

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: P1339868

Luminaire Tested: P3A09R159030D2WDE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1339868
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: P3A09R159030D2WDE010 E3A451WMH
Description: 3in Adjustable Dim to Warm LED luminaire with, R15 optic, 3000K CCT AND, 90CRI ,
E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

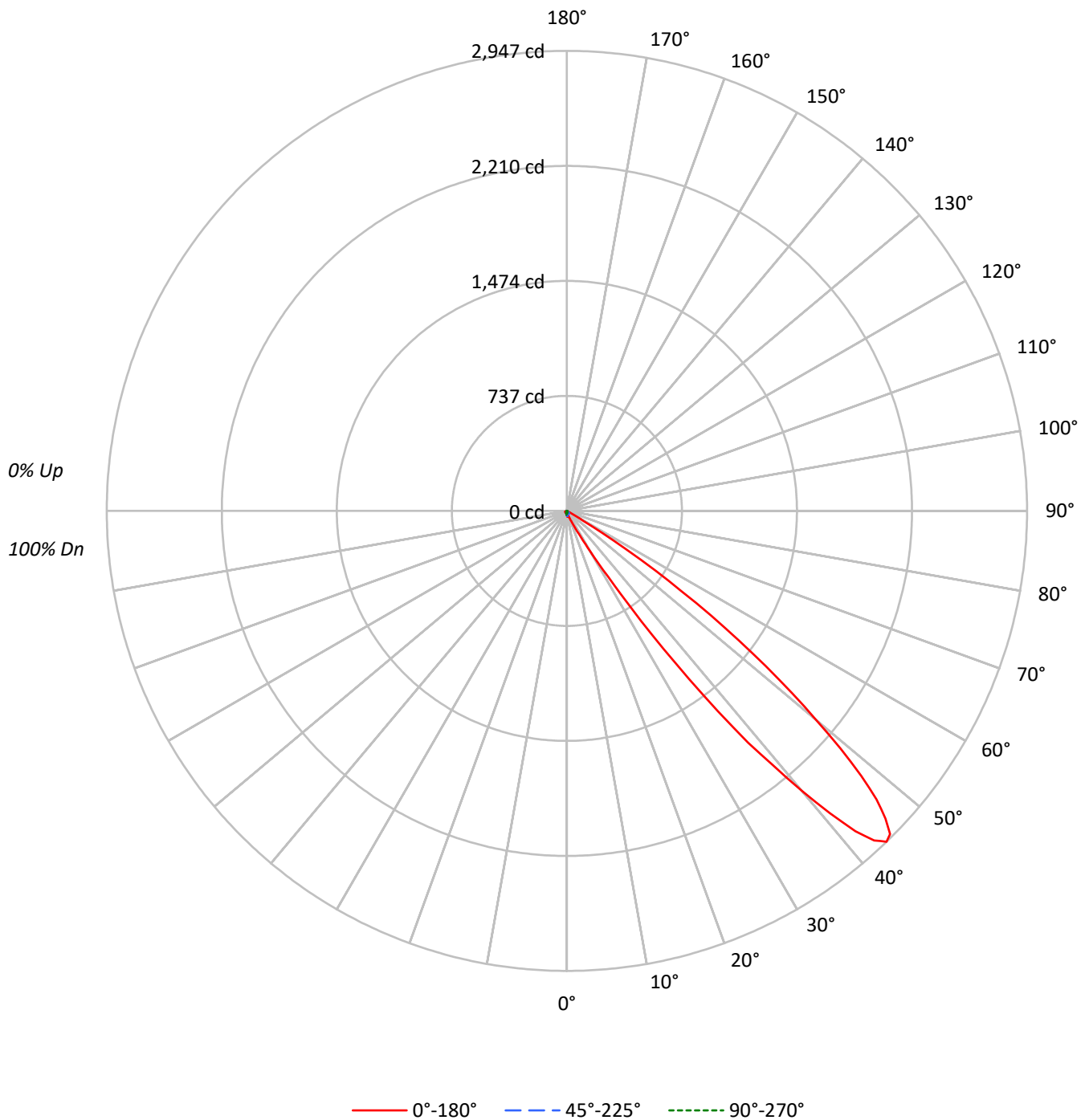
Lumens per Lamp: N/A
Luminaire Lumens: 329.0 lumens
Efficiency: N/A
Efficacy: 22.4 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 14.7
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	107	104	100	97	100	97	94	96	93	91	92	90	89	87	87
2	101	93	87	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	53	50	50
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	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	47	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	31	26	37	31	26	24	24
9	52	37	28	22	50	37	28	22	35	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	23	19	17	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	6403	6403	6403	6403	6403
5°	7946	7066	5767	5063	4975
10°	7815	6056	4453	3941	4008
15°	6470	4313	3201	3269	3496
20°	11248	3454	2450	2824	3220
25°	25090	4137	1984	2613	3024
30°	74999	5064	1747	2583	3165
35°	288733	5702	1579	2623	3346
40°	670170	4981	1489	2719	3578
45°	907722	3752	1333	2946	3876
50°	711755	2252	1330	3138	4264
55°	341627	994	1262	3403	4626
60°	31226	132	1140	3596	5175
65°	3424	0	1038	3736	5604
70°	833	0	1282	3975	6091
75°	847	254	1694	4406	6947
80°	884	884	2020	4546	7450
85°	755	755	3271	4026	8303

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 907722 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.5	0.8
10°-20°	5.2	1.6
20°-30°	12.4	3.8
30°-40°	68.1	20.7
40°-50°	164.8	50.1
50°-60°	65.8	20.0
60°-70°	5.7	1.7
70°-80°	3.2	1.0
80°-90°	1.4	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°	20.1	6.1
