

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: P1335012

Luminaire Tested: P3A02R309035DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335012
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: P3A02R309035DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R30 optic, 3500K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

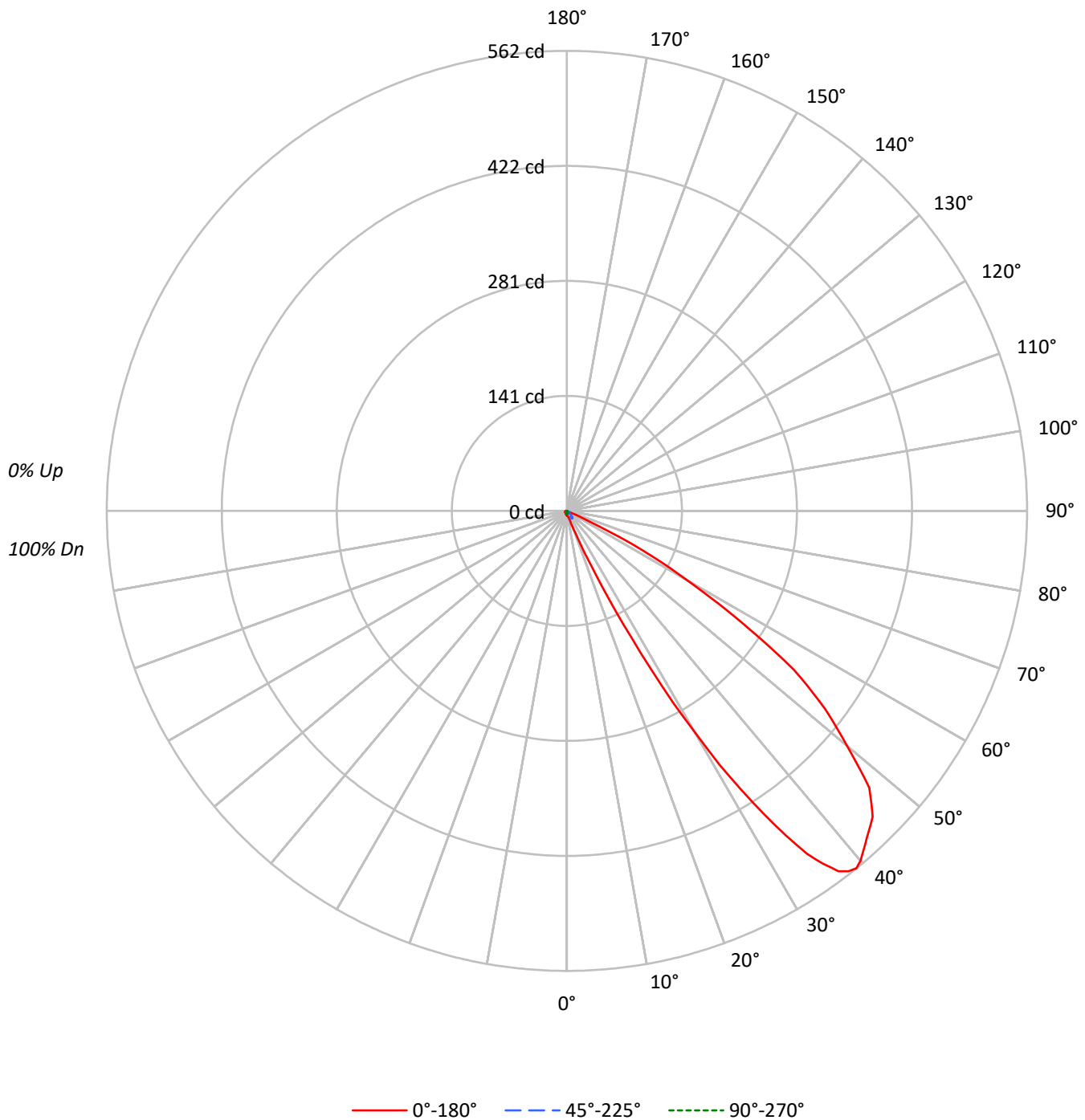
Lumens per Lamp: N/A
Luminaire Lumens: 146.0 lumens
Efficiency: N/A
Efficacy: 40.6 lumens/watt
Spacing Criteria (0/90/45): 4.07 / 0.65 / 1.44
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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

