

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: P1336354

Luminaire Tested: P3A05R159035DE010 E3CA451MW

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336354
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: P3A05R159035DE010 E3CA451MW
Description: 3in Adjustable LED luminaire with, R15 optic, 3500K CCT AND, 90CRI , E3CA451MW TRIM
Light Source: -
Ballast/Driver: -

Summary

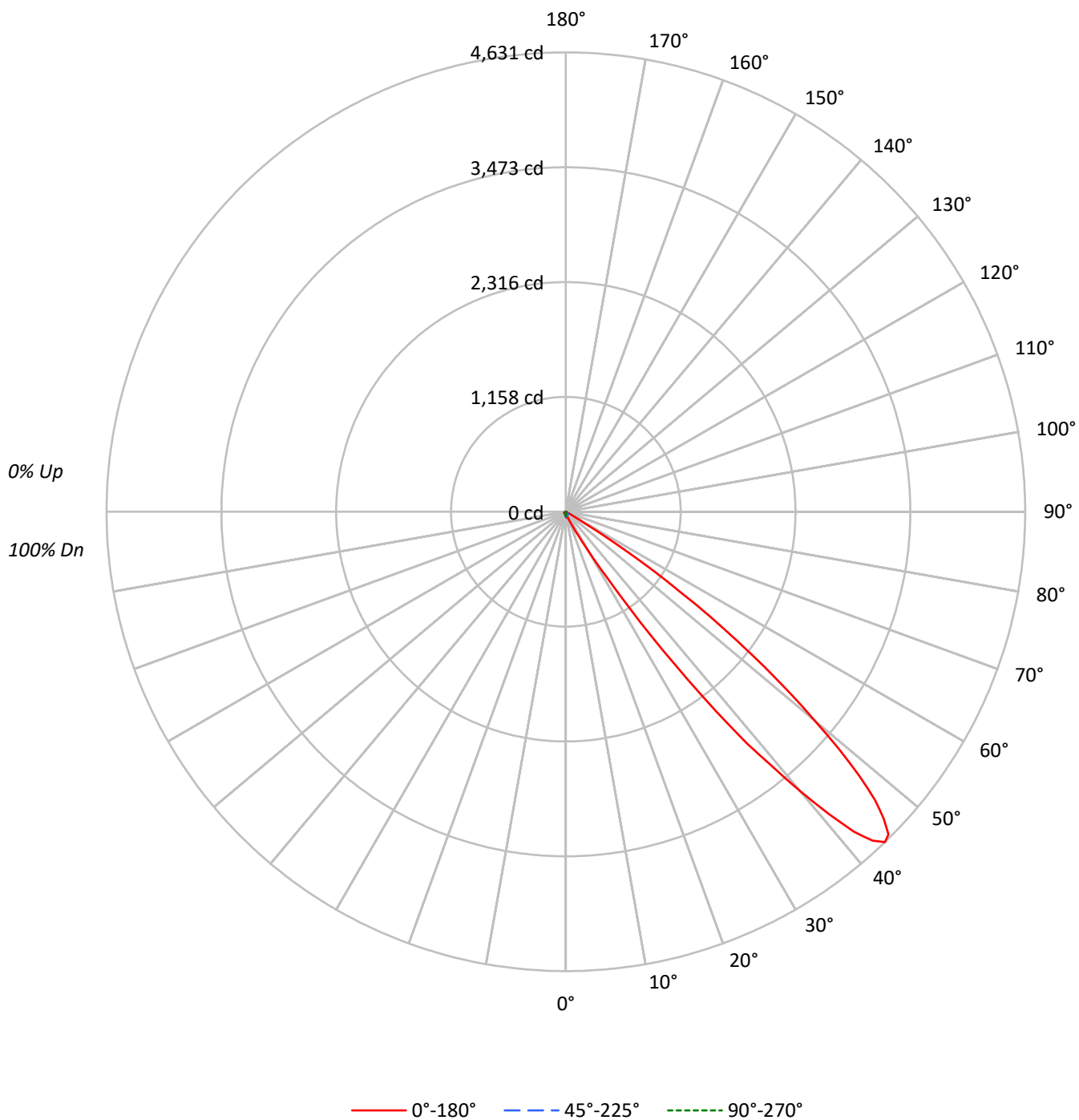
Lumens per Lamp: N/A
Luminaire Lumens: 517.0 lumens
Efficiency: N/A
Efficacy: 71.8 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.09
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 7.2
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: P1336354

