

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: P1339942

Luminaire Tested: P3A09R159727DE010 E3CA451MB

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1339942
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: P3A09R159727DE010 E3CA451MB
Description: 3in Adjustable LED luminaire with, R15 optic, 2700K CCT AND, 97CRI , E3CA451MB TRIM
Light Source: -
Ballast/Driver: -

Summary

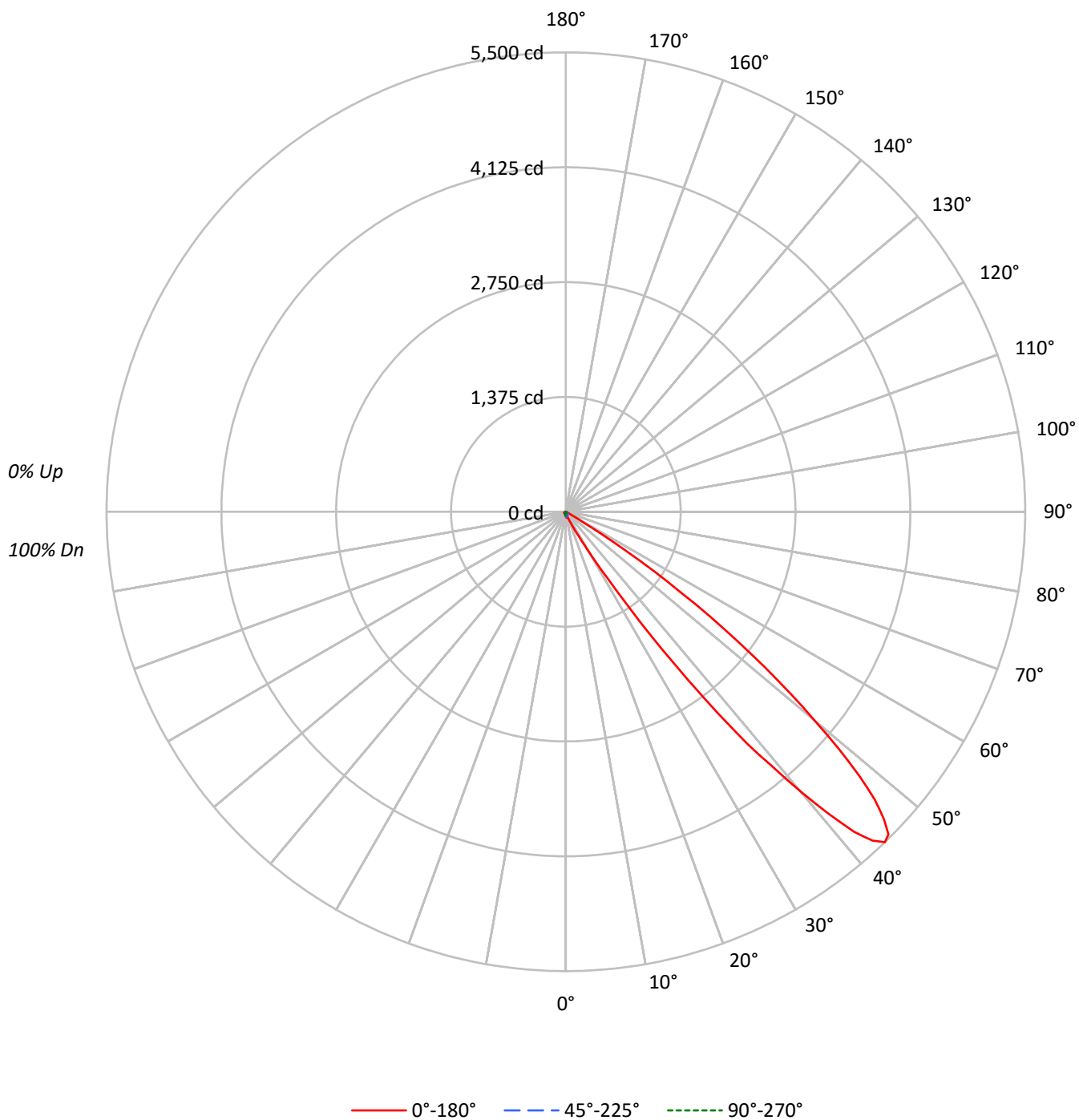
Lumens per Lamp: N/A
Luminaire Lumens: 614.0 lumens
Efficiency: N/A
Efficacy: 55.3 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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: P1339942

