

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: P854460

Luminaire Tested: SQ2-WBN-100U-050D-930-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

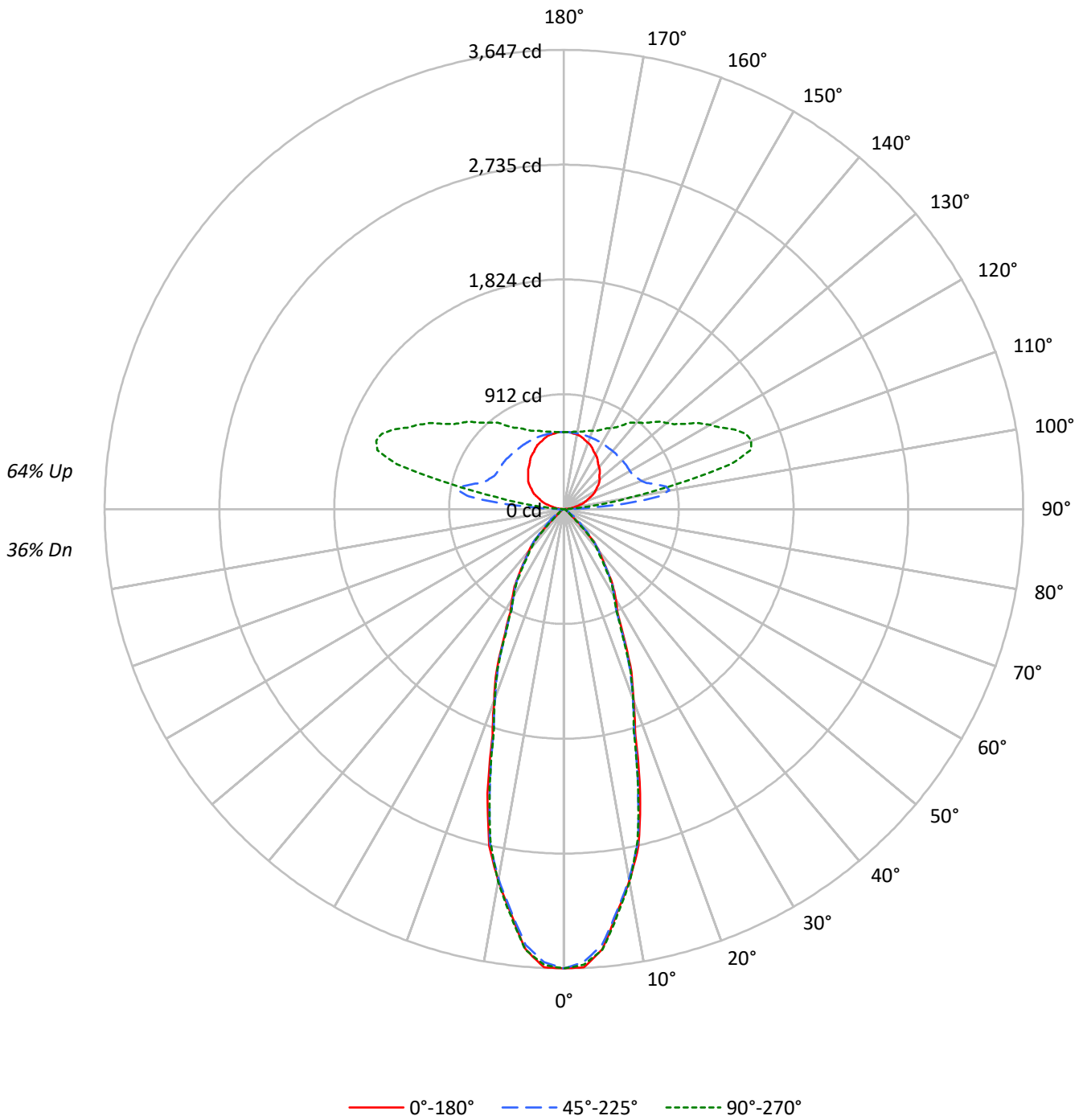
Test Method: LM-79-2019  
Report Number: P854460  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G3-2308-130-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-WBN-100U-050D-930-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5930.9 lumens  
Efficiency: N/A  
Efficacy: 117.0 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): 50.7  
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: P854460  
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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	104	104	104	104	94	94	94	94	75	75	75	59	59	59	43	43	43	36
1	96	93	89	86	87	84	81	79	68	67	65	54	53	52	40	40	39	33
2	89	83	78	74	81	76	72	68	62	59	57	50	48	46	38	37	36	31
3	83	75	69	64	75	69	63	59	57	53	50	46	43	42	36	34	33	29
4	77	68	61	56	70	62	57	52	52	48	45	42	40	38	33	32	31	27
5	71	62	55	50	65	57	51	47	48	44	40	39	37	34	31	30	28	25
6	67	56	50	45	61	52	46	42	44	40	37	37	34	32	30	28	26	24
7	62	52	45	40	57	48	42	38	41	37	34	34	31	29	28	26	25	22
8	58	48	41	37	54	45	39	35	38	34	31	32	29	27	26	25	23	21
9	55	44	38	34	50	41	36	32	36	31	28	30	27	25	25	23	22	20
10	52	41	35	31	48	39	33	29	33	29	26	28	26	23	24	22	21	19

