

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: P1336166

Luminaire Tested: P3A02R459835DE010 E3CA451MB

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336166
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 E3CA451MB
Description: 3in Adjustable LED luminaire with, R45 optic, 3500K CCT AND, 98CRI , E3CA451MB TRIM
Light Source: -
Ballast/Driver: -

Summary

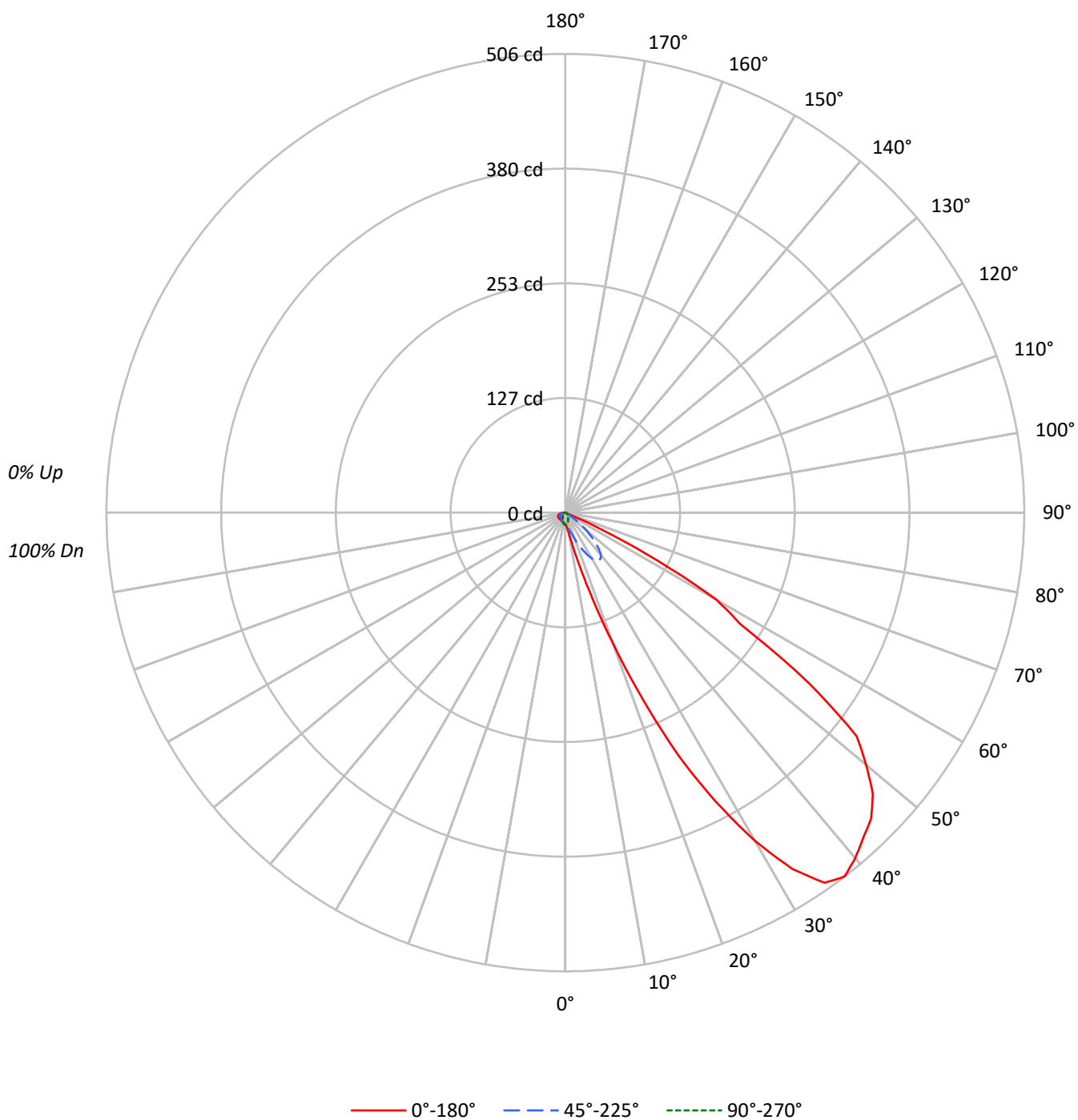
Lumens per Lamp: N/A
Luminaire Lumens: 226.0 lumens
Efficiency: N/A
Efficacy: 62.8 lumens/watt
Spacing Criteria (0/90/45): 3.81 / 0.82 / 1.83
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1336166

