

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: P1340023

Luminaire Tested: P3A09R159830DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1340023
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-73)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A09R159830DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R15 optic, 3000K CCT AND, 98CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

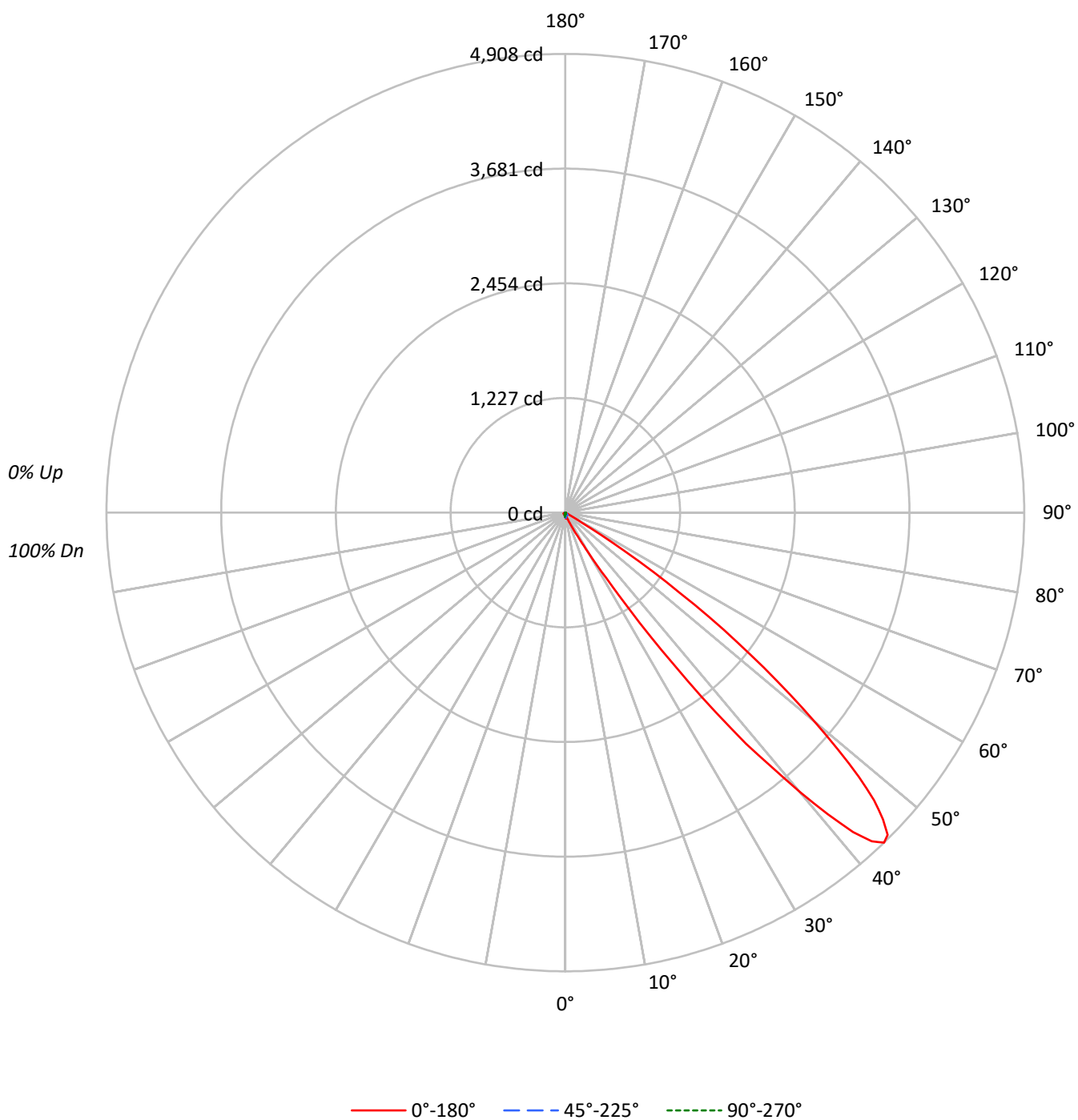
Lumens per Lamp: N/A
Luminaire Lumens: 548.0 lumens
Efficiency: N/A
Efficacy: 49.8 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.48 / 1.09
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 11
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	100		
1	110	106	102	99	107	104	100	97	100	97	94	96	93	91	92	90	89	87		
2	101	93	87	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73		
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61		
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	53	50		
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	49	44	42		
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	48	42	37	35		
7	62	47	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31	29		
8	56	42	33	27	55	41	33	27	40	32	26	39	31	26	37	31	26	24		
9	52	37	28	22	50	37	28	22	35	28	22	34	27	22	33	27	22	20		
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	23	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	10657	10657	10657	10657	10657
5°	13229	11776	9619	8409	8298
10°	13026	10109	7415	6569	6702
15°	10783	7196	5335	5448	5834
20°	18738	5740	4084	4714	5344
25°	41785	6871	3315	4355	5033
30°	124931	8432	2912	4279	5267
35°	480936	9503	2623	4390	5568
40°	1116291	8301	2490	4523	5954
45°	1511971	6264	2202	4900	6450
50°	1185530	3718	2252	5219	7096
55°	569022	1682	2103	5658	7723
60°	52013	219	1930	6008	8640
65°	5656	0	1712	6226	9340
70°	1410	0	2116	6668	10130
75°	1356	424	2796	7371	11607
80°	1389	1389	3410	7577	12375
85°	1258	1258	5535	6793	13838

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1511971 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4.2	0.8
