

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: P1335140

Luminaire Tested: P3A02R309830DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335140
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: P3A02R309830DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R30 optic, 3000K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

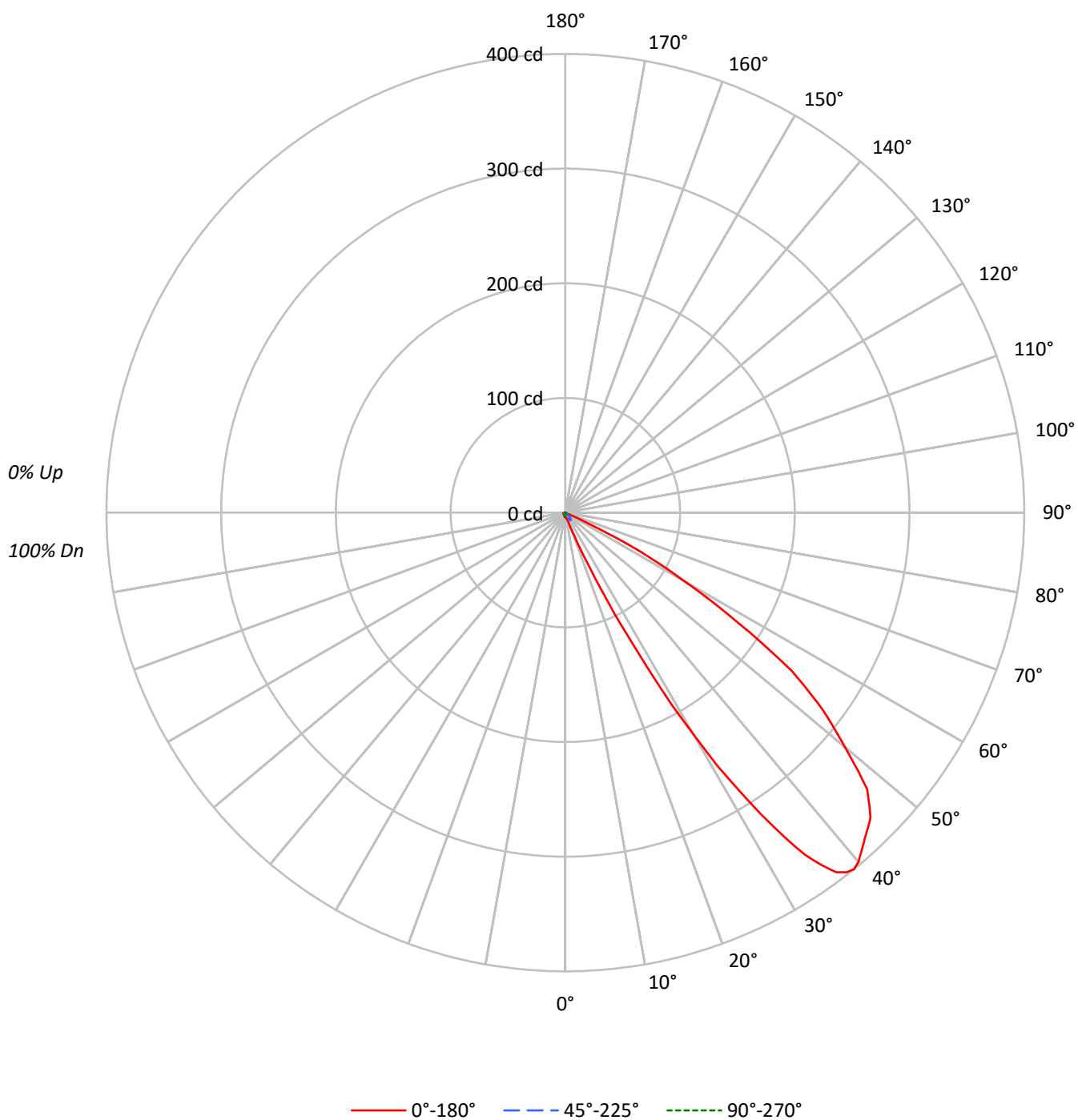
Lumens per Lamp: N/A
Luminaire Lumens: 104.1 lumens
Efficiency: N/A
Efficacy: 28.9 lumens/watt
Spacing Criteria (0/90/45): 4.07 / 0.67 / 1.44
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	877	877	877	877	877
5°	947	924	858	792	770
10°	1024	913	757	690	668
15°	1521	908	636	568	590
20°	3804	1003	490	490	560
25°	17662	1258	387	436	508
30°	56211	1722	279	430	506
35°	97547	2115	241	402	509
40°	113756	2118	172	401	515
45°	116663	1489	186	434	558
50°	108483	853	136	443	648
55°	92212	421	153	497	726
60°	53241	132	175	526	789
65°	10844	0	208	623	934
70°	192	64	256	705	1090
75°	169	85	339	763	1271
80°	126	126	505	884	1389
85°	0	252	1006	1006	1761

