

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: P1335732

Luminaire Tested: P3A02R409727DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335732
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-78)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A02R409727DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R40 optic, 2700K CCT AND, 97CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

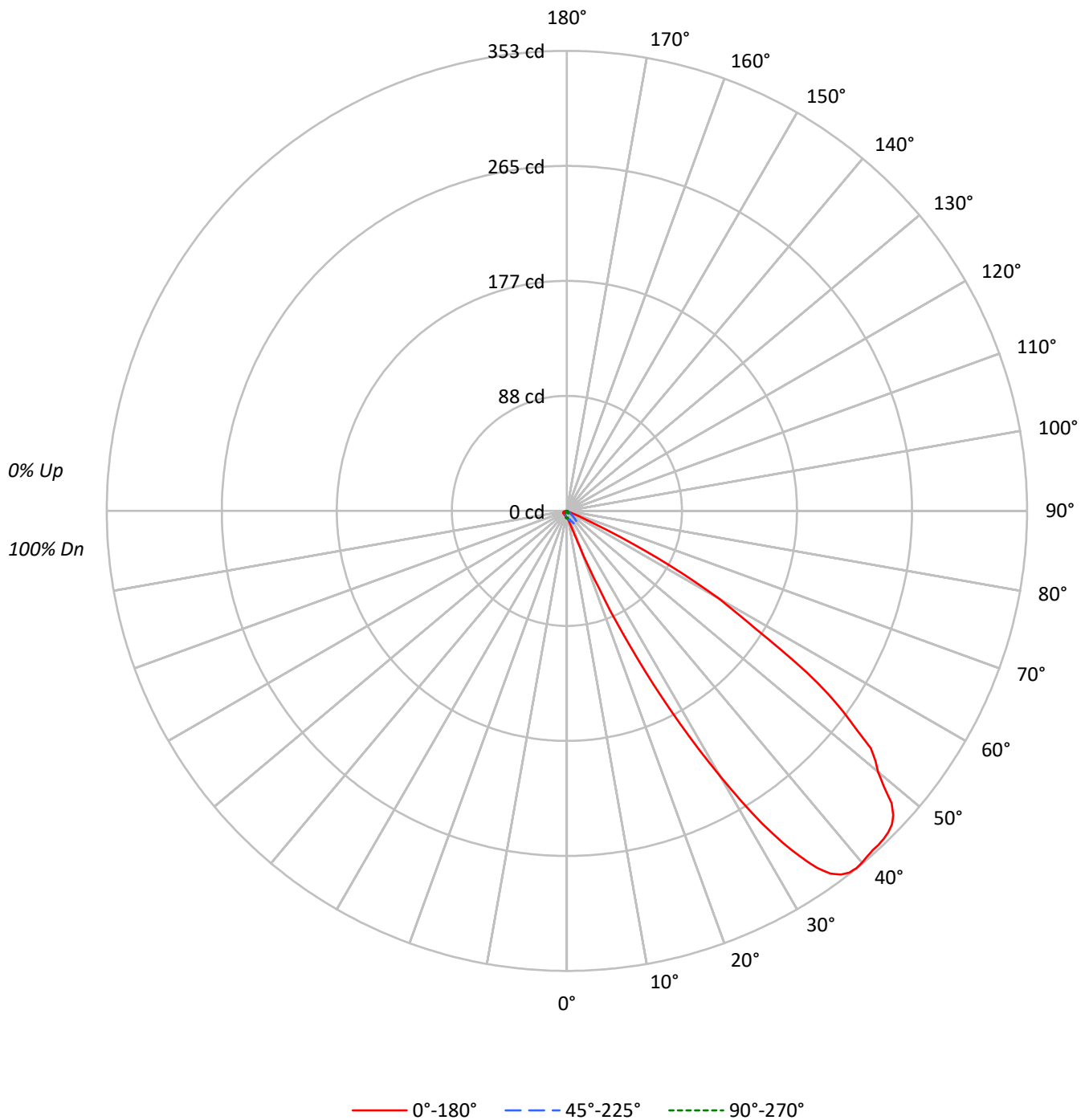
Lumens per Lamp: N/A
Luminaire Lumens: 109.0 lumens
Efficiency: N/A
Efficacy: 30.3 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	82	78		84	80	76		81
3	91	81	73	66	89	79	72	66	76	70	65		73	68	64		71
4	82	70	62	55	80	69	61	54	67	59	54		64	58	53		62
5	75	62	52	46	73	60	52	45	58	51	45		56	50	44		54
6	68	54	45	38	66	53	44	38	51	43	38		50	43	37		48
7	62	48	39	32	60	47	38	32	45	37	32		44	37	31		42
8	57	42	33	27	55	42	33	27	40	32	27		39	32	27		38
9	52	38	29	23	51	37	29	23	36	28	23		35	28	23		34
10	48	34	25	20	47	33	25	20	32	25	20		31	24	20		30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	1228	1228	1228	1228	1228
5°	1365	1321	1211	1101	1079
10°	1648	1403	1113	1002	980
15°	2701	1521	953	885	908
20°	7141	1797	793	793	863
25°	27558	2226	629	726	847
30°	59452	2962	506	709	836
35°	89490	3507	428	696	857
40°	100846	3521	372	716	916
45°	108135	2729	341	744	992
50°	106265	1706	307	785	1092
55°	93473	841	306	879	1223
60°	59162	175	351	965	1360
65°	12089	52	363	1038	1505
70°	256	64	385	1154	1731
75°	254	169	424	1271	1949
80°	253	126	505	1389	2273
85°	252	252	1006	1510	2516

