

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: P1339940

Luminaire Tested: P3A09R159727DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1339940
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: P3A09R159727DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R15 optic, 2700K CCT AND, 97CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

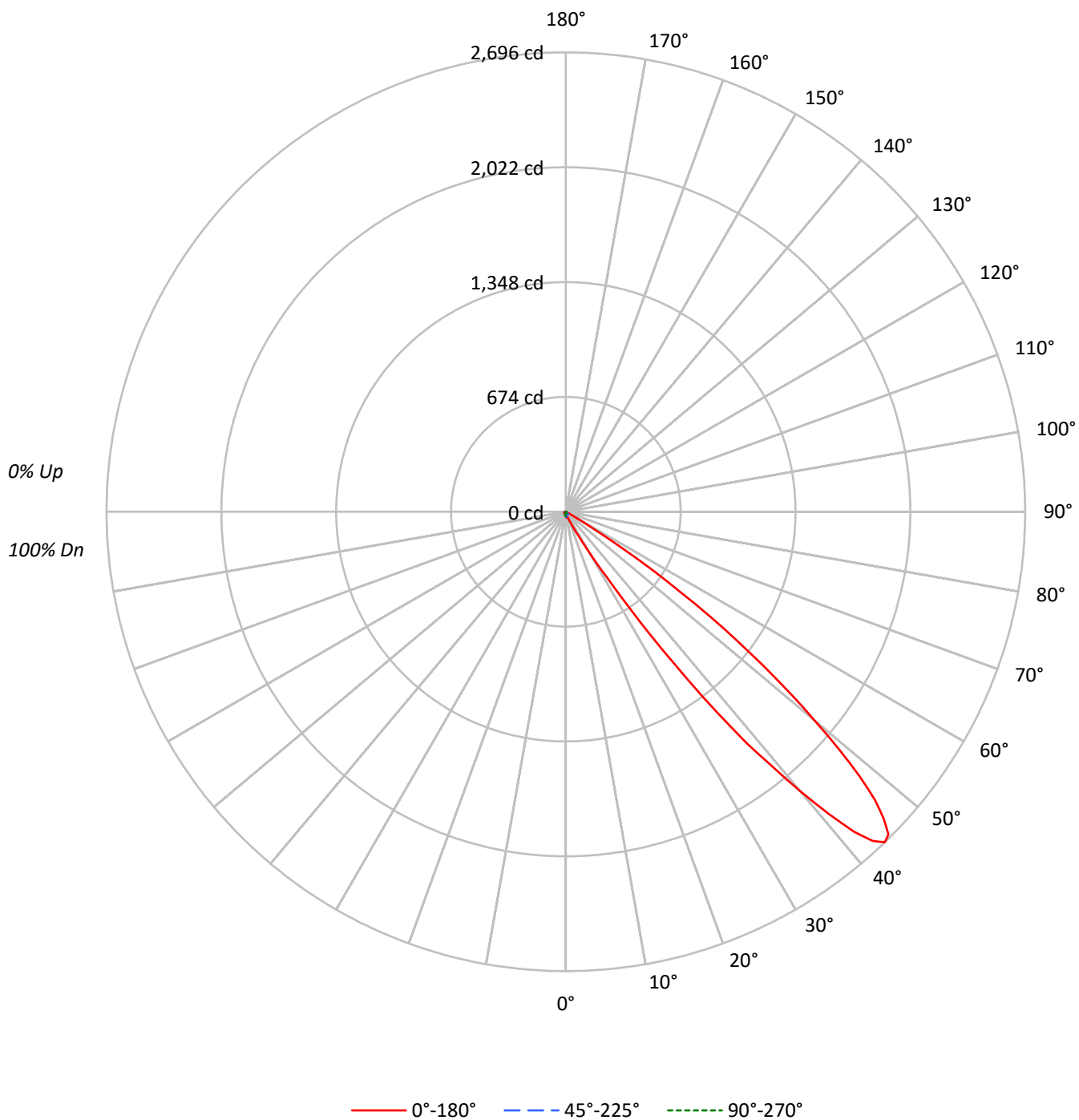
Lumens per Lamp: N/A
Luminaire Lumens: 301.0 lumens
Efficiency: N/A
Efficacy: 27.1 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 11.1
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

