

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: P1335716

Luminaire Tested: P3A02R409050DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335716
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: P3A02R409050DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R40 optic, 5000K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

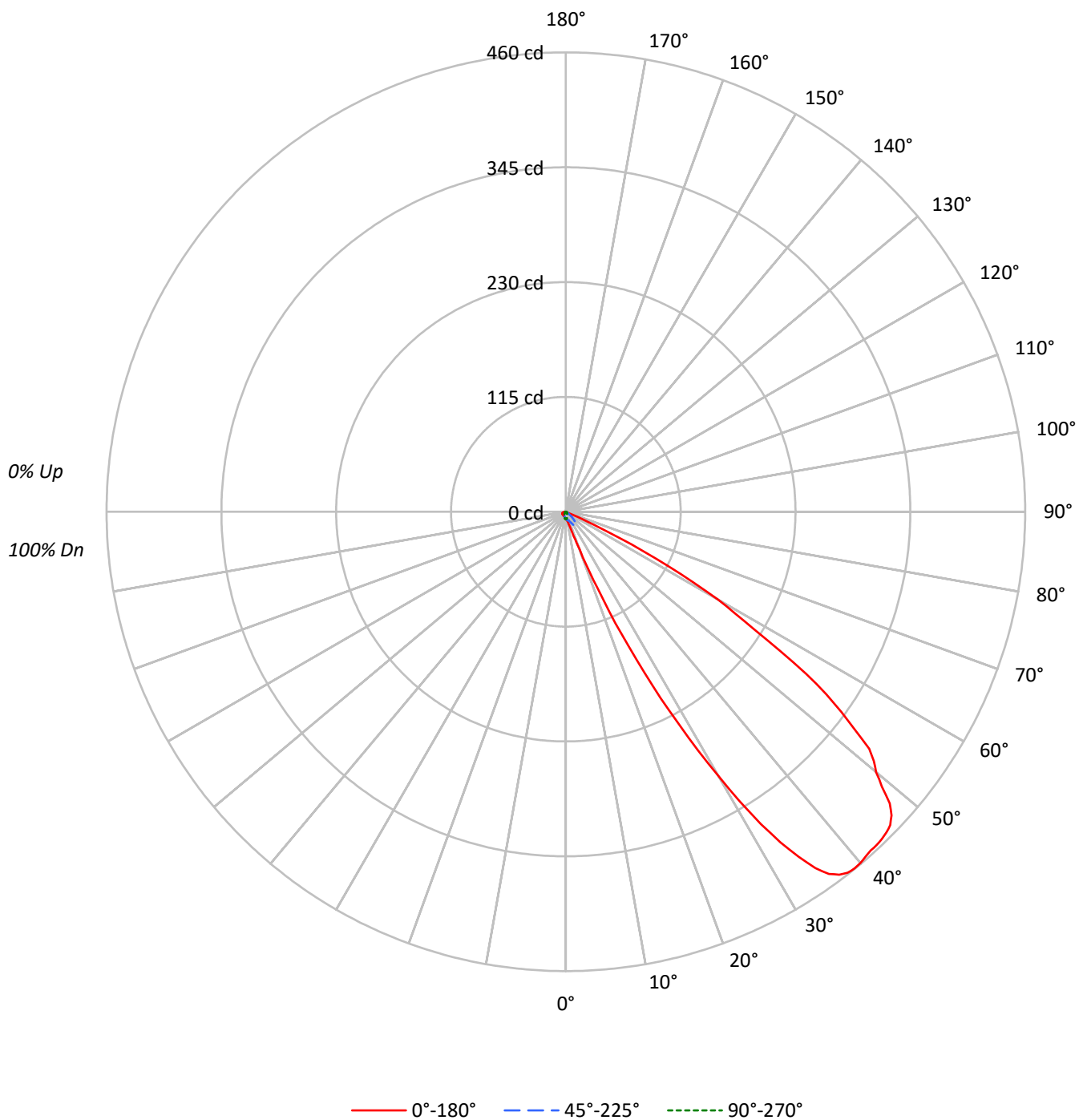
Lumens per Lamp: N/A
Luminaire Lumens: 142.0 lumens
Efficiency: N/A
Efficacy: 39.4 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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°	1601	1601	1601	1601	1601
5°	1783	1717	1585	1431	1409
10°	2160	1826	1447	1314	1269
15°	3519	1975	1249	1158	1180
20°	9311	2334	1027	1027	1120
25°	35905	2903	823	944	1113
30°	77455	3874	658	937	1089
35°	116607	4578	562	910	1124
40°	131360	4580	487	945	1202
45°	140852	3566	434	961	1302
50°	138435	2217	409	1023	1433
55°	121802	1109	382	1147	1606
60°	77099	219	439	1272	1754
65°	15773	52	467	1349	1972
70°	321	64	513	1475	2244
75°	339	254	593	1694	2542
80°	379	126	631	1768	2904
85°	252	252	1258	2013	3271

