

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: P1336442

Luminaire Tested: P3A05R159740DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336442
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: P3A05R159740DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R15 optic, 4000K CCT AND, 97CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

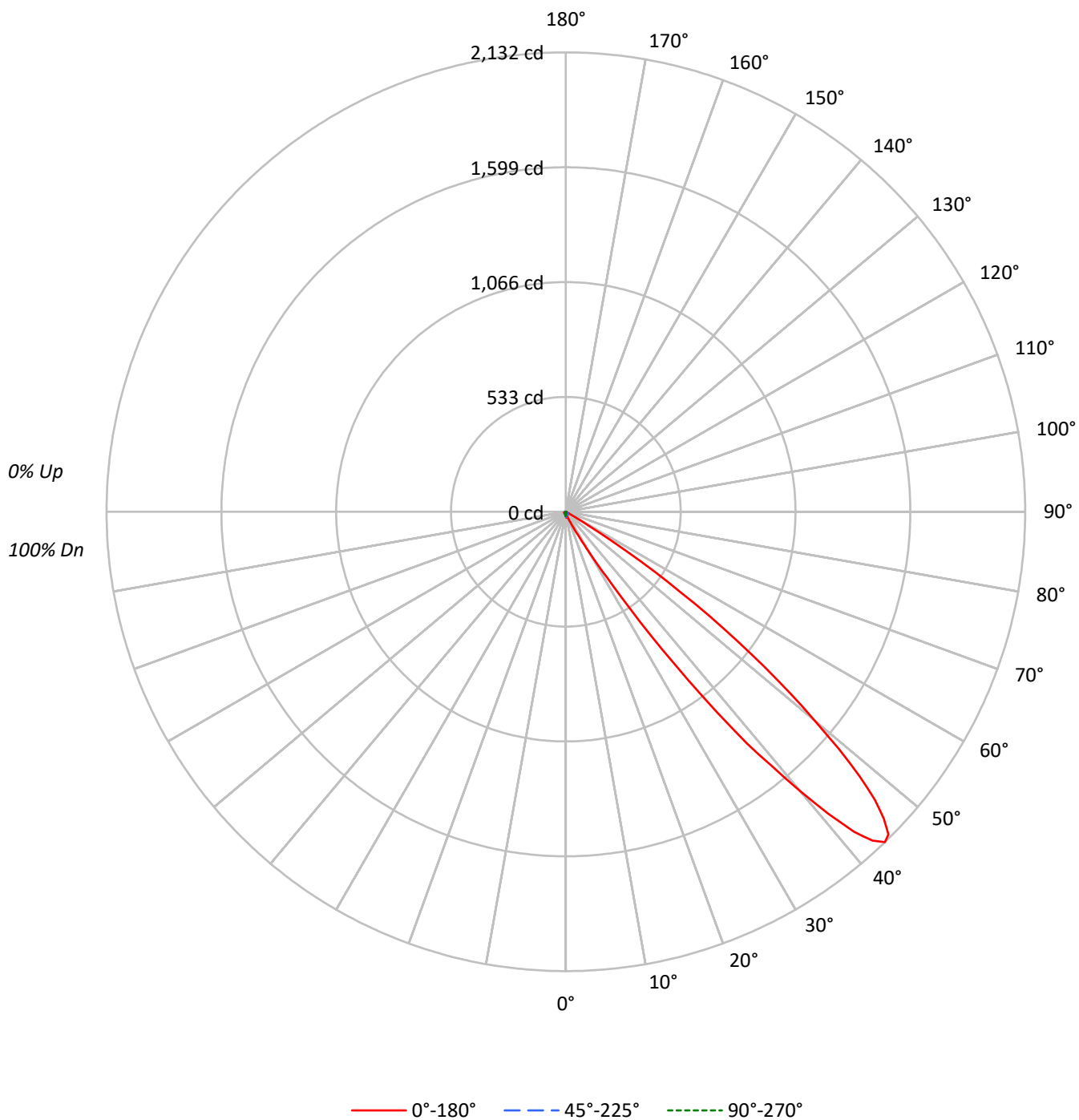
Lumens per Lamp: N/A
Luminaire Lumens: 238.0 lumens
Efficiency: N/A
Efficacy: 33.1 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 7.2
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: P1336442

