

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: P854490

Luminaire Tested: SQ2-WBN-150U-100D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854490
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-930-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

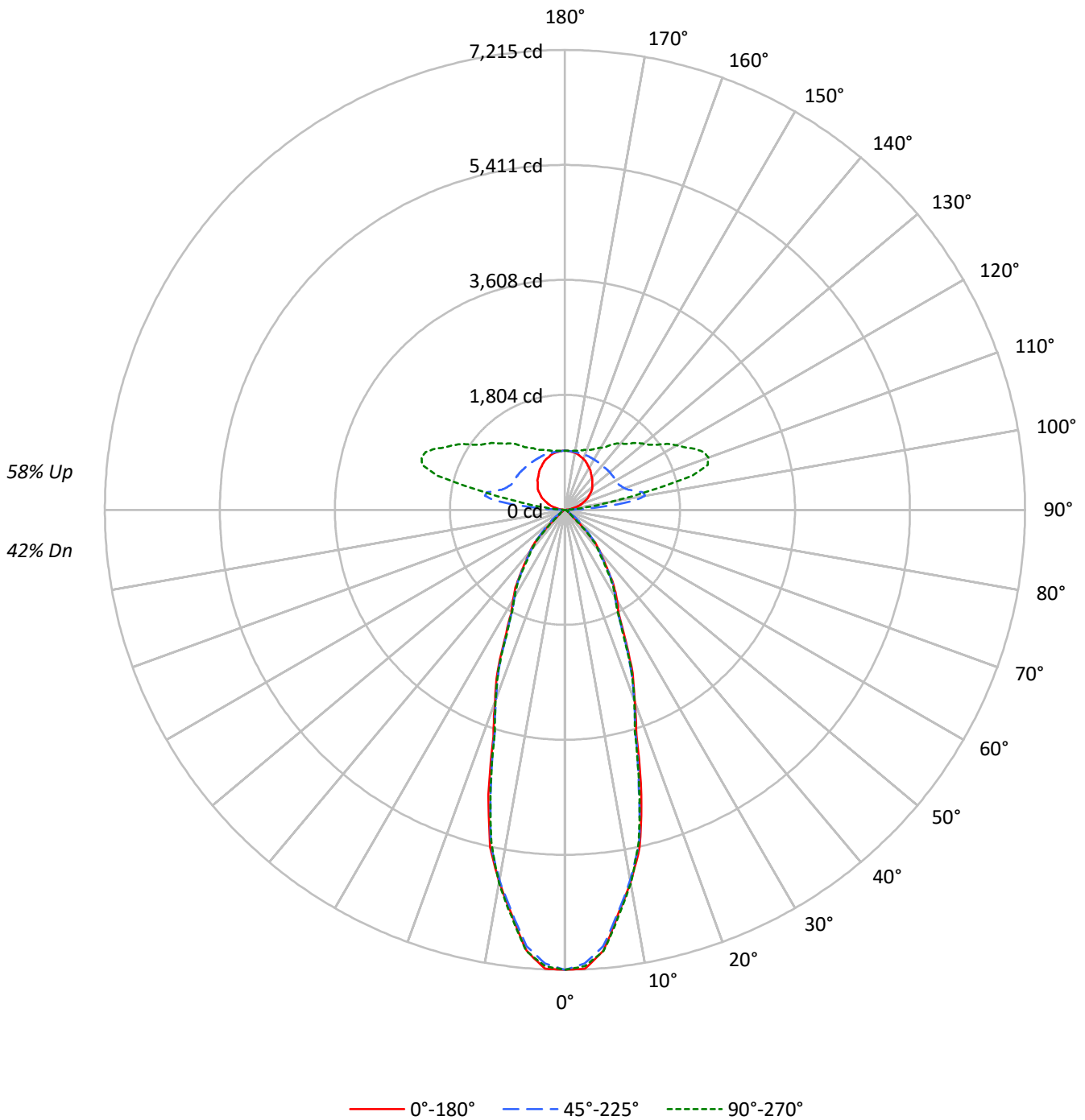
Lumens per Lamp: N/A
Luminaire Lumens: 9909.5 lumens
Efficiency: N/A
Efficacy: 104.6 lumens/watt
Spacing Criteria (0/90/45): 0.59 / 0.58 / 0.63
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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°	116492	116492	116492
5°	112477	111357	112602
10°	97222	96760	97451
15°	77364	74925	75224
20°	54958	54232	54629
25°	39539	38764	38489
30°	30210	29399	29326
35°	23714	23312	22704
40°	17966	17724	16862
45°	10054	12013	8971
50°	3537	7395	3120
55°	2162	4037	2055
60°	1653	2109	1531
65°	1517	1566	1417
70°	1449	1449	1331
75°	1360	1360	1279
80°	1190	1190	1190
85°	1186	945	945

