

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: P1335956

Luminaire Tested: P3A02R459024DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335956
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: P3A02R459024DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R45 optic, 2400K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

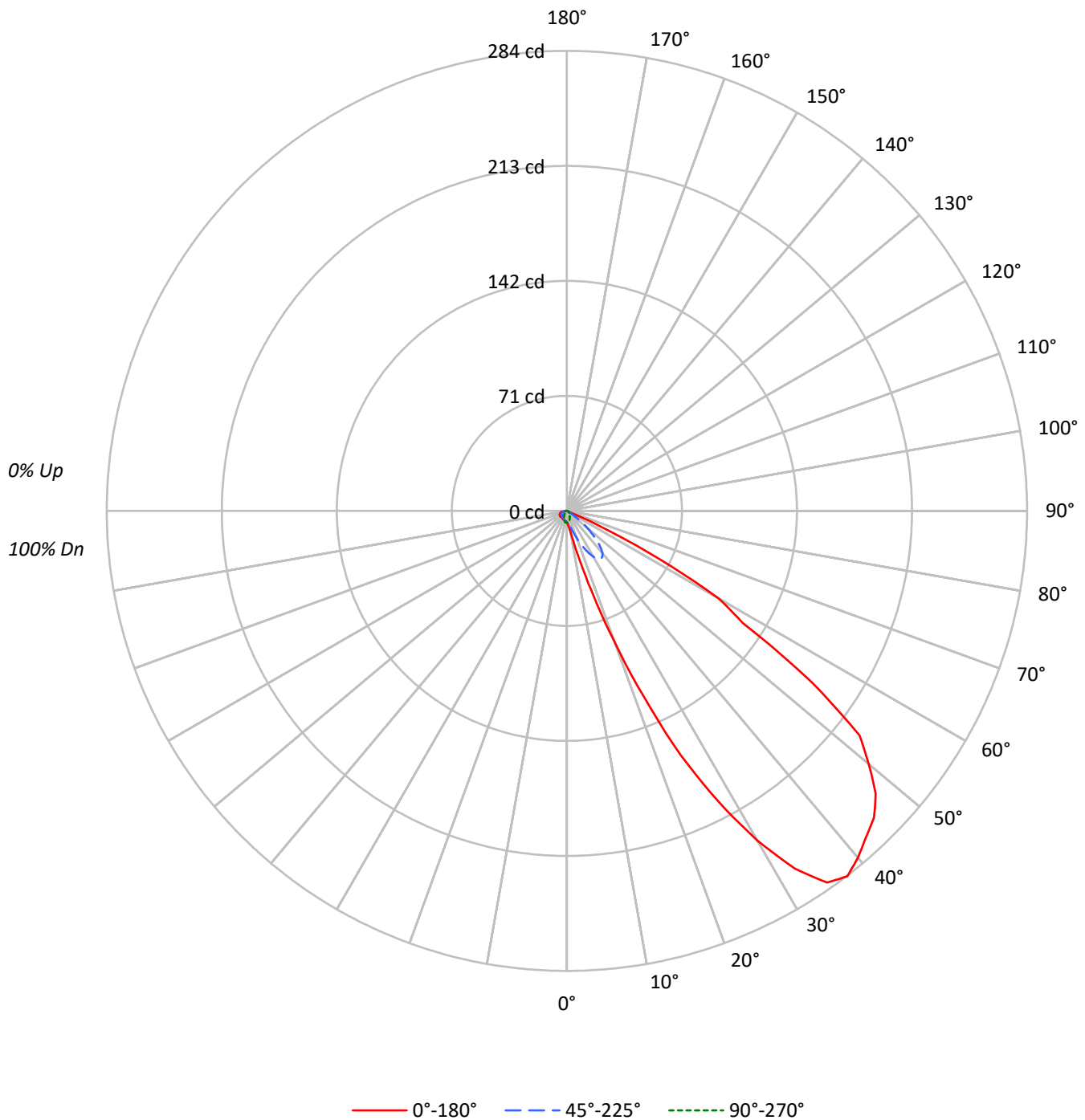
Lumens per Lamp: N/A
Luminaire Lumens: 127.0 lumens
Efficiency: N/A
Efficacy: 35.3 lumens/watt
Spacing Criteria (0/90/45): 3.81 / 0.82 / 1.83
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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
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	40	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	36	27	22	48	35	27	22	34	27	21		33	26	21		32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	1601	1601	1601	1601	1601
5°	1915	1783	1585	1475	1475
10°	3050	2071	1492	1403	1403
15°	7628	2792	1362	1317	1362
20°	20068	4154	1167	1260	1330
25°	40309	6170	1016	1161	1307
30°	59427	8254	836	1139	1317
35°	74981	9690	696	1124	1365
40°	79978	9790	630	1174	1460
45°	83109	8156	589	1271	1582
50°	82965	5697	580	1365	1774
55°	70535	2523	612	1529	1950
60°	47408	526	614	1710	2237
65°	12556	208	623	1868	2542
70°	321	256	577	1988	2885
75°	254	254	593	2118	3304
80°	253	379	631	2273	3662
85°	252	503	1006	2264	3774

