

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: P854491

Luminaire Tested: SQ2-WBN-150U-100D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854491  
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-100D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

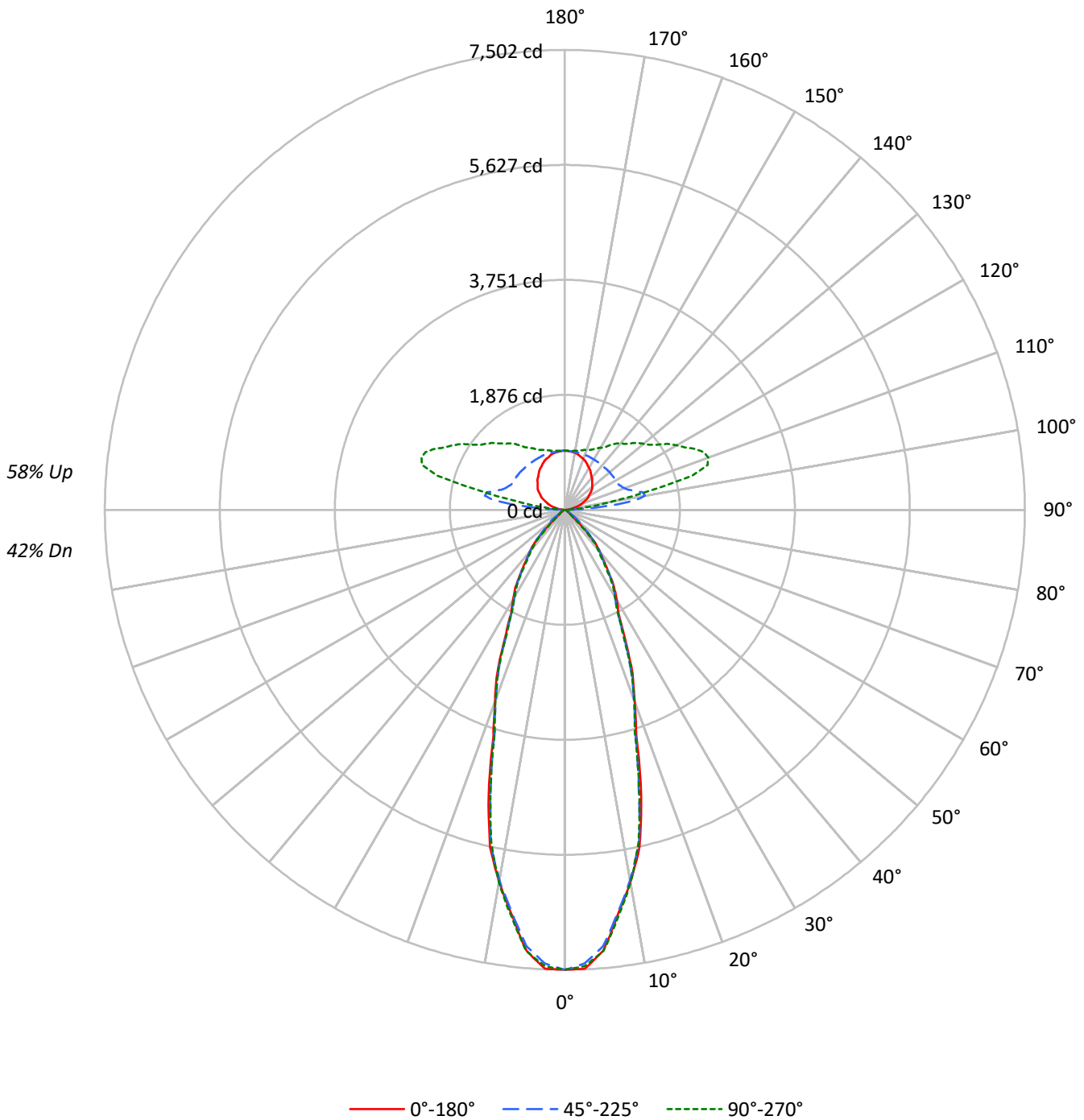
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10303.0 lumens  
Efficiency: N/A  
Efficacy: 108.8 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): 94.7  
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

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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	105	105	105	105	96	96	96	96	79	79	79	63	63	63	49	49	49	42
1	98	94	91	88	90	87	84	82	72	70	69	59	58	57	46	46	45	39
2	91	85	80	76	83	78	74	71	66	63	60	54	52	51	43	42	41	37
3	85	77	71	66	78	71	66	62	60	57	54	50	48	46	41	39	38	34
4	79	70	64	59	72	65	59	55	55	51	48	47	44	42	38	37	35	32
5	74	64	57	52	68	60	54	49	51	47	44	43	41	38	36	34	33	30
6	69	59	52	47	63	55	49	45	47	43	40	41	38	35	34	32	31	28
7	65	54	47	43	60	51	45	41	44	40	37	38	35	33	32	30	29	26
8	61	50	44	39	56	47	41	37	41	37	34	36	33	30	31	28	27	25
9	57	47	40	36	53	44	38	34	39	34	31	34	31	28	29	27	25	23
10	54	44	37	33	50	41	36	32	36	32	29	32	29	27	28	25	24	22

