

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: P854483

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

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854483  
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-125D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 1250 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

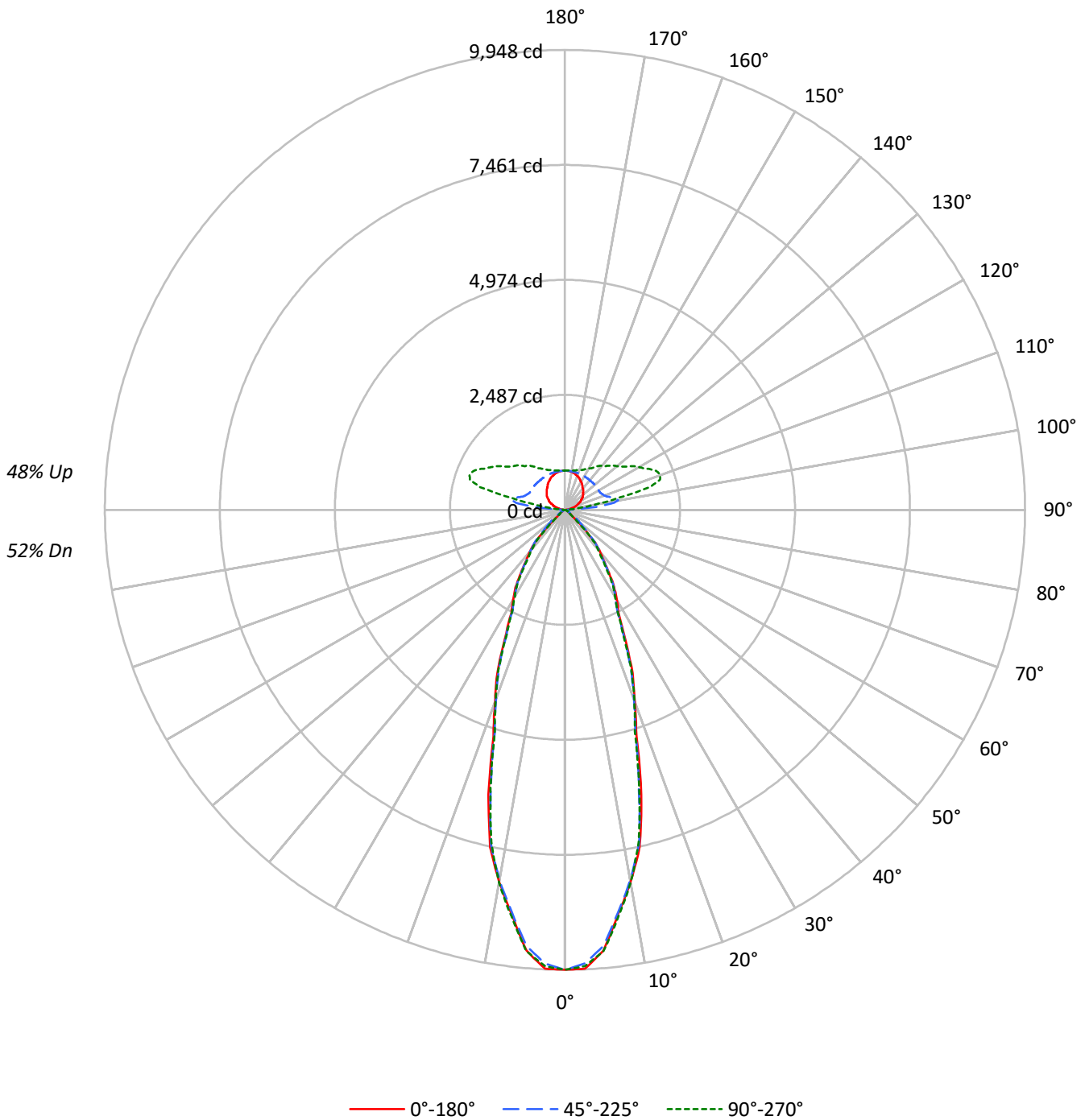
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11016.4 lumens  
Efficiency: N/A  
Efficacy: 117.7 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: General Diffuse  
  
Input Watts (W): 93.6  
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				
RC	80					70					50					30				
RW	70	50	30	10	70	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	58	58	58	52		
1	101	97	94	91	93	90	88	86	78	76	74	66	65	64	55	55	54	49		
2	94	88	83	79	87	82	78	75	71	69	66	61	59	58	52	51	50	45		
3	88	80	74	70	82	75	70	66	66	62	59	57	55	52	49	47	46	42		
4	82	73	67	62	76	69	64	59	61	57	54	53	50	48	46	44	43	39		
5	77	67	61	56	72	64	58	54	56	52	49	50	47	44	44	41	40	37		
6	72	62	56	51	67	59	53	49	53	48	45	47	43	41	41	39	37	35		
7	68	58	51	47	64	55	49	45	49	45	41	44	41	38	39	37	35	32		
8	64	54	47	43	60	51	45	41	46	42	38	41	38	36	37	35	33	31		
9	61	50	44	40	57	48	42	38	43	39	36	39	36	33	35	33	31	29		
10	57	47	41	37	54	45	39	36	41	37	34	37	34	31	33	31	29	27		

