

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: P853670

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853670
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2104-222-10, G2-2308-131-13)
Test Lab: INNOVATION CENTER
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2-F-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: -

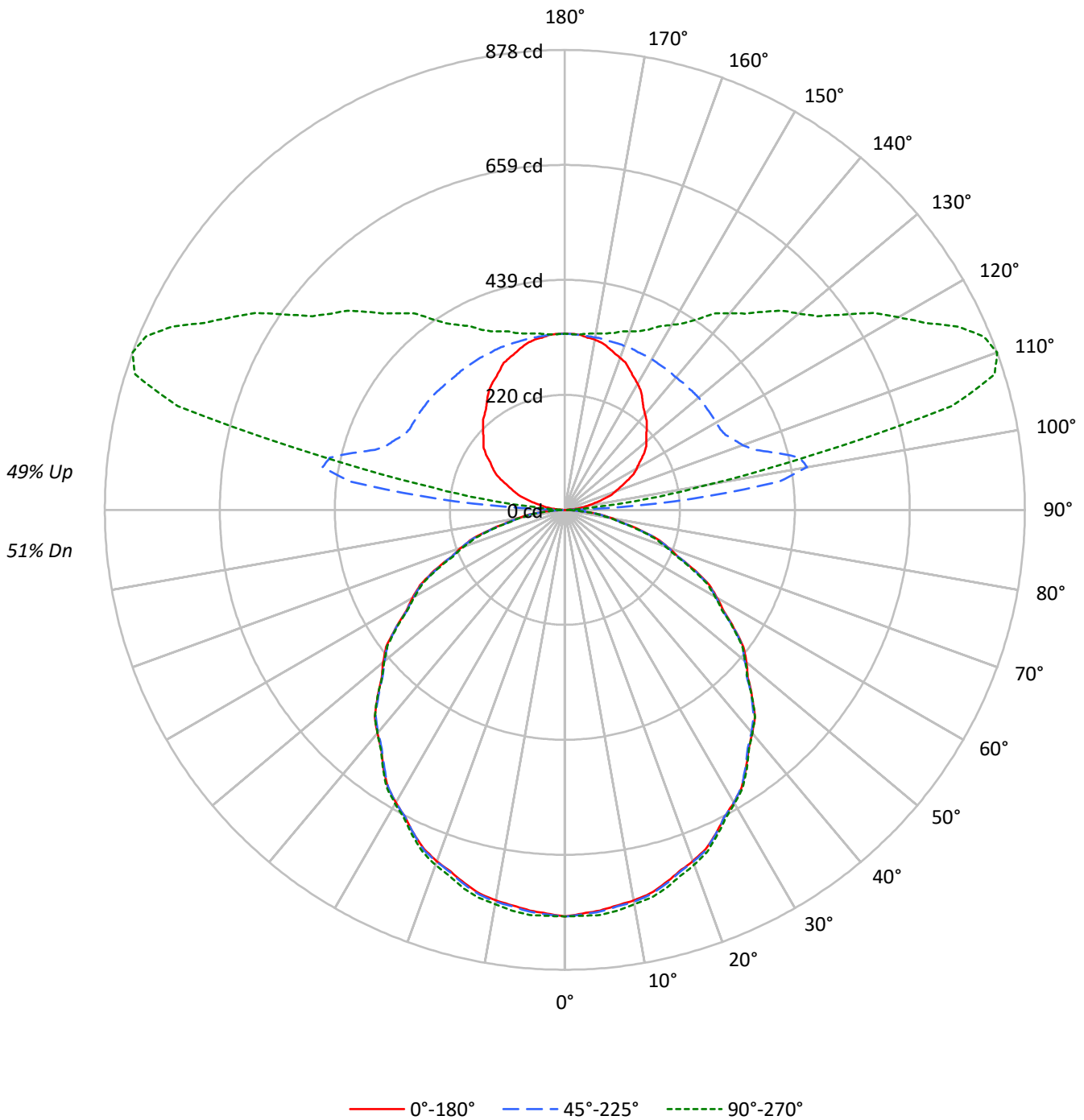
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4268.6 lumens
Efficiency: N/A
Efficacy: 130.9 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36
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	107	107	107	107	99	99	99	99	84	84	84	70	70	70	57	57	57	51
1	98	93	90	86	90	86	83	80	73	71	69	61	60	58	50	49	48	43
2	89	81	75	70	82	75	70	65	64	60	57	54	51	48	44	42	40	36
3	81	71	64	58	75	66	60	54	56	51	47	47	44	41	39	36	34	30
4	74	63	55	49	68	59	51	46	50	45	40	42	38	35	35	32	29	25
5	68	56	48	42	62	52	45	39	45	39	35	38	33	30	31	28	25	22
6	63	50	42	36	58	47	39	34	40	34	30	34	29	26	28	25	22	19
7	58	45	37	32	53	42	35	30	36	31	26	31	26	23	26	22	20	17
8	54	41	33	28	49	38	31	26	33	27	23	28	24	20	24	20	18	15
9	50	38	30	25	46	35	28	24	30	25	21	26	22	18	22	18	16	14
10	47	34	27	22	43	32	26	21	28	23	19	24	20	17	20	17	14	12

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12536	12536	12536
5°	12446	12481	12584
10°	12418	12452	12539
15°	12341	12376	12500
20°	12268	12287	12395
25°	12155	12155	12230
30°	12029	12029	12070
35°	11883	11842	11925
40°	11727	11683	11727
45°	11545	11497	11545
50°	11371	11266	11293
55°	11105	11077	11018
60°	10827	10760	10692
65°	10506	10384	10265
70°	9885	9838	9635
75°	9301	9108	8840
80°	8266	8061	7773
85°	6669	6076	5687

