

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: P854394

Luminaire Tested: SQ2-WBM-125U-100D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854394
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G3-2104-222-7)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBM-125U-100D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
UPLIGHT 1250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

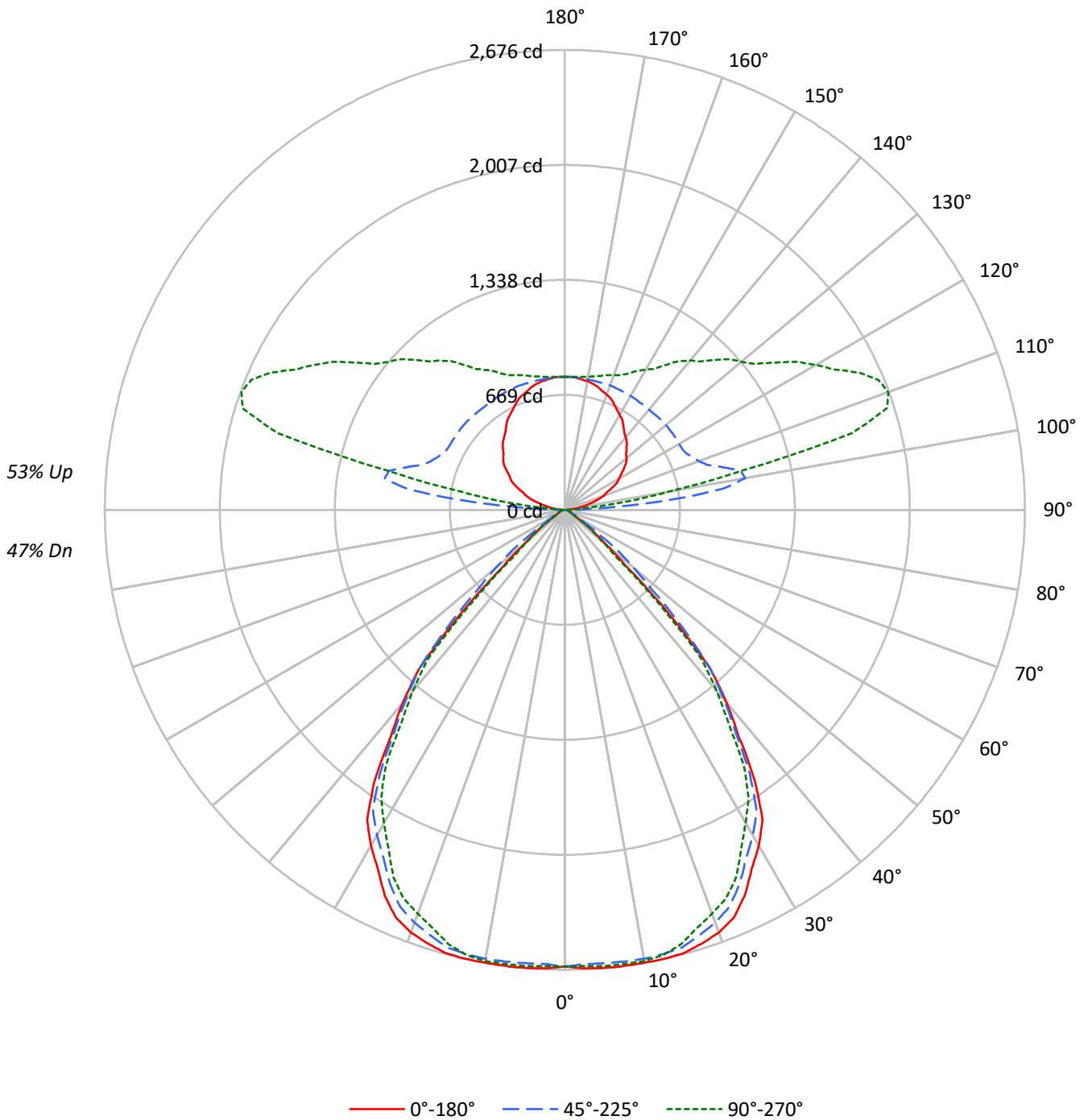
Lumens per Lamp: N/A
Luminaire Lumens: 8974.2 lumens
Efficiency: N/A
Efficacy: 109.4 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.18 / 1.17
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 82
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	106	106	106	106	98	98	98	98	82	82	82	67	67	67	53	53	53	47
1	99	95	92	89	91	88	85	82	74	72	70	61	60	59	49	49	48	43
2	91	85	80	76	84	79	74	71	67	64	61	56	54	52	46	44	43	39
3	85	76	70	65	78	71	66	61	61	57	54	51	48	46	42	40	39	35
4	78	69	62	57	72	64	58	54	55	51	47	47	44	41	39	37	35	32
5	73	62	55	50	67	58	52	47	50	46	42	43	40	37	36	34	32	29
6	67	57	49	44	62	53	47	42	46	41	38	39	36	33	33	31	29	26
7	63	52	45	40	58	48	42	38	42	37	34	36	33	30	31	28	26	24
8	59	47	40	36	54	44	38	34	39	34	31	34	30	27	29	26	24	22
9	55	44	37	32	51	41	35	31	36	31	28	31	28	25	27	24	22	20
10	51	40	34	29	48	38	32	28	33	29	25	29	26	23	25	22	21	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	42899	42899	42899
5°	43358	42908	43188
10°	43860	43466	43702
15°	44637	44058	43721
20°	44974	43934	42959
25°	44113	42829	42006
30°	42041	40768	39209
35°	38041	36941	35784
40°	30888	30260	28922
45°	19783	21980	17785
50°	7754	13019	6980
55°	3654	5956	3654
60°	1741	2887	1582
65°	1578	1654	1471
70°	1496	1544	1407
75°	1497	1497	1379
80°	1432	1432	1339
85°	1241	1241	1241