CATALOG NUMBER: P3A05R159035DE010 E3CA451MW

Luminous Intensity Polar Plot



TEST NUMBER: P1336354

CATALOG NUMBER: P3A05R159035DE010 E3CA451MW

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	10065	10065	10065	10065	10065
5°	12481	11116	9069	7946	7836
10°	12291	9530	6992	6190	6324
15°	10170	6788	5040	5153	5494
20°	17688	5414	3850	4457	5064
25°	39414	6484	3121	4113	4742
30°	117866	7951	2735	4051	4963
35°	453738	8968	2490	4149	5247
40°	1053145	7815	2347	4265	5611
45°	1426443	5923	2078	4621	6078
50°	1118462	3514	2115	4912	6686
55°	536832	1567	1988	5314	7302
60°	49075	219	1798	5657	8157
65°	5344	0	1608	5863	8821
70°	1346	0	1988	6283	9553
75°	1271	424	2626	6947	10929
80°	1263	1263	3283	7198	11744
85°	1258	1258	5284	6542	13083

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1426443 cd/sqm

TEST NUMBER: P1336354

CATALOG NUMBER: P3A05R159035DE010 E3CA451MW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.9	0.8
10°-20°	8.2	1.6
20°-30°	19.5	3.8
30°-40°	106.9	20.7
40°-50°	258.9	50.1
50°-60°	103.3	20.0
60°-70°	8.9	1.7
70°-80°	5.0	1.0
80°-90°	2.2	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°	31.6	6.1
0°-40°	138.6	26.8
0°-60°	500.8	96.9
0°-90°	517.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	517.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	46	46	46	46	46	
5°	57	50	41	36	36	5
15°	45	30	22	23	24	16
25°	163	27	13	17	20	98
35°	1695	34	9	16	20	1198
45°	4600	19	7	15	20	3245
55°	1404	4	5	14	19	1308
65°	10	0	3	11	17	26
75°	2	0	3	8	13	1
85°	0	0	2	3	5	0
90°	0	0	0	0	0	

