

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: P854495

Luminaire Tested: SQ2-WBN-150U-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854495
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-125D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

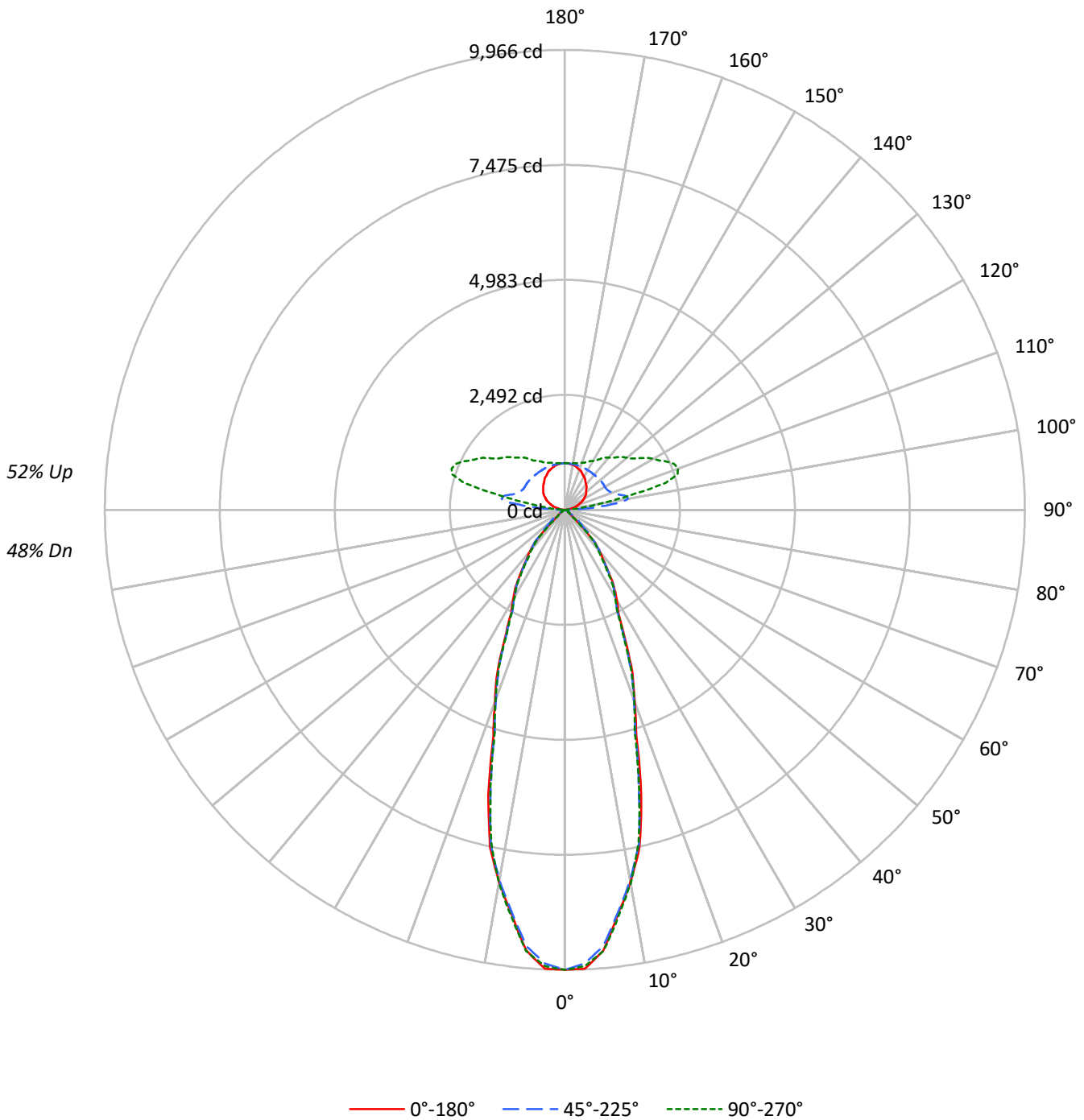
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12023.7 lumens
Efficiency: N/A
Efficacy: 113.1 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): 106.3
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: P854495
CATALOG NUMBER: SQ2-WBN-150U-125D-940-UNV-STD-W-4

