

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: P1344884

Luminaire Tested: P3A13R309024DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1344884
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-76)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R309024DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R30 optic, 2400K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

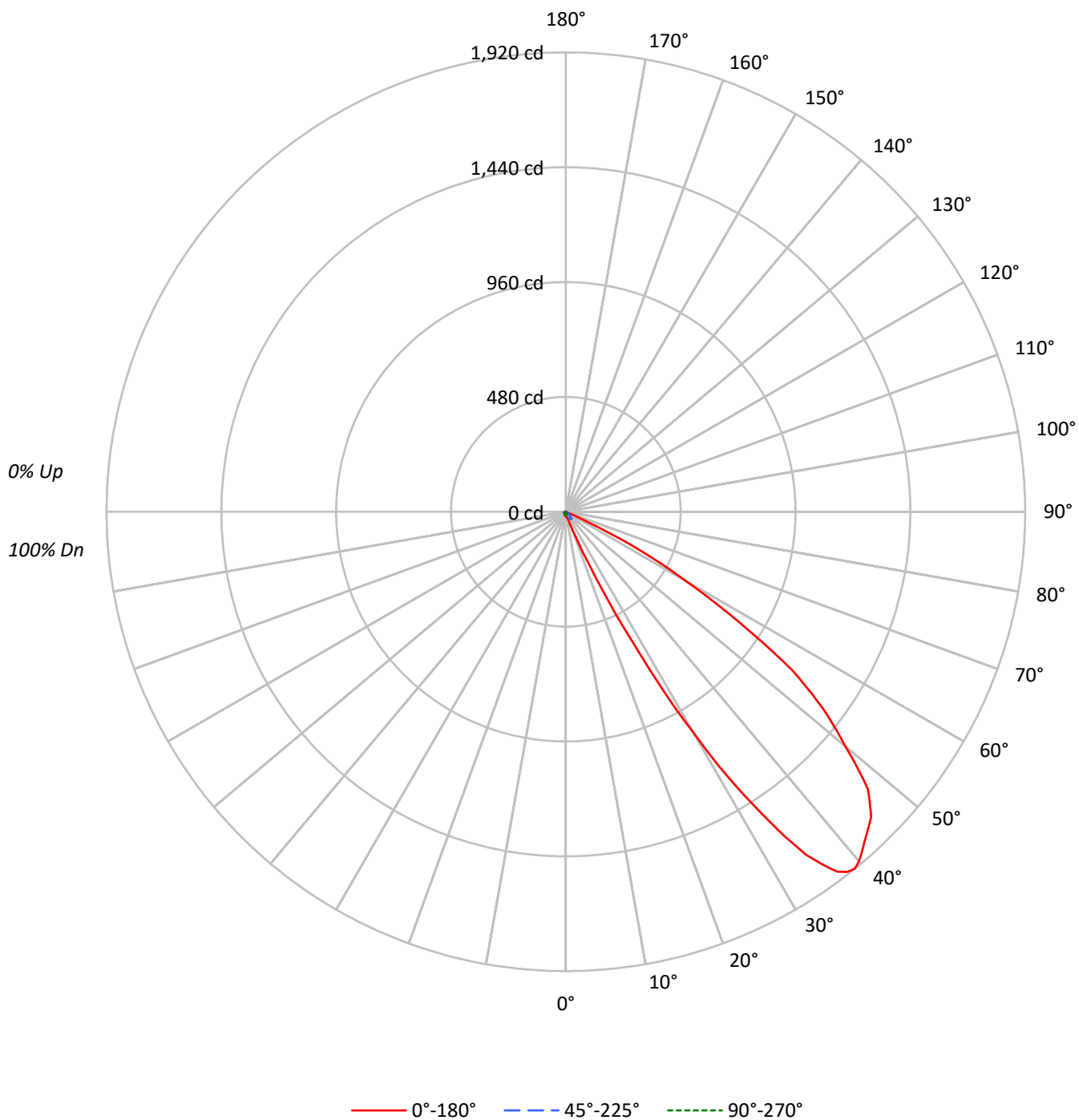
Lumens per Lamp: N/A
Luminaire Lumens: 499.0 lumens
Efficiency: N/A
Efficacy: 34.2 lumens/watt
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.44
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 14.6
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			0
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50	30	10	0
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	100	97	100	97	94		96	93	91		92	90	89	87
2	100	93	86	81	98	91	85	80	87	83	78		84	80	77		81	78	75	73
3	91	81	73	67	89	79	72	66	76	70	65		74	68	64		71	67	63	61
4	83	71	62	55	80	69	61	55	67	60	54		64	58	53		62	57	52	50
5	75	62	52	46	73	60	52	45	58	51	45		56	50	44		54	49	44	42
6	68	54	45	38	66	53	44	38	51	43	37		49	42	37		48	42	37	35
7	62	48	38	32	60	47	38	32	45	37	31		44	36	31		42	36	31	29
8	56	42	33	27	55	41	33	27	40	32	26		39	32	26		37	31	26	24
9	52	37	29	23	50	37	28	23	36	28	22		34	27	22		33	27	22	20
10	48	33	25	19	46	33	25	19	32	24	19		31	24	19		30	24	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	4232	4232	4232	4232	4232
5°	4534	4446	4160	3786	3698
10°	4965	4409	3652	3273	3184
15°	7242	4381	3065	2770	2860
20°	18248	4807	2357	2357	2637
25°	84707	6000	1839	2129	2444
30°	269687	8305	1393	2026	2456
35°	467980	10119	1124	1901	2463
40°	545765	10105	830	1918	2519
45°	559717	7164	899	2078	2729
50°	520512	4025	716	2149	3138
55°	442402	2103	803	2409	3517
60°	255506	570	921	2588	3859
65°	52146	0	1090	3061	4358
70°	833	256	1346	3526	5129
75°	678	339	1440	3558	6015
80°	505	505	2147	4293	6945
85°	0	1006	4277	4277	8554

