

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: P1343440

Luminaire Tested: P3A13R159035DE010 E3A451MW

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1343440
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: P3A13R159035DE010 E3A451MW
Description: 3in Adjustable LED luminaire with, R15 optic, 3500K CCT AND, 90CRI , E3A451MW TRIM
Light Source: -
Ballast/Driver: -

Summary

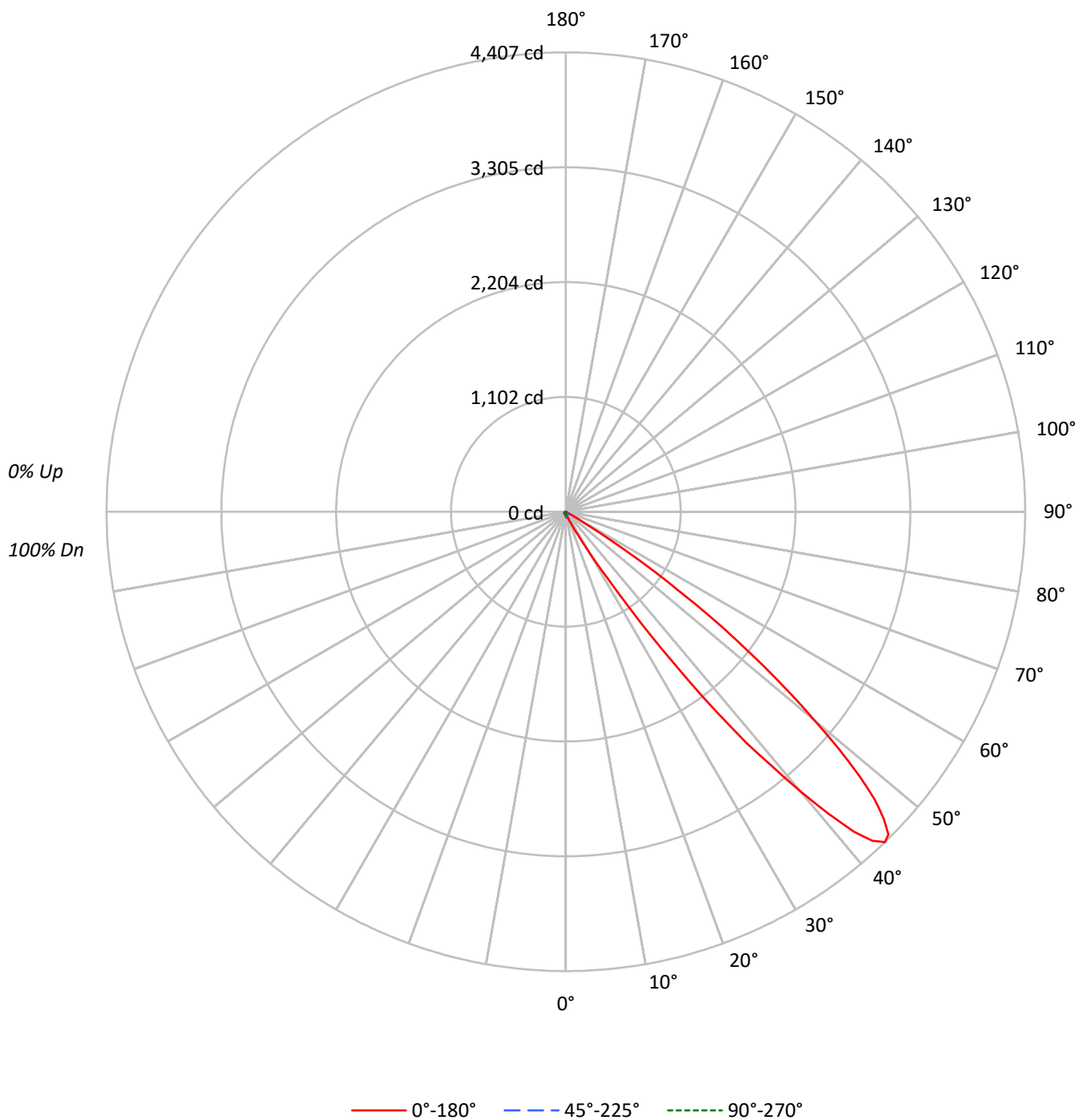
Lumens per Lamp: N/A
Luminaire Lumens: 492.0 lumens
Efficiency: N/A
Efficacy: 33.7 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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°	9583	9583	9583	9583	9583
5°	11886	10588	8629	7550	7440
10°	11690	9062	6658	5901	6012
15°	9694	6470	4790	4904	5244
20°	16825	5157	3664	4247	4807
25°	37502	6170	2976	3920	4500
30°	112169	7571	2608	3849	4710
35°	431788	8539	2356	3935	4979
40°	1002221	7443	2233	4065	5324
45°	1357474	5644	1985	4404	5768
50°	1064357	3343	2013	4674	6345
55°	510873	1491	1873	5046	6958
60°	46707	219	1710	5394	7763
65°	5085	0	1505	5604	8406
70°	1282	0	1859	5963	9104
75°	1271	424	2457	6608	10421
80°	1263	1263	3157	6819	11113
85°	1258	1258	5032	6290	12328

