

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: P1339550

Luminaire Tested: P3A05R459840DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1339550
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: P3A05R459840DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R45 optic, 4000K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

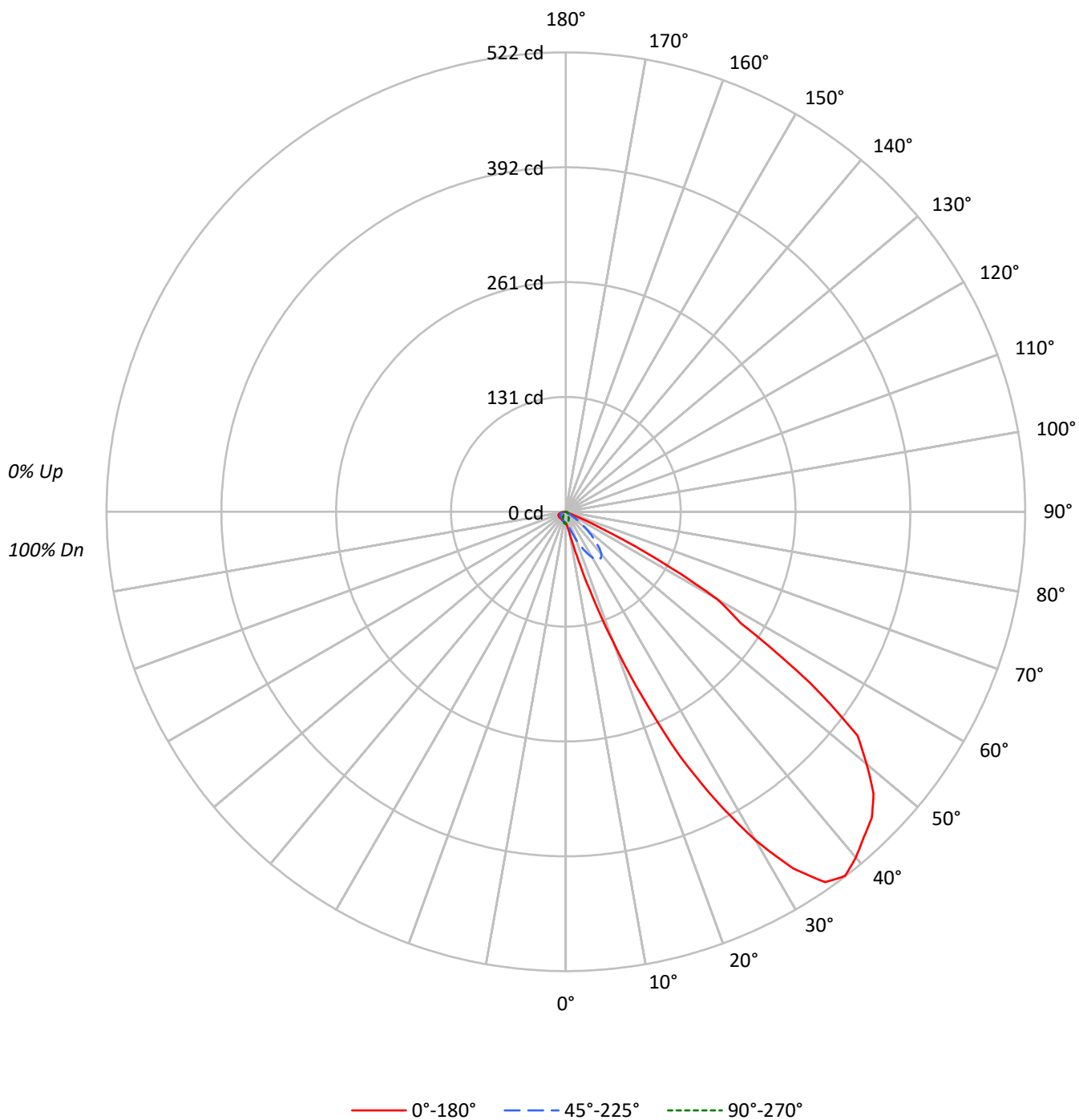
Lumens per Lamp: N/A
Luminaire Lumens: 233.0 lumens
Efficiency: N/A
Efficacy: 32.4 lumens/watt
Spacing Criteria (0/90/45): 3.81 / 0.82 / 1.83
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 7.2
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	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	35	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°	2960	2960	2960	2960	2960
5°	3522	3258	2928	2707	2707
10°	5611	3808	2739	2583	2583
15°	13984	5108	2497	2406	2497
20°	36847	7631	2147	2287	2427
25°	73964	11323	1863	2153	2371
30°	109055	15167	1519	2102	2431
35°	137540	17775	1285	2061	2516
40°	146761	17977	1145	2147	2691
45°	152481	14978	1085	2326	2915
50°	152251	10439	1058	2490	3275
55°	129410	4626	1109	2791	3594
60°	86967	921	1096	3114	4122
65°	23089	415	1090	3373	4670
70°	641	513	1090	3719	5321
75°	508	508	1101	3897	6015
80°	505	758	1263	4167	6819
85°	503	1006	2013	4277	6793

