

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: P1336020

Luminaire Tested: P3A02R459035DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336020
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-84)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A02R459035DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R45 optic, 3500K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

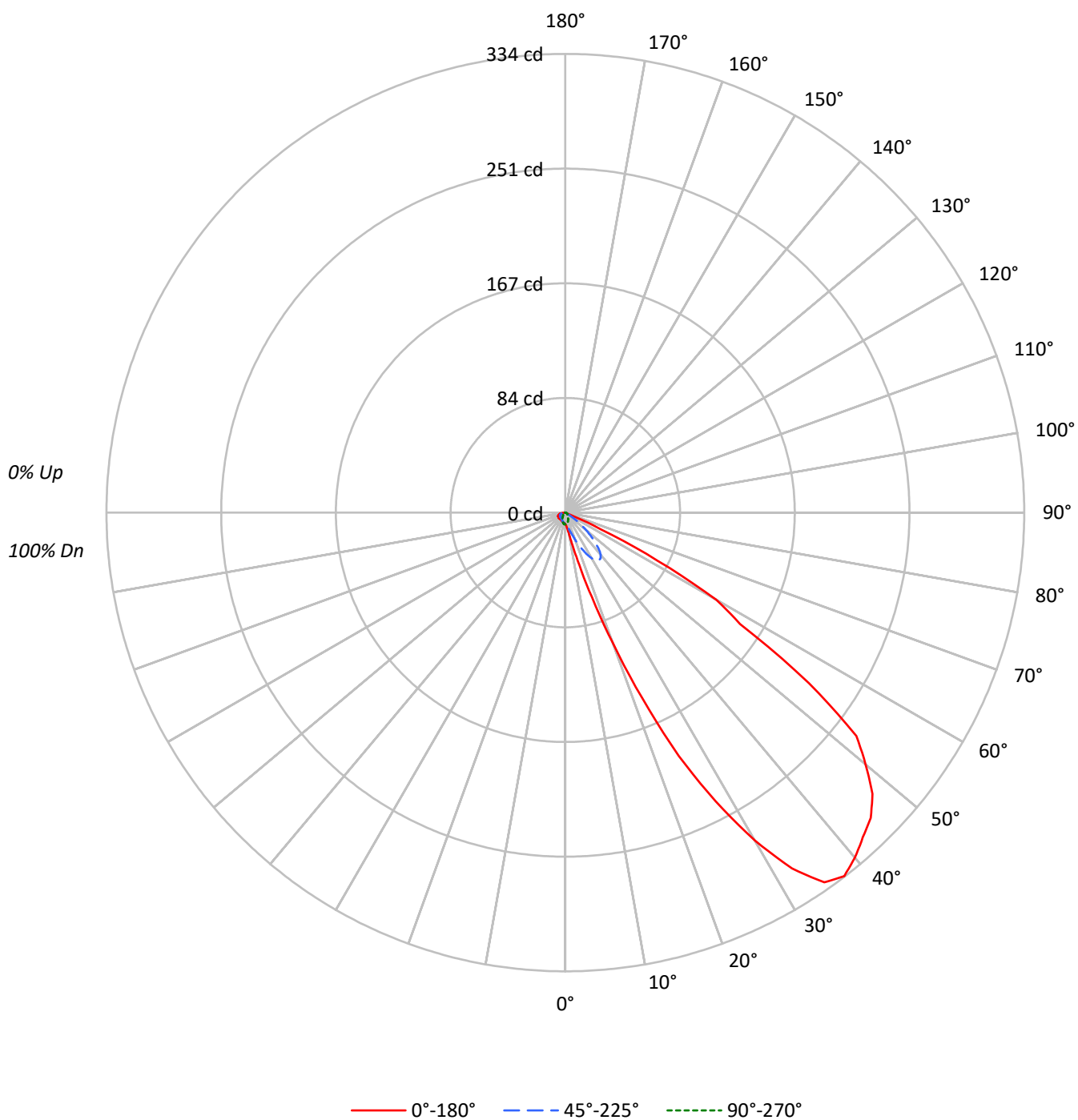
Lumens per Lamp: N/A
Luminaire Lumens: 149.0 lumens
Efficiency: N/A
Efficacy: 41.4 lumens/watt
Spacing Criteria (0/90/45): 3.81 / 0.82 / 1.83
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	107	104	100	97	99	97	94		96	93	91		92	90	88	86
2	100	93	86	81	98	91	85	80	87	83	78		84	80	77		81	78	75	73
3	91	81	73	67	89	80	72	66	77	70	65		74	69	64		71	67	63	61
4	83	71	62	56	81	70	62	55	67	60	55		65	59	54		63	58	53	51
