

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: P1334176

Luminaire Tested: P3A02R159835DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1334176
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-73)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A02R159835DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R15 optic, 3500K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

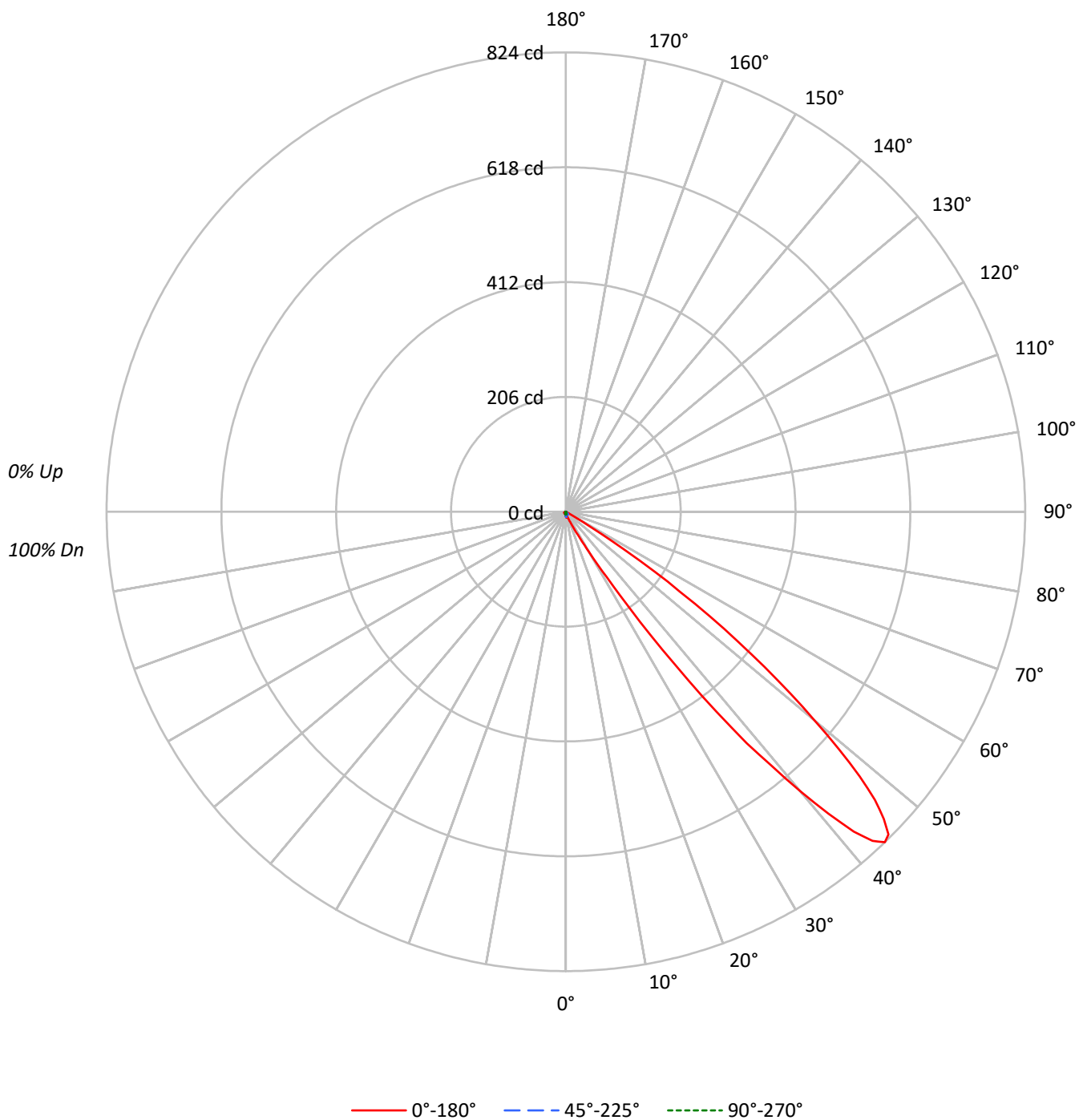
Lumens per Lamp: N/A
Luminaire Lumens: 92.0 lumens
Efficiency: N/A
Efficacy: 25.6 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	101	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		54
6	68	54	45	38	66	53	44	38	51	43	37		49	42	37		48
7	62	47	38	32	60	47	38	32	45	37	31		44	36	31		42
8	56	42	33	27	55	41	33	27	40	32	26		39	31	26		37
9	52	37	28	22	50	37	28	22	35	28	22		34	27	22		33
10	48	33	25	19	46	33	25	19	32	24	19		31	24	19		30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	1798	1798	1798	1798	1798
5°	2223	1981	1607	1409	1387
10°	2182	1692	1247	1113	1113
15°	1816	1203	885	908	976
20°	3150	957	677	793	910
25°	7017	1161	556	726	847
30°	20965	1418	481	709	886
35°	80736	1606	455	750	937
40°	187408	1403	429	773	1002
45°	253825	1054	372	837	1085
50°	199021	614	375	887	1194
55°	95538	268	344	956	1300
60°	8727	44	307	1009	1447
65°	934	0	311	1038	1557
70°	256	0	385	1090	1731
75°	254	85	508	1271	1949
80°	253	253	631	1263	2147
85°	252	252	1006	1258	2264

