

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: P1346053

Luminaire Tested: P3A13R409735DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1346053
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: P3A13R409735DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R40 optic, 3500K CCT AND, 97CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

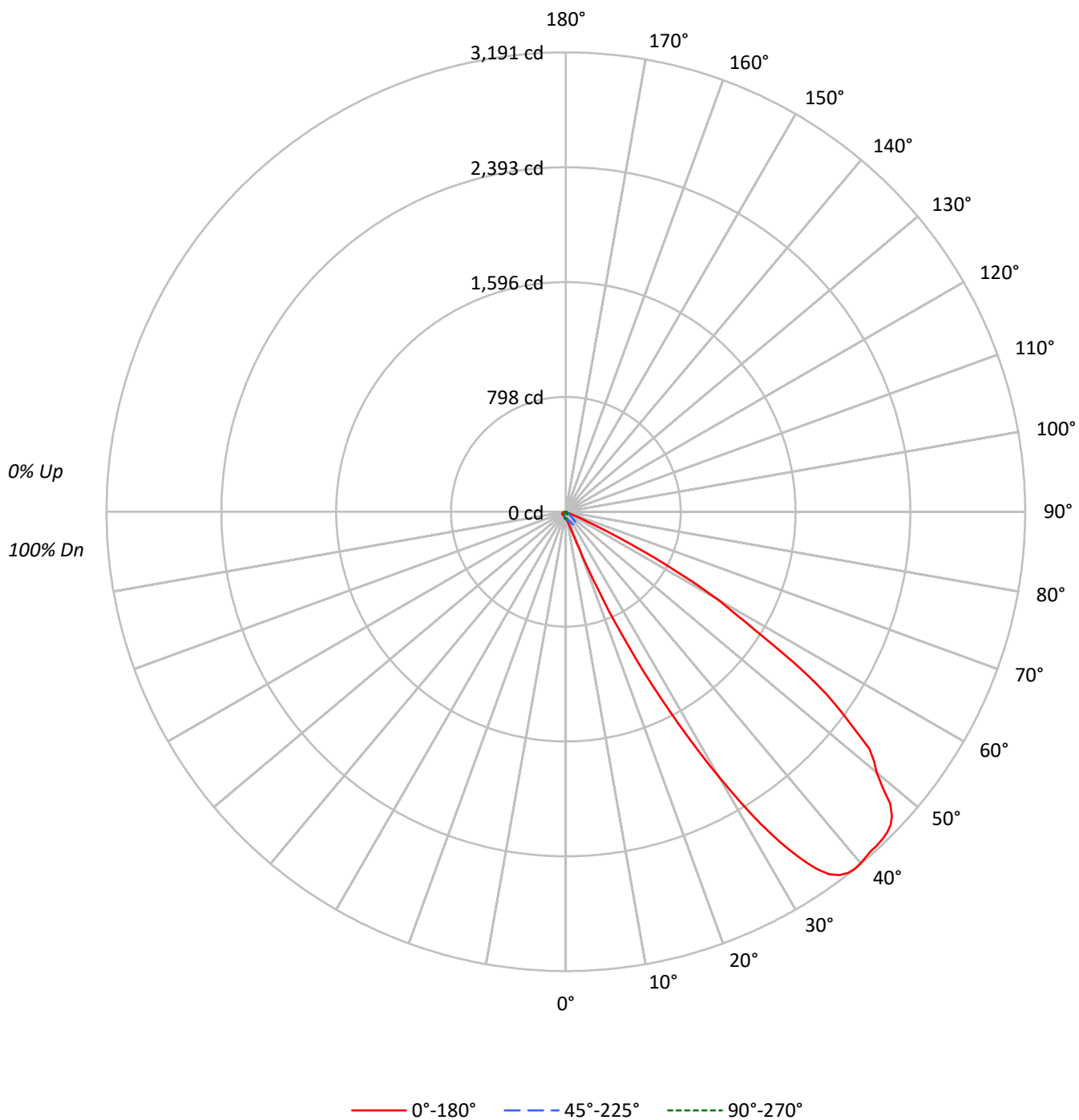
Lumens per Lamp: N/A
Luminaire Lumens: 986.0 lumens
Efficiency: N/A
Efficacy: 67.5 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 14.6
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
RW	70	50	30	10	70	50	30	10	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	102	102	100
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	88	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	75	75	72
3	91	81	73	66	89	79	72	66	76	70	65	73	68	64	71	66	62	62	62	60
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52	52	52	50
5	75	62	52	46	73	60	52	45	58	51	45	56	50	44	54	49	44	44	44	42
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	37	37	35
7	62	48	39	32	60	47	38	32	45	37	32	44	37	31	42	36	31	31	31	29
8	57	42	33	27	55	42	33	27	40	32	27	39	32	27	38	31	26	26	26	24
9	52	38	29	23	51	37	29	23	36	28	23	35	28	23	34	27	23	23	23	21
10	48	34	25	20	47	33	25	20	32	25	20	31	24	20	30	24	19	19	19	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	11118	11118	11118	11118	11118
5°	12349	11952	10962	9971	9773
10°	14918	12692	10087	9062	8862
15°	24472	13780	8627	8014	8218
20°	64662	16265	7187	7187	7817
25°	249329	20154	5686	6581	7670
30°	537880	26814	4583	6431	7571
35°	809609	31748	3882	6291	7763
40°	912138	31888	3378	6469	8301
45°	978055	24716	3101	6729	8993
50°	961299	15454	2763	7096	9893
55°	845695	7608	2753	7952	11087
60°	535308	1579	3158	8727	12324
65°	109480	467	3269	9391	13646
70°	2308	577	3462	10450	15644
75°	2288	1525	3813	11522	17622
80°	2273	1137	4546	12628	20583
85°	2264	2264	9057	13586	22895

