

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: P1335332

Luminaire Tested: P3A02R359030DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335332
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-77)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A02R359030DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R35 optic, 3000K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

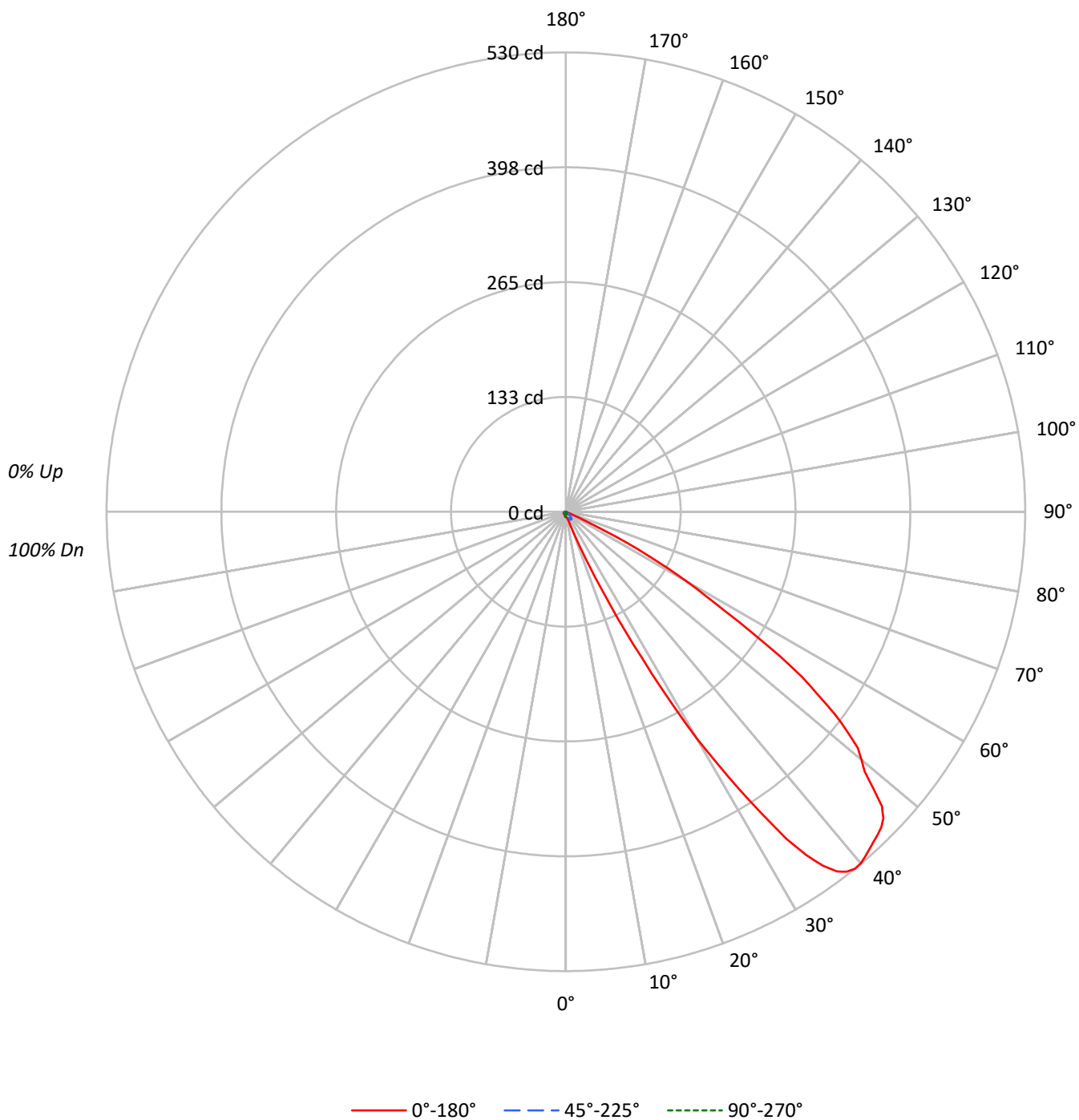
Lumens per Lamp: N/A
Luminaire Lumens: 132.0 lumens
Efficiency: N/A
Efficacy: 36.7 lumens/watt
Spacing Criteria (0/90/45): 4.01 / 0.66 / 1.41
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	110	106	102	99	107	104	100	97	100	97	94	96	93	91	92	90	89
2	100	93	86	81	98	91	85	80	87	83	78	84	80	77	81	78	75
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	52
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	49	44
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37
7	62	48	38	32	60	47	38	32	45	37	32	44	37	31	42	36	31
8	57	42	33	27	55	41	33	27	40	32	27	39	32	26	38	31	26
9	52	38	29	23	50	37	29	23	36	28	23	35	28	22	34	27	22
10	48	34	25	19	46	33	25	19	32	25	19	31	24	19	30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	1338	1338	1338	1338	1338
5°	1453	1409	1321	1189	1145
10°	1514	1381	1158	1002	1002
15°	2157	1362	953	863	885
20°	5414	1447	747	747	840
25°	25163	1839	581	702	774
30°	76518	2507	456	633	785
35°	129322	2891	375	616	776
40°	151570	2863	315	601	830
45°	159644	2047	248	651	899
50°	151944	1228	239	682	989
55°	127307	497	268	765	1147
60°	71266	88	307	877	1272
65°	12297	52	311	986	1401
70°	256	64	385	1090	1603
75°	169	85	508	1186	1779
80°	126	126	631	1389	2147
85°	0	252	1258	1510	2516

