

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: P1336084

Luminaire Tested: P3A02R459730DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336084
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: P3A02R459730DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R45 optic, 3000K CCT AND, 97CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

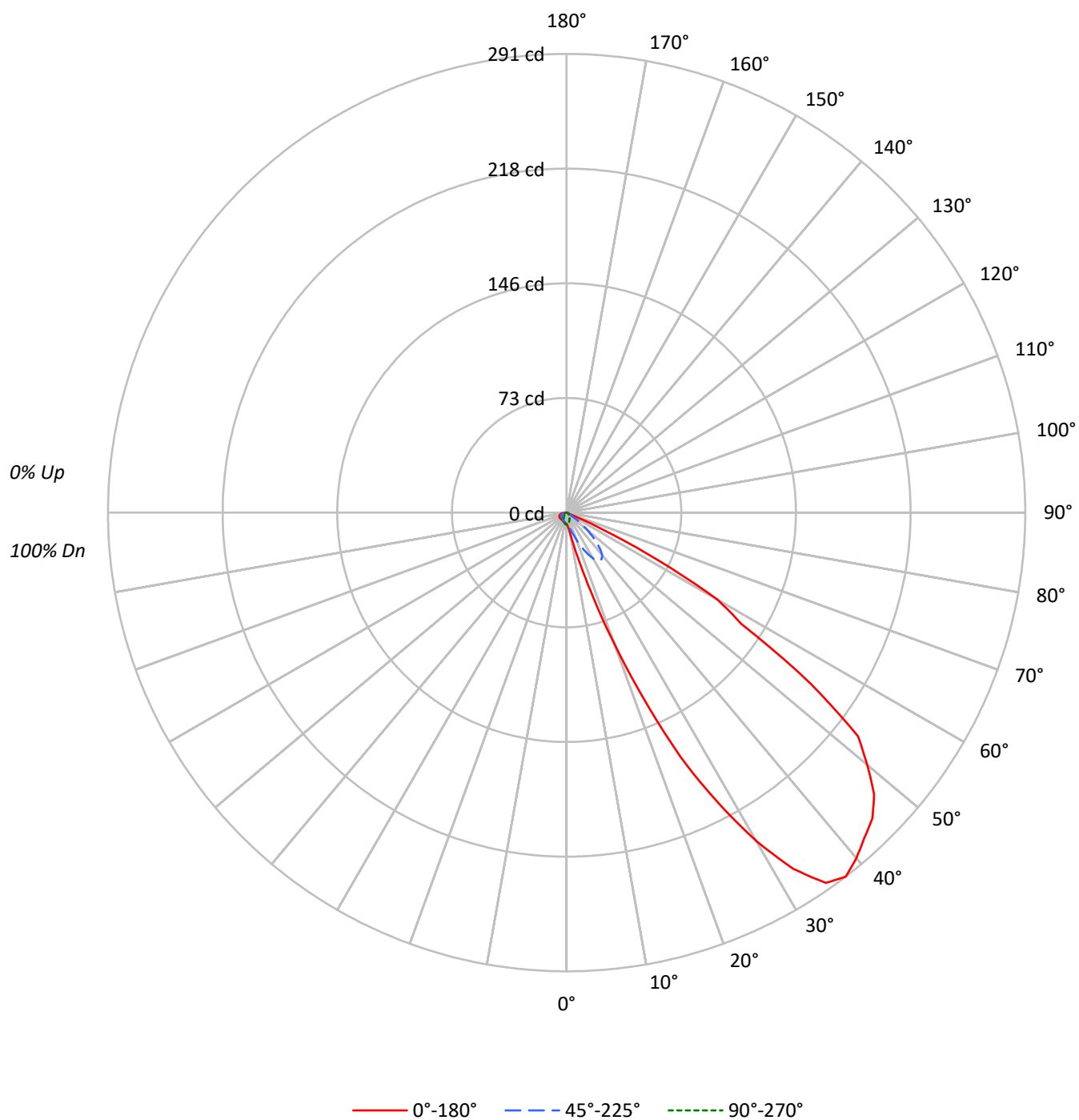
Lumens per Lamp: N/A
Luminaire Lumens: 130.0 lumens
Efficiency: N/A
Efficacy: 36.1 lumens/watt
Spacing Criteria (0/90/45): 3.81 / 0.82 / 1.83
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	40	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	38	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°	1645	1645	1645	1645	1645
5°	1959	1827	1629	1519	1519
10°	3140	2138	1536	1425	1425
15°	7809	2860	1385	1339	1385
20°	20558	4270	1213	1283	1353
25°	41277	6315	1040	1186	1331
30°	60845	8457	836	1165	1367
35°	76747	9931	723	1151	1419
40°	81868	10019	658	1202	1517
45°	85063	8373	589	1302	1644
50°	84944	5833	580	1399	1842
55°	72179	2600	612	1567	2026
60°	48505	526	614	1754	2324
65°	12868	208	623	1920	2594
70°	321	256	641	2052	2949
75°	254	254	678	2203	3389
80°	253	379	631	2273	3788
85°	252	503	1006	2516	3774

