

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: P854400

Luminaire Tested: SQ2-WBM-150U-050D-930-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854400
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-14, G3-2104-222-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBM-150U-050D-930-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

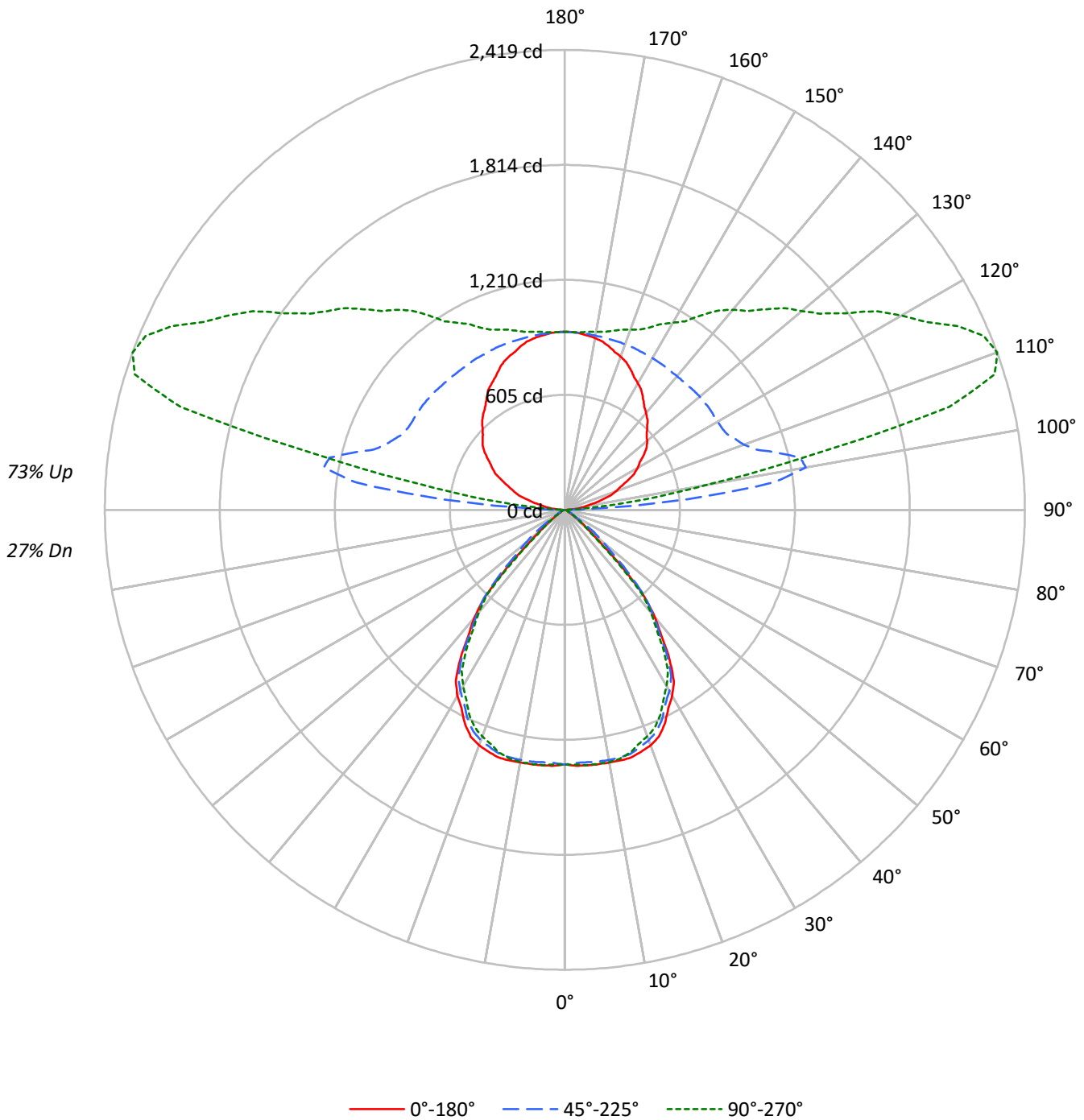
Lumens per Lamp: N/A
Luminaire Lumens: 7885.4 lumens
Efficiency: N/A
Efficacy: 105.6 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.19 / 1.17
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 74.7
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

