

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: P1334128

Luminaire Tested: P3A02R159740DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1334128
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: P3A02R159740DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R15 optic, 4000K CCT AND, 97CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

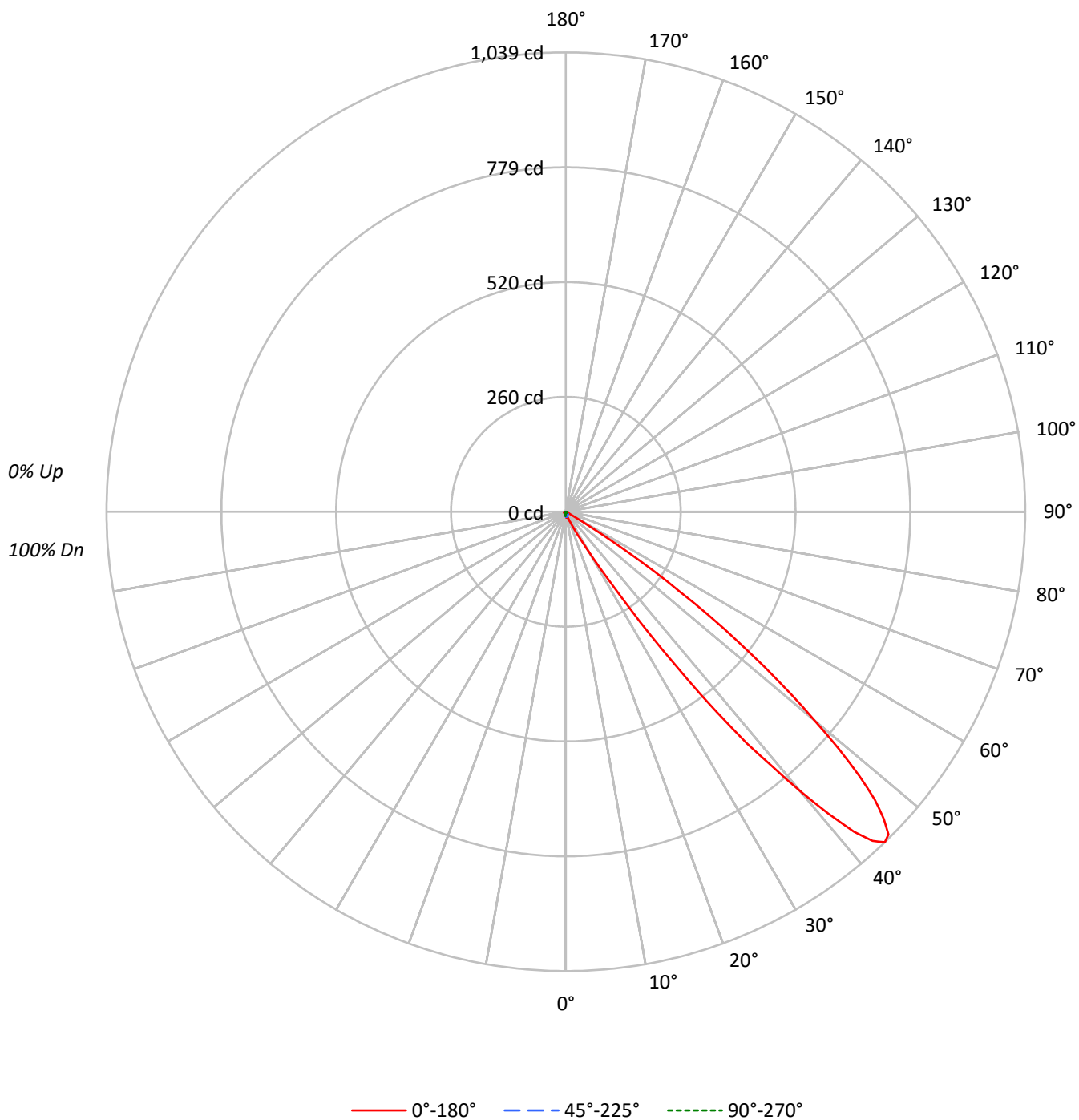
Lumens per Lamp: N/A
Luminaire Lumens: 116.0 lumens
Efficiency: N/A
Efficacy: 32.2 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.09
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 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
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°	2259	2259	2259	2259	2259
5°	2796	2487	2047	1783	1761
10°	2761	2138	1581	1381	1425
15°	2293	1521	1135	1158	1226
20°	3967	1213	863	1003	1143
25°	8831	1452	702	919	1065
30°	26434	1798	608	912	1114
35°	101803	2008	562	937	1178
40°	236300	1746	544	973	1260
45°	320064	1333	465	1054	1364
50°	250943	785	478	1092	1501
55°	120464	344	459	1185	1644
60°	11008	44	395	1272	1842
65°	1193	0	363	1297	1972
70°	321	0	449	1410	2180
75°	254	85	593	1610	2457
80°	253	253	758	1642	2652
85°	252	252	1258	1510	3019

