

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: P1335444

Luminaire Tested: P3A02R359740DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335444
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-77)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A02R359740DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R35 optic, 4000K CCT AND, 97CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

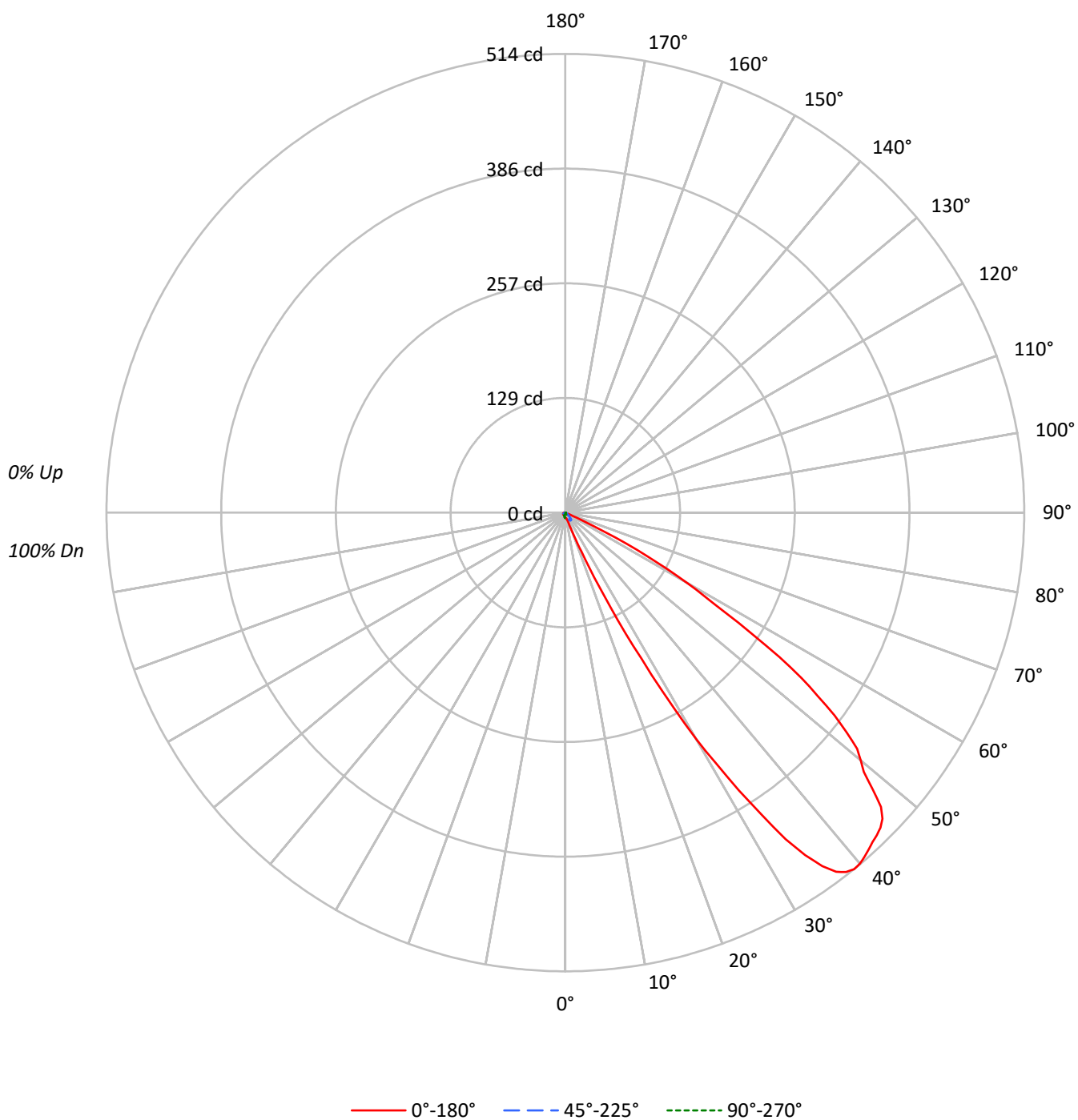
Lumens per Lamp: N/A
Luminaire Lumens: 128.0 lumens
Efficiency: N/A
Efficacy: 35.6 lumens/watt
Spacing Criteria (0/90/45): 4.01 / 0.66 / 1.42
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	100	97	94	96	93	91	92	90	89
2	100	93	86	81	98	91	85	80	87	83	78	84	80	77	81	78	75
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	52
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	49	44
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37
7	62	48	38	32	60	47	38	32	45	37	32	44	37	31	42	36	31
8	57	42	33	27	55	41	33	27	40	32	27	39	32	26	38	31	26
9	52	38	29	23	50	37	29	23	36	28	23	35	28	22	34	27	22
10	48	34	25	19	46	33	25	19	32	25	19	31	24	19	30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	1294	1294	1294	1294	1294
5°	1409	1365	1277	1145	1123
10°	1470	1336	1136	980	980
15°	2089	1317	908	840	863
20°	5250	1400	723	723	817
25°	24413	1790	556	677	750
30°	74189	2431	430	608	760
35°	125387	2811	375	589	750
40°	146990	2777	286	601	802
45°	154807	1985	248	651	868
50°	147338	1194	239	682	955
55°	123484	497	268	765	1109
60°	69117	88	307	877	1228
65°	11934	52	311	934	1401
70°	192	64	385	1026	1539
75°	169	85	508	1186	1779
80°	126	126	631	1263	2020
85°	0	252	1258	1510	2264

