

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: P854390

Luminaire Tested: SQ2-WBM-125U-050D-940-UNV-STD-W-4

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P854390
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G3-2104-222-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-WBM-125U-050D-940-UNV-STD-W-4
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1250 LUMENS PER FOOT
Light Source: -
Ballast/Driver: -

Summary

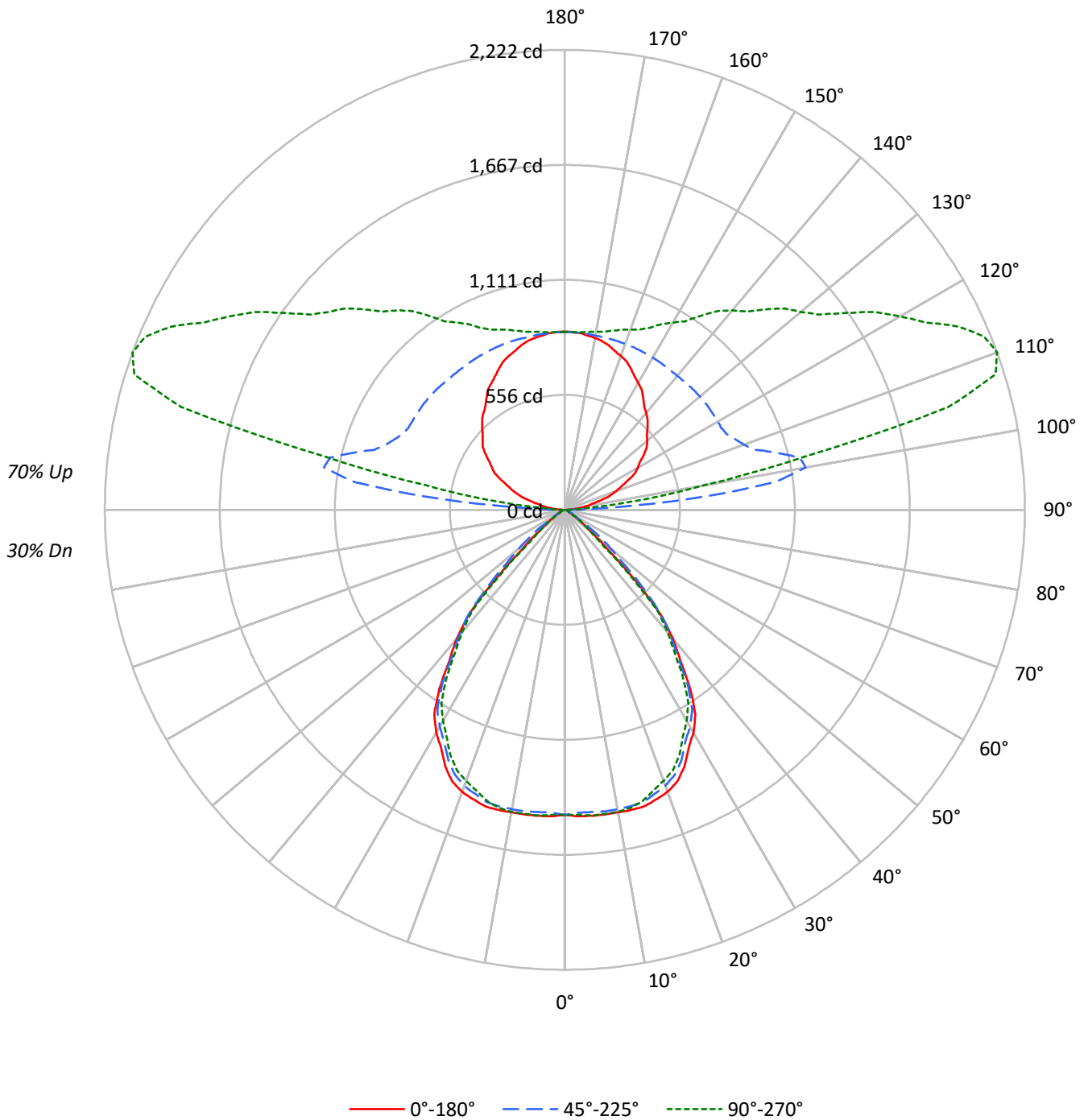
Lumens per Lamp: N/A
Luminaire Lumens: 7625.2 lumens
Efficiency: N/A
Efficacy: 123.0 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.19 / 1.17
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Semi-Indirect

Input Watts (W): 62
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	92	92	92	92	72	72	72	55	55	55	38	38	38	30
1	94	91	87	84	85	82	79	76	65	63	61	50	48	47	35	35	34	28
2	87	81	75	71	78	73	68	65	58	55	53	45	43	41	33	32	31	25
3	80	72	65	60	72	65	60	55	52	49	46	41	38	36	30	29	27	23
4	74	64	57	52	66	58	52	48	47	43	40	37	34	32	28	26	25	21
5	68	58	51	45	61	53	46	42	43	39	35	34	31	29	25	24	22	19
6	63	52	45	40	57	48	41	37	39	35	31	31	28	26	23	22	20	17
7	58	47	40	35	53	43	37	33	36	31	28	28	25	23	22	20	18	16
8	54	43	36	31	49	40	33	29	33	28	25	26	23	21	20	18	17	14
9	51	39	33	28	46	36	30	26	30	26	23	24	21	19	19	17	15	13
10	47	36	30	25	43	33	28	24	28	23	20	22	19	17	18	16	14	12

