

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: P1334698

Luminaire Tested: P3A02R259040DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1334698
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-75)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A02R259040DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R25 optic, 4000K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

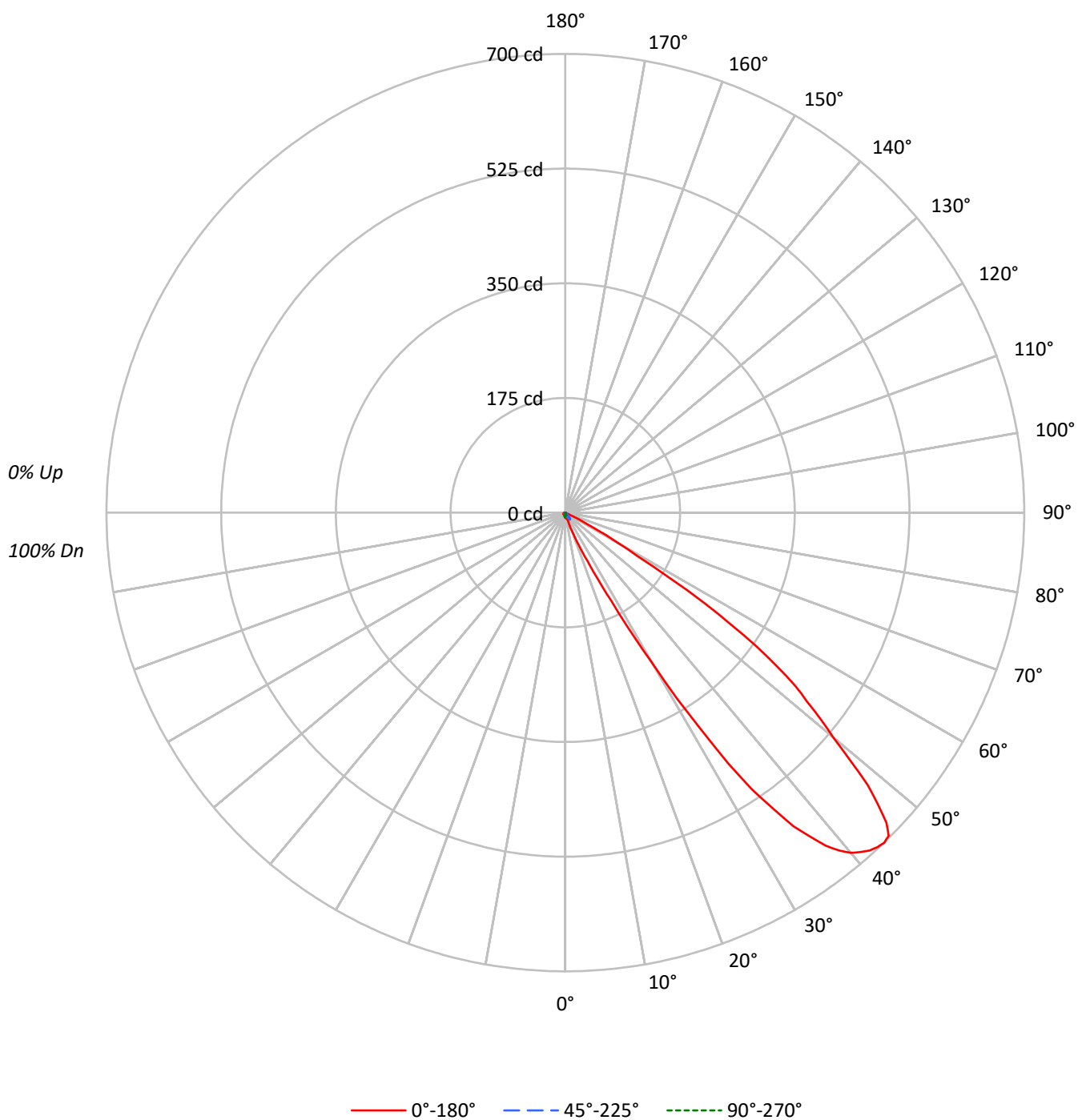
Lumens per Lamp: N/A
Luminaire Lumens: 146.0 lumens
Efficiency: N/A
Efficacy: 40.6 lumens/watt
Spacing Criteria (0/90/45): 3.65 / 0.6 / 1.37
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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			0
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50	30	10	0
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	64		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	39	52	44	38		50	43	38		48	42	37	35
7	62	48	39	32	60	47	39	32	46	38	32		44	37	32		43	36	32	29
8	57	43	34	27	55	42	33	27	40	33	27		39	32	27		38	32	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	20		31	24	19		30	24	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	1645	1645	1645	1645	1645
5°	1871	1783	1585	1409	1387
10°	1870	1692	1336	1180	1180
15°	2066	1453	1044	999	1044
20°	7304	1447	817	840	933
25°	21050	1839	653	774	895
30°	67150	2836	532	760	912
35°	147070	3346	455	723	937
40°	193992	3006	372	744	1002
45°	216333	2109	372	806	1085
50°	182101	1092	341	819	1194
55°	136139	459	344	918	1338
60°	42146	132	351	1009	1447
65°	3580	0	415	1090	1608
70°	256	64	385	1218	1795
75°	254	85	508	1271	2033
80°	126	126	758	1515	2399
85°	252	252	1258	1510	2516

