

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: P854407

Luminaire Tested: SQ2-WBM-150U-100D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854407
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-935-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

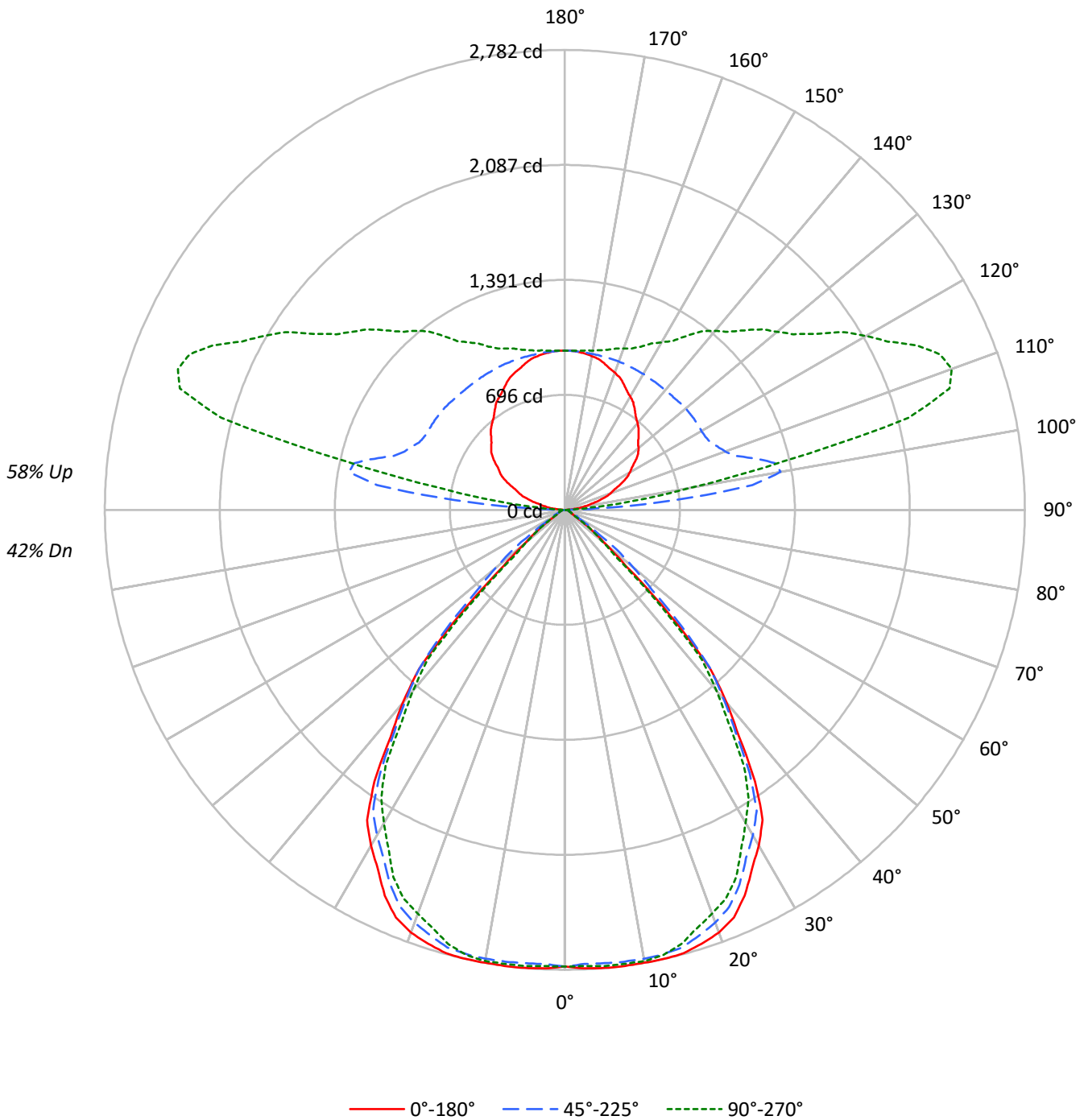
Lumens per Lamp: N/A
Luminaire Lumens: 10306.6 lumens
Efficiency: N/A
Efficacy: 108.8 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.18 / 1.17
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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: P854407

CATALOG NUMBER: SQ2-WBM-150U-100D-935-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P854407

CATALOG NUMBER: SQ2-WBM-150U-100D-935-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°	44603	44603	44603
5°	45081	44611	44903
10°	45602	45193	45439
15°	46410	45809	45458
20°	46761	45678	44665
25°	45865	44530	43675
30°	43712	42388	40766
35°	39551	38410	37207
40°	32115	31461	30070
45°	20569	22852	18493
50°	8061	13536	7257
55°	3800	6193	3800
60°	1808	3003	1647
65°	1643	1719	1528
70°	1558	1605	1463
75°	1560	1560	1435
80°	1488	1488	1395
85°	1297	1297	1297

