

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: P1339972

Luminaire Tested: P3A09R159735DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1339972
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: P3A09R159735DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R15 optic, 3500K CCT AND, 97CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

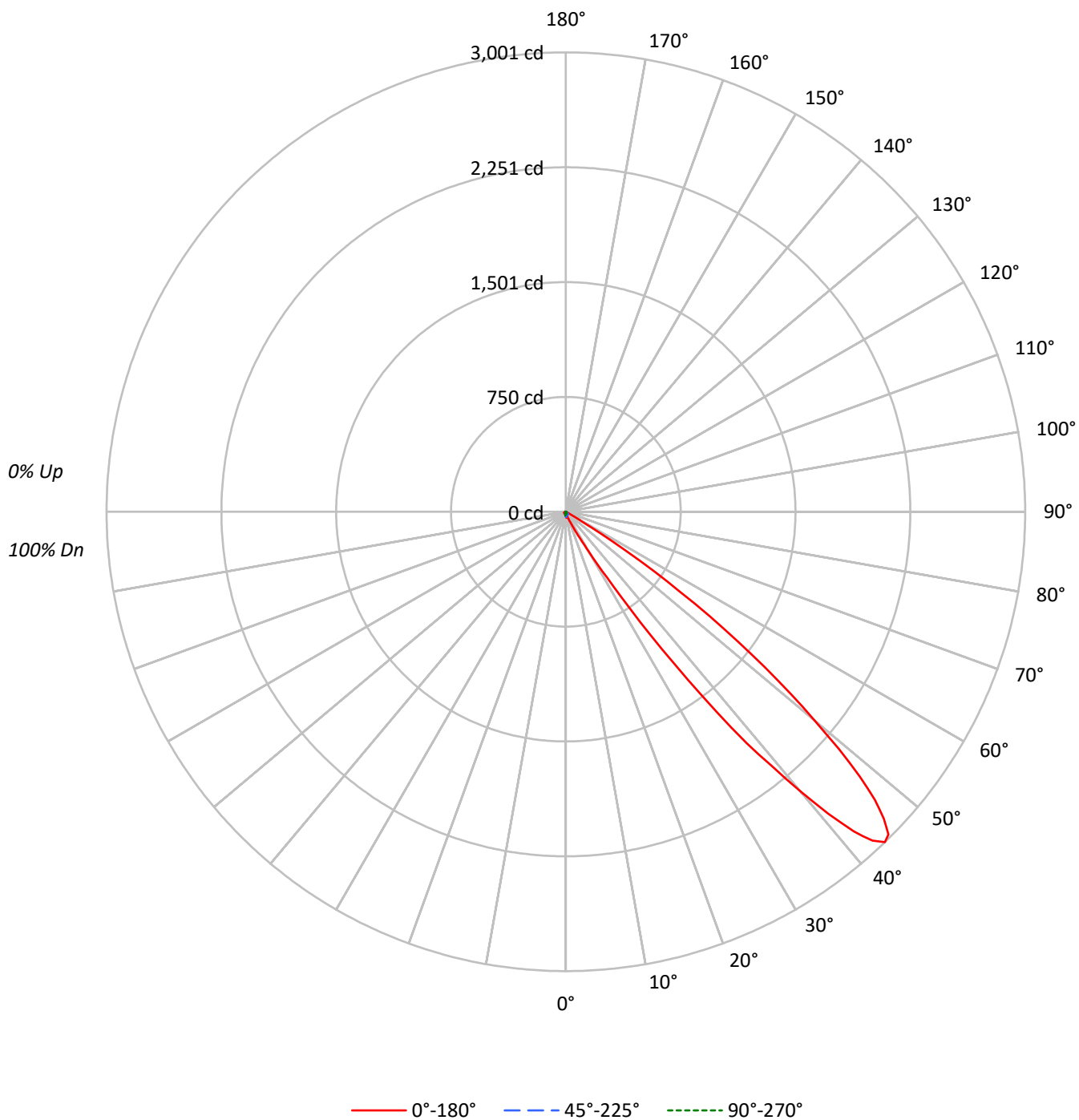
Lumens per Lamp: N/A
Luminaire Lumens: 335.0 lumens
Efficiency: N/A
Efficacy: 30.2 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 11.1
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	100	97	94	96	93	91	92	90	89
2	101	93	87	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	53
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	49	44
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	48	42	37
7	62	47	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	31	26	37	31	26
9	52	37	28	22	50	37	28	22	35	28	22	34	27	22	33	27	22
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	23	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	6513	6513	6513	6513	6513
5°	8078	7198	5877	5151	5063
10°	7949	6168	4542	4008	4097
15°	6606	4404	3269	3337	3564
20°	11458	3500	2497	2894	3267
25°	25550	4210	2032	2661	3073
30°	76366	5165	1772	2633	3216
35°	294006	5809	1606	2677	3400
40°	682393	5067	1517	2777	3635
45°	924282	3845	1333	3008	3938
50°	724718	2286	1365	3207	4332
55°	347859	1032	1262	3441	4741
60°	31796	132	1184	3684	5263
65°	3476	0	1038	3788	5707
70°	833	0	1282	4039	6219
75°	847	254	1694	4490	7117
80°	884	884	2147	4672	7577
85°	755	755	3271	4277	8303

