

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: P1339974

Luminaire Tested: P3A09R159735DE010 E3CA451MB

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1339974
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: P3A09R159735DE010 E3CA451MB
Description: 3in Adjustable LED luminaire with, R15 optic, 3500K CCT AND, 97CRI , E3CA451MB TRIM
Light Source: -
Ballast/Driver: -

Summary

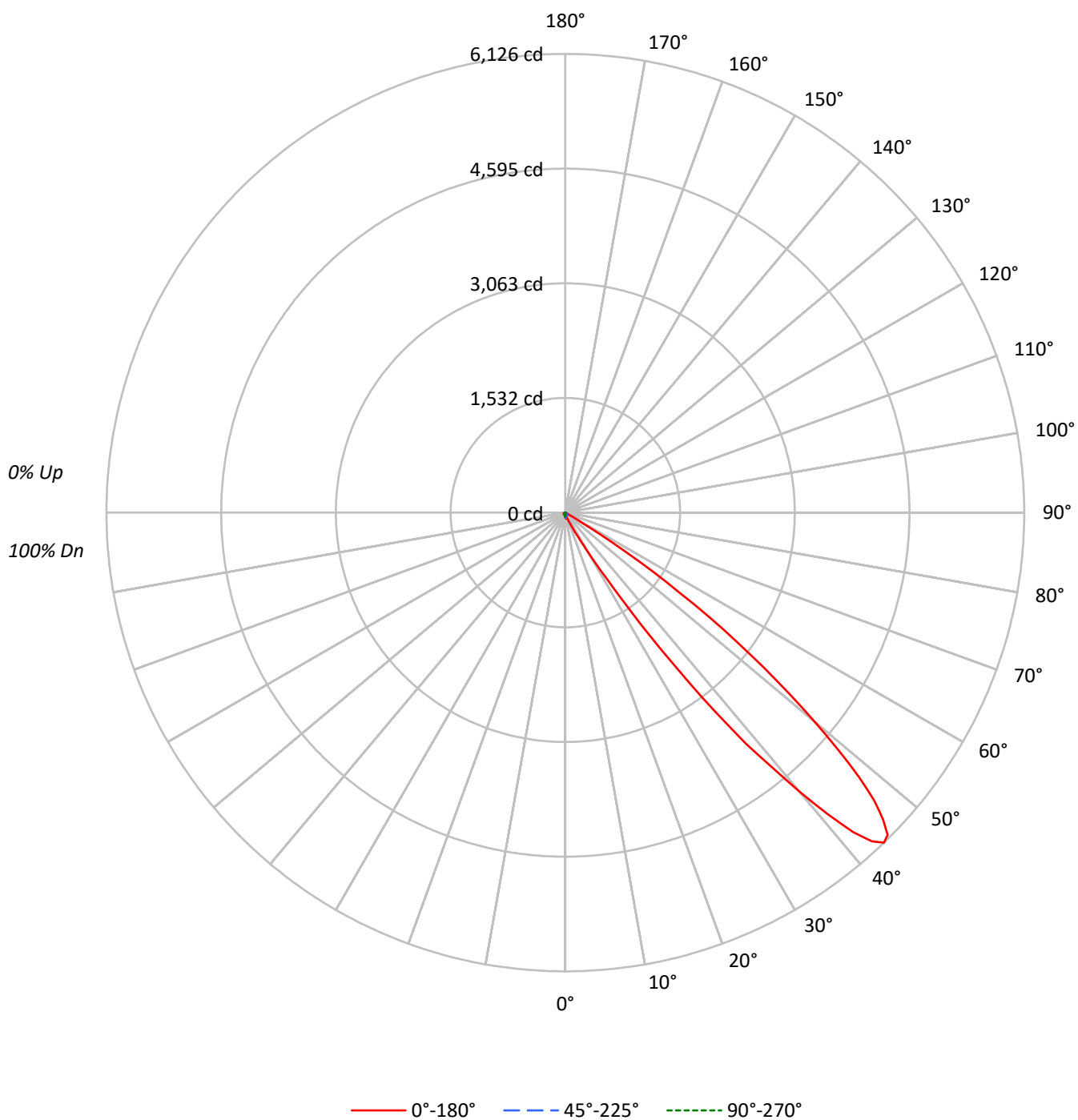
Lumens per Lamp: N/A
Luminaire Lumens: 684.0 lumens
Efficiency: N/A
Efficacy: 61.6 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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: P1339974