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 116663 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.4	0.3
10°-20°	1.0	1.0
20°-30°	6.0	5.8
30°-40°	28.0	26.9
40°-50°	39.6	38.1
50°-60°	24.4	23.4
60°-70°	3.7	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°	7.4	7.1
0°-40°	35.4	34.0
0°-60°	99.4	95.5
0°-90°	104.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	104.1	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	2	3	2
25°	73	5	2	2	2	45
35°	364	8	1	2	2	219
45°	376	5	1	1	2	285
55°	241	1	0	1	2	205
65°	21	0	0	1	2	38
75°	0	0	0	1	2	0
85°	0	0	0	0	1	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°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
2.5°	4.1	4.1	4.2	4.2	4.1	4.2	4.2	4.2	4.0	3.9	3.8
5°	4.3	4.3	4.3	4.4	4.3	4.3	4.2	4.1	3.9	3.7	3.6
7.5°	4.5	4.5	4.4	4.5	4.4	4.4	4.2	4.0	3.8	3.5	3.3
10°	4.6	4.6	4.6	4.6	4.5	4.5	4.1	3.9	3.4	3.2	3.1
12.5°	5.2	5.2	5.1	5.0	4.8	4.7	4.0	3.6	3.1	2.8	2.7
15°	6.7	6.6	6.4	6.1	5.7	5.6	4.0	3.3	2.8	2.5	2.5
17.5°	9.1	9.0	8.8	8.1	7.3	7.0	4.0	3.0	2.5	2.3	2.3
20°	16.3	15.6	14.3	12.5	10.7	9.7	4.3	2.6	2.1	2.0	2.1
21°	21.3	20.6	18.9	16.0	12.8	11.7	4.5	2.5	2.0	1.9	2.1
22°	29.0	28.2	24.8	20.9	16.2	14.4	4.6	2.4	1.8	1.8	2.0
23°	40.5	39.2	33.4	27.1	20.2	17.6	4.7	2.3	1.8	1.8	1.9
24°	53.0	51.9	45.3	35.8	25.8	22.1	4.9	2.2	1.7	1.7	1.8
25°	73.0	71.7	60.0	45.2	32.8	26.5	5.2	2.0	1.6	1.6	1.8
26°	98.8	92.8	77.3	58.3	40.4	33.3	5.4	1.9	1.5	1.6	1.8
27°	123.3	118.4	100.9	74.7	49.9	40.9	5.8	1.8	1.4	1.5	1.8
28°	155.6	148.6	126.6	94.5	62.9	49.5	6.1	1.8	1.3	1.5	1.7
29°	191.7	181.9	155.3	116.8	77.5	59.1	6.5	1.7	1.2	1.4	1.7
30°	222.0	212.8	186.2	143.1	94.4	71.8	6.8	1.6	1.1	1.4	1.7
31°	257.6	243.6	211.5	165.5	108.8	84.5	7.2	1.4	1.1	1.3	1.6
32°	286.4	276.7	242.5	190.7	127.8	98.6	7.4	1.3	1.1	1.3	1.6
33°	314.2	301.2	268.2	214.9	145.0	112.9	7.7	1.2	1.0	1.2	1.6
34°	340.9	328.9	292.4	234.4	161.2	126.6	7.9	1.1	1.0	1.2	1.5
35°	364.4	350.4	313.8	253.5	177.8	139.0	7.9	1.0	0.9	1.1	1.5
36°	379.6	369.6	332.4	272.4	192.9	150.9	7.9	0.9	0.8	1.1	1.4
37°	392.6	381.0	347.3	286.8	204.0	160.3	7.9	0.8	0.8	1.1	1.4
38°	398.0	388.0	357.5	299.6	214.5	170.0	7.8	0.7	0.7	1.1	1.4
39°	400.1	391.2	365.2	308.8	222.2	176.4	7.6	0.6	0.7	1.1	1.4
40°	397.4	390.6	369.2	314.8	228.3	181.2	7.4	0.5	0.6	1.1	1.4
42.5°	386.2	381.7	368.3	320.7	233.6	184.7	6.4	0.4	0.6	1.0	1.4
45°	376.2	371.3	359.4	314.5	226.7	177.8	4.8	0.2	0.6	1.0	1.4
47.5°	356.8	353.7	344.5	298.6	211.7	162.2	3.4	0.1	0.5	0.9	1.3
50°	318.0	315.1	302.9	259.3	182.1	137.1	2.5	0.1	0.4	0.9	1.3
52.5°	283.2	280.2	262.6	215.6	139.9	100.5	1.6	0.1	0.4	0.9	1.3
55°	241.2	235.8	212.7	163.6	99.2	67.4	1.1	0.1	0.4	0.8	1.3
57.5°	178.5	170.7	150.1	111.6	57.1	36.5	0.6	0.1	0.4	0.8	1.3
60°	121.4	116.8	93.9	58.9	24.4	15.4	0.3	0.1	0.4	0.8	1.2
62.5°	73.6	67.7	47.2	25.1	10.5	7.0	0.0	0.2	0.4	0.8	1.2
65°	20.9	18.6	12.4	5.7	3.0	2.3	0.0	0.2	0.4	0.8	1.2
67.5°	0.7	0.7	0.7	0.6	0.4	0.4	0.1	0.2	0.4	0.8	1.1
70°	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.2	0.4	0.7	1.1
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	0.5	0.9
80°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4	0.5	0.7



