

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: P1334064

Luminaire Tested: P3A02R159050DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1334064
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: P3A02R159050DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R15 optic, 5000K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

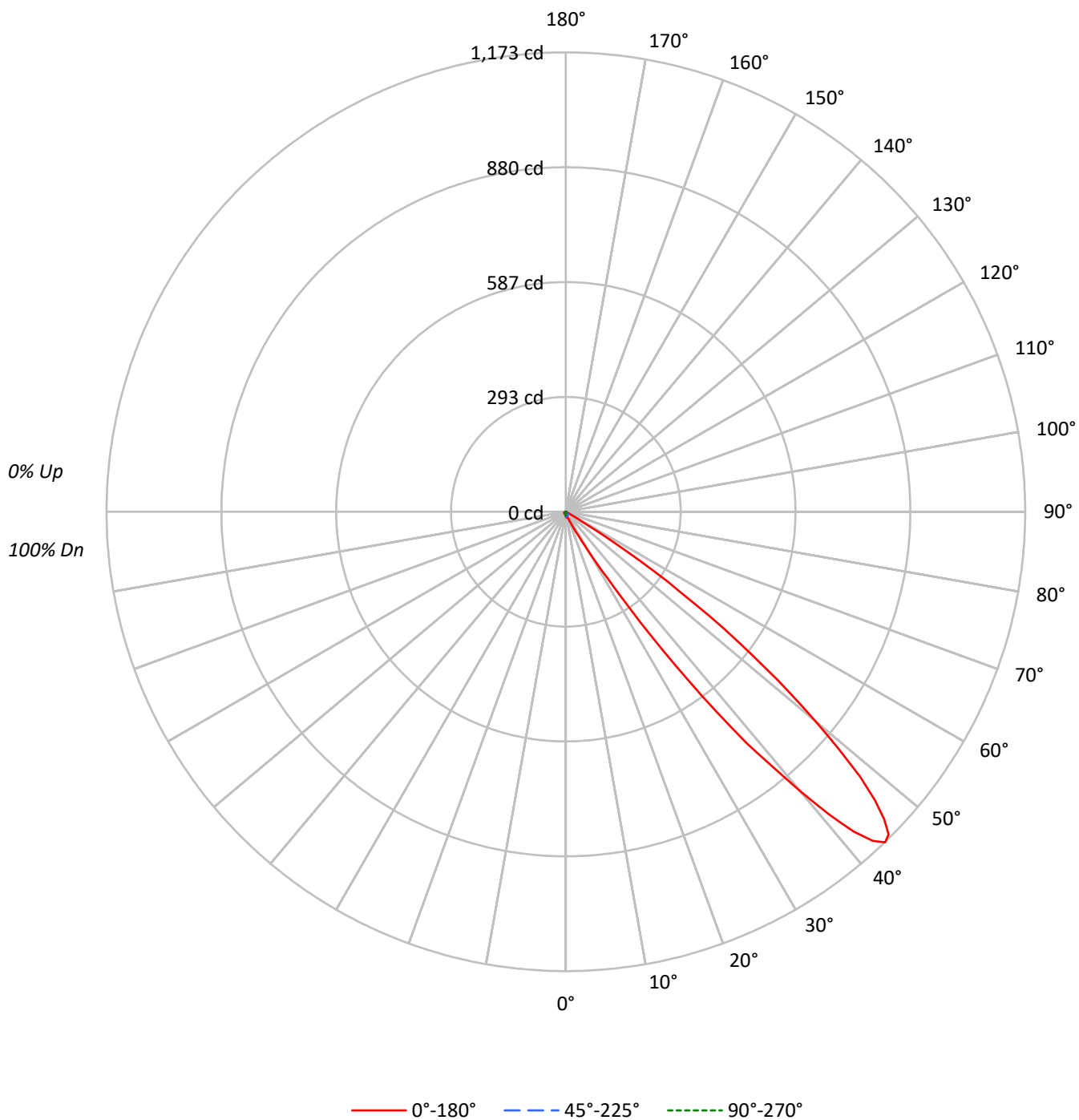
Lumens per Lamp: N/A
Luminaire Lumens: 131.0 lumens
Efficiency: N/A
Efficacy: 36.4 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.48 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 3.6
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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	110	106	102	99	107	104	100	97	100	97	94	96	93	91	92	90	89	87		
2	101	93	87	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73		
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61		
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	53	50		
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	54	49	44	42		
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	48	42	37	35		
7	62	47	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31	29		
8	56	42	33	27	55	41	33	27	40	32	26	39	31	26	37	31	26	24		
9	52	37	28	22	50	37	28	22	35	28	22	34	27	22	33	27	22	20		
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	23	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	2544	2544	2544	2544	2544
5°	3170	2818	2289	2003	1981
10°	3117	2405	1781	1581	1603
15°	2588	1725	1271	1294	1385
20°	4480	1377	980	1120	1283
25°	9993	1645	798	1040	1210
30°	29853	2026	684	1013	1266
35°	114974	2275	642	1044	1338
40°	266843	1975	601	1088	1431
45°	361433	1489	527	1178	1551
50°	283385	887	546	1262	1706
55°	136024	382	497	1338	1835
60°	12411	44	439	1447	2061
65°	1349	0	415	1505	2231
70°	321	0	513	1603	2436
75°	339	85	678	1779	2796
80°	379	379	884	1768	3031
85°	252	252	1258	1761	3271

