

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: P1335812

Luminaire Tested: P3A02R409830DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335812
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-78)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A02R409830DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R40 optic, 3000K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

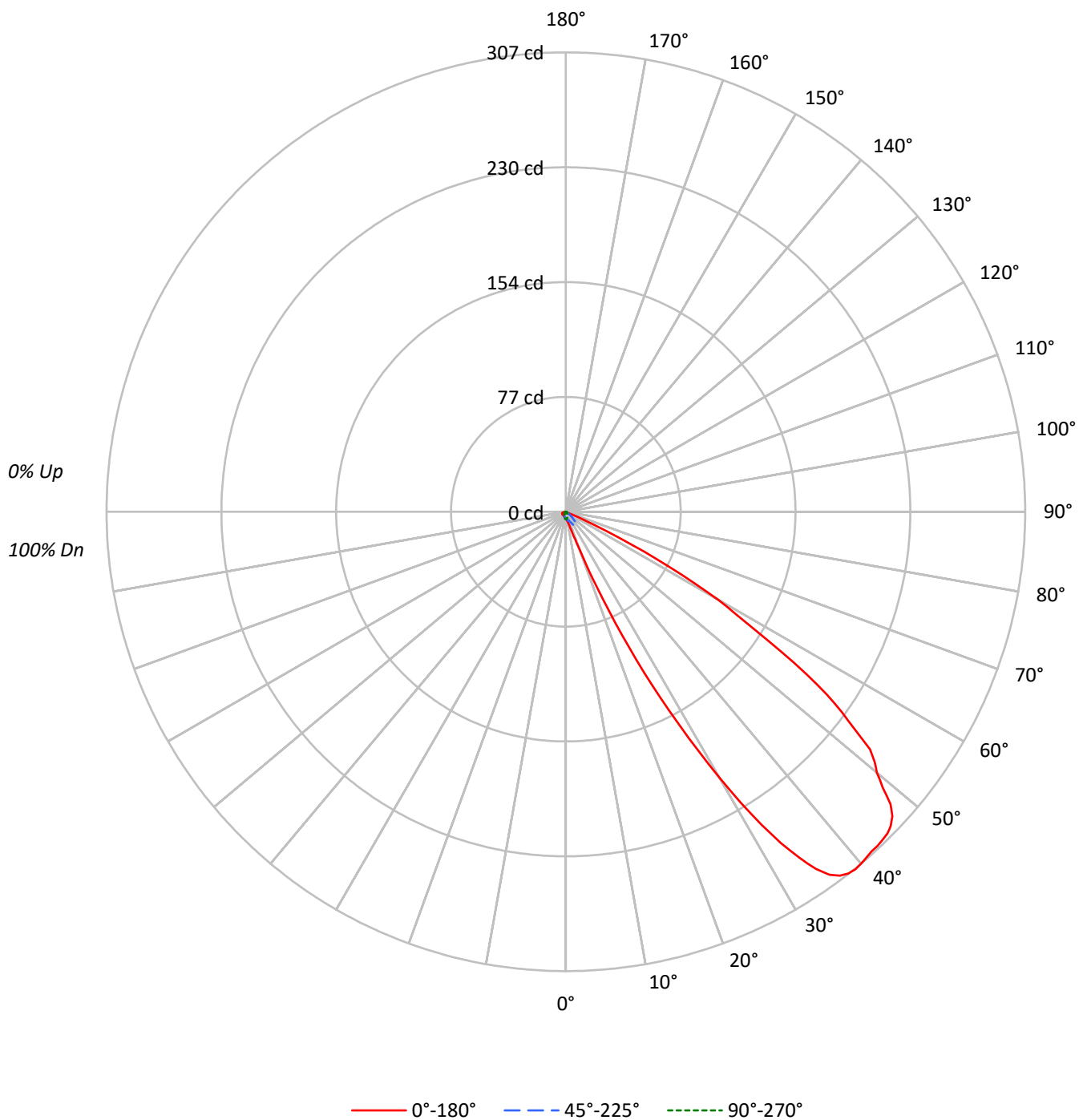
Lumens per Lamp: N/A
Luminaire Lumens: 95.0 lumens
Efficiency: N/A
Efficacy: 26.4 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.74 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	107	104	100	97	99	97	94	96	93	91	92	90	88
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75
3	91	81	73	66	89	79	72	66	76	70	65	73	68	64	71	66	62
4	82	70	62	55	80	69	61	54	67	59	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	38	50	43	37	48	42	37
7	62	48	39	32	60	47	38	32	45	37	32	44	37	31	42	36	31
8	57	42	33	27	55	42	33	27	40	32	27	39	32	27	38	31	26
9	52	38	29	23	51	37	29	23	36	28	23	35	28	23	34	27	23
10	48	34	25	20	47	33	25	20	32	25	20	31	24	20	30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	1074	1074	1074	1074	1074
5°	1189	1145	1057	969	947
10°	1447	1225	980	868	846
15°	2361	1317	840	772	795
20°	6231	1563	700	700	747
25°	24026	1936	556	629	750
30°	51831	2583	430	608	734
35°	78006	3052	375	616	750
40°	87879	3063	315	630	802
45°	94242	2388	310	651	868
50°	92620	1501	273	682	955
55°	81469	726	268	765	1070
60°	51575	132	307	833	1184
65°	10533	52	311	882	1297
70°	192	64	321	1026	1539
75°	254	169	339	1101	1694
80°	253	126	379	1263	2020
85°	252	252	755	1258	2264

