

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: P1335092

Luminaire Tested: P3A02R309735DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335092
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: P3A02R309735DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R30 optic, 3500K CCT AND, 97CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

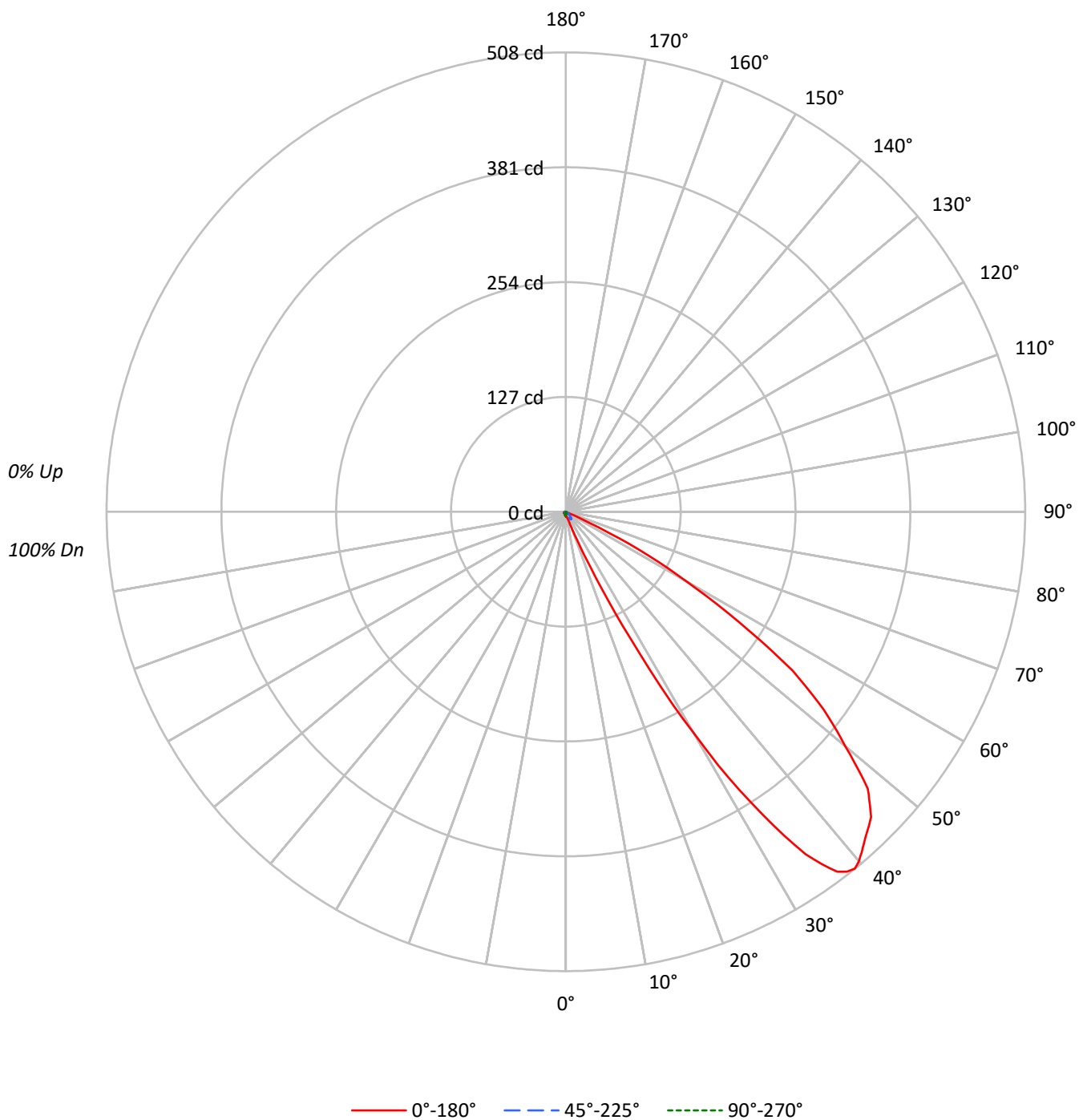
Lumens per Lamp: N/A
Luminaire Lumens: 132.0 lumens
Efficiency: N/A
Efficacy: 36.7 lumens/watt
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.44
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 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

