

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: P1335476

Luminaire Tested: P3A02R359830DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335476
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-77)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A02R359830DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R35 optic, 3000K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

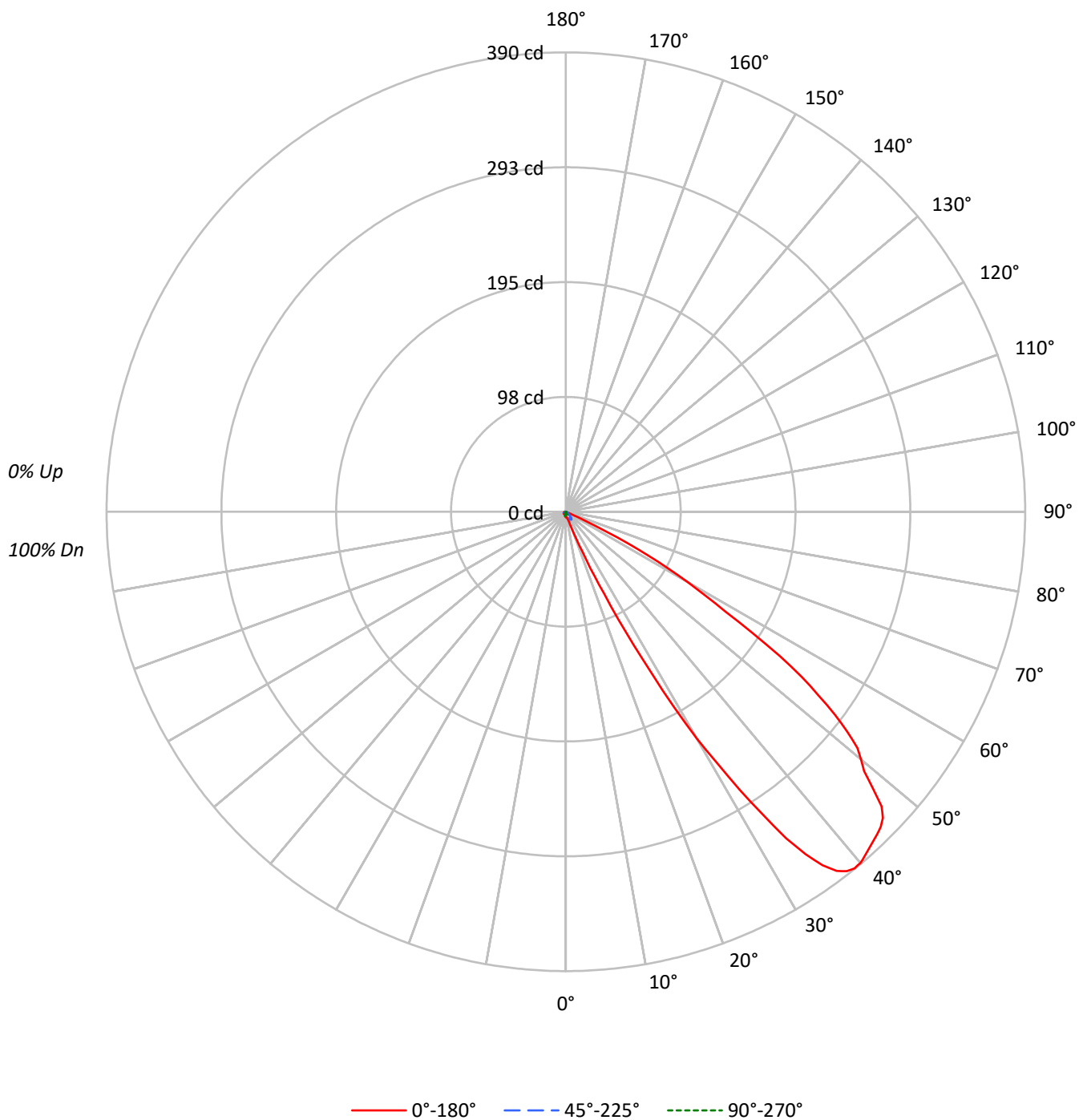
Lumens per Lamp: N/A
Luminaire Lumens: 97.0 lumens
Efficiency: N/A
Efficacy: 27.0 lumens/watt
Spacing Criteria (0/90/45): 4.01 / 0.66 / 1.41
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	83	78		84	80	77		81
3	91	81	73	67	89	79	72	66	76	70	65		74	68	64		71
4	83	71	62	55	80	69	61	55	67	60	54		64	58	53		62
5	75	62	52	46	73	61	52	45	58	51	45		56	50	44		55
6	68	54	45	38	66	53	44	38	51	43	38		50	43	37		48
7	62	48	38	32	60	47	38	32	45	37	32		44	37	31		42
8	57	42	33	27	55	41	33	27	40	32	27		39	32	26		38
9	52	38	29	23	50	37	29	23	36	28	23		35	28	22		34
10	48	34	25	19	46	33	25	19	32	25	19		31	24	19		30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	987	987	987	987	987
5°	1057	1035	969	858	858
10°	1113	1024	868	735	735
15°	1589	999	704	636	658
20°	3990	1073	560	560	607
25°	18485	1355	436	508	581
30°	56237	1848	329	456	582
35°	95031	2142	294	455	562
40°	111380	2118	229	458	601
45°	117315	1489	186	496	651
50°	111655	887	171	512	716
55°	93550	382	191	573	841
60°	52364	88	219	658	921
65°	9028	52	208	726	1038
70°	192	64	256	769	1154
75°	169	85	339	932	1356
80°	126	126	505	1010	1515
85°	0	252	1006	1006	1761

