

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: P853669

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

Issue Date: 7/12/2024

Test Information

Test Method: LM-79-2019
Report Number: P853669
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-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

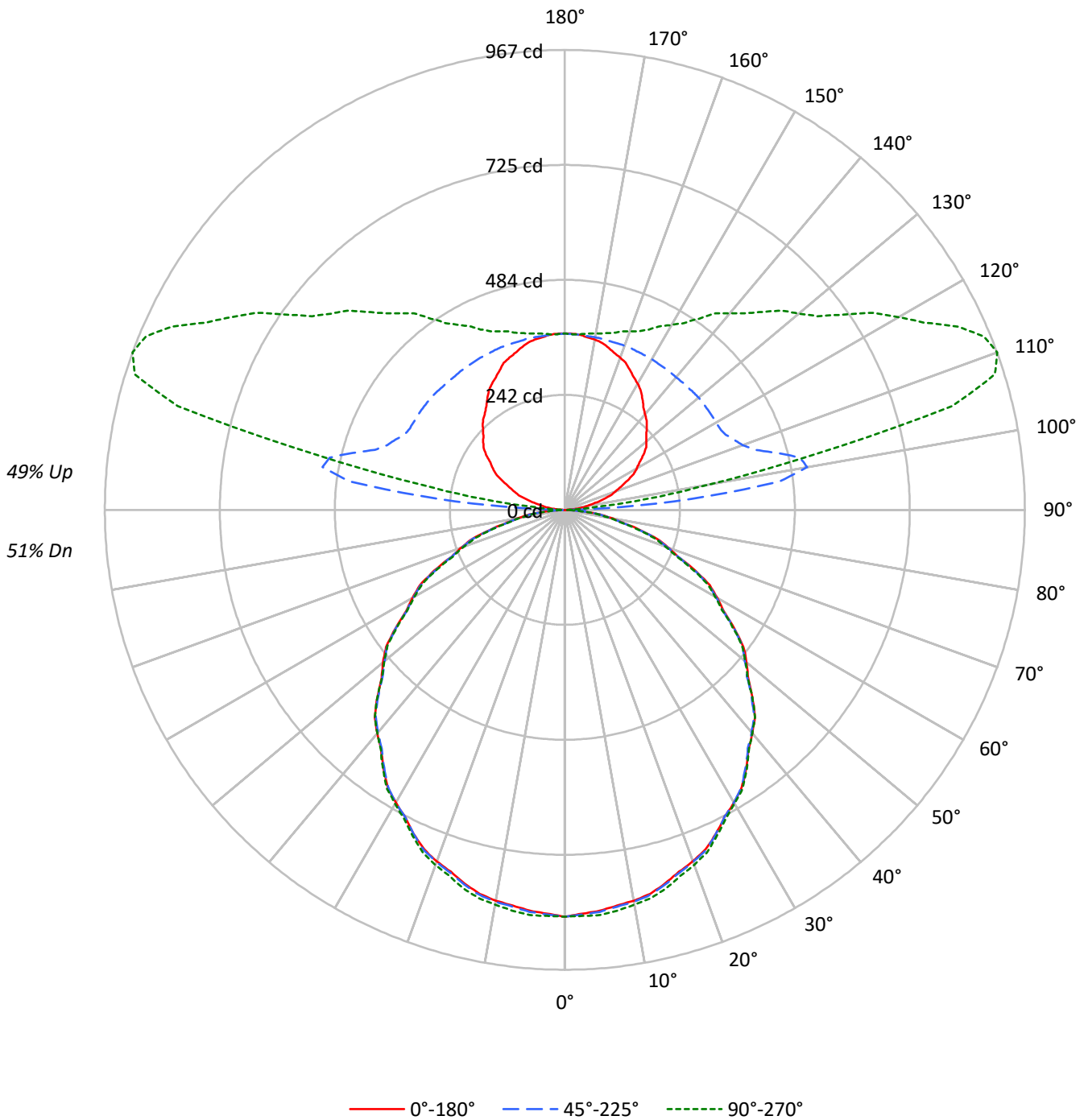
Lumens per Lamp: N/A
Luminaire Lumens: 4702.9 lumens
Efficiency: N/A
Efficacy: 144.3 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.25 / 1.36
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: General Diffuse

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	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°	13811	13811	13811
5°	13713	13750	13864
10°	13680	13719	13814
15°	13598	13636	13772
20°	13515	13536	13656
25°	13392	13392	13473
30°	13254	13254	13297
35°	13094	13046	13139
40°	12920	12872	12920
45°	12721	12666	12721
50°	12529	12411	12441
55°	12237	12203	12138
60°	11929	11854	11780
65°	11576	11442	11308
70°	10891	10839	10617
75°	10249	10031	9744
80°	9103	8889	8563
85°	7336	6688	6262

