

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: P1333978

Luminaire Tested: P3A02R159024DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1333978
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-73)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A02R159024DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R15 optic, 2400K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

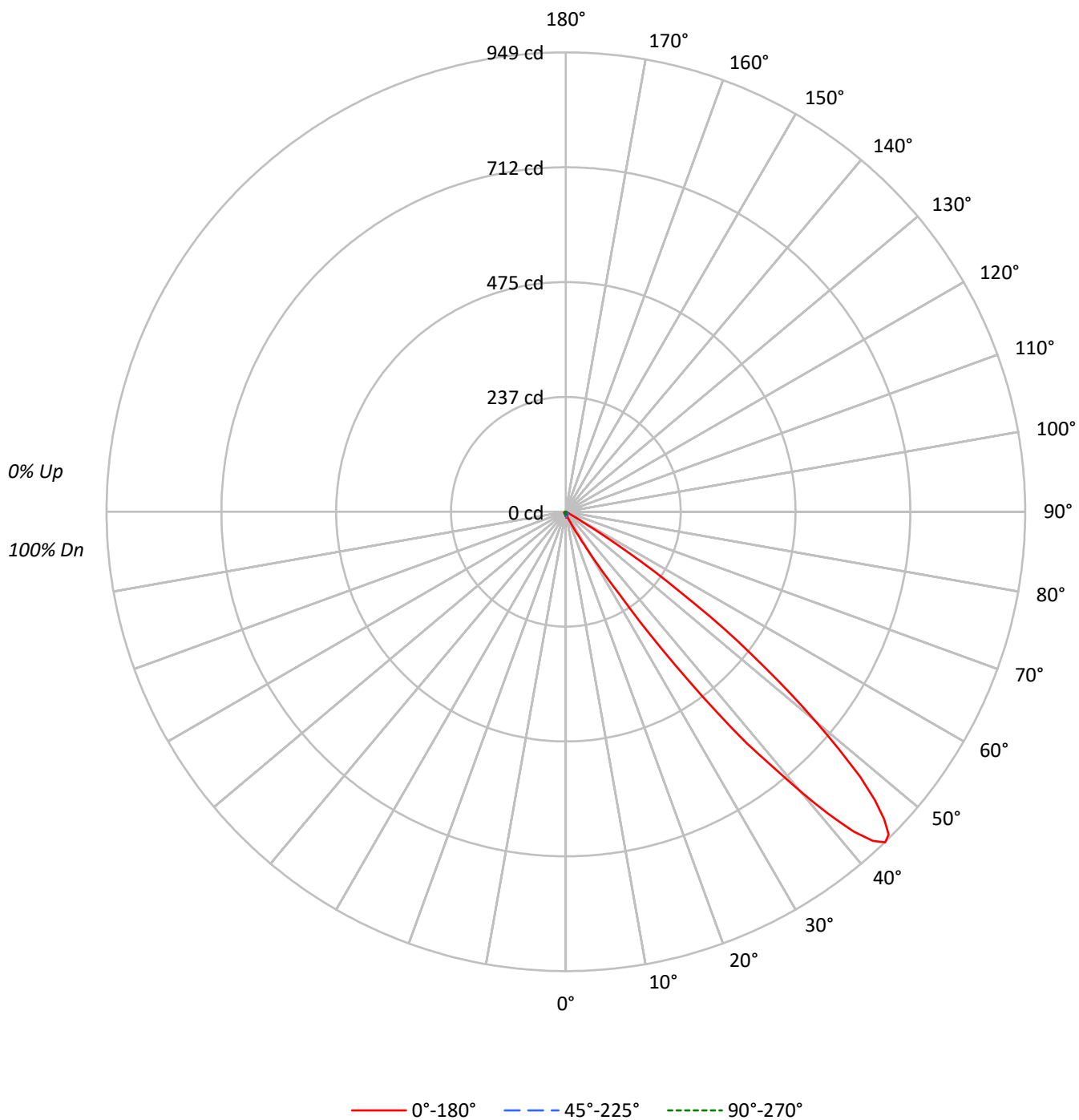
Lumens per Lamp: N/A
Luminaire Lumens: 106.0 lumens
Efficiency: N/A
Efficacy: 29.4 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.09
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	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	107	104	100	97	100	97	94	96	93	91	92	90	89	89	89	87
2	101	93	87	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	53	53	53	50
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	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	47	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	31	26	37	31	26	26	26	24
9	52	37	28	22	50	37	28	22	35	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	23	19	19	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	2061	2061	2061	2061	2061
5°	2553	2289	1871	1629	1607
10°	2516	1959	1425	1269	1291
15°	2089	1385	1022	1067	1135
20°	3617	1120	793	910	1027
25°	8081	1331	629	847	968
30°	24156	1621	557	836	1013
35°	93023	1847	509	857	1071
40°	215919	1603	487	887	1145
45°	292464	1209	434	961	1240
50°	229314	716	443	1023	1365
55°	110065	306	421	1109	1491
60°	10043	44	351	1140	1667
65°	1090	0	311	1193	1816
70°	256	0	385	1282	1988
75°	254	85	508	1440	2203
80°	253	253	631	1515	2399
85°	252	252	1006	1258	2768

