

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: P1334302

Luminaire Tested: P3A02R209024DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1334302
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-74)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A02R209024DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R20 optic, 2400K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

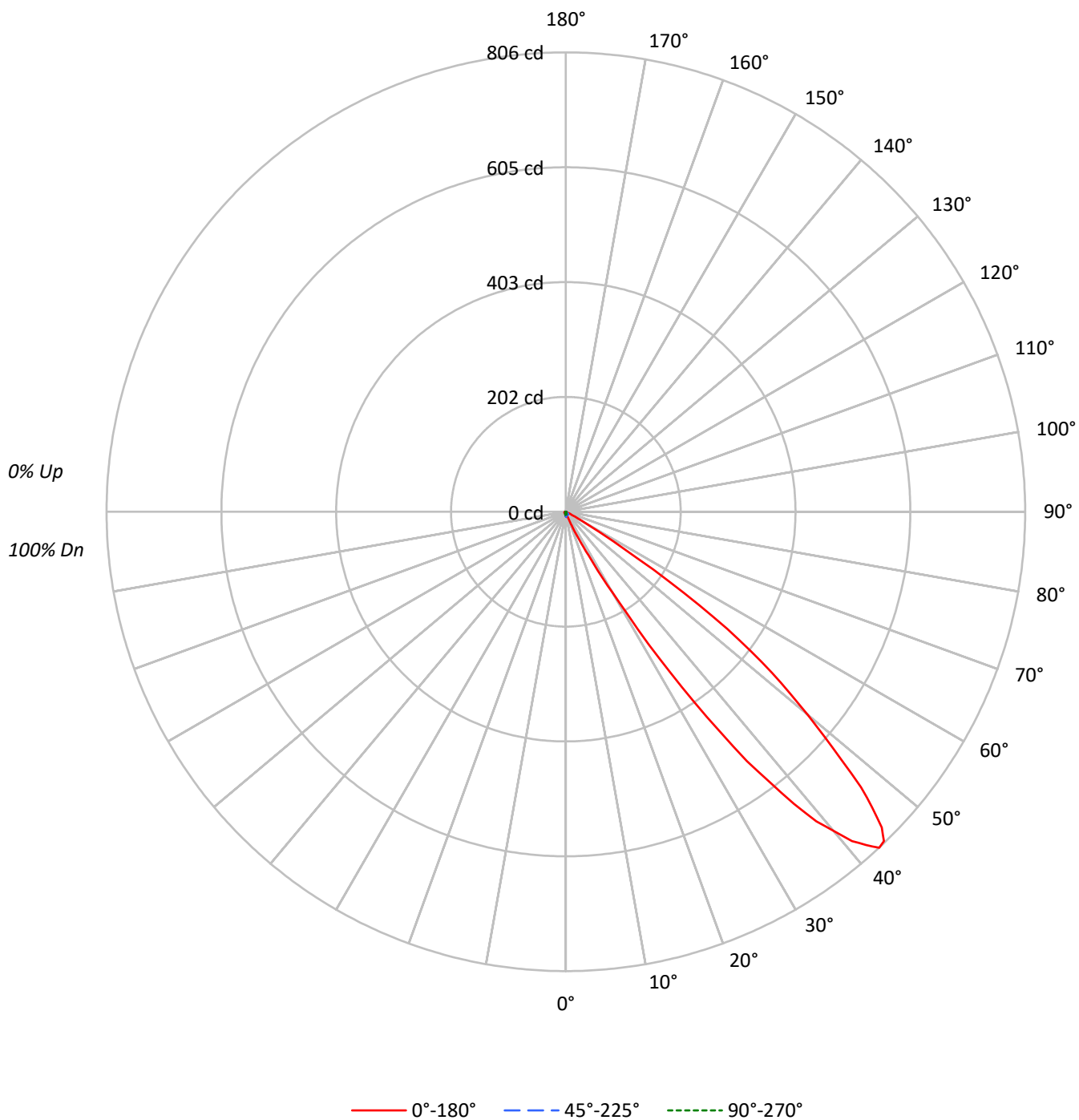
Lumens per Lamp: N/A
Luminaire Lumens: 112.0 lumens
Efficiency: N/A
Efficacy: 31.1 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	30	10	50	30
RCR																			
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	
1	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87	
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73	
3	92	81	74	67	89	80	73	67	77	71	66	74	69	65	72	67	63	61	
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51	
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42	
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35	
7	62	48	39	32	60	47	38	32	46	38	32	44	37	32	43	36	31	29	
8	57	42	33	27	55	42	33	27	40	33	27	39	32	27	38	31	27	25	
9	52	38	29	23	51	37	29	23	36	28	23	35	28	23	34	27	23	21	
10	48	34	25	20	47	33	25	20	32	25	19	31	24	19	30	24	19	17	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	1710	1710	1710	1710	1710
5°	2003	1849	1607	1387	1343
10°	1959	1692	1269	1069	1047
15°	1725	1294	931	863	908
20°	2544	1073	677	747	817
25°	11009	1113	532	653	798
30°	41601	1367	456	633	785
35°	126110	1633	428	642	830
40°	209135	1632	372	687	887
45°	243064	1116	341	713	961
50°	188685	614	307	751	1092
55°	109224	421	306	841	1185
60°	18463	88	263	877	1272
65°	1401	0	311	986	1453
70°	192	0	385	1090	1667
75°	169	85	424	1271	1949
80°	126	126	631	1389	2273
85°	252	252	1006	1258	2264