CATALOG NUMBER: P3A09R159727DE010 E3CA451MB

Luminous Intensity Polar Plot



TEST NUMBER: P1339942

CATALOG NUMBER: P3A09R159727DE010 E3CA451MB

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°	11951	11951	11951	11951	11951
5°	14814	13207	10786	9443	9289
10°	14584	11311	8305	7370	7504
15°	12100	8059	5971	6107	6538
20°	21002	6417	4574	5297	5997
25°	46817	7694	3702	4887	5637
30°	139971	9444	3266	4811	5900
35°	538865	10654	2945	4926	6237
40°	1250743	9275	2805	5095	6670
45°	1694067	7039	2481	5520	7226
50°	1328297	4162	2490	5833	7949
55°	637569	1873	2332	6308	8678
60°	58285	263	2149	6710	9648
65°	6330	0	1920	7005	10481
70°	1539	0	2372	7437	11412
75°	1525	508	3135	8303	12963
80°	1515	1515	3915	8461	13891
85°	1510	1510	6038	7799	15347

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1694067 cd/sqm

TEST NUMBER: P1339942

CATALOG NUMBER: P3A09R159727DE010 E3CA451MB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4.7	0.8
10°-20°	9.7	1.6
20°-30°	23.2	3.8
30°-40°	127.0	20.7
40°-50°	307.5	50.1
50°-60°	122.7	20.0
60°-70°	10.6	1.7
70°-80°	6.0	1.0
80°-90°	2.6	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°	37.5	6.1
0°-40°	164.5	26.8
0°-60°	594.8	96.9
0°-90°	614.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	614.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	54	54	54	54	54	
5°	67	60	49	43	42	6
15°	53	36	26	27	29	19
25°	194	32	15	20	23	117
35°	2013	40	11	18	23	1422
45°	5463	23	8	18	23	3854
55°	1668	5	6	16	23	1554
65°	12	0	4	14	20	31
75°	2	1	4	10	15	2
85°	1	1	2	3	6	0
90°	0	0	0	0	0	

