

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: P1343534

Luminaire Tested: P3A13R159740DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1343534
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-73)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R159740DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R15 optic, 4000K CCT AND, 97CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

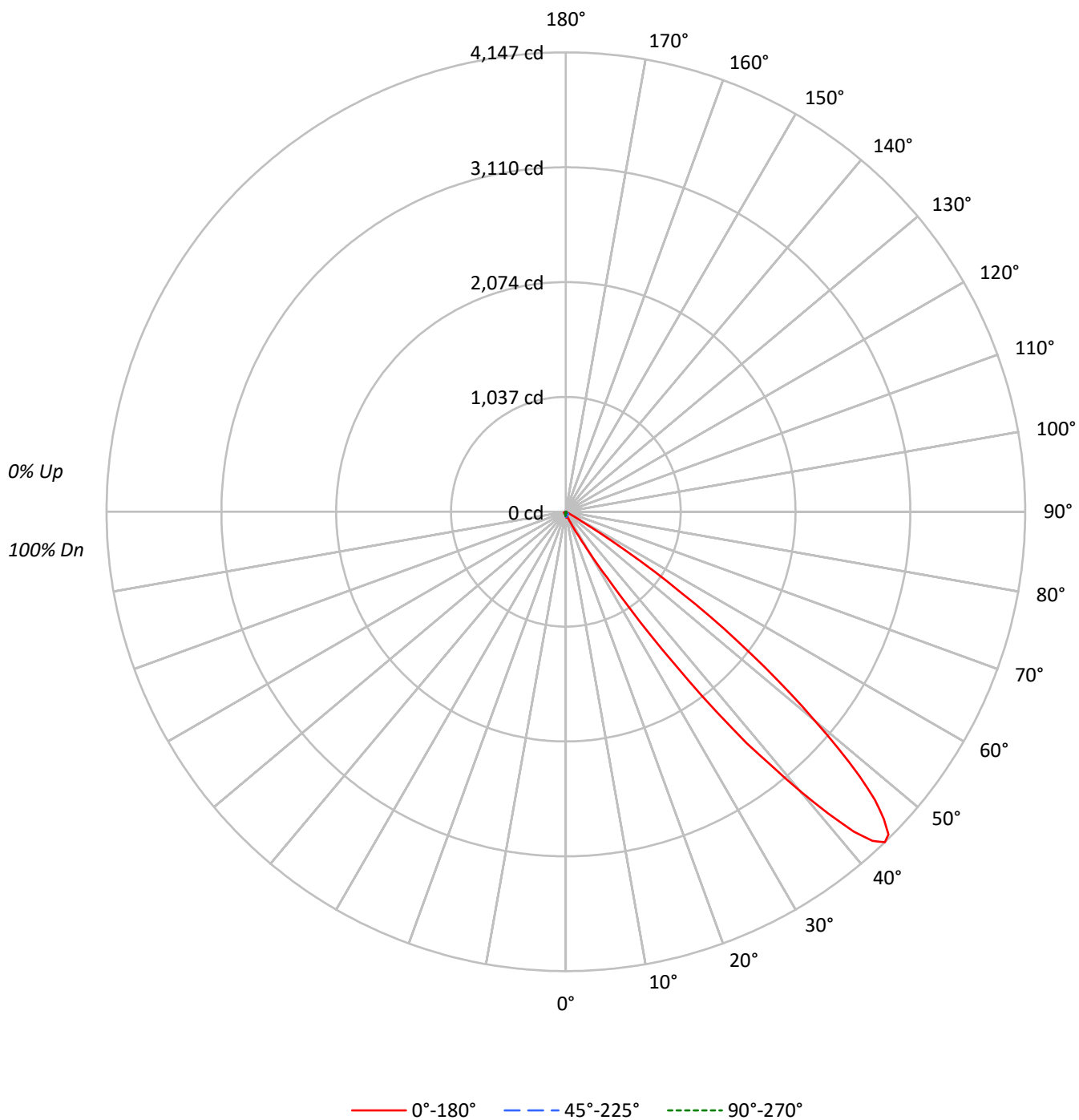
Lumens per Lamp: N/A
Luminaire Lumens: 463.0 lumens
Efficiency: N/A
Efficacy: 31.7 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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
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	101	93	87	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	53
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	37	49	42	37	48	42	37
7	62	47	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31
8	56	42	33	27	55	41	33	27	40	32	26	39	31	26	37	31	26
9	52	37	28	22	50	37	28	22	35	28	22	34	27	22	33	27	22
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	23	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	9012	9012	9012	9012	9012
5°	11182	9949	8122	7110	7022
10°	11000	8528	6279	5544	5656
15°	9126	6084	4518	4608	4926
20°	15845	4854	3454	3990	4527
25°	35300	5807	2782	3678	4234
30°	105561	7140	2456	3621	4431
35°	406330	8031	2222	3694	4685
40°	943138	7013	2118	3836	5009
45°	1277435	5303	1861	4155	5427
50°	1001622	3138	1876	4401	5970
55°	480748	1415	1759	4779	6537
60°	43944	219	1623	5043	7280
65°	4774	0	1453	5292	7887
70°	1154	0	1795	5642	8591
75°	1186	424	2372	6270	9743
80°	1137	1137	2904	6440	10481
85°	1258	1258	4529	5787	11573

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1277435 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.5	0.8
10°-20°	7.3	1.6
20°-30°	17.5	3.8
30°-40°	95.8	20.7
40°-50°	231.9	50.1
50°-60°	92.5	20.0
60°-70°	8.0	1.7
70°-80°	4.5	1.0
80°-90°	2.0	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°	28.3	6.1
