

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: P1336292

Luminaire Tested: P3A05R159024DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336292
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: P3A05R159024DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R15 optic, 2400K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

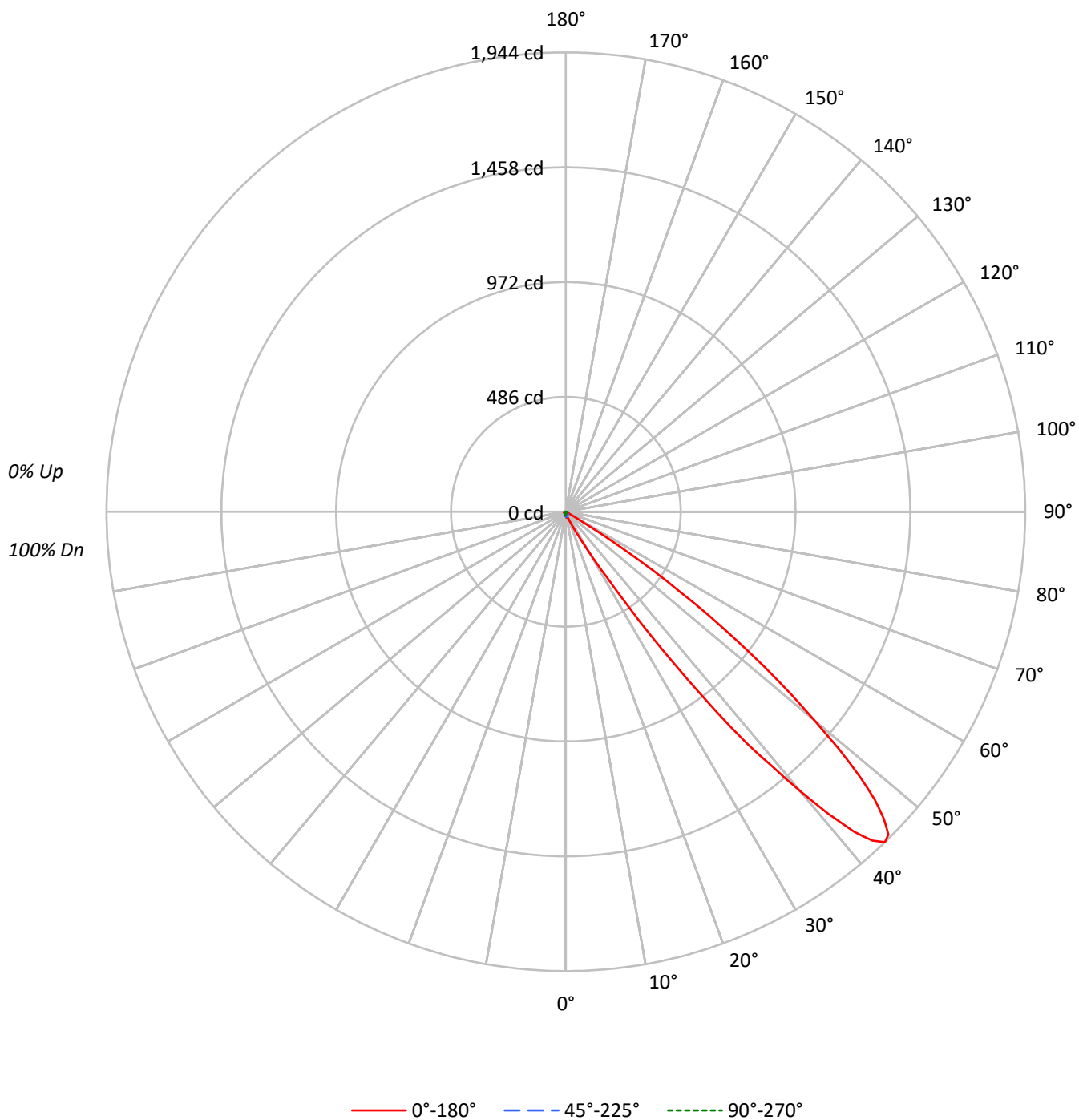
Lumens per Lamp: N/A
Luminaire Lumens: 217.0 lumens
Efficiency: N/A
Efficacy: 30.1 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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

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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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	110	106	102	99	107	104	100	97	100	97	94		96	93	91		92
2	101	93	87	81	98	91	85	80	87	83	78		84	80	77		81
3	91	81	73	67	89	79	72	66	76	70	65		74	68	64		71
4	83	71	62	55	80	69	61	55	67	60	54		64	58	53		62
5	75	62	52	46	73	61	52	45	58	51	45		56	50	44		55
6	68	54	45	38	66	53	44	38	51	43	37		49	42	37		48
7	62	47	38	32	60	47	38	32	45	37	31		44	36	31		42
8	56	42	33	27	55	41	33	27	40	32	26		39	31	26		37
9	52	37	28	22	50	37	28	22	35	28	22		34	27	22		33
10	48	33	25	19	46	33	25	19	32	24	19		31	24	19		30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	4232	4232	4232	4232	4232
5°	5239	4667	3808	3324	3280
10°	5166	4008	2939	2605	2650
15°	4268	2838	2111	2157	2316
20°	7421	2264	1610	1867	2124
25°	16549	2734	1307	1718	1984
30°	49476	3342	1139	1696	2076
35°	190436	3774	1044	1740	2195
40°	442028	3292	1002	1803	2347
45°	598729	2481	868	1954	2543
50°	469443	1467	887	2081	2797
55°	225330	650	841	2217	3058
60°	20612	88	746	2368	3421
65°	2231	0	675	2491	3684
70°	577	0	833	2629	4039
75°	508	169	1101	2965	4575
80°	505	505	1389	3031	4925
85°	503	503	2264	2768	5535

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 598729 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.6	0.8
