

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: P854354

Luminaire Tested: SQ2-WBM-075U-050D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854354  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G3-2104-222-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-WBM-075U-050D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 750 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

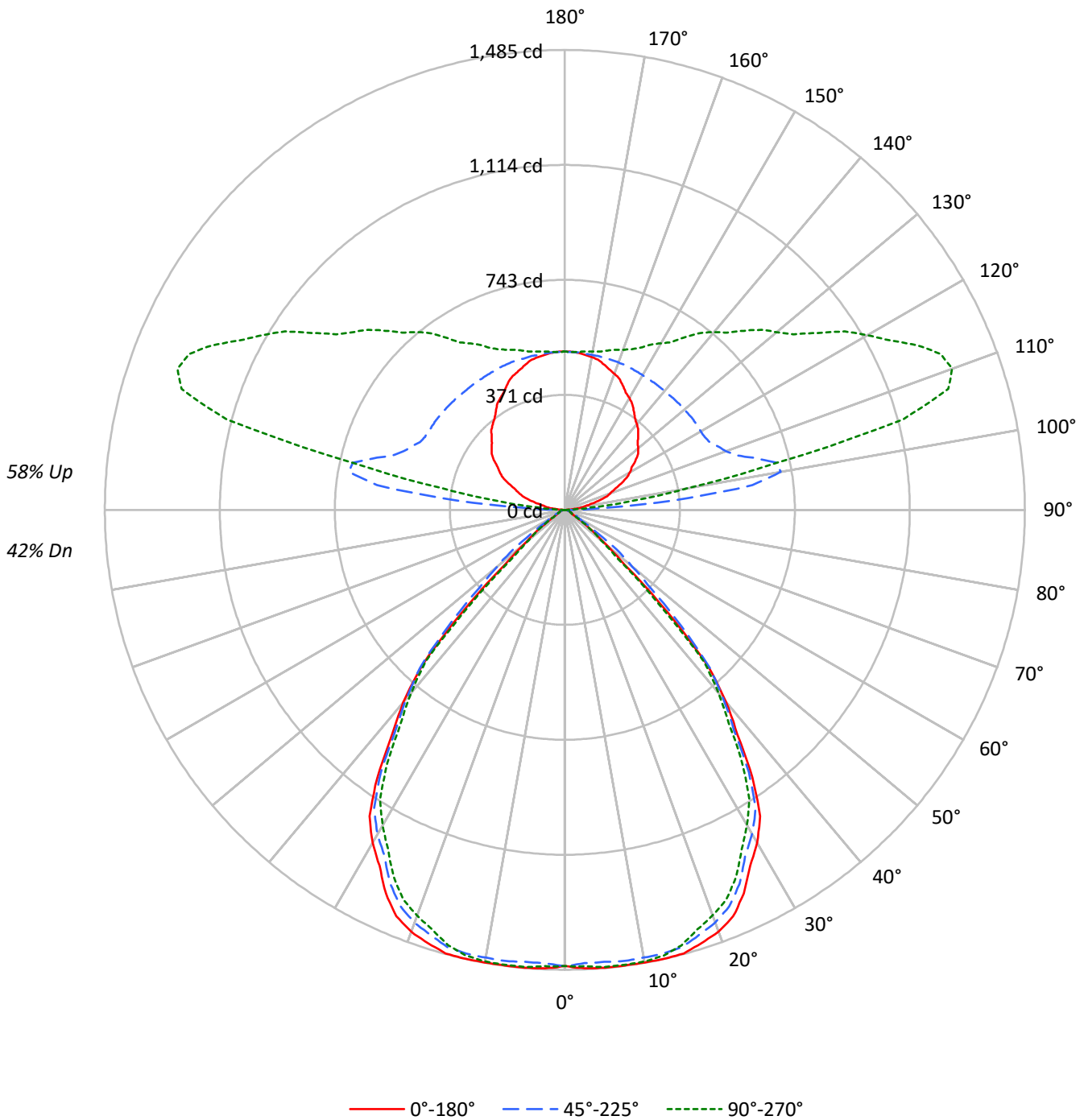
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5482.4 lumens  
Efficiency: N/A  
Efficacy: 132.4 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: General Diffuse  
  
Input Watts (W): 41.4  
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
RCR																				
0	105	105	105	105	96	96	96	96	79	79	79	63	63	63	49	49	49	42	42	42
1	98	94	91	88	89	86	83	81	71	70	68	58	57	56	46	45	44	39	39	39
2	90	84	79	74	82	77	73	69	65	61	59	53	51	49	42	41	40	35	35	35
3	83	75	69	64	76	69	64	60	58	55	51	48	46	44	39	37	36	32	32	32
4	77	68	61	55	71	63	57	52	53	49	45	44	41	39	36	34	32	29	29	29
5	71	61	54	49	65	57	50	46	48	44	40	40	37	35	33	31	29	26	26	26
6	66	55	48	43	61	52	45	41	44	39	36	37	34	31	31	28	27	24	24	24
7	62	51	43	38	57	47	41	36	40	36	32	34	31	28	28	26	24	22	22	22
8	57	46	39	34	53	43	37	33	37	32	29	32	28	26	26	24	22	20	20	20
9	54	42	36	31	49	40	34	29	34	30	26	29	26	23	25	22	20	18	18	18
10	50	39	33	28	46	37	31	27	32	27	24	27	24	21	23	21	19	17	17	17

