

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: P1343848

Luminaire Tested: P3A13R15W2N902765DE010 E3A451WMH_4000K

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1343848
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: P3A13R15W2N902765DE010 E3A451WMH_4000K
Description: 3in Adjustable Tunable White LED luminaire with, R15 optic, 4000K CCT AND, 90CRI ,
E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

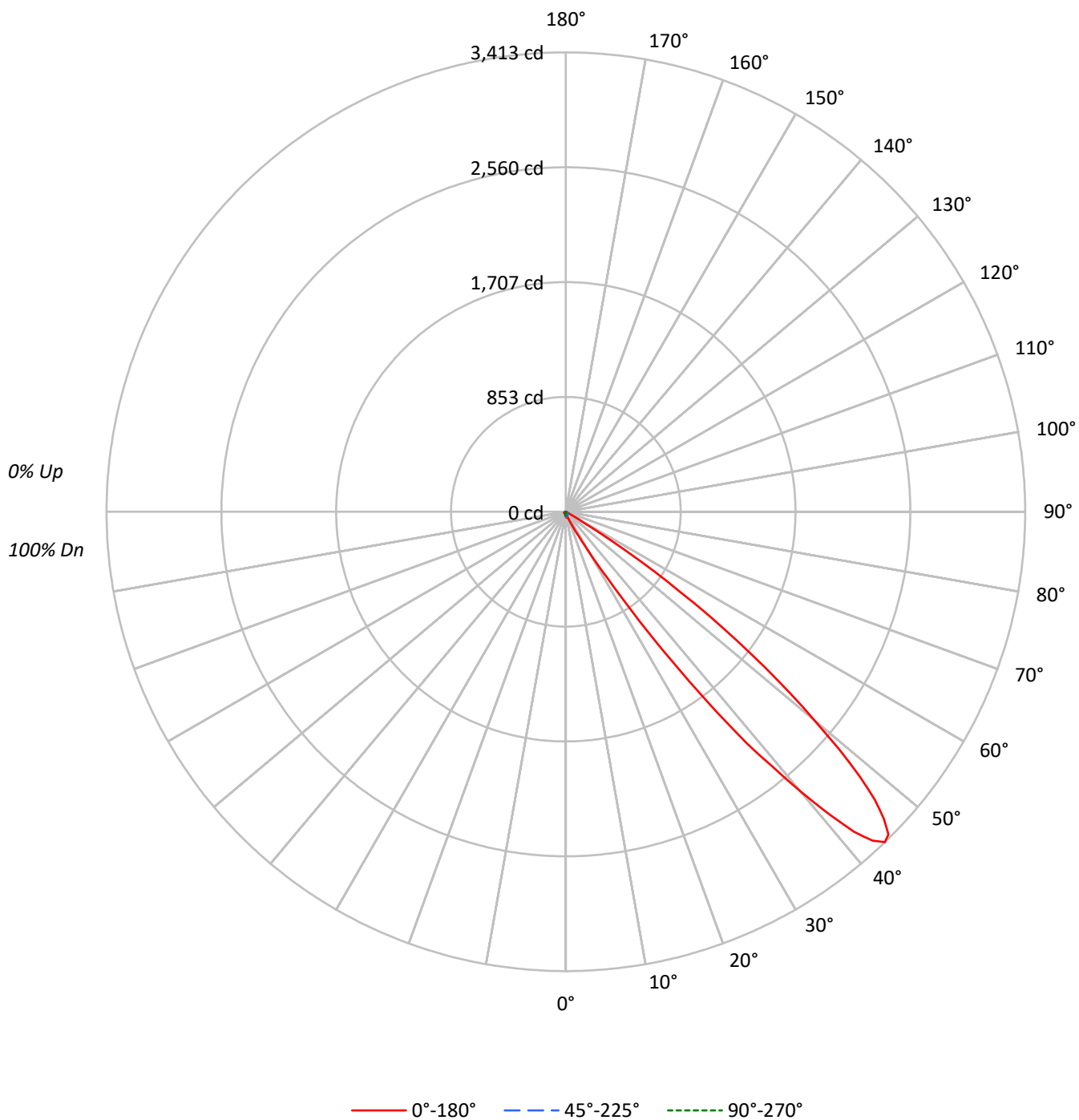
Lumens per Lamp: N/A
Luminaire Lumens: 381.0 lumens
Efficiency: N/A
Efficacy: 31.0 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.09
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 12.3
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	0			
RCR																								
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100						
1	110	106	102	99	107	104	100	97	100	97	94	96	93	91	92	90	89	87						
2	101	93	87	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73						
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61						
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	53	50						
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	49	44	42						
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	48	42	37	35						
7	62	47	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31	29						
8	56	42	33	27	55	41	33	27	40	32	26	39	31	26	37	31	26	24						
9	52	37	28	22	50	37	28	22	35	28	22	34	27	22	33	27	22	20						
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	23	19	17						

