

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: P854402

Luminaire Tested: SQ2-WBM-150U-050D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854402
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-940-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

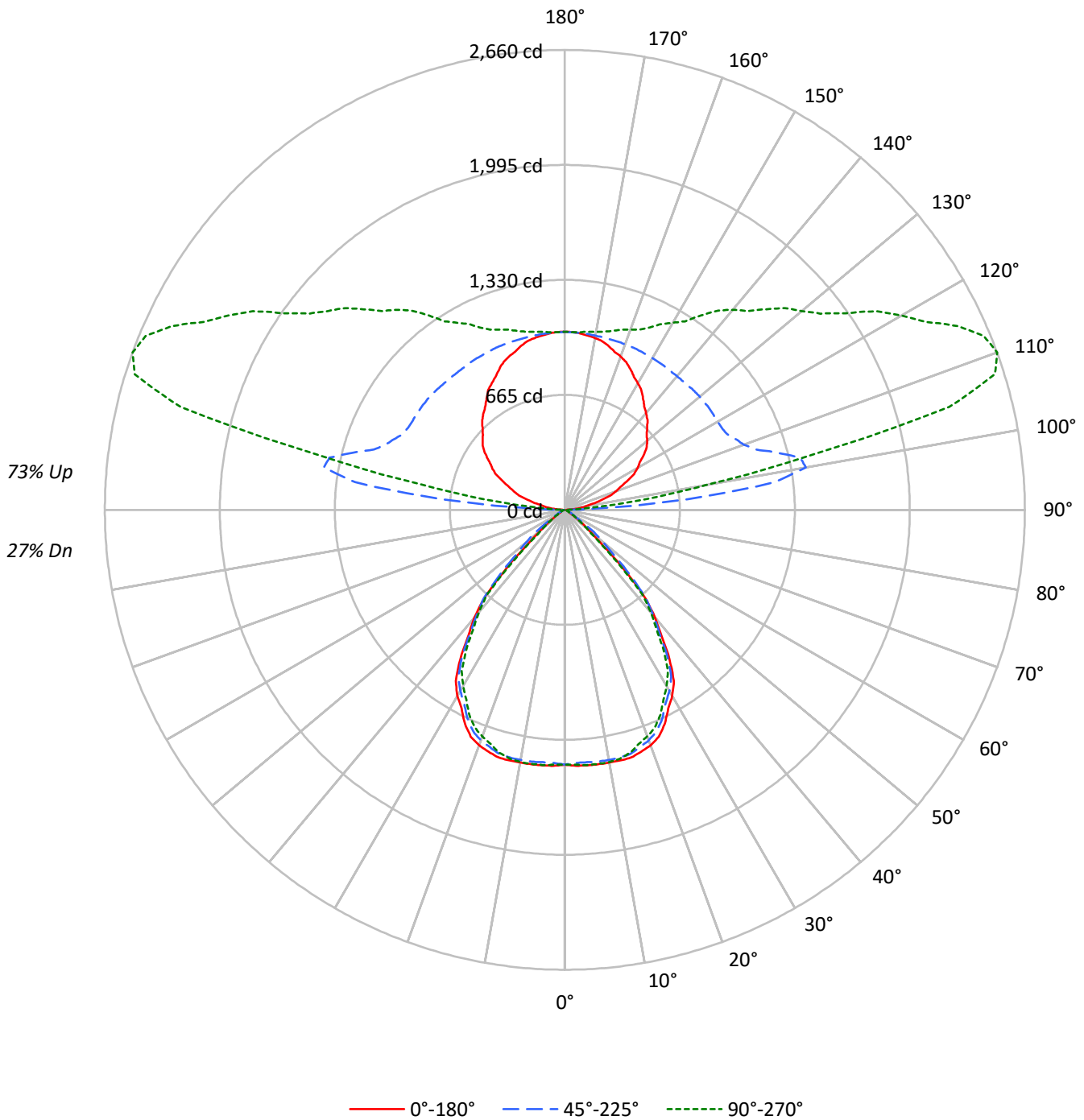
Lumens per Lamp: N/A
Luminaire Lumens: 8672.2 lumens
Efficiency: N/A
Efficacy: 116.1 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.19 / 1.17
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

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°	23791	23791	23791
5°	24052	23744	24018
10°	24330	24071	24279
15°	24789	24435	24329
20°	24917	24373	23953
25°	24346	23744	23291
30°	23152	22540	21929
35°	20808	20412	19681
40°	17100	16743	16252
45°	10821	12150	9757
50°	4197	7146	3853
55°	2024	3246	2055
60°	956	1605	888
65°	848	928	810
70°	850	850	798
75°	792	861	724
80°	790	790	688
85°	778	778	593

