

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: P1334011

Luminaire Tested: P3A02R159030D2WDE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1334011
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: P3A02R159030D2WDE010 E3CA451MMS
Description: 3in Adjustable Dim to Warm LED luminaire with, R15 optic, 3000K CCT AND, 90CRI ,
E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

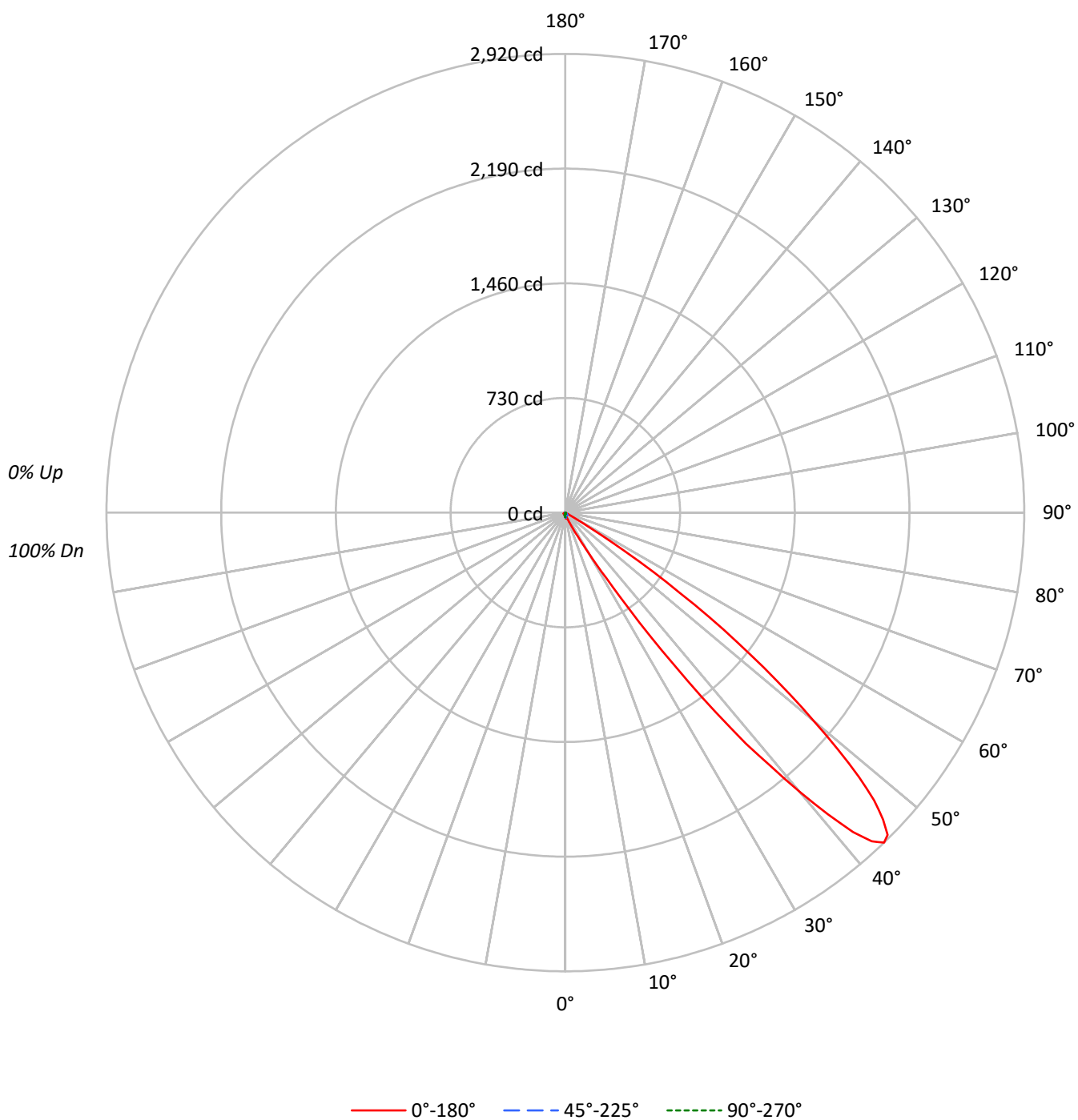
Lumens per Lamp: N/A
Luminaire Lumens: 326.1 lumens
Efficiency: N/A
Efficacy: 45.3 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.48 / 1.09
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 7.2
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		54	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°	6337	6337	6337	6337	6337
5°	7880	7022	5723	5019	4931
10°	7749	6012	4409	3919	3986
15°	6425	4291	3178	3246	3473
20°	11154	3407	2427	2800	3197
25°	24848	4089	1960	2589	3000
30°	74315	5013	1722	2557	3140
35°	286110	5648	1579	2623	3319
40°	664073	4924	1489	2691	3550
45°	899442	3721	1302	2915	3845
50°	705239	2217	1330	3104	4230
55°	338492	994	1262	3364	4588
60°	30919	132	1140	3552	5131
65°	3373	0	1038	3736	5552
70°	833	0	1282	3975	6027
75°	847	254	1694	4406	6863
80°	884	884	2020	4546	7450
85°	755	755	3271	4026	8303

