

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: P854435

Luminaire Tested: SQ2-WBN-050U-125D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

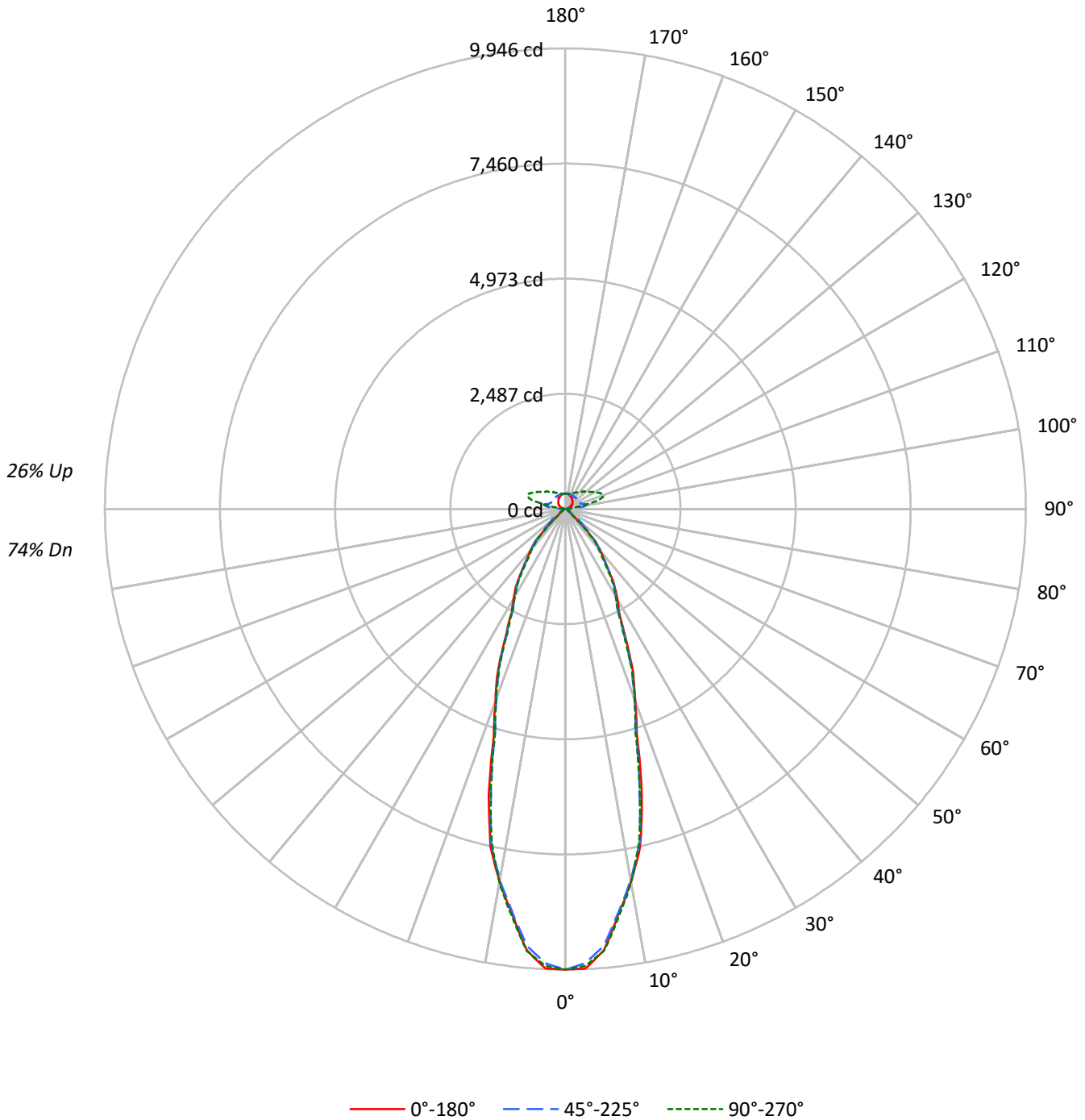
Test Method: LM-79-2019  
Report Number: P854435  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G3-2308-130-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-WBN-050U-125D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1250 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7838.3 lumens  
Efficiency: N/A  
Efficacy: 121.5 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-Direct  
  
