

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: P854006

Luminaire Tested: SQ2-PH1-050U-050D-940-UNV-STD-W-4

Issue Date: 7/12/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P854006  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/12/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2-PH1-050U-050D-940-UNV-STD-W-4  
Description: CORELITE SQ2 SUSPENDED LED LUMINAIRE  
DOWNLIGHT 500 LUMENS PER FOOT  
UPLIGHT 500 LUMENS PER FOOT  
Light Source: -  
Ballast/Driver: -

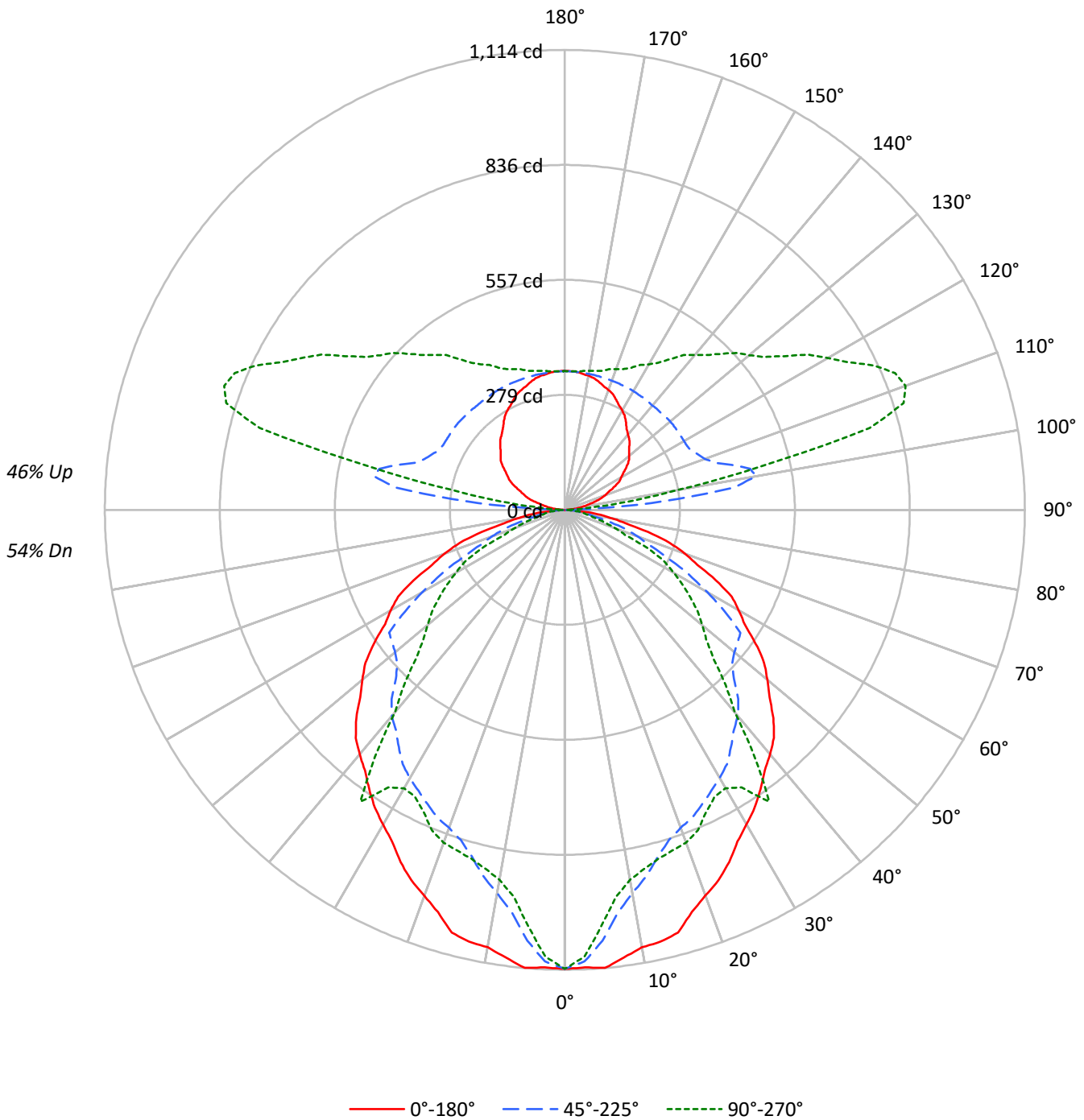
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4548.1 lumens  
Efficiency: N/A  
Efficacy: 139.5 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): 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	91	87	92	88	85	82	75	73	71	64	62	61	53	52	51	46
2	90	83	77	72	83	77	72	67	66	62	59	56	53	51	47	45	43	39
3	82	73	66	60	76	68	62	56	59	54	50	50	46	43	42	39	37	33
4	75	65	57	51	70	60	53	48	52	47	42	45	40	37	37	34	32	28
5	69	58	50	44	64	54	47	41	47	41	37	40	36	32	34	30	28	25
6	64	52	44	38	59	48	41	36	42	36	32	36	32	28	31	27	25	22
7	59	47	39	33	55	44	37	32	38	32	28	33	28	25	28	24	22	19
8	55	42	35	29	51	40	33	28	35	29	25	30	26	22	26	22	20	17
9	51	39	31	26	47	36	30	25	32	26	23	28	23	20	24	20	18	16
10	48	36	28	24	44	34	27	22	29	24	20	26	21	18	22	19	16	14