TEST NUMBER: P1339942

CATALOG NUMBER: P3A09R159727DE010 E3CA451MB

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5	54.5
2.5°	61.2	61.2	61.8	61.2	61.2	61.2	61.2	60.6	60.6	60.6	58.8
5°	67.3	67.3	67.3	67.3	66.7	66.7	66.7	66.1	66.1	65.5	60.0
7.5°	69.8	69.8	69.2	69.2	68.6	68.6	68.0	67.3	66.7	66.1	57.5
10°	65.5	65.5	65.5	64.9	64.9	64.3	63.7	63.1	62.4	61.2	50.8
12.5°	58.2	58.2	58.8	58.2	57.5	56.9	55.7	55.1	54.5	53.3	42.2
15°	53.3	53.3	53.3	52.7	52.0	50.8	50.2	49.0	48.4	46.5	35.5
17.5°	68.0	68.0	67.3	66.1	63.7	61.8	58.8	56.3	53.3	49.6	30.6
20°	90.0	90.0	88.8	87.5	84.5	81.4	76.5	72.2	67.3	63.1	27.5
22.5°	130.4	132.2	128.6	124.3	120.0	112.6	105.9	99.2	90.6	83.3	28.2
25°	193.5	195.3	193.5	183.7	175.7	165.9	153.1	139.6	124.9	111.4	31.8
27.5°	313.5	314.7	311.6	287.7	274.9	249.2	226.5	204.5	180.0	155.5	34.9
30°	552.8	553.4	533.9	486.1	443.9	387.5	339.8	293.9	255.3	216.1	37.3
31°	727.9	710.8	669.2	611.6	544.3	468.3	402.8	343.5	285.9	243.7	38.0
32°	924.4	922.0	852.8	753.0	663.0	568.1	469.6	393.7	327.5	270.0	38.6
33°	1184.6	1185.9	1076.9	959.3	811.8	684.5	555.3	451.2	371.6	301.2	39.8
34°	1591.1	1495.6	1367.7	1208.5	1007.7	816.1	648.3	517.9	411.4	331.2	39.8
35°	2013.0	1916.8	1776.0	1534.8	1259.3	991.2	759.1	589.6	459.2	363.7	39.8
36°	2485.6	2404.2	2191.1	1883.2	1531.8	1156.5	876.7	672.2	506.3	393.0	39.2
37°	2996.2	2876.8	2640.5	2304.4	1834.2	1389.1	1020.0	754.2	553.4	424.9	38.0
38°	3514.7	3407.0	3108.8	2701.7	2195.4	1634.6	1163.2	833.2	596.9	448.8	36.1
39°	3907.8	3849.0	3553.3	3098.4	2483.8	1867.3	1310.8	917.7	642.8	472.6	34.3
40°	4369.4	4274.5	3994.1	3431.5	2824.8	2104.2	1455.2	992.4	680.8	491.6	32.4
41°	4790.6	4670.6	4316.7	3773.1	3097.8	2317.2	1592.4	1069.5	711.4	502.6	31.2
42°	5151.8	5012.2	4642.4	4065.7	3326.2	2487.4	1702.0	1124.6	740.2	511.8	29.4
43°	5385.7	5265.1	4901.4	4285.5	3521.5	2643.5	1804.2	1182.2	757.9	517.9	26.9
44°	5499.5	5377.7	5025.7	4423.3	3641.5	2737.2	1870.3	1222.0	777.5	525.9	25.1
45°	5462.8	5339.1	4998.7	4425.7	3678.8	2770.9	1898.5	1239.7	787.9	533.2	22.7
46°	5294.4	5207.5	4864.7	4310.6	3607.8	2734.8	1882.6	1226.3	784.2	533.2	20.2
47°	5058.1	4958.9	4632.6	4112.9	3435.8	2641.7	1818.3	1185.2	761.6	521.0	17.8
48°	4736.1	4651.6	4308.8	3798.8	3171.9	2439.1	1673.2	1118.5	726.1	497.1	15.3
49°	4332.0	4214.5	3895.5	3397.2	2827.8	2151.3	1482.8	1005.9	669.2	463.4	13.5
50°	3893.7	3748.6	3502.5	2995.0	2472.1	1844.6	1232.4	850.4	589.0	419.4	12.2
51°	3464.5	3317.0	3082.5	2650.9	2092.6	1530.5	994.2	678.9	484.9	358.8	10.4
52°	3019.4	2895.8	2633.1	2294.0	1791.3	1240.3	828.3	574.3	402.8	301.2	8.6
53°	2576.2	2491.7	2241.9	1898.5	1439.3	1013.2	676.5	491.6	351.4	257.7	6.7
54°	2132.3	2039.9	1850.1	1544.0	1160.1	799.6	573.6	411.4	304.9	224.7	6.1
55°	1667.7	1619.9	1444.8	1177.3	879.1	637.9	465.3	353.9	255.3	188.0	4.9
56°	1284.4	1230.6	1070.8	854.0	653.2	499.6	376.5	289.0	216.1	157.3	3.7
57°	841.2	786.1	680.2	596.3	475.7	364.3	287.7	227.7	175.7	130.4	3.1
58°	497.1	446.9	430.4	367.3	317.1	247.3	212.4	169.6	129.8	102.9	1.8
59°	228.4	232.0	206.3	193.5	175.7	157.3	129.2	113.3	88.8	74.1	1.2
60°	132.9	125.5	122.4	109.6	97.3	86.3	77.8	68.6	55.7	47.8	0.6
62.5°	45.3	43.5	44.7	40.4	38.0	36.7	33.7	28.8	23.9	19.6	0.0
65°	12.2	12.2	11.6	11.0	10.4	9.8	9.2	8.0	7.3	6.1	0.0



TEST NUMBER: P1339942

CATALOG NUMBER: P3A09R159727DE010 E3CA451MB

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	4.3	4.3	3.7	3.7	3.1	3.1	2.4	2.4	1.8	1.8	0.0
70°	2.4	2.4	2.4	1.8	1.8	1.8	1.2	1.2	1.2	0.6	0.0
72.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.2	1.2	1.2	0.6	0.6
75°	1.8	1.8	1.8	1.2	1.2	1.2	1.2	1.2	1.2	1.2	0.6
77.5°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
80°	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	0.6	1.2
82.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.2
85°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
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: P1339942

