

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: P854046

Luminaire Tested: SQ2-PH1-100U-100D-930-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854046  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-12, G2-2308-131-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PH1-100U-100D-930-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT  
UPLIGHT 1000 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

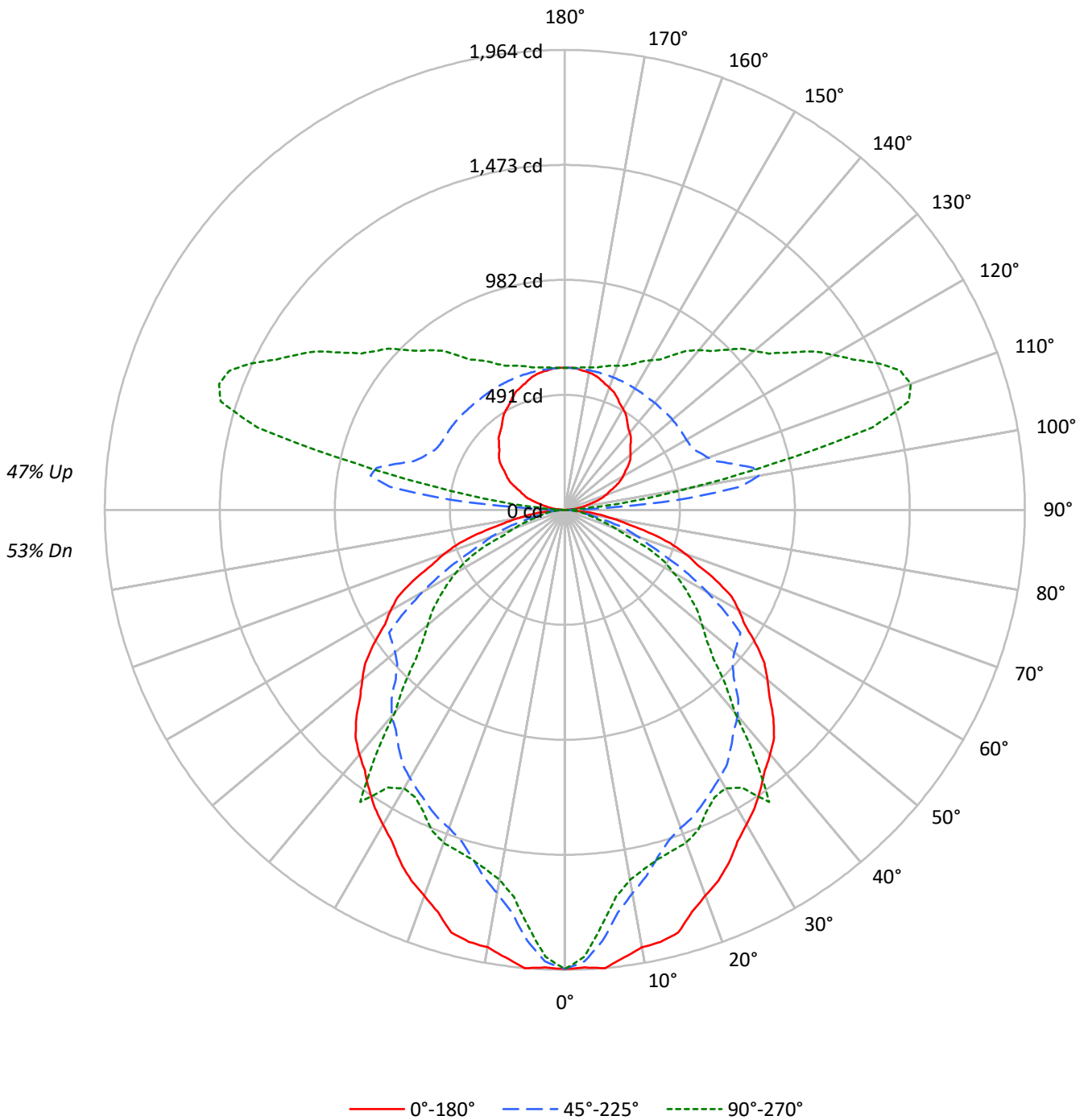
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8115.3 lumens  
Efficiency: N/A  
Efficacy: 115.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.02 / 1.23  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 70.2  
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	108	108	108	108	100	100	100	100	85	85	85	72	72	72	59	59	59	53
1	99	95	91	87	91	88	85	82	75	73	71	64	62	60	53	52	51	46
2	90	83	77	72	83	77	72	67	66	62	59	56	53	51	47	45	43	38
3	82	73	66	60	76	68	61	56	58	53	49	50	46	43	41	39	37	33
4	75	65	57	51	70	60	53	48	52	47	42	44	40	37	37	34	32	28
5	69	58	49	43	64	54	47	41	46	41	36	40	35	32	33	30	28	24
6	64	52	44	38	59	48	41	36	42	36	32	36	31	28	30	27	24	21
7	59	47	39	33	55	44	37	31	38	32	28	33	28	25	28	24	22	19
8	55	42	35	29	51	40	33	28	35	29	25	30	25	22	25	22	19	17
9	51	39	31	26	47	36	30	25	32	26	22	28	23	20	24	20	18	15
10	48	36	28	23	44	33	27	22	29	24	20	25	21	18	22	18	16	14

