

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: P1339959

Luminaire Tested: P3A09R159730DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1339959
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: P3A09R159730DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R15 optic, 3000K CCT AND, 97CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

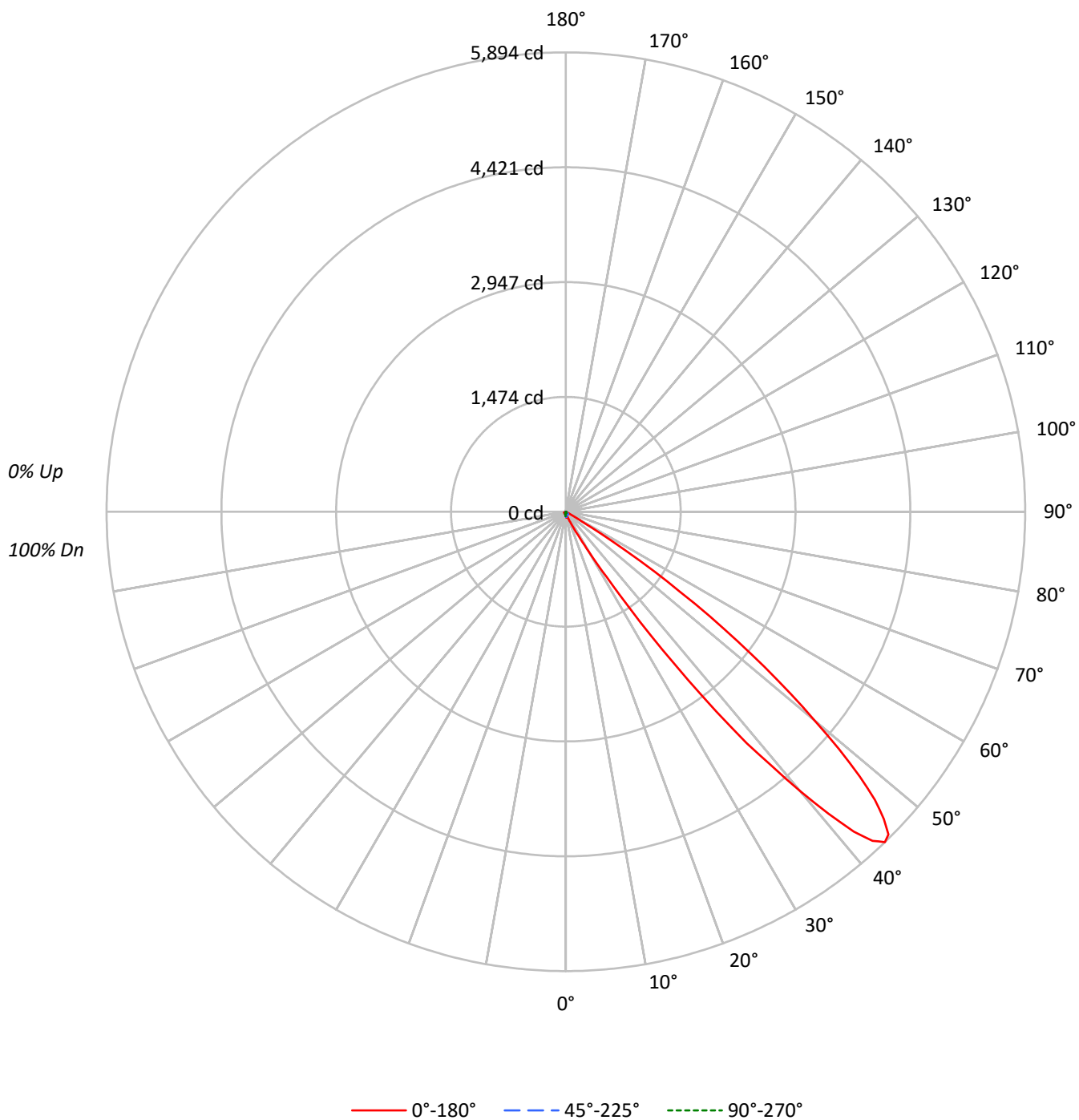
Lumens per Lamp: N/A
Luminaire Lumens: 658.0 lumens
Efficiency: N/A
Efficacy: 59.3 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 11.1
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: P1339959

