

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: P521554

Luminaire Tested: SQ4-F-100U-050D-92765-1D-UNV-STD-W-4_5700K

Issue Date: 5-5-2021

Test Information

Test Method: LM-79-2019
Report Number: P521554
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_5700K
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 5700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6852.1 lumens
Efficiency: N/A
Efficacy: 129.5 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

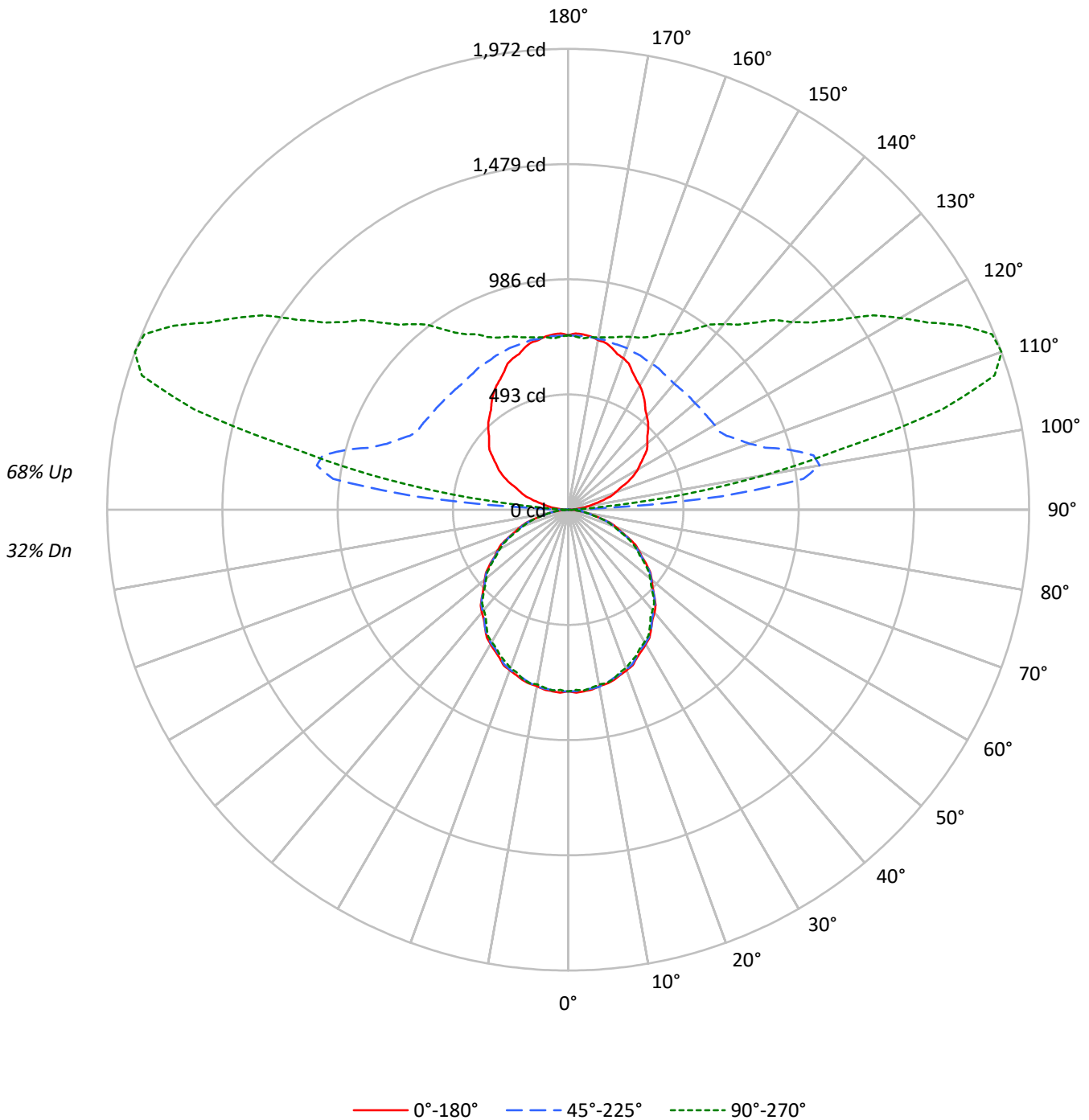
Input Watts (W): 52.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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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	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°	7176	7176	7176
5°	7223	7174	7183
10°	7188	7207	7117
15°	7206	7135	7166
20°	7178	7147	7074
25°	7096	7054	7010
30°	7076	7031	6963
35°	6967	6967	6860
40°	6913	6849	6760
45°	6784	6784	6687
50°	6702	6656	6564
55°	6589	6519	6418
60°	6442	6324	6226
65°	6185	6045	5929
70°	5897	5697	5552
75°	5258	5105	5030
80°	4341	4282	4229
85°	3144	3483	3483