5	76	63	53	47	73	61	53	46	59	52	46		57	51	45		55	50	45	43
6	69	55	46	39	67	54	46	39	52	45	39		51	44	39		49	43	38	36
7	63	49	40	34	61	48	40	33	47	39	33		45	38	33		44	37	33	31
8	58	44	35	29	56	43	35	29	42	34	29		40	33	28		39	33	28	26
9	53	39	31	25	52	39	30	25	38	30	25		36	29	25		35	29	24	22
10	49	36	27	22	48	35	27	22	34	27	21		33	26	21		32	26	21	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	1886	1886	1886	1886	1886
5°	2245	2091	1871	1739	1739
10°	3585	2449	1759	1648	1648
15°	8944	3269	1589	1544	1589
20°	23569	4877	1377	1470	1540
25°	47301	7234	1186	1379	1524
30°	69732	9698	962	1342	1570
35°	87964	11377	830	1312	1606
40°	93862	11479	744	1374	1718
45°	97498	9582	682	1489	1861
50°	97361	6686	682	1603	2115
55°	82731	2982	688	1797	2294
60°	55610	614	702	2017	2631
65°	14736	259	726	2179	3009
70°	385	321	705	2372	3398
75°	339	339	763	2542	3897
80°	253	505	758	2652	4293
85°	252	503	1258	2768	4277

