

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: IRiS

Report Number: P1344994

Luminaire Tested: P3A13R309727DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1344994
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-76)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R309727DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R30 optic, 2700K CCT AND, 97CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

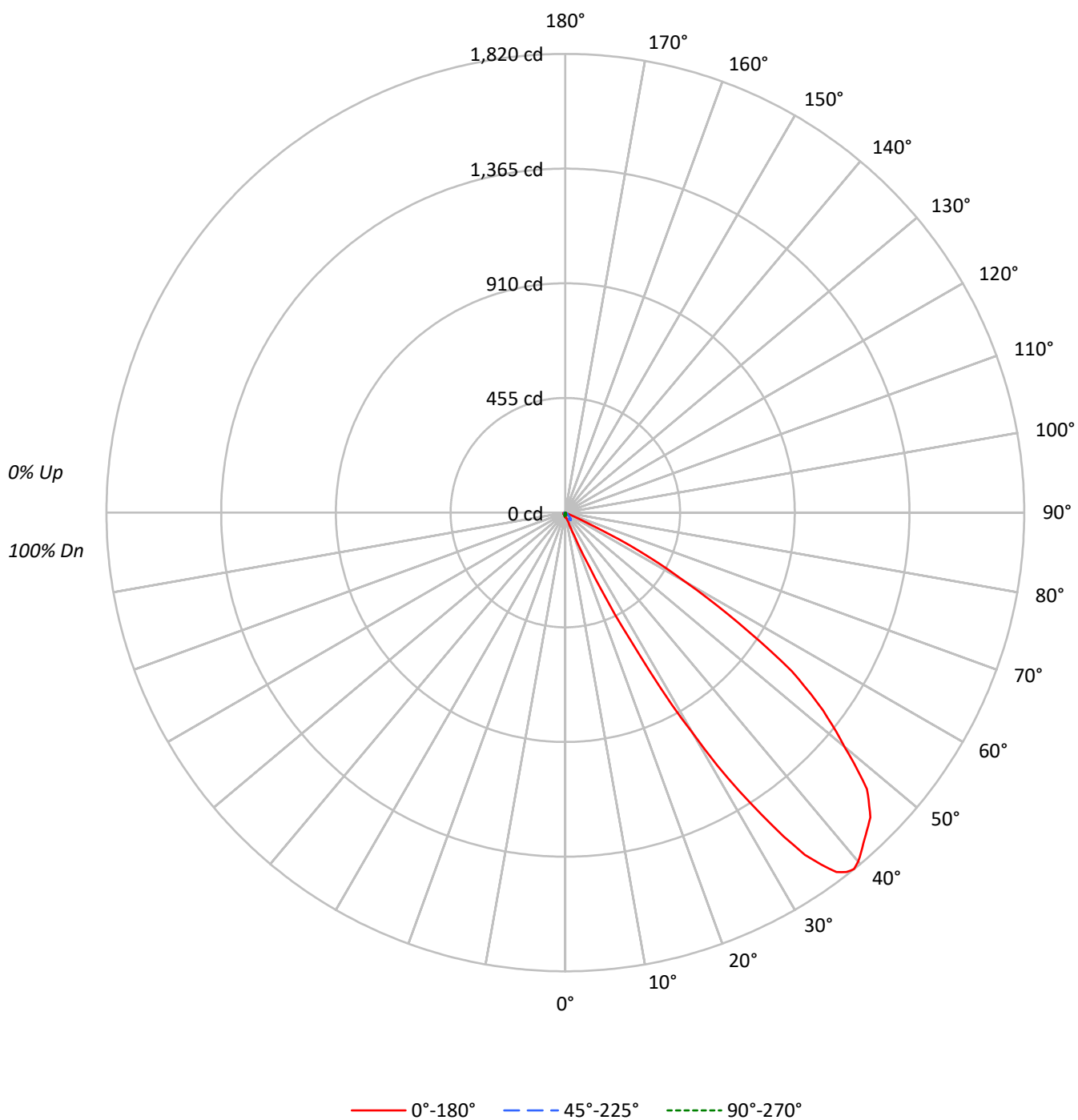
Lumens per Lamp: N/A
Luminaire Lumens: 473.1 lumens
Efficiency: N/A
Efficacy: 32.4 lumens/watt
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.44
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 14.6
Input Voltage (V): NR
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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	100
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87	87	87
2	100	93	86	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73	73	73
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61	61	61
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	52	50	50	50
5	75	62	52	46	73	60	52	45	58	51	45	56	50	44	54	49	44	42	42	42
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	48	42	37	35	35	35
7	62	48	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31	29	29	29
8	56	42	33	27	55	41	33	27	40	32	26	39	32	26	37	31	26	24	24	24
9	52	37	29	23	50	37	28	23	36	28	22	34	27	22	33	27	22	20	20	20
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	24	19	17	17	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	4013	4013	4013	4013	4013
5°	4292	4204	3940	3588	3500
10°	4698	4164	3451	3095	3006
15°	6879	4154	2883	2633	2724
20°	17292	4550	2240	2240	2520
25°	80303	5686	1742	2032	2323
30°	255634	7875	1317	1924	2329
35°	443593	9610	1071	1820	2356
40°	517341	9589	802	1832	2405
45°	530567	6791	868	1985	2605
50°	493391	3821	682	2047	3002
55°	419349	1988	765	2294	3364
60°	242174	526	877	2456	3684
65°	49396	0	1038	2906	4151
70°	769	256	1282	3334	4873
75°	678	339	1356	3389	5761
80°	505	505	2020	4041	6566
85°	0	1006	4026	4026	8051