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

	0°	45°	90°
0°	31656	31656	31656
5°	31836	29932	28935
10°	31104	27250	26302
15°	31244	25631	25787
20°	30129	24840	25995
25°	29578	24725	25390
30°	28937	24658	25598
35°	28716	24378	30003
40°	28743	24219	23787
45°	28752	23299	20489
50°	28349	23757	19211
55°	27989	25782	18432
60°	27709	22591	17289
65°	27224	18315	15037
70°	25714	15588	10744
75°	22926	11753	8147
80°	18736	7634	7634
85°	11745	6910	5187

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 28752 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	172.5	2.1
10°-20°	453.8	5.6
20°-30°	665.4	8.2
30°-40°	805.8	9.9
40°-50°	792.4	9.8
50°-60°	689.8	8.5
60°-70°	479.6	5.9
70°-80°	227.4	2.8
80°-90°	51.2	0.6
90°-100°	253.5	3.1
100°-110°	766.7	9.4
110°-120°	748.4	9.2
120°-130°	611.6	7.5
130°-140°	499.2	6.2
140°-150°	388.6	4.8
150°-160°	280.2	3.5
160°-170°	171.5	2.1
170°-180°	57.9	0.7
0°-30°	1291.7	15.9
0°-40°	2097.5	25.8
0°-60°	3579.6	44.1
0°-90°	4337.8	53.5
90°-120°	1768.6	21.8
90°-150°	3268.0	40.3
90°-180°	3778.0	46.6
0°-180°	8115.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1961	1961	1961	1961	1961	
5°	1964	1962	1847	1789	1785	185
15°	1869	1665	1533	1523	1543	521
25°	1660	1412	1388	1431	1425	764
35°	1457	1178	1237	1344	1522	913
45°	1259	933	1020	1056	897	968
55°	994	726	916	660	655	888
65°	713	499	479	394	394	700
75°	368	254	188	134	131	389
85°	63	42	37	30	28	85
90°	0	2	11	7	6	3
95°	31	100	478	177	112	37
105°	133	187	753	1430	1359	140
115°	237	283	609	1260	1480	235
125°	332	368	600	995	1171	295
135°	397	439	596	858	965	308
145°	464	498	596	738	807	291
155°	529	546	600	662	687	243
165°	578	585	603	626	634	163
175°	605	605	606	611	609	57
180°	607	607	607	607	607	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1960.6	1960.6	1960.6	1960.6	1960.6
2.5°	1956.1	1976.6	1930.8	1912.8	1909.9
5°	1964.3	1962.5	1846.8	1788.9	1785.3
7.5°	1928.5	1872.0	1733.8	1669.9	1667.0
10°	1897.2	1811.5	1662.1	1604.3	1604.3
12.5°	1889.7	1754.4	1603.9	1561.2	1570.0
15°	1869.2	1664.9	1533.4	1522.7	1542.7
17.5°	1801.3	1581.3	1478.6	1503.0	1526.3
20°	1753.5	1536.5	1445.7	1491.0	1512.9
22.5°	1713.2	1493.3	1421.9	1471.4	1483.0
25°	1660.3	1412.2	1387.9	1430.7	1425.2
27.5°	1596.8	1337.8	1354.0	1380.1	1383.4
30°	1552.1	1293.1	1322.6	1349.3	1373.0
32.5°	1508.8	1241.0	1288.3	1351.5	1405.8
35°	1456.9	1177.9	1236.8	1343.5	1522.2
37.5°	1402.5	1103.3	1184.9	1274.7	1331.6
40°	1363.7	1049.9	1149.1	1259.9	1128.6
42.5°	1321.9	1008.1	1095.4	1238.5	1016.7
45°	1259.2	932.7	1020.4	1056.0	897.3
47.5°	1185.3	874.1	969.7	880.6	818.6
50°	1128.6	834.9	945.8	805.0	764.8
52.5°	1073.4	794.3	929.4	742.6	715.6
55°	994.3	726.2	915.9	660.3	654.8
57.5°	910.3	656.8	810.0	588.6	598.1
60°	858.1	611.9	699.6	546.3	535.4
62.5°	802.9	568.3	596.6	492.6	481.7
65°	712.6	499.2	479.4	393.6	393.6
67.5°	613.4	427.3	388.4	322.1	278.3
70°	544.7	380.6	330.2	256.8	227.6
72.5°	471.6	330.8	270.5	210.4	176.8
75°	367.5	254.4	188.4	134.2	130.6
77.5°	265.6	183.2	126.9	99.6	100.0
80°	201.5	139.5	82.1	80.3	82.1
82.5°	141.8	95.8	61.2	63.8	64.2
85°	63.4	41.5	37.3	29.8	28.0
87.5°	13.4	12.3	9.7	8.8	8.6
90°	0.0	1.9	11.4	6.6	5.7
92.5°	10.7	43.1	154.7	51.3	37.0
95°	31.4	99.5	478.3	176.7	111.5
97.5°	60.8	126.6	753.9	498.9	303.8
100°	79.1	143.4	842.3	814.3	546.9
102.5°	99.7	161.7	824.0	1142.2	910.5
105°	133.4	187.4	752.8	1429.6	1358.8
107.5°	165.4	217.0	684.1	1458.0	1540.0
110°	186.8	236.1	649.8	1422.2	1571.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	207.3	255.2	629.3	1362.1	1550.7
115°	237.3	282.9	608.9	1259.9	1479.8
117.5°	267.0	310.2	601.6	1164.2	1389.3
120°	286.8	327.8	599.3	1108.3	1324.5
122.5°	305.1	343.9	599.3	1059.2	1258.9
125°	331.6	367.9	600.3	995.0	1171.1
127.5°	353.1	390.8	599.3	946.5	1096.7
130°	366.8	406.0	599.3	918.8	1054.8
132.5°	379.0	418.9	598.6	893.4	1019.0
135°	397.3	439.3	596.5	858.1	965.2
137.5°	417.7	457.6	596.5	820.4	919.7
140°	430.7	469.8	596.5	795.9	890.0
142.5°	443.6	481.3	595.7	773.5	855.7
145°	464.0	498.5	596.5	738.1	807.1
147.5°	484.4	513.7	597.6	709.0	761.9
150°	497.4	524.4	598.4	692.8	737.5
152.5°	509.6	533.6	599.2	678.9	715.4
155°	528.8	546.5	600.3	661.8	687.0
157.5°	545.6	559.9	601.4	649.3	666.8
160°	555.5	567.6	602.2	641.6	654.6
162.5°	565.4	574.6	603.0	634.7	645.5
165°	578.4	584.9	603.2	626.2	633.6
167.5°	589.4	592.8	604.3	619.6	622.8
170°	595.5	597.4	605.1	616.5	617.4
172.5°	599.3	600.5	605.1	613.4	613.6
175°	605.1	605.1	606.0	610.7	608.9
177.5°	607.7	607.0	606.2	608.5	607.0
180°	607.0	607.0	607.0	607.0	607.0



