

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: P854377

Luminaire Tested: SQ2-WBM-100U-050D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854377  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G3-2104-222-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-WBM-100U-050D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

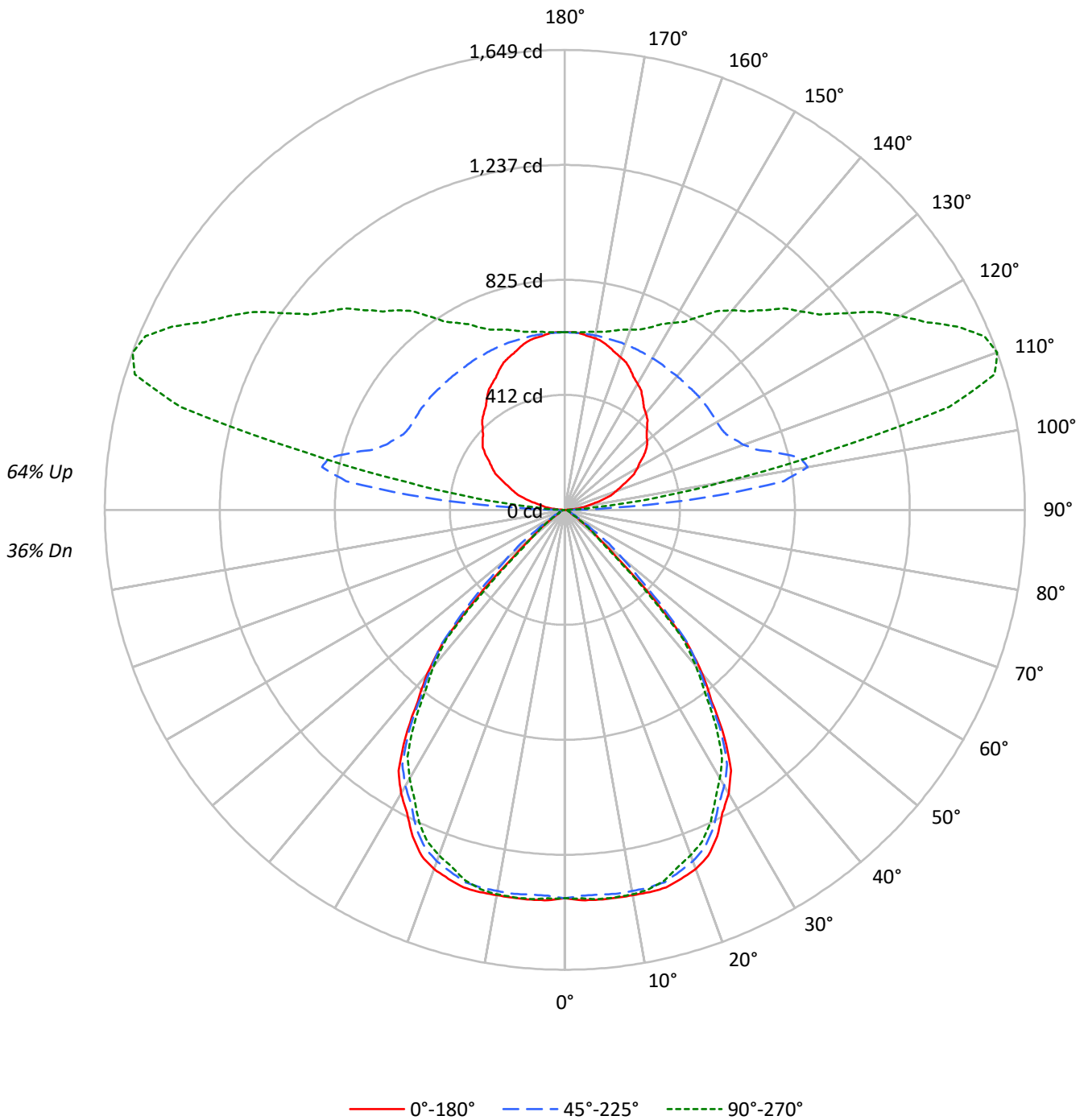
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6157.0 lumens  
Efficiency: N/A  
Efficacy: 121.4 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: Semi-Indirect  
  
Input Watts (W): 50.7  
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

TEST NUMBER: P854377

CATALOG NUMBER: SQ2-WBM-100U-050D-935-UNV-STD-W-4

### 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	104	104	104	104	94	94	94	94	75	75	75	58	58	58	43	43	43	36
1	96	92	89	86	87	84	81	78	68	66	64	53	52	51	40	39	39	33
2	88	82	77	72	80	75	70	66	61	58	55	48	46	45	37	36	35	29
3	81	73	67	62	74	67	62	57	55	51	48	44	42	40	34	32	31	27
4	75	66	59	54	68	60	54	50	50	46	42	40	37	35	31	29	28	24
5	70	59	52	47	63	54	48	44	45	41	37	37	34	31	29	27	25	22
6	64	54	46	41	59	49	43	38	41	37	33	34	31	28	27	25	23	20
7	60	49	42	37	54	45	39	34	38	33	30	31	28	25	25	23	21	18
8	56	44	37	33	51	41	35	31	35	30	27	29	25	23	23	21	19	17
9	52	41	34	29	47	38	32	28	32	27	24	26	23	21	21	19	18	15
10	49	38	31	26	44	35	29	25	30	25	22	25	21	19	20	18	16	14

