

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: P1335160

Luminaire Tested: P3A02R309835DE010 E3CA451MW

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335160
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-76)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A02R309835DE010 E3CA451MW
Description: 3in Adjustable LED luminaire with, R30 optic, 3500K CCT AND, 98CRI , E3CA451MW TRIM
Light Source: -
Ballast/Driver: -

Summary

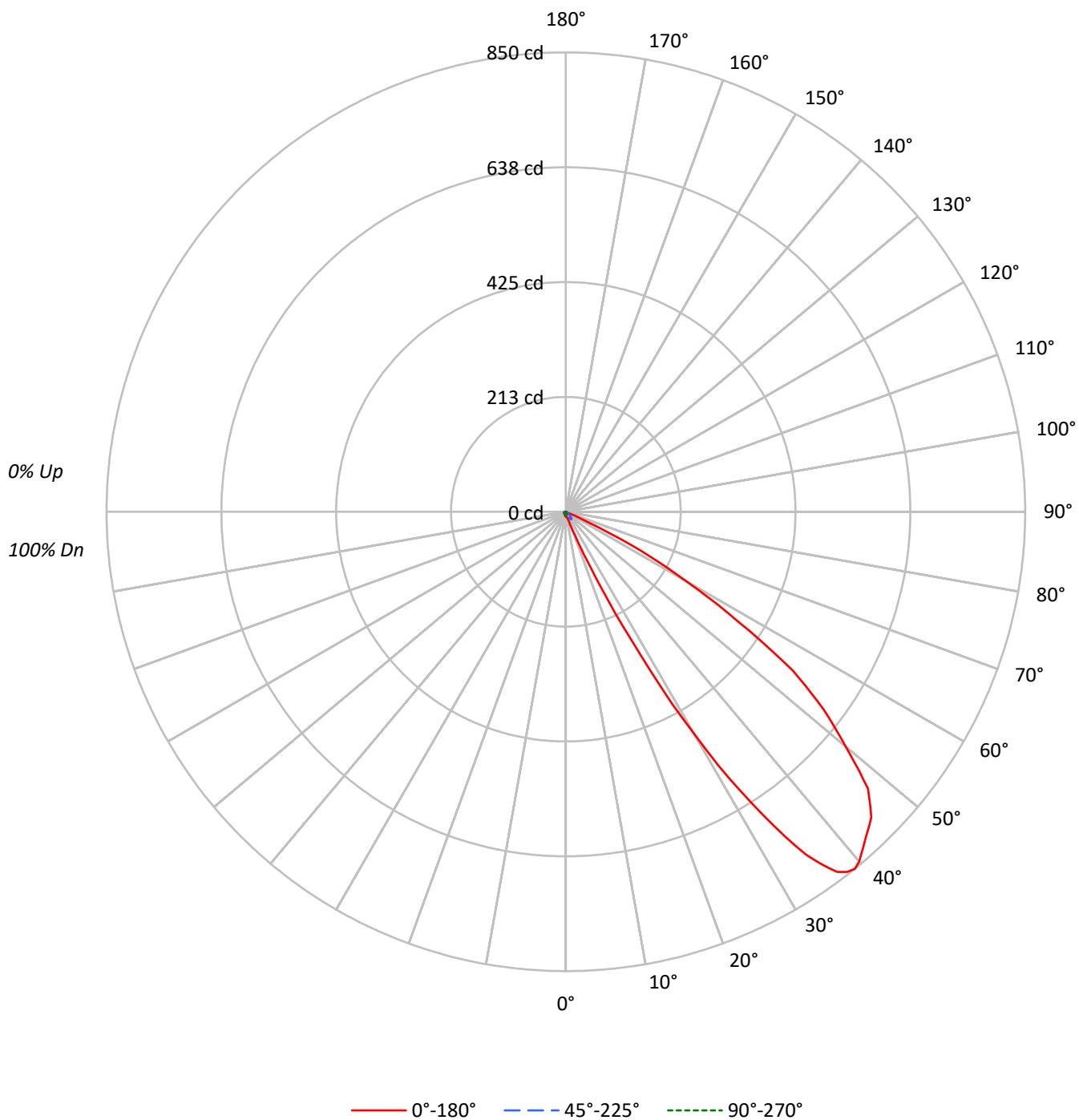
Lumens per Lamp: N/A
Luminaire Lumens: 221.0 lumens
Efficiency: N/A
Efficacy: 61.4 lumens/watt
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.44
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	108	104	100	97	100	97	94		96	93	91		92	90	89	87
2	100	93	86	81	98	91	85	80	87	83	78		84	80	77		81	78	75	73
3	91	81	73	67	89	79	72	66	76	70	65		74	68	64		71	67	63	61
4	83	71	62	55	80	69	61	55	67	60	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	37		49	42	37		48	42	37	35
7	62	48	38	32	60	47	38	32	45	37	31		44	36	31		42	36	31	29
8	56	42	33	27	55	41	33	27	40	32	26		39	32	26		37	31	26	24
9	52	37	29	23	50	37	28	23	36	28	22		34	27	22		33	27	22	20
10	48	33	25	19	46	33	25	19	32	24	19		31	24	19		30	24	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	1886	1886	1886	1886	1886
5°	2003	1959	1849	1673	1629
10°	2204	1937	1625	1447	1403
15°	3201	1952	1362	1226	1271
20°	8074	2124	1050	1050	1167
25°	37526	2661	823	944	1089
30°	119436	3671	608	886	1089
35°	207247	4497	509	857	1098
40°	241710	4466	372	859	1116
45°	247902	3163	403	930	1209
50°	230543	1774	307	955	1399
55°	195931	918	344	1070	1567
60°	113149	263	395	1140	1710
65°	23089	0	467	1349	1920
70°	385	128	577	1539	2244
75°	339	169	593	1610	2711
80°	253	253	884	1894	3031
85°	0	503	1761	1761	3774

