

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: P1336040

Luminaire Tested: P3A02R459040DE010 E3CA451MW

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336040
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: P3A02R459040DE010 E3CA451MW
Description: 3in Adjustable LED luminaire with, R45 optic, 4000K CCT AND, 90CRI , E3CA451MW TRIM
Light Source: -
Ballast/Driver: -

Summary

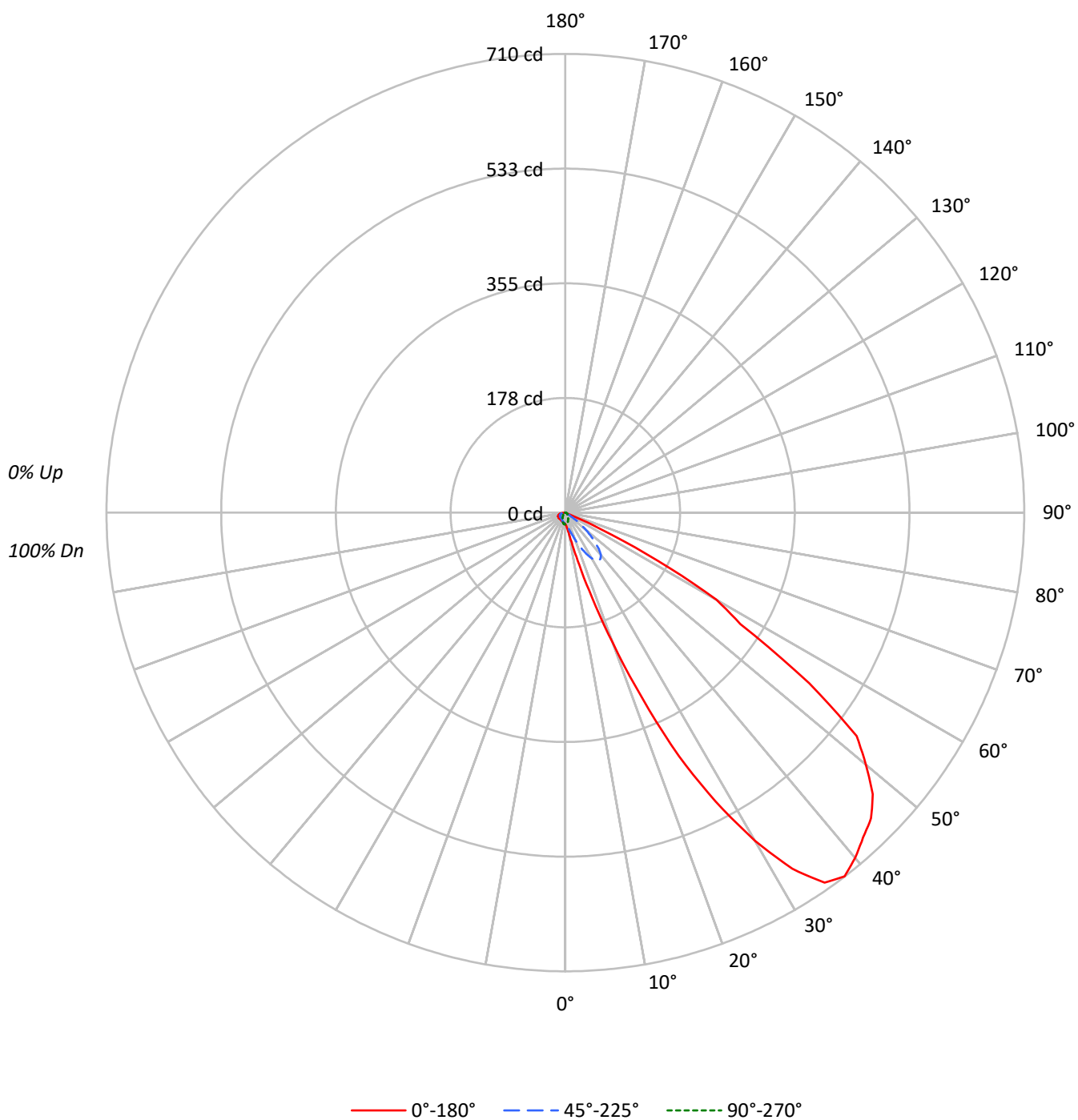
Lumens per Lamp: N/A
Luminaire Lumens: 317.0 lumens
Efficiency: N/A
Efficacy: 88.1 lumens/watt
Spacing Criteria (0/90/45): 3.81 / 0.82 / 1.83
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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
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	39	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°	4013	4013	4013	4013	4013
5°	4777	4446	3984	3698	3698
10°	7637	5188	3741	3496	3496
15°	19024	6947	3383	3269	3383
20°	50124	10384	2940	3127	3290
25°	100627	15388	2540	2903	3242
30°	148352	20636	2051	2861	3317
35°	187144	24199	1740	2811	3426
40°	199660	24446	1574	2920	3664
45°	207463	20374	1458	3163	3969
50°	207140	14191	1433	3411	4469
55°	176051	6308	1491	3823	4893
60°	118324	1272	1491	4254	5614
65°	31391	519	1505	4618	6382
70°	833	641	1539	5065	7245
75°	678	678	1525	5338	8218
80°	631	1010	1642	5683	9218
85°	755	1258	2516	6038	9309