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1357474 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.7	0.8
10°-20°	7.8	1.6
20°-30°	18.6	3.8
30°-40°	101.8	20.7
40°-50°	246.4	50.1
50°-60°	98.3	20.0
60°-70°	8.5	1.7
70°-80°	4.8	1.0
80°-90°	2.1	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°	30.1	6.1
0°-40°	131.8	26.8
0°-60°	476.6	96.9
0°-90°	492.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	492.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	44	44	44	44	44	
5°	54	48	39	34	34	5
15°	43	28	21	22	23	15
25°	155	26	12	16	19	93
35°	1613	32	9	15	19	1140
45°	4377	18	6	14	19	3088
55°	1336	4	5	13	18	1245
65°	10	0	3	11	16	25
75°	2	0	3	8	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°	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7
2.5°	49.1	49.1	49.5	49.1	49.1	49.1	49.1	48.6	48.6	48.6	47.1
5°	54.0	54.0	54.0	54.0	53.5	53.5	53.5	53.0	53.0	52.5	48.1
7.5°	55.9	55.9	55.4	55.4	54.9	54.9	54.5	54.0	53.5	53.0	46.1
10°	52.5	52.5	52.5	52.0	52.0	51.5	51.0	50.5	50.0	49.1	40.7
12.5°	46.6	46.6	47.1	46.6	46.1	45.6	44.6	44.2	43.7	42.7	33.8
15°	42.7	42.7	42.7	42.2	41.7	40.7	40.2	39.2	38.8	37.3	28.5
17.5°	54.5	54.5	54.0	53.0	51.0	49.5	47.1	45.1	42.7	39.7	24.5
20°	72.1	72.1	71.1	70.2	67.7	65.2	61.3	57.9	54.0	50.5	22.1
22.5°	104.5	106.0	103.0	99.6	96.2	90.3	84.9	79.5	72.6	66.7	22.6
25°	155.0	156.5	155.0	147.2	140.8	132.9	122.6	111.9	100.1	89.3	25.5
27.5°	251.2	252.2	249.7	230.6	220.3	199.7	181.5	163.9	144.2	124.6	28.0
30°	443.0	443.5	427.8	389.5	355.7	310.5	272.3	235.5	204.6	173.2	29.9
31°	583.3	569.6	536.2	490.1	436.1	375.3	322.8	275.2	229.1	195.2	30.4
32°	740.8	738.8	683.4	603.4	531.3	455.2	376.3	315.4	262.5	216.3	30.9
33°	949.3	950.2	862.9	768.7	650.5	548.5	444.9	361.6	297.8	241.4	31.9
34°	1275.0	1198.5	1095.9	968.4	807.5	653.9	519.5	415.0	329.7	265.4	31.9
35°	1613.0	1536.0	1423.1	1229.9	1009.1	794.2	608.3	472.4	367.9	291.4	31.9
36°	1991.7	1926.5	1755.8	1509.0	1227.4	926.7	702.5	538.6	405.7	314.9	31.4
37°	2400.9	2305.2	2115.8	1846.5	1469.7	1113.1	817.3	604.4	443.5	340.5	30.4
