

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: P854480

Luminaire Tested: SQ2-WBN-125U-100D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854480  
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-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

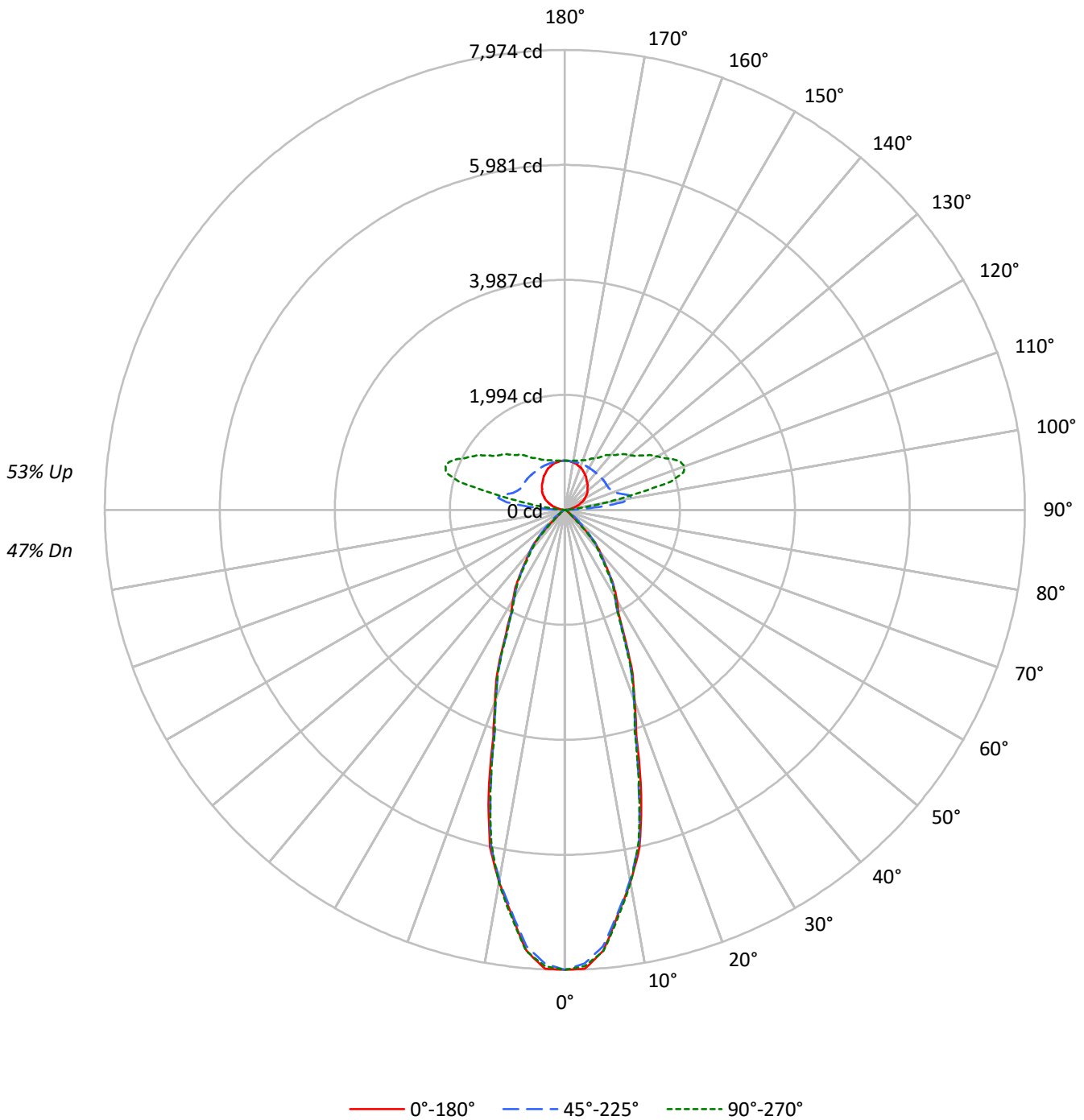
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9888.2 lumens  
Efficiency: N/A  
Efficacy: 120.6 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°	128739	128739	128739
5°	124302	123064	124440
10°	107442	106931	107697
15°	85496	82801	83132
20°	60735	59933	60371
25°	43695	42838	42537
30°	33387	32490	32410
35°	26207	25762	25091
40°	19857	19587	18634
45°	11111	13275	9914
50°	3908	8171	3446
55°	2390	4459	2269
60°	1828	2328	1689
65°	1673	1731	1566
70°	1600	1600	1468
75°	1497	1497	1410
80°	1311	1311	1311
85°	1315	1056	1056

