

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: P854493

Luminaire Tested: SQ2-WBN-150U-125D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854493
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-930-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

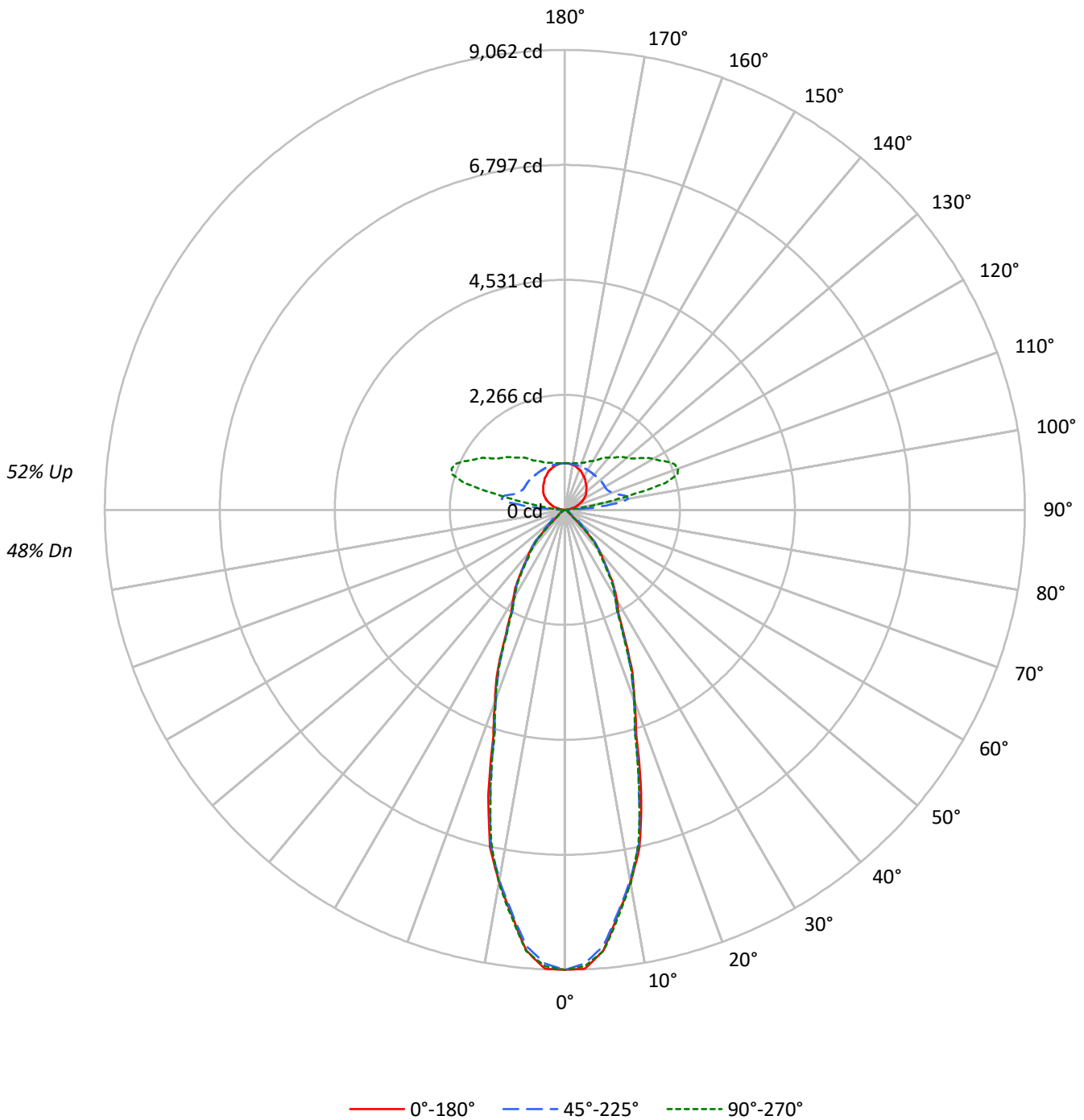
Lumens per Lamp: N/A
Luminaire Lumens: 10932.8 lumens
Efficiency: N/A
Efficacy: 102.8 lumens/watt
Spacing Criteria (0/90/45): 0.59 / 0.58 / 0.63
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 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

