

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: P1339838

Luminaire Tested: P3A09R159024DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1339838
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: P3A09R159024DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R15 optic, 2400K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

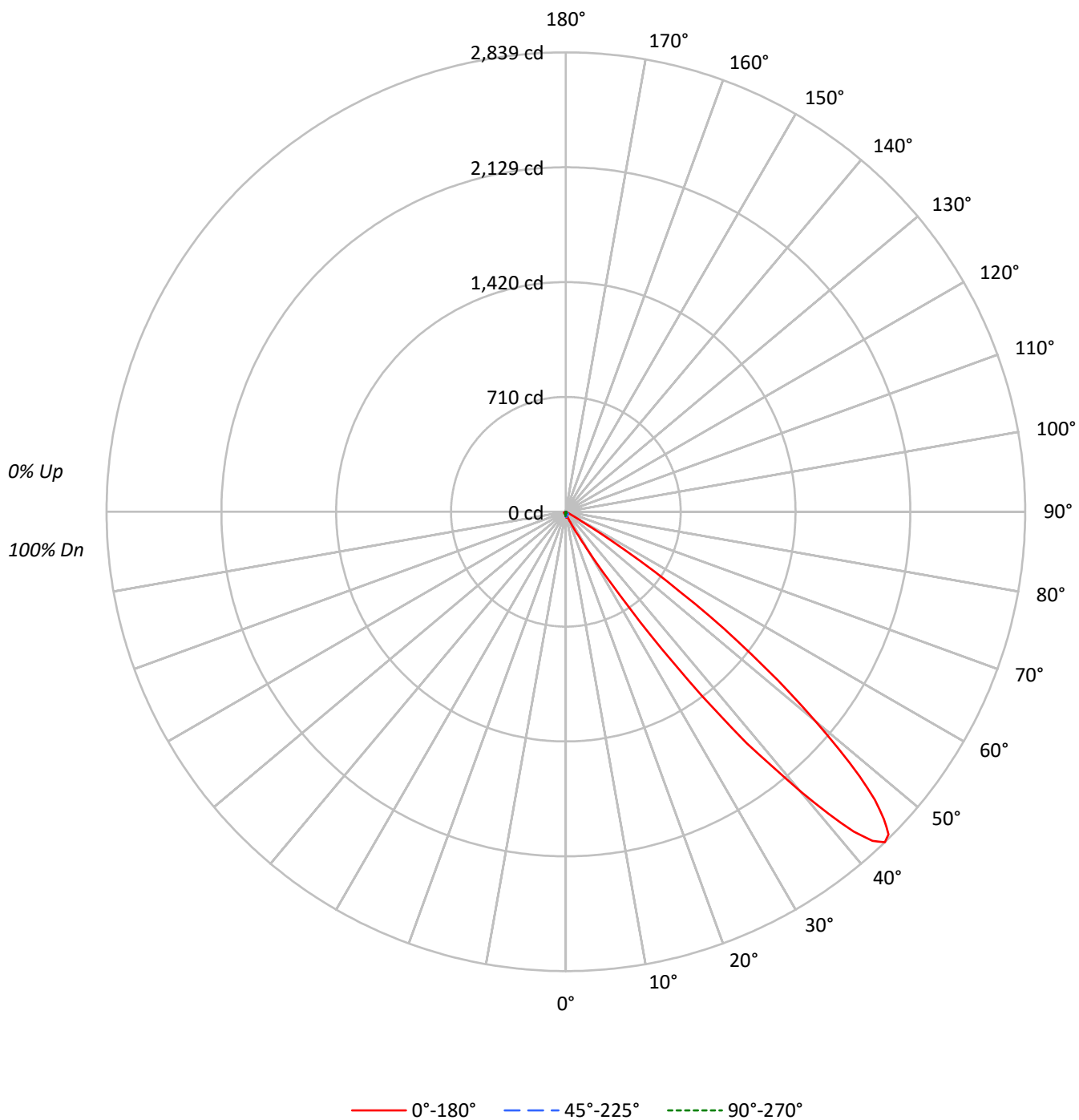
Lumens per Lamp: N/A
Luminaire Lumens: 317.0 lumens
Efficiency: N/A
Efficacy: 28.6 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.09
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 11.1
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°	6162	6162	6162	6162	6162
5°	7660	6824	5569	4865	4799
10°	7526	5834	4297	3808	3874
15°	6243	4154	3087	3156	3383
20°	10851	3314	2357	2730	3104
25°	24171	3968	1911	2516	2903
30°	72264	4887	1671	2481	3038
35°	278213	5488	1526	2543	3212
40°	645753	4809	1460	2634	3435
45°	874633	3628	1271	2853	3721
50°	685794	2149	1296	3036	4094
55°	329164	956	1223	3250	4473
60°	30085	132	1096	3465	5000
65°	3269	0	986	3632	5396
70°	833	0	1218	3847	5898
75°	763	254	1610	4321	6693
80°	758	758	2020	4420	7198
85°	755	755	3271	4026	8051