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 253825 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.7	0.8
10°-20°	1.4	1.6
20°-30°	3.5	3.8
30°-40°	19.0	20.7
40°-50°	46.1	50.1
50°-60°	18.4	20.0
60°-70°	1.6	1.7
70°-80°	0.9	1.0
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°	5.6	6.1
0°-40°	24.7	26.8
0°-60°	89.1	96.8
0°-90°	92.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	92.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	8	8	8	8	8	
5°	10	9	7	6	6	1
15°	8	5	4	4	4	3
25°	29	5	2	3	4	17
35°	302	6	2	3	4	213
45°	818	3	1	3	4	577
55°	250	1	1	2	3	233
65°	2	0	1	2	3	5
75°	0	0	1	2	2	0
85°	0	0	0	0	1	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
2.5°	9.2	9.2	9.3	9.2	9.2	9.2	9.2	9.1	9.1	9.1	8.8
5°	10.1	10.1	10.1	10.1	10.0	10.0	10.0	9.9	9.9	9.8	9.0
7.5°	10.5	10.5	10.4	10.4	10.3	10.3	10.2	10.1	10.0	9.9	8.6
10°	9.8	9.8	9.8	9.7	9.7	9.6	9.5	9.4	9.4	9.2	7.6
12.5°	8.7	8.7	8.8	8.7	8.6	8.5	8.3	8.3	8.2	8.0	6.3
15°	8.0	8.0	8.0	7.9	7.8	7.6	7.5	7.3	7.2	7.0	5.3
17.5°	10.2	10.2	10.1	9.9	9.5	9.3	8.8	8.4	8.0	7.4	4.6
20°	13.5	13.5	13.3	13.1	12.7	12.2	11.5	10.8	10.1	9.4	4.1
22.5°	19.5	19.8	19.3	18.6	18.0	16.9	15.9	14.9	13.6	12.5	4.2
25°	29.0	29.3	29.0	27.5	26.3	24.9	22.9	20.9	18.7	16.7	4.8
27.5°	47.0	47.2	46.7	43.1	41.2	37.3	33.9	30.6	27.0	23.3	5.2
30°	82.8	82.9	80.0	72.8	66.5	58.1	50.9	44.0	38.3	32.4	5.6
31°	109.1	106.5	100.3	91.6	81.6	70.2	60.4	51.5	42.8	36.5	5.7
32°	138.5	138.1	127.8	112.8	99.3	85.1	70.4	59.0	49.1	40.5	5.8
33°	177.5	177.7	161.4	143.7	121.6	102.6	83.2	67.6	55.7	45.1	6.0
34°	238.4	224.1	204.9	181.1	151.0	122.3	97.1	77.6	61.6	49.6	6.0
35°	301.6	287.2	266.1	230.0	188.7	148.5	113.7	88.3	68.8	54.5	6.0
36°	372.4	360.2	328.3	282.2	229.5	173.3	131.4	100.7	75.9	58.9	5.9
37°	448.9	431.1	395.6	345.3	274.8	208.1	152.8	113.0	82.9	63.7	5.7
38°	526.6	510.5	465.8	404.8	329.0	244.9	174.3	124.8	89.4	67.2	5.4
39°	585.5	576.7	532.4	464.3	372.2	279.8	196.4	137.5	96.3	70.8	5.1
40°	654.7	640.5	598.5	514.2	423.3	315.3	218.0	148.7	102.0	73.7	4.9
41°	717.8	699.8	646.8	565.3	464.2	347.2	238.6	160.3	106.6	75.3	4.7
42°	771.9	751.0	695.6	609.2	498.4	372.7	255.0	168.5	110.9	76.7	4.4
43°	807.0	788.9	734.4	642.1	527.6	396.1	270.3	177.1	113.6	77.6	4.0
44°	824.0	805.8	753.0	662.8	545.6	410.1	280.2	183.1	116.5	78.8	3.8
45°	818.5	800.0	749.0	663.1	551.2	415.2	284.5	185.8	118.1	79.9	3.4
46°	793.3	780.3	728.9	645.9	540.6	409.8	282.1	183.7	117.5	79.9	3.0
47°	757.9	743.0	694.1	616.3	514.8	395.8	272.4	177.6	114.1	78.1	2.7
48°	709.6	697.0	645.6	569.2	475.3	365.5	250.7	167.6	108.8	74.5	2.3
49°	649.1	631.5	583.7	509.0	423.7	322.3	222.2	150.7	100.3	69.4	2.0
50°	583.4	561.7	524.8	448.8	370.4	276.4	184.7	127.4	88.2	62.8	1.8
51°	519.1	497.0	461.9	397.2	313.5	229.3	149.0	101.7	72.7	53.8	1.6
52°	452.4	433.9	394.5	343.7	268.4	185.9	124.1	86.0	60.4	45.1	1.3
53°	386.0	373.4	335.9	284.5	215.7	151.8	101.4	73.7	52.7	38.6	1.0
54°	319.5	305.7	277.2	231.3	173.8	119.8	86.0	61.6	45.7	33.7	0.9
55°	249.9	242.7	216.5	176.4	131.7	95.6	69.7	53.0	38.3	28.2	0.7
56°	192.5	184.4	160.4	128.0	97.9	74.9	56.4	43.3	32.4	23.6	0.6
57°	126.0	117.8	101.9	89.3	71.3	54.6	43.1	34.1	26.3	19.5	0.5
58°	74.5	67.0	64.5	55.0	47.5	37.1	31.8	25.4	19.4	15.4	0.3
59°	34.2	34.8	30.9	29.0	26.3	23.6	19.4	17.0	13.3	11.1	0.2
60°	19.9	18.8	18.3	16.4	14.6	12.9	11.7	10.3	8.3	7.2	0.1
62.5°	6.8	6.5	6.7	6.1	5.7	5.5	5.0	4.3	3.6	2.9	0.0
65°	1.8	1.8	1.7	1.7	1.6	1.5	1.4	1.2	1.1	0.9	0.0