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	1.9
10°-20°	414.0	5.4
20°-30°	613.0	8.0
30°-40°	635.0	8.3
40°-50°	381.7	5.0
50°-60°	91.2	1.2
60°-70°	24.9	0.3
70°-80°	13.9	0.2
80°-90°	5.4	0.1
90°-100°	328.9	4.3
100°-110°	1070.9	14.0
110°-120°	1059.3	13.9
120°-130°	865.7	11.4
130°-140°	707.5	9.3
140°-150°	551.1	7.2
150°-160°	397.2	5.2
160°-170°	242.8	3.2
170°-180°	81.9	1.1
0°-30°	1168.1	15.3
0°-40°	1803.0	23.6
0°-60°	2275.9	29.8
0°-90°	2320.0	30.4
90°-120°	2459.0	32.2
90°-150°	4583.3	60.1
90°-180°	5305.0	69.6
0°-180°	7625.2	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°	0	3	7	6	6	2
95°	44	135	603	215	132	52
105°	182	263	1061	2026	1919	194
115°	336	402	864	1781	2095	333
125°	468	521	852	1406	1657	416
135°	565	624	848	1214	1369	436
145°	660	709	846	1045	1144	413
155°	753	778	851	936	971	347
165°	822	829	854	886	896	231
175°	857	857	857	863	861	81
180°	860	860	860	860	860	



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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°	1.7	2.3	3.2	2.1	2.1
90°	0.0	3.1	7.4	6.3	6.3
92.5°	15.2	54.7	174.9	57.7	44.4
95°	44.4	135.4	602.9	214.9	132.2
97.5°	83.6	176.2	1023.2	623.1	380.3
100°	108.9	199.9	1181.4	1053.5	683.2
102.5°	137.7	225.4	1161.9	1558.5	1185.0
105°	181.9	262.6	1060.8	2026.1	1918.6
107.5°	229.7	305.6	964.8	2066.7	2180.7
110°	264.4	333.7	919.1	2016.3	2222.1



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	293.2	361.6	890.3	1925.4	2190.8
115°	336.3	401.5	864.1	1780.8	2095.2
117.5°	380.8	439.5	853.9	1648.4	1961.3
120°	406.1	464.0	851.4	1566.9	1869.9
122.5°	430.7	487.8	852.3	1496.2	1778.5
125°	467.5	521.3	852.5	1406.0	1657.3
127.5°	499.0	554.0	852.3	1338.5	1548.0
130°	519.3	575.1	851.4	1299.9	1487.1
132.5°	537.1	595.4	850.6	1264.1	1439.7
135°	564.8	623.7	848.2	1213.5	1368.6
137.5°	591.9	651.2	845.9	1162.1	1299.8
140°	611.3	668.2	845.1	1127.2	1257.5
142.5°	629.9	684.3	845.1	1093.9	1210.2
145°	660.0	708.6	846.1	1045.1	1144.4
147.5°	689.2	731.4	847.6	1003.5	1080.3
150°	708.6	745.9	849.3	978.7	1043.9
152.5°	728.1	758.7	850.1	959.8	1011.7
155°	753.0	777.9	851.4	935.8	970.9
157.5°	776.7	794.5	852.7	918.0	942.6
160°	791.1	805.6	853.5	906.8	926.5
162.5°	803.8	815.0	853.5	897.4	912.1
165°	821.8	829.0	853.5	885.5	895.8
167.5°	834.5	839.0	853.7	876.5	881.9
170°	842.9	845.0	854.6	870.5	872.6
172.5°	848.9	850.1	856.3	867.0	866.6
175°	856.7	856.7	856.7	863.0	860.9
177.5°	859.9	859.0	858.2	862.3	859.0
180°	859.9	859.9	859.9	859.9	859.9



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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	1.70	2.33	2.83	3.44	4.97	1.29	1.92	2.42	3.03	4.57
	3H	2.20	2.76	3.34	3.88	5.43	1.80	2.36	2.94	3.48	5.03
	4H	2.44	2.98	3.59	4.09	5.65	2.03	2.56	3.18	3.68	5.24
	6H	2.65	3.14	3.81	4.26	5.83	2.22	2.71	3.37	3.83	5.39
	8H	2.72	3.19	3.88	4.32	5.88	2.27	2.73	3.43	3.87	5.43
	12H	2.77	3.21	3.93	4.34	5.92	2.29	2.73	3.45	3.86	5.44
4H	2H	1.69	2.23	2.85	3.35	4.90	1.33	1.86	2.48	2.98	4.53
	3H	2.41	2.86	3.57	4.00	5.57	2.05	2.50	3.21	3.64	5.21
	4H	2.80	3.21	3.96	4.34	5.92	2.42	2.83	3.58	3.96	5.55
	6H	3.14	3.49	4.31	4.64	6.22	2.74	3.09	3.91	4.24	5.82
	8H	3.28	3.60	4.44	4.74	6.34	2.86	3.18	4.02	4.33	5.92
	12H	3.36	3.65	4.54	4.81	6.41	2.91	3.21	4.09	4.36	5.96
8H	4H	2.88	3.21	4.05	4.35	5.95	2.53	2.86	3.70	4.00	5.60
	6H	3.35	3.62	4.53	4.80	6.39	2.99	3.26	4.17	4.45	6.03
	8H	3.57	3.80	4.75	4.96	6.58	3.19	3.42	4.38	4.59	6.20
	12H	3.74	3.94	4.92	5.10	6.75	3.33	3.54	4.52	4.70	6.34
12H	4H	2.85	3.14	4.03	4.30	5.90	2.51	2.80	3.69	3.96	5.55
	6H	3.37	3.60	4.56	4.77	6.38	3.02	3.25	4.21	4.42	6.03
	8H	3.61	3.81	4.80	4.98	6.62	3.25	3.45	4.44	4.62	6.26