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 924282 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.5	0.8
10°-20°	5.3	1.6
20°-30°	12.7	3.8
30°-40°	69.3	20.7
40°-50°	167.8	50.1
50°-60°	66.9	20.0
60°-70°	5.8	1.7
70°-80°	3.3	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°	20.5	6.1
0°-40°	89.8	26.8
0°-60°	324.5	96.9
0°-90°	335.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	335.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	30	30	30	30	30	
5°	37	33	27	23	23	3
15°	29	19	14	15	16	10
25°	106	17	8	11	13	64
35°	1098	22	6	10	13	776
45°	2980	12	4	10	13	2103
55°	910	3	3	9	12	848
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°	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7	29.7
2.5°	33.4	33.4	33.7	33.4	33.4	33.4	33.4	33.1	33.1	33.1	32.1
5°	36.7	36.7	36.7	36.7	36.4	36.4	36.4	36.1	36.1	35.7	32.7
7.5°	38.1	38.1	37.7	37.7	37.4	37.4	37.1	36.7	36.4	36.1	31.4
10°	35.7	35.7	35.7	35.4	35.4	35.1	34.7	34.4	34.1	33.4	27.7
12.5°	31.7	31.7	32.1	31.7	31.4	31.1	30.4	30.1	29.7	29.1	23.0
15°	29.1	29.1	29.1	28.7	28.4	27.7	27.4	26.7	26.4	25.4	19.4
17.5°	37.1	37.1	36.7	36.1	34.7	33.7	32.1	30.7	29.1	27.1	16.7
20°	49.1	49.1	48.4	47.8	46.1	44.4	41.8	39.4	36.7	34.4	15.0
22.5°	71.1	72.1	70.1	67.8	65.5	61.5	57.8	54.1	49.4	45.4	15.4
25°	105.6	106.6	105.6	100.2	95.9	90.5	83.5	76.2	68.1	60.8	17.4
27.5°	171.0	171.7	170.0	157.0	150.0	135.9	123.6	111.6	98.2	84.8	19.0
30°	301.6	302.0	291.3	265.2	242.2	211.4	185.4	160.3	139.3	117.9	20.4
31°	397.2	387.8	365.1	333.7	296.9	255.5	219.8	187.4	156.0	132.9	20.7
32°	504.4	503.0	465.3	410.9	361.8	310.0	256.2	214.8	178.7	147.3	21.0
33°	646.3	647.0	587.6	523.4	442.9	373.4	303.0	246.2	202.8	164.3	21.7
34°	868.1	816.0	746.2	659.4	549.8	445.3	353.7	282.6	224.5	180.7	21.7
35°	1098.3	1045.8	969.0	837.4	687.1	540.8	414.2	321.7	250.5	198.4	21.7
36°	1356.1	1311.7	1195.5	1027.5	835.7	631.0	478.3	366.8	276.2	214.4	21.4
37°	1634.7	1569.6	1440.7	1257.3	1000.7	757.9	556.5	411.5	302.0	231.8	20.7
38°	1917.6	1858.9	1696.2	1474.1	1197.8	891.9	634.7	454.6	325.7	244.8	19.7
39°	2132.1	2100.0	1938.7	1690.5	1355.1	1018.8	715.2	500.7	350.7	257.9	18.7
40°	2383.9	2332.2	2179.2	1872.2	1541.2	1148.0	794.0	541.5	371.4	268.2	17.7
41°	2613.8	2548.3	2355.2	2058.6	1690.2	1264.3	868.8	583.5	388.1	274.2	17.0
42°	2810.8	2734.7	2532.9	2218.3	1814.8	1357.1	928.6	613.6	403.8	279.2	16.0
43°	2938.4	2872.6	2674.2	2338.2	1921.3	1442.3	984.4	645.0	413.5	282.6	14.7
44°	3000.6	2934.1	2742.0	2413.3	1986.8	1493.4	1020.5	666.7	424.2	286.9	13.7
45°	2980.5	2913.0	2727.3	2414.7	2007.2	1511.8	1035.8	676.4	429.9	290.9	12.4
46°	2888.7	2841.2	2654.2	2351.9	1968.4	1492.1	1027.1	669.1	427.9	290.9	11.0
47°	2759.7	2705.6	2527.6	2244.0	1874.6	1441.3	992.1	646.7	415.5	284.3	9.7
48°	2584.0	2537.9	2350.9	2072.6	1730.6	1330.8	912.9	610.3	396.2	271.2	8.4