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 6784 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.6	1.1
10°-20°	211.0	3.1
20°-30°	318.7	4.7
30°-40°	383.9	5.6
40°-50°	398.0	5.8
50°-60°	360.9	5.3
60°-70°	274.3	4.0
70°-80°	152.7	2.2
80°-90°	39.4	0.6
90°-100°	340.3	5.0
100°-110°	968.4	14.1
110°-120°	927.8	13.5
120°-130°	734.4	10.7
130°-140°	589.4	8.6
140°-150°	461.5	6.7
150°-160°	337.6	4.9
160°-170°	209.1	3.1
170°-180°	71.0	1.0
0°-30°	603.3	8.8
0°-40°	987.2	14.4
0°-60°	1746.1	25.5
0°-90°	2212.6	32.3
90°-120°	2236.6	32.6
90°-150°	4021.8	58.7
90°-180°	4640.0	67.7
0°-180°	6852.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	778	778	778	778	778	
5°	780	770	775	776	776	74
15°	754	747	747	747	750	213
25°	697	692	693	689	689	323
35°	619	612	619	611	609	388
45°	520	517	520	510	512	402
55°	410	408	405	401	399	365
65°	283	282	277	274	272	281
75°	148	145	143	141	141	157
85°	30	32	33	34	33	36
90°	0	0	0	0	0	3
95°	37	147	659	228	141	42
105°	150	228	987	1743	1657	159
115°	280	338	748	1585	1862	275
125°	395	438	714	1185	1417	353
135°	483	523	706	1001	1132	373
145°	569	599	711	866	944	356
155°	650	666	728	783	815	301
165°	718	721	737	753	764	202
175°	753	748	746	741	736	71
180°	747	747	747	747	747	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	777.8	777.8	777.8	777.8	777.8
2.5°	783.7	775.4	776.9	777.6	771.8
5°	779.9	770.5	774.6	775.6	775.6
7.5°	776.5	769.2	771.8	768.6	768.2
10°	767.2	764.0	769.3	761.8	759.7
12.5°	762.9	758.1	759.1	757.6	759.7
15°	754.4	747.2	747.0	747.1	750.2
17.5°	741.3	731.9	738.1	731.5	730.7
20°	731.1	721.7	727.9	720.5	720.5
22.5°	720.9	709.9	716.0	706.0	703.5
25°	697.1	691.9	692.9	688.6	688.6
27.5°	680.4	668.9	672.7	666.8	667.2
30°	664.2	652.8	660.0	651.5	653.6
32.5°	648.1	640.8	644.7	635.5	639.2
35°	618.6	612.4	618.6	611.1	609.1
37.5°	592.7	586.3	588.3	583.5	578.3
40°	574.0	566.8	568.7	562.3	561.3
42.5°	553.7	548.9	549.2	543.7	544.3
45°	519.9	516.8	519.9	510.4	512.5
47.5°	489.8	486.1	485.8	479.4	481.9
50°	466.9	464.8	463.7	457.3	457.3
52.5°	443.1	441.0	439.9	435.2	434.4
55°	409.6	408.5	405.3	401.0	399.0
57.5°	372.9	370.8	369.0	364.5	362.9
60°	349.1	347.0	342.7	337.4	337.4
62.5°	322.8	320.7	315.6	313.6	310.3
65°	283.3	282.3	276.9	273.7	271.6
67.5°	244.0	240.7	238.3	234.2	232.2
70°	218.6	214.4	211.2	207.9	205.8
72.5°	190.6	187.2	184.0	182.4	179.5
75°	147.5	145.4	143.2	141.1	141.1
77.5°	107.2	106.5	104.4	104.4	103.3
80°	81.7	82.7	80.6	80.6	79.6
82.5°	58.8	59.8	59.4	60.2	59.2
85°	29.7	31.8	32.9	33.9	32.9
87.5°	8.5	11.0	12.7	13.6	13.6
90°	0.0	0.0	0.0	0.0	0.0
92.5°	11.4	60.2	139.7	40.7	30.7
95°	36.9	146.6	658.9	228.0	140.6
97.5°	67.9	171.7	1014.7	726.1	497.6
100°	89.5	186.6	1092.0	1106.1	852.0
102.5°	113.3	202.7	1074.9	1415.8	1193.9
105°	150.5	228.3	986.9	1743.2	1657.1
107.5°	188.3	258.0	884.1	1835.5	1912.1
110°	214.4	279.7	825.0	1800.2	1972.3

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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
112.5°	239.4	301.3	785.2	1716.7	1962.1
115°	279.7	338.0	748.3	1585.3	1861.6
117.5°	315.2	369.9	726.5	1441.7	1734.4
120°	343.6	389.5	724.2	1359.6	1640.1
122.5°	366.4	412.2	718.5	1287.6	1548.1
125°	394.8	437.8	714.2	1185.3	1417.1
127.5°	425.7	466.0	712.0	1124.1	1315.2
130°	441.6	481.9	708.6	1081.5	1248.2
132.5°	458.7	497.8	708.6	1048.3	1201.6
135°	482.8	523.1	705.7	1001.2	1131.7
137.5°	505.5	544.7	705.4	961.3	1074.1
140°	522.6	562.8	704.3	928.3	1036.6
142.5°	541.9	575.5	707.7	901.9	999.1
145°	569.4	598.6	711.4	866.5	944.3
147.5°	593.0	621.3	717.7	830.8	898.0
150°	613.4	632.9	719.9	819.0	866.2
152.5°	629.3	649.9	722.2	803.0	846.9
155°	650.3	665.6	728.4	783.1	815.1
157.5°	676.5	685.6	729.9	774.1	796.9
160°	690.1	697.1	735.5	767.2	786.7
162.5°	698.1	706.1	736.7	761.4	776.4
165°	718.5	721.3	737.0	752.8	763.9
167.5°	732.4	729.9	743.5	750.7	755.1
170°	737.0	735.6	741.2	742.8	748.3
172.5°	747.2	742.5	744.6	740.5	744.9
175°	752.6	748.4	745.5	741.1	735.5
177.5°	754.9	748.2	744.6	740.1	741.2
180°	746.9	746.9	746.9	746.9	746.9

(END OF REPORT)