

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: P1343582

Luminaire Tested: P3A13R159835DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1343582
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-73)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R159835DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R15 optic, 3500K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

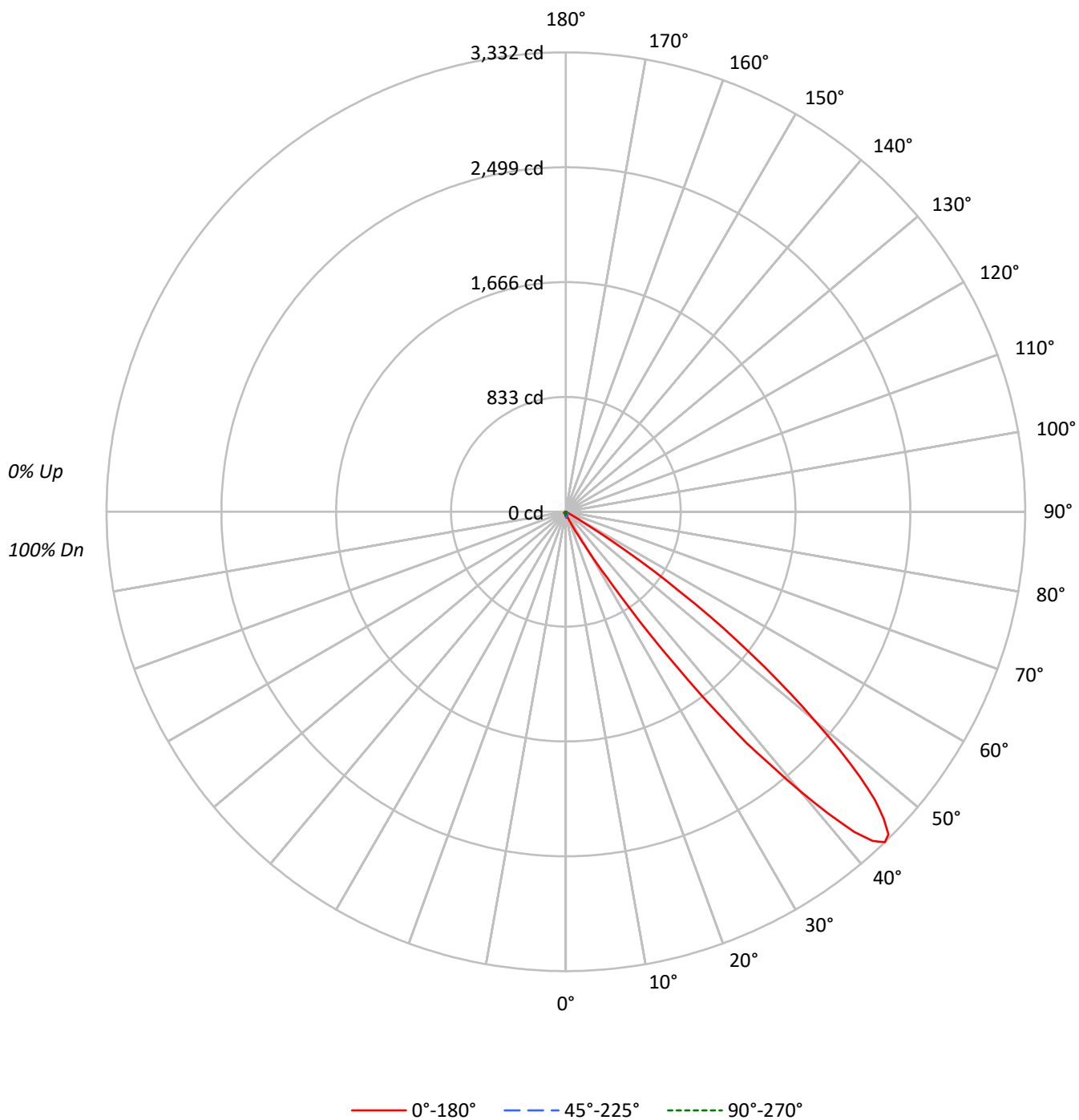
Lumens per Lamp: N/A
Luminaire Lumens: 372.0 lumens
Efficiency: N/A
Efficacy: 25.7 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 14.5
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
RW	70	50	30	10	70	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
1	110	106	102	99	107	104	100	97	100	97	94	96	93	91	92	90	89
2	101	93	87	81	98	91	85	80	87	83	78	84	80	77	81	78	75
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	53
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	49	44
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	48	42	37
7	62	47	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31
8	56	42	33	27	55	41	33	27	40	32	26	39	31	26	37	31	26
9	52	37	28	22	50	37	28	22	35	28	22	34	27	22	33	27	22
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	23	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	7236	7236	7236	7236	7236
5°	8981	8012	6538	5723	5635
10°	8840	6858	5032	4453	4542
15°	7333	4881	3610	3700	3950
20°	12718	3897	2777	3197	3640
25°	28356	4670	2250	2952	3411
30°	84798	5722	1975	2912	3570
35°	326478	6451	1794	2971	3774
40°	757763	5639	1689	3092	4036
45°	1026370	4249	1489	3349	4373
50°	804750	2524	1535	3548	4810
55°	386280	1147	1415	3823	5238
60°	35304	175	1316	4079	5877
65°	3840	0	1141	4255	6330
70°	962	0	1410	4488	6924
75°	932	339	1864	4999	7879
80°	884	884	2399	5177	8461
85°	1006	1006	3774	4780	9309

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1026370 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.8	0.8
10°-20°	5.9	1.6
20°-30°	14.1	3.8
30°-40°	76.9	20.7
40°-50°	186.3	50.1