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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	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°	146315	146315	146315
5°	141273	139866	141428
10°	122111	121531	122401
15°	97168	94106	94482
20°	69027	68116	68613
25°	49661	48687	48344
30°	37943	36926	36836
35°	29786	29278	28519
40°	22567	22261	21178
45°	12627	15086	11268
50°	4441	9289	3916
55°	2716	5070	2578
60°	2076	2648	1921
65°	1903	1964	1780
70°	1822	1822	1671
75°	1703	1703	1603
80°	1497	1497	1497
85°	1482	1186	1186

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 15086 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	786.6	7.2
10°-20°	1563.4	14.3
20°-30°	1294.7	11.8
30°-40°	931.4	8.5
40°-50°	474.5	4.3
50°-60°	123.5	1.1
60°-70°	51.2	0.5
70°-80°	28.4	0.3
80°-90°	9.4	0.1
90°-100°	350.0	3.2
100°-110°	1146.0	10.5
110°-120°	1133.0	10.4
120°-130°	926.2	8.5
130°-140°	755.8	6.9
140°-150°	588.2	5.4
150°-160°	423.5	3.9
160°-170°	259.1	2.4
170°-180°	87.5	0.8
0°-30°	3644.7	33.3
0°-40°	4576.1	41.9
0°-60°	5174.1	47.3
0°-90°	5263.2	48.1
90°-120°	2629.1	24.0
90°-150°	4899.3	44.8
90°-180°	5670.0	51.9
0°-180°	10932.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	9062	9062	9062	9062	9062	
5°	8716	8704	8630	8754	8726	786
15°	5813	5747	5630	5670	5652	1578
25°	2788	2783	2733	2709	2714	1311
35°	1511	1521	1485	1461	1447	948
45°	553	636	661	615	494	442
55°	96	112	180	104	92	95
65°	50	51	51	48	47	50
75°	27	27	27	26	26	29
85°	8	8	6	8	6	8
90°	1	3	8	7	8	3
95°	49	142	636	227	147	56
105°	199	284	1138	2161	2053	210
115°	359	429	924	1910	2242	354
125°	499	557	911	1506	1769	444
135°	601	665	904	1299	1464	465
145°	703	755	902	1117	1224	441
155°	802	828	907	1000	1038	369
165°	875	883	911	946	956	247
175°	915	915	916	922	920	87
180°	919	919	919	919	919	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	9062.1	9062.1	9062.1	9062.1	9062.1
2.5°	9048.0	9032.9	8946.4	9018.0	9000.4
5°	8716.5	8703.9	8629.7	8754.4	8726.1
7.5°	8032.0	8042.7	7999.2	8109.4	8079.2
10°	7448.1	7476.4	7412.7	7572.7	7465.8
12.5°	6803.8	6785.5	6741.4	6766.1	6707.0
15°	5813.1	5747.1	5629.9	5669.7	5652.4
17.5°	4682.3	4707.8	4606.1	4601.8	4582.3
20°	4017.4	4025.3	3964.4	3996.5	3993.3
22.5°	3482.4	3484.0	3406.2	3453.2	3424.9
25°	2787.6	2782.9	2732.9	2708.9	2713.7
27.5°	2286.0	2266.5	2228.8	2244.6	2233.0
30°	2035.2	2019.5	1980.6	1989.9	1975.8
32.5°	1810.2	1810.8	1770.9	1766.2	1755.8
35°	1511.2	1520.6	1485.4	1461.0	1446.9
37.5°	1244.3	1253.1	1223.4	1187.8	1175.8
40°	1070.7	1077.0	1056.2	1014.2	1004.8
42.5°	881.6	908.0	887.7	848.0	827.3
45°	553.0	636.3	660.7	614.6	493.5
47.5°	279.7	395.1	471.4	348.1	229.2
50°	176.8	257.0	369.8	209.4	155.9
52.5°	135.7	176.9	295.2	154.6	125.1
55°	96.5	112.2	180.1	104.2	91.6
57.5°	74.6	83.4	107.7	78.9	71.1
60°	64.3	70.6	82.0	67.3	59.5
62.5°	57.9	61.6	66.6	57.2	54.3
65°	49.8	51.4	51.4	48.2	46.6
67.5°	42.4	44.0	43.7	42.1	40.5
70°	38.6	40.2	38.6	36.9	35.4
72.5°	33.4	35.0	33.4	33.1	31.5
75°	27.3	27.3	27.3	25.7	25.7
77.5°	21.2	21.5	19.9	19.9	18.6
80°	16.1	17.6	16.1	16.1	16.1
82.5°	13.5	13.8	12.2	12.2	12.2
85°	8.0	8.0	6.4	8.0	6.4
87.5°	2.8	3.1	4.1	3.9	4.1
90°	0.9	2.8	7.6	6.6	7.6
92.5°	16.0	58.5	179.7	58.5	46.8
95°	49.1	142.3	636.3	226.7	147.3
97.5°	89.1	187.7	1091.7	660.4	409.3
100°	117.1	211.2	1263.1	1128.0	747.7
102.5°	148.8	240.7	1244.3	1662.1	1288.4
105°	199.2	284.1	1137.6	2161.3	2053.3
107.5°	248.9	326.8	1033.5	2208.0	2326.7
110°	281.3	357.0	983.7	2153.7	2374.3