CATALOG NUMBER: P3A09R159730DE010 E3CA451MMS

Luminous Intensity Polar Plot



TEST NUMBER: P1339959

CATALOG NUMBER: P3A09R159730DE010 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	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°	12806	12806	12806	12806	12806
5°	15893	14154	11556	10103	9971
10°	15631	12135	8907	7882	8038
15°	12963	8649	6402	6561	6992
20°	22495	6884	4900	5670	6441
25°	50156	8250	3968	5250	6025
30°	149998	10128	3494	5140	6305
35°	577466	11404	3159	5274	6666
40°	1340368	9962	3006	5439	7128
45°	1815475	7536	2636	5892	7722
50°	1423476	4469	2695	6277	8494
55°	683254	1988	2523	6767	9290
60°	62451	307	2281	7192	10350
65°	6797	0	2024	7472	11259
70°	1667	0	2500	8014	12182
75°	1694	593	3304	8896	13895
80°	1642	1642	4167	9092	14901
85°	1761	1761	6542	8303	16605

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1815475 cd/sqm

TEST NUMBER: P1339959

CATALOG NUMBER: P3A09R159730DE010 E3CA451MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	5.0	0.8
10°-20°	10.4	1.6
20°-30°	24.9	3.8
30°-40°	136.1	20.7
40°-50°	329.6	50.1
50°-60°	131.5	20.0
60°-70°	11.4	1.7
70°-80°	6.4	1.0
80°-90°	2.8	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°	40.2	6.1
0°-40°	176.3	26.8
0°-60°	637.4	96.9
0°-90°	658.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	658.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	58	58	58	58	58	
5°	72	64	52	46	45	7
15°	57	38	28	29	31	20
25°	207	34	16	22	25	125
35°	2157	43	12	20	25	1524
45°	5854	24	8	19	25	4130
55°	1787	5	7	18	24	1665
65°	13	0	4	14	22	34
75°	2	1	4	10	16	2
85°	1	1	3	3	7	1
90°	0	0	0	0	0	

