

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: P1335814

Luminaire Tested: P3A02R409830DE010 E3CA451MB

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335814
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: P3A02R409830DE010 E3CA451MB
Description: 3in Adjustable LED luminaire with, R40 optic, 3000K CCT AND, 98CRI , E3CA451MB TRIM
Light Source: -
Ballast/Driver: -

Summary

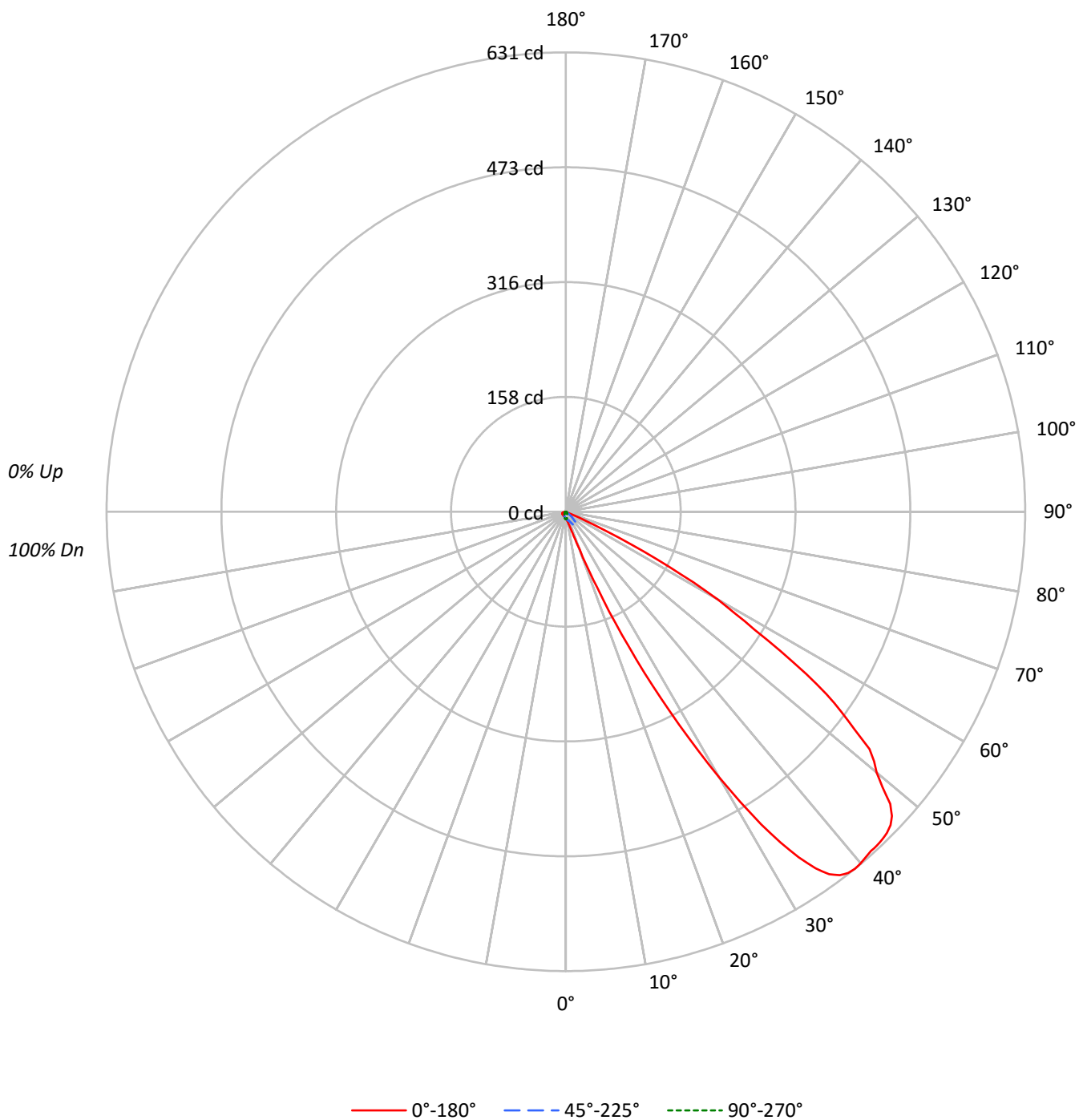
Lumens per Lamp: N/A
Luminaire Lumens: 195.0 lumens
Efficiency: N/A
Efficacy: 54.2 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.74 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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°	2193	2193	2193	2193	2193
5°	2443	2355	2157	1981	1937
10°	2961	2516	2004	1804	1759
15°	4835	2724	1703	1589	1635
20°	12788	3220	1423	1423	1540
25°	49309	3992	1137	1307	1524
30°	106371	5317	912	1266	1494
35°	160107	6291	776	1258	1526
40°	180395	6298	658	1288	1632
45°	193415	4900	620	1333	1768
50°	190117	3070	546	1399	1944
55°	167258	1491	535	1567	2179
60°	105869	307	614	1710	2456
65°	21637	104	675	1868	2698
70°	449	128	705	2052	3077
75°	424	339	763	2288	3474
80°	505	253	884	2526	4041
85°	503	503	1761	2768	4529