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 46°

Luminance: 118123 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.4	0.4
10°-20°	1.1	1.2
20°-30°	6.0	6.1
30°-40°	25.7	26.5
40°-50°	36.7	37.8
50°-60°	22.7	23.4
60°-70°	3.5	3.6
70°-80°	0.7	0.7
80°-90°	0.3	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°	7.5	7.7
0°-40°	33.2	34.2
0°-60°	92.6	95.4
0°-90°	97.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	97.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4	4	4	4	4	
5°	5	5	4	4	4	0
15°	7	4	3	3	3	3
25°	76	6	2	2	2	46
35°	355	8	1	2	2	213
45°	378	5	1	2	2	286
55°	245	1	0	2	2	208
65°	17	0	0	1	2	36
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°	25°	30°	45°	67.5°	90°	112.5°
0°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
2.5°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.5	4.4
5°	4.8	4.8	4.7	4.7	4.7	4.7	4.7	4.7	4.6	4.4	4.1
7.5°	4.9	4.9	4.8	4.8	4.8	4.8	4.7	4.6	4.5	4.1	3.9
10°	5.0	5.0	5.0	5.0	4.9	4.8	4.7	4.6	4.3	3.9	3.6
12.5°	5.6	5.6	5.5	5.3	5.2	5.0	4.8	4.5	3.9	3.5	3.2
15°	7.0	6.9	6.7	6.5	6.1	5.7	5.3	4.4	3.6	3.1	2.9
17.5°	9.8	9.6	9.4	8.5	7.7	6.9	6.2	4.4	3.2	2.7	2.5
20°	17.1	17.2	15.3	13.2	11.5	9.5	7.8	4.6	2.9	2.4	2.3
22.5°	35.6	34.2	29.9	24.8	18.9	14.6	11.0	5.0	2.5	2.0	2.0
25°	76.4	71.1	60.5	45.7	32.2	22.9	16.0	5.6	2.3	1.8	1.8
27.5°	139.6	134.8	113.5	85.5	56.7	34.5	21.7	6.4	2.0	1.5	1.7
30°	222.1	208.8	181.0	140.1	94.8	52.8	29.2	7.3	1.7	1.3	1.6
31°	247.8	241.7	207.9	162.1	111.1	62.7	32.3	7.5	1.6	1.3	1.5
32°	278.4	267.5	237.2	186.2	127.7	71.5	36.1	7.8	1.5	1.1	1.5
33°	305.7	295.2	258.3	207.3	144.4	81.6	40.1	7.9	1.3	1.1	1.4
34°	334.4	320.0	283.5	229.5	161.6	92.5	43.8	8.0	1.2	1.1	1.4
35°	355.0	340.6	305.2	247.0	176.4	102.1	48.0	8.0	1.1	1.1	1.3
36°	370.9	358.3	324.0	265.1	191.1	110.8	51.3	8.0	1.0	1.0	1.3
37°	381.9	369.9	336.6	280.6	202.3	118.5	54.3	8.0	0.9	1.0	1.3
38°	387.2	377.2	348.8	291.8	213.1	124.5	56.7	7.8	0.8	0.9	1.2
39°	389.5	381.3	356.2	301.4	221.3	129.8	58.4	7.6	0.7	0.9	1.2
40°	389.1	382.0	360.4	308.0	227.8	133.4	59.4	7.4	0.6	0.8	1.2
41°	387.1	381.0	362.6	313.6	231.8	135.8	59.6	7.1	0.5	0.8	1.1
42°	384.8	379.2	363.3	316.5	234.3	136.6	58.9	6.7	0.5	0.7	1.1