10°-20°	3.4	1.6
20°-30°	8.2	3.8
30°-40°	44.9	20.7
40°-50°	108.7	50.1
50°-60°	43.4	20.0
60°-70°	3.7	1.7
70°-80°	2.1	1.0
80°-90°	0.9	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°	13.3	6.1
0°-40°	58.2	26.8
0°-60°	210.2	96.9
0°-90°	217.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	217.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	19	19	19	19	19	
5°	24	21	17	15	15	2
15°	19	12	9	10	10	7
25°	68	11	5	7	8	41
35°	711	14	4	6	8	503
45°	1931	8	3	6	8	1362
55°	589	2	2	6	8	549
65°	4	0	1	5	7	11
75°	1	0	1	4	5	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°	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3	19.3
2.5°	21.6	21.6	21.9	21.6	21.6	21.6	21.6	21.4	21.4	21.4	20.8
5°	23.8	23.8	23.8	23.8	23.6	23.6	23.6	23.4	23.4	23.2	21.2
7.5°	24.7	24.7	24.4	24.4	24.2	24.2	24.0	23.8	23.6	23.4	20.3
10°	23.2	23.2	23.2	22.9	22.9	22.7	22.5	22.3	22.1	21.6	18.0
12.5°	20.6	20.6	20.8	20.6	20.3	20.1	19.7	19.5	19.3	18.8	14.9
15°	18.8	18.8	18.8	18.6	18.4	18.0	17.7	17.3	17.1	16.4	12.5
17.5°	24.0	24.0	23.8	23.4	22.5	21.9	20.8	19.9	18.8	17.5	10.8
20°	31.8	31.8	31.4	30.9	29.9	28.8	27.0	25.5	23.8	22.3	9.7
22.5°	46.1	46.7	45.4	43.9	42.4	39.8	37.4	35.1	32.0	29.4	10.0
25°	68.4	69.0	68.4	64.9	62.1	58.6	54.1	49.3	44.1	39.4	11.3
27.5°	110.8	111.2	110.1	101.7	97.1	88.1	80.1	72.3	63.6	55.0	12.3
30°	195.4	195.6	188.7	171.8	156.9	137.0	120.1	103.9	90.2	76.4	13.2
31°	257.3	251.2	236.5	216.2	192.4	165.5	142.4	121.4	101.0	86.1	13.4
32°	326.7	325.9	301.4	266.1	234.3	200.8	166.0	139.1	115.8	95.4	13.6
33°	418.7	419.1	380.6	339.1	286.9	241.9	196.2	159.5	131.3	106.5	14.1
34°	562.3	528.6	483.4	427.1	356.1	288.4	229.1	183.0	145.4	117.1	14.1
35°	711.4	677.5	627.7	542.4	445.1	350.3	268.3	208.4	162.3	128.5	14.1
36°	878.5	849.7	774.4	665.6	541.4	408.7	309.8	237.6	178.9	138.9	13.8
37°	1058.9	1016.7	933.2	814.4	648.2	490.9	360.5	266.6	195.6	150.2	13.4
38°	1242.2	1204.1	1098.7	954.8	775.9	577.7	411.1	294.5	211.0	158.6	12.8
