

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: P854406

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854406
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G3-2104-222-7)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBM-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

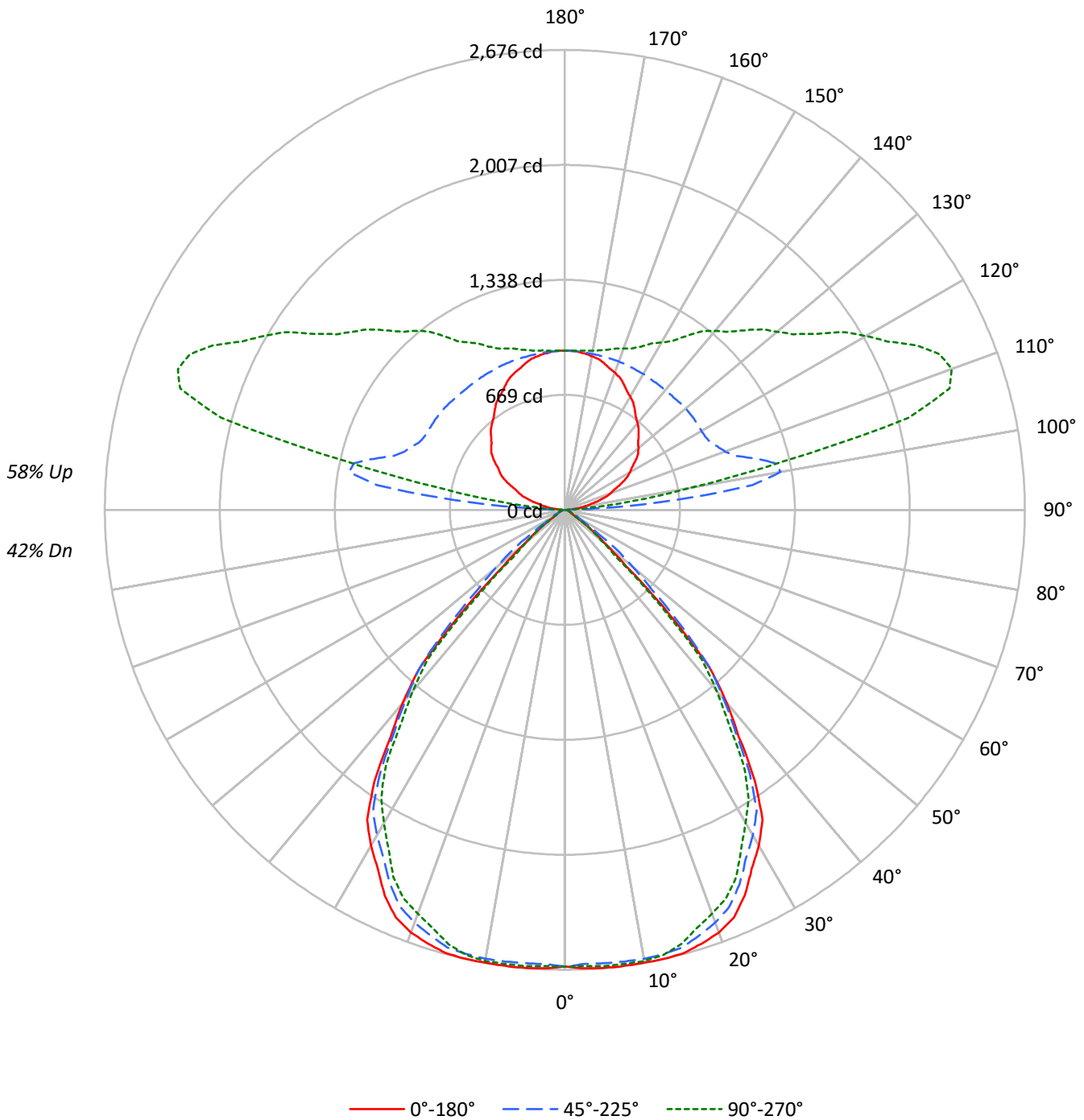
Lumens per Lamp: N/A
Luminaire Lumens: 9912.8 lumens
Efficiency: N/A
Efficacy: 104.7 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.18 / 1.17
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 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

TEST NUMBER: P854406

CATALOG NUMBER: SQ2-WBM-150U-100D-930-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P854406