TEST NUMBER: P1339940

CATALOG NUMBER: P3A09R159727DE010 E3A451WMH

Luminous Intensity Polar Plot



TEST NUMBER: P1339940

CATALOG NUMBER: P3A09R159727DE010 E3A451WMH

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	100	97	94	96	93	91	92	90	89	89	89	87
2	101	93	87	81	98	91	85	80	87	83	78	84	80	77	81	78	75	75	75	73
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	63	63	61
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	53	53	53	50
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	49	44	44	44	42
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	48	42	37	37	37	35
7	62	47	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31	31	31	29
8	56	42	33	27	55	41	33	27	40	32	26	39	31	26	37	31	26	26	26	24
9	52	37	28	22	50	37	28	22	35	28	22	34	27	22	33	27	22	22	22	20
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	23	19	19	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	5855	5855	5855	5855	5855
5°	7264	6471	5283	4622	4556
10°	7147	5544	4075	3607	3674
15°	5925	3950	2929	2997	3201
20°	10291	3150	2240	2590	2940
25°	22937	3774	1815	2395	2758
30°	68618	4634	1595	2355	2887
35°	264159	5220	1446	2409	3052
40°	613149	4551	1374	2490	3263
45°	830474	3442	1209	2698	3535
50°	651168	2047	1228	2866	3889
55°	312534	918	1147	3097	4244
60°	28550	132	1053	3289	4736
65°	3113	0	934	3424	5137
70°	769	0	1154	3654	5578
75°	763	254	1525	4067	6354
80°	758	758	1894	4167	6819
85°	755	755	3019	3774	7548

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 830474 cd/sqm

TEST NUMBER: P1339940

CATALOG NUMBER: P3A09R159727DE010 E3A451WMH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.3	0.8
10°-20°	4.7	1.6
20°-30°	11.4	3.8
30°-40°	62.3	20.7
40°-50°	150.8	50.1
50°-60°	60.1	20.0
60°-70°	5.2	1.7
70°-80°	2.9	1.0
80°-90°	1.3	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°	18.4	6.1
0°-40°	80.7	26.8
0°-60°	291.6	96.9
0°-90°	301.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	301.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	27	27	27	27	27	
5°	33	29	24	21	21	3
15°	26	17	13	13	14	9
25°	95	16	8	10	11	57
35°	987	20	5	9	11	697
45°	2678	11	4	9	11	1889
55°	818	2	3	8	11	762
65°	6	0	2	7	10	15
75°	1	0	2	5	8	1
85°	0	0	1	2	3	0
90°	0	0	0	0	0	

