

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: P1335684

Luminaire Tested: P3A02R409035DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335684
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-78)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A02R409035DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R40 optic, 3500K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

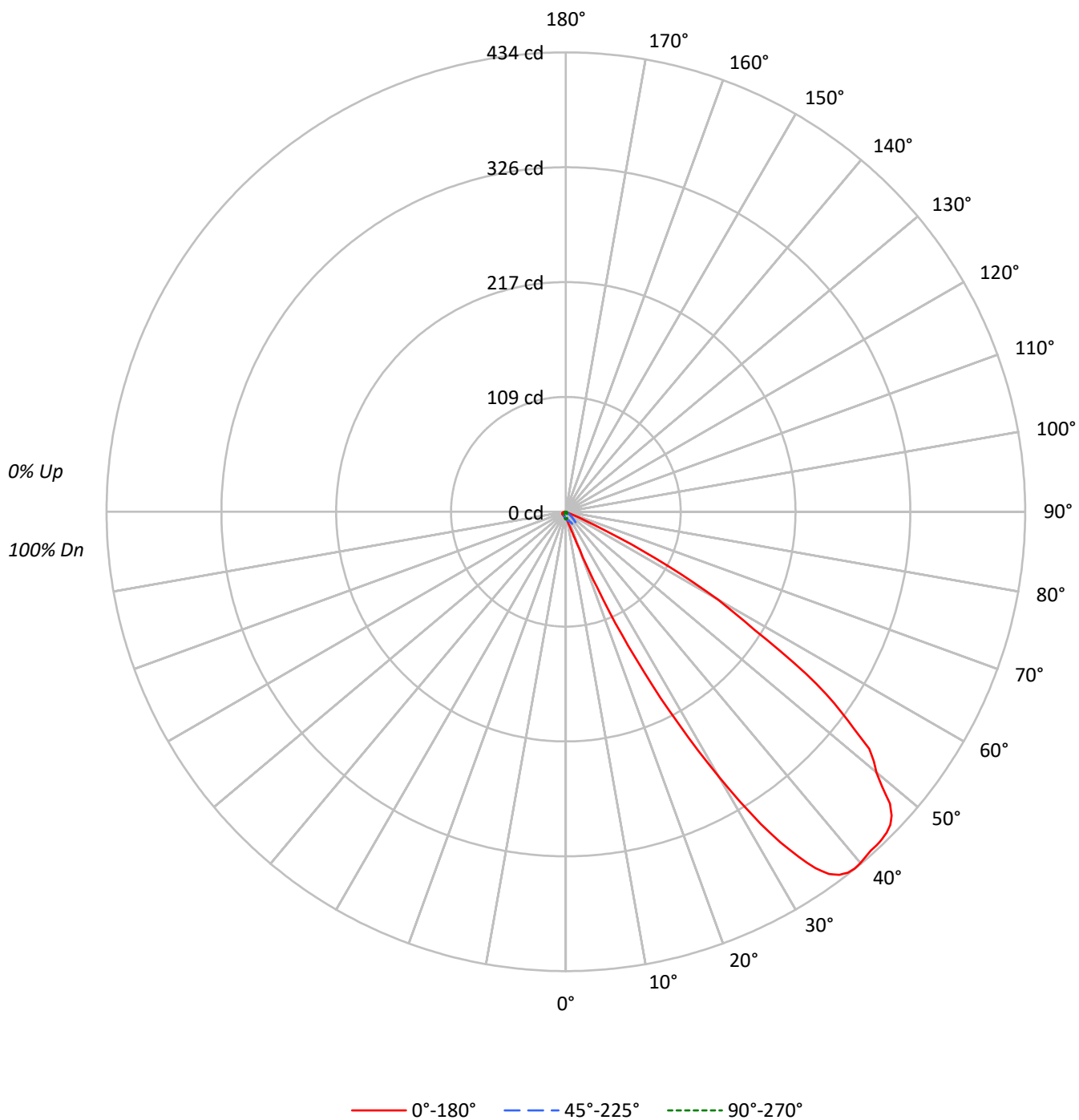
Lumens per Lamp: N/A
Luminaire Lumens: 134.0 lumens
Efficiency: N/A
Efficacy: 37.2 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.55
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 3.6
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
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	99	97	94	96	93	91	92	90	88
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75
3	91	81	73	66	89	79	72	66	76	70	65	73	68	64	71	66	62
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52
5	75	62	52	46	73	60	52	45	58	51	45	56	50	44	54	49	44
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37
7	62	48	39	32	60	47	38	32	45	37	32	44	37	31	42	36	31
8	57	42	33	27	55	42	33	27	40	32	27	39	32	27	38	31	26
9	52	38	29	23	51	37	29	23	36	28	23	35	28	23	34	27	23
10	48	34	25	20	47	33	25	20	32	25	20	31	24	20	30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	1513	1513	1513	1513	1513
5°	1673	1629	1497	1365	1321
10°	2026	1737	1381	1225	1202
15°	3314	1862	1180	1090	1112
20°	8797	2217	980	980	1073
25°	33873	2734	774	895	1040
30°	73100	3646	633	861	1038
35°	110022	4310	535	857	1044
40°	123947	4322	458	887	1116
45°	132913	3349	434	930	1209
50°	130657	2115	375	955	1330
55°	114921	1032	382	1070	1491
60°	72757	219	439	1184	1667
65°	14891	52	467	1297	1868
70°	321	64	449	1410	2116
75°	339	169	508	1525	2372
80°	253	126	631	1768	2778
85°	252	252	1258	1761	3019

