

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: P1336398

Luminaire Tested: P3A05R159727DE010 E3CA451MW

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336398
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: P3A05R159727DE010 E3CA451MW
Description: 3in Adjustable LED luminaire with, R15 optic, 2700K CCT AND, 97CRI , E3CA451MW TRIM
Light Source: -
Ballast/Driver: -

Summary

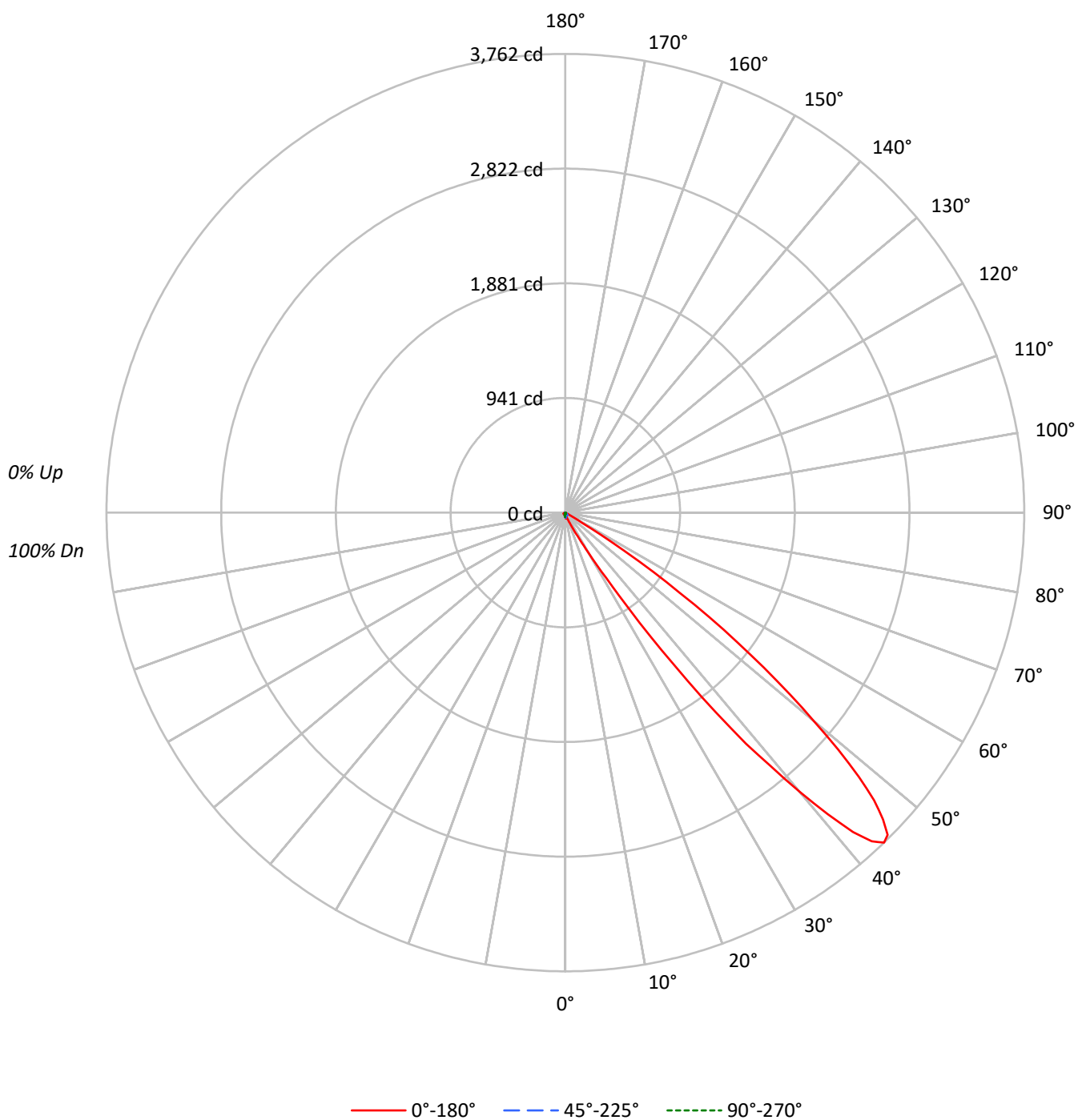
Lumens per Lamp: N/A
Luminaire Lumens: 420.0 lumens
Efficiency: N/A
Efficacy: 58.3 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1336398