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

	0°	45°	90°
0°	121120	121120	121120
5°	116945	115780	117075
10°	101083	100602	101322
15°	80436	77900	78211
20°	57141	56386	56799
25°	41110	40303	40020
30°	31411	30566	30492
35°	24656	24236	23607
40°	18680	18428	17530
45°	10453	12490	9328
50°	3677	7689	3243
55°	2246	4194	2137
60°	1718	2193	1589
65°	1578	1628	1475
70°	1506	1506	1383
75°	1410	1410	1329
80°	1237	1237	1237
85°	1241	982	982

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 12490 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	651.2	6.3
10°-20°	1294.2	12.6
20°-30°	1071.7	10.4
30°-40°	771.0	7.5
40°-50°	392.8	3.8
50°-60°	102.3	1.0
60°-70°	42.4	0.4
70°-80°	23.5	0.2
80°-90°	8.0	0.1
90°-100°	367.1	3.6
100°-110°	1201.9	11.7
110°-120°	1188.3	11.5
120°-130°	971.3	9.4
130°-140°	792.7	7.7
140°-150°	616.9	6.0
150°-160°	444.2	4.3
160°-170°	271.7	2.6
170°-180°	91.8	0.9
0°-30°	3017.1	29.3
0°-40°	3788.1	36.8
0°-60°	4283.1	41.6
0°-90°	4357.1	42.3
90°-120°	2757.3	26.8
90°-150°	5138.2	49.9
90°-180°	5946.0	57.7
0°-180°	10303.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	7502	7502	7502	7502	7502	
5°	7216	7205	7144	7247	7224	651
15°	4812	4757	4660	4693	4679	1306
25°	2308	2304	2262	2242	2246	1085
35°	1251	1259	1230	1209	1198	785
45°	458	527	547	509	408	366
55°	80	93	149	86	76	78
65°	41	43	43	40	39	41
75°	23	23	23	21	21	24
85°	7	7	5	7	5	7
90°	1	3	8	7	8	3
95°	52	149	667	238	154	58
105°	209	298	1193	2267	2153	220
115°	376	450	969	2003	2351	372
125°	524	584	955	1580	1855	466
135°	631	698	948	1362	1536	488
145°	738	792	946	1172	1284	462
155°	841	869	952	1048	1089	387
165°	918	926	955	992	1003	259
175°	959	959	960	967	965	91
180°	963	963	963	963	963	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	7501.6	7501.6	7501.6	7501.6	7501.6
2.5°	7489.9	7477.4	7405.8	7465.1	7450.5
5°	7215.5	7205.1	7143.6	7246.9	7223.5
7.5°	6648.8	6657.7	6621.7	6713.0	6688.0
10°	6165.5	6188.9	6136.2	6268.6	6180.1
12.5°	5632.1	5617.0	5580.5	5600.9	5552.0
15°	4812.1	4757.4	4660.4	4693.3	4679.0
17.5°	3876.0	3897.1	3813.0	3809.4	3793.3
20°	3325.6	3332.1	3281.7	3308.3	3305.7
22.5°	2882.7	2884.0	2819.7	2858.5	2835.1
25°	2307.6	2303.7	2262.3	2242.5	2246.4
27.5°	1892.4	1876.2	1845.0	1858.1	1848.5
30°	1684.8	1671.8	1639.5	1647.2	1635.5
32.5°	1498.5	1499.0	1466.0	1462.1	1453.5
35°	1250.9	1258.7	1229.6	1209.4	1197.7
37.5°	1030.0	1037.3	1012.7	983.2	973.3
40°	886.3	891.5	874.3	839.5	831.7
42.5°	729.8	751.7	734.9	702.0	684.8
45°	457.8	526.8	547.0	508.7	408.5
47.5°	231.6	327.1	390.2	288.1	189.8
50°	146.4	212.7	306.1	173.3	129.1
52.5°	112.3	146.4	244.3	128.0	103.5
55°	79.8	92.9	149.0	86.3	75.9
57.5°	61.7	69.0	89.2	65.3	58.8
60°	53.2	58.4	67.9	55.7	49.2
62.5°	47.9	51.0	55.1	47.3	45.0
65°	41.3	42.6	42.6	39.9	38.6
67.5°	35.1	36.4	36.2	34.8	33.5
70°	31.9	33.2	31.9	30.6	29.3
72.5°	27.7	29.0	27.7	27.4	26.1
75°	22.6	22.6	22.6	21.3	21.3
77.5°	17.6	17.8	16.5	16.5	15.4
80°	13.3	14.6	13.3	13.3	13.3
82.5°	11.2	11.4	10.1	10.1	10.1
85°	6.7	6.7	5.3	6.6	5.3
87.5°	2.3	2.7	3.7	3.5	3.7
90°	1.0	2.9	7.9	7.0	7.9
92.5°	16.8	61.4	188.5	61.3	49.1
95°	51.5	149.3	667.3	237.7	154.5
97.5°	93.5	196.9	1144.9	692.6	429.3
100°	122.8	221.5	1324.7	1183.0	784.1
102.5°	156.0	252.5	1304.9	1743.1	1351.3
105°	208.9	298.0	1193.0	2266.7	2153.4
107.5°	261.0	342.7	1083.9	2315.6	2440.1
110°	295.0	374.4	1031.7	2258.7	2490.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	327.5	404.6	1000.0	2159.5	2456.0
115°	376.2	449.8	969.3	2002.9	2351.4
117.5°	423.6	492.3	957.6	1849.0	2202.9
120°	454.4	519.3	954.4	1759.3	2103.9
122.5°	482.2	545.5	954.4	1681.9	2001.7
125°	523.7	583.8	955.4	1579.5	1855.4
127.5°	559.0	620.2	954.2	1504.0	1744.1
130°	581.2	643.1	953.4	1458.4	1675.2
132.5°	601.0	664.5	951.1	1419.1	1615.8
135°	630.7	697.5	947.5	1362.3	1535.6
137.5°	662.0	728.2	945.3	1303.1	1459.8
140°	684.1	748.0	944.5	1265.7	1413.8
142.5°	706.3	766.3	944.5	1225.8	1360.0
145°	737.6	791.8	945.5	1171.8	1284.1
147.5°	770.5	815.6	946.9	1124.9	1209.7
150°	791.1	830.8	948.5	1097.6	1169.3
152.5°	811.7	846.7	949.3	1075.2	1134.4
155°	840.6	868.6	951.5	1048.4	1089.1
157.5°	866.5	886.8	953.6	1027.4	1056.8
160°	883.1	899.6	954.4	1015.4	1038.6
162.5°	897.4	910.8	954.4	1005.7	1022.7
165°	917.8	926.5	955.4	992.3	1002.9
167.5°	935.0	939.3	956.6	981.9	987.7
170°	944.5	946.5	957.4	976.3	978.2
172.5°	951.7	952.8	959.8	972.3	972.6
175°	959.4	959.4	960.4	967.3	965.3
177.5°	963.3	962.6	961.8	966.4	963.3
180°	963.3	963.3	963.3	963.3	963.3