TEST NUMBER: P1339940

CATALOG NUMBER: P3A09R159727DE010 E3A451WMH

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7
2.5°	30.0	30.0	30.3	30.0	30.0	30.0	30.0	29.7	29.7	29.7	28.8
5°	33.0	33.0	33.0	33.0	32.7	32.7	32.7	32.4	32.4	32.1	29.4
7.5°	34.2	34.2	33.9	33.9	33.6	33.6	33.3	33.0	32.7	32.4	28.2
10°	32.1	32.1	32.1	31.8	31.8	31.5	31.2	30.9	30.6	30.0	24.9
12.5°	28.5	28.5	28.8	28.5	28.2	27.9	27.3	27.0	26.7	26.1	20.7
15°	26.1	26.1	26.1	25.8	25.5	24.9	24.6	24.0	23.7	22.8	17.4
17.5°	33.3	33.3	33.0	32.4	31.2	30.3	28.8	27.6	26.1	24.3	15.0
20°	44.1	44.1	43.5	42.9	41.4	39.9	37.5	35.4	33.0	30.9	13.5
22.5°	63.9	64.8	63.0	60.9	58.8	55.2	51.9	48.6	44.4	40.8	13.8
25°	94.8	95.7	94.8	90.0	86.1	81.3	75.0	68.4	61.2	54.6	15.6
27.5°	153.7	154.3	152.8	141.1	134.8	122.2	111.0	100.2	88.2	76.2	17.1
30°	271.0	271.3	261.7	238.3	217.6	190.0	166.6	144.1	125.2	105.9	18.3
31°	356.8	348.4	328.0	299.8	266.8	229.6	197.5	168.4	140.2	119.4	18.6
32°	453.2	452.0	418.1	369.2	325.0	278.5	230.2	193.0	160.6	132.4	18.9
33°	580.7	581.3	527.9	470.3	398.0	335.5	272.2	221.2	182.2	147.7	19.5
34°	780.0	733.2	670.5	592.4	494.0	400.1	317.8	253.9	201.7	162.4	19.5
35°	986.8	939.7	870.7	752.4	617.4	485.9	372.2	289.0	225.1	178.3	19.5
36°	1218.5	1178.6	1074.1	923.2	750.9	566.9	429.8	329.5	248.2	192.7	19.2
37°	1468.8	1410.3	1294.4	1129.7	899.2	681.0	500.0	369.8	271.3	208.3	18.6
38°	1723.0	1670.2	1524.0	1324.5	1076.2	801.3	570.2	408.5	292.6	220.0	17.7
39°	1915.7	1886.9	1741.9	1518.9	1217.6	915.4	642.6	449.9	315.1	231.7	16.8
40°	2142.0	2095.5	1958.0	1682.2	1384.8	1031.5	713.4	486.5	333.7	241.0	15.9
41°	2348.5	2289.7	2116.2	1849.7	1518.6	1136.0	780.6	524.3	348.7	246.4	15.3
42°	2525.6	2457.1	2275.9	1993.1	1630.6	1219.4	834.3	551.3	362.9	250.9	14.4
43°	2640.2	2581.1	2402.8	2100.9	1726.3	1295.9	884.5	579.5	371.6	253.9	13.2
44°	2696.0	2636.3	2463.7	2168.4	1785.1	1341.9	916.9	599.1	381.2	257.8	12.3
45°	2678.0	2617.4	2450.5	2169.6	1803.5	1358.4	930.7	607.8	386.3	261.4	11.1
46°	2595.5	2552.9	2384.8	2113.2	1768.6	1340.7	922.9	601.2	384.5	261.4	9.9
47°	2479.6	2431.0	2271.0	2016.2	1684.3	1295.0	891.4	581.0	373.4	255.4	8.7
48°	2321.8	2280.4	2112.3	1862.3	1554.9	1195.7	820.2	548.3	355.9	243.7	7.5
49°	2123.7	2066.1	1909.7	1665.4	1386.3	1054.6	726.9	493.1	328.0	227.2	6.6
50°	1908.8	1837.7	1717.0	1468.2	1211.9	904.3	604.2	416.9	288.7	205.6	6.0
51°	1698.4	1626.1	1511.1	1299.5	1025.8	750.3	487.4	332.8	237.7	175.9	5.1
52°	1480.2	1419.6	1290.8	1124.6	878.2	608.1	406.1	281.5	197.5	147.7	4.2
53°	1262.9	1221.5	1099.1	930.7	705.6	496.7	331.6	241.0	172.3	126.4	3.3
54°	1045.3	1000.0	907.0	756.9	568.7	392.0	281.2	201.7	149.5	110.1	3.0
55°	817.5	794.1	708.3	577.1	431.0	312.7	228.1	173.5	125.2	92.1	2.4
56°	629.7	603.3	524.9	418.7	320.2	244.9	184.6	141.7	105.9	77.1	1.8
57°	412.4	385.4	333.4	292.3	233.2	178.6	141.1	111.6	86.1	63.9	1.5
58°	243.7	219.1	211.0	180.1	155.5	121.3	104.1	83.1	63.6	50.4	0.9
59°	111.9	113.7	101.1	94.8	86.1	77.1	63.3	55.5	43.5	36.3	0.6
60°	65.1	61.5	60.0	53.7	47.7	42.3	38.1	33.6	27.3	23.4	0.3
62.5°	22.2	21.3	21.9	19.8	18.6	18.0	16.5	14.1	11.7	9.6	0.0
65°	6.0	6.0	5.7	5.4	5.1	4.8	4.5	3.9	3.6	3.0	0.0



