

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: P1336336

Luminaire Tested: P3A05R159030DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336336
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: P3A05R159030DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R15 optic, 3000K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

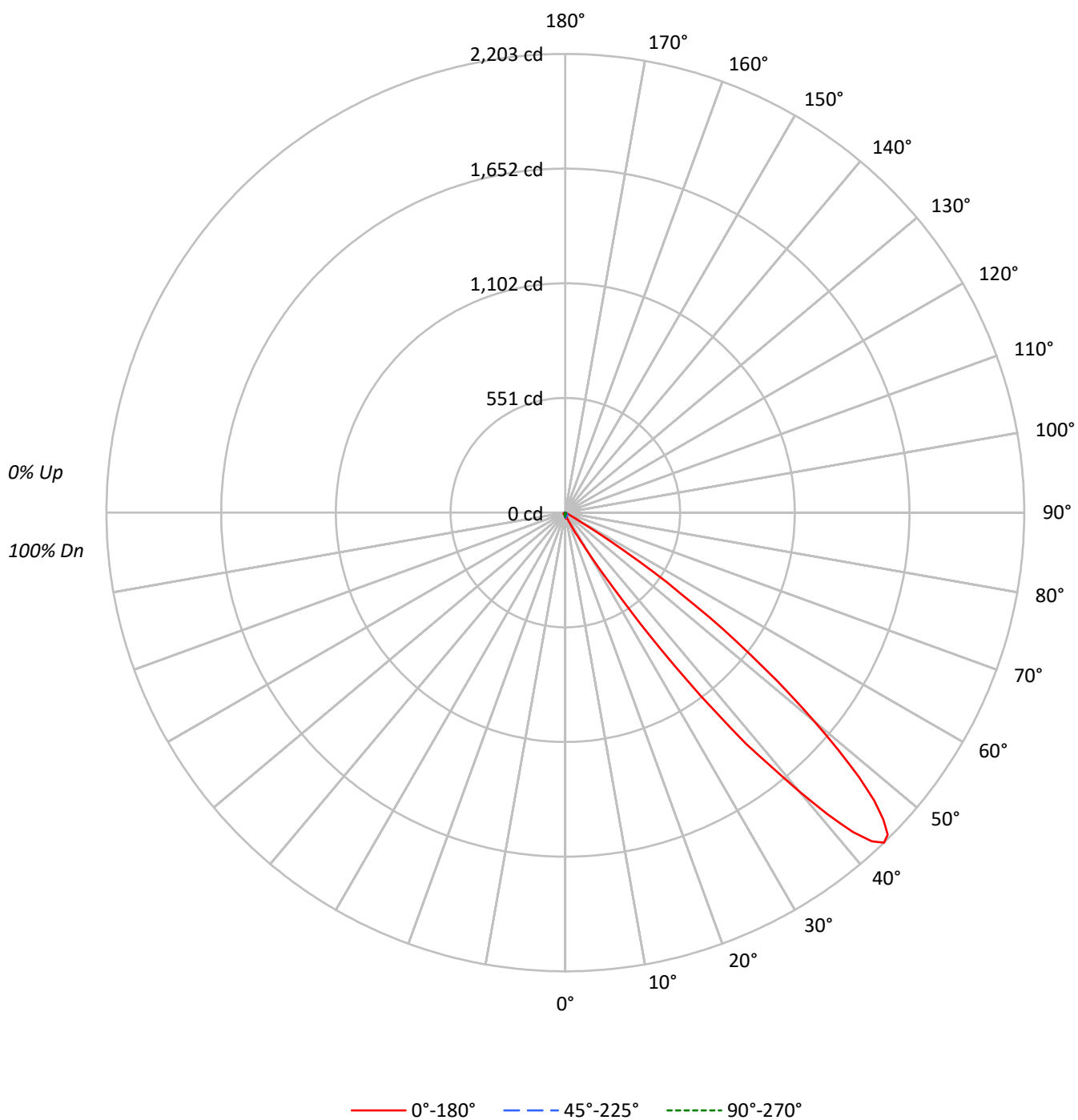
Lumens per Lamp: N/A
Luminaire Lumens: 246.0 lumens
Efficiency: N/A
Efficacy: 34.2 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.09
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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

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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°	4780	4780	4780	4780	4780
5°	5943	5283	4314	3786	3720
10°	5834	4542	3340	2939	3006
15°	4835	3224	2384	2452	2611
20°	8424	2567	1820	2124	2404
25°	18751	3097	1476	1960	2250
30°	56085	3798	1317	1924	2355
35°	215894	4256	1178	1981	2490
40°	501110	3721	1116	2032	2662
45°	678737	2822	992	2202	2884
50°	532179	1672	989	2354	3173
55°	255456	765	956	2523	3479
60°	23331	88	877	2675	3859
65°	2542	0	778	2802	4203
70°	641	0	962	3013	4552
75°	593	169	1271	3304	5168
80°	631	631	1515	3410	5556
85°	503	503	2516	3019	6290

