

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: P1335828

Luminaire Tested: P3A02R409835DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335828
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: P3A02R409835DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R40 optic, 3500K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

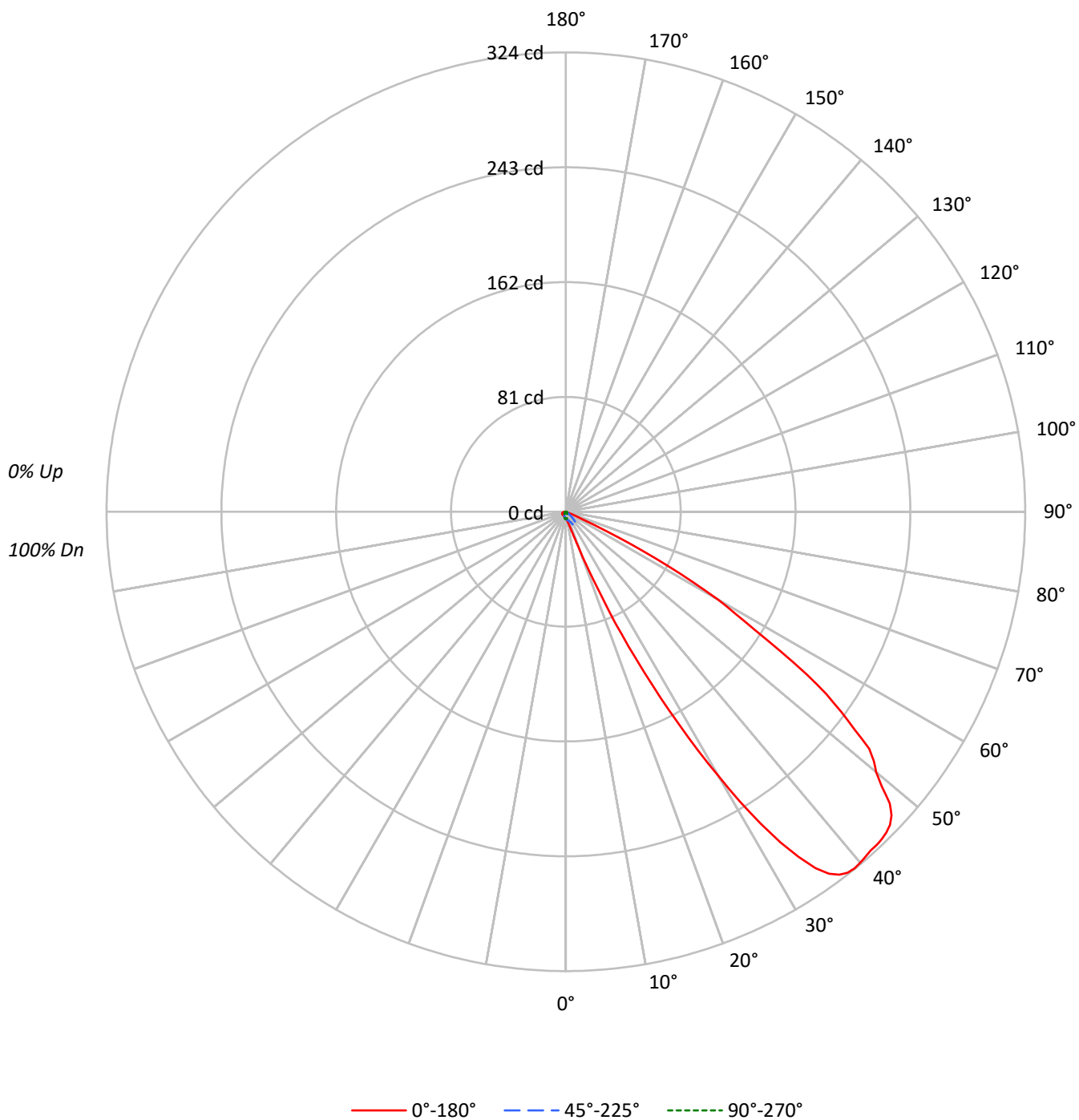
Lumens per Lamp: N/A
Luminaire Lumens: 100.0 lumens
Efficiency: N/A
Efficacy: 27.8 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.55
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	110	106	102	99	107	104	100	97	99	97	94		96	93	91		92
2	100	93	86	81	98	91	85	80	87	82	78		84	80	76		81
3	91	81	73	66	89	79	72	66	76	70	65		73	68	64		71
4	82	70	62	55	80	69	61	54	67	59	54		64	58	53		62
5	75	62	52	46	73	60	52	45	58	51	45		56	50	44		54
6	68	54	45	38	66	53	44	38	51	43	38		50	43	37		48
7	62	48	39	32	60	47	38	32	45	37	32		44	37	31		42
8	57	42	33	27	55	42	33	27	40	32	27		39	32	27		38
9	52	38	29	23	51	37	29	23	36	28	23		35	28	23		34
10	48	34	25	20	47	33	25	20	32	25	20		31	24	20		30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	1118	1118	1118	1118	1118
5°	1255	1211	1123	1013	991
10°	1514	1291	1024	913	891
15°	2474	1407	885	817	840
20°	6557	1657	723	723	793
25°	25284	2032	581	677	774
30°	54540	2709	456	658	760
35°	82101	3212	402	642	776
40°	92516	3235	344	658	830
45°	99204	2512	310	682	899
50°	97498	1569	273	716	989
55°	85789	765	268	803	1109
60°	54294	175	307	877	1228
65°	11104	52	311	934	1401
70°	256	64	385	1090	1603
75°	254	169	424	1186	1779
80°	253	126	505	1263	2147
85°	252	252	1006	1510	2264

