2829.7	2805.0
15°	2431.2	2403.6	2354.5	2371.2	2363.9
17.5°	1958.2	1968.9	1926.4	1924.6	1916.4
20°	1680.2	1683.5	1658.0	1671.4	1670.1
22.5°	1456.4	1457.1	1424.5	1444.2	1432.3
25°	1165.8	1163.9	1143.0	1132.9	1134.9
27.5°	956.1	947.9	932.1	938.7	933.9
30°	851.2	844.6	828.3	832.2	826.3
32.5°	757.0	757.3	740.6	738.7	734.3
35°	632.0	635.9	621.2	611.0	605.1
37.5°	520.4	524.1	511.6	496.7	491.7
40°	447.8	450.4	441.7	424.2	420.2
42.5°	368.7	379.8	371.3	354.7	346.0
45°	231.3	266.1	276.3	257.0	206.4
47.5°	117.0	165.2	197.1	145.6	95.9
50°	74.0	107.5	154.6	87.6	65.2
52.5°	56.7	74.0	123.4	64.7	52.3
55°	40.3	46.9	75.3	43.6	38.3
57.5°	31.2	34.9	45.0	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°	17.7	18.4	18.3	17.6	16.9
70°	16.1	16.8	16.1	15.4	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	1.1	1.1	1.1	1.1
90°	0.0	0.0	0.0	0.0	0.0



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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	5.49	6.55	5.85	6.86	7.17	5.11	6.17	5.47	6.48	6.79
	3H	6.54	7.48	6.93	7.81	8.18	6.12	7.05	6.50	7.38	7.75
	4H	6.98	7.84	7.38	8.19	8.58	6.55	7.41	6.96	7.77	8.16
	6H	7.30	8.09	7.72	8.46	8.86	6.89	7.68	7.31	8.05	8.45
	8H	7.40	8.14	7.84	8.54	8.95	7.00	7.74	7.43	8.13	8.54
	12H	7.48	8.18	7.91	8.57	9.00	7.05	7.76	7.49	8.14	8.57
4H	2H	5.73	6.59	6.13	6.94	7.33	5.40	6.27	5.81	6.62	7.01
	3H	7.03	7.73	7.45	8.14	8.55	6.65	7.36	7.07	7.76	8.17
	4H	7.59	8.22	8.03	8.64	9.09	7.21	7.84	7.65	8.26	8.71
	6H	8.05	8.58	8.52	9.03	9.51	7.68	8.21	8.15	8.66	9.14
	8H	8.20	8.70	8.68	9.15	9.63	7.83	8.33	8.30	8.78	9.25
	12H	8.32	8.75	8.81	9.24	9.72	7.92	8.35	8.41	8.84	9.32
8H	4H	7.73	8.23	8.21	8.68	9.16	7.39	7.89	7.87	8.34	8.82
	6H	8.32	8.72	8.83	9.22	9.70	7.98	8.37	8.48	8.88	9.36
	8H	8.55	8.91	9.08	9.43	9.93	8.20	8.56	8.73	9.08	9.58
	12H	8.76	9.07	9.28	9.57	10.14	8.38	8.69	8.90	9.19	9.77
12H	4H	7.72	8.15	8.21	8.64	9.12	7.39	7.82	7.88	8.31	8.79
	6H	8.33	8.68	8.86	9.20	9.70	8.00	8.35	8.53	8.87	9.37
	8H	8.61	8.92	9.13	9.42	10.00	8.28	8.59	8.80	9.09	9.66