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 23003 cd/sqm



TEST NUMBER: P854407

CATALOG NUMBER: SQ2-WBM-150U-100D-935-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	264.6	2.6
10°-20°	775.5	7.5
20°-30°	1150.9	11.2
30°-40°	1195.5	11.6
40°-50°	719.4	7.0
50°-60°	172.5	1.7
60°-70°	46.8	0.5
70°-80°	26.2	0.3
80°-90°	9.3	0.1
90°-100°	367.1	3.6
100°-110°	1201.9	11.7
110°-120°	1188.3	11.5
120°-130°	971.3	9.4
130°-140°	792.7	7.7
140°-150°	616.9	6.0
150°-160°	444.2	4.3
160°-170°	271.7	2.6
170°-180°	91.8	0.9
0°-30°	2191.0	21.3
0°-40°	3386.5	32.9
0°-60°	4278.4	41.5
0°-90°	4360.7	42.3
90°-120°	2757.3	26.8
90°-150°	5138.2	49.9
90°-180°	5946.0	57.7
0°-180°	10306.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2762	2762	2762	2762	2762	
5°	2782	2775	2752	2781	2770	265
15°	2776	2796	2740	2739	2720	783
25°	2574	2592	2500	2466	2452	1178
35°	2007	1988	1949	1909	1888	1229
45°	901	1007	1001	953	810	688
55°	135	153	220	147	135	139
65°	43	44	45	43	40	43
75°	25	26	25	24	23	26
85°	7	8	7	7	7	8
90°	1	3	8	7	8	3
95°	52	149	667	238	154	58
105°	209	298	1193	2267	2153	220
115°	376	450	969	2003	2351	372
125°	524	584	955	1580	1855	466
135°	631	698	948	1362	1536	488
145°	738	792	946	1172	1284	462
155°	841	869	952	1048	1089	387
165°	918	926	955	992	1003	259
175°	959	959	960	967	965	91
180°	963	963	963	963	963	

TEST NUMBER: P854407

CATALOG NUMBER: SQ2-WBM-150U-100D-935-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2762.5	2762.5	2762.5	2762.5	2762.5
2.5°	2776.1	2769.8	2749.7	2771.9	2762.5
5°	2781.5	2774.7	2752.5	2781.3	2770.5
7.5°	2782.3	2782.7	2756.5	2781.8	2769.9
10°	2781.5	2787.4	2756.5	2780.3	2771.5
12.5°	2782.3	2792.1	2753.3	2770.6	2757.1
15°	2776.5	2796.1	2740.5	2739.1	2719.5
17.5°	2751.1	2775.4	2700.1	2677.0	2653.9
20°	2721.5	2745.0	2658.5	2625.0	2599.5
22.5°	2670.3	2694.6	2599.3	2563.5	2545.1
25°	2574.5	2592.1	2499.6	2466.2	2451.6
27.5°	2448.6	2454.2	2373.6	2334.8	2309.8
30°	2344.6	2349.5	2273.6	2229.6	2186.6
32.5°	2225.4	2217.0	2159.2	2111.2	2066.6
35°	2006.6	1988.1	1948.7	1909.2	1887.7
37.5°	1729.3	1724.6	1695.9	1648.5	1622.7
40°	1523.7	1539.4	1492.7	1458.0	1426.7
42.5°	1303.8	1342.1	1301.6	1252.6	1226.0
45°	900.8	1007.4	1000.8	952.6	809.9
47.5°	500.9	635.0	715.7	561.4	415.3
50°	320.9	412.8	538.9	338.8	288.9
52.5°	225.0	275.4	398.1	240.1	213.0
55°	135.0	152.6	220.0	146.7	135.0
57.5°	81.6	98.6	125.0	98.4	79.8
60°	56.0	70.7	93.0	65.7	51.0
62.5°	48.8	54.1	72.2	51.5	46.2
65°	43.0	44.0	45.0	42.9	40.0
67.5°	37.0	38.9	38.0	37.1	35.0
70°	33.0	34.9	34.0	33.9	31.0
72.5°	29.8	31.7	30.8	29.9	27.8
75°	25.0	26.0	25.0	24.0	23.0
77.5°	19.2	20.2	20.0	19.2	18.2
80°	16.0	17.0	16.0	16.0	15.0
82.5°	12.8	13.0	12.8	12.0	11.8
85°	7.0	8.0	7.0	7.0	7.0
87.5°	2.6	3.0	4.0	3.8	4.0
90°	1.0	2.9	7.9	7.0	7.9
92.5°	16.8	61.4	188.5	61.3	49.1
95°	51.5	149.3	667.3	237.7	154.5
97.5°	93.5	196.9	1144.9	692.6	429.3
100°	122.8	221.5	1324.7	1183.0	784.1
102.5°	156.0	252.5	1304.9	1743.1	1351.3
105°	208.9	298.0	1193.0	2266.7	2153.4
107.5°	261.0	342.7	1083.9	2315.6	2440.1
110°	295.0	374.4	1031.7	2258.7	2490.0