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 100992 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.5	0.5
10°-20°	1.6	1.6
20°-30°	7.8	7.8
30°-40°	25.3	25.3
40°-50°	34.8	34.8
50°-60°	24.3	24.3
60°-70°	4.6	4.6
70°-80°	0.8	0.8
80°-90°	0.4	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°	9.8	9.8
0°-40°	35.1	35.1
0°-60°	94.2	94.2
0°-90°	100.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	100.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	5	5	5	5	5	
5°	6	6	5	5	4	1
15°	11	6	4	4	4	4
25°	104	8	2	3	3	54
35°	307	12	2	2	3	185
45°	320	8	1	2	3	243
55°	224	2	1	2	3	192
65°	21	0	1	2	3	38
75°	0	0	0	1	2	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°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
2.5°	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.2	5.1
5°	5.7	5.7	5.7	5.7	5.6	5.6	5.6	5.5	5.5	5.3	5.1
7.5°	6.1	6.1	6.1	6.1	6.0	5.9	5.8	5.8	5.7	5.2	4.9
10°	6.8	6.8	6.7	6.6	6.5	6.3	6.2	6.1	5.8	5.1	4.6
12.5°	8.3	8.1	8.0	7.8	7.5	7.2	6.8	6.5	5.9	5.0	4.3
15°	10.9	10.7	10.4	9.8	9.3	8.5	7.9	7.3	6.2	4.7	3.9
17.5°	15.6	15.1	14.5	13.6	12.2	10.9	9.6	8.4	6.5	4.4	3.5
20°	28.1	27.7	24.4	21.9	17.7	14.8	12.0	10.0	7.1	4.1	3.1
22.5°	57.9	54.1	48.7	39.9	31.0	22.9	16.6	12.6	7.6	3.8	2.8
25°	104.5	98.4	86.8	69.8	51.5	36.5	24.1	16.4	8.4	3.4	2.4
27.5°	158.2	152.1	134.0	110.6	80.7	55.0	34.3	21.8	9.6	3.0	2.1
30°	215.4	210.2	187.3	154.8	113.8	77.1	46.0	27.2	10.7	2.7	1.8
31°	238.5	231.8	207.0	172.5	129.3	86.1	50.7	29.5	11.2	2.6	1.7
32°	259.7	252.1	226.4	189.4	141.9	96.0	55.8	31.5	11.6	2.4	1.7
33°	278.0	269.1	244.3	205.3	155.8	105.2	61.2	33.4	11.8	2.2	1.6
34°	293.5	285.8	259.2	221.4	168.1	114.0	66.4	35.4	12.0	2.1	1.5
35°	306.7	299.8	273.4	233.6	180.1	122.5	71.2	37.2	12.0	1.9	1.5
36°	315.6	309.6	285.7	246.1	190.2	129.8	75.2	38.8	12.0	1.7	1.4
37°	320.5	314.6	293.8	256.4	200.1	136.9	78.9	40.1	11.9	1.7	1.3
38°	323.0	317.8	299.8	264.8	207.0	142.1	82.1	41.1	11.8	1.5	1.3
39°	323.6	319.3	303.5	270.8	213.7	147.2	84.4	41.7	11.6	1.4	1.2
40°	323.2	319.4	305.5	276.2	218.8	151.3	86.1	41.9	11.3	1.2	1.2
41°	322.3	319.3	307.0	280.0	223.0	153.8	86.7	41.5	10.9	1.0	1.1
42°	321.4	318.2	307.7	282.6	225.8	155.1	86.6	40.8	10.4	0.9	1.1
43°	321.4	317.8	307.7	284.2	227.2	155.2	85.5	39.4	9.6	0.8	1.0
44°	320.9	317.5	308.2	285.3	227.6	154.4	83.8	37.9	8.8	0.7	1.0
45°	319.9	316.3	308.1	285.4	226.9	152.4	80.9	36.0	8.1	0.6	1.0
46°	317.9	314.7	307.3	284.8	225.0	149.4	77.5	34.1	7.3	0.5	0.9
47°	314.1	311.6	305.1	282.6	222.1	145.1	73.5	31.9	6.6	0.4	0.9
48°	307.5	305.7	301.3	277.7	216.5	139.8	69.2	29.5	6.0	0.4	0.9
49°	295.3	294.0	291.4	269.9	209.3	133.3	64.5	26.8	5.3	0.3	0.9
50°	285.8	284.3	279.1	256.8	199.0	125.0	59.3	24.2	4.6	0.2	0.8
51°	279.5	277.1	268.8	241.5	184.0	114.0	53.7	21.5	3.9	0.2	0.8
52°	271.5	267.9	257.6	227.8	170.4	102.9	47.7	18.8	3.4	0.2	0.8
53°	254.8	253.5	243.3	213.2	156.7	92.4	41.4	16.6	2.9	0.2	0.8
54°	240.2	238.2	224.4	192.8	141.8	80.6	35.0	14.7	2.5	0.2	0.8
55°	224.4	220.6	208.3	175.6	124.3	69.8	28.8	12.7	2.0	0.2	0.7
56°	204.4	201.1	187.9	157.2	108.3	58.8	24.2	10.4	1.6	0.2	0.7
57°	180.2	177.2	167.0	134.6	91.6	48.0	19.7	8.4	1.2	0.2	0.7
58°	156.8	153.4	141.7	113.0	73.9	38.1	16.4	6.8	0.9	0.2	0.7
59°	138.8	134.2	119.1	94.9	57.9	28.9	13.0	5.4	0.6	0.2	0.7
60°	123.8	120.0	104.4	79.0	45.4	21.3	9.6	4.1	0.4	0.2	0.7
62.5°	71.7	70.7	56.7	40.7	21.4	9.9	4.8	1.9	0.2	0.3	0.7
65°	21.4	18.6	14.5	8.6	5.5	3.3	1.7	0.6	0.1	0.3	0.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.4	0.2	0.1	0.3	0.6
70°	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.3	0.6
72.5°	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.2	0.3	0.5
75°	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.3	0.5
77.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.5
80°	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4
82.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4
85°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	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):