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 10°

Vertical Angle: 47.5°

Luminance: 156413 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.3	0.6
10°-20°	6.6	2.8
20°-30°	27.1	11.6
30°-40°	57.1	24.5
40°-50°	70.5	30.2
50°-60°	52.8	22.7
60°-70°	13.6	5.8
70°-80°	2.8	1.2
80°-90°	1.2	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°	35.0	15.0
0°-40°	92.1	39.5
0°-60°	215.4	92.5
0°-90°	233.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	233.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	14	14	14	14	14	
5°	16	15	13	12	12	2
15°	62	22	11	11	11	23
25°	306	47	8	9	10	142
35°	514	66	5	8	9	313
45°	492	48	4	8	9	376
55°	338	12	3	7	9	292
65°	44	1	2	6	9	64
75°	1	1	1	5	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°	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5	13.5
2.5°	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.1	13.9	13.5	13.1
5°	16.0	15.8	15.8	15.8	15.6	15.4	15.4	14.8	14.1	13.3	12.7
7.5°	18.9	18.9	18.7	18.3	18.1	17.7	17.3	15.8	14.1	12.9	12.1
10°	25.2	24.8	24.3	23.9	22.9	21.6	20.6	17.1	13.9	12.3	11.7
12.5°	37.7	38.5	36.6	34.7	32.0	29.5	26.4	19.4	13.9	11.7	11.2
15°	61.6	63.0	59.3	55.4	48.9	42.7	37.0	22.5	13.5	11.0	10.4
17.5°	100.7	102.4	96.3	87.2	77.0	64.7	54.1	26.8	13.1	10.2	9.8
20°	157.9	157.7	145.7	134.4	114.7	96.6	76.8	32.7	12.5	9.2	9.2
22.5°	228.1	228.9	214.3	193.9	166.0	136.9	105.3	39.7	11.7	8.5	8.7
25°	305.7	299.2	281.9	257.0	221.4	181.2	139.6	46.8	11.0	7.7	8.1
27.5°	370.4	364.1	344.2	314.8	276.5	228.7	174.4	53.9	10.0	6.9	7.5
30°	430.7	422.6	398.7	365.4	319.8	268.2	207.2	59.9	8.9	6.0	6.9
32.5°	480.3	473.0	445.9	407.2	357.5	302.1	234.9	64.5	7.7	5.4	6.5
35°	513.8	506.3	481.3	438.8	384.7	326.7	257.4	66.4	6.7	4.8	6.4
37.5°	521.5	517.5	499.6	459.7	403.3	342.5	271.8	65.8	5.6	4.4	6.0
40°	512.7	513.6	505.2	472.1	413.3	349.2	277.8	62.8	4.6	4.0	5.8
42.5°	501.3	503.8	503.3	477.1	417.6	349.6	275.3	56.6	3.7	3.7	5.6
45°	491.7	494.2	497.7	475.0	414.7	344.6	267.4	48.3	2.7	3.5	5.6
47.5°	474.2	476.9	481.9	458.0	400.1	331.7	253.2	39.3	1.9	3.3	5.4
50°	446.3	447.6	446.3	419.5	372.0	310.9	230.1	30.6	1.3	3.1	5.4
52.5°	417.6	414.9	403.7	369.8	327.3	278.0	201.0	21.8	1.0	2.9	5.2
55°	338.5	334.2	325.9	305.1	280.9	237.6	162.5	12.1	1.0	2.9	5.0
57.5°	235.8	238.2	241.0	236.8	225.6	187.1	123.4	5.4	1.0	2.7	5.0
60°	198.3	196.4	196.6	193.9	175.4	136.5	84.9	2.1	1.0	2.5	4.8
62.5°	118.4	119.7	122.3	122.8	104.5	76.2	44.5	1.0	1.0	2.3	4.6
65°	44.5	46.6	40.8	35.4	28.1	20.6	10.4	0.8	1.2	2.1	4.2
67.5°	1.3	1.5	1.9	1.7	1.7	1.5	1.2	0.8	1.2	1.9	4.0
70°	1.0	1.0	1.0	1.0	1.0	0.8	0.8	0.8	1.0	1.7	3.7
72.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.0	1.5	3.3
75°	0.6	0.8	0.6	0.6	0.6	0.6	0.6	0.6	1.0	1.3	2.7
77.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.8	1.2	2.3
80°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.6	0.8	1.0	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	1.0
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°	13.5	13.5	13.5
2.5°	12.7	12.7	12.7
5°	12.3	12.3	12.3
7.5°	11.9	11.9	11.9
10°	11.6	11.6	11.6
12.5°	11.2	11.2	11.4
15°	10.6	11.0	11.0
17.5°	10.2	10.6	10.8
20°	9.8	10.2	10.4
22.5°	9.2	9.8	10.2
25°	8.9	9.6	9.8
27.5°	8.5	9.4	9.8
30°	8.3	9.2	9.6
32.5°	7.9	9.0	9.4
35°	7.7	9.0	9.4
37.5°	7.7	8.9	9.4
40°	7.5	8.9	9.4
42.5°	7.5	8.9	9.4
45°	7.5	8.9	9.4
47.5°	7.3	8.9	9.6
50°	7.3	9.0	9.6
52.5°	7.3	9.0	9.6
55°	7.3	9.0	9.4
57.5°	7.1	8.9	9.4
60°	7.1	8.9	9.4
62.5°	6.7	8.7	9.2
65°	6.5	8.5	9.0
67.5°	6.2	8.3	8.7
70°	5.8	7.7	8.3
72.5°	5.2	7.3	7.9
75°	4.6	6.7	7.1
77.5°	4.0	6.0	6.4
80°	3.3	5.0	5.4
82.5°	2.5	3.9	4.0
85°	1.7	2.5	2.7
87.5°	0.8	1.2	1.3
90°	0.0	0.0	0.0

(END OF REPORT)