

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: P854438

Luminaire Tested: SQ2-WBN-075U-050D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854438  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-11, G3-2308-130-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-WBN-075U-050D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 750 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

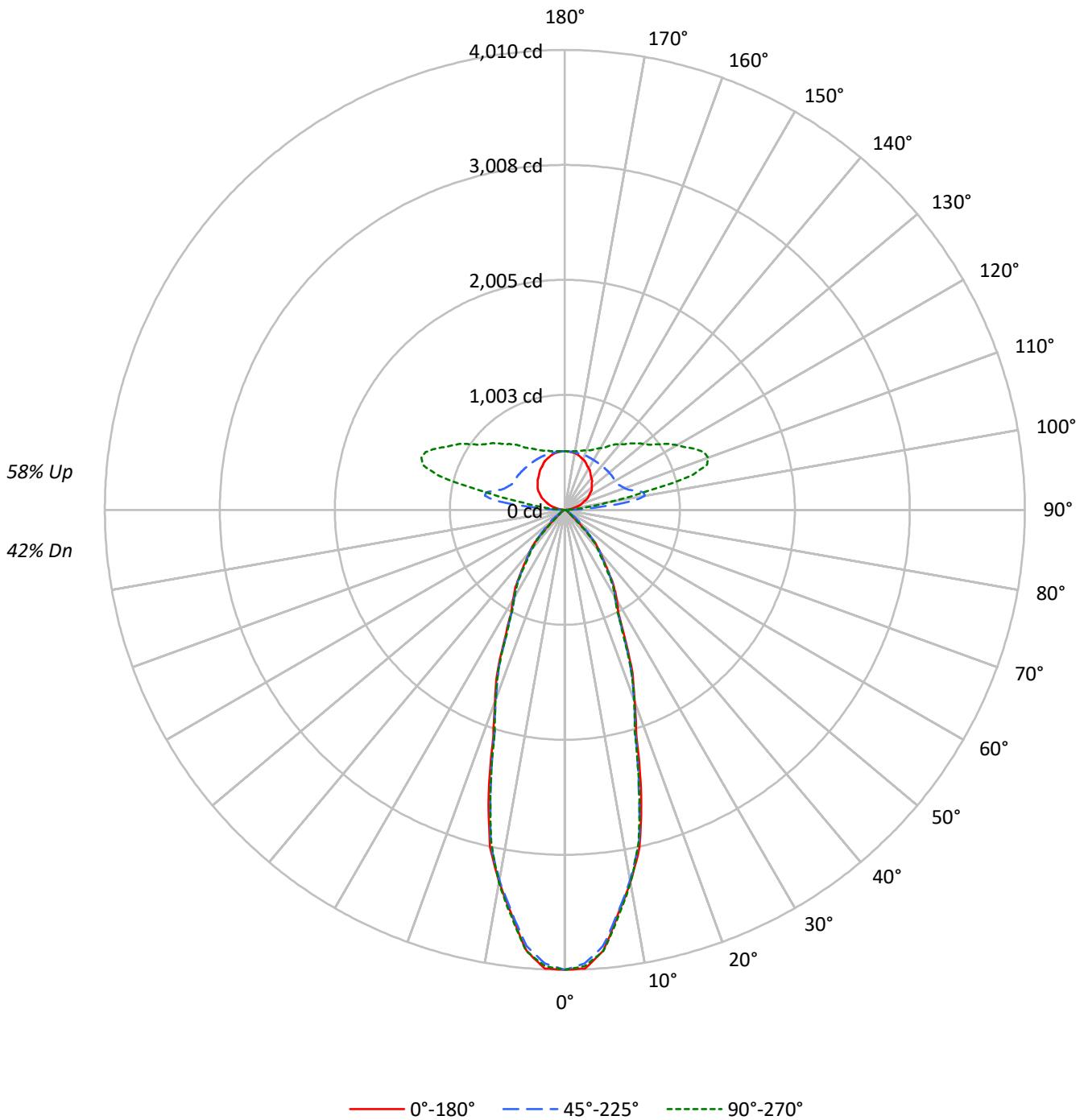
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5491.7 lumens  
Efficiency: N/A  
Efficacy: 132.6 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): 41.4  
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	105	105	105	105	96	96	96	96	79	79	79	63	63	63	49	49	49	42				42
1	98	94	91	88	90	87	84	82	72	70	69	59	58	57	46	46	45	40				40
2	91	85	80	76	83	78	74	71	66	63	60	54	52	51	44	42	42	37				37
3	85	77	71	66	78	71	66	62	60	57	54	50	48	46	41	39	38	34				34
4	79	70	64	59	72	65	59	55	56	52	48	47	44	42	38	37	35	32				32
5	74	64	57	52	68	60	54	49	51	47	44	43	41	38	36	34	33	30				30
6	69	59	52	47	63	55	49	45	48	43	40	41	38	35	34	32	31	28				28
7	65	54	48	43	60	51	45	41	44	40	37	38	35	33	32	30	29	26				26
8	61	50	44	39	56	47	41	37	41	37	34	36	33	30	31	29	27	25				25
9	57	47	40	36	53	44	38	34	39	34	31	34	31	28	29	27	25	23				23
10	54	44	37	33	50	41	36	32	36	32	29	32	29	27	28	26	24	22				22

