

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: P1339006

Luminaire Tested: P3A05R409830DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1339006
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: P3A05R409830DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R40 optic, 3000K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

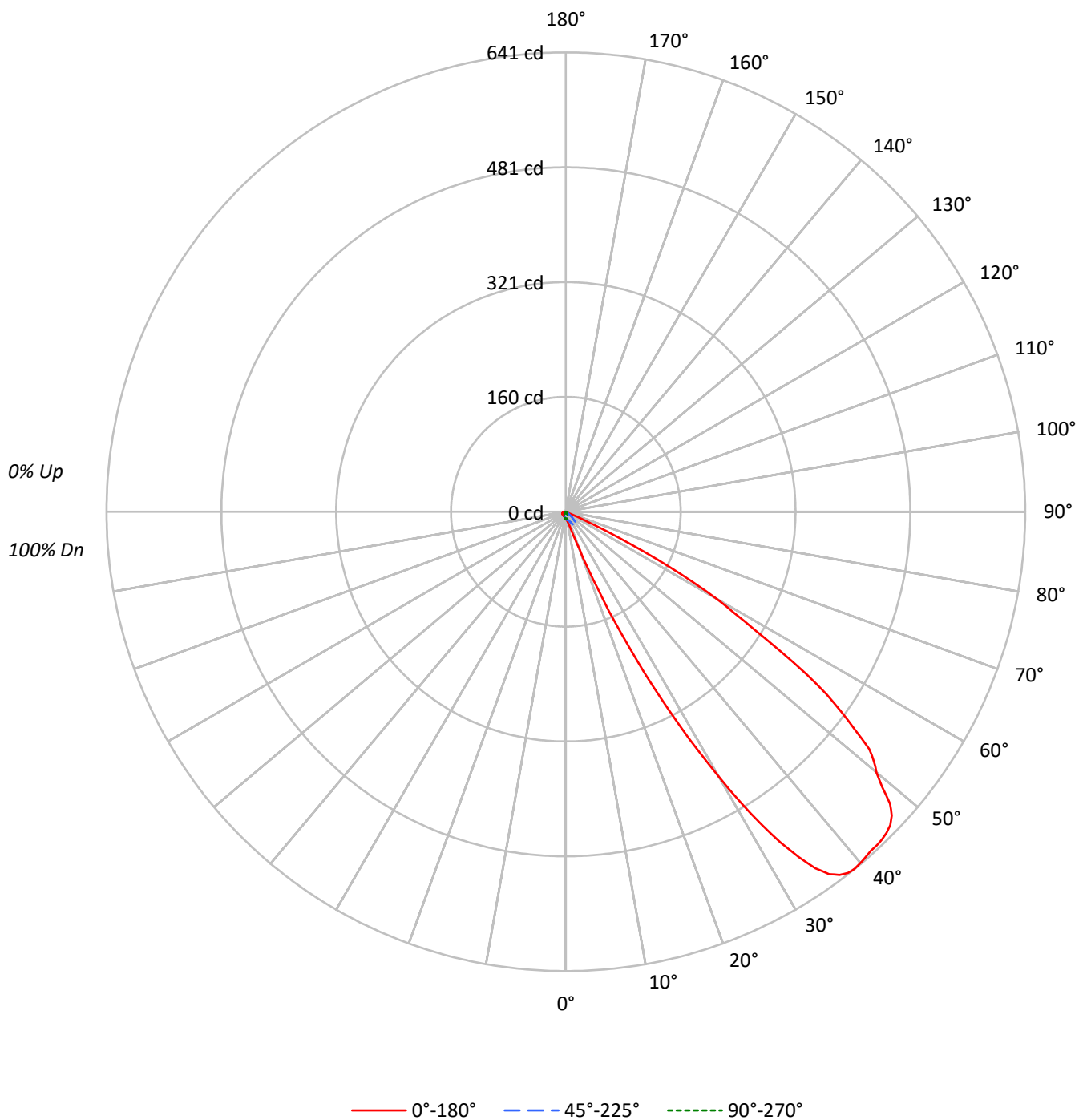
Lumens per Lamp: N/A
Luminaire Lumens: 198.0 lumens
Efficiency: N/A
Efficacy: 27.5 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 7.2
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°	2237	2237	2237	2237	2237
5°	2487	2399	2201	2003	1959
10°	3006	2561	2026	1826	1781
15°	4904	2770	1725	1612	1657
20°	12974	3267	1447	1447	1563
25°	50059	4041	1137	1331	1548
30°	108017	5393	912	1291	1519
35°	162570	6371	776	1258	1553
40°	183172	6412	687	1288	1660
45°	196392	4962	620	1364	1799
50°	193051	3104	546	1433	1979
55°	169820	1529	573	1606	2217
60°	107491	307	658	1754	2456
65°	22000	104	675	1868	2750
70°	449	128	705	2116	3142
75°	424	339	763	2288	3558
80°	505	253	884	2526	4167
85°	503	503	1761	2768	4529

