

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: P1336926

Luminaire Tested: P3A05R209735DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336926
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-74)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A05R209735DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R20 optic, 3500K CCT AND, 97CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

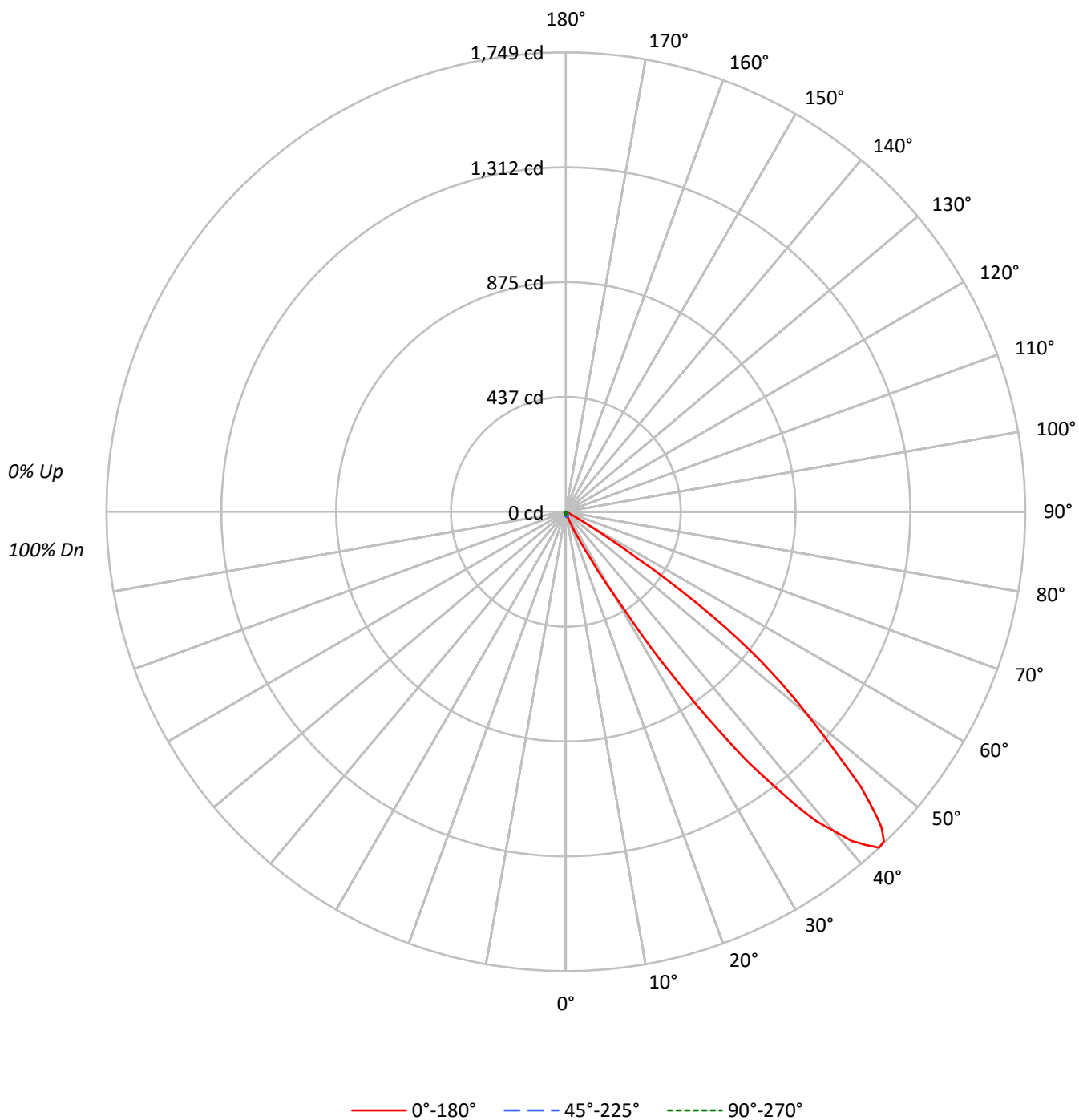
Lumens per Lamp: N/A
Luminaire Lumens: 243.0 lumens
Efficiency: N/A
Efficacy: 33.8 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.14
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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: P1336926