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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				0
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	32	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°	1250	1250	1250	1250	1250
5°	1321	1299	1211	1101	1079
10°	1447	1291	1069	957	935
15°	2111	1294	885	817	840
20°	5344	1400	700	700	770
25°	24776	1766	532	629	726
30°	78898	2431	405	582	709
35°	136925	2971	321	562	723
40°	159699	2948	258	573	744
45°	163769	2109	279	620	806
50°	152285	1160	205	614	921
55°	129448	612	229	688	1032
60°	74775	175	263	746	1140
65°	15255	0	311	882	1297
70°	256	64	385	1026	1475
75°	169	85	424	1017	1779
80°	126	126	631	1263	2020
85°	0	252	1258	1258	2516

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 163769 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.5	0.4
10°-20°	1.5	1.0
20°-30°	8.4	5.8
30°-40°	39.3	26.9
40°-50°	55.6	38.1
50°-60°	34.2	23.4
60°-70°	5.2	3.6
70°-80°	0.8	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°	10.4	7.1
0°-40°	49.7	34.1
0°-60°	139.6	95.6
0°-90°	146.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	146.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	6	6	6	6	6	
5°	6	6	6	5	5	1
15°	9	6	4	4	4	3
25°	102	7	2	3	3	63
35°	512	11	1	2	3	307
45°	528	7	1	2	3	400
55°	339	2	1	2	3	288
65°	29	0	1	2	2	53
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°	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
2.5°	5.8	5.8	5.9	5.9	5.8	5.9	5.9	5.9	5.7	5.5	5.3
5°	6.0	6.0	6.0	6.1	6.0	6.0	5.9	5.8	5.5	5.2	5.0
7.5°	6.3	6.3	6.1	6.3	6.1	6.1	5.9	5.7	5.3	4.9	4.7
10°	6.5	6.5	6.4	6.4	6.3	6.3	5.8	5.4	4.8	4.4	4.3
12.5°	7.3	7.3	7.1	7.0	6.8	6.6	5.7	5.0	4.3	3.9	3.8
15°	9.3	9.2	9.0	8.6	8.0	7.9	5.7	4.7	3.9	3.6	3.6
17.5°	12.8	12.7	12.3	11.3	10.2	9.8	5.7	4.2	3.4	3.2	3.2
20°	22.9	21.9	20.0	17.6	15.0	13.7	6.0	3.7	3.0	2.8	3.0
21°	29.9	28.9	26.6	22.5	18.0	16.5	6.3	3.6	2.8	2.7	3.0
22°	40.7	39.6	34.8	29.3	22.8	20.2	6.4	3.3	2.6	2.6	2.8
23°	56.8	55.0	46.9	38.0	28.4	24.7	6.6	3.2	2.5	2.6	2.7
24°	74.4	72.8	63.6	50.3	36.3	31.0	6.9	3.1	2.3	2.3	2.6
25°	102.4	100.6	84.2	63.5	46.0	37.3	7.3	2.8	2.2	2.2	2.6
26°	138.7	130.2	108.5	81.8	56.7	46.7	7.6	2.7	2.1	2.2	2.5
27°	173.2	166.2	141.7	104.9	70.1	57.4	8.1	2.6	2.0	2.1	2.5
28°	218.4	208.6	177.7	132.7	88.3	69.5	8.6	2.5	1.8	2.1	2.3
29°	269.1	255.3	218.1	163.9	108.8	83.0	9.1	2.3	1.7	2.0	2.3
30°	311.6	298.7	261.5	201.0	132.5	100.8	9.6	2.2	1.6	2.0	2.3
31°	361.6	342.0	296.9	232.3	152.7	118.7	10.1	2.0	1.5	1.8	2.2
32°	402.0	388.4	340.4	267.7	179.4	138.4	10.5	1.8	1.5	1.8	2.2
33°	441.1	422.8	376.5	301.7	203.5	158.5	10.8	1.7	1.4	1.7	2.2
34°	478.5	461.7	410.5	329.1	226.3	177.7	11.1	1.5	1.4	1.7	2.1
35°	511.5	491.9	440.5	355.9	249.7	195.2	11.1	1.4	1.2	1.6	2.1
36°	532.9	518.9	466.6	382.4	270.8	211.8	11.1	1.2	1.1	1.6	2.0
37°	551.2	534.9	487.5	402.7	286.4	225.1	11.1	1.1	1.1	1.6	2.0
38°	558.7	544.7	501.9	420.6	301.1	238.6	10.9	1.0	1.0	1.5	2.0
39°	561.7	549.1	512.7	433.5	311.9	247.7	10.7	0.9	1.0	1.5	2.0
40°	557.9	548.4	518.3	441.9	320.5	254.3	10.3	0.7	0.9	1.5	2.0
42.5°	542.1	535.8	517.0	450.2	327.9	259.3	9.0	0.5	0.9	1.4	2.0
45°	528.1	521.2	504.6	441.5	318.3	249.5	6.8	0.2	0.9	1.4	2.0
47.5°	500.9	496.6	483.6	419.3	297.3	227.6	4.8	0.1	0.7	1.2	1.8
50°	446.4	442.4	425.2	364.0	255.7	192.5	3.4	0.1	0.6	1.2	1.8
52.5°	397.6	393.3	368.6	302.7	196.4	141.1	2.2	0.1	0.6	1.2	1.8
55°	338.6	331.1	298.6	229.7	139.2	94.6	1.6	0.1	0.6	1.1	1.8
57.5°	250.6	239.7	210.7	156.7	80.2	51.3	0.9	0.1	0.6	1.1	1.8
60°	170.5	163.9	131.8	82.6	34.2	21.6	0.4	0.1	0.6	1.1	1.7
62.5°	103.3	95.1	66.3	35.2	14.8	9.8	0.0	0.2	0.6	1.1	1.7
65°	29.4	26.1	17.3	8.0	4.2	3.2	0.0	0.2	0.6	1.1	1.7
67.5°	1.0	1.0	1.0	0.9	0.6	0.6	0.1	0.2	0.6	1.1	1.6
70°	0.4	0.4	0.4	0.2	0.2	0.1	0.1	0.2	0.6	1.0	1.6
72.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.5	0.9	1.5
75°	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.4	0.5	0.9	1.2
77.5°	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.4	0.5	0.7	1.2
80°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.5	0.7	1.0



