

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: P1335764

Luminaire Tested: P3A02R409735DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335764
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-78)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A02R409735DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R40 optic, 3500K CCT AND, 97CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

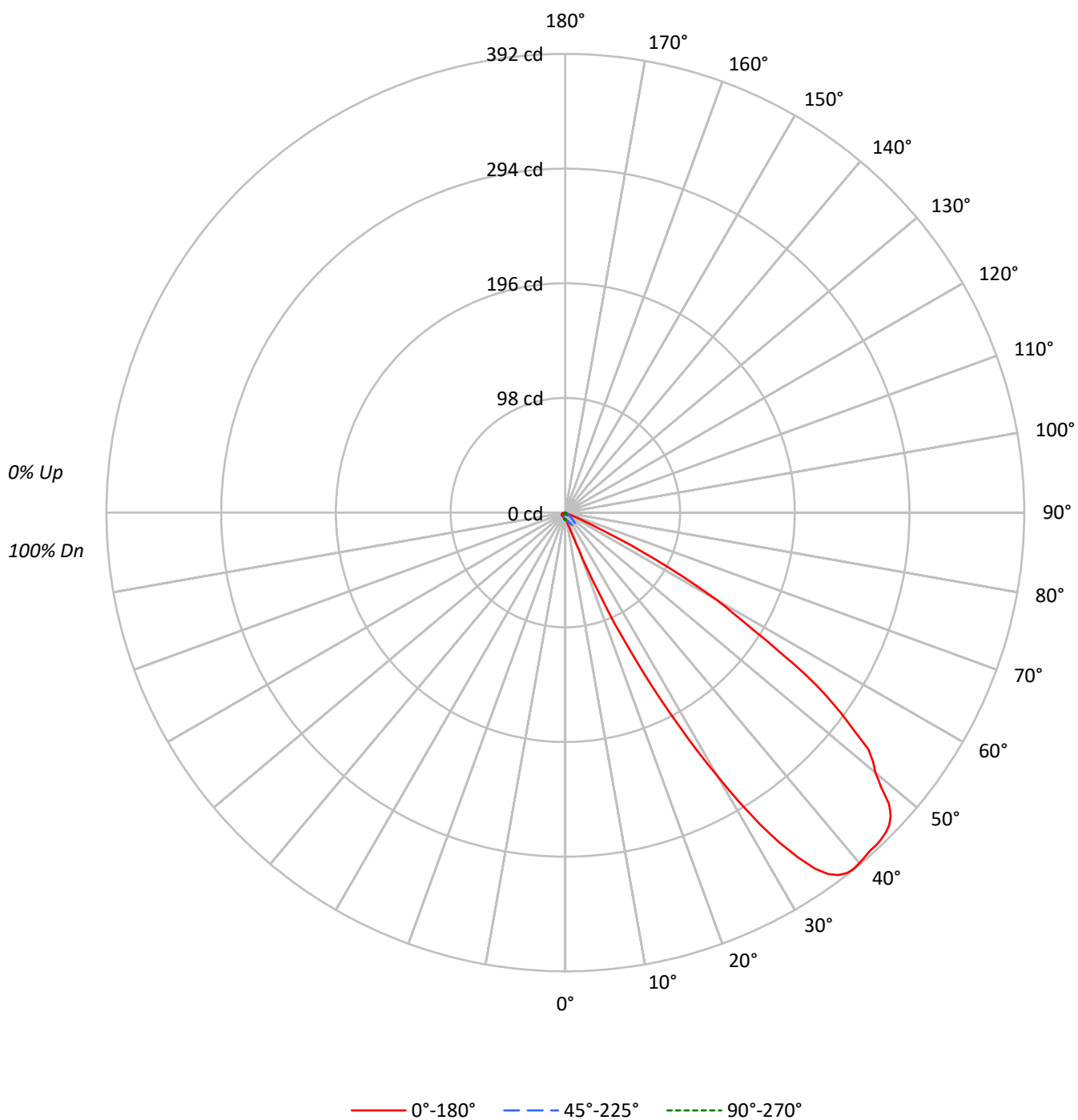
Lumens per Lamp: N/A
Luminaire Lumens: 121.0 lumens
Efficiency: N/A
Efficacy: 33.6 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.74 / 1.55
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	100
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	88	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	75	75	73
3	91	81	73	66	89	79	72	66	76	70	65	73	68	64	71	66	62	62	62	60
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52	52	52	50
5	75	62	52	46	73	60	52	45	58	51	45	56	50	44	54	49	44	44	44	42
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	37	37	35
7	62	48	39	32	60	47	38	32	45	37	32	44	37	31	42	36	31	31	31	29
8	57	42	33	27	55	42	33	27	40	32	27	39	32	27	38	31	26	26	26	24
9	52	38	29	23	51	37	29	23	36	28	23	35	28	23	34	27	23	23	23	21
10	48	34	25	20	47	33	25	20	32	25	20	31	24	20	30	24	19	19	19	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	1360	1360	1360	1360	1360
5°	1519	1475	1343	1233	1189
10°	1826	1559	1247	1113	1091
15°	2997	1680	1067	976	999
20°	7934	2007	887	887	957
25°	30607	2468	702	798	944
30°	66010	3292	557	785	937
35°	99341	3908	482	776	964
40°	111924	3922	401	802	1031
45°	120012	3039	372	837	1116
50°	117966	1910	341	887	1228
55°	103796	918	344	994	1376
60°	65696	175	395	1053	1491
65°	13439	52	415	1141	1660
70°	256	64	449	1282	1923
75°	254	169	508	1440	2203
80°	253	126	505	1515	2526
85°	252	252	1006	1761	2768