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 22124 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	254.5	2.8
10°-20°	745.9	8.3
20°-30°	1107.0	12.3
30°-40°	1149.8	12.8
40°-50°	691.9	7.7
50°-60°	165.9	1.8
60°-70°	45.0	0.5
70°-80°	25.2	0.3
80°-90°	8.8	0.1
90°-100°	296.4	3.3
100°-110°	964.9	10.8
110°-120°	954.5	10.6
120°-130°	780.0	8.7
130°-140°	637.5	7.1
140°-150°	496.5	5.5
150°-160°	357.9	4.0
160°-170°	218.8	2.4
170°-180°	73.8	0.8
0°-30°	2107.3	23.5
0°-40°	3257.1	36.3
0°-60°	4114.9	45.9
0°-90°	4193.9	46.7
90°-120°	2215.8	24.7
90°-150°	4129.8	46.0
90°-180°	4780.0	53.3
0°-180°	8974.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2657	2657	2657	2657	2657	
5°	2675	2669	2647	2675	2665	255
15°	2670	2689	2636	2634	2616	753
25°	2476	2493	2404	2372	2358	1133
35°	1930	1912	1874	1836	1816	1182
45°	866	969	963	916	779	662
55°	130	147	212	141	130	134
65°	41	42	43	41	38	41
75°	24	25	24	23	22	25
85°	7	8	7	7	7	8
90°	0	3	7	6	6	2
95°	40	122	543	194	119	47
105°	164	237	956	1826	1729	175
115°	303	362	779	1605	1888	300
125°	421	470	768	1267	1493	375
135°	509	562	764	1093	1233	393
145°	595	638	762	942	1031	372
155°	678	701	767	843	875	313
165°	740	747	769	798	807	209
175°	772	772	772	778	776	73
180°	775	775	775	775	775	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2657.0	2657.0	2657.0	2657.0	2657.0
2.5°	2670.1	2664.0	2644.7	2666.0	2657.0
5°	2675.2	2668.7	2647.4	2675.0	2664.7
7.5°	2676.0	2676.4	2651.2	2675.6	2664.1
10°	2675.2	2680.9	2651.2	2674.1	2665.6
12.5°	2676.0	2685.4	2648.1	2664.8	2651.8
15°	2670.4	2689.2	2635.8	2634.4	2615.6
17.5°	2646.0	2669.3	2597.0	2574.7	2552.5
20°	2617.5	2640.1	2557.0	2524.7	2500.2
22.5°	2568.3	2591.6	2500.0	2465.6	2447.9
25°	2476.2	2493.1	2404.1	2372.0	2357.9
27.5°	2355.0	2360.5	2282.9	2245.6	2221.5
30°	2255.0	2259.7	2186.7	2144.4	2103.1
32.5°	2140.4	2132.3	2076.7	2030.6	1987.7
35°	1930.0	1912.1	1874.2	1836.2	1815.5
37.5°	1663.2	1658.7	1631.1	1585.5	1560.7
40°	1465.5	1480.6	1435.7	1402.3	1372.2
42.5°	1254.0	1290.8	1251.8	1204.7	1179.1
45°	866.4	968.9	962.6	916.2	778.9
47.5°	481.8	610.8	688.3	539.9	399.5
50°	308.7	397.1	518.3	325.9	277.9
52.5°	216.4	264.9	382.9	231.0	204.8
55°	129.8	146.7	211.6	141.1	129.8
57.5°	78.5	94.8	120.2	94.6	76.7
60°	53.9	68.0	89.4	63.1	49.0
62.5°	46.9	52.0	69.4	49.5	44.4
65°	41.3	42.3	43.3	41.3	38.5
67.5°	35.6	37.5	36.5	35.7	33.7
70°	31.7	33.6	32.7	32.6	29.8
72.5°	28.7	30.5	29.6	28.8	26.7
75°	24.0	25.0	24.0	23.1	22.1
77.5°	18.5	19.4	19.2	18.4	17.5
80°	15.4	16.3	15.4	15.4	14.4
82.5°	12.3	12.5	12.3	11.5	11.3
85°	6.7	7.7	6.7	6.7	6.7
87.5°	2.3	2.9	3.6	3.5	3.5
90°	0.0	2.8	6.7	5.7	5.7
92.5°	13.7	49.3	157.6	52.0	40.0
95°	40.0	122.0	543.2	193.7	119.1
97.5°	75.3	158.8	921.9	561.5	342.7
100°	98.2	180.2	1064.5	949.2	615.6
102.5°	124.1	203.1	1047.0	1404.3	1067.7
105°	163.9	236.6	955.9	1825.6	1728.7
107.5°	207.0	275.4	869.3	1862.2	1964.9
110°	238.2	300.7	828.2	1816.8	2002.2



