

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: P1334115

Luminaire Tested: P3A02R159735DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1334115
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: P3A02R159735DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R15 optic, 3500K CCT AND, 97CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

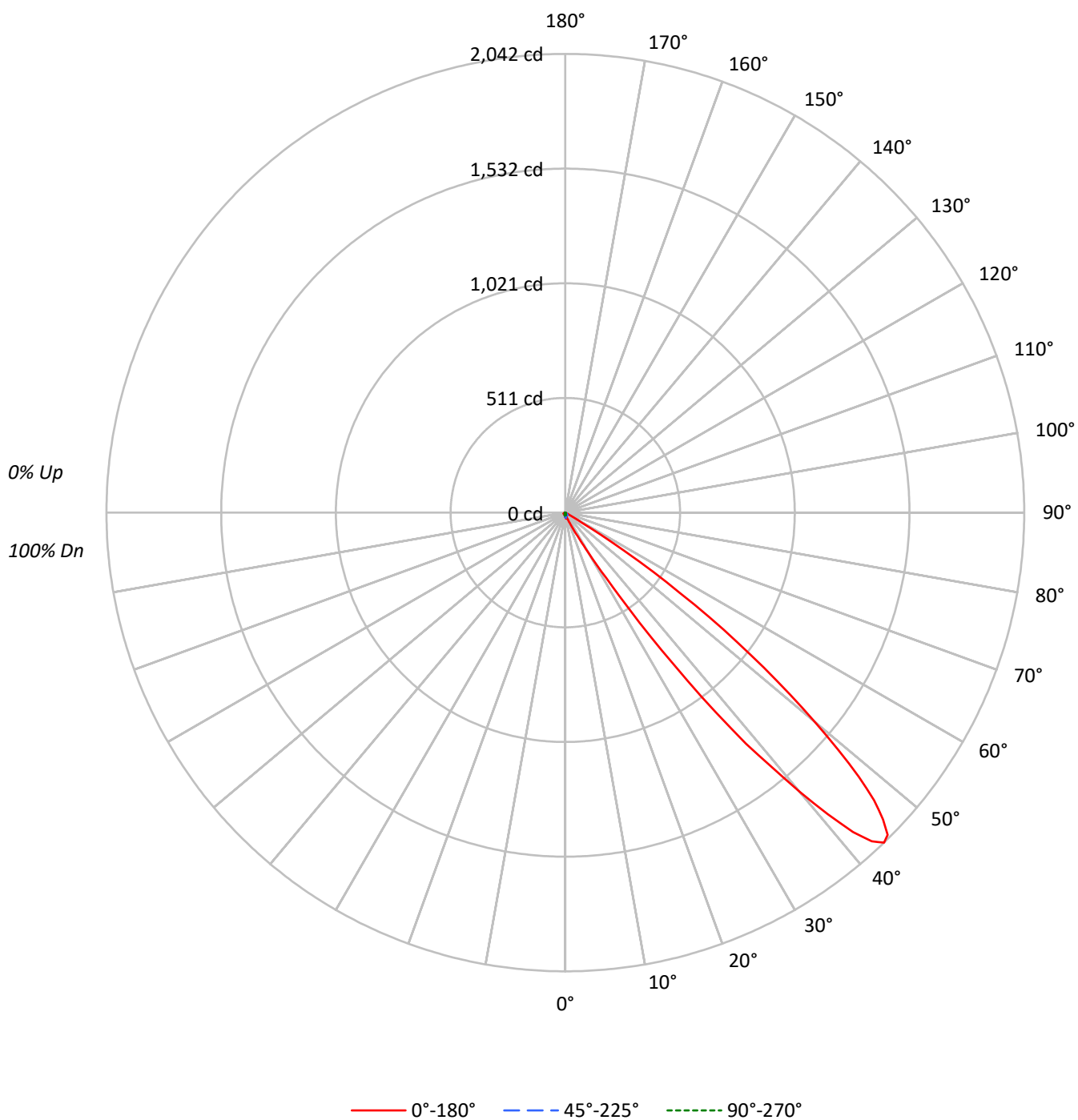
Lumens per Lamp: N/A
Luminaire Lumens: 228.0 lumens
Efficiency: N/A
Efficacy: 63.3 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.48 / 1.09
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 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

