

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: P854341

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

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854341  
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-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

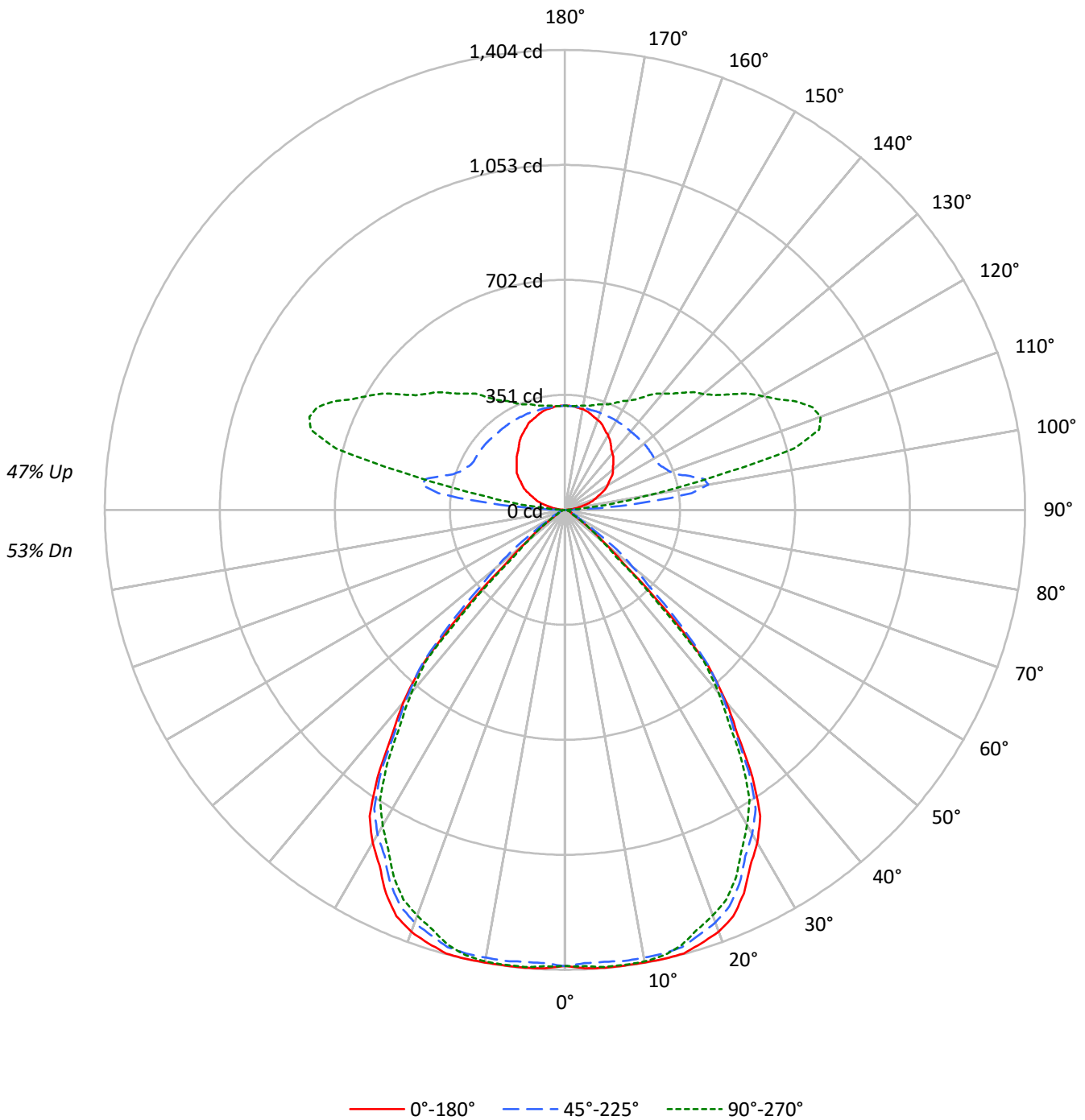
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4167.5 lumens  
Efficiency: N/A  
Efficacy: 126.7 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

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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	0	
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°	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	3.2
10°-20°	391.4	9.4
20°-30°	579.5	13.9
30°-40°	600.3	14.4
40°-50°	360.8	8.7
50°-60°	86.3	2.1
60°-70°	23.5	0.6
70°-80°	13.1	0.3
80°-90°	4.6	0.1
90°-100°	126.6	3.0
100°-110°	401.7	9.6
110°-120°	393.9	9.5
120°-130°	320.5	7.7
130°-140°	261.3	6.3
140°-150°	203.8	4.9
150°-160°	146.8	3.5
160°-170°	89.7	2.2
170°-180°	30.3	0.7
0°-30°	1104.3	26.5
0°-40°	1704.6	40.9
0°-60°	2151.7	51.6
0°-90°	2192.9	52.6
90°-120°	922.2	22.1
90°-150°	1707.8	41.0
90°-180°	1975.0	47.4
0°-180°	4167.5	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°	0	1	3	3	3	1
95°	17	51	230	85	55	20
105°	70	98	396	754	723	74
115°	125	148	320	665	782	123
125°	173	194	315	521	614	154
135°	209	230	313	448	505	161
145°	244	263	313	387	421	153
155°	278	288	314	345	359	128
165°	303	306	315	327	330	85
175°	317	316	317	319	318	30
180°	318	318	318	318	318	