CATALOG NUMBER: P3A05R209735DE010 E3A451WMH

Luminous Intensity Polar Plot



TEST NUMBER: P1336926

CATALOG NUMBER: P3A05R209735DE010 E3A451WMH

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	108	104	101	97	100	97	94	96	94	92	92	91	89
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75
3	92	81	74	67	89	80	73	67	77	71	66	74	69	65	72	67	63
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37
7	62	48	39	32	60	47	38	32	46	38	32	44	37	32	43	36	31
8	57	42	33	27	55	42	33	27	40	33	27	39	32	27	38	31	27
9	52	38	29	23	51	37	29	23	36	28	23	35	28	23	34	27	23
10	48	34	25	20	47	33	25	20	32	25	19	31	24	19	30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	3706	3706	3706	3706	3706
5°	4314	4028	3478	3016	2906
10°	4275	3652	2739	2338	2293
15°	3723	2792	2020	1862	1975
20°	5530	2334	1493	1610	1750
25°	23880	2419	1161	1428	1718
30°	90267	2937	987	1393	1671
35°	273635	3534	910	1419	1767
40°	453736	3521	773	1517	1889
45°	527373	2419	713	1551	2047
50°	409368	1330	716	1637	2354
55°	236952	879	688	1835	2523
60°	40041	219	614	1886	2807
65°	3061	0	726	2127	3217
70°	449	0	898	2372	3654
75°	424	169	932	2711	4236
80°	253	253	1389	2904	4925
85°	503	503	2264	2768	5284

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 527373 cd/sqm

TEST NUMBER: P1336926

CATALOG NUMBER: P3A05R209735DE010 E3A451WMH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.5	0.6
10°-20°	3.0	1.3
20°-30°	9.7	4.0
30°-40°	62.0	25.5
40°-50°	113.4	46.7
50°-60°	46.6	19.2
60°-70°	3.9	1.6
70°-80°	2.0	0.8
80°-90°	0.9	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°	14.2	5.8
0°-40°	76.2	31.3
0°-60°	236.2	97.2
0°-90°	243.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	243.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	17	17	17	17	17	
5°	20	18	16	14	13	2
15°	16	12	9	8	9	5
25°	99	10	5	6	7	65
35°	1022	13	3	5	7	647
45°	1701	8	2	5	7	1221
55°	620	2	2	5	7	542
65°	6	0	1	4	6	19
75°	0	0	1	3	5	1
85°	0	0	1	1	2	0
90°	0	0	0	0	0	

