

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: P1335668

Luminaire Tested: P3A02R409030DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335668
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-78)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A02R409030DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R40 optic, 3000K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

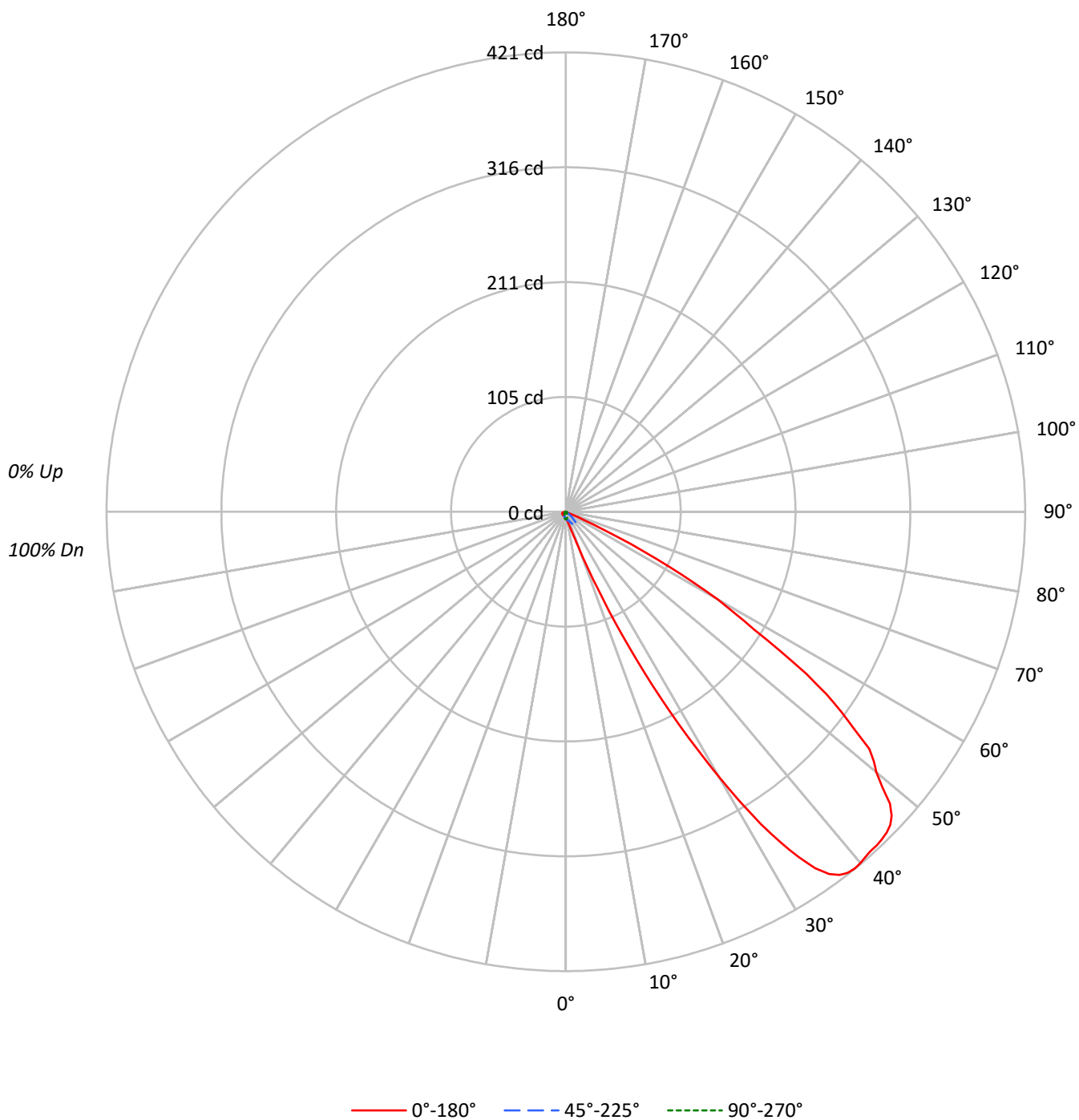
Lumens per Lamp: N/A
Luminaire Lumens: 130.0 lumens
Efficiency: N/A
Efficacy: 36.1 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.74 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	99	97	94		96	93	91		92
2	100	93	86	81	98	91	85	80	87	82	78		84	80	76		81
3	91	81	73	66	89	79	72	66	76	70	65		73	68	64		71
4	82	70	62	55	80	69	61	54	67	59	54		64	58	53		62
5	75	62	52	46	73	60	52	45	58	51	45		56	50	44		54
6	68	54	45	38	66	53	44	38	51	43	38		50	43	37		48
7	62	48	39	32	60	47	38	32	45	37	32		44	37	31		42
8	57	42	33	27	55	42	33	27	40	32	27		39	32	27		38
9	52	38	29	23	51	37	29	23	36	28	23		35	28	23		34
10	48	34	25	20	47	33	25	20	32	25	20		31	24	20		30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	1469	1469	1469	1469	1469
5°	1629	1585	1453	1321	1277
10°	1959	1670	1336	1202	1180
15°	3224	1816	1135	1067	1090
20°	8517	2147	957	957	1027
25°	32881	2661	750	871	1016
30°	70922	3545	608	836	987
35°	106756	4176	509	830	1017
40°	120254	4208	458	859	1088
45°	128944	3256	403	899	1178
50°	126734	2047	375	921	1296
55°	111518	994	382	1032	1453
60°	70565	219	439	1140	1623
65°	14424	52	415	1245	1816
70°	321	64	449	1346	2052
75°	339	169	508	1525	2288
80°	253	126	631	1642	2652
85°	252	252	1258	1761	3019

