

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: P1335719

Luminaire Tested: P3A02R409050DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335719
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-78)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A02R409050DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R40 optic, 5000K CCT AND, 90CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

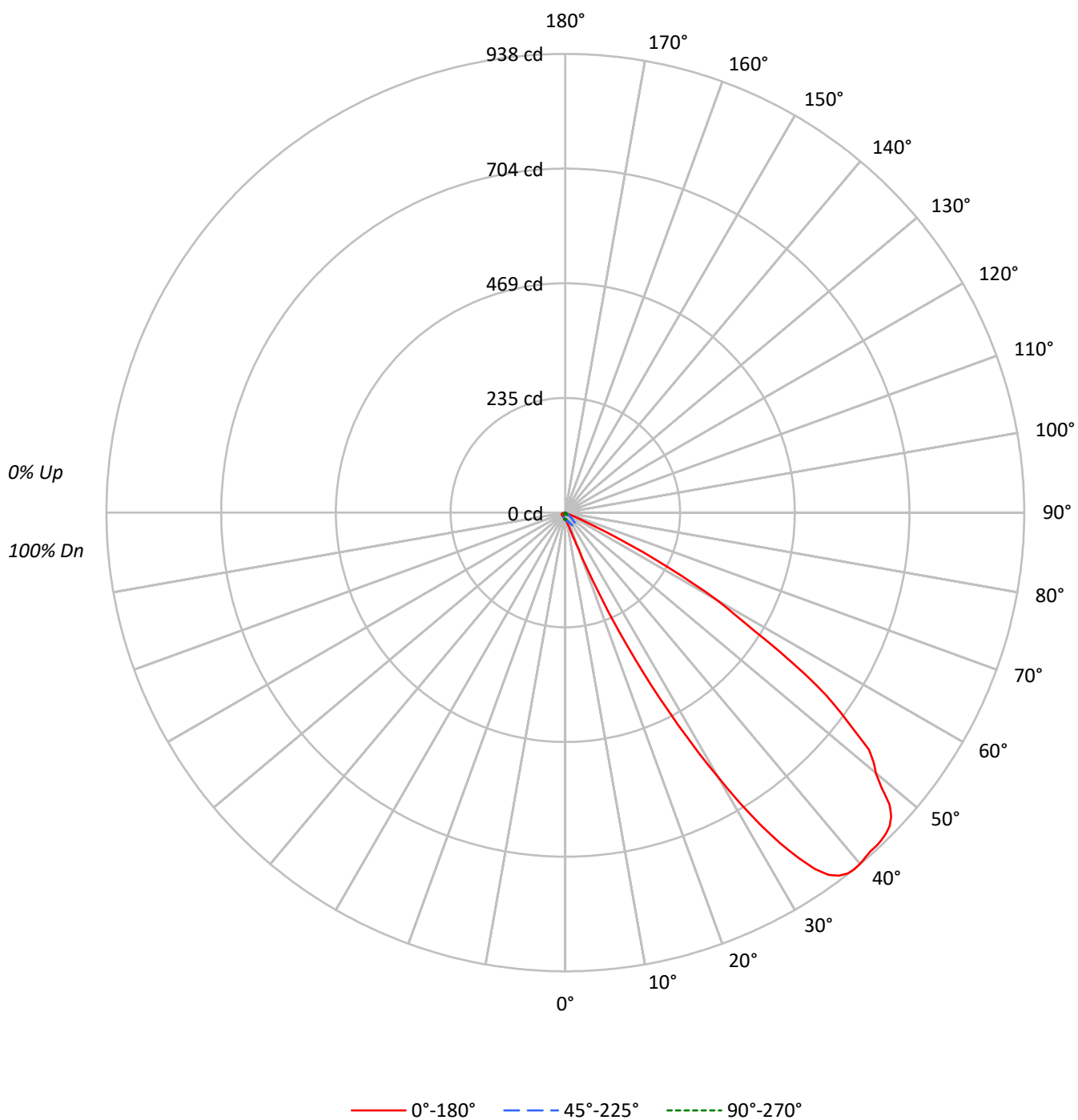
Lumens per Lamp: N/A
Luminaire Lumens: 290.0 lumens
Efficiency: N/A
Efficacy: 80.6 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.74 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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			0
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50	30	10	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	110	106	102	99	107	104	100	97	99	97	94		96	93	91		92	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78		84	80	76		81	78	75	72
3	91	81	73	66	89	79	72	66	76	70	65		73	68	64		71	66	62	60
4	82	70	62	55	80	69	61	54	67	59	54		64	58	53		62	57	52	50
5	75	62	52	46	73	60	52	45	58	51	45		56	50	44		54	49	44	42
6	68	54	45	38	66	53	44	38	51	43	38		50	43	37		48	42	37	35
7	62	48	39	32	60	47	38	32	45	37	32		44	37	31		42	36	31	29
8	57	42	33	27	55	42	33	27	40	32	27		39	32	27		38	31	26	24
9	52	38	29	23	51	37	29	23	36	28	23		35	28	23		34	27	23	21
10	48	34	25	20	47	33	25	20	32	25	20		31	24	20		30	24	19	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	3267	3267	3267	3267	3267
5°	3632	3522	3214	2928	2862
10°	4386	3741	2961	2672	2605
15°	7196	4041	2543	2361	2429
20°	19018	4784	2124	2124	2310
25°	73335	5928	1669	1936	2250
30°	158202	7900	1342	1899	2228
35°	238112	9342	1151	1847	2275
40°	268274	9389	1002	1918	2433
45°	287658	7257	899	1985	2636
50°	282737	4537	819	2081	2900
55°	248727	2256	803	2332	3250
60°	157444	482	921	2588	3640
65°	32221	156	986	2750	3995
70°	705	192	1026	3077	4616
75°	678	424	1101	3389	5168
80°	631	379	1389	3662	6061
85°	755	755	2768	4026	6793