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 46°

Luminance: 160769 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.5	0.4
10°-20°	1.6	1.2
20°-30°	8.1	6.1
30°-40°	35.0	26.5
40°-50°	49.9	37.8
50°-60°	30.9	23.4
60°-70°	4.7	3.6
70°-80°	0.9	0.7
80°-90°	0.4	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°	10.2	7.7
0°-40°	45.2	34.2
0°-60°	126.0	95.4
0°-90°	132.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	132.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	6	6	6	6	6	
5°	7	6	6	5	5	1
15°	10	6	4	4	4	3
25°	104	8	2	3	3	62
35°	483	11	1	2	3	290
45°	515	7	1	2	3	389
55°	333	1	1	2	3	284
65°	24	0	1	2	3	48
75°	0	0	1	1	2	0
85°	0	0	0	1	1	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
0°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
2.5°	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.1	6.0
5°	6.6	6.6	6.4	6.4	6.4	6.4	6.4	6.4	6.2	6.0	5.6
7.5°	6.7	6.7	6.6	6.6	6.6	6.6	6.4	6.3	6.1	5.6	5.2
10°	6.8	6.8	6.8	6.8	6.7	6.6	6.4	6.2	5.8	5.2	4.9
12.5°	7.6	7.6	7.5	7.3	7.0	6.8	6.6	6.1	5.4	4.8	4.4
15°	9.5	9.4	9.2	8.8	8.3	7.7	7.3	6.0	4.9	4.2	3.9
17.5°	13.3	13.1	12.7	11.6	10.5	9.4	8.5	6.0	4.4	3.7	3.5
20°	23.2	23.4	20.9	18.0	15.6	13.0	10.6	6.2	3.9	3.2	3.1
22.5°	48.5	46.6	40.6	33.7	25.7	19.9	15.0	6.8	3.5	2.7	2.7
25°	104.0	96.8	82.3	62.2	43.9	31.1	21.8	7.6	3.1	2.4	2.5
27.5°	189.9	183.4	154.4	116.3	77.2	46.9	29.6	8.7	2.7	2.0	2.3
30°	302.2	284.1	246.3	190.7	129.0	71.9	39.7	9.9	2.3	1.8	2.1
31°	337.2	328.9	282.9	220.6	151.2	85.3	44.0	10.2	2.1	1.8	2.0
32°	378.8	364.0	322.8	253.3	173.7	97.4	49.1	10.6	2.0	1.5	2.0
33°	416.0	401.7	351.5	282.2	196.5	111.1	54.6	10.7	1.8	1.5	1.9
34°	455.1	435.5	385.8	312.3	219.8	125.8	59.6	10.8	1.7	1.4	1.9
35°	483.1	463.5	415.4	336.1	240.0	138.9	65.3	10.8	1.5	1.4	1.8
36°	504.8	487.6	440.9	360.7	260.0	150.7	69.8	10.8	1.3	1.3	1.8
37°	519.6	503.3	458.0	381.8	275.3	161.2	73.9	10.8	1.2	1.3	1.8
38°	526.9	513.3	474.6	397.2	290.0	169.4	77.1	10.6	1.1	1.2	1.7
39°	530.0	518.9	484.7	410.1	301.1	176.6	79.5	10.4	1.0	1.2	1.7
40°	529.5	519.9	490.5	419.1	310.0	181.5	80.8	10.0	0.8	1.1	1.7
41°	526.8	518.5	493.4	426.7	315.4	184.8	81.1	9.7	0.7	1.1	1.5
42°	523.7	516.1	494.4	430.8	318.9	185.9	80.2	9.2	0.7	1.0	1.5
43°	520.5	513.5	494.4	432.1	319.7	185.2	78.6	8.3	0.6	1.0	1.5
44°	517.9	511.2	492.8	431.7	317.9	182.4	75.8	7.4	0.5	1.0	1.5
45°	514.8	508.2	490.8	429.4	314.5	177.8	72.2	6.6	0.4	0.8	1.5
46°	509.3	504.2	487.2	424.8	309.0	171.3	67.7	6.0	0.2	0.8	1.4
47°	498.7	494.3	480.3	417.9	301.7	163.7	63.0	5.4	0.2	0.8	1.4
48°	477.3	477.2	466.5	405.0	290.2	154.2	58.1	4.8	0.2	0.8	1.4
49°	456.7	454.6	441.2	382.4	273.6	142.8	53.0	4.3	0.1	0.8	1.4
50°	445.4	440.8	418.8	355.7	252.4	126.9	47.5	3.6	0.1	0.7	1.4
51°	433.6	426.9	401.1	331.6	227.1	111.7	41.6	2.9	0.1	0.7	1.3
52°	412.3	406.0	377.0	308.6	202.6	96.0	35.9	2.4	0.1	0.7	1.4
53°	389.3	380.2	348.8	283.4	181.0	82.2	30.0	2.0	0.1	0.7	1.3
54°	360.3	356.3	320.2	252.4	155.7	68.9	24.7	1.7	0.1	0.7	1.3
55°	333.0	327.1	289.6	220.7	132.9	56.5	20.6	1.3	0.1	0.7	1.3
56°	298.3	289.3	254.2	191.6	109.6	45.5	17.4	1.1	0.1	0.7	1.3
57°	256.8	247.3	219.5	159.3	86.0	34.7	14.5	0.8	0.1	0.7	1.3
58°	217.2	209.0	179.2	123.0	64.8	24.1	12.0	0.6	0.1	0.6	1.3
59°	187.7	178.6	149.1	94.6	45.0	17.8	9.1	0.5	0.1	0.7	1.3
60°	162.5	150.9	120.0	73.3	32.2	12.7	6.7	0.2	0.2	0.7	1.3
62.5°	93.7	82.7	57.3	29.8	13.2	6.6	3.2	0.1	0.2	0.7	1.3
65°	23.7	21.1	13.7	6.4	3.7	2.3	1.2	0.1	0.2	0.6	1.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
67.5°	0.8	0.8	0.8	0.7	0.6	0.5	0.2	0.1	0.2	0.6	1.2
70°	0.4	0.4	0.4	0.2	0.2	0.1	0.1	0.1	0.2	0.6	1.1
72.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.4	0.6	1.0
75°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.4	0.6	1.0
77.5°	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.5	0.8
80°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.5	0.7
82.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.5	0.6
85°	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.4	0.5	0.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.5	0.4
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):

