

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: P1336340

Luminaire Tested: P3A05R159030DE010 E3CA451MW

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336340
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: P3A05R159030DE010 E3CA451MW
Description: 3in Adjustable LED luminaire with, R15 optic, 3000K CCT AND, 90CRI , E3CA451MW TRIM
Light Source: -
Ballast/Driver: -

Summary

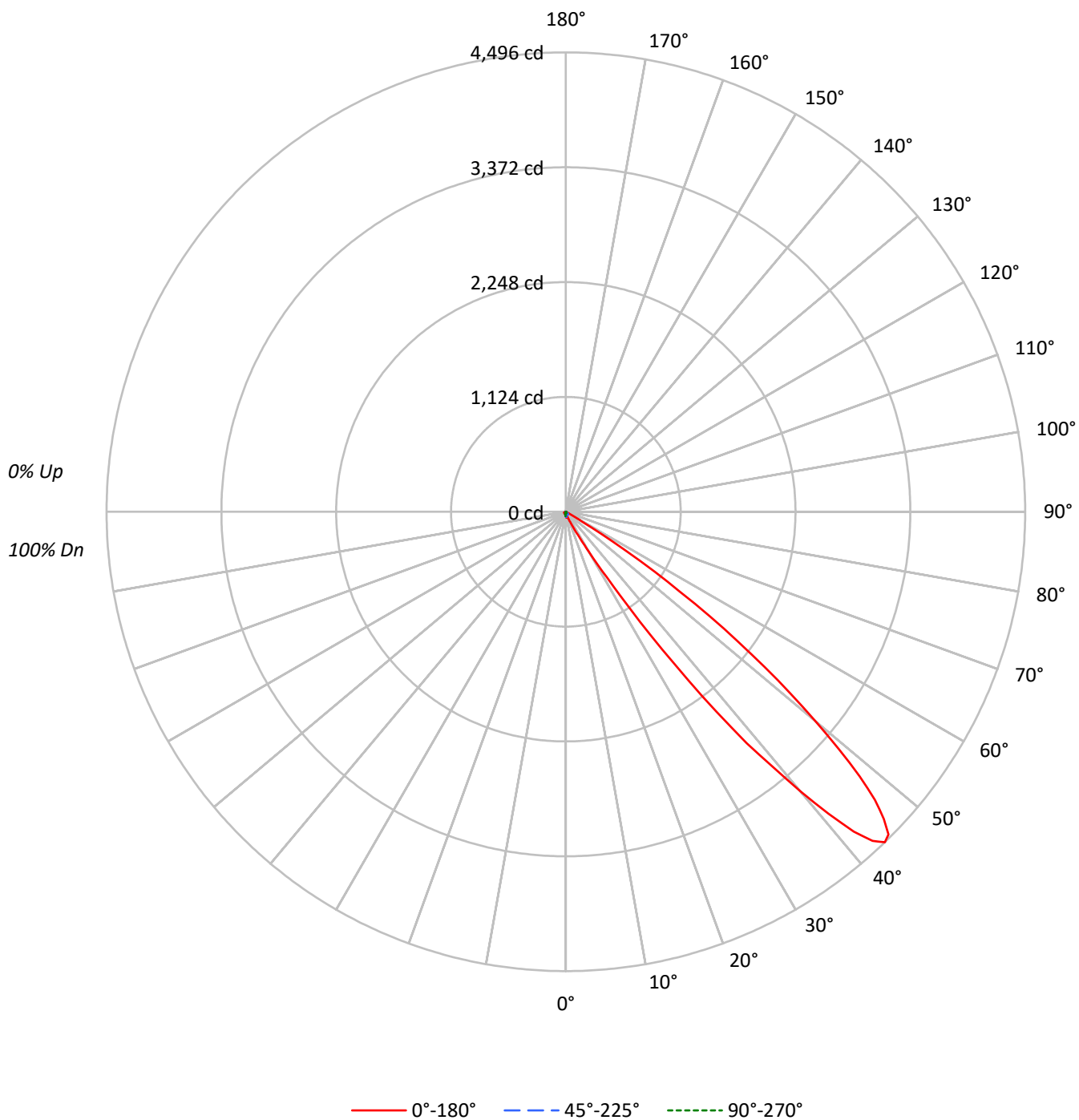
Lumens per Lamp: N/A
Luminaire Lumens: 501.9 lumens
Efficiency: N/A
Efficacy: 69.7 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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
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	101	93	87	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	53
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	37	49	42	37	48	42	37
7	62	47	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31
8	56	42	33	27	55	41	33	27	40	32	26	39	31	26	37	31	26
9	52	37	28	22	50	37	28	22	35	28	22	34	27	22	33	27	22
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	23	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	9758	9758	9758	9758	9758
5°	12129	10808	8805	7704	7594
10°	11935	9241	6791	6012	6123
15°	9875	6583	4881	4994	5335
20°	17175	5250	3734	4317	4900
25°	38276	6291	3024	3992	4597
30°	114448	7723	2659	3925	4811
35°	440568	8700	2409	4015	5086
40°	1022602	7586	2290	4151	5439
45°	1385043	5737	2016	4497	5892
50°	1085986	3411	2047	4776	6482
55°	521272	1529	1912	5161	7073
60°	47628	219	1754	5482	7894
65°	5189	0	1557	5707	8561
70°	1282	0	1923	6091	9296
75°	1271	424	2542	6778	10590
80°	1263	1263	3157	6945	11365
85°	1258	1258	5032	6290	12580

