

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: P1345621

Luminaire Tested: P3A13R359840DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1345621
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-77)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R359840DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R35 optic, 4000K CCT AND, 98CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

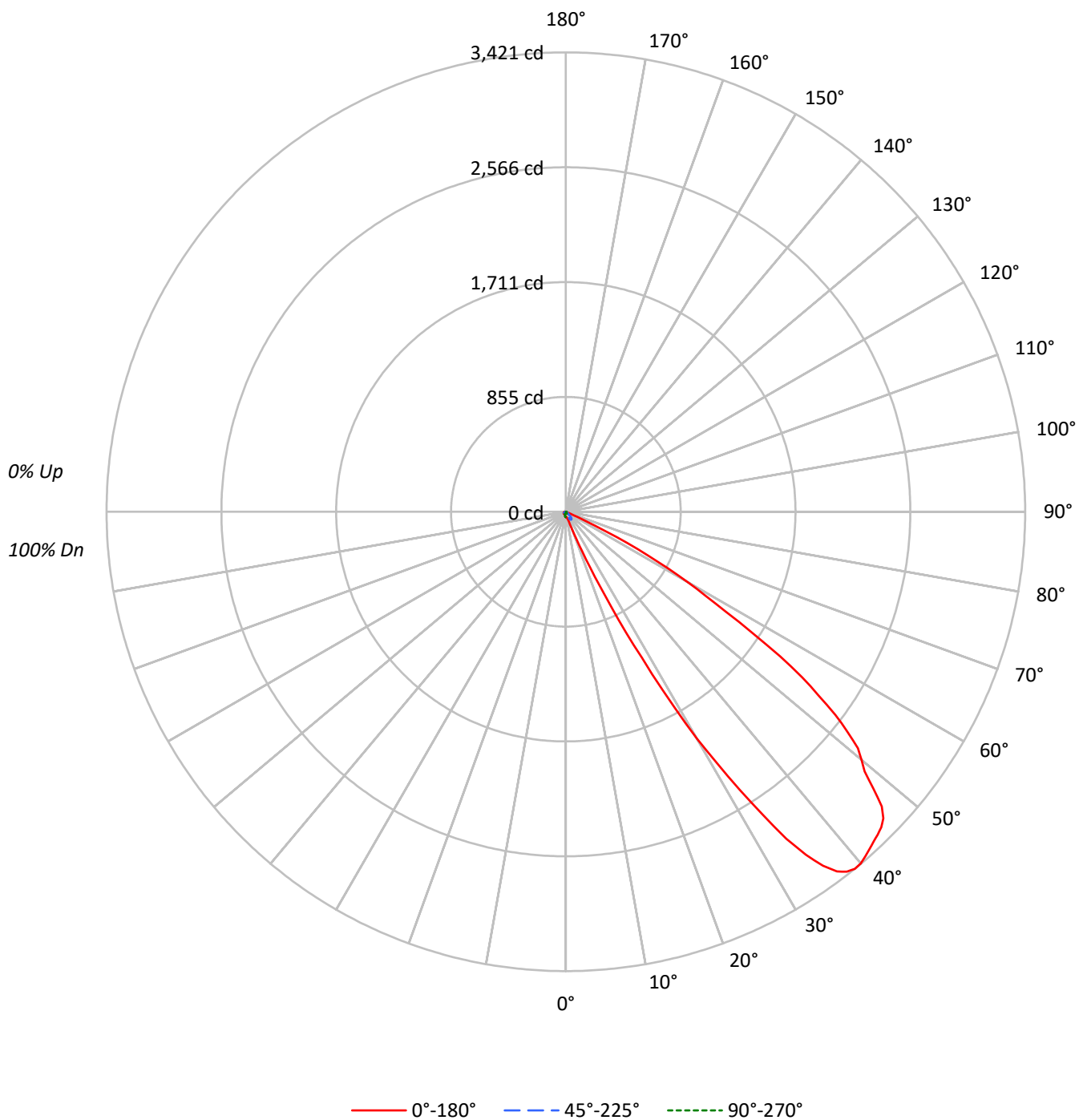
Lumens per Lamp: N/A
Luminaire Lumens: 852.0 lumens
Efficiency: N/A
Efficacy: 58.8 lumens/watt
Spacing Criteria (0/90/45): 4.01 / 0.66 / 1.41
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 14.5
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	100	93	86	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	52
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	38	50	43	37	48	42	37
7	62	48	38	32	60	47	38	32	45	37	32	44	37	31	42	36	31
8	57	42	33	27	55	41	33	27	40	32	27	39	32	26	38	31	26
9	52	38	29	23	50	37	29	23	36	28	23	35	28	22	34	27	22
10	48	34	25	19	46	33	25	19	32	25	19	31	24	19	30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	8596	8596	8596	8596	8596
5°	9311	9135	8475	7616	7440
10°	9753	8907	7526	6502	6502
15°	13961	8740	6107	5585	5766
20°	35003	9334	4854	4854	5390
25°	162445	11904	3726	4476	5033
30°	493873	16154	2912	4102	5064
35°	834665	18738	2463	3908	4952
40°	978376	18492	1975	3950	5296
45°	1030371	13118	1675	4280	5737
50°	980744	7880	1569	4469	6311
55°	821839	3250	1759	5008	7340
60°	460095	658	2017	5745	8113
65°	79438	415	1972	6382	9184
70°	1475	513	2436	6924	10386
75°	1271	678	3219	7795	11692
80°	1010	1010	3915	8713	13638
85°	0	2013	7799	9561	15599