CATALOG NUMBER: P3A05R159727DE010 E3CA451MW

Luminous Intensity Polar Plot



TEST NUMBER: P1336398

CATALOG NUMBER: P3A05R159727DE010 E3CA451MW

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20			
RC	80				70				50				30				10			0
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50	30	10	0
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°	8179	8179	8179	8179	8179
5°	10147	9025	7374	6449	6361
10°	9975	7749	5678	5032	5121
15°	8263	5516	4086	4177	4472
20°	14375	4387	3127	3617	4107
25°	32010	5274	2540	3339	3847
30°	95762	6457	2228	3292	4026
35°	368585	7281	2008	3373	4256
40°	855546	6355	1918	3464	4551
45°	1158818	4807	1675	3752	4931
50°	908593	2866	1706	3991	5424
55°	436133	1300	1606	4320	5926
60°	39865	175	1491	4605	6622
65°	4358	0	1297	4774	7160
70°	1090	0	1603	5129	7758
75°	1101	339	2118	5676	8896
80°	1010	1010	2652	5809	9471
85°	1006	1006	4277	5284	10567

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1158818 cd/sqm

TEST NUMBER: P1336398

CATALOG NUMBER: P3A05R159727DE010 E3CA451MW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.2	0.8
10°-20°	6.6	1.6
20°-30°	15.9	3.8
30°-40°	86.9	20.7
40°-50°	210.4	50.1
50°-60°	83.9	20.0
60°-70°	7.2	1.7
70°-80°	4.1	1.0
80°-90°	1.8	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°	25.7	6.1
0°-40°	112.6	26.8
0°-60°	406.9	96.9
0°-90°	420.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	420.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	37	37	37	37	37	
5°	46	41	34	29	29	4
15°	36	24	18	18	20	13
25°	132	22	10	14	16	80
35°	1377	27	8	13	16	973
45°	3737	16	5	12	16	2636
55°	1141	3	4	11	16	1063
65°	8	0	2	9	14	21
75°	1	0	2	7	10	1
85°	0	0	2	2	4	0
90°	0	0	0	0	0	