TEST NUMBER: P1334115

CATALOG NUMBER: P3A02R159735DE010 E3CA451MMS

Luminous Intensity Polar Plot



TEST NUMBER: P1334115

CATALOG NUMBER: P3A02R159735DE010 E3CA451MMS

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	54	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°	4429	4429	4429	4429	4429
5°	5503	4909	4006	3500	3456
10°	5411	4208	3095	2739	2783
15°	4495	2997	2225	2270	2429
20°	7794	2380	1703	1960	2217
25°	17372	2855	1379	1815	2081
30°	51983	3520	1215	1772	2178
35°	200100	3962	1098	1820	2302
40°	464442	3435	1031	1889	2462
45°	629058	2605	930	2047	2667
50°	493255	1535	921	2183	2934
55°	236761	688	879	2332	3211
60°	21621	88	789	2500	3596
65°	2335	0	726	2594	3891
70°	577	0	898	2757	4231
75°	593	169	1186	3050	4829
80°	631	631	1389	3157	5177
85°	503	503	2264	2768	5787

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 629058 cd/sqm

TEST NUMBER: P1334115

CATALOG NUMBER: P3A02R159735DE010 E3CA451MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.7	0.8
10°-20°	3.6	1.6
20°-30°	8.6	3.8
30°-40°	47.2	20.7
40°-50°	114.2	50.1
50°-60°	45.6	20.0
60°-70°	3.9	1.7
70°-80°	2.2	1.0
80°-90°	1.0	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°	13.9	6.1
0°-40°	61.1	26.8
0°-60°	220.9	96.9
0°-90°	228.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	228.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	20	20	20	20	20	
5°	25	22	18	16	16	2
15°	20	13	10	10	11	7
25°	72	12	6	8	9	43
35°	748	15	4	7	9	528
45°	2028	8	3	7	9	1431
55°	619	2	2	6	8	577
65°	4	0	1	5	8	12
75°	1	0	1	4	6	1
85°	0	0	1	1	2	0
90°	0	0	0	0	0	