49°	2363.6	2299.4	2125.4	1853.5	1542.9	1173.8	809.0	548.8	365.1	252.9	7.3
50°	2124.4	2045.2	1911.0	1634.1	1348.8	1006.4	672.4	464.0	321.3	228.8	6.7
51°	1890.3	1809.8	1681.8	1446.3	1141.7	835.1	542.5	370.4	264.5	195.7	5.7
52°	1647.4	1579.9	1436.6	1251.6	977.4	676.7	451.9	313.3	219.8	164.3	4.7
53°	1405.6	1359.5	1223.2	1035.8	785.3	552.8	369.1	268.2	191.7	140.6	3.7
54°	1163.4	1113.0	1009.4	842.4	633.0	436.2	313.0	224.5	166.3	122.6	3.3
55°	909.9	883.8	788.3	642.3	479.7	348.1	253.9	193.1	139.3	102.5	2.7
56°	700.8	671.4	584.2	466.0	356.4	272.6	205.4	157.7	117.9	85.8	2.0
57°	459.0	428.9	371.1	325.3	259.5	198.7	157.0	124.3	95.9	71.1	1.7
58°	271.2	243.8	234.8	200.4	173.0	134.9	115.9	92.5	70.8	56.1	1.0
59°	124.6	126.6	112.6	105.6	95.9	85.8	70.5	61.8	48.4	40.4	0.7
60°	72.5	68.5	66.8	59.8	53.1	47.1	42.4	37.4	30.4	26.1	0.3
62.5°	24.7	23.7	24.4	22.0	20.7	20.0	18.4	15.7	13.0	10.7	0.0
65°	6.7	6.7	6.3	6.0	5.7	5.3	5.0	4.3	4.0	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	1.7	1.7	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°	29.7	29.7	29.7	29.7	29.7	29.7
2.5°	30.7	29.4	27.7	26.7	26.4	26.1
5°	29.4	26.7	24.7	23.4	23.0	23.0
7.5°	26.4	23.4	21.4	20.7	20.4	20.4
10°	23.0	20.4	18.7	18.0	18.4	18.4
12.5°	19.4	17.0	16.4	16.4	16.7	17.0
15°	15.7	14.4	14.4	14.7	15.4	15.7
17.5°	13.0	12.4	12.7	13.4	14.0	14.7
20°	10.7	10.7	11.4	12.4	13.4	14.0
22.5°	9.0	9.4	10.4	11.4	12.7	13.4
25°	7.7	8.4	9.4	11.0	12.4	12.7
27.5°	6.7	7.7	9.0	10.7	12.0	12.7
30°	5.7	7.0	8.7	10.4	12.0	12.7
31°	5.3	6.7	8.4	10.4	12.0	12.7
32°	5.0	6.7	8.4	10.4	12.0	12.7
33°	4.7	6.3	8.4	10.0	12.0	12.7
34°	4.3	6.3	8.4	10.4	12.0	12.7
35°	4.0	6.0	8.0	10.0	11.7	12.7
36°	3.7	6.0	8.0	10.0	12.0	12.7
37°	3.3	6.0	8.0	10.0	11.7	12.7
38°	3.3	5.7	7.7	10.0	11.7	12.7
39°	3.0	5.3	7.7	10.0	11.7	12.7
40°	2.7	5.3	7.3	9.7	11.7	12.7
41°	2.3	5.0	7.3	9.7	11.7	12.7
42°	2.0	5.0	7.3	9.7	11.7	12.7
43°	1.7	4.7	7.0	9.7	11.7	12.7
44°	1.7	4.7	7.0	9.7	11.7	12.7
45°	1.3	4.3	6.7	9.7	11.7	12.7
46°	1.3	4.3	6.7	9.4	11.7	12.7
47°	1.0	4.3	6.7	9.4	11.7	12.7
48°	1.0	4.0	6.7	9.4	11.7	12.7
49°	0.7	4.0	6.7	9.4	11.7	12.7
50°	0.7	4.0	6.3	9.4	11.7	12.7
51°	0.7	4.0	6.3	9.4	11.7	12.7
52°	0.7	3.7	6.3	9.4	11.7	12.7
53°	0.7	3.7	6.3	9.4	11.7	12.7
54°	0.7	3.7	6.0	9.4	11.7	12.7
55°	0.7	3.3	6.0	9.0	11.7	12.4
56°	0.7	3.3	6.0	9.0	11.7	12.4
57°	0.7	3.3	5.7	9.0	11.7	12.4
58°	0.7	3.0	5.7	8.7	11.4	12.4
59°	0.7	3.0	5.3	8.7	11.4	12.0
60°	0.7	2.7	5.3	8.4	11.0	12.0
62.5°	0.7	2.3	4.7	8.0	10.7	11.4
65°	0.7	2.0	4.3	7.3	10.4	11.0



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.7	2.0	4.0	7.0	9.7	10.7
70°	0.7	2.0	3.7	6.3	9.4	9.7
72.5°	1.0	2.0	3.3	6.0	8.7	9.0
75°	1.3	2.0	3.0	5.3	8.0	8.4
77.5°	1.3	2.0	2.7	4.7	7.0	7.3
80°	1.3	1.7	2.3	3.7	5.7	6.0
82.5°	1.3	1.7	1.7	3.0	4.3	4.7
85°	1.0	1.3	1.3	1.7	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)