50°-60°	74.3	20.0
60°-70°	6.4	1.7
70°-80°	3.6	1.0
80°-90°	1.6	0.4
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°	22.7	6.1
0°-40°	99.7	26.8
0°-60°	360.4	96.9
0°-90°	372.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	372.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	33	33	33	33	33	
5°	41	36	30	26	26	4
15°	32	22	16	16	17	11
25°	117	19	9	12	14	71
35°	1220	24	7	11	14	862
45°	3310	14	5	11	14	2335
55°	1010	3	4	10	14	941
65°	7	0	2	8	12	19
75°	1	0	2	6	9	1
85°	0	0	2	2	4	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0	33.0
2.5°	37.1	37.1	37.5	37.1	37.1	37.1	37.1	36.7	36.7	36.7	35.6
5°	40.8	40.8	40.8	40.8	40.4	40.4	40.4	40.1	40.1	39.7	36.4
7.5°	42.3	42.3	41.9	41.9	41.5	41.5	41.2	40.8	40.4	40.1	34.9
10°	39.7	39.7	39.7	39.3	39.3	38.9	38.6	38.2	37.8	37.1	30.8
12.5°	35.2	35.2	35.6	35.2	34.9	34.5	33.8	33.4	33.0	32.3	25.6
15°	32.3	32.3	32.3	31.9	31.5	30.8	30.4	29.7	29.3	28.2	21.5
17.5°	41.2	41.2	40.8	40.1	38.6	37.5	35.6	34.1	32.3	30.0	18.5
20°	54.5	54.5	53.8	53.0	51.2	49.3	46.4	43.8	40.8	38.2	16.7
22.5°	79.0	80.1	77.9	75.3	72.7	68.2	64.2	60.1	54.9	50.4	17.1
25°	117.2	118.3	117.2	111.3	106.5	100.5	92.7	84.6	75.7	67.5	19.3
27.5°	189.9	190.7	188.8	174.3	166.5	151.0	137.2	123.9	109.1	94.2	21.1
30°	334.9	335.3	323.4	294.5	268.9	234.8	205.9	178.0	154.7	130.9	22.6
31°	441.0	430.6	405.4	370.5	329.7	283.8	244.1	208.1	173.2	147.6	23.0
32°	560.1	558.6	516.7	456.2	401.7	344.2	284.5	238.5	198.4	163.6	23.4
33°	717.7	718.5	652.4	581.2	491.8	414.7	336.4	273.4	225.1	182.5	24.1
34°	964.0	906.2	828.6	732.2	610.5	494.4	392.8	313.8	249.3	200.7	24.1
35°	1219.6	1161.3	1076.0	929.9	763.0	600.5	459.9	357.2	278.2	220.3	24.1
36°	1505.9	1456.6	1327.5	1140.9	928.0	700.7	531.2	407.3	306.8	238.1	23.7
37°	1815.3	1742.9	1599.8	1396.1	1111.3	841.6	618.0	457.0	335.3	257.4	23.0
38°	2129.4	2064.2	1883.5	1636.9	1330.1	990.4	704.7	504.8	361.6	271.9	21.9
39°	2367.6	2332.0	2152.8	1877.2	1504.8	1131.3	794.1	556.0	389.5	286.3	20.8
40°	2647.2	2589.8	2419.9	2079.0	1711.4	1274.8	881.7	601.3	412.5	297.8	19.7