TEST NUMBER: P1334115

CATALOG NUMBER: P3A02R159735DE010 E3CA451MMS

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2	20.2
2.5°	22.7	22.7	23.0	22.7	22.7	22.7	22.7	22.5	22.5	22.5	21.8
5°	25.0	25.0	25.0	25.0	24.8	24.8	24.8	24.6	24.6	24.3	22.3
7.5°	25.9	25.9	25.7	25.7	25.5	25.5	25.2	25.0	24.8	24.6	21.4
10°	24.3	24.3	24.3	24.1	24.1	23.9	23.6	23.4	23.2	22.7	18.9
12.5°	21.6	21.6	21.8	21.6	21.4	21.1	20.7	20.5	20.2	19.8	15.7
15°	19.8	19.8	19.8	19.6	19.3	18.9	18.6	18.2	18.0	17.3	13.2
17.5°	25.2	25.2	25.0	24.6	23.6	23.0	21.8	20.9	19.8	18.4	11.4
20°	33.4	33.4	33.0	32.5	31.4	30.2	28.4	26.8	25.0	23.4	10.2
22.5°	48.4	49.1	47.7	46.1	44.6	41.8	39.3	36.8	33.6	30.9	10.5
25°	71.8	72.5	71.8	68.2	65.2	61.6	56.8	51.8	46.4	41.4	11.8
27.5°	116.4	116.9	115.7	106.8	102.1	92.5	84.1	75.9	66.8	57.7	13.0
30°	205.3	205.5	198.2	180.5	164.8	143.9	126.2	109.1	94.8	80.3	13.9
31°	270.3	263.9	248.5	227.1	202.1	173.9	149.6	127.5	106.2	90.5	14.1
32°	343.3	342.4	316.7	279.6	246.2	211.0	174.4	146.2	121.6	100.3	14.3
33°	439.9	440.4	399.9	356.2	301.4	254.2	206.2	167.5	138.0	111.9	14.8
34°	590.9	555.4	507.9	448.8	374.2	303.0	240.8	192.3	152.8	123.0	14.8
35°	747.5	711.8	659.5	569.9	467.6	368.1	281.9	218.9	170.5	135.0	14.8
36°	923.0	892.8	813.6	699.3	568.8	429.4	325.5	249.6	188.0	146.0	14.5
37°	1112.6	1068.3	980.5	855.7	681.1	515.8	378.7	280.1	205.5	157.8	14.1
38°	1305.1	1265.1	1154.4	1003.2	815.2	607.0	431.9	309.4	221.7	166.6	13.4
39°	1451.1	1429.3	1319.5	1150.6	922.3	693.4	486.7	340.8	238.7	175.5	12.7
40°	1622.5	1587.3	1483.1	1274.2	1048.9	781.4	540.4	368.5	252.8	182.6	12.0
41°	1778.9	1734.4	1603.0	1401.1	1150.3	860.5	591.3	397.2	264.2	186.6	11.6
42°	1913.0	1861.2	1723.9	1509.7	1235.1	923.7	632.0	417.6	274.9	190.1	10.9
43°	1999.9	1955.1	1820.1	1591.4	1307.6	981.6	670.0	439.0	281.4	192.3	10.0
44°	2042.2	1996.9	1866.2	1642.5	1352.2	1016.4	694.5	453.8	288.7	195.3	9.3
45°	2028.5	1982.6	1856.2	1643.4	1366.1	1028.9	705.0	460.4	292.6	198.0	8.4
46°	1966.0	1933.7	1806.4	1600.7	1339.7	1015.5	699.1	455.4	291.2	198.0	7.5
47°	1878.3	1841.4	1720.3	1527.3	1275.8	981.0	675.2	440.1	282.8	193.5	6.6
48°	1758.7	1727.3	1600.0	1410.6	1177.8	905.7	621.3	415.3	269.6	184.6	5.7
49°	1608.6	1565.0	1446.5	1261.5	1050.1	798.9	550.6	373.5	248.5	172.1	5.0
50°	1445.9	1392.0	1300.6	1112.1	918.0	685.0	457.6	315.8	218.7	155.7	4.5
51°	1286.5	1231.7	1144.6	984.4	777.0	568.3	369.2	252.1	180.1	133.2	3.9
52°	1121.2	1075.3	977.8	851.8	665.2	460.6	307.6	213.2	149.6	111.9	3.2
53°	956.6	925.3	832.5	705.0	534.5	376.2	251.2	182.6	130.5	95.7	2.5
54°	791.8	757.5	687.0	573.3	430.8	296.9	213.0	152.8	113.2	83.4	2.3
55°	619.3	601.5	536.5	437.2	326.5	236.9	172.8	131.4	94.8	69.8	1.8
56°	477.0	456.9	397.6	317.1	242.6	185.5	139.8	107.3	80.3	58.4	1.4
57°	312.4	291.9	252.6	221.4	176.6	135.3	106.8	84.6	65.2	48.4	1.1
58°	184.6	166.0	159.8	136.4	117.8	91.8	78.9	63.0	48.2	38.2	0.7
59°	84.8	86.2	76.6	71.8	65.2	58.4	48.0	42.1	33.0	27.5	0.5
60°	49.3	46.6	45.5	40.7	36.1	32.1	28.9	25.5	20.7	17.7	0.2
62.5°	16.8	16.1	16.6	15.0	14.1	13.6	12.5	10.7	8.9	7.3	0.0
65°	4.5	4.5	4.3	4.1	3.9	3.6	3.4	3.0	2.7	2.3	0.0



TEST NUMBER: P1334115

CATALOG NUMBER: P3A02R159735DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	1.6	1.6	1.4	1.4	1.1	1.1	0.9	0.9	0.7	0.7	0.0
70°	0.9	0.9	0.9	0.7	0.7	0.7	0.5	0.5	0.5	0.2	0.0
72.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.5	0.5	0.5	0.2	0.2
75°	0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2
77.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.5
82.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5
85°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
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: P1334115