TEST NUMBER: P854407

CATALOG NUMBER: SQ2-WBM-150U-100D-935-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	327.5	404.6	1000.0	2159.5	2456.0
115°	376.2	449.8	969.3	2002.9	2351.4
117.5°	423.6	492.3	957.6	1849.0	2202.9
120°	454.4	519.3	954.4	1759.3	2103.9
122.5°	482.2	545.5	954.4	1681.9	2001.7
125°	523.7	583.8	955.4	1579.5	1855.4
127.5°	559.0	620.2	954.2	1504.0	1744.1
130°	581.2	643.1	953.4	1458.4	1675.2
132.5°	601.0	664.5	951.1	1419.1	1615.8
135°	630.7	697.5	947.5	1362.3	1535.6
137.5°	662.0	728.2	945.3	1303.1	1459.8
140°	684.1	748.0	944.5	1265.7	1413.8
142.5°	706.3	766.3	944.5	1225.8	1360.0
145°	737.6	791.8	945.5	1171.8	1284.1
147.5°	770.5	815.6	946.9	1124.9	1209.7
150°	791.1	830.8	948.5	1097.6	1169.3
152.5°	811.7	846.7	949.3	1075.2	1134.4
155°	840.6	868.6	951.5	1048.4	1089.1
157.5°	866.5	886.8	953.6	1027.4	1056.8
160°	883.1	899.6	954.4	1015.4	1038.6
162.5°	897.4	910.8	954.4	1005.7	1022.7
165°	917.8	926.5	955.4	992.3	1002.9
167.5°	935.0	939.3	956.6	981.9	987.7
170°	944.5	946.5	957.4	976.3	978.2
172.5°	951.7	952.8	959.8	972.3	972.6
175°	959.4	959.4	960.4	967.3	965.3
177.5°	963.3	962.6	961.8	966.4	963.3
180°	963.3	963.3	963.3	963.3	963.3



TEST NUMBER: P854407

CATALOG NUMBER: SQ2-WBM-150U-100D-935-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	5.29	5.97	6.34	7.00	8.39	5.00	5.69	6.05	6.72	8.11
	3H	5.79	6.40	6.85	7.44	8.85	5.50	6.11	6.56	7.15	8.56
	4H	6.06	6.63	7.13	7.67	9.09	5.74	6.32	6.81	7.36	8.78
	6H	6.29	6.81	7.36	7.86	9.29	5.96	6.48	7.03	7.53	8.96
	8H	6.36	6.85	7.44	7.92	9.34	6.02	6.52	7.11	7.59	9.01
	12H	6.39	6.86	7.48	7.92	9.36	6.06	6.53	7.15	7.59	9.03
4H	2H	5.29	5.86	6.37	6.91	8.32	5.03	5.60	6.11	6.65	8.06
	3H	6.01	6.48	7.09	7.55	8.98	5.75	6.22	6.83	7.29	8.72
	4H	6.41	6.85	7.50	7.91	9.36	6.12	6.55	7.21	7.62	9.07
	6H	6.79	7.16	7.88	8.25	9.69	6.47	6.84	7.57	7.93	9.37
	8H	6.92	7.27	8.02	8.34	9.80	6.60	6.94	7.69	8.02	9.48
	12H	6.99	7.30	8.10	8.40	9.86	6.67	6.98	7.78	8.08	9.54
8H	4H	6.50	6.84	7.59	7.92	9.38	6.23	6.57	7.32	7.65	9.10
	6H	7.00	7.28	8.11	8.40	9.86	6.71	6.99	7.82	8.11	9.56
	8H	7.22	7.47	8.34	8.57	10.05	6.92	7.16	8.04	8.27	9.74
	12H	7.37	7.59	8.49	8.69	10.20	7.06	7.28	8.18	8.38	9.89
12H	4H	6.47	6.78	7.57	7.87	9.33	6.20	6.51	7.31	7.60	9.06
	6H	7.02	7.27	8.14	8.37	9.85	6.74	6.98	7.86	8.09	9.56
	8H	7.26	7.48	8.39	8.58	10.09	6.97	7.19	8.09	8.28	9.80