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

	0°	45°	90°
0°	64738	64738	64738
5°	62508	61885	62577
10°	54029	53772	54157
15°	42994	41638	41805
20°	30543	30139	30359
25°	21973	21542	21390
30°	16789	16337	16298
35°	13178	12954	12619
40°	9984	9849	9371
45°	5587	6674	4987
50°	1964	4109	1733
55°	1202	2244	1140
60°	920	1172	849
65°	844	871	787
70°	807	807	736
75°	755	755	711
80°	660	660	660
85°	667	519	519

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 6674 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	348.0	6.3
10°-20°	691.7	12.6
20°-30°	572.9	10.4
30°-40°	412.1	7.5
40°-50°	209.9	3.8
50°-60°	54.7	1.0
60°-70°	22.7	0.4
70°-80°	12.6	0.2
80°-90°	4.2	0.1
90°-100°	193.2	3.5
100°-110°	640.4	11.7
110°-120°	635.6	11.6
120°-130°	517.7	9.4
130°-140°	420.8	7.7
140°-150°	326.8	6.0
150°-160°	235.4	4.3
160°-170°	144.2	2.6
170°-180°	48.7	0.9
0°-30°	1612.6	29.4
0°-40°	2024.7	36.9
0°-60°	2289.3	41.7
0°-90°	2328.8	42.4
90°-120°	1469.2	26.8
90°-150°	2734.5	49.8
90°-180°	3163.0	57.6
0°-180°	5491.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4010	4010	4010	4010	4010	
5°	3857	3851	3818	3874	3861	348
15°	2572	2543	2491	2509	2501	698
25°	1233	1231	1209	1199	1201	580
35°	669	673	657	646	640	420
45°	245	282	292	272	218	196
55°	43	50	80	46	40	42
65°	22	23	23	21	21	22
75°	12	12	12	11	11	13
85°	4	4	3	4	3	4
90°	0	1	3	4	4	1
95°	28	81	350	125	84	31
105°	112	160	641	1209	1131	118
115°	200	239	516	1074	1256	198
125°	279	310	507	844	995	248
135°	334	368	502	724	818	259
145°	388	417	501	623	682	243
155°	443	459	504	557	578	204
165°	486	492	507	527	532	137
175°	509	509	510	513	512	48
180°	511	511	511	511	511	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	4009.6	4009.6	4009.6	4009.6	4009.6
2.5°	4003.4	3996.7	3958.4	3990.1	3982.3
5°	3856.7	3851.1	3818.3	3873.5	3861.0
7.5°	3553.8	3558.6	3539.3	3588.1	3574.7
10°	3295.5	3308.0	3279.8	3350.6	3303.3
12.5°	3010.4	3002.3	2982.8	2993.7	2967.6
15°	2572.1	2542.9	2491.0	2508.6	2501.0
17.5°	2071.8	2083.0	2038.0	2036.1	2027.5
20°	1777.6	1781.0	1754.1	1768.3	1766.9
22.5°	1540.8	1541.5	1507.1	1527.9	1515.4
25°	1233.4	1231.3	1209.2	1198.6	1200.7
27.5°	1011.5	1002.9	986.2	993.2	988.0
30°	900.5	893.6	876.3	880.5	874.2
32.5°	800.9	801.2	783.6	781.5	776.9
35°	668.6	672.8	657.2	646.4	640.2
37.5°	550.6	554.4	541.3	525.5	520.2
40°	473.7	476.5	467.3	448.7	444.6
42.5°	390.1	401.8	392.8	375.2	366.0
45°	244.7	281.6	292.3	271.9	218.4
47.5°	123.8	174.8	208.6	154.0	101.4
50°	78.2	113.7	163.6	92.6	69.0
52.5°	60.0	78.3	130.6	68.4	55.3
55°	42.7	49.6	79.7	46.1	40.5
57.5°	33.0	36.9	47.7	34.9	31.4
60°	28.5	31.2	36.3	29.8	26.3
62.5°	25.6	27.3	29.4	25.3	24.0
65°	22.1	22.7	22.8	21.3	20.6
67.5°	18.8	19.5	19.3	18.6	17.9
70°	17.1	17.8	17.1	16.3	15.6
72.5°	14.8	15.5	14.8	14.6	13.9
75°	12.1	12.1	12.1	11.4	11.4
77.5°	9.4	9.5	8.8	8.8	8.3
80°	7.1	7.8	7.1	7.1	7.1
82.5°	6.0	6.1	5.4	5.4	5.4
85°	3.6	3.6	2.8	3.5	2.8
87.5°	1.1	1.3	1.8	2.0	2.0
90°	0.0	1.0	3.2	4.2	4.2
92.5°	8.5	32.7	96.2	31.2	26.2
95°	27.5	81.3	350.1	124.9	83.6
97.5°	50.6	106.8	611.1	356.4	225.3
100°	66.6	120.4	707.6	607.7	403.0
102.5°	84.4	136.5	701.6	928.7	701.6
105°	112.1	159.7	640.9	1209.2	1130.6
107.5°	140.5	182.9	582.8	1237.7	1297.5
110°	156.5	198.9	553.1	1209.5	1330.5



