

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: P1334996

Luminaire Tested: P3A02R309030DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1334996
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: P3A02R309030DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R30 optic, 3000K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

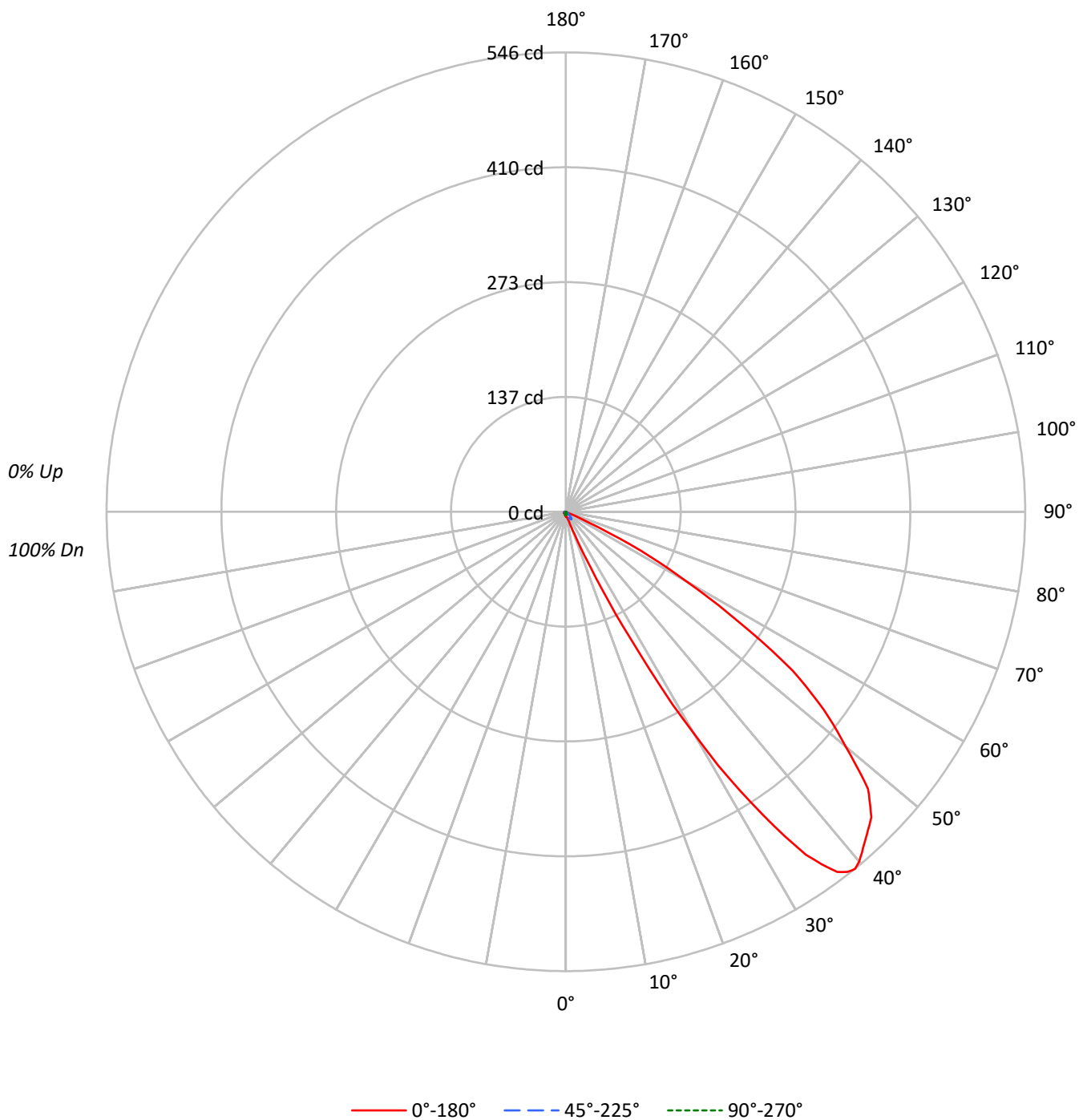
Lumens per Lamp: N/A
Luminaire Lumens: 142.0 lumens
Efficiency: N/A
Efficacy: 39.4 lumens/watt
Spacing Criteria (0/90/45): 4.07 / 0.65 / 1.44
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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°	1206	1206	1206	1206	1206
5°	1299	1255	1189	1079	1057
10°	1403	1247	1047	935	913
15°	2066	1249	863	795	817
20°	5180	1377	677	677	747
25°	24098	1718	532	605	702
30°	76746	2355	405	582	709
35°	133177	2891	321	535	696
40°	155320	2863	229	544	716
45°	159272	2047	248	589	775
50°	148123	1126	205	614	887
55°	125893	612	229	688	994
60°	72713	175	263	746	1096
65°	14839	0	311	882	1245
70°	256	64	385	1026	1475
75°	169	85	424	1017	1694
80°	126	126	631	1263	2020
85°	0	252	1258	1258	2516