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 292464 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.8	0.8
10°-20°	1.7	1.6
20°-30°	4.0	3.8
30°-40°	21.9	20.7
40°-50°	53.1	50.1
50°-60°	21.2	20.0
60°-70°	1.8	1.7
70°-80°	1.0	1.0
80°-90°	0.4	0.4
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°	6.5	6.1
0°-40°	28.4	26.8
0°-60°	102.7	96.9
0°-90°	106.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	106.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	9	9	9	9	9	
5°	12	10	8	7	7	1
15°	9	6	4	5	5	3
25°	33	6	3	4	4	20
35°	348	7	2	3	4	246
45°	943	4	1	3	4	665
55°	288	1	1	3	4	268
65°	2	0	1	2	4	5
75°	0	0	1	2	3	0
85°	0	0	0	0	1	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4
2.5°	10.6	10.6	10.7	10.6	10.6	10.6	10.6	10.5	10.5	10.5	10.1
5°	11.6	11.6	11.6	11.6	11.5	11.5	11.5	11.4	11.4	11.3	10.4
7.5°	12.0	12.0	11.9	11.9	11.8	11.8	11.7	11.6	11.5	11.4	9.9
10°	11.3	11.3	11.3	11.2	11.2	11.1	11.0	10.9	10.8	10.6	8.8
12.5°	10.0	10.0	10.1	10.0	9.9	9.8	9.6	9.5	9.4	9.2	7.3
15°	9.2	9.2	9.2	9.1	9.0	8.8	8.7	8.5	8.3	8.0	6.1
17.5°	11.7	11.7	11.6	11.4	11.0	10.7	10.1	9.7	9.2	8.6	5.3
20°	15.5	15.5	15.3	15.1	14.6	14.1	13.2	12.5	11.6	10.9	4.8
22.5°	22.5	22.8	22.2	21.5	20.7	19.4	18.3	17.1	15.6	14.4	4.9
25°	33.4	33.7	33.4	31.7	30.3	28.6	26.4	24.1	21.6	19.2	5.5
27.5°	54.1	54.3	53.8	49.7	47.5	43.0	39.1	35.3	31.1	26.8	6.0
30°	95.4	95.5	92.2	83.9	76.6	66.9	58.7	50.7	44.1	37.3	6.4
31°	125.7	122.7	115.5	105.6	94.0	80.9	69.5	59.3	49.4	42.1	6.6
32°	159.6	159.2	147.2	130.0	114.5	98.1	81.1	68.0	56.5	46.6	6.7
33°	204.5	204.7	185.9	165.6	140.1	118.2	95.9	77.9	64.2	52.0	6.9
34°	274.7	258.2	236.1	208.6	174.0	140.9	111.9	89.4	71.0	57.2	6.9
35°	347.5	330.9	306.6	265.0	217.4	171.1	131.1	101.8	79.3	62.8	6.9
36°	429.1	415.1	378.3	325.1	264.4	199.7	151.4	116.0	87.4	67.9	6.8
37°	517.3	496.6	455.8	397.8	316.7	239.8	176.1	130.2	95.5	73.4	6.6
38°	606.8	588.2	536.7	466.4	379.0	282.2	200.8	143.8	103.0	77.5	6.2
39°	674.6	664.5	613.4	534.9	428.8	322.4	226.3	158.4	111.0	81.6	5.9
40°	754.3	737.9	689.5	592.4	487.7	363.3	251.2	171.3	117.5	84.9	5.6
41°	827.0	806.3	745.2	651.4	534.8	400.0	274.9	184.6	122.8	86.8	5.4
42°	889.4	865.3	801.5	701.9	574.2	429.4	293.8	194.2	127.8	88.4	5.1
43°	929.8	909.0	846.2	739.8	607.9	456.4	311.5	204.1	130.8	89.4	4.7
44°	949.4	928.4	867.6	763.6	628.7	472.5	322.9	211.0	134.2	90.8	4.3
45°	943.1	921.7	863.0	764.0	635.1	478.4	327.8	214.0	136.0	92.1	3.9
46°	914.0	899.0	839.8	744.2	622.8	472.1	325.0	211.7	135.4	92.1	3.5
47°	873.2	856.1	799.8	710.0	593.1	456.1	313.9	204.6	131.5	89.9	3.1
48°	817.6	803.0	743.9	655.8	547.6	421.1	288.9	193.1	125.4	85.8	2.6
49°	747.9	727.6	672.5	586.5	488.2	371.4	256.0	173.7	115.5	80.0	2.3
50°	672.2	647.2	604.7	517.0	426.8	318.4	212.8	146.8	101.7	72.4	2.1
51°	598.1	572.6	532.2	457.6	361.3	264.2	171.6	117.2	83.7	61.9	1.8
52°	521.3	499.9	454.6	396.0	309.3	214.1	143.0	99.1	69.5	52.0	1.5
53°	444.8	430.2	387.0	327.8	248.5	174.9	116.8	84.9	60.7	44.5	1.2
54°	368.1	352.2	319.4	266.6	200.3	138.0	99.0	71.0	52.6	38.8	1.1
55°	287.9	279.7	249.4	203.2	151.8	110.1	80.3	61.1	44.1	32.4	0.8
56°	221.7	212.4	184.9	147.4	112.8	86.2	65.0	49.9	37.3	27.2	0.6
57°	145.2	135.7	117.4	102.9	82.1	62.9	49.7	39.3	30.3	22.5	0.5
58°	85.8	77.2	74.3	63.4	54.7	42.7	36.7	29.3	22.4	17.8	0.3
59°	39.4	40.1	35.6	33.4	30.3	27.2	22.3	19.6	15.3	12.8	0.2
60°	22.9	21.7	21.1	18.9	16.8	14.9	13.4	11.8	9.6	8.2	0.1
62.5°	7.8	7.5	7.7	7.0	6.6	6.3	5.8	5.0	4.1	3.4	0.0
65°	2.1	2.1	2.0	1.9	1.8	1.7	1.6	1.4	1.3	1.1	0.0



