

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: P1345030

Luminaire Tested: P3A13R309735DE010 E3CA451MW

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1345030
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: P3A13R309735DE010 E3CA451MW
Description: 3in Adjustable LED luminaire with, R30 optic, 3500K CCT AND, 97CRI , E3CA451MW TRIM
Light Source: -
Ballast/Driver: -

Summary

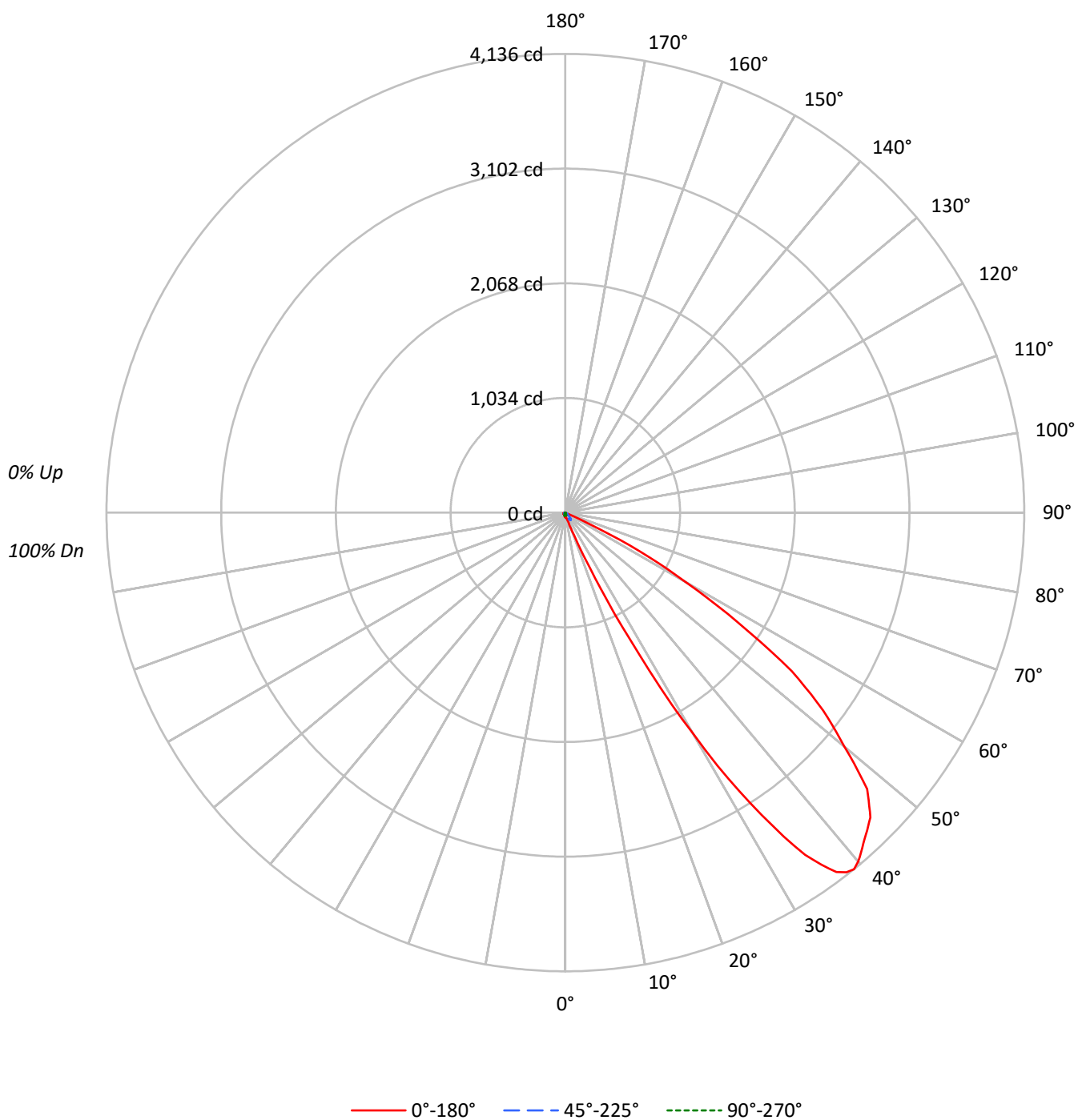
Lumens per Lamp: N/A
Luminaire Lumens: 1075.0 lumens
Efficiency: N/A
Efficacy: 73.6 lumens/watt
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.44
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 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			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°	9144	9144	9144	9144	9144
5°	9773	9575	8959	8166	7968
10°	10688	9485	7860	7058	6858
15°	15619	9467	6583	5971	6175
20°	39297	10361	5064	5064	5694
25°	182502	12920	3944	4597	5250
30°	581001	17876	2988	4355	5267
35°	1008156	21817	2436	4122	5327
40°	1175774	21784	1803	4151	5439
45°	1205831	15443	1954	4497	5892
50°	1121362	8665	1535	4640	6789
55°	953046	4511	1720	5199	7608
60°	550438	1184	1974	5570	8333
65°	112282	0	2335	6590	9391
70°	1731	577	2885	7565	11028
75°	1525	763	3050	7710	13047
80°	1137	1137	4546	9092	14901
85°	0	2264	9057	9057	18115