CATALOG NUMBER: SQ2-WBM-150U-100D-930-UNV-STD-W-4

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	89	86	83	81	71	70	68	58	57	56	46	45	44	39
2	90	84	79	74	82	77	73	69	65	61	59	53	51	49	42	41	40	35
3	83	75	69	64	76	69	64	60	58	55	51	48	46	43	39	37	36	32
4	77	68	61	55	71	63	57	52	53	49	45	44	41	39	36	34	32	29
5	71	61	54	49	65	57	50	46	48	44	40	40	37	35	33	31	29	26
6	66	55	48	43	61	52	45	41	44	39	36	37	34	31	31	28	27	24
7	62	51	43	38	57	47	41	36	40	36	32	34	31	28	28	26	24	22
8	57	46	39	34	53	43	37	33	37	32	29	32	28	26	26	24	22	20
9	54	42	36	31	49	40	34	29	34	30	26	29	26	23	25	22	20	18
10	50	39	32	28	46	37	31	27	32	27	24	27	24	21	23	21	19	17

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



TEST NUMBER: P854406

CATALOG NUMBER: SQ2-WBM-150U-100D-930-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	254.5	2.6
10°-20°	745.9	7.5
20°-30°	1107.0	11.2
30°-40°	1149.8	11.6
40°-50°	691.9	7.0
50°-60°	165.9	1.7
60°-70°	45.0	0.5
70°-80°	25.2	0.3
80°-90°	8.9	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°	2107.3	21.3
0°-40°	3257.1	32.9
0°-60°	4114.9	41.5
0°-90°	4194.1	42.3
90°-120°	2651.9	26.8
90°-150°	4941.9	49.9
90°-180°	5719.0	57.7
0°-180°	9912.8	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°	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	



TEST NUMBER: P854406

CATALOG NUMBER: SQ2-WBM-150U-100D-930-UNV-STD-W-4

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°	2.5	2.9	3.8	3.6	3.8
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



TEST NUMBER: P854406

CATALOG NUMBER: SQ2-WBM-150U-100D-930-UNV-STD-W-4

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

TEST NUMBER: P854406

CATALOG NUMBER: SQ2-WBM-150U-100D-930-UNV-STD-W-4

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	5.15	5.83	6.20	6.87	8.26	4.87	5.55	5.92	6.58	7.97
	3H	5.66	6.26	6.71	7.30	8.71	5.36	5.97	6.42	7.01	8.42
	4H	5.92	6.49	6.99	7.54	8.95	5.61	6.18	6.68	7.22	8.64
	6H	6.15	6.67	7.23	7.72	9.15	5.82	6.34	6.90	7.39	8.82
	8H	6.22	6.72	7.30	7.78	9.20	5.89	6.38	6.97	7.45	8.87
	12H	6.25	6.72	7.34	7.78	9.22	5.92	6.39	7.01	7.45	8.89
4H	2H	5.15	5.72	6.23	6.77	8.18	4.89	5.46	5.97	6.51	7.92
	3H	5.87	6.34	6.95	7.42	8.84	5.61	6.08	6.69	7.15	8.58
	4H	6.28	6.71	7.36	7.77	9.22	5.98	6.42	7.07	7.48	8.93
	6H	6.65	7.02	7.75	8.11	9.55	6.34	6.70	7.43	7.79	9.24
	8H	6.78	7.13	7.88	8.21	9.66	6.46	6.81	7.56	7.89	9.34
	12H	6.86	7.17	7.96	8.26	9.72	6.54	6.84	7.64	7.94	9.40
8H	4H	6.36	6.70	7.45	7.78	9.24	6.09	6.43	7.18	7.51	8.97
	6H	6.86	7.14	7.98	8.27	9.72	6.57	6.85	7.68	7.97	9.43
	8H	7.08	7.33	8.20	8.43	9.91	6.78	7.02	7.90	8.13	9.60
	12H	7.23	7.45	8.35	8.55	10.06	6.92	7.14	8.04	8.24	9.75
12H	4H	6.33	6.64	7.44	7.73	9.19	6.06	6.37	7.17	7.47	8.93
	6H	6.88	7.13	8.00	8.23	9.71	6.60	6.85	7.72	7.95	9.42
	8H	7.13	7.34	8.25	8.44	9.95	6.83	7.05	7.95	8.15	9.66