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	173.5	215.0	535.4	1159.5	1313.6
115°	199.9	239.2	516.1	1074.5	1256.5
117.5°	226.1	261.1	509.1	993.2	1184.1
120°	242.2	276.3	506.6	942.3	1127.4
122.5°	256.6	289.9	506.6	900.6	1071.6
125°	279.2	310.2	506.6	844.3	995.2
127.5°	297.8	328.2	505.3	801.7	930.7
130°	308.8	340.9	504.5	776.8	892.6
132.5°	319.0	351.9	503.6	756.3	860.5
135°	334.2	368.3	502.4	724.5	817.6
137.5°	350.7	383.6	501.1	693.8	775.9
140°	361.7	393.8	500.3	673.3	748.8
142.5°	371.9	403.1	501.1	652.8	720.0
145°	388.2	417.1	501.3	623.2	682.2
147.5°	405.7	429.9	501.5	598.1	642.0
150°	416.7	438.4	502.4	583.6	620.8
152.5°	426.9	447.8	503.2	571.6	601.4
155°	443.1	458.7	504.5	556.8	577.5
157.5°	459.0	471.0	505.8	546.3	561.0
160°	467.5	477.8	506.6	538.6	550.0
162.5°	475.9	483.8	506.6	533.5	542.4
165°	486.5	491.7	506.6	526.8	532.0
167.5°	496.2	498.9	507.7	520.8	523.5
170°	501.3	502.4	507.7	518.3	519.3
172.5°	504.7	505.7	508.5	515.7	515.9
175°	508.7	508.7	509.8	512.9	511.9
177.5°	510.8	510.8	510.0	511.6	510.0
180°	510.8	510.8	510.8	510.8	510.8

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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	0.59	1.25	1.65	2.28	3.67	0.21	0.86	1.26	1.89	3.28
	3H	1.64	2.22	2.70	3.26	4.67	1.20	1.78	2.26	2.82	4.23
	4H	2.06	2.61	3.14	3.66	5.08	1.62	2.17	2.70	3.22	4.63
	6H	2.37	2.88	3.46	3.93	5.35	1.95	2.46	3.03	3.51	4.93
	8H	2.47	2.95	3.56	4.01	5.43	2.05	2.53	3.14	3.59	5.01
	12H	2.54	2.99	3.63	4.05	5.49	2.10	2.55	3.19	3.61	5.05
4H	2H	0.81	1.36	1.89	2.40	3.82	0.48	1.03	1.56	2.08	3.49
	3H	2.11	2.56	3.19	3.63	5.06	1.72	2.17	2.80	3.25	4.67
	4H	2.67	3.08	3.76	4.15	5.60	2.28	2.69	3.36	3.76	5.21
	6H	3.12	3.47	4.22	4.56	6.01	2.73	3.09	3.83	4.18	5.62
	8H	3.28	3.61	4.37	4.69	6.14	2.89	3.22	3.98	4.30	5.76
	12H	3.38	3.68	4.49	4.77	6.23	2.97	3.27	4.08	4.36	5.82
8H	4H	2.81	3.14	3.91	4.22	5.68	2.46	2.79	3.55	3.87	5.32
	6H	3.39	3.66	4.51	4.79	6.24	3.04	3.31	4.16	4.43	5.89
	8H	3.64	3.88	4.77	4.98	6.46	3.28	3.52	4.41	4.62	6.10
	12H	3.83	4.04	4.96	5.14	6.65	3.45	3.65	4.57	4.75	6.27
12H	4H	2.78	3.08	3.89	4.17	5.63	2.44	2.74	3.55	3.83	5.29
	6H	3.42	3.65	4.54	4.76	6.23	3.08	3.31	4.20	4.42	5.89
	8H	3.69	3.89	4.81	4.99	6.51	3.34	3.55	4.47	4.65	6.16