CATALOG NUMBER: P3A09R159735DE010 E3CA451MB

Luminous Intensity Polar Plot



TEST NUMBER: P1339974

CATALOG NUMBER: P3A09R159735DE010 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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	110	106	102	99	107	104	100	97	100	97	94		96	93	91		92
2	101	93	87	81	98	91	85	80	87	83	78		84	80	77		81
3	91	81	73	67	89	79	72	66	76	70	65		74	68	64		71
4	83	71	62	55	80	69	61	55	67	60	54		64	58	53		62
5	75	62	52	46	73	61	52	45	58	51	45		56	50	44		55
6	68	54	45	38	66	53	44	38	51	43	37		49	42	37		48
7	62	47	38	32	60	47	38	32	45	37	31		44	36	31		42
8	56	42	33	27	55	41	33	27	40	32	26		39	31	26		37
9	52	37	28	22	50	37	28	22	35	28	22		34	27	22		33
10	48	33	25	19	46	33	25	19	32	24	19		31	24	19		30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	13310	13310	13310	13310	13310
5°	16509	14704	12018	10500	10368
10°	16254	12603	9263	8194	8350
15°	13462	8990	6652	6810	7287
20°	23405	7164	5087	5881	6674
25°	52140	8589	4137	5444	6266
30°	155948	10533	3621	5343	6558
35°	600300	11859	3293	5488	6933
40°	1393325	10334	3120	5668	7414
45°	1887204	7815	2760	6140	8032
50°	1479730	4640	2797	6516	8836
55°	710245	2103	2600	7034	9634
60°	64907	307	2412	7499	10789
65°	7057	0	2127	7783	11674
70°	1731	0	2629	8335	12694
75°	1694	593	3474	9235	14488
80°	1768	1768	4293	9471	15532
85°	1761	1761	6793	8554	17109

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1887204 cd/sqm

TEST NUMBER: P1339974

CATALOG NUMBER: P3A09R159735DE010 E3CA451MB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	5.2	0.8
10°-20°	10.8	1.6
20°-30°	25.8	3.8
30°-40°	141.5	20.7
40°-50°	342.6	50.1
50°-60°	136.7	20.0
60°-70°	11.8	1.7
70°-80°	6.7	1.0
80°-90°	2.9	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°	41.8	6.1
0°-40°	183.3	26.8
0°-60°	662.6	96.9
0°-90°	684.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	684.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	61	61	61	61	61	
5°	75	67	55	48	47	7
15°	59	40	29	30	32	21
25°	216	36	17	22	26	130
35°	2242	44	12	20	26	1585
45°	6086	25	9	20	26	4293
55°	1858	6	7	18	25	1731
65°	14	0	4	15	22	35
75°	2	1	4	11	17	2
85°	1	1	3	3	7	1
90°	0	0	0	0	0	