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 135331 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.6	0.5
10°-20°	2.1	1.6
20°-30°	10.4	7.8
30°-40°	33.9	25.3
40°-50°	46.7	34.8
50°-60°	32.5	24.3
60°-70°	6.2	4.6
70°-80°	1.1	0.8
80°-90°	0.5	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°	13.2	9.8
0°-40°	47.0	35.1
0°-60°	126.2	94.2
0°-90°	134.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	134.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	7	7	7	7	7	
5°	8	7	7	6	6	1
15°	15	8	5	5	5	5
25°	140	11	3	4	4	72
35°	411	16	2	3	4	248
45°	429	11	1	3	4	326
55°	301	3	1	3	4	257
65°	29	0	1	2	4	51
75°	0	0	1	2	3	0
85°	0	0	0	1	1	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
0°	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
2.5°	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.1	7.0	6.9
5°	7.6	7.6	7.6	7.6	7.5	7.5	7.5	7.4	7.4	7.1	6.8
7.5°	8.1	8.1	8.1	8.1	8.0	7.9	7.8	7.8	7.6	7.0	6.5
10°	9.1	9.1	9.0	8.9	8.7	8.5	8.4	8.1	7.8	6.9	6.2
12.5°	11.1	10.8	10.7	10.5	10.1	9.6	9.1	8.7	7.9	6.6	5.8
15°	14.6	14.4	13.9	13.2	12.4	11.4	10.6	9.7	8.2	6.3	5.2
17.5°	20.9	20.2	19.4	18.2	16.4	14.6	12.8	11.2	8.7	5.9	4.7
20°	37.7	37.2	32.7	29.3	23.8	19.8	16.1	13.4	9.5	5.5	4.2
22.5°	77.7	72.5	65.2	53.4	41.6	30.6	22.3	16.9	10.2	5.0	3.7
25°	140.0	131.9	116.3	93.5	69.0	48.9	32.2	22.0	11.3	4.6	3.2
27.5°	212.0	203.8	179.5	148.2	108.2	73.7	46.0	29.2	12.8	4.1	2.8
30°	288.7	281.7	250.9	207.5	152.5	103.2	61.7	36.4	14.4	3.6	2.5
31°	319.6	310.6	277.4	231.1	173.3	115.4	67.9	39.5	15.0	3.4	2.3
32°	348.0	337.8	303.3	253.8	190.1	128.6	74.8	42.2	15.5	3.2	2.2
33°	372.5	360.6	327.3	275.2	208.7	140.9	82.0	44.8	15.9	3.0	2.1
34°	393.3	383.0	347.3	296.7	225.2	152.7	89.0	47.4	16.1	2.8	2.0
35°	411.0	401.7	366.4	313.1	241.3	164.2	95.4	49.8	16.1	2.6	2.0
36°	423.0	414.8	382.8	329.8	254.9	173.9	100.8	52.1	16.1	2.3	1.8
37°	429.5	421.6	393.7	343.6	268.1	183.5	105.7	53.8	16.0	2.2	1.7
38°	432.8	425.9	401.7	354.8	277.4	190.4	110.0	55.1	15.9	2.0	1.7
39°	433.7	427.9	406.7	362.9	286.4	197.3	113.1	55.9	15.5	1.8	1.6
40°	433.0	428.0	409.4	370.2	293.3	202.7	115.3	56.1	15.1	1.6	1.6
41°	431.8	427.9	411.4	375.2	298.8	206.1	116.2	55.6	14.6	1.4	1.5
42°	430.7	426.4	412.3	378.7	302.6	207.8	116.0	54.6	13.9	1.2	1.5
43°	430.7	425.8	412.4	380.9	304.5	208.0	114.6	52.8	12.9	1.1	1.4
44°	430.0	425.4	413.0	382.3	304.9	206.9	112.2	50.8	11.8	1.0	1.4
45°	428.6	423.8	412.9	382.5	304.1	204.2	108.4	48.2	10.8	0.7	1.4
46°	426.0	421.7	411.8	381.6	301.5	200.2	103.9	45.7	9.7	0.6	1.2
47°	420.9	417.5	408.8	378.7	297.6	194.4	98.4	42.7	8.9	0.5	1.2
48°	412.0	409.7	403.8	372.1	290.1	187.3	92.7	39.5	8.0	0.5	1.2
49°	395.8	393.9	390.5	361.7	280.5	178.6	86.4	35.9	7.1	0.4	1.2
50°	383.0	381.0	374.0	344.1	266.7	167.5	79.5	32.4	6.2	0.2	1.1
51°	374.5	371.3	360.2	323.6	246.6	152.7	72.0	28.8	5.2	0.2	1.1
52°	363.8	359.0	345.2	305.3	228.3	138.0	63.9	25.2	4.6	0.2	1.1
53°	341.4	339.6	326.0	285.6	209.9	123.8	55.5	22.3	3.9	0.2	1.1
54°	321.8	319.2	300.6	258.3	190.0	108.0	46.9	19.7	3.3	0.2	1.1
55°	300.6	295.6	279.1	235.3	166.6	93.5	38.6	17.0	2.7	0.2	1.0
56°	273.9	269.5	251.8	210.7	145.1	78.8	32.4	13.9	2.1	0.2	1.0
57°	241.4	237.4	223.7	180.4	122.7	64.4	26.3	11.2	1.6	0.2	1.0
58°	210.1	205.5	189.9	151.4	99.1	51.1	22.0	9.1	1.2	0.2	1.0
59°	185.9	179.8	159.6	127.1	77.5	38.8	17.5	7.3	0.9	0.2	1.0
60°	165.9	160.8	139.9	105.8	60.8	28.6	12.9	5.5	0.5	0.2	1.0
62.5°	96.1	94.8	75.9	54.5	28.7	13.3	6.4	2.6	0.2	0.4	1.0
65°	28.7	25.0	19.4	11.6	7.4	4.4	2.3	0.9	0.1	0.4	0.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.5	0.2	0.1	0.4	0.9
70°	0.5	0.4	0.4	0.4	0.4	0.2	0.2	0.1	0.1	0.4	0.7
72.5°	0.4	0.4	0.4	0.4	0.2	0.2	0.2	0.1	0.2	0.4	0.6
75°	0.4	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.4	0.6
77.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.4	0.6
80°	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.5
82.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.5
85°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.4	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):

