

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: P1335060

Luminaire Tested: P3A02R309727DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335060
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: P3A02R309727DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R30 optic, 2700K CCT AND, 97CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

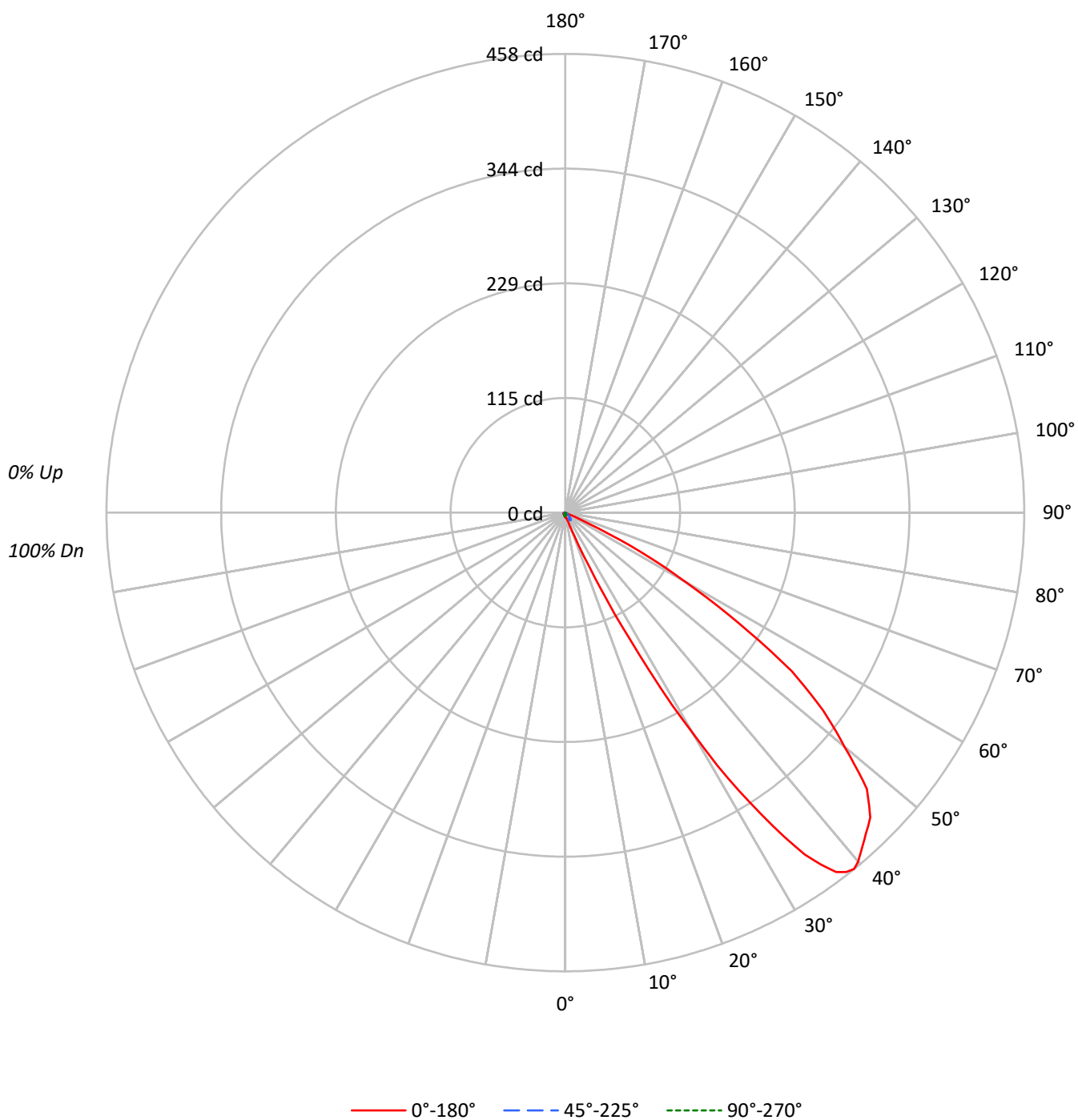
Lumens per Lamp: N/A
Luminaire Lumens: 119.0 lumens
Efficiency: N/A
Efficacy: 33.1 lumens/watt
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.44
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	50	30
RCR																			
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100
1	110	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87	87
2	100	93	86	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73	73
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61	61
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	52	50	50
5	75	62	52	46	73	60	52	45	58	51	45	56	50	44	54	49	44	42	42
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	48	42	37	35	35
7	62	48	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31	29	29
8	56	42	33	27	55	41	33	27	40	32	26	39	32	26	37	31	26	24	24
9	52	37	29	23	50	37	28	23	36	28	22	34	27	22	33	27	22	20	20
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	24	19	17	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	1009	1009	1009	1009	1009
5°	1079	1057	991	902	880
10°	1180	1047	868	779	757
15°	1725	1044	726	658	681
20°	4340	1143	560	560	630
25°	20203	1428	436	508	581
30°	64314	1975	329	481	582
35°	111601	2409	268	455	589
40°	130158	2405	200	458	601
45°	133471	1706	217	496	651
50°	124141	955	171	512	751
55°	105516	497	191	573	841
60°	60916	132	219	614	921
65°	12453	0	259	726	1038
70°	192	64	321	833	1218
75°	169	85	339	847	1440
80°	126	126	505	1010	1642
85°	0	252	1006	1006	2013

