

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: P1336306

Luminaire Tested: P3A05R159027DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336306
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: P3A05R159027DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R15 optic, 2700K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

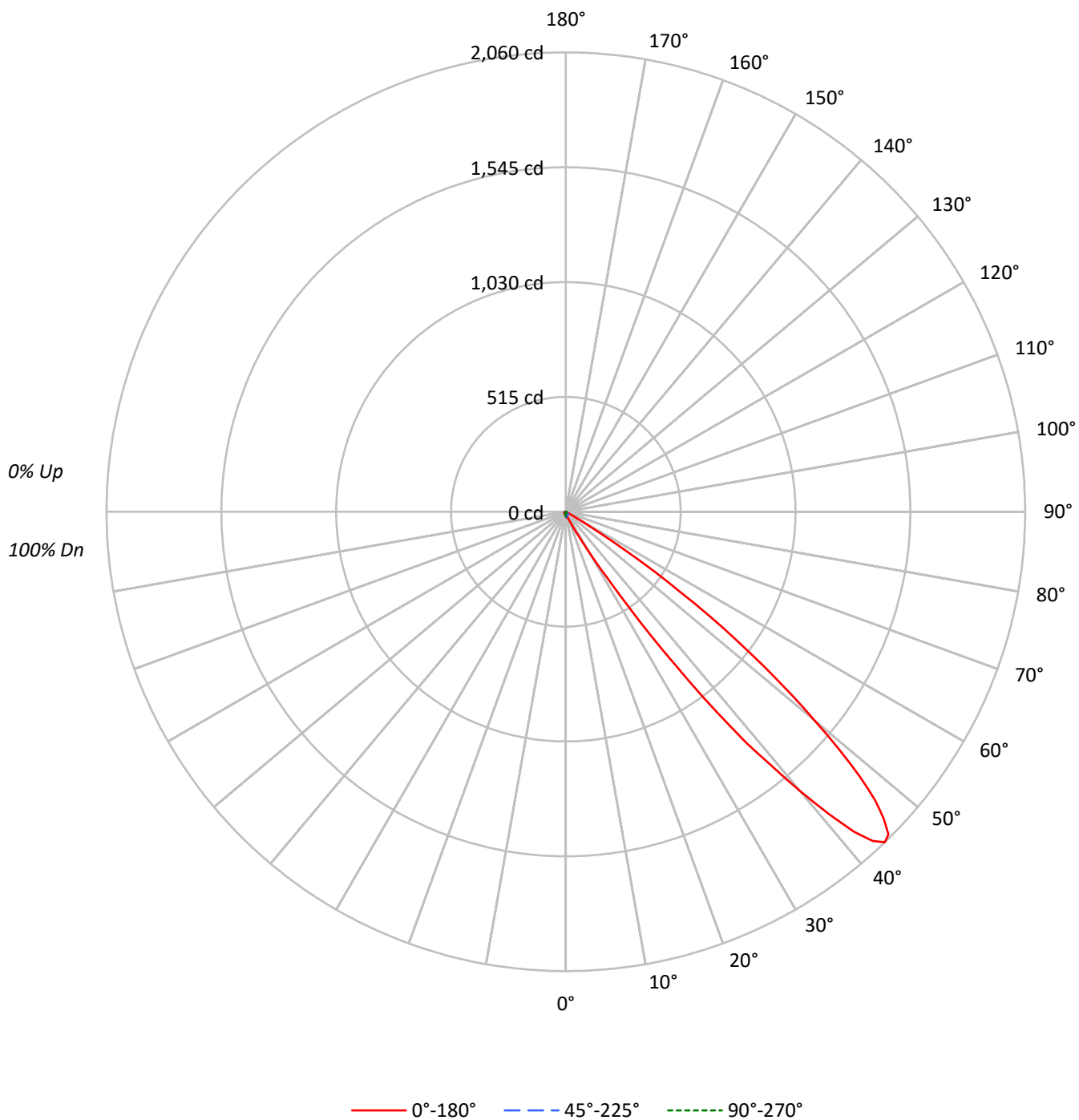
Lumens per Lamp: N/A
Luminaire Lumens: 230.0 lumens
Efficiency: N/A
Efficacy: 31.9 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.48 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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: P1336306

