

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: P1336116

Luminaire Tested: P3A02R459740DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336116
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: P3A02R459740DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R45 optic, 4000K CCT AND, 97CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

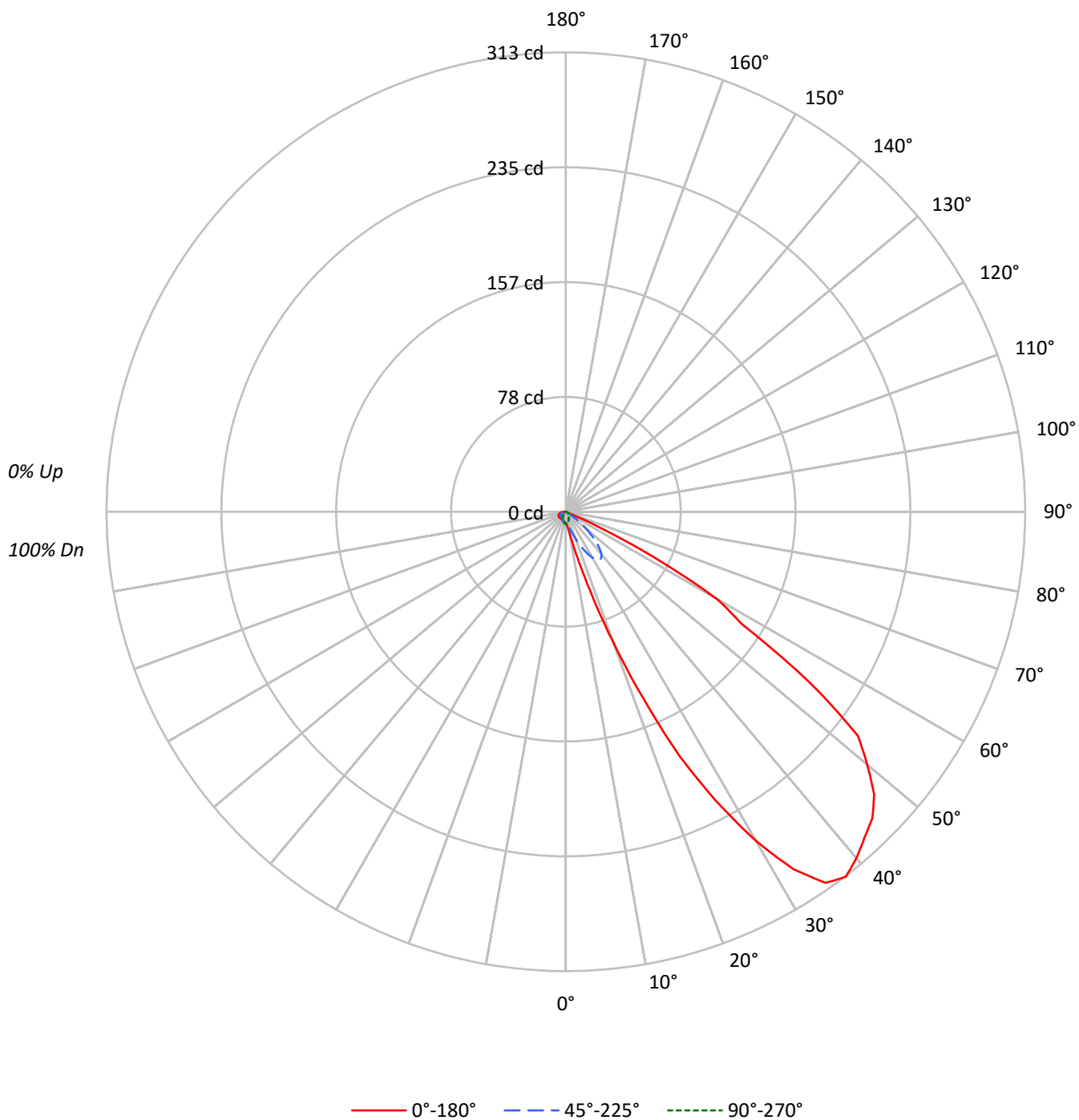
Lumens per Lamp: N/A
Luminaire Lumens: 140.0 lumens
Efficiency: N/A
Efficacy: 38.9 lumens/watt
Spacing Criteria (0/90/45): 3.81 / 0.82 / 1.83
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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°	1776	1776	1776	1776	1776
5°	2113	1959	1761	1629	1629
10°	3384	2293	1648	1536	1536
15°	8400	3065	1498	1453	1498
20°	22145	4597	1307	1377	1447
25°	44446	6799	1113	1282	1428
30°	65529	9115	912	1266	1469
35°	82637	10681	776	1231	1526
40°	88194	10792	687	1288	1632
45°	91606	8993	651	1395	1768
50°	91460	6277	648	1501	1979
55°	77761	2791	650	1682	2179
60°	52233	570	658	1886	2500
65°	13854	259	675	2024	2802
70°	385	321	641	2244	3206
75°	254	254	678	2372	3643
80°	253	379	758	2526	4041
85°	252	503	1258	2516	4026