CATALOG NUMBER: P3A05R159740DE010 E3A451WMH

Luminous Intensity Polar Plot



TEST NUMBER: P1336442

CATALOG NUMBER: P3A05R159740DE010 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
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°	4627	4627	4627	4627	4627
5°	5745	5129	4182	3654	3610
10°	5656	4386	3229	2850	2917
15°	4677	3133	2316	2361	2543
20°	8144	2497	1773	2054	2334
25°	18146	2976	1428	1887	2178
30°	54262	3671	1266	1874	2279
35°	208880	4122	1151	1901	2409
40°	484823	3607	1088	1975	2576
45°	656657	2729	961	2140	2791
50°	514883	1603	955	2252	3070
55°	247121	726	918	2447	3364
60°	22586	88	833	2588	3728
65°	2439	0	726	2698	4047
70°	577	0	898	2885	4424
75°	593	169	1186	3219	4999
80°	631	631	1515	3283	5430
85°	503	503	2264	3019	6038

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 656657 cd/sqm

TEST NUMBER: P1336442

CATALOG NUMBER: P3A05R159740DE010 E3A451WMH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.8	0.8
10°-20°	3.8	1.6
20°-30°	9.0	3.8
30°-40°	49.2	20.7
40°-50°	119.2	50.1
50°-60°	47.6	20.0
60°-70°	4.1	1.7
70°-80°	2.3	1.0
80°-90°	1.0	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°	14.5	6.1
0°-40°	63.8	26.8
0°-60°	230.5	96.9
0°-90°	238.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	238.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	21	21	21	21	21	
5°	26	23	19	17	16	2
15°	21	14	10	10	11	7
25°	75	12	6	8	9	45
35°	780	15	4	7	9	551
45°	2118	9	3	7	9	1494
55°	646	2	2	6	9	602
65°	5	0	1	5	8	12
75°	1	0	1	4	6	1
85°	0	0	1	1	2	0
90°	0	0	0	0	0	