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	58885	58885	58885
5°	56856	56289	56919
10°	49144	48911	49260
15°	39106	37874	38024
20°	27780	27414	27613
25°	19987	19595	19456
30°	15271	14861	14825
35°	11988	11783	11477
40°	9082	8960	8523
45°	5083	6071	4535
50°	1788	3738	1577
55°	1092	2041	1039
60°	836	1066	772
65°	768	791	718
70°	732	732	670
75°	686	686	649
80°	604	604	604
85°	593	482	482

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 6071 cd/sqm



TEST NUMBER: P854460

CATALOG NUMBER: SQ2-WBN-100U-050D-930-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	316.6	5.3
10°-20°	629.2	10.6
20°-30°	521.0	8.8
30°-40°	374.9	6.3
40°-50°	191.0	3.2
50°-60°	49.7	0.8
60°-70°	20.6	0.3
70°-80°	11.5	0.2
80°-90°	4.5	0.1
90°-100°	255.8	4.3
100°-110°	773.7	13.0
110°-120°	755.2	12.7
120°-130°	617.2	10.4
130°-140°	503.8	8.5
140°-150°	392.2	6.6
150°-160°	282.7	4.8
160°-170°	173.1	2.9
170°-180°	58.4	1.0
0°-30°	1466.8	24.7
0°-40°	1841.7	31.1
0°-60°	2082.3	35.1
0°-90°	2118.9	35.7
90°-120°	1784.7	30.1
90°-150°	3297.8	55.6
90°-180°	3812.0	64.3
0°-180°	5930.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	3647	3647	3647	3647	3647	
5°	3508	3503	3473	3523	3512	316
15°	2340	2313	2266	2282	2275	635
25°	1122	1120	1100	1090	1092	528
35°	608	612	598	588	582	382
45°	223	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°	0	2	12	7	6	2
95°	32	100	483	178	112	38
105°	135	189	760	1443	1371	141
115°	239	286	614	1271	1493	237
125°	335	371	606	1004	1182	297
135°	401	443	602	866	974	310
145°	468	503	602	745	814	293
155°	534	552	606	668	693	246
165°	584	590	609	632	639	164
175°	611	611	612	616	614	58
180°	612	612	612	612	612	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	3647.1	3647.1	3647.1	3647.1	3647.1
2.5°	3641.4	3635.3	3600.5	3629.3	3622.2
5°	3508.0	3502.9	3473.0	3523.2	3511.9
7.5°	3232.5	3236.8	3219.3	3263.7	3251.5
10°	2997.5	3008.9	2983.3	3047.6	3004.6
12.5°	2738.2	2730.9	2713.1	2723.0	2699.2
15°	2339.5	2312.9	2265.8	2281.8	2274.8
17.5°	1884.4	1894.7	1853.8	1852.0	1844.2
20°	1616.8	1620.0	1595.5	1608.4	1607.1
22.5°	1401.5	1402.1	1370.8	1389.7	1378.3
25°	1121.9	1120.0	1099.9	1090.2	1092.1
27.5°	920.0	912.2	897.0	903.4	898.7
30°	819.1	812.8	797.1	800.8	795.2
32.5°	728.5	728.8	712.7	710.8	706.6
35°	608.2	612.0	597.8	588.0	582.3
37.5°	500.8	504.3	492.4	478.0	473.2
40°	430.9	433.4	425.1	408.2	404.4
42.5°	354.8	365.4	357.3	341.3	332.9
45°	222.6	256.1	265.9	247.3	198.6
47.5°	112.6	159.0	189.7	140.1	92.3
50°	71.2	103.4	148.8	84.3	62.8
52.5°	54.6	71.2	118.8	62.2	50.3
55°	38.8	45.1	72.5	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	10.4	10.4
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	1.4	3.3	2.4	2.2
90°	0.0	1.9	11.5	6.7	5.8
92.5°	10.8	43.5	156.2	51.8	37.3
95°	31.7	100.4	482.7	178.3	112.5
97.5°	61.3	127.7	760.8	503.4	306.5
100°	79.8	144.7	850.0	821.8	551.9
102.5°	100.6	163.2	831.5	1152.6	918.8
105°	134.6	189.1	759.6	1442.6	1371.2
107.5°	166.9	219.0	690.4	1471.3	1554.0
110°	188.5	238.3	655.8	1435.2	1585.6



