

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: P1334484

Luminaire Tested: P3A02R209830DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1334484
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-74)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A02R209830DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R20 optic, 3000K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

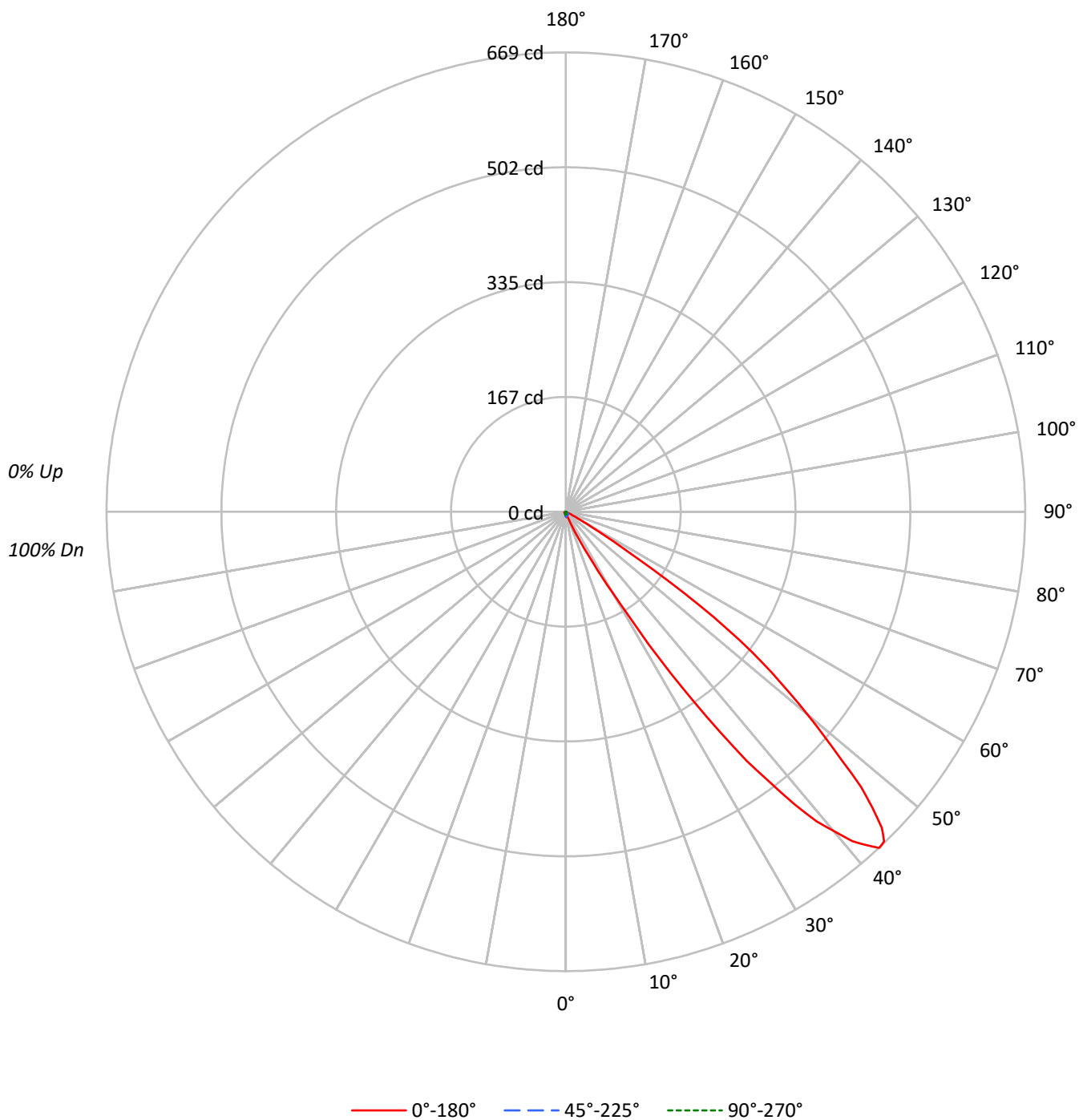
Lumens per Lamp: N/A
Luminaire Lumens: 93.0 lumens
Efficiency: N/A
Efficacy: 25.8 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	108	104	101	97	100	97	94	96	94	92	92	91	89	87		
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73		
3	92	81	74	67	89	80	73	67	77	71	66	74	69	65	72	67	63	61		
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51		
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42		
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35		
7	62	48	39	32	60	47	38	32	46	38	32	44	37	32	43	36	31	29		
8	57	42	33	27	55	42	33	27	40	33	27	39	32	27	38	31	27	25		
9	52	38	29	23	51	37	29	23	36	28	23	35	28	23	34	27	23	21		
10	48	34	25	20	47	33	25	20	32	25	19	31	24	19	30	24	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	1425	1425	1425	1425	1425
5°	1651	1541	1321	1145	1123
10°	1625	1403	1047	891	868
15°	1430	1067	772	704	749
20°	2124	887	560	607	677
25°	9146	919	436	556	653
30°	34537	1139	380	532	633
35°	104721	1365	348	535	669
40°	173640	1345	286	573	716
45°	201850	930	279	589	775
50°	156686	512	273	614	887
55°	90683	344	268	688	956
60°	15350	88	219	746	1053
65°	1193	0	259	830	1245
70°	192	0	321	898	1410
75°	169	85	339	1017	1610
80°	126	126	505	1137	1894
85°	252	252	755	1006	2013