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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	0.5
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



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CANDELA DISTRIBUTION (continued):

	157.5°	180°
0°	4.0	4.0
2.5°	3.8	3.8
5°	3.5	3.5
7.5°	3.2	3.2
10°	3.0	3.0
12.5°	2.8	2.8
15°	2.5	2.6
17.5°	2.4	2.5
20°	2.3	2.4
21°	2.3	2.4
22°	2.2	2.3
23°	2.2	2.3
24°	2.1	2.2
25°	2.0	2.1
26°	2.0	2.1
27°	2.0	2.1
28°	1.9	2.1
29°	1.9	2.0
30°	1.9	2.0
31°	1.8	2.0
32°	1.8	2.0
33°	1.8	1.9
34°	1.8	1.9
35°	1.8	1.9
36°	1.8	1.9
37°	1.8	1.8
38°	1.8	1.9
39°	1.8	1.8
40°	1.8	1.8
42.5°	1.8	1.8
45°	1.8	1.8
47.5°	1.8	1.9
50°	1.8	1.9
52.5°	1.8	1.9
55°	1.8	1.9
57.5°	1.8	1.8
60°	1.8	1.8
62.5°	1.7	1.8
65°	1.7	1.8
67.5°	1.7	1.8
70°	1.6	1.7
72.5°	1.5	1.6
75°	1.3	1.5
77.5°	1.2	1.3
80°	1.1	1.1

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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)