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CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.0
70°	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.0
72.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1
75°	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
77.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
80°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2
82.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
85°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
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):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	9.4	9.4	9.4	9.4	9.4	9.4
2.5°	9.7	9.3	8.8	8.5	8.3	8.2
5°	9.3	8.5	7.8	7.4	7.3	7.3
7.5°	8.3	7.4	6.8	6.6	6.4	6.4
10°	7.3	6.4	5.9	5.7	5.8	5.8
12.5°	6.1	5.4	5.2	5.2	5.3	5.4
15°	5.0	4.5	4.5	4.7	4.9	5.0
17.5°	4.1	3.9	4.0	4.2	4.4	4.7
20°	3.4	3.4	3.6	3.9	4.2	4.4
22.5°	2.9	3.0	3.3	3.6	4.0	4.2
25°	2.4	2.6	3.0	3.5	3.9	4.0
27.5°	2.1	2.4	2.9	3.4	3.8	4.0
30°	1.8	2.2	2.7	3.3	3.8	4.0
31°	1.7	2.1	2.6	3.3	3.8	4.0
32°	1.6	2.1	2.6	3.3	3.8	4.0
33°	1.5	2.0	2.6	3.2	3.8	4.0
34°	1.4	2.0	2.6	3.3	3.8	4.0
35°	1.3	1.9	2.5	3.2	3.7	4.0
36°	1.2	1.9	2.5	3.2	3.8	4.0
37°	1.1	1.9	2.5	3.2	3.7	4.0
38°	1.1	1.8	2.4	3.2	3.7	4.0
39°	1.0	1.7	2.4	3.2	3.7	4.0
40°	0.8	1.7	2.3	3.1	3.7	4.0
41°	0.7	1.6	2.3	3.1	3.7	4.0
42°	0.6	1.6	2.3	3.1	3.7	4.0
43°	0.5	1.5	2.2	3.1	3.7	4.0
44°	0.5	1.5	2.2	3.1	3.7	4.0
45°	0.4	1.4	2.1	3.1	3.7	4.0
46°	0.4	1.4	2.1	3.0	3.7	4.0
47°	0.3	1.4	2.1	3.0	3.7	4.0
48°	0.3	1.3	2.1	3.0	3.7	4.0
49°	0.2	1.3	2.1	3.0	3.7	4.0
50°	0.2	1.3	2.0	3.0	3.7	4.0
51°	0.2	1.3	2.0	3.0	3.7	4.0
52°	0.2	1.2	2.0	3.0	3.7	4.0
53°	0.2	1.2	2.0	3.0	3.7	4.0
54°	0.2	1.2	1.9	3.0	3.7	4.0
55°	0.2	1.1	1.9	2.9	3.7	3.9
56°	0.2	1.1	1.9	2.9	3.7	3.9
57°	0.2	1.1	1.8	2.9	3.7	3.9
58°	0.2	1.0	1.8	2.7	3.6	3.9
59°	0.2	1.0	1.7	2.7	3.6	3.8
60°	0.2	0.8	1.7	2.6	3.5	3.8
62.5°	0.2	0.7	1.5	2.5	3.4	3.6
65°	0.2	0.6	1.4	2.3	3.3	3.5



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.2	0.6	1.3	2.2	3.1	3.4
70°	0.2	0.6	1.2	2.0	3.0	3.1
72.5°	0.3	0.6	1.1	1.9	2.7	2.9
75°	0.4	0.6	1.0	1.7	2.5	2.6
77.5°	0.4	0.6	0.8	1.5	2.2	2.3
80°	0.4	0.5	0.7	1.2	1.8	1.9
82.5°	0.4	0.5	0.5	1.0	1.4	1.5
85°	0.3	0.4	0.4	0.5	1.0	1.1
87.5°	0.3	0.4	0.2	0.3	0.4	0.4
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)