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 243064 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.7	0.6
10°-20°	1.4	1.3
20°-30°	4.5	4.0
30°-40°	28.6	25.5
40°-50°	52.3	46.7
50°-60°	21.5	19.2
60°-70°	1.8	1.6
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°	6.5	5.8
0°-40°	35.1	31.4
0°-60°	108.8	97.2
0°-90°	112.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	112.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	8	8	8	8	8	
5°	9	8	7	6	6	1
15°	8	6	4	4	4	2
25°	46	5	2	3	3	30
35°	471	6	2	2	3	298
45°	784	4	1	2	3	563
55°	286	1	1	2	3	250
65°	3	0	1	2	3	9
75°	0	0	0	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°	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
2.5°	8.5	8.5	8.5	8.4	8.4	8.5	8.4	8.4	8.4	8.4	8.3
5°	9.1	9.1	9.1	9.1	9.1	9.1	9.1	8.9	8.9	8.8	8.4
7.5°	9.3	9.3	9.3	9.3	9.2	9.2	9.2	9.2	9.1	8.9	8.2
10°	8.8	8.8	8.8	8.7	8.7	8.7	8.6	8.6	8.5	8.4	7.6
12.5°	8.0	8.0	8.0	8.0	7.9	7.9	7.8	7.8	7.7	7.6	6.6
15°	7.6	7.6	7.6	7.5	7.5	7.4	7.3	7.2	7.1	6.8	5.7
17.5°	8.2	8.2	8.1	8.1	7.9	7.7	7.6	7.3	7.1	6.7	5.1
20°	10.9	11.1	10.6	10.3	10.1	9.5	9.2	8.6	8.2	7.7	4.6
22.5°	22.1	21.7	20.9	19.8	18.4	17.3	15.2	13.5	12.3	10.7	4.5
25°	45.5	45.0	43.0	41.4	37.2	33.9	29.4	25.7	21.9	18.2	4.6
27.5°	86.4	83.6	83.0	75.4	69.5	61.0	52.3	44.9	38.2	30.7	4.9
30°	164.3	161.0	149.6	138.0	122.1	104.1	86.9	70.9	57.6	45.5	5.4
31°	208.5	211.7	198.2	174.9	151.5	128.4	104.9	84.6	67.4	52.3	5.6
32°	274.1	260.3	246.1	222.2	188.1	158.6	129.1	99.9	77.2	59.7	5.8
33°	336.1	328.0	306.3	276.5	235.6	194.2	156.0	117.9	89.1	68.6	5.9
34°	402.2	393.2	375.7	332.9	288.0	233.8	182.8	138.6	103.5	77.4	6.0
35°	471.1	467.3	433.4	396.4	341.1	275.8	215.1	161.4	117.5	85.4	6.1
36°	540.5	528.3	501.7	447.6	390.0	314.6	249.0	182.5	131.7	94.8	6.1
37°	592.7	589.9	554.8	502.1	434.3	356.1	278.3	206.0	146.0	102.9	6.1
38°	650.3	639.4	603.7	550.1	476.0	394.1	308.9	226.4	159.6	110.3	6.0
39°	698.8	682.7	646.7	593.6	512.4	422.9	333.2	246.2	171.6	116.4	5.9
40°	730.6	719.4	681.8	622.2	545.4	450.2	357.9	262.5	180.5	121.0	5.7
41°	765.6	747.1	709.9	649.9	569.4	474.2	373.3	273.2	187.5	124.1	5.5
42°	786.6	771.4	727.3	668.6	586.6	487.9	386.0	281.4	191.7	125.7	5.1
43°	806.1	785.5	742.6	679.4	597.9	497.5	391.8	285.2	192.6	125.7	4.5
44°	803.5	783.9	739.4	680.9	600.5	500.4	394.2	285.3	191.1	124.1	4.0
45°	783.8	764.4	724.3	668.0	591.4	494.8	389.3	281.1	187.0	121.4	3.6
46°	747.7	728.4	697.6	646.6	574.6	482.2	378.1	272.0	180.2	116.9	3.2
47°	708.5	689.6	658.2	611.9	545.8	459.6	361.8	259.1	170.6	110.5	2.8
48°	651.5	639.7	608.2	568.7	506.0	424.4	333.1	238.2	157.8	102.2	2.4
49°	601.2	588.8	561.1	518.7	454.0	383.3	298.9	212.7	141.0	92.9	2.1
50°	553.1	542.3	516.7	468.8	407.0	333.8	252.7	180.6	120.0	81.5	1.8
51°	506.1	498.0	471.9	427.9	365.1	295.7	218.9	150.4	99.1	67.6	1.7
52°	458.8	457.9	429.5	385.0	324.4	257.7	186.1	126.9	84.1	56.7	1.6