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 13275 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	692.1	7.0
10°-20°	1375.6	13.9
20°-30°	1139.2	11.5
30°-40°	819.5	8.3
40°-50°	417.5	4.2
50°-60°	108.7	1.1
60°-70°	45.1	0.5
70°-80°	25.0	0.3
80°-90°	8.4	0.1
90°-100°	325.9	3.3
100°-110°	1061.2	10.7
110°-120°	1049.7	10.6
120°-130°	857.8	8.7
130°-140°	701.1	7.1
140°-150°	546.1	5.5
150°-160°	393.6	4.0
160°-170°	240.6	2.4
170°-180°	81.2	0.8
0°-30°	3206.9	32.4
0°-40°	4026.4	40.7
0°-60°	4552.6	46.0
0°-90°	4631.0	46.8
90°-120°	2436.8	24.6
90°-150°	4541.8	45.9
90°-180°	5257.0	53.2
0°-180°	9888.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	7974	7974	7974	7974	7974	
5°	7669	7658	7593	7703	7678	692
15°	5115	5057	4954	4989	4973	1388
25°	2453	2449	2405	2384	2388	1154
35°	1330	1338	1307	1286	1273	834
45°	487	560	581	541	434	389
55°	85	99	158	92	81	83
65°	44	45	45	42	41	44
75°	24	24	24	23	23	25
85°	7	7	6	7	6	7
90°	0	3	7	6	6	2
95°	44	134	597	213	131	51
105°	180	260	1051	2008	1901	192
115°	333	398	856	1765	2076	330
125°	463	516	845	1393	1642	412
135°	560	618	841	1202	1356	432
145°	654	702	838	1036	1134	409
155°	746	771	844	927	962	344
165°	814	822	846	878	888	229
175°	849	849	849	855	853	81
180°	852	852	852	852	852	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	7973.5	7973.5	7973.5	7973.5	7973.5
2.5°	7961.1	7947.8	7871.7	7934.7	7919.2
5°	7669.4	7658.3	7593.0	7702.8	7677.9
7.5°	7067.1	7076.5	7038.2	7135.2	7108.7
10°	6553.4	6578.3	6522.2	6663.0	6568.9
12.5°	5986.4	5970.4	5931.5	5953.3	5901.3
15°	5114.8	5056.7	4953.6	4988.6	4973.4
17.5°	4119.9	4142.3	4052.8	4049.0	4031.9
20°	3534.8	3541.7	3488.1	3516.4	3513.6
22.5°	3064.1	3065.5	2997.0	3038.3	3013.4
25°	2452.7	2448.6	2404.6	2383.5	2387.7
27.5°	2011.4	1994.3	1961.1	1975.0	1964.7
30°	1790.8	1776.9	1742.7	1750.9	1738.4
32.5°	1592.7	1593.3	1558.2	1554.0	1544.9
35°	1329.6	1337.9	1307.0	1285.5	1273.0
37.5°	1094.8	1102.6	1076.4	1045.1	1034.6
40°	942.1	947.6	929.3	892.4	884.1
42.5°	775.7	798.9	781.1	746.2	727.9
45°	486.6	559.9	581.4	540.7	434.2
47.5°	246.1	347.6	414.7	306.3	201.7
50°	155.6	226.1	325.3	184.2	137.2
52.5°	119.4	155.6	259.7	136.0	110.0
55°	84.9	98.7	158.4	91.7	80.6
57.5°	65.6	73.4	94.8	69.4	62.5
60°	56.6	62.1	72.1	59.3	52.3
62.5°	50.9	54.2	58.6	50.3	47.8
65°	43.8	45.2	45.3	42.4	41.0
67.5°	37.3	38.7	38.5	37.0	35.6
70°	33.9	35.3	33.9	32.5	31.1
72.5°	29.4	30.8	29.4	29.1	27.7
75°	24.0	24.0	24.0	22.6	22.6
77.5°	18.7	18.9	17.5	17.5	16.4
80°	14.1	15.5	14.1	14.1	14.1
82.5°	11.9	12.2	10.8	10.8	10.8
85°	7.1	7.1	5.7	7.0	5.7
87.5°	2.3	2.9	3.7	3.5	3.5
90°	0.0	3.1	7.3	6.3	6.3
92.5°	15.1	54.2	173.4	57.1	44.0
95°	44.0	134.2	597.4	213.0	131.0
97.5°	82.8	174.6	1013.9	617.5	376.9
100°	108.0	198.1	1170.7	1043.9	677.1
102.5°	136.5	223.4	1151.4	1544.4	1174.3
105°	180.3	260.2	1051.2	2007.8	1901.2
107.5°	227.6	302.9	956.1	2048.0	2160.9
110°	262.0	330.7	910.8	1998.1	2202.0