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

	0°	45°	90°
0°	17949	17949	17949
5°	18052	16973	16407
10°	17638	15452	14914
15°	17717	14534	14623
20°	17084	14086	14740
25°	16771	14020	14396
30°	16408	13983	14514
35°	16283	13823	17012
40°	16297	13734	13489
45°	16303	13212	11618
50°	16076	13471	10894
55°	15871	14621	10452
60°	15713	12810	9804
65°	15438	10384	8527
70°	14582	8837	6090
75°	13001	6662	4616
80°	10618	4324	4324
85°	6669	3927	2946

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 16303 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	97.8	2.2
10°-20°	257.3	5.7
20°-30°	377.3	8.3
30°-40°	456.9	10.0
40°-50°	449.3	9.9
50°-60°	391.1	8.6
60°-70°	271.9	6.0
70°-80°	128.9	2.8
80°-90°	28.9	0.6
90°-100°	134.0	2.9
100°-110°	424.9	9.3
110°-120°	416.6	9.2
120°-130°	339.0	7.5
130°-140°	276.4	6.1
140°-150°	215.5	4.7
150°-160°	155.3	3.4
160°-170°	94.9	2.1
170°-180°	32.0	0.7
0°-30°	732.4	16.1
0°-40°	1189.3	26.1
0°-60°	2029.8	44.6
0°-90°	2459.5	54.1
90°-120°	975.5	21.4
90°-150°	1806.5	39.7
90°-180°	2089.0	45.9
0°-180°	4548.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1112	1112	1112	1112	1112	
5°	1114	1113	1047	1014	1012	105
15°	1060	944	870	863	875	295
25°	941	801	787	811	808	433
35°	826	668	701	762	863	517
45°	714	529	579	599	509	549
55°	564	412	519	374	371	504
65°	404	283	272	223	223	397
75°	208	144	107	76	74	221
85°	36	24	21	17	16	48
90°	0	1	3	3	3	2
95°	18	54	243	90	58	21
105°	74	104	419	798	765	78
115°	132	157	338	703	827	131
125°	183	205	333	551	649	163
135°	221	243	331	474	534	171
145°	258	278	331	409	445	162
155°	294	304	332	365	380	136
165°	320	324	333	346	349	90
175°	335	334	335	337	336	32
180°	336	336	336	336	336	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1111.7	1111.7	1111.7	1111.7	1111.7
2.5°	1109.2	1120.8	1094.8	1084.6	1083.0
5°	1113.8	1112.8	1047.2	1014.4	1012.3
7.5°	1093.5	1061.5	983.1	946.9	945.2
10°	1075.8	1027.1	942.5	909.7	909.7
12.5°	1071.5	994.8	909.5	885.3	890.2
15°	1059.9	944.1	869.5	863.4	874.8
17.5°	1021.4	896.7	838.4	852.2	865.5
20°	994.3	871.2	819.8	845.4	857.9
22.5°	971.5	846.7	806.2	834.3	840.9
25°	941.4	800.8	787.0	811.2	808.1
27.5°	905.5	758.6	767.7	782.6	784.4
30°	880.1	733.2	750.0	765.1	778.5
32.5°	855.5	703.7	730.5	766.3	797.1
35°	826.1	667.9	701.3	761.8	863.1
37.5°	795.2	625.6	671.9	722.8	755.0
40°	773.2	595.3	651.6	714.4	640.0
42.5°	749.5	571.6	621.1	702.3	576.5
45°	714.0	528.9	578.6	598.8	508.8
47.5°	672.1	495.7	549.8	499.3	464.2
50°	640.0	473.4	536.3	456.4	433.7
52.5°	608.6	450.4	527.0	421.1	405.8
55°	563.8	411.8	519.4	374.4	371.3
57.5°	516.2	372.4	459.3	333.7	339.1
60°	486.6	347.0	396.7	309.8	303.6
62.5°	455.3	322.3	338.3	279.3	273.1
65°	404.1	283.1	271.8	223.2	223.2
67.5°	347.8	242.3	220.2	182.6	157.8
70°	308.9	215.8	187.2	145.6	129.0
72.5°	267.4	187.6	153.4	119.3	100.3
75°	208.4	144.3	106.8	76.1	74.0
77.5°	150.6	103.9	71.9	56.5	56.7
80°	114.2	79.1	46.5	45.5	46.5
82.5°	80.4	54.3	34.7	36.2	36.4
85°	36.0	23.6	21.2	16.9	15.9
87.5°	7.6	7.0	4.9	4.9	4.9
90°	0.0	1.0	3.2	3.2	3.2
92.5°	5.9	23.5	75.1	25.0	17.6
95°	18.0	54.2	243.3	90.2	58.2
97.5°	33.4	70.2	412.1	257.5	158.0
100°	44.4	79.6	469.6	428.1	278.2
102.5°	56.3	89.8	459.5	628.7	481.2
105°	74.0	104.0	418.8	797.8	764.7
107.5°	91.8	119.5	380.1	815.4	860.1
110°	103.7	130.5	360.7	795.1	877.9