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 559717 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.7	0.4
10°-20°	5.0	1.0
20°-30°	28.8	5.8
30°-40°	134.4	26.9
40°-50°	190.1	38.1
50°-60°	116.9	23.4
60°-70°	17.8	3.6
70°-80°	2.8	0.6
80°-90°	1.4	0.3
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°	35.6	7.1
0°-40°	170.0	34.1
0°-60°	476.9	95.6
0°-90°	499.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	499.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	19	19	19	19	19	
5°	21	20	19	17	17	2
15°	32	19	14	12	13	11
25°	350	25	8	9	10	215
35°	1748	38	4	7	9	1049
45°	1805	23	3	7	9	1368
55°	1157	6	2	6	9	985
65°	100	0	2	6	8	182
75°	1	0	2	4	7	1
85°	0	0	2	2	3	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	45°	67.5°	90°	112.5°	135°
0°	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3
2.5°	19.8	19.8	20.2	20.2	19.8	20.2	20.2	20.2	19.3	18.9	18.1
5°	20.6	20.6	20.6	21.0	20.6	20.6	20.2	19.8	18.9	17.7	17.2
7.5°	21.4	21.4	21.0	21.4	21.0	21.0	20.2	19.3	18.1	16.8	16.0
10°	22.3	22.3	21.9	21.9	21.4	21.4	19.8	18.5	16.4	15.1	14.7
12.5°	24.8	24.8	24.4	24.0	23.1	22.7	19.3	17.2	14.7	13.5	13.0
15°	31.9	31.5	30.7	29.4	27.3	26.9	19.3	16.0	13.5	12.2	12.2
17.5°	43.7	43.3	42.0	38.7	34.9	33.6	19.3	14.3	11.8	10.9	10.9
20°	78.2	74.8	68.5	60.1	51.3	46.7	20.6	12.6	10.1	9.7	10.1
21°	102.1	98.8	90.8	76.9	61.4	56.3	21.4	12.2	9.7	9.2	10.1
22°	139.1	135.3	119.0	100.0	77.8	68.9	21.9	11.3	8.8	8.8	9.7
23°	194.2	187.9	160.1	129.9	97.1	84.5	22.7	10.9	8.4	8.8	9.2
24°	254.3	248.8	217.3	171.9	124.0	105.9	23.5	10.5	8.0	8.0	8.8
25°	350.1	343.8	287.9	216.9	157.2	127.4	24.8	9.7	7.6	7.6	8.8
26°	474.1	445.1	370.7	279.5	193.8	159.7	26.1	9.2	7.1	7.6	8.4
27°	591.8	567.9	484.2	358.5	239.6	196.3	27.7	8.8	6.7	7.1	8.4
28°	746.5	712.9	607.4	453.5	301.8	237.5	29.4	8.4	6.3	7.1	8.0
29°	919.7	872.6	745.3	560.3	372.0	283.7	31.1	8.0	5.9	6.7	8.0
30°	1065.1	1021.0	893.6	686.8	452.7	344.7	32.8	7.6	5.5	6.7	8.0
31°	1235.8	1169.0	1014.7	794.0	522.1	405.6	34.5	6.7	5.0	6.3	7.6
32°	1374.1	1327.4	1163.5	915.1	613.3	472.9	35.7	6.3	5.0	6.3	7.6
33°	1507.7	1445.1	1286.7	1031.1	695.7	541.8	37.0	5.9	4.6	5.9	7.6
34°	1635.5	1577.9	1403.1	1124.8	773.4	607.4	37.8	5.0	4.6	5.9	7.1
35°	1748.2	1681.3	1505.6	1216.5	853.3	667.1	37.8	4.6	4.2	5.5	7.1
36°	1821.3	1773.4	1594.8	1306.8	925.6	723.8	37.8	4.2	3.8	5.5	6.7
37°	1883.9	1828.0	1666.2	1376.2	979.0	769.2	37.8	3.8	3.8	5.5	6.7
38°	1909.6	1861.7	1715.4	1437.6	1029.0	815.5	37.4	3.4	3.4	5.0	6.7
39°	1919.7	1876.8	1752.4	1481.7	1066.0	846.6	36.6	2.9	3.4	5.0	6.7
40°	1906.6	1874.3	1771.3	1510.3	1095.4	869.3	35.3	2.5	2.9	5.0	6.7
42.5°	1852.8	1831.4	1767.1	1538.9	1120.6	886.1	30.7	1.7	2.9	4.6	6.7
45°	1804.9	1781.4	1724.6	1509.0	1087.8	852.9	23.1	0.8	2.9	4.6	6.7
47.5°	1712.0	1697.3	1652.8	1432.9	1016.0	778.0	16.4	0.4	2.5	4.2	6.3
50°	1525.8	1512.0	1453.1	1244.2	873.9	657.8	11.8	0.4	2.1	4.2	6.3
52.5°	1358.9	1344.2	1259.7	1034.4	671.3	482.1	7.6	0.4	2.1	4.2	6.3
55°	1157.2	1131.5	1020.6	785.2	475.8	323.2	5.5	0.4	2.1	3.8	6.3
57.5°	856.6	819.2	720.0	535.5	274.1	175.3	2.9	0.4	2.1	3.8	6.3
60°	582.6	560.3	450.6	282.5	116.9	74.0	1.3	0.4	2.1	3.8	5.9
62.5°	353.1	324.9	226.6	120.2	50.4	33.6	0.0	0.8	2.1	3.8	5.9
65°	100.5	89.1	59.3	27.3	14.3	10.9	0.0	0.8	2.1	3.8	5.9
67.5°	3.4	3.4	3.4	2.9	2.1	2.1	0.4	0.8	2.1	3.8	5.5
70°	1.3	1.3	1.3	0.8	0.8	0.4	0.4	0.8	2.1	3.4	5.5
72.5°	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.8	1.7	2.9	5.0
75°	0.8	0.8	0.8	0.4	0.4	0.4	0.4	1.3	1.7	2.9	4.2
77.5°	0.8	0.8	0.8	0.4	0.4	0.4	0.4	1.3	1.7	2.5	4.2
80°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.3	1.7	2.5	3.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	45°	67.5°	90°	112.5°	135°
82.5°	0.4	0.4	0.4	0.0	0.0	0.0	0.4	1.3	1.7	1.7	2.5
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.3	1.7	1.3	1.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.3	1.3	1.3	0.8
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):

