

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: P1336164

Luminaire Tested: P3A02R459835DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336164
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: P3A02R459835DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R45 optic, 3500K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

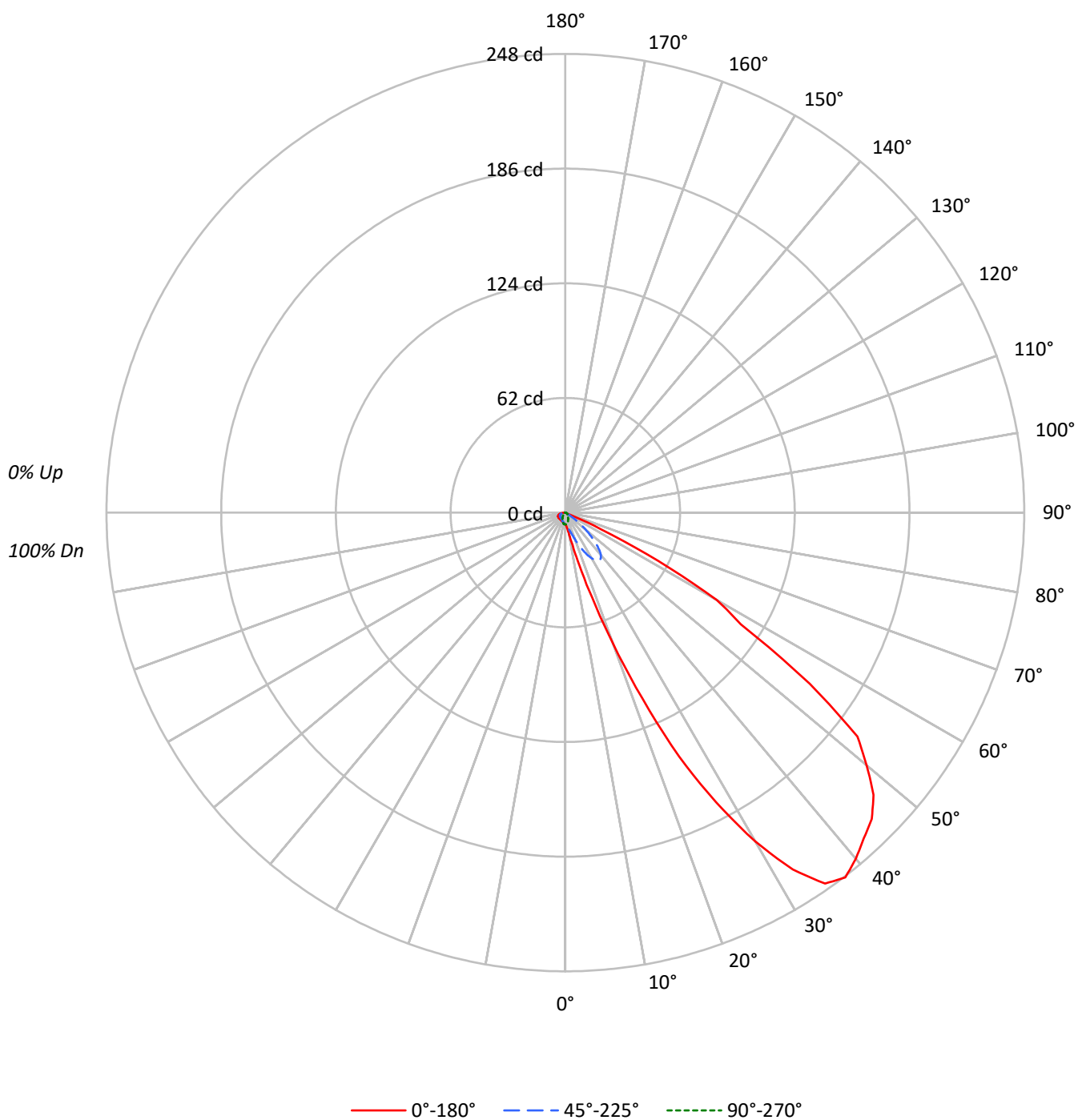
Lumens per Lamp: N/A
Luminaire Lumens: 111.0 lumens
Efficiency: N/A
Efficacy: 30.8 lumens/watt
Spacing Criteria (0/90/45): 3.81 / 0.82 / 1.83
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88
2	100	93	86	81	98	91	85	80	87	83	78	84	80	77	81	78	75
3	91	81	73	67	89	80	72	66	77	70	65	74	69	64	71	67	63
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	57	53
5	76	63	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45
6	69	55	46	39	67	54	46	39	52	45	39	51	44	39	49	43	38
7	63	49	40	34	61	48	40	33	47	39	33	45	38	33	44	37	33
8	58	44	35	29	56	43	35	29	42	34	29	40	33	28	39	33	28
9	53	39	31	25	52	39	30	25	38	30	25	36	29	24	35	29	24
10	49	35	27	22	48	35	27	22	34	27	21	33	26	21	32	26	21

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	1403	1403	1403	1403	1403
5°	1673	1563	1387	1299	1299
10°	2672	1826	1314	1225	1225
15°	6652	2429	1180	1135	1180
20°	17548	3640	1027	1097	1167
25°	35228	5395	895	1016	1137
30°	51957	7216	709	987	1165
35°	65531	8459	616	990	1205
40°	69902	8559	544	1031	1288
45°	72628	7133	527	1116	1395
50°	72526	4981	512	1194	1569
55°	61627	2217	535	1338	1720
60°	41444	439	526	1491	1974
65°	11000	208	519	1608	2231
70°	321	256	513	1795	2500
75°	254	254	508	1864	2881
80°	253	379	631	2020	3283
85°	252	503	1006	2013	3271