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 361433 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.0	0.8
10°-20°	2.1	1.6
20°-30°	4.9	3.8
30°-40°	27.1	20.7
40°-50°	65.6	50.1
50°-60°	26.2	20.0
60°-70°	2.3	1.7
70°-80°	1.3	1.0
80°-90°	0.6	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°	8.0	6.1
0°-40°	35.1	26.8
0°-60°	126.9	96.9
0°-90°	131.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	131.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	12	12	12	12	12	
5°	14	13	10	9	9	1
15°	11	8	6	6	6	4
25°	41	7	3	4	5	25
35°	430	8	2	4	5	303
45°	1166	5	2	4	5	822
55°	356	1	1	4	5	331
65°	3	0	1	3	4	7
75°	0	0	1	2	3	0
85°	0	0	0	1	1	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°	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6
2.5°	13.1	13.1	13.2	13.1	13.1	13.1	13.1	12.9	12.9	12.9	12.5
5°	14.4	14.4	14.4	14.4	14.2	14.2	14.2	14.1	14.1	14.0	12.8
7.5°	14.9	14.9	14.8	14.8	14.6	14.6	14.5	14.4	14.2	14.1	12.3
10°	14.0	14.0	14.0	13.8	13.8	13.7	13.6	13.5	13.3	13.1	10.8
12.5°	12.4	12.4	12.5	12.4	12.3	12.1	11.9	11.8	11.6	11.4	9.0
15°	11.4	11.4	11.4	11.2	11.1	10.8	10.7	10.4	10.3	9.9	7.6
17.5°	14.5	14.5	14.4	14.1	13.6	13.2	12.5	12.0	11.4	10.6	6.5
20°	19.2	19.2	18.9	18.7	18.0	17.4	16.3	15.4	14.4	13.5	5.9
22.5°	27.8	28.2	27.4	26.5	25.6	24.0	22.6	21.2	19.3	17.8	6.0
25°	41.3	41.7	41.3	39.2	37.5	35.4	32.7	29.8	26.6	23.8	6.8
27.5°	66.9	67.1	66.5	61.4	58.6	53.2	48.3	43.6	38.4	33.2	7.4
30°	117.9	118.1	113.9	103.7	94.7	82.7	72.5	62.7	54.5	46.1	8.0
31°	155.3	151.6	142.8	130.5	116.1	99.9	85.9	73.3	61.0	52.0	8.1
32°	197.2	196.7	182.0	160.7	141.5	121.2	100.2	84.0	69.9	57.6	8.2
33°	252.7	253.0	229.8	204.7	173.2	146.0	118.5	96.3	79.3	64.3	8.5
34°	339.5	319.1	291.8	257.8	215.0	174.1	138.3	110.5	87.8	70.7	8.5
35°	429.5	409.0	378.9	327.5	268.7	211.5	162.0	125.8	98.0	77.6	8.5
36°	530.3	512.9	467.5	401.8	326.8	246.7	187.0	143.4	108.0	83.9	8.4
37°	639.3	613.8	563.4	491.7	391.3	296.4	217.6	160.9	118.1	90.6	8.1
