

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: P1340038

Luminaire Tested: P3A09R159835DE010 E3CA451MB

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1340038
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: P3A09R159835DE010 E3CA451MB
Description: 3in Adjustable LED luminaire with, R15 optic, 3500K CCT AND, 98CRI , E3CA451MB TRIM
Light Source: -
Ballast/Driver: -

Summary

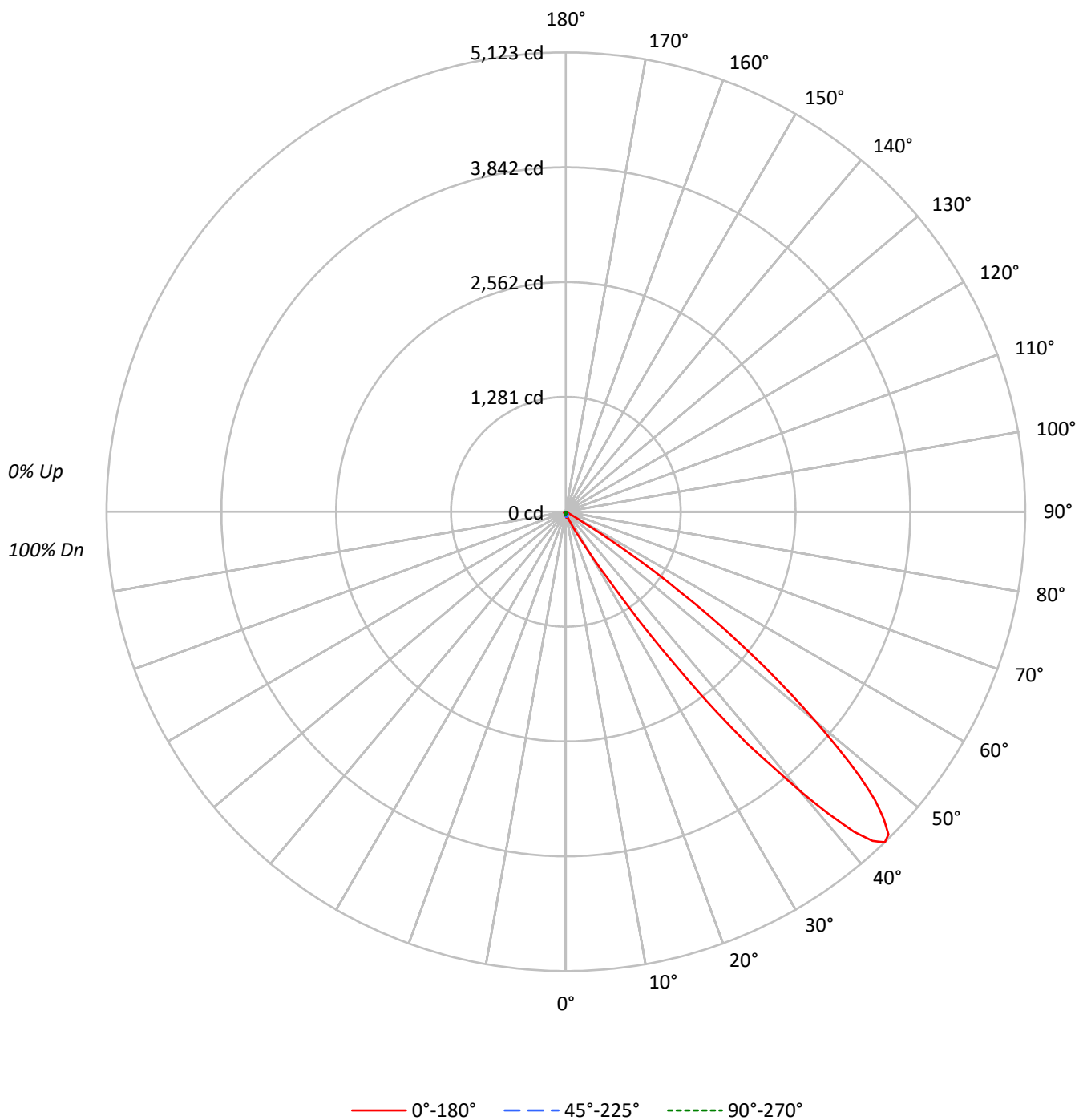
Lumens per Lamp: N/A
Luminaire Lumens: 572.0 lumens
Efficiency: N/A
Efficacy: 52.0 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 11
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: P1340038