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	290.5	358.4	882.3	1908.0	2171.0
115°	333.3	397.9	856.3	1764.7	2076.3
117.5°	377.3	435.5	846.2	1633.5	1943.6
120°	402.5	459.9	843.7	1552.7	1853.0
122.5°	426.8	483.3	844.5	1482.7	1762.5
125°	463.3	516.5	844.8	1393.3	1642.3
127.5°	494.5	549.0	844.5	1326.4	1534.0
130°	514.6	569.9	843.7	1288.1	1473.6
132.5°	532.2	590.0	842.9	1252.6	1426.7
135°	559.7	618.1	840.6	1202.5	1356.2
137.5°	586.5	645.3	838.3	1151.6	1288.1
140°	605.8	662.2	837.4	1117.0	1246.2
142.5°	624.2	678.1	837.4	1084.0	1199.2
145°	654.0	702.2	838.5	1035.6	1134.0
147.5°	682.9	724.7	839.9	994.5	1070.5
150°	702.2	739.1	841.6	969.9	1034.5
152.5°	721.5	751.8	842.5	951.2	1002.6
155°	746.2	770.8	843.7	927.3	962.1
157.5°	769.7	787.3	845.0	909.7	934.1
160°	784.0	798.3	845.8	898.7	918.1
162.5°	796.5	807.6	845.8	889.3	903.9
165°	814.4	821.5	845.8	877.5	887.7
167.5°	826.9	831.4	846.0	868.6	873.9
170°	835.3	837.4	846.9	862.6	864.7
172.5°	841.2	842.4	848.5	859.2	858.8
175°	848.9	848.9	848.9	855.2	853.1
177.5°	852.1	851.3	850.4	854.5	851.3
180°	852.1	852.1	852.1	852.1	852.1

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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	3.45	4.12	4.47	5.12	6.46	3.07	3.74	4.09	4.74	6.07
	3H	4.49	5.09	5.53	6.10	7.45	4.06	4.66	5.09	5.67	7.02
	4H	4.92	5.48	5.96	6.49	7.85	4.48	5.04	5.53	6.06	7.42
	6H	5.23	5.74	6.28	6.76	8.13	4.81	5.33	5.86	6.35	7.72
	8H	5.32	5.81	6.38	6.85	8.21	4.91	5.40	5.97	6.43	7.80
	12H	5.39	5.85	6.45	6.88	8.27	4.96	5.42	6.02	6.45	7.84
4H	2H	3.67	4.23	4.72	5.25	6.61	3.34	3.90	4.39	4.92	6.28
	3H	4.96	5.42	6.01	6.47	7.84	4.58	5.04	5.63	6.09	7.46
	4H	5.52	5.94	6.58	6.98	8.37	5.13	5.56	6.19	6.60	7.99
	6H	5.97	6.33	7.04	7.39	8.78	5.59	5.95	6.66	7.01	8.40
	8H	6.13	6.46	7.19	7.52	8.92	5.75	6.08	6.81	7.14	8.54
	12H	6.23	6.53	7.31	7.60	9.01	5.83	6.13	6.91	7.20	8.61
8H	4H	5.66	6.00	6.73	7.05	8.45	5.31	5.65	6.38	6.70	8.11
	6H	6.24	6.52	7.33	7.61	9.01	5.90	6.17	6.99	7.27	8.67
	8H	6.49	6.73	7.59	7.81	9.23	6.14	6.38	7.24	7.46	8.88
	12H	6.68	6.89	7.78	7.96	9.42	6.31	6.52	7.40	7.59	9.05
12H	4H	5.63	5.94	6.72	7.00	8.41	5.30	5.60	6.38	6.67	8.07
	6H	6.27	6.51	7.36	7.59	9.01	5.93	6.17	7.03	7.25	8.67
	8H	6.54	6.75	7.63	7.82	9.28	6.20	6.41	7.30	7.48	8.94