10°-20°	8.6	1.6
20°-30°	20.7	3.8
30°-40°	113.4	20.7
40°-50°	274.5	50.1
50°-60°	109.5	20.0
60°-70°	9.5	1.7
70°-80°	5.3	1.0
80°-90°	2.3	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°	33.5	6.1
0°-40°	146.9	26.8
0°-60°	530.8	96.9
0°-90°	548.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	548.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	49	49	49	49	49	
5°	60	54	44	38	38	6
15°	48	32	24	24	26	17
25°	173	28	14	18	21	104
35°	1797	36	10	16	21	1270
45°	4876	20	7	16	21	3439
55°	1488	4	6	15	20	1387
65°	11	0	3	12	18	28
75°	2	0	3	9	14	2
85°	0	0	2	3	6	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6	48.6
2.5°	54.6	54.6	55.2	54.6	54.6	54.6	54.6	54.1	54.1	54.1	52.5
5°	60.1	60.1	60.1	60.1	59.6	59.6	59.6	59.0	59.0	58.5	53.5
7.5°	62.3	62.3	61.7	61.7	61.2	61.2	60.7	60.1	59.6	59.0	51.4
10°	58.5	58.5	58.5	57.9	57.9	57.4	56.8	56.3	55.7	54.6	45.4
12.5°	51.9	51.9	52.5	51.9	51.4	50.8	49.7	49.2	48.6	47.5	37.7
15°	47.5	47.5	47.5	47.0	46.4	45.4	44.8	43.7	43.2	41.5	31.7
17.5°	60.7	60.7	60.1	59.0	56.8	55.2	52.5	50.3	47.5	44.3	27.3
20°	80.3	80.3	79.2	78.1	75.4	72.7	68.3	64.5	60.1	56.3	24.6
22.5°	116.4	118.0	114.7	110.9	107.1	100.5	94.5	88.5	80.9	74.3	25.1
25°	172.7	174.3	172.7	163.9	156.8	148.1	136.6	124.6	111.5	99.4	28.4
27.5°	279.8	280.9	278.1	256.8	245.3	222.4	202.2	182.5	160.6	138.8	31.1
30°	493.4	494.0	476.5	433.8	396.1	345.9	303.3	262.3	227.9	192.9	33.3
31°	649.7	634.4	597.2	545.9	485.8	418.0	359.5	306.5	255.2	217.5	33.9
32°	825.1	822.9	761.1	672.1	591.8	507.1	419.1	351.3	292.3	241.0	34.4
33°	1057.3	1058.4	961.1	856.2	724.5	610.9	495.6	402.7	331.7	268.8	35.5
34°	1420.1	1334.9	1220.7	1078.6	899.4	728.4	578.6	462.3	367.2	295.6	35.5
35°	1796.6	1710.8	1585.1	1369.8	1124.0	884.6	677.5	526.2	409.8	324.6	35.5
36°	2218.4	2145.7	1955.6	1680.7	1367.1	1032.2	782.5	600.0	451.9	350.8	35.0
37°	2674.1	2567.6	2356.7	2056.7	1637.0	1239.8	910.3	673.2	494.0	379.2	33.9
38°	3136.9	3040.8	2774.7	2411.3	1959.4	1458.9	1038.2	743.7	532.7	400.5	32.2
39°	3487.7	3435.3	3171.3	2765.4	2216.8	1666.5	1169.9	819.1	573.7	421.8	30.6
40°	3899.7	3815.0	3564.8	3062.6	2521.1	1878.0	1298.8	885.7	607.6	438.8	29.0
