

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: P1345926

Luminaire Tested: P3A13R409027DE010 E3CA451MW

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1345926
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: P3A13R409027DE010 E3CA451MW
Description: 3in Adjustable LED luminaire with, R40 optic, 2700K CCT AND, 90CRI , E3CA451MW TRIM
Light Source: -
Ballast/Driver: -

Summary

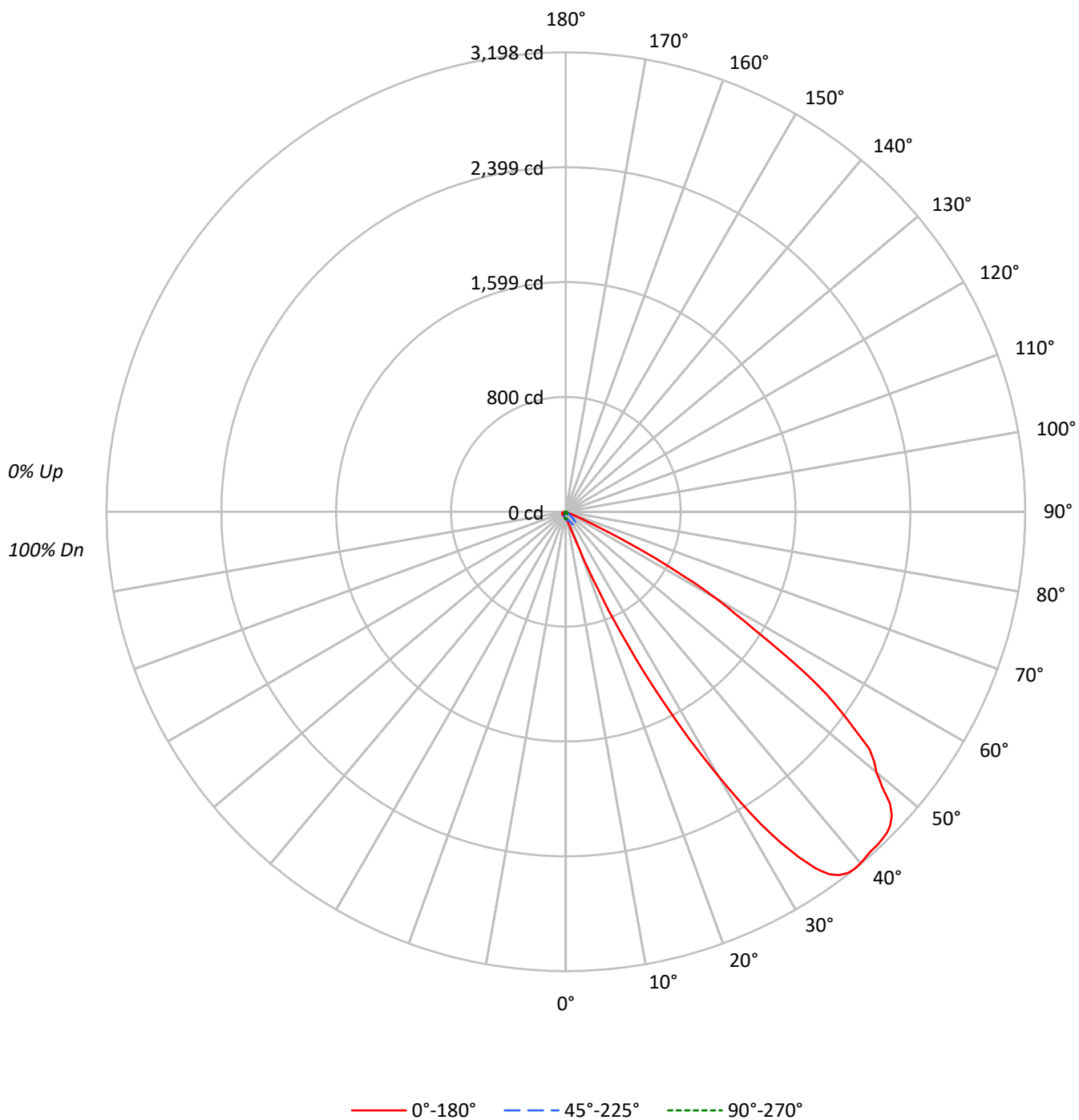
Lumens per Lamp: N/A
Luminaire Lumens: 988.0 lumens
Efficiency: N/A
Efficacy: 67.7 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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°	11139	11139	11139	11139	11139
5°	12393	11974	10984	9993	9795
10°	14941	12736	10109	9085	8884
15°	24518	13803	8649	8036	8241
20°	64779	16311	7187	7187	7841
25°	249837	20203	5710	6581	7694
30°	538969	26890	4583	6431	7571
35°	811241	31829	3882	6318	7763
40°	913970	31946	3378	6498	8301
45°	980040	24747	3101	6760	8993
50°	963243	15488	2797	7130	9893
55°	847415	7646	2791	7990	11087
60°	536404	1579	3201	8771	12324
65°	109687	467	3321	9391	13646
70°	2308	577	3462	10450	15708
75°	2288	1525	3813	11522	17707
80°	2273	1137	4546	12628	20583
85°	2264	2264	9057	13586	22895

