

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: P1336036

Luminaire Tested: P3A02R459040DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336036
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: P3A02R459040DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R45 optic, 4000K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

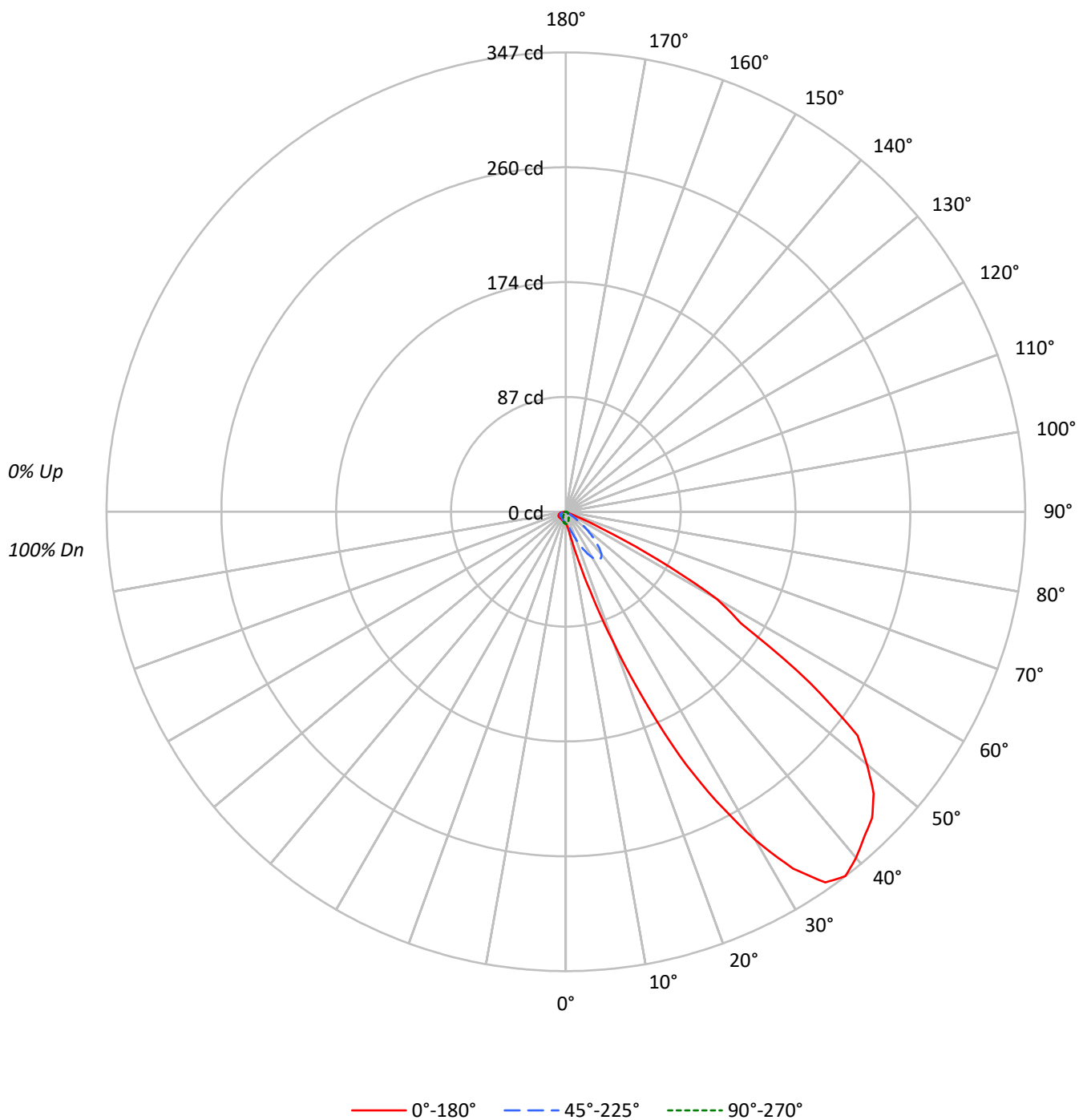
Lumens per Lamp: N/A
Luminaire Lumens: 155.0 lumens
Efficiency: N/A
Efficacy: 43.1 lumens/watt
Spacing Criteria (0/90/45): 3.81 / 0.81 / 1.83
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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
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	83	78		84	80	77		81
3	91	81	73	67	89	80	72	66	77	70	65		74	69	64		71
4	83	71	62	56	81	70	62	55	67	60	55		65	59	54		63
5	76	63	53	47	73	61	53	46	59	52	46		57	51	45		55
6	69	55	46	39	67	54	46	39	52	45	39		51	44	39		49
7	63	49	40	34	61	48	40	33	47	39	33		45	38	33		44
8	58	44	35	29	56	43	35	29	42	34	29		40	33	28		39
9	53	39	31	25	52	39	30	25	38	30	25		36	29	25		35
10	49	35	27	22	48	35	27	22	34	27	21		33	26	21		32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	1974	1974	1974	1974	1974
5°	2333	2179	1937	1805	1805
10°	3741	2538	1826	1715	1715
15°	9308	3405	1657	1589	1657
20°	24502	5087	1423	1517	1610
25°	49213	7525	1234	1428	1573
30°	72543	10077	1013	1393	1621
35°	91497	11832	857	1365	1686
40°	97640	11965	773	1431	1803
45°	101437	9955	713	1551	1954
50°	101285	6959	682	1672	2183
55°	86095	3097	726	1873	2409
60°	57846	614	746	2061	2763
65°	15358	259	726	2283	3113
70°	385	321	769	2436	3526
75°	339	339	763	2626	3982
80°	379	505	758	2778	4546
85°	252	755	1258	3019	4529

