

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: P1344570

Luminaire Tested: P3A13R259830DE010 E3CA451MW

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1344570
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-75)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R259830DE010 E3CA451MW
Description: 3in Adjustable LED luminaire with, R25 optic, 3000K CCT AND, 98CRI , E3CA451MW TRIM
Light Source: -
Ballast/Driver: -

Summary

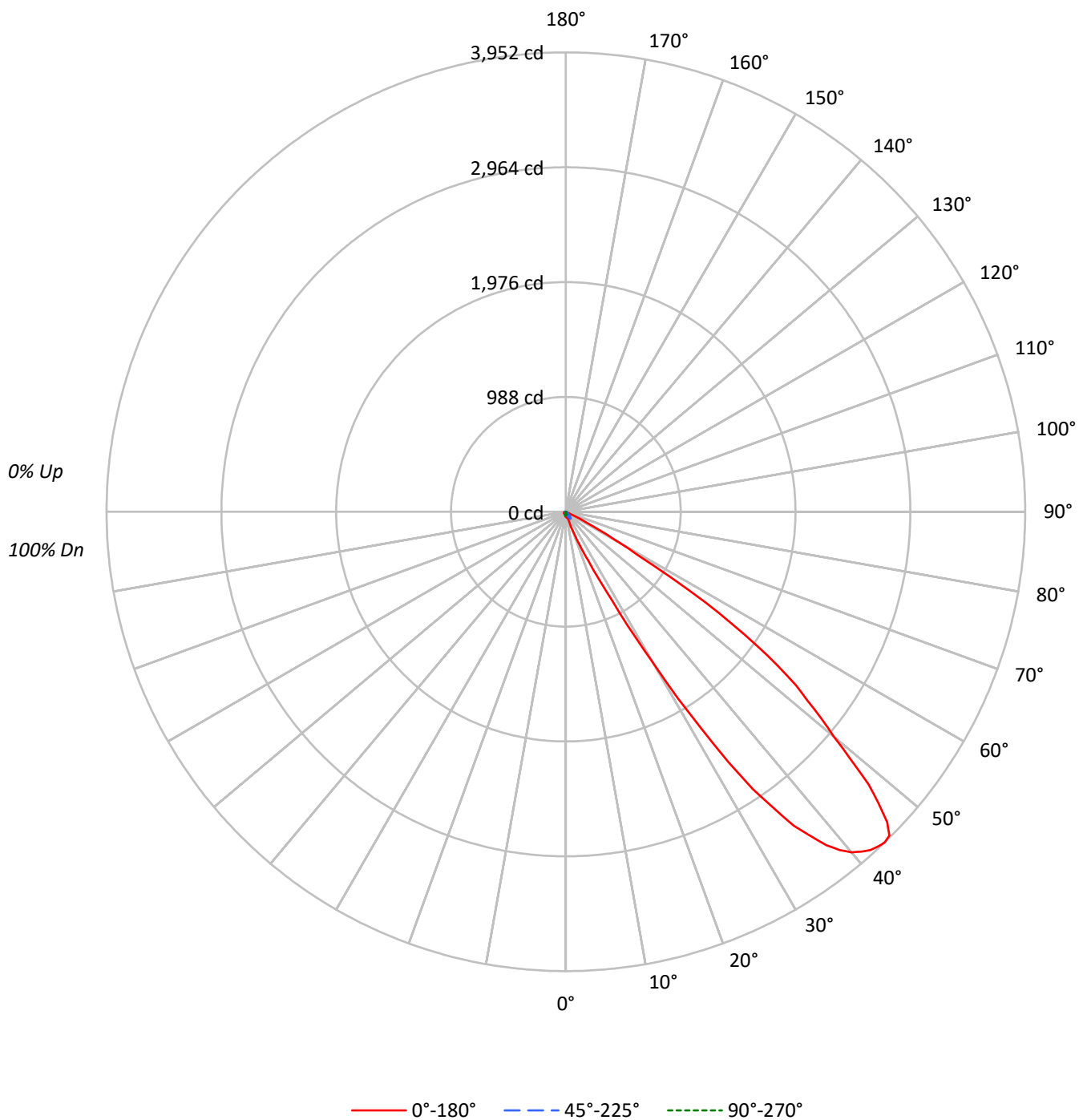
Lumens per Lamp: N/A
Luminaire Lumens: 824.0 lumens
Efficiency: N/A
Efficacy: 56.8 lumens/watt
Spacing Criteria (0/90/45): 3.65 / 0.6 / 1.37
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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			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	101	97	100	97	94		96	94	92		92	91	89	87
2	101	93	87	82	98	91	86	81	88	83	79		85	81	77		82	78	75	73
3	92	81	74	67	89	80	73	67	77	71	66		74	69	64		72	67	63	61
4	83	71	62	56	81	70	62	55	67	60	55		65	59	54		63	58	53	51
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		55	49	45	42
6	68	55	45	39	66	54	45	39	52	44	38		50	43	38		48	42	37	35
7	62	48	39	32	60	47	39	32	46	38	32		44	37	32		43	36	32	29
8	57	43	34	27	55	42	33	27	40	33	27		39	32	27		38	32	27	25
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	19		30	24	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	9232	9232	9232	9232	9232
5°	10544	10059	8937	7990	7814
10°	10487	9530	7593	6613	6613
15°	11691	8241	5925	5607	5925
20°	41280	8121	4574	4737	5250
25°	118773	10355	3678	4379	5081
30°	378944	15977	2937	4228	5140
35°	829980	18819	2516	4069	5247
40°	1094880	17032	2090	4151	5611
45°	1220995	11908	2016	4497	6078
50°	1027787	6175	1979	4708	6686
55°	768431	2485	1950	5276	7493
60°	237876	658	1930	5745	8289
65°	20339	0	2283	6019	9028
70°	1410	449	2308	6988	10258
75°	1271	593	3050	7371	11692
80°	884	884	4546	8208	13764
85°	1761	1761	7296	9057	14593