TEST NUMBER: P1336442

CATALOG NUMBER: P3A05R159740DE010 E3A451WMH

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1	21.1
2.5°	23.7	23.7	24.0	23.7	23.7	23.7	23.7	23.5	23.5	23.5	22.8
5°	26.1	26.1	26.1	26.1	25.9	25.9	25.9	25.6	25.6	25.4	23.3
7.5°	27.1	27.1	26.8	26.8	26.6	26.6	26.3	26.1	25.9	25.6	22.3
10°	25.4	25.4	25.4	25.2	25.2	24.9	24.7	24.4	24.2	23.7	19.7
12.5°	22.5	22.5	22.8	22.5	22.3	22.1	21.6	21.4	21.1	20.6	16.4
15°	20.6	20.6	20.6	20.4	20.2	19.7	19.5	19.0	18.7	18.0	13.8
17.5°	26.3	26.3	26.1	25.6	24.7	24.0	22.8	21.8	20.6	19.2	11.9
20°	34.9	34.9	34.4	33.9	32.7	31.6	29.7	28.0	26.1	24.4	10.7
22.5°	50.5	51.3	49.8	48.2	46.5	43.7	41.1	38.4	35.1	32.3	10.9
25°	75.0	75.7	75.0	71.2	68.1	64.3	59.3	54.1	48.4	43.2	12.3
27.5°	121.5	122.0	120.8	111.5	106.6	96.6	87.8	79.3	69.8	60.3	13.5
30°	214.3	214.5	206.9	188.4	172.0	150.2	131.7	113.9	99.0	83.8	14.5
31°	282.2	275.5	259.4	237.1	211.0	181.5	156.1	133.1	110.8	94.4	14.7
32°	358.3	357.4	330.6	291.9	257.0	220.2	182.0	152.6	127.0	104.7	15.0
33°	459.2	459.7	417.4	371.9	314.7	265.3	215.2	174.9	144.0	116.8	15.4
34°	616.8	579.7	530.1	468.4	390.6	316.3	251.3	200.8	159.5	128.4	15.4
35°	780.3	743.0	688.4	594.9	488.1	384.2	294.3	228.5	178.0	141.0	15.4
36°	963.5	931.9	849.3	730.0	593.7	448.3	339.8	260.6	196.3	152.4	15.2
37°	1161.4	1115.1	1023.5	893.2	711.0	538.5	395.4	292.4	214.5	164.7	14.7
38°	1362.4	1320.6	1205.1	1047.2	851.0	633.6	450.9	323.0	231.4	173.9	14.0
39°	1514.7	1492.0	1377.3	1201.0	962.8	723.8	508.1	355.7	249.2	183.2	13.3
40°	1693.7	1656.9	1548.2	1330.1	1094.9	815.6	564.1	384.7	263.9	190.6	12.6
41°	1856.9	1810.4	1673.3	1462.5	1200.8	898.2	617.2	414.6	275.8	194.8	12.1
42°	1997.0	1942.8	1799.5	1576.0	1289.3	964.2	659.7	435.9	286.9	198.4	11.4
43°	2087.6	2040.9	1899.9	1661.2	1365.0	1024.7	699.3	458.2	293.8	200.8	10.4
44°	2131.7	2084.5	1948.1	1714.6	1411.5	1061.0	725.0	473.7	301.4	203.8	9.7
45°	2117.5	2069.6	1937.6	1715.5	1426.0	1074.1	735.9	480.5	305.4	206.7	8.8
46°	2052.2	2018.5	1885.7	1670.9	1398.5	1060.1	729.7	475.3	304.0	206.7	7.8
47°	1960.6	1922.2	1795.7	1594.2	1331.8	1024.0	704.8	459.4	295.2	201.9	6.9
48°	1835.8	1803.1	1670.2	1472.5	1229.5	945.4	648.6	433.6	281.4	192.7	5.9
49°	1679.2	1633.6	1510.0	1316.8	1096.1	833.9	574.8	389.9	259.4	179.6	5.2
50°	1509.3	1453.0	1357.6	1160.9	958.3	715.0	477.7	329.6	228.3	162.6	4.7
51°	1342.9	1285.7	1194.8	1027.5	811.1	593.3	385.4	263.2	187.9	139.1	4.0
52°	1170.4	1122.5	1020.7	889.2	694.4	480.8	321.1	222.6	156.1	116.8	3.3
53°	998.6	965.8	869.0	735.9	557.9	392.7	262.2	190.6	136.2	99.9	2.6
54°	826.5	790.7	717.1	598.5	449.7	309.9	222.4	159.5	118.2	87.1	2.4
55°	646.4	627.9	560.0	456.3	340.8	247.3	180.4	137.2	99.0	72.9	1.9
56°	497.9	477.0	415.1	331.0	253.2	193.6	145.9	112.0	83.8	61.0	1.4
57°	326.1	304.7	263.6	231.1	184.4	141.2	111.5	88.3	68.1	50.5	1.2
58°	192.7	173.2	166.8	142.4	122.9	95.9	82.3	65.7	50.3	39.9	0.7
59°	88.5	89.9	80.0	75.0	68.1	61.0	50.1	43.9	34.4	28.7	0.5
60°	51.5	48.6	47.5	42.5	37.7	33.5	30.1	26.6	21.6	18.5	0.2
62.5°	17.6	16.8	17.3	15.7	14.7	14.2	13.1	11.2	9.3	7.6	0.0
65°	4.7	4.7	4.5	4.3	4.0	3.8	3.6	3.1	2.8	2.4	0.0



TEST NUMBER: P1336442

CATALOG NUMBER: P3A05R159740DE010 E3A451WMH

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	1.7	1.7	1.4	1.4	1.2	1.2	0.9	0.9	0.7	0.7	0.0
70°	0.9	0.9	0.9	0.7	0.7	0.7	0.5	0.5	0.5	0.2	0.0
72.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.5	0.5	0.5	0.2	0.2
75°	0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2
77.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.5
82.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5
85°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
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: P1336442