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 201850 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.6	0.6
10°-20°	1.2	1.2
20°-30°	3.7	4.0
30°-40°	23.7	25.5
40°-50°	43.4	46.7
50°-60°	17.8	19.2
60°-70°	1.5	1.6
70°-80°	0.7	0.8
80°-90°	0.3	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°	5.4	5.8
0°-40°	29.1	31.3
0°-60°	90.4	97.2
0°-90°	93.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	93.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	6	6	6	6	6	
5°	8	7	6	5	5	1
15°	6	5	3	3	3	2
25°	38	4	2	2	3	25
35°	391	5	1	2	2	248
45°	651	3	1	2	2	467
55°	237	1	1	2	2	207
65°	2	0	0	2	2	7
75°	0	0	0	1	2	0
85°	0	0	0	0	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°	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
2.5°	7.1	7.1	7.1	7.0	7.0	7.1	7.0	7.0	7.0	7.0	6.9
5°	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.4	7.4	7.3	7.0
7.5°	7.7	7.7	7.7	7.7	7.6	7.6	7.6	7.6	7.5	7.4	6.8
10°	7.3	7.3	7.3	7.3	7.3	7.3	7.2	7.2	7.1	7.0	6.3
12.5°	6.6	6.6	6.6	6.6	6.6	6.6	6.5	6.5	6.4	6.3	5.5
15°	6.3	6.3	6.3	6.2	6.2	6.1	6.0	5.9	5.9	5.7	4.7
17.5°	6.8	6.8	6.7	6.7	6.6	6.4	6.3	6.0	5.9	5.6	4.2
20°	9.1	9.2	8.8	8.6	8.4	7.9	7.6	7.2	6.8	6.4	3.8
22.5°	18.4	18.0	17.4	16.4	15.3	14.3	12.6	11.2	10.2	8.9	3.8
25°	37.8	37.4	35.7	34.3	30.9	28.1	24.4	21.3	18.2	15.1	3.8
27.5°	71.8	69.4	69.0	62.6	57.7	50.7	43.4	37.3	31.7	25.5	4.1
30°	136.4	133.7	124.2	114.6	101.4	86.4	72.2	58.9	47.8	37.8	4.5
31°	173.1	175.8	164.6	145.3	125.8	106.6	87.1	70.3	55.9	43.4	4.6
32°	227.6	216.1	204.3	184.5	156.2	131.7	107.2	82.9	64.1	49.6	4.8
33°	279.1	272.3	254.3	229.6	195.6	161.2	129.5	97.9	74.0	57.0	4.9
34°	333.9	326.5	311.9	276.4	239.1	194.1	151.8	115.1	85.9	64.2	5.0
35°	391.2	388.0	359.9	329.1	283.3	229.0	178.6	134.0	97.5	70.9	5.1
36°	448.8	438.7	416.6	371.7	323.8	261.2	206.8	151.5	109.3	78.7	5.1
37°	492.1	489.9	460.7	416.9	360.6	295.7	231.1	171.0	121.2	85.5	5.1
38°	539.9	530.9	501.3	456.7	395.2	327.2	256.5	188.0	132.5	91.6	5.0
39°	580.2	566.9	537.0	492.9	425.5	351.2	276.7	204.4	142.5	96.7	4.9
40°	606.6	597.4	566.2	516.6	452.9	373.8	297.2	218.0	149.9	100.5	4.7
41°	635.7	620.4	589.5	539.7	472.8	393.7	310.0	226.9	155.7	103.0	4.5
42°	653.1	640.5	603.9	555.2	487.1	405.1	320.5	233.7	159.2	104.4	4.2
43°	669.4	652.3	616.6	564.2	496.5	413.1	325.3	236.8	159.9	104.4	3.8
44°	667.2	650.9	614.0	565.4	498.6	415.5	327.3	236.9	158.7	103.0	3.3
45°	650.9	634.7	601.4	554.7	491.1	410.9	323.3	233.4	155.3	100.8	3.0
46°	620.9	604.8	579.3	536.9	477.1	400.4	313.9	225.8	149.6	97.1	2.6
47°	588.3	572.6	546.5	508.1	453.2	381.7	300.4	215.2	141.7	91.8	2.4
48°	541.0	531.2	505.0	472.2	420.1	352.4	276.6	197.8	131.0	84.9	2.0
49°	499.2	488.9	465.9	430.7	376.9	318.3	248.2	176.6	117.1	77.2	1.7
50°	459.3	450.3	429.0	389.3	338.0	277.1	209.8	150.0	99.6	67.6	1.5
51°	420.2	413.5	391.8	355.3	303.2	245.5	181.8	124.9	82.3	56.1	1.4
52°	381.0	380.2	356.7	319.7	269.4	214.0	154.5	105.4	69.8	47.1	1.3