CATALOG NUMBER: P3A02R459835DE010 E3CA451MB

Luminous Intensity Polar Plot



TEST NUMBER: P1336166

CATALOG NUMBER: P3A02R459835DE010 E3CA451MB

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°	2873	2873	2873	2873	2873
5°	3412	3170	2840	2641	2641
10°	5455	3696	2672	2494	2494
15°	13576	4949	2406	2338	2406
20°	35726	7397	2100	2217	2357
25°	71738	10985	1815	2081	2299
30°	105763	14711	1469	2026	2355
35°	133418	17239	1258	2008	2463
40°	142352	17433	1116	2090	2634
45°	147891	14544	1054	2264	2853
50°	147680	10132	1023	2422	3173
55°	125510	4511	1070	2714	3517
60°	84335	921	1053	3026	4035
65°	22363	363	1090	3269	4566
70°	577	449	1090	3590	5129
75°	508	508	1101	3813	5846
80°	505	758	1137	4041	6566
85°	503	1006	1761	4277	6542

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 10°

Vertical Angle: 47.5°

Luminance: 151707 cd/sqm

TEST NUMBER: P1336166

CATALOG NUMBER: P3A02R459835DE010 E3CA451MB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.3	0.6
10°-20°	6.4	2.8
20°-30°	26.3	11.6
30°-40°	55.4	24.5
40°-50°	68.4	30.2
50°-60°	51.2	22.7
60°-70°	13.2	5.8
70°-80°	2.7	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°	34.0	15.0
0°-40°	89.4	39.5
0°-60°	209.0	92.5
0°-90°	226.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	226.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	13	13	13	13	13	
5°	16	14	13	12	12	2
15°	60	22	11	10	11	22
25°	296	45	8	9	10	138
35°	498	64	5	8	9	304
45°	477	47	3	7	9	365
55°	328	12	3	7	9	283
65°	43	1	2	6	9	62
75°	1	1	1	4	7	1
85°	0	0	1	2	3	0
90°	0	0	0	0	0	

