

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: P1335847

Luminaire Tested: P3A02R409840DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335847
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: P3A02R409840DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R40 optic, 4000K CCT AND, 98CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

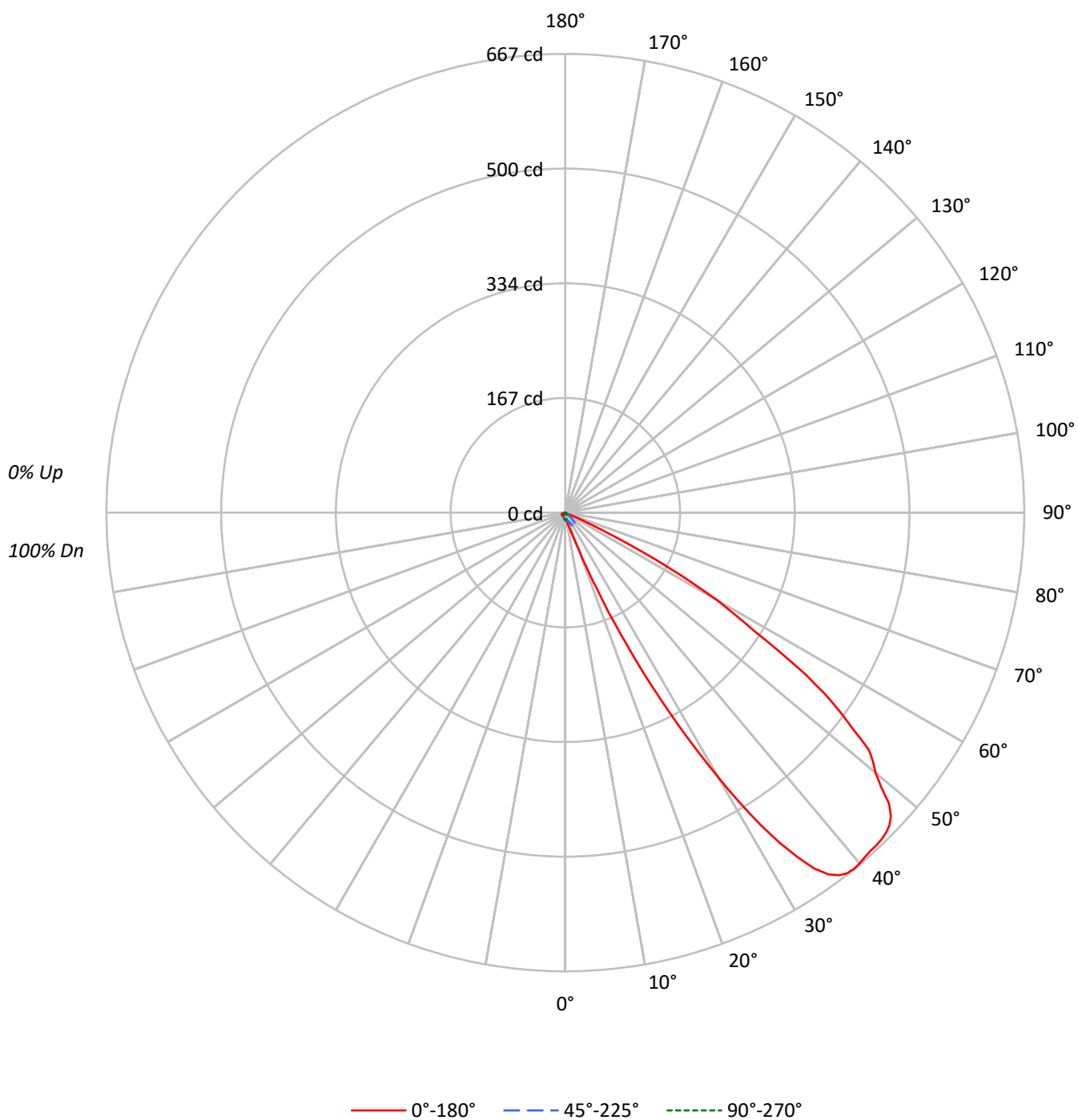
Lumens per Lamp: N/A
Luminaire Lumens: 206.0 lumens
Efficiency: N/A
Efficacy: 57.2 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	2324	2324	2324	2324	2324
5°	2575	2509	2289	2091	2047
10°	3117	2650	2115	1893	1848
15°	5108	2883	1793	1680	1725
20°	13511	3407	1493	1493	1633
25°	52092	4210	1186	1379	1597
30°	112372	5596	962	1342	1570
35°	169155	6639	803	1312	1633
40°	190557	6670	716	1345	1746
45°	204331	5148	651	1395	1892
50°	200829	3241	580	1501	2081
55°	176701	1606	573	1682	2332
60°	111833	351	658	1842	2588
65°	22882	104	675	1972	2854
70°	513	128	705	2180	3270
75°	508	339	763	2372	3728
80°	505	253	1010	2652	4293
85°	503	503	2013	2768	4780