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 10°

Vertical Angle: 47.5°

Luminance: 93965 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.8	0.6
10°-20°	3.9	2.8
20°-30°	16.3	11.6
30°-40°	34.3	24.5
40°-50°	42.3	30.3
50°-60°	31.7	22.7
60°-70°	8.2	5.8
70°-80°	1.7	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°	21.0	15.0
0°-40°	55.4	39.5
0°-60°	129.4	92.5
0°-90°	140.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	140.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	8	8	8	8	8	
5°	10	9	8	7	7	1
15°	37	14	7	6	7	14
25°	184	28	5	5	6	86
35°	309	40	3	5	6	188
45°	295	29	2	4	6	226
55°	203	7	2	4	6	176
65°	27	0	1	4	5	39
75°	0	0	1	3	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°	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1
2.5°	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.4	8.3	8.1	7.9
5°	9.6	9.5	9.5	9.5	9.4	9.3	9.3	8.9	8.4	8.0	7.6
7.5°	11.3	11.3	11.2	11.0	10.9	10.6	10.4	9.5	8.4	7.8	7.3
10°	15.2	14.9	14.6	14.3	13.8	13.0	12.4	10.3	8.3	7.4	7.1
12.5°	22.7	23.1	22.0	20.8	19.2	17.7	15.8	11.7	8.3	7.1	6.7
15°	37.0	37.8	35.6	33.3	29.4	25.7	22.2	13.5	8.1	6.6	6.2
17.5°	60.5	61.5	57.8	52.4	46.3	38.9	32.5	16.1	7.9	6.1	5.9
20°	94.9	94.7	87.6	80.7	68.9	58.1	46.2	19.7	7.5	5.6	5.6
22.5°	137.1	137.5	128.8	116.5	99.7	82.2	63.3	23.8	7.1	5.1	5.2
25°	183.7	179.8	169.4	154.4	133.0	108.9	83.9	28.1	6.6	4.6	4.9
27.5°	222.6	218.7	206.8	189.1	166.1	137.4	104.8	32.4	6.0	4.2	4.5
30°	258.8	253.9	239.6	219.6	192.1	161.1	124.5	36.0	5.3	3.6	4.2
32.5°	288.6	284.2	267.9	244.7	214.8	181.5	141.1	38.8	4.6	3.2	3.9
35°	308.7	304.2	289.2	263.6	231.1	196.3	154.7	39.9	4.0	2.9	3.8
37.5°	313.4	310.9	300.2	276.2	242.3	205.8	163.3	39.6	3.4	2.7	3.6
40°	308.1	308.6	303.5	283.6	248.4	209.8	166.9	37.7	2.8	2.4	3.5
42.5°	301.2	302.7	302.4	286.7	250.9	210.1	165.4	34.0	2.2	2.2	3.4
45°	295.4	296.9	299.0	285.4	249.2	207.1	160.7	29.0	1.6	2.1	3.4
47.5°	284.9	286.5	289.5	275.2	240.4	199.3	152.1	23.6	1.2	2.0	3.2
50°	268.1	269.0	268.1	252.1	223.5	186.8	138.2	18.4	0.8	1.9	3.2
52.5°	250.9	249.3	242.6	222.2	196.7	167.0	120.8	13.1	0.6	1.7	3.1
55°	203.4	200.8	195.8	183.4	168.8	142.7	97.6	7.3	0.6	1.7	3.0
57.5°	141.7	143.1	144.8	142.3	135.6	112.4	74.1	3.2	0.6	1.6	3.0
60°	119.1	118.0	118.1	116.5	105.4	82.0	51.0	1.3	0.6	1.5	2.9
62.5°	71.1	72.0	73.5	73.8	62.8	45.8	26.7	0.6	0.6	1.4	2.8
65°	26.7	28.0	24.5	21.3	16.9	12.4	6.2	0.5	0.7	1.3	2.5
67.5°	0.8	0.9	1.2	1.0	1.0	0.9	0.7	0.5	0.7	1.2	2.4
70°	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.6	1.0	2.2
72.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.9	2.0
75°	0.3	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.6	0.8	1.6
77.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.7	1.4
80°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	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	0.9
85°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.5	0.6
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°	8.1	8.1	8.1
2.5°	7.6	7.6	7.6
5°	7.4	7.4	7.4
7.5°	7.2	7.2	7.2
10°	6.9	6.9	6.9
12.5°	6.7	6.7	6.8
15°	6.4	6.6	6.6
17.5°	6.1	6.4	6.5
20°	5.9	6.1	6.2
22.5°	5.6	5.9	6.1
25°	5.3	5.8	5.9
27.5°	5.1	5.7	5.9
30°	5.0	5.6	5.8
32.5°	4.7	5.4	5.7
35°	4.6	5.4	5.7
37.5°	4.6	5.3	5.7
40°	4.5	5.3	5.7
42.5°	4.5	5.3	5.7
45°	4.5	5.3	5.7
47.5°	4.4	5.3	5.8
50°	4.4	5.4	5.8
52.5°	4.4	5.4	5.8
55°	4.4	5.4	5.7
57.5°	4.3	5.3	5.7
60°	4.3	5.3	5.7
62.5°	4.0	5.2	5.6
65°	3.9	5.1	5.4
67.5°	3.7	5.0	5.2
70°	3.5	4.6	5.0
72.5°	3.1	4.4	4.7
75°	2.8	4.0	4.3
77.5°	2.4	3.6	3.8
80°	2.0	3.0	3.2
82.5°	1.5	2.3	2.4
85°	1.0	1.5	1.6
87.5°	0.5	0.7	0.8
90°	0.0	0.0	0.0

(END OF REPORT)