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 678737 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.9	0.8
10°-20°	3.9	1.6
20°-30°	9.3	3.8
30°-40°	50.9	20.7
40°-50°	123.2	50.1
50°-60°	49.2	20.0
60°-70°	4.2	1.7
70°-80°	2.4	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°	15.0	6.1
0°-40°	65.9	26.8
0°-60°	238.3	96.9
0°-90°	246.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	246.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	22	22	22	22	22	
5°	27	24	20	17	17	3
15°	21	14	10	11	12	7
25°	78	13	6	8	9	47
35°	806	16	4	7	9	570
45°	2189	9	3	7	9	1544
55°	668	2	2	7	9	622
65°	5	0	2	5	8	13
75°	1	0	2	4	6	1
85°	0	0	1	1	2	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°	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8
2.5°	24.5	24.5	24.8	24.5	24.5	24.5	24.5	24.3	24.3	24.3	23.5
5°	27.0	27.0	27.0	27.0	26.7	26.7	26.7	26.5	26.5	26.2	24.0
7.5°	28.0	28.0	27.7	27.7	27.5	27.5	27.2	27.0	26.7	26.5	23.1
10°	26.2	26.2	26.2	26.0	26.0	25.8	25.5	25.3	25.0	24.5	20.4
12.5°	23.3	23.3	23.5	23.3	23.1	22.8	22.3	22.1	21.8	21.3	16.9
15°	21.3	21.3	21.3	21.1	20.8	20.4	20.1	19.6	19.4	18.6	14.2
17.5°	27.2	27.2	27.0	26.5	25.5	24.8	23.5	22.6	21.3	19.9	12.3
20°	36.1	36.1	35.6	35.1	33.8	32.6	30.7	28.9	27.0	25.3	11.0
22.5°	52.2	53.0	51.5	49.8	48.1	45.1	42.4	39.7	36.3	33.4	11.3
25°	77.5	78.2	77.5	73.6	70.4	66.5	61.3	55.9	50.0	44.6	12.8
27.5°	125.6	126.1	124.9	115.3	110.1	99.8	90.8	81.9	72.1	62.3	14.0
30°	221.5	221.7	213.9	194.8	177.8	155.3	136.1	117.7	102.3	86.6	15.0
31°	291.6	284.8	268.1	245.0	218.1	187.6	161.4	137.6	114.5	97.6	15.2
32°	370.4	369.4	341.7	301.7	265.6	227.6	188.1	157.7	131.2	108.2	15.5
33°	474.6	475.1	431.5	384.4	325.2	274.2	222.5	180.8	148.9	120.7	15.9
34°	637.5	599.2	548.0	484.2	403.7	327.0	259.8	207.5	164.8	132.7	15.9
35°	806.5	768.0	711.6	614.9	504.6	397.1	304.2	236.2	184.0	145.7	15.9
36°	995.9	963.2	877.9	754.5	613.7	463.3	351.2	269.3	202.9	157.5	15.7
37°	1200.4	1152.6	1057.9	923.3	734.9	556.6	408.6	302.2	221.7	170.2	15.2
38°	1408.2	1365.0	1245.6	1082.4	879.6	654.9	466.0	333.8	239.2	179.8	14.5
39°	1565.7	1542.1	1423.6	1241.4	995.1	748.1	525.2	367.7	257.5	189.4	13.7
40°	1750.6	1712.6	1600.2	1374.8	1131.7	843.0	583.0	397.6	272.8	197.0	13.0
41°	1919.4	1871.3	1729.5	1511.7	1241.1	928.4	638.0	428.5	285.0	201.4	12.5
42°	2064.1	2008.1	1860.0	1628.9	1332.6	996.6	681.9	450.6	296.5	205.1	11.8
43°	2157.8	2109.5	1963.8	1717.0	1410.9	1059.1	722.9	473.6	303.7	207.5	10.8
44°	2203.4	2154.6	2013.5	1772.2	1459.0	1096.7	749.3	489.6	311.5	210.7	10.1
45°	2188.7	2139.1	2002.8	1773.2	1473.9	1110.2	760.6	496.7	315.7	213.6	9.1
46°	2121.2	2086.4	1949.0	1727.1	1445.5	1095.7	754.3	491.3	314.2	213.6	8.1
47°	2026.5	1986.8	1856.1	1647.8	1376.5	1058.4	728.5	474.9	305.1	208.7	7.1
48°	1897.5	1863.7	1726.3	1522.0	1270.8	977.2	670.4	448.1	290.9	199.2	6.1
49°	1735.6	1688.5	1560.7	1361.1	1133.0	861.9	594.1	403.0	268.1	185.7	5.4
50°	1560.0	1501.9	1403.3	1199.9	990.5	739.0	493.8	340.7	236.0	168.0	4.9
51°	1388.1	1329.0	1235.0	1062.1	838.4	613.2	398.3	272.0	194.3	143.7	4.2
52°	1209.7	1160.2	1055.0	919.1	717.7	496.9	331.9	230.1	161.4	120.7	3.4
53°	1032.2	998.3	898.2	760.6	576.7	405.9	271.0	197.0	140.8	103.3	2.7
54°	854.3	817.3	741.3	618.6	464.8	320.3	229.8	164.8	122.2	90.0	2.5
55°	668.2	649.0	578.9	471.7	352.2	255.6	186.4	141.8	102.3	75.3	2.0
56°	514.6	493.0	429.0	342.2	261.7	200.2	150.9	115.8	86.6	63.0	1.5
57°	337.0	314.9	272.5	238.9	190.6	145.9	115.3	91.2	70.4	52.2	1.2
58°	199.2	179.1	172.4	147.2	127.1	99.1	85.1	67.9	52.0	41.2	0.7
59°	91.5	93.0	82.7	77.5	70.4	63.0	51.8	45.4	35.6	29.7	0.5
60°	53.2	50.3	49.1	43.9	39.0	34.6	31.2	27.5	22.3	19.1	0.2
62.5°	18.2	17.4	17.9	16.2	15.2	14.7	13.5	11.5	9.6	7.8	0.0
65°	4.9	4.9	4.7	4.4	4.2	3.9	3.7	3.2	2.9	2.5	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°	1.7	1.7	1.5	1.5	1.2	1.2	1.0	1.0	0.7	0.7	0.0
70°	1.0	1.0	1.0	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

