

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: P1335076

Luminaire Tested: P3A02R309730DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335076
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: P3A02R309730DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R30 optic, 3000K CCT AND, 97CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

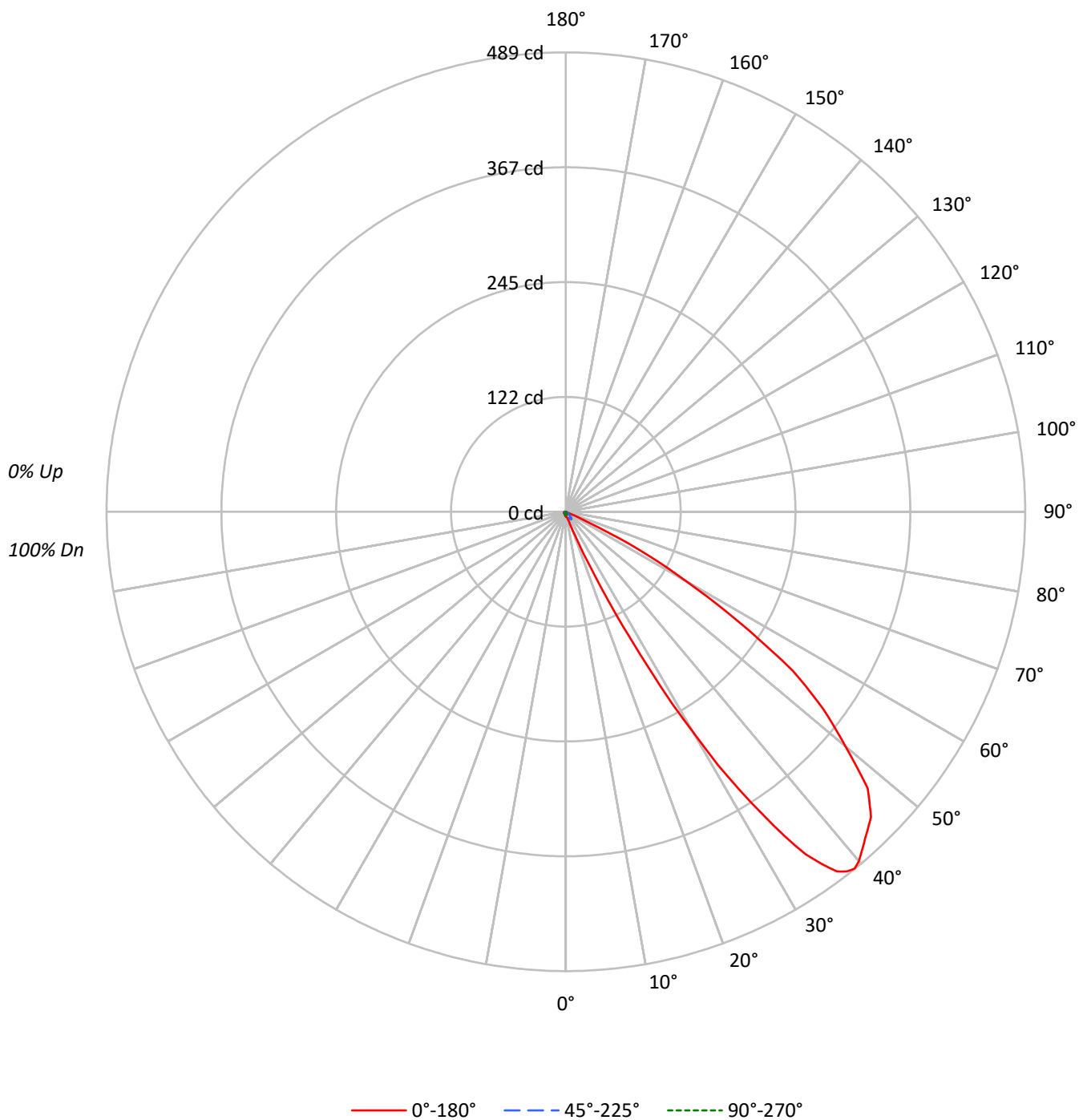
Lumens per Lamp: N/A
Luminaire Lumens: 127.0 lumens
Efficiency: N/A
Efficacy: 35.3 lumens/watt
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.44
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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			0
RW	70	50	30	10	70	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	108	104	100	97	100	97	94		96	93	91		92	90	89	87
2	100	93	86	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	52	50
5	75	62	52	46	73	60	52	45	58	51	45		56	50	44		54	49	44	42
6	68	54	45	38	66	53	44	38	51	43	37		49	42	37		48	42	37	35
7	62	48	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	32	26		37	31	26	24
9	52	37	29	23	50	37	28	23	36	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	24	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	1074	1074	1074	1074	1074
5°	1145	1123	1057	969	947
10°	1269	1113	935	824	802
15°	1839	1112	772	704	726
20°	4644	1213	607	607	677
25°	21558	1524	460	532	629
30°	68643	2102	354	506	633
35°	119096	2570	294	482	642
40°	138917	2576	200	487	630
45°	142464	1830	217	527	682
50°	132465	1023	171	546	819
55°	112589	535	191	612	918
60°	65039	132	219	658	965
65°	13283	0	259	778	1090
70°	192	64	321	898	1282
75°	169	85	339	932	1525
80°	126	126	505	1137	1768
85°	0	252	1006	1006	2264

