

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: P854462

Luminaire Tested: SQ2-WBN-100U-050D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

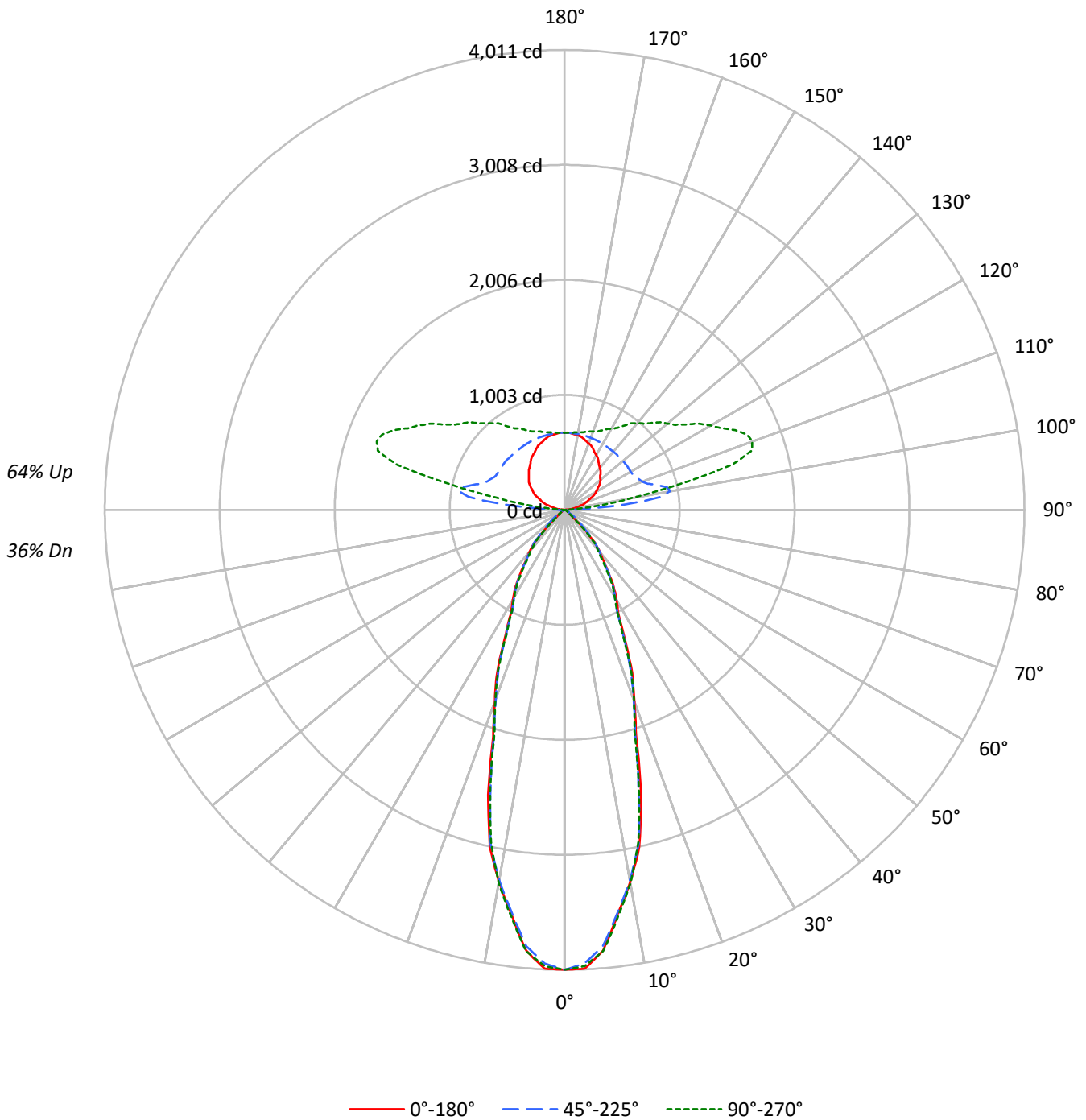
Test Method: LM-79-2019  
Report Number: P854462  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G3-2308-130-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-WBN-100U-050D-940-UNV-STD-W-4  
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: 6522.7 lumens  
Efficiency: N/A  
Efficacy: 128.7 lumens/watt  
Spacing Criteria (0/90/45): 0.59 / 0.58 / 0.63  
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

