

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: P854467

Luminaire Tested: SQ2-WBN-100U-100D-935-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854467  
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-100D-935-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

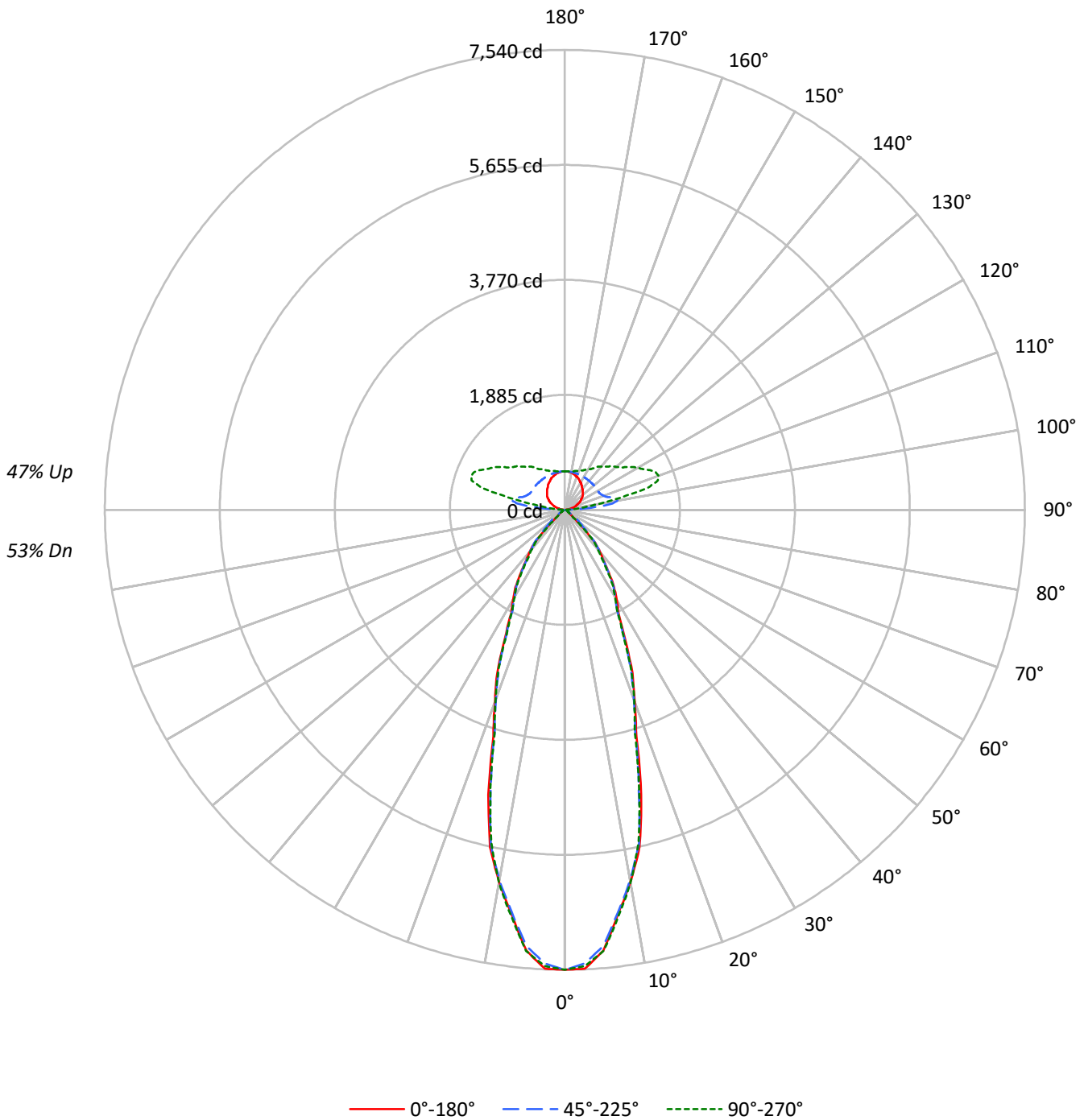
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8307.0 lumens  
Efficiency: N/A  
Efficacy: 117.5 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: General Diffuse  
  
Input Watts (W): 70.7  
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	50	30	10	0	
RCR																						
0	108	108	108	108	100	100	100	100	85	85	85	71	71	71	59	59	59	53				
1	101	97	94	92	93	91	88	86	78	76	74	66	65	64	55	55	54	49				
2	94	88	83	79	87	82	78	75	72	69	66	62	60	58	52	51	50	46				
3	88	80	75	70	82	75	70	66	66	62	59	57	55	53	49	48	46	42				
4	82	74	67	62	77	69	64	59	61	57	54	53	51	48	46	44	43	40				
5	77	68	61	56	72	64	58	54	57	52	49	50	47	44	44	42	40	37				
6	72	62	56	51	68	59	53	49	53	48	45	47	44	41	41	39	37	35				
7	68	58	51	47	64	55	49	45	49	45	42	44	41	38	39	37	35	33				
8	64	54	47	43	60	51	46	42	46	42	39	42	38	36	37	35	33	31				
9	61	50	44	40	57	48	42	39	44	39	36	39	36	33	35	33	31	29				
10	57	47	41	37	54	45	40	36	41	37	34	37	34	31	34	31	29	28				

