

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: P854492

Luminaire Tested: SQ2-WBN-150U-100D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854492  
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-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

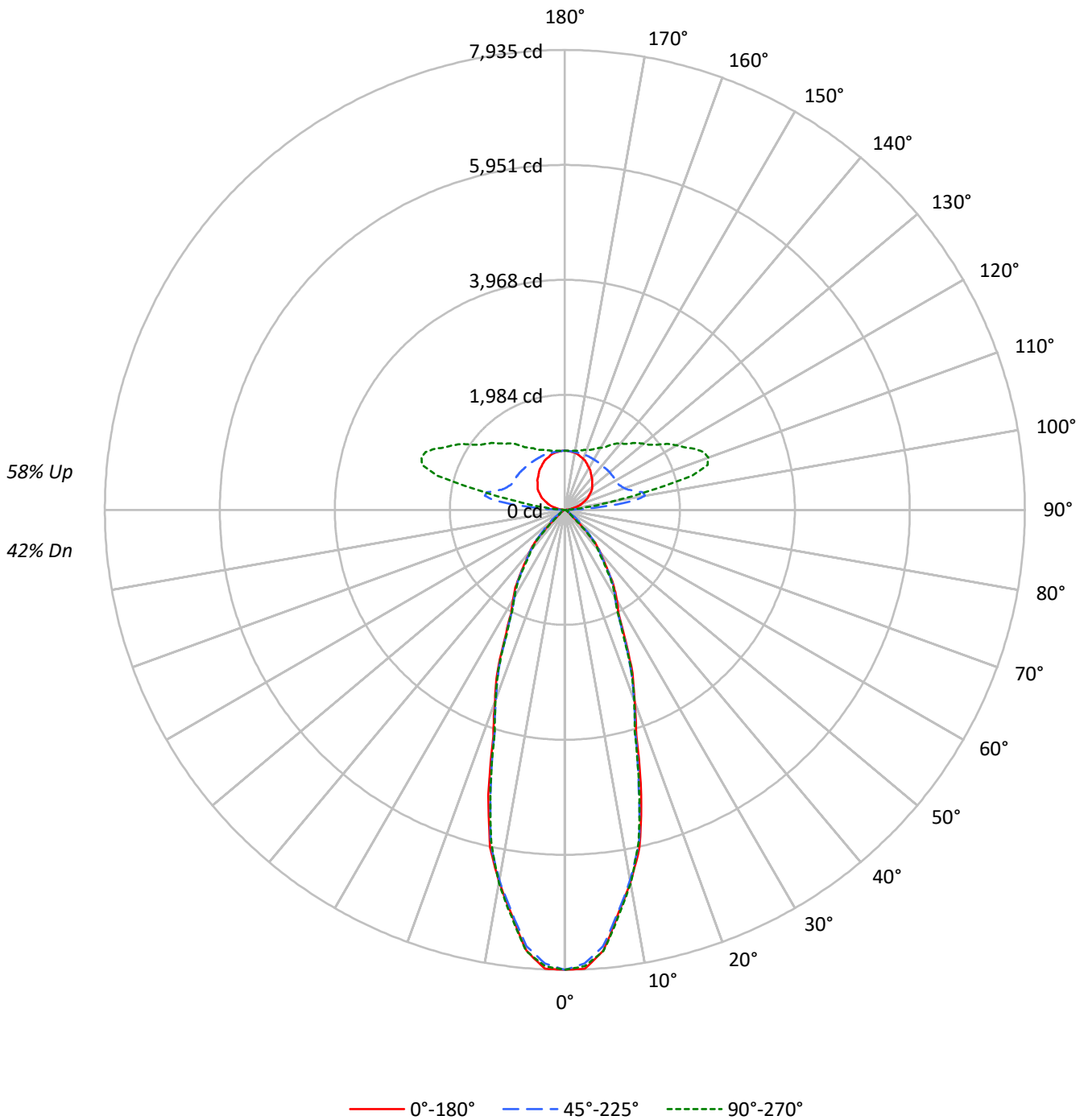
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10898.2 lumens  
Efficiency: N/A  
Efficacy: 115.1 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

TEST NUMBER: P854492

CATALOG NUMBER: SQ2-WBN-150U-100D-940-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P854492

CATALOG NUMBER: SQ2-WBN-150U-100D-940-UNV-STD-W-4

**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
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°	128116	128116	128116
5°	123701	122469	123837
10°	106923	106414	107175
15°	85083	82400	82730
20°	60441	59644	60079
25°	43485	42631	42330
30°	33225	32332	32253
35°	26081	25637	24971
40°	19760	19492	18543
45°	11056	13209	9866
50°	3888	8133	3429
55°	2379	4439	2258
60°	1818	2319	1682
65°	1666	1719	1559
70°	1596	1596	1463
75°	1491	1491	1404
80°	1311	1311	1311
85°	1297	1037	1037