38°	2816.4	2730.0	2491.1	2164.9	1759.2	1309.8	932.1	667.7	478.3	359.6	28.9
39°	3131.3	3084.2	2847.3	2482.8	1990.2	1496.2	1050.3	735.4	515.1	378.7	27.5
40°	3501.2	3425.2	3200.5	2749.6	2263.5	1686.1	1166.1	795.2	545.5	393.9	26.0
41°	3838.7	3742.6	3459.0	3023.4	2482.3	1856.8	1276.0	857.0	570.0	402.8	25.0
42°	4128.1	4016.3	3720.0	3257.9	2665.3	1993.2	1363.8	901.2	593.1	410.1	23.5
43°	4315.5	4218.9	3927.5	3434.0	2821.8	2118.3	1445.7	947.3	607.3	415.0	21.6
44°	4406.8	4309.2	4027.1	3544.4	2917.9	2193.3	1498.7	979.2	623.0	421.4	20.1
45°	4377.4	4278.3	4005.5	3546.3	2947.8	2220.3	1521.3	993.4	631.4	427.3	18.2
46°	4242.5	4172.8	3898.1	3454.1	2890.9	2191.4	1508.5	982.6	628.4	427.3	16.2
47°	4053.1	3973.6	3712.1	3295.7	2753.1	2116.8	1457.0	949.7	610.3	417.5	14.2
48°	3795.1	3727.4	3452.6	3044.0	2541.6	1954.4	1340.7	896.3	581.8	398.3	12.3
49°	3471.3	3377.1	3121.5	2722.2	2265.9	1723.9	1188.2	806.0	536.2	371.4	10.8
50°	3120.0	3003.8	2806.6	2399.9	1980.9	1478.1	987.5	681.4	471.9	336.0	9.8
51°	2776.1	2657.9	2470.0	2124.2	1676.8	1226.4	796.7	544.0	388.5	287.5	8.3
52°	2419.5	2320.4	2109.9	1838.2	1435.4	993.9	663.7	460.2	322.8	241.4	6.9
53°	2064.3	1996.6	1796.5	1521.3	1153.3	811.9	542.1	393.9	281.6	206.5	5.4
54°	1708.7	1634.6	1482.5	1237.2	929.6	640.7	459.7	329.7	244.3	180.0	4.9
55°	1336.3	1298.0	1157.7	943.4	704.5	511.2	372.8	283.5	204.6	150.6	3.9
56°	1029.2	986.0	858.0	684.3	523.4	400.3	301.7	231.5	173.2	126.1	2.9
57°	674.0	629.9	545.0	477.8	381.2	291.9	230.6	182.5	140.8	104.5	2.5
58°	398.3	358.1	344.9	294.3	254.1	198.2	170.2	135.9	104.0	82.4	1.5
59°	183.0	185.9	165.3	155.0	140.8	126.1	103.5	90.8	71.1	59.4	1.0
60°	106.5	100.6	98.1	87.8	78.0	69.2	62.3	54.9	44.6	38.3	0.5
62.5°	36.3	34.8	35.8	32.4	30.4	29.4	27.0	23.1	19.1	15.7	0.0
65°	9.8	9.8	9.3	8.8	8.3	7.8	7.4	6.4	5.9	4.9	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°	3.4	3.4	2.9	2.9	2.5	2.5	2.0	2.0	1.5	1.5	0.0
70°	2.0	2.0	2.0	1.5	1.5	1.5	1.0	1.0	1.0	0.5	0.0
72.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.0	1.0	1.0	0.5	0.5
75°	1.5	1.5	1.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5