TEST NUMBER: P1336354

CATALOG NUMBER: P3A05R159035DE010 E3CA451MW

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9	45.9
2.5°	51.5	51.5	52.1	51.5	51.5	51.5	51.5	51.0	51.0	51.0	49.5
5°	56.7	56.7	56.7	56.7	56.2	56.2	56.2	55.7	55.7	55.2	50.5
7.5°	58.8	58.8	58.3	58.3	57.7	57.7	57.2	56.7	56.2	55.7	48.5
10°	55.2	55.2	55.2	54.6	54.6	54.1	53.6	53.1	52.6	51.5	42.8
12.5°	49.0	49.0	49.5	49.0	48.5	47.9	46.9	46.4	45.9	44.8	35.6
15°	44.8	44.8	44.8	44.3	43.8	42.8	42.3	41.2	40.7	39.2	29.9
17.5°	57.2	57.2	56.7	55.7	53.6	52.1	49.5	47.4	44.8	41.8	25.8
20°	75.8	75.8	74.7	73.7	71.1	68.6	64.4	60.8	56.7	53.1	23.2
22.5°	109.8	111.3	108.3	104.6	101.0	94.9	89.2	83.5	76.3	70.1	23.7
25°	162.9	164.4	162.9	154.6	147.9	139.7	128.9	117.5	105.2	93.8	26.8
27.5°	263.9	265.0	262.4	242.3	231.5	209.8	190.7	172.2	151.6	130.9	29.4
30°	465.5	466.0	449.5	409.3	373.7	326.3	286.1	247.4	215.0	182.0	31.4
31°	612.9	598.5	563.4	515.0	458.3	394.4	339.2	289.2	240.7	205.2	32.0
32°	778.4	776.3	718.1	634.1	558.3	478.4	395.4	331.5	275.8	227.3	32.5
33°	997.5	998.5	906.8	807.8	683.5	576.3	467.6	379.9	312.9	253.6	33.5
34°	1339.8	1259.4	1151.6	1017.6	848.5	687.2	545.9	436.1	346.4	278.9	33.5
35°	1695.0	1614.0	1495.5	1292.4	1060.4	834.6	639.2	496.4	386.6	306.2	33.5
36°	2092.9	2024.4	1845.0	1585.7	1289.8	973.8	738.2	566.0	426.3	330.9	33.0
37°	2522.8	2422.3	2223.3	1940.3	1544.4	1169.7	858.8	635.1	466.0	357.8	32.0
38°	2959.5	2868.7	2617.7	2274.9	1848.6	1376.4	979.4	701.6	502.6	377.9	30.4
39°	3290.4	3240.9	2991.9	2608.9	2091.4	1572.3	1103.7	772.7	541.3	398.0	28.9
40°	3679.1	3599.2	3363.1	2889.4	2378.5	1771.8	1225.3	835.6	573.2	413.9	27.3
41°	4033.8	3932.7	3634.8	3177.0	2608.4	1951.2	1340.8	900.6	599.0	423.2	26.3
42°	4337.9	4220.4	3909.0	3423.4	2800.7	2094.5	1433.1	947.0	623.2	431.0	24.7
43°	4534.8	4433.3	4127.1	3608.5	2965.1	2225.9	1519.2	995.4	638.2	436.1	22.7
44°	4630.7	4528.1	4231.7	3724.5	3066.2	2304.8	1574.8	1028.9	654.7	442.8	21.1
45°	4599.8	4495.7	4209.0	3726.5	3097.6	2333.1	1598.6	1043.9	663.4	449.0	19.1
46°	4458.0	4384.8	4096.1	3629.6	3037.8	2302.7	1585.2	1032.5	660.4	449.0	17.0
47°	4259.0	4175.5	3900.8	3463.1	2893.0	2224.4	1531.0	998.0	641.3	438.7	14.9
48°	3987.9	3916.8	3628.1	3198.7	2670.8	2053.7	1408.9	941.8	611.4	418.6	12.9
49°	3647.7	3548.7	3280.1	2860.5	2381.1	1811.5	1248.5	847.0	563.4	390.2	11.3
50°	3278.6	3156.4	2949.2	2521.8	2081.6	1553.2	1037.7	716.0	495.9	353.1	10.3
51°	2917.2	2793.0	2595.5	2232.1	1762.0	1288.7	837.2	571.7	408.3	302.1	8.8
52°	2542.4	2438.3	2217.2	1931.6	1508.3	1044.4	697.5	483.5	339.2	253.6	7.2
53°	2169.2	2098.1	1887.8	1598.6	1211.9	853.1	569.6	413.9	295.9	217.0	5.7
54°	1795.5	1717.6	1557.8	1300.1	976.9	673.2	483.0	346.4	256.7	189.2	5.2
55°	1404.2	1364.0	1216.6	991.3	740.3	537.1	391.8	298.0	215.0	158.3	4.1
56°	1081.5	1036.2	901.6	719.1	550.0	420.6	317.0	243.3	182.0	132.5	3.1
57°	708.3	661.9	572.7	502.1	400.5	306.7	242.3	191.8	147.9	109.8	2.6
58°	418.6	376.3	362.4	309.3	267.0	208.3	178.9	142.8	109.3	86.6	1.5
59°	192.3	195.4	173.7	162.9	147.9	132.5	108.8	95.4	74.7	62.4	1.0
60°	111.9	105.7	103.1	92.3	82.0	72.7	65.5	57.7	46.9	40.2	0.5
62.5°	38.1	36.6	37.6	34.0	32.0	30.9	28.4	24.2	20.1	16.5	0.0
65°	10.3	10.3	9.8	9.3	8.8	8.2	7.7	6.7	6.2	5.2	0.0



TEST NUMBER: P1336354

CATALOG NUMBER: P3A05R159035DE010 E3CA451MW

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	3.6	3.6	3.1	3.1	2.6	2.6	2.1	2.1	1.5	1.5	0.0
70°	2.1	2.1	2.1	1.5	1.5	1.5	1.0	1.0	1.0	0.5	0.0
72.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.0	1.0	1.0	0.5	0.5
75°	1.5	1.5	1.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5
77.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
80°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5	1.0
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.0
85°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
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: P1336354