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 46°

Luminance: 155876 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.5	0.4
10°-20°	1.5	1.2
20°-30°	7.9	6.1
30°-40°	33.9	26.5
40°-50°	48.4	37.8
50°-60°	30.0	23.4
60°-70°	4.6	3.6
70°-80°	0.8	0.7
80°-90°	0.4	0.3
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°	9.9	7.7
0°-40°	43.8	34.2
0°-60°	122.2	95.5
0°-90°	128.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	128.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	6	6	6	6	6	
5°	6	6	6	5	5	1
15°	9	6	4	4	4	3
25°	101	7	2	3	3	60
35°	468	10	1	2	3	281
45°	499	6	1	2	3	377
55°	323	1	1	2	3	275
65°	23	0	1	2	3	47
75°	0	0	1	1	2	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°	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
2.5°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	5.9	5.8
5°	6.4	6.4	6.2	6.2	6.2	6.2	6.2	6.2	6.0	5.8	5.4
7.5°	6.5	6.5	6.4	6.4	6.4	6.4	6.2	6.1	5.9	5.4	5.1
10°	6.6	6.6	6.6	6.6	6.5	6.4	6.2	6.0	5.7	5.1	4.7
12.5°	7.4	7.4	7.3	7.0	6.8	6.6	6.4	5.9	5.2	4.6	4.3
15°	9.2	9.1	8.9	8.6	8.1	7.5	7.0	5.8	4.7	4.0	3.8
17.5°	12.9	12.7	12.4	11.2	10.2	9.1	8.2	5.8	4.3	3.6	3.4
20°	22.5	22.6	20.2	17.4	15.1	12.6	10.3	6.0	3.8	3.1	3.0
22.5°	47.0	45.2	39.4	32.7	25.0	19.3	14.6	6.6	3.4	2.7	2.7
25°	100.9	93.8	79.8	60.3	42.5	30.2	21.1	7.4	3.0	2.3	2.4
27.5°	184.2	177.8	149.7	112.8	74.9	45.5	28.7	8.4	2.7	2.0	2.2
30°	293.0	275.5	238.8	184.9	125.1	69.7	38.5	9.6	2.2	1.7	2.1
31°	327.0	318.9	274.3	213.9	146.6	82.7	42.6	9.9	2.1	1.7	2.0
32°	367.3	353.0	313.0	245.7	168.5	94.4	47.6	10.3	2.0	1.5	2.0
33°	403.4	389.5	340.9	273.6	190.5	107.7	52.9	10.4	1.7	1.5	1.8
34°	441.3	422.3	374.1	302.8	213.2	122.0	57.8	10.5	1.6	1.4	1.8
35°	468.4	449.5	402.8	326.0	232.7	134.7	63.3	10.5	1.5	1.4	1.7
36°	489.5	472.8	427.5	349.8	252.1	146.2	67.7	10.5	1.3	1.3	1.7
37°	503.9	488.1	444.2	370.2	266.9	156.3	71.6	10.5	1.2	1.3	1.7
38°	511.0	497.8	460.2	385.1	281.2	164.3	74.8	10.3	1.0	1.2	1.6
39°	514.0	503.2	470.0	397.7	292.0	171.2	77.1	10.1	0.9	1.2	1.6
40°	513.5	504.1	475.6	406.4	300.7	176.0	78.3	9.7	0.8	1.0	1.6
41°	510.8	502.7	478.5	413.8	305.9	179.2	78.7	9.4	0.7	1.0	1.5
42°	507.8	500.4	479.4	417.7	309.2	180.3	77.8	8.9	0.7	0.9	1.5
43°	504.7	497.9	479.4	419.0	310.0	179.6	76.3	8.1	0.6	0.9	1.5
44°	502.2	495.7	477.9	418.6	308.3	176.9	73.5	7.2	0.5	0.9	1.5
45°	499.2	492.8	475.9	416.4	304.9	172.4	70.0	6.4	0.3	0.8	1.5
46°	493.8	488.9	472.5	411.9	299.6	166.2	65.6	5.8	0.2	0.8	1.4
47°	483.6	479.3	465.8	405.2	292.6	158.8	61.1	5.2	0.2	0.8	1.4
48°	462.9	462.8	452.4	392.7	281.4	149.5	56.4	4.6	0.2	0.8	1.4
