

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: P1334950

Luminaire Tested: P3A02R309024DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1334950
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-76)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A02R309024DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R30 optic, 2400K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

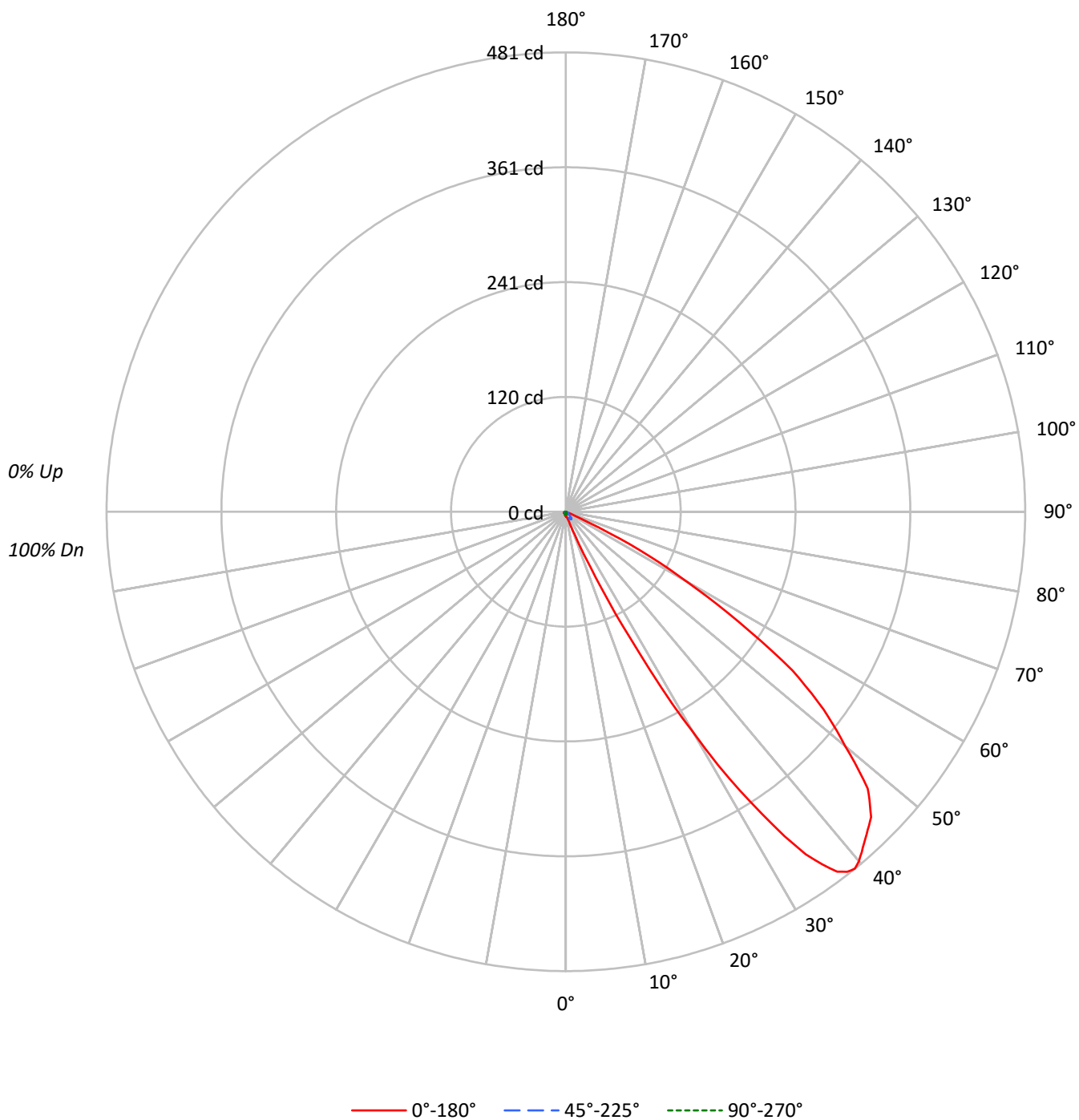
Lumens per Lamp: N/A
Luminaire Lumens: 125.0 lumens
Efficiency: N/A
Efficacy: 34.7 lumens/watt
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.44
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	108	104	100	97	100	97	94	96	93	91	92	90	89
2	100	93	86	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	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	37	49	42	37	48	42	37
7	62	48	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	32	26	37	31	26
9	52	37	29	23	50	37	28	23	36	28	22	34	27	22	33	27	22
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	1053	1053	1053	1053	1053
5°	1145	1123	1035	947	924
10°	1247	1091	913	824	802
15°	1816	1090	772	704	726
20°	4574	1213	583	583	653
25°	21219	1500	460	532	605
30°	67555	2076	354	506	608
35°	117222	2543	294	482	616
40°	136713	2519	200	487	630
45°	140201	1799	217	527	682
50°	130384	989	171	546	785
55°	110830	535	191	612	879
60°	63986	132	219	658	965
65°	13075	0	259	778	1090
70°	192	64	321	898	1282
75°	169	85	339	932	1525
80°	126	126	505	1010	1768
85°	0	252	1006	1006	2013

