

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: P854409

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854409
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G3-2104-222-8)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBM-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

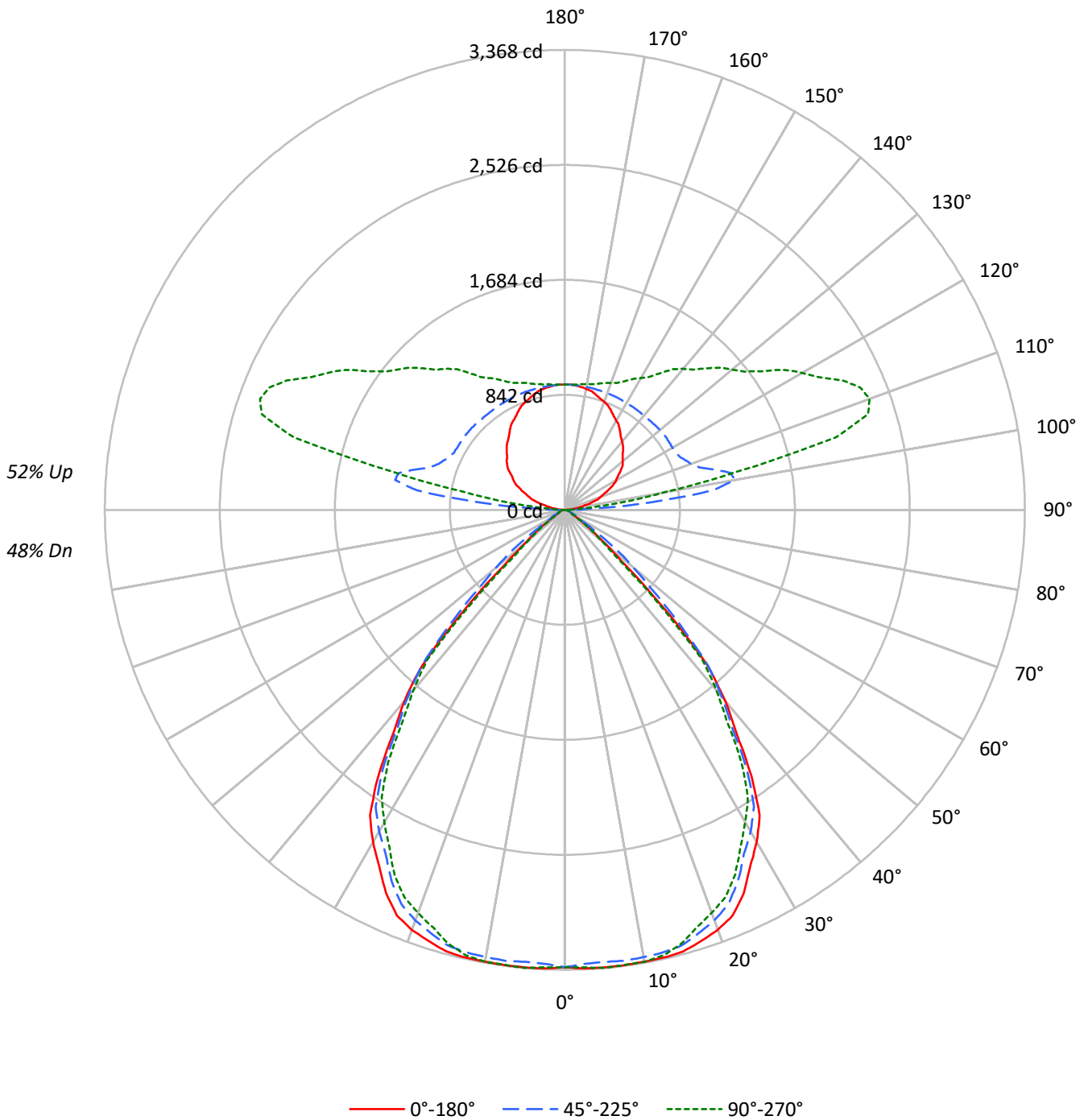
Lumens per Lamp: N/A
Luminaire Lumens: 10901.8 lumens
Efficiency: N/A
Efficacy: 102.6 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.18 / 1.17
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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: P854409

