

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: P854342

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

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854342  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G3-2104-222-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-WBM-050U-050D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

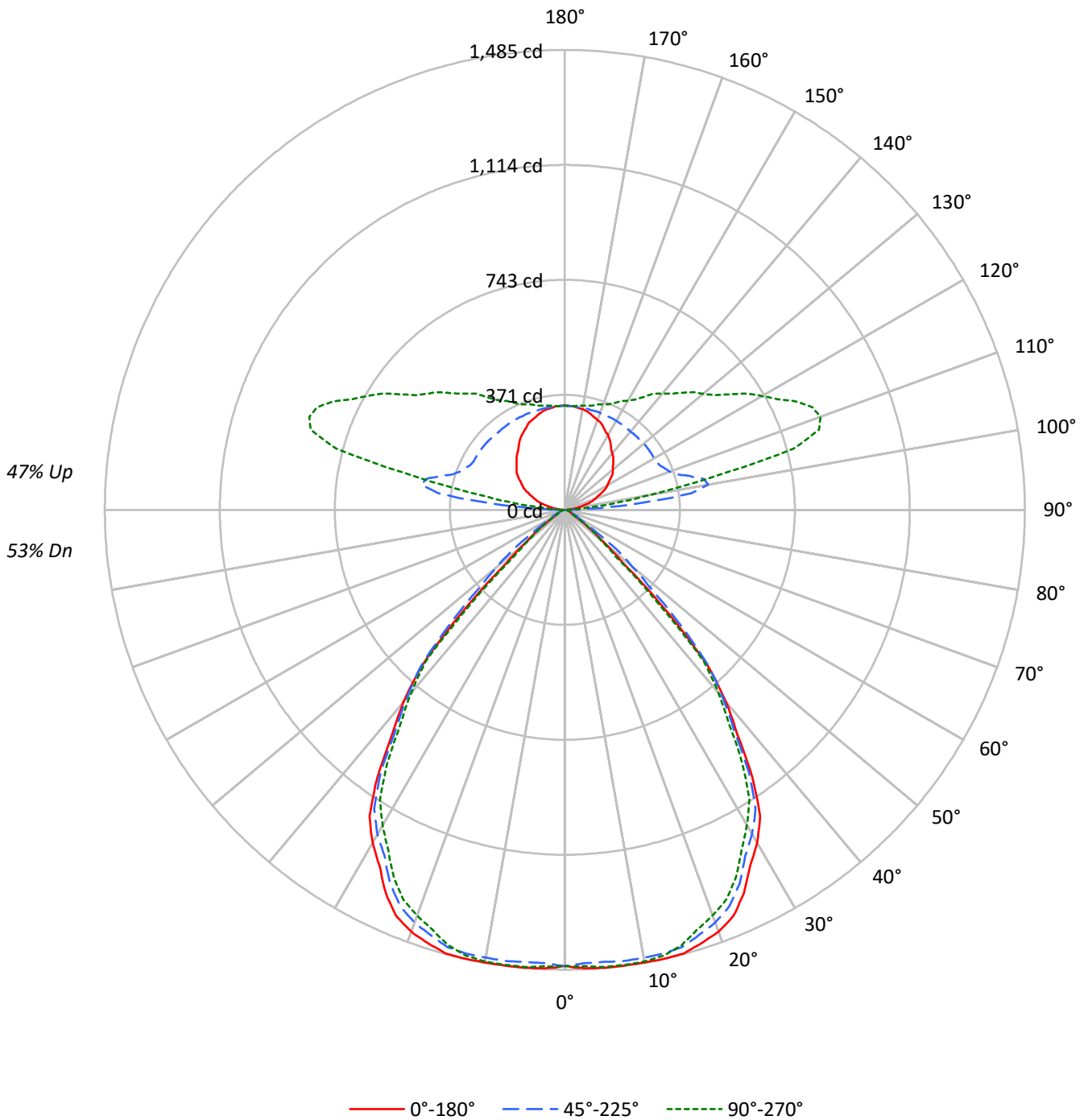
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4408.2 lumens  
Efficiency: N/A  
Efficacy: 134.0 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: General Diffuse  
  