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 292847 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.4	0.5
10°-20°	4.6	1.6
20°-30°	22.5	7.8
30°-40°	73.3	25.3
40°-50°	101.0	34.8
50°-60°	70.4	24.3
60°-70°	13.3	4.6
70°-80°	2.4	0.8
80°-90°	1.1	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°	28.5	9.8
0°-40°	101.8	35.1
0°-60°	273.1	94.2
0°-90°	290.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	290.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	15	15	15	15	15	
5°	16	16	15	13	13	2
15°	32	18	11	10	11	12
25°	303	24	7	8	9	156
35°	890	35	4	7	8	538
45°	928	23	3	6	8	705
55°	651	6	2	6	8	556
65°	62	0	2	5	8	110
75°	1	0	1	4	6	1
85°	0	0	1	2	3	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
0°	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9	14.9
2.5°	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.2	14.9
5°	16.5	16.5	16.5	16.5	16.2	16.2	16.2	16.0	16.0	15.4	14.6
7.5°	17.6	17.6	17.6	17.6	17.3	17.0	16.8	16.8	16.5	15.2	14.1
10°	19.7	19.7	19.4	19.2	18.9	18.4	18.1	17.6	16.8	14.9	13.3
12.5°	24.0	23.4	23.2	22.6	21.8	20.8	19.7	18.9	17.0	14.4	12.5
15°	31.7	31.2	30.1	28.5	26.9	24.8	22.9	21.0	17.8	13.6	11.2
17.5°	45.3	43.7	42.1	39.4	35.4	31.7	27.7	24.2	18.9	12.8	10.1
20°	81.5	80.4	70.8	63.4	51.4	42.9	34.9	29.0	20.5	12.0	9.1
22.5°	168.1	156.9	141.2	115.6	90.0	66.3	48.2	36.5	22.1	10.9	8.0
25°	303.1	285.5	251.7	202.4	149.4	105.7	69.8	47.7	24.5	9.9	6.9
27.5°	458.9	441.0	388.6	320.7	234.1	159.5	99.6	63.1	27.7	8.8	6.1
30°	624.8	609.6	543.0	449.0	330.0	223.4	133.4	78.8	31.2	7.7	5.3
31°	691.6	672.2	600.3	500.2	375.0	249.8	147.0	85.5	32.5	7.5	5.1
32°	753.2	731.1	656.5	549.2	411.5	278.3	161.9	91.3	33.6	6.9	4.8
33°	806.2	780.3	708.4	595.5	451.7	304.9	177.4	96.9	34.4	6.4	4.5
34°	851.2	828.8	751.6	642.1	487.4	330.5	192.6	102.5	34.9	6.1	4.3
35°	889.5	869.3	792.8	677.5	522.3	355.3	206.4	107.9	34.9	5.6	4.3
36°	915.4	897.8	828.5	713.8	551.6	376.3	218.1	112.7	34.9	5.1	4.0
37°	929.5	912.4	852.0	743.6	580.3	397.1	228.8	116.4	34.6	4.8	3.7
38°	936.7	921.7	869.3	767.8	600.3	412.0	238.1	119.3	34.4	4.3	3.7
39°	938.5	926.0	880.2	785.4	619.7	426.9	244.8	120.9	33.6	4.0	3.5
40°	937.2	926.3	886.1	801.1	634.7	438.6	249.5	121.4	32.8	3.5	3.5
41°	934.5	926.0	890.3	812.0	646.6	446.1	251.4	120.4	31.7	2.9	3.2
42°	932.1	922.8	892.2	819.5	654.9	449.8	251.1	118.2	30.1	2.7	3.2
43°	932.1	921.5	892.5	824.3	658.9	450.1	247.9	114.3	28.0	2.4	2.9
44°	930.5	920.7	893.8	827.5	660.0	447.7	242.9	110.0	25.6	2.1	2.9
45°	927.6	917.2	893.5	827.7	658.1	441.8	234.6	104.4	23.4	1.6	2.9
46°	922.0	912.7	891.1	825.9	652.5	433.3	224.8	98.8	21.0	1.3	2.7
47°	910.8	903.6	884.7	819.5	644.0	420.8	213.1	92.4	19.2	1.1	2.7
48°	891.7	886.6	873.8	805.4	627.7	405.3	200.5	85.5	17.3	1.1	2.7
49°	856.5	852.5	845.0	782.7	607.0	386.4	187.0	77.8	15.4	0.8	2.7
50°	828.8	824.5	809.4	744.6	577.1	362.5	172.0	70.0	13.3	0.5	2.4
51°	810.4	803.5	779.5	700.4	533.7	330.5	155.8	62.3	11.2	0.5	2.4
52°	787.3	776.9	747.0	660.8	494.0	298.5	138.2	54.6	9.9	0.5	2.4
53°	738.8	735.1	705.5	618.1	454.3	267.9	120.1	48.2	8.5	0.5	2.4
54°	696.4	690.8	650.6	559.0	411.2	233.8	101.5	42.6	7.2	0.5	2.4
55°	650.6	639.7	604.0	509.2	360.6	202.4	83.6	36.8	5.9	0.5	2.1
56°	592.8	583.3	544.9	455.9	314.0	170.4	70.0	30.1	4.5	0.5	2.1
57°	522.5	513.7	484.2	390.4	265.5	139.3	57.0	24.2	3.5	0.5	2.1
58°	454.6	444.8	410.9	327.6	214.4	110.5	47.7	19.7	2.7	0.5	2.1
59°	402.4	389.1	345.4	275.1	167.8	83.9	37.8	15.7	1.9	0.5	2.1
60°	359.0	348.1	302.8	229.0	131.6	61.8	28.0	12.0	1.1	0.5	2.1
62.5°	208.0	205.1	164.3	118.0	62.1	28.8	13.8	5.6	0.5	0.8	2.1
65°	62.1	54.1	42.1	25.0	16.0	9.6	5.1	1.9	0.3	0.8	1.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.1	0.5	0.3	0.8	1.9
70°	1.1	0.8	0.8	0.8	0.8	0.5	0.5	0.3	0.3	0.8	1.6
72.5°	0.8	0.8	0.8	0.8	0.5	0.5	0.5	0.3	0.5	0.8	1.3
75°	0.8	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.5	0.8	1.3
77.5°	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0.5	0.8	1.3
80°	0.5	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.8	1.1
82.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.8	1.1
85°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.8	1.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.8	0.8
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):