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 10°

Vertical Angle: 47.5°

Luminance: 87279 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.7	0.6
10°-20°	3.7	2.8
20°-30°	15.1	11.6
30°-40°	31.9	24.5
40°-50°	39.3	30.3
50°-60°	29.5	22.7
60°-70°	7.6	5.8
70°-80°	1.6	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°	19.5	15.0
0°-40°	51.4	39.6
0°-60°	120.2	92.5
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°	8	8	8	8	8	
5°	9	8	7	7	7	1
15°	34	13	6	6	6	13
25°	171	26	4	5	6	79
35°	287	37	3	4	5	175
45°	274	27	2	4	5	210
55°	189	7	2	4	5	163
65°	25	0	1	4	5	36
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°	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
2.5°	7.9	7.9	7.9	7.9	7.9	7.9	7.9	7.8	7.7	7.5	7.3
5°	8.9	8.8	8.8	8.8	8.7	8.6	8.6	8.3	7.8	7.4	7.1
7.5°	10.5	10.5	10.4	10.2	10.1	9.9	9.7	8.8	7.8	7.2	6.8
10°	14.1	13.9	13.5	13.3	12.8	12.0	11.5	9.6	7.7	6.9	6.6
12.5°	21.1	21.5	20.4	19.3	17.8	16.4	14.7	10.8	7.7	6.6	6.2
15°	34.4	35.1	33.1	30.9	27.3	23.8	20.6	12.6	7.5	6.1	5.8
17.5°	56.2	57.1	53.7	48.7	43.0	36.1	30.2	14.9	7.3	5.7	5.5
20°	88.1	88.0	81.3	75.0	64.0	53.9	42.9	18.3	7.0	5.2	5.2
22.5°	127.3	127.7	119.6	108.2	92.6	76.4	58.8	22.1	6.6	4.7	4.8
25°	170.6	166.9	157.3	143.4	123.5	101.1	77.9	26.1	6.1	4.3	4.5
27.5°	206.7	203.1	192.1	175.6	154.2	127.6	97.3	30.1	5.6	3.9	4.2
30°	240.3	235.8	222.5	203.9	178.4	149.6	115.6	33.4	4.9	3.3	3.9
32.5°	268.0	263.9	248.8	227.2	199.5	168.5	131.0	36.0	4.3	3.0	3.7
35°	286.7	282.5	268.5	244.8	214.6	182.3	143.6	37.1	3.8	2.7	3.5
37.5°	291.0	288.7	278.7	256.5	225.0	191.1	151.7	36.7	3.1	2.5	3.3
40°	286.0	286.6	281.9	263.4	230.6	194.9	155.0	35.0	2.6	2.3	3.2
42.5°	279.7	281.1	280.8	266.2	233.0	195.1	153.6	31.6	2.0	2.0	3.1
45°	274.3	275.7	277.7	265.0	231.4	192.3	149.2	27.0	1.5	1.9	3.1
47.5°	264.6	266.1	268.9	255.5	223.2	185.1	141.3	21.9	1.1	1.8	3.0
50°	249.0	249.7	249.0	234.1	207.5	173.5	128.4	17.1	0.8	1.7	3.0
52.5°	233.0	231.5	225.3	206.3	182.6	155.1	112.1	12.1	0.5	1.6	2.9
55°	188.8	186.5	181.9	170.3	156.7	132.6	90.7	6.8	0.5	1.6	2.8
57.5°	131.6	132.9	134.5	132.1	125.9	104.4	68.9	3.0	0.5	1.5	2.8
60°	110.6	109.6	109.7	108.2	97.9	76.2	47.4	1.2	0.5	1.4	2.7
62.5°	66.1	66.8	68.2	68.5	58.3	42.5	24.8	0.5	0.5	1.3	2.6
65°	24.8	26.0	22.8	19.8	15.7	11.5	5.8	0.4	0.6	1.2	2.4
67.5°	0.8	0.9	1.1	1.0	1.0	0.9	0.6	0.4	0.6	1.1	2.3
70°	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.5	1.0	2.0
72.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.9	1.8
75°	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.8	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	1.1
82.5°	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.4	0.4	0.9
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°	7.5	7.5	7.5
2.5°	7.1	7.1	7.1
5°	6.9	6.9	6.9
7.5°	6.7	6.7	6.7
10°	6.4	6.4	6.4
12.5°	6.2	6.2	6.3
15°	5.9	6.1	6.1
17.5°	5.7	5.9	6.0
20°	5.5	5.7	5.8
22.5°	5.2	5.5	5.7
25°	4.9	5.4	5.5
27.5°	4.7	5.3	5.5
30°	4.6	5.2	5.4
32.5°	4.4	5.0	5.3
35°	4.3	5.0	5.3
37.5°	4.3	4.9	5.3
40°	4.2	4.9	5.3
42.5°	4.2	4.9	5.3
45°	4.2	4.9	5.3
47.5°	4.1	4.9	5.4
50°	4.1	5.0	5.4
52.5°	4.1	5.0	5.4
55°	4.1	5.0	5.3
57.5°	4.0	4.9	5.3
60°	4.0	4.9	5.3
62.5°	3.8	4.8	5.2
65°	3.7	4.7	5.0
67.5°	3.4	4.6	4.8
70°	3.2	4.3	4.6
72.5°	2.9	4.1	4.4
75°	2.6	3.8	4.0
77.5°	2.3	3.3	3.5
80°	1.8	2.8	3.0
82.5°	1.4	2.1	2.3
85°	1.0	1.4	1.5
87.5°	0.4	0.6	0.8
90°	0.0	0.0	0.0

(END OF REPORT)