Input Watts (W): 32.9  
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

TEST NUMBER: P854342

CATALOG NUMBER: SQ2-WBM-050U-050D-940-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P854342

CATALOG NUMBER: SQ2-WBM-050U-050D-940-UNV-STD-W-4

**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	108	108	108	108	100	100	100	100	85	85	85	71	71	71	59	59	59	53		
1	100	97	93	91	93	90	87	85	77	75	73	65	64	63	55	54	53	48		
2	93	87	82	77	86	81	77	73	70	67	64	60	58	56	51	49	48	44		
3	86	78	72	67	80	73	68	63	64	60	56	55	52	50	47	45	43	39		
4	80	71	64	59	74	66	60	56	58	53	50	50	47	44	43	41	39	36		
5	74	64	57	52	69	60	54	49	53	48	45	46	43	40	40	37	35	32		
6	69	58	51	46	64	55	49	44	49	44	40	43	39	36	37	34	32	30		
7	64	53	46	41	60	50	44	39	45	40	36	39	36	33	34	32	29	27		
8	60	49	42	37	56	46	40	36	41	36	33	36	33	30	32	29	27	25		
9	56	45	38	34	53	43	37	32	38	33	30	34	30	27	30	27	25	23		
10	53	42	35	31	49	39	33	29	35	31	27	32	28	25	28	25	23	21		

**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



TEST NUMBER: P854342

CATALOG NUMBER: SQ2-WBM-050U-050D-940-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	141.1	3.2
10°-20°	414.0	9.4
20°-30°	613.0	13.9
30°-40°	635.0	14.4
40°-50°	381.7	8.7
50°-60°	91.2	2.1
60°-70°	24.9	0.6
70°-80°	13.9	0.3
80°-90°	4.9	0.1
90°-100°	134.0	3.0
100°-110°	424.9	9.6
110°-120°	416.6	9.5
120°-130°	339.0	7.7
130°-140°	276.4	6.3
140°-150°	215.5	4.9
150°-160°	155.3	3.5
160°-170°	94.9	2.2
170°-180°	32.0	0.7
0°-30°	1168.1	26.5
0°-40°	1803.0	40.9
0°-60°	2275.9	51.6
0°-90°	2319.5	52.6
90°-120°	975.5	22.1
90°-150°	1806.5	41.0
90°-180°	2089.0	47.4
0°-180°	4408.2	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	1	3	3	3	1
95°	18	54	243	90	58	21
105°	74	104	419	798	765	78
115°	132	157	338	703	827	131
125°	183	205	333	551	649	163
135°	221	243	331	474	534	171
145°	258	278	331	409	445	162
155°	294	304	332	365	380	136
165°	320	324	333	346	349	90
175°	335	334	335	337	336	32
180°	336	336	336	336	336	



TEST NUMBER: P854342

CATALOG NUMBER: SQ2-WBM-050U-050D-940-UNV-STD-W-4

**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	1.5	1.5
90°	0.0	1.0	3.2	3.2	3.2
92.5°	5.9	23.5	75.1	25.0	17.6
95°	18.0	54.2	243.3	90.2	58.2
97.5°	33.4	70.2	412.1	257.5	158.0
100°	44.4	79.6	469.6	428.1	278.2
102.5°	56.3	89.8	459.5	628.7	481.2
105°	74.0	104.0	418.8	797.8	764.7
107.5°	91.8	119.5	380.1	815.4	860.1
110°	103.7	130.5	360.7	795.1	877.9



