

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: P1344978

Luminaire Tested: P3A13R309050DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1344978
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: P3A13R309050DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R30 optic, 5000K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

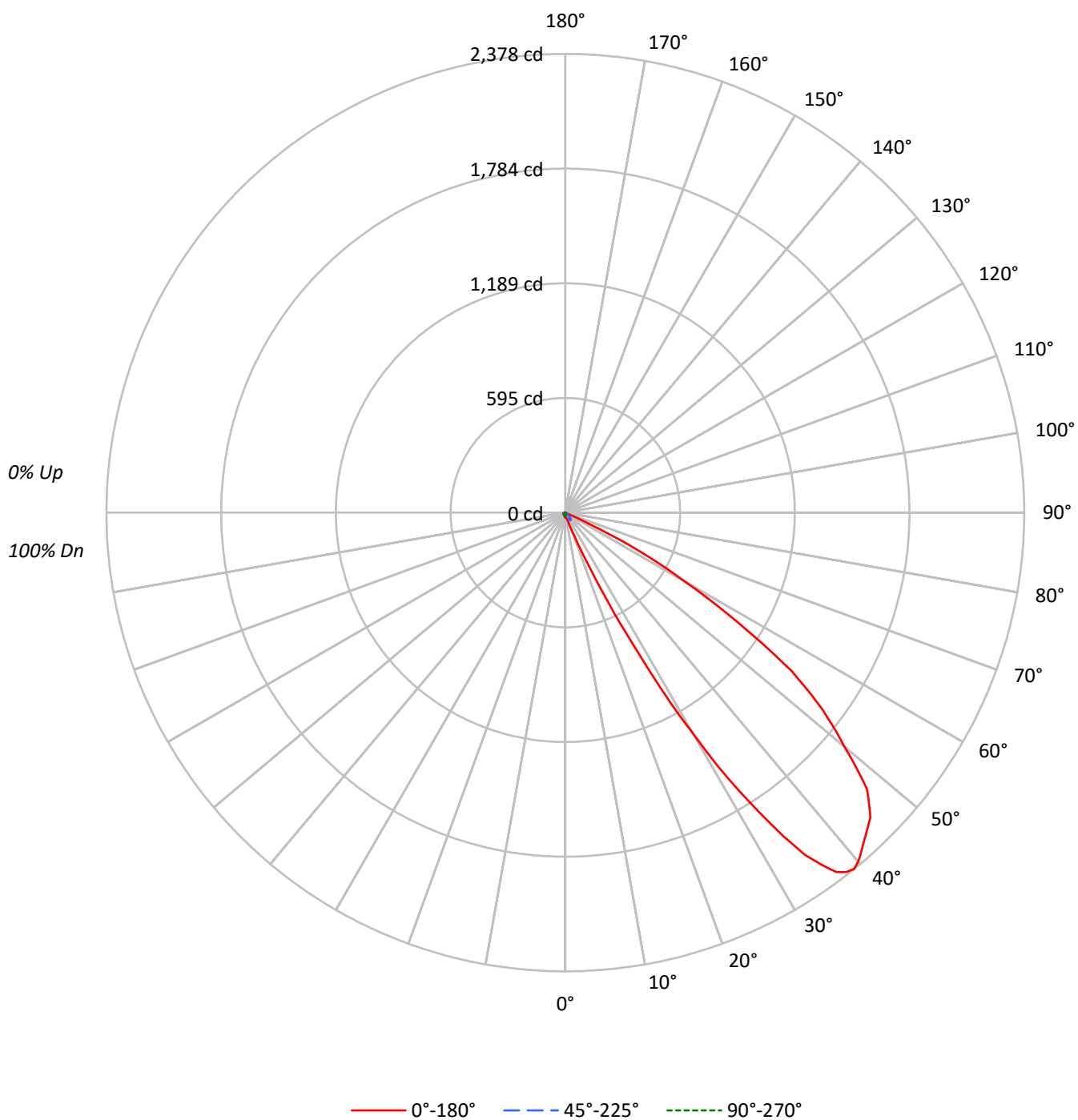
Lumens per Lamp: N/A
Luminaire Lumens: 618.0 lumens
Efficiency: N/A
Efficacy: 42.3 lumens/watt
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.44
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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°	5241	5241	5241	5241	5241
5°	5613	5503	5151	4689	4578
10°	6146	5455	4520	4052	3941
15°	8990	5426	3791	3428	3541
20°	22589	5951	2917	2917	3290
25°	104909	7428	2274	2637	3024
30°	334001	10280	1722	2507	3038
35°	579581	12555	1392	2356	3078
40°	675924	12509	1031	2376	3120
45°	693219	8869	1116	2574	3380
50°	644653	4981	887	2661	3923
55°	547880	2600	994	2982	4396
60°	316422	702	1140	3201	4780
65°	64546	0	1349	3788	5396
70°	1026	321	1667	4360	6347
75°	847	424	1779	4406	7456
80°	631	631	2652	5304	8587
85°	0	1258	5284	5284	10567