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	264.2	325.9	802.2	1734.9	1974.0
115°	303.1	361.8	778.6	1604.6	1887.9
117.5°	343.1	396.0	769.4	1485.3	1767.2
120°	365.9	418.1	767.2	1411.9	1684.9
122.5°	388.1	439.5	767.9	1348.2	1602.6
125°	421.2	469.7	768.1	1266.9	1493.3
127.5°	449.6	499.2	767.9	1206.0	1394.8
130°	467.9	518.2	767.2	1171.3	1339.9
132.5°	483.9	536.5	766.4	1139.0	1297.2
135°	508.9	562.0	764.3	1093.4	1233.2
137.5°	533.3	586.8	762.2	1047.1	1171.2
140°	550.8	602.1	761.4	1015.7	1133.1
142.5°	567.6	616.6	761.4	985.7	1090.4
145°	594.7	638.5	762.4	941.7	1031.1
147.5°	621.0	659.0	763.7	904.2	973.4
150°	638.5	672.1	765.3	881.9	940.6
152.5°	656.0	683.6	766.0	864.9	911.6
155°	678.5	700.9	767.2	843.2	874.8
157.5°	699.9	715.9	768.3	827.1	849.3
160°	712.8	725.9	769.1	817.1	834.8
162.5°	724.3	734.3	769.1	808.6	821.9
165°	740.5	747.0	769.1	797.9	807.2
167.5°	751.9	756.0	769.3	789.8	794.6
170°	759.5	761.4	770.0	784.4	786.2
172.5°	764.9	766.0	771.5	781.3	780.9
175°	771.9	771.9	771.9	777.6	775.7
177.5°	774.8	774.0	773.3	777.0	774.0
180°	774.8	774.8	774.8	774.8	774.8



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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	5.62	6.32	6.63	7.32	8.65	5.33	6.03	6.35	7.04	8.37
	3H	6.12	6.74	7.15	7.76	9.11	5.83	6.45	6.86	7.47	8.82
	4H	6.39	6.97	7.42	7.99	9.35	6.07	6.66	7.11	7.68	9.03
	6H	6.62	7.15	7.66	8.17	9.54	6.29	6.82	7.33	7.84	9.21
	8H	6.69	7.20	7.74	8.23	9.60	6.35	6.87	7.41	7.90	9.26
	12H	6.72	7.21	7.77	8.23	9.62	6.39	6.88	7.44	7.90	9.29
4H	2H	5.62	6.21	6.66	7.22	8.58	5.36	5.95	6.40	6.96	8.32
	3H	6.34	6.82	7.39	7.87	9.24	6.08	6.56	7.13	7.61	8.97
	4H	6.75	7.19	7.80	8.22	9.62	6.45	6.89	7.51	7.93	9.32
	6H	7.12	7.50	8.18	8.56	9.95	6.81	7.18	7.87	8.24	9.63
	8H	7.25	7.61	8.32	8.66	10.06	6.93	7.28	8.00	8.33	9.74
	12H	7.33	7.64	8.40	8.71	10.11	7.00	7.32	8.08	8.39	9.79
8H	4H	6.83	7.18	7.89	8.23	9.63	6.56	6.91	7.62	7.96	9.36
	6H	7.33	7.62	8.42	8.71	10.11	7.04	7.33	8.12	8.42	9.82
	8H	7.55	7.80	8.64	8.88	10.30	7.25	7.50	8.34	8.58	10.00
	12H	7.70	7.93	8.80	9.00	10.46	7.39	7.62	8.49	8.69	10.15
12H	4H	6.80	7.11	7.88	8.18	9.59	6.53	6.85	7.61	7.92	9.32
	6H	7.35	7.60	8.44	8.68	10.10	7.07	7.32	8.16	8.40	9.82
	8H	7.59	7.82	8.69	8.89	10.35	7.30	7.52	8.39	8.59	10.05