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 142464 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.4	0.3
10°-20°	1.3	1.0
20°-30°	7.3	5.8
30°-40°	34.2	26.9
40°-50°	48.4	38.1
50°-60°	29.8	23.4
60°-70°	4.5	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°	9.0	7.1
0°-40°	43.3	34.1
0°-60°	121.4	95.6
0°-90°	127.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	127.0	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°	89	6	2	2	3	55
35°	445	10	1	2	2	267
45°	459	6	1	2	2	348
55°	294	1	0	2	2	251
65°	26	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°	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
2.5°	5.0	5.0	5.1	5.1	5.0	5.1	5.1	5.1	4.9	4.8	4.6
5°	5.2	5.2	5.2	5.3	5.2	5.2	5.1	5.0	4.8	4.5	4.4
7.5°	5.5	5.5	5.3	5.5	5.3	5.3	5.1	4.9	4.6	4.3	4.1
10°	5.7	5.7	5.6	5.6	5.5	5.5	5.0	4.7	4.2	3.9	3.7
12.5°	6.3	6.3	6.2	6.1	5.9	5.8	4.9	4.4	3.7	3.4	3.3
15°	8.1	8.0	7.8	7.5	7.0	6.8	4.9	4.1	3.4	3.1	3.1
17.5°	11.1	11.0	10.7	9.8	8.9	8.6	4.9	3.6	3.0	2.8	2.8
20°	19.9	19.0	17.4	15.3	13.1	11.9	5.2	3.2	2.6	2.5	2.6
21°	26.0	25.1	23.1	19.6	15.6	14.3	5.5	3.1	2.5	2.4	2.6
22°	35.4	34.4	30.3	25.5	19.8	17.5	5.6	2.9	2.2	2.2	2.5
23°	49.4	47.8	40.8	33.1	24.7	21.5	5.8	2.8	2.1	2.2	2.4
24°	64.7	63.3	55.3	43.8	31.6	27.0	6.0	2.7	2.0	2.0	2.2
25°	89.1	87.5	73.3	55.2	40.0	32.4	6.3	2.5	1.9	1.9	2.2
26°	120.7	113.3	94.4	71.1	49.3	40.7	6.6	2.4	1.8	1.9	2.1
27°	150.6	144.5	123.2	91.3	61.0	50.0	7.1	2.2	1.7	1.8	2.1
28°	190.0	181.4	154.6	115.4	76.8	60.4	7.5	2.1	1.6	1.8	2.0
29°	234.1	222.1	189.7	142.6	94.7	72.2	7.9	2.0	1.5	1.7	2.0
30°	271.1	259.9	227.4	174.8	115.2	87.7	8.3	1.9	1.4	1.7	2.0
31°	314.5	297.5	258.2	202.1	132.9	103.2	8.8	1.7	1.3	1.6	1.9
32°	349.7	337.8	296.1	232.9	156.1	120.4	9.1	1.6	1.3	1.6	1.9
33°	383.7	367.8	327.5	262.4	177.1	137.9	9.4	1.5	1.2	1.5	1.9