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

	0°	45°	90°
0°	121736	121736	121736
5°	117542	116370	117671
10°	101598	101116	101839
15°	80846	78297	78611
20°	57433	56673	57087
25°	41318	40509	40223
30°	31571	30723	30648
35°	24782	24360	23727
40°	18775	18522	17620
45°	10506	12552	9376
50°	3695	7726	3258
55°	2260	4217	2145
60°	1728	2202	1598
65°	1585	1635	1482
70°	1515	1515	1388
75°	1416	1416	1335
80°	1246	1246	1246
85°	1241	1000	1000

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 12552 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	654.5	7.9
10°-20°	1300.8	15.7
20°-30°	1077.2	13.0
30°-40°	774.9	9.3
40°-50°	394.8	4.8
50°-60°	102.8	1.2
60°-70°	42.6	0.5
70°-80°	23.7	0.3
80°-90°	8.2	0.1
90°-100°	263.6	3.2
100°-110°	797.1	9.6
110°-120°	778.2	9.4
120°-130°	635.9	7.7
130°-140°	519.0	6.2
140°-150°	404.0	4.9
150°-160°	291.3	3.5
160°-170°	178.3	2.1
170°-180°	60.2	0.7
0°-30°	3032.4	36.5
0°-40°	3807.4	45.8
0°-60°	4304.9	51.8
0°-90°	4379.4	52.7
90°-120°	1838.8	22.1
90°-150°	3397.8	40.9
90°-180°	3928.0	47.3
0°-180°	8307.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	7540	7540	7540	7540	7540	
5°	7252	7242	7180	7284	7260	654
15°	4837	4782	4684	4717	4703	1313
25°	2319	2315	2274	2254	2258	1091
35°	1257	1265	1236	1216	1204	789
45°	460	529	550	511	411	368
55°	80	93	150	87	76	79
65°	42	43	43	40	39	41
75°	23	23	23	21	21	24
85°	7	7	5	7	5	7
90°	0	2	12	7	6	2
95°	33	103	497	184	116	39
105°	139	195	783	1486	1413	146
115°	247	294	633	1310	1539	244
125°	345	382	624	1034	1218	306
135°	413	457	620	892	1004	320
145°	482	518	620	767	839	302
155°	550	568	624	688	714	253
165°	601	608	627	651	659	169
175°	629	629	630	635	633	60
180°	631	631	631	631	631	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	7539.8	7539.8	7539.8	7539.8	7539.8
2.5°	7528.1	7515.5	7443.5	7503.1	7488.5
5°	7252.3	7241.8	7180.0	7283.8	7260.3
7.5°	6682.7	6691.6	6655.4	6747.2	6722.1
10°	6196.9	6220.5	6167.5	6300.6	6211.6
12.5°	5660.8	5645.7	5608.9	5629.5	5580.3
15°	4836.6	4781.7	4684.1	4717.3	4702.9
17.5°	3895.8	3917.0	3832.4	3828.8	3812.6
20°	3342.6	3349.1	3298.4	3325.1	3322.5
22.5°	2897.4	2898.7	2834.0	2873.1	2849.5
25°	2319.3	2315.4	2273.9	2253.9	2257.8
27.5°	1902.0	1885.8	1854.4	1867.6	1857.9
30°	1693.4	1680.3	1647.9	1655.6	1643.9
32.5°	1506.1	1506.6	1473.5	1469.5	1460.9
35°	1257.3	1265.2	1235.9	1215.6	1203.8
37.5°	1035.3	1042.6	1017.9	988.2	978.3
40°	890.8	896.0	878.8	843.8	836.0
42.5°	733.5	755.5	738.6	705.6	688.3
45°	460.1	529.4	549.7	511.3	410.6
47.5°	232.7	328.7	392.2	289.6	190.7
50°	147.1	213.8	307.6	174.2	129.7
52.5°	112.9	147.2	245.6	128.6	104.1
55°	80.3	93.3	149.8	86.7	76.2
57.5°	62.1	69.4	89.6	65.7	59.1
60°	53.5	58.7	68.2	56.0	49.5
62.5°	48.2	51.3	55.4	47.6	45.2
65°	41.5	42.8	42.8	40.1	38.8
67.5°	35.3	36.6	36.4	35.0	33.7
70°	32.1	33.4	32.1	30.7	29.4
72.5°	27.8	29.1	27.8	27.5	26.2
75°	22.7	22.7	22.7	21.4	21.4
77.5°	17.7	17.9	16.6	16.6	15.5
80°	13.4	14.7	13.4	13.4	13.4
82.5°	11.2	11.5	10.2	10.2	10.2
85°	6.7	6.7	5.4	6.7	5.4
87.5°	2.1	2.5	4.5	3.5	3.3
90°	0.0	1.9	11.9	6.9	5.9
92.5°	11.1	44.8	160.9	53.4	38.4
95°	32.7	103.4	497.3	183.7	115.9
97.5°	63.2	131.6	783.8	518.7	315.8
100°	82.2	149.1	875.8	846.7	568.7
102.5°	103.6	168.1	856.8	1187.5	946.7
105°	138.7	194.9	782.7	1486.4	1412.7
107.5°	172.0	225.6	711.3	1515.9	1601.2
110°	194.2	245.5	675.7	1478.7	1633.7