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 131279 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.6	0.5
10°-20°	2.1	1.6
20°-30°	10.1	7.8
30°-40°	32.8	25.3
40°-50°	45.3	34.8
50°-60°	31.5	24.3
60°-70°	6.0	4.6
70°-80°	1.1	0.8
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°	12.8	9.8
0°-40°	45.6	35.1
0°-60°	122.4	94.2
0°-90°	130.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	130.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	7	7	7	7	7	
5°	7	7	7	6	6	1
15°	14	8	5	5	5	5
25°	136	11	3	4	4	70
35°	399	16	2	3	4	241
45°	416	10	1	3	4	316
55°	292	3	1	3	4	249
65°	28	0	1	2	4	49
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°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
0°	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
2.5°	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.8	6.7
5°	7.4	7.4	7.4	7.4	7.3	7.3	7.3	7.2	7.2	6.9	6.6
7.5°	7.9	7.9	7.9	7.9	7.8	7.6	7.5	7.5	7.4	6.8	6.3
10°	8.8	8.8	8.7	8.6	8.5	8.2	8.1	7.9	7.5	6.7	6.0
12.5°	10.7	10.5	10.4	10.1	9.8	9.3	8.8	8.5	7.6	6.4	5.6
15°	14.2	14.0	13.5	12.8	12.1	11.1	10.3	9.4	8.0	6.1	5.0
17.5°	20.3	19.6	18.9	17.7	15.9	14.2	12.4	10.9	8.5	5.7	4.5
20°	36.5	36.1	31.8	28.4	23.0	19.2	15.6	13.0	9.2	5.4	4.1
22.5°	75.3	70.3	63.3	51.8	40.4	29.7	21.6	16.4	9.9	4.9	3.6
25°	135.9	128.0	112.8	90.7	67.0	47.4	31.3	21.4	11.0	4.4	3.1
27.5°	205.7	197.7	174.2	143.7	104.9	71.5	44.7	28.3	12.4	3.9	2.7
30°	280.1	273.3	243.4	201.3	147.9	100.2	59.8	35.3	14.0	3.5	2.4
31°	310.0	301.3	269.1	224.2	168.1	112.0	65.9	38.3	14.6	3.3	2.3
32°	337.6	327.7	294.3	246.2	184.5	124.8	72.6	40.9	15.0	3.1	2.1
33°	361.4	349.8	317.6	266.9	202.5	136.7	79.5	43.5	15.4	2.9	2.0
34°	381.6	371.5	336.9	287.8	218.5	148.2	86.3	46.0	15.6	2.7	1.9
35°	398.8	389.7	355.4	303.7	234.1	159.3	92.5	48.4	15.6	2.5	1.9
36°	410.3	402.5	371.4	320.0	247.3	168.7	97.8	50.5	15.6	2.3	1.8
37°	416.7	409.0	381.9	333.3	260.1	178.0	102.6	52.2	15.5	2.1	1.7
38°	419.9	413.2	389.7	344.2	269.1	184.7	106.7	53.5	15.4	1.9	1.7
39°	420.7	415.1	394.6	352.1	277.8	191.4	109.7	54.2	15.0	1.8	1.6
40°	420.1	415.2	397.2	359.1	284.5	196.6	111.9	54.4	14.7	1.6	1.6
41°	418.9	415.1	399.1	364.0	289.9	200.0	112.7	54.0	14.2	1.3	1.4
42°	417.9	413.7	399.9	367.4	293.6	201.6	112.6	53.0	13.5	1.2	1.4
43°	417.9	413.1	400.1	369.5	295.4	201.8	111.1	51.2	12.5	1.1	1.3
44°	417.1	412.7	400.7	370.9	295.8	200.7	108.9	49.3	11.5	1.0	1.3
45°	415.8	411.2	400.5	371.1	295.0	198.1	105.2	46.8	10.5	0.7	1.3
46°	413.3	409.1	399.5	370.2	292.5	194.2	100.8	44.3	9.4	0.6	1.2
47°	408.3	405.1	396.6	367.4	288.7	188.6	95.5	41.4	8.6	0.5	1.2
48°	399.7	397.4	391.7	361.0	281.4	181.7	89.9	38.3	7.8	0.5	1.2
49°	383.9	382.2	378.8	350.9	272.1	173.2	83.8	34.9	6.9	0.4	1.2
50°	371.5	369.6	362.8	333.8	258.7	162.5	77.1	31.4	6.0	0.2	1.1
51°	363.3	360.2	349.4	314.0	239.3	148.2	69.8	27.9	5.0	0.2	1.1
52°	352.9	348.3	334.9	296.2	221.5	133.8	62.0	24.5	4.4	0.2	1.1
53°	331.2	329.5	316.3	277.1	203.7	120.1	53.8	21.6	3.8	0.2	1.1
54°	312.2	309.7	291.7	250.6	184.3	104.8	45.5	19.1	3.2	0.2	1.1
55°	291.7	286.8	270.8	228.3	161.6	90.7	37.5	16.5	2.6	0.2	1.0
56°	265.8	261.5	244.3	204.4	140.8	76.4	31.4	13.5	2.0	0.2	1.0
57°	234.2	230.3	217.0	175.0	119.0	62.4	25.5	10.9	1.6	0.2	1.0
58°	203.8	199.4	184.2	146.8	96.1	49.5	21.4	8.8	1.2	0.2	1.0
59°	180.4	174.4	154.8	123.3	75.2	37.6	17.0	7.0	0.8	0.2	1.0
60°	160.9	156.0	135.7	102.7	59.0	27.7	12.5	5.4	0.5	0.2	1.0
62.5°	93.2	91.9	73.7	52.9	27.8	12.9	6.2	2.5	0.2	0.4	1.0
65°	27.8	24.2	18.9	11.2	7.2	4.3	2.3	0.8	0.1	0.4	0.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.2	0.1	0.4	0.8
70°	0.5	0.4	0.4	0.4	0.4	0.2	0.2	0.1	0.1	0.4	0.7
72.5°	0.4	0.4	0.4	0.4	0.2	0.2	0.2	0.1	0.2	0.4	0.6
75°	0.4	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.4	0.6
77.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.4	0.6
80°	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.5
82.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.5
85°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.4	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):