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 12013 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	626.3	6.3
10°-20°	1244.7	12.6
20°-30°	1030.8	10.4
30°-40°	741.6	7.5
40°-50°	377.8	3.8
50°-60°	98.4	1.0
60°-70°	40.8	0.4
70°-80°	22.6	0.2
80°-90°	7.7	0.1
90°-100°	353.0	3.6
100°-110°	1156.0	11.7
110°-120°	1142.9	11.5
120°-130°	934.2	9.4
130°-140°	762.4	7.7
140°-150°	593.3	6.0
150°-160°	427.2	4.3
160°-170°	261.4	2.6
170°-180°	88.3	0.9
0°-30°	2901.8	29.3
0°-40°	3643.4	36.8
0°-60°	4119.5	41.6
0°-90°	4190.7	42.3
90°-120°	2651.9	26.8
90°-150°	4941.9	49.9
90°-180°	5719.0	57.7
0°-180°	9909.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7215	7215	7215	7215	7215	
5°	6940	6930	6871	6970	6948	626
15°	4628	4576	4482	4514	4500	1256
25°	2219	2216	2176	2157	2160	1044
35°	1203	1211	1183	1163	1152	755
45°	440	507	526	489	393	352
55°	77	89	143	83	73	76
65°	40	41	41	38	37	40
75°	22	22	22	20	20	23
85°	6	6	5	6	5	7
90°	1	3	8	7	8	3
95°	50	144	642	229	149	56
105°	201	287	1148	2180	2071	212
115°	362	433	932	1926	2262	357
125°	504	562	919	1519	1784	448
135°	607	671	911	1310	1477	469
145°	709	762	909	1127	1235	445
155°	808	836	915	1008	1048	372
165°	883	891	919	954	965	249
175°	923	923	924	930	928	88
180°	926	926	926	926	926	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7215.0	7215.0	7215.0	7215.0	7215.0
2.5°	7203.8	7191.8	7122.9	7179.9	7165.9
5°	6939.8	6929.8	6870.7	6970.0	6947.5
7.5°	6394.8	6403.4	6368.7	6456.5	6432.5
10°	5930.0	5952.5	5901.8	6029.1	5944.0
12.5°	5417.0	5402.4	5367.3	5387.0	5339.9
15°	4628.3	4575.7	4482.4	4514.0	4500.3
17.5°	3728.0	3748.2	3667.3	3663.9	3648.3
20°	3198.6	3204.8	3156.3	3181.9	3179.4
22.5°	2772.6	2773.9	2711.9	2749.3	2726.8
25°	2219.4	2215.7	2175.9	2156.8	2160.5
27.5°	1820.1	1804.6	1774.5	1787.1	1777.8
30°	1620.4	1607.9	1576.9	1584.3	1573.0
32.5°	1441.2	1441.7	1410.0	1406.2	1398.0
35°	1203.1	1210.7	1182.7	1163.2	1151.9
37.5°	990.7	997.7	974.0	945.7	936.1
40°	852.4	857.4	840.9	807.5	800.0
42.5°	701.9	722.9	706.8	675.2	658.7
45°	440.3	506.6	526.1	489.3	392.9
47.5°	222.7	314.6	375.3	277.1	182.5
50°	140.8	204.6	294.4	166.7	124.2
52.5°	108.0	140.8	235.0	123.1	99.6
55°	76.8	89.3	143.4	83.0	73.0
57.5°	59.4	66.4	85.8	62.8	56.6
60°	51.2	56.2	65.3	53.6	47.4
62.5°	46.1	49.1	53.0	45.5	43.3
65°	39.7	40.9	41.0	38.4	37.1
67.5°	33.8	35.0	34.8	33.5	32.3
70°	30.7	32.0	30.7	29.4	28.2
72.5°	26.6	27.9	26.6	26.3	25.1
75°	21.8	21.8	21.8	20.5	20.5
77.5°	16.9	17.1	15.9	15.8	14.8
80°	12.8	14.1	12.8	12.8	12.8
82.5°	10.8	11.0	9.7	9.7	9.7
85°	6.4	6.4	5.1	6.4	5.1
87.5°	2.2	2.6	3.6	3.4	3.6
90°	1.0	2.8	7.6	6.7	7.6
92.5°	16.2	59.0	181.3	59.0	47.2
95°	49.5	143.6	641.8	228.6	148.6
97.5°	89.9	189.3	1101.2	666.2	412.9
100°	118.1	213.0	1274.1	1137.8	754.2
102.5°	150.1	242.8	1255.1	1676.5	1299.6
105°	200.9	286.6	1147.5	2180.1	2071.1
107.5°	251.0	329.6	1042.5	2227.2	2346.9
110°	283.8	360.1	992.2	2172.4	2394.9