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 159272 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.5	0.3
10°-20°	1.4	1.0
20°-30°	8.2	5.8
30°-40°	38.2	26.9
40°-50°	54.1	38.1
50°-60°	33.3	23.4
60°-70°	5.1	3.6
70°-80°	0.8	0.6
80°-90°	0.4	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°	10.1	7.1
0°-40°	48.4	34.1
0°-60°	135.7	95.6
0°-90°	142.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	142.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	6	6	6	6	6	
5°	6	6	5	5	5	1
15°	9	6	4	4	4	3
25°	100	7	2	2	3	61
35°	498	11	1	2	3	299
45°	514	7	1	2	2	389
55°	329	2	1	2	3	280
65°	29	0	1	2	2	52
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°	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
2.5°	5.6	5.6	5.7	5.7	5.6	5.7	5.7	5.7	5.5	5.4	5.1
5°	5.9	5.9	5.9	6.0	5.9	5.9	5.7	5.6	5.4	5.0	4.9
7.5°	6.1	6.1	6.0	6.1	6.0	6.0	5.7	5.5	5.1	4.8	4.5
10°	6.3	6.3	6.2	6.2	6.1	6.1	5.6	5.3	4.7	4.3	4.2
12.5°	7.1	7.1	6.9	6.8	6.6	6.5	5.5	4.9	4.2	3.8	3.7
15°	9.1	9.0	8.7	8.4	7.8	7.7	5.5	4.5	3.8	3.5	3.5
17.5°	12.4	12.3	12.0	11.0	9.9	9.6	5.5	4.1	3.3	3.1	3.1
20°	22.2	21.3	19.5	17.1	14.6	13.3	5.9	3.6	2.9	2.8	2.9
21°	29.1	28.1	25.8	21.9	17.5	16.0	6.1	3.5	2.8	2.6	2.9
22°	39.6	38.5	33.9	28.5	22.1	19.6	6.2	3.2	2.5	2.5	2.8
23°	55.3	53.5	45.6	37.0	27.6	24.0	6.5	3.1	2.4	2.5	2.6
24°	72.4	70.8	61.8	48.9	35.3	30.1	6.7	3.0	2.3	2.3	2.5
25°	99.6	97.8	81.9	61.7	44.7	36.2	7.1	2.8	2.2	2.2	2.5
26°	134.9	126.7	105.5	79.5	55.1	45.5	7.4	2.6	2.0	2.2	2.4
27°	168.4	161.6	137.8	102.0	68.2	55.9	7.9	2.5	1.9	2.0	2.4
28°	212.4	202.9	172.8	129.1	85.9	67.6	8.4	2.4	1.8	2.0	2.3
29°	261.7	248.3	212.1	159.4	105.9	80.7	8.9	2.3	1.7	1.9	2.3
30°	303.1	290.5	254.3	195.5	128.8	98.1	9.3	2.2	1.6	1.9	2.3
31°	351.7	332.6	288.8	226.0	148.6	115.4	9.8	1.9	1.4	1.8	2.2
32°	391.0	377.7	331.1	260.4	174.5	134.6	10.2	1.8	1.4	1.8	2.2
33°	429.1	411.2	366.1	293.4	198.0	154.2	10.5	1.7	1.3	1.7	2.2
34°	465.4	449.0	399.3	320.1	220.1	172.8	10.8	1.4	1.3	1.7	2.0
35°	497.5	478.5	428.5	346.2	242.8	189.8	10.8	1.3	1.2	1.6	2.0
36°	518.3	504.7	453.8	371.9	263.4	206.0	10.8	1.2	1.1	1.6	1.9
37°	536.1	520.2	474.2	391.6	278.6	218.9	10.8	1.1	1.1	1.6	1.9
38°	543.4	529.8	488.1	409.1	292.8	232.1	10.6	1.0	1.0	1.4	1.9
39°	546.3	534.1	498.7	421.6	303.3	240.9	10.4	0.8	1.0	1.4	1.9
40°	542.6	533.4	504.1	429.8	311.7	247.4	10.0	0.7	0.8	1.4	1.9
42.5°	527.3	521.2	502.9	437.9	318.9	252.1	8.7	0.5	0.8	1.3	1.9
45°	513.6	506.9	490.8	429.4	309.6	242.7	6.6	0.2	0.8	1.3	1.9
47.5°	487.2	483.0	470.3	407.8	289.1	221.4	4.7	0.1	0.7	1.2	1.8
50°	434.2	430.3	413.5	354.1	248.7	187.2	3.3	0.1	0.6	1.2	1.8
52.5°	386.7	382.5	358.5	294.4	191.0	137.2	2.2	0.1	0.6	1.2	1.8
55°	329.3	322.0	290.4	223.4	135.4	92.0	1.6	0.1	0.6	1.1	1.8
57.5°	243.8	233.1	204.9	152.4	78.0	49.9	0.8	0.1	0.6	1.1	1.8
60°	165.8	159.4	128.2	80.4	33.3	21.1	0.4	0.1	0.6	1.1	1.7
62.5°	100.5	92.5	64.5	34.2	14.4	9.6	0.0	0.2	0.6	1.1	1.7
65°	28.6	25.4	16.9	7.8	4.1	3.1	0.0	0.2	0.6	1.1	1.7
67.5°	1.0	1.0	1.0	0.8	0.6	0.6	0.1	0.2	0.6	1.1	1.6
70°	0.4	0.4	0.4	0.2	0.2	0.1	0.1	0.2	0.6	1.0	1.6
72.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.5	0.8	1.4
75°	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.4	0.5	0.8	1.2
77.5°	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.4	0.5	0.7	1.2
80°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.5	0.7	1.0