39°	1381.1	1360.3	1255.8	1095.0	877.8	659.9	463.2	324.3	227.2	167.0	12.1
40°	1544.2	1510.7	1411.6	1212.8	998.3	743.7	514.3	350.7	240.6	173.7	11.5
41°	1693.1	1650.7	1525.6	1333.5	1094.8	819.0	562.8	378.0	251.4	177.6	11.0
42°	1820.7	1771.4	1640.7	1436.9	1175.5	879.1	601.5	397.5	261.6	180.9	10.4
43°	1903.4	1860.8	1732.3	1514.6	1244.6	934.3	637.6	417.8	267.9	183.0	9.5
44°	1943.6	1900.6	1776.2	1563.3	1287.0	967.4	661.0	431.9	274.8	185.9	8.9
45°	1930.7	1887.0	1766.7	1564.1	1300.2	979.3	671.0	438.1	278.5	188.5	8.0
46°	1871.2	1840.4	1719.3	1523.5	1275.1	966.5	665.3	433.4	277.2	188.5	7.1
47°	1787.6	1752.6	1637.3	1453.6	1214.3	933.6	642.6	418.9	269.2	184.1	6.3
48°	1673.8	1644.0	1522.8	1342.6	1121.0	862.0	591.3	395.3	256.6	175.7	5.4
49°	1531.0	1489.5	1376.8	1200.6	999.4	760.3	524.0	355.5	236.5	163.8	4.8
50°	1376.1	1324.8	1237.8	1058.5	873.7	651.9	435.6	300.5	208.1	148.2	4.3
51°	1224.4	1172.3	1089.4	936.9	739.6	540.9	351.4	240.0	171.4	126.8	3.7
52°	1067.1	1023.4	930.6	810.7	633.1	438.4	292.7	203.0	142.4	106.5	3.0
53°	910.5	880.6	792.3	671.0	508.7	358.1	239.1	173.7	124.2	91.1	2.4
54°	753.6	720.9	653.9	545.7	410.0	282.6	202.7	145.4	107.8	79.4	2.2
55°	589.4	572.5	510.6	416.1	310.7	225.5	164.4	125.1	90.2	66.4	1.7
56°	453.9	434.9	378.4	301.8	230.9	176.6	133.1	102.1	76.4	55.6	1.3
57°	297.3	277.8	240.4	210.7	168.1	128.7	101.7	80.5	62.1	46.1	1.1
58°	175.7	157.9	152.1	129.8	112.1	87.4	75.1	59.9	45.9	36.4	0.6
59°	80.7	82.0	72.9	68.4	62.1	55.6	45.7	40.0	31.4	26.2	0.4
60°	47.0	44.4	43.3	38.7	34.4	30.5	27.5	24.2	19.7	16.9	0.2
62.5°	16.0	15.4	15.8	14.3	13.4	13.0	11.9	10.2	8.4	6.9	0.0
65°	4.3	4.3	4.1	3.9	3.7	3.5	3.2	2.8	2.6	2.2	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°	1.5	1.5	1.3	1.3	1.1	1.1	0.9	0.9	0.6	0.6	0.0
70°	0.9	0.9	0.9	0.6	0.6	0.6	0.4	0.4	0.4	0.2	0.0
72.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.4	0.4	0.4	0.2	0.2
75°	0.6	0.6	0.6	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2
