

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: P854401

Luminaire Tested: SQ2-WBM-150U-050D-935-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854401
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-935-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1500 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

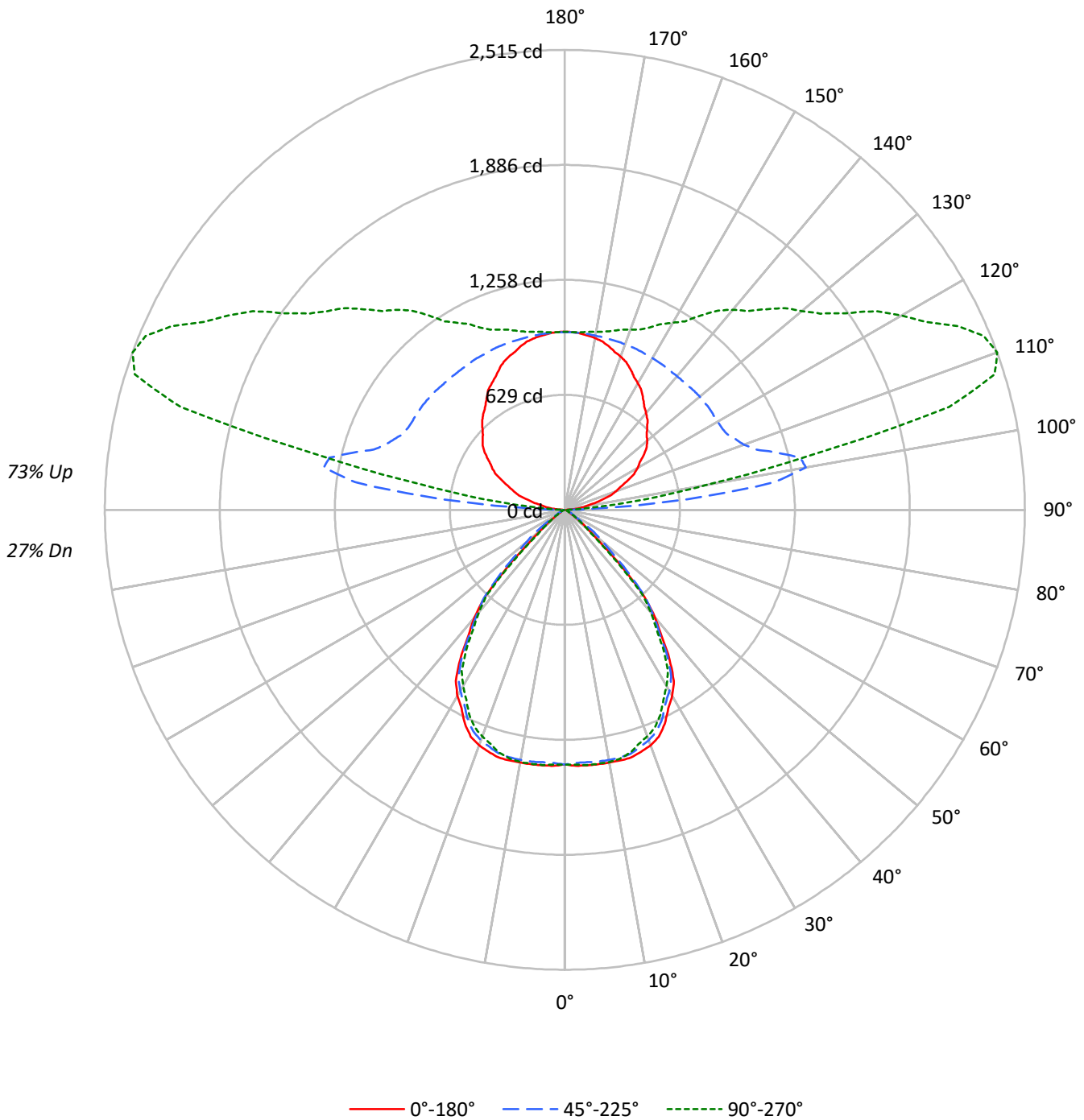
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8198.6 lumens
Efficiency: N/A
Efficacy: 109.8 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	0
RCR																		
0	102	102	102	102	91	91	91	91	70	70	70	52	52	52	35	35	35	27
1	94	90	86	83	83	80	78	75	63	61	60	47	46	45	32	32	31	24
2	86	79	74	70	77	71	67	63	56	53	51	42	41	39	30	29	28	22
3	79	71	64	59	71	64	58	54	51	47	44	38	36	34	27	26	25	20
4	73	63	56	51	65	57	51	47	46	42	38	35	32	30	25	24	22	18
5	67	57	49	44	60	51	45	41	41	37	34	32	29	27	23	21	20	16
6	62	51	44	39	56	46	40	36	37	33	30	29	26	24	21	20	18	15
7	57	46	39	34	52	42	36	32	34	30	26	27	24	21	20	18	17	14
8	53	42	35	30	48	38	32	28	31	27	24	25	22	19	18	16	15	13
9	50	39	32	27	45	35	29	25	29	24	21	23	20	18	17	15	14	12
10	46	35	29	24	42	32	27	23	27	22	19	21	18	16	16	14	13	11