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	215.6	265.4	654.3	1416.2	1612.3
115°	246.7	294.1	633.1	1309.9	1538.6
117.5°	277.6	322.5	625.5	1210.4	1444.4
120°	298.2	340.8	623.1	1152.3	1377.1
122.5°	317.2	357.5	623.1	1101.2	1308.9
125°	344.8	382.5	624.1	1034.5	1217.6
127.5°	367.2	406.3	623.1	984.1	1140.3
130°	381.4	422.1	623.1	955.3	1096.7
132.5°	394.1	435.6	622.4	928.9	1059.5
135°	413.1	456.7	620.2	892.2	1003.6
137.5°	434.3	475.8	620.2	853.0	956.2
140°	447.8	488.5	620.2	827.5	925.3
142.5°	461.3	500.4	619.4	804.2	889.6
145°	482.5	518.3	620.2	767.4	839.1
147.5°	503.7	534.1	621.4	737.1	792.2
150°	517.1	545.2	622.2	720.3	766.8
152.5°	529.8	554.8	622.9	705.8	743.8
155°	549.8	568.2	624.1	688.1	714.3
157.5°	567.3	582.2	625.3	675.1	693.3
160°	577.6	590.2	626.1	667.0	680.6
162.5°	587.9	597.4	626.9	659.9	671.1
165°	601.4	608.1	627.1	651.1	658.8
167.5°	612.8	616.3	628.3	644.2	647.5
170°	619.2	621.1	629.1	641.0	642.0
172.5°	623.1	624.3	629.1	637.8	638.0
175°	629.1	629.1	630.1	635.0	633.1
177.5°	631.9	631.1	630.3	632.6	631.1
180°	631.1	631.1	631.1	631.1	631.1

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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	3.84	4.53	4.81	5.49	6.74	3.45	4.15	4.43	5.10	6.35
	3H	4.88	5.50	5.87	6.47	7.74	4.45	5.07	5.43	6.03	7.31
	4H	5.31	5.89	6.31	6.86	8.14	4.87	5.45	5.87	6.42	7.70
	6H	5.62	6.15	6.63	7.13	8.42	5.20	5.74	6.21	6.71	8.00
	8H	5.72	6.22	6.73	7.22	8.50	5.31	5.81	6.32	6.80	8.09
	12H	5.79	6.26	6.80	7.25	8.56	5.36	5.83	6.37	6.82	8.13
4H	2H	4.06	4.64	5.06	5.61	6.89	3.73	4.31	4.73	5.28	6.56
	3H	5.35	5.83	6.36	6.83	8.12	4.97	5.45	5.98	6.45	7.74
	4H	5.91	6.35	6.93	7.34	8.66	5.52	5.96	6.54	6.96	8.27
	6H	6.36	6.74	7.39	7.76	9.07	5.99	6.36	7.01	7.38	8.69
	8H	6.52	6.87	7.55	7.88	9.21	6.14	6.49	7.17	7.50	8.83
	12H	6.63	6.94	7.67	7.96	9.29	6.23	6.54	7.27	7.57	8.90
8H	4H	6.05	6.40	7.08	7.41	8.74	5.71	6.05	6.73	7.06	8.39
	6H	6.64	6.92	7.69	7.98	9.30	6.29	6.58	7.34	7.63	8.95
	8H	6.89	7.13	7.94	8.17	9.52	6.54	6.79	7.59	7.83	9.17
	12H	7.08	7.29	8.13	8.33	9.71	6.71	6.93	7.76	7.96	9.35
12H	4H	6.03	6.34	7.07	7.37	8.69	5.69	6.00	6.73	7.03	8.36
	6H	6.66	6.91	7.72	7.95	9.29	6.33	6.58	7.38	7.62	8.96
	8H	6.94	7.15	7.99	8.19	9.57	6.60	6.82	7.66	7.85	9.24