

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: P854408

Luminaire Tested: SQ2-WBM-150U-100D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854408
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-940-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

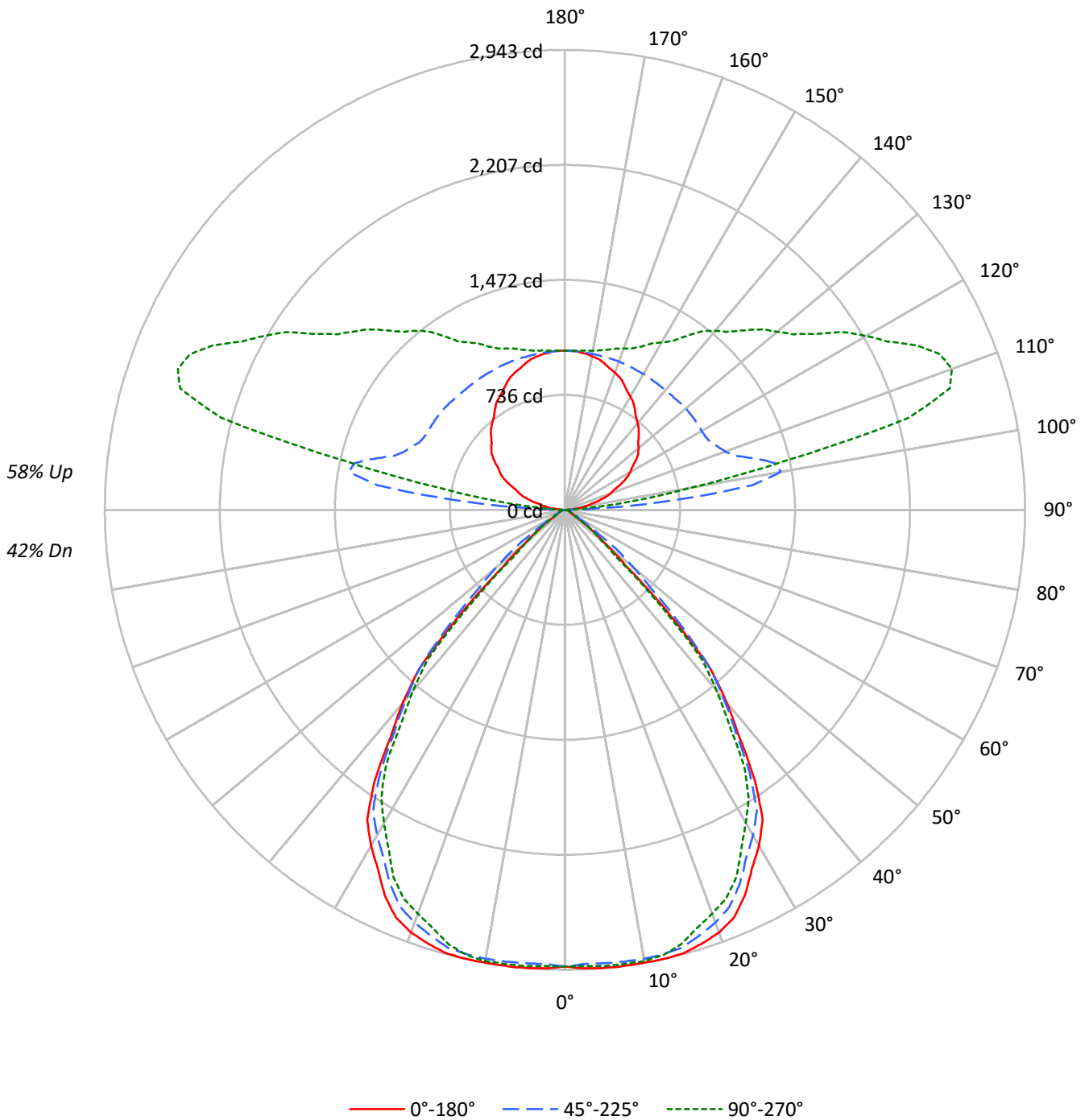
Lumens per Lamp: N/A
Luminaire Lumens: 10901.9 lumens
Efficiency: N/A
Efficacy: 115.1 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.18 / 1.17
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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: P854408

CATALOG NUMBER: SQ2-WBM-150U-100D-940-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	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°	47180	47180	47180
5°	47686	47188	47496
10°	48237	47803	48063
15°	49091	48455	48084
20°	49462	48318	47245
25°	48515	47101	46198
30°	46236	44836	43121
35°	41837	40627	39356
40°	33970	33280	31809
45°	21758	24172	19559
50°	8528	14318	7676
55°	4020	6550	4020
60°	1912	3178	1741
65°	1738	1819	1616
70°	1648	1699	1548
75°	1647	1647	1516
80°	1571	1571	1478
85°	1371	1371	1371