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 995704 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4.7	0.5
10°-20°	15.6	1.6
20°-30°	76.6	7.8
30°-40°	249.1	25.3
40°-50°	343.4	34.8
50°-60°	239.2	24.3
60°-70°	45.3	4.6
70°-80°	8.2	0.8
80°-90°	3.8	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°	97.0	9.8
0°-40°	346.1	35.1
0°-60°	928.7	94.2
0°-90°	986.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	986.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	51	51	51	51	51	
5°	56	54	50	45	44	6
15°	108	61	38	35	36	39
25°	1030	83	24	27	32	531
35°	3024	119	14	24	29	1828
45°	3154	80	10	22	29	2398
55°	2212	20	7	21	29	1891
65°	211	1	6	18	26	373
75°	3	2	4	14	21	3
85°	1	1	4	5	9	1
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°	50.7	50.7	50.7	50.7	50.7	50.7	50.7	50.7	50.7	50.7	50.7
2.5°	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	52.5	51.6	50.7
5°	56.1	56.1	56.1	56.1	55.2	55.2	55.2	54.3	54.3	52.5	49.8
7.5°	59.8	59.8	59.8	59.8	58.9	58.0	57.0	57.0	56.1	51.6	48.0
10°	67.0	67.0	66.1	65.2	64.3	62.5	61.6	59.8	57.0	50.7	45.3
12.5°	81.5	79.7	78.8	77.0	74.3	70.6	67.0	64.3	58.0	48.9	42.6
15°	107.8	105.9	102.3	96.9	91.5	84.2	77.9	71.5	60.7	46.2	38.0
17.5°	153.9	148.5	143.1	134.0	120.4	107.8	94.2	82.4	64.3	43.5	34.4
20°	277.1	273.5	240.9	215.5	174.8	145.8	118.6	98.7	69.7	40.7	30.8
22.5°	571.4	533.3	479.9	393.0	306.1	225.5	163.9	124.1	75.2	37.1	27.2
25°	1030.5	970.7	855.7	688.2	508.0	359.5	237.2	162.1	83.3	33.5	23.5
27.5°	1560.2	1499.5	1321.1	1090.2	795.9	542.4	338.7	214.6	94.2	29.9	20.8
30°	2124.3	2072.7	1846.3	1526.7	1121.9	759.7	453.7	268.0	105.9	26.3	18.1
31°	2351.6	2285.5	2041.0	1700.5	1274.9	849.4	499.8	290.7	110.5	25.4	17.2
32°	2560.8	2485.6	2232.1	1867.1	1399.0	946.3	550.5	310.6	114.1	23.5	16.3
33°	2741.0	2653.1	2408.6	2024.7	1535.7	1036.8	603.1	329.6	116.8	21.7	15.4
34°	2894.0	2817.9	2555.3	2183.2	1657.1	1123.7	654.7	348.6	118.6	20.8	14.5
35°	3024.4	2955.6	2695.7	2303.6	1775.7	1207.9	701.8	366.7	118.6	19.0	14.5
