

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: P1336410

Luminaire Tested: P3A05R159730DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336410
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: P3A05R159730DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R15 optic, 3000K CCT AND, 97CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

