

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: P1336184

Luminaire Tested: P3A02R459840DE010 E3CA451MW

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336184
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: P3A02R459840DE010 E3CA451MW
Description: 3in Adjustable LED luminaire with, R45 optic, 4000K CCT AND, 98CRI , E3CA451MW TRIM
Light Source: -
Ballast/Driver: -

Summary

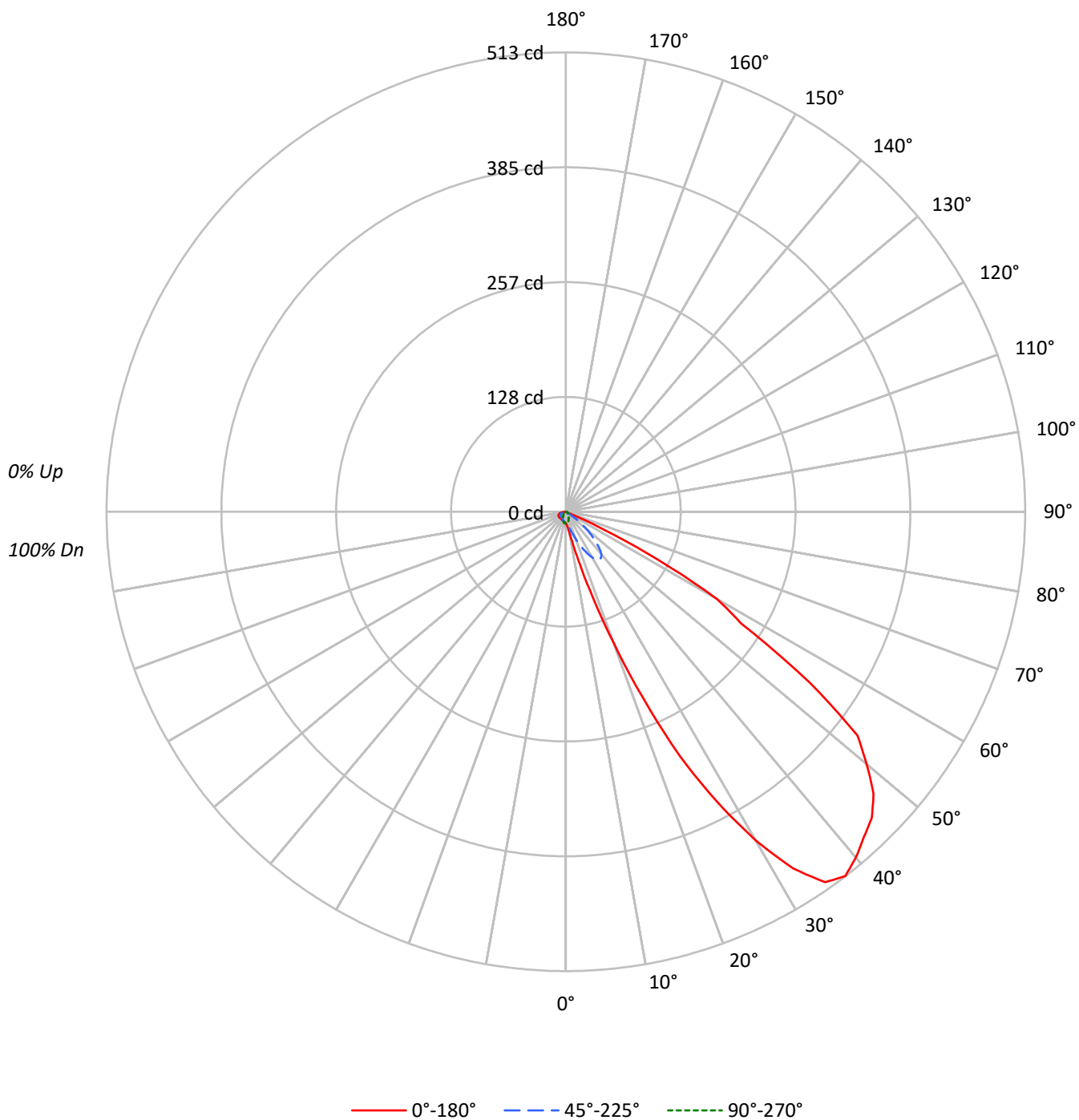
Lumens per Lamp: N/A
Luminaire Lumens: 229.0 lumens
Efficiency: N/A
Efficacy: 63.6 lumens/watt
Spacing Criteria (0/90/45): 3.81 / 0.82 / 1.83
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	58	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	25	35	29	24
10	49	36	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°	2895	2895	2895	2895	2895
5°	3456	3214	2884	2663	2663
10°	5522	3741	2694	2538	2538
15°	13734	5017	2452	2361	2452
20°	36216	7514	2124	2264	2380
25°	72706	11130	1839	2105	2347
30°	107181	14888	1494	2051	2405
35°	135185	17480	1258	2034	2490
40°	144242	17662	1145	2118	2662
45°	149876	14730	1054	2295	2884
50°	149624	10268	1023	2456	3241
55°	127154	4549	1070	2753	3555
60°	85476	921	1096	3070	4079
65°	22674	415	1090	3321	4618
70°	577	513	1090	3654	5193
75°	508	508	1101	3813	5931
80°	505	758	1137	4041	6693
85°	503	1006	2013	4277	6542