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 46°

Luminance: 1037660 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.5	0.4
10°-20°	10.0	1.2
20°-30°	52.3	6.1
30°-40°	225.8	26.5
40°-50°	322.0	37.8
50°-60°	199.5	23.4
60°-70°	30.4	3.6
70°-80°	5.7	0.7
80°-90°	2.9	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°	65.9	7.7
0°-40°	291.6	34.2
0°-60°	813.1	95.4
0°-90°	852.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	852.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	39	39	39	39	39	
5°	42	42	38	35	34	4
15°	62	38	27	25	25	22
25°	671	49	15	18	21	402
35°	3118	70	9	15	18	1872
45°	3323	42	5	14	18	2510
55°	2150	8	5	13	19	1831
65°	153	1	4	12	18	313
75°	2	1	4	9	14	2
85°	0	1	3	4	6	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
0°	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2	39.2
2.5°	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	40.8	39.2	38.5
5°	42.3	42.3	41.5	41.5	41.5	41.5	41.5	41.5	40.0	38.5	36.1
7.5°	43.1	43.1	42.3	42.3	42.3	42.3	41.5	40.8	39.2	36.1	33.8
10°	43.8	43.8	43.8	43.8	43.1	42.3	41.5	40.0	37.7	33.8	31.5
12.5°	49.2	49.2	48.5	46.9	45.4	43.8	42.3	39.2	34.6	30.8	28.5
15°	61.5	60.8	59.2	56.9	53.8	50.0	46.9	38.5	31.5	26.9	25.4
17.5°	86.1	84.6	82.3	74.6	67.7	60.8	54.6	38.5	28.5	23.8	22.3
20°	150.0	150.7	134.6	116.1	100.8	83.8	68.5	40.0	25.4	20.8	20.0
22.5°	313.0	300.7	262.3	217.7	166.1	128.4	96.9	43.8	22.3	17.7	17.7
25°	671.4	624.5	531.5	401.5	283.0	200.7	140.7	49.2	20.0	15.4	16.2
27.5°	1226.0	1183.7	996.8	750.7	498.4	303.0	190.7	56.1	17.7	13.1	14.6
30°	1950.5	1833.6	1589.8	1230.6	832.9	463.8	256.1	63.8	14.6	11.5	13.8
31°	2176.6	2122.8	1825.9	1423.6	976.0	550.7	283.8	66.1	13.8	11.5	13.1
32°	2445.0	2349.6	2083.5	1635.1	1121.4	628.4	316.9	68.5	13.1	10.0	13.1
33°	2685.0	2592.7	2268.9	1821.3	1268.3	716.8	352.3	69.2	11.5	10.0	12.3
34°	2937.2	2811.1	2490.4	2015.8	1419.0	812.2	384.6	70.0	10.8	9.2	12.3
35°	3118.0	2991.8	2681.1	2169.7	1549.0	896.8	421.5	70.0	10.0	9.2	11.5
36°	3258.0	3147.2	2845.7	2328.1	1678.2	972.9	450.7	70.0	8.5	8.5	11.5
37°	3354.1	3248.7	2956.5	2464.2	1776.6	1040.6	476.8	70.0	7.7	8.5	11.5
38°	3401.0	3313.3	3063.4	2563.5	1872.0	1093.7	497.6	68.5	6.9	7.7	10.8
39°	3421.0	3349.5	3128.7	2647.3	1943.5	1139.8	513.0	66.9	6.2	7.7	10.8
40°	3417.9	3355.6	3165.7	2705.0	2001.2	1171.4	521.5	64.6	5.4	6.9	10.8
41°	3400.2	3346.4	3184.9	2754.2	2035.8	1192.9	523.8	62.3	4.6	6.9	10.0
42°	3380.2	3331.0	3191.0	2780.3	2058.1	1199.8	517.6	59.2	4.6	6.2	10.0
43°	3359.5	3314.1	3191.0	2788.8	2063.5	1195.2	507.6	53.8	3.8	6.2	10.0
44°	3342.6	3299.5	3181.0	2786.5	2052.0	1177.5	489.2	47.7	3.1	6.2	10.0
45°	3322.6	3280.3	3168.0	2771.9	2029.7	1147.5	466.1	42.3	2.3	5.4	10.0
46°	3287.2	3254.1	3144.9	2741.9	1994.3	1106.0	436.9	38.5	1.5	5.4	9.2
47°	3218.7	3190.3	3100.3	2697.3	1947.4	1056.8	406.9	34.6	1.5	5.4	9.2
48°	3081.1	3080.3	3011.1	2614.2	1872.8	995.2	375.3	30.8	1.5	5.4	9.2
49°	2948.0	2934.2	2848.0	2468.1	1765.9	921.4	342.3	27.7	0.8	5.4	9.2
50°	2874.9	2844.9	2703.4	2295.8	1629.0	819.1	306.9	23.1	0.8	4.6	9.2
51°	2798.8	2755.7	2588.8	2140.4	1465.9	720.7	268.4	18.5	0.8	4.6	8.5
52°	2661.1	2620.4	2433.5	1992.0	1307.5	619.9	231.5	15.4	0.8	4.6	9.2
53°	2512.7	2454.2	2251.2	1828.9	1168.3	530.7	193.8	13.1	0.8	4.6	8.5
54°	2325.8	2299.6	2066.6	1629.0	1005.2	444.5	159.2	10.8	0.8	4.6	8.5
55°	2149.7	2111.2	1868.9	1424.4	857.6	364.6	133.1	8.5	0.8	4.6	8.5
56°	1925.1	1867.4	1640.5	1236.7	707.6	293.8	112.3	6.9	0.8	4.6	8.5
57°	1657.4	1595.9	1416.7	1028.3	555.3	223.8	93.8	5.4	0.8	4.6	8.5
58°	1402.1	1349.0	1156.7	793.7	418.4	155.4	77.7	3.8	0.8	3.8	8.5
59°	1211.4	1152.9	962.2	610.7	290.7	114.6	58.5	3.1	0.8	4.6	8.5
60°	1049.1	973.7	774.5	473.0	207.7	82.3	43.1	1.5	1.5	4.6	8.5
62.5°	604.5	533.8	369.9	192.3	85.4	42.3	20.8	0.8	1.5	4.6	8.5
65°	153.1	136.1	88.4	41.5	23.8	14.6	7.7	0.8	1.5	3.8	7.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
67.5°	5.4	5.4	5.4	4.6	3.8	3.1	1.5	0.8	1.5	3.8	7.7
70°	2.3	2.3	2.3	1.5	1.5	0.8	0.8	0.8	1.5	3.8	6.9
72.5°	1.5	1.5	1.5	1.5	0.8	0.8	0.8	0.8	2.3	3.8	6.2
75°	1.5	1.5	1.5	1.5	0.8	0.8	0.8	0.8	2.3	3.8	6.2
77.5°	1.5	1.5	0.8	0.8	0.8	0.8	0.8	0.8	2.3	3.1	5.4
80°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	2.3	3.1	4.6
82.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	2.3	3.1	3.8
85°	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.8	2.3	3.1	3.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	2.3	3.1	2.3
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):