CATALOG NUMBER: P3A09R159727DE010 E3CA451MB

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	54.5	54.5	54.5	54.5	54.5	54.5
2.5°	56.3	53.9	50.8	49.0	48.4	47.8
5°	53.9	49.0	45.3	42.9	42.2	42.2
7.5°	48.4	42.9	39.2	38.0	37.3	37.3
10°	42.2	37.3	34.3	33.1	33.7	33.7
12.5°	35.5	31.2	30.0	30.0	30.6	31.2
15°	28.8	26.3	26.3	26.9	28.2	28.8
17.5°	23.9	22.7	23.3	24.5	25.7	26.9
20°	19.6	19.6	20.8	22.7	24.5	25.7
22.5°	16.5	17.1	19.0	20.8	23.3	24.5
25°	14.1	15.3	17.1	20.2	22.7	23.3
27.5°	12.2	14.1	16.5	19.6	22.0	23.3
30°	10.4	12.9	15.9	19.0	22.0	23.3
31°	9.8	12.2	15.3	19.0	22.0	23.3
32°	9.2	12.2	15.3	19.0	22.0	23.3
33°	8.6	11.6	15.3	18.4	22.0	23.3
34°	8.0	11.6	15.3	19.0	22.0	23.3
35°	7.3	11.0	14.7	18.4	21.4	23.3
36°	6.7	11.0	14.7	18.4	22.0	23.3
37°	6.1	11.0	14.7	18.4	21.4	23.3
38°	6.1	10.4	14.1	18.4	21.4	23.3
39°	5.5	9.8	14.1	18.4	21.4	23.3
40°	4.9	9.8	13.5	17.8	21.4	23.3
41°	4.3	9.2	13.5	17.8	21.4	23.3
42°	3.7	9.2	13.5	17.8	21.4	23.3
43°	3.1	8.6	12.9	17.8	21.4	23.3
44°	3.1	8.6	12.9	17.8	21.4	23.3
45°	2.4	8.0	12.2	17.8	21.4	23.3
46°	2.4	8.0	12.2	17.1	21.4	23.3
47°	1.8	8.0	12.2	17.1	21.4	23.3
48°	1.8	7.3	12.2	17.1	21.4	23.3
49°	1.2	7.3	12.2	17.1	21.4	23.3
50°	1.2	7.3	11.6	17.1	21.4	23.3
51°	1.2	7.3	11.6	17.1	21.4	23.3
52°	1.2	6.7	11.6	17.1	21.4	23.3
53°	1.2	6.7	11.6	17.1	21.4	23.3
54°	1.2	6.7	11.0	17.1	21.4	23.3
55°	1.2	6.1	11.0	16.5	21.4	22.7
56°	1.2	6.1	11.0	16.5	21.4	22.7
57°	1.2	6.1	10.4	16.5	21.4	22.7
58°	1.2	5.5	10.4	15.9	20.8	22.7
59°	1.2	5.5	9.8	15.9	20.8	22.0
60°	1.2	4.9	9.8	15.3	20.2	22.0
62.5°	1.2	4.3	8.6	14.7	19.6	20.8
65°	1.2	3.7	8.0	13.5	19.0	20.2



TEST NUMBER: P1339942

CATALOG NUMBER: P3A09R159727DE010 E3CA451MB

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.2	3.7	7.3	12.9	17.8	19.6
70°	1.2	3.7	6.7	11.6	17.1	17.8
72.5°	1.8	3.7	6.1	11.0	15.9	16.5
75°	2.4	3.7	5.5	9.8	14.7	15.3
77.5°	2.4	3.7	4.9	8.6	12.9	13.5
80°	2.4	3.1	4.3	6.7	10.4	11.0
82.5°	2.4	3.1	3.1	5.5	8.0	8.6
85°	1.8	2.4	2.4	3.1	5.5	6.1
87.5°	1.8	2.4	1.2	1.8	2.4	2.4
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)