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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°	1.6	1.8	2.2	1.4	1.4
90°	0.0	1.0	3.0	3.0	3.0
92.5°	5.6	22.2	71.0	23.6	16.6
95°	17.0	51.2	230.0	85.3	55.0
97.5°	31.6	66.4	389.6	243.4	149.4
100°	42.0	75.2	444.0	404.7	263.0
102.5°	53.2	84.9	434.4	594.4	455.0
105°	70.0	98.3	396.0	754.2	722.9
107.5°	86.8	113.0	359.4	770.9	813.1
110°	98.0	123.4	341.0	751.7	829.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	109.2	133.0	330.6	718.6	817.9
115°	125.0	148.5	320.0	664.6	781.9
117.5°	140.4	162.7	315.8	612.6	730.9
120°	150.0	171.5	315.0	580.5	694.9
122.5°	159.6	180.3	315.0	554.8	661.3
125°	173.0	193.5	315.0	521.1	613.9
127.5°	184.8	204.5	315.0	495.0	574.1
130°	192.0	212.5	315.0	479.6	550.9
132.5°	199.2	219.7	314.2	467.4	531.8
135°	209.0	229.5	313.0	448.2	505.0
137.5°	218.6	240.1	312.8	429.9	480.6
140°	225.0	246.5	312.0	417.0	463.0
142.5°	233.0	253.7	312.8	404.1	447.0
145°	244.0	262.6	313.0	386.7	421.0
147.5°	255.0	270.8	313.2	371.4	399.4
150°	263.0	275.7	314.0	362.5	385.0
152.5°	269.4	280.5	314.0	355.2	373.8
155°	278.0	287.8	314.0	345.3	359.0
157.5°	287.2	293.8	315.0	339.2	348.6
160°	292.0	297.8	315.0	335.1	343.0
162.5°	296.8	301.1	315.0	331.9	337.4
165°	303.0	305.9	315.0	327.0	330.0
167.5°	308.8	309.6	316.0	323.6	326.2
170°	312.0	312.0	316.0	322.0	323.0
172.5°	313.6	314.4	316.0	320.4	320.6
175°	317.0	316.0	317.0	318.9	318.0
177.5°	318.0	317.2	317.2	318.7	317.2
180°	318.0	318.0	318.0	318.0	318.0



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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	3.99	4.72	4.95	5.68	6.92	3.58	4.32	4.55	5.28	6.52
	3H	4.50	5.15	5.48	6.12	7.39	4.10	4.75	5.08	5.72	6.99
	4H	4.75	5.36	5.74	6.33	7.61	4.33	4.95	5.33	5.92	7.20
	6H	4.96	5.52	5.96	6.50	7.78	4.53	5.09	5.53	6.06	7.35
	8H	5.03	5.56	6.04	6.56	7.84	4.58	5.11	5.59	6.11	7.39
	12H	5.08	5.58	6.09	6.57	7.88	4.60	5.11	5.61	6.09	7.40
4H	2H	4.00	4.61	5.00	5.58	6.86	3.63	4.24	4.63	5.21	6.49
	3H	4.73	5.23	5.73	6.23	7.52	4.36	4.87	5.37	5.87	7.16
	4H	5.11	5.57	6.12	6.57	7.88	4.73	5.19	5.74	6.19	7.50
	6H	5.46	5.85	6.48	6.87	8.18	5.06	5.45	6.08	6.47	7.78
	8H	5.59	5.95	6.61	6.96	8.29	5.18	5.54	6.20	6.55	7.88
	12H	5.68	6.01	6.72	7.03	8.36	5.23	5.56	6.27	6.59	7.92
8H	4H	5.20	5.56	6.22	6.57	7.90	4.85	5.21	5.87	6.22	7.55
	6H	5.66	5.96	6.71	7.01	8.34	5.31	5.61	6.35	6.66	7.98
	8H	5.88	6.14	6.93	7.18	8.52	5.51	5.77	6.56	6.81	8.15
	12H	6.05	6.28	7.10	7.31	8.70	5.65	5.88	6.70	6.91	8.30
12H	4H	5.17	5.50	6.21	6.52	7.85	4.82	5.15	5.86	6.18	7.51
	6H	5.68	5.95	6.73	6.99	8.33	5.34	5.60	6.39	6.64	7.98
	8H	5.92	6.15	6.98	7.19	8.57	5.57	5.80	6.62	6.83	8.22