CATALOG NUMBER: P3A05R159740DE010 E3A451WMH

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	21.1	21.1	21.1	21.1	21.1	21.1
2.5°	21.8	20.9	19.7	19.0	18.7	18.5
5°	20.9	19.0	17.6	16.6	16.4	16.4
7.5°	18.7	16.6	15.2	14.7	14.5	14.5
10°	16.4	14.5	13.3	12.8	13.1	13.1
12.5°	13.8	12.1	11.6	11.6	11.9	12.1
15°	11.2	10.2	10.2	10.4	10.9	11.2
17.5°	9.3	8.8	9.0	9.5	10.0	10.4
20°	7.6	7.6	8.1	8.8	9.5	10.0
22.5°	6.4	6.6	7.4	8.1	9.0	9.5
25°	5.5	5.9	6.6	7.8	8.8	9.0
27.5°	4.7	5.5	6.4	7.6	8.5	9.0
30°	4.0	5.0	6.2	7.4	8.5	9.0
31°	3.8	4.7	5.9	7.4	8.5	9.0
32°	3.6	4.7	5.9	7.4	8.5	9.0
33°	3.3	4.5	5.9	7.1	8.5	9.0
34°	3.1	4.5	5.9	7.4	8.5	9.0
35°	2.8	4.3	5.7	7.1	8.3	9.0
36°	2.6	4.3	5.7	7.1	8.5	9.0
37°	2.4	4.3	5.7	7.1	8.3	9.0
38°	2.4	4.0	5.5	7.1	8.3	9.0
39°	2.1	3.8	5.5	7.1	8.3	9.0
40°	1.9	3.8	5.2	6.9	8.3	9.0
41°	1.7	3.6	5.2	6.9	8.3	9.0
42°	1.4	3.6	5.2	6.9	8.3	9.0
43°	1.2	3.3	5.0	6.9	8.3	9.0
44°	1.2	3.3	5.0	6.9	8.3	9.0
45°	0.9	3.1	4.7	6.9	8.3	9.0
46°	0.9	3.1	4.7	6.6	8.3	9.0
47°	0.7	3.1	4.7	6.6	8.3	9.0
48°	0.7	2.8	4.7	6.6	8.3	9.0
49°	0.5	2.8	4.7	6.6	8.3	9.0
50°	0.5	2.8	4.5	6.6	8.3	9.0
51°	0.5	2.8	4.5	6.6	8.3	9.0
52°	0.5	2.6	4.5	6.6	8.3	9.0
53°	0.5	2.6	4.5	6.6	8.3	9.0
54°	0.5	2.6	4.3	6.6	8.3	9.0
55°	0.5	2.4	4.3	6.4	8.3	8.8
56°	0.5	2.4	4.3	6.4	8.3	8.8
57°	0.5	2.4	4.0	6.4	8.3	8.8
58°	0.5	2.1	4.0	6.2	8.1	8.8
59°	0.5	2.1	3.8	6.2	8.1	8.5
60°	0.5	1.9	3.8	5.9	7.8	8.5
62.5°	0.5	1.7	3.3	5.7	7.6	8.1
65°	0.5	1.4	3.1	5.2	7.4	7.8



TEST NUMBER: P1336442

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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.5	1.4	2.8	5.0	6.9	7.6
70°	0.5	1.4	2.6	4.5	6.6	6.9
72.5°	0.7	1.4	2.4	4.3	6.2	6.4
75°	0.9	1.4	2.1	3.8	5.7	5.9
77.5°	0.9	1.4	1.9	3.3	5.0	5.2
80°	0.9	1.2	1.7	2.6	4.0	4.3
82.5°	0.9	1.2	1.2	2.1	3.1	3.3
85°	0.7	0.9	0.9	1.2	2.1	2.4
87.5°	0.7	0.9	0.5	0.7	0.9	0.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)