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 143401 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.7	0.5
10°-20°	2.3	1.6
20°-30°	11.0	7.8
30°-40°	35.9	25.3
40°-50°	49.5	34.8
50°-60°	34.5	24.3
60°-70°	6.5	4.6
70°-80°	1.2	0.8
80°-90°	0.5	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°	14.0	9.8
0°-40°	49.8	35.1
0°-60°	133.8	94.2
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°	7	7	7	7	7	
5°	8	8	7	6	6	1
15°	16	9	6	5	5	6
25°	148	12	3	4	5	76
35°	436	17	2	3	4	263
45°	454	12	1	3	4	345
55°	319	3	1	3	4	272
65°	30	0	1	3	4	54
75°	0	0	1	2	3	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°	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
2.5°	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.4	7.3
5°	8.1	8.1	8.1	8.1	8.0	8.0	8.0	7.8	7.8	7.6	7.2
7.5°	8.6	8.6	8.6	8.6	8.5	8.3	8.2	8.2	8.1	7.4	6.9
10°	9.7	9.7	9.5	9.4	9.3	9.0	8.9	8.6	8.2	7.3	6.5
12.5°	11.7	11.5	11.3	11.1	10.7	10.2	9.7	9.3	8.3	7.0	6.1
15°	15.5	15.3	14.7	14.0	13.2	12.1	11.2	10.3	8.7	6.7	5.5
17.5°	22.2	21.4	20.6	19.3	17.3	15.5	13.6	11.9	9.3	6.3	5.0
20°	39.9	39.4	34.7	31.0	25.2	21.0	17.1	14.2	10.0	5.9	4.4
22.5°	82.3	76.8	69.1	56.6	44.1	32.5	23.6	17.9	10.8	5.3	3.9
25°	148.4	139.8	123.2	99.1	73.2	51.8	34.2	23.3	12.0	4.8	3.4
27.5°	224.7	216.0	190.3	157.0	114.6	78.1	48.8	30.9	13.6	4.3	3.0
30°	305.9	298.5	265.9	219.9	161.6	109.4	65.3	38.6	15.3	3.8	2.6
31°	338.7	329.1	293.9	244.9	183.6	122.3	72.0	41.9	15.9	3.7	2.5
32°	368.8	358.0	321.5	268.9	201.5	136.3	79.3	44.7	16.4	3.4	2.3
33°	394.7	382.1	346.9	291.6	221.2	149.3	86.9	47.5	16.8	3.1	2.2
34°	416.8	405.8	368.0	314.4	238.6	161.8	94.3	50.2	17.1	3.0	2.1
35°	435.6	425.6	388.2	331.8	255.7	174.0	101.1	52.8	17.1	2.7	2.1
36°	448.2	439.6	405.7	349.5	270.1	184.3	106.8	55.2	17.1	2.5	2.0
37°	455.1	446.8	417.2	364.1	284.2	194.4	112.0	57.0	17.0	2.3	1.8
38°	458.6	451.3	425.6	376.0	293.9	201.7	116.6	58.4	16.8	2.1	1.8
39°	459.6	453.4	431.0	384.6	303.5	209.0	119.8	59.2	16.4	2.0	1.7
40°	458.9	453.6	433.9	392.3	310.8	214.8	122.2	59.5	16.0	1.7	1.7
41°	457.6	453.4	436.0	397.6	316.6	218.4	123.1	58.9	15.5	1.4	1.6
42°	456.4	451.9	436.9	401.3	320.7	220.3	123.0	57.9	14.7	1.3	1.6
43°	456.4	451.2	437.0	403.6	322.6	220.4	121.4	55.9	13.7	1.2	1.4
44°	455.6	450.8	437.6	405.2	323.1	219.2	118.9	53.9	12.5	1.0	1.4
45°	454.2	449.1	437.5	405.3	322.2	216.3	114.9	51.1	11.5	0.8	1.4
46°	451.5	446.9	436.3	404.4	319.5	212.2	110.1	48.4	10.3	0.7	1.3
47°	446.0	442.5	433.2	401.3	315.3	206.0	104.3	45.3	9.4	0.5	1.3
48°	436.6	434.1	427.9	394.4	307.4	198.5	98.2	41.9	8.5	0.5	1.3
49°	419.4	417.4	413.8	383.3	297.2	189.2	91.5	38.1	7.6	0.4	1.3