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 10°

Vertical Angle: 47.5°

Luminance: 104059 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.9	0.6
10°-20°	4.4	2.8
20°-30°	18.0	11.6
30°-40°	38.0	24.5
40°-50°	46.9	30.2
50°-60°	35.1	22.7
60°-70°	9.0	5.8
70°-80°	1.9	1.2
80°-90°	0.8	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°	23.3	15.0
0°-40°	61.3	39.5
0°-60°	143.3	92.5
0°-90°	155.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	155.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	9	9	9	9	9	
5°	11	10	9	8	8	1
15°	41	15	7	7	7	15
25°	203	31	5	6	6	95
35°	342	44	3	5	6	208
45°	327	32	2	5	6	250
55°	225	8	2	5	6	194
65°	30	0	1	4	6	43
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°	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
2.5°	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.3	9.2	9.0	8.7
5°	10.6	10.5	10.5	10.5	10.4	10.2	10.2	9.9	9.3	8.8	8.5
7.5°	12.6	12.6	12.4	12.2	12.0	11.8	11.5	10.5	9.3	8.6	8.1
10°	16.8	16.5	16.1	15.9	15.2	14.3	13.7	11.4	9.2	8.2	7.8
12.5°	25.1	25.6	24.3	23.1	21.3	19.6	17.5	12.9	9.2	7.8	7.4
15°	41.0	41.9	39.4	36.9	32.5	28.4	24.6	15.0	9.0	7.3	6.9
17.5°	67.0	68.1	64.0	58.0	51.2	43.0	36.0	17.8	8.7	6.8	6.5
20°	105.0	104.9	97.0	89.4	76.3	64.3	51.1	21.8	8.3	6.1	6.1
22.5°	151.8	152.3	142.5	129.0	110.4	91.1	70.1	26.4	7.8	5.6	5.8
25°	203.4	199.0	187.5	171.0	147.3	120.5	92.9	31.1	7.3	5.1	5.4
27.5°	246.4	242.2	229.0	209.4	183.9	152.2	116.0	35.9	6.7	4.6	5.0
30°	286.5	281.1	265.2	243.1	212.7	178.4	137.8	39.8	5.9	4.0	4.6
32.5°	319.5	314.7	296.6	270.9	237.8	200.9	156.2	42.9	5.1	3.6	4.4
35°	341.8	336.8	320.2	291.9	255.9	217.3	171.2	44.2	4.5	3.2	4.2
37.5°	346.9	344.3	332.3	305.8	268.3	227.8	180.8	43.8	3.7	2.9	4.0
40°	341.1	341.7	336.1	314.0	275.0	232.3	184.8	41.8	3.1	2.7	3.8
42.5°	333.5	335.2	334.8	317.4	277.8	232.6	183.1	37.7	2.4	2.4	3.7
45°	327.1	328.8	331.1	316.0	275.9	229.3	177.9	32.1	1.8	2.3	3.7
47.5°	315.4	317.2	320.6	304.7	266.1	220.7	168.4	26.1	1.3	2.2	3.6
50°	296.9	297.8	296.9	279.1	247.4	206.8	153.0	20.4	0.9	2.0	3.6
52.5°	277.8	276.0	268.6	246.0	217.7	184.9	133.7	14.5	0.6	1.9	3.5
55°	225.2	222.3	216.8	203.0	186.9	158.0	108.1	8.1	0.6	1.9	3.3
57.5°	156.9	158.4	160.3	157.5	150.1	124.5	82.1	3.6	0.6	1.8	3.3
60°	131.9	130.6	130.8	129.0	116.7	90.8	56.5	1.4	0.6	1.7	3.2
62.5°	78.8	79.7	81.3	81.7	69.5	50.7	29.6	0.6	0.6	1.5	3.1
65°	29.6	31.0	27.2	23.6	18.7	13.7	6.9	0.5	0.8	1.4	2.8
67.5°	0.9	1.0	1.3	1.2	1.2	1.0	0.8	0.5	0.8	1.3	2.7
70°	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.6	1.2	2.4
72.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	1.0	2.2
75°	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.6	0.9	1.8
77.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.8	1.5
80°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.5	0.6	1.3
82.5°	0.3	0.3	0.3	0.1	0.3	0.3	0.3	0.3	0.5	0.5	1.0
85°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4	0.5	0.6
87.5°	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.3	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°	9.0	9.0	9.0
2.5°	8.5	8.5	8.5
5°	8.2	8.2	8.2
7.5°	7.9	7.9	7.9
10°	7.7	7.7	7.7
12.5°	7.4	7.4	7.6
15°	7.0	7.3	7.3
17.5°	6.8	7.0	7.2
20°	6.5	6.8	6.9
22.5°	6.1	6.5	6.8
25°	5.9	6.4	6.5
27.5°	5.6	6.3	6.5
30°	5.5	6.1	6.4
32.5°	5.3	6.0	6.3
35°	5.1	6.0	6.3
37.5°	5.1	5.9	6.3
40°	5.0	5.9	6.3
42.5°	5.0	5.9	6.3
45°	5.0	5.9	6.3
47.5°	4.9	5.9	6.4
50°	4.9	6.0	6.4
52.5°	4.9	6.0	6.4
55°	4.9	6.0	6.3
57.5°	4.7	5.9	6.3
60°	4.7	5.9	6.3
62.5°	4.5	5.8	6.1
65°	4.4	5.6	6.0
67.5°	4.1	5.5	5.8
70°	3.8	5.1	5.5
72.5°	3.5	4.9	5.3
75°	3.1	4.5	4.7
77.5°	2.7	4.0	4.2
80°	2.2	3.3	3.6
82.5°	1.7	2.6	2.7
85°	1.2	1.7	1.8
87.5°	0.5	0.8	0.9
90°	0.0	0.0	0.0

(END OF REPORT)