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 10°

Vertical Angle: 47.5°

Luminance: 153719 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.3	0.6
10°-20°	6.5	2.8
20°-30°	26.6	11.6
30°-40°	56.1	24.5
40°-50°	69.3	30.2
50°-60°	51.9	22.7
60°-70°	13.4	5.8
70°-80°	2.8	1.2
80°-90°	1.1	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°	34.4	15.0
0°-40°	90.6	39.5
0°-60°	211.7	92.5
0°-90°	229.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	229.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	13	13	13	13	13	
5°	16	15	13	12	12	2
15°	60	22	11	10	11	22
25°	300	46	8	9	10	140
35°	505	65	5	8	9	308
45°	483	48	3	7	9	370
55°	333	12	3	7	9	287
65°	44	1	2	6	9	63
75°	1	1	1	4	7	1
85°	0	0	1	2	3	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°	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2
2.5°	14.0	14.0	14.0	14.0	14.0	14.0	14.0	13.8	13.6	13.2	12.9
5°	15.7	15.5	15.5	15.5	15.3	15.1	15.1	14.6	13.8	13.1	12.5
7.5°	18.5	18.5	18.4	18.0	17.8	17.4	17.0	15.5	13.8	12.7	11.9
10°	24.8	24.4	23.8	23.5	22.5	21.2	20.2	16.8	13.6	12.1	11.5
12.5°	37.1	37.8	36.0	34.1	31.4	29.0	25.9	19.1	13.6	11.5	11.0
15°	60.5	61.9	58.3	54.5	48.1	42.0	36.3	22.1	13.2	10.8	10.2
17.5°	99.0	100.7	94.6	85.7	75.7	63.6	53.2	26.3	12.9	10.0	9.7
20°	155.2	155.0	143.2	132.1	112.8	95.0	75.5	32.2	12.3	9.1	9.1
22.5°	224.2	225.0	210.6	190.5	163.1	134.5	103.5	39.0	11.5	8.3	8.5
25°	300.5	294.0	277.0	252.6	217.6	178.1	137.2	46.0	10.8	7.6	7.9
27.5°	364.1	357.8	338.3	309.4	271.7	224.8	171.4	53.0	9.8	6.8	7.4
30°	423.3	415.3	391.9	359.1	314.3	263.6	203.6	58.8	8.7	5.9	6.8
32.5°	472.1	464.9	438.2	400.2	351.4	296.9	230.8	63.4	7.6	5.3	6.4
35°	505.0	497.6	473.0	431.2	378.1	321.1	253.0	65.3	6.6	4.7	6.2
37.5°	512.6	508.6	491.0	451.9	396.4	336.6	267.2	64.7	5.5	4.4	5.9
40°	503.9	504.8	496.5	464.0	406.2	343.2	273.0	61.7	4.5	4.0	5.7
42.5°	492.7	495.2	494.6	468.9	410.4	343.6	270.6	55.6	3.6	3.6	5.5
45°	483.3	485.7	489.1	466.8	407.6	338.7	262.8	47.5	2.6	3.4	5.5
47.5°	466.0	468.7	473.6	450.1	393.2	326.0	248.8	38.6	1.9	3.2	5.3
50°	438.6	439.9	438.6	412.3	365.6	305.6	226.1	30.1	1.3	3.0	5.3
52.5°	410.4	407.8	396.8	363.5	321.7	273.2	197.5	21.4	0.9	2.8	5.1
55°	332.6	328.5	320.3	299.9	276.1	233.5	159.7	11.9	0.9	2.8	4.9
57.5°	231.8	234.1	236.9	232.7	221.8	183.9	121.3	5.3	0.9	2.6	4.9
60°	194.9	193.0	193.2	190.5	172.4	134.2	83.4	2.1	0.9	2.5	4.7
62.5°	116.4	117.7	120.2	120.7	102.7	74.9	43.7	0.9	0.9	2.3	4.5
65°	43.7	45.8	40.1	34.8	27.6	20.2	10.2	0.8	1.1	2.1	4.2
67.5°	1.3	1.5	1.9	1.7	1.7	1.5	1.1	0.8	1.1	1.9	4.0
70°	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.9	1.7	3.6
72.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	1.5	3.2
75°	0.6	0.8	0.6	0.6	0.6	0.6	0.6	0.6	0.9	1.3	2.6
77.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.8	1.1	2.3
80°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.6	0.8	0.9	1.9
82.5°	0.4	0.4	0.4	0.2	0.4	0.4	0.4	0.4	0.8	0.8	1.5
85°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.6	0.8	0.9
87.5°	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.4	0.6	0.6	0.6
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°	13.2	13.2	13.2
2.5°	12.5	12.5	12.5
5°	12.1	12.1	12.1
7.5°	11.7	11.7	11.7
10°	11.4	11.4	11.4
12.5°	11.0	11.0	11.2
15°	10.4	10.8	10.8
17.5°	10.0	10.4	10.6
20°	9.7	10.0	10.2
22.5°	9.1	9.7	10.0
25°	8.7	9.5	9.7
27.5°	8.3	9.3	9.7
30°	8.1	9.1	9.5
32.5°	7.8	8.9	9.3
35°	7.6	8.9	9.3
37.5°	7.6	8.7	9.3
40°	7.4	8.7	9.3
42.5°	7.4	8.7	9.3
45°	7.4	8.7	9.3
47.5°	7.2	8.7	9.5
50°	7.2	8.9	9.5
52.5°	7.2	8.9	9.5
55°	7.2	8.9	9.3
57.5°	7.0	8.7	9.3
60°	7.0	8.7	9.3
62.5°	6.6	8.5	9.1
65°	6.4	8.3	8.9
67.5°	6.1	8.1	8.5
70°	5.7	7.6	8.1
72.5°	5.1	7.2	7.8
75°	4.5	6.6	7.0
77.5°	4.0	5.9	6.2
80°	3.2	4.9	5.3
82.5°	2.5	3.8	4.0
85°	1.7	2.5	2.6
87.5°	0.8	1.1	1.3
90°	0.0	0.0	0.0

(END OF REPORT)