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	22491	22491	22491
5°	22739	22447	22707
10°	23002	22756	22953
15°	23435	23101	23000
20°	23557	23041	22646
25°	23017	22447	22019
30°	21888	21310	20732
35°	19671	19297	18607
40°	16166	15829	15365
45°	10229	11485	9225
50°	3969	6757	3642
55°	1914	3068	1942
60°	904	1518	840
65°	802	879	764
70°	803	803	755
75°	749	811	686
80°	744	744	651
85°	741	741	556

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 11485 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.4	1.6
10°-20°	391.4	4.8
20°-30°	579.5	7.1
30°-40°	600.3	7.3
40°-50°	360.8	4.4
50°-60°	86.3	1.1
60°-70°	23.5	0.3
70°-80°	13.1	0.2
80°-90°	5.3	0.1
90°-100°	370.7	4.5
100°-110°	1213.9	14.8
110°-120°	1200.1	14.6
120°-130°	981.0	12.0
130°-140°	800.6	9.8
140°-150°	623.0	7.6
150°-160°	448.6	5.5
160°-170°	274.4	3.3
170°-180°	92.7	1.1
0°-30°	1104.3	13.5
0°-40°	1704.6	20.8
0°-60°	2151.7	26.2
0°-90°	2193.5	26.8
90°-120°	2784.7	34.0
90°-150°	5189.3	63.3
90°-180°	6005.0	73.2
0°-180°	8198.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1393	1393	1393	1393	1393	
5°	1403	1398	1385	1403	1401	134
15°	1402	1411	1382	1383	1376	395
25°	1292	1304	1260	1244	1236	591
35°	998	996	979	961	944	614
45°	448	503	503	476	404	343
55°	68	78	109	73	69	69
65°	21	22	23	21	20	21
75°	12	13	13	12	11	13
85°	4	4	4	4	3	4
90°	1	3	8	7	8	3
95°	52	151	674	240	156	59
105°	211	301	1205	2289	2175	222
115°	380	454	979	2023	2375	375
125°	529	590	965	1595	1874	471
135°	637	704	957	1376	1551	493
145°	745	800	955	1184	1297	467
155°	849	877	961	1059	1100	391
165°	927	936	965	1002	1013	261
175°	969	969	970	977	975	92
180°	973	973	973	973	973	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1393.0	1393.0	1393.0	1393.0	1393.0
2.5°	1401.0	1396.3	1385.0	1397.7	1394.6
5°	1403.0	1398.1	1385.0	1403.0	1401.0
7.5°	1403.0	1399.9	1388.8	1403.7	1400.8
10°	1403.0	1403.0	1388.0	1402.9	1400.0
12.5°	1403.8	1407.7	1387.2	1398.1	1393.6
15°	1402.0	1410.8	1382.0	1382.8	1376.0
17.5°	1387.0	1400.7	1361.0	1353.0	1343.6
20°	1371.0	1384.7	1341.0	1325.8	1318.0
22.5°	1343.0	1357.5	1310.6	1296.2	1287.6
25°	1292.0	1303.7	1260.0	1243.8	1236.0
27.5°	1224.4	1229.7	1191.8	1176.6	1168.0
30°	1174.0	1173.0	1143.0	1123.7	1112.0
32.5°	1109.2	1110.6	1083.0	1064.4	1048.8
35°	998.0	996.0	979.0	960.6	944.0
37.5°	865.4	866.8	848.6	829.1	822.6
40°	767.0	769.9	751.0	730.0	729.0
42.5°	647.0	668.7	655.0	633.1	629.0
45°	448.0	502.8	503.0	476.4	404.0
47.5°	249.2	317.6	358.6	282.8	211.4
50°	158.0	203.0	269.0	169.4	145.0
52.5°	112.4	134.7	199.4	120.9	105.8
55°	68.0	77.8	109.0	72.9	69.0
57.5°	41.6	50.2	63.8	49.4	41.2
60°	28.0	35.8	47.0	31.9	26.0
62.5°	24.8	27.1	36.6	25.6	23.6
65°	21.0	22.0	23.0	21.0	20.0
67.5°	18.6	19.6	19.4	18.6	17.6
70°	17.0	18.0	17.0	17.0	16.0
72.5°	15.4	15.6	15.4	14.6	14.4
75°	12.0	13.0	13.0	12.0	11.0
77.5°	9.6	10.4	9.6	9.6	8.6
80°	8.0	8.0	8.0	8.0	7.0
82.5°	6.4	6.4	6.4	6.4	5.4
85°	4.0	4.0	4.0	4.0	3.0
87.5°	1.8	2.2	3.2	2.2	2.4
90°	1.0	3.0	8.0	7.0	8.0
92.5°	17.0	62.0	190.4	61.9	49.6
95°	52.0	150.7	674.0	240.1	156.0
97.5°	94.4	198.8	1156.3	699.5	433.6
100°	124.0	223.7	1337.9	1194.8	791.9
102.5°	157.6	255.0	1317.9	1760.5	1364.7
105°	211.0	300.9	1204.9	2289.2	2174.8
107.5°	263.6	346.1	1094.7	2338.7	2464.4
110°	298.0	378.2	1041.9	2281.1	2514.8