CATALOG NUMBER: SQ2-WBM-150U-125D-930-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	95	92	89	91	88	85	83	75	73	71	62	61	60	51	50	49				44	
2	92	85	80	76	84	79	75	71	68	64	62	57	55	53	47	45	44				40	
3	85	77	71	66	78	71	66	62	61	57	54	52	49	47	43	41	40				36	
4	79	69	62	57	73	65	59	54	56	51	48	48	44	42	40	38	36				33	
5	73	63	56	50	67	59	52	48	51	46	43	44	40	38	37	35	33				30	
6	68	57	50	45	63	53	47	42	47	42	38	40	37	34	34	32	30				27	
7	63	52	45	40	58	49	43	38	43	38	34	37	33	31	32	29	27				25	
8	59	48	41	36	55	45	39	34	39	35	31	34	31	28	30	27	25				23	
9	55	44	37	32	51	41	35	31	36	32	28	32	28	26	28	25	23				21	
10	52	41	34	29	48	38	32	28	34	29	26	30	26	23	26	23	21				19	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	54077	54077	54077
5°	54501	53848	54579
10°	55085	54502	55100
15°	55968	55231	55005
20°	56244	54974	53983
25°	55184	53440	52533
30°	52361	50696	49264
35°	46952	45835	44415
40°	38545	37696	36320
45°	24103	27371	21866
50°	9530	16189	8518
55°	4622	7355	4569
60°	2170	3597	1986
65°	1945	2090	1872
70°	1902	1950	1770
75°	1859	1859	1678
80°	1785	1785	1609
85°	1593	1593	1593

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 27371 cd/sqm



TEST NUMBER: P854409

CATALOG NUMBER: SQ2-WBM-150U-125D-930-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	320.0	2.9
10°-20°	935.4	8.6
20°-30°	1382.8	12.7
30°-40°	1428.9	13.1
40°-50°	859.8	7.9
50°-60°	206.6	1.9
60°-70°	56.4	0.5
70°-80°	31.4	0.3
80°-90°	10.9	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°	2638.2	24.2
0°-40°	4067.2	37.3
0°-60°	5133.6	47.1
0°-90°	5232.3	48.0
90°-120°	2629.1	24.1
90°-150°	4899.3	44.9
90°-180°	5670.0	52.0
0°-180°	10901.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3349	3349	3349	3349	3349	
5°	3363	3352	3322	3369	3368	321
15°	3348	3374	3304	3305	3291	944
25°	3098	3121	3000	2957	2949	1416
35°	2382	2376	2325	2281	2253	1466
45°	1056	1198	1199	1133	958	818
55°	164	185	261	176	162	167
65°	51	54	55	51	49	52
75°	30	32	30	29	27	31
85°	9	10	9	9	9	10
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	