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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	104	104	104	104	94	94	94	94	75	75	75	59	59	59	43	43	43	36
1	96	93	89	86	87	84	81	79	68	67	65	54	53	52	40	40	39	33
2	89	83	78	74	81	76	72	68	62	59	57	50	48	46	38	37	36	31
3	83	75	69	64	75	69	63	59	57	53	50	46	43	42	36	34	33	29
4	77	68	61	56	70	62	57	52	52	48	45	42	40	38	33	32	31	27
5	71	62	55	50	65	57	51	47	48	44	40	39	37	34	31	30	28	25
6	67	56	50	45	61	52	46	42	44	40	37	37	34	32	30	28	26	24
7	62	52	45	40	57	48	42	38	41	37	34	34	31	29	28	26	25	22
8	58	48	41	37	54	45	39	35	38	34	31	32	29	27	26	25	23	21
9	55	44	38	34	50	41	36	32	36	31	28	30	27	25	25	23	22	20
10	52	41	35	31	48	39	33	29	33	29	26	28	26	23	24	22	21	19

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	64761	64761	64761
5°	62529	61906	62598
10°	54047	53790	54175
15°	43009	41651	41819
20°	30553	30149	30369
25°	21980	21549	21398
30°	16794	16343	16304
35°	13184	12960	12623
40°	9988	9853	9373
45°	5590	6677	4987
50°	1967	4112	1733
55°	1202	2244	1143
60°	920	1172	849
65°	844	871	787
70°	807	807	741
75°	755	755	711
80°	660	660	660
85°	667	519	519

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 6677 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	348.2	5.3
10°-20°	692.0	10.6
20°-30°	573.0	8.8
30°-40°	412.3	6.3
40°-50°	210.0	3.2
50°-60°	54.7	0.8
60°-70°	22.7	0.3
70°-80°	12.6	0.2
80°-90°	4.9	0.1
90°-100°	281.3	4.3
100°-110°	850.9	13.0
110°-120°	830.6	12.7
120°-130°	678.7	10.4
130°-140°	554.0	8.5
140°-150°	431.3	6.6
150°-160°	310.9	4.8
160°-170°	190.3	2.9
170°-180°	64.3	1.0
0°-30°	1613.2	24.7
0°-40°	2025.4	31.1
0°-60°	2290.1	35.1
0°-90°	2330.3	35.7
90°-120°	1962.8	30.1
90°-150°	3626.9	55.6
90°-180°	4192.0	64.3
0°-180°	6522.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4011	4011	4011	4011	4011	
5°	3858	3852	3820	3875	3862	348
15°	2573	2544	2492	2510	2502	698
25°	1234	1232	1210	1199	1201	580
35°	669	673	658	647	640	420
45°	245	282	292	272	218	196
55°	43	50	80	46	41	42
65°	22	23	23	21	21	22
75°	12	12	12	11	11	13
85°	4	4	3	4	3	4
90°	0	2	13	7	6	2
95°	35	110	531	196	124	41
105°	148	208	835	1587	1508	155
115°	263	314	676	1398	1642	260
125°	368	408	666	1104	1300	327
135°	441	488	662	952	1071	341
145°	515	553	662	819	896	323
155°	587	606	666	734	762	270
165°	642	649	669	695	703	181
175°	672	672	673	678	676	64
180°	674	674	674	674	674	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4011.0	4011.0	4011.0	4011.0	4011.0
2.5°	4004.7	3998.0	3959.8	3991.5	3983.7
5°	3858.0	3852.4	3819.6	3874.8	3862.3
7.5°	3555.0	3559.8	3540.5	3589.3	3576.0
10°	3296.6	3309.1	3280.9	3351.7	3304.4
12.5°	3011.4	3003.3	2983.8	2994.7	2968.6
15°	2573.0	2543.7	2491.8	2509.5	2501.8
17.5°	2072.5	2083.7	2038.7	2036.8	2028.2
20°	1778.2	1781.6	1754.7	1768.9	1767.5
22.5°	1541.4	1542.0	1507.6	1528.4	1515.9
25°	1233.8	1231.7	1209.6	1199.0	1201.1
27.5°	1011.8	1003.2	986.5	993.5	988.3
30°	900.8	893.9	876.6	880.8	874.5
32.5°	801.2	801.5	783.8	781.7	777.2
35°	668.9	673.0	657.5	646.7	640.4
37.5°	550.7	554.6	541.5	525.7	520.4
40°	473.9	476.7	467.5	448.9	444.7
42.5°	390.2	401.9	392.9	375.3	366.2
45°	244.8	281.6	292.4	272.0	218.4
47.5°	123.8	174.9	208.6	154.1	101.5
50°	78.3	113.8	163.7	92.7	69.0
52.5°	60.1	78.3	130.6	68.4	55.4
55°	42.7	49.7	79.7	46.1	40.6
57.5°	33.0	36.9	47.7	34.9	31.5
60°	28.5	31.2	36.3	29.8	26.3
62.5°	25.6	27.3	29.5	25.3	24.1
65°	22.1	22.8	22.8	21.3	20.6
67.5°	18.8	19.5	19.4	18.6	17.9
70°	17.1	17.8	17.1	16.3	15.7
72.5°	14.8	15.5	14.8	14.6	13.9
75°	12.1	12.1	12.1	11.4	11.4
77.5°	9.4	9.5	8.8	8.8	8.3
80°	7.1	7.8	7.1	7.1	7.1
82.5°	6.0	6.1	5.4	5.4	5.4
85°	3.6	3.6	2.8	3.5	2.8
87.5°	1.1	1.6	3.7	2.6	2.4
90°	0.0	2.1	12.7	7.4	6.3
92.5°	11.8	47.8	171.7	57.0	41.0
95°	34.9	110.4	530.9	196.1	123.7
97.5°	67.5	140.5	836.7	553.6	337.1
100°	87.8	159.1	934.8	903.8	607.0
102.5°	110.6	179.5	914.5	1267.6	1010.5
105°	148.0	208.0	835.4	1586.6	1508.0
107.5°	183.6	240.9	759.3	1618.1	1709.1
110°	207.3	262.1	721.2	1578.4	1743.8