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 199957 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.0	0.5
10°-20°	3.1	1.6
20°-30°	15.4	7.8
30°-40°	50.0	25.3
40°-50°	69.0	34.8
50°-60°	48.0	24.3
60°-70°	9.1	4.6
70°-80°	1.6	0.8
80°-90°	0.8	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°	19.5	9.8
0°-40°	69.5	35.1
0°-60°	186.5	94.2
0°-90°	198.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	198.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	10	10	10	10	10	
5°	11	11	10	9	9	1
15°	22	12	8	7	7	8
25°	207	17	5	6	6	107
35°	607	24	3	5	6	367
45°	633	16	2	4	6	482
55°	444	4	2	4	6	380
65°	42	0	1	4	5	75
75°	0	0	1	3	4	1
85°	0	0	1	1	2	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°	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2
2.5°	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.5	10.4	10.2
5°	11.3	11.3	11.3	11.3	11.1	11.1	11.1	10.9	10.9	10.5	10.0
7.5°	12.0	12.0	12.0	12.0	11.8	11.6	11.5	11.5	11.3	10.4	9.6
10°	13.5	13.5	13.3	13.1	12.9	12.5	12.4	12.0	11.5	10.2	9.1
12.5°	16.4	16.0	15.8	15.5	14.9	14.2	13.5	12.9	11.6	9.8	8.5
15°	21.6	21.3	20.5	19.5	18.4	16.9	15.6	14.4	12.2	9.3	7.6
17.5°	30.9	29.8	28.7	26.9	24.2	21.6	18.9	16.5	12.9	8.7	6.9
20°	55.6	54.9	48.4	43.3	35.1	29.3	23.8	19.8	14.0	8.2	6.2
22.5°	114.7	107.1	96.4	78.9	61.5	45.3	32.9	24.9	15.1	7.5	5.5
25°	206.9	194.9	171.8	138.2	102.0	72.2	47.6	32.5	16.7	6.7	4.7
27.5°	313.3	301.1	265.3	218.9	159.8	108.9	68.0	43.1	18.9	6.0	4.2
30°	426.6	416.2	370.8	306.6	225.3	152.6	91.1	53.8	21.3	5.3	3.6
31°	472.2	459.0	409.9	341.5	256.0	170.6	100.4	58.4	22.2	5.1	3.5
32°	514.2	499.1	448.2	374.9	280.9	190.0	110.6	62.4	22.9	4.7	3.3
33°	550.4	532.8	483.7	406.6	308.4	208.2	121.1	66.2	23.5	4.4	3.1
34°	581.1	565.9	513.1	438.4	332.8	225.7	131.5	70.0	23.8	4.2	2.9
35°	607.3	593.5	541.3	462.6	356.6	242.6	140.9	73.6	23.8	3.8	2.9
36°	625.0	613.0	565.7	487.3	376.6	256.9	148.9	76.9	23.8	3.5	2.7
37°	634.6	623.0	581.7	507.7	396.2	271.1	156.2	79.5	23.6	3.3	2.5
38°	639.5	629.3	593.5	524.2	409.9	281.3	162.6	81.5	23.5	2.9	2.5
39°	640.8	632.2	601.0	536.2	423.1	291.5	167.1	82.6	22.9	2.7	2.4
40°	639.9	632.4	605.0	547.0	433.3	299.5	170.4	82.9	22.4	2.4	2.4
41°	638.1	632.2	607.9	554.4	441.5	304.6	171.7	82.2	21.6	2.0	2.2
42°	636.4	630.1	609.1	559.5	447.1	307.1	171.5	80.7	20.5	1.8	2.2
43°	636.4	629.2	609.3	562.8	449.9	307.3	169.3	78.0	19.1	1.6	2.0
44°	635.3	628.6	610.2	565.0	450.6	305.7	165.8	75.1	17.5	1.5	2.0
45°	633.3	626.2	610.1	565.1	449.3	301.7	160.2	71.3	16.0	1.1	2.0
46°	629.5	623.2	608.4	563.9	445.5	295.8	153.5	67.5	14.4	0.9	1.8
47°	621.9	617.0	604.1	559.5	439.7	287.3	145.5	63.1	13.1	0.7	1.8
48°	608.8	605.3	596.6	549.9	428.6	276.8	136.9	58.4	11.8	0.7	1.8
