

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: P521552

Luminaire Tested: SQ4-F-100U-050D-92765-1D-UNV-STD-W-4_4500K

Issue Date: 5-5-2021

Test Information

Test Method: LM-79-2019
Report Number: P521552
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2101-105-51, G2-2101-105-36)
Test Lab: INNOVATION CENTER
Issue Date: 5-5-2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-F-100U-050D-92765-1D-UNV-STD-W-4_4500K
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
UPLIGHT 1000 LUMENS PER FOOT
Light Source: 2700K-6500K CCT, 90 CRI LEDS, TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6682.0 lumens
Efficiency: N/A
Efficacy: 125.8 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.38
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Semi-Indirect

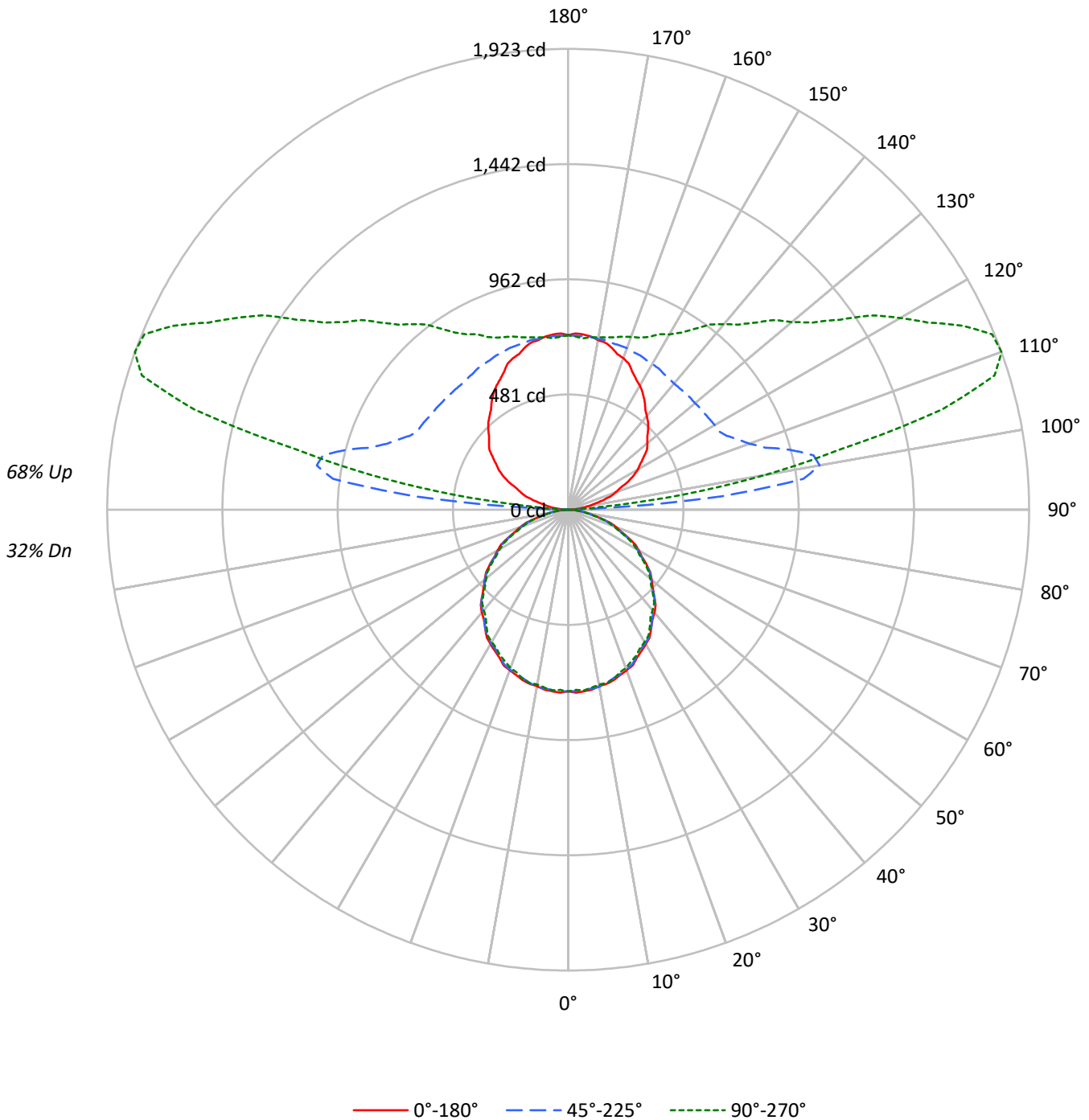
Input Watts (W): 53.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20										
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	50	30	10	0														
RCR																																						
0	103	103	103	103	93	93	93	93	73	73	73	56	56	56	40	40	40	32																				
1	94	89	86	82	84	81	77	75	64	62	60	49	48	46	35	34	33	27																				
2	85	78	72	67	76	70	65	61	56	53	49	43	41	38	31	29	28	22																				
3	78	68	61	56	70	62	56	51	49	45	41	38	35	32	27	25	24	19																				
4	71	60	53	47	64	55	48	43	44	39	35	34	30	28	24	22	20	16																				
5	65	54	46	40	58	49	42	37	39	34	30	30	26	24	22	19	18	14																				
6	60	48	40	34	53	43	37	32	35	30	26	27	23	21	20	17	15	12																				
7	55	43	35	30	49	39	32	27	32	26	23	24	21	18	18	15	14	11																				
8	51	39	31	26	46	35	29	24	29	24	20	22	19	16	16	14	12	10																				
9	47	35	28	23	43	32	26	21	26	21	18	20	17	14	15	13	11	9																				
10	44	32	25	21	40	30	23	19	24	19	16	19	15	13	14	12	10	8																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6997	6997	6997
5°	7043	6995	7005
10°	7009	7028	6941
15°	7027	6957	6987
20°	6999	6969	6898
25°	6920	6879	6836
30°	6900	6857	6791
35°	6794	6794	6689
40°	6742	6680	6593
45°	6615	6615	6521
50°	6535	6491	6402
55°	6425	6359	6259
60°	6281	6167	6071
65°	6032	5897	5783
70°	5751	5554	5414
75°	5126	4980	4905
80°	4235	4176	4123
85°	3070	3398	3398