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 874633 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.4	0.8
10°-20°	5.0	1.6
20°-30°	12.0	3.8
30°-40°	65.6	20.7
40°-50°	158.8	50.1
50°-60°	63.3	20.0
60°-70°	5.5	1.7
70°-80°	3.1	1.0
80°-90°	1.4	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°	19.4	6.1
0°-40°	84.9	26.8
0°-60°	307.1	96.9
0°-90°	317.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	317.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	28	28	28	28	28	
5°	35	31	25	22	22	3
15°	28	18	14	14	15	10
25°	100	16	8	10	12	60
35°	1039	20	6	10	12	734
45°	2820	12	4	9	12	1990
55°	861	2	3	8	12	802
65°	6	0	2	7	10	16
75°	1	0	2	5	8	1
85°	0	0	1	2	3	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°	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1
2.5°	31.6	31.6	31.9	31.6	31.6	31.6	31.6	31.3	31.3	31.3	30.3
5°	34.8	34.8	34.8	34.8	34.5	34.5	34.5	34.1	34.1	33.8	31.0
7.5°	36.0	36.0	35.7	35.7	35.4	35.4	35.1	34.8	34.5	34.1	29.7
10°	33.8	33.8	33.8	33.5	33.5	33.2	32.9	32.6	32.2	31.6	26.2
12.5°	30.0	30.0	30.3	30.0	29.7	29.4	28.8	28.4	28.1	27.5	21.8
15°	27.5	27.5	27.5	27.2	26.9	26.2	25.9	25.3	25.0	24.0	18.3
17.5°	35.1	35.1	34.8	34.1	32.9	31.9	30.3	29.1	27.5	25.6	15.8
20°	46.5	46.5	45.8	45.2	43.6	42.0	39.5	37.3	34.8	32.6	14.2
22.5°	67.3	68.3	66.4	64.2	62.0	58.2	54.7	51.2	46.8	43.0	14.5
25°	99.9	100.8	99.9	94.8	90.7	85.7	79.0	72.1	64.5	57.5	16.4
27.5°	161.8	162.5	160.9	148.6	141.9	128.6	116.9	105.6	92.9	80.3	18.0
30°	285.4	285.7	275.6	251.0	229.2	200.1	175.4	151.7	131.8	111.6	19.3
31°	375.8	367.0	345.5	315.8	281.0	241.8	208.0	177.3	147.6	125.8	19.6
32°	477.3	476.0	440.3	388.8	342.3	293.3	242.4	203.2	169.1	139.4	19.9
33°	611.6	612.2	556.0	495.3	419.1	353.4	286.7	233.0	191.9	155.5	20.5
34°	821.5	772.2	706.1	623.9	520.3	421.3	334.7	267.4	212.4	171.0	20.5
35°	1039.3	989.6	916.9	792.4	650.2	511.7	391.9	304.4	237.1	187.8	20.5
36°	1283.3	1241.2	1131.2	972.3	790.8	597.1	452.6	347.1	261.4	202.9	20.2
37°	1546.9	1485.3	1363.2	1189.7	947.0	717.2	526.6	389.4	285.7	219.4	19.6
38°	1814.6	1759.0	1605.0	1394.9	1133.5	843.9	600.5	430.2	308.2	231.7	18.6
39°	2017.5	1987.2	1834.5	1599.7	1282.3	964.0	676.7	473.8	331.9	244.0	17.7
40°	2255.9	2206.9	2062.1	1771.6	1458.4	1086.4	751.3	512.4	351.5	253.8	16.8
41°	2473.3	2411.4	2228.7	1948.0	1599.4	1196.4	822.1	552.2	367.3	259.5	16.1
42°	2659.8	2587.7	2396.8	2099.1	1717.3	1284.2	878.7	580.6	382.1	264.2	15.2
43°	2780.5	2718.3	2530.5	2212.6	1818.1	1364.8	931.5	610.3	391.3	267.4	13.9
44°	2839.3	2776.4	2594.7	2283.7	1880.0	1413.2	965.6	630.9	401.4	271.5	13.0
45°	2820.4	2756.5	2580.8	2284.9	1899.3	1430.6	980.2	640.1	406.8	275.3	11.7
46°	2733.4	2688.6	2511.6	2225.5	1862.7	1411.9	971.9	633.1	404.9	275.3	10.4
47°	2611.4	2560.2	2391.8	2123.4	1773.8	1363.9	938.8	611.9	393.2	269.0	9.2
48°	2445.2	2401.6	2224.6	1961.3	1637.6	1259.3	863.8	577.5	374.9	256.7	7.9
49°	2236.6	2175.9	2011.2	1753.9	1460.0	1110.7	765.5	519.3	345.5	239.3	7.0
50°	2010.3	1935.4	1808.3	1546.3	1276.3	952.3	636.3	439.0	304.1	216.5	6.3
51°	1788.7	1712.5	1591.5	1368.6	1080.4	790.2	513.3	350.5	250.3	185.2	5.4