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CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	0.6	0.6	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.0
70°	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.0
72.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1
75°	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
77.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
80°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2
82.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
85°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
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):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	8.2	8.2	8.2	8.2	8.2	8.2
2.5°	8.4	8.1	7.6	7.3	7.2	7.2
5°	8.1	7.3	6.8	6.4	6.3	6.3
7.5°	7.2	6.4	5.9	5.7	5.6	5.6
10°	6.3	5.6	5.1	5.0	5.0	5.0
12.5°	5.3	4.7	4.5	4.5	4.6	4.7
15°	4.3	3.9	3.9	4.0	4.2	4.3
17.5°	3.6	3.4	3.5	3.7	3.9	4.0
20°	2.9	2.9	3.1	3.4	3.7	3.9
22.5°	2.5	2.6	2.8	3.1	3.5	3.7
25°	2.1	2.3	2.6	3.0	3.4	3.5
27.5°	1.8	2.1	2.5	2.9	3.3	3.5
30°	1.6	1.9	2.4	2.8	3.3	3.5
31°	1.5	1.8	2.3	2.8	3.3	3.5
32°	1.4	1.8	2.3	2.8	3.3	3.5
33°	1.3	1.7	2.3	2.8	3.3	3.5
34°	1.2	1.7	2.3	2.8	3.3	3.5
35°	1.1	1.7	2.2	2.8	3.2	3.5
36°	1.0	1.7	2.2	2.8	3.3	3.5
37°	0.9	1.7	2.2	2.8	3.2	3.5
38°	0.9	1.6	2.1	2.8	3.2	3.5
39°	0.8	1.5	2.1	2.8	3.2	3.5
40°	0.7	1.5	2.0	2.7	3.2	3.5
41°	0.6	1.4	2.0	2.7	3.2	3.5
42°	0.6	1.4	2.0	2.7	3.2	3.5
43°	0.5	1.3	1.9	2.7	3.2	3.5
44°	0.5	1.3	1.9	2.7	3.2	3.5
45°	0.4	1.2	1.8	2.7	3.2	3.5
46°	0.4	1.2	1.8	2.6	3.2	3.5
47°	0.3	1.2	1.8	2.6	3.2	3.5
48°	0.3	1.1	1.8	2.6	3.2	3.5
49°	0.2	1.1	1.8	2.6	3.2	3.5
50°	0.2	1.1	1.7	2.6	3.2	3.5
51°	0.2	1.1	1.7	2.6	3.2	3.5
52°	0.2	1.0	1.7	2.6	3.2	3.5
53°	0.2	1.0	1.7	2.6	3.2	3.5
54°	0.2	1.0	1.7	2.6	3.2	3.5
55°	0.2	0.9	1.7	2.5	3.2	3.4
56°	0.2	0.9	1.7	2.5	3.2	3.4
57°	0.2	0.9	1.6	2.5	3.2	3.4
58°	0.2	0.8	1.6	2.4	3.1	3.4
59°	0.2	0.8	1.5	2.4	3.1	3.3
60°	0.2	0.7	1.5	2.3	3.0	3.3
62.5°	0.2	0.6	1.3	2.2	2.9	3.1
65°	0.2	0.6	1.2	2.0	2.8	3.0



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.2	0.6	1.1	1.9	2.7	2.9
70°	0.2	0.6	1.0	1.7	2.6	2.7
72.5°	0.3	0.6	0.9	1.7	2.4	2.5
75°	0.4	0.6	0.8	1.5	2.2	2.3
77.5°	0.4	0.6	0.7	1.3	1.9	2.0
80°	0.4	0.5	0.6	1.0	1.6	1.7
82.5°	0.4	0.5	0.5	0.8	1.2	1.3
85°	0.3	0.4	0.4	0.5	0.8	0.9
87.5°	0.3	0.4	0.2	0.3	0.4	0.4
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)