TEST NUMBER: P1339974

CATALOG NUMBER: P3A09R159735DE010 E3CA451MB

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	60.7	60.7	60.7	60.7	60.7	60.7	60.7	60.7	60.7	60.7	60.7
2.5°	68.2	68.2	68.9	68.2	68.2	68.2	68.2	67.5	67.5	67.5	65.5
5°	75.0	75.0	75.0	75.0	74.3	74.3	74.3	73.7	73.7	73.0	66.8
7.5°	77.7	77.7	77.1	77.1	76.4	76.4	75.7	75.0	74.3	73.7	64.1
10°	73.0	73.0	73.0	72.3	72.3	71.6	70.9	70.2	69.6	68.2	56.6
12.5°	64.8	64.8	65.5	64.8	64.1	63.4	62.1	61.4	60.7	59.3	47.1
15°	59.3	59.3	59.3	58.7	58.0	56.6	55.9	54.6	53.9	51.8	39.6
17.5°	75.7	75.7	75.0	73.7	70.9	68.9	65.5	62.7	59.3	55.2	34.1
20°	100.3	100.3	98.9	97.5	94.1	90.7	85.3	80.5	75.0	70.2	30.7
22.5°	145.3	147.3	143.2	138.4	133.7	125.5	118.0	110.5	100.9	92.8	31.4
25°	215.5	217.6	215.5	204.6	195.7	184.8	170.5	155.5	139.1	124.1	35.5
27.5°	349.2	350.6	347.1	320.5	306.2	277.6	252.3	227.8	200.5	173.2	38.9
30°	615.9	616.5	594.7	541.5	494.5	431.7	378.5	327.4	284.4	240.8	41.6
31°	810.9	791.8	745.4	681.3	606.3	521.7	448.8	382.6	318.5	271.4	42.3
32°	1029.8	1027.1	950.0	838.9	738.6	632.9	523.1	438.5	364.9	300.8	43.0
33°	1319.7	1321.1	1199.7	1068.7	904.3	762.5	618.6	502.6	414.0	335.6	44.3
34°	1772.6	1666.2	1523.6	1346.3	1122.6	909.1	722.3	577.0	458.3	369.0	44.3
35°	2242.5	2135.4	1978.5	1709.8	1402.9	1104.2	845.7	656.8	511.5	405.1	44.3
36°	2769.0	2678.3	2440.9	2097.9	1706.4	1288.3	976.6	748.8	564.0	437.9	43.6
37°	3337.8	3204.8	2941.5	2567.1	2043.3	1547.5	1136.2	840.2	616.5	473.3	42.3
38°	3915.4	3795.4	3463.3	3009.7	2445.7	1821.0	1295.8	928.2	665.0	499.9	40.2
39°	4353.3	4287.8	3958.4	3451.7	2766.9	2080.1	1460.2	1022.3	716.1	526.5	38.2
40°	4867.5	4761.8	4449.4	3822.7	3146.8	2344.1	1621.1	1105.5	758.4	547.7	36.1
41°	5336.7	5203.1	4808.9	4203.2	3451.0	2581.4	1773.9	1191.5	792.5	559.9	34.8
42°	5739.1	5583.6	5171.7	4529.2	3705.4	2771.0	1896.0	1252.9	824.6	570.2	32.7
43°	5999.7	5865.3	5460.2	4774.1	3922.9	2944.9	2009.9	1317.0	844.3	577.0	30.0
44°	6126.5	5990.8	5598.6	4927.5	4056.6	3049.3	2083.5	1361.3	866.2	585.8	28.0
45°	6085.6	5947.8	5568.6	4930.3	4098.2	3086.8	2114.9	1381.1	877.7	594.0	25.2
46°	5898.0	5801.2	5419.3	4802.0	4019.1	3046.5	2097.2	1366.1	873.7	594.0	22.5
47°	5634.8	5524.3	5160.8	4581.8	3827.5	2942.9	2025.6	1320.4	848.4	580.4	19.8
48°	5276.0	5181.9	4800.0	4231.9	3533.5	2717.1	1863.9	1246.0	808.9	553.8	17.1
49°	4825.9	4695.0	4339.6	3784.5	3150.2	2396.6	1651.8	1120.5	745.4	516.3	15.0
50°	4337.6	4176.0	3901.8	3336.4	2754.0	2054.9	1372.9	947.3	656.1	467.2	13.6
51°	3859.5	3695.1	3433.9	2953.1	2331.1	1705.0	1107.6	756.4	540.2	399.7	11.6
52°	3363.7	3225.9	2933.3	2555.5	1995.6	1381.8	922.8	639.7	448.8	335.6	9.5
53°	2869.9	2775.8	2497.5	2114.9	1603.4	1128.7	753.6	547.7	391.5	287.1	7.5
54°	2375.4	2272.5	2061.0	1720.0	1292.4	890.7	639.0	458.3	339.6	250.3	6.8
55°	1857.8	1804.6	1609.5	1311.5	979.4	710.7	518.3	394.2	284.4	209.4	5.5
56°	1430.9	1370.8	1192.8	951.4	727.7	556.5	419.4	321.9	240.8	175.3	4.1
57°	937.1	875.7	757.7	664.3	529.9	405.8	320.5	253.7	195.7	145.3	3.4
58°	553.8	497.9	479.5	409.2	353.3	275.5	236.7	188.9	144.6	114.6	2.0
59°	254.4	258.5	229.8	215.5	195.7	175.3	143.9	126.2	98.9	82.5	1.4
60°	148.0	139.8	136.4	122.1	108.4	96.2	86.6	76.4	62.1	53.2	0.7
62.5°	50.5	48.4	49.8	45.0	42.3	40.9	37.5	32.1	26.6	21.8	0.0
65°	13.6	13.6	13.0	12.3	11.6	10.9	10.2	8.9	8.2	6.8	0.0