CATALOG NUMBER: P3A09R159835DE010 E3CA451MB

Luminous Intensity Polar Plot



TEST NUMBER: P1340038

CATALOG NUMBER: P3A09R159835DE010 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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	102	102	100
1	110	106	102	99	107	104	100	97	100	97	94	96	93	91	92	90	89	89	89	87
2	101	93	87	81	98	91	85	80	87	83	78	84	80	77	81	78	75	75	75	73
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	63	63	61
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	53	53	53	50
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	49	44	44	44	42
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	48	42	37	37	37	35
7	62	47	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31	31	31	29
8	56	42	33	27	55	41	33	27	40	32	26	39	31	26	37	31	26	26	26	24
9	52	37	28	22	50	37	28	22	35	28	22	34	27	22	33	27	22	22	22	20
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	23	19	19	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	11139	11139	11139	11139	11139
5°	13801	12305	10037	8783	8673
10°	13582	10532	7749	6858	6992
15°	11260	7514	5562	5698	6084
20°	19555	5997	4270	4924	5600
25°	43599	7186	3460	4549	5250
30°	130400	8811	3038	4482	5495
35°	502003	9931	2757	4578	5809
40°	1165183	8645	2605	4723	6212
45°	1578179	6543	2295	5117	6729
50°	1237418	3889	2320	5458	7403
55°	593948	1759	2179	5887	8067
60°	54294	263	2017	6271	8991
65°	5915	0	1764	6486	9755
70°	1475	0	2180	6924	10579
75°	1440	508	2881	7710	12115
80°	1389	1389	3662	7956	13007
85°	1510	1510	5787	7296	14341

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1578179 cd/sqm

TEST NUMBER: P1340038

CATALOG NUMBER: P3A09R159835DE010 E3CA451MB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4.3	0.8
10°-20°	9.0	1.6
20°-30°	21.6	3.8
30°-40°	118.3	20.7
40°-50°	286.5	50.1
50°-60°	114.3	20.0
60°-70°	9.9	1.7
70°-80°	5.6	1.0
80°-90°	2.5	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°	35.0	6.1
0°-40°	153.3	26.8
0°-60°	554.1	96.9
0°-90°	572.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	572.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	51	51	51	51	51	
5°	63	56	46	40	39	6
15°	50	33	24	25	27	17
25°	180	30	14	19	22	109
35°	1875	37	10	17	22	1325
45°	5089	21	7	16	22	3590
55°	1554	5	6	15	21	1447
65°	11	0	3	12	19	29
75°	2	1	3	9	14	2
85°	1	1	2	3	6	0
90°	0	0	0	0	0	