0°-40°	124.1	26.8
0°-60°	448.5	96.9
0°-90°	463.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	463.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	41	41	41	41	41	
5°	51	45	37	32	32	5
15°	40	27	20	20	22	14
25°	146	24	12	15	18	88
35°	1518	30	8	14	18	1073
45°	4119	17	6	13	18	2906
55°	1258	4	5	12	17	1172
65°	9	0	3	10	15	24
75°	1	0	3	7	12	1
85°	0	0	2	2	5	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°	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1	41.1
2.5°	46.2	46.2	46.6	46.2	46.2	46.2	46.2	45.7	45.7	45.7	44.3
5°	50.8	50.8	50.8	50.8	50.3	50.3	50.3	49.9	49.9	49.4	45.2
7.5°	52.6	52.6	52.2	52.2	51.7	51.7	51.2	50.8	50.3	49.9	43.4
10°	49.4	49.4	49.4	48.9	48.9	48.5	48.0	47.6	47.1	46.2	38.3
12.5°	43.9	43.9	44.3	43.9	43.4	42.9	42.0	41.5	41.1	40.2	31.9
15°	40.2	40.2	40.2	39.7	39.2	38.3	37.9	36.9	36.5	35.1	26.8
17.5°	51.2	51.2	50.8	49.9	48.0	46.6	44.3	42.5	40.2	37.4	23.1
20°	67.9	67.9	66.9	66.0	63.7	61.4	57.7	54.5	50.8	47.6	20.8
22.5°	98.3	99.7	96.9	93.7	90.5	84.9	79.9	74.8	68.3	62.8	21.2
25°	145.9	147.3	145.9	138.5	132.5	125.1	115.4	105.3	94.2	84.0	24.0
27.5°	236.4	237.3	235.0	217.0	207.3	187.9	170.8	154.2	135.7	117.3	26.3
30°	416.9	417.3	402.6	366.6	334.7	292.2	256.2	221.6	192.5	163.0	28.2
31°	548.9	536.0	504.6	461.2	410.4	353.2	303.8	259.0	215.6	183.7	28.6
32°	697.1	695.3	643.1	567.8	500.0	428.4	354.1	296.8	247.0	203.6	29.1
33°	893.3	894.2	812.1	723.4	612.2	516.1	418.7	340.2	280.2	227.1	30.0
34°	1199.8	1127.8	1031.3	911.3	759.9	615.4	488.9	390.6	310.2	249.8	30.0
35°	1517.9	1445.4	1339.3	1157.4	949.6	747.4	572.5	444.6	346.2	274.2	30.0
36°	1874.3	1812.9	1652.3	1420.0	1155.1	872.1	661.1	506.9	381.8	296.4	29.5
37°	2259.3	2169.3	1991.1	1737.7	1383.1	1047.5	769.1	568.8	417.3	320.4	28.6
38°	2650.4	2569.1	2344.3	2037.3	1655.5	1232.6	877.1	628.3	450.1	338.4	27.2
39°	2946.7	2902.4	2679.4	2336.4	1872.9	1408.0	988.4	692.0	484.7	356.4	25.9
40°	3294.8	3223.3	3011.8	2587.6	2130.1	1586.7	1097.4	748.3	513.4	370.7	24.5