TEST NUMBER: P1339940

CATALOG NUMBER: P3A09R159727DE010 E3A451WMH

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	2.1	2.1	1.8	1.8	1.5	1.5	1.2	1.2	0.9	0.9	0.0
70°	1.2	1.2	1.2	0.9	0.9	0.9	0.6	0.6	0.6	0.3	0.0
72.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.6	0.6	0.6	0.3	0.3
75°	0.9	0.9	0.9	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.3
77.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
80°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.3	0.6
82.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.6
85°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1339940

CATALOG NUMBER: P3A09R159727DE010 E3A451WMH

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	26.7	26.7	26.7	26.7	26.7	26.7
2.5°	27.6	26.4	24.9	24.0	23.7	23.4
5°	26.4	24.0	22.2	21.0	20.7	20.7
7.5°	23.7	21.0	19.2	18.6	18.3	18.3
10°	20.7	18.3	16.8	16.2	16.5	16.5
12.5°	17.4	15.3	14.7	14.7	15.0	15.3
15°	14.1	12.9	12.9	13.2	13.8	14.1
17.5°	11.7	11.1	11.4	12.0	12.6	13.2
20°	9.6	9.6	10.2	11.1	12.0	12.6
22.5°	8.1	8.4	9.3	10.2	11.4	12.0
25°	6.9	7.5	8.4	9.9	11.1	11.4
27.5°	6.0	6.9	8.1	9.6	10.8	11.4
30°	5.1	6.3	7.8	9.3	10.8	11.4
31°	4.8	6.0	7.5	9.3	10.8	11.4
32°	4.5	6.0	7.5	9.3	10.8	11.4
33°	4.2	5.7	7.5	9.0	10.8	11.4
34°	3.9	5.7	7.5	9.3	10.8	11.4
35°	3.6	5.4	7.2	9.0	10.5	11.4
36°	3.3	5.4	7.2	9.0	10.8	11.4
37°	3.0	5.4	7.2	9.0	10.5	11.4
38°	3.0	5.1	6.9	9.0	10.5	11.4
39°	2.7	4.8	6.9	9.0	10.5	11.4
40°	2.4	4.8	6.6	8.7	10.5	11.4
41°	2.1	4.5	6.6	8.7	10.5	11.4
42°	1.8	4.5	6.6	8.7	10.5	11.4
43°	1.5	4.2	6.3	8.7	10.5	11.4
44°	1.5	4.2	6.3	8.7	10.5	11.4
45°	1.2	3.9	6.0	8.7	10.5	11.4
46°	1.2	3.9	6.0	8.4	10.5	11.4
47°	0.9	3.9	6.0	8.4	10.5	11.4
48°	0.9	3.6	6.0	8.4	10.5	11.4
49°	0.6	3.6	6.0	8.4	10.5	11.4
50°	0.6	3.6	5.7	8.4	10.5	11.4
51°	0.6	3.6	5.7	8.4	10.5	11.4
52°	0.6	3.3	5.7	8.4	10.5	11.4
53°	0.6	3.3	5.7	8.4	10.5	11.4
54°	0.6	3.3	5.4	8.4	10.5	11.4
55°	0.6	3.0	5.4	8.1	10.5	11.1
56°	0.6	3.0	5.4	8.1	10.5	11.1
57°	0.6	3.0	5.1	8.1	10.5	11.1
58°	0.6	2.7	5.1	7.8	10.2	11.1
59°	0.6	2.7	4.8	7.8	10.2	10.8
60°	0.6	2.4	4.8	7.5	9.9	10.8
62.5°	0.6	2.1	4.2	7.2	9.6	10.2
65°	0.6	1.8	3.9	6.6	9.3	9.9



TEST NUMBER: P1339940

CATALOG NUMBER: P3A09R159727DE010 E3A451WMH

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.6	1.8	3.6	6.3	8.7	9.6
70°	0.6	1.8	3.3	5.7	8.4	8.7
72.5°	0.9	1.8	3.0	5.4	7.8	8.1
75°	1.2	1.8	2.7	4.8	7.2	7.5
77.5°	1.2	1.8	2.4	4.2	6.3	6.6
80°	1.2	1.5	2.1	3.3	5.1	5.4
82.5°	1.2	1.5	1.5	2.7	3.9	4.2
85°	0.9	1.2	1.2	1.5	2.7	3.0
87.5°	0.9	1.2	0.6	0.9	1.2	1.2
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)