TEST NUMBER: P1340038

CATALOG NUMBER: P3A09R159835DE010 E3CA451MB

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8	50.8
2.5°	57.0	57.0	57.6	57.0	57.0	57.0	57.0	56.5	56.5	56.5	54.8
5°	62.7	62.7	62.7	62.7	62.2	62.2	62.2	61.6	61.6	61.0	55.9
7.5°	65.0	65.0	64.4	64.4	63.9	63.9	63.3	62.7	62.2	61.6	53.6
10°	61.0	61.0	61.0	60.5	60.5	59.9	59.3	58.7	58.2	57.0	47.3
12.5°	54.2	54.2	54.8	54.2	53.6	53.0	51.9	51.3	50.8	49.6	39.4
15°	49.6	49.6	49.6	49.0	48.5	47.3	46.8	45.6	45.1	43.3	33.1
17.5°	63.3	63.3	62.7	61.6	59.3	57.6	54.8	52.5	49.6	46.2	28.5
20°	83.8	83.8	82.7	81.6	78.7	75.9	71.3	67.3	62.7	58.7	25.7
22.5°	121.5	123.2	119.8	115.8	111.8	104.9	98.7	92.4	84.4	77.6	26.2
25°	180.2	181.9	180.2	171.1	163.7	154.6	142.6	130.0	116.3	103.8	29.7
27.5°	292.0	293.2	290.3	268.1	256.1	232.1	211.0	190.5	167.7	144.9	32.5
30°	515.0	515.6	497.3	452.8	413.5	361.0	316.5	273.8	237.8	201.3	34.8
31°	678.1	662.2	623.4	569.8	507.0	436.3	375.3	320.0	266.3	227.0	35.4
32°	861.2	858.9	794.5	701.5	617.7	529.3	437.4	366.7	305.1	251.5	35.9
33°	1103.6	1104.7	1003.2	893.7	756.3	637.6	517.3	420.3	346.2	280.6	37.1
34°	1482.3	1393.3	1274.1	1125.8	938.8	760.3	604.0	482.5	383.3	308.6	37.1
35°	1875.3	1785.7	1654.6	1429.8	1173.2	923.4	707.2	549.2	427.8	338.8	37.1
36°	2315.6	2239.7	2041.2	1754.4	1427.0	1077.4	816.7	626.2	471.7	366.2	36.5
37°	2791.2	2680.0	2459.9	2146.8	1708.7	1294.1	950.2	702.7	515.6	395.8	35.4
38°	3274.3	3173.9	2896.2	2516.9	2045.2	1522.8	1083.6	776.2	556.1	418.1	33.6
39°	3640.5	3585.7	3310.2	2886.5	2313.9	1739.5	1221.1	854.9	598.9	440.3	31.9
40°	4070.5	3982.1	3720.9	3196.7	2631.5	1960.3	1355.7	924.5	634.2	458.0	30.2
41°	4462.9	4351.1	4021.5	3515.0	2885.9	2158.7	1483.4	996.4	662.7	468.2	29.1
42°	4799.4	4669.4	4324.9	3787.6	3098.6	2317.3	1585.5	1047.7	689.5	476.8	27.4
43°	5017.3	4904.9	4566.1	3992.4	3280.6	2462.7	1680.8	1101.3	706.1	482.5	25.1
44°	5123.3	5009.8	4681.9	4120.7	3392.4	2550.0	1742.4	1138.4	724.3	489.9	23.4
45°	5089.1	4973.9	4656.8	4123.0	3427.2	2581.3	1768.6	1154.9	734.0	496.8	21.1
46°	4932.3	4851.3	4531.9	4015.7	3361.0	2547.7	1753.8	1142.4	730.6	496.8	18.8
47°	4712.1	4619.7	4315.7	3831.5	3200.7	2461.0	1693.9	1104.2	709.5	485.4	16.5
48°	4412.1	4333.4	4014.0	3538.9	2954.9	2272.2	1558.7	1042.0	676.4	463.1	14.3
49°	4035.7	3926.2	3629.1	3164.8	2634.4	2004.2	1381.4	937.1	623.4	431.7	12.5
50°	3627.3	3492.2	3262.9	2790.1	2303.0	1718.4	1148.1	792.2	548.7	390.7	11.4
51°	3227.5	3090.1	2871.7	2469.6	1949.4	1425.8	926.2	632.5	451.7	334.2	9.7
52°	2812.9	2697.7	2453.0	2137.1	1668.8	1155.5	771.7	535.0	375.3	280.6	8.0
53°	2400.0	2321.3	2088.6	1768.6	1340.9	943.9	630.2	458.0	327.4	240.1	6.3
54°	1986.5	1900.4	1723.6	1438.4	1080.8	744.9	534.4	383.3	284.0	209.3	5.7
55°	1553.6	1509.1	1346.0	1096.8	819.0	594.3	433.5	329.7	237.8	175.1	4.6
56°	1196.6	1146.4	997.5	795.6	608.6	465.4	350.8	269.2	201.3	146.6	3.4
57°	783.6	732.3	633.6	555.5	443.2	339.4	268.1	212.2	163.7	121.5	2.9
58°	463.1	416.3	400.9	342.2	295.4	230.4	197.9	158.0	120.9	95.8	1.7
59°	212.7	216.2	192.2	180.2	163.7	146.6	120.3	105.5	82.7	69.0	1.1
60°	123.8	116.9	114.1	102.1	90.7	80.4	72.4	63.9	51.9	44.5	0.6
62.5°	42.2	40.5	41.6	37.6	35.4	34.2	31.4	26.8	22.2	18.3	0.0
65°	11.4	11.4	10.8	10.3	9.7	9.1	8.6	7.4	6.8	5.7	0.0