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 247902 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.8	0.3
10°-20°	2.2	1.0
20°-30°	12.7	5.8
30°-40°	59.5	26.9
40°-50°	84.2	38.1
50°-60°	51.8	23.4
60°-70°	7.9	3.6
70°-80°	1.3	0.6
80°-90°	0.6	0.3
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°	15.7	7.1
0°-40°	75.3	34.1
0°-60°	211.2	95.6
0°-90°	221.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	221.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	9	9	9	9	9	
5°	9	9	8	8	7	1
15°	14	9	6	5	6	5
25°	155	11	3	4	4	95
35°	774	17	2	3	4	465
45°	799	10	1	3	4	606
55°	512	2	1	3	4	436
65°	44	0	1	3	4	81
75°	0	0	1	2	3	0
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°	22.5°	45°	67.5°	90°	112.5°	135°
0°	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
2.5°	8.7	8.7	8.9	8.9	8.7	8.9	8.9	8.9	8.6	8.4	8.0
5°	9.1	9.1	9.1	9.3	9.1	9.1	8.9	8.7	8.4	7.8	7.6
7.5°	9.5	9.5	9.3	9.5	9.3	9.3	8.9	8.6	8.0	7.4	7.1
10°	9.9	9.9	9.7	9.7	9.5	9.5	8.7	8.2	7.3	6.7	6.5
12.5°	11.0	11.0	10.8	10.6	10.2	10.1	8.6	7.6	6.5	6.0	5.8
15°	14.1	14.0	13.6	13.0	12.1	11.9	8.6	7.1	6.0	5.4	5.4
17.5°	19.4	19.2	18.6	17.1	15.5	14.9	8.6	6.3	5.2	4.8	4.8
20°	34.6	33.1	30.3	26.6	22.7	20.7	9.1	5.6	4.5	4.3	4.5
21°	45.2	43.7	40.2	34.1	27.2	24.9	9.5	5.4	4.3	4.1	4.5
22°	61.6	59.9	52.7	44.3	34.4	30.5	9.7	5.0	3.9	3.9	4.3
23°	86.0	83.2	70.9	57.5	43.0	37.4	10.1	4.8	3.7	3.9	4.1
24°	112.6	110.2	96.2	76.1	54.9	46.9	10.4	4.7	3.5	3.5	3.9
25°	155.1	152.3	127.5	96.1	69.6	56.4	11.0	4.3	3.4	3.4	3.9
26°	210.0	197.1	164.2	123.8	85.8	70.7	11.5	4.1	3.2	3.4	3.7
27°	262.1	251.5	214.5	158.8	106.1	86.9	12.3	3.9	3.0	3.2	3.7
28°	330.6	315.7	269.0	200.9	133.7	105.2	13.0	3.7	2.8	3.2	3.5
29°	407.3	386.5	330.1	248.2	164.8	125.7	13.8	3.5	2.6	3.0	3.5
30°	471.7	452.2	395.8	304.2	200.5	152.7	14.5	3.4	2.4	3.0	3.5
31°	547.3	517.7	449.4	351.7	231.2	179.6	15.3	3.0	2.2	2.8	3.4
32°	608.6	587.9	515.3	405.3	271.6	209.4	15.8	2.8	2.2	2.8	3.4
33°	667.8	640.0	569.8	456.7	308.1	240.0	16.4	2.6	2.0	2.6	3.4
34°	724.4	698.8	621.4	498.2	342.5	269.0	16.8	2.2	2.0	2.6	3.2
35°	774.2	744.6	666.8	538.8	377.9	295.4	16.8	2.0	1.9	2.4	3.2
36°	806.6	785.4	706.3	578.8	409.9	320.6	16.8	1.9	1.7	2.4	3.0
37°	834.4	809.6	737.9	609.5	433.6	340.7	16.8	1.7	1.7	2.4	3.0
38°	845.7	824.5	759.7	636.7	455.7	361.2	16.6	1.5	1.5	2.2	3.0
39°	850.2	831.2	776.1	656.2	472.1	374.9	16.2	1.3	1.5	2.2	3.0
40°	844.4	830.1	784.5	668.9	485.1	385.0	15.6	1.1	1.3	2.2	3.0
42.5°	820.6	811.1	782.6	681.5	496.3	392.4	13.6	0.7	1.3	2.0	3.0
45°	799.4	789.0	763.8	668.3	481.8	377.7	10.2	0.4	1.3	2.0	3.0
47.5°	758.2	751.7	732.0	634.6	450.0	344.6	7.3	0.2	1.1	1.9	2.8
50°	675.8	669.6	643.6	551.0	387.0	291.3	5.2	0.2	0.9	1.9	2.8
52.5°	601.9	595.3	557.9	458.1	297.3	213.5	3.4	0.2	0.9	1.9	2.8
55°	512.5	501.1	452.0	347.7	210.7	143.2	2.4	0.2	0.9	1.7	2.8
57.5°	379.4	362.8	318.9	237.2	121.4	77.6	1.3	0.2	0.9	1.7	2.8
60°	258.0	248.2	199.6	125.1	51.8	32.8	0.6	0.2	0.9	1.7	2.6
62.5°	156.4	143.9	100.3	53.2	22.3	14.9	0.0	0.4	0.9	1.7	2.6
65°	44.5	39.5	26.2	12.1	6.3	4.8	0.0	0.4	0.9	1.7	2.6
67.5°	1.5	1.5	1.5	1.3	0.9	0.9	0.2	0.4	0.9	1.7	2.4
70°	0.6	0.6	0.6	0.4	0.4	0.2	0.2	0.4	0.9	1.5	2.4
72.5°	0.4	0.4	0.4	0.4	0.2	0.2	0.2	0.4	0.7	1.3	2.2
75°	0.4	0.4	0.4	0.2	0.2	0.2	0.2	0.6	0.7	1.3	1.9
77.5°	0.4	0.4	0.4	0.2	0.2	0.2	0.2	0.6	0.7	1.1	1.9
80°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.6	0.7	1.1	1.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	45°	67.5°	90°	112.5°	135°
82.5°	0.2	0.2	0.2	0.0	0.0	0.0	0.2	0.6	0.7	0.7	1.1
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.6	0.7	0.6	0.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.6	0.6	0.6	0.4
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):