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1220995 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.8	0.5
10°-20°	9.7	1.2
20°-30°	45.6	5.5
30°-40°	219.5	26.6
40°-50°	344.0	41.8
50°-60°	176.4	21.4
60°-70°	16.7	2.0
70°-80°	5.6	0.7
80°-90°	2.8	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°	59.1	7.2
0°-40°	278.6	33.8
0°-60°	799.0	97.0
0°-90°	824.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	824.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	42	42	42	42	42	
5°	48	46	41	36	36	5
15°	52	36	26	25	26	22
25°	491	43	15	18	21	304
35°	3100	70	9	15	20	1882
45°	3937	38	6	14	20	2881
55°	2010	6	5	14	20	1673
65°	39	0	4	12	17	123
75°	2	1	4	9	14	2
85°	1	1	3	4	6	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1	42.1
2.5°	45.7	45.7	45.7	45.7	45.7	45.7	45.0	45.0	45.7	45.0	45.0
5°	47.9	47.9	47.9	47.9	47.9	47.9	47.9	47.1	47.1	47.1	45.7
7.5°	48.6	47.9	47.9	47.9	47.9	47.9	47.9	47.9	47.1	47.1	45.0
10°	47.1	47.1	47.1	47.1	46.4	46.4	46.4	45.7	45.7	45.7	42.8
12.5°	47.1	47.1	47.1	47.1	46.4	46.4	45.7	45.7	45.0	44.2	39.2
15°	51.5	51.5	51.5	50.8	50.0	49.3	48.6	47.9	47.1	45.7	36.3
17.5°	75.4	73.2	72.5	69.6	66.0	62.4	59.5	56.6	53.7	51.5	34.8
20°	176.9	176.2	172.6	163.9	154.4	143.6	132.7	120.4	103.0	91.4	34.8
22.5°	306.7	302.4	295.8	289.3	272.6	253.1	232.8	209.6	187.1	163.1	37.0
25°	490.9	501.0	479.3	461.9	432.9	397.4	358.9	327.0	286.4	248.7	42.8
27.5°	853.4	860.0	817.2	760.6	693.2	618.5	546.0	491.6	423.5	361.1	53.7
30°	1496.6	1503.1	1431.3	1311.0	1171.8	1049.2	883.2	737.4	603.3	499.6	63.1
31°	1867.9	1817.1	1733.7	1617.0	1440.8	1255.9	1056.5	880.3	710.6	574.3	66.0
32°	2190.5	2186.2	2089.0	1912.1	1735.2	1506.8	1259.5	1029.6	821.5	649.7	68.2
33°	2571.2	2542.2	2405.2	2238.4	2004.2	1774.3	1455.3	1192.8	935.4	733.8	69.6
34°	2876.5	2798.2	2741.6	2550.9	2303.6	2010.7	1669.2	1365.4	1077.5	815.0	70.3
35°	3100.5	3083.9	2973.6	2796.0	2544.4	2244.9	1899.8	1544.5	1196.4	909.3	70.3
36°	3337.6	3286.2	3178.8	3017.9	2772.8	2463.2	2076.0	1699.6	1334.9	994.1	69.6