34°	416.3	401.6	357.1	286.3	196.8	154.6	9.6	1.3	1.2	1.5	1.8
35°	444.9	427.9	383.2	309.6	217.2	169.8	9.6	1.2	1.1	1.4	1.8
36°	463.5	451.3	405.9	332.6	235.6	184.2	9.6	1.1	1.0	1.4	1.7
37°	479.5	465.3	424.1	350.3	249.2	195.8	9.6	1.0	1.0	1.4	1.7
38°	486.0	473.8	436.6	365.9	261.9	207.5	9.5	0.9	0.9	1.3	1.7
39°	488.6	477.7	446.0	377.1	271.3	215.5	9.3	0.7	0.9	1.3	1.7
40°	485.3	477.0	450.8	384.4	278.8	221.2	9.0	0.6	0.7	1.3	1.7
42.5°	471.6	466.1	449.7	391.7	285.2	225.5	7.8	0.4	0.7	1.2	1.7
45°	459.4	453.4	438.9	384.1	276.9	217.1	5.9	0.2	0.7	1.2	1.7
47.5°	435.7	432.0	420.6	364.7	258.6	198.0	4.2	0.1	0.6	1.1	1.6
50°	388.3	384.8	369.8	316.7	222.4	167.4	3.0	0.1	0.5	1.1	1.6
52.5°	345.9	342.1	320.6	263.3	170.8	122.7	1.9	0.1	0.5	1.1	1.6
55°	294.5	288.0	259.7	199.8	121.1	82.3	1.4	0.1	0.5	1.0	1.6
57.5°	218.0	208.5	183.3	136.3	69.8	44.6	0.7	0.1	0.5	1.0	1.6
60°	148.3	142.6	114.7	71.9	29.7	18.8	0.3	0.1	0.5	1.0	1.5
62.5°	89.9	82.7	57.7	30.6	12.8	8.6	0.0	0.2	0.5	1.0	1.5
65°	25.6	22.7	15.1	7.0	3.6	2.8	0.0	0.2	0.5	1.0	1.5
67.5°	0.9	0.9	0.9	0.7	0.5	0.5	0.1	0.2	0.5	1.0	1.4
70°	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.2	0.5	0.9	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	0.9



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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°	4.9	4.9
2.5°	4.6	4.6
5°	4.3	4.3
7.5°	4.0	4.0
10°	3.6	3.6
12.5°	3.4	3.4
15°	3.1	3.2
17.5°	2.9	3.0
20°	2.8	2.9
21°	2.8	2.9
22°	2.7	2.8
23°	2.7	2.8
24°	2.6	2.7
25°	2.5	2.6
26°	2.5	2.6
27°	2.5	2.6
28°	2.4	2.6
29°	2.4	2.5
30°	2.4	2.5
31°	2.2	2.5
32°	2.2	2.5
33°	2.2	2.4
34°	2.1	2.4
35°	2.1	2.4
36°	2.1	2.4
37°	2.1	2.2
38°	2.1	2.4
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	2.4
50°	2.1	2.4
52.5°	2.1	2.4
55°	2.1	2.4
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	0.9
87.5°	0.4	0.4
90°	0.0	0.0

(END OF REPORT)