CATALOG NUMBER: P3A05R159027DE010 E3A451WMH

Luminous Intensity Polar Plot



TEST NUMBER: P1336306

CATALOG NUMBER: P3A05R159027DE010 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		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°	4473	4473	4473	4473	4473
5°	5547	4953	4028	3544	3478
10°	5455	4231	3117	2761	2806
15°	4540	3019	2247	2293	2452
20°	7864	2404	1703	1984	2240
25°	17541	2879	1379	1839	2105
30°	52438	3545	1215	1798	2203
35°	201840	3989	1098	1847	2329
40°	468506	3492	1059	1918	2490
45°	634577	2636	930	2078	2698
50°	497553	1569	955	2183	2968
55°	238825	688	879	2370	3250
60°	21840	88	789	2500	3640
65°	2387	0	726	2594	3943
70°	577	0	898	2821	4296
75°	593	169	1186	3135	4829
80°	631	631	1389	3157	5177
85°	503	503	2264	2768	5787

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 634577 cd/sqm

TEST NUMBER: P1336306

CATALOG NUMBER: P3A05R159027DE010 E3A451WMH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.7	0.8
10°-20°	3.6	1.6
20°-30°	8.7	3.8
30°-40°	47.6	20.7
40°-50°	115.2	50.1
50°-60°	46.0	20.0
60°-70°	4.0	1.7
70°-80°	2.2	1.0
80°-90°	1.0	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°	14.1	6.1
0°-40°	61.6	26.8
0°-60°	222.8	96.9
0°-90°	230.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	230.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	20	20	20	20	20	
5°	25	22	18	16	16	2
15°	20	13	10	10	11	7
25°	72	12	6	8	9	44
35°	754	15	4	7	9	533
45°	2046	8	3	7	9	1444
55°	625	2	2	6	8	582
65°	5	0	1	5	8	12
75°	1	0	1	4	6	1
85°	0	0	1	1	2	0
90°	0	0	0	0	0	