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 530567 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.7	0.3
10°-20°	4.8	1.0
20°-30°	27.3	5.8
30°-40°	127.4	26.9
40°-50°	180.2	38.1
50°-60°	110.9	23.4
60°-70°	16.9	3.6
70°-80°	2.7	0.6
80°-90°	1.3	0.3
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	33.7	7.1
0°-40°	161.1	34.1
0°-60°	452.2	95.6
0°-90°	473.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	473.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	18	18	18	18	18	
5°	20	19	18	16	16	2
15°	30	18	13	12	12	11
25°	332	24	7	8	10	204
35°	1657	36	4	7	9	995
45°	1711	22	3	6	8	1297
55°	1097	5	2	6	9	933
65°	95	0	2	6	8	172
75°	1	0	2	4	7	1
85°	0	0	2	2	3	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	45°	67.5°	90°	112.5°	135°
0°	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3
2.5°	18.7	18.7	19.1	19.1	18.7	19.1	19.1	19.1	18.3	17.9	17.1
5°	19.5	19.5	19.5	19.9	19.5	19.5	19.1	18.7	17.9	16.7	16.3
7.5°	20.3	20.3	19.9	20.3	19.9	19.9	19.1	18.3	17.1	15.9	15.1
10°	21.1	21.1	20.7	20.7	20.3	20.3	18.7	17.5	15.5	14.3	13.9
12.5°	23.5	23.5	23.1	22.7	21.9	21.5	18.3	16.3	13.9	12.7	12.4
15°	30.3	29.9	29.1	27.9	25.9	25.5	18.3	15.1	12.7	11.6	11.6
17.5°	41.4	41.0	39.8	36.7	33.1	31.9	18.3	13.5	11.2	10.4	10.4
20°	74.1	70.9	64.9	57.0	48.6	44.2	19.5	12.0	9.6	9.2	9.6
21°	96.8	93.6	86.1	72.9	58.2	53.4	20.3	11.6	9.2	8.8	9.6
22°	131.9	128.3	112.8	94.8	73.7	65.3	20.7	10.8	8.4	8.4	9.2
23°	184.1	178.1	151.8	123.1	92.0	80.1	21.5	10.4	8.0	8.4	8.8
24°	241.1	235.9	206.0	163.0	117.5	100.4	22.3	10.0	7.6	7.6	8.4
25°	331.9	325.9	272.9	205.6	149.0	120.7	23.5	9.2	7.2	7.2	8.4
26°	449.4	421.9	351.4	265.0	183.7	151.4	24.7	8.8	6.8	7.2	8.0
27°	561.0	538.3	459.0	339.9	227.1	186.1	26.3	8.4	6.4	6.8	8.0
28°	707.6	675.7	575.7	429.9	286.1	225.1	27.9	8.0	6.0	6.8	7.6
29°	871.8	827.2	706.4	531.1	352.6	268.9	29.5	7.6	5.6	6.4	7.6
30°	1009.6	967.8	847.1	651.0	429.1	326.7	31.1	7.2	5.2	6.4	7.6
31°	1171.4	1108.0	961.8	752.6	494.9	384.5	32.7	6.4	4.8	6.0	7.2
32°	1302.5	1258.3	1102.9	867.4	581.3	448.2	33.9	6.0	4.8	6.0	7.2
33°	1429.2	1369.8	1219.6	977.4	659.4	513.6	35.1	5.6	4.4	5.6	7.2
34°	1550.3	1495.7	1330.0	1066.2	733.1	575.7	35.9	4.8	4.4	5.6	6.8
35°	1657.1	1593.7	1427.2	1153.1	808.8	632.3	35.9	4.4	4.0	5.2	6.8
36°	1726.4	1681.0	1511.7	1238.7	877.4	686.1	35.9	4.0	3.6	5.2	6.4