**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



TEST NUMBER: P854377

CATALOG NUMBER: SQ2-WBM-100U-050D-935-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	133.4	2.2
10°-20°	391.4	6.4
20°-30°	579.5	9.4
30°-40°	600.3	9.8
40°-50°	360.8	5.9
50°-60°	86.3	1.4
60°-70°	23.5	0.4
70°-80°	13.1	0.2
80°-90°	5.3	0.1
90°-100°	266.0	4.3
100°-110°	804.4	13.1
110°-120°	785.2	12.8
120°-130°	641.7	10.4
130°-140°	523.8	8.5
140°-150°	407.7	6.6
150°-160°	293.9	4.8
160°-170°	179.9	2.9
170°-180°	60.8	1.0
0°-30°	1104.3	17.9
0°-40°	1704.6	27.7
0°-60°	2151.7	34.9
0°-90°	2193.6	35.6
90°-120°	1855.6	30.1
90°-150°	3428.7	55.7
90°-180°	3963.0	64.4
0°-180°	6157.0	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	2	12	7	6	2
95°	33	104	502	185	117	39
105°	140	197	790	1500	1426	147
115°	249	297	639	1322	1553	246
125°	348	386	630	1044	1229	309
135°	417	461	626	900	1013	323
145°	487	523	626	774	847	305
155°	555	573	630	694	721	255
165°	607	614	633	657	665	171
175°	635	635	636	641	639	60
180°	637	637	637	637	637	

TEST NUMBER: P854377

CATALOG NUMBER: SQ2-WBM-100U-050D-935-UNV-STD-W-4

**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	2.0	4.0	2.2	2.0
90°	0.0	2.0	12.0	7.0	6.0
92.5°	11.2	45.2	162.4	53.8	38.8
95°	33.0	104.3	501.9	185.4	117.0
97.5°	63.8	132.8	791.0	523.4	318.7
100°	83.0	150.4	883.8	854.4	573.8
102.5°	104.6	169.7	864.6	1198.4	955.3
105°	140.0	196.7	789.8	1499.9	1425.6
107.5°	173.6	227.7	717.8	1529.7	1615.8
110°	195.9	247.8	681.8	1492.2	1648.6



TEST NUMBER: P854377

CATALOG NUMBER: SQ2-WBM-100U-050D-935-UNV-STD-W-4

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	217.5	267.8	660.2	1429.1	1627.0
115°	248.9	296.8	638.8	1321.9	1552.6
117.5°	280.1	325.5	631.2	1221.4	1457.6
120°	300.9	343.9	628.8	1162.8	1389.6
122.5°	320.1	360.8	628.8	1111.3	1320.8
125°	347.9	386.0	629.8	1043.9	1228.7
127.5°	370.5	410.0	628.8	993.1	1150.7
130°	384.9	426.0	628.8	964.0	1106.7
132.5°	397.7	439.5	628.0	937.3	1069.1
135°	416.9	460.9	625.8	900.3	1012.7
137.5°	438.3	480.1	625.8	860.7	964.9
140°	451.9	492.9	625.8	835.0	933.8
142.5°	465.5	505.0	625.0	811.5	897.8
145°	486.9	523.0	625.8	774.4	846.8
147.5°	508.3	539.0	627.0	743.9	799.4
150°	521.9	550.2	627.8	726.9	773.8
152.5°	534.7	559.9	628.6	712.3	750.6
155°	554.9	573.4	629.8	694.4	720.8
157.5°	572.4	587.5	631.0	681.2	699.6
160°	582.8	595.6	631.8	673.1	686.8
162.5°	593.2	602.8	632.6	665.9	677.2
165°	606.8	613.7	632.8	657.0	664.8
167.5°	618.4	622.0	634.0	650.1	653.4
170°	624.8	626.8	634.8	646.8	647.8
172.5°	628.8	630.0	634.8	643.6	643.8
175°	634.8	634.8	635.8	640.8	638.8
177.5°	637.6	636.8	636.0	638.4	636.8
180°	636.8	636.8	636.8	636.8	636.8

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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	2.18	2.83	3.27	3.91	5.38	1.77	2.43	2.87	3.50	4.98
	3H	2.68	3.26	3.79	4.35	5.84	2.28	2.86	3.39	3.95	5.44
	4H	2.93	3.48	4.04	4.56	6.06	2.51	3.06	3.63	4.15	5.65
	6H	3.14	3.64	4.26	4.73	6.24	2.70	3.21	3.83	4.30	5.80
	8H	3.21	3.69	4.33	4.79	6.29	2.76	3.24	3.88	4.34	5.84
	12H	3.25	3.71	4.38	4.81	6.33	2.78	3.23	3.91	4.33	5.85
4H	2H	2.18	2.73	3.30	3.81	5.31	1.81	2.36	2.93	3.45	4.95
	3H	2.90	3.35	4.03	4.47	5.98	2.54	2.99	3.67	4.11	5.62
	4H	3.29	3.70	4.42	4.81	6.34	2.91	3.32	4.03	4.43	5.96
	6H	3.63	3.98	4.76	5.11	6.63	3.23	3.59	4.37	4.72	6.24
	8H	3.76	4.09	4.89	5.21	6.75	3.35	3.68	4.48	4.80	6.33
	12H	3.85	4.15	5.00	5.28	6.82	3.40	3.70	4.55	4.83	6.37
8H	4H	3.37	3.70	4.50	4.82	6.36	3.02	3.35	4.15	4.47	6.01
	6H	3.83	4.11	4.99	5.27	6.80	3.48	3.75	4.63	4.91	6.45
	8H	4.05	4.29	5.21	5.43	6.98	3.68	3.92	4.84	5.06	6.61
	12H	4.22	4.43	5.38	5.56	7.15	3.82	4.03	4.99	5.17	6.76
12H	4H	3.34	3.64	4.49	4.77	6.31	2.99	3.29	4.14	4.42	5.96
	6H	3.86	4.09	5.02	5.24	6.79	3.51	3.75	4.67	4.89	6.44
	8H	4.09	4.30	5.26	5.44	7.03	3.74	3.95	4.90	5.09	6.68