53°	338.8	333.7	313.1	279.9	231.6	181.1	131.0	88.9	60.1	40.1	1.1
54°	290.7	285.0	263.0	233.0	189.2	148.3	105.6	71.8	50.1	33.9	1.0
55°	237.2	227.5	211.5	180.7	147.8	113.2	81.5	56.9	40.0	28.2	0.9
56°	180.0	170.3	161.2	138.6	108.5	84.4	60.7	43.6	31.3	22.3	0.8
57°	125.2	124.6	109.9	92.5	72.5	57.5	41.6	30.8	22.1	17.3	0.6
58°	81.2	78.5	69.0	59.0	47.5	35.9	26.7	20.9	15.0	11.8	0.5
59°	56.9	51.5	46.4	39.3	29.9	22.6	17.2	13.4	10.4	8.2	0.3
60°	35.0	33.8	30.4	23.9	19.4	16.0	12.8	9.9	7.6	5.9	0.2
62.5°	10.0	10.1	9.2	8.1	7.0	6.0	5.4	4.6	3.8	3.1	0.0
65°	2.3	2.2	2.4	2.2	2.0	2.0	1.7	1.6	1.4	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°	0.7	0.7	0.6	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.0
70°	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.0
72.5°	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1
75°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1
77.5°	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1
80°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
82.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
85°	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.0	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°	6.5	6.5	6.5	6.5	6.5	6.5
2.5°	6.7	6.4	6.1	5.9	5.8	5.8
5°	6.6	6.0	5.5	5.2	5.1	5.1
7.5°	6.0	5.4	4.9	4.6	4.5	4.5
10°	5.4	4.7	4.2	4.0	4.0	3.9
12.5°	4.7	4.0	3.7	3.6	3.6	3.6
15°	3.9	3.4	3.1	3.1	3.2	3.3
17.5°	3.3	2.8	2.7	2.9	3.1	3.1
20°	2.8	2.4	2.4	2.6	2.8	2.9
22.5°	2.4	2.1	2.2	2.4	2.7	2.8
25°	2.1	1.8	2.0	2.3	2.5	2.7
27.5°	1.7	1.7	1.8	2.2	2.5	2.6
30°	1.5	1.5	1.7	2.1	2.4	2.5
31°	1.4	1.4	1.7	2.1	2.4	2.5
32°	1.3	1.4	1.7	2.1	2.4	2.5
33°	1.2	1.3	1.7	2.0	2.4	2.5
34°	1.1	1.3	1.7	2.0	2.4	2.5
35°	1.0	1.3	1.7	2.0	2.4	2.5
36°	1.0	1.2	1.6	2.0	2.4	2.5
37°	0.9	1.2	1.6	2.0	2.4	2.5
38°	0.8	1.1	1.6	2.0	2.4	2.5
39°	0.8	1.1	1.5	2.0	2.4	2.5
40°	0.7	1.0	1.5	2.0	2.4	2.5
41°	0.6	1.0	1.5	1.9	2.4	2.5
42°	0.5	1.0	1.4	1.9	2.4	2.5
43°	0.4	1.0	1.4	1.9	2.4	2.5
44°	0.4	0.9	1.4	1.9	2.4	2.5
45°	0.3	0.9	1.4	1.9	2.4	2.5
46°	0.3	0.9	1.4	1.9	2.4	2.5
47°	0.3	0.8	1.3	1.9	2.4	2.5
48°	0.2	0.8	1.3	1.9	2.4	2.5
49°	0.2	0.8	1.3	1.9	2.4	2.6
50°	0.2	0.8	1.3	1.8	2.4	2.6
51°	0.1	0.8	1.3	1.8	2.4	2.6
52°	0.1	0.8	1.2	1.8	2.4	2.6
53°	0.1	0.7	1.2	1.8	2.4	2.6
54°	0.1	0.7	1.2	1.8	2.4	2.5
55°	0.1	0.7	1.2	1.8	2.4	2.5
56°	0.1	0.6	1.2	1.8	2.4	2.5
57°	0.1	0.6	1.1	1.7	2.4	2.4
58°	0.1	0.6	1.1	1.7	2.4	2.4
59°	0.1	0.6	1.1	1.7	2.3	2.4
60°	0.2	0.5	1.0	1.7	2.3	2.4
62.5°	0.2	0.5	1.0	1.7	2.2	2.4
65°	0.2	0.5	1.0	1.6	2.2	2.4



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.2	0.4	0.9	1.5	2.1	2.3
70°	0.2	0.5	0.9	1.4	2.0	2.2
72.5°	0.3	0.4	0.8	1.3	1.9	2.1
75°	0.3	0.4	0.8	1.2	1.8	1.9
77.5°	0.3	0.4	0.7	1.0	1.7	1.7
80°	0.3	0.4	0.6	0.9	1.4	1.5
82.5°	0.3	0.4	0.4	0.7	1.0	1.1
85°	0.3	0.3	0.3	0.4	0.7	0.8
87.5°	0.3	0.3	0.3	0.2	0.3	0.3
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)