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 133471 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.4	0.3
10°-20°	1.2	1.0
20°-30°	6.9	5.8
30°-40°	32.0	26.9
40°-50°	45.3	38.1
50°-60°	27.9	23.4
60°-70°	4.2	3.6
70°-80°	0.7	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°	8.5	7.1
0°-40°	40.5	34.1
0°-60°	113.7	95.6
0°-90°	119.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	119.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	5	5	5	5	5	
5°	5	5	4	4	4	0
15°	8	5	3	3	3	3
25°	84	6	2	2	2	51
35°	417	9	1	2	2	250
45°	430	6	1	2	2	326
55°	276	1	0	2	2	235
65°	24	0	0	1	2	43
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°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
2.5°	4.7	4.7	4.8	4.8	4.7	4.8	4.8	4.8	4.6	4.5	4.3
5°	4.9	4.9	4.9	5.0	4.9	4.9	4.8	4.7	4.5	4.2	4.1
7.5°	5.1	5.1	5.0	5.1	5.0	5.0	4.8	4.6	4.3	4.0	3.8
10°	5.3	5.3	5.2	5.2	5.1	5.1	4.7	4.4	3.9	3.6	3.5
12.5°	5.9	5.9	5.8	5.7	5.5	5.4	4.6	4.1	3.5	3.2	3.1
15°	7.6	7.5	7.3	7.0	6.5	6.4	4.6	3.8	3.2	2.9	2.9
17.5°	10.4	10.3	10.0	9.2	8.3	8.0	4.6	3.4	2.8	2.6	2.6
20°	18.6	17.8	16.3	14.3	12.2	11.1	4.9	3.0	2.4	2.3	2.4
21°	24.4	23.6	21.7	18.3	14.6	13.4	5.1	2.9	2.3	2.2	2.4
22°	33.2	32.3	28.4	23.9	18.5	16.4	5.2	2.7	2.1	2.1	2.3
23°	46.3	44.8	38.2	31.0	23.2	20.1	5.4	2.6	2.0	2.1	2.2
24°	60.6	59.3	51.8	41.0	29.6	25.3	5.6	2.5	1.9	1.9	2.1
25°	83.5	82.0	68.7	51.7	37.5	30.4	5.9	2.3	1.8	1.8	2.1
26°	113.1	106.2	88.4	66.7	46.2	38.1	6.2	2.2	1.7	1.8	2.0
27°	141.1	135.4	115.5	85.5	57.1	46.8	6.6	2.1	1.6	1.7	2.0
28°	178.0	170.0	144.8	108.2	72.0	56.6	7.0	2.0	1.5	1.7	1.9
29°	219.3	208.1	177.7	133.6	88.7	67.7	7.4	1.9	1.4	1.6	1.9
30°	254.0	243.5	213.1	163.8	108.0	82.2	7.8	1.8	1.3	1.6	1.9
31°	294.7	278.8	242.0	189.4	124.5	96.7	8.2	1.6	1.2	1.5	1.8
32°	327.7	316.6	277.5	218.2	146.3	112.8	8.5	1.5	1.2	1.5	1.8
33°	359.6	344.6	306.8	245.9	165.9	129.2	8.8	1.4	1.1	1.4	1.8
34°	390.0	376.3	334.6	268.2	184.4	144.8	9.0	1.2	1.1	1.4	1.7
35°	416.9	401.0	359.1	290.1	203.5	159.1	9.0	1.1	1.0	1.3	1.7
36°	434.3	422.9	380.3	311.6	220.7	172.6	9.0	1.0	0.9	1.3	1.6
37°	449.3	435.9	397.4	328.2	233.5	183.4	9.0	0.9	0.9	1.3	1.6
38°	455.4	444.0	409.1	342.8	245.4	194.5	8.9	0.8	0.8	1.2	1.6
39°	457.8	447.6	417.9	353.3	254.2	201.9	8.7	0.7	0.8	1.2	1.6
40°	454.7	447.0	422.4	360.2	261.2	207.3	8.4	0.6	0.7	1.2	1.6
42.5°	441.9	436.7	421.4	367.0	267.2	211.3	7.3	0.4	0.7	1.1	1.6
45°	430.4	424.8	411.3	359.9	259.4	203.4	5.5	0.2	0.7	1.1	1.6
47.5°	408.3	404.8	394.1	341.7	242.3	185.5	3.9	0.1	0.6	1.0	1.5
50°	363.9	360.6	346.5	296.7	208.4	156.9	2.8	0.1	0.5	1.0	1.5
52.5°	324.1	320.6	300.4	246.7	160.1	115.0	1.8	0.1	0.5	1.0	1.5
55°	276.0	269.8	243.4	187.2	113.5	77.1	1.3	0.1	0.5	0.9	1.5
57.5°	204.3	195.4	171.7	127.7	65.4	41.8	0.7	0.1	0.5	0.9	1.5
60°	138.9	133.6	107.5	67.4	27.9	17.6	0.3	0.1	0.5	0.9	1.4
62.5°	84.2	77.5	54.0	28.7	12.0	8.0	0.0	0.2	0.5	0.9	1.4
65°	24.0	21.3	14.1	6.5	3.4	2.6	0.0	0.2	0.5	0.9	1.4
67.5°	0.8	0.8	0.8	0.7	0.5	0.5	0.1	0.2	0.5	0.9	1.3
70°	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.2	0.5	0.8	1.3
72.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.4	0.7	1.2
75°	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.3	0.4	0.7	1.0
77.5°	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.3	0.4	0.6	1.0
80°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4	0.6	0.8