**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	2.6
10°-20°	414.0	7.6
20°-30°	613.0	11.2
30°-40°	635.0	11.6
40°-50°	381.7	7.0
50°-60°	91.2	1.7
60°-70°	24.9	0.5
70°-80°	13.9	0.3
80°-90°	4.9	0.1
90°-100°	193.2	3.5
100°-110°	640.4	11.7
110°-120°	635.6	11.6
120°-130°	517.7	9.4
130°-140°	420.8	7.7
140°-150°	326.8	6.0
150°-160°	235.4	4.3
160°-170°	144.2	2.6
170°-180°	48.7	0.9
0°-30°	1168.1	21.3
0°-40°	1803.0	32.9
0°-60°	2275.9	41.5
0°-90°	2319.6	42.3
90°-120°	1469.2	26.8
90°-150°	2734.5	49.9
90°-180°	3163.0	57.7
0°-180°	5482.4	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	1	3	4	4	1
95°	28	81	350	125	84	31
105°	112	160	641	1209	1131	118
115°	200	239	516	1074	1256	198
125°	279	310	507	844	995	248
135°	334	368	502	724	818	259
145°	388	417	501	623	682	243
155°	443	459	504	557	578	204
165°	486	492	507	527	532	137
175°	509	509	510	513	512	48
180°	511	511	511	511	511	



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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	1.9	2.3	1.7	1.7
90°	0.0	1.0	3.2	4.2	4.2
92.5°	8.5	32.7	96.2	31.2	26.2
95°	27.5	81.3	350.1	124.9	83.6
97.5°	50.6	106.8	611.1	356.4	225.3
100°	66.6	120.4	707.6	607.7	403.0
102.5°	84.4	136.5	701.6	928.7	701.6
105°	112.1	159.7	640.9	1209.2	1130.6
107.5°	140.5	182.9	582.8	1237.7	1297.5
110°	156.5	198.9	553.1	1209.5	1330.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	173.5	215.0	535.4	1159.5	1313.6
115°	199.9	239.2	516.1	1074.5	1256.5
117.5°	226.1	261.1	509.1	993.2	1184.1
120°	242.2	276.3	506.6	942.3	1127.4
122.5°	256.6	289.9	506.6	900.6	1071.6
125°	279.2	310.2	506.6	844.3	995.2
127.5°	297.8	328.2	505.3	801.7	930.7
130°	308.8	340.9	504.5	776.8	892.6
132.5°	319.0	351.9	503.6	756.3	860.5
135°	334.2	368.3	502.4	724.5	817.6
137.5°	350.7	383.6	501.1	693.8	775.9
140°	361.7	393.8	500.3	673.3	748.8
142.5°	371.9	403.1	501.1	652.8	720.0
145°	388.2	417.1	501.3	623.2	682.2
147.5°	405.7	429.9	501.5	598.1	642.0
150°	416.7	438.4	502.4	583.6	620.8
152.5°	426.9	447.8	503.2	571.6	601.4
155°	443.1	458.7	504.5	556.8	577.5
157.5°	459.0	471.0	505.8	546.3	561.0
160°	467.5	477.8	506.6	538.6	550.0
162.5°	475.9	483.8	506.6	533.5	542.4
165°	486.5	491.7	506.6	526.8	532.0
167.5°	496.2	498.9	507.7	520.8	523.5
170°	501.3	502.4	507.7	518.3	519.3
172.5°	504.7	505.7	508.5	515.7	515.9
175°	508.7	508.7	509.8	512.9	511.9
177.5°	510.8	510.8	510.0	511.6	510.0
180°	510.8	510.8	510.8	510.8	510.8

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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	3.14	3.82	4.19	4.86	6.25	2.74	3.42	3.79	4.45	5.84
	3H	3.65	4.25	4.71	5.30	6.71	3.25	3.86	4.31	4.90	6.31
	4H	3.90	4.47	4.97	5.51	6.93	3.48	4.05	4.55	5.10	6.51
	6H	4.11	4.63	5.18	5.68	7.11	3.67	4.19	4.75	5.24	6.67
	8H	4.18	4.68	5.26	5.74	7.16	3.72	4.22	4.81	5.29	6.71
	12H	4.23	4.70	5.31	5.75	7.20	3.75	4.22	4.83	5.28	6.72
4H	2H	3.15	3.72	4.22	4.76	6.18	2.78	3.35	3.85	4.39	5.81
	3H	3.87	4.34	4.95	5.42	6.84	3.51	3.98	4.59	5.05	6.48
	4H	4.25	4.69	5.34	5.75	7.20	3.88	4.31	4.96	5.37	6.82
	6H	4.60	4.97	5.70	6.06	7.50	4.20	4.57	5.30	5.66	7.10
	8H	4.73	5.08	5.83	6.15	7.61	4.31	4.66	5.41	5.74	7.19
	12H	4.82	5.13	5.93	6.22	7.68	4.37	4.68	5.48	5.77	7.24
8H	4H	4.34	4.68	5.43	5.76	7.22	3.99	4.34	5.08	5.41	6.87
	6H	4.81	5.09	5.92	6.21	7.67	4.45	4.73	5.56	5.85	7.31
	8H	5.02	5.27	6.14	6.37	7.85	4.65	4.90	5.77	6.00	7.47
	12H	5.19	5.41	6.31	6.51	8.02	4.79	5.01	5.91	6.11	7.62
12H	4H	4.31	4.62	5.42	5.71	7.17	3.97	4.28	5.07	5.37	6.83
	6H	4.83	5.08	5.95	6.18	7.65	4.48	4.73	5.60	5.83	7.30
	8H	5.07	5.29	6.19	6.38	7.90	4.71	4.93	5.83	6.02	7.54