TEST NUMBER: P1335092

CATALOG NUMBER: P3A02R309735DE010 E3A451WMH

Luminous Intensity Polar Plot



TEST NUMBER: P1335092

CATALOG NUMBER: P3A02R309735DE010 E3A451WMH

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	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	100
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	89	89	87
2	100	93	86	81	98	91	85	80	87	83	78	84	80	77	81	78	75	75	75	73
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	63	63	61
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	52	52	52	50
5	75	62	52	46	73	60	52	45	58	51	45	56	50	44	54	49	44	44	44	42
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	48	42	37	37	37	35
7	62	48	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31	31	31	29
8	56	42	33	27	55	41	33	27	40	32	26	39	32	26	37	31	26	26	26	24
9	52	37	29	23	50	37	28	23	36	28	22	34	27	22	33	27	22	22	22	20
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	24	19	19	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	1118	1118	1118	1118	1118
5°	1189	1167	1101	1013	969
10°	1314	1158	957	868	846
15°	1930	1158	817	726	749
20°	4830	1260	630	630	700
25°	22405	1597	484	556	653
30°	71353	2203	354	532	658
35°	123781	2677	294	509	642
40°	144385	2662	229	515	658
45°	148077	1892	248	558	713
50°	137684	1058	205	580	819
55°	117023	535	229	650	918
60°	67582	132	263	702	1009
65°	13802	0	311	830	1141
70°	192	64	385	898	1346
75°	169	85	339	932	1610
80°	126	126	505	1137	1768
85°	0	252	1006	1006	2264

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 148077 cd/sqm

TEST NUMBER: P1335092

CATALOG NUMBER: P3A02R309735DE010 E3A451WMH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.5	0.3
10°-20°	1.3	1.0
20°-30°	7.6	5.8
30°-40°	35.6	26.9
40°-50°	50.3	38.1
50°-60°	30.9	23.4
60°-70°	4.7	3.6
70°-80°	0.7	0.6
80°-90°	0.4	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°	9.4	7.1
0°-40°	45.0	34.1
0°-60°	126.2	95.6
0°-90°	132.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	132.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	5	5	5	5	5	
5°	5	5	5	5	4	1
15°	8	5	4	3	3	3
25°	93	7	2	2	3	57
35°	462	10	1	2	2	278
45°	478	6	1	2	2	362
55°	306	1	1	2	2	260
65°	27	0	1	2	2	48
75°	0	0	0	1	2	0
85°	0	0	0	0	1	0
90°	0	0	0	0	0	

