

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: P854478

Luminaire Tested: SQ2-WBN-125U-100D-930-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854478  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-13, G3-2308-130-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-WBN-125U-100D-930-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

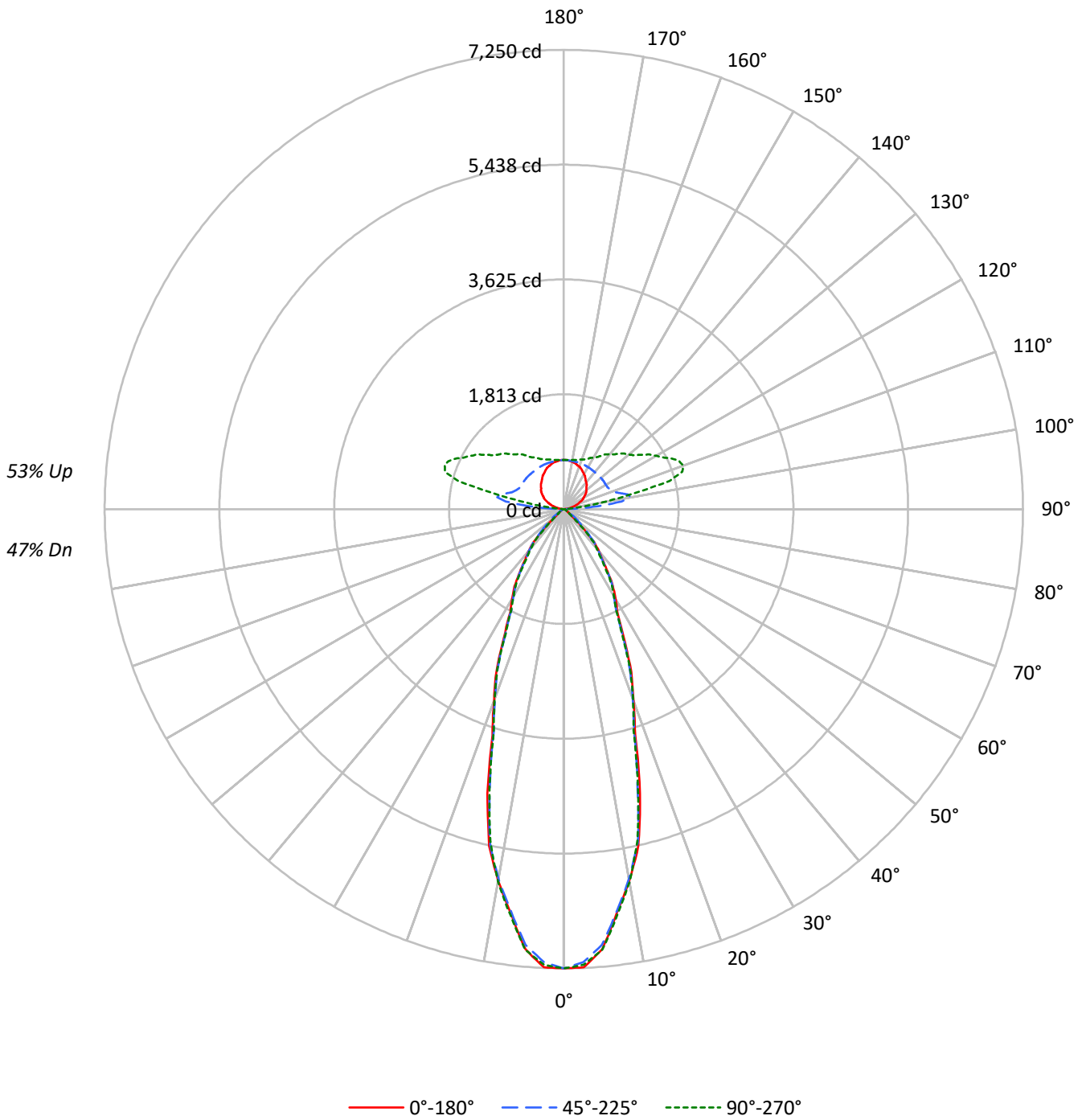
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8991.2 lumens  
Efficiency: N/A  
Efficacy: 109.6 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: General Diffuse  
  
Input Watts (W): 82  
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	106	106	106	106	98	98	98	98	82	82	82	67	67	67	53	53	53	47
1	99	96	93	90	91	88	86	83	75	73	71	62	61	60	50	50	49	44
2	92	86	82	77	85	80	76	72	68	65	63	57	55	54	47	46	45	41
3	86	78	73	68	79	73	68	64	63	59	56	53	51	49	44	43	42	38
4	80	72	65	60	74	67	61	57	58	54	51	50	47	45	42	40	39	35
5	75	66	59	54	70	61	56	51	54	49	46	46	43	41	39	37	36	33
6	70	60	54	49	65	57	51	47	50	45	42	43	40	38	37	35	33	31
7	66	56	49	44	61	53	47	43	46	42	39	41	37	35	35	33	31	29
8	62	52	45	41	58	49	43	39	43	39	36	38	35	33	33	31	29	27
9	59	48	42	38	55	46	40	36	41	36	33	36	33	31	32	29	28	26
10	55	45	39	35	52	43	37	34	38	34	31	34	31	29	30	28	26	25