TEST NUMBER: P854409

CATALOG NUMBER: SQ2-WBM-150U-125D-930-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3349.3	3349.3	3349.3	3349.3	3349.3
2.5°	3361.6	3353.3	3327.0	3357.6	3352.4
5°	3362.7	3352.4	3322.4	3369.4	3367.5
7.5°	3362.2	3356.7	3331.2	3367.4	3360.1
10°	3359.9	3362.7	3324.3	3363.6	3360.8
12.5°	3358.3	3370.9	3320.5	3348.2	3340.8
15°	3348.3	3373.7	3304.2	3304.8	3290.7
17.5°	3311.8	3342.6	3252.5	3225.8	3207.9
20°	3273.4	3303.5	3199.5	3159.7	3141.8
22.5°	3213.5	3241.3	3125.7	3085.2	3070.4
25°	3097.6	3121.1	2999.7	2957.2	2948.8
27.5°	2941.5	2951.4	2839.8	2798.2	2783.8
30°	2808.5	2809.5	2719.2	2669.6	2642.4
32.5°	2654.1	2647.5	2577.8	2528.1	2494.1
35°	2382.1	2376.4	2325.4	2280.6	2253.4
37.5°	2062.4	2061.5	2012.8	1974.2	1946.8
40°	1828.8	1835.4	1788.5	1740.1	1723.2
42.5°	1549.1	1597.8	1557.9	1505.1	1494.2
45°	1055.6	1198.4	1198.7	1133.3	957.6
47.5°	603.8	757.8	862.7	667.9	495.8
50°	379.4	495.9	644.5	406.7	339.1
52.5°	269.5	326.6	477.0	286.1	253.0
55°	164.2	184.9	261.3	176.4	162.3
57.5°	99.5	118.9	151.4	118.3	99.9
60°	67.2	85.1	111.4	78.4	61.5
62.5°	59.6	66.1	87.6	61.7	55.3
65°	50.9	53.7	54.7	50.9	49.0
67.5°	45.0	46.8	45.9	44.9	42.1
70°	40.3	42.2	41.3	40.3	37.5
72.5°	35.7	37.6	36.7	35.7	33.6
75°	29.8	31.7	29.8	28.8	26.9
77.5°	23.1	24.7	23.8	23.0	21.1
80°	19.2	20.1	19.2	19.2	17.3
82.5°	15.4	15.6	14.6	14.6	13.4
85°	8.6	9.6	8.6	8.6	8.6
87.5°	3.3	3.6	4.6	4.4	3.8
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



TEST NUMBER: P854409

CATALOG NUMBER: SQ2-WBM-150U-125D-930-UNV-STD-W-4

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	6.56	7.27	7.56	8.26	9.57	6.23	6.94	7.23	7.93	9.24
	3H	7.07	7.69	8.08	8.70	10.03	6.73	7.36	7.74	8.36	9.69
	4H	7.33	7.92	8.36	8.93	10.27	6.96	7.55	7.99	8.56	9.90
	6H	7.55	8.10	8.59	9.11	10.46	7.16	7.70	8.20	8.72	10.07
	8H	7.62	8.14	8.67	9.17	10.51	7.23	7.74	8.27	8.77	10.12
	12H	7.66	8.15	8.70	9.17	10.54	7.26	7.75	8.31	8.77	10.14
4H	2H	6.56	7.16	7.60	8.16	9.50	6.26	6.85	7.30	7.86	9.20
	3H	7.29	7.77	8.33	8.81	10.16	6.98	7.47	8.02	8.50	9.85
	4H	7.69	8.14	8.74	9.17	10.54	7.35	7.79	8.39	8.82	10.20
	6H	8.06	8.44	9.12	9.49	10.86	7.68	8.06	8.74	9.11	10.49
	8H	8.19	8.54	9.24	9.59	10.97	7.81	8.16	8.86	9.20	10.59
	12H	8.26	8.58	9.33	9.64	11.03	7.88	8.20	8.95	9.26	10.65
8H	4H	7.77	8.13	8.83	9.17	10.55	7.45	7.81	8.51	8.85	10.23
	6H	8.26	8.56	9.34	9.64	11.02	7.92	8.21	9.00	9.30	10.68
	8H	8.48	8.73	9.56	9.80	11.21	8.12	8.38	9.21	9.45	10.85
	12H	8.63	8.86	9.72	9.92	11.37	8.28	8.50	9.36	9.57	11.01
12H	4H	7.74	8.06	8.81	9.12	10.51	7.43	7.75	8.50	8.80	10.19
	6H	8.28	8.54	9.37	9.61	11.01	7.95	8.20	9.03	9.27	10.68
	8H	8.52	8.75	9.61	9.81	11.26	8.18	8.40	9.26	9.47	10.91