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	7412	7412	7412	7412	7412
5°	9201	8188	6692	5855	5767
10°	9040	7014	5166	4565	4654
15°	7514	4994	3700	3791	4064
20°	13021	3990	2847	3290	3734
25°	29034	4791	2299	3024	3484
30°	86849	5874	2026	2988	3646
35°	334374	6612	1820	3052	3855
40°	776111	5754	1746	3149	4122
45°	1051210	4373	1520	3411	4466
50°	824229	2593	1569	3616	4912
55°	395608	1147	1453	3938	5390
60°	36137	175	1316	4166	6008
65°	3943	0	1193	4358	6486
70°	962	0	1475	4616	7052
75°	932	339	1949	5168	8049
80°	1010	1010	2399	5304	8587
85°	1006	1006	3774	4780	9561

MAXIMUM LUMINANCE 45°-90°:

Luminance: 1051210 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.9	0.8
10°-20°	6.0	1.6
20°-30°	14.4	3.8
30°-40°	78.8	20.7
40°-50°	190.8	50.1
50°-60°	76.1	20.0
60°-70°	6.6	1.7
70°-80°	3.7	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°	23.3	6.1
0°-40°	102.1	26.8
0°-60°	369.1	96.9
0°-90°	381.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	381.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	34	34	34	34	34	
5°	42	37	30	27	26	4
15°	33	22	16	17	18	12
25°	120	20	10	12	14	72
35°	1249	25	7	11	14	883
45°	3390	14	5	11	14	2391
55°	1035	3	4	10	14	964
65°	8	0	2	8	12	19
75°	1	0	2	6	10	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°	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8	33.8
2.5°	38.0	38.0	38.4	38.0	38.0	38.0	38.0	37.6	37.6	37.6	36.5
5°	41.8	41.8	41.8	41.8	41.4	41.4	41.4	41.0	41.0	40.6	37.2
7.5°	43.3	43.3	42.9	42.9	42.5	42.5	42.2	41.8	41.4	41.0	35.7
10°	40.6	40.6	40.6	40.3	40.3	39.9	39.5	39.1	38.7	38.0	31.5
12.5°	36.1	36.1	36.5	36.1	35.7	35.3	34.6	34.2	33.8	33.1	26.2
15°	33.1	33.1	33.1	32.7	32.3	31.5	31.2	30.4	30.0	28.9	22.0
17.5°	42.2	42.2	41.8	41.0	39.5	38.4	36.5	35.0	33.1	30.8	19.0
20°	55.8	55.8	55.1	54.3	52.4	50.5	47.5	44.8	41.8	39.1	17.1
22.5°	80.9	82.1	79.8	77.1	74.5	69.9	65.7	61.5	56.2	51.7	17.5
25°	120.0	121.2	120.0	114.0	109.0	103.0	95.0	86.6	77.5	69.1	19.8
27.5°	194.5	195.3	193.4	178.5	170.6	154.6	140.6	126.9	111.7	96.5	21.7
30°	343.0	343.4	331.3	301.6	275.4	240.5	210.8	182.3	158.4	134.1	23.2
31°	451.7	441.1	415.2	379.5	337.7	290.6	250.0	213.1	177.4	151.2	23.6
32°	573.6	572.1	529.2	467.3	411.4	352.5	291.4	244.3	203.2	167.5	23.9