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 140201 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.4	0.4
10°-20°	1.3	1.0
20°-30°	7.2	5.8
30°-40°	33.7	26.9
40°-50°	47.6	38.1
50°-60°	29.3	23.4
60°-70°	4.4	3.6
70°-80°	0.7	0.6
80°-90°	0.3	0.3
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°	8.9	7.1
0°-40°	42.6	34.1
0°-60°	119.5	95.6
0°-90°	125.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	125.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	5	5	5	5	5	
5°	5	5	5	4	4	1
15°	8	5	3	3	3	3
25°	88	6	2	2	2	54
35°	438	10	1	2	2	263
45°	452	6	1	2	2	343
55°	290	1	0	2	2	247
65°	25	0	0	2	2	46
75°	0	0	0	1	2	0
85°	0	0	0	0	1	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	45°	67.5°	90°	112.5°	135°
0°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
2.5°	4.9	4.9	5.1	5.1	4.9	5.1	5.1	5.1	4.8	4.7	4.5
5°	5.2	5.2	5.2	5.3	5.2	5.2	5.1	4.9	4.7	4.4	4.3
7.5°	5.4	5.4	5.3	5.4	5.3	5.3	5.1	4.8	4.5	4.2	4.0
10°	5.6	5.6	5.5	5.5	5.4	5.4	4.9	4.6	4.1	3.8	3.7
12.5°	6.2	6.2	6.1	6.0	5.8	5.7	4.8	4.3	3.7	3.4	3.3
15°	8.0	7.9	7.7	7.4	6.8	6.7	4.8	4.0	3.4	3.1	3.1
17.5°	11.0	10.8	10.5	9.7	8.7	8.4	4.8	3.6	2.9	2.7	2.7
20°	19.6	18.7	17.2	15.1	12.8	11.7	5.2	3.2	2.5	2.4	2.5
21°	25.6	24.7	22.7	19.3	15.4	14.1	5.4	3.1	2.4	2.3	2.5
22°	34.9	33.9	29.8	25.1	19.5	17.3	5.5	2.8	2.2	2.2	2.4
23°	48.6	47.1	40.1	32.5	24.3	21.2	5.7	2.7	2.1	2.2	2.3
24°	63.7	62.3	54.4	43.1	31.1	26.5	5.9	2.6	2.0	2.0	2.2
25°	87.7	86.1	72.1	54.3	39.4	31.9	6.2	2.4	1.9	1.9	2.2
26°	118.8	111.5	92.9	70.0	48.5	40.0	6.5	2.3	1.8	1.9	2.1
27°	148.3	142.3	121.3	89.8	60.0	49.2	6.9	2.2	1.7	1.8	2.1
28°	187.0	178.6	152.2	113.6	75.6	59.5	7.4	2.1	1.6	1.8	2.0
29°	230.4	218.6	186.7	140.4	93.2	71.1	7.8	2.0	1.5	1.7	2.0
30°	266.8	255.8	223.9	172.1	113.4	86.3	8.2	1.9	1.4	1.7	2.0
31°	309.6	292.8	254.2	198.9	130.8	101.6	8.6	1.7	1.3	1.6	1.9
32°	344.2	332.5	291.5	229.2	153.6	118.5	9.0	1.6	1.3	1.6	1.9
33°	377.7	362.0	322.3	258.3	174.3	135.7	9.3	1.5	1.2	1.5	1.9
34°	409.7	395.3	351.5	281.8	193.7	152.2	9.5	1.3	1.2	1.5	1.8
35°	437.9	421.2	377.2	304.7	213.7	167.1	9.5	1.2	1.1	1.4	1.8
36°	456.2	444.2	399.5	327.4	231.9	181.3	9.5	1.1	0.9	1.4	1.7
37°	471.9	457.9	417.4	344.7	245.2	192.7	9.5	0.9	0.9	1.4	1.7
38°	478.4	466.4	429.7	360.1	257.8	204.3	9.4	0.8	0.8	1.3	1.7
39°	480.9	470.1	439.0	371.2	267.0	212.1	9.2	0.7	0.8	1.3	1.7
40°	477.6	469.5	443.7	378.3	274.4	217.7	8.8	0.6	0.7	1.3	1.7
42.5°	464.1	458.8	442.7	385.5	280.7	222.0	7.7	0.4	0.7	1.2	1.7
45°	452.1	446.2	432.0	378.0	272.5	213.6	5.8	0.2	0.7	1.2	1.7
47.5°	428.9	425.2	414.0	358.9	254.5	194.9	4.1	0.1	0.6	1.1	1.6
50°	382.2	378.7	364.0	311.7	218.9	164.8	2.9	0.1	0.5	1.1	1.6
52.5°	340.4	336.7	315.6	259.1	168.2	120.8	1.9	0.1	0.5	1.1	1.6
55°	289.9	283.5	255.7	196.7	119.2	81.0	1.4	0.1	0.5	0.9	1.6
57.5°	214.6	205.2	180.4	134.1	68.7	43.9	0.7	0.1	0.5	0.9	1.6
60°	145.9	140.4	112.9	70.8	29.3	18.5	0.3	0.1	0.5	0.9	1.5
62.5°	88.4	81.4	56.8	30.1	12.6	8.4	0.0	0.2	0.5	0.9	1.5
65°	25.2	22.3	14.8	6.8	3.6	2.7	0.0	0.2	0.5	0.9	1.5
67.5°	0.8	0.8	0.8	0.7	0.5	0.5	0.1	0.2	0.5	0.9	1.4
70°	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.2	0.5	0.8	1.4
72.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.4	0.7	1.3
75°	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.3	0.4	0.7	1.1
77.5°	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.3	0.4	0.6	1.1
80°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4	0.6	0.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	45°	67.5°	90°	112.5°	135°
82.5°	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.3	0.4	0.4	0.6
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.4	0.3	0.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.3	0.3	0.2
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):