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	50	30	10	0	
RCR																						
0	107	107	107	107	98	98	98	98	82	82	82	68	68	68	54	54	54	48				48
1	99	96	93	90	92	89	86	84	75	74	72	63	62	61	51	51	50				45	
2	93	87	82	78	86	81	77	73	69	66	64	58	56	55	48	47	46				42	
3	86	79	73	68	80	74	69	64	63	60	57	54	52	50	46	44	43				39	
4	81	72	66	61	75	67	62	58	59	55	51	50	48	45	43	41	40				36	
5	75	66	59	54	70	62	56	52	54	50	47	47	44	42	40	38	37				34	
6	71	61	54	49	66	57	51	47	50	46	43	44	41	38	38	36	34				32	
7	66	56	50	45	62	53	47	43	47	43	39	41	38	36	36	34	32				30	
8	63	52	46	41	58	49	44	40	44	40	36	39	36	33	34	32	30				28	
9	59	49	42	38	55	46	41	37	41	37	34	37	34	31	33	30	28				27	
10	56	46	39	35	52	43	38	34	39	35	32	35	32	29	31	29	27				25	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	160916	160916	160916
5°	155368	153822	155540
10°	134296	133658	134614
15°	106865	103495	103910
20°	75915	74912	75460
25°	54617	53545	53167
30°	41730	40610	40511
35°	32757	32201	31363
40°	24818	24483	23290
45°	13887	16593	12394
50°	4886	10213	4308
55°	2987	5574	2837
60°	2283	2913	2112
65°	2094	2162	1960
70°	2002	2002	1836
75°	1878	1878	1765
80°	1646	1646	1646
85°	1630	1315	1315

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 16593 cd/sqm



TEST NUMBER: P854495

CATALOG NUMBER: SQ2-WBN-150U-125D-940-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	865.1	7.2
10°-20°	1719.4	14.3
20°-30°	1423.9	11.8
30°-40°	1024.3	8.5
40°-50°	521.8	4.3
50°-60°	135.9	1.1
60°-70°	56.4	0.5
70°-80°	31.3	0.3
80°-90°	10.4	0.1
90°-100°	384.9	3.2
100°-110°	1260.4	10.5
110°-120°	1246.1	10.4
120°-130°	1018.6	8.5
130°-140°	831.2	6.9
140°-150°	646.9	5.4
150°-160°	465.8	3.9
160°-170°	285.0	2.4
170°-180°	96.3	0.8
0°-30°	4008.4	33.3
0°-40°	5032.7	41.9
0°-60°	5690.4	47.3
0°-90°	5788.4	48.1
90°-120°	2891.4	24.0
90°-150°	5388.2	44.8
90°-180°	6235.0	51.9
0°-180°	12023.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9966	9966	9966	9966	9966	
5°	9586	9572	9491	9628	9597	865
15°	6393	6321	6192	6235	6216	1735
25°	3066	3061	3006	2979	2984	1442
35°	1662	1672	1634	1607	1591	1043
45°	608	700	727	676	543	486
55°	106	123	198	115	101	104
65°	55	56	57	53	51	55
75°	30	30	30	28	28	32
85°	9	9	7	9	7	9
90°	1	3	8	7	8	3
95°	54	156	700	249	162	61
105°	219	312	1251	2377	2258	231
115°	394	472	1016	2100	2466	390
125°	549	612	1002	1656	1946	489
135°	661	731	994	1429	1610	512
145°	774	830	992	1229	1347	485
155°	882	911	998	1099	1142	406
165°	962	972	1002	1041	1052	271
175°	1006	1006	1007	1014	1012	95
180°	1010	1010	1010	1010	1010	



TEST NUMBER: P854495

CATALOG NUMBER: SQ2-WBN-150U-125D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9966.4	9966.4	9966.4	9966.4	9966.4
2.5°	9950.8	9934.2	9839.1	9917.8	9898.5
5°	9586.2	9572.4	9490.8	9628.0	9596.8
7.5°	8833.4	8845.2	8797.3	8918.6	8885.4
10°	8191.3	8222.4	8152.4	8328.3	8210.7
12.5°	7482.6	7462.6	7414.0	7441.2	7376.2
15°	6393.2	6320.6	6191.6	6235.4	6216.4
17.5°	5149.5	5177.6	5065.7	5061.0	5039.6
20°	4418.3	4426.9	4359.9	4395.2	4391.8
22.5°	3829.9	3831.6	3746.1	3797.7	3766.6
25°	3065.8	3060.6	3005.6	2979.2	2984.4
27.5°	2514.1	2492.7	2451.2	2468.6	2455.8
30°	2238.3	2221.0	2178.2	2188.5	2172.9
32.5°	1990.8	1991.5	1947.7	1942.4	1931.0
35°	1661.9	1672.3	1633.7	1606.8	1591.2
37.5°	1368.5	1378.1	1345.5	1306.3	1293.1
40°	1177.5	1184.4	1161.6	1115.4	1105.0
42.5°	969.6	998.6	976.3	932.6	909.8
45°	608.2	699.8	726.7	675.9	542.8
47.5°	307.6	434.5	518.4	382.8	252.1
50°	194.5	282.6	406.6	230.3	171.5
52.5°	149.2	194.5	324.6	170.1	137.6
55°	106.1	123.4	198.0	114.6	100.8
57.5°	82.0	91.7	118.5	86.8	78.1
60°	70.7	77.6	90.2	74.1	65.4
62.5°	63.6	67.8	73.2	62.9	59.8
65°	54.8	56.5	56.6	53.0	51.3
67.5°	46.7	48.4	48.1	46.3	44.6
70°	42.4	44.2	42.4	40.6	38.9
72.5°	36.8	38.5	36.8	36.4	34.7
75°	30.1	30.1	30.1	28.3	28.3
77.5°	23.3	23.7	21.9	21.9	20.5
80°	17.7	19.4	17.7	17.7	17.7
82.5°	14.9	15.2	13.4	13.4	13.4
85°	8.8	8.8	7.1	8.8	7.1
87.5°	3.0	3.4	4.5	4.3	4.5
90°	1.0	3.1	8.3	7.3	8.3
92.5°	17.7	64.3	197.7	64.3	51.5
95°	54.0	156.5	699.8	249.3	162.0
97.5°	98.0	206.4	1200.6	726.3	450.2
100°	128.7	232.3	1389.2	1240.5	822.3
102.5°	163.6	264.7	1368.4	1827.9	1417.0
105°	219.1	312.5	1251.1	2377.0	2258.2
107.5°	273.7	359.4	1136.7	2428.3	2558.9
110°	309.4	392.6	1081.9	2368.6	2611.2



