

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: P1335172

Luminaire Tested: P3A02R309840DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335172
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: P3A02R309840DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R30 optic, 4000K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

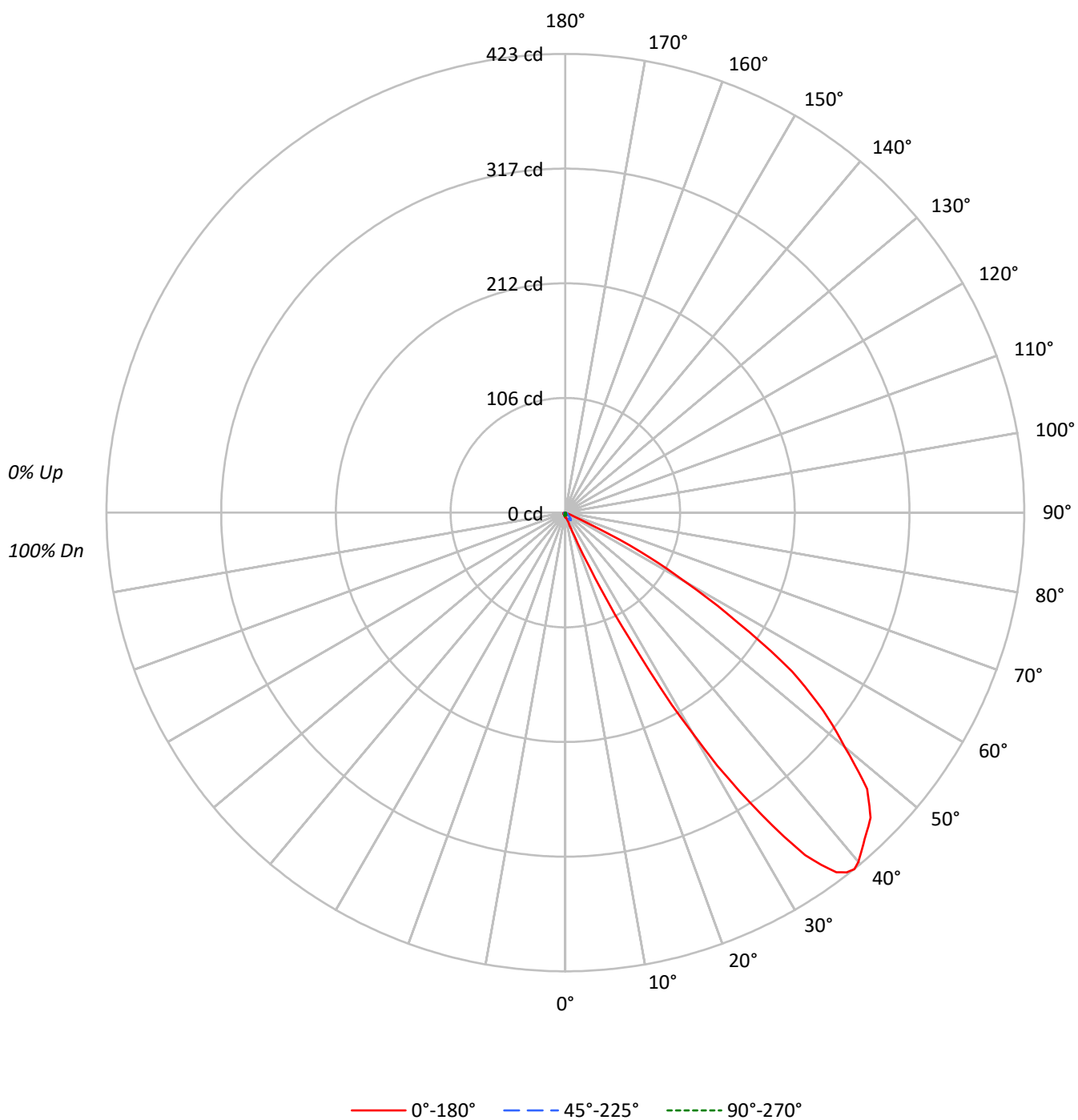
Lumens per Lamp: N/A
Luminaire Lumens: 110.0 lumens
Efficiency: N/A
Efficacy: 30.6 lumens/watt
Spacing Criteria (0/90/45): 4.07 / 0.65 / 1.44
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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: P1335172