TEST NUMBER: P1335092

CATALOG NUMBER: P3A02R309735DE010 E3A451WMH

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	45°	67.5°	90°	112.5°	135°
0°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
2.5°	5.2	5.2	5.3	5.3	5.2	5.3	5.3	5.3	5.1	5.0	4.8
5°	5.4	5.4	5.4	5.6	5.4	5.4	5.3	5.2	5.0	4.7	4.6
7.5°	5.7	5.7	5.6	5.7	5.6	5.6	5.3	5.1	4.8	4.4	4.2
10°	5.9	5.9	5.8	5.8	5.7	5.7	5.2	4.9	4.3	4.0	3.9
12.5°	6.6	6.6	6.4	6.3	6.1	6.0	5.1	4.6	3.9	3.6	3.4
15°	8.5	8.3	8.1	7.8	7.2	7.1	5.1	4.2	3.6	3.2	3.2
17.5°	11.6	11.5	11.1	10.2	9.2	8.9	5.1	3.8	3.1	2.9	2.9
20°	20.7	19.8	18.1	15.9	13.6	12.3	5.4	3.3	2.7	2.6	2.7
21°	27.0	26.1	24.0	20.3	16.2	14.9	5.7	3.2	2.6	2.4	2.7
22°	36.8	35.8	31.5	26.5	20.6	18.2	5.8	3.0	2.3	2.3	2.6
23°	51.4	49.7	42.4	34.4	25.7	22.3	6.0	2.9	2.2	2.3	2.4
24°	67.3	65.8	57.5	45.5	32.8	28.0	6.2	2.8	2.1	2.1	2.3
25°	92.6	91.0	76.2	57.4	41.6	33.7	6.6	2.6	2.0	2.0	2.3
26°	125.4	117.8	98.1	73.9	51.3	42.3	6.9	2.4	1.9	2.0	2.2
27°	156.6	150.2	128.1	94.8	63.4	51.9	7.3	2.3	1.8	1.9	2.2
28°	197.5	188.6	160.7	120.0	79.8	62.8	7.8	2.2	1.7	1.9	2.1
29°	243.3	230.8	197.1	148.2	98.4	75.1	8.2	2.1	1.6	1.8	2.1
30°	281.8	270.1	236.4	181.7	119.8	91.2	8.7	2.0	1.4	1.8	2.1
31°	326.9	309.2	268.4	210.0	138.1	107.3	9.1	1.8	1.3	1.7	2.0
32°	363.5	351.1	307.8	242.1	162.2	125.1	9.5	1.7	1.3	1.7	2.0
33°	398.8	382.3	340.4	272.8	184.0	143.3	9.8	1.6	1.2	1.6	2.0
34°	432.6	417.4	371.2	297.5	204.6	160.7	10.0	1.3	1.2	1.6	1.9
35°	462.4	444.8	398.3	321.8	225.7	176.5	10.0	1.2	1.1	1.4	1.9
36°	481.8	469.1	421.9	345.7	244.8	191.5	10.0	1.1	1.0	1.4	1.8
37°	498.4	483.6	440.8	364.0	259.0	203.5	10.0	1.0	1.0	1.4	1.8
38°	505.1	492.5	453.8	380.3	272.2	215.7	9.9	0.9	0.9	1.3	1.8
39°	507.8	496.5	463.6	391.9	282.0	223.9	9.7	0.8	0.9	1.3	1.8
40°	504.4	495.8	468.6	399.5	289.8	229.9	9.3	0.7	0.8	1.3	1.8
42.5°	490.1	484.5	467.4	407.1	296.4	234.4	8.1	0.4	0.8	1.2	1.8
45°	477.5	471.2	456.2	399.2	287.8	225.6	6.1	0.2	0.8	1.2	1.8
47.5°	452.9	449.0	437.2	379.1	268.7	205.8	4.3	0.1	0.7	1.1	1.7
50°	403.6	400.0	384.4	329.1	231.2	174.0	3.1	0.1	0.6	1.1	1.7
52.5°	359.5	355.6	333.2	273.6	177.6	127.5	2.0	0.1	0.6	1.1	1.7
55°	306.1	299.3	270.0	207.7	125.9	85.5	1.4	0.1	0.6	1.0	1.7
57.5°	226.6	216.7	190.5	141.7	72.5	46.4	0.8	0.1	0.6	1.0	1.7
60°	154.1	148.2	119.2	74.7	30.9	19.6	0.3	0.1	0.6	1.0	1.6
62.5°	93.4	86.0	59.9	31.8	13.3	8.9	0.0	0.2	0.6	1.0	1.6
65°	26.6	23.6	15.7	7.2	3.8	2.9	0.0	0.2	0.6	1.0	1.6
67.5°	0.9	0.9	0.9	0.8	0.6	0.6	0.1	0.2	0.6	1.0	1.4
70°	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.2	0.6	0.9	1.4
72.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.4	0.8	1.3
75°	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.3	0.4	0.8	1.1
77.5°	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.3	0.4	0.7	1.1
80°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4	0.7	0.9



TEST NUMBER: P1335092

CATALOG NUMBER: P3A02R309735DE010 E3A451WMH

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	45°	67.5°	90°	112.5°	135°
82.5°	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.3	0.4	0.4	0.7
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.4	0.3	0.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.3	0.3	0.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1335092

CATALOG NUMBER: P3A02R309735DE010 E3A451WMH

CANDELA DISTRIBUTION (continued):

	157.5°	180°
0°	5.1	5.1
2.5°	4.8	4.8
5°	4.4	4.4
7.5°	4.1	4.1
10°	3.8	3.8
12.5°	3.6	3.6
15°	3.2	3.3
17.5°	3.0	3.1
20°	2.9	3.0
21°	2.9	3.0
22°	2.8	2.9
23°	2.8	2.9
24°	2.7	2.8
25°	2.6	2.7
26°	2.6	2.7
27°	2.6	2.7
28°	2.4	2.7
29°	2.4	2.6
30°	2.4	2.6
31°	2.3	2.6
32°	2.3	2.6
33°	2.3	2.4
34°	2.2	2.4
35°	2.2	2.4
36°	2.2	2.4
37°	2.2	2.3
38°	2.2	2.4
39°	2.2	2.3
40°	2.2	2.3
42.5°	2.2	2.3
45°	2.2	2.3
47.5°	2.2	2.4
50°	2.2	2.4
52.5°	2.2	2.4
55°	2.2	2.4
57.5°	2.2	2.3
60°	2.2	2.3
62.5°	2.1	2.3
65°	2.1	2.2
67.5°	2.1	2.2
70°	2.0	2.1
72.5°	1.9	2.0
75°	1.7	1.9
77.5°	1.6	1.7
80°	1.3	1.4



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CANDELA DISTRIBUTION (continued):

	157.5°	180°
82.5°	1.1	1.1
85°	0.8	0.9
87.5°	0.4	0.4
90°	0.0	0.0

(END OF REPORT)