	112.5°	135°	157.5°	180°
0°	6.9	6.9	6.9	6.9
2.5°	6.6	6.5	6.4	6.4
5°	6.4	6.2	6.2	6.0
7.5°	6.0	5.8	5.8	5.8
10°	5.7	5.5	5.5	5.4
12.5°	5.2	5.2	5.2	5.2
15°	4.8	4.8	4.9	4.9
17.5°	4.3	4.4	4.7	4.8
20°	3.9	4.2	4.4	4.6
22.5°	3.7	3.9	4.3	4.4
25°	3.3	3.7	4.2	4.3
27.5°	3.1	3.6	3.9	4.2
30°	2.8	3.4	3.8	4.1
31°	2.8	3.3	3.8	4.1
32°	2.7	3.2	3.8	3.9
33°	2.7	3.2	3.8	3.9
34°	2.6	3.2	3.7	3.9
35°	2.6	3.2	3.7	3.9
36°	2.5	3.1	3.7	3.9
37°	2.5	3.1	3.7	3.9
38°	2.3	3.1	3.7	3.9
39°	2.3	3.1	3.7	3.9
40°	2.3	3.1	3.7	3.9
41°	2.2	3.1	3.7	3.9
42°	2.2	3.1	3.7	3.9
43°	2.2	3.0	3.7	3.9
44°	2.2	3.0	3.7	3.9
45°	2.1	3.0	3.7	3.9
46°	2.1	3.0	3.7	3.9
47°	2.1	3.0	3.7	3.9
48°	2.1	3.0	3.7	3.9
49°	2.1	3.0	3.7	3.9
50°	2.0	2.8	3.7	3.9
51°	2.0	2.8	3.7	3.9
52°	2.0	2.8	3.7	3.9
53°	2.0	2.8	3.7	3.9
54°	1.8	2.8	3.7	3.9
55°	1.8	2.8	3.7	3.9
56°	1.8	2.8	3.7	3.8
57°	1.8	2.8	3.6	3.8
58°	1.8	2.7	3.6	3.8
59°	1.8	2.7	3.6	3.8
60°	1.8	2.7	3.6	3.8
62.5°	1.7	2.7	3.4	3.7
65°	1.6	2.5	3.4	3.6



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	1.6	2.3	3.2	3.4
70°	1.5	2.2	3.1	3.3
72.5°	1.2	2.1	2.8	3.1
75°	1.1	1.8	2.6	2.8
77.5°	1.0	1.6	2.3	2.5
80°	0.9	1.4	2.0	2.2
82.5°	0.6	1.0	1.6	1.7
85°	0.5	0.7	1.1	1.2
87.5°	0.4	0.4	0.6	0.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)