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6615 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.8	1.1
10°-20°	205.7	3.1
20°-30°	310.8	4.7
30°-40°	374.4	5.6
40°-50°	388.1	5.8
50°-60°	351.9	5.3
60°-70°	267.5	4.0
70°-80°	149.0	2.2
80°-90°	38.4	0.6
90°-100°	331.9	5.0
100°-110°	944.4	14.1
110°-120°	904.8	13.5
120°-130°	716.1	10.7
130°-140°	574.8	8.6
140°-150°	450.0	6.7
150°-160°	329.3	4.9
160°-170°	203.9	3.1
170°-180°	69.2	1.0
0°-30°	588.3	8.8
0°-40°	962.7	14.4
0°-60°	1702.8	25.5
0°-90°	2157.6	32.3
90°-120°	2181.1	32.6
90°-150°	3921.9	58.7
90°-180°	4524.0	67.7
0°-180°	6682.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	758	758	758	758	758	
5°	760	751	755	756	756	72
15°	736	729	728	728	732	207
25°	680	675	676	672	672	315
35°	603	597	603	596	594	378
45°	507	504	507	498	500	392
55°	399	398	395	391	389	356
65°	276	275	270	267	265	274
75°	144	142	140	138	138	153
85°	29	31	32	33	32	35
90°	0	0	0	0	0	3
95°	36	143	642	222	137	41
105°	147	223	962	1700	1616	155
115°	273	330	730	1546	1815	269
125°	385	427	696	1156	1382	345
135°	471	510	688	976	1104	363
145°	555	584	694	845	921	347
155°	634	649	710	764	795	293
165°	701	703	719	734	745	197
175°	734	730	727	723	717	70
180°	728	728	728	728	728	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	758.4	758.4	758.4	758.4	758.4
2.5°	764.2	756.1	757.6	758.3	752.7
5°	760.5	751.4	755.3	756.4	756.4
7.5°	757.2	750.1	752.7	749.5	749.1
10°	748.1	745.1	750.2	742.9	740.9
12.5°	744.0	739.3	740.2	738.8	740.9
15°	735.7	728.6	728.4	728.5	731.5
17.5°	722.9	713.7	719.7	713.3	712.5
20°	712.9	703.8	709.8	702.6	702.6
22.5°	703.0	692.3	698.2	688.4	686.0
25°	679.8	674.8	675.7	671.5	671.5
27.5°	663.5	652.3	656.0	650.2	650.6
30°	647.7	636.6	643.6	635.4	637.4
32.5°	632.0	624.9	628.7	619.7	623.3
35°	603.2	597.2	603.2	596.0	593.9
37.5°	578.0	571.7	573.6	569.0	563.9
40°	559.8	552.7	554.6	548.4	547.4
42.5°	539.9	535.3	535.6	530.2	530.8
45°	507.0	504.0	507.0	497.7	499.8
47.5°	477.6	474.0	473.7	467.5	470.0
50°	455.3	453.3	452.2	446.0	446.0
52.5°	432.1	430.1	429.0	424.4	423.6
55°	399.4	398.4	395.3	391.1	389.1
57.5°	363.6	361.6	359.9	355.5	353.9
60°	340.4	338.4	334.2	329.0	329.0
62.5°	314.8	312.7	307.7	305.8	302.6
65°	276.3	275.3	270.1	266.9	264.9
67.5°	238.0	234.7	232.4	228.4	226.4
70°	213.2	209.1	205.9	202.8	200.7
72.5°	185.8	182.6	179.4	177.9	175.1
75°	143.8	141.8	139.7	137.6	137.6
77.5°	104.5	103.9	101.8	101.8	100.8
80°	79.7	80.7	78.6	78.6	77.6
82.5°	57.3	58.3	57.9	58.7	57.7
85°	29.0	31.0	32.1	33.1	32.1
87.5°	8.3	10.7	12.4	13.2	13.2
90°	0.0	0.0	0.0	0.0	0.0
92.5°	11.1	58.7	136.3	39.7	29.9
95°	36.0	143.0	642.5	222.4	137.1
97.5°	66.2	167.5	989.5	708.1	485.2
100°	87.2	182.0	1064.8	1078.6	830.8
102.5°	110.5	197.7	1048.2	1380.6	1164.3
105°	146.8	222.6	962.4	1699.9	1616.0
107.5°	183.6	251.6	862.1	1789.9	1864.7
110°	209.1	272.7	804.5	1755.5	1923.4