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	312.3	385.8	953.5	2059.2	2341.8
115°	358.7	428.9	924.2	1909.8	2242.1
117.5°	403.9	469.4	913.1	1763.0	2100.5
120°	433.3	495.2	910.1	1677.5	2006.1
122.5°	459.8	520.1	910.1	1603.7	1908.7
125°	499.4	556.6	911.0	1506.1	1769.2
127.5°	533.0	591.4	909.9	1434.1	1663.0
130°	554.2	613.2	909.1	1390.6	1597.3
132.5°	573.0	633.6	906.9	1353.1	1540.7
135°	601.4	665.1	903.5	1299.0	1464.2
137.5°	631.2	694.3	901.4	1242.6	1391.9
140°	652.3	713.3	900.6	1206.9	1348.1
142.5°	673.5	730.7	900.6	1168.8	1296.8
145°	703.3	755.0	901.6	1117.4	1224.4
147.5°	734.7	777.7	902.9	1072.6	1153.4
150°	754.3	792.1	904.4	1046.6	1114.9
152.5°	773.9	807.3	905.2	1025.2	1081.7
155°	801.5	828.3	907.2	999.7	1038.5
157.5°	826.2	845.6	909.3	979.6	1007.7
160°	842.1	857.8	910.1	968.2	990.3
162.5°	855.7	868.4	910.1	959.0	975.2
165°	875.1	883.4	911.0	946.2	956.3
167.5°	891.6	895.6	912.1	936.2	941.8
170°	900.6	902.5	912.9	930.9	932.7
172.5°	907.4	908.5	915.2	927.1	927.4
175°	914.8	914.8	915.7	922.3	920.5
177.5°	918.6	917.8	917.1	921.5	918.6
180°	918.6	918.6	918.6	918.6	918.6



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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	4.03	4.71	5.04	5.70	7.01	3.64	4.32	4.65	5.31	6.62
	3H	5.08	5.67	6.10	6.68	8.01	4.64	5.24	5.66	6.24	7.58
	4H	5.50	6.07	6.53	7.07	8.41	5.06	5.63	6.09	6.63	7.98
	6H	5.81	6.33	6.85	7.34	8.69	5.39	5.91	6.43	6.92	8.27
	8H	5.91	6.40	6.96	7.43	8.77	5.49	5.98	6.54	7.01	8.36
	12H	5.97	6.44	7.02	7.46	8.83	5.54	6.01	6.59	7.03	8.39
4H	2H	4.25	4.81	5.29	5.82	7.16	3.91	4.48	4.95	5.49	6.83
	3H	5.54	6.01	6.58	7.04	8.40	5.16	5.62	6.20	6.66	8.01
	4H	6.10	6.53	7.15	7.56	8.93	5.71	6.14	6.76	7.17	8.54
	6H	6.55	6.92	7.61	7.97	9.34	6.17	6.54	7.23	7.59	8.96
	8H	6.71	7.05	7.77	8.09	9.48	6.33	6.67	7.39	7.71	9.10
	12H	6.81	7.12	7.88	8.17	9.56	6.41	6.72	7.48	7.77	9.16
8H	4H	6.24	6.58	7.30	7.63	9.01	5.89	6.23	6.95	7.28	8.66
	6H	6.83	7.11	7.91	8.19	9.57	6.48	6.76	7.56	7.84	9.23
	8H	7.07	7.32	8.16	8.39	9.79	6.72	6.97	7.81	8.04	9.44
	12H	7.26	7.47	8.35	8.53	9.98	6.89	7.10	7.98	8.17	9.61
12H	4H	6.22	6.52	7.29	7.58	8.97	5.88	6.18	6.95	7.24	8.63
	6H	6.85	7.09	7.94	8.16	9.57	6.52	6.76	7.60	7.83	9.23
	8H	7.12	7.33	8.21	8.40	9.84	6.79	7.00	7.87	8.06	9.51