41°	4275.6	4168.5	3852.7	3367.5	2764.8	2068.2	1421.2	954.6	634.9	448.6	27.9
42°	4598.0	4473.4	4143.4	3628.7	2968.6	2220.1	1519.0	1003.8	660.6	456.8	26.2
43°	4806.7	4699.1	4374.5	3824.9	3142.9	2359.4	1610.3	1055.1	676.5	462.3	24.0
44°	4908.4	4799.6	4485.5	3947.8	3250.0	2443.0	1669.3	1090.6	693.9	469.4	22.4
45°	4875.6	4765.2	4461.4	3950.0	3283.4	2473.0	1694.4	1106.5	703.2	475.9	20.2
46°	4725.3	4647.7	4341.8	3847.3	3220.0	2440.8	1680.2	1094.5	699.9	475.9	18.0
47°	4514.4	4425.9	4134.7	3670.8	3066.4	2357.7	1622.8	1057.8	679.7	465.0	15.8
48°	4227.0	4151.6	3845.6	3390.5	2830.9	2176.9	1493.3	998.3	648.0	443.7	13.7
49°	3866.4	3761.5	3476.8	3032.0	2523.9	1920.1	1323.4	897.7	597.2	413.6	12.0
50°	3475.2	3345.7	3126.0	2673.0	2206.4	1646.3	1099.9	759.0	525.6	374.3	10.9
51°	3092.1	2960.4	2751.2	2365.9	1867.6	1366.0	887.4	606.0	432.8	320.2	9.3
52°	2694.9	2584.5	2350.1	2047.4	1598.8	1107.0	739.3	512.5	359.5	268.8	7.6
53°	2299.3	2223.9	2000.9	1694.4	1284.6	904.3	603.8	438.8	313.6	230.0	6.0
54°	1903.1	1820.6	1651.2	1378.0	1035.4	713.6	512.0	367.2	272.1	200.5	5.5
55°	1488.4	1445.8	1289.5	1050.7	784.6	569.4	415.3	315.8	227.9	167.7	4.4
56°	1146.4	1098.3	955.7	762.2	583.0	445.9	336.0	257.9	192.9	140.4	3.3
57°	750.8	701.6	607.1	532.2	424.6	325.1	256.8	203.3	156.8	116.4	2.7
58°	443.7	398.9	384.1	327.8	283.0	220.7	189.6	151.4	115.8	91.8	1.6
59°	203.8	207.1	184.1	172.7	156.8	140.4	115.3	101.1	79.2	66.1	1.1
60°	118.6	112.0	109.3	97.8	86.9	77.0	69.4	61.2	49.7	42.6	0.5
62.5°	40.4	38.8	39.9	36.1	33.9	32.8	30.1	25.7	21.3	17.5	0.0
65°	10.9	10.9	10.4	9.8	9.3	8.7	8.2	7.1	6.6	5.5	0.0



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CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	3.8	3.8	3.3	3.3	2.7	2.7	2.2	2.2	1.6	1.6	0.0
70°	2.2	2.2	2.2	1.6	1.6	1.6	1.1	1.1	1.1	0.5	0.0
72.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.1	1.1	1.1	0.5	0.5
75°	1.6	1.6	1.6	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.5
77.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
80°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.5	1.1