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 13209 cd/sqm



TEST NUMBER: P854492

CATALOG NUMBER: SQ2-WBN-150U-100D-940-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	688.8	6.3
10°-20°	1368.9	12.6
20°-30°	1133.6	10.4
30°-40°	815.6	7.5
40°-50°	415.5	3.8
50°-60°	108.2	1.0
60°-70°	44.9	0.4
70°-80°	24.9	0.2
80°-90°	8.5	0.1
90°-100°	388.3	3.6
100°-110°	1271.3	11.7
110°-120°	1256.9	11.5
120°-130°	1027.5	9.4
130°-140°	838.5	7.7
140°-150°	652.5	6.0
150°-160°	469.8	4.3
160°-170°	287.4	2.6
170°-180°	97.1	0.9
0°-30°	3191.3	29.3
0°-40°	4006.9	36.8
0°-60°	4530.5	41.6
0°-90°	4608.8	42.3
90°-120°	2916.5	26.8
90°-150°	5435.0	49.9
90°-180°	6289.0	57.7
0°-180°	10898.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	7935	7935	7935	7935	7935	
5°	7632	7621	7556	7666	7641	688
15°	5090	5032	4930	4964	4949	1382
25°	2441	2437	2393	2372	2376	1148
35°	1323	1332	1301	1279	1267	830
45°	484	557	578	538	432	387
55°	84	98	158	91	80	83
65°	44	45	45	42	41	44
75°	24	24	24	22	22	25
85°	7	7	6	7	6	7
90°	1	3	8	7	8	3
95°	54	158	706	251	163	62
105°	221	315	1262	2398	2278	233
115°	398	476	1025	2119	2487	393
125°	554	618	1011	1671	1963	493
135°	667	738	1002	1441	1624	516
145°	780	838	1000	1240	1358	489
155°	889	919	1006	1109	1152	409
165°	971	980	1011	1050	1061	274
175°	1015	1015	1016	1023	1021	96
180°	1019	1019	1019	1019	1019	



TEST NUMBER: P854492

CATALOG NUMBER: SQ2-WBN-150U-100D-940-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	7934.9	7934.9	7934.9	7934.9	7934.9
2.5°	7922.6	7909.3	7833.6	7896.3	7880.9
5°	7632.3	7621.3	7556.3	7665.5	7640.7
7.5°	7032.9	7042.3	7004.2	7100.7	7074.3
10°	6521.7	6546.4	6490.7	6630.7	6537.1
12.5°	5957.5	5941.5	5902.9	5924.5	5872.7
15°	5090.1	5032.3	4929.6	4964.5	4949.3
17.5°	4099.9	4122.2	4033.2	4029.4	4012.4
20°	3517.7	3524.6	3471.3	3499.4	3496.6
22.5°	3049.3	3050.6	2982.5	3023.6	2998.9
25°	2440.9	2436.7	2393.0	2372.0	2376.1
27.5°	2001.7	1984.6	1951.6	1965.4	1955.2
30°	1782.1	1768.3	1734.2	1742.4	1730.0
32.5°	1585.0	1585.6	1550.7	1546.5	1537.4
35°	1323.2	1331.5	1300.7	1279.3	1266.9
37.5°	1089.5	1097.2	1071.2	1040.0	1029.6
40°	937.5	943.0	924.8	888.0	879.8
42.5°	772.0	795.1	777.3	742.5	724.4
45°	484.2	557.2	578.5	538.1	432.1
47.5°	244.9	346.0	412.7	304.8	200.7
50°	154.8	225.0	323.8	183.3	136.5
52.5°	118.8	154.9	258.4	135.4	109.5
55°	84.5	98.2	157.7	91.2	80.2
57.5°	65.3	73.0	94.3	69.1	62.2
60°	56.3	61.8	71.8	59.0	52.1
62.5°	50.7	54.0	58.3	50.1	47.6
65°	43.6	45.0	45.0	42.2	40.8
67.5°	37.2	38.5	38.3	36.8	35.5
70°	33.8	35.2	33.8	32.3	31.0
72.5°	29.3	30.7	29.3	29.0	27.6
75°	23.9	23.9	23.9	22.5	22.5
77.5°	18.6	18.9	17.5	17.4	16.3
80°	14.1	15.5	14.1	14.1	14.1
82.5°	11.8	12.1	10.7	10.7	10.7
85°	7.0	7.0	5.6	7.0	5.6
87.5°	2.5	2.9	3.9	3.7	3.9
90°	1.0	3.1	8.4	7.4	8.4
92.5°	17.8	64.9	199.4	64.8	51.9
95°	54.5	157.9	705.9	251.4	163.4
97.5°	98.9	208.2	1211.1	732.6	454.1
100°	129.9	234.3	1401.2	1251.3	829.4
102.5°	165.0	267.0	1380.3	1843.8	1429.3
105°	221.0	315.2	1262.0	2397.6	2277.8
107.5°	276.1	362.5	1146.5	2449.4	2581.1
110°	312.1	396.1	1091.3	2389.1	2633.9