	157.5°	180°
0°	4.8	4.8
2.5°	4.5	4.5
5°	4.2	4.2
7.5°	3.9	3.9
10°	3.6	3.6
12.5°	3.4	3.4
15°	3.1	3.2
17.5°	2.8	2.9
20°	2.7	2.8
21°	2.7	2.8
22°	2.6	2.7
23°	2.6	2.7
24°	2.5	2.6
25°	2.4	2.5
26°	2.4	2.5
27°	2.4	2.5
28°	2.3	2.5
29°	2.3	2.4
30°	2.3	2.4
31°	2.2	2.4
32°	2.2	2.4
33°	2.2	2.3
34°	2.1	2.3
35°	2.1	2.3
36°	2.1	2.3
37°	2.1	2.2
38°	2.1	2.3
39°	2.1	2.2
40°	2.1	2.2
42.5°	2.1	2.2
45°	2.1	2.2
47.5°	2.1	2.3
50°	2.1	2.3
52.5°	2.1	2.3
55°	2.1	2.3
57.5°	2.1	2.2
60°	2.1	2.2
62.5°	2.0	2.2
65°	2.0	2.1
67.5°	2.0	2.1
70°	1.9	2.0
72.5°	1.8	1.9
75°	1.6	1.8
77.5°	1.5	1.6
80°	1.3	1.4

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CANDELA DISTRIBUTION (continued):

	157.5°	180°
82.5°	1.1	1.1
85°	0.7	0.8
87.5°	0.4	0.4
90°	0.0	0.0

(END OF REPORT)