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 693219 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.2	0.4
10°-20°	6.2	1.0
20°-30°	35.6	5.8
30°-40°	166.5	26.9
40°-50°	235.4	38.1
50°-60°	144.8	23.4
60°-70°	22.1	3.6
70°-80°	3.5	0.6
80°-90°	1.8	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°	44.0	7.1
0°-40°	210.5	34.1
0°-60°	590.7	95.6
0°-90°	618.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	618.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	24	24	24	24	24	
5°	26	25	23	21	21	2
15°	40	24	17	15	16	14
25°	434	31	9	11	12	267
35°	2165	47	5	9	12	1299
45°	2235	29	4	8	11	1695
55°	1433	7	3	8	12	1219
65°	124	0	3	7	10	225
75°	1	0	2	5	9	1
85°	0	0	2	2	4	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°	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9
2.5°	24.5	24.5	25.0	25.0	24.5	25.0	25.0	25.0	23.9	23.4	22.4
5°	25.5	25.5	25.5	26.0	25.5	25.5	25.0	24.5	23.4	21.9	21.3
7.5°	26.5	26.5	26.0	26.5	26.0	26.0	25.0	23.9	22.4	20.8	19.8
10°	27.6	27.6	27.1	27.1	26.5	26.5	24.5	22.9	20.3	18.7	18.2
12.5°	30.7	30.7	30.2	29.7	28.6	28.1	23.9	21.3	18.2	16.7	16.1
15°	39.6	39.0	38.0	36.4	33.8	33.3	23.9	19.8	16.7	15.1	15.1
17.5°	54.1	53.6	52.1	47.9	43.2	41.6	23.9	17.7	14.6	13.5	13.5
20°	96.8	92.7	84.9	74.4	63.5	57.8	25.5	15.6	12.5	12.0	12.5
21°	126.5	122.3	112.4	95.3	76.0	69.8	26.5	15.1	12.0	11.5	12.5
22°	172.3	167.6	147.3	123.9	96.3	85.4	27.1	14.1	10.9	10.9	12.0
23°	240.5	232.7	198.3	160.9	120.3	104.6	28.1	13.5	10.4	10.9	11.5
24°	314.9	308.2	269.1	212.9	153.6	131.2	29.2	13.0	9.9	9.9	10.9
25°	433.6	425.8	356.6	268.6	194.7	157.7	30.7	12.0	9.4	9.4	10.9
26°	587.2	551.3	459.1	346.2	240.0	197.8	32.3	11.5	8.8	9.4	10.4
27°	733.0	703.3	599.7	444.1	296.7	243.1	34.4	10.9	8.3	8.8	10.4
28°	924.5	882.9	752.2	561.7	373.8	294.1	36.4	10.4	7.8	8.8	9.9
29°	1139.0	1080.7	923.0	693.9	460.7	351.4	38.5	9.9	7.3	8.3	9.9
30°	1319.1	1264.5	1106.7	850.6	560.7	426.9	40.6	9.4	6.8	8.3	9.9
31°	1530.5	1447.7	1256.7	983.4	646.6	502.4	42.7	8.3	6.2	7.8	9.4
32°	1701.8	1644.0	1441.0	1133.3	759.5	585.6	44.2	7.8	6.2	7.8	9.4
33°	1867.3	1789.7	1593.5	1277.0	861.6	671.0	45.8	7.3	5.7	7.3	9.4
34°	2025.6	1954.2	1737.7	1393.1	957.9	752.2	46.9	6.2	5.7	7.3	8.8
35°	2165.1	2082.3	1864.7	1506.6	1056.8	826.2	46.9	5.7	5.2	6.8	8.8
36°	2255.7	2196.3	1975.1	1618.5	1146.3	896.4	46.9	5.2	4.7	6.8	8.3