41°	2902.4	2829.7	2615.3	2286.0	1876.9	1403.9	964.8	648.0	431.0	304.5	18.9
42°	3121.3	3036.7	2812.7	2463.3	2015.2	1507.0	1031.2	681.4	448.4	310.1	17.8
43°	3263.0	3189.9	2969.6	2596.4	2133.5	1601.6	1093.1	716.2	459.2	313.8	16.3
44°	3332.0	3258.2	3044.9	2679.9	2206.2	1658.4	1133.2	740.4	471.1	318.6	15.2
45°	3309.7	3234.8	3028.6	2681.4	2228.9	1678.8	1150.2	751.1	477.4	323.1	13.7
46°	3207.7	3155.0	2947.3	2611.6	2185.8	1656.9	1140.6	743.0	475.1	323.1	12.2
47°	3064.5	3004.4	2806.7	2491.8	2081.6	1600.5	1101.6	718.1	461.4	315.7	10.8
48°	2869.4	2818.2	2610.5	2301.6	1921.7	1477.7	1013.7	677.7	439.9	301.2	9.3
49°	2624.6	2553.4	2360.2	2058.2	1713.3	1303.4	898.4	609.4	405.4	280.8	8.2
50°	2359.0	2271.1	2122.0	1814.5	1497.8	1117.6	746.7	515.2	356.8	254.1	7.4
51°	2099.0	2009.6	1867.6	1606.1	1267.8	927.3	602.4	411.3	293.8	217.4	6.3
52°	1829.4	1754.4	1595.3	1389.8	1085.3	751.5	501.9	347.9	244.1	182.5	5.2
53°	1560.8	1509.6	1358.3	1150.2	872.0	613.9	409.9	297.8	212.9	156.2	4.1
54°	1291.9	1235.9	1120.9	935.5	702.9	484.4	347.6	249.3	184.7	136.1	3.7
55°	1010.4	981.5	875.4	713.3	532.6	386.5	281.9	214.4	154.7	113.9	3.0
56°	778.2	745.5	648.7	517.4	395.8	302.7	228.1	175.1	130.9	95.3	2.2
57°	509.6	476.3	412.1	361.3	288.2	220.7	174.3	138.0	106.5	79.0	1.9
58°	301.2	270.8	260.8	222.6	192.1	149.9	128.7	102.7	78.6	62.3	1.1
59°	138.4	140.6	125.0	117.2	106.5	95.3	78.3	68.6	53.8	44.9	0.7
60°	80.5	76.0	74.2	66.4	59.0	52.3	47.1	41.5	33.8	28.9	0.4
62.5°	27.4	26.3	27.1	24.5	23.0	22.3	20.4	17.4	14.5	11.9	0.0
65°	7.4	7.4	7.0	6.7	6.3	5.9	5.6	4.8	4.5	3.7	0.0



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CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	2.6	2.6	2.2	2.2	1.9	1.9	1.5	1.5	1.1	1.1	0.0
70°	1.5	1.5	1.5	1.1	1.1	1.1	0.7	0.7	0.7	0.4	0.0
72.5°	1.1	1.1	1.1	1.1	1.1	1.1	0.7	0.7	0.7	0.4	0.4
75°	1.1	1.1	1.1	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.4
77.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
80°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.4	0.7