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 208028 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.0	0.5
10°-20°	3.3	1.6
20°-30°	16.0	7.8
30°-40°	52.0	25.3
40°-50°	71.7	34.8
50°-60°	50.0	24.3
60°-70°	9.5	4.6
70°-80°	1.7	0.8
80°-90°	0.8	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°	20.3	9.8
0°-40°	72.3	35.1
0°-60°	194.0	94.2
0°-90°	206.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	206.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	11	11	11	11	11	
5°	12	11	10	10	9	1
15°	22	13	8	7	8	8
25°	215	17	5	6	7	111
35°	632	25	3	5	6	382
45°	659	17	2	4	6	501
55°	462	4	2	4	6	395
65°	44	0	1	4	6	78
75°	1	0	1	3	4	1
85°	0	0	1	1	2	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°	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6
2.5°	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	10.8	10.6
5°	11.7	11.7	11.7	11.7	11.5	11.5	11.5	11.4	11.4	11.0	10.4
7.5°	12.5	12.5	12.5	12.5	12.3	12.1	11.9	11.9	11.7	10.8	10.0
10°	14.0	14.0	13.8	13.6	13.4	13.1	12.9	12.5	11.9	10.6	9.5
12.5°	17.0	16.6	16.5	16.1	15.5	14.8	14.0	13.4	12.1	10.2	8.9
15°	22.5	22.1	21.4	20.2	19.1	17.6	16.3	14.9	12.7	9.6	7.9
17.5°	32.2	31.0	29.9	28.0	25.2	22.5	19.7	17.2	13.4	9.1	7.2
20°	57.9	57.1	50.3	45.0	36.5	30.5	24.8	20.6	14.6	8.5	6.4
22.5°	119.4	111.4	100.3	82.1	63.9	47.1	34.2	25.9	15.7	7.8	5.7
25°	215.3	202.8	178.8	143.8	106.1	75.1	49.6	33.9	17.4	7.0	4.9
27.5°	326.0	313.3	276.0	227.8	166.3	113.3	70.8	44.8	19.7	6.2	4.4
30°	443.8	433.0	385.7	319.0	234.4	158.7	94.8	56.0	22.1	5.5	3.8
31°	491.3	477.5	426.4	355.3	266.4	177.5	104.4	60.7	23.1	5.3	3.6
32°	535.0	519.3	466.3	390.1	292.3	197.7	115.0	64.9	23.8	4.9	3.4
33°	572.7	554.3	503.2	423.0	320.9	216.6	126.0	68.9	24.4	4.5	3.2
34°	604.6	588.7	533.9	456.1	346.2	234.8	136.8	72.8	24.8	4.4	3.0
35°	631.9	617.5	563.2	481.3	371.0	252.4	146.6	76.6	24.8	4.0	3.0
36°	650.2	637.7	588.5	507.0	391.8	267.3	154.9	80.0	24.8	3.6	2.8
37°	660.2	648.1	605.2	528.2	412.2	282.1	162.5	82.7	24.6	3.4	2.6
38°	665.4	654.8	617.5	545.4	426.4	292.7	169.1	84.8	24.4	3.0	2.6
39°	666.7	657.8	625.2	557.9	440.2	303.3	173.9	85.9	23.8	2.8	2.5
40°	665.7	658.0	629.4	569.1	450.8	311.6	177.3	86.3	23.3	2.5	2.5
41°	663.8	657.8	632.4	576.8	459.3	316.9	178.6	85.5	22.5	2.1	2.3
42°	662.1	655.5	633.8	582.1	465.2	319.5	178.4	84.0	21.4	1.9	2.3
43°	662.1	654.6	634.0	585.5	468.0	319.7	176.1	81.2	19.9	1.7	2.1
44°	661.0	654.0	634.9	587.8	468.8	318.0	172.5	78.1	18.2	1.5	2.1
45°	658.9	651.5	634.7	588.0	467.5	313.9	166.7	74.2	16.6	1.1	2.1
46°	654.9	648.3	633.0	586.7	463.5	307.8	159.7	70.2	14.9	0.9	1.9
47°	647.0	641.9	628.5	582.1	457.4	298.9	151.3	65.6	13.6	0.8	1.9
48°	633.4	629.8	620.7	572.1	445.9	287.9	142.5	60.7	12.3	0.8	1.9
49°	608.4	605.6	600.3	556.0	431.1	274.5	132.8	55.2	11.0	0.6	1.9
50°	588.7	585.7	574.9	529.0	410.0	257.5	122.2	49.8	9.5	0.4	1.7
51°	575.7	570.8	553.7	497.5	379.1	234.8	110.7	44.3	7.9	0.4	1.7
52°	559.2	551.8	530.7	469.4	350.9	212.1	98.2	38.8	7.0	0.4	1.7
53°	524.8	522.1	501.1	439.1	322.7	190.3	85.3	34.2	6.1	0.4	1.7
54°	494.7	490.7	462.2	397.1	292.1	166.1	72.1	30.3	5.1	0.4	1.7
55°	462.2	454.4	429.1	361.7	256.2	143.8	59.4	26.1	4.2	0.4	1.5
56°	421.1	414.3	387.1	323.9	223.0	121.1	49.8	21.4	3.2	0.4	1.5
57°	371.2	364.9	343.9	277.3	188.6	98.9	40.5	17.2	2.5	0.4	1.5
58°	322.9	315.9	291.9	232.7	152.3	78.5	33.9	14.0	1.9	0.4	1.5
59°	285.9	276.4	245.4	195.4	119.2	59.6	26.9	11.2	1.3	0.4	1.5
60°	255.0	247.3	215.1	162.7	93.5	43.9	19.9	8.5	0.8	0.4	1.5
62.5°	147.8	145.7	116.7	83.8	44.1	20.4	9.8	4.0	0.4	0.6	1.5
65°	44.1	38.4	29.9	17.8	11.4	6.8	3.6	1.3	0.2	0.6	1.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	1.3	1.3	1.3	1.3	1.3	1.3	0.8	0.4	0.2	0.6	1.3
70°	0.8	0.6	0.6	0.6	0.6	0.4	0.4	0.2	0.2	0.6	1.1
72.5°	0.6	0.6	0.6	0.6	0.4	0.4	0.4	0.2	0.4	0.6	0.9
75°	0.6	0.4	0.4	0.4	0.4	0.2	0.2	0.2	0.4	0.6	0.9
77.5°	0.4	0.4	0.4	0.4	0.2	0.2	0.2	0.2	0.4	0.6	0.9
80°	0.4	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.6	0.8
82.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.6	0.8
85°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.6	0.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	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):