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	330.8	408.6	1009.9	2181.0	2480.4
115°	380.0	454.3	978.9	2022.9	2374.8
117.5°	427.8	497.2	967.1	1867.4	2224.8
120°	459.0	524.5	963.9	1776.8	2124.8
122.5°	487.0	550.9	963.9	1698.6	2021.7
125°	529.0	589.6	964.9	1595.2	1873.9
127.5°	564.6	626.3	963.7	1519.0	1761.5
130°	587.0	649.5	962.9	1472.9	1691.9
132.5°	607.0	671.1	960.5	1433.2	1631.9
135°	637.0	704.4	956.9	1375.9	1550.9
137.5°	668.6	735.4	954.7	1316.1	1474.3
140°	690.9	755.5	953.9	1278.3	1427.9
142.5°	713.3	774.0	953.9	1238.0	1373.5
145°	744.9	799.7	954.9	1183.5	1296.9
147.5°	778.1	823.7	956.3	1136.1	1221.7
150°	798.9	839.0	957.9	1108.6	1180.9
152.5°	819.7	855.1	958.7	1085.9	1145.7
155°	848.9	877.3	960.9	1058.9	1099.9
157.5°	875.1	895.7	963.1	1037.6	1067.3
160°	891.9	908.6	963.9	1025.5	1048.9
162.5°	906.3	919.8	963.9	1015.7	1032.9
165°	926.9	935.7	964.9	1002.2	1012.9
167.5°	944.3	948.6	966.1	991.7	997.5
170°	953.9	955.9	966.9	986.0	987.9
172.5°	961.1	962.3	969.3	981.9	982.3
175°	968.9	968.9	969.9	976.9	974.9
177.5°	972.9	972.1	971.3	976.1	972.9
180°	972.9	972.9	972.9	972.9	972.9



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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	0.97	1.59	2.12	2.71	4.29	0.56	1.18	1.72	2.31	3.89
	3H	1.47	2.02	2.63	3.16	4.75	1.07	1.62	2.23	2.76	4.35
	4H	1.71	2.24	2.88	3.37	4.97	1.30	1.82	2.47	2.96	4.56
	6H	1.92	2.40	3.10	3.54	5.15	1.49	1.97	2.66	3.11	4.71
	8H	1.99	2.45	3.17	3.60	5.20	1.54	2.00	2.72	3.15	4.75
	12H	2.04	2.47	3.22	3.62	5.24	1.56	1.99	2.74	3.14	4.76
4H	2H	0.96	1.49	2.14	2.62	4.22	0.60	1.12	1.77	2.26	3.85
	3H	1.68	2.12	2.86	3.28	4.89	1.32	1.76	2.50	2.92	4.53
	4H	2.07	2.47	3.25	3.62	5.25	1.69	2.09	2.87	3.24	4.87
	6H	2.41	2.75	3.60	3.92	5.54	2.02	2.35	3.20	3.53	5.15
	8H	2.54	2.86	3.73	4.02	5.66	2.13	2.45	3.31	3.61	5.24
	12H	2.63	2.92	3.83	4.09	5.73	2.19	2.47	3.38	3.65	5.28
8H	4H	2.15	2.47	3.34	3.63	5.27	1.80	2.12	2.99	3.28	4.92
	6H	2.62	2.88	3.82	4.08	5.71	2.26	2.52	3.46	3.73	5.36
	8H	2.83	3.06	4.04	4.24	5.89	2.47	2.69	3.67	3.88	5.53
	12H	3.00	3.20	4.21	4.38	6.06	2.61	2.81	3.81	3.99	5.67
12H	4H	2.12	2.41	3.32	3.58	5.22	1.77	2.06	2.97	3.24	4.87
	6H	2.64	2.87	3.85	4.05	5.70	2.30	2.52	3.50	3.71	5.36
	8H	2.88	3.08	4.08	4.26	5.94	2.52	2.72	3.73	3.90	5.59