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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	19.65	20.53	20.57	21.48	22.70	18.32	19.20	19.25	20.15	21.37
	3H	21.67	22.47	22.61	23.42	24.67	19.35	20.15	20.29	21.10	22.35
	4H	22.41	23.15	23.36	24.11	25.37	19.57	20.32	20.52	21.28	22.53
	6H	22.89	23.58	23.86	24.55	25.81	19.72	20.40	20.68	21.37	22.64
	8H	23.02	23.67	23.99	24.65	25.92	19.75	20.40	20.72	21.39	22.65
	12H	23.06	23.69	24.04	24.66	25.95	19.75	20.37	20.73	21.35	22.64
4H	2H	20.02	20.77	20.98	21.73	22.99	18.96	19.71	19.92	20.67	21.93
	3H	22.13	22.76	23.10	23.74	25.01	20.15	20.77	21.12	21.76	23.03
	4H	22.95	23.52	23.93	24.50	25.79	20.42	20.99	21.40	21.97	23.27
	6H	23.54	24.02	24.53	25.03	26.32	20.63	21.12	21.62	22.13	23.42
	8H	23.71	24.16	24.70	25.16	26.47	20.69	21.14	21.68	22.14	23.45
	12H	23.77	24.19	24.79	25.20	26.51	20.70	21.11	21.71	22.12	23.44
8H	4H	22.97	23.42	23.96	24.42	25.73	20.64	21.10	21.63	22.10	23.40
	6H	23.62	24.00	24.64	25.04	26.34	20.91	21.29	21.93	22.33	23.63
	8H	23.85	24.18	24.87	25.21	26.53	21.02	21.35	22.04	22.38	23.70
	12H	23.96	24.25	24.99	25.28	26.64	21.06	21.35	22.09	22.37	23.74
12H	4H	22.92	23.33	23.93	24.35	25.66	20.64	21.05	21.65	22.06	23.38
	6H	23.59	23.93	24.62	24.96	26.28	20.94	21.28	21.97	22.30	23.63
	8H	23.83	24.12	24.86	25.14	26.51	21.06	21.35	22.09	22.37	23.74