TEST NUMBER: P1339959

CATALOG NUMBER: P3A09R159730DE010 E3CA451MMS

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4
2.5°	65.6	65.6	66.3	65.6	65.6	65.6	65.6	65.0	65.0	65.0	63.0
5°	72.2	72.2	72.2	72.2	71.5	71.5	71.5	70.9	70.9	70.2	64.3
7.5°	74.8	74.8	74.1	74.1	73.5	73.5	72.8	72.2	71.5	70.9	61.7
10°	70.2	70.2	70.2	69.5	69.5	68.9	68.2	67.6	66.9	65.6	54.5
12.5°	62.3	62.3	63.0	62.3	61.7	61.0	59.7	59.0	58.4	57.1	45.3
15°	57.1	57.1	57.1	56.4	55.8	54.5	53.8	52.5	51.8	49.9	38.1
17.5°	72.8	72.8	72.2	70.9	68.2	66.3	63.0	60.4	57.1	53.1	32.8
20°	96.4	96.4	95.1	93.8	90.5	87.3	82.0	77.4	72.2	67.6	29.5
22.5°	139.7	141.7	137.8	133.2	128.6	120.7	113.5	106.3	97.1	89.2	30.2
25°	207.3	209.3	207.3	196.8	188.3	177.8	164.0	149.6	133.8	119.4	34.1
27.5°	335.9	337.2	333.9	308.4	294.6	267.0	242.8	219.1	192.9	166.6	37.4
30°	592.4	593.1	572.1	520.9	475.7	415.3	364.1	314.9	273.6	231.6	40.0
31°	780.1	761.7	717.1	655.4	583.3	501.9	431.7	368.1	306.4	261.1	40.7
32°	990.7	988.1	913.9	807.0	710.5	608.8	503.2	421.9	351.0	289.3	41.3
33°	1269.5	1270.8	1154.1	1028.1	870.0	733.5	595.1	483.5	398.2	322.8	42.6
34°	1705.2	1602.8	1465.7	1295.1	1079.9	874.6	694.8	555.1	440.9	354.9	42.6
35°	2157.2	2054.2	1903.3	1644.8	1349.6	1062.2	813.5	631.8	492.1	389.7	42.6
36°	2663.7	2576.5	2348.1	2018.1	1641.5	1239.4	939.5	720.4	542.6	421.2	42.0
37°	3210.9	3083.0	2829.7	2469.5	1965.6	1488.7	1093.0	808.3	593.1	455.3	40.7
38°	3766.6	3651.1	3331.6	2895.3	2352.7	1751.8	1246.6	892.9	639.7	480.9	38.7
39°	4187.8	4124.8	3807.9	3320.5	2661.7	2001.1	1404.7	983.5	688.9	506.5	36.7
40°	4682.5	4580.8	4280.3	3677.4	3027.2	2255.0	1559.5	1063.5	729.6	526.8	34.8
41°	5133.9	5005.3	4626.1	4043.5	3319.8	2483.3	1706.5	1146.2	762.4	538.6	33.5
42°	5521.0	5371.4	4975.1	4357.1	3564.5	2665.7	1823.9	1205.2	793.2	548.5	31.5
43°	5771.6	5642.4	5252.6	4592.6	3773.8	2833.0	1933.5	1266.9	812.2	555.1	28.9
44°	5893.6	5763.1	5385.8	4740.2	3902.4	2933.4	2004.3	1309.6	833.2	563.6	26.9
45°	5854.3	5721.7	5357.0	4742.9	3942.4	2969.5	2034.5	1328.6	844.4	571.5	24.3
46°	5673.8	5580.7	5213.3	4619.5	3866.3	2930.7	2017.5	1314.1	840.4	571.5	21.7
47°	5420.6	5314.3	4964.6	4407.6	3682.0	2831.0	1948.6	1270.2	816.2	558.3	19.0
48°	5075.5	4985.0	4617.5	4071.0	3399.2	2613.9	1793.1	1198.7	778.1	532.7	16.4
49°	4642.5	4516.5	4174.7	3640.6	3030.5	2305.5	1589.0	1078.0	717.1	496.7	14.4
50°	4172.7	4017.2	3753.5	3209.6	2649.3	1976.8	1320.7	911.3	631.2	449.4	13.1
51°	3712.8	3554.7	3303.4	2840.9	2242.5	1640.2	1065.5	727.6	519.6	384.5	11.2
52°	3235.8	3103.3	2821.8	2458.4	1919.7	1329.2	887.7	615.4	431.7	322.8	9.2
53°	2760.8	2670.3	2402.6	2034.5	1542.5	1085.8	725.0	526.8	376.6	276.2	7.2
54°	2285.2	2186.1	1982.7	1654.7	1243.3	856.9	614.8	440.9	326.7	240.8	6.6
55°	1787.2	1736.0	1548.4	1261.7	942.1	683.6	498.6	379.2	273.6	201.4	5.2
56°	1376.5	1318.7	1147.5	915.2	700.0	535.4	403.5	309.7	231.6	168.6	3.9
57°	901.5	842.4	728.9	639.0	509.8	390.4	308.4	244.1	188.3	139.7	3.3
58°	532.7	478.9	461.2	393.7	339.9	265.1	227.7	181.7	139.1	110.2	2.0
59°	244.7	248.7	221.1	207.3	188.3	168.6	138.4	121.4	95.1	79.4	1.3
60°	142.4	134.5	131.2	117.4	104.3	92.5	83.3	73.5	59.7	51.2	0.7
62.5°	48.6	46.6	47.9	43.3	40.7	39.4	36.1	30.8	25.6	21.0	0.0
65°	13.1	13.1	12.5	11.8	11.2	10.5	9.8	8.5	7.9	6.6	0.0



TEST NUMBER: P1339959

CATALOG NUMBER: P3A09R159730DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	4.6	4.6	3.9	3.9	3.3	3.3	2.6	2.6	2.0	2.0	0.0
70°	2.6	2.6	2.6	2.0	2.0	2.0	1.3	1.3	1.3	0.7	0.0
72.5°	2.0	2.0	2.0	2.0	2.0	2.0	1.3	1.3	1.3	0.7	0.7
75°	2.0	2.0	2.0	1.3	1.3	1.3	1.3	1.3	1.3	1.3	0.7
77.5°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
80°	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	0.7	1.3
82.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.3
85°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7
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: P1339959