37°	1785.8	1732.8	1579.4	1304.5	928.0	729.1	35.9	3.6	3.6	5.2	6.4
38°	1810.1	1764.7	1626.0	1362.6	975.4	773.0	35.5	3.2	3.2	4.8	6.4
39°	1819.7	1779.0	1661.1	1404.5	1010.4	802.4	34.7	2.8	3.2	4.8	6.4
40°	1807.3	1776.6	1679.0	1431.6	1038.3	824.0	33.5	2.4	2.8	4.8	6.4
42.5°	1756.3	1736.0	1675.0	1458.7	1062.2	839.9	29.1	1.6	2.8	4.4	6.4
45°	1710.9	1688.6	1634.8	1430.4	1031.2	808.4	21.9	0.8	2.8	4.4	6.4
47.5°	1622.8	1608.9	1566.6	1358.3	963.0	737.5	15.5	0.4	2.4	4.0	6.0
50°	1446.3	1433.2	1377.4	1179.4	828.3	623.6	11.2	0.4	2.0	4.0	6.0
52.5°	1288.1	1274.2	1194.1	980.5	636.3	457.0	7.2	0.4	2.0	4.0	6.0
55°	1096.9	1072.6	967.4	744.3	451.0	306.4	5.2	0.4	2.0	3.6	6.0
57.5°	812.0	776.6	682.5	507.6	259.8	166.1	2.8	0.4	2.0	3.6	6.0
60°	552.2	531.1	427.1	267.7	110.8	70.1	1.2	0.4	2.0	3.6	5.6
62.5°	334.7	308.0	214.8	114.0	47.8	31.9	0.0	0.8	2.0	3.6	5.6
65°	95.2	84.5	56.2	25.9	13.5	10.4	0.0	0.8	2.0	3.6	5.6
67.5°	3.2	3.2	3.2	2.8	2.0	2.0	0.4	0.8	2.0	3.6	5.2
70°	1.2	1.2	1.2	0.8	0.8	0.4	0.4	0.8	2.0	3.2	5.2
72.5°	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.8	1.6	2.8	4.8
75°	0.8	0.8	0.8	0.4	0.4	0.4	0.4	1.2	1.6	2.8	4.0
77.5°	0.8	0.8	0.8	0.4	0.4	0.4	0.4	1.2	1.6	2.4	4.0
80°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.2	1.6	2.4	3.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	45°	67.5°	90°	112.5°	135°
82.5°	0.4	0.4	0.4	0.0	0.0	0.0	0.4	1.2	1.6	1.6	2.4
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.2	1.6	1.2	1.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.2	1.2	1.2	0.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	157.5°	180°
0°	18.3	18.3
2.5°	17.1	17.1
5°	15.9	15.9
7.5°	14.7	14.7
10°	13.5	13.5
12.5°	12.7	12.7
15°	11.6	12.0
17.5°	10.8	11.2
20°	10.4	10.8
21°	10.4	10.8
22°	10.0	10.4
23°	10.0	10.4
24°	9.6	10.0
25°	9.2	9.6
26°	9.2	9.6
27°	9.2	9.6
28°	8.8	9.6
29°	8.8	9.2
30°	8.8	9.2
31°	8.4	9.2
32°	8.4	9.2
33°	8.4	8.8
34°	8.0	8.8
35°	8.0	8.8
36°	8.0	8.8
37°	8.0	8.4
38°	8.0	8.8
39°	8.0	8.4
40°	8.0	8.4
42.5°	8.0	8.4
45°	8.0	8.4
47.5°	8.0	8.8
50°	8.0	8.8
52.5°	8.0	8.8
55°	8.0	8.8
57.5°	8.0	8.4
60°	8.0	8.4
62.5°	7.6	8.4
65°	7.6	8.0
67.5°	7.6	8.0
70°	7.2	7.6
72.5°	6.8	7.2
75°	6.0	6.8
77.5°	5.6	6.0
80°	4.8	5.2



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CANDELA DISTRIBUTION (continued):

	157.5°	180°
82.5°	4.0	4.0
85°	2.8	3.2
87.5°	1.6	1.6
90°	0.0	0.0

(END OF REPORT)