41°	3612.4	3522.0	3255.1	2845.2	2336.0	1747.4	1200.8	806.5	536.4	379.0	23.5
42°	3884.8	3779.6	3500.7	3065.8	2508.2	1875.7	1283.4	848.1	558.1	385.9	22.2
43°	4061.2	3970.2	3696.0	3231.6	2655.4	1993.4	1360.5	891.5	571.5	390.6	20.3
44°	4147.0	4055.2	3789.7	3335.5	2745.9	2064.1	1410.4	921.5	586.3	396.6	18.9
45°	4119.3	4026.1	3769.4	3337.3	2774.1	2089.4	1431.6	934.9	594.1	402.1	17.1
46°	3992.4	3926.8	3668.3	3250.5	2720.5	2062.2	1419.6	924.7	591.4	402.1	15.2
47°	3814.2	3739.4	3493.3	3101.4	2590.8	1992.0	1371.1	893.8	574.3	392.9	13.4
48°	3571.4	3507.7	3249.1	2864.6	2391.8	1839.2	1261.7	843.4	547.5	374.9	11.5
49°	3266.7	3178.0	2937.5	2561.7	2132.4	1622.3	1118.1	758.5	504.6	349.5	10.2
50°	2936.1	2826.7	2641.1	2258.4	1864.2	1391.0	929.3	641.2	444.1	316.2	9.2
51°	2612.5	2501.2	2324.4	1999.0	1577.9	1154.1	749.7	512.0	365.6	270.5	7.8
52°	2276.9	2183.6	1985.6	1729.8	1350.8	935.3	624.6	433.0	303.8	227.1	6.5
53°	1942.6	1878.9	1690.6	1431.6	1085.3	764.0	510.1	370.7	265.0	194.4	5.1
54°	1607.9	1538.2	1395.1	1164.3	874.8	602.9	432.6	310.2	229.9	169.4	4.6
55°	1257.5	1221.5	1089.5	887.8	662.9	481.0	350.9	266.8	192.5	141.7	3.7
56°	968.6	927.9	807.4	644.0	492.6	376.7	283.9	217.9	163.0	118.6	2.8
57°	634.3	592.8	512.9	449.7	358.7	274.7	217.0	171.7	132.5	98.3	2.3
58°	374.9	337.0	324.5	277.0	239.1	186.5	160.2	127.9	97.9	77.6	1.4
59°	172.2	175.0	155.6	145.9	132.5	118.6	97.4	85.4	66.9	55.9	0.9
60°	100.2	94.6	92.3	82.6	73.4	65.1	58.6	51.7	42.0	36.0	0.5
62.5°	34.2	32.8	33.7	30.5	28.6	27.7	25.4	21.7	18.0	14.8	0.0
65°	9.2	9.2	8.8	8.3	7.8	7.4	6.9	6.0	5.5	4.6	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°	3.2	3.2	2.8	2.8	2.3	2.3	1.8	1.8	1.4	1.4	0.0
70°	1.8	1.8	1.8	1.4	1.4	1.4	0.9	0.9	0.9	0.5	0.0
72.5°	1.4	1.4	1.4	1.4	1.4	1.4	0.9	0.9	0.9	0.5	0.5
75°	1.4	1.4	1.4	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.5
77.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
80°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.5	0.9
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.9