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1385043 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.8	0.8
10°-20°	7.9	1.6
20°-30°	19.0	3.8
30°-40°	103.8	20.7
40°-50°	251.4	50.1
50°-60°	100.3	20.0
60°-70°	8.7	1.7
70°-80°	4.9	1.0
80°-90°	2.2	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°	30.7	6.1
0°-40°	134.5	26.8
0°-60°	486.2	96.9
0°-90°	501.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	501.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	44	44	44	44	44	
5°	55	49	40	35	34	5
15°	44	29	22	22	24	15
25°	158	26	12	16	19	95
35°	1646	32	9	15	19	1163
45°	4466	18	6	14	19	3151
55°	1364	4	5	14	18	1270
65°	10	0	3	11	16	26
75°	2	0	3	8	12	1
85°	0	0	2	2	5	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°	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5	44.5
2.5°	50.1	50.1	50.6	50.1	50.1	50.1	50.1	49.6	49.6	49.6	48.1
5°	55.1	55.1	55.1	55.1	54.6	54.6	54.6	54.1	54.1	53.6	49.1
7.5°	57.1	57.1	56.6	56.6	56.1	56.1	55.6	55.1	54.6	54.1	47.1
10°	53.6	53.6	53.6	53.1	53.1	52.6	52.1	51.6	51.1	50.1	41.5
12.5°	47.6	47.6	48.1	47.6	47.1	46.6	45.5	45.0	44.5	43.5	34.5
15°	43.5	43.5	43.5	43.0	42.5	41.5	41.0	40.0	39.5	38.0	29.0
17.5°	55.6	55.6	55.1	54.1	52.1	50.6	48.1	46.0	43.5	40.5	25.0
20°	73.6	73.6	72.6	71.6	69.1	66.6	62.6	59.1	55.1	51.6	22.5
22.5°	106.6	108.1	105.1	101.6	98.1	92.1	86.6	81.1	74.1	68.1	23.0
25°	158.2	159.7	158.2	150.2	143.7	135.6	125.1	114.1	102.1	91.1	26.0
27.5°	256.3	257.3	254.8	235.3	224.7	203.7	185.2	167.2	147.2	127.1	28.5
30°	452.0	452.5	436.5	397.4	362.9	316.8	277.8	240.3	208.7	176.7	30.5
31°	595.1	581.1	547.1	500.0	445.0	382.9	329.4	280.8	233.8	199.2	31.0
32°	755.8	753.8	697.3	615.7	542.1	464.5	383.9	321.8	267.8	220.7	31.5
33°	968.5	969.5	880.5	784.3	663.7	559.6	454.0	368.9	303.8	246.3	32.5
34°	1300.9	1222.8	1118.2	988.1	823.9	667.2	530.1	423.5	336.4	270.8	32.5
35°	1645.8	1567.2	1452.1	1254.9	1029.6	810.4	620.7	482.0	375.4	297.3	32.5
36°	2032.2	1965.6	1791.4	1539.7	1252.4	945.5	716.8	549.6	413.9	321.3	32.0
37°	2449.6	2352.0	2158.8	1884.0	1499.6	1135.7	833.9	616.7	452.5	347.4	31.0