TEST NUMBER: P1340038

CATALOG NUMBER: P3A09R159835DE010 E3CA451MB

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	4.0	4.0	3.4	3.4	2.9	2.9	2.3	2.3	1.7	1.7	0.0
70°	2.3	2.3	2.3	1.7	1.7	1.7	1.1	1.1	1.1	0.6	0.0
72.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.1	1.1	1.1	0.6	0.6
75°	1.7	1.7	1.7	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.6
77.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
80°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	0.6	1.1
82.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.1
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: P1340038

CATALOG NUMBER: P3A09R159835DE010 E3CA451MB

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	50.8	50.8	50.8	50.8	50.8	50.8
2.5°	52.5	50.2	47.3	45.6	45.1	44.5
5°	50.2	45.6	42.2	39.9	39.4	39.4
7.5°	45.1	39.9	36.5	35.4	34.8	34.8
10°	39.4	34.8	31.9	30.8	31.4	31.4
12.5°	33.1	29.1	27.9	27.9	28.5	29.1
15°	26.8	24.5	24.5	25.1	26.2	26.8
17.5°	22.2	21.1	21.7	22.8	24.0	25.1
20°	18.3	18.3	19.4	21.1	22.8	24.0
22.5°	15.4	16.0	17.7	19.4	21.7	22.8
25°	13.1	14.3	16.0	18.8	21.1	21.7
27.5°	11.4	13.1	15.4	18.3	20.5	21.7
30°	9.7	12.0	14.8	17.7	20.5	21.7
31°	9.1	11.4	14.3	17.7	20.5	21.7
32°	8.6	11.4	14.3	17.7	20.5	21.7
33°	8.0	10.8	14.3	17.1	20.5	21.7
34°	7.4	10.8	14.3	17.7	20.5	21.7
35°	6.8	10.3	13.7	17.1	20.0	21.7
36°	6.3	10.3	13.7	17.1	20.5	21.7
37°	5.7	10.3	13.7	17.1	20.0	21.7
38°	5.7	9.7	13.1	17.1	20.0	21.7
39°	5.1	9.1	13.1	17.1	20.0	21.7
40°	4.6	9.1	12.5	16.5	20.0	21.7
41°	4.0	8.6	12.5	16.5	20.0	21.7
42°	3.4	8.6	12.5	16.5	20.0	21.7
43°	2.9	8.0	12.0	16.5	20.0	21.7
44°	2.9	8.0	12.0	16.5	20.0	21.7
45°	2.3	7.4	11.4	16.5	20.0	21.7
46°	2.3	7.4	11.4	16.0	20.0	21.7
47°	1.7	7.4	11.4	16.0	20.0	21.7
48°	1.7	6.8	11.4	16.0	20.0	21.7
49°	1.1	6.8	11.4	16.0	20.0	21.7
50°	1.1	6.8	10.8	16.0	20.0	21.7
51°	1.1	6.8	10.8	16.0	20.0	21.7
52°	1.1	6.3	10.8	16.0	20.0	21.7
53°	1.1	6.3	10.8	16.0	20.0	21.7
54°	1.1	6.3	10.3	16.0	20.0	21.7
55°	1.1	5.7	10.3	15.4	20.0	21.1
56°	1.1	5.7	10.3	15.4	20.0	21.1
57°	1.1	5.7	9.7	15.4	20.0	21.1
58°	1.1	5.1	9.7	14.8	19.4	21.1
59°	1.1	5.1	9.1	14.8	19.4	20.5
60°	1.1	4.6	9.1	14.3	18.8	20.5
62.5°	1.1	4.0	8.0	13.7	18.3	19.4
65°	1.1	3.4	7.4	12.5	17.7	18.8



TEST NUMBER: P1340038

CATALOG NUMBER: P3A09R159835DE010 E3CA451MB

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.1	3.4	6.8	12.0	16.5	18.3
70°	1.1	3.4	6.3	10.8	16.0	16.5
72.5°	1.7	3.4	5.7	10.3	14.8	15.4
75°	2.3	3.4	5.1	9.1	13.7	14.3
77.5°	2.3	3.4	4.6	8.0	12.0	12.5
80°	2.3	2.9	4.0	6.3	9.7	10.3
82.5°	2.3	2.9	2.9	5.1	7.4	8.0
85°	1.7	2.3	2.3	2.9	5.1	5.7
87.5°	1.7	2.3	1.1	1.7	2.3	2.3
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)