38°	749.9	726.9	663.3	576.4	468.4	348.8	248.2	177.8	127.4	95.7	7.7
39°	833.7	821.2	758.1	661.1	529.9	398.4	279.7	195.8	137.2	100.8	7.3
40°	932.2	912.0	852.2	732.1	602.7	448.9	310.5	211.7	145.2	104.9	6.9
41°	1022.1	996.5	921.0	805.0	660.9	494.4	339.7	228.2	151.8	107.2	6.7
42°	1099.2	1069.4	990.5	867.4	709.7	530.7	363.1	239.9	157.9	109.2	6.3
43°	1149.1	1123.3	1045.7	914.3	751.3	564.0	384.9	252.2	161.7	110.5	5.7
44°	1173.4	1147.4	1072.3	943.7	776.9	584.0	399.0	260.7	165.9	112.2	5.4
45°	1165.5	1139.1	1066.5	944.2	784.9	591.2	405.1	264.5	168.1	113.8	4.8
46°	1129.6	1111.0	1037.9	919.7	769.7	583.5	401.7	261.6	167.3	113.8	4.3
47°	1079.2	1058.0	988.4	877.5	733.0	563.6	387.9	252.9	162.5	111.2	3.8
48°	1010.5	992.4	919.3	810.5	676.7	520.4	357.0	238.6	154.9	106.1	3.3
49°	924.3	899.2	831.1	724.8	603.3	459.0	316.4	214.6	142.8	98.9	2.9
50°	830.7	799.8	747.3	639.0	527.4	393.6	262.9	181.4	125.7	89.5	2.6
51°	739.2	707.7	657.7	565.6	446.5	326.5	212.1	144.9	103.5	76.5	2.2
52°	644.2	617.8	561.8	489.4	382.2	264.6	176.7	122.5	85.9	64.3	1.8
53°	549.6	531.6	478.3	405.1	307.1	216.2	144.3	104.9	75.0	55.0	1.4
54°	454.9	435.2	394.7	329.4	247.5	170.6	122.4	87.8	65.0	47.9	1.3
55°	355.8	345.6	308.3	251.2	187.6	136.1	99.3	75.5	54.5	40.1	1.0
56°	274.0	262.5	228.5	182.2	139.4	106.6	80.3	61.7	46.1	33.6	0.8
57°	179.5	167.7	145.1	127.2	101.5	77.7	61.4	48.6	37.5	27.8	0.7
58°	106.1	95.4	91.8	78.4	67.7	52.8	45.3	36.2	27.7	21.9	0.4
59°	48.7	49.5	44.0	41.3	37.5	33.6	27.6	24.2	18.9	15.8	0.3
60°	28.3	26.8	26.1	23.4	20.8	18.4	16.6	14.6	11.9	10.2	0.1
62.5°	9.7	9.3	9.5	8.6	8.1	7.8	7.2	6.1	5.1	4.2	0.0
65°	2.6	2.6	2.5	2.4	2.2	2.1	2.0	1.7	1.6	1.3	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°	0.9	0.9	0.8	0.8	0.7	0.7	0.5	0.5	0.4	0.4	0.0
70°	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.1	0.0
72.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.1	0.1
75°	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.1