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

	0°	45°	90°
0°	160612	160612	160612
5°	155077	153532	155249
10°	134043	133407	134361
15°	106664	103301	103714
20°	75773	74773	75317
25°	54514	53445	53067
30°	41652	40533	40434
35°	32696	32140	31304
40°	24772	24437	23246
45°	13862	16561	12371
50°	4875	10196	4300
55°	2981	5562	2832
60°	2280	2906	2109
65°	2090	2159	1956
70°	2002	2002	1832
75°	1871	1871	1759
80°	1636	1636	1636
85°	1630	1315	1315

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 16561 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	863.5	7.8
10°-20°	1716.2	15.6
20°-30°	1421.2	12.9
30°-40°	1022.4	9.3
40°-50°	520.9	4.7
50°-60°	135.6	1.2
60°-70°	56.2	0.5
70°-80°	31.2	0.3
80°-90°	10.2	0.1
90°-100°	324.8	2.9
100°-110°	1057.5	9.6
110°-120°	1046.1	9.5
120°-130°	854.9	7.8
130°-140°	698.7	6.3
140°-150°	544.2	4.9
150°-160°	392.3	3.6
160°-170°	239.8	2.2
170°-180°	80.9	0.7
0°-30°	4000.8	36.3
0°-40°	5023.2	45.6
0°-60°	5679.7	51.6
0°-90°	5777.4	52.4
90°-120°	2428.4	22.0
90°-150°	4526.1	41.1
90°-180°	5239.0	47.6
0°-180°	11016.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	9948	9948	9948	9948	9948	
5°	9568	9554	9473	9610	9579	863
15°	6381	6309	6180	6224	6205	1732
25°	3060	3055	3000	2974	2979	1439
35°	1659	1669	1631	1604	1588	1041
45°	607	698	725	675	542	485
55°	106	123	198	114	101	104
65°	55	56	56	53	51	55
75°	30	30	30	28	28	32
85°	9	9	7	9	7	9
90°	0	3	7	6	6	2
95°	44	134	595	212	131	51
105°	180	259	1048	2001	1895	192
115°	332	396	853	1759	2069	329
125°	462	515	842	1388	1637	411
135°	558	616	838	1198	1352	431
145°	652	700	836	1032	1130	408
155°	744	768	841	924	959	343
165°	812	819	843	874	885	229
175°	846	846	846	852	850	80
180°	849	849	849	849	849	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	9947.6	9947.6	9947.6	9947.6	9947.6
2.5°	9932.1	9915.6	9820.6	9899.2	9879.9
5°	9568.2	9554.4	9472.9	9609.9	9578.8
7.5°	8816.8	8828.6	8780.8	8901.8	8868.7
10°	8175.9	8206.9	8137.1	8312.6	8195.3
12.5°	7468.6	7448.6	7400.1	7427.2	7362.4
15°	6381.2	6308.7	6180.0	6223.7	6204.7
17.5°	5139.9	5167.8	5056.2	5051.5	5030.1
20°	4410.0	4418.6	4351.8	4387.0	4383.5
22.5°	3822.7	3824.4	3739.1	3790.6	3759.5
25°	3060.0	3054.8	3000.0	2973.6	2978.8
27.5°	2509.4	2488.0	2446.6	2463.9	2451.2
30°	2234.1	2216.9	2174.1	2184.4	2168.8
32.5°	1987.1	1987.7	1944.0	1938.8	1927.4
35°	1658.8	1669.2	1630.6	1603.8	1588.2
37.5°	1365.9	1375.5	1342.9	1303.8	1290.7
40°	1175.3	1182.2	1159.4	1113.3	1102.9
42.5°	967.8	996.8	974.5	930.9	908.1
45°	607.1	698.5	725.3	674.6	541.8
47.5°	307.1	433.7	517.4	382.1	251.6
50°	194.1	282.1	405.9	229.8	171.2
52.5°	148.9	194.1	324.0	169.7	137.3
55°	105.9	123.1	197.6	114.4	100.6
57.5°	81.9	91.5	118.2	86.6	78.0
60°	70.6	77.5	90.0	73.9	65.3
62.5°	63.5	67.7	73.1	62.8	59.6
65°	54.7	56.4	56.5	52.9	51.2
67.5°	46.6	48.3	48.0	46.2	44.5
70°	42.4	44.1	42.4	40.5	38.8
72.5°	36.7	38.4	36.7	36.3	34.6
75°	30.0	30.0	30.0	28.2	28.2
77.5°	23.3	23.6	21.9	21.9	20.5
80°	17.6	19.4	17.6	17.6	17.6
82.5°	14.8	15.2	13.4	13.4	13.4
85°	8.8	8.8	7.1	8.8	7.1
87.5°	2.8	3.4	4.3	4.1	4.1
90°	0.0	3.1	7.3	6.3	6.3
92.5°	15.0	54.1	172.8	56.9	43.9
95°	43.9	133.7	595.3	212.3	130.6
97.5°	82.5	174.0	1010.4	615.4	375.6
100°	107.6	197.4	1166.7	1040.3	674.7
102.5°	136.0	222.6	1147.4	1539.1	1170.2
105°	179.6	259.3	1047.6	2000.8	1894.6
107.5°	226.9	301.8	952.7	2040.9	2153.4
110°	261.1	329.5	907.6	1991.2	2194.4