33°	735.1	735.9	668.2	595.3	503.7	424.7	344.6	280.0	230.6	186.9	24.7
34°	987.3	928.1	848.7	749.9	625.3	506.4	402.3	321.4	255.3	205.5	24.7
35°	1249.1	1189.4	1102.1	952.4	781.4	615.0	471.1	365.8	284.9	225.7	24.7
36°	1542.4	1491.8	1359.6	1168.6	950.5	717.6	544.0	417.1	314.2	243.9	24.3
37°	1859.2	1785.1	1638.5	1429.9	1138.2	862.0	632.9	468.0	343.4	263.6	23.6
38°	2181.0	2114.1	1929.1	1676.5	1362.3	1014.3	721.8	517.0	370.4	278.5	22.4
39°	2424.9	2388.4	2204.9	1922.6	1541.2	1158.7	813.4	569.5	398.9	293.3	21.3
40°	2711.3	2652.4	2478.4	2129.3	1752.8	1305.7	903.0	615.8	422.4	305.1	20.1
41°	2972.7	2898.2	2678.6	2341.3	1922.3	1437.9	988.1	663.7	441.4	311.9	19.4
42°	3196.8	3110.2	2880.7	2522.9	2064.0	1543.5	1056.1	697.9	459.3	317.6	18.2
43°	3341.9	3267.1	3041.4	2659.2	2185.1	1640.4	1119.5	733.6	470.3	321.4	16.7
44°	3412.6	3337.0	3118.5	2744.7	2259.6	1698.5	1160.6	758.3	482.5	326.3	15.6
45°	3389.8	3313.0	3101.8	2746.2	2282.8	1719.4	1178.0	769.3	488.9	330.9	14.1
46°	3285.3	3231.4	3018.6	2674.8	2238.7	1697.0	1168.2	760.9	486.6	330.9	12.5
47°	3138.7	3077.1	2874.6	2552.1	2132.0	1639.2	1128.3	735.5	472.6	323.3	11.0
48°	2938.9	2886.4	2673.7	2357.2	1968.2	1513.5	1038.2	694.1	450.6	308.5	9.5
49°	2688.1	2615.2	2417.3	2108.0	1754.7	1334.9	920.1	624.2	415.2	287.6	8.4
50°	2416.1	2326.1	2173.4	1858.4	1534.0	1144.6	764.7	527.7	365.5	260.2	7.6
51°	2149.8	2058.3	1912.8	1644.9	1298.5	949.7	616.9	421.3	300.9	222.6	6.5
52°	1873.6	1796.9	1633.9	1423.5	1111.6	769.7	514.0	356.3	250.0	186.9	5.3
53°	1598.6	1546.2	1391.2	1178.0	893.1	628.7	419.8	305.1	218.1	159.9	4.2
54°	1323.2	1265.8	1148.0	958.1	719.9	496.1	356.0	255.3	189.2	139.4	3.8
55°	1034.8	1005.2	896.5	730.5	545.5	395.8	288.7	219.6	158.4	116.6	3.0
56°	797.0	763.6	664.4	530.0	405.3	310.0	233.6	179.3	134.1	97.6	2.3
57°	522.0	487.8	422.1	370.0	295.2	226.0	178.5	141.3	109.0	80.9	1.9
58°	308.5	277.3	267.1	227.9	196.8	153.5	131.8	105.2	80.5	63.8	1.1
59°	141.7	144.0	128.0	120.0	109.0	97.6	80.2	70.3	55.1	46.0	0.8
60°	82.4	77.9	76.0	68.0	60.4	53.6	48.2	42.5	34.6	29.6	0.4
62.5°	28.1	27.0	27.7	25.1	23.6	22.8	20.9	17.9	14.8	12.2	0.0
65°	7.6	7.6	7.2	6.8	6.5	6.1	5.7	4.9	4.6	3.8	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°	2.7	2.7	2.3	2.3	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	0.8	0.8	0.8	0.4	0.0