TEST NUMBER: P1336926

CATALOG NUMBER: P3A05R209735DE010 E3A451WMH

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9
2.5°	18.5	18.5	18.5	18.3	18.3	18.5	18.3	18.3	18.3	18.3	18.0
5°	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.4	19.4	19.2	18.3
7.5°	20.1	20.1	20.1	20.1	19.9	19.9	19.9	19.9	19.6	19.4	17.8
10°	19.2	19.2	19.2	19.0	19.0	19.0	18.7	18.7	18.5	18.3	16.4
12.5°	17.4	17.4	17.4	17.4	17.1	17.1	16.9	16.9	16.7	16.4	14.4
15°	16.4	16.4	16.4	16.2	16.2	16.0	15.8	15.5	15.3	14.8	12.3
17.5°	17.8	17.8	17.6	17.6	17.1	16.7	16.4	15.8	15.3	14.6	11.0
20°	23.7	24.0	23.1	22.4	21.9	20.6	19.9	18.7	17.8	16.7	10.0
22.5°	48.0	47.0	45.4	42.9	40.0	37.5	32.9	29.2	26.7	23.3	9.8
25°	98.7	97.7	93.4	89.7	80.6	73.5	63.7	55.7	47.5	39.5	10.0
27.5°	187.5	181.3	180.2	163.5	150.7	132.5	113.5	97.5	82.9	66.7	10.7
30°	356.5	349.4	324.5	299.4	264.9	225.9	188.6	153.9	124.9	98.7	11.6
31°	452.4	459.2	430.0	379.5	328.6	278.6	227.7	183.6	146.2	113.5	12.1
32°	594.7	564.7	533.9	482.1	408.1	344.1	280.2	216.7	167.4	129.5	12.6
33°	729.2	711.6	664.5	599.9	511.1	421.3	338.4	255.8	193.4	148.9	12.8
34°	872.6	853.2	815.0	722.3	624.8	507.2	396.7	300.8	224.5	167.8	13.0
35°	1022.2	1013.9	940.4	860.0	740.1	598.3	466.8	350.1	254.9	185.2	13.2
36°	1172.6	1146.2	1088.6	971.2	846.1	682.6	540.3	396.0	285.7	205.8	13.2
37°	1285.9	1280.0	1203.7	1089.3	942.2	772.6	603.8	446.9	316.7	223.3	13.2
38°	1410.8	1387.3	1309.9	1193.4	1032.7	855.0	670.2	491.2	346.2	239.3	13.0
39°	1516.1	1481.2	1403.1	1288.0	1111.7	917.6	723.0	534.1	372.2	252.6	12.8
40°	1585.1	1560.9	1479.3	1349.9	1183.4	976.7	776.4	569.5	391.6	262.6	12.3
41°	1661.1	1620.9	1540.3	1410.1	1235.4	1028.8	810.0	592.8	406.7	269.2	11.9
42°	1706.6	1673.7	1578.0	1450.6	1272.7	1058.5	837.4	610.6	415.8	272.7	11.0
43°	1749.0	1704.3	1611.1	1474.1	1297.3	1079.5	850.0	618.9	417.9	272.7	9.8
44°	1743.3	1700.8	1604.2	1477.3	1302.8	1085.6	855.2	619.1	414.7	269.2	8.7
45°	1700.6	1658.4	1571.4	1449.4	1283.2	1073.5	844.7	610.0	405.8	263.3	7.8
46°	1622.3	1580.3	1513.6	1402.8	1246.6	1046.1	820.3	590.1	391.0	253.7	6.9
47°	1537.1	1496.2	1428.0	1327.7	1184.3	997.3	784.9	562.2	370.2	239.8	6.2
48°	1413.6	1388.0	1319.5	1233.8	1097.7	920.8	722.8	516.8	342.3	221.7	5.3
49°	1304.4	1277.5	1217.4	1125.4	984.9	831.7	648.6	461.5	306.0	201.6	4.6
50°	1200.0	1176.5	1121.0	1017.1	883.1	724.1	548.3	391.9	260.3	176.8	3.9
51°	1098.0	1080.4	1023.8	928.3	792.2	641.5	475.0	326.3	215.1	146.6	3.7
52°	995.4	993.4	931.9	835.4	703.8	559.0	403.7	275.4	182.5	123.1	3.4
53°	885.1	871.9	818.2	731.4	605.2	473.2	342.3	232.2	157.1	104.8	3.0
54°	759.5	744.7	687.1	608.8	494.4	387.5	275.9	187.7	130.9	88.6	2.7
55°	619.8	594.4	552.6	472.3	386.2	295.7	213.1	148.7	104.6	73.8	2.3
56°	470.2	444.9	421.3	362.2	283.4	220.6	158.7	114.0	81.8	58.2	2.1
57°	327.0	325.6	287.1	241.6	189.5	150.3	108.7	80.4	57.8	45.2	1.6
58°	212.1	205.1	180.4	154.1	124.0	93.9	69.9	54.6	39.3	30.8	1.4
59°	148.7	134.5	121.3	102.8	78.1	59.1	45.0	34.9	27.2	21.5	0.9
60°	91.3	88.4	79.5	62.6	50.7	41.8	33.6	25.8	19.9	15.3	0.5
62.5°	26.0	26.5	24.0	21.2	18.3	15.8	14.2	12.1	10.0	8.0	0.0
65°	5.9	5.7	6.2	5.7	5.3	5.3	4.6	4.1	3.7	3.4	0.0



