

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: P854484

Luminaire Tested: SQ2-WBN-150U-050D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854484
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G3-2308-130-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBN-150U-050D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

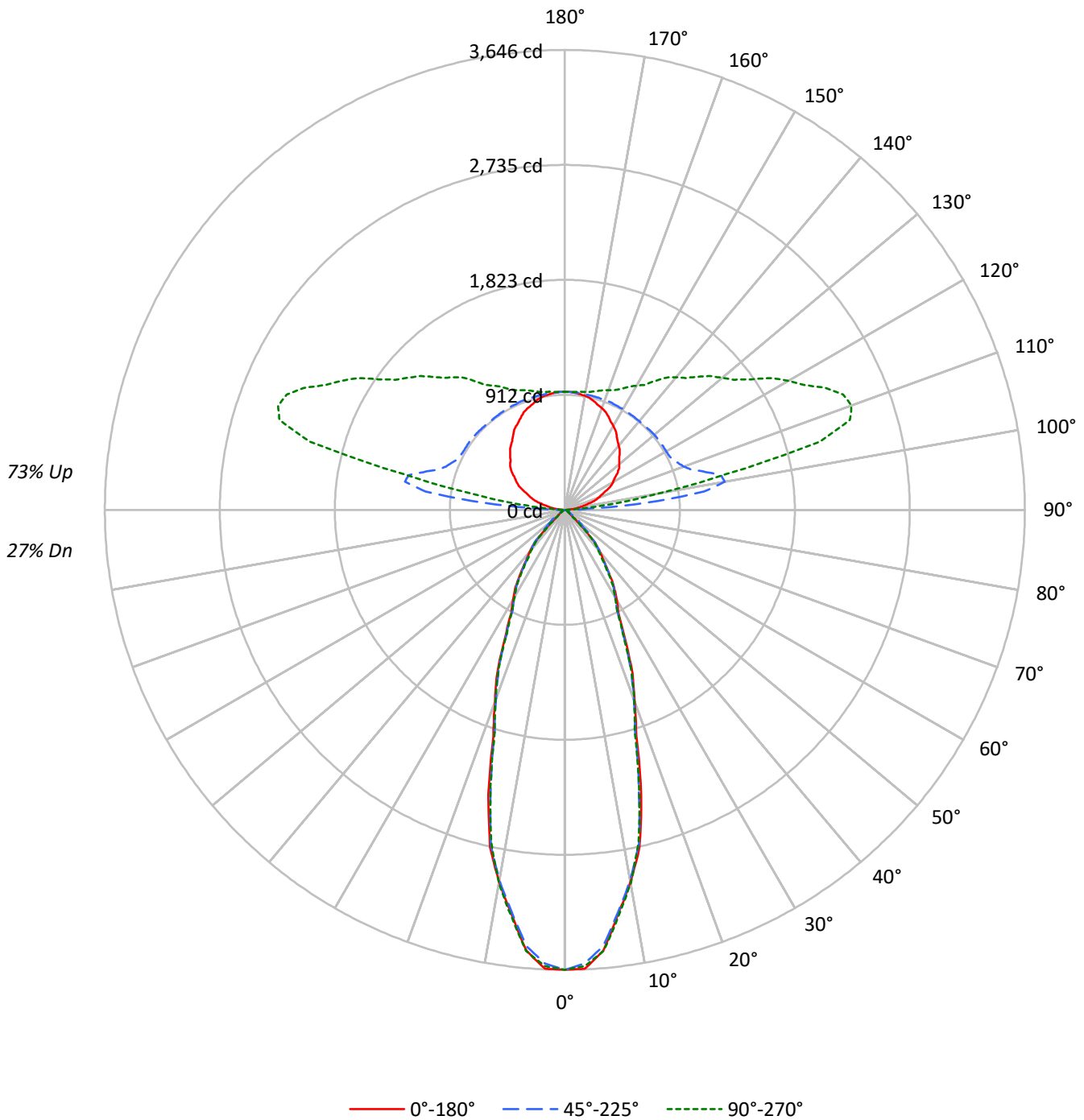
Lumens per Lamp: N/A
Luminaire Lumens: 7893.9 lumens
Efficiency: N/A
Efficacy: 105.7 lumens/watt
Spacing Criteria (0/90/45): 0.59 / 0.58 / 0.63
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 74.7
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