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.1
85°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
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):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	48.6	48.6	48.6	48.6	48.6	48.6
2.5°	50.3	48.1	45.4	43.7	43.2	42.6
5°	48.1	43.7	40.4	38.2	37.7	37.7
7.5°	43.2	38.2	35.0	33.9	33.3	33.3
10°	37.7	33.3	30.6	29.5	30.1	30.1
12.5°	31.7	27.9	26.8	26.8	27.3	27.9
15°	25.7	23.5	23.5	24.0	25.1	25.7
17.5°	21.3	20.2	20.8	21.9	22.9	24.0
20°	17.5	17.5	18.6	20.2	21.9	22.9
22.5°	14.8	15.3	16.9	18.6	20.8	21.9
25°	12.6	13.7	15.3	18.0	20.2	20.8
27.5°	10.9	12.6	14.8	17.5	19.7	20.8
30°	9.3	11.5	14.2	16.9	19.7	20.8
31°	8.7	10.9	13.7	16.9	19.7	20.8
32°	8.2	10.9	13.7	16.9	19.7	20.8
33°	7.6	10.4	13.7	16.4	19.7	20.8
34°	7.1	10.4	13.7	16.9	19.7	20.8
35°	6.6	9.8	13.1	16.4	19.1	20.8
36°	6.0	9.8	13.1	16.4	19.7	20.8
37°	5.5	9.8	13.1	16.4	19.1	20.8
38°	5.5	9.3	12.6	16.4	19.1	20.8
39°	4.9	8.7	12.6	16.4	19.1	20.8
40°	4.4	8.7	12.0	15.8	19.1	20.8
41°	3.8	8.2	12.0	15.8	19.1	20.8
42°	3.3	8.2	12.0	15.8	19.1	20.8
43°	2.7	7.6	11.5	15.8	19.1	20.8
44°	2.7	7.6	11.5	15.8	19.1	20.8
45°	2.2	7.1	10.9	15.8	19.1	20.8
46°	2.2	7.1	10.9	15.3	19.1	20.8
47°	1.6	7.1	10.9	15.3	19.1	20.8
48°	1.6	6.6	10.9	15.3	19.1	20.8
49°	1.1	6.6	10.9	15.3	19.1	20.8
50°	1.1	6.6	10.4	15.3	19.1	20.8
51°	1.1	6.6	10.4	15.3	19.1	20.8
52°	1.1	6.0	10.4	15.3	19.1	20.8
53°	1.1	6.0	10.4	15.3	19.1	20.8
54°	1.1	6.0	9.8	15.3	19.1	20.8
55°	1.1	5.5	9.8	14.8	19.1	20.2
56°	1.1	5.5	9.8	14.8	19.1	20.2
57°	1.1	5.5	9.3	14.8	19.1	20.2
58°	1.1	4.9	9.3	14.2	18.6	20.2
59°	1.1	4.9	8.7	14.2	18.6	19.7
60°	1.1	4.4	8.7	13.7	18.0	19.7
62.5°	1.1	3.8	7.6	13.1	17.5	18.6
65°	1.1	3.3	7.1	12.0	16.9	18.0



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.1	3.3	6.6	11.5	15.8	17.5
70°	1.1	3.3	6.0	10.4	15.3	15.8
72.5°	1.6	3.3	5.5	9.8	14.2	14.8
75°	2.2	3.3	4.9	8.7	13.1	13.7
77.5°	2.2	3.3	4.4	7.6	11.5	12.0
80°	2.2	2.7	3.8	6.0	9.3	9.8
82.5°	2.2	2.7	2.7	4.9	7.1	7.6
85°	1.6	2.2	2.2	2.7	4.9	5.5
87.5°	1.6	2.2	1.1	1.6	2.2	2.2
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)