38°	2873.6	2785.5	2541.7	2208.9	1794.9	1336.4	951.0	681.2	488.0	366.9	29.5
39°	3195.0	3146.9	2905.1	2533.2	2030.7	1526.7	1071.7	750.3	525.6	386.4	28.0
40°	3572.4	3494.8	3265.5	2805.5	2309.5	1720.4	1189.8	811.4	556.6	401.9	26.5
41°	3916.7	3818.6	3529.3	3084.8	2532.7	1894.5	1301.9	874.4	581.6	410.9	25.5
42°	4212.1	4097.9	3795.6	3324.1	2719.4	2033.7	1391.5	919.5	605.2	418.5	24.0
43°	4403.3	4304.7	4007.3	3503.8	2879.1	2161.3	1475.1	966.5	619.7	423.5	22.0
44°	4496.4	4396.8	4108.9	3616.4	2977.2	2237.9	1529.2	999.1	635.7	430.0	20.5
45°	4466.3	4365.2	4086.9	3618.4	3007.8	2265.4	1552.2	1013.6	644.2	436.0	18.5
46°	4328.7	4257.6	3977.3	3524.3	2949.7	2235.9	1539.2	1002.6	641.2	436.0	16.5
47°	4135.5	4054.4	3787.6	3362.6	2809.0	2159.8	1486.6	969.0	622.7	426.0	14.5
48°	3872.2	3803.1	3522.8	3105.9	2593.3	1994.2	1368.0	914.5	593.6	406.4	12.5
49°	3541.8	3445.7	3184.9	2777.5	2312.0	1758.9	1212.3	822.4	547.1	378.9	11.0
50°	3183.4	3064.8	2863.6	2448.6	2021.2	1508.1	1007.6	695.3	481.5	342.9	10.0
51°	2832.6	2711.9	2520.2	2167.3	1710.8	1251.4	812.9	555.1	396.4	293.3	8.5
52°	2468.7	2367.6	2152.8	1875.5	1464.6	1014.1	677.2	469.5	329.4	246.3	7.0
53°	2106.3	2037.2	1833.0	1552.2	1176.8	828.4	553.1	401.9	287.3	210.7	5.5
54°	1743.4	1667.8	1512.6	1262.4	948.5	653.7	469.0	336.4	249.3	183.7	5.0
55°	1363.5	1324.4	1181.3	962.5	718.8	521.6	380.4	289.3	208.7	153.7	4.0
56°	1050.1	1006.1	875.4	698.3	534.1	408.4	307.8	236.3	176.7	128.6	3.0
57°	687.7	642.7	556.1	487.5	388.9	297.8	235.3	186.2	143.7	106.6	2.5
58°	406.4	365.4	351.9	300.3	259.3	202.2	173.7	138.6	106.1	84.1	1.5
59°	186.7	189.7	168.7	158.2	143.7	128.6	105.6	92.6	72.6	60.6	1.0
60°	108.6	102.6	100.1	89.6	79.6	70.6	63.6	56.1	45.5	39.0	0.5
62.5°	37.0	35.5	36.5	33.0	31.0	30.0	27.5	23.5	19.5	16.0	0.0
65°	10.0	10.0	9.5	9.0	8.5	8.0	7.5	6.5	6.0	5.0	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°	3.5	3.5	3.0	3.0	2.5	2.5	2.0	2.0	1.5	1.5	0.0
70°	2.0	2.0	2.0	1.5	1.5	1.5	1.0	1.0	1.0	0.5	0.0
72.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.0	1.0	1.0	0.5	0.5
75°	1.5	1.5	1.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5