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

	0°	45°	90°
0°	117059	117059	117059
5°	113025	111898	113150
10°	97694	97230	97925
15°	77740	75288	75589
20°	55225	54496	54893
25°	39731	38952	38676
30°	30357	29543	29470
35°	23830	23424	22815
40°	18054	17810	16944
45°	10102	12070	9017
50°	3554	7430	3135
55°	2173	4056	2063
60°	1660	2118	1537
65°	1524	1574	1425
70°	1459	1459	1336
75°	1366	1366	1285
80°	1199	1199	1199
85°	1186	945	945

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 12070 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	629.3	7.0
10°-20°	1250.8	13.9
20°-30°	1035.8	11.5
30°-40°	745.2	8.3
40°-50°	379.6	4.2
50°-60°	98.8	1.1
60°-70°	41.0	0.5
70°-80°	22.8	0.3
80°-90°	7.6	0.1
90°-100°	296.4	3.3
100°-110°	964.9	10.7
110°-120°	954.5	10.6
120°-130°	780.0	8.7
130°-140°	637.5	7.1
140°-150°	496.5	5.5
150°-160°	357.9	4.0
160°-170°	218.8	2.4
170°-180°	73.8	0.8
0°-30°	2915.9	32.4
0°-40°	3661.1	40.7
0°-60°	4139.5	46.0
0°-90°	4210.9	46.8
90°-120°	2215.8	24.6
90°-150°	4129.8	45.9
90°-180°	4780.0	53.2
0°-180°	8991.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	7250	7250	7250	7250	7250	
5°	6974	6964	6904	7004	6981	629
15°	4651	4598	4504	4536	4522	1262
25°	2230	2226	2186	2167	2171	1049
35°	1209	1216	1188	1169	1158	759
45°	442	509	529	492	395	354
55°	77	90	144	83	73	76
65°	40	41	41	39	37	40
75°	22	22	22	21	21	23
85°	6	6	5	6	5	7
90°	0	3	7	6	6	2
95°	40	122	543	194	119	47
105°	164	237	956	1826	1729	175
115°	303	362	779	1605	1888	300
125°	421	470	768	1267	1493	375
135°	509	562	764	1093	1233	393
145°	595	638	762	942	1031	372
155°	678	701	767	843	875	313
165°	740	747	769	798	807	209
175°	772	772	772	778	776	73
180°	775	775	775	775	775	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	7250.1	7250.1	7250.1	7250.1	7250.1
2.5°	7238.8	7226.7	7157.5	7214.8	7200.7
5°	6973.6	6963.5	6904.1	7003.9	6981.3
7.5°	6425.9	6434.5	6399.7	6487.9	6463.7
10°	5958.8	5981.4	5930.5	6058.4	5972.9
12.5°	5443.3	5428.7	5393.4	5413.1	5365.9
15°	4650.8	4597.9	4504.1	4536.0	4522.1
17.5°	3746.1	3766.4	3685.1	3681.7	3666.1
20°	3214.1	3220.4	3171.7	3197.3	3194.8
22.5°	2786.1	2787.3	2725.1	2762.7	2740.0
25°	2230.2	2226.4	2186.5	2167.3	2171.0
27.5°	1828.9	1813.3	1783.1	1795.8	1786.5
30°	1628.3	1615.7	1584.6	1592.0	1580.7
32.5°	1448.2	1448.7	1416.8	1413.0	1404.7
35°	1209.0	1216.5	1188.4	1168.9	1157.5
37.5°	995.5	1002.5	978.8	950.3	940.7
40°	856.6	861.6	845.0	811.4	803.9
42.5°	705.3	726.5	710.2	678.5	661.9
45°	442.4	509.1	528.6	491.7	394.9
47.5°	223.8	316.1	377.1	278.5	183.4
50°	141.5	205.6	295.8	167.5	124.8
52.5°	108.6	141.5	236.1	123.7	100.1
55°	77.2	89.7	144.1	83.4	73.3
57.5°	59.7	66.7	86.2	63.1	56.8
60°	51.4	56.5	65.6	53.9	47.6
62.5°	46.3	49.3	53.2	45.7	43.5
65°	39.9	41.1	41.2	38.6	37.3
67.5°	34.0	35.2	35.0	33.7	32.4
70°	30.9	32.1	30.9	29.6	28.3
72.5°	26.8	28.0	26.8	26.5	25.2
75°	21.9	21.9	21.9	20.6	20.6
77.5°	17.0	17.2	15.9	15.9	14.9
80°	12.9	14.1	12.9	12.9	12.9
82.5°	10.8	11.1	9.8	9.8	9.8
85°	6.4	6.4	5.1	6.4	5.1
87.5°	2.1	2.6	3.4	3.2	3.2
90°	0.0	2.8	6.7	5.7	5.7
92.5°	13.7	49.3	157.6	52.0	40.0
95°	40.0	122.0	543.2	193.7	119.1
97.5°	75.3	158.8	921.9	561.5	342.7
100°	98.2	180.2	1064.5	949.2	615.6
102.5°	124.1	203.1	1047.0	1404.3	1067.7
105°	163.9	236.6	955.9	1825.6	1728.7
107.5°	207.0	275.4	869.3	1862.2	1964.9
110°	238.2	300.7	828.2	1816.8	2002.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	264.2	325.9	802.2	1734.9	1974.0
115°	303.1	361.8	778.6	1604.6	1887.9
117.5°	343.1	396.0	769.4	1485.3	1767.2
120°	365.9	418.1	767.2	1411.9	1684.9
122.5°	388.1	439.5	767.9	1348.2	1602.6
125°	421.2	469.7	768.1	1266.9	1493.3
127.5°	449.6	499.2	767.9	1206.0	1394.8
130°	467.9	518.2	767.2	1171.3	1339.9
132.5°	483.9	536.5	766.4	1139.0	1297.2
135°	508.9	562.0	764.3	1093.4	1233.2
137.5°	533.3	586.8	762.2	1047.1	1171.2
140°	550.8	602.1	761.4	1015.7	1133.1
142.5°	567.6	616.6	761.4	985.7	1090.4
145°	594.7	638.5	762.4	941.7	1031.1
147.5°	621.0	659.0	763.7	904.2	973.4
150°	638.5	672.1	765.3	881.9	940.6
152.5°	656.0	683.6	766.0	864.9	911.6
155°	678.5	700.9	767.2	843.2	874.8
157.5°	699.9	715.9	768.3	827.1	849.3
160°	712.8	725.9	769.1	817.1	834.8
162.5°	724.3	734.3	769.1	808.6	821.9
165°	740.5	747.0	769.1	797.9	807.2
167.5°	751.9	756.0	769.3	789.8	794.6
170°	759.5	761.4	770.0	784.4	786.2
172.5°	764.9	766.0	771.5	781.3	780.9
175°	771.9	771.9	771.9	777.6	775.7
177.5°	774.8	774.0	773.3	777.0	774.0
180°	774.8	774.8	774.8	774.8	774.8