36°	3112.2	3052.5	2817.0	2426.8	1875.3	1279.5	741.6	383.0	118.6	17.2	13.6
37°	3160.2	3102.3	2896.7	2528.2	1973.1	1350.1	777.8	395.7	117.7	16.3	12.7
38°	3184.7	3133.9	2955.6	2610.6	2041.0	1400.8	809.5	405.7	116.8	14.5	12.7
39°	3191.0	3148.4	2992.7	2670.3	2107.1	1451.5	832.2	411.1	114.1	13.6	11.8
40°	3186.5	3149.3	3012.6	2723.8	2157.8	1491.4	848.5	412.9	111.4	11.8	11.8
41°	3177.4	3148.4	3027.1	2760.9	2198.6	1516.7	854.8	409.3	107.8	10.0	10.9
42°	3169.3	3137.6	3033.4	2786.2	2226.6	1529.4	853.9	402.0	102.3	9.1	10.9
43°	3169.3	3133.0	3034.3	2802.5	2240.2	1530.3	843.0	388.5	95.1	8.1	10.0
44°	3163.8	3130.3	3038.9	2813.4	2243.8	1522.2	825.8	374.0	86.9	7.2	10.0
45°	3153.9	3118.6	3038.0	2814.3	2237.5	1502.2	797.7	355.0	79.7	5.4	10.0
46°	3134.9	3103.2	3029.8	2808.0	2218.5	1473.3	764.2	335.9	71.5	4.5	9.1
47°	3096.8	3072.4	3008.1	2786.2	2189.5	1430.7	724.4	314.2	65.2	3.6	9.1
48°	3031.6	3014.4	2971.0	2738.2	2134.3	1378.2	681.8	290.7	58.9	3.6	9.1
49°	2912.1	2898.5	2873.2	2661.3	2063.6	1313.9	635.7	264.4	52.5	2.7	9.1
50°	2817.9	2803.4	2751.8	2531.8	1962.2	1232.4	585.0	238.1	45.3	1.8	8.1
51°	2755.4	2731.9	2650.4	2381.5	1814.6	1123.7	529.7	211.9	38.0	1.8	8.1
52°	2676.7	2641.4	2539.9	2246.6	1679.7	1015.1	470.0	185.6	33.5	1.8	8.1
53°	2511.9	2499.2	2398.7	2101.7	1544.8	910.9	408.4	163.9	29.0	1.8	8.1
54°	2367.9	2348.9	2212.1	1900.7	1398.1	795.0	345.0	144.9	24.4	1.8	8.1
55°	2212.1	2175.0	2053.7	1731.3	1226.1	688.2	284.3	125.0	19.9	1.8	7.2
56°	2015.7	1983.1	1852.7	1550.2	1067.6	579.5	238.1	102.3	15.4	1.8	7.2
57°	1776.6	1746.7	1646.2	1327.5	902.8	473.6	193.8	82.4	11.8	1.8	7.2
58°	1545.7	1512.2	1397.2	1113.8	728.9	375.8	162.1	67.0	9.1	1.8	7.2
59°	1368.2	1322.9	1174.4	935.4	570.5	285.2	128.6	53.4	6.3	1.8	7.2
60°	1220.6	1183.5	1029.6	778.7	447.3	210.1	95.1	40.7	3.6	1.8	7.2
62.5°	707.2	697.2	558.7	401.1	211.0	97.8	47.1	19.0	1.8	2.7	7.2
65°	211.0	183.8	143.1	85.1	54.3	32.6	17.2	6.3	0.9	2.7	6.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	6.3	6.3	6.3	6.3	6.3	6.3	3.6	1.8	0.9	2.7	6.3