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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	50	30	10	0	
RCR																						
0	102	102	102	102	91	91	91	91	70	70	70	52	52	52	35	35	35	27				27
1	94	90	86	83	83	80	78	75	63	61	60	47	46	45	32	32	31	24				24
2	86	79	74	70	77	71	67	63	56	53	51	42	41	39	30	29	28	22				22
3	79	71	64	59	71	64	58	54	51	47	44	38	36	34	27	26	25	20				20
4	73	63	56	51	65	57	51	47	46	42	38	35	32	30	25	24	22	18				18
5	67	57	49	44	60	51	45	41	41	37	34	32	29	27	23	21	20	16				16
6	62	51	44	39	56	46	40	36	37	33	30	29	26	24	21	20	18	15				15
7	57	46	39	34	52	42	36	32	34	30	26	27	24	21	20	18	17	14				14
8	53	42	35	30	48	38	32	28	31	27	24	25	22	19	18	16	15	13				13
9	50	39	32	27	45	35	29	25	29	24	21	23	20	18	17	15	14	12				12
10	46	35	29	24	42	32	27	23	27	22	19	21	18	16	16	14	13	11				11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	21632	21632	21632
5°	21870	21590	21840
10°	22123	21887	22076
15°	22539	22218	22121
20°	22656	22161	21780
25°	22137	21590	21178
30°	21052	20495	19939
35°	18920	18559	17895
40°	15548	15224	14779
45°	9839	11047	8873
50°	3818	6498	3504
55°	1841	2950	1869
60°	869	1460	807
65°	772	844	734
70°	774	774	727
75°	717	780	661
80°	716	716	623
85°	704	704	537

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 11047 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.3	1.6
10°-20°	376.4	4.8
20°-30°	557.4	7.1
30°-40°	577.4	7.3
40°-50°	347.0	4.4
50°-60°	83.0	1.1
60°-70°	22.6	0.3
70°-80°	12.6	0.2
80°-90°	5.1	0.1
90°-100°	356.5	4.5
100°-110°	1167.5	14.8
110°-120°	1154.2	14.6
120°-130°	943.5	12.0
130°-140°	770.0	9.8
140°-150°	599.2	7.6
150°-160°	431.5	5.5
160°-170°	264.0	3.3
170°-180°	89.2	1.1
0°-30°	1062.1	13.5
0°-40°	1639.5	20.8
0°-60°	2069.5	26.2
0°-90°	2109.7	26.8
90°-120°	2678.3	34.0
90°-150°	4991.1	63.3
90°-180°	5776.0	73.2
0°-180°	7885.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1340	1340	1340	1340	1340	
5°	1349	1345	1332	1349	1348	129
15°	1348	1357	1329	1330	1323	380
25°	1243	1254	1212	1196	1189	568
35°	960	958	942	924	908	590
45°	431	484	484	458	389	329
55°	65	75	105	70	66	67
65°	20	21	22	20	19	21
75°	12	12	12	12	11	13
85°	4	4	4	4	3	4
90°	1	3	8	7	8	3
95°	50	145	648	231	150	57
105°	203	289	1159	2202	2092	214
115°	366	437	942	1946	2284	361
125°	509	567	928	1534	1802	453
135°	613	678	920	1323	1492	474
145°	716	769	918	1138	1247	449
155°	816	844	924	1018	1058	376
165°	892	900	928	964	974	251
175°	932	932	933	940	938	88
180°	936	936	936	936	936	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1339.8	1339.8	1339.8	1339.8	1339.8
2.5°	1347.5	1343.0	1332.1	1344.3	1341.3
5°	1349.4	1344.7	1332.1	1349.4	1347.5
7.5°	1349.4	1346.4	1335.7	1350.1	1347.3
10°	1349.4	1349.4	1335.0	1349.3	1346.5
12.5°	1350.2	1353.9	1334.2	1344.7	1340.4
15°	1348.4	1356.9	1329.2	1330.0	1323.4
17.5°	1334.0	1347.2	1309.0	1301.3	1292.3
20°	1318.6	1331.8	1289.8	1275.2	1267.6
22.5°	1291.7	1305.6	1260.5	1246.7	1238.4
25°	1242.6	1253.9	1211.9	1196.3	1188.8
27.5°	1177.6	1182.7	1146.3	1131.7	1123.4
30°	1129.2	1128.2	1099.3	1080.8	1069.5
32.5°	1066.8	1068.1	1041.6	1023.8	1008.7
35°	959.9	958.0	941.6	923.9	907.9
37.5°	832.3	833.7	816.2	797.4	791.2
40°	737.7	740.5	722.3	702.1	701.2
42.5°	622.3	643.2	630.0	608.9	605.0
45°	430.9	483.5	483.8	458.2	388.6
47.5°	239.7	305.5	344.9	272.0	203.3
50°	152.0	195.2	258.7	163.0	139.5
52.5°	108.1	129.5	191.8	116.2	101.8
55°	65.4	74.8	104.8	70.1	66.4
57.5°	40.0	48.3	61.4	47.5	39.6
60°	26.9	34.5	45.2	30.6	25.0
62.5°	23.9	26.1	35.2	24.6	22.7
65°	20.2	21.1	22.1	20.2	19.2
67.5°	17.9	18.8	18.7	17.9	16.9
70°	16.4	17.3	16.4	16.3	15.4
72.5°	14.8	15.0	14.8	14.0	13.8
75°	11.5	12.5	12.5	11.5	10.6
77.5°	9.2	10.0	9.2	9.2	8.3
80°	7.7	7.7	7.7	7.7	6.7
82.5°	6.2	6.2	6.2	6.1	5.2
85°	3.8	3.8	3.8	3.8	2.9
87.5°	1.7	2.1	3.1	2.1	2.3
90°	1.0	2.8	7.7	6.8	7.7
92.5°	16.3	59.6	183.1	59.6	47.7
95°	50.0	145.0	648.2	230.9	150.0
97.5°	90.8	191.2	1112.1	672.8	417.0
100°	119.3	215.2	1286.8	1149.1	761.7
102.5°	151.6	245.2	1267.6	1693.2	1312.6
105°	202.9	289.4	1158.9	2201.8	2091.8
107.5°	253.5	332.9	1052.9	2249.3	2370.3
110°	286.6	363.7	1002.1	2194.0	2418.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	318.1	393.0	971.3	2097.7	2385.7
115°	365.5	436.9	941.5	1945.6	2284.1
117.5°	411.4	478.2	930.2	1796.0	2139.8
120°	441.4	504.4	927.1	1708.9	2043.7
122.5°	468.4	529.9	927.1	1633.7	1944.4
125°	508.8	567.1	928.1	1534.3	1802.3
127.5°	543.0	602.4	926.9	1461.0	1694.2
130°	564.5	624.7	926.1	1416.6	1627.2
132.5°	583.8	645.5	923.8	1378.5	1569.5
135°	612.6	677.5	920.4	1323.3	1491.6
137.5°	643.0	707.3	918.3	1265.8	1418.0
140°	664.6	726.6	917.5	1229.5	1373.3
142.5°	686.1	744.4	917.5	1190.7	1321.0
145°	716.5	769.1	918.4	1138.3	1247.4
147.5°	748.4	792.2	919.8	1092.7	1175.0
150°	768.4	807.0	921.3	1066.2	1135.8
152.5°	788.4	822.5	922.1	1044.4	1101.9
155°	816.5	843.8	924.2	1018.4	1057.9
157.5°	841.7	861.5	926.3	998.0	1026.5
160°	857.9	873.8	927.1	986.3	1008.9
162.5°	871.7	884.7	927.1	976.9	993.5
165°	891.5	900.0	928.1	963.9	974.2
167.5°	908.3	912.4	929.2	953.8	959.4
170°	917.5	919.4	930.0	948.3	950.2
172.5°	924.4	925.5	932.3	944.4	944.8
175°	931.9	931.9	932.9	939.6	937.7
177.5°	935.8	935.0	934.2	938.8	935.8
180°	935.8	935.8	935.8	935.8	935.8