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 12150 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.1	1.6
10°-20°	414.0	4.8
20°-30°	613.0	7.1
30°-40°	635.0	7.3
40°-50°	381.7	4.4
50°-60°	91.2	1.1
60°-70°	24.9	0.3
70°-80°	13.9	0.2
80°-90°	5.6	0.1
90°-100°	392.1	4.5
100°-110°	1284.0	14.8
110°-120°	1269.4	14.6
120°-130°	1037.7	12.0
130°-140°	846.8	9.8
140°-150°	659.0	7.6
150°-160°	474.5	5.5
160°-170°	290.3	3.3
170°-180°	98.1	1.1
0°-30°	1168.1	13.5
0°-40°	1803.0	20.8
0°-60°	2275.9	26.2
0°-90°	2320.2	26.8
90°-120°	2945.6	34.0
90°-150°	5489.1	63.3
90°-180°	6352.0	73.2
0°-180°	8672.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1474	1474	1474	1474	1474	
5°	1484	1479	1465	1484	1482	142
15°	1483	1492	1462	1463	1456	418
25°	1367	1379	1333	1316	1307	625
35°	1056	1054	1036	1016	998	649
45°	474	532	532	504	427	362
55°	72	82	115	77	73	73
65°	22	23	24	22	21	23
75°	13	14	14	13	12	14
85°	4	4	4	4	3	4
90°	1	3	8	7	8	3
95°	55	160	713	254	165	62
105°	223	318	1274	2422	2300	235
115°	402	480	1036	2140	2512	397
125°	560	624	1021	1687	1982	498
135°	674	745	1012	1455	1640	521
145°	788	846	1010	1252	1372	494
155°	898	928	1016	1120	1164	413
165°	980	990	1021	1060	1071	276
175°	1025	1025	1026	1033	1031	97
180°	1029	1029	1029	1029	1029	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1473.5	1473.5	1473.5	1473.5	1473.5
2.5°	1481.9	1477.0	1465.0	1478.5	1475.2
5°	1484.0	1478.9	1465.0	1484.0	1481.9
7.5°	1484.0	1480.7	1469.0	1484.8	1481.7
10°	1484.0	1484.0	1468.2	1484.0	1480.9
12.5°	1484.9	1489.0	1467.3	1478.9	1474.1
15°	1483.0	1492.3	1461.8	1462.7	1455.5
17.5°	1467.1	1481.6	1439.6	1431.1	1421.2
20°	1450.2	1464.7	1418.5	1402.4	1394.1
22.5°	1420.6	1435.9	1386.3	1371.1	1362.0
25°	1366.6	1379.0	1332.8	1315.7	1307.4
27.5°	1295.1	1300.7	1260.6	1244.6	1235.5
30°	1241.8	1240.8	1209.0	1188.6	1176.2
32.5°	1173.3	1174.7	1145.6	1125.9	1109.4
35°	1055.7	1053.6	1035.6	1016.1	998.5
37.5°	915.4	916.8	897.6	876.9	870.1
40°	811.3	814.4	794.4	772.1	771.1
42.5°	684.4	707.3	692.8	669.7	665.3
45°	473.9	531.8	532.1	503.9	427.3
47.5°	263.6	336.0	379.3	299.1	223.6
50°	167.1	214.7	284.5	179.2	153.4
52.5°	118.9	142.5	210.9	127.8	111.9
55°	71.9	82.3	115.3	77.1	73.0
57.5°	44.0	53.1	67.5	52.3	43.6
60°	29.6	37.9	49.7	33.7	27.5
62.5°	26.2	28.7	38.7	27.0	25.0
65°	22.2	23.2	24.3	22.2	21.2
67.5°	19.7	20.7	20.5	19.7	18.6
70°	18.0	19.0	18.0	18.0	16.9
72.5°	16.3	16.5	16.3	15.4	15.2
75°	12.7	13.7	13.8	12.7	11.6
77.5°	10.2	11.0	10.2	10.1	9.1
80°	8.5	8.5	8.5	8.4	7.4
82.5°	6.8	6.8	6.8	6.7	5.7
85°	4.2	4.2	4.2	4.2	3.2
87.5°	1.9	2.3	3.4	2.3	2.5
90°	1.1	3.1	8.5	7.4	8.5
92.5°	18.0	65.6	201.4	65.5	52.5
95°	55.0	159.5	712.9	253.9	165.0
97.5°	99.8	210.3	1223.1	739.9	458.6
100°	131.2	236.6	1415.2	1263.8	837.7
102.5°	166.7	269.7	1394.0	1862.2	1443.5
105°	223.2	318.3	1274.5	2421.5	2300.5
107.5°	278.8	366.1	1158.0	2473.8	2606.8
110°	315.2	400.0	1102.1	2412.9	2660.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	349.9	432.2	1068.3	2307.0	2623.7
115°	401.9	480.5	1035.5	2139.7	2512.0
117.5°	452.5	525.9	1023.0	1975.3	2353.4
120°	485.5	554.8	1019.6	1879.4	2247.6
122.5°	515.1	582.7	1019.6	1796.7	2138.4
125°	559.5	623.6	1020.7	1687.4	1982.1
127.5°	597.2	662.5	1019.4	1606.7	1863.2
130°	620.9	687.1	1018.6	1558.0	1789.6
132.5°	642.0	709.9	1016.0	1516.0	1726.1
135°	673.7	745.1	1012.2	1455.4	1640.5
137.5°	707.2	777.9	1009.9	1392.1	1559.5
140°	730.9	799.1	1009.0	1352.2	1510.4
142.5°	754.6	818.7	1009.0	1309.5	1452.8
145°	788.0	845.9	1010.1	1251.9	1371.8
147.5°	823.1	871.3	1011.6	1201.7	1292.3
150°	845.1	887.5	1013.3	1172.6	1249.1
152.5°	867.1	904.5	1014.1	1148.6	1211.9
155°	898.0	928.0	1016.4	1120.0	1163.5
157.5°	925.7	947.4	1018.8	1097.5	1129.0
160°	943.5	961.0	1019.6	1084.7	1109.5
162.5°	958.7	973.0	1019.6	1074.4	1092.6
165°	980.5	989.8	1020.7	1060.1	1071.4
167.5°	998.9	1003.4	1021.9	1048.9	1055.2
170°	1009.0	1011.1	1022.8	1042.9	1045.0
172.5°	1016.7	1017.9	1025.3	1038.7	1039.1
175°	1024.9	1024.9	1026.0	1033.3	1031.2
177.5°	1029.1	1028.3	1027.4	1032.4	1029.1
180°	1029.1	1029.1	1029.1	1029.1	1029.1



