

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: P855293

Luminaire Tested: SQ2-PW1-050U-050D-840-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P855293  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PW1-050U-050D-840-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

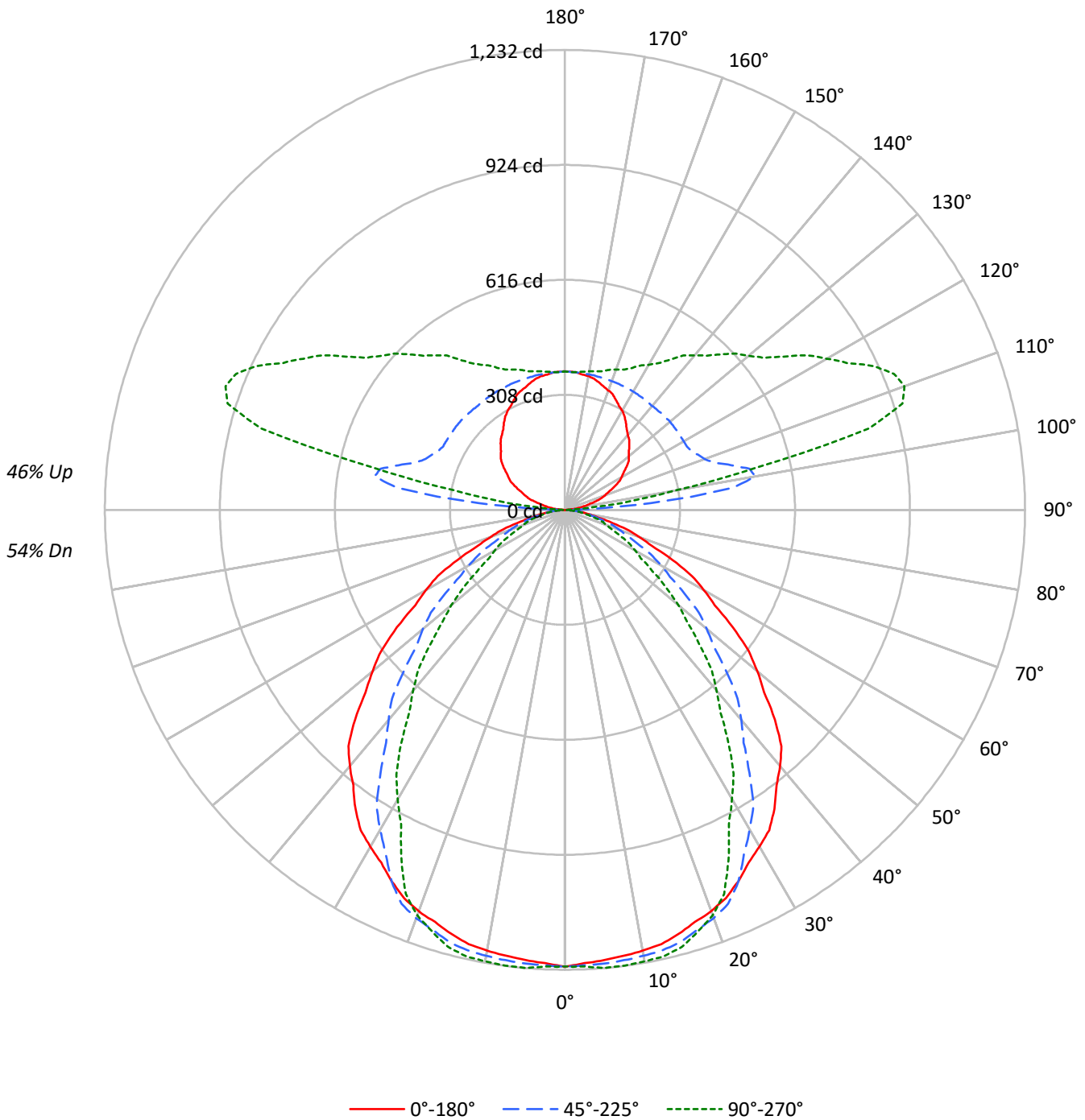
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5016.8 lumens  
Efficiency: N/A  
Efficacy: 153.9 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.11 / 1.22  
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 32.6  
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				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	86	86	86	72	72	72	60	60	60	54
1	99	95	92	88	92	89	85	83	76	74	72	65	63	61	54	53	52	47
2	91	84	78	73	84	78	73	69	67	64	60	57	55	52	48	46	45	40
3	83	74	67	62	77	69	63	58	60	55	51	51	48	45	43	41	39	35
4	77	66	59	53	71	62	55	50	54	48	44	46	42	39	39	36	34	30
5	71	59	51	46	65	55	48	43	48	43	39	42	37	34	35	32	30	27
6	65	53	45	40	60	50	43	38	44	38	34	38	34	30	32	29	27	24
7	60	48	41	35	56	45	38	33	40	34	30	35	30	27	30	26	24	21
8	56	44	36	31	52	41	35	30	36	31	27	32	27	24	27	24	21	19
9	52	40	33	28	49	38	31	27	34	28	24	29	25	22	25	22	20	17
10	49	37	30	25	46	35	29	24	31	26	22	27	23	20	24	20	18	16