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 95944 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.5	0.5
10°-20°	1.5	1.6
20°-30°	7.4	7.8
30°-40°	24.0	25.3
40°-50°	33.1	34.8
50°-60°	23.0	24.3
60°-70°	4.4	4.6
70°-80°	0.8	0.8
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°	9.3	9.8
0°-40°	33.3	35.1
0°-60°	89.5	94.2
0°-90°	95.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	95.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	5	5	5	5	5	
5°	5	5	5	4	4	1
15°	10	6	4	3	4	4
25°	99	8	2	3	3	51
35°	291	11	1	2	3	176
45°	304	8	1	2	3	231
55°	213	2	1	2	3	182
65°	20	0	1	2	2	36
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°	25°	30°	35°	45°	67.5°	90°
0°	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
2.5°	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.0	4.9
5°	5.4	5.4	5.4	5.4	5.3	5.3	5.3	5.2	5.2	5.1	4.8
7.5°	5.8	5.8	5.8	5.8	5.7	5.6	5.5	5.5	5.4	5.0	4.6
10°	6.5	6.5	6.4	6.3	6.2	6.0	5.9	5.8	5.5	4.9	4.4
12.5°	7.9	7.7	7.6	7.4	7.2	6.8	6.5	6.2	5.6	4.7	4.1
15°	10.4	10.2	9.9	9.3	8.8	8.1	7.5	6.9	5.8	4.4	3.7
17.5°	14.8	14.3	13.8	12.9	11.6	10.4	9.1	7.9	6.2	4.2	3.3
20°	26.7	26.3	23.2	20.8	16.8	14.0	11.4	9.5	6.7	3.9	3.0
22.5°	55.1	51.4	46.2	37.9	29.5	21.7	15.8	12.0	7.2	3.6	2.6
25°	99.3	93.5	82.4	66.3	48.9	34.6	22.9	15.6	8.0	3.2	2.3
27.5°	150.3	144.5	127.3	105.0	76.7	52.3	32.6	20.7	9.1	2.9	2.0
30°	204.7	199.7	177.9	147.1	108.1	73.2	43.7	25.8	10.2	2.5	1.7
31°	226.6	220.2	196.6	163.8	122.8	81.8	48.2	28.0	10.6	2.4	1.7
32°	246.7	239.5	215.1	179.9	134.8	91.2	53.0	29.9	11.0	2.3	1.6
33°	264.1	255.6	232.1	195.1	148.0	99.9	58.1	31.8	11.3	2.1	1.5
34°	278.8	271.5	246.2	210.3	159.7	108.3	63.1	33.6	11.4	2.0	1.4
35°	291.4	284.8	259.7	221.9	171.1	116.4	67.6	35.3	11.4	1.8	1.4
36°	299.9	294.1	271.4	233.8	180.7	123.3	71.5	36.9	11.4	1.7	1.3
37°	304.5	298.9	279.1	243.6	190.1	130.1	74.9	38.1	11.3	1.6	1.2
38°	306.8	302.0	284.8	251.5	196.6	135.0	78.0	39.1	11.3	1.4	1.2
39°	307.4	303.3	288.3	257.3	203.0	139.9	80.2	39.6	11.0	1.3	1.1
40°	307.0	303.4	290.3	262.4	207.9	143.7	81.7	39.8	10.7	1.1	1.1
41°	306.1	303.3	291.7	266.0	211.8	146.1	82.4	39.4	10.4	1.0	1.0
42°	305.4	302.3	292.3	268.5	214.5	147.4	82.3	38.7	9.9	0.9	1.0
43°	305.4	301.9	292.4	270.0	215.8	147.4	81.2	37.4	9.2	0.8	1.0
44°	304.8	301.6	292.8	271.1	216.2	146.7	79.6	36.0	8.4	0.7	1.0
45°	303.9	300.5	292.7	271.2	215.6	144.7	76.9	34.2	7.7	0.5	1.0
46°	302.0	299.0	291.9	270.5	213.7	141.9	73.6	32.4	6.9	0.4	0.9
47°	298.4	296.0	289.8	268.5	211.0	137.8	69.8	30.3	6.3	0.3	0.9
48°	292.1	290.4	286.2	263.8	205.6	132.8	65.7	28.0	5.7	0.3	0.9
49°	280.6	279.3	276.8	256.4	198.8	126.6	61.2	25.5	5.1	0.3	0.9
50°	271.5	270.1	265.1	243.9	189.1	118.7	56.4	22.9	4.4	0.2	0.8
51°	265.5	263.2	255.4	229.5	174.8	108.3	51.0	20.4	3.7	0.2	0.8
52°	257.9	254.5	244.7	216.5	161.8	97.8	45.3	17.9	3.2	0.2	0.8
53°	242.0	240.8	231.1	202.5	148.8	87.8	39.3	15.8	2.8	0.2	0.8
54°	228.1	226.3	213.1	183.1	134.7	76.6	33.2	14.0	2.4	0.2	0.8
55°	213.1	209.6	197.9	166.8	118.1	66.3	27.4	12.0	1.9	0.2	0.7
56°	194.2	191.1	178.5	149.4	102.9	55.8	22.9	9.9	1.5	0.2	0.7
57°	171.2	168.3	158.6	127.9	87.0	45.6	18.7	7.9	1.1	0.2	0.7
58°	148.9	145.7	134.6	107.3	70.2	36.2	15.6	6.5	0.9	0.2	0.7
59°	131.8	127.5	113.2	90.1	55.0	27.5	12.4	5.1	0.6	0.2	0.7
60°	117.6	114.0	99.2	75.0	43.1	20.2	9.2	3.9	0.3	0.2	0.7
62.5°	68.1	67.2	53.8	38.6	20.3	9.4	4.5	1.8	0.2	0.3	0.7
65°	20.3	17.7	13.8	8.2	5.2	3.1	1.7	0.6	0.1	0.3	0.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.3	0.2	0.1	0.3	0.6
70°	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.3	0.5
72.5°	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.2	0.3	0.4
75°	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.3	0.4
77.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.4
80°	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3
82.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3
85°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.3
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):