	112.5°	135°	157.5°	180°
0°	14.9	14.9	14.9	14.9
2.5°	14.4	14.1	13.8	13.8
5°	13.8	13.3	13.3	13.0
7.5°	13.0	12.5	12.5	12.5
10°	12.3	12.0	12.0	11.7
12.5°	11.2	11.2	11.2	11.2
15°	10.4	10.4	10.7	10.7
17.5°	9.3	9.6	10.1	10.4
20°	8.5	9.1	9.6	9.9
22.5°	8.0	8.5	9.3	9.6
25°	7.2	8.0	9.1	9.3
27.5°	6.7	7.7	8.5	9.1
30°	6.1	7.5	8.3	8.8
31°	6.1	7.2	8.3	8.8
32°	5.9	6.9	8.3	8.5
33°	5.9	6.9	8.3	8.5
34°	5.6	6.9	8.0	8.5
35°	5.6	6.9	8.0	8.5
36°	5.3	6.7	8.0	8.5
37°	5.3	6.7	8.0	8.5
38°	5.1	6.7	8.0	8.5
39°	5.1	6.7	8.0	8.5
40°	5.1	6.7	8.0	8.5
41°	4.8	6.7	8.0	8.5
42°	4.8	6.7	8.0	8.5
43°	4.8	6.4	8.0	8.5
44°	4.8	6.4	8.0	8.5
45°	4.5	6.4	8.0	8.5
46°	4.5	6.4	8.0	8.5
47°	4.5	6.4	8.0	8.5
48°	4.5	6.4	8.0	8.5
49°	4.5	6.4	8.0	8.5
50°	4.3	6.1	8.0	8.5
51°	4.3	6.1	8.0	8.5
52°	4.3	6.1	8.0	8.5
53°	4.3	6.1	8.0	8.5
54°	4.0	6.1	8.0	8.5
55°	4.0	6.1	8.0	8.5
56°	4.0	6.1	8.0	8.3
57°	4.0	6.1	7.7	8.3
58°	4.0	5.9	7.7	8.3
59°	4.0	5.9	7.7	8.3
60°	4.0	5.9	7.7	8.3
62.5°	3.7	5.9	7.5	8.0
65°	3.5	5.3	7.5	7.7



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	3.5	5.1	6.9	7.5
70°	3.2	4.8	6.7	7.2
72.5°	2.7	4.5	6.1	6.7
75°	2.4	4.0	5.6	6.1
77.5°	2.1	3.5	5.1	5.3
80°	1.9	2.9	4.3	4.8
82.5°	1.3	2.1	3.5	3.7
85°	1.1	1.6	2.4	2.7
87.5°	0.8	0.8	1.3	1.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)