	112.5°	135°	157.5°	180°
0°	6.7	6.7	6.7	6.7
2.5°	6.4	6.3	6.2	6.2
5°	6.2	6.0	6.0	5.8
7.5°	5.8	5.6	5.6	5.6
10°	5.5	5.4	5.4	5.3
12.5°	5.0	5.0	5.0	5.0
15°	4.7	4.7	4.8	4.8
17.5°	4.2	4.3	4.5	4.7
20°	3.8	4.1	4.3	4.4
22.5°	3.6	3.8	4.2	4.3
25°	3.2	3.6	4.1	4.2
27.5°	3.0	3.5	3.8	4.1
30°	2.7	3.3	3.7	3.9
31°	2.7	3.2	3.7	3.9
32°	2.6	3.1	3.7	3.8
33°	2.6	3.1	3.7	3.8
34°	2.5	3.1	3.6	3.8
35°	2.5	3.1	3.6	3.8
36°	2.4	3.0	3.6	3.8
37°	2.4	3.0	3.6	3.8
38°	2.3	3.0	3.6	3.8
39°	2.3	3.0	3.6	3.8
40°	2.3	3.0	3.6	3.8
41°	2.1	3.0	3.6	3.8
42°	2.1	3.0	3.6	3.8
43°	2.1	2.9	3.6	3.8
44°	2.1	2.9	3.6	3.8
45°	2.0	2.9	3.6	3.8
46°	2.0	2.9	3.6	3.8
47°	2.0	2.9	3.6	3.8
48°	2.0	2.9	3.6	3.8
49°	2.0	2.9	3.6	3.8
50°	1.9	2.7	3.6	3.8
51°	1.9	2.7	3.6	3.8
52°	1.9	2.7	3.6	3.8
53°	1.9	2.7	3.6	3.8
54°	1.8	2.7	3.6	3.8
55°	1.8	2.7	3.6	3.8
56°	1.8	2.7	3.6	3.7
57°	1.8	2.7	3.5	3.7
58°	1.8	2.6	3.5	3.7
59°	1.8	2.6	3.5	3.7
60°	1.8	2.6	3.5	3.7
62.5°	1.7	2.6	3.3	3.6
65°	1.6	2.4	3.3	3.5



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	1.6	2.3	3.1	3.3
70°	1.4	2.1	3.0	3.2
72.5°	1.2	2.0	2.7	3.0
75°	1.1	1.8	2.5	2.7
77.5°	1.0	1.6	2.3	2.4
80°	0.8	1.3	1.9	2.1
82.5°	0.6	1.0	1.6	1.7
85°	0.5	0.7	1.1	1.2
87.5°	0.4	0.4	0.6	0.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)