77.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
80°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5	1.0
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.0
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°	43.7	43.7	43.7	43.7	43.7	43.7
2.5°	45.1	43.2	40.7	39.2	38.8	38.3
5°	43.2	39.2	36.3	34.3	33.8	33.8
7.5°	38.8	34.3	31.4	30.4	29.9	29.9
10°	33.8	29.9	27.5	26.5	27.0	27.0
12.5°	28.5	25.0	24.0	24.0	24.5	25.0
15°	23.1	21.1	21.1	21.6	22.6	23.1
17.5°	19.1	18.2	18.6	19.6	20.6	21.6
20°	15.7	15.7	16.7	18.2	19.6	20.6
22.5°	13.2	13.7	15.2	16.7	18.6	19.6
25°	11.3	12.3	13.7	16.2	18.2	18.6
27.5°	9.8	11.3	13.2	15.7	17.7	18.6
30°	8.3	10.3	12.8	15.2	17.7	18.6
31°	7.8	9.8	12.3	15.2	17.7	18.6
32°	7.4	9.8	12.3	15.2	17.7	18.6
33°	6.9	9.3	12.3	14.7	17.7	18.6
34°	6.4	9.3	12.3	15.2	17.7	18.6
35°	5.9	8.8	11.8	14.7	17.2	18.6
36°	5.4	8.8	11.8	14.7	17.7	18.6
37°	4.9	8.8	11.8	14.7	17.2	18.6
38°	4.9	8.3	11.3	14.7	17.2	18.6
39°	4.4	7.8	11.3	14.7	17.2	18.6
40°	3.9	7.8	10.8	14.2	17.2	18.6
41°	3.4	7.4	10.8	14.2	17.2	18.6
42°	2.9	7.4	10.8	14.2	17.2	18.6
43°	2.5	6.9	10.3	14.2	17.2	18.6
44°	2.5	6.9	10.3	14.2	17.2	18.6
45°	2.0	6.4	9.8	14.2	17.2	18.6
46°	2.0	6.4	9.8	13.7	17.2	18.6
47°	1.5	6.4	9.8	13.7	17.2	18.6
48°	1.5	5.9	9.8	13.7	17.2	18.6
49°	1.0	5.9	9.8	13.7	17.2	18.6
50°	1.0	5.9	9.3	13.7	17.2	18.6
51°	1.0	5.9	9.3	13.7	17.2	18.6
52°	1.0	5.4	9.3	13.7	17.2	18.6
53°	1.0	5.4	9.3	13.7	17.2	18.6
54°	1.0	5.4	8.8	13.7	17.2	18.6
55°	1.0	4.9	8.8	13.2	17.2	18.2
56°	1.0	4.9	8.8	13.2	17.2	18.2
57°	1.0	4.9	8.3	13.2	17.2	18.2
58°	1.0	4.4	8.3	12.8	16.7	18.2
59°	1.0	4.4	7.8	12.8	16.7	17.7
60°	1.0	3.9	7.8	12.3	16.2	17.7
62.5°	1.0	3.4	6.9	11.8	15.7	16.7
65°	1.0	2.9	6.4	10.8	15.2	16.2



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.0	2.9	5.9	10.3	14.2	15.7
70°	1.0	2.9	5.4	9.3	13.7	14.2
72.5°	1.5	2.9	4.9	8.8	12.8	13.2
75°	2.0	2.9	4.4	7.8	11.8	12.3
77.5°	2.0	2.9	3.9	6.9	10.3	10.8
80°	2.0	2.5	3.4	5.4	8.3	8.8
82.5°	2.0	2.5	2.5	4.4	6.4	6.9
85°	1.5	2.0	2.0	2.5	4.4	4.9
87.5°	1.5	2.0	1.0	1.5	2.0	2.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)