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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	1.16	1.78	2.32	2.91	4.49	0.76	1.38	1.91	2.50	4.08
	3H	1.66	2.22	2.83	3.35	4.94	1.27	1.82	2.43	2.95	4.55
	4H	1.91	2.43	3.08	3.57	5.16	1.49	2.02	2.66	3.15	4.75
	6H	2.12	2.60	3.29	3.74	5.34	1.68	2.16	2.85	3.30	4.91
	8H	2.19	2.64	3.37	3.80	5.40	1.73	2.19	2.91	3.34	4.94
	12H	2.23	2.66	3.41	3.81	5.43	1.75	2.19	2.93	3.33	4.95
4H	2H	1.16	1.68	2.34	2.82	4.42	0.79	1.31	1.97	2.45	4.05
	3H	1.88	2.31	3.06	3.47	5.08	1.52	1.95	2.70	3.11	4.72
	4H	2.26	2.66	3.44	3.81	5.44	1.88	2.28	3.06	3.43	5.06
	6H	2.61	2.95	3.79	4.12	5.74	2.21	2.55	3.39	3.72	5.34
	8H	2.74	3.05	3.92	4.22	5.85	2.32	2.64	3.50	3.80	5.43
	12H	2.82	3.11	4.02	4.29	5.92	2.38	2.66	3.57	3.84	5.48
8H	4H	2.35	2.66	3.53	3.83	5.46	2.00	2.31	3.18	3.48	5.11
	6H	2.81	3.07	4.01	4.28	5.91	2.45	2.71	3.66	3.92	5.55
	8H	3.03	3.26	4.24	4.44	6.09	2.66	2.88	3.86	4.07	5.72
	12H	3.20	3.40	4.41	4.58	6.26	2.80	3.00	4.01	4.18	5.86
12H	4H	2.31	2.60	3.51	3.78	5.41	1.97	2.26	3.17	3.43	5.07
	6H	2.84	3.06	4.04	4.25	5.90	2.49	2.71	3.69	3.90	5.55
	8H	3.07	3.27	4.28	4.45	6.14	2.71	2.91	3.92	4.09	5.78