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	230.1	283.3	698.4	1511.7	1721.0
115°	263.3	314.0	675.7	1398.3	1642.3
117.5°	296.3	344.3	667.7	1292.0	1541.8
120°	318.3	363.8	665.2	1230.0	1469.9
122.5°	338.6	381.6	665.2	1175.5	1397.1
125°	368.0	408.3	666.2	1104.2	1299.6
127.5°	391.9	433.7	665.2	1050.5	1217.2
130°	407.1	450.6	665.2	1019.7	1170.6
132.5°	420.7	464.9	664.3	991.5	1130.9
135°	441.0	487.5	662.0	952.3	1071.2
137.5°	463.6	507.9	662.0	910.5	1020.7
140°	478.0	521.4	662.0	883.3	987.7
142.5°	492.4	534.1	661.1	858.4	949.6
145°	515.0	553.3	662.0	819.2	895.7
147.5°	537.6	570.1	663.3	786.8	845.6
150°	552.0	582.0	664.1	768.9	818.5
152.5°	565.5	592.2	664.9	753.4	794.0
155°	586.9	606.5	666.2	734.5	762.4
157.5°	605.5	621.4	667.5	720.6	740.0
160°	616.5	630.0	668.3	712.0	726.5
162.5°	627.5	637.6	669.2	704.3	716.3
165°	641.9	649.1	669.4	695.0	703.2
167.5°	654.2	657.9	670.7	687.7	691.2
170°	660.9	663.0	671.5	684.2	685.3
172.5°	665.2	666.4	671.5	680.8	681.0
175°	671.5	671.5	672.6	677.8	675.7
177.5°	674.5	673.6	672.8	675.3	673.6
180°	673.6	673.6	673.6	673.6	673.6

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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	0.00	0.45	0.92	1.53	3.00	0.00	0.06	0.54	1.14	2.61
	3H	0.87	1.43	1.98	2.51	4.01	0.43	0.99	1.54	2.08	3.57
	4H	1.29	1.82	2.41	2.91	4.41	0.85	1.38	1.97	2.47	3.97
	6H	1.60	2.09	2.73	3.18	4.69	1.18	1.67	2.30	2.76	4.26
	8H	1.70	2.16	2.83	3.26	4.77	1.28	1.74	2.41	2.84	4.34
	12H	1.76	2.20	2.89	3.30	4.82	1.32	1.76	2.45	2.86	4.38
4H	2H	0.03	0.57	1.16	1.65	3.15	0.00	0.24	0.83	1.32	2.82
	3H	1.33	1.77	2.46	2.89	4.39	0.94	1.38	2.07	2.50	4.01
	4H	1.89	2.30	3.02	3.40	4.93	1.50	1.91	2.63	3.01	4.54
	6H	2.34	2.69	3.48	3.81	5.34	1.96	2.30	3.10	3.43	4.95
	8H	2.50	2.82	3.64	3.94	5.47	2.11	2.43	3.25	3.55	5.09
	12H	2.60	2.89	3.76	4.03	5.56	2.19	2.48	3.34	3.61	5.15
8H	4H	2.03	2.36	3.17	3.47	5.01	1.68	2.00	2.82	3.12	4.66
	6H	2.62	2.88	3.77	4.04	5.57	2.27	2.53	3.42	3.69	5.22
	8H	2.87	3.09	4.03	4.24	5.79	2.51	2.74	3.67	3.88	5.43
	12H	3.06	3.26	4.22	4.39	5.98	2.67	2.87	3.84	4.01	5.60
12H	4H	2.01	2.30	3.16	3.43	4.97	1.66	1.95	2.81	3.08	4.62
	6H	2.64	2.87	3.80	4.01	5.57	2.30	2.53	3.47	3.67	5.23
	8H	2.91	3.11	4.08	4.25	5.84	2.57	2.77	3.73	3.90	5.49