	135°	157.5°	180°
0°	39.2	39.2	39.2
2.5°	36.9	36.9	36.9
5°	34.6	34.6	33.8
7.5°	32.3	31.5	31.5
10°	29.2	29.2	29.2
12.5°	26.9	26.9	26.9
15°	24.6	25.4	25.4
17.5°	22.3	23.8	23.8
20°	20.8	22.3	23.1
22.5°	19.2	20.8	21.5
25°	18.5	20.0	20.8
27.5°	16.9	19.2	20.8
30°	16.2	18.5	20.0
31°	16.2	18.5	19.2
32°	15.4	18.5	19.2
33°	15.4	18.5	19.2
34°	15.4	17.7	19.2
35°	14.6	17.7	18.5
36°	14.6	17.7	18.5
37°	14.6	17.7	19.2
38°	14.6	17.7	18.5
39°	13.8	17.7	18.5
40°	13.8	17.7	18.5
41°	13.8	17.7	18.5
42°	13.8	17.7	18.5
43°	13.8	17.7	18.5
44°	13.8	16.9	18.5
45°	13.8	16.9	18.5
46°	13.8	17.7	18.5
47°	13.8	17.7	19.2
48°	13.8	16.9	18.5
49°	13.1	16.9	18.5
50°	13.1	16.9	18.5
51°	13.1	17.7	19.2
52°	13.1	17.7	19.2
53°	13.1	17.7	19.2
54°	13.1	17.7	18.5
55°	13.1	17.7	19.2
56°	13.1	17.7	18.5
57°	13.1	17.7	18.5
58°	13.1	16.9	18.5
59°	13.1	16.9	18.5
60°	13.1	16.9	18.5
62.5°	12.3	16.9	18.5
65°	12.3	16.2	17.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	11.5	16.2	16.9
70°	10.8	15.4	16.2
72.5°	10.0	14.6	15.4
75°	9.2	13.1	13.8
77.5°	7.7	11.5	13.1
80°	6.9	10.0	10.8
82.5°	5.4	8.5	9.2
85°	3.8	6.2	6.2
87.5°	1.5	3.1	3.1
90°	0.0	0.0	0.0

(END OF REPORT)