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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	3.12	3.79	4.14	4.79	6.12	2.74	3.41	3.76	4.41	5.74
	3H	4.16	4.76	5.20	5.77	7.13	3.73	4.33	4.77	5.34	6.70
	4H	4.59	5.15	5.63	6.17	7.53	4.16	4.72	5.20	5.73	7.09
	6H	4.90	5.42	5.95	6.44	7.81	4.49	5.00	5.54	6.03	7.39
	8H	5.00	5.49	6.06	6.53	7.89	4.59	5.08	5.65	6.11	7.48
	12H	5.07	5.53	6.12	6.56	7.94	4.64	5.10	5.69	6.13	7.51
4H	2H	3.34	3.90	4.39	4.91	6.27	3.01	3.57	4.06	4.59	5.95
	3H	4.63	5.10	5.68	6.14	7.51	4.25	4.72	5.31	5.76	7.13
	4H	5.20	5.62	6.25	6.66	8.05	4.81	5.24	5.87	6.27	7.67
	6H	5.65	6.01	6.72	7.07	8.46	5.27	5.63	6.34	6.69	8.08
	8H	5.80	6.14	6.87	7.19	8.60	5.43	5.77	6.49	6.82	8.22
	12H	5.91	6.21	6.99	7.28	8.68	5.51	5.81	6.59	6.88	8.28
8H	4H	5.34	5.68	6.41	6.73	8.13	4.99	5.33	6.06	6.38	7.78
	6H	5.92	6.20	7.01	7.29	8.69	5.58	5.86	6.67	6.95	8.35
	8H	6.17	6.41	7.27	7.49	8.91	5.82	6.06	6.92	7.14	8.56
	12H	6.36	6.57	7.45	7.64	9.10	5.99	6.20	7.08	7.27	8.73
12H	4H	5.31	5.61	6.39	6.68	8.09	4.97	5.28	6.06	6.34	7.75
	6H	5.95	6.19	7.04	7.27	8.69	5.62	5.86	6.71	6.93	8.35
	8H	6.22	6.43	7.31	7.50	8.96	5.88	6.09	6.98	7.17	8.63

END OF REPORT