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 24332 cd/sqm



TEST NUMBER: P854408

CATALOG NUMBER: SQ2-WBM-150U-100D-940-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	279.9	2.6
10°-20°	820.3	7.5
20°-30°	1217.4	11.2
30°-40°	1264.5	11.6
40°-50°	761.0	7.0
50°-60°	182.4	1.7
60°-70°	49.5	0.5
70°-80°	27.8	0.3
80°-90°	9.8	0.1
90°-100°	388.3	3.6
100°-110°	1271.3	11.7
110°-120°	1256.9	11.5
120°-130°	1027.5	9.4
130°-140°	838.5	7.7
140°-150°	652.5	6.0
150°-160°	469.8	4.3
160°-170°	287.4	2.6
170°-180°	97.1	0.9
0°-30°	2317.6	21.3
0°-40°	3582.1	32.9
0°-60°	4525.6	41.5
0°-90°	4612.6	42.3
90°-120°	2916.5	26.8
90°-150°	5435.0	49.9
90°-180°	6289.0	57.7
0°-180°	10901.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2922	2922	2922	2922	2922	
5°	2942	2935	2912	2942	2930	281
15°	2937	2958	2899	2897	2877	828
25°	2723	2742	2644	2609	2593	1246
35°	2123	2103	2061	2020	1997	1300
45°	953	1066	1059	1008	857	728
55°	143	161	233	155	143	147
65°	46	46	48	45	42	45
75°	26	28	26	25	24	27
85°	7	8	7	7	7	8
90°	1	3	8	7	8	3
95°	54	158	706	251	163	62
105°	221	315	1262	2398	2278	233
115°	398	476	1025	2119	2487	393
125°	554	618	1011	1671	1963	493
135°	667	738	1002	1441	1624	516
145°	780	838	1000	1240	1358	489
155°	889	919	1006	1109	1152	409
165°	971	980	1011	1050	1061	274
175°	1015	1015	1016	1023	1021	96
180°	1019	1019	1019	1019	1019	

TEST NUMBER: P854408

CATALOG NUMBER: SQ2-WBM-150U-100D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2922.1	2922.1	2922.1	2922.1	2922.1
2.5°	2936.5	2929.9	2908.6	2932.0	2922.1
5°	2942.2	2934.9	2911.5	2941.9	2930.5
7.5°	2943.0	2943.4	2915.7	2942.5	2929.9
10°	2942.2	2948.4	2915.7	2940.9	2931.6
12.5°	2943.0	2953.4	2912.4	2930.6	2916.4
15°	2936.9	2957.6	2898.8	2897.3	2876.6
17.5°	2910.0	2935.7	2856.1	2831.6	2807.2
20°	2878.7	2903.5	2812.1	2776.6	2749.7
22.5°	2824.6	2850.2	2749.5	2711.6	2692.2
25°	2723.3	2741.9	2643.9	2608.7	2593.2
27.5°	2590.0	2596.0	2510.7	2469.7	2443.2
30°	2480.0	2485.2	2404.9	2358.4	2312.9
32.5°	2354.0	2345.1	2283.9	2233.2	2186.0
35°	2122.6	2102.9	2061.2	2019.5	1996.7
37.5°	1829.2	1824.2	1793.9	1743.7	1716.4
40°	1611.7	1628.3	1579.0	1542.3	1509.2
42.5°	1379.1	1419.6	1376.8	1324.9	1296.8
45°	952.9	1065.6	1058.6	1007.6	856.6
47.5°	529.8	671.7	757.0	593.8	439.3
50°	339.5	436.7	570.0	358.4	305.6
52.5°	238.0	291.3	421.1	254.0	225.3
55°	142.8	161.4	232.7	155.2	142.8
57.5°	86.3	104.3	132.2	104.0	84.4
60°	59.2	74.7	98.4	69.4	53.9
62.5°	51.6	57.2	76.4	54.4	48.9
65°	45.5	46.5	47.6	45.4	42.3
67.5°	39.1	41.2	40.2	39.3	37.0
70°	34.9	37.0	36.0	35.9	32.8
72.5°	31.5	33.6	32.6	31.7	29.4
75°	26.4	27.5	26.4	25.4	24.3
77.5°	20.3	21.3	21.2	20.3	19.2
80°	16.9	18.0	16.9	16.9	15.9
82.5°	13.5	13.7	13.5	12.7	12.5
85°	7.4	8.4	7.4	7.4	7.4
87.5°	2.7	3.2	4.2	4.0	4.2
90°	1.0	3.1	8.4	7.4	8.4
92.5°	17.8	64.9	199.4	64.8	51.9
95°	54.5	157.9	705.9	251.4	163.4
97.5°	98.9	208.2	1211.1	732.6	454.1
100°	129.9	234.3	1401.2	1251.3	829.4
102.5°	165.0	267.0	1380.3	1843.8	1429.3
105°	221.0	315.2	1262.0	2397.6	2277.8
107.5°	276.1	362.5	1146.5	2449.4	2581.1
110°	312.1	396.1	1091.3	2389.1	2633.9