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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	0.6
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

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CANDELA DISTRIBUTION (continued):

	157.5°	180°
0°	4.6	4.6
2.5°	4.3	4.3
5°	4.0	4.0
7.5°	3.7	3.7
10°	3.4	3.4
12.5°	3.2	3.2
15°	2.9	3.0
17.5°	2.7	2.8
20°	2.6	2.7
21°	2.6	2.7
22°	2.5	2.6
23°	2.5	2.6
24°	2.4	2.5
25°	2.3	2.4
26°	2.3	2.4
27°	2.3	2.4
28°	2.2	2.4
29°	2.2	2.3
30°	2.2	2.3
31°	2.1	2.3
32°	2.1	2.3
33°	2.1	2.2
34°	2.0	2.2
35°	2.0	2.2
36°	2.0	2.2
37°	2.0	2.1
38°	2.0	2.2
39°	2.0	2.1
40°	2.0	2.1
42.5°	2.0	2.1
45°	2.0	2.1
47.5°	2.0	2.2
50°	2.0	2.2
52.5°	2.0	2.2
55°	2.0	2.2
57.5°	2.0	2.1
60°	2.0	2.1
62.5°	1.9	2.1
65°	1.9	2.0
67.5°	1.9	2.0
70°	1.8	1.9
72.5°	1.7	1.8
75°	1.5	1.7
77.5°	1.4	1.5
80°	1.2	1.3

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CANDELA DISTRIBUTION (continued):

	157.5°	180°
82.5°	1.0	1.0
85°	0.7	0.8
87.5°	0.4	0.4
90°	0.0	0.0

(END OF REPORT)