37°	3486.3	3455.8	3349.2	3183.2	2943.2	2647.3	2273.2	1863.5	1445.1	1078.9	68.2
38°	3639.3	3577.6	3472.5	3313.7	3078.1	2800.3	2416.0	1989.7	1546.6	1153.6	66.0
39°	3745.1	3681.3	3574.0	3415.9	3185.4	2909.8	2529.2	2097.0	1635.1	1209.5	63.1
40°	3824.9	3763.3	3654.5	3492.1	3264.4	2996.1	2623.4	2192.0	1709.1	1258.0	59.5
41°	3874.2	3816.9	3708.9	3547.2	3318.8	3045.4	2685.0	2253.6	1759.1	1290.7	55.8
42°	3915.5	3856.8	3746.6	3581.3	3352.1	3087.5	2722.8	2292.8	1793.2	1307.4	52.9
43°	3938.7	3880.0	3772.7	3603.8	3372.4	3107.1	2743.1	2310.9	1804.8	1305.2	47.9
44°	3951.8	3890.9	3782.8	3613.9	3381.1	3112.1	2744.5	2307.3	1796.8	1287.8	43.5
45°	3937.3	3877.1	3772.7	3603.8	3365.9	3096.2	2730.0	2287.7	1766.3	1253.7	38.4
46°	3843.0	3796.6	3700.9	3545.7	3318.1	3055.6	2693.0	2250.0	1719.2	1211.6	32.6
47°	3677.0	3640.0	3547.2	3431.9	3226.0	2980.9	2624.9	2178.2	1653.2	1148.6	26.1
48°	3503.7	3449.3	3363.0	3244.8	3070.8	2846.7	2512.5	2073.1	1553.2	1065.9	23.2
49°	3247.7	3215.8	3139.7	3007.7	2863.4	2666.2	2353.7	1938.2	1430.6	976.0	20.3
50°	3012.8	2991.0	2884.5	2787.3	2634.3	2450.1	2138.3	1760.5	1278.4	864.3	18.1
51°	2829.3	2803.2	2726.4	2605.3	2442.1	2228.2	1934.6	1530.0	1103.6	731.6	14.5
52°	2637.9	2623.4	2555.3	2430.5	2270.3	2057.1	1736.6	1334.2	933.9	618.5	11.6
53°	2481.3	2460.3	2376.9	2265.9	2092.6	1872.2	1522.0	1152.2	791.1	519.9	10.2
54°	2252.9	2244.2	2190.5	2074.5	1886.7	1646.7	1327.7	970.2	659.8	440.9	8.7
55°	2010.0	1981.0	1926.6	1834.5	1661.9	1437.9	1102.9	804.1	533.7	371.3	6.5
56°	1714.1	1712.7	1615.5	1538.7	1385.7	1147.8	881.0	627.9	433.6	309.6	5.8
57°	1431.3	1385.7	1292.1	1216.0	1051.4	870.8	654.0	470.6	339.3	250.9	4.4
58°	1058.6	1034.7	1010.1	898.4	746.1	617.1	467.0	330.6	250.9	191.4	2.9
59°	718.6	717.8	688.8	604.0	516.3	384.3	291.5	224.8	172.6	140.7	2.2
60°	542.4	529.3	471.3	415.5	324.8	242.9	172.6	132.7	107.3	90.6	1.5
62.5°	190.0	197.2	173.3	143.6	109.5	89.9	68.9	55.8	45.7	37.0	0.0
65°	39.2	42.8	37.0	34.8	27.6	23.9	21.0	18.1	15.2	13.1	0.0