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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	0.83	1.45	1.99	2.58	4.16	0.42	1.04	1.58	2.17	3.75
	3H	1.34	1.89	2.50	3.02	4.62	0.93	1.48	2.09	2.62	4.21
	4H	1.58	2.10	2.75	3.24	4.84	1.16	1.68	2.33	2.82	4.42
	6H	1.78	2.27	2.96	3.40	5.01	1.35	1.83	2.52	2.97	4.57
	8H	1.86	2.31	3.03	3.46	5.06	1.40	1.86	2.58	3.01	4.61
	12H	1.90	2.33	3.08	3.48	5.10	1.42	1.85	2.60	3.00	4.62
4H	2H	0.83	1.35	2.01	2.49	4.09	0.46	0.98	1.63	2.12	3.71
	3H	1.55	1.98	2.73	3.15	4.75	1.18	1.62	2.36	2.78	4.39
	4H	1.93	2.33	3.11	3.48	5.11	1.55	1.95	2.73	3.10	4.72
	6H	2.28	2.62	3.46	3.79	5.41	1.87	2.21	3.06	3.39	5.00
	8H	2.41	2.72	3.59	3.89	5.52	1.99	2.30	3.17	3.47	5.10
	12H	2.49	2.78	3.69	3.95	5.59	2.04	2.33	3.24	3.51	5.14
8H	4H	2.02	2.33	3.20	3.50	5.13	1.66	1.98	2.85	3.14	4.78
	6H	2.48	2.74	3.68	3.95	5.58	2.12	2.38	3.32	3.59	5.22
	8H	2.69	2.92	3.90	4.11	5.76	2.32	2.55	3.53	3.73	5.38
	12H	2.86	3.06	4.07	4.24	5.92	2.46	2.66	3.67	3.84	5.53
12H	4H	1.98	2.27	3.18	3.45	5.08	1.63	1.92	2.83	3.10	4.73
	6H	2.50	2.73	3.71	3.91	5.56	2.15	2.38	3.36	3.57	5.21
	8H	2.74	2.94	3.95	4.12	5.80	2.38	2.58	3.59	3.76	5.44