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

	0°	45°	90°
0°	19758	19758	19758
5°	19626	19776	19964
10°	19661	19890	20138
15°	19656	20025	20259
20°	19663	20003	19864
25°	19557	19579	18456
30°	19425	18446	16686
35°	19273	16975	15069
40°	18889	15475	13312
45°	18148	13917	11629
50°	16890	12441	9952
55°	15451	10990	8070
60°	13850	9558	6962
65°	12111	8237	6189
70°	9904	7317	5613
75°	7704	6326	5159
80°	5746	5421	4547
85°	3890	4094	2594

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 18148 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	116.5	2.3
10°-20°	337.6	6.7
20°-30°	496.8	9.9
30°-40°	543.2	10.8
40°-50°	487.3	9.7
50°-60°	363.5	7.2
60°-70°	229.7	4.6
70°-80°	113.8	2.3
80°-90°	27.1	0.5
90°-100°	147.6	2.9
100°-110°	468.1	9.3
110°-120°	459.0	9.2
120°-130°	373.5	7.4
130°-140°	304.6	6.1
140°-150°	237.5	4.7
150°-160°	171.1	3.4
160°-170°	104.5	2.1
170°-180°	35.3	0.7
0°-30°	951.0	19.0
0°-40°	1494.2	29.8
0°-60°	2345.0	46.7
0°-90°	2715.6	54.1
90°-120°	1074.7	21.4
90°-150°	1990.3	39.7
90°-180°	2301.0	45.9
0°-180°	5016.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1224	1224	1224	1224	1224	
5°	1211	1230	1220	1222	1232	115
15°	1176	1199	1198	1206	1212	332
25°	1098	1122	1099	1053	1036	506
35°	978	968	861	786	764	610
45°	795	731	610	533	509	609
55°	549	496	390	306	287	490
65°	317	291	216	173	162	314
75°	124	133	101	85	83	136
85°	21	27	22	15	14	27
90°	0	1	4	4	4	2
95°	20	60	268	99	64	23
105°	82	115	462	879	842	86
115°	146	173	373	774	911	144
125°	202	226	367	607	715	179
135°	244	268	365	522	588	188
145°	284	306	365	451	491	178
155°	324	335	366	402	418	149
165°	353	356	367	381	385	100
175°	369	368	369	372	371	35
180°	371	371	371	371	371	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1223.7	1223.7	1223.7	1223.7	1223.7
2.5°	1215.3	1230.8	1220.9	1221.9	1224.6
5°	1210.9	1230.2	1220.2	1221.6	1231.8
7.5°	1204.8	1224.4	1216.9	1221.1	1231.1
10°	1199.2	1219.7	1213.2	1219.2	1228.3
12.5°	1191.7	1213.2	1208.5	1215.5	1224.6
15°	1175.9	1198.7	1198.0	1206.3	1212.0
17.5°	1157.5	1180.3	1179.2	1181.4	1184.0
20°	1144.4	1167.3	1164.2	1156.1	1156.1
22.5°	1125.8	1150.4	1142.8	1120.5	1113.2
25°	1097.8	1121.7	1099.0	1053.2	1036.0
27.5°	1065.2	1084.5	1038.8	973.7	950.0
30°	1041.9	1056.7	989.4	917.9	895.0
32.5°	1017.6	1023.3	939.1	864.6	840.0
35°	977.8	967.5	861.2	786.2	764.5
37.5°	930.7	900.2	786.4	707.7	683.9
40°	896.2	853.0	734.2	655.5	631.6
42.5°	858.0	803.8	684.8	606.1	581.3
45°	794.8	731.1	609.5	533.2	509.3
47.5°	723.7	660.3	539.1	465.2	444.7
50°	672.4	610.9	495.3	421.3	396.2
52.5°	620.2	565.1	452.4	376.3	342.2
55°	548.9	496.5	390.4	306.0	286.7
57.5°	475.5	430.1	334.2	257.7	241.7
60°	428.9	389.0	296.0	231.6	215.6
62.5°	384.1	348.8	258.7	207.3	194.2
65°	317.0	290.8	215.6	173.4	162.0
67.5°	251.7	237.2	179.2	142.3	134.7
70°	209.8	205.2	155.0	124.6	118.9
72.5°	173.4	175.3	131.7	107.8	104.0
75°	123.5	132.6	101.4	85.1	82.7
77.5°	84.1	97.8	75.1	62.9	61.1
80°	61.8	75.4	58.3	48.9	48.9
82.5°	43.1	54.1	41.5	36.8	36.8
85°	21.0	26.7	22.1	15.2	14.0
87.5°	5.6	8.5	4.4	3.5	3.5
90°	0.0	1.2	3.5	3.5	3.5
92.5°	6.5	25.9	82.7	27.5	19.3
95°	19.8	59.7	268.0	99.4	64.1
97.5°	36.8	77.4	454.0	283.7	174.1
100°	48.9	87.6	517.4	471.6	306.5
102.5°	62.0	98.9	506.3	692.7	530.3
105°	81.6	114.6	461.5	878.9	842.5
107.5°	101.2	131.7	418.8	898.4	947.6
110°	114.2	143.8	397.4	876.0	967.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	127.3	155.0	385.3	837.5	953.2
115°	145.7	173.1	372.9	774.5	911.2
117.5°	163.6	189.6	368.0	713.9	851.8
120°	174.8	199.9	367.1	676.5	809.8
122.5°	186.0	210.1	367.1	646.6	770.7
125°	201.6	225.5	367.1	607.3	715.4
127.5°	215.4	238.3	367.1	576.9	669.1
130°	223.8	247.6	367.1	558.9	642.0
132.5°	232.1	256.0	366.2	544.7	619.8
135°	243.6	267.5	364.8	522.3	588.5
137.5°	254.8	279.8	364.5	501.0	560.1
140°	262.2	287.3	363.6	486.0	539.6
142.5°	271.5	295.7	364.5	470.9	520.9
145°	284.4	306.0	364.8	450.7	490.6
147.5°	297.2	315.6	365.0	432.8	465.5
150°	306.5	321.3	365.9	422.5	448.7
152.5°	314.0	326.9	365.9	414.0	435.6
155°	324.0	335.4	365.9	402.4	418.4
157.5°	334.7	342.4	367.1	395.3	406.3
160°	340.3	347.1	367.1	390.5	399.7
162.5°	345.9	350.9	367.1	386.8	393.2
165°	353.1	356.5	367.1	381.1	384.6
167.5°	359.9	360.8	368.3	377.1	380.2
170°	363.6	363.6	368.3	375.3	376.4
172.5°	365.5	366.4	368.3	373.4	373.6
175°	369.4	368.3	369.4	371.6	370.6
177.5°	370.6	369.7	369.7	371.4	369.7
180°	370.6	370.6	370.6	370.6	370.6