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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	21.8	21.8	21.8	21.8	21.8	21.8
2.5°	22.6	21.6	20.4	19.6	19.4	19.1
5°	21.6	19.6	18.2	17.2	16.9	16.9
7.5°	19.4	17.2	15.7	15.2	15.0	15.0
10°	16.9	15.0	13.7	13.2	13.5	13.5
12.5°	14.2	12.5	12.0	12.0	12.3	12.5
15°	11.5	10.5	10.5	10.8	11.3	11.5
17.5°	9.6	9.1	9.3	9.8	10.3	10.8
20°	7.8	7.8	8.3	9.1	9.8	10.3
22.5°	6.6	6.9	7.6	8.3	9.3	9.8
25°	5.6	6.1	6.9	8.1	9.1	9.3
27.5°	4.9	5.6	6.6	7.8	8.8	9.3
30°	4.2	5.2	6.4	7.6	8.8	9.3
31°	3.9	4.9	6.1	7.6	8.8	9.3
32°	3.7	4.9	6.1	7.6	8.8	9.3
33°	3.4	4.7	6.1	7.4	8.8	9.3
34°	3.2	4.7	6.1	7.6	8.8	9.3
35°	2.9	4.4	5.9	7.4	8.6	9.3
36°	2.7	4.4	5.9	7.4	8.8	9.3
37°	2.5	4.4	5.9	7.4	8.6	9.3
38°	2.5	4.2	5.6	7.4	8.6	9.3
39°	2.2	3.9	5.6	7.4	8.6	9.3
40°	2.0	3.9	5.4	7.1	8.6	9.3
41°	1.7	3.7	5.4	7.1	8.6	9.3
42°	1.5	3.7	5.4	7.1	8.6	9.3
43°	1.2	3.4	5.2	7.1	8.6	9.3
44°	1.2	3.4	5.2	7.1	8.6	9.3
45°	1.0	3.2	4.9	7.1	8.6	9.3
46°	1.0	3.2	4.9	6.9	8.6	9.3
47°	0.7	3.2	4.9	6.9	8.6	9.3
48°	0.7	2.9	4.9	6.9	8.6	9.3
49°	0.5	2.9	4.9	6.9	8.6	9.3
50°	0.5	2.9	4.7	6.9	8.6	9.3
51°	0.5	2.9	4.7	6.9	8.6	9.3
52°	0.5	2.7	4.7	6.9	8.6	9.3
53°	0.5	2.7	4.7	6.9	8.6	9.3
54°	0.5	2.7	4.4	6.9	8.6	9.3
55°	0.5	2.5	4.4	6.6	8.6	9.1
56°	0.5	2.5	4.4	6.6	8.6	9.1
57°	0.5	2.5	4.2	6.6	8.6	9.1
58°	0.5	2.2	4.2	6.4	8.3	9.1
59°	0.5	2.2	3.9	6.4	8.3	8.8
60°	0.5	2.0	3.9	6.1	8.1	8.8
62.5°	0.5	1.7	3.4	5.9	7.8	8.3
65°	0.5	1.5	3.2	5.4	7.6	8.1



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.5	1.5	2.9	5.2	7.1	7.8
70°	0.5	1.5	2.7	4.7	6.9	7.1
72.5°	0.7	1.5	2.5	4.4	6.4	6.6
75°	1.0	1.5	2.2	3.9	5.9	6.1
77.5°	1.0	1.5	2.0	3.4	5.2	5.4
80°	1.0	1.2	1.7	2.7	4.2	4.4
82.5°	1.0	1.2	1.2	2.2	3.2	3.4
85°	0.7	1.0	1.0	1.2	2.2	2.5
87.5°	0.7	1.0	0.5	0.7	1.0	1.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)