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 122180 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.6	0.5
10°-20°	1.9	1.6
20°-30°	9.4	7.8
30°-40°	30.6	25.3
40°-50°	42.1	34.8
50°-60°	29.4	24.3
60°-70°	5.6	4.6
70°-80°	1.0	0.8
80°-90°	0.5	0.4
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°	11.9	9.8
0°-40°	42.5	35.1
0°-60°	114.0	94.2
0°-90°	121.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	121.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	6	6	6	6	6	
5°	7	7	6	6	5	1
15°	13	7	5	4	4	5
25°	126	10	3	3	4	65
35°	371	15	2	3	4	224
45°	387	10	1	3	4	294
55°	272	2	1	3	4	232
65°	26	0	1	2	3	46
75°	0	0	1	2	3	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°	35°	45°	67.5°	90°
0°	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2
2.5°	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.3	6.2
5°	6.9	6.9	6.9	6.9	6.8	6.8	6.8	6.7	6.7	6.4	6.1
7.5°	7.3	7.3	7.3	7.3	7.2	7.1	7.0	7.0	6.9	6.3	5.9
10°	8.2	8.2	8.1	8.0	7.9	7.7	7.6	7.3	7.0	6.2	5.6
12.5°	10.0	9.8	9.7	9.4	9.1	8.7	8.2	7.9	7.1	6.0	5.2
15°	13.2	13.0	12.6	11.9	11.2	10.3	9.6	8.8	7.4	5.7	4.7
17.5°	18.9	18.2	17.6	16.4	14.8	13.2	11.6	10.1	7.9	5.3	4.2
20°	34.0	33.6	29.6	26.4	21.4	17.9	14.6	12.1	8.6	5.0	3.8
22.5°	70.1	65.5	58.9	48.2	37.6	27.7	20.1	15.2	9.2	4.6	3.3
25°	126.5	119.1	105.0	84.5	62.3	44.1	29.1	19.9	10.2	4.1	2.9
27.5°	191.5	184.0	162.1	133.8	97.7	66.6	41.6	26.3	11.6	3.7	2.6
30°	260.7	254.4	226.6	187.4	137.7	93.2	55.7	32.9	13.0	3.2	2.2
31°	288.6	280.5	250.5	208.7	156.5	104.2	61.3	35.7	13.6	3.1	2.1
32°	314.3	305.0	273.9	229.1	171.7	116.1	67.6	38.1	14.0	2.9	2.0
33°	336.4	325.6	295.6	248.5	188.5	127.2	74.0	40.4	14.3	2.7	1.9
34°	355.1	345.8	313.6	267.9	203.4	137.9	80.3	42.8	14.6	2.6	1.8
35°	371.1	362.7	330.8	282.7	217.9	148.2	86.1	45.0	14.6	2.3	1.8
36°	381.9	374.6	345.7	297.8	230.1	157.0	91.0	47.0	14.6	2.1	1.7
37°	387.8	380.7	355.5	310.3	242.1	165.7	95.5	48.6	14.4	2.0	1.6
38°	390.8	384.6	362.7	320.4	250.5	171.9	99.3	49.8	14.3	1.8	1.6
39°	391.6	386.4	367.3	327.7	258.6	178.1	102.1	50.4	14.0	1.7	1.4
40°	391.0	386.5	369.7	334.3	264.8	183.0	104.1	50.7	13.7	1.4	1.4
41°	389.9	386.4	371.5	338.8	269.8	186.1	104.9	50.2	13.2	1.2	1.3
42°	388.9	385.0	372.3	341.9	273.2	187.7	104.8	49.3	12.6	1.1	1.3
43°	388.9	384.5	372.4	343.9	274.9	187.8	103.5	47.7	11.7	1.0	1.2
44°	388.3	384.1	372.9	345.3	275.4	186.8	101.3	45.9	10.7	0.9	1.2
45°	387.0	382.7	372.8	345.4	274.6	184.4	97.9	43.6	9.8	0.7	1.2
46°	384.7	380.8	371.8	344.6	272.2	180.8	93.8	41.2	8.8	0.6	1.1
47°	380.0	377.0	369.1	341.9	268.7	175.6	88.9	38.6	8.0	0.4	1.1
48°	372.0	369.9	364.6	336.0	261.9	169.1	83.7	35.7	7.2	0.4	1.1
49°	357.4	355.7	352.6	326.6	253.2	161.2	78.0	32.4	6.4	0.3	1.1
50°	345.8	344.0	337.7	310.7	240.8	151.2	71.8	29.2	5.6	0.2	1.0
51°	338.1	335.3	325.3	292.3	222.7	137.9	65.0	26.0	4.7	0.2	1.0
52°	328.5	324.1	311.7	275.7	206.1	124.6	57.7	22.8	4.1	0.2	1.0
53°	308.3	306.7	294.4	257.9	189.6	111.8	50.1	20.1	3.6	0.2	1.0
54°	290.6	288.2	271.5	233.2	171.6	97.6	42.3	17.8	3.0	0.2	1.0
55°	271.5	266.9	252.0	212.5	150.5	84.5	34.9	15.3	2.4	0.2	0.9
56°	247.4	243.4	227.4	190.2	131.0	71.1	29.2	12.6	1.9	0.2	0.9
57°	218.0	214.4	202.0	162.9	110.8	58.1	23.8	10.1	1.4	0.2	0.9
58°	189.7	185.6	171.5	136.7	89.5	46.1	19.9	8.2	1.1	0.2	0.9
59°	167.9	162.3	144.1	114.8	70.0	35.0	15.8	6.6	0.8	0.2	0.9
60°	149.8	145.2	126.3	95.6	54.9	25.8	11.7	5.0	0.4	0.2	0.9
62.5°	86.8	85.6	68.6	49.2	25.9	12.0	5.8	2.3	0.2	0.3	0.9
65°	25.9	22.6	17.6	10.4	6.7	4.0	2.1	0.8	0.1	0.3	0.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.4	0.2	0.1	0.3	0.8
70°	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.3	0.7
72.5°	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.2	0.3	0.6
75°	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.3	0.6
77.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.6
80°	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4
82.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4
85°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	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):