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 216333 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.7	0.5
10°-20°	1.7	1.2
20°-30°	8.1	5.5
30°-40°	38.9	26.6
40°-50°	61.0	41.8
50°-60°	31.2	21.4
60°-70°	3.0	2.0
70°-80°	1.0	0.7
80°-90°	0.5	0.3
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°	10.5	7.2
0°-40°	49.4	33.8
0°-60°	141.6	97.0
0°-90°	146.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	146.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	8	8	8	8	8	
5°	8	8	7	6	6	1
15°	9	6	5	4	5	4
25°	87	8	3	3	4	54
35°	549	12	2	3	4	333
45°	698	7	1	3	4	510
55°	356	1	1	2	4	296
65°	7	0	1	2	3	22
75°	0	0	1	2	2	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°	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
2.5°	8.1	8.1	8.1	8.1	8.1	8.1	8.0	8.0	8.1	8.0	8.0
5°	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.4	8.4	8.4	8.1
7.5°	8.6	8.5	8.5	8.5	8.5	8.5	8.5	8.5	8.4	8.4	8.0
10°	8.4	8.4	8.4	8.4	8.2	8.2	8.2	8.1	8.1	8.1	7.6
12.5°	8.4	8.4	8.4	8.4	8.2	8.2	8.1	8.1	8.0	7.8	6.9
15°	9.1	9.1	9.1	9.0	8.9	8.7	8.6	8.5	8.4	8.1	6.4
17.5°	13.4	13.0	12.8	12.3	11.7	11.0	10.5	10.0	9.5	9.1	6.2
20°	31.3	31.2	30.6	29.0	27.4	25.4	23.5	21.3	18.2	16.2	6.2
22.5°	54.3	53.6	52.4	51.3	48.3	44.8	41.2	37.1	33.1	28.9	6.6
25°	87.0	88.8	84.9	81.8	76.7	70.4	63.6	57.9	50.7	44.1	7.6
27.5°	151.2	152.4	144.8	134.8	122.8	109.6	96.7	87.1	75.0	64.0	9.5
30°	265.2	266.3	253.6	232.3	207.6	185.9	156.5	130.7	106.9	88.5	11.2
31°	331.0	322.0	307.2	286.5	255.3	222.5	187.2	156.0	125.9	101.8	11.7
32°	388.1	387.4	370.1	338.8	307.4	267.0	223.2	182.4	145.6	115.1	12.1
33°	455.6	450.4	426.2	396.6	355.1	314.4	257.9	211.3	165.7	130.0	12.3
34°	509.7	495.8	485.8	452.0	408.2	356.3	295.8	241.9	190.9	144.4	12.5
35°	549.4	546.4	526.9	495.4	450.8	397.8	336.6	273.7	212.0	161.1	12.5
36°	591.4	582.3	563.2	534.7	491.3	436.4	367.8	301.1	236.5	176.1	12.3
37°	617.7	612.3	593.4	564.0	521.5	469.1	402.8	330.2	256.1	191.2	12.1
38°	644.8	633.9	615.3	587.1	545.4	496.2	428.1	352.5	274.0	204.4	11.7
39°	663.6	652.3	633.3	605.3	564.4	515.6	448.1	371.6	289.7	214.3	11.2
40°	677.7	666.8	647.5	618.7	578.4	530.9	464.8	388.4	302.8	222.9	10.5
41°	686.5	676.3	657.2	628.5	588.0	539.6	475.7	399.3	311.7	228.7	9.9
42°	693.8	683.4	663.8	634.5	593.9	547.1	482.4	406.2	317.7	231.6	9.4
43°	697.9	687.5	668.5	638.5	597.5	550.5	486.0	409.5	319.8	231.3	8.5
44°	700.2	689.4	670.3	640.3	599.1	551.4	486.3	408.8	318.4	228.2	7.7
45°	697.6	687.0	668.5	638.5	596.4	548.6	483.7	405.3	313.0	222.1	6.8
46°	680.9	672.7	655.7	628.3	587.9	541.4	477.2	398.7	304.6	214.7	5.8
47°	651.5	645.0	628.5	608.1	571.6	528.2	465.1	385.9	292.9	203.5	4.6
48°	620.8	611.2	595.9	574.9	544.1	504.4	445.2	367.3	275.2	188.9	4.1
49°	575.4	569.8	556.3	532.9	507.4	472.4	417.0	343.4	253.5	172.9	3.6
50°	533.8	530.0	511.1	493.9	466.8	434.1	378.9	311.9	226.5	153.1	3.2