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	289.5	357.1	879.2	1901.4	2163.5
115°	332.1	396.5	853.3	1758.6	2069.1
117.5°	376.0	434.0	843.3	1627.8	1936.8
120°	401.1	458.3	840.8	1547.4	1846.6
122.5°	425.3	481.7	841.6	1477.5	1756.3
125°	461.6	514.8	841.8	1388.5	1636.7
127.5°	492.8	547.1	841.6	1321.8	1528.7
130°	512.8	568.0	840.8	1283.7	1468.5
132.5°	530.4	588.0	839.9	1248.3	1421.7
135°	557.7	615.9	837.6	1198.3	1351.5
137.5°	584.5	643.1	835.4	1147.6	1283.6
140°	603.7	659.9	834.5	1113.2	1241.9
142.5°	622.1	675.8	834.5	1080.3	1195.1
145°	651.7	699.7	835.6	1032.1	1130.1
147.5°	680.6	722.2	837.0	991.0	1066.8
150°	699.8	736.5	838.7	966.5	1030.9
152.5°	719.0	749.2	839.5	947.9	999.1
155°	743.6	768.2	840.8	924.1	958.8
157.5°	767.0	784.6	842.0	906.5	930.8
160°	781.2	795.5	842.9	895.5	914.9
162.5°	793.8	804.8	842.9	886.2	900.7
165°	811.5	818.7	842.9	874.4	884.6
167.5°	824.1	828.6	843.1	865.6	870.9
170°	832.4	834.5	843.9	859.6	861.7
172.5°	838.3	839.5	845.6	856.2	855.8
175°	846.0	846.0	846.0	852.2	850.2
177.5°	849.1	848.3	847.5	851.6	848.3
180°	849.1	849.1	849.1	849.1	849.1

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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	4.78	5.47	5.75	6.43	7.68	4.39	5.08	5.37	6.04	7.30
	3H	5.82	6.44	6.81	7.41	8.68	5.39	6.00	6.37	6.97	8.25
	4H	6.25	6.83	7.25	7.80	9.09	5.81	6.39	6.81	7.36	8.65
	6H	6.56	7.09	7.57	8.07	9.36	6.14	6.67	7.15	7.65	8.94
	8H	6.66	7.16	7.67	8.15	9.45	6.24	6.74	7.25	7.74	9.03
	12H	6.72	7.20	7.74	8.19	9.50	6.29	6.77	7.30	7.75	9.06
4H	2H	4.99	5.57	6.00	6.55	7.83	4.66	5.24	5.67	6.22	7.50
	3H	6.29	6.77	7.30	7.77	9.07	5.91	6.38	6.92	7.39	8.68
	4H	6.85	7.29	7.87	8.29	9.61	6.46	6.90	7.48	7.90	9.21
	6H	7.30	7.68	8.33	8.70	10.02	6.92	7.29	7.95	8.31	9.63
	8H	7.46	7.81	8.49	8.82	10.15	7.07	7.42	8.10	8.43	9.76
	12H	7.56	7.87	8.61	8.90	10.24	7.16	7.47	8.20	8.50	9.83
8H	4H	6.99	7.34	8.02	8.35	9.68	6.64	6.99	7.67	8.00	9.33
	6H	7.58	7.86	8.63	8.92	10.24	7.23	7.51	8.28	8.57	9.89
	8H	7.82	8.07	8.88	9.11	10.46	7.47	7.72	8.53	8.76	10.10
	12H	8.01	8.23	9.07	9.26	10.65	7.64	7.85	8.69	8.89	10.28
12H	4H	6.97	7.28	8.01	8.31	9.64	6.63	6.94	7.67	7.97	9.30
	6H	7.60	7.85	8.66	8.89	10.24	7.26	7.51	8.32	8.55	9.90
	8H	7.87	8.09	8.93	9.12	10.51	7.53	7.75	8.59	8.78	10.17