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 997729 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4.7	0.5
10°-20°	15.7	1.6
20°-30°	76.8	7.8
30°-40°	249.6	25.3
40°-50°	344.1	34.8
50°-60°	239.7	24.3
60°-70°	45.4	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°	97.1	9.8
0°-40°	346.8	35.1
0°-60°	930.5	94.2
0°-90°	988.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	988.0	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°	1033	84	24	27	32	532
35°	3030	119	14	24	29	1831
45°	3160	80	10	22	29	2403
55°	2217	20	7	21	29	1895
65°	211	1	6	18	26	374
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°	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8
2.5°	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6	52.6	51.7	50.8
5°	56.3	56.3	56.3	56.3	55.3	55.3	55.3	54.4	54.4	52.6	49.9
7.5°	59.9	59.9	59.9	59.9	59.0	58.1	57.2	57.2	56.3	51.7	48.1
10°	67.1	67.1	66.2	65.3	64.4	62.6	61.7	59.9	57.2	50.8	45.4
12.5°	81.7	79.8	78.9	77.1	74.4	70.8	67.1	64.4	58.1	49.0	42.6
15°	108.0	106.2	102.5	97.1	91.6	84.4	78.0	71.7	60.8	46.3	38.1
17.5°	154.2	148.8	143.4	134.3	120.7	108.0	94.4	82.6	64.4	43.6	34.5
20°	277.6	274.0	241.4	215.9	175.1	146.1	118.9	98.9	69.9	40.8	30.8
22.5°	572.5	534.4	480.9	393.8	306.7	225.9	164.2	124.3	75.3	37.2	27.2
25°	1032.6	972.7	857.4	689.6	509.0	360.2	237.7	162.4	83.5	33.6	23.6
27.5°	1563.3	1502.6	1323.8	1092.4	797.6	543.5	339.3	215.0	94.4	29.9	20.9
30°	2128.6	2076.9	1850.1	1529.8	1124.2	761.3	454.6	268.6	106.2	26.3	18.1
31°	2356.4	2290.1	2045.1	1704.0	1277.5	851.1	500.9	291.3	110.7	25.4	17.2
32°	2566.0	2490.7	2236.6	1870.9	1401.8	948.2	551.7	311.2	114.3	23.6	16.3
33°	2746.5	2658.5	2413.5	2028.8	1538.8	1038.9	604.3	330.3	117.0	21.8	15.4
34°	2899.9	2823.6	2560.5	2187.6	1660.4	1126.0	656.0	349.3	118.9	20.9	14.5
35°	3030.5	2961.6	2701.2	2308.3	1779.3	1210.4	703.2	367.5	118.9	19.1	14.5
36°	3118.5	3058.6	2822.7	2431.7	1879.1	1282.1	743.1	383.8	118.9	17.2	13.6
37°	3166.6	3108.5	2902.6	2533.3	1977.1	1352.8	779.4	396.5	118.0	16.3	12.7
38°	3191.1	3140.3	2961.6	2615.9	2045.1	1403.7	811.2	406.5	117.0	14.5	12.7
39°	3197.5	3154.8	2998.8	2675.7	2111.4	1454.5	833.8	411.9	114.3	13.6	11.8
40°	3192.9	3155.7	3018.7	2729.3	2162.2	1494.4	850.2	413.7	111.6	11.8	11.8
41°	3183.9	3154.8	3033.2	2766.5	2203.0	1519.8	856.5	410.1	108.0	10.0	10.9
42°	3175.7	3143.9	3039.6	2791.9	2231.2	1532.5	855.6	402.9	102.5	9.1	10.9
43°	3175.7	3139.4	3040.5	2808.2	2244.8	1533.4	844.7	389.2	95.3	8.2	10.0
44°	3170.2	3136.7	3045.0	2819.1	2248.4	1525.2	827.5	374.7	87.1	7.3	10.0
45°	3160.3	3124.9	3044.1	2820.0	2242.0	1505.3	799.4	355.7	79.8	5.4	10.0
46°	3141.2	3109.5	3036.0	2813.7	2223.0	1476.2	765.8	336.6	71.7	4.5	9.1