	112.5°	135°	157.5°	180°
0°	6.2	6.2	6.2	6.2
2.5°	6.0	5.9	5.8	5.8
5°	5.8	5.6	5.6	5.4
7.5°	5.4	5.2	5.2	5.2
10°	5.1	5.0	5.0	4.9
12.5°	4.7	4.7	4.7	4.7
15°	4.3	4.3	4.4	4.4
17.5°	3.9	4.0	4.2	4.3
20°	3.6	3.8	4.0	4.1
22.5°	3.3	3.6	3.9	4.0
25°	3.0	3.3	3.8	3.9
27.5°	2.8	3.2	3.6	3.8
30°	2.6	3.1	3.4	3.7
31°	2.6	3.0	3.4	3.7
32°	2.4	2.9	3.4	3.6
33°	2.4	2.9	3.4	3.6
34°	2.3	2.9	3.3	3.6
35°	2.3	2.9	3.3	3.6
36°	2.2	2.8	3.3	3.6
37°	2.2	2.8	3.3	3.6
38°	2.1	2.8	3.3	3.6
39°	2.1	2.8	3.3	3.6
40°	2.1	2.8	3.3	3.6
41°	2.0	2.8	3.3	3.6
42°	2.0	2.8	3.3	3.6
43°	2.0	2.7	3.3	3.6
44°	2.0	2.7	3.3	3.6
45°	1.9	2.7	3.3	3.6
46°	1.9	2.7	3.3	3.6
47°	1.9	2.7	3.3	3.6
48°	1.9	2.7	3.3	3.6
49°	1.9	2.7	3.3	3.6
50°	1.8	2.6	3.3	3.6
51°	1.8	2.6	3.3	3.6
52°	1.8	2.6	3.3	3.6
53°	1.8	2.6	3.3	3.6
54°	1.7	2.6	3.3	3.6
55°	1.7	2.6	3.3	3.6
56°	1.7	2.6	3.3	3.4
57°	1.7	2.6	3.2	3.4
58°	1.7	2.4	3.2	3.4
59°	1.7	2.4	3.2	3.4
60°	1.7	2.4	3.2	3.4
62.5°	1.6	2.4	3.1	3.3
65°	1.4	2.2	3.1	3.2



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	1.4	2.1	2.9	3.1
70°	1.3	2.0	2.8	3.0
72.5°	1.1	1.9	2.6	2.8
75°	1.0	1.7	2.3	2.6
77.5°	0.9	1.4	2.1	2.2
80°	0.8	1.2	1.8	2.0
82.5°	0.6	0.9	1.4	1.6
85°	0.4	0.7	1.0	1.1
87.5°	0.3	0.3	0.6	0.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)