TEST NUMBER: P1336398

CATALOG NUMBER: P3A05R159727DE010 E3CA451MW

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3	37.3
2.5°	41.9	41.9	42.3	41.9	41.9	41.9	41.9	41.5	41.5	41.5	40.2
5°	46.1	46.1	46.1	46.1	45.6	45.6	45.6	45.2	45.2	44.8	41.0
7.5°	47.7	47.7	47.3	47.3	46.9	46.9	46.5	46.1	45.6	45.2	39.4
10°	44.8	44.8	44.8	44.4	44.4	44.0	43.6	43.1	42.7	41.9	34.8
12.5°	39.8	39.8	40.2	39.8	39.4	38.9	38.1	37.7	37.3	36.4	28.9
15°	36.4	36.4	36.4	36.0	35.6	34.8	34.3	33.5	33.1	31.8	24.3
17.5°	46.5	46.5	46.1	45.2	43.6	42.3	40.2	38.5	36.4	33.9	20.9
20°	61.6	61.6	60.7	59.9	57.8	55.7	52.3	49.4	46.1	43.1	18.8
22.5°	89.2	90.5	87.9	85.0	82.1	77.1	72.4	67.8	62.0	57.0	19.3
25°	132.3	133.6	132.3	125.6	120.2	113.5	104.7	95.5	85.4	76.2	21.8
27.5°	214.4	215.3	213.2	196.8	188.0	170.4	154.9	139.9	123.1	106.4	23.9
30°	378.2	378.6	365.2	332.5	303.6	265.1	232.4	201.0	174.6	147.8	25.5
31°	497.9	486.2	457.7	418.4	372.3	320.4	275.6	234.9	195.6	166.7	26.0
32°	632.4	630.7	583.4	515.1	453.5	388.6	321.2	269.3	224.0	184.7	26.4
33°	810.3	811.2	736.6	656.2	555.3	468.2	379.8	308.6	254.2	206.0	27.2
34°	1088.4	1023.1	935.6	826.7	689.3	558.2	443.5	354.3	281.4	226.6	27.2
35°	1376.9	1311.2	1214.9	1049.9	861.4	678.0	519.3	403.3	314.1	248.8	27.2
36°	1700.2	1644.5	1498.8	1288.2	1047.8	791.1	599.7	459.8	346.3	268.9	26.8
37°	2049.5	1967.8	1806.2	1576.3	1254.7	950.2	697.7	515.9	378.6	290.6	26.0
38°	2404.2	2330.5	2126.6	1848.1	1501.7	1118.1	795.7	570.0	408.3	307.0	24.7
39°	2673.1	2632.9	2430.6	2119.4	1699.0	1277.3	896.6	627.8	439.7	323.3	23.5
40°	2988.8	2923.9	2732.1	2347.3	1932.2	1439.3	995.4	678.8	465.7	336.3	22.2
41°	3276.9	3194.9	2952.8	2580.9	2119.0	1585.1	1089.2	731.6	486.6	343.8	21.4
42°	3524.0	3428.5	3175.6	2781.1	2275.2	1701.5	1164.2	769.3	506.3	350.1	20.1
43°	3684.0	3601.5	3352.7	2931.5	2408.8	1808.3	1234.1	808.7	518.4	354.3	18.4
44°	3761.9	3678.6	3437.8	3025.7	2490.9	1872.4	1279.4	835.9	531.8	359.7	17.2
45°	3736.8	3652.2	3419.3	3027.4	2516.4	1895.4	1298.6	848.0	539.0	364.8	15.5
46°	3621.6	3562.1	3327.6	2948.6	2467.9	1870.7	1287.7	838.8	536.5	364.8	13.8
47°	3460.0	3392.1	3168.9	2813.4	2350.2	1807.0	1243.8	810.8	521.0	356.4	12.1
48°	3239.7	3181.9	2947.4	2598.5	2169.7	1668.4	1144.5	765.1	496.7	340.0	10.5
49°	2963.3	2882.9	2664.7	2323.8	1934.3	1471.6	1014.3	688.1	457.7	317.0	9.2
50°	2663.4	2564.2	2395.8	2048.7	1691.0	1261.8	843.0	581.7	402.9	286.9	8.4
51°	2369.9	2268.9	2108.6	1813.3	1431.4	1046.9	680.1	464.4	331.7	245.4	7.1
52°	2065.4	1980.8	1801.2	1569.2	1225.3	848.4	566.6	392.8	275.6	206.0	5.9
53°	1762.2	1704.4	1533.6	1298.6	984.6	693.1	462.8	336.3	240.4	176.3	4.6
54°	1458.6	1395.4	1265.6	1056.2	793.6	546.9	392.4	281.4	208.6	153.7	4.2
55°	1140.8	1108.1	988.3	805.3	601.4	436.4	318.3	242.1	174.6	128.6	3.4
56°	878.6	841.7	732.4	584.2	446.8	341.7	257.5	197.7	147.8	107.6	2.5
57°	575.4	537.7	465.3	407.9	325.4	249.2	196.8	155.8	120.2	89.2	2.1
58°	340.0	305.7	294.4	251.3	216.9	169.2	145.3	116.0	88.8	70.4	1.3
59°	156.2	158.7	141.1	132.3	120.2	107.6	88.4	77.5	60.7	50.7	0.8
60°	90.9	85.8	83.8	75.0	66.6	59.0	53.2	46.9	38.1	32.7	0.4
62.5°	31.0	29.7	30.6	27.6	26.0	25.1	23.0	19.7	16.3	13.4	0.0
65°	8.4	8.4	8.0	7.5	7.1	6.7	6.3	5.4	5.0	4.2	0.0



TEST NUMBER: P1336398

CATALOG NUMBER: P3A05R159727DE010 E3CA451MW

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	2.9	2.9	2.5	2.5	2.1	2.1	1.7	1.7	1.3	1.3	0.0
70°	1.7	1.7	1.7	1.3	1.3	1.3	0.8	0.8	0.8	0.4	0.0
72.5°	1.3	1.3	1.3	1.3	1.3	1.3	0.8	0.8	0.8	0.4	0.4
75°	1.3	1.3	1.3	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.4
77.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
80°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.4	0.8
82.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.8
85°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1336398