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 10°

Vertical Angle: 47.5°

Luminance: 85266 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.7	0.6
10°-20°	3.6	2.8
20°-30°	14.8	11.6
30°-40°	31.1	24.5
40°-50°	38.4	30.3
50°-60°	28.8	22.7
60°-70°	7.4	5.8
70°-80°	1.5	1.2
80°-90°	0.6	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°	19.1	15.0
0°-40°	50.2	39.6
0°-60°	117.4	92.5
0°-90°	127.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	127.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	7	7	7	7	7	
5°	9	8	7	7	7	1
15°	34	12	6	6	6	12
25°	167	26	4	5	5	78
35°	280	36	3	4	5	171
45°	268	26	2	4	5	205
55°	184	7	2	4	5	159
65°	24	0	1	4	5	35
75°	0	0	1	2	4	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°	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
2.5°	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.7	7.6	7.3	7.1
5°	8.7	8.6	8.6	8.6	8.5	8.4	8.4	8.1	7.7	7.2	6.9
7.5°	10.3	10.3	10.2	10.0	9.9	9.7	9.4	8.6	7.7	7.0	6.6
10°	13.7	13.5	13.2	13.0	12.5	11.8	11.2	9.3	7.6	6.7	6.4
12.5°	20.6	21.0	19.9	18.9	17.4	16.1	14.4	10.6	7.6	6.4	6.1
15°	33.6	34.3	32.3	30.2	26.7	23.3	20.1	12.3	7.3	6.0	5.7
17.5°	54.9	55.8	52.5	47.5	42.0	35.3	29.5	14.6	7.1	5.6	5.4
20°	86.0	85.9	79.4	73.2	62.5	52.7	41.9	17.8	6.8	5.0	5.0
22.5°	124.4	124.8	116.8	105.7	90.5	74.6	57.4	21.6	6.4	4.6	4.7
25°	166.6	163.1	153.6	140.1	120.7	98.7	76.1	25.5	6.0	4.2	4.4
27.5°	201.9	198.4	187.6	171.6	150.7	124.7	95.1	29.4	5.5	3.8	4.1
30°	234.7	230.3	217.3	199.2	174.3	146.2	112.9	32.6	4.8	3.3	3.8
32.5°	261.8	257.8	243.0	221.9	194.9	164.6	128.0	35.2	4.2	2.9	3.6
35°	280.1	276.0	262.3	239.2	209.7	178.1	140.3	36.2	3.7	2.6	3.5
37.5°	284.3	282.1	272.3	250.6	219.8	186.7	148.2	35.9	3.0	2.4	3.3
40°	279.4	280.0	275.4	257.3	225.3	190.4	151.4	34.2	2.5	2.2	3.1
42.5°	273.3	274.6	274.3	260.0	227.6	190.6	150.1	30.9	2.0	2.0	3.0
45°	268.0	269.4	271.3	258.9	226.0	187.8	145.8	26.3	1.5	1.9	3.0
47.5°	258.5	259.9	262.7	249.6	218.1	180.8	138.0	21.4	1.0	1.8	2.9
50°	243.2	244.0	243.2	228.7	202.7	169.5	125.4	16.7	0.7	1.7	2.9
52.5°	227.6	226.1	220.1	201.6	178.4	151.5	109.6	11.9	0.5	1.6	2.8
55°	184.5	182.2	177.7	166.3	153.1	129.5	88.6	6.6	0.5	1.6	2.7
57.5°	128.5	129.8	131.4	129.1	123.0	102.0	67.3	2.9	0.5	1.5	2.7
60°	108.1	107.0	107.1	105.7	95.6	74.4	46.3	1.2	0.5	1.4	2.6
62.5°	64.5	65.3	66.6	66.9	57.0	41.6	24.2	0.5	0.5	1.3	2.5
65°	24.2	25.4	22.2	19.3	15.3	11.2	5.7	0.4	0.6	1.2	2.3
67.5°	0.7	0.8	1.0	0.9	0.9	0.8	0.6	0.4	0.6	1.0	2.2
70°	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.5	0.9	2.0
72.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.8	1.8
75°	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.7	1.5
77.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.6	1.3
80°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.5	1.0
82.5°	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.4	0.4	0.8
85°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.5
87.5°	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.3	0.3	0.3
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°	7.3	7.3	7.3
2.5°	6.9	6.9	6.9
5°	6.7	6.7	6.7
7.5°	6.5	6.5	6.5
10°	6.3	6.3	6.3
12.5°	6.1	6.1	6.2
15°	5.8	6.0	6.0
17.5°	5.6	5.8	5.9
20°	5.4	5.6	5.7
22.5°	5.0	5.4	5.6
25°	4.8	5.2	5.4
27.5°	4.6	5.1	5.4
30°	4.5	5.0	5.2
32.5°	4.3	4.9	5.1
35°	4.2	4.9	5.1
37.5°	4.2	4.8	5.1
40°	4.1	4.8	5.1
42.5°	4.1	4.8	5.1
45°	4.1	4.8	5.1
47.5°	4.0	4.8	5.2
50°	4.0	4.9	5.2
52.5°	4.0	4.9	5.2
55°	4.0	4.9	5.1
57.5°	3.9	4.8	5.1
60°	3.9	4.8	5.1
62.5°	3.7	4.7	5.0
65°	3.6	4.6	4.9
67.5°	3.4	4.5	4.7
70°	3.1	4.2	4.5
72.5°	2.8	4.0	4.3
75°	2.5	3.7	3.9
77.5°	2.2	3.3	3.5
80°	1.8	2.7	2.9
82.5°	1.4	2.1	2.2
85°	0.9	1.4	1.5
87.5°	0.4	0.6	0.7
90°	0.0	0.0	0.0

(END OF REPORT)