72.5°	1.1	1.1	1.1	1.1	1.1	1.1	0.8	0.8	0.8	0.4	0.4
75°	1.1	1.1	1.1	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.4
77.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
80°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.4	0.8
82.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.8
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°	33.8	33.8	33.8	33.8	33.8	33.8
2.5°	35.0	33.4	31.5	30.4	30.0	29.6
5°	33.4	30.4	28.1	26.6	26.2	26.2
7.5°	30.0	26.6	24.3	23.6	23.2	23.2
10°	26.2	23.2	21.3	20.5	20.9	20.9
12.5°	22.0	19.4	18.6	18.6	19.0	19.4
15°	17.9	16.3	16.3	16.7	17.5	17.9
17.5°	14.8	14.1	14.4	15.2	16.0	16.7
20°	12.2	12.2	12.9	14.1	15.2	16.0
22.5°	10.3	10.6	11.8	12.9	14.4	15.2
25°	8.7	9.5	10.6	12.5	14.1	14.4
27.5°	7.6	8.7	10.3	12.2	13.7	14.4
30°	6.5	8.0	9.9	11.8	13.7	14.4
31°	6.1	7.6	9.5	11.8	13.7	14.4
32°	5.7	7.6	9.5	11.8	13.7	14.4
33°	5.3	7.2	9.5	11.4	13.7	14.4
34°	4.9	7.2	9.5	11.8	13.7	14.4
35°	4.6	6.8	9.1	11.4	13.3	14.4
36°	4.2	6.8	9.1	11.4	13.7	14.4
37°	3.8	6.8	9.1	11.4	13.3	14.4
38°	3.8	6.5	8.7	11.4	13.3	14.4
39°	3.4	6.1	8.7	11.4	13.3	14.4
40°	3.0	6.1	8.4	11.0	13.3	14.4
41°	2.7	5.7	8.4	11.0	13.3	14.4
42°	2.3	5.7	8.4	11.0	13.3	14.4
43°	1.9	5.3	8.0	11.0	13.3	14.4
44°	1.9	5.3	8.0	11.0	13.3	14.4
45°	1.5	4.9	7.6	11.0	13.3	14.4
46°	1.5	4.9	7.6	10.6	13.3	14.4
47°	1.1	4.9	7.6	10.6	13.3	14.4
48°	1.1	4.6	7.6	10.6	13.3	14.4
49°	0.8	4.6	7.6	10.6	13.3	14.4
50°	0.8	4.6	7.2	10.6	13.3	14.4
51°	0.8	4.6	7.2	10.6	13.3	14.4
52°	0.8	4.2	7.2	10.6	13.3	14.4
53°	0.8	4.2	7.2	10.6	13.3	14.4
54°	0.8	4.2	6.8	10.6	13.3	14.4
55°	0.8	3.8	6.8	10.3	13.3	14.1
56°	0.8	3.8	6.8	10.3	13.3	14.1
57°	0.8	3.8	6.5	10.3	13.3	14.1
58°	0.8	3.4	6.5	9.9	12.9	14.1
59°	0.8	3.4	6.1	9.9	12.9	13.7
60°	0.8	3.0	6.1	9.5	12.5	13.7
62.5°	0.8	2.7	5.3	9.1	12.2	12.9
65°	0.8	2.3	4.9	8.4	11.8	12.5



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.8	2.3	4.6	8.0	11.0	12.2
70°	0.8	2.3	4.2	7.2	10.6	11.0
72.5°	1.1	2.3	3.8	6.8	9.9	10.3
75°	1.5	2.3	3.4	6.1	9.1	9.5
77.5°	1.5	2.3	3.0	5.3	8.0	8.4
80°	1.5	1.9	2.7	4.2	6.5	6.8
82.5°	1.5	1.9	1.9	3.4	4.9	5.3
85°	1.1	1.5	1.5	1.9	3.4	3.8
87.5°	1.1	1.5	0.8	1.1	1.5	1.5
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)