50°	405.8	403.7	396.3	364.6	282.6	177.5	84.2	34.3	6.5	0.3	1.2
51°	396.8	393.4	381.7	343.0	261.3	161.8	76.3	30.5	5.5	0.3	1.2
52°	385.5	380.4	365.8	323.5	241.9	146.2	67.7	26.7	4.8	0.3	1.2
53°	361.7	359.9	345.4	302.7	222.5	131.2	58.8	23.6	4.2	0.3	1.2
54°	341.0	338.3	318.6	273.7	201.3	114.5	49.7	20.9	3.5	0.3	1.2
55°	318.6	313.2	295.8	249.3	176.6	99.1	40.9	18.0	2.9	0.3	1.0
56°	290.3	285.6	266.8	223.3	153.8	83.5	34.3	14.7	2.2	0.3	1.0
57°	255.9	251.6	237.1	191.2	130.0	68.2	27.9	11.9	1.7	0.3	1.0
58°	222.6	217.8	201.2	160.4	105.0	54.1	23.3	9.7	1.3	0.3	1.0
59°	197.0	190.5	169.1	134.7	82.2	41.1	18.5	7.7	0.9	0.3	1.0
60°	175.8	170.4	148.3	112.2	64.4	30.3	13.7	5.9	0.5	0.3	1.0
62.5°	101.8	100.4	80.5	57.8	30.4	14.1	6.8	2.7	0.3	0.4	1.0
65°	30.4	26.5	20.6	12.3	7.8	4.7	2.5	0.9	0.1	0.4	0.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.5	0.3	0.1	0.4	0.9
70°	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.1	0.1	0.4	0.8
72.5°	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.1	0.3	0.4	0.7
75°	0.4	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.3	0.4	0.7
77.5°	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.3	0.4	0.7
80°	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.5
82.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.5
85°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.4	0.4
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°	7.3	7.3	7.3	7.3
2.5°	7.0	6.9	6.8	6.8
5°	6.8	6.5	6.5	6.4
7.5°	6.4	6.1	6.1	6.1
10°	6.0	5.9	5.9	5.7
12.5°	5.5	5.5	5.5	5.5
15°	5.1	5.1	5.2	5.2
17.5°	4.6	4.7	5.0	5.1
20°	4.2	4.4	4.7	4.8
22.5°	3.9	4.2	4.6	4.7
25°	3.5	3.9	4.4	4.6
27.5°	3.3	3.8	4.2	4.4
30°	3.0	3.7	4.0	4.3
31°	3.0	3.5	4.0	4.3
32°	2.9	3.4	4.0	4.2
33°	2.9	3.4	4.0	4.2
34°	2.7	3.4	3.9	4.2
35°	2.7	3.4	3.9	4.2
36°	2.6	3.3	3.9	4.2
37°	2.6	3.3	3.9	4.2
38°	2.5	3.3	3.9	4.2
39°	2.5	3.3	3.9	4.2
40°	2.5	3.3	3.9	4.2
41°	2.3	3.3	3.9	4.2
42°	2.3	3.3	3.9	4.2
43°	2.3	3.1	3.9	4.2
44°	2.3	3.1	3.9	4.2
45°	2.2	3.1	3.9	4.2
46°	2.2	3.1	3.9	4.2
47°	2.2	3.1	3.9	4.2
48°	2.2	3.1	3.9	4.2
49°	2.2	3.1	3.9	4.2
50°	2.1	3.0	3.9	4.2
51°	2.1	3.0	3.9	4.2
52°	2.1	3.0	3.9	4.2
53°	2.1	3.0	3.9	4.2
54°	2.0	3.0	3.9	4.2
55°	2.0	3.0	3.9	4.2
56°	2.0	3.0	3.9	4.0
57°	2.0	3.0	3.8	4.0
58°	2.0	2.9	3.8	4.0
59°	2.0	2.9	3.8	4.0
60°	2.0	2.9	3.8	4.0
62.5°	1.8	2.9	3.7	3.9
65°	1.7	2.6	3.7	3.8



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	1.7	2.5	3.4	3.7
70°	1.6	2.3	3.3	3.5
72.5°	1.3	2.2	3.0	3.3
75°	1.2	2.0	2.7	3.0
77.5°	1.0	1.7	2.5	2.6
80°	0.9	1.4	2.1	2.3
82.5°	0.7	1.0	1.7	1.8
85°	0.5	0.8	1.2	1.3
87.5°	0.4	0.4	0.7	0.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)