	157.5°	180°
0°	19.3	19.3
2.5°	18.1	18.1
5°	16.8	16.8
7.5°	15.6	15.6
10°	14.3	14.3
12.5°	13.5	13.5
15°	12.2	12.6
17.5°	11.3	11.8
20°	10.9	11.3
21°	10.9	11.3
22°	10.5	10.9
23°	10.5	10.9
24°	10.1	10.5
25°	9.7	10.1
26°	9.7	10.1
27°	9.7	10.1
28°	9.2	10.1
29°	9.2	9.7
30°	9.2	9.7
31°	8.8	9.7
32°	8.8	9.7
33°	8.8	9.2
34°	8.4	9.2
35°	8.4	9.2
36°	8.4	9.2
37°	8.4	8.8
38°	8.4	9.2
39°	8.4	8.8
40°	8.4	8.8
42.5°	8.4	8.8
45°	8.4	8.8
47.5°	8.4	9.2
50°	8.4	9.2
52.5°	8.4	9.2
55°	8.4	9.2
57.5°	8.4	8.8
60°	8.4	8.8
62.5°	8.0	8.8
65°	8.0	8.4
67.5°	8.0	8.4
70°	7.6	8.0
72.5°	7.1	7.6
75°	6.3	7.1
77.5°	5.9	6.3
80°	5.0	5.5

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CANDELA DISTRIBUTION (continued):

	157.5°	180°
82.5°	4.2	4.2
85°	2.9	3.4
87.5°	1.7	1.7
90°	0.0	0.0

(END OF REPORT)