CATALOG NUMBER: P3A02R159735DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	20.2	20.2	20.2	20.2	20.2	20.2
2.5°	20.9	20.0	18.9	18.2	18.0	17.7
5°	20.0	18.2	16.8	15.9	15.7	15.7
7.5°	18.0	15.9	14.5	14.1	13.9	13.9
10°	15.7	13.9	12.7	12.3	12.5	12.5
12.5°	13.2	11.6	11.1	11.1	11.4	11.6
15°	10.7	9.8	9.8	10.0	10.5	10.7
17.5°	8.9	8.4	8.6	9.1	9.5	10.0
20°	7.3	7.3	7.7	8.4	9.1	9.5
22.5°	6.1	6.4	7.0	7.7	8.6	9.1
25°	5.2	5.7	6.4	7.5	8.4	8.6
27.5°	4.5	5.2	6.1	7.3	8.2	8.6
30°	3.9	4.8	5.9	7.0	8.2	8.6
31°	3.6	4.5	5.7	7.0	8.2	8.6
32°	3.4	4.5	5.7	7.0	8.2	8.6
33°	3.2	4.3	5.7	6.8	8.2	8.6
34°	3.0	4.3	5.7	7.0	8.2	8.6
35°	2.7	4.1	5.5	6.8	8.0	8.6
36°	2.5	4.1	5.5	6.8	8.2	8.6
37°	2.3	4.1	5.5	6.8	8.0	8.6
38°	2.3	3.9	5.2	6.8	8.0	8.6
39°	2.0	3.6	5.2	6.8	8.0	8.6
40°	1.8	3.6	5.0	6.6	8.0	8.6
41°	1.6	3.4	5.0	6.6	8.0	8.6
42°	1.4	3.4	5.0	6.6	8.0	8.6
43°	1.1	3.2	4.8	6.6	8.0	8.6
44°	1.1	3.2	4.8	6.6	8.0	8.6
45°	0.9	3.0	4.5	6.6	8.0	8.6
46°	0.9	3.0	4.5	6.4	8.0	8.6
47°	0.7	3.0	4.5	6.4	8.0	8.6
48°	0.7	2.7	4.5	6.4	8.0	8.6
49°	0.5	2.7	4.5	6.4	8.0	8.6
50°	0.5	2.7	4.3	6.4	8.0	8.6
51°	0.5	2.7	4.3	6.4	8.0	8.6
52°	0.5	2.5	4.3	6.4	8.0	8.6
53°	0.5	2.5	4.3	6.4	8.0	8.6
54°	0.5	2.5	4.1	6.4	8.0	8.6
55°	0.5	2.3	4.1	6.1	8.0	8.4
56°	0.5	2.3	4.1	6.1	8.0	8.4
57°	0.5	2.3	3.9	6.1	8.0	8.4
58°	0.5	2.0	3.9	5.9	7.7	8.4
59°	0.5	2.0	3.6	5.9	7.7	8.2
60°	0.5	1.8	3.6	5.7	7.5	8.2
62.5°	0.5	1.6	3.2	5.5	7.3	7.7
65°	0.5	1.4	3.0	5.0	7.0	7.5



TEST NUMBER: P1334115

CATALOG NUMBER: P3A02R159735DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.5	1.4	2.7	4.8	6.6	7.3
70°	0.5	1.4	2.5	4.3	6.4	6.6
72.5°	0.7	1.4	2.3	4.1	5.9	6.1
75°	0.9	1.4	2.0	3.6	5.5	5.7
77.5°	0.9	1.4	1.8	3.2	4.8	5.0
80°	0.9	1.1	1.6	2.5	3.9	4.1
82.5°	0.9	1.1	1.1	2.0	3.0	3.2
85°	0.7	0.9	0.9	1.1	2.0	2.3
87.5°	0.7	0.9	0.5	0.7	0.9	0.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)