77.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
80°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5	1.0
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.0
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°	44.5	44.5	44.5	44.5	44.5	44.5
2.5°	46.0	44.0	41.5	40.0	39.5	39.0
5°	44.0	40.0	37.0	35.0	34.5	34.5
7.5°	39.5	35.0	32.0	31.0	30.5	30.5
10°	34.5	30.5	28.0	27.0	27.5	27.5
12.5°	29.0	25.5	24.5	24.5	25.0	25.5
15°	23.5	21.5	21.5	22.0	23.0	23.5
17.5°	19.5	18.5	19.0	20.0	21.0	22.0
20°	16.0	16.0	17.0	18.5	20.0	21.0
22.5°	13.5	14.0	15.5	17.0	19.0	20.0
25°	11.5	12.5	14.0	16.5	18.5	19.0
27.5°	10.0	11.5	13.5	16.0	18.0	19.0
30°	8.5	10.5	13.0	15.5	18.0	19.0
31°	8.0	10.0	12.5	15.5	18.0	19.0
32°	7.5	10.0	12.5	15.5	18.0	19.0
33°	7.0	9.5	12.5	15.0	18.0	19.0
34°	6.5	9.5	12.5	15.5	18.0	19.0
35°	6.0	9.0	12.0	15.0	17.5	19.0
36°	5.5	9.0	12.0	15.0	18.0	19.0
37°	5.0	9.0	12.0	15.0	17.5	19.0
38°	5.0	8.5	11.5	15.0	17.5	19.0
39°	4.5	8.0	11.5	15.0	17.5	19.0
40°	4.0	8.0	11.0	14.5	17.5	19.0
41°	3.5	7.5	11.0	14.5	17.5	19.0
42°	3.0	7.5	11.0	14.5	17.5	19.0
43°	2.5	7.0	10.5	14.5	17.5	19.0
44°	2.5	7.0	10.5	14.5	17.5	19.0
45°	2.0	6.5	10.0	14.5	17.5	19.0
46°	2.0	6.5	10.0	14.0	17.5	19.0
47°	1.5	6.5	10.0	14.0	17.5	19.0
48°	1.5	6.0	10.0	14.0	17.5	19.0
49°	1.0	6.0	10.0	14.0	17.5	19.0
50°	1.0	6.0	9.5	14.0	17.5	19.0
51°	1.0	6.0	9.5	14.0	17.5	19.0
52°	1.0	5.5	9.5	14.0	17.5	19.0
53°	1.0	5.5	9.5	14.0	17.5	19.0
54°	1.0	5.5	9.0	14.0	17.5	19.0
55°	1.0	5.0	9.0	13.5	17.5	18.5
56°	1.0	5.0	9.0	13.5	17.5	18.5
57°	1.0	5.0	8.5	13.5	17.5	18.5
58°	1.0	4.5	8.5	13.0	17.0	18.5
59°	1.0	4.5	8.0	13.0	17.0	18.0
60°	1.0	4.0	8.0	12.5	16.5	18.0
62.5°	1.0	3.5	7.0	12.0	16.0	17.0
65°	1.0	3.0	6.5	11.0	15.5	16.5



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.0	3.0	6.0	10.5	14.5	16.0
70°	1.0	3.0	5.5	9.5	14.0	14.5
72.5°	1.5	3.0	5.0	9.0	13.0	13.5
75°	2.0	3.0	4.5	8.0	12.0	12.5
77.5°	2.0	3.0	4.0	7.0	10.5	11.0
80°	2.0	2.5	3.5	5.5	8.5	9.0
82.5°	2.0	2.5	2.5	4.5	6.5	7.0
85°	1.5	2.0	2.0	2.5	4.5	5.0
87.5°	1.5	2.0	1.0	1.5	2.0	2.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)