47°	3103.1	3078.6	3014.2	2791.9	2193.9	1433.6	725.9	314.8	65.3	3.6	9.1
48°	3037.8	3020.5	2977.0	2743.8	2138.6	1381.0	683.2	291.3	59.0	3.6	9.1
49°	2918.0	2904.4	2879.0	2666.7	2067.8	1316.6	637.0	264.9	52.6	2.7	9.1
50°	2823.6	2809.1	2757.4	2536.9	1966.2	1234.9	586.1	238.6	45.4	1.8	8.2
51°	2761.0	2737.4	2655.8	2386.3	1818.3	1126.0	530.8	212.3	38.1	1.8	8.2
52°	2682.1	2646.7	2545.1	2251.1	1683.1	1017.1	470.9	186.0	33.6	1.8	8.2
53°	2517.0	2504.3	2403.5	2105.9	1547.9	912.8	409.2	164.2	29.0	1.8	8.2
54°	2372.7	2353.6	2216.6	1904.5	1400.9	796.6	345.7	145.2	24.5	1.8	8.2
55°	2216.6	2179.4	2057.8	1734.8	1228.5	689.6	284.9	125.2	20.0	1.8	7.3
56°	2019.7	1987.1	1856.4	1553.4	1069.8	580.7	238.6	102.5	15.4	1.8	7.3
57°	1780.2	1750.3	1649.5	1330.2	904.6	474.5	194.2	82.6	11.8	1.8	7.3
58°	1548.8	1515.3	1400.0	1116.0	730.4	376.5	162.4	67.1	9.1	1.8	7.3
59°	1371.0	1325.6	1176.8	937.3	571.6	285.8	128.8	53.5	6.4	1.8	7.3
60°	1223.1	1185.9	1031.6	780.3	448.2	210.5	95.3	40.8	3.6	1.8	7.3
62.5°	708.6	698.7	559.8	402.0	211.4	98.0	47.2	19.1	1.8	2.7	7.3
65°	211.4	184.2	143.4	85.3	54.4	32.7	17.2	6.4	0.9	2.7	6.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	6.4	6.4	6.4	6.4	6.4	6.4	3.6	1.8	0.9	2.7	6.4
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°	50.8	50.8	50.8	50.8
2.5°	49.0	48.1	47.2	47.2
5°	47.2	45.4	45.4	44.5
7.5°	44.5	42.6	42.6	42.6
10°	41.7	40.8	40.8	39.9
12.5°	38.1	38.1	38.1	38.1
15°	35.4	35.4	36.3	36.3
17.5°	31.8	32.7	34.5	35.4
20°	29.0	30.8	32.7	33.6
22.5°	27.2	29.0	31.8	32.7
25°	24.5	27.2	30.8	31.8
27.5°	22.7	26.3	29.0	30.8
30°	20.9	25.4	28.1	29.9
31°	20.9	24.5	28.1	29.9
32°	20.0	23.6	28.1	29.0
33°	20.0	23.6	28.1	29.0
34°	19.1	23.6	27.2	29.0
35°	19.1	23.6	27.2	29.0
36°	18.1	22.7	27.2	29.0
37°	18.1	22.7	27.2	29.0
38°	17.2	22.7	27.2	29.0
39°	17.2	22.7	27.2	29.0
40°	17.2	22.7	27.2	29.0
41°	16.3	22.7	27.2	29.0
42°	16.3	22.7	27.2	29.0
43°	16.3	21.8	27.2	29.0
44°	16.3	21.8	27.2	29.0
45°	15.4	21.8	27.2	29.0
46°	15.4	21.8	27.2	29.0
47°	15.4	21.8	27.2	29.0
48°	15.4	21.8	27.2	29.0
49°	15.4	21.8	27.2	29.0
50°	14.5	20.9	27.2	29.0
51°	14.5	20.9	27.2	29.0
52°	14.5	20.9	27.2	29.0
53°	14.5	20.9	27.2	29.0
54°	13.6	20.9	27.2	29.0
55°	13.6	20.9	27.2	29.0
56°	13.6	20.9	27.2	28.1
57°	13.6	20.9	26.3	28.1
58°	13.6	20.0	26.3	28.1
59°	13.6	20.0	26.3	28.1
60°	13.6	20.0	26.3	28.1
62.5°	12.7	20.0	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	23.6	25.4
70°	10.9	16.3	22.7	24.5
72.5°	9.1	15.4	20.9	22.7
75°	8.2	13.6	19.1	20.9
77.5°	7.3	11.8	17.2	18.1
80°	6.4	10.0	14.5	16.3
82.5°	4.5	7.3	11.8	12.7
85°	3.6	5.4	8.2	9.1
87.5°	2.7	2.7	4.5	4.5
90°	0.0	0.0	0.0	0.0

(END OF REPORT)