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 10°

Vertical Angle: 47.5°

Luminance: 74523 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.6	0.6
10°-20°	3.1	2.8
20°-30°	12.9	11.6
30°-40°	27.2	24.5
40°-50°	33.6	30.2
50°-60°	25.2	22.7
60°-70°	6.5	5.8
70°-80°	1.4	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°	16.7	15.0
0°-40°	43.9	39.5
0°-60°	102.7	92.4
0°-90°	111.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	111.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	6	6	6	6	6	
5°	8	7	6	6	6	1
15°	29	11	5	5	5	11
25°	146	22	4	4	5	68
35°	245	32	2	4	4	149
45°	234	23	2	4	4	179
55°	161	6	1	4	4	139
65°	21	0	1	3	4	31
75°	0	0	1	2	3	0
85°	0	0	0	1	1	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°	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
2.5°	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.7	6.6	6.4	6.2
5°	7.6	7.5	7.5	7.5	7.4	7.3	7.3	7.1	6.7	6.3	6.1
7.5°	9.0	9.0	8.9	8.7	8.6	8.4	8.3	7.5	6.7	6.1	5.8
10°	12.0	11.8	11.6	11.4	10.9	10.3	9.8	8.2	6.6	5.9	5.6
12.5°	18.0	18.3	17.4	16.5	15.2	14.0	12.6	9.3	6.6	5.6	5.3
15°	29.3	30.0	28.2	26.4	23.3	20.4	17.6	10.7	6.4	5.2	5.0
17.5°	48.0	48.8	45.9	41.5	36.7	30.8	25.8	12.7	6.2	4.9	4.7
20°	75.2	75.1	69.4	64.0	54.7	46.0	36.6	15.6	6.0	4.4	4.4
22.5°	108.7	109.1	102.1	92.4	79.1	65.2	50.2	18.9	5.6	4.0	4.1
25°	145.6	142.5	134.3	122.4	105.5	86.3	66.5	22.3	5.2	3.7	3.9
27.5°	176.5	173.4	164.0	150.0	131.7	109.0	83.1	25.7	4.8	3.3	3.6
30°	205.2	201.3	189.9	174.1	152.3	127.8	98.7	28.5	4.2	2.8	3.3
32.5°	228.8	225.3	212.4	194.0	170.3	143.9	111.9	30.7	3.7	2.6	3.1
35°	244.8	241.2	229.3	209.0	183.2	155.6	122.6	31.6	3.2	2.3	3.0
37.5°	248.5	246.5	238.0	219.0	192.1	163.2	129.5	31.4	2.7	2.1	2.8
40°	244.2	244.7	240.7	224.9	196.9	166.4	132.3	29.9	2.2	1.9	2.8
42.5°	238.8	240.0	239.7	227.3	198.9	166.6	131.2	27.0	1.7	1.7	2.7
45°	234.2	235.4	237.1	226.3	197.6	164.2	127.4	23.0	1.3	1.7	2.7
47.5°	225.9	227.2	229.6	218.2	190.6	158.0	120.6	18.7	0.9	1.6	2.6
50°	212.6	213.2	212.6	199.9	177.2	148.1	109.6	14.6	0.6	1.5	2.6
52.5°	198.9	197.6	192.3	176.2	155.9	132.4	95.8	10.4	0.5	1.4	2.5
55°	161.2	159.2	155.3	145.4	133.8	113.2	77.4	5.8	0.5	1.4	2.4
57.5°	112.4	113.5	114.8	112.8	107.5	89.1	58.8	2.6	0.5	1.3	2.4
60°	94.5	93.6	93.6	92.4	83.6	65.0	40.4	1.0	0.5	1.2	2.3
62.5°	56.4	57.0	58.2	58.5	49.8	36.3	21.2	0.5	0.5	1.1	2.2
65°	21.2	22.2	19.4	16.9	13.4	9.8	5.0	0.4	0.6	1.0	2.0
67.5°	0.6	0.7	0.9	0.8	0.8	0.7	0.6	0.4	0.6	0.9	1.9
70°	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.5	0.8	1.7
72.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.7	1.6
75°	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.6	1.3
77.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.6	1.1
80°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.5	0.9
82.5°	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.4	0.4	0.7
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°	6.4	6.4	6.4
2.5°	6.1	6.1	6.1
5°	5.9	5.9	5.9
7.5°	5.7	5.7	5.7
10°	5.5	5.5	5.5
12.5°	5.3	5.3	5.4
15°	5.0	5.2	5.2
17.5°	4.9	5.0	5.1
20°	4.7	4.9	5.0
22.5°	4.4	4.7	4.9
25°	4.2	4.6	4.7
27.5°	4.0	4.5	4.7
30°	3.9	4.4	4.6
32.5°	3.8	4.3	4.5
35°	3.7	4.3	4.5
37.5°	3.7	4.2	4.5
40°	3.6	4.2	4.5
42.5°	3.6	4.2	4.5
45°	3.6	4.2	4.5
47.5°	3.5	4.2	4.6
50°	3.5	4.3	4.6
52.5°	3.5	4.3	4.6
55°	3.5	4.3	4.5
57.5°	3.4	4.2	4.5
60°	3.4	4.2	4.5
62.5°	3.2	4.1	4.4
65°	3.1	4.0	4.3
67.5°	2.9	3.9	4.1
70°	2.8	3.7	3.9
72.5°	2.5	3.5	3.8
75°	2.2	3.2	3.4
77.5°	1.9	2.8	3.0
80°	1.6	2.4	2.6
82.5°	1.2	1.8	1.9
85°	0.8	1.2	1.3
87.5°	0.4	0.6	0.6
90°	0.0	0.0	0.0

(END OF REPORT)