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 10°

Vertical Angle: 47.5°

Luminance: 100034 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.9	0.6
10°-20°	4.2	2.8
20°-30°	17.3	11.6
30°-40°	36.5	24.5
40°-50°	45.1	30.3
50°-60°	33.8	22.7
60°-70°	8.7	5.8
70°-80°	1.8	1.2
80°-90°	0.7	0.5
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°	22.4	15.0
0°-40°	58.9	39.5
0°-60°	137.8	92.5
0°-90°	149.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	149.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	9	9	9	9	9	
5°	10	10	8	8	8	1
15°	39	14	7	7	7	14
25°	196	30	5	6	6	91
35°	329	42	3	5	6	200
45°	314	31	2	5	6	241
55°	216	8	2	5	6	187
65°	28	0	1	4	6	41
75°	0	0	1	3	5	0
85°	0	0	0	1	2	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°	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
2.5°	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.0	8.9	8.6	8.4
5°	10.2	10.1	10.1	10.1	10.0	9.8	9.8	9.5	9.0	8.5	8.1
7.5°	12.1	12.1	11.9	11.7	11.6	11.3	11.1	10.1	9.0	8.2	7.8
10°	16.1	15.9	15.5	15.3	14.7	13.8	13.2	11.0	8.9	7.9	7.5
12.5°	24.1	24.6	23.4	22.2	20.4	18.8	16.9	12.4	8.9	7.5	7.1
15°	39.4	40.3	37.9	35.5	31.3	27.3	23.6	14.4	8.6	7.0	6.6
17.5°	64.4	65.5	61.6	55.8	49.2	41.4	34.6	17.1	8.4	6.5	6.3
20°	101.0	100.8	93.2	85.9	73.4	61.8	49.1	20.9	8.0	5.9	5.9
22.5°	145.9	146.4	137.0	124.0	106.1	87.5	67.3	25.4	7.5	5.4	5.5
25°	195.5	191.3	180.2	164.4	141.6	115.9	89.3	29.9	7.0	4.9	5.2
27.5°	236.9	232.8	220.1	201.3	176.8	146.3	111.5	34.5	6.4	4.4	4.8
30°	275.4	270.2	255.0	233.7	204.5	171.5	132.5	38.3	5.7	3.8	4.4
32.5°	307.2	302.5	285.1	260.4	228.6	193.2	150.2	41.2	4.9	3.4	4.2
35°	328.6	323.8	307.8	280.6	246.0	208.9	164.6	42.5	4.3	3.1	4.1
37.5°	333.5	330.9	319.5	294.0	257.9	219.0	173.8	42.1	3.6	2.8	3.8
40°	327.9	328.5	323.1	301.9	264.3	223.3	177.7	40.1	3.0	2.6	3.7
42.5°	320.6	322.2	321.8	305.1	267.0	223.6	176.1	36.2	2.3	2.3	3.6
45°	314.4	316.0	318.3	303.7	265.2	220.4	171.0	30.9	1.7	2.2	3.6
47.5°	303.2	305.0	308.2	292.9	255.8	212.1	161.9	25.1	1.2	2.1	3.4
50°	285.4	286.2	285.4	268.3	237.9	198.8	147.1	19.6	0.9	2.0	3.4
52.5°	267.0	265.3	258.2	236.5	209.3	177.8	128.5	13.9	0.6	1.8	3.3
55°	216.4	213.7	208.4	195.1	179.6	151.9	103.9	7.8	0.6	1.8	3.2
57.5°	150.8	152.3	154.1	151.4	144.3	119.7	78.9	3.4	0.6	1.7	3.2
60°	126.8	125.6	125.7	124.0	112.2	87.3	54.3	1.4	0.6	1.6	3.1
62.5°	75.7	76.6	78.2	78.5	66.9	48.8	28.4	0.6	0.6	1.5	3.0
65°	28.4	29.8	26.1	22.7	18.0	13.2	6.6	0.5	0.7	1.4	2.7
67.5°	0.9	1.0	1.2	1.1	1.1	1.0	0.7	0.5	0.7	1.2	2.6
70°	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.6	1.1	2.3
72.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	1.0	2.1
75°	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.6	0.9	1.7
77.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.7	1.5
80°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.5	0.6	1.2
82.5°	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.5	0.5	1.0
85°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.5	0.6
87.5°	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.4	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):

	135°	157.5°	180°
0°	8.6	8.6	8.6
2.5°	8.1	8.1	8.1
5°	7.9	7.9	7.9
7.5°	7.6	7.6	7.6
10°	7.4	7.4	7.4
12.5°	7.1	7.1	7.3
15°	6.8	7.0	7.0
17.5°	6.5	6.8	6.9
20°	6.3	6.5	6.6
22.5°	5.9	6.3	6.5
25°	5.7	6.2	6.3
27.5°	5.4	6.0	6.3
30°	5.3	5.9	6.2
32.5°	5.0	5.8	6.0
35°	4.9	5.8	6.0
37.5°	4.9	5.7	6.0
40°	4.8	5.7	6.0
42.5°	4.8	5.7	6.0
45°	4.8	5.7	6.0
47.5°	4.7	5.7	6.2
50°	4.7	5.8	6.2
52.5°	4.7	5.8	6.2
55°	4.7	5.8	6.0
57.5°	4.6	5.7	6.0
60°	4.6	5.7	6.0
62.5°	4.3	5.5	5.9
65°	4.2	5.4	5.8
67.5°	3.9	5.3	5.5
70°	3.7	4.9	5.3
72.5°	3.3	4.7	5.0
75°	3.0	4.3	4.6
77.5°	2.6	3.8	4.1
80°	2.1	3.2	3.4
82.5°	1.6	2.5	2.6
85°	1.1	1.6	1.7
87.5°	0.5	0.7	0.9
90°	0.0	0.0	0.0

(END OF REPORT)