CATALOG NUMBER: P3A02R309840DE010 E3A451WMH

Luminous Intensity Polar Plot



TEST NUMBER: P1335172

CATALOG NUMBER: P3A02R309840DE010 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	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	31	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°	943	943	943	943	943
5°	991	969	924	836	814
10°	1091	980	802	713	713
15°	1589	976	681	613	636
20°	4014	1050	513	513	583
25°	18678	1331	411	460	532
30°	59452	1823	304	456	532
35°	103169	2222	241	428	535
40°	120311	2233	172	429	544
45°	123393	1582	186	465	589
50°	114760	887	171	478	682
55°	97526	459	191	535	765
60°	56311	132	219	570	833
65°	11467	0	259	675	986
70°	192	64	321	769	1154
75°	169	85	339	763	1356
80°	126	126	505	884	1515
85°	0	252	1006	1006	1761

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 123393 cd/sqm

TEST NUMBER: P1335172

CATALOG NUMBER: P3A02R309840DE010 E3A451WMH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.4	0.3
10°-20°	1.1	1.0
20°-30°	6.3	5.8
30°-40°	29.6	26.9
40°-50°	41.9	38.1
50°-60°	25.8	23.4
60°-70°	3.9	3.6
70°-80°	0.6	0.6
80°-90°	0.3	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°	7.8	7.1
0°-40°	37.5	34.0
0°-60°	105.1	95.6
0°-90°	110.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	110.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4	4	4	4	4	
5°	4	4	4	4	4	0
15°	7	4	3	3	3	3
25°	77	6	2	2	2	47
35°	385	8	1	2	2	231
45°	398	5	1	2	2	302
55°	255	1	0	1	2	217
65°	22	0	0	1	2	40
75°	0	0	0	1	2	0
85°	0	0	0	0	1	0
90°	0	0	0	0	0	