52°	1558.9	1495.1	1359.5	1184.3	924.8	640.4	427.7	296.5	208.0	155.5	4.4
53°	1330.1	1286.4	1157.5	980.2	743.1	523.1	349.3	253.8	181.4	133.1	3.5
54°	1100.9	1053.2	955.2	797.2	599.0	412.8	296.2	212.4	157.4	116.0	3.2
55°	861.0	836.3	745.9	607.8	453.9	329.4	240.2	182.7	131.8	97.0	2.5
56°	663.1	635.3	552.8	440.9	337.3	257.9	194.4	149.2	111.6	81.2	1.9
57°	434.3	405.8	351.2	307.9	245.6	188.1	148.6	117.6	90.7	67.3	1.6
58°	256.7	230.7	222.2	189.6	163.7	127.7	109.7	87.6	67.0	53.1	0.9
59°	117.9	119.8	106.5	99.9	90.7	81.2	66.7	58.5	45.8	38.2	0.6
60°	68.6	64.8	63.2	56.6	50.3	44.6	40.1	35.4	28.8	24.7	0.3
62.5°	23.4	22.4	23.1	20.9	19.6	19.0	17.4	14.9	12.3	10.1	0.0
65°	6.3	6.3	6.0	5.7	5.4	5.1	4.7	4.1	3.8	3.2	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°	2.2	2.2	1.9	1.9	1.6	1.6	1.3	1.3	0.9	0.9	0.0
70°	1.3	1.3	1.3	0.9	0.9	0.9	0.6	0.6	0.6	0.3	0.0
72.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.6	0.6	0.6	0.3	0.3
75°	0.9	0.9	0.9	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.3
77.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
80°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.3	0.6
82.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.6
85°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
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°	28.1	28.1	28.1	28.1	28.1	28.1
2.5°	29.1	27.8	26.2	25.3	25.0	24.7
5°	27.8	25.3	23.4	22.1	21.8	21.8
7.5°	25.0	22.1	20.2	19.6	19.3	19.3
10°	21.8	19.3	17.7	17.1	17.4	17.4
12.5°	18.3	16.1	15.5	15.5	15.8	16.1
15°	14.9	13.6	13.6	13.9	14.5	14.9
17.5°	12.3	11.7	12.0	12.6	13.3	13.9
20°	10.1	10.1	10.7	11.7	12.6	13.3
22.5°	8.5	8.9	9.8	10.7	12.0	12.6
25°	7.3	7.9	8.9	10.4	11.7	12.0
27.5°	6.3	7.3	8.5	10.1	11.4	12.0
30°	5.4	6.6	8.2	9.8	11.4	12.0
31°	5.1	6.3	7.9	9.8	11.4	12.0
32°	4.7	6.3	7.9	9.8	11.4	12.0
33°	4.4	6.0	7.9	9.5	11.4	12.0
34°	4.1	6.0	7.9	9.8	11.4	12.0
35°	3.8	5.7	7.6	9.5	11.1	12.0
36°	3.5	5.7	7.6	9.5	11.4	12.0
37°	3.2	5.7	7.6	9.5	11.1	12.0
38°	3.2	5.4	7.3	9.5	11.1	12.0
39°	2.8	5.1	7.3	9.5	11.1	12.0
40°	2.5	5.1	7.0	9.2	11.1	12.0
41°	2.2	4.7	7.0	9.2	11.1	12.0
42°	1.9	4.7	7.0	9.2	11.1	12.0
43°	1.6	4.4	6.6	9.2	11.1	12.0
44°	1.6	4.4	6.6	9.2	11.1	12.0
45°	1.3	4.1	6.3	9.2	11.1	12.0
46°	1.3	4.1	6.3	8.9	11.1	12.0
47°	0.9	4.1	6.3	8.9	11.1	12.0
48°	0.9	3.8	6.3	8.9	11.1	12.0
49°	0.6	3.8	6.3	8.9	11.1	12.0
50°	0.6	3.8	6.0	8.9	11.1	12.0
51°	0.6	3.8	6.0	8.9	11.1	12.0
52°	0.6	3.5	6.0	8.9	11.1	12.0
53°	0.6	3.5	6.0	8.9	11.1	12.0
54°	0.6	3.5	5.7	8.9	11.1	12.0
55°	0.6	3.2	5.7	8.5	11.1	11.7
56°	0.6	3.2	5.7	8.5	11.1	11.7
57°	0.6	3.2	5.4	8.5	11.1	11.7
58°	0.6	2.8	5.4	8.2	10.7	11.7
59°	0.6	2.8	5.1	8.2	10.7	11.4
60°	0.6	2.5	5.1	7.9	10.4	11.4
62.5°	0.6	2.2	4.4	7.6	10.1	10.7
65°	0.6	1.9	4.1	7.0	9.8	10.4



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.6	1.9	3.8	6.6	9.2	10.1
70°	0.6	1.9	3.5	6.0	8.9	9.2
72.5°	0.9	1.9	3.2	5.7	8.2	8.5
75°	1.3	1.9	2.8	5.1	7.6	7.9
77.5°	1.3	1.9	2.5	4.4	6.6	7.0
80°	1.3	1.6	2.2	3.5	5.4	5.7
82.5°	1.3	1.6	1.6	2.8	4.1	4.4
85°	0.9	1.3	1.3	1.6	2.8	3.2
87.5°	0.9	1.3	0.6	0.9	1.3	1.3
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)