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 196935 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.9	0.5
10°-20°	3.1	1.6
20°-30°	15.1	7.8
30°-40°	49.3	25.3
40°-50°	67.9	34.8
50°-60°	47.3	24.3
60°-70°	9.0	4.6
70°-80°	1.6	0.8
80°-90°	0.7	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°	19.2	9.8
0°-40°	68.4	35.1
0°-60°	183.7	94.2
0°-90°	195.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	195.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	10	10	10	10	10	
5°	11	11	10	9	9	1
15°	21	12	8	7	7	8
25°	204	16	5	5	6	105
35°	598	24	3	5	6	361
45°	624	16	2	4	6	474
55°	438	4	1	4	6	374
65°	42	0	1	4	5	74
75°	0	0	1	3	4	1
85°	0	0	1	1	2	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°	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
2.5°	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.4	10.2	10.0
5°	11.1	11.1	11.1	11.1	10.9	10.9	10.9	10.7	10.7	10.4	9.8
7.5°	11.8	11.8	11.8	11.8	11.6	11.5	11.3	11.3	11.1	10.2	9.5
10°	13.3	13.3	13.1	12.9	12.7	12.4	12.2	11.8	11.3	10.0	9.0
12.5°	16.1	15.8	15.6	15.2	14.7	14.0	13.3	12.7	11.5	9.7	8.4
15°	21.3	21.0	20.2	19.2	18.1	16.7	15.4	14.1	12.0	9.1	7.5
17.5°	30.4	29.4	28.3	26.5	23.8	21.3	18.6	16.3	12.7	8.6	6.8
20°	54.8	54.1	47.6	42.6	34.6	28.8	23.5	19.5	13.8	8.1	6.1
22.5°	113.0	105.5	94.9	77.7	60.5	44.6	32.4	24.5	14.9	7.3	5.4
25°	203.8	192.0	169.2	136.1	100.5	71.1	46.9	32.1	16.5	6.6	4.7
27.5°	308.6	296.6	261.3	215.6	157.4	107.3	67.0	42.4	18.6	5.9	4.1
30°	420.1	409.9	365.1	301.9	221.9	150.2	89.7	53.0	21.0	5.2	3.6
31°	465.1	452.0	403.6	336.3	252.1	168.0	98.9	57.5	21.8	5.0	3.4
32°	506.4	491.6	441.4	369.3	276.7	187.1	108.9	61.4	22.6	4.7	3.2
33°	542.1	524.7	476.4	400.4	303.7	205.0	119.3	65.2	23.1	4.3	3.0
34°	572.3	557.3	505.4	431.8	327.7	222.2	129.5	68.9	23.5	4.1	2.9
35°	598.1	584.5	533.1	455.6	351.2	238.9	138.8	72.5	23.5	3.8	2.9
36°	615.5	603.7	557.1	479.9	370.9	253.0	146.7	75.8	23.5	3.4	2.7
37°	625.0	613.5	572.9	500.0	390.2	267.0	153.8	78.3	23.3	3.2	2.5
38°	629.8	619.8	584.5	516.3	403.6	277.0	160.1	80.2	23.1	2.9	2.5
39°	631.1	622.7	591.9	528.1	416.7	287.1	164.6	81.3	22.6	2.7	2.3
40°	630.2	622.8	595.8	538.7	426.7	294.9	167.8	81.7	22.0	2.3	2.3
41°	628.4	622.7	598.7	546.0	434.8	300.0	169.1	80.9	21.3	2.0	2.1
42°	626.8	620.5	599.9	551.0	440.4	302.5	168.9	79.5	20.2	1.8	2.1
43°	626.8	619.6	600.1	554.3	443.0	302.6	166.7	76.8	18.8	1.6	2.0
44°	625.7	619.1	601.0	556.4	443.8	301.0	163.3	74.0	17.2	1.4	2.0
45°	623.7	616.8	600.8	556.6	442.5	297.1	157.8	70.2	15.8	1.1	2.0
46°	620.0	613.7	599.2	555.3	438.7	291.4	151.1	66.4	14.1	0.9	1.8
47°	612.5	607.6	594.9	551.0	433.0	282.9	143.3	62.1	12.9	0.7	1.8
48°	599.6	596.2	587.6	541.5	422.1	272.6	134.8	57.5	11.6	0.7	1.8