70°	3.6	2.7	2.7	2.7	2.7	1.8	1.8	0.9	0.9	2.7	5.4
72.5°	2.7	2.7	2.7	2.7	1.8	1.8	1.8	0.9	1.8	2.7	4.5
75°	2.7	1.8	1.8	1.8	1.8	0.9	0.9	0.9	1.8	2.7	4.5
77.5°	1.8	1.8	1.8	1.8	0.9	0.9	0.9	0.9	1.8	2.7	4.5
80°	1.8	1.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	2.7	3.6
82.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	2.7	3.6
85°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	2.7	3.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	2.7	2.7
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°	50.7	50.7	50.7	50.7
2.5°	48.9	48.0	47.1	47.1
5°	47.1	45.3	45.3	44.4
7.5°	44.4	42.6	42.6	42.6
10°	41.7	40.7	40.7	39.8
12.5°	38.0	38.0	38.0	38.0
15°	35.3	35.3	36.2	36.2
17.5°	31.7	32.6	34.4	35.3
20°	29.0	30.8	32.6	33.5
22.5°	27.2	29.0	31.7	32.6
25°	24.4	27.2	30.8	31.7
27.5°	22.6	26.3	29.0	30.8
30°	20.8	25.4	28.1	29.9
31°	20.8	24.4	28.1	29.9
32°	19.9	23.5	28.1	29.0
33°	19.9	23.5	28.1	29.0
34°	19.0	23.5	27.2	29.0
35°	19.0	23.5	27.2	29.0
36°	18.1	22.6	27.2	29.0
37°	18.1	22.6	27.2	29.0
38°	17.2	22.6	27.2	29.0
39°	17.2	22.6	27.2	29.0
40°	17.2	22.6	27.2	29.0
41°	16.3	22.6	27.2	29.0
42°	16.3	22.6	27.2	29.0
43°	16.3	21.7	27.2	29.0
44°	16.3	21.7	27.2	29.0
45°	15.4	21.7	27.2	29.0
46°	15.4	21.7	27.2	29.0
47°	15.4	21.7	27.2	29.0
48°	15.4	21.7	27.2	29.0
49°	15.4	21.7	27.2	29.0
50°	14.5	20.8	27.2	29.0
51°	14.5	20.8	27.2	29.0
52°	14.5	20.8	27.2	29.0
53°	14.5	20.8	27.2	29.0
54°	13.6	20.8	27.2	29.0
55°	13.6	20.8	27.2	29.0
56°	13.6	20.8	27.2	28.1
57°	13.6	20.8	26.3	28.1
58°	13.6	19.9	26.3	28.1
59°	13.6	19.9	26.3	28.1
60°	13.6	19.9	26.3	28.1
62.5°	12.7	19.9	25.4	27.2
65°	11.8	18.1	25.4	26.3



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	11.8	17.2	23.5	25.4
70°	10.9	16.3	22.6	24.4
72.5°	9.1	15.4	20.8	22.6
75°	8.1	13.6	19.0	20.8
77.5°	7.2	11.8	17.2	18.1
80°	6.3	10.0	14.5	16.3
82.5°	4.5	7.2	11.8	12.7
85°	3.6	5.4	8.1	9.1
87.5°	2.7	2.7	4.5	4.5
90°	0.0	0.0	0.0	0.0

(END OF REPORT)