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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	0.4	0.5	0.5	0.7
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.5	0.4	0.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.4	0.4	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°	5.5	5.5
2.5°	5.1	5.1
5°	4.8	4.8
7.5°	4.4	4.4
10°	4.1	4.1
12.5°	3.8	3.8
15°	3.5	3.6
17.5°	3.2	3.3
20°	3.1	3.2
21°	3.1	3.2
22°	3.0	3.1
23°	3.0	3.1
24°	2.9	3.0
25°	2.8	2.9
26°	2.8	2.9
27°	2.8	2.9
28°	2.6	2.9
29°	2.6	2.8
30°	2.6	2.8
31°	2.5	2.8
32°	2.5	2.8
33°	2.5	2.6
34°	2.4	2.6
35°	2.4	2.6
36°	2.4	2.6
37°	2.4	2.5
38°	2.4	2.6
39°	2.4	2.5
40°	2.4	2.5
42.5°	2.4	2.5
45°	2.4	2.5
47.5°	2.4	2.6
50°	2.4	2.6
52.5°	2.4	2.6
55°	2.4	2.6
57.5°	2.4	2.5
60°	2.4	2.5
62.5°	2.3	2.5
65°	2.3	2.4
67.5°	2.3	2.4
70°	2.2	2.3
72.5°	2.0	2.2
75°	1.8	2.0
77.5°	1.7	1.8
80°	1.4	1.6

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CANDELA DISTRIBUTION (continued):

	157.5°	180°
82.5°	1.2	1.2
85°	0.8	1.0
87.5°	0.5	0.5
90°	0.0	0.0

(END OF REPORT)