0°-40°	88.2	26.8
0°-60°	318.7	96.9
0°-90°	329.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	329.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	29	29	29	29	29	
5°	36	32	26	23	23	3
15°	28	19	14	14	15	10
25°	104	17	8	11	12	63
35°	1079	21	6	10	12	762
45°	2927	12	4	10	12	2065
55°	894	3	3	9	12	832
65°	7	0	2	7	11	17
75°	1	0	2	5	8	1
85°	0	0	1	2	3	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°	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2	29.2
2.5°	32.8	32.8	33.1	32.8	32.8	32.8	32.8	32.5	32.5	32.5	31.5
5°	36.1	36.1	36.1	36.1	35.8	35.8	35.8	35.4	35.4	35.1	32.1
7.5°	37.4	37.4	37.1	37.1	36.7	36.7	36.4	36.1	35.8	35.4	30.8
10°	35.1	35.1	35.1	34.8	34.8	34.4	34.1	33.8	33.5	32.8	27.2
12.5°	31.2	31.2	31.5	31.2	30.8	30.5	29.9	29.5	29.2	28.5	22.6
15°	28.5	28.5	28.5	28.2	27.9	27.2	26.9	26.2	25.9	24.9	19.0
17.5°	36.4	36.4	36.1	35.4	34.1	33.1	31.5	30.2	28.5	26.6	16.4
20°	48.2	48.2	47.6	46.9	45.3	43.6	41.0	38.7	36.1	33.8	14.8
22.5°	69.9	70.9	68.9	66.6	64.3	60.4	56.8	53.1	48.6	44.6	15.1
25°	103.7	104.6	103.7	98.4	94.1	88.9	82.0	74.8	66.9	59.7	17.1
27.5°	168.0	168.6	167.0	154.2	147.3	133.5	121.4	109.6	96.4	83.3	18.7
30°	296.2	296.6	286.1	260.5	237.8	207.7	182.1	157.5	136.8	115.8	20.0
31°	390.0	380.9	358.6	327.7	291.6	251.0	215.9	184.0	153.2	130.6	20.3
32°	495.3	494.0	457.0	403.5	355.3	304.4	251.6	210.9	175.5	144.7	20.7
33°	634.8	635.4	577.0	514.0	435.0	366.8	297.5	241.8	199.1	161.4	21.3
34°	852.6	801.4	732.9	647.6	540.0	437.3	347.4	277.5	220.4	177.5	21.3
35°	1078.6	1027.1	951.7	822.4	674.8	531.1	406.8	315.9	246.0	194.9	21.3
36°	1331.9	1288.2	1174.1	1009.1	820.8	619.7	469.8	360.2	271.3	210.6	21.0
37°	1605.4	1541.5	1414.9	1234.8	982.8	744.3	546.5	404.2	296.6	227.7	20.3
38°	1883.3	1825.6	1665.8	1447.7	1176.4	875.9	623.3	446.5	319.8	240.5	19.4
39°	2093.9	2062.4	1904.0	1660.2	1330.9	1000.5	702.3	491.7	344.4	253.2	18.4
40°	2341.2	2290.4	2140.2	1838.7	1513.6	1127.5	779.8	531.8	364.8	263.4	17.4