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 10°

Vertical Angle: 47.5°

Luminance: 212792 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.8	0.6
10°-20°	8.9	2.8
20°-30°	36.9	11.6
30°-40°	77.7	24.5
40°-50°	95.9	30.2
50°-60°	71.9	22.7
60°-70°	18.5	5.8
70°-80°	3.8	1.2
80°-90°	1.6	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°	47.6	15.0
0°-40°	125.4	39.5
0°-60°	293.1	92.5
0°-90°	317.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	317.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	18	18	18	18	18	
5°	22	20	18	17	17	2
15°	84	31	15	14	15	31
25°	416	64	10	12	13	194
35°	699	90	6	10	13	426
45°	669	66	5	10	13	512
55°	460	16	4	10	13	398
65°	60	1	3	9	12	87
75°	1	1	2	6	10	1
85°	0	0	1	2	4	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°	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3
2.5°	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.1	18.9	18.3	17.8
5°	21.7	21.5	21.5	21.5	21.2	21.0	21.0	20.2	19.1	18.1	17.3
7.5°	25.7	25.7	25.4	24.9	24.6	24.1	23.6	21.5	19.1	17.5	16.5
10°	34.3	33.8	33.0	32.5	31.2	29.3	28.0	23.3	18.9	16.8	16.0
12.5°	51.3	52.4	49.8	47.1	43.5	40.1	35.9	26.5	18.9	16.0	15.2
15°	83.8	85.7	80.7	75.4	66.5	58.1	50.3	30.6	18.3	14.9	14.1
17.5°	137.0	139.3	131.0	118.7	104.8	88.0	73.6	36.4	17.8	13.9	13.4
20°	214.8	214.5	198.3	182.8	156.1	131.5	104.5	44.5	17.0	12.6	12.6
22.5°	310.4	311.4	291.5	263.8	225.8	186.2	143.3	54.0	16.0	11.5	11.8
25°	415.9	407.0	383.5	349.7	301.2	246.5	189.9	63.6	14.9	10.5	11.0
27.5°	504.0	495.3	468.3	428.3	376.1	311.2	237.3	73.3	13.6	9.4	10.2
30°	585.9	574.9	542.5	497.1	435.1	364.9	281.8	81.5	12.0	8.1	9.4
32.5°	653.5	643.6	606.6	554.0	486.4	411.0	319.6	87.7	10.5	7.3	8.9
35°	699.1	688.9	654.8	596.9	523.3	444.5	350.2	90.4	9.2	6.5	8.6
37.5°	709.6	704.1	679.7	625.5	548.7	466.0	369.8	89.6	7.6	6.0	8.1
40°	697.5	698.8	687.3	642.3	562.4	475.1	378.0	85.4	6.3	5.5	7.9
42.5°	682.1	685.5	684.7	649.1	568.1	475.7	374.6	77.0	5.0	5.0	7.6
45°	669.0	672.4	677.1	646.2	564.2	468.9	363.8	65.7	3.7	4.7	7.6
47.5°	645.1	648.8	655.6	623.1	544.3	451.3	344.4	53.4	2.6	4.5	7.3
50°	607.2	609.0	607.2	570.7	506.0	423.0	313.0	41.6	1.8	4.2	7.3
52.5°	568.1	564.5	549.3	503.2	445.3	378.2	273.5	29.6	1.3	3.9	7.1
55°	460.5	454.7	443.4	415.2	382.2	323.2	221.1	16.5	1.3	3.9	6.8
57.5°	320.9	324.0	327.9	322.2	307.0	254.6	167.9	7.3	1.3	3.7	6.8
60°	269.8	267.2	267.4	263.8	238.6	185.7	115.5	2.9	1.3	3.4	6.5
62.5°	161.1	162.9	166.3	167.1	142.2	103.7	60.5	1.3	1.3	3.1	6.3
65°	60.5	63.4	55.5	48.2	38.2	28.0	14.1	1.0	1.6	2.9	5.8
67.5°	1.8	2.1	2.6	2.4	2.4	2.1	1.6	1.0	1.6	2.6	5.5
70°	1.3	1.3	1.3	1.3	1.3	1.0	1.0	1.0	1.3	2.4	5.0
72.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.3	2.1	4.5
75°	0.8	1.0	0.8	0.8	0.8	0.8	0.8	0.8	1.3	1.8	3.7
77.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.0	1.6	3.1
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.8	1.0	1.3	2.6
82.5°	0.5	0.5	0.5	0.3	0.5	0.5	0.5	0.5	1.0	1.0	2.1
85°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.8	1.0	1.3
87.5°	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.5	0.8	0.8	0.8
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°	18.3	18.3	18.3
2.5°	17.3	17.3	17.3
5°	16.8	16.8	16.8
7.5°	16.2	16.2	16.2
10°	15.7	15.7	15.7
12.5°	15.2	15.2	15.5
15°	14.4	14.9	14.9
17.5°	13.9	14.4	14.7
20°	13.4	13.9	14.1
22.5°	12.6	13.4	13.9
25°	12.0	13.1	13.4
27.5°	11.5	12.8	13.4
30°	11.3	12.6	13.1
32.5°	10.7	12.3	12.8
35°	10.5	12.3	12.8
37.5°	10.5	12.0	12.8
40°	10.2	12.0	12.8
42.5°	10.2	12.0	12.8
45°	10.2	12.0	12.8
47.5°	10.0	12.0	13.1
50°	10.0	12.3	13.1
52.5°	10.0	12.3	13.1
55°	10.0	12.3	12.8
57.5°	9.7	12.0	12.8
60°	9.7	12.0	12.8
62.5°	9.2	11.8	12.6
65°	8.9	11.5	12.3
67.5°	8.4	11.3	11.8
70°	7.9	10.5	11.3
72.5°	7.1	10.0	10.7
75°	6.3	9.2	9.7
77.5°	5.5	8.1	8.6
80°	4.5	6.8	7.3
82.5°	3.4	5.2	5.5
85°	2.4	3.4	3.7
87.5°	1.0	1.6	1.8
90°	0.0	0.0	0.0

(END OF REPORT)