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1205831 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.8	0.4
10°-20°	10.8	1.0
20°-30°	62.0	5.8
30°-40°	289.6	26.9
40°-50°	409.5	38.1
50°-60°	251.9	23.4
60°-70°	38.4	3.6
70°-80°	6.1	0.6
80°-90°	3.0	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°	76.6	7.1
0°-40°	366.1	34.1
0°-60°	1027.5	95.6
0°-90°	1075.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1075.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	42	42	42	42	42	
5°	44	44	41	37	36	4
15°	69	42	29	26	27	25
25°	754	53	16	19	22	464
35°	3766	82	9	15	20	2260
45°	3888	50	6	14	19	2948
55°	2493	12	4	14	20	2121
65°	216	0	4	13	18	392
75°	2	1	4	9	15	2
85°	0	1	4	4	7	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°	41.7	41.7	41.7	41.7	41.7	41.7	41.7	41.7	41.7	41.7	41.7
2.5°	42.6	42.6	43.5	43.5	42.6	43.5	43.5	43.5	41.7	40.7	38.9
5°	44.4	44.4	44.4	45.3	44.4	44.4	43.5	42.6	40.7	38.0	37.1
7.5°	46.2	46.2	45.3	46.2	45.3	45.3	43.5	41.7	38.9	36.2	34.4
10°	48.0	48.0	47.1	47.1	46.2	46.2	42.6	39.8	35.3	32.6	31.7
12.5°	53.4	53.4	52.5	51.6	49.8	48.9	41.7	37.1	31.7	29.0	28.1
15°	68.8	67.9	66.1	63.4	58.9	58.0	41.7	34.4	29.0	26.3	26.3
17.5°	94.2	93.3	90.6	83.3	75.2	72.4	41.7	30.8	25.4	23.5	23.5
20°	168.4	161.2	147.6	129.5	110.5	100.5	44.4	27.2	21.7	20.8	21.7
21°	220.0	212.8	195.6	165.7	132.2	121.3	46.2	26.3	20.8	19.9	21.7
22°	299.7	291.6	256.3	215.5	167.5	148.5	47.1	24.4	19.0	19.0	20.8
23°	418.4	404.8	345.0	279.8	209.2	182.0	48.9	23.5	18.1	19.0	19.9
24°	547.8	536.1	468.2	370.4	267.1	228.2	50.7	22.6	17.2	17.2	19.0
25°	754.3	740.7	620.3	467.3	338.7	274.4	53.4	20.8	16.3	16.3	19.0
26°	1021.4	959.0	798.7	602.2	417.5	344.1	56.1	19.9	15.4	16.3	18.1
27°	1275.0	1223.4	1043.2	772.4	516.2	422.9	59.8	19.0	14.5	15.4	18.1
28°	1608.2	1535.8	1308.5	977.1	650.2	511.6	63.4	18.1	13.6	15.4	17.2
29°	1981.3	1879.9	1605.5	1207.1	801.4	611.2	67.0	17.2	12.7	14.5	17.2
30°	2294.6	2199.5	1925.2	1479.6	975.3	742.5	70.6	16.3	11.8	14.5	17.2
31°	2662.3	2518.3	2186.0	1710.6	1124.7	873.8	74.3	14.5	10.9	13.6	16.3
32°	2960.2	2859.7	2506.5	1971.3	1321.2	1018.7	77.0	13.6	10.9	13.6	16.3
33°	3248.2	3113.2	2771.8	2221.3	1498.7	1167.2	79.7	12.7	10.0	12.7	16.3
34°	3523.4	3399.4	3022.7	2423.2	1666.2	1308.5	81.5	10.9	10.0	12.7	15.4
35°	3766.1	3622.1	3243.6	2620.6	1838.2	1437.1	81.5	10.0	9.1	11.8	15.4
36°	3923.7	3820.5	3435.6	2815.3	1994.0	1559.3	81.5	9.1	8.1	11.8	14.5