TEST NUMBER: P854484

CATALOG NUMBER: SQ2-WBN-150U-050D-930-UNV-STD-W-4

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20				
RC	80					70					50					30				
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																				
0	102	102	102	102	91	91	91	91	70	70	70	52	52	52	35	35	35	27		
1	94	90	87	84	84	81	78	76	63	62	60	47	46	45	33	32	32	25		
2	87	80	75	71	77	72	68	64	57	54	52	43	42	40	30	30	29	23		
3	80	72	66	61	72	65	60	56	52	48	46	40	38	36	28	27	26	22		
4	74	65	58	53	66	59	53	49	47	43	40	37	34	32	27	25	24	20		
5	69	59	52	46	62	53	47	43	43	39	36	34	31	29	25	24	22	19		
6	64	53	46	41	57	49	43	38	40	35	32	31	29	26	23	22	21	18		
7	59	49	42	37	53	45	39	34	37	32	29	29	26	24	22	21	19	17		
8	55	45	38	33	50	41	35	31	34	30	27	27	24	22	21	19	18	16		
9	52	41	35	30	47	38	32	28	31	27	25	25	23	21	20	18	17	15		
10	49	38	32	28	44	35	30	26	29	25	23	24	21	19	19	17	16	14		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	58868	58868	58868
5°	56838	56272	56901
10°	49129	48896	49245
15°	39094	37862	38012
20°	27771	27405	27605
25°	19979	19588	19450
30°	15265	14855	14820
35°	11984	11779	11473
40°	9080	8956	8519
45°	5080	6069	4535
50°	1786	3738	1575
55°	1092	2038	1039
60°	836	1066	772
65°	768	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



TEST NUMBER: P854484

CATALOG NUMBER: SQ2-WBN-150U-050D-930-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	316.5	4.0
10°-20°	629.0	8.0
20°-30°	520.9	6.6
30°-40°	374.7	4.7
40°-50°	190.9	2.4
50°-60°	49.7	0.6
60°-70°	20.6	0.3
70°-80°	11.4	0.1
80°-90°	4.4	0.1
90°-100°	356.5	4.5
100°-110°	1167.5	14.8
110°-120°	1154.2	14.6
120°-130°	943.5	12.0
130°-140°	770.0	9.8
140°-150°	599.2	7.6
150°-160°	431.5	5.5
160°-170°	264.0	3.3
170°-180°	89.2	1.1
0°-30°	1466.4	18.6
0°-40°	1841.1	23.3
0°-60°	2081.7	26.4
0°-90°	2118.2	26.8
90°-120°	2678.3	33.9
90°-150°	4991.1	63.2
90°-180°	5776.0	73.2
0°-180°	7893.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3646	3646	3646	3646	3646	
5°	3507	3502	3472	3522	3511	316
15°	2339	2312	2265	2281	2274	635
25°	1122	1120	1100	1090	1092	528
35°	608	612	598	588	582	382
45°	222	256	266	247	199	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°	1	3	8	7	8	3
95°	50	145	648	231	150	57
105°	203	289	1159	2202	2092	214
115°	366	437	942	1946	2284	361
125°	509	567	928	1534	1802	453
135°	613	678	920	1323	1492	474
145°	716	769	918	1138	1247	449
155°	816	844	924	1018	1058	376
165°	892	900	928	964	974	251
175°	932	932	933	940	938	88
180°	936	936	936	936	936	



TEST NUMBER: P854484

CATALOG NUMBER: SQ2-WBN-150U-050D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3646.0	3646.0	3646.0	3646.0	3646.0
2.5°	3640.3	3634.2	3599.4	3628.2	3621.1
5°	3506.9	3501.8	3472.0	3522.2	3510.8
7.5°	3231.5	3235.8	3218.3	3262.7	3250.5
10°	2996.6	3008.0	2982.4	3046.7	3003.7
12.5°	2737.4	2730.0	2712.3	2722.2	2698.4
15°	2338.8	2312.2	2265.1	2281.1	2274.1
17.5°	1883.8	1894.1	1853.2	1851.5	1843.6
20°	1616.3	1619.5	1595.0	1607.9	1606.6
22.5°	1401.1	1401.7	1370.4	1389.3	1377.9
25°	1121.5	1119.6	1099.5	1089.9	1091.8
27.5°	919.7	911.9	896.7	903.1	898.4
30°	818.8	812.5	796.8	800.6	794.9
32.5°	728.3	728.5	712.5	710.6	706.4
35°	608.0	611.8	597.6	587.8	582.1
37.5°	500.6	504.2	492.2	477.9	473.1
40°	430.8	433.3	424.9	408.0	404.2
42.5°	354.7	365.3	357.2	341.2	332.8
45°	222.5	256.0	265.8	247.3	198.6
47.5°	112.5	159.0	189.6	140.0	92.2
50°	71.1	103.4	148.8	84.2	62.7
52.5°	54.6	71.2	118.8	62.2	50.3
55°	38.8	45.1	72.4	41.9	36.9
57.5°	30.0	33.6	43.3	31.8	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°	20.1	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°	1.2	1.6	2.6	2.4	2.6
90°	1.0	2.8	7.7	6.8	7.7
92.5°	16.3	59.6	183.1	59.6	47.7
95°	50.0	145.0	648.2	230.9	150.0
97.5°	90.8	191.2	1112.1	672.8	417.0
100°	119.3	215.2	1286.8	1149.1	761.7
102.5°	151.6	245.2	1267.6	1693.2	1312.6
105°	202.9	289.4	1158.9	2201.8	2091.8
107.5°	253.5	332.9	1052.9	2249.3	2370.3
110°	286.6	363.7	1002.1	2194.0	2418.7