49°	575.9	573.2	568.2	526.3	408.1	259.8	125.7	52.3	10.4	0.5	1.8
50°	557.3	554.4	544.2	500.7	388.1	243.7	115.7	47.1	9.0	0.4	1.6
51°	544.9	540.3	524.2	471.0	358.9	222.2	104.8	41.9	7.5	0.4	1.6
52°	529.4	522.4	502.3	444.3	332.2	200.7	92.9	36.7	6.6	0.4	1.6
53°	496.8	494.3	474.4	415.6	305.5	180.2	80.8	32.4	5.7	0.4	1.6
54°	468.3	464.5	437.5	375.9	276.5	157.2	68.2	28.7	4.8	0.4	1.6
55°	437.5	430.2	406.2	342.4	242.5	136.1	56.2	24.7	3.9	0.4	1.4
56°	398.6	392.2	366.4	306.6	211.1	114.6	47.1	20.2	3.0	0.4	1.4
57°	351.4	345.4	325.6	262.5	178.5	93.7	38.3	16.3	2.3	0.4	1.4
58°	305.7	299.1	276.3	220.3	144.2	74.3	32.1	13.3	1.8	0.4	1.4
59°	270.6	261.6	232.3	185.0	112.8	56.4	25.4	10.6	1.3	0.4	1.4
60°	241.4	234.1	203.6	154.0	88.5	41.5	18.8	8.1	0.7	0.4	1.4
62.5°	139.9	137.9	110.5	79.3	41.7	19.3	9.3	3.8	0.4	0.5	1.4
65°	41.7	36.4	28.3	16.8	10.7	6.4	3.4	1.3	0.2	0.5	1.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	1.3	1.3	1.3	1.3	1.3	1.3	0.7	0.4	0.2	0.5	1.3
70°	0.7	0.5	0.5	0.5	0.5	0.4	0.4	0.2	0.2	0.5	1.1
72.5°	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.2	0.4	0.5	0.9
75°	0.5	0.4	0.4	0.4	0.4	0.2	0.2	0.2	0.4	0.5	0.9
77.5°	0.4	0.4	0.4	0.4	0.2	0.2	0.2	0.2	0.4	0.5	0.9
80°	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.7
82.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.7
85°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.5	0.5
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°	10.0	10.0	10.0	10.0
2.5°	9.7	9.5	9.3	9.3
5°	9.3	9.0	9.0	8.8
7.5°	8.8	8.4	8.4	8.4
10°	8.2	8.1	8.1	7.9
12.5°	7.5	7.5	7.5	7.5
15°	7.0	7.0	7.2	7.2
17.5°	6.3	6.4	6.8	7.0
20°	5.7	6.1	6.4	6.6
22.5°	5.4	5.7	6.3	6.4
25°	4.8	5.4	6.1	6.3
27.5°	4.5	5.2	5.7	6.1
30°	4.1	5.0	5.6	5.9
31°	4.1	4.8	5.6	5.9
32°	3.9	4.7	5.6	5.7
33°	3.9	4.7	5.6	5.7
34°	3.8	4.7	5.4	5.7
35°	3.8	4.7	5.4	5.7
36°	3.6	4.5	5.4	5.7
37°	3.6	4.5	5.4	5.7
38°	3.4	4.5	5.4	5.7
39°	3.4	4.5	5.4	5.7
40°	3.4	4.5	5.4	5.7
41°	3.2	4.5	5.4	5.7
42°	3.2	4.5	5.4	5.7
43°	3.2	4.3	5.4	5.7
44°	3.2	4.3	5.4	5.7
45°	3.0	4.3	5.4	5.7
46°	3.0	4.3	5.4	5.7
47°	3.0	4.3	5.4	5.7
48°	3.0	4.3	5.4	5.7
49°	3.0	4.3	5.4	5.7
50°	2.9	4.1	5.4	5.7
51°	2.9	4.1	5.4	5.7
52°	2.9	4.1	5.4	5.7
53°	2.9	4.1	5.4	5.7
54°	2.7	4.1	5.4	5.7
55°	2.7	4.1	5.4	5.7
56°	2.7	4.1	5.4	5.6
57°	2.7	4.1	5.2	5.6
58°	2.7	3.9	5.2	5.6
59°	2.7	3.9	5.2	5.6
60°	2.7	3.9	5.2	5.6
62.5°	2.5	3.9	5.0	5.4
65°	2.3	3.6	5.0	5.2



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	2.3	3.4	4.7	5.0
70°	2.1	3.2	4.5	4.8
72.5°	1.8	3.0	4.1	4.5
75°	1.6	2.7	3.8	4.1
77.5°	1.4	2.3	3.4	3.6
80°	1.3	2.0	2.9	3.2
82.5°	0.9	1.4	2.3	2.5
85°	0.7	1.1	1.6	1.8
87.5°	0.5	0.5	0.9	0.9
90°	0.0	0.0	0.0	0.0

(END OF REPORT)