Input Watts (W): 64.5  
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	113	113	113	113	107	107	107	107	96	96	96	87	87	87	78	78	78	74
1	106	103	100	98	101	98	96	94	90	88	86	81	80	79	74	73	72	69
2	100	95	90	86	95	91	87	83	83	80	78	76	74	72	70	68	67	64
3	94	87	82	77	90	84	79	75	77	74	71	71	69	66	66	64	62	59
4	89	81	75	70	85	78	72	68	72	68	65	67	64	61	62	60	58	55
5	84	75	69	64	80	72	67	63	68	63	60	63	60	57	59	56	54	52
6	79	70	63	59	76	68	62	58	63	59	55	60	56	53	56	53	51	48
7	75	65	59	55	72	63	58	54	60	55	51	56	52	49	53	50	47	46
8	71	61	55	51	68	60	54	50	56	52	48	53	49	46	50	47	45	43
9	68	58	52	48	65	56	51	47	53	49	45	51	47	44	48	45	42	41
10	64	54	49	45	62	53	48	44	50	46	43	48	44	41	46	42	40	39

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

	0°	45°	90°
0°	160582	160582	160582
5°	155048	153503	155219
10°	134017	133381	134335
15°	106643	103281	103694
20°	75757	74757	75304
25°	54503	53434	53057
30°	41644	40526	40427
35°	32690	32134	31298
40°	24767	24432	23241
45°	13858	16559	12369
50°	4875	10193	4298
55°	2981	5562	2832
60°	2280	2906	2109
65°	2090	2159	1956
70°	1997	1997	1832
75°	1871	1871	1759
80°	1636	1636	1636
85°	1630	1315	1315

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 16559 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	863.3	11.0
10°-20°	1715.8	21.9
20°-30°	1420.9	18.1
30°-40°	1022.2	13.0
40°-50°	520.8	6.6
50°-60°	135.6	1.7
60°-70°	56.2	0.7
70°-80°	31.2	0.4
80°-90°	9.7	0.1
90°-100°	132.3	1.7
100°-110°	419.6	5.4
110°-120°	411.4	5.2
120°-130°	334.8	4.3
130°-140°	273.0	3.5
140°-150°	212.8	2.7
150°-160°	153.3	2.0
160°-170°	93.7	1.2
170°-180°	31.6	0.4
0°-30°	4000.1	51.0
0°-40°	5022.3	64.1
0°-60°	5678.6	72.4
0°-90°	5775.7	73.7
90°-120°	963.3	12.3
90°-150°	1783.9	22.8
90°-180°	2063.0	26.3
0°-180°	7838.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	9946	9946	9946	9946	9946	
5°	9566	9553	9471	9608	9577	863
15°	6380	6308	6179	6222	6204	1732
25°	3059	3054	2999	2973	2978	1439
35°	1658	1669	1630	1604	1588	1041
45°	607	698	725	674	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	1	3	3	3	1
95°	18	54	240	89	57	21
105°	73	103	414	788	755	77
115°	131	155	334	694	817	129
125°	181	202	329	544	641	161
135°	218	240	327	468	528	169
145°	255	274	327	404	440	160
155°	290	301	328	361	375	134
165°	316	320	329	342	345	89
175°	331	330	331	333	332	31
180°	332	332	332	332	332	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	9945.7	9945.7	9945.7	9945.7	9945.7
2.5°	9930.2	9913.6	9818.7	9897.3	9878.0
5°	9566.4	9552.6	9471.1	9608.0	9577.0
7.5°	8815.1	8826.8	8779.1	8900.1	8867.0
10°	8174.3	8205.3	8135.5	8311.0	8193.7
12.5°	7467.1	7447.1	7398.7	7425.8	7360.9
15°	6379.9	6307.5	6178.8	6222.5	6203.5
17.5°	5138.9	5166.8	5055.3	5050.5	5029.1
20°	4409.1	4417.8	4350.9	4386.1	4382.7
22.5°	3822.0	3823.7	3738.3	3789.9	3758.8
25°	3059.4	3054.2	2999.4	2973.1	2978.2
27.5°	2508.9	2487.5	2446.1	2463.5	2450.7
30°	2233.7	2216.4	2173.7	2183.9	2168.4
32.5°	1986.7	1987.4	1943.6	1938.4	1927.0
35°	1658.5	1668.9	1630.3	1603.5	1587.9
37.5°	1365.6	1375.3	1342.7	1303.6	1290.5
40°	1175.1	1182.0	1159.2	1113.1	1102.7
42.5°	967.6	996.6	974.3	930.7	907.9
45°	606.9	698.4	725.2	674.5	541.7
47.5°	307.0	433.6	517.3	382.0	251.6
50°	194.1	282.1	405.8	229.8	171.1
52.5°	148.9	194.1	323.9	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	73.0	62.7	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°	42.3	44.1	42.3	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	21.8	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	3.0	3.4	3.4	3.4
90°	0.0	1.0	3.1	3.1	3.1
92.5°	5.8	23.2	74.2	24.7	17.3
95°	17.8	53.5	240.2	89.1	57.4
97.5°	33.0	69.4	406.9	254.3	156.0
100°	43.9	78.6	463.7	422.8	274.7
102.5°	55.6	88.7	453.7	620.9	475.2
105°	73.1	102.7	413.6	787.8	755.2
107.5°	90.7	118.0	375.4	805.2	849.4
110°	102.4	128.9	356.2	785.2	866.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	114.1	139.0	345.3	750.6	854.4
115°	130.6	155.1	334.2	694.2	816.8
117.5°	146.6	169.9	329.8	639.9	763.5
120°	156.7	179.1	329.0	606.4	725.9
122.5°	166.7	188.3	329.0	579.5	690.8
125°	180.7	202.1	329.0	544.3	641.3
127.5°	193.0	213.6	329.0	517.0	599.7
130°	200.5	222.0	329.0	501.0	575.5
132.5°	208.1	229.5	328.2	488.3	555.5
135°	218.3	239.7	326.9	468.2	527.5
137.5°	228.3	250.8	326.7	449.1	502.0
140°	235.0	257.5	325.9	435.6	483.6
142.5°	243.4	265.0	326.7	422.1	466.9
145°	254.9	274.3	326.9	404.0	439.7
147.5°	266.3	282.9	327.1	388.0	417.2
150°	274.7	288.0	328.0	378.6	402.1
152.5°	281.4	293.0	328.0	371.0	390.4
155°	290.4	300.6	328.0	360.7	375.0
157.5°	300.0	306.9	329.0	354.3	364.1
160°	305.0	311.1	329.0	350.1	358.3
162.5°	310.0	314.5	329.0	346.7	352.4
165°	316.5	319.5	329.0	341.6	344.7
167.5°	322.5	323.4	330.1	338.1	340.7
170°	325.9	325.9	330.1	336.3	337.4
172.5°	327.5	328.4	330.1	334.7	334.9
175°	331.1	330.1	331.1	333.2	332.1
177.5°	332.1	331.3	331.3	332.9	331.3
180°	332.1	332.1	332.1	332.1	332.1