TEST NUMBER: P854460

CATALOG NUMBER: SQ2-WBN-100U-050D-930-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	209.2	257.6	635.0	1374.5	1564.8
115°	239.4	285.5	614.4	1271.4	1493.3
117.5°	269.4	313.0	607.1	1174.8	1401.9
120°	289.4	330.8	604.8	1118.4	1336.5
122.5°	307.9	347.0	604.8	1068.8	1270.4
125°	334.6	371.3	605.8	1004.0	1181.7
127.5°	356.3	394.3	604.8	955.2	1106.7
130°	370.2	409.7	604.8	927.2	1064.4
132.5°	382.5	422.7	604.0	901.5	1028.3
135°	401.0	443.3	601.9	865.9	974.0
137.5°	421.5	461.8	601.9	827.9	928.1
140°	434.6	474.1	601.9	803.1	898.1
142.5°	447.7	485.7	601.2	780.5	863.5
145°	468.3	503.1	601.9	744.9	814.4
147.5°	488.8	518.4	603.1	715.4	768.8
150°	501.9	529.2	603.8	699.1	744.2
152.5°	514.2	538.5	604.6	685.1	721.9
155°	533.7	551.5	605.8	667.9	693.3
157.5°	550.6	565.1	606.9	655.2	672.9
160°	560.6	572.8	607.7	647.4	660.6
162.5°	570.6	579.8	608.5	640.4	651.3
165°	583.7	590.2	608.7	631.9	639.4
167.5°	594.8	598.2	609.8	625.3	628.5
170°	601.0	602.8	610.6	622.1	623.1
172.5°	604.8	605.9	610.6	619.0	619.2
175°	610.6	610.6	611.5	616.3	614.4
177.5°	613.3	612.5	611.7	614.0	612.5
180°	612.5	612.5	612.5	612.5	612.5

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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	0.12	0.59	1.19	2.67	0.00	0.00	0.20	0.81	2.28
	3H	0.53	1.09	1.64	2.18	3.67	0.10	0.66	1.21	1.75	3.24
	4H	0.95	1.49	2.07	2.57	4.07	0.52	1.05	1.64	2.14	3.64
	6H	1.27	1.76	2.39	2.85	4.35	0.85	1.34	1.98	2.43	3.94
	8H	1.36	1.83	2.49	2.93	4.43	0.96	1.42	2.09	2.52	4.02
	12H	1.43	1.87	2.56	2.96	4.49	1.00	1.44	2.14	2.54	4.06
4H	2H	0.00	0.23	0.83	1.32	2.82	0.00	0.00	0.50	0.99	2.49
	3H	1.00	1.44	2.12	2.55	4.06	0.61	1.05	1.74	2.17	3.68
	4H	1.56	1.96	2.69	3.07	4.60	1.17	1.58	2.31	2.68	4.21
	6H	2.01	2.36	3.15	3.48	5.00	1.64	1.98	2.78	3.11	4.63
	8H	2.17	2.49	3.30	3.61	5.14	1.80	2.12	2.93	3.23	4.77
	12H	2.27	2.56	3.42	3.69	5.23	1.88	2.17	3.03	3.30	4.84
8H	4H	1.70	2.02	2.84	3.14	4.68	1.36	1.68	2.49	2.80	4.33
	6H	2.29	2.55	3.44	3.71	5.24	1.95	2.21	3.10	3.37	4.90
	8H	2.54	2.76	3.70	3.90	5.46	2.19	2.42	3.35	3.56	5.12
	12H	2.72	2.92	3.88	4.05	5.64	2.36	2.56	3.52	3.70	5.29
12H	4H	1.67	1.96	2.82	3.09	4.63	1.34	1.63	2.49	2.76	4.30
	6H	2.31	2.54	3.48	3.68	5.24	1.99	2.21	3.15	3.35	4.91
	8H	2.58	2.78	3.75	3.92	5.51	2.25	2.45	3.42	3.59	5.18