77.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
80°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2	0.4
82.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4
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°	19.3	19.3	19.3	19.3	19.3	19.3
2.5°	19.9	19.0	18.0	17.3	17.1	16.9
5°	19.0	17.3	16.0	15.1	14.9	14.9
7.5°	17.1	15.1	13.8	13.4	13.2	13.2
10°	14.9	13.2	12.1	11.7	11.9	11.9
12.5°	12.5	11.0	10.6	10.6	10.8	11.0
15°	10.2	9.3	9.3	9.5	10.0	10.2
17.5°	8.4	8.0	8.2	8.7	9.1	9.5
20°	6.9	6.9	7.4	8.0	8.7	9.1
22.5°	5.8	6.1	6.7	7.4	8.2	8.7
25°	5.0	5.4	6.1	7.1	8.0	8.2
27.5°	4.3	5.0	5.8	6.9	7.8	8.2
30°	3.7	4.5	5.6	6.7	7.8	8.2
31°	3.5	4.3	5.4	6.7	7.8	8.2
32°	3.2	4.3	5.4	6.7	7.8	8.2
33°	3.0	4.1	5.4	6.5	7.8	8.2
34°	2.8	4.1	5.4	6.7	7.8	8.2
35°	2.6	3.9	5.2	6.5	7.6	8.2
36°	2.4	3.9	5.2	6.5	7.8	8.2
37°	2.2	3.9	5.2	6.5	7.6	8.2
38°	2.2	3.7	5.0	6.5	7.6	8.2
39°	1.9	3.5	5.0	6.5	7.6	8.2
40°	1.7	3.5	4.8	6.3	7.6	8.2
41°	1.5	3.2	4.8	6.3	7.6	8.2
42°	1.3	3.2	4.8	6.3	7.6	8.2
43°	1.1	3.0	4.5	6.3	7.6	8.2
44°	1.1	3.0	4.5	6.3	7.6	8.2
45°	0.9	2.8	4.3	6.3	7.6	8.2
46°	0.9	2.8	4.3	6.1	7.6	8.2
47°	0.6	2.8	4.3	6.1	7.6	8.2
48°	0.6	2.6	4.3	6.1	7.6	8.2
49°	0.4	2.6	4.3	6.1	7.6	8.2
50°	0.4	2.6	4.1	6.1	7.6	8.2
51°	0.4	2.6	4.1	6.1	7.6	8.2
52°	0.4	2.4	4.1	6.1	7.6	8.2
53°	0.4	2.4	4.1	6.1	7.6	8.2
54°	0.4	2.4	3.9	6.1	7.6	8.2
55°	0.4	2.2	3.9	5.8	7.6	8.0
56°	0.4	2.2	3.9	5.8	7.6	8.0
57°	0.4	2.2	3.7	5.8	7.6	8.0
58°	0.4	1.9	3.7	5.6	7.4	8.0
59°	0.4	1.9	3.5	5.6	7.4	7.8
60°	0.4	1.7	3.5	5.4	7.1	7.8
62.5°	0.4	1.5	3.0	5.2	6.9	7.4
65°	0.4	1.3	2.8	4.8	6.7	7.1



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.4	1.3	2.6	4.5	6.3	6.9
70°	0.4	1.3	2.4	4.1	6.1	6.3
72.5°	0.6	1.3	2.2	3.9	5.6	5.8
75°	0.9	1.3	1.9	3.5	5.2	5.4
77.5°	0.9	1.3	1.7	3.0	4.5	4.8
80°	0.9	1.1	1.5	2.4	3.7	3.9
82.5°	0.9	1.1	1.1	1.9	2.8	3.0
85°	0.6	0.9	0.9	1.1	1.9	2.2
87.5°	0.6	0.9	0.4	0.6	0.9	0.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)