TEST NUMBER: P1336926

CATALOG NUMBER: P3A05R209735DE010 E3A451WMH

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	1.8	1.8	1.6	1.6	1.6	1.4	1.4	1.1	1.1	0.9	0.0
70°	0.7	0.7	0.7	0.7	0.7	0.5	0.5	0.5	0.2	0.2	0.0
72.5°	0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.2	0.2	0.2
75°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.2	0.2	0.2
77.5°	0.5	0.5	0.5	0.5	0.5	0.2	0.5	0.2	0.2	0.2	0.2
80°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
82.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
85°	0.2	0.2	0.2	0.2	0.0	0.0	0.2	0.2	0.2	0.0	0.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
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: P1336926

CATALOG NUMBER: P3A05R209735DE010 E3A451WMH

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	16.9	16.9	16.9	16.9	16.9	16.9
2.5°	17.6	16.7	16.0	15.3	15.1	15.1
5°	17.1	15.8	14.4	13.7	13.2	13.2
7.5°	15.8	14.2	12.8	12.1	11.9	11.9
10°	14.2	12.3	11.0	10.5	10.5	10.3
12.5°	12.3	10.5	9.6	9.4	9.4	9.4
15°	10.3	8.9	8.2	8.2	8.4	8.7
17.5°	8.7	7.3	7.1	7.5	8.0	8.0
20°	7.3	6.4	6.4	6.9	7.3	7.5
22.5°	6.2	5.5	5.7	6.4	7.1	7.3
25°	5.5	4.8	5.3	5.9	6.6	7.1
27.5°	4.6	4.3	4.8	5.7	6.6	6.9
30°	3.9	3.9	4.6	5.5	6.4	6.6
31°	3.7	3.7	4.6	5.5	6.4	6.6
32°	3.4	3.7	4.3	5.5	6.4	6.6
33°	3.2	3.4	4.3	5.3	6.4	6.6
34°	3.0	3.4	4.3	5.3	6.4	6.6
35°	2.7	3.4	4.3	5.3	6.4	6.6
36°	2.5	3.2	4.1	5.3	6.4	6.6
37°	2.3	3.2	4.1	5.3	6.4	6.6
38°	2.1	3.0	4.1	5.3	6.4	6.6
39°	2.1	3.0	3.9	5.3	6.2	6.6
40°	1.8	2.7	3.9	5.3	6.2	6.6
41°	1.6	2.7	3.9	5.0	6.2	6.6
42°	1.4	2.5	3.7	5.0	6.2	6.6
43°	1.1	2.5	3.7	5.0	6.2	6.6
44°	1.1	2.3	3.7	5.0	6.2	6.6
45°	0.9	2.3	3.7	5.0	6.2	6.6
46°	0.7	2.3	3.7	5.0	6.2	6.6
47°	0.7	2.1	3.4	5.0	6.2	6.6
48°	0.5	2.1	3.4	5.0	6.2	6.6
49°	0.5	2.1	3.4	5.0	6.2	6.9
50°	0.5	2.1	3.4	4.8	6.2	6.9
51°	0.2	2.1	3.4	4.8	6.2	6.9
52°	0.2	2.1	3.2	4.8	6.4	6.9
53°	0.2	1.8	3.2	4.8	6.4	6.9
54°	0.2	1.8	3.2	4.8	6.4	6.6
55°	0.2	1.8	3.2	4.8	6.2	6.6
56°	0.2	1.6	3.2	4.8	6.2	6.6
57°	0.2	1.6	3.0	4.6	6.2	6.4
58°	0.2	1.6	3.0	4.6	6.2	6.4
59°	0.2	1.6	3.0	4.6	5.9	6.4
60°	0.5	1.4	2.7	4.3	5.9	6.4
62.5°	0.5	1.4	2.7	4.3	5.7	6.2
65°	0.5	1.4	2.5	4.1	5.7	6.2



TEST NUMBER: P1336926

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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.5	1.1	2.3	3.9	5.5	5.9
70°	0.5	1.4	2.3	3.7	5.3	5.7
72.5°	0.7	1.1	2.1	3.4	5.0	5.5
75°	0.7	1.1	2.1	3.2	4.8	5.0
77.5°	0.9	1.1	1.8	2.7	4.3	4.6
80°	0.9	1.1	1.6	2.3	3.7	3.9
82.5°	0.9	1.1	1.1	1.8	2.7	3.0
85°	0.7	0.9	0.9	1.1	1.8	2.1
87.5°	0.7	0.9	0.7	0.5	0.9	0.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)