TEST NUMBER: P1339974

CATALOG NUMBER: P3A09R159735DE010 E3CA451MB

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	4.8	4.8	4.1	4.1	3.4	3.4	2.7	2.7	2.0	2.0	0.0
70°	2.7	2.7	2.7	2.0	2.0	2.0	1.4	1.4	1.4	0.7	0.0
72.5°	2.0	2.0	2.0	2.0	2.0	2.0	1.4	1.4	1.4	0.7	0.7
75°	2.0	2.0	2.0	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.7
77.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
80°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.7	1.4
82.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.4
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: P1339974

CATALOG NUMBER: P3A09R159735DE010 E3CA451MB

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	60.7	60.7	60.7	60.7	60.7	60.7
2.5°	62.7	60.0	56.6	54.6	53.9	53.2
5°	60.0	54.6	50.5	47.7	47.1	47.1
7.5°	53.9	47.7	43.6	42.3	41.6	41.6
10°	47.1	41.6	38.2	36.8	37.5	37.5
12.5°	39.6	34.8	33.4	33.4	34.1	34.8
15°	32.1	29.3	29.3	30.0	31.4	32.1
17.5°	26.6	25.2	25.9	27.3	28.6	30.0
20°	21.8	21.8	23.2	25.2	27.3	28.6
22.5°	18.4	19.1	21.1	23.2	25.9	27.3
25°	15.7	17.1	19.1	22.5	25.2	25.9
27.5°	13.6	15.7	18.4	21.8	24.6	25.9
30°	11.6	14.3	17.7	21.1	24.6	25.9
31°	10.9	13.6	17.1	21.1	24.6	25.9
32°	10.2	13.6	17.1	21.1	24.6	25.9
33°	9.5	13.0	17.1	20.5	24.6	25.9
34°	8.9	13.0	17.1	21.1	24.6	25.9
35°	8.2	12.3	16.4	20.5	23.9	25.9
36°	7.5	12.3	16.4	20.5	24.6	25.9
37°	6.8	12.3	16.4	20.5	23.9	25.9
38°	6.8	11.6	15.7	20.5	23.9	25.9
39°	6.1	10.9	15.7	20.5	23.9	25.9
40°	5.5	10.9	15.0	19.8	23.9	25.9
41°	4.8	10.2	15.0	19.8	23.9	25.9
42°	4.1	10.2	15.0	19.8	23.9	25.9
43°	3.4	9.5	14.3	19.8	23.9	25.9
44°	3.4	9.5	14.3	19.8	23.9	25.9
45°	2.7	8.9	13.6	19.8	23.9	25.9
46°	2.7	8.9	13.6	19.1	23.9	25.9
47°	2.0	8.9	13.6	19.1	23.9	25.9
48°	2.0	8.2	13.6	19.1	23.9	25.9
49°	1.4	8.2	13.6	19.1	23.9	25.9
50°	1.4	8.2	13.0	19.1	23.9	25.9
51°	1.4	8.2	13.0	19.1	23.9	25.9
52°	1.4	7.5	13.0	19.1	23.9	25.9
53°	1.4	7.5	13.0	19.1	23.9	25.9
54°	1.4	7.5	12.3	19.1	23.9	25.9
55°	1.4	6.8	12.3	18.4	23.9	25.2
56°	1.4	6.8	12.3	18.4	23.9	25.2
57°	1.4	6.8	11.6	18.4	23.9	25.2
58°	1.4	6.1	11.6	17.7	23.2	25.2
59°	1.4	6.1	10.9	17.7	23.2	24.6
60°	1.4	5.5	10.9	17.1	22.5	24.6
62.5°	1.4	4.8	9.5	16.4	21.8	23.2
65°	1.4	4.1	8.9	15.0	21.1	22.5



TEST NUMBER: P1339974

CATALOG NUMBER: P3A09R159735DE010 E3CA451MB

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.4	4.1	8.2	14.3	19.8	21.8
70°	1.4	4.1	7.5	13.0	19.1	19.8
72.5°	2.0	4.1	6.8	12.3	17.7	18.4
75°	2.7	4.1	6.1	10.9	16.4	17.1
77.5°	2.7	4.1	5.5	9.5	14.3	15.0
80°	2.7	3.4	4.8	7.5	11.6	12.3
82.5°	2.7	3.4	3.4	6.1	8.9	9.5
85°	2.0	2.7	2.7	3.4	6.1	6.8
87.5°	2.0	2.7	1.4	2.0	2.7	2.7
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)