	157.5°	180°
0°	8.6	8.6
2.5°	8.0	8.0
5°	7.4	7.4
7.5°	6.9	6.9
10°	6.3	6.3
12.5°	6.0	6.0
15°	5.4	5.6
17.5°	5.0	5.2
20°	4.8	5.0
21°	4.8	5.0
22°	4.7	4.8
23°	4.7	4.8
24°	4.5	4.7
25°	4.3	4.5
26°	4.3	4.5
27°	4.3	4.5
28°	4.1	4.5
29°	4.1	4.3
30°	4.1	4.3
31°	3.9	4.3
32°	3.9	4.3
33°	3.9	4.1
34°	3.7	4.1
35°	3.7	4.1
36°	3.7	4.1
37°	3.7	3.9
38°	3.7	4.1
39°	3.7	3.9
40°	3.7	3.9
42.5°	3.7	3.9
45°	3.7	3.9
47.5°	3.7	4.1
50°	3.7	4.1
52.5°	3.7	4.1
55°	3.7	4.1
57.5°	3.7	3.9
60°	3.7	3.9
62.5°	3.5	3.9
65°	3.5	3.7
67.5°	3.5	3.7
70°	3.4	3.5
72.5°	3.2	3.4
75°	2.8	3.2
77.5°	2.6	2.8
80°	2.2	2.4



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CANDELA DISTRIBUTION (continued):

	157.5°	180°
82.5°	1.9	1.9
85°	1.3	1.5
87.5°	0.7	0.7
90°	0.0	0.0

(END OF REPORT)