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 45°
 Luminance: 12796 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.9	1.7
10°-20°	231.0	4.9
20°-30°	347.6	7.4
30°-40°	415.9	8.8
40°-50°	429.1	9.1
50°-60°	387.1	8.2
60°-70°	295.4	6.3
70°-80°	169.8	3.6
80°-90°	44.8	1.0
90°-100°	147.6	3.1
100°-110°	468.1	10.0
110°-120°	459.0	9.8
120°-130°	373.5	7.9
130°-140°	304.6	6.5
140°-150°	237.5	5.0
150°-160°	171.1	3.6
160°-170°	104.5	2.2
170°-180°	35.3	0.8
0°-30°	659.5	14.0
0°-40°	1075.4	22.9
0°-60°	1891.7	40.2
0°-90°	2401.7	51.1
90°-120°	1074.7	22.9
90°-150°	1990.3	42.3
90°-180°	2301.0	48.9
0°-180°	4702.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	855	855	855	855	855	
5°	846	858	848	850	855	80
15°	814	824	816	819	824	229
25°	752	760	752	753	756	346
35°	664	669	662	664	667	415
45°	557	560	555	556	557	430
55°	435	437	434	431	431	389
65°	303	302	300	297	296	298
75°	164	163	161	157	156	173
85°	40	37	36	33	34	46
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°	855.4	855.4	855.4	855.4	855.4
2.5°	849.8	859.8	851.7	853.5	854.5
5°	846.1	857.5	848.4	849.7	855.4
7.5°	839.1	851.4	841.4	843.6	850.0
10°	834.4	845.8	836.8	838.0	842.6
12.5°	827.0	838.4	829.3	831.5	836.1
15°	813.5	823.7	815.8	819.4	823.9
17.5°	797.8	808.8	799.9	803.1	806.9
20°	786.6	795.7	787.8	789.1	794.8
22.5°	772.7	781.8	774.8	775.1	779.9
25°	751.7	759.6	751.7	753.0	756.3
27.5°	727.7	734.6	727.7	729.0	731.9
30°	710.9	717.8	710.9	712.1	713.2
32.5°	692.2	698.2	691.3	692.6	695.5
35°	664.3	668.8	661.9	664.3	666.6
37.5°	634.4	637.8	632.1	633.3	635.4
40°	613.0	616.4	610.7	611.8	613.0
42.5°	591.6	594.1	588.3	589.5	591.6
45°	557.1	560.4	554.7	555.9	557.1
47.5°	522.1	524.2	519.3	518.4	520.5
50°	498.8	500.0	494.1	494.1	495.3
52.5°	473.6	474.8	470.8	469.0	470.1
55°	434.7	437.0	433.5	431.2	431.2
57.5°	395.5	397.6	393.2	392.0	391.8
60°	369.4	370.6	367.1	365.9	364.8
62.5°	343.3	343.6	340.1	338.9	337.7
65°	303.0	301.8	299.5	297.2	296.0
67.5°	257.8	259.0	256.6	252.9	252.9
70°	230.7	231.9	229.6	224.9	224.9
72.5°	204.6	203.9	202.5	198.8	197.0
75°	164.3	163.2	160.8	157.3	156.2
77.5°	124.0	122.8	121.7	117.2	118.2
80°	97.9	96.7	95.6	92.1	92.1
82.5°	74.6	72.5	71.3	67.8	67.8
85°	39.6	37.3	36.1	32.6	33.8
87.5°	11.2	10.5	10.0	8.2	8.2
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	17.19	18.07	18.13	19.03	20.29	17.11	17.99	18.05	18.96	20.21
	3H	18.97	19.76	19.93	20.73	22.01	18.85	19.64	19.81	20.61	21.89
	4H	19.63	20.38	20.60	21.36	22.64	19.48	20.23	20.45	21.20	22.49
	6H	20.10	20.79	21.08	21.77	23.07	19.92	20.61	20.90	21.59	22.89
	8H	20.24	20.90	21.23	21.90	23.19	20.04	20.70	21.03	21.69	22.99
	12H	20.31	20.94	21.31	21.93	23.25	20.09	20.72	21.08	21.71	23.03
4H	2H	17.74	18.49	18.72	19.47	20.75	17.68	18.43	18.66	19.41	20.69
	3H	19.73	20.36	20.72	21.36	22.66	19.62	20.25	20.61	21.26	22.56
	4H	20.52	21.09	21.52	22.09	23.42	20.38	20.95	21.37	21.95	23.27
	6H	21.11	21.61	22.12	22.63	23.95	20.93	21.43	21.94	22.45	23.77
	8H	21.30	21.76	22.31	22.78	24.11	21.10	21.56	22.11	22.58	23.91
	12H	21.40	21.82	22.43	22.85	24.19	21.18	21.59	22.20	22.63	23.97
8H	4H	20.77	21.23	21.78	22.25	23.58	20.64	21.11	21.65	22.12	23.46
	6H	21.49	21.87	22.52	22.93	24.26	21.32	21.71	22.36	22.76	24.10
	8H	21.76	22.09	22.80	23.14	24.49	21.56	21.90	22.61	22.94	24.30
	12H	21.93	22.22	22.97	23.26	24.66	21.70	21.99	22.74	23.03	24.43
12H	4H	20.77	21.18	21.79	22.21	23.56	20.64	21.06	21.67	22.09	23.43
	6H	21.53	21.87	22.57	22.91	24.27	21.37	21.71	22.41	22.75	24.11
	8H	21.83	22.12	22.87	23.16	24.56	21.64	21.94	22.69	22.97	24.37