85°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
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°	41.1	41.1	41.1	41.1	41.1	41.1
2.5°	42.5	40.6	38.3	36.9	36.5	36.0
5°	40.6	36.9	34.2	32.3	31.9	31.9
7.5°	36.5	32.3	29.5	28.6	28.2	28.2
10°	31.9	28.2	25.9	24.9	25.4	25.4
12.5°	26.8	23.5	22.6	22.6	23.1	23.5
15°	21.7	19.9	19.9	20.3	21.2	21.7
17.5°	18.0	17.1	17.5	18.5	19.4	20.3
20°	14.8	14.8	15.7	17.1	18.5	19.4
22.5°	12.5	12.9	14.3	15.7	17.5	18.5
25°	10.6	11.5	12.9	15.2	17.1	17.5
27.5°	9.2	10.6	12.5	14.8	16.6	17.5
30°	7.8	9.7	12.0	14.3	16.6	17.5
31°	7.4	9.2	11.5	14.3	16.6	17.5
32°	6.9	9.2	11.5	14.3	16.6	17.5
33°	6.5	8.8	11.5	13.8	16.6	17.5
34°	6.0	8.8	11.5	14.3	16.6	17.5
35°	5.5	8.3	11.1	13.8	16.2	17.5
36°	5.1	8.3	11.1	13.8	16.6	17.5
37°	4.6	8.3	11.1	13.8	16.2	17.5
38°	4.6	7.8	10.6	13.8	16.2	17.5
39°	4.2	7.4	10.6	13.8	16.2	17.5
40°	3.7	7.4	10.2	13.4	16.2	17.5
41°	3.2	6.9	10.2	13.4	16.2	17.5
42°	2.8	6.9	10.2	13.4	16.2	17.5
43°	2.3	6.5	9.7	13.4	16.2	17.5
44°	2.3	6.5	9.7	13.4	16.2	17.5
45°	1.8	6.0	9.2	13.4	16.2	17.5
46°	1.8	6.0	9.2	12.9	16.2	17.5
47°	1.4	6.0	9.2	12.9	16.2	17.5
48°	1.4	5.5	9.2	12.9	16.2	17.5
49°	0.9	5.5	9.2	12.9	16.2	17.5
50°	0.9	5.5	8.8	12.9	16.2	17.5
51°	0.9	5.5	8.8	12.9	16.2	17.5
52°	0.9	5.1	8.8	12.9	16.2	17.5
53°	0.9	5.1	8.8	12.9	16.2	17.5
54°	0.9	5.1	8.3	12.9	16.2	17.5
55°	0.9	4.6	8.3	12.5	16.2	17.1
56°	0.9	4.6	8.3	12.5	16.2	17.1
57°	0.9	4.6	7.8	12.5	16.2	17.1
58°	0.9	4.2	7.8	12.0	15.7	17.1
59°	0.9	4.2	7.4	12.0	15.7	16.6
60°	0.9	3.7	7.4	11.5	15.2	16.6
62.5°	0.9	3.2	6.5	11.1	14.8	15.7
65°	0.9	2.8	6.0	10.2	14.3	15.2



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.9	2.8	5.5	9.7	13.4	14.8
70°	0.9	2.8	5.1	8.8	12.9	13.4
72.5°	1.4	2.8	4.6	8.3	12.0	12.5
75°	1.8	2.8	4.2	7.4	11.1	11.5
77.5°	1.8	2.8	3.7	6.5	9.7	10.2
80°	1.8	2.3	3.2	5.1	7.8	8.3
82.5°	1.8	2.3	2.3	4.2	6.0	6.5
85°	1.4	1.8	1.8	2.3	4.2	4.6
87.5°	1.4	1.8	0.9	1.4	1.8	1.8
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)