TEST NUMBER: P1336166

CATALOG NUMBER: P3A02R459835DE010 E3CA451MB

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
0°	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1
2.5°	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.6	13.4	13.1	12.7
5°	15.5	15.3	15.3	15.3	15.1	14.9	14.9	14.4	13.6	12.9	12.3
7.5°	18.3	18.3	18.1	17.7	17.6	17.2	16.8	15.3	13.6	12.5	11.8
10°	24.5	24.1	23.5	23.2	22.2	20.9	20.0	16.6	13.4	12.0	11.4
12.5°	36.6	37.3	35.5	33.6	31.0	28.6	25.6	18.9	13.4	11.4	10.8
15°	59.8	61.1	57.5	53.8	47.4	41.5	35.9	21.8	13.1	10.6	10.1
17.5°	97.7	99.3	93.4	84.6	74.7	62.7	52.5	26.0	12.7	9.9	9.5
20°	153.1	152.9	141.4	130.3	111.3	93.7	74.5	31.7	12.1	9.0	9.0
22.5°	221.3	222.0	207.8	188.0	161.0	132.8	102.1	38.5	11.4	8.2	8.4
25°	296.5	290.2	273.4	249.3	214.7	175.7	135.4	45.4	10.6	7.5	7.8
27.5°	359.3	353.1	333.9	305.3	268.2	221.8	169.2	52.3	9.7	6.7	7.3
30°	417.7	409.9	386.7	354.4	310.2	260.1	200.9	58.1	8.6	5.8	6.7
32.5°	465.9	458.8	432.5	395.0	346.8	293.0	227.8	62.6	7.5	5.2	6.3
35°	498.4	491.1	466.8	425.6	373.1	316.9	249.7	64.4	6.5	4.7	6.2
37.5°	505.9	502.0	484.6	445.9	391.2	332.2	263.7	63.9	5.4	4.3	5.8
40°	497.3	498.2	490.0	457.9	400.9	338.7	269.5	60.9	4.5	3.9	5.6
42.5°	486.3	488.7	488.1	462.7	405.0	339.1	267.0	54.9	3.5	3.5	5.4
45°	476.9	479.4	482.7	460.7	402.2	334.3	259.4	46.9	2.6	3.4	5.4
47.5°	459.9	462.6	467.4	444.3	388.0	321.8	245.6	38.1	1.9	3.2	5.2
50°	432.9	434.2	432.9	406.9	360.8	301.6	223.2	29.7	1.3	3.0	5.2
52.5°	405.0	402.4	391.6	358.7	317.5	269.7	195.0	21.1	0.9	2.8	5.0
55°	328.3	324.2	316.1	296.0	272.5	230.4	157.6	11.8	0.9	2.8	4.9
57.5°	228.8	231.0	233.8	229.7	218.9	181.5	119.7	5.2	0.9	2.6	4.9
60°	192.3	190.5	190.7	188.0	170.1	132.4	82.4	2.1	0.9	2.4	4.7
62.5°	114.8	116.2	118.6	119.1	101.4	73.9	43.1	0.9	0.9	2.2	4.5
65°	43.1	45.2	39.6	34.4	27.3	20.0	10.1	0.7	1.1	2.1	4.1
67.5°	1.3	1.5	1.9	1.7	1.7	1.5	1.1	0.7	1.1	1.9	3.9
70°	0.9	0.9	0.9	0.9	0.9	0.7	0.7	0.7	0.9	1.7	3.5
72.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.9	1.5	3.2
75°	0.6	0.7	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	0.7	1.1	2.2
80°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.6	0.7	0.9	1.9
82.5°	0.4	0.4	0.4	0.2	0.4	0.4	0.4	0.4	0.7	0.7	1.5
85°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.6	0.7	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

TEST NUMBER: P1336166

CATALOG NUMBER: P3A02R459835DE010 E3CA451MB

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	13.1	13.1	13.1
2.5°	12.3	12.3	12.3
5°	12.0	12.0	12.0
7.5°	11.6	11.6	11.6
10°	11.2	11.2	11.2
12.5°	10.8	10.8	11.0
15°	10.3	10.6	10.6
17.5°	9.9	10.3	10.5
20°	9.5	9.9	10.1
22.5°	9.0	9.5	9.9
25°	8.6	9.3	9.5
27.5°	8.2	9.2	9.5
30°	8.0	9.0	9.3
32.5°	7.7	8.8	9.2
35°	7.5	8.8	9.2
37.5°	7.5	8.6	9.2
40°	7.3	8.6	9.2
42.5°	7.3	8.6	9.2
45°	7.3	8.6	9.2
47.5°	7.1	8.6	9.3
50°	7.1	8.8	9.3
52.5°	7.1	8.8	9.3
55°	7.1	8.8	9.2
57.5°	6.9	8.6	9.2
60°	6.9	8.6	9.2
62.5°	6.5	8.4	9.0
65°	6.3	8.2	8.8
67.5°	6.0	8.0	8.4
70°	5.6	7.5	8.0
72.5°	5.0	7.1	7.7
75°	4.5	6.5	6.9
77.5°	3.9	5.8	6.2
80°	3.2	4.9	5.2
82.5°	2.4	3.7	3.9
85°	1.7	2.4	2.6
87.5°	0.7	1.1	1.3
90°	0.0	0.0	0.0

(END OF REPORT)