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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	6.66	7.47	7.43	8.22	9.12	6.27	7.08	7.04	7.83	8.74
	3H	7.71	8.42	8.49	9.19	10.12	7.27	7.99	8.05	8.75	9.69
	4H	8.14	8.80	8.93	9.58	10.53	7.70	8.37	8.50	9.14	10.09
	6H	8.45	9.06	9.26	9.85	10.80	8.03	8.64	8.84	9.43	10.38
	8H	8.55	9.13	9.37	9.93	10.89	8.13	8.71	8.95	9.51	10.47
	12H	8.62	9.17	9.43	9.96	10.94	8.18	8.73	9.00	9.53	10.51
4H	2H	6.88	7.55	7.69	8.33	9.28	6.55	7.22	7.36	8.00	8.95
	3H	8.18	8.73	8.99	9.54	10.50	7.80	8.35	8.61	9.16	10.12
	4H	8.74	9.24	9.56	10.05	11.04	8.35	8.85	9.17	9.66	10.65
	6H	9.20	9.62	10.04	10.45	11.46	8.81	9.24	9.65	10.07	11.07
	8H	9.35	9.75	10.19	10.57	11.58	8.97	9.36	9.81	10.19	11.20
	12H	9.46	9.81	10.31	10.66	11.67	9.06	9.40	9.91	10.25	11.27
8H	4H	8.89	9.28	9.73	10.11	11.12	8.54	8.93	9.38	9.76	10.77
	6H	9.47	9.79	10.34	10.66	11.67	9.12	9.44	9.98	10.31	11.32
	8H	9.71	9.99	10.59	10.86	11.89	9.36	9.64	10.23	10.51	11.53
	12H	9.90	10.15	10.78	11.00	12.09	9.53	9.77	10.40	10.63	11.72
12H	4H	8.86	9.21	9.72	10.06	11.07	8.52	8.87	9.38	9.72	10.73
	6H	9.49	9.77	10.37	10.64	11.67	9.15	9.43	10.03	10.30	11.33
	8H	9.76	10.01	10.64	10.87	11.95	9.42	9.67	10.30	10.52	11.61