TEST NUMBER: P854342

CATALOG NUMBER: SQ2-WBM-050U-050D-940-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	115.5	140.7	349.7	760.1	865.2
115°	132.2	157.0	338.5	703.0	827.1
117.5°	148.5	172.1	334.0	648.0	773.2
120°	158.7	181.4	333.2	614.1	735.1
122.5°	168.8	190.7	333.2	586.8	699.5
125°	183.0	204.7	333.2	551.2	649.4
127.5°	195.5	216.3	333.2	523.5	607.3
130°	203.1	224.8	333.2	507.3	582.8
132.5°	210.7	232.4	332.3	494.4	562.5
135°	221.1	242.8	331.1	474.1	534.1
137.5°	231.2	254.0	330.8	454.7	508.3
140°	238.0	260.7	330.0	441.1	489.7
142.5°	246.4	268.4	330.8	427.5	472.8
145°	258.1	277.7	331.1	409.1	445.3
147.5°	269.7	286.5	331.3	392.9	422.4
150°	278.2	291.6	332.1	383.4	407.2
152.5°	284.9	296.7	332.1	375.7	395.4
155°	294.0	304.4	332.1	365.2	379.7
157.5°	303.8	310.8	333.2	358.8	368.7
160°	308.8	315.0	333.2	354.5	362.8
162.5°	313.9	318.5	333.2	351.1	356.9
165°	320.5	323.6	333.2	345.9	349.0
167.5°	326.6	327.4	334.2	342.3	345.0
170°	330.0	330.0	334.2	340.6	341.6
172.5°	331.7	332.5	334.2	338.9	339.1
175°	335.3	334.2	335.3	337.4	336.3
177.5°	336.3	335.5	335.5	337.1	335.5
180°	336.3	336.3	336.3	336.3	336.3



TEST NUMBER: P854342

CATALOG NUMBER: SQ2-WBM-050U-050D-940-UNV-STD-W-4

**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	4.18	4.92	5.15	5.87	7.12	3.78	4.51	4.75	5.47	6.71
	3H	4.69	5.34	5.67	6.31	7.58	4.29	4.94	5.27	5.91	7.18
	4H	4.94	5.55	5.93	6.52	7.80	4.53	5.14	5.52	6.11	7.39
	6H	5.15	5.71	6.15	6.69	7.98	4.72	5.28	5.72	6.26	7.54
	8H	5.23	5.76	6.23	6.75	8.04	4.77	5.30	5.78	6.30	7.58
	12H	5.28	5.78	6.28	6.77	8.07	4.80	5.30	5.81	6.29	7.59
4H	2H	4.19	4.80	5.19	5.78	7.05	3.82	4.43	4.82	5.41	6.69
	3H	4.92	5.42	5.92	6.42	7.71	4.56	5.06	5.56	6.06	7.35
	4H	5.31	5.76	6.32	6.76	8.07	4.93	5.38	5.94	6.38	7.69
	6H	5.65	6.04	6.67	7.06	8.38	5.25	5.64	6.27	6.66	7.98
	8H	5.78	6.15	6.81	7.16	8.48	5.37	5.73	6.39	6.74	8.07
	12H	5.87	6.20	6.91	7.23	8.56	5.43	5.75	6.46	6.78	8.11
8H	4H	5.39	5.76	6.41	6.77	8.09	5.04	5.41	6.07	6.42	7.74
	6H	5.86	6.16	6.90	7.21	8.53	5.50	5.80	6.54	6.85	8.18
	8H	6.07	6.34	7.12	7.38	8.72	5.70	5.96	6.75	7.00	8.34
	12H	6.24	6.47	7.30	7.51	8.89	5.84	6.07	6.89	7.10	8.49
12H	4H	5.36	5.69	6.40	6.72	8.05	5.02	5.35	6.06	6.37	7.70
	6H	5.88	6.14	6.93	7.18	8.52	5.53	5.79	6.58	6.83	8.17
	8H	6.12	6.35	7.17	7.38	8.77	5.76	5.99	6.81	7.02	8.41