TEST NUMBER: P854484

CATALOG NUMBER: SQ2-WBN-150U-050D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	318.1	393.0	971.3	2097.7	2385.7
115°	365.5	436.9	941.5	1945.6	2284.1
117.5°	411.4	478.2	930.2	1796.0	2139.8
120°	441.4	504.4	927.1	1708.9	2043.7
122.5°	468.4	529.9	927.1	1633.7	1944.4
125°	508.8	567.1	928.1	1534.3	1802.3
127.5°	543.0	602.4	926.9	1461.0	1694.2
130°	564.5	624.7	926.1	1416.6	1627.2
132.5°	583.8	645.5	923.8	1378.5	1569.5
135°	612.6	677.5	920.4	1323.3	1491.6
137.5°	643.0	707.3	918.3	1265.8	1418.0
140°	664.6	726.6	917.5	1229.5	1373.3
142.5°	686.1	744.4	917.5	1190.7	1321.0
145°	716.5	769.1	918.4	1138.3	1247.4
147.5°	748.4	792.2	919.8	1092.7	1175.0
150°	768.4	807.0	921.3	1066.2	1135.8
152.5°	788.4	822.5	922.1	1044.4	1101.9
155°	816.5	843.8	924.2	1018.4	1057.9
157.5°	841.7	861.5	926.3	998.0	1026.5
160°	857.9	873.8	927.1	986.3	1008.9
162.5°	871.7	884.7	927.1	976.9	993.5
165°	891.5	900.0	928.1	963.9	974.2
167.5°	908.3	912.4	929.2	953.8	959.4
170°	917.5	919.4	930.0	948.3	950.2
172.5°	924.4	925.5	932.3	944.4	944.8
175°	931.9	931.9	932.9	939.6	937.7
177.5°	935.8	935.0	934.2	938.8	935.8
180°	935.8	935.8	935.8	935.8	935.8



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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	0.00	0.00	0.00	0.00	1.58	0.00	0.00	0.00	0.00	1.19
	3H	0.00	0.00	0.48	0.99	2.58	0.00	0.00	0.04	0.55	2.15
	4H	0.00	0.25	0.91	1.38	2.98	0.00	0.00	0.47	0.94	2.54
	6H	0.05	0.52	1.23	1.65	3.26	0.00	0.09	0.80	1.23	2.84
	8H	0.14	0.59	1.32	1.74	3.34	0.00	0.17	0.91	1.32	2.92
	12H	0.21	0.63	1.39	1.77	3.39	0.00	0.19	0.96	1.34	2.96
4H	2H	0.00	0.00	0.00	0.13	1.72	0.00	0.00	0.00	0.00	1.40
	3H	0.00	0.20	0.96	1.36	2.97	0.00	0.00	0.57	0.98	2.59
	4H	0.34	0.73	1.52	1.88	3.51	0.00	0.33	1.13	1.49	3.11
	6H	0.79	1.12	1.98	2.30	3.91	0.40	0.74	1.59	1.91	3.53
	8H	0.95	1.26	2.13	2.42	4.05	0.56	0.87	1.75	2.04	3.67
	12H	1.05	1.33	2.25	2.50	4.14	0.65	0.93	1.84	2.10	3.74
8H	4H	0.48	0.79	1.66	1.95	3.59	0.13	0.44	1.31	1.60	3.23
	6H	1.07	1.32	2.27	2.53	4.16	0.72	0.97	1.92	2.18	3.81
	8H	1.32	1.53	2.52	2.72	4.37	0.96	1.18	2.17	2.37	4.02
	12H	1.50	1.69	2.71	2.87	4.56	1.13	1.32	2.34	2.51	4.19
12H	4H	0.45	0.73	1.65	1.91	3.54	0.11	0.39	1.31	1.56	3.20
	6H	1.09	1.31	2.30	2.50	4.15	0.75	0.97	1.96	2.16	3.81
	8H	1.36	1.55	2.57	2.74	4.42	1.02	1.22	2.23	2.40	4.08