49°	584.8	582.1	577.0	534.4	414.4	263.8	127.6	53.1	10.5	0.5	1.8
50°	565.9	563.0	552.6	508.4	394.0	247.5	117.5	47.8	9.1	0.4	1.6
51°	553.3	548.6	532.2	478.2	364.4	225.7	106.4	42.5	7.6	0.4	1.6
52°	537.5	530.4	510.0	451.1	337.3	203.8	94.4	37.3	6.7	0.4	1.6
53°	504.4	501.9	481.7	422.0	310.2	182.9	82.0	32.9	5.8	0.4	1.6
54°	475.5	471.7	444.2	381.7	280.8	159.7	69.3	29.1	4.9	0.4	1.6
55°	444.2	436.8	412.4	347.7	246.2	138.2	57.1	25.1	4.0	0.4	1.5
56°	404.8	398.2	372.0	311.3	214.4	116.4	47.8	20.5	3.1	0.4	1.5
57°	356.8	350.8	330.6	266.6	181.3	95.1	38.9	16.5	2.4	0.4	1.5
58°	310.4	303.7	280.6	223.7	146.4	75.5	32.5	13.5	1.8	0.4	1.5
59°	274.8	265.7	235.8	187.8	114.6	57.3	25.8	10.7	1.3	0.4	1.5
60°	245.1	237.7	206.7	156.4	89.8	42.2	19.1	8.2	0.7	0.4	1.5
62.5°	142.0	140.0	112.2	80.6	42.4	19.6	9.5	3.8	0.4	0.5	1.5
65°	42.4	36.9	28.7	17.1	10.9	6.5	3.5	1.3	0.2	0.5	1.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	1.3	1.3	1.3	1.3	1.3	1.3	0.7	0.4	0.2	0.5	1.3
70°	0.7	0.5	0.5	0.5	0.5	0.4	0.4	0.2	0.2	0.5	1.1
72.5°	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.2	0.4	0.5	0.9
75°	0.5	0.4	0.4	0.4	0.4	0.2	0.2	0.2	0.4	0.5	0.9
77.5°	0.4	0.4	0.4	0.4	0.2	0.2	0.2	0.2	0.4	0.5	0.9
80°	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.7
82.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.7
85°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.5	0.5
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°	10.2	10.2	10.2	10.2
2.5°	9.8	9.6	9.5	9.5
5°	9.5	9.1	9.1	8.9
7.5°	8.9	8.5	8.5	8.5
10°	8.4	8.2	8.2	8.0
12.5°	7.6	7.6	7.6	7.6
15°	7.1	7.1	7.3	7.3
17.5°	6.4	6.5	6.9	7.1
20°	5.8	6.2	6.5	6.7
22.5°	5.5	5.8	6.4	6.5
25°	4.9	5.5	6.2	6.4
27.5°	4.5	5.3	5.8	6.2
30°	4.2	5.1	5.6	6.0
31°	4.2	4.9	5.6	6.0
32°	4.0	4.7	5.6	5.8
33°	4.0	4.7	5.6	5.8
34°	3.8	4.7	5.5	5.8
35°	3.8	4.7	5.5	5.8
36°	3.6	4.5	5.5	5.8
37°	3.6	4.5	5.5	5.8
38°	3.5	4.5	5.5	5.8
39°	3.5	4.5	5.5	5.8
40°	3.5	4.5	5.5	5.8
41°	3.3	4.5	5.5	5.8
42°	3.3	4.5	5.5	5.8
43°	3.3	4.4	5.5	5.8
44°	3.3	4.4	5.5	5.8
45°	3.1	4.4	5.5	5.8
46°	3.1	4.4	5.5	5.8
47°	3.1	4.4	5.5	5.8
48°	3.1	4.4	5.5	5.8
49°	3.1	4.4	5.5	5.8
50°	2.9	4.2	5.5	5.8
51°	2.9	4.2	5.5	5.8
52°	2.9	4.2	5.5	5.8
53°	2.9	4.2	5.5	5.8
54°	2.7	4.2	5.5	5.8
55°	2.7	4.2	5.5	5.8
56°	2.7	4.2	5.5	5.6
57°	2.7	4.2	5.3	5.6
58°	2.7	4.0	5.3	5.6
59°	2.7	4.0	5.3	5.6
60°	2.7	4.0	5.3	5.6
62.5°	2.5	4.0	5.1	5.5
65°	2.4	3.6	5.1	5.3



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	2.4	3.5	4.7	5.1
70°	2.2	3.3	4.5	4.9
72.5°	1.8	3.1	4.2	4.5
75°	1.6	2.7	3.8	4.2
77.5°	1.5	2.4	3.5	3.6
80°	1.3	2.0	2.9	3.3
82.5°	0.9	1.5	2.4	2.5
85°	0.7	1.1	1.6	1.8
87.5°	0.5	0.5	0.9	0.9
90°	0.0	0.0	0.0	0.0

(END OF REPORT)