77.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
80°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.3
82.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3
85°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
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°	11.6	11.6	11.6	11.6	11.6	11.6
2.5°	12.0	11.5	10.8	10.4	10.3	10.2
5°	11.5	10.4	9.7	9.1	9.0	9.0
7.5°	10.3	9.1	8.4	8.1	8.0	8.0
10°	9.0	8.0	7.3	7.1	7.2	7.2
12.5°	7.6	6.7	6.4	6.4	6.5	6.7
15°	6.1	5.6	5.6	5.7	6.0	6.1
17.5°	5.1	4.8	5.0	5.2	5.5	5.7
20°	4.2	4.2	4.4	4.8	5.2	5.5
22.5°	3.5	3.7	4.0	4.4	5.0	5.2
25°	3.0	3.3	3.7	4.3	4.8	5.0
27.5°	2.6	3.0	3.5	4.2	4.7	5.0
30°	2.2	2.7	3.4	4.0	4.7	5.0
31°	2.1	2.6	3.3	4.0	4.7	5.0
32°	2.0	2.6	3.3	4.0	4.7	5.0
33°	1.8	2.5	3.3	3.9	4.7	5.0
34°	1.7	2.5	3.3	4.0	4.7	5.0
35°	1.6	2.4	3.1	3.9	4.6	5.0
36°	1.4	2.4	3.1	3.9	4.7	5.0
37°	1.3	2.4	3.1	3.9	4.6	5.0
38°	1.3	2.2	3.0	3.9	4.6	5.0
39°	1.2	2.1	3.0	3.9	4.6	5.0
40°	1.0	2.1	2.9	3.8	4.6	5.0
41°	0.9	2.0	2.9	3.8	4.6	5.0
42°	0.8	2.0	2.9	3.8	4.6	5.0
43°	0.7	1.8	2.7	3.8	4.6	5.0
44°	0.7	1.8	2.7	3.8	4.6	5.0
45°	0.5	1.7	2.6	3.8	4.6	5.0
46°	0.5	1.7	2.6	3.7	4.6	5.0
47°	0.4	1.7	2.6	3.7	4.6	5.0
48°	0.4	1.6	2.6	3.7	4.6	5.0
49°	0.3	1.6	2.6	3.7	4.6	5.0
50°	0.3	1.6	2.5	3.7	4.6	5.0
51°	0.3	1.6	2.5	3.7	4.6	5.0
52°	0.3	1.4	2.5	3.7	4.6	5.0
53°	0.3	1.4	2.5	3.7	4.6	5.0
54°	0.3	1.4	2.4	3.7	4.6	5.0
55°	0.3	1.3	2.4	3.5	4.6	4.8
56°	0.3	1.3	2.4	3.5	4.6	4.8
57°	0.3	1.3	2.2	3.5	4.6	4.8
58°	0.3	1.2	2.2	3.4	4.4	4.8
59°	0.3	1.2	2.1	3.4	4.4	4.7
60°	0.3	1.0	2.1	3.3	4.3	4.7
62.5°	0.3	0.9	1.8	3.1	4.2	4.4
65°	0.3	0.8	1.7	2.9	4.0	4.3



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.3	0.8	1.6	2.7	3.8	4.2
70°	0.3	0.8	1.4	2.5	3.7	3.8
72.5°	0.4	0.8	1.3	2.4	3.4	3.5
75°	0.5	0.8	1.2	2.1	3.1	3.3
77.5°	0.5	0.8	1.0	1.8	2.7	2.9
80°	0.5	0.7	0.9	1.4	2.2	2.4
82.5°	0.5	0.7	0.7	1.2	1.7	1.8
85°	0.4	0.5	0.5	0.7	1.2	1.3
87.5°	0.4	0.5	0.3	0.4	0.5	0.5
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)