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 110059 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.5	0.5
10°-20°	1.7	1.6
20°-30°	8.5	7.8
30°-40°	27.5	25.3
40°-50°	38.0	34.8
50°-60°	26.4	24.3
60°-70°	5.0	4.6
70°-80°	0.9	0.8
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°	10.7	9.8
0°-40°	38.2	35.1
0°-60°	102.6	94.2
0°-90°	109.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	109.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	6	6	6	6	6	
5°	6	6	6	5	5	1
15°	12	7	4	4	4	4
25°	114	9	3	3	4	59
35°	334	13	2	3	3	202
45°	349	9	1	2	3	265
55°	244	2	1	2	3	209
65°	23	0	1	2	3	41
75°	0	0	0	2	2	0
85°	0	0	0	1	1	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
0°	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
2.5°	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.7	5.6
5°	6.2	6.2	6.2	6.2	6.1	6.1	6.1	6.0	6.0	5.8	5.5
7.5°	6.6	6.6	6.6	6.6	6.5	6.4	6.3	6.3	6.2	5.7	5.3
10°	7.4	7.4	7.3	7.2	7.1	6.9	6.8	6.6	6.3	5.6	5.0
12.5°	9.0	8.8	8.7	8.5	8.2	7.8	7.4	7.1	6.4	5.4	4.7
15°	11.9	11.7	11.3	10.7	10.1	9.3	8.6	7.9	6.7	5.1	4.2
17.5°	17.0	16.4	15.8	14.8	13.3	11.9	10.4	9.1	7.1	4.8	3.8
20°	30.6	30.2	26.6	23.8	19.3	16.1	13.1	10.9	7.7	4.5	3.4
22.5°	63.2	59.0	53.1	43.4	33.8	24.9	18.1	13.7	8.3	4.1	3.0
25°	113.9	107.3	94.6	76.1	56.2	39.7	26.2	17.9	9.2	3.7	2.6
27.5°	172.5	165.8	146.0	120.5	88.0	60.0	37.4	23.7	10.4	3.3	2.3
30°	234.8	229.1	204.1	168.8	124.0	84.0	50.2	29.6	11.7	2.9	2.0
31°	260.0	252.7	225.6	188.0	140.9	93.9	55.3	32.1	12.2	2.8	1.9
32°	283.1	274.8	246.7	206.4	154.7	104.6	60.9	34.3	12.6	2.6	1.8
33°	303.0	293.3	266.3	223.8	169.8	114.6	66.7	36.4	12.9	2.4	1.7
34°	319.9	311.5	282.5	241.3	183.2	124.2	72.4	38.5	13.1	2.3	1.6
35°	334.3	326.7	298.0	254.7	196.3	133.5	77.6	40.5	13.1	2.1	1.6
36°	344.0	337.4	311.4	268.3	207.3	141.4	82.0	42.3	13.1	1.9	1.5
37°	349.4	342.9	320.2	279.5	218.1	149.3	86.0	43.7	13.0	1.8	1.4
38°	352.1	346.5	326.7	288.6	225.6	154.9	89.5	44.8	12.9	1.6	1.4
39°	352.8	348.1	330.8	295.2	232.9	160.5	92.0	45.4	12.6	1.5	1.3
40°	352.3	348.2	333.0	301.1	238.5	164.9	93.8	45.6	12.3	1.3	1.3
41°	351.3	348.1	334.6	305.2	243.0	167.7	94.5	45.2	11.9	1.1	1.2
42°	350.4	346.9	335.3	308.0	246.1	169.1	94.4	44.4	11.3	1.0	1.2
43°	350.4	346.4	335.4	309.8	247.7	169.2	93.2	42.9	10.5	0.9	1.1
44°	349.8	346.1	335.9	311.0	248.1	168.3	91.3	41.3	9.6	0.8	1.1
45°	348.7	344.7	335.8	311.1	247.4	166.1	88.2	39.2	8.8	0.6	1.1
46°	346.6	343.0	334.9	310.4	245.2	162.9	84.5	37.1	7.9	0.5	1.0
47°	342.3	339.6	332.5	308.0	242.0	158.2	80.1	34.7	7.2	0.4	1.0
48°	335.1	333.2	328.4	302.7	235.9	152.4	75.4	32.1	6.5	0.4	1.0
49°	321.9	320.4	317.6	294.2	228.1	145.2	70.3	29.2	5.8	0.3	1.0
50°	311.5	309.9	304.2	279.9	216.9	136.2	64.7	26.3	5.0	0.2	0.9
51°	304.6	302.0	293.0	263.3	200.6	124.2	58.6	23.4	4.2	0.2	0.9
52°	295.9	292.0	280.8	248.4	185.7	112.2	52.0	20.5	3.7	0.2	0.9
53°	277.7	276.3	265.2	232.3	170.8	100.7	45.1	18.1	3.2	0.2	0.9
54°	261.8	259.7	244.5	210.1	154.6	87.9	38.1	16.0	2.7	0.2	0.9
55°	244.5	240.4	227.0	191.4	135.5	76.1	31.4	13.8	2.2	0.2	0.8
56°	222.8	219.2	204.8	171.4	118.0	64.1	26.3	11.3	1.7	0.2	0.8
57°	196.4	193.1	182.0	146.7	99.8	52.4	21.4	9.1	1.3	0.2	0.8
58°	170.9	167.2	154.5	123.1	80.6	41.5	17.9	7.4	1.0	0.2	0.8
59°	151.3	146.2	129.8	103.4	63.1	31.5	14.2	5.9	0.7	0.2	0.8
60°	134.9	130.8	113.8	86.1	49.5	23.2	10.5	4.5	0.4	0.2	0.8
62.5°	78.2	77.1	61.8	44.3	23.3	10.8	5.2	2.1	0.2	0.3	0.8
65°	23.3	20.3	15.8	9.4	6.0	3.6	1.9	0.7	0.1	0.3	0.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.4	0.2	0.1	0.3	0.7
70°	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.3	0.6
72.5°	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.2	0.3	0.5
75°	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.3	0.5
77.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.5
80°	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4
82.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4
85°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	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):