CATALOG NUMBER: P3A09R159730DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	58.4	58.4	58.4	58.4	58.4	58.4
2.5°	60.4	57.7	54.5	52.5	51.8	51.2
5°	57.7	52.5	48.6	45.9	45.3	45.3
7.5°	51.8	45.9	42.0	40.7	40.0	40.0
10°	45.3	40.0	36.7	35.4	36.1	36.1
12.5°	38.1	33.5	32.1	32.1	32.8	33.5
15°	30.8	28.2	28.2	28.9	30.2	30.8
17.5°	25.6	24.3	24.9	26.2	27.6	28.9
20°	21.0	21.0	22.3	24.3	26.2	27.6
22.5°	17.7	18.4	20.3	22.3	24.9	26.2
25°	15.1	16.4	18.4	21.7	24.3	24.9
27.5°	13.1	15.1	17.7	21.0	23.6	24.9
30°	11.2	13.8	17.1	20.3	23.6	24.9
31°	10.5	13.1	16.4	20.3	23.6	24.9
32°	9.8	13.1	16.4	20.3	23.6	24.9
33°	9.2	12.5	16.4	19.7	23.6	24.9
34°	8.5	12.5	16.4	20.3	23.6	24.9
35°	7.9	11.8	15.7	19.7	23.0	24.9
36°	7.2	11.8	15.7	19.7	23.6	24.9
37°	6.6	11.8	15.7	19.7	23.0	24.9
38°	6.6	11.2	15.1	19.7	23.0	24.9
39°	5.9	10.5	15.1	19.7	23.0	24.9
40°	5.2	10.5	14.4	19.0	23.0	24.9
41°	4.6	9.8	14.4	19.0	23.0	24.9
42°	3.9	9.8	14.4	19.0	23.0	24.9
43°	3.3	9.2	13.8	19.0	23.0	24.9
44°	3.3	9.2	13.8	19.0	23.0	24.9
45°	2.6	8.5	13.1	19.0	23.0	24.9
46°	2.6	8.5	13.1	18.4	23.0	24.9
47°	2.0	8.5	13.1	18.4	23.0	24.9
48°	2.0	7.9	13.1	18.4	23.0	24.9
49°	1.3	7.9	13.1	18.4	23.0	24.9
50°	1.3	7.9	12.5	18.4	23.0	24.9
51°	1.3	7.9	12.5	18.4	23.0	24.9
52°	1.3	7.2	12.5	18.4	23.0	24.9
53°	1.3	7.2	12.5	18.4	23.0	24.9
54°	1.3	7.2	11.8	18.4	23.0	24.9
55°	1.3	6.6	11.8	17.7	23.0	24.3
56°	1.3	6.6	11.8	17.7	23.0	24.3
57°	1.3	6.6	11.2	17.7	23.0	24.3
58°	1.3	5.9	11.2	17.1	22.3	24.3
59°	1.3	5.9	10.5	17.1	22.3	23.6
60°	1.3	5.2	10.5	16.4	21.7	23.6
62.5°	1.3	4.6	9.2	15.7	21.0	22.3
65°	1.3	3.9	8.5	14.4	20.3	21.7



TEST NUMBER: P1339959

CATALOG NUMBER: P3A09R159730DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.3	3.9	7.9	13.8	19.0	21.0
70°	1.3	3.9	7.2	12.5	18.4	19.0
72.5°	2.0	3.9	6.6	11.8	17.1	17.7
75°	2.6	3.9	5.9	10.5	15.7	16.4
77.5°	2.6	3.9	5.2	9.2	13.8	14.4
80°	2.6	3.3	4.6	7.2	11.2	11.8
82.5°	2.6	3.3	3.3	5.9	8.5	9.2
85°	2.0	2.6	2.6	3.3	5.9	6.6
87.5°	2.0	2.6	1.3	2.0	2.6	2.6
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)