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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	2.76	3.41	3.81	4.44	5.84	2.37	3.02	3.43	4.06	5.45
	3H	3.80	4.38	4.87	5.43	6.84	3.37	3.95	4.43	4.99	6.40
	4H	4.22	4.77	5.30	5.82	7.24	3.79	4.34	4.87	5.38	6.80
	6H	4.53	5.04	5.62	6.09	7.52	4.12	4.62	5.20	5.67	7.10
	8H	4.63	5.11	5.72	6.17	7.60	4.22	4.70	5.31	5.76	7.18
	12H	4.70	5.15	5.79	6.21	7.65	4.27	4.72	5.36	5.78	7.22
4H	2H	2.97	3.52	4.05	4.57	5.99	2.64	3.19	3.73	4.24	5.66
	3H	4.26	4.72	5.35	5.79	7.22	3.88	4.34	4.97	5.41	6.84
	4H	4.83	5.24	5.91	6.31	7.76	4.44	4.86	5.53	5.92	7.37
	6H	5.28	5.63	6.37	6.72	8.17	4.90	5.25	6.00	6.34	7.79
	8H	5.43	5.77	6.53	6.84	8.30	5.06	5.39	6.15	6.47	7.92
	12H	5.54	5.84	6.65	6.93	8.39	5.14	5.44	6.25	6.53	7.99
8H	4H	4.97	5.30	6.06	6.38	7.84	4.62	4.95	5.72	6.03	7.49
	6H	5.55	5.82	6.67	6.95	8.40	5.21	5.48	6.33	6.60	8.06
	8H	5.80	6.04	6.92	7.14	8.62	5.45	5.69	6.57	6.79	8.27
	12H	5.99	6.20	7.11	7.30	8.81	5.62	5.82	6.74	6.92	8.44
12H	4H	4.94	5.24	6.05	6.33	7.79	4.60	4.90	5.72	6.00	7.46
	6H	5.58	5.81	6.70	6.92	8.39	5.24	5.48	6.37	6.58	8.06
	8H	5.85	6.05	6.97	7.15	8.67	5.51	5.72	6.64	6.82	8.33