37°	2333.2	2264.0	2063.6	1704.4	1212.4	952.7	46.9	4.7	4.7	6.8	8.3
38°	2365.0	2305.6	2124.5	1780.4	1274.4	1009.9	46.3	4.2	4.2	6.2	8.3
39°	2377.5	2324.4	2170.3	1835.0	1320.2	1048.4	45.3	3.6	4.2	6.2	8.3
40°	2361.3	2321.3	2193.7	1870.4	1356.6	1076.6	43.7	3.1	3.6	6.2	8.3
42.5°	2294.7	2268.2	2188.5	1905.8	1387.9	1097.4	38.0	2.1	3.6	5.7	8.3
45°	2235.4	2206.2	2135.9	1868.9	1347.3	1056.3	28.6	1.0	3.6	5.7	8.3
47.5°	2120.3	2102.1	2046.9	1774.6	1258.2	963.6	20.3	0.5	3.1	5.2	7.8
50°	1889.7	1872.5	1799.6	1540.9	1082.3	814.7	14.6	0.5	2.6	5.2	7.8
52.5°	1683.0	1664.8	1560.2	1281.1	831.4	597.1	9.4	0.5	2.6	5.2	7.8
55°	1433.1	1401.4	1264.0	972.4	589.3	400.3	6.8	0.5	2.6	4.7	7.8
57.5°	1060.9	1014.6	891.7	663.2	339.4	217.1	3.6	0.5	2.6	4.7	7.8
60°	721.5	693.9	558.1	349.8	144.7	91.6	1.6	0.5	2.6	4.7	7.3
62.5°	437.3	402.4	280.6	148.9	62.5	41.6	0.0	1.0	2.6	4.7	7.3
65°	124.4	110.4	73.4	33.8	17.7	13.5	0.0	1.0	2.6	4.7	7.3
67.5°	4.2	4.2	4.2	3.6	2.6	2.6	0.5	1.0	2.6	4.7	6.8
70°	1.6	1.6	1.6	1.0	1.0	0.5	0.5	1.0	2.6	4.2	6.8
72.5°	1.0	1.0	1.0	1.0	0.5	0.5	0.5	1.0	2.1	3.6	6.2
75°	1.0	1.0	1.0	0.5	0.5	0.5	0.5	1.6	2.1	3.6	5.2
77.5°	1.0	1.0	1.0	0.5	0.5	0.5	0.5	1.6	2.1	3.1	5.2
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.6	2.1	3.1	4.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	45°	67.5°	90°	112.5°	135°
82.5°	0.5	0.5	0.5	0.0	0.0	0.0	0.5	1.6	2.1	2.1	3.1
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.6	2.1	1.6	2.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.6	1.6	1.6	1.0
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°	23.9	23.9
2.5°	22.4	22.4
5°	20.8	20.8
7.5°	19.3	19.3
10°	17.7	17.7
12.5°	16.7	16.7
15°	15.1	15.6
17.5°	14.1	14.6
20°	13.5	14.1
21°	13.5	14.1
22°	13.0	13.5
23°	13.0	13.5
24°	12.5	13.0
25°	12.0	12.5
26°	12.0	12.5
27°	12.0	12.5
28°	11.5	12.5
29°	11.5	12.0
30°	11.5	12.0
31°	10.9	12.0
32°	10.9	12.0
33°	10.9	11.5
34°	10.4	11.5
35°	10.4	11.5
36°	10.4	11.5
37°	10.4	10.9
38°	10.4	11.5
39°	10.4	10.9
40°	10.4	10.9
42.5°	10.4	10.9
45°	10.4	10.9
47.5°	10.4	11.5
50°	10.4	11.5
52.5°	10.4	11.5
55°	10.4	11.5
57.5°	10.4	10.9
60°	10.4	10.9
62.5°	9.9	10.9
65°	9.9	10.4
67.5°	9.9	10.4
70°	9.4	9.9
72.5°	8.8	9.4
75°	7.8	8.8
77.5°	7.3	7.8
80°	6.2	6.8

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CANDELA DISTRIBUTION (continued):

	157.5°	180°
82.5°	5.2	5.2
85°	3.6	4.2
87.5°	2.1	2.1
90°	0.0	0.0

(END OF REPORT)