TEST NUMBER: P1335172

CATALOG NUMBER: P3A02R309840DE010 E3A451WMH

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	45°	67.5°	90°	112.5°	135°
0°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
2.5°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.3	4.2	4.0
5°	4.5	4.5	4.5	4.6	4.5	4.5	4.4	4.4	4.2	3.9	3.8
7.5°	4.7	4.7	4.6	4.7	4.6	4.6	4.4	4.3	4.0	3.7	3.5
10°	4.9	4.9	4.8	4.8	4.7	4.7	4.4	4.1	3.6	3.3	3.2
12.5°	5.5	5.5	5.4	5.3	5.1	5.0	4.3	3.8	3.2	3.0	2.9
15°	7.0	6.9	6.8	6.5	6.0	5.9	4.3	3.5	3.0	2.7	2.7
17.5°	9.6	9.5	9.3	8.5	7.7	7.4	4.3	3.2	2.6	2.4	2.4
20°	17.2	16.5	15.1	13.3	11.3	10.3	4.5	2.8	2.2	2.1	2.2
21°	22.5	21.8	20.0	17.0	13.5	12.4	4.7	2.7	2.1	2.0	2.2
22°	30.7	29.8	26.2	22.1	17.1	15.2	4.8	2.5	1.9	1.9	2.1
23°	42.8	41.4	35.3	28.6	21.4	18.6	5.0	2.4	1.9	1.9	2.0
24°	56.1	54.9	47.9	37.9	27.3	23.4	5.2	2.3	1.8	1.8	1.9
25°	77.2	75.8	63.5	47.8	34.7	28.1	5.5	2.1	1.7	1.7	1.9
26°	104.5	98.1	81.7	61.6	42.7	35.2	5.7	2.0	1.6	1.7	1.9
27°	130.5	125.2	106.7	79.0	52.8	43.3	6.1	1.9	1.5	1.6	1.9
28°	164.6	157.2	133.9	100.0	66.5	52.4	6.5	1.9	1.4	1.6	1.8
29°	202.7	192.4	164.3	123.5	82.0	62.5	6.9	1.8	1.3	1.5	1.8
30°	234.8	225.1	197.0	151.4	99.8	76.0	7.2	1.7	1.2	1.5	1.8
31°	272.4	257.7	223.7	175.0	115.1	89.4	7.6	1.5	1.1	1.4	1.7
32°	302.9	292.6	256.5	201.7	135.2	104.2	7.9	1.4	1.1	1.4	1.7
33°	332.4	318.6	283.6	227.3	153.4	119.4	8.2	1.3	1.0	1.3	1.7
34°	360.5	347.8	309.3	248.0	170.5	133.9	8.3	1.1	1.0	1.3	1.6
35°	385.4	370.6	331.9	268.2	188.1	147.1	8.3	1.0	0.9	1.2	1.6
36°	401.5	390.9	351.5	288.1	204.0	159.6	8.3	0.9	0.8	1.2	1.5
37°	415.3	403.0	367.3	303.4	215.8	169.6	8.3	0.8	0.8	1.2	1.5
38°	421.0	410.4	378.1	316.9	226.8	179.8	8.2	0.7	0.7	1.1	1.5
39°	423.2	413.7	386.3	326.6	235.0	186.6	8.1	0.6	0.7	1.1	1.5
40°	420.3	413.2	390.5	332.9	241.5	191.6	7.8	0.6	0.6	1.1	1.5
42.5°	408.4	403.7	389.5	339.2	247.0	195.3	6.8	0.4	0.6	1.0	1.5
45°	397.9	392.7	380.2	332.6	239.8	188.0	5.1	0.2	0.6	1.0	1.5
47.5°	377.4	374.2	364.3	315.9	224.0	171.5	3.6	0.1	0.6	0.9	1.4
50°	336.4	333.3	320.3	274.3	192.6	145.0	2.6	0.1	0.5	0.9	1.4
52.5°	299.6	296.3	277.7	228.0	148.0	106.3	1.7	0.1	0.5	0.9	1.4
55°	255.1	249.4	225.0	173.1	104.9	71.3	1.2	0.1	0.5	0.8	1.4
57.5°	188.8	180.6	158.7	118.0	60.4	38.6	0.6	0.1	0.5	0.8	1.4
60°	128.4	123.5	99.3	62.3	25.8	16.3	0.3	0.1	0.5	0.8	1.3
62.5°	77.8	71.6	49.9	26.5	11.1	7.4	0.0	0.2	0.5	0.8	1.3
65°	22.1	19.6	13.1	6.0	3.2	2.4	0.0	0.2	0.5	0.8	1.3
67.5°	0.7	0.7	0.7	0.6	0.5	0.5	0.1	0.2	0.5	0.8	1.2
70°	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.2	0.5	0.7	1.2
72.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.4	0.6	1.1
75°	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.3	0.4	0.6	0.9
77.5°	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.3	0.4	0.6	0.9
80°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4	0.6	0.7



TEST NUMBER: P1335172

CATALOG NUMBER: P3A02R309840DE010 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	0.6
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: P1335172

CATALOG NUMBER: P3A02R309840DE010 E3A451WMH

CANDELA DISTRIBUTION (continued):

	157.5°	180°
0°	4.3	4.3
2.5°	4.0	4.0
5°	3.7	3.7
7.5°	3.4	3.4
10°	3.2	3.2
12.5°	3.0	3.0
15°	2.7	2.8
17.5°	2.5	2.6
20°	2.4	2.5
21°	2.4	2.5
22°	2.3	2.4
23°	2.3	2.4
24°	2.2	2.3
25°	2.1	2.2
26°	2.1	2.2
27°	2.1	2.2
28°	2.0	2.2
29°	2.0	2.1
30°	2.0	2.1
31°	1.9	2.1
32°	1.9	2.1
33°	1.9	2.0
34°	1.9	2.0
35°	1.9	2.0
36°	1.9	2.0
37°	1.9	1.9
38°	1.9	2.0
39°	1.9	1.9
40°	1.9	1.9
42.5°	1.9	1.9
45°	1.9	1.9
47.5°	1.9	2.0
50°	1.9	2.0
52.5°	1.9	2.0
55°	1.9	2.0
57.5°	1.9	1.9
60°	1.9	1.9
62.5°	1.8	1.9
65°	1.8	1.9
67.5°	1.8	1.9
70°	1.7	1.8
72.5°	1.6	1.7
75°	1.4	1.6
77.5°	1.3	1.4
80°	1.1	1.2

TEST NUMBER: P1335172

CATALOG NUMBER: P3A02R309840DE010 E3A451WMH

CANDELA DISTRIBUTION (continued):

	157.5°	180°
82.5°	0.9	0.9
85°	0.6	0.7
87.5°	0.4	0.4
90°	0.0	0.0

(END OF REPORT)