CATALOG NUMBER: P3A05R159035DE010 E3CA451MW

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	45.9	45.9	45.9	45.9	45.9	45.9
2.5°	47.4	45.4	42.8	41.2	40.7	40.2
5°	45.4	41.2	38.1	36.1	35.6	35.6
7.5°	40.7	36.1	33.0	32.0	31.4	31.4
10°	35.6	31.4	28.9	27.8	28.4	28.4
12.5°	29.9	26.3	25.3	25.3	25.8	26.3
15°	24.2	22.2	22.2	22.7	23.7	24.2
17.5°	20.1	19.1	19.6	20.6	21.7	22.7
20°	16.5	16.5	17.5	19.1	20.6	21.7
22.5°	13.9	14.4	16.0	17.5	19.6	20.6
25°	11.9	12.9	14.4	17.0	19.1	19.6
27.5°	10.3	11.9	13.9	16.5	18.6	19.6
30°	8.8	10.8	13.4	16.0	18.6	19.6
31°	8.2	10.3	12.9	16.0	18.6	19.6
32°	7.7	10.3	12.9	16.0	18.6	19.6
33°	7.2	9.8	12.9	15.5	18.6	19.6
34°	6.7	9.8	12.9	16.0	18.6	19.6
35°	6.2	9.3	12.4	15.5	18.0	19.6
36°	5.7	9.3	12.4	15.5	18.6	19.6
37°	5.2	9.3	12.4	15.5	18.0	19.6
38°	5.2	8.8	11.9	15.5	18.0	19.6
39°	4.6	8.2	11.9	15.5	18.0	19.6
40°	4.1	8.2	11.3	14.9	18.0	19.6
41°	3.6	7.7	11.3	14.9	18.0	19.6
42°	3.1	7.7	11.3	14.9	18.0	19.6
43°	2.6	7.2	10.8	14.9	18.0	19.6
44°	2.6	7.2	10.8	14.9	18.0	19.6
45°	2.1	6.7	10.3	14.9	18.0	19.6
46°	2.1	6.7	10.3	14.4	18.0	19.6
47°	1.5	6.7	10.3	14.4	18.0	19.6
48°	1.5	6.2	10.3	14.4	18.0	19.6
49°	1.0	6.2	10.3	14.4	18.0	19.6
50°	1.0	6.2	9.8	14.4	18.0	19.6
51°	1.0	6.2	9.8	14.4	18.0	19.6
52°	1.0	5.7	9.8	14.4	18.0	19.6
53°	1.0	5.7	9.8	14.4	18.0	19.6
54°	1.0	5.7	9.3	14.4	18.0	19.6
55°	1.0	5.2	9.3	13.9	18.0	19.1
56°	1.0	5.2	9.3	13.9	18.0	19.1
57°	1.0	5.2	8.8	13.9	18.0	19.1
58°	1.0	4.6	8.8	13.4	17.5	19.1
59°	1.0	4.6	8.2	13.4	17.5	18.6
60°	1.0	4.1	8.2	12.9	17.0	18.6
62.5°	1.0	3.6	7.2	12.4	16.5	17.5
65°	1.0	3.1	6.7	11.3	16.0	17.0



TEST NUMBER: P1336354

CATALOG NUMBER: P3A05R159035DE010 E3CA451MW

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.0	3.1	6.2	10.8	14.9	16.5
70°	1.0	3.1	5.7	9.8	14.4	14.9
72.5°	1.5	3.1	5.2	9.3	13.4	13.9
75°	2.1	3.1	4.6	8.2	12.4	12.9
77.5°	2.1	3.1	4.1	7.2	10.8	11.3
80°	2.1	2.6	3.6	5.7	8.8	9.3
82.5°	2.1	2.6	2.6	4.6	6.7	7.2
85°	1.5	2.1	2.1	2.6	4.6	5.2
87.5°	1.5	2.1	1.0	1.5	2.1	2.1
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)