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 320064 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.9	0.8
10°-20°	1.8	1.6
20°-30°	4.4	3.8
30°-40°	24.0	20.7
40°-50°	58.1	50.1
50°-60°	23.2	20.0
60°-70°	2.0	1.7
70°-80°	1.1	1.0
80°-90°	0.5	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°	7.1	6.1
0°-40°	31.1	26.8
0°-60°	112.4	96.9
0°-90°	116.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	116.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	10	10	10	10	10	
5°	13	11	9	8	8	1
15°	10	7	5	5	5	4
25°	36	6	3	4	4	22
35°	380	8	2	4	4	269
45°	1032	4	2	3	4	728
55°	315	1	1	3	4	294
65°	2	0	1	2	4	6
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°	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3	10.3
2.5°	11.6	11.6	11.7	11.6	11.6	11.6	11.6	11.5	11.5	11.5	11.1
5°	12.7	12.7	12.7	12.7	12.6	12.6	12.6	12.5	12.5	12.4	11.3
7.5°	13.2	13.2	13.1	13.1	13.0	13.0	12.8	12.7	12.6	12.5	10.9
10°	12.4	12.4	12.4	12.3	12.3	12.1	12.0	11.9	11.8	11.6	9.6
12.5°	11.0	11.0	11.1	11.0	10.9	10.8	10.5	10.4	10.3	10.1	8.0
15°	10.1	10.1	10.1	9.9	9.8	9.6	9.5	9.3	9.1	8.8	6.7
17.5°	12.8	12.8	12.7	12.5	12.0	11.7	11.1	10.6	10.1	9.4	5.8
20°	17.0	17.0	16.8	16.5	16.0	15.4	14.5	13.6	12.7	11.9	5.2
22.5°	24.6	25.0	24.3	23.5	22.7	21.3	20.0	18.7	17.1	15.7	5.3
25°	36.5	36.9	36.5	34.7	33.2	31.3	28.9	26.4	23.6	21.1	6.0
27.5°	59.2	59.5	58.9	54.4	51.9	47.1	42.8	38.6	34.0	29.4	6.6
30°	104.4	104.6	100.9	91.8	83.9	73.2	64.2	55.5	48.2	40.8	7.1
31°	137.5	134.3	126.4	115.5	102.8	88.5	76.1	64.9	54.0	46.0	7.2
32°	174.7	174.2	161.1	142.3	125.3	107.3	88.7	74.4	61.9	51.0	7.3
33°	223.8	224.0	203.5	181.2	153.4	129.3	104.9	85.2	70.2	56.9	7.5
34°	300.6	282.6	258.4	228.3	190.4	154.2	122.5	97.9	77.7	62.6	7.5
35°	380.3	362.1	335.5	290.0	237.9	187.3	143.4	111.4	86.7	68.7	7.5
36°	469.6	454.2	414.0	355.8	289.4	218.5	165.6	127.0	95.7	74.3	7.4
37°	566.1	543.5	498.9	435.4	346.5	262.4	192.7	142.5	104.6	80.3	7.2
38°	664.0	643.7	587.3	510.4	414.8	308.8	219.8	157.4	112.8	84.8	6.8
39°	738.3	727.2	671.3	585.4	469.2	352.8	247.6	173.4	121.4	89.3	6.5
40°	825.5	807.6	754.6	648.3	533.7	397.5	274.9	187.5	128.6	92.9	6.1
41°	905.1	882.4	815.5	712.8	585.3	437.8	300.8	202.1	134.4	95.0	5.9
42°	973.3	946.9	877.1	768.1	628.4	469.9	321.5	212.5	139.8	96.7	5.6
43°	1017.5	994.7	926.0	809.6	665.3	499.4	340.9	223.3	143.2	97.9	5.1
44°	1039.0	1016.0	949.5	835.7	688.0	517.1	353.4	230.9	146.9	99.4	4.7
45°	1032.1	1008.7	944.4	836.1	695.0	523.5	358.7	234.2	148.9	100.7	4.3
46°	1000.3	983.8	919.1	814.4	681.6	516.7	355.7	231.7	148.2	100.7	3.8
47°	955.6	936.9	875.2	777.0	649.1	499.1	343.5	223.9	143.9	98.4	3.4
48°	894.8	878.8	814.0	717.7	599.2	460.8	316.1	211.3	137.2	93.9	2.9
49°	818.4	796.2	736.0	641.8	534.2	406.4	280.1	190.0	126.4	87.6	2.5
50°	735.6	708.2	661.7	565.8	467.0	348.5	232.8	160.7	111.3	79.2	2.3
51°	654.5	626.7	582.4	500.8	395.3	289.2	187.8	128.3	91.6	67.8	2.0