43°	382.5	377.3	363.3	317.5	234.9	136.1	57.8	6.1	0.4	0.7	1.1
44°	380.5	375.6	362.2	317.2	233.6	134.1	55.7	5.4	0.4	0.7	1.1
45°	378.3	373.5	360.7	315.6	231.1	130.6	53.1	4.8	0.3	0.6	1.1
46°	374.2	370.5	358.0	312.2	227.1	125.9	49.7	4.4	0.2	0.6	1.1
47°	366.5	363.2	353.0	307.1	221.7	120.3	46.3	3.9	0.2	0.6	1.1
48°	350.8	350.7	342.8	297.6	213.2	113.3	42.7	3.5	0.2	0.6	1.1
49°	335.6	334.1	324.2	281.0	201.0	104.9	39.0	3.2	0.1	0.6	1.1
50°	327.3	323.9	307.8	261.4	185.5	93.3	34.9	2.6	0.1	0.5	1.1
51°	318.6	313.7	294.7	243.7	166.9	82.0	30.6	2.1	0.1	0.5	1.0
52°	303.0	298.3	277.1	226.8	148.9	70.6	26.4	1.8	0.1	0.5	1.1
53°	286.1	279.4	256.3	208.2	133.0	60.4	22.1	1.5	0.1	0.5	1.0
54°	264.8	261.8	235.3	185.5	114.4	50.6	18.1	1.2	0.1	0.5	1.0
55°	244.7	240.4	212.8	162.2	97.6	41.5	15.1	1.0	0.1	0.5	1.0
56°	219.2	212.6	186.8	140.8	80.6	33.4	12.8	0.8	0.1	0.5	1.0
57°	188.7	181.7	161.3	117.1	63.2	25.5	10.7	0.6	0.1	0.5	1.0
58°	159.6	153.6	131.7	90.4	47.6	17.7	8.8	0.4	0.1	0.4	1.0
59°	137.9	131.3	109.5	69.5	33.1	13.0	6.7	0.4	0.1	0.5	1.0
60°	119.4	110.9	88.2	53.9	23.6	9.4	4.9	0.2	0.2	0.5	1.0
62.5°	68.8	60.8	42.1	21.9	9.7	4.8	2.4	0.1	0.2	0.5	1.0
65°	17.4	15.5	10.1	4.7	2.7	1.7	0.9	0.1	0.2	0.4	0.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
67.5°	0.6	0.6	0.6	0.5	0.4	0.4	0.2	0.1	0.2	0.4	0.9
70°	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.2	0.4	0.8
72.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.3	0.4	0.7
75°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.3	0.4	0.7
77.5°	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4	0.6
80°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4	0.5
82.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4	0.4
85°	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.3	0.4	0.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.4	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):

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



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	1.3	1.8	1.9
70°	1.2	1.8	1.8
72.5°	1.1	1.7	1.8
75°	1.1	1.5	1.6
77.5°	0.9	1.3	1.5
80°	0.8	1.1	1.2
82.5°	0.6	1.0	1.1
85°	0.4	0.7	0.7
87.5°	0.2	0.4	0.4
90°	0.0	0.0	0.0

(END OF REPORT)