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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	17.80	18.66	18.73	19.60	20.81	14.28	15.14	15.21	16.08	17.30
	3H	19.12	19.89	20.06	20.84	22.08	15.49	16.26	16.43	17.21	18.45
	4H	19.49	20.22	20.45	21.17	22.42	15.94	16.66	16.89	17.62	18.86
	6H	19.70	20.36	20.66	21.32	22.58	16.25	16.92	17.22	17.88	19.14
	8H	19.73	20.36	20.70	21.34	22.60	16.33	16.96	17.30	17.94	19.20
	12H	19.73	20.33	20.71	21.30	22.58	16.34	16.94	17.32	17.91	19.19
4H	2H	17.90	18.63	18.86	19.58	20.83	14.97	15.69	15.93	16.65	17.89
	3H	19.45	20.05	20.42	21.03	22.29	16.36	16.96	17.33	17.94	19.20
	4H	19.95	20.50	20.93	21.48	22.77	16.90	17.45	17.88	18.43	19.71
	6H	20.29	20.76	21.28	21.76	23.04	17.31	17.78	18.30	18.78	20.06
	8H	20.36	20.80	21.36	21.80	23.10	17.41	17.85	18.40	18.85	20.14
	12H	20.38	20.78	21.39	21.79	23.09	17.43	17.83	18.44	18.84	20.14
8H	4H	19.99	20.43	20.99	21.43	22.73	17.23	17.67	18.22	18.66	19.96
	6H	20.43	20.79	21.45	21.83	23.13	17.73	18.10	18.75	19.13	20.43
	8H	20.57	20.89	21.60	21.92	23.23	17.90	18.22	18.92	19.24	20.56
	12H	20.64	20.92	21.67	21.94	23.30	17.96	18.24	18.99	19.26	20.62
12H	4H	19.95	20.35	20.96	21.36	22.66	17.24	17.64	18.26	18.65	19.95
	6H	20.42	20.74	21.45	21.76	23.08	17.80	18.12	18.82	19.14	20.46
	8H	20.58	20.86	21.61	21.88	23.24	17.98	18.27	19.01	19.28	20.64