	112.5°	135°	157.5°	180°
0°	4.9	4.9	4.9	4.9
2.5°	4.7	4.6	4.5	4.5
5°	4.5	4.4	4.4	4.3
7.5°	4.3	4.1	4.1	4.1
10°	4.0	3.9	3.9	3.8
12.5°	3.7	3.7	3.7	3.7
15°	3.4	3.4	3.5	3.5
17.5°	3.1	3.1	3.3	3.4
20°	2.8	3.0	3.1	3.2
22.5°	2.6	2.8	3.1	3.1
25°	2.4	2.6	3.0	3.1
27.5°	2.2	2.5	2.8	3.0
30°	2.0	2.4	2.7	2.9
31°	2.0	2.4	2.7	2.9
32°	1.9	2.3	2.7	2.8
33°	1.9	2.3	2.7	2.8
34°	1.8	2.3	2.6	2.8
35°	1.8	2.3	2.6	2.8
36°	1.7	2.2	2.6	2.8
37°	1.7	2.2	2.6	2.8
38°	1.7	2.2	2.6	2.8
39°	1.7	2.2	2.6	2.8
40°	1.7	2.2	2.6	2.8
41°	1.6	2.2	2.6	2.8
42°	1.6	2.2	2.6	2.8
43°	1.6	2.1	2.6	2.8
44°	1.6	2.1	2.6	2.8
45°	1.5	2.1	2.6	2.8
46°	1.5	2.1	2.6	2.8
47°	1.5	2.1	2.6	2.8
48°	1.5	2.1	2.6	2.8
49°	1.5	2.1	2.6	2.8
50°	1.4	2.0	2.6	2.8
51°	1.4	2.0	2.6	2.8
52°	1.4	2.0	2.6	2.8
53°	1.4	2.0	2.6	2.8
54°	1.3	2.0	2.6	2.8
55°	1.3	2.0	2.6	2.8
56°	1.3	2.0	2.6	2.7
57°	1.3	2.0	2.5	2.7
58°	1.3	1.9	2.5	2.7
59°	1.3	1.9	2.5	2.7
60°	1.3	1.9	2.5	2.7
62.5°	1.2	1.9	2.4	2.6
65°	1.1	1.7	2.4	2.5



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	1.1	1.7	2.3	2.4
70°	1.0	1.6	2.2	2.4
72.5°	0.9	1.5	2.0	2.2
75°	0.8	1.3	1.8	2.0
77.5°	0.7	1.1	1.7	1.7
80°	0.6	1.0	1.4	1.6
82.5°	0.4	0.7	1.1	1.2
85°	0.3	0.5	0.8	0.9
87.5°	0.3	0.3	0.4	0.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)