41°	2566.9	2502.6	2313.0	2021.7	1659.9	1241.6	853.2	573.1	381.2	269.3	16.7
42°	2760.5	2685.7	2487.6	2178.5	1782.3	1332.8	912.0	602.6	396.6	274.2	15.7
43°	2885.8	2821.2	2626.3	2296.3	1886.9	1416.5	966.7	633.5	406.1	277.5	14.4
44°	2946.8	2881.5	2692.9	2370.1	1951.2	1466.7	1002.2	654.8	416.6	281.8	13.4
45°	2927.1	2860.9	2678.5	2371.4	1971.2	1484.7	1017.3	664.3	422.2	285.7	12.1
46°	2836.9	2790.3	2606.6	2309.8	1933.2	1465.4	1008.7	657.1	420.2	285.7	10.8
47°	2710.3	2657.2	2482.3	2203.8	1841.0	1415.5	974.3	635.1	408.1	279.2	9.5
48°	2537.7	2492.5	2308.8	2035.5	1699.6	1306.9	896.5	599.3	389.1	266.4	8.2
49°	2321.2	2258.3	2087.3	1820.3	1515.2	1152.7	794.5	539.0	358.6	248.3	7.2
50°	2086.4	2008.6	1876.7	1604.8	1324.6	988.4	660.4	455.7	315.6	224.7	6.6
51°	1856.4	1777.3	1651.7	1420.4	1121.3	820.1	532.7	363.8	259.8	192.2	5.6
52°	1617.9	1551.6	1410.9	1229.2	959.9	664.6	443.8	307.7	215.9	161.4	4.6
53°	1380.4	1335.1	1201.3	1017.3	771.2	542.9	362.5	263.4	188.3	138.1	3.6
54°	1142.6	1093.0	991.3	827.3	621.6	428.4	307.4	220.4	163.4	120.4	3.3
55°	893.6	868.0	774.2	630.8	471.1	341.8	249.3	189.6	136.8	100.7	2.6
56°	688.2	659.4	573.7	457.6	350.0	267.7	201.7	154.8	115.8	84.3	2.0
57°	450.7	421.2	364.5	319.5	254.9	195.2	154.2	122.0	94.1	69.9	1.6
58°	266.4	239.5	230.6	196.8	169.9	132.5	113.8	90.9	69.5	55.1	1.0
59°	122.4	124.3	110.6	103.7	94.1	84.3	69.2	60.7	47.6	39.7	0.7
60°	71.2	67.2	65.6	58.7	52.2	46.3	41.7	36.7	29.9	25.6	0.3
62.5°	24.3	23.3	23.9	21.7	20.3	19.7	18.0	15.4	12.8	10.5	0.0
65°	6.6	6.6	6.2	5.9	5.6	5.2	4.9	4.3	3.9	3.3	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°	2.3	2.3	2.0	2.0	1.6	1.6	1.3	1.3	1.0	1.0	0.0
70°	1.3	1.3	1.3	1.0	1.0	1.0	0.7	0.7	0.7	0.3	0.0
72.5°	1.0	1.0	1.0	1.0	1.0	1.0	0.7	0.7	0.7	0.3	0.3
75°	1.0	1.0	1.0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.3
77.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
80°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.3	0.7