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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	0.4	0.5	0.5	0.7
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.5	0.4	0.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.4	0.4	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°	5.7	5.7
2.5°	5.3	5.3
5°	4.9	4.9
7.5°	4.6	4.6
10°	4.2	4.2
12.5°	3.9	3.9
15°	3.6	3.7
17.5°	3.3	3.4
20°	3.2	3.3
21°	3.2	3.3
22°	3.1	3.2
23°	3.1	3.2
24°	3.0	3.1
25°	2.8	3.0
26°	2.8	3.0
27°	2.8	3.0
28°	2.7	3.0
29°	2.7	2.8
30°	2.7	2.8
31°	2.6	2.8
32°	2.6	2.8
33°	2.6	2.7
34°	2.5	2.7
35°	2.5	2.7
36°	2.5	2.7
37°	2.5	2.6
38°	2.5	2.7
39°	2.5	2.6
40°	2.5	2.6
42.5°	2.5	2.6
45°	2.5	2.6
47.5°	2.5	2.7
50°	2.5	2.7
52.5°	2.5	2.7
55°	2.5	2.7
57.5°	2.5	2.6
60°	2.5	2.6
62.5°	2.3	2.6
65°	2.3	2.5
67.5°	2.3	2.5
70°	2.2	2.3
72.5°	2.1	2.2
75°	1.8	2.1
77.5°	1.7	1.8
80°	1.5	1.6



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CANDELA DISTRIBUTION (continued):

	157.5°	180°
82.5°	1.2	1.2
85°	0.9	1.0
87.5°	0.5	0.5
90°	0.0	0.0

(END OF REPORT)