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 11615 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.4	1.7
10°-20°	209.7	4.9
20°-30°	315.5	7.4
30°-40°	377.5	8.8
40°-50°	389.5	9.1
50°-60°	351.4	8.2
60°-70°	268.1	6.3
70°-80°	154.2	3.6
80°-90°	40.6	1.0
90°-100°	134.0	3.1
100°-110°	424.9	10.0
110°-120°	416.6	9.8
120°-130°	339.0	7.9
130°-140°	276.4	6.5
140°-150°	215.5	5.0
150°-160°	155.3	3.6
160°-170°	94.9	2.2
170°-180°	32.0	0.8
0°-30°	598.6	14.0
0°-40°	976.1	22.9
0°-60°	1717.0	40.2
0°-90°	2179.9	51.1
90°-120°	975.5	22.9
90°-150°	1806.5	42.3
90°-180°	2089.0	48.9
0°-180°	4268.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	776	776	776	776	776	
5°	768	778	770	771	776	73
15°	738	748	740	744	748	208
25°	682	690	682	683	686	314
35°	603	607	601	603	605	377
45°	506	509	504	505	506	390
55°	394	397	394	391	391	353
65°	275	274	272	270	269	270
75°	149	148	146	143	142	157
85°	36	34	33	30	31	42
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°	776.4	776.4	776.4	776.4	776.4
2.5°	771.3	780.4	773.0	774.7	775.6
5°	767.9	778.3	770.1	771.2	776.4
7.5°	761.6	772.8	763.7	765.7	771.5
10°	757.4	767.7	759.5	760.6	764.8
12.5°	750.6	760.9	752.7	754.7	758.8
15°	738.3	747.6	740.4	743.7	747.8
17.5°	724.1	734.1	726.1	728.9	732.4
20°	714.0	722.3	715.1	716.2	721.4
22.5°	701.3	709.6	703.2	703.5	707.9
25°	682.3	689.5	682.3	683.4	686.5
27.5°	660.5	666.7	660.5	661.6	664.3
30°	645.2	651.4	645.2	646.3	647.4
32.5°	628.3	633.7	627.5	628.6	631.3
35°	602.9	607.1	600.8	603.0	605.0
37.5°	575.8	579.0	573.7	574.8	576.7
40°	556.4	559.5	554.3	555.4	556.4
42.5°	536.9	539.2	534.0	535.1	536.9
45°	505.6	508.7	503.5	504.6	505.6
47.5°	473.9	475.7	471.3	470.5	472.4
50°	452.7	453.8	448.5	448.5	449.6
52.5°	429.9	430.9	427.3	425.7	426.7
55°	394.5	396.6	393.5	391.4	391.4
57.5°	359.0	360.9	356.9	355.8	355.6
60°	335.3	336.3	333.2	332.1	331.1
62.5°	311.6	311.8	308.7	307.6	306.5
65°	275.0	274.0	271.8	269.7	268.7
67.5°	234.0	235.0	232.9	229.5	229.5
70°	209.4	210.5	208.4	204.1	204.1
72.5°	185.7	185.1	183.8	180.4	178.8
75°	149.1	148.1	146.0	142.8	141.7
77.5°	112.5	111.5	110.4	106.4	107.3
80°	88.9	87.8	86.7	83.6	83.6
82.5°	67.7	65.8	64.7	61.6	61.6
85°	36.0	33.9	32.8	29.6	30.7
87.5°	10.2	9.5	9.1	7.4	7.4
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	16.85	17.73	17.80	18.70	19.95	16.77	17.66	17.72	18.62	19.87
	3H	18.63	19.42	19.59	20.40	21.68	18.51	19.31	19.47	20.28	21.56
	4H	19.29	20.04	20.26	21.02	22.31	19.14	19.89	20.11	20.87	22.15
	6H	19.76	20.45	20.74	21.44	22.74	19.58	20.27	20.56	21.25	22.55
	8H	19.90	20.56	20.89	21.56	22.86	19.70	20.36	20.69	21.36	22.65
	12H	19.98	20.60	20.97	21.60	22.92	19.75	20.38	20.75	21.37	22.69
4H	2H	17.40	18.15	18.38	19.13	20.42	17.34	18.09	18.32	19.07	20.36
	3H	19.39	20.02	20.38	21.03	22.33	19.29	19.91	20.27	20.92	22.22
	4H	20.18	20.76	21.18	21.76	23.08	20.04	20.61	21.04	21.61	22.94
	6H	20.78	21.27	21.78	22.29	23.61	20.60	21.09	21.60	22.11	23.43
	8H	20.96	21.43	21.97	22.44	23.78	20.76	21.22	21.77	22.24	23.58
	12H	21.07	21.48	22.09	22.52	23.86	20.84	21.26	21.87	22.29	23.63
8H	4H	20.43	20.90	21.44	21.91	23.25	20.31	20.77	21.32	21.78	23.12
	6H	21.15	21.53	22.19	22.59	23.93	20.99	21.37	22.02	22.43	23.76
	8H	21.42	21.76	22.46	22.80	24.15	21.23	21.56	22.27	22.61	23.96
	12H	21.59	21.89	22.63	22.92	24.32	21.36	21.66	22.41	22.70	24.09
12H	4H	20.43	20.85	21.46	21.88	23.22	20.31	20.72	21.33	21.76	23.10
	6H	21.20	21.53	22.24	22.58	23.93	21.04	21.37	22.08	22.42	23.77
	8H	21.49	21.79	22.53	22.82	24.22	21.30	21.60	22.35	22.64	24.03