TEST NUMBER: P854495

CATALOG NUMBER: SQ2-WBN-150U-125D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	343.5	424.3	1048.6	2264.6	2575.5
115°	394.5	471.7	1016.4	2100.4	2465.8
117.5°	444.2	516.2	1004.2	1939.0	2310.1
120°	476.6	544.6	1000.9	1844.9	2206.3
122.5°	505.6	572.0	1000.9	1763.7	2099.1
125°	549.2	612.2	1001.9	1656.4	1945.7
127.5°	586.2	650.4	1000.7	1577.2	1829.0
130°	609.5	674.4	999.8	1529.3	1756.7
132.5°	630.2	696.8	997.3	1488.1	1694.4
135°	661.4	731.4	993.6	1428.6	1610.3
137.5°	694.2	763.6	991.3	1366.5	1530.8
140°	717.4	784.4	990.5	1327.3	1482.6
142.5°	740.7	803.6	990.5	1285.4	1426.1
145°	773.5	830.3	991.5	1228.9	1346.6
147.5°	808.0	855.3	993.0	1179.6	1268.5
150°	829.6	871.2	994.6	1151.1	1226.2
152.5°	851.2	887.9	995.5	1127.5	1189.6
155°	881.5	910.9	997.8	1099.4	1142.1
157.5°	908.7	930.0	1000.0	1077.4	1108.2
160°	926.1	943.4	1000.9	1064.8	1089.1
162.5°	941.1	955.1	1000.9	1054.6	1072.5
165°	962.5	971.6	1001.9	1040.6	1051.7
167.5°	980.5	985.0	1003.2	1029.7	1035.8
170°	990.5	992.5	1004.0	1023.8	1025.8
172.5°	998.0	999.2	1006.5	1019.6	1020.0
175°	1006.1	1006.1	1007.1	1014.3	1012.3
177.5°	1010.2	1009.4	1008.6	1013.5	1010.2
180°	1010.2	1010.2	1010.2	1010.2	1010.2

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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	4.36	5.03	5.37	6.03	7.34	3.97	4.65	4.99	5.64	6.96
	3H	5.40	6.00	6.43	7.01	8.34	4.97	5.57	5.99	6.57	7.91
	4H	5.83	6.40	6.86	7.40	8.74	5.39	5.96	6.43	6.97	8.31
	6H	6.14	6.66	7.18	7.67	9.02	5.72	6.24	6.77	7.26	8.61
	8H	6.24	6.73	7.29	7.76	9.11	5.83	6.32	6.87	7.34	8.69
	12H	6.30	6.77	7.35	7.79	9.16	5.87	6.34	6.92	7.36	8.73
4H	2H	4.58	5.14	5.62	6.15	7.49	4.25	4.81	5.29	5.82	7.16
	3H	5.87	6.34	6.91	7.37	8.73	5.49	5.96	6.53	6.99	8.34
	4H	6.43	6.86	7.48	7.89	9.27	6.05	6.47	7.09	7.50	8.88
	6H	6.89	7.25	7.95	8.30	9.68	6.51	6.87	7.56	7.92	9.29
	8H	7.04	7.38	8.10	8.43	9.81	6.66	7.00	7.72	8.04	9.43
	12H	7.15	7.45	8.22	8.51	9.90	6.75	7.05	7.82	8.11	9.50
8H	4H	6.58	6.92	7.63	7.96	9.34	6.23	6.57	7.29	7.61	9.00
	6H	7.16	7.44	8.24	8.53	9.91	6.82	7.09	7.89	8.18	9.56
	8H	7.41	7.65	8.49	8.72	10.12	7.06	7.30	8.14	8.37	9.77
	12H	7.59	7.81	8.68	8.87	10.32	7.23	7.44	8.31	8.50	9.95
12H	4H	6.55	6.85	7.62	7.91	9.30	6.21	6.52	7.28	7.57	8.96
	6H	7.19	7.43	8.27	8.50	9.90	6.85	7.09	7.94	8.16	9.57
	8H	7.46	7.67	8.54	8.73	10.18	7.12	7.33	8.21	8.39	9.84