	135°	157.5°	180°
0°	6.1	6.1	6.1
2.5°	5.7	5.7	5.7
5°	5.4	5.4	5.2
7.5°	5.0	4.9	4.9
10°	4.5	4.5	4.5
12.5°	4.2	4.2	4.2
15°	3.8	3.9	3.9
17.5°	3.5	3.7	3.7
20°	3.2	3.5	3.6
22.5°	3.0	3.2	3.3
25°	2.9	3.1	3.2
27.5°	2.6	3.0	3.2
30°	2.5	2.9	3.1
31°	2.5	2.9	3.0
32°	2.4	2.9	3.0
33°	2.4	2.9	3.0
34°	2.4	2.7	3.0
35°	2.3	2.7	2.9
36°	2.3	2.7	2.9
37°	2.3	2.7	3.0
38°	2.3	2.7	2.9
39°	2.1	2.7	2.9
40°	2.1	2.7	2.9
41°	2.1	2.7	2.9
42°	2.1	2.7	2.9
43°	2.1	2.7	2.9
44°	2.1	2.6	2.9
45°	2.1	2.6	2.9
46°	2.1	2.7	2.9
47°	2.1	2.7	3.0
48°	2.1	2.6	2.9
49°	2.0	2.6	2.9
50°	2.0	2.6	2.9
51°	2.0	2.7	3.0
52°	2.0	2.7	3.0
53°	2.0	2.7	3.0
54°	2.0	2.7	2.9
55°	2.0	2.7	3.0
56°	2.0	2.7	2.9
57°	2.0	2.7	2.9
58°	2.0	2.6	2.9
59°	2.0	2.6	2.9
60°	2.0	2.6	2.9
62.5°	1.9	2.6	2.9
65°	1.9	2.5	2.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	1.8	2.5	2.6
70°	1.7	2.4	2.5
72.5°	1.5	2.3	2.4
75°	1.4	2.0	2.1
77.5°	1.2	1.8	2.0
80°	1.1	1.5	1.7
82.5°	0.8	1.3	1.4
85°	0.6	1.0	1.0
87.5°	0.2	0.5	0.5
90°	0.0	0.0	0.0

(END OF REPORT)