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
112.5°	115.5	140.7	349.7	760.1	865.2
115°	132.2	157.0	338.5	703.0	827.1
117.5°	148.5	172.1	334.0	648.0	773.2
120°	158.7	181.4	333.2	614.1	735.1
122.5°	168.8	190.7	333.2	586.8	699.5
125°	183.0	204.7	333.2	551.2	649.4
127.5°	195.5	216.3	333.2	523.5	607.3
130°	203.1	224.8	333.2	507.3	582.8
132.5°	210.7	232.4	332.3	494.4	562.5
135°	221.1	242.8	331.1	474.1	534.1
137.5°	231.2	254.0	330.8	454.7	508.3
140°	238.0	260.7	330.0	441.1	489.7
142.5°	246.4	268.4	330.8	427.5	472.8
145°	258.1	277.7	331.1	409.1	445.3
147.5°	269.7	286.5	331.3	392.9	422.4
150°	278.2	291.6	332.1	383.4	407.2
152.5°	284.9	296.7	332.1	375.7	395.4
155°	294.0	304.4	332.1	365.2	379.7
157.5°	303.8	310.8	333.2	358.8	368.7
160°	308.8	315.0	333.2	354.5	362.8
162.5°	313.9	318.5	333.2	351.1	356.9
165°	320.5	323.6	333.2	345.9	349.0
167.5°	326.6	327.4	334.2	342.3	345.0
170°	330.0	330.0	334.2	340.6	341.6
172.5°	331.7	332.5	334.2	338.9	339.1
175°	335.3	334.2	335.3	337.4	336.3
177.5°	336.3	335.5	335.5	337.1	335.5
180°	336.3	336.3	336.3	336.3	336.3

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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	17.73	18.62	18.65	19.56	20.77	16.40	17.29	17.33	18.23	19.45
	3H	19.76	20.56	20.69	21.51	22.74	17.44	18.24	18.37	19.19	20.42
	4H	20.49	21.24	21.44	22.20	23.44	17.65	18.41	18.60	19.36	20.61
	6H	20.98	21.67	21.94	22.63	23.89	17.80	18.49	18.76	19.45	20.71
	8H	21.10	21.76	22.07	22.74	24.00	17.83	18.49	18.80	19.47	20.73
	12H	21.15	21.78	22.12	22.75	24.03	17.83	18.46	18.81	19.43	20.71
4H	2H	18.11	18.86	19.06	19.82	21.06	17.05	17.80	18.00	18.76	20.00
	3H	20.22	20.85	21.18	21.83	23.09	18.23	18.86	19.20	19.84	21.10
	4H	21.04	21.61	22.01	22.59	23.87	18.51	19.08	19.48	20.06	21.34
	6H	21.62	22.11	22.61	23.12	24.40	18.72	19.21	19.70	20.21	21.49
	8H	21.79	22.25	22.78	23.25	24.54	18.77	19.23	19.76	20.23	21.53
	12H	21.86	22.28	22.87	23.29	24.59	18.78	19.20	19.79	20.21	21.51
8H	4H	21.06	21.51	22.04	22.51	23.81	18.73	19.18	19.71	20.18	21.48
	6H	21.71	22.09	22.72	23.12	24.42	19.00	19.38	20.01	20.41	21.71
	8H	21.93	22.27	22.96	23.29	24.61	19.10	19.44	20.12	20.46	21.77
	12H	22.05	22.34	23.07	23.36	24.72	19.15	19.44	20.17	20.46	21.82
12H	4H	21.01	21.42	22.02	22.43	23.74	18.72	19.14	19.73	20.15	21.45
	6H	21.68	22.02	22.70	23.04	24.35	19.03	19.36	20.05	20.39	21.70
	8H	21.92	22.21	22.94	23.23	24.59	19.15	19.44	20.17	20.46	21.82