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CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	5.1	4.4	4.4	4.4	3.6	3.6	3.6	3.6	2.9	2.9	0.7
70°	2.2	2.2	2.2	2.2	2.2	2.2	1.5	1.5	1.5	1.5	0.7
72.5°	2.2	2.2	2.2	1.5	1.5	1.5	1.5	1.5	1.5	0.7	0.7
75°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.7	0.7	0.7	0.7
77.5°	1.5	1.5	1.5	1.5	1.5	1.5	0.7	0.7	0.7	0.7	0.7
80°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
82.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.5
85°	0.7	0.7	0.7	0.0	0.0	0.7	0.7	0.7	0.7	0.7	0.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7
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):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	42.1	42.1	42.1	42.1	42.1	42.1
2.5°	44.2	42.8	40.6	39.9	39.2	39.2
5°	43.5	40.6	38.4	36.3	35.5	35.5
7.5°	41.3	37.7	34.8	33.4	32.6	31.9
10°	39.2	34.1	31.2	29.7	29.7	29.7
12.5°	34.8	30.5	27.6	26.8	27.6	27.6
15°	31.2	26.1	24.7	24.7	25.4	26.1
17.5°	26.8	23.2	21.8	22.5	23.2	23.9
20°	23.9	19.6	19.6	20.3	22.5	22.5
22.5°	21.0	17.4	17.4	19.6	21.0	21.8
25°	18.9	15.2	16.0	18.1	20.3	21.0
27.5°	16.0	13.1	14.5	17.4	19.6	20.3
30°	13.8	11.6	13.8	16.7	18.9	20.3
31°	13.1	10.9	13.8	16.0	18.9	20.3
32°	11.6	10.9	13.1	16.0	18.9	19.6
33°	10.9	10.2	13.1	16.0	18.9	19.6
34°	10.2	9.4	12.3	16.0	18.9	19.6
35°	8.7	9.4	12.3	15.2	18.1	19.6
36°	8.0	8.7	12.3	15.2	18.1	19.6
37°	7.3	8.7	11.6	15.2	18.1	19.6
38°	6.5	8.0	11.6	15.2	18.1	19.6
39°	5.8	8.0	10.9	15.2	18.1	19.6
40°	5.1	7.3	10.9	14.5	18.1	19.6
41°	5.1	7.3	10.9	14.5	18.1	19.6
42°	4.4	7.3	10.9	14.5	18.1	19.6
43°	3.6	6.5	10.9	14.5	18.1	19.6
44°	2.9	6.5	10.2	14.5	18.1	19.6
45°	2.9	6.5	10.2	14.5	18.1	19.6
46°	2.2	5.8	10.2	14.5	18.1	19.6
47°	1.5	5.8	10.2	13.8	18.1	19.6
48°	1.5	5.8	10.2	13.8	18.1	19.6
49°	1.5	5.8	9.4	13.8	18.1	19.6
50°	1.5	5.8	9.4	13.8	18.1	19.6
51°	0.7	5.1	9.4	13.8	18.1	19.6
52°	0.7	5.1	9.4	13.8	18.1	20.3
53°	0.7	5.1	9.4	13.8	18.1	19.6
54°	0.7	5.1	8.7	13.8	18.1	19.6
55°	0.7	5.1	8.7	13.8	18.1	19.6
56°	0.7	4.4	8.7	13.1	18.1	19.6
57°	1.5	4.4	8.7	13.1	18.1	18.9
58°	1.5	4.4	8.7	13.1	17.4	18.9
59°	1.5	4.4	8.7	13.1	17.4	18.9
60°	1.5	4.4	8.0	13.1	17.4	18.9
62.5°	1.5	4.4	8.0	12.3	16.7	18.1
65°	1.5	4.4	7.3	11.6	16.7	17.4



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.5	3.6	7.3	10.9	16.0	16.7
70°	2.2	3.6	6.5	10.9	15.2	16.0
72.5°	2.2	3.6	6.5	9.4	13.8	15.2
75°	2.2	3.6	5.8	8.7	13.1	13.8
77.5°	2.2	3.6	5.1	8.0	11.6	12.3
80°	2.9	3.6	4.4	6.5	10.2	10.9
82.5°	2.9	3.6	3.6	5.1	8.0	8.7
85°	2.2	2.9	2.9	3.6	5.1	5.8
87.5°	2.2	2.9	2.2	1.5	2.9	2.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)