	112.5°	135°	157.5°	180°
0°	10.6	10.6	10.6	10.6
2.5°	10.2	10.0	9.8	9.8
5°	9.8	9.5	9.5	9.3
7.5°	9.3	8.9	8.9	8.9
10°	8.7	8.5	8.5	8.3
12.5°	7.9	7.9	7.9	7.9
15°	7.4	7.4	7.6	7.6
17.5°	6.6	6.8	7.2	7.4
20°	6.1	6.4	6.8	7.0
22.5°	5.7	6.1	6.6	6.8
25°	5.1	5.7	6.4	6.6
27.5°	4.7	5.5	6.1	6.4
30°	4.4	5.3	5.9	6.2
31°	4.4	5.1	5.9	6.2
32°	4.2	4.9	5.9	6.1
33°	4.2	4.9	5.9	6.1
34°	4.0	4.9	5.7	6.1
35°	4.0	4.9	5.7	6.1
36°	3.8	4.7	5.7	6.1
37°	3.8	4.7	5.7	6.1
38°	3.6	4.7	5.7	6.1
39°	3.6	4.7	5.7	6.1
40°	3.6	4.7	5.7	6.1
41°	3.4	4.7	5.7	6.1
42°	3.4	4.7	5.7	6.1
43°	3.4	4.5	5.7	6.1
44°	3.4	4.5	5.7	6.1
45°	3.2	4.5	5.7	6.1
46°	3.2	4.5	5.7	6.1
47°	3.2	4.5	5.7	6.1
48°	3.2	4.5	5.7	6.1
49°	3.2	4.5	5.7	6.1
50°	3.0	4.4	5.7	6.1
51°	3.0	4.4	5.7	6.1
52°	3.0	4.4	5.7	6.1
53°	3.0	4.4	5.7	6.1
54°	2.8	4.4	5.7	6.1
55°	2.8	4.4	5.7	6.1
56°	2.8	4.4	5.7	5.9
57°	2.8	4.4	5.5	5.9
58°	2.8	4.2	5.5	5.9
59°	2.8	4.2	5.5	5.9
60°	2.8	4.2	5.5	5.9
62.5°	2.6	4.2	5.3	5.7
65°	2.5	3.8	5.3	5.5



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	2.5	3.6	4.9	5.3
70°	2.3	3.4	4.7	5.1
72.5°	1.9	3.2	4.4	4.7
75°	1.7	2.8	4.0	4.4
77.5°	1.5	2.5	3.6	3.8
80°	1.3	2.1	3.0	3.4
82.5°	0.9	1.5	2.5	2.6
85°	0.8	1.1	1.7	1.9
87.5°	0.6	0.6	0.9	0.9
90°	0.0	0.0	0.0	0.0

(END OF REPORT)