49°	442.9	440.8	427.9	370.8	265.3	138.4	51.4	4.2	0.1	0.8	1.4
50°	431.9	427.4	406.1	344.9	244.7	123.1	46.1	3.5	0.1	0.7	1.4
51°	420.5	414.0	388.9	321.6	220.2	108.3	40.3	2.8	0.1	0.7	1.3
52°	399.8	393.7	365.6	299.3	196.4	93.1	34.8	2.3	0.1	0.7	1.4
53°	377.5	368.7	338.2	274.8	175.5	79.7	29.1	2.0	0.1	0.7	1.3
54°	349.4	345.5	310.5	244.7	151.0	66.8	23.9	1.6	0.1	0.7	1.3
55°	323.0	317.2	280.8	214.0	128.8	54.8	20.0	1.3	0.1	0.7	1.3
56°	289.2	280.5	246.5	185.8	106.3	44.1	16.9	1.0	0.1	0.7	1.3
57°	249.0	239.8	212.8	154.5	83.4	33.6	14.1	0.8	0.1	0.7	1.3
58°	210.6	202.7	173.8	119.2	62.9	23.3	11.7	0.6	0.1	0.6	1.3
59°	182.0	173.2	144.5	91.7	43.7	17.2	8.8	0.5	0.1	0.7	1.3
60°	157.6	146.3	116.4	71.1	31.2	12.4	6.5	0.2	0.2	0.7	1.3
62.5°	90.8	80.2	55.6	28.9	12.8	6.4	3.1	0.1	0.2	0.7	1.3
65°	23.0	20.5	13.3	6.2	3.6	2.2	1.2	0.1	0.2	0.6	1.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
67.5°	0.8	0.8	0.8	0.7	0.6	0.5	0.2	0.1	0.2	0.6	1.2
70°	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.2	0.6	1.0
72.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.3	0.6	0.9
75°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.3	0.6	0.9
77.5°	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.5	0.8
80°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.5	0.7
82.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.5	0.6
85°	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.3	0.5	0.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.5	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°	5.9	5.9	5.9
2.5°	5.5	5.5	5.5
5°	5.2	5.2	5.1
7.5°	4.9	4.7	4.7
10°	4.4	4.4	4.4
12.5°	4.0	4.0	4.0
15°	3.7	3.8	3.8
17.5°	3.4	3.6	3.6
20°	3.1	3.4	3.5
22.5°	2.9	3.1	3.2
25°	2.8	3.0	3.1
27.5°	2.5	2.9	3.1
30°	2.4	2.8	3.0
31°	2.4	2.8	2.9
32°	2.3	2.8	2.9
33°	2.3	2.8	2.9
34°	2.3	2.7	2.9
35°	2.2	2.7	2.8
36°	2.2	2.7	2.8
37°	2.2	2.7	2.9
38°	2.2	2.7	2.8
39°	2.1	2.7	2.8
40°	2.1	2.7	2.8
41°	2.1	2.7	2.8
42°	2.1	2.7	2.8
43°	2.1	2.7	2.8
44°	2.1	2.5	2.8
45°	2.1	2.5	2.8
46°	2.1	2.7	2.8
47°	2.1	2.7	2.9
48°	2.1	2.5	2.8
49°	2.0	2.5	2.8
50°	2.0	2.5	2.8
51°	2.0	2.7	2.9
52°	2.0	2.7	2.9
53°	2.0	2.7	2.9
54°	2.0	2.7	2.8
55°	2.0	2.7	2.9
56°	2.0	2.7	2.8
57°	2.0	2.7	2.8
58°	2.0	2.5	2.8
59°	2.0	2.5	2.8
60°	2.0	2.5	2.8
62.5°	1.8	2.5	2.8
65°	1.8	2.4	2.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	1.7	2.4	2.5
70°	1.6	2.3	2.4
72.5°	1.5	2.2	2.3
75°	1.4	2.0	2.1
77.5°	1.2	1.7	2.0
80°	1.0	1.5	1.6
82.5°	0.8	1.3	1.4
85°	0.6	0.9	0.9
87.5°	0.2	0.5	0.5
90°	0.0	0.0	0.0

(END OF REPORT)