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	233.5	293.8	765.7	1674.0	1913.4
115°	272.8	329.7	729.7	1545.9	1815.4
117.5°	307.4	360.8	708.4	1405.9	1691.3
120°	335.1	379.8	706.2	1325.8	1599.3
122.5°	357.3	401.9	700.7	1255.6	1509.6
125°	385.0	426.9	696.5	1155.8	1381.9
127.5°	415.1	454.4	694.3	1096.2	1282.5
130°	430.6	469.9	691.0	1054.7	1217.2
132.5°	447.3	485.4	691.0	1022.3	1171.7
135°	470.8	510.1	688.2	976.3	1103.6
137.5°	493.0	531.1	687.9	937.5	1047.4
140°	509.6	548.8	686.8	905.2	1010.8
142.5°	528.4	561.2	690.1	879.5	974.3
145°	555.3	583.7	693.7	845.0	920.8
147.5°	578.3	605.9	699.8	810.2	875.7
150°	598.2	617.2	702.0	798.6	844.7
152.5°	613.7	633.7	704.3	783.1	825.8
155°	634.2	649.1	710.4	763.7	794.8
157.5°	659.7	668.6	711.7	754.9	777.1
160°	673.0	679.7	717.3	748.2	767.1
162.5°	680.7	688.6	718.4	742.5	757.2
165°	700.7	703.4	718.7	734.1	745.0
167.5°	714.2	711.8	725.0	732.1	736.4
170°	718.7	717.3	722.8	724.3	729.7
172.5°	728.6	724.0	726.1	722.1	726.4
175°	733.9	729.8	727.0	722.7	717.3
177.5°	736.1	729.6	726.1	721.7	722.8
180°	728.4	728.4	728.4	728.4	728.4

(END OF REPORT)