TEST NUMBER: P1336306

CATALOG NUMBER: P3A05R159027DE010 E3A451WMH

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
2.5°	22.9	22.9	23.2	22.9	22.9	22.9	22.9	22.7	22.7	22.7	22.0
5°	25.2	25.2	25.2	25.2	25.0	25.0	25.0	24.8	24.8	24.5	22.5
7.5°	26.1	26.1	25.9	25.9	25.7	25.7	25.5	25.2	25.0	24.8	21.6
10°	24.5	24.5	24.5	24.3	24.3	24.1	23.9	23.6	23.4	22.9	19.0
12.5°	21.8	21.8	22.0	21.8	21.6	21.3	20.9	20.6	20.4	20.0	15.8
15°	20.0	20.0	20.0	19.7	19.5	19.0	18.8	18.3	18.1	17.4	13.3
17.5°	25.5	25.5	25.2	24.8	23.9	23.2	22.0	21.1	20.0	18.6	11.5
20°	33.7	33.7	33.3	32.8	31.6	30.5	28.7	27.1	25.2	23.6	10.3
22.5°	48.8	49.5	48.2	46.6	44.9	42.2	39.7	37.2	33.9	31.2	10.5
25°	72.5	73.2	72.5	68.8	65.8	62.1	57.3	52.3	46.8	41.7	11.9
27.5°	117.4	117.9	116.7	107.8	103.0	93.3	84.9	76.6	67.4	58.3	13.1
30°	207.1	207.3	200.0	182.1	166.3	145.2	127.3	110.1	95.6	81.0	14.0
31°	272.7	266.3	250.7	229.1	203.9	175.4	150.9	128.7	107.1	91.3	14.2
32°	346.3	345.4	319.5	282.1	248.4	212.8	175.9	147.5	122.7	101.1	14.4
33°	443.8	444.2	403.4	359.4	304.1	256.4	208.0	169.0	139.2	112.8	14.9
34°	596.0	560.3	512.3	452.7	377.5	305.7	242.9	194.0	154.1	124.1	14.9
35°	754.0	718.0	665.3	574.9	471.7	371.3	284.4	220.8	172.0	136.2	14.9
36°	931.1	900.6	820.8	705.4	573.8	433.2	328.4	251.8	189.7	147.2	14.7
37°	1122.3	1077.6	989.1	863.2	687.1	520.4	382.1	282.5	207.3	159.2	14.2
38°	1316.6	1276.2	1164.5	1012.0	822.4	612.3	435.7	312.1	223.6	168.1	13.5
39°	1463.8	1441.8	1331.0	1160.6	930.4	699.5	491.0	343.8	240.8	177.0	12.8
40°	1636.7	1601.2	1496.2	1285.4	1058.1	788.2	545.1	371.7	255.0	184.2	12.2
41°	1794.5	1749.6	1617.0	1413.4	1160.4	868.0	596.5	400.6	266.5	188.3	11.7
42°	1929.8	1877.5	1739.0	1523.0	1246.0	931.8	637.5	421.3	277.3	191.7	11.0
43°	2017.4	1972.3	1836.0	1605.3	1319.1	990.3	675.8	442.8	283.9	194.0	10.1
44°	2060.1	2014.4	1882.6	1656.9	1364.1	1025.3	700.6	457.7	291.3	197.0	9.4
45°	2046.3	2000.0	1872.5	1657.8	1378.1	1038.0	711.2	464.4	295.1	199.7	8.5
46°	1983.3	1950.7	1822.3	1614.7	1351.5	1024.4	705.2	459.4	293.8	199.7	7.6
47°	1894.7	1857.6	1735.4	1540.6	1287.0	989.6	681.1	444.0	285.3	195.2	6.7
48°	1774.1	1742.5	1614.0	1423.0	1188.2	913.7	626.8	419.0	272.0	186.2	5.7
49°	1622.8	1578.7	1459.2	1272.6	1059.3	805.9	555.4	376.8	250.7	173.6	5.0
50°	1458.5	1404.2	1312.0	1121.9	926.0	691.0	461.6	318.5	220.6	157.1	4.6
51°	1297.8	1242.5	1154.7	993.0	783.9	573.3	372.4	254.3	181.6	134.4	3.9
52°	1131.1	1084.7	986.4	859.3	671.0	464.6	310.3	215.1	150.9	112.8	3.2
53°	965.0	933.4	839.8	711.2	539.2	379.5	253.4	184.2	131.6	96.5	2.5
54°	798.8	764.1	693.0	578.4	434.6	299.5	214.9	154.1	114.2	84.2	2.3
55°	624.7	606.8	541.2	441.0	329.3	239.0	174.3	132.6	95.6	70.4	1.8
56°	481.1	461.0	401.1	319.9	244.7	187.1	141.0	108.2	81.0	58.9	1.4
57°	315.1	294.5	254.8	223.4	178.2	136.5	107.8	85.3	65.8	48.8	1.1
58°	186.2	167.4	161.2	137.6	118.8	92.6	79.6	63.5	48.6	38.5	0.7
59°	85.5	86.9	77.3	72.5	65.8	58.9	48.4	42.4	33.3	27.7	0.5
60°	49.8	47.0	45.9	41.1	36.5	32.3	29.1	25.7	20.9	17.9	0.2
62.5°	17.0	16.3	16.7	15.1	14.2	13.8	12.6	10.8	8.9	7.3	0.0
65°	4.6	4.6	4.4	4.1	3.9	3.7	3.4	3.0	2.8	2.3	0.0



TEST NUMBER: P1336306

CATALOG NUMBER: P3A05R159027DE010 E3A451WMH

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	1.6	1.6	1.4	1.4	1.1	1.1	0.9	0.9	0.7	0.7	0.0
70°	0.9	0.9	0.9	0.7	0.7	0.7	0.5	0.5	0.5	0.2	0.0
72.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.5	0.5	0.5	0.2	0.2
75°	0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2
77.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.5
82.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5
85°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	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: P1336306