82.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.7
85°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
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):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	33.0	33.0	33.0	33.0	33.0	33.0
2.5°	34.1	32.6	30.8	29.7	29.3	28.9
5°	32.6	29.7	27.4	26.0	25.6	25.6
7.5°	29.3	26.0	23.7	23.0	22.6	22.6
10°	25.6	22.6	20.8	20.0	20.4	20.4
12.5°	21.5	18.9	18.2	18.2	18.5	18.9
15°	17.4	15.9	15.9	16.3	17.1	17.4
17.5°	14.5	13.7	14.1	14.8	15.6	16.3
20°	11.9	11.9	12.6	13.7	14.8	15.6
22.5°	10.0	10.4	11.5	12.6	14.1	14.8
25°	8.5	9.3	10.4	12.2	13.7	14.1
27.5°	7.4	8.5	10.0	11.9	13.4	14.1
30°	6.3	7.8	9.6	11.5	13.4	14.1
31°	5.9	7.4	9.3	11.5	13.4	14.1
32°	5.6	7.4	9.3	11.5	13.4	14.1
33°	5.2	7.0	9.3	11.1	13.4	14.1
34°	4.8	7.0	9.3	11.5	13.4	14.1
35°	4.5	6.7	8.9	11.1	13.0	14.1
36°	4.1	6.7	8.9	11.1	13.4	14.1
37°	3.7	6.7	8.9	11.1	13.0	14.1
38°	3.7	6.3	8.5	11.1	13.0	14.1
39°	3.3	5.9	8.5	11.1	13.0	14.1
40°	3.0	5.9	8.2	10.8	13.0	14.1
41°	2.6	5.6	8.2	10.8	13.0	14.1
42°	2.2	5.6	8.2	10.8	13.0	14.1
43°	1.9	5.2	7.8	10.8	13.0	14.1
44°	1.9	5.2	7.8	10.8	13.0	14.1
45°	1.5	4.8	7.4	10.8	13.0	14.1
46°	1.5	4.8	7.4	10.4	13.0	14.1
47°	1.1	4.8	7.4	10.4	13.0	14.1
48°	1.1	4.5	7.4	10.4	13.0	14.1
49°	0.7	4.5	7.4	10.4	13.0	14.1
50°	0.7	4.5	7.0	10.4	13.0	14.1
51°	0.7	4.5	7.0	10.4	13.0	14.1
52°	0.7	4.1	7.0	10.4	13.0	14.1
53°	0.7	4.1	7.0	10.4	13.0	14.1
54°	0.7	4.1	6.7	10.4	13.0	14.1
55°	0.7	3.7	6.7	10.0	13.0	13.7
56°	0.7	3.7	6.7	10.0	13.0	13.7
57°	0.7	3.7	6.3	10.0	13.0	13.7
58°	0.7	3.3	6.3	9.6	12.6	13.7
59°	0.7	3.3	5.9	9.6	12.6	13.4
60°	0.7	3.0	5.9	9.3	12.2	13.4
62.5°	0.7	2.6	5.2	8.9	11.9	12.6
65°	0.7	2.2	4.8	8.2	11.5	12.2



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.7	2.2	4.5	7.8	10.8	11.9
70°	0.7	2.2	4.1	7.0	10.4	10.8
72.5°	1.1	2.2	3.7	6.7	9.6	10.0
75°	1.5	2.2	3.3	5.9	8.9	9.3
77.5°	1.5	2.2	3.0	5.2	7.8	8.2
80°	1.5	1.9	2.6	4.1	6.3	6.7
82.5°	1.5	1.9	1.9	3.3	4.8	5.2
85°	1.1	1.5	1.5	1.9	3.3	3.7
87.5°	1.1	1.5	0.7	1.1	1.5	1.5
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)