37°	4058.6	3938.2	3589.5	2964.7	2109.0	1657.1	81.5	8.1	8.1	11.8	14.5
38°	4113.8	4010.6	3695.5	3096.9	2216.7	1756.7	80.6	7.2	7.2	10.9	14.5
39°	4135.6	4043.2	3775.2	3192.0	2296.4	1823.7	78.8	6.3	7.2	10.9	14.5
40°	4107.5	4037.8	3815.9	3253.6	2359.8	1872.6	76.1	5.4	6.3	10.9	14.5
42.5°	3991.6	3945.4	3806.9	3315.2	2414.2	1908.9	66.1	3.6	6.3	10.0	14.5
45°	3888.4	3837.7	3715.4	3250.9	2343.5	1837.3	49.8	1.8	6.3	10.0	14.5
47.5°	3688.2	3656.5	3560.6	3087.0	2188.7	1676.1	35.3	0.9	5.4	9.1	13.6
50°	3287.1	3257.2	3130.4	2680.4	1882.6	1417.2	25.4	0.9	4.5	9.1	13.6
52.5°	2927.6	2895.9	2713.9	2228.5	1446.1	1038.6	16.3	0.9	4.5	9.1	13.6
55°	2492.9	2437.7	2198.6	1691.5	1025.1	696.4	11.8	0.9	4.5	8.1	13.6
57.5°	1845.5	1764.9	1551.2	1153.7	590.4	377.6	6.3	0.9	4.5	8.1	13.6
60°	1255.1	1207.1	970.7	608.5	251.7	159.4	2.7	0.9	4.5	8.1	12.7
62.5°	760.6	700.0	488.1	259.0	108.7	72.4	0.0	1.8	4.5	8.1	12.7
65°	216.4	192.0	127.7	58.9	30.8	23.5	0.0	1.8	4.5	8.1	12.7
67.5°	7.2	7.2	7.2	6.3	4.5	4.5	0.9	1.8	4.5	8.1	11.8
70°	2.7	2.7	2.7	1.8	1.8	0.9	0.9	1.8	4.5	7.2	11.8
72.5°	1.8	1.8	1.8	1.8	0.9	0.9	0.9	1.8	3.6	6.3	10.9
75°	1.8	1.8	1.8	0.9	0.9	0.9	0.9	2.7	3.6	6.3	9.1
77.5°	1.8	1.8	1.8	0.9	0.9	0.9	0.9	2.7	3.6	5.4	9.1
80°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	2.7	3.6	5.4	7.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	45°	67.5°	90°	112.5°	135°
82.5°	0.9	0.9	0.9	0.0	0.0	0.0	0.9	2.7	3.6	3.6	5.4
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.9	2.7	3.6	2.7	3.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.9	2.7	2.7	2.7	1.8
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°	41.7	41.7
2.5°	38.9	38.9
5°	36.2	36.2
7.5°	33.5	33.5
10°	30.8	30.8
12.5°	29.0	29.0
15°	26.3	27.2
17.5°	24.4	25.4
20°	23.5	24.4
21°	23.5	24.4
22°	22.6	23.5
23°	22.6	23.5
24°	21.7	22.6
25°	20.8	21.7
26°	20.8	21.7
27°	20.8	21.7
28°	19.9	21.7
29°	19.9	20.8
30°	19.9	20.8
31°	19.0	20.8
32°	19.0	20.8
33°	19.0	19.9
34°	18.1	19.9
35°	18.1	19.9
36°	18.1	19.9
37°	18.1	19.0
38°	18.1	19.9
39°	18.1	19.0
40°	18.1	19.0
42.5°	18.1	19.0
45°	18.1	19.0
47.5°	18.1	19.9
50°	18.1	19.9
52.5°	18.1	19.9
55°	18.1	19.9
57.5°	18.1	19.0
60°	18.1	19.0
62.5°	17.2	19.0
65°	17.2	18.1
67.5°	17.2	18.1
70°	16.3	17.2
72.5°	15.4	16.3
75°	13.6	15.4
77.5°	12.7	13.6
80°	10.9	11.8



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CANDELA DISTRIBUTION (continued):

	157.5°	180°
82.5°	9.1	9.1
85°	6.3	7.2
87.5°	3.6	3.6
90°	0.0	0.0

(END OF REPORT)