TEST NUMBER: P854408

CATALOG NUMBER: SQ2-WBM-150U-100D-940-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	346.4	427.9	1057.7	2284.3	2597.8
115°	398.0	475.8	1025.3	2118.6	2487.3
117.5°	448.0	520.7	1012.9	1955.8	2330.2
120°	480.7	549.3	1009.6	1860.9	2225.4
122.5°	510.0	577.0	1009.6	1779.0	2117.4
125°	554.0	617.5	1010.6	1670.7	1962.6
127.5°	591.3	656.0	1009.4	1590.9	1844.9
130°	614.7	680.3	1008.5	1542.6	1772.0
132.5°	635.7	702.9	1006.0	1501.1	1709.1
135°	667.1	737.8	1002.2	1441.0	1624.3
137.5°	700.2	770.2	999.9	1378.4	1544.1
140°	723.7	791.2	999.1	1338.8	1495.5
142.5°	747.1	810.6	999.1	1296.6	1438.5
145°	780.2	837.6	1000.1	1239.5	1358.3
147.5°	815.0	862.7	1001.6	1189.8	1279.5
150°	836.8	878.7	1003.3	1161.0	1236.8
152.5°	858.5	895.6	1004.1	1137.3	1200.0
155°	889.1	918.8	1006.4	1109.0	1152.0
157.5°	916.6	938.1	1008.7	1086.7	1117.9
160°	934.2	951.6	1009.6	1074.0	1098.6
162.5°	949.2	963.4	1009.6	1063.8	1081.8
165°	970.8	980.0	1010.6	1049.6	1060.9
167.5°	989.0	993.5	1011.9	1038.6	1044.8
170°	999.1	1001.1	1012.7	1032.7	1034.7
172.5°	1006.6	1007.9	1015.2	1028.4	1028.8
175°	1014.8	1014.8	1015.8	1023.1	1021.1
177.5°	1019.0	1018.2	1017.3	1022.3	1019.0
180°	1019.0	1019.0	1019.0	1019.0	1019.0



TEST NUMBER: P854408

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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	5.48	6.16	6.53	7.20	8.59	5.20	5.88	6.25	6.91	8.30
	3H	5.99	6.59	7.04	7.64	9.04	5.70	6.30	6.76	7.35	8.75
	4H	6.25	6.82	7.32	7.87	9.28	5.94	6.51	7.01	7.56	8.97
	6H	6.48	7.00	7.56	8.05	9.48	6.15	6.68	7.23	7.72	9.15
	8H	6.55	7.05	7.63	8.11	9.53	6.22	6.72	7.30	7.78	9.20
	12H	6.58	7.06	7.67	8.11	9.55	6.26	6.73	7.34	7.79	9.23
4H	2H	5.48	6.05	6.56	7.10	8.51	5.22	5.80	6.30	6.84	8.26
	3H	6.20	6.67	7.28	7.75	9.17	5.94	6.41	7.02	7.49	8.91
	4H	6.61	7.04	7.69	8.10	9.55	6.32	6.75	7.40	7.81	9.26
	6H	6.98	7.35	8.08	8.44	9.88	6.67	7.04	7.76	8.12	9.57
	8H	7.12	7.46	8.21	8.54	10.00	6.80	7.14	7.89	8.22	9.68
	12H	7.19	7.50	8.30	8.59	10.05	6.87	7.18	7.98	8.27	9.73
8H	4H	6.69	7.03	7.78	8.11	9.57	6.42	6.76	7.51	7.84	9.30
	6H	7.20	7.48	8.31	8.60	10.05	6.90	7.18	8.01	8.30	9.76
	8H	7.41	7.66	8.53	8.76	10.24	7.11	7.36	8.23	8.46	9.93
	12H	7.57	7.78	8.69	8.88	10.39	7.26	7.47	8.38	8.57	10.09
12H	4H	6.66	6.97	7.77	8.06	9.52	6.40	6.71	7.50	7.80	9.26
	6H	7.22	7.46	8.34	8.57	10.04	6.93	7.18	8.05	8.28	9.76
	8H	7.46	7.67	8.58	8.77	10.29	7.16	7.38	8.28	8.48	9.99