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	315.0	389.1	961.8	2077.0	2362.1
115°	361.9	432.6	932.3	1926.4	2261.6
117.5°	407.4	473.5	921.0	1778.3	2118.8
120°	437.1	499.5	918.0	1692.1	2023.5
122.5°	463.7	524.6	918.0	1617.6	1925.3
125°	503.7	561.5	918.9	1519.2	1784.5
127.5°	537.6	596.5	917.8	1446.6	1677.5
130°	559.0	618.6	917.0	1402.6	1611.2
132.5°	578.0	639.1	914.7	1364.9	1554.1
135°	606.6	670.8	911.3	1310.3	1476.9
137.5°	636.7	700.4	909.2	1253.3	1404.0
140°	658.0	719.5	908.4	1217.4	1359.8
142.5°	679.3	737.1	908.4	1179.0	1308.0
145°	709.4	761.6	909.4	1127.1	1235.1
147.5°	741.0	784.4	910.7	1081.9	1163.5
150°	760.8	799.0	912.3	1055.7	1124.6
152.5°	780.7	814.4	913.0	1034.1	1091.1
155°	808.5	835.5	915.1	1008.4	1047.5
157.5°	833.4	853.0	917.2	988.1	1016.4
160°	849.4	865.2	918.0	976.6	998.9
162.5°	863.1	876.0	918.0	967.3	983.7
165°	882.7	891.1	918.9	954.4	964.6
167.5°	899.3	903.4	920.1	944.4	950.0
170°	908.4	910.3	920.8	939.0	940.8
172.5°	915.3	916.4	923.1	935.1	935.5
175°	922.7	922.7	923.7	930.3	928.4
177.5°	926.5	925.8	925.0	929.5	926.5
180°	926.5	926.5	926.5	926.5	926.5



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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	2.62	3.27	3.68	4.31	5.70	2.24	2.89	3.30	3.93	5.32
	3H	3.67	4.25	4.73	5.29	6.70	3.23	3.82	4.30	4.86	6.27
	4H	4.09	4.64	5.17	5.69	7.11	3.66	4.20	4.73	5.25	6.67
	6H	4.40	4.91	5.49	5.96	7.39	3.99	4.49	5.07	5.54	6.97
	8H	4.50	4.98	5.59	6.04	7.47	4.09	4.56	5.17	5.63	7.05
	12H	4.57	5.02	5.66	6.08	7.52	4.13	4.59	5.22	5.64	7.09
4H	2H	2.84	3.39	3.92	4.43	5.85	2.51	3.06	3.59	4.11	5.52
	3H	4.13	4.59	5.22	5.66	7.09	3.75	4.21	4.84	5.28	6.71
	4H	4.70	5.11	5.79	6.18	7.63	4.31	4.72	5.40	5.79	7.24
	6H	5.15	5.50	6.25	6.59	8.04	4.77	5.12	5.87	6.21	7.66
	8H	5.31	5.64	6.40	6.72	8.18	4.92	5.25	6.02	6.33	7.79
	12H	5.41	5.71	6.52	6.80	8.26	5.01	5.30	6.12	6.40	7.86
8H	4H	4.84	5.17	5.94	6.25	7.71	4.49	4.82	5.59	5.90	7.36
	6H	5.43	5.70	6.54	6.82	8.27	5.08	5.35	6.19	6.47	7.93
	8H	5.67	5.91	6.80	7.01	8.49	5.32	5.55	6.44	6.66	8.14
	12H	5.86	6.07	6.98	7.17	8.68	5.49	5.69	6.61	6.79	8.31
12H	4H	4.81	5.11	5.92	6.20	7.66	4.47	4.77	5.58	5.86	7.33
	6H	5.45	5.68	6.57	6.79	8.27	5.11	5.35	6.24	6.45	7.93
	8H	5.72	5.93	6.84	7.03	8.54	5.38	5.59	6.50	6.69	8.20