CATALOG NUMBER: P3A05R159727DE010 E3CA451MW

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	37.3	37.3	37.3	37.3	37.3	37.3
2.5°	38.5	36.9	34.8	33.5	33.1	32.7
5°	36.9	33.5	31.0	29.3	28.9	28.9
7.5°	33.1	29.3	26.8	26.0	25.5	25.5
10°	28.9	25.5	23.5	22.6	23.0	23.0
12.5°	24.3	21.4	20.5	20.5	20.9	21.4
15°	19.7	18.0	18.0	18.4	19.3	19.7
17.5°	16.3	15.5	15.9	16.8	17.6	18.4
20°	13.4	13.4	14.2	15.5	16.8	17.6
22.5°	11.3	11.7	13.0	14.2	15.9	16.8
25°	9.6	10.5	11.7	13.8	15.5	15.9
27.5°	8.4	9.6	11.3	13.4	15.1	15.9
30°	7.1	8.8	10.9	13.0	15.1	15.9
31°	6.7	8.4	10.5	13.0	15.1	15.9
32°	6.3	8.4	10.5	13.0	15.1	15.9
33°	5.9	8.0	10.5	12.6	15.1	15.9
34°	5.4	8.0	10.5	13.0	15.1	15.9
35°	5.0	7.5	10.1	12.6	14.7	15.9
36°	4.6	7.5	10.1	12.6	15.1	15.9
37°	4.2	7.5	10.1	12.6	14.7	15.9
38°	4.2	7.1	9.6	12.6	14.7	15.9
39°	3.8	6.7	9.6	12.6	14.7	15.9
40°	3.4	6.7	9.2	12.1	14.7	15.9
41°	2.9	6.3	9.2	12.1	14.7	15.9
42°	2.5	6.3	9.2	12.1	14.7	15.9
43°	2.1	5.9	8.8	12.1	14.7	15.9
44°	2.1	5.9	8.8	12.1	14.7	15.9
45°	1.7	5.4	8.4	12.1	14.7	15.9
46°	1.7	5.4	8.4	11.7	14.7	15.9
47°	1.3	5.4	8.4	11.7	14.7	15.9
48°	1.3	5.0	8.4	11.7	14.7	15.9
49°	0.8	5.0	8.4	11.7	14.7	15.9
50°	0.8	5.0	8.0	11.7	14.7	15.9
51°	0.8	5.0	8.0	11.7	14.7	15.9
52°	0.8	4.6	8.0	11.7	14.7	15.9
53°	0.8	4.6	8.0	11.7	14.7	15.9
54°	0.8	4.6	7.5	11.7	14.7	15.9
55°	0.8	4.2	7.5	11.3	14.7	15.5
56°	0.8	4.2	7.5	11.3	14.7	15.5
57°	0.8	4.2	7.1	11.3	14.7	15.5
58°	0.8	3.8	7.1	10.9	14.2	15.5
59°	0.8	3.8	6.7	10.9	14.2	15.1
60°	0.8	3.4	6.7	10.5	13.8	15.1
62.5°	0.8	2.9	5.9	10.1	13.4	14.2
65°	0.8	2.5	5.4	9.2	13.0	13.8



TEST NUMBER: P1336398

CATALOG NUMBER: P3A05R159727DE010 E3CA451MW

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.8	2.5	5.0	8.8	12.1	13.4
70°	0.8	2.5	4.6	8.0	11.7	12.1
72.5°	1.3	2.5	4.2	7.5	10.9	11.3
75°	1.7	2.5	3.8	6.7	10.1	10.5
77.5°	1.7	2.5	3.4	5.9	8.8	9.2
80°	1.7	2.1	2.9	4.6	7.1	7.5
82.5°	1.7	2.1	2.1	3.8	5.4	5.9
85°	1.3	1.7	1.7	2.1	3.8	4.2
87.5°	1.3	1.7	0.8	1.3	1.7	1.7
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)