	112.5°	135°	157.5°	180°
0°	5.6	5.6	5.6	5.6
2.5°	5.4	5.3	5.2	5.2
5°	5.2	5.0	5.0	4.9
7.5°	4.9	4.7	4.7	4.7
10°	4.6	4.5	4.5	4.4
12.5°	4.2	4.2	4.2	4.2
15°	3.9	3.9	4.0	4.0
17.5°	3.5	3.6	3.8	3.9
20°	3.2	3.4	3.6	3.7
22.5°	3.0	3.2	3.5	3.6
25°	2.7	3.0	3.4	3.5
27.5°	2.5	2.9	3.2	3.4
30°	2.3	2.8	3.1	3.3
31°	2.3	2.7	3.1	3.3
32°	2.2	2.6	3.1	3.2
33°	2.2	2.6	3.1	3.2
34°	2.1	2.6	3.0	3.2
35°	2.1	2.6	3.0	3.2
36°	2.0	2.5	3.0	3.2
37°	2.0	2.5	3.0	3.2
38°	1.9	2.5	3.0	3.2
39°	1.9	2.5	3.0	3.2
40°	1.9	2.5	3.0	3.2
41°	1.8	2.5	3.0	3.2
42°	1.8	2.5	3.0	3.2
43°	1.8	2.4	3.0	3.2
44°	1.8	2.4	3.0	3.2
45°	1.7	2.4	3.0	3.2
46°	1.7	2.4	3.0	3.2
47°	1.7	2.4	3.0	3.2
48°	1.7	2.4	3.0	3.2
49°	1.7	2.4	3.0	3.2
50°	1.6	2.3	3.0	3.2
51°	1.6	2.3	3.0	3.2
52°	1.6	2.3	3.0	3.2
53°	1.6	2.3	3.0	3.2
54°	1.5	2.3	3.0	3.2
55°	1.5	2.3	3.0	3.2
56°	1.5	2.3	3.0	3.1
57°	1.5	2.3	2.9	3.1
58°	1.5	2.2	2.9	3.1
59°	1.5	2.2	2.9	3.1
60°	1.5	2.2	2.9	3.1
62.5°	1.4	2.2	2.8	3.0
65°	1.3	2.0	2.8	2.9



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	1.3	1.9	2.6	2.8
70°	1.2	1.8	2.5	2.7
72.5°	1.0	1.7	2.3	2.5
75°	0.9	1.5	2.1	2.3
77.5°	0.8	1.3	1.9	2.0
80°	0.7	1.1	1.6	1.8
82.5°	0.5	0.8	1.3	1.4
85°	0.4	0.6	0.9	1.0
87.5°	0.3	0.3	0.5	0.5
90°	0.0	0.0	0.0	0.0

(END OF REPORT)