CATALOG NUMBER: P3A05R159027DE010 E3A451WMH

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	20.4	20.4	20.4	20.4	20.4	20.4
2.5°	21.1	20.2	19.0	18.3	18.1	17.9
5°	20.2	18.3	17.0	16.1	15.8	15.8
7.5°	18.1	16.1	14.7	14.2	14.0	14.0
10°	15.8	14.0	12.8	12.4	12.6	12.6
12.5°	13.3	11.7	11.2	11.2	11.5	11.7
15°	10.8	9.9	9.9	10.1	10.5	10.8
17.5°	8.9	8.5	8.7	9.2	9.6	10.1
20°	7.3	7.3	7.8	8.5	9.2	9.6
22.5°	6.2	6.4	7.1	7.8	8.7	9.2
25°	5.3	5.7	6.4	7.6	8.5	8.7
27.5°	4.6	5.3	6.2	7.3	8.3	8.7
30°	3.9	4.8	6.0	7.1	8.3	8.7
31°	3.7	4.6	5.7	7.1	8.3	8.7
32°	3.4	4.6	5.7	7.1	8.3	8.7
33°	3.2	4.4	5.7	6.9	8.3	8.7
34°	3.0	4.4	5.7	7.1	8.3	8.7
35°	2.8	4.1	5.5	6.9	8.0	8.7
36°	2.5	4.1	5.5	6.9	8.3	8.7
37°	2.3	4.1	5.5	6.9	8.0	8.7
38°	2.3	3.9	5.3	6.9	8.0	8.7
39°	2.1	3.7	5.3	6.9	8.0	8.7
40°	1.8	3.7	5.0	6.7	8.0	8.7
41°	1.6	3.4	5.0	6.7	8.0	8.7
42°	1.4	3.4	5.0	6.7	8.0	8.7
43°	1.1	3.2	4.8	6.7	8.0	8.7
44°	1.1	3.2	4.8	6.7	8.0	8.7
45°	0.9	3.0	4.6	6.7	8.0	8.7
46°	0.9	3.0	4.6	6.4	8.0	8.7
47°	0.7	3.0	4.6	6.4	8.0	8.7
48°	0.7	2.8	4.6	6.4	8.0	8.7
49°	0.5	2.8	4.6	6.4	8.0	8.7
50°	0.5	2.8	4.4	6.4	8.0	8.7
51°	0.5	2.8	4.4	6.4	8.0	8.7
52°	0.5	2.5	4.4	6.4	8.0	8.7
53°	0.5	2.5	4.4	6.4	8.0	8.7
54°	0.5	2.5	4.1	6.4	8.0	8.7
55°	0.5	2.3	4.1	6.2	8.0	8.5
56°	0.5	2.3	4.1	6.2	8.0	8.5
57°	0.5	2.3	3.9	6.2	8.0	8.5
58°	0.5	2.1	3.9	6.0	7.8	8.5
59°	0.5	2.1	3.7	6.0	7.8	8.3
60°	0.5	1.8	3.7	5.7	7.6	8.3
62.5°	0.5	1.6	3.2	5.5	7.3	7.8
65°	0.5	1.4	3.0	5.0	7.1	7.6



TEST NUMBER: P1336306

CATALOG NUMBER: P3A05R159027DE010 E3A451WMH

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.5	1.4	2.8	4.8	6.7	7.3
70°	0.5	1.4	2.5	4.4	6.4	6.7
72.5°	0.7	1.4	2.3	4.1	6.0	6.2
75°	0.9	1.4	2.1	3.7	5.5	5.7
77.5°	0.9	1.4	1.8	3.2	4.8	5.0
80°	0.9	1.1	1.6	2.5	3.9	4.1
82.5°	0.9	1.1	1.1	2.1	3.0	3.2
85°	0.7	0.9	0.9	1.1	2.1	2.3
87.5°	0.7	0.9	0.5	0.7	0.9	0.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)