51°	501.3	496.7	483.1	461.6	432.7	394.8	342.8	271.1	195.5	129.6	2.6
52°	467.4	464.8	452.8	430.7	402.3	364.5	307.7	236.4	165.5	109.6	2.1
53°	439.6	435.9	421.1	401.5	370.8	331.7	269.7	204.1	140.2	92.1	1.8
54°	399.2	397.6	388.1	367.6	334.3	291.8	235.2	171.9	116.9	78.1	1.5
55°	356.1	351.0	341.4	325.0	294.5	254.8	195.4	142.5	94.6	65.8	1.2
56°	303.7	303.5	286.2	272.6	245.5	203.4	156.1	111.3	76.8	54.9	1.0
57°	253.6	245.5	228.9	215.5	186.3	154.3	115.9	83.4	60.1	44.5	0.8
58°	187.6	183.3	179.0	159.2	132.2	109.3	82.7	58.6	44.5	33.9	0.5
59°	127.3	127.2	122.1	107.0	91.5	68.1	51.6	39.8	30.6	24.9	0.4
60°	96.1	93.8	83.5	73.6	57.6	43.0	30.6	23.5	19.0	16.1	0.3
62.5°	33.7	34.9	30.7	25.4	19.4	15.9	12.2	9.9	8.1	6.6	0.0
65°	6.9	7.6	6.6	6.2	4.9	4.2	3.7	3.2	2.7	2.3	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	0.8	0.8	0.8	0.6	0.6	0.6	0.6	0.5	0.5	0.1
70°	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.1
72.5°	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.1
75°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.1
77.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.1	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	0.3
85°	0.1	0.1	0.1	0.0	0.0	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°	7.5	7.5	7.5	7.5	7.5	7.5
2.5°	7.8	7.6	7.2	7.1	6.9	6.9
5°	7.7	7.2	6.8	6.4	6.3	6.3
7.5°	7.3	6.7	6.2	5.9	5.8	5.7
10°	6.9	6.0	5.5	5.3	5.3	5.3
12.5°	6.2	5.4	4.9	4.8	4.9	4.9
15°	5.5	4.6	4.4	4.4	4.5	4.6
17.5°	4.8	4.1	3.9	4.0	4.1	4.2
20°	4.2	3.5	3.5	3.6	4.0	4.0
22.5°	3.7	3.1	3.1	3.5	3.7	3.9
25°	3.3	2.7	2.8	3.2	3.6	3.7
27.5°	2.8	2.3	2.6	3.1	3.5	3.6
30°	2.4	2.1	2.4	3.0	3.3	3.6
31°	2.3	1.9	2.4	2.8	3.3	3.6
32°	2.1	1.9	2.3	2.8	3.3	3.5
33°	1.9	1.8	2.3	2.8	3.3	3.5
34°	1.8	1.7	2.2	2.8	3.3	3.5
35°	1.5	1.7	2.2	2.7	3.2	3.5
36°	1.4	1.5	2.2	2.7	3.2	3.5
37°	1.3	1.5	2.1	2.7	3.2	3.5
38°	1.2	1.4	2.1	2.7	3.2	3.5
39°	1.0	1.4	1.9	2.7	3.2	3.5
40°	0.9	1.3	1.9	2.6	3.2	3.5
41°	0.9	1.3	1.9	2.6	3.2	3.5
42°	0.8	1.3	1.9	2.6	3.2	3.5
43°	0.6	1.2	1.9	2.6	3.2	3.5
44°	0.5	1.2	1.8	2.6	3.2	3.5
45°	0.5	1.2	1.8	2.6	3.2	3.5
46°	0.4	1.0	1.8	2.6	3.2	3.5
47°	0.3	1.0	1.8	2.4	3.2	3.5
48°	0.3	1.0	1.8	2.4	3.2	3.5
49°	0.3	1.0	1.7	2.4	3.2	3.5
50°	0.3	1.0	1.7	2.4	3.2	3.5
51°	0.1	0.9	1.7	2.4	3.2	3.5
52°	0.1	0.9	1.7	2.4	3.2	3.6
53°	0.1	0.9	1.7	2.4	3.2	3.5
54°	0.1	0.9	1.5	2.4	3.2	3.5
55°	0.1	0.9	1.5	2.4	3.2	3.5
56°	0.1	0.8	1.5	2.3	3.2	3.5
57°	0.3	0.8	1.5	2.3	3.2	3.3
58°	0.3	0.8	1.5	2.3	3.1	3.3
59°	0.3	0.8	1.5	2.3	3.1	3.3
60°	0.3	0.8	1.4	2.3	3.1	3.3
62.5°	0.3	0.8	1.4	2.2	3.0	3.2
65°	0.3	0.8	1.3	2.1	3.0	3.1



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.3	0.6	1.3	1.9	2.8	3.0
70°	0.4	0.6	1.2	1.9	2.7	2.8
72.5°	0.4	0.6	1.2	1.7	2.4	2.7
75°	0.4	0.6	1.0	1.5	2.3	2.4
77.5°	0.4	0.6	0.9	1.4	2.1	2.2
80°	0.5	0.6	0.8	1.2	1.8	1.9
82.5°	0.5	0.6	0.6	0.9	1.4	1.5
85°	0.4	0.5	0.5	0.6	0.9	1.0
87.5°	0.4	0.5	0.4	0.3	0.5	0.5
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)