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 899442 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.5	0.8
10°-20°	5.1	1.6
20°-30°	12.3	3.8
30°-40°	67.4	20.7
40°-50°	163.3	50.1
50°-60°	65.2	20.0
60°-70°	5.6	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°	19.9	6.1
0°-40°	87.4	26.8
0°-60°	315.8	96.9
0°-90°	326.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	326.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	29	29	29	29	29	
5°	36	32	26	23	22	3
15°	28	19	14	14	15	10
25°	103	17	8	11	12	62
35°	1069	21	6	10	12	755
45°	2900	12	4	9	12	2046
55°	885	3	3	9	12	825
65°	6	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°	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9	28.9
2.5°	32.5	32.5	32.8	32.5	32.5	32.5	32.5	32.2	32.2	32.2	31.2
5°	35.8	35.8	35.8	35.8	35.4	35.4	35.4	35.1	35.1	34.8	31.9
7.5°	37.1	37.1	36.7	36.7	36.4	36.4	36.1	35.8	35.4	35.1	30.6
10°	34.8	34.8	34.8	34.5	34.5	34.1	33.8	33.5	33.2	32.5	27.0
12.5°	30.9	30.9	31.2	30.9	30.6	30.2	29.6	29.3	28.9	28.3	22.4
15°	28.3	28.3	28.3	28.0	27.6	27.0	26.7	26.0	25.7	24.7	18.9
17.5°	36.1	36.1	35.8	35.1	33.8	32.8	31.2	29.9	28.3	26.3	16.3
20°	47.8	47.8	47.1	46.5	44.9	43.2	40.6	38.4	35.8	33.5	14.6
22.5°	69.2	70.2	68.3	66.0	63.7	59.8	56.2	52.7	48.1	44.2	15.0
25°	102.7	103.7	102.7	97.5	93.3	88.1	81.3	74.1	66.3	59.2	16.9
27.5°	166.4	167.1	165.5	152.8	145.9	132.3	120.3	108.6	95.6	82.6	18.5
30°	293.5	293.8	283.4	258.1	235.7	205.8	180.4	156.0	135.5	114.7	19.8
31°	386.5	377.4	355.3	324.7	289.0	248.7	213.9	182.4	151.8	129.4	20.2
32°	490.8	489.5	452.8	399.8	352.0	301.6	249.3	209.0	173.9	143.3	20.5
33°	629.0	629.6	571.8	509.4	431.0	363.4	294.8	239.6	197.3	159.9	21.1
34°	844.8	794.1	726.2	641.7	535.0	433.3	344.2	275.0	218.4	175.9	21.1
35°	1068.8	1017.7	943.0	814.9	668.6	526.3	403.1	313.0	243.8	193.1	21.1
36°	1319.7	1276.5	1163.4	999.9	813.3	614.0	465.5	356.9	268.8	208.7	20.8
37°	1590.8	1527.4	1402.0	1223.5	973.9	737.5	541.5	400.5	293.8	225.6	20.2
38°	1866.1	1808.9	1650.6	1434.5	1165.6	867.9	617.6	442.4	316.9	238.3	19.2
39°	2074.8	2043.6	1886.6	1645.1	1318.7	991.4	695.9	487.3	341.3	250.9	18.2
40°	2319.9	2269.5	2120.6	1821.9	1499.8	1117.2	772.7	526.9	361.5	261.0	17.2
41°	2543.5	2479.8	2291.9	2003.3	1644.8	1230.3	845.5	567.9	377.7	266.9	16.6
42°	2735.3	2661.2	2464.9	2158.7	1766.0	1320.7	903.6	597.1	393.0	271.7	15.6
43°	2859.5	2795.5	2602.4	2275.4	1869.7	1403.6	957.9	627.7	402.4	275.0	14.3
44°	2919.9	2855.3	2668.4	2348.5	1933.4	1453.3	993.0	648.8	412.8	279.2	13.3
45°	2900.4	2834.8	2654.1	2349.8	1953.2	1471.2	1008.0	658.2	418.3	283.1	12.0
46°	2811.1	2764.9	2582.9	2288.7	1915.5	1452.0	999.5	651.1	416.4	283.1	10.7
47°	2685.6	2632.9	2459.7	2183.7	1824.2	1402.6	965.4	629.3	404.4	276.6	9.4
48°	2514.6	2469.8	2287.7	2017.0	1684.1	1295.0	888.4	593.9	385.5	263.9	8.1