TEST NUMBER: P854492

CATALOG NUMBER: SQ2-WBN-150U-100D-940-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	346.4	427.9	1057.7	2284.3	2597.8
115°	398.0	475.8	1025.3	2118.6	2487.3
117.5°	448.0	520.7	1012.9	1955.8	2330.2
120°	480.7	549.3	1009.6	1860.9	2225.4
122.5°	510.0	577.0	1009.6	1779.0	2117.4
125°	554.0	617.5	1010.6	1670.7	1962.6
127.5°	591.3	656.0	1009.4	1590.9	1844.9
130°	614.7	680.3	1008.5	1542.6	1772.0
132.5°	635.7	702.9	1006.0	1501.1	1709.1
135°	667.1	737.8	1002.2	1441.0	1624.3
137.5°	700.2	770.2	999.9	1378.4	1544.1
140°	723.7	791.2	999.1	1338.8	1495.5
142.5°	747.1	810.6	999.1	1296.6	1438.5
145°	780.2	837.6	1000.1	1239.5	1358.3
147.5°	815.0	862.7	1001.6	1189.8	1279.5
150°	836.8	878.7	1003.3	1161.0	1236.8
152.5°	858.5	895.6	1004.1	1137.3	1200.0
155°	889.1	918.8	1006.4	1109.0	1152.0
157.5°	916.6	938.1	1008.7	1086.7	1117.9
160°	934.2	951.6	1009.6	1074.0	1098.6
162.5°	949.2	963.4	1009.6	1063.8	1081.8
165°	970.8	980.0	1010.6	1049.6	1060.9
167.5°	989.0	993.5	1011.9	1038.6	1044.8
170°	999.1	1001.1	1012.7	1032.7	1034.7
172.5°	1006.6	1007.9	1015.2	1028.4	1028.8
175°	1014.8	1014.8	1015.8	1023.1	1021.1
177.5°	1019.0	1018.2	1017.3	1022.3	1019.0
180°	1019.0	1019.0	1019.0	1019.0	1019.0



TEST NUMBER: P854492

CATALOG NUMBER: SQ2-WBN-150U-100D-940-UNV-STD-W-4

**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	2.95	3.61	4.01	4.64	6.03	2.57	3.22	3.62	4.25	5.65
	3H	4.00	4.58	5.06	5.62	7.03	3.56	4.14	4.63	5.19	6.60
	4H	4.42	4.97	5.50	6.02	7.43	3.98	4.53	5.06	5.58	7.00
	6H	4.73	5.24	5.82	6.29	7.71	4.31	4.82	5.40	5.87	7.30
	8H	4.83	5.31	5.92	6.37	7.79	4.41	4.89	5.50	5.96	7.38
	12H	4.89	5.35	5.98	6.40	7.85	4.46	4.91	5.55	5.97	7.42
4H	2H	3.17	3.71	4.25	4.76	6.18	2.84	3.39	3.92	4.43	5.85
	3H	4.46	4.92	5.55	5.99	7.42	4.08	4.53	5.16	5.61	7.03
	4H	5.02	5.44	6.11	6.50	7.95	4.63	5.05	5.72	6.11	7.57
	6H	5.48	5.83	6.57	6.92	8.36	5.09	5.45	6.19	6.54	7.98
	8H	5.63	5.96	6.73	7.04	8.50	5.25	5.58	6.35	6.66	8.12
	12H	5.73	6.03	6.85	7.13	8.59	5.33	5.63	6.44	6.72	8.19
8H	4H	5.16	5.50	6.26	6.57	8.03	4.81	5.15	5.91	6.23	7.68
	6H	5.75	6.02	6.87	7.14	8.60	5.40	5.67	6.52	6.80	8.25
	8H	6.00	6.23	7.12	7.34	8.82	5.65	5.88	6.77	6.99	8.46
	12H	6.18	6.39	7.31	7.49	9.01	5.81	6.02	6.94	7.12	8.63
12H	4H	5.14	5.43	6.25	6.53	7.99	4.80	5.09	5.91	6.19	7.65
	6H	5.78	6.01	6.90	7.12	8.59	5.44	5.67	6.56	6.78	8.26
	8H	6.05	6.25	7.17	7.35	8.87	5.71	5.91	6.83	7.01	8.53