53°	408.0	401.9	377.1	337.1	278.9	218.1	157.8	107.0	72.4	48.3	1.4
54°	350.1	343.2	316.7	280.6	227.9	178.6	127.1	86.5	60.3	40.8	1.3
55°	285.7	274.0	254.7	217.7	178.0	136.3	98.2	68.5	48.2	34.0	1.1
56°	216.7	205.0	194.2	166.9	130.6	101.7	73.2	52.5	37.7	26.8	0.9
57°	150.7	150.1	132.3	111.4	87.4	69.3	50.1	37.0	26.6	20.8	0.7
58°	97.8	94.5	83.2	71.0	57.2	43.3	32.2	25.2	18.1	14.2	0.6
59°	68.5	62.0	55.9	47.4	36.0	27.3	20.7	16.1	12.5	9.9	0.4
60°	42.1	40.7	36.6	28.8	23.4	19.3	15.5	11.9	9.2	7.1	0.2
62.5°	12.0	12.2	11.1	9.8	8.4	7.3	6.5	5.6	4.6	3.7	0.0
65°	2.7	2.6	2.8	2.6	2.4	2.4	2.1	1.9	1.7	1.6	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°	0.8	0.8	0.7	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.0
70°	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.0
72.5°	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1
75°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1
77.5°	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1
80°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
82.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
85°	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.0	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°	7.8	7.8	7.8	7.8	7.8	7.8
2.5°	8.1	7.7	7.4	7.1	6.9	6.9
5°	7.9	7.3	6.6	6.3	6.1	6.1
7.5°	7.3	6.5	5.9	5.6	5.5	5.5
10°	6.5	5.7	5.1	4.8	4.8	4.7
12.5°	5.7	4.8	4.4	4.3	4.3	4.3
15°	4.7	4.1	3.8	3.8	3.9	4.0
17.5°	4.0	3.4	3.3	3.5	3.7	3.7
20°	3.4	2.9	2.9	3.2	3.4	3.5
22.5°	2.8	2.5	2.6	2.9	3.3	3.4
25°	2.5	2.2	2.4	2.7	3.1	3.3
27.5°	2.1	2.0	2.2	2.6	3.1	3.2
30°	1.8	1.8	2.1	2.5	2.9	3.1
31°	1.7	1.7	2.1	2.5	2.9	3.1
32°	1.6	1.7	2.0	2.5	2.9	3.1
33°	1.5	1.6	2.0	2.4	2.9	3.1
34°	1.4	1.6	2.0	2.4	2.9	3.1
35°	1.3	1.6	2.0	2.4	2.9	3.1
36°	1.2	1.5	1.9	2.4	2.9	3.1
37°	1.1	1.5	1.9	2.4	2.9	3.1
38°	0.9	1.4	1.9	2.4	2.9	3.1
39°	0.9	1.4	1.8	2.4	2.8	3.1
40°	0.8	1.3	1.8	2.4	2.8	3.1
41°	0.7	1.3	1.8	2.3	2.8	3.1
42°	0.6	1.2	1.7	2.3	2.8	3.1
43°	0.5	1.2	1.7	2.3	2.8	3.1
44°	0.5	1.1	1.7	2.3	2.8	3.1
45°	0.4	1.1	1.7	2.3	2.8	3.1
46°	0.3	1.1	1.7	2.3	2.8	3.1
47°	0.3	0.9	1.6	2.3	2.8	3.1
48°	0.2	0.9	1.6	2.3	2.8	3.1
49°	0.2	0.9	1.6	2.3	2.8	3.2
50°	0.2	0.9	1.6	2.2	2.8	3.2
51°	0.1	0.9	1.6	2.2	2.8	3.2
52°	0.1	0.9	1.5	2.2	2.9	3.2
53°	0.1	0.8	1.5	2.2	2.9	3.2
54°	0.1	0.8	1.5	2.2	2.9	3.1
55°	0.1	0.8	1.5	2.2	2.8	3.1
56°	0.1	0.7	1.5	2.2	2.8	3.1
57°	0.1	0.7	1.4	2.1	2.8	2.9
58°	0.1	0.7	1.4	2.1	2.8	2.9
59°	0.1	0.7	1.4	2.1	2.7	2.9
60°	0.2	0.6	1.3	2.0	2.7	2.9
62.5°	0.2	0.6	1.3	2.0	2.6	2.8
65°	0.2	0.6	1.2	1.9	2.6	2.8



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.2	0.5	1.1	1.8	2.5	2.7
70°	0.2	0.6	1.1	1.7	2.4	2.6
72.5°	0.3	0.5	0.9	1.6	2.3	2.5
75°	0.3	0.5	0.9	1.5	2.2	2.3
77.5°	0.4	0.5	0.8	1.3	2.0	2.1
80°	0.4	0.5	0.7	1.1	1.7	1.8
82.5°	0.4	0.5	0.5	0.8	1.3	1.4
85°	0.3	0.4	0.4	0.5	0.8	0.9
87.5°	0.3	0.4	0.3	0.2	0.4	0.4
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)