82.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.7
85°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	29.2	29.2	29.2	29.2	29.2	29.2
2.5°	30.2	28.9	27.2	26.2	25.9	25.6
5°	28.9	26.2	24.3	23.0	22.6	22.6
7.5°	25.9	23.0	21.0	20.3	20.0	20.0
10°	22.6	20.0	18.4	17.7	18.0	18.0
12.5°	19.0	16.7	16.1	16.1	16.4	16.7
15°	15.4	14.1	14.1	14.4	15.1	15.4
17.5°	12.8	12.1	12.5	13.1	13.8	14.4
20°	10.5	10.5	11.2	12.1	13.1	13.8
22.5°	8.9	9.2	10.2	11.2	12.5	13.1
25°	7.5	8.2	9.2	10.8	12.1	12.5
27.5°	6.6	7.5	8.9	10.5	11.8	12.5
30°	5.6	6.9	8.5	10.2	11.8	12.5
31°	5.2	6.6	8.2	10.2	11.8	12.5
32°	4.9	6.6	8.2	10.2	11.8	12.5
33°	4.6	6.2	8.2	9.8	11.8	12.5
34°	4.3	6.2	8.2	10.2	11.8	12.5
35°	3.9	5.9	7.9	9.8	11.5	12.5
36°	3.6	5.9	7.9	9.8	11.8	12.5
37°	3.3	5.9	7.9	9.8	11.5	12.5
38°	3.3	5.6	7.5	9.8	11.5	12.5
39°	3.0	5.2	7.5	9.8	11.5	12.5
40°	2.6	5.2	7.2	9.5	11.5	12.5
41°	2.3	4.9	7.2	9.5	11.5	12.5
42°	2.0	4.9	7.2	9.5	11.5	12.5
43°	1.6	4.6	6.9	9.5	11.5	12.5
44°	1.6	4.6	6.9	9.5	11.5	12.5
45°	1.3	4.3	6.6	9.5	11.5	12.5
46°	1.3	4.3	6.6	9.2	11.5	12.5
47°	1.0	4.3	6.6	9.2	11.5	12.5
48°	1.0	3.9	6.6	9.2	11.5	12.5
49°	0.7	3.9	6.6	9.2	11.5	12.5
50°	0.7	3.9	6.2	9.2	11.5	12.5
51°	0.7	3.9	6.2	9.2	11.5	12.5
52°	0.7	3.6	6.2	9.2	11.5	12.5
53°	0.7	3.6	6.2	9.2	11.5	12.5
54°	0.7	3.6	5.9	9.2	11.5	12.5
55°	0.7	3.3	5.9	8.9	11.5	12.1
56°	0.7	3.3	5.9	8.9	11.5	12.1
57°	0.7	3.3	5.6	8.9	11.5	12.1
58°	0.7	3.0	5.6	8.5	11.2	12.1
59°	0.7	3.0	5.2	8.5	11.2	11.8
60°	0.7	2.6	5.2	8.2	10.8	11.8
62.5°	0.7	2.3	4.6	7.9	10.5	11.2
65°	0.7	2.0	4.3	7.2	10.2	10.8



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.7	2.0	3.9	6.9	9.5	10.5
70°	0.7	2.0	3.6	6.2	9.2	9.5
72.5°	1.0	2.0	3.3	5.9	8.5	8.9
75°	1.3	2.0	3.0	5.2	7.9	8.2
77.5°	1.3	2.0	2.6	4.6	6.9	7.2
80°	1.3	1.6	2.3	3.6	5.6	5.9
82.5°	1.3	1.6	1.6	3.0	4.3	4.6
85°	1.0	1.3	1.3	1.6	3.0	3.3
87.5°	1.0	1.3	0.7	1.0	1.3	1.3
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)