49°	2300.1	2237.7	2068.3	1803.7	1501.4	1142.2	787.3	534.1	355.3	246.1	7.2
50°	2067.3	1990.3	1859.6	1590.2	1312.6	979.4	654.3	451.5	312.7	222.7	6.5
51°	1839.5	1761.1	1636.6	1407.5	1111.0	812.6	527.9	360.5	257.4	190.5	5.5
52°	1603.2	1537.5	1398.1	1218.0	951.1	658.6	439.8	304.9	213.9	159.9	4.6
53°	1367.8	1323.0	1190.3	1008.0	764.2	538.0	359.2	261.0	186.6	136.8	3.6
54°	1132.2	1083.1	982.3	819.8	616.0	424.5	304.6	218.4	161.9	119.3	3.3
55°	885.4	860.1	767.1	625.1	466.8	338.7	247.0	187.9	135.5	99.8	2.6
56°	682.0	653.4	568.5	453.4	346.8	265.2	199.9	153.4	114.7	83.5	2.0
57°	446.6	417.4	361.1	316.6	252.6	193.4	152.8	120.9	93.3	69.2	1.6
58°	263.9	237.3	228.5	195.0	168.4	131.3	112.8	90.0	68.9	54.6	1.0
59°	121.2	123.2	109.5	102.7	93.3	83.5	68.6	60.1	47.1	39.3	0.7
60°	70.5	66.6	65.0	58.2	51.7	45.8	41.3	36.4	29.6	25.4	0.3
62.5°	24.1	23.1	23.7	21.5	20.2	19.5	17.9	15.3	12.7	10.4	0.0
65°	6.5	6.5	6.2	5.9	5.5	5.2	4.9	4.2	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°	28.9	28.9	28.9	28.9	28.9	28.9
2.5°	29.9	28.6	27.0	26.0	25.7	25.4
5°	28.6	26.0	24.1	22.8	22.4	22.4
7.5°	25.7	22.8	20.8	20.2	19.8	19.8
10°	22.4	19.8	18.2	17.6	17.9	17.9
12.5°	18.9	16.6	15.9	15.9	16.3	16.6
15°	15.3	14.0	14.0	14.3	15.0	15.3
17.5°	12.7	12.0	12.4	13.0	13.7	14.3
20°	10.4	10.4	11.1	12.0	13.0	13.7
22.5°	8.8	9.1	10.1	11.1	12.4	13.0
25°	7.5	8.1	9.1	10.7	12.0	12.4
27.5°	6.5	7.5	8.8	10.4	11.7	12.4
30°	5.5	6.8	8.5	10.1	11.7	12.4
31°	5.2	6.5	8.1	10.1	11.7	12.4
32°	4.9	6.5	8.1	10.1	11.7	12.4
33°	4.6	6.2	8.1	9.8	11.7	12.4
34°	4.2	6.2	8.1	10.1	11.7	12.4
35°	3.9	5.9	7.8	9.8	11.4	12.4
36°	3.6	5.9	7.8	9.8	11.7	12.4
37°	3.3	5.9	7.8	9.8	11.4	12.4
38°	3.3	5.5	7.5	9.8	11.4	12.4
39°	2.9	5.2	7.5	9.8	11.4	12.4
40°	2.6	5.2	7.2	9.4	11.4	12.4
41°	2.3	4.9	7.2	9.4	11.4	12.4
42°	2.0	4.9	7.2	9.4	11.4	12.4
43°	1.6	4.6	6.8	9.4	11.4	12.4
44°	1.6	4.6	6.8	9.4	11.4	12.4
45°	1.3	4.2	6.5	9.4	11.4	12.4
46°	1.3	4.2	6.5	9.1	11.4	12.4
47°	1.0	4.2	6.5	9.1	11.4	12.4
48°	1.0	3.9	6.5	9.1	11.4	12.4
49°	0.7	3.9	6.5	9.1	11.4	12.4
50°	0.7	3.9	6.2	9.1	11.4	12.4
51°	0.7	3.9	6.2	9.1	11.4	12.4
52°	0.7	3.6	6.2	9.1	11.4	12.4
53°	0.7	3.6	6.2	9.1	11.4	12.4
54°	0.7	3.6	5.9	9.1	11.4	12.4
55°	0.7	3.3	5.9	8.8	11.4	12.0
56°	0.7	3.3	5.9	8.8	11.4	12.0
57°	0.7	3.3	5.5	8.8	11.4	12.0
58°	0.7	2.9	5.5	8.5	11.1	12.0
59°	0.7	2.9	5.2	8.5	11.1	11.7
60°	0.7	2.6	5.2	8.1	10.7	11.7
62.5°	0.7	2.3	4.6	7.8	10.4	11.1
65°	0.7	2.0	4.2	7.2	10.1	10.7



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.7	2.0	3.9	6.8	9.4	10.4
70°	0.7	2.0	3.6	6.2	9.1	9.4
72.5°	1.0	2.0	3.3	5.9	8.5	8.8
75°	1.3	2.0	2.9	5.2	7.8	8.1
77.5°	1.3	2.0	2.6	4.6	6.8	7.2
80°	1.3	1.6	2.3	3.6	5.5	5.9
82.5°	1.3	1.6	1.6	2.9	4.2	4.6
85°	1.0	1.3	1.3	1.6	2.9	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)