52°	570.4	547.1	497.5	433.4	338.4	234.3	156.5	108.5	76.1	56.9	1.6
53°	486.7	470.7	423.6	358.7	271.9	191.4	127.8	92.9	66.4	48.7	1.3
54°	402.9	385.4	349.5	291.7	219.2	151.1	108.4	77.7	57.6	42.4	1.2
55°	315.1	306.0	273.0	222.4	166.1	120.5	87.9	66.9	48.2	35.5	0.9
56°	242.7	232.5	202.3	161.3	123.4	94.4	71.1	54.6	40.8	29.7	0.7
57°	158.9	148.5	128.5	112.7	89.9	68.8	54.4	43.0	33.2	24.6	0.6
58°	93.9	84.4	81.3	69.4	59.9	46.7	40.1	32.0	24.5	19.4	0.3
59°	43.1	43.8	39.0	36.5	33.2	29.7	24.4	21.4	16.8	14.0	0.2
60°	25.1	23.7	23.1	20.7	18.4	16.3	14.7	13.0	10.5	9.0	0.1
62.5°	8.6	8.2	8.4	7.6	7.2	6.9	6.4	5.4	4.5	3.7	0.0
65°	2.3	2.3	2.2	2.1	2.0	1.9	1.7	1.5	1.4	1.2	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°	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.3	0.3	0.0
70°	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.0
72.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1
75°	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
77.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
80°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2
82.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
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°	10.3	10.3	10.3	10.3	10.3	10.3
2.5°	10.6	10.2	9.6	9.3	9.1	9.0
5°	10.2	9.3	8.6	8.1	8.0	8.0
7.5°	9.1	8.1	7.4	7.2	7.1	7.1
10°	8.0	7.1	6.5	6.2	6.4	6.4
12.5°	6.7	5.9	5.7	5.7	5.8	5.9
15°	5.4	5.0	5.0	5.1	5.3	5.4
17.5°	4.5	4.3	4.4	4.6	4.9	5.1
20°	3.7	3.7	3.9	4.3	4.6	4.9
22.5°	3.1	3.2	3.6	3.9	4.4	4.6
25°	2.7	2.9	3.2	3.8	4.3	4.4
27.5°	2.3	2.7	3.1	3.7	4.2	4.4
30°	2.0	2.4	3.0	3.6	4.2	4.4
31°	1.9	2.3	2.9	3.6	4.2	4.4
32°	1.7	2.3	2.9	3.6	4.2	4.4
33°	1.6	2.2	2.9	3.5	4.2	4.4
34°	1.5	2.2	2.9	3.6	4.2	4.4
35°	1.4	2.1	2.8	3.5	4.0	4.4
36°	1.3	2.1	2.8	3.5	4.2	4.4
37°	1.2	2.1	2.8	3.5	4.0	4.4
38°	1.2	2.0	2.7	3.5	4.0	4.4
39°	1.0	1.9	2.7	3.5	4.0	4.4
40°	0.9	1.9	2.5	3.4	4.0	4.4
41°	0.8	1.7	2.5	3.4	4.0	4.4
42°	0.7	1.7	2.5	3.4	4.0	4.4
43°	0.6	1.6	2.4	3.4	4.0	4.4
44°	0.6	1.6	2.4	3.4	4.0	4.4
45°	0.5	1.5	2.3	3.4	4.0	4.4
46°	0.5	1.5	2.3	3.2	4.0	4.4
47°	0.3	1.5	2.3	3.2	4.0	4.4
48°	0.3	1.4	2.3	3.2	4.0	4.4
49°	0.2	1.4	2.3	3.2	4.0	4.4
50°	0.2	1.4	2.2	3.2	4.0	4.4
51°	0.2	1.4	2.2	3.2	4.0	4.4
52°	0.2	1.3	2.2	3.2	4.0	4.4
53°	0.2	1.3	2.2	3.2	4.0	4.4
54°	0.2	1.3	2.1	3.2	4.0	4.4
55°	0.2	1.2	2.1	3.1	4.0	4.3
56°	0.2	1.2	2.1	3.1	4.0	4.3
57°	0.2	1.2	2.0	3.1	4.0	4.3
58°	0.2	1.0	2.0	3.0	3.9	4.3
59°	0.2	1.0	1.9	3.0	3.9	4.2
60°	0.2	0.9	1.9	2.9	3.8	4.2
62.5°	0.2	0.8	1.6	2.8	3.7	3.9
65°	0.2	0.7	1.5	2.5	3.6	3.8



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.2	0.7	1.4	2.4	3.4	3.7
70°	0.2	0.7	1.3	2.2	3.2	3.4
72.5°	0.3	0.7	1.2	2.1	3.0	3.1
75°	0.5	0.7	1.0	1.9	2.8	2.9
77.5°	0.5	0.7	0.9	1.6	2.4	2.5
80°	0.5	0.6	0.8	1.3	2.0	2.1
82.5°	0.5	0.6	0.6	1.0	1.5	1.6
85°	0.3	0.5	0.5	0.6	1.0	1.2
87.5°	0.3	0.5	0.2	0.3	0.5	0.5
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)