	112.5°	135°	157.5°	180°
0°	5.1	5.1	5.1	5.1
2.5°	5.0	4.9	4.8	4.8
5°	4.8	4.6	4.6	4.5
7.5°	4.5	4.3	4.3	4.3
10°	4.2	4.1	4.1	4.0
12.5°	3.9	3.9	3.9	3.9
15°	3.6	3.6	3.7	3.7
17.5°	3.2	3.3	3.5	3.6
20°	2.9	3.1	3.3	3.4
22.5°	2.8	2.9	3.2	3.3
25°	2.5	2.8	3.1	3.2
27.5°	2.3	2.7	2.9	3.1
30°	2.1	2.6	2.8	3.0
31°	2.1	2.5	2.8	3.0
32°	2.0	2.4	2.8	2.9
33°	2.0	2.4	2.8	2.9
34°	1.9	2.4	2.8	2.9
35°	1.9	2.4	2.8	2.9
36°	1.8	2.3	2.8	2.9
37°	1.8	2.3	2.8	2.9
38°	1.7	2.3	2.8	2.9
39°	1.7	2.3	2.8	2.9
40°	1.7	2.3	2.8	2.9
41°	1.7	2.3	2.8	2.9
42°	1.7	2.3	2.8	2.9
43°	1.7	2.2	2.8	2.9
44°	1.7	2.2	2.8	2.9
45°	1.6	2.2	2.8	2.9
46°	1.6	2.2	2.8	2.9
47°	1.6	2.2	2.8	2.9
48°	1.6	2.2	2.8	2.9
49°	1.6	2.2	2.8	2.9
50°	1.5	2.1	2.8	2.9
51°	1.5	2.1	2.8	2.9
52°	1.5	2.1	2.8	2.9
53°	1.5	2.1	2.8	2.9
54°	1.4	2.1	2.8	2.9
55°	1.4	2.1	2.8	2.9
56°	1.4	2.1	2.8	2.8
57°	1.4	2.1	2.7	2.8
58°	1.4	2.0	2.7	2.8
59°	1.4	2.0	2.7	2.8
60°	1.4	2.0	2.7	2.8
62.5°	1.3	2.0	2.6	2.8
65°	1.2	1.8	2.6	2.7



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	1.2	1.7	2.4	2.6
70°	1.1	1.7	2.3	2.5
72.5°	0.9	1.6	2.1	2.3
75°	0.8	1.4	1.9	2.1
77.5°	0.7	1.2	1.7	1.8
80°	0.6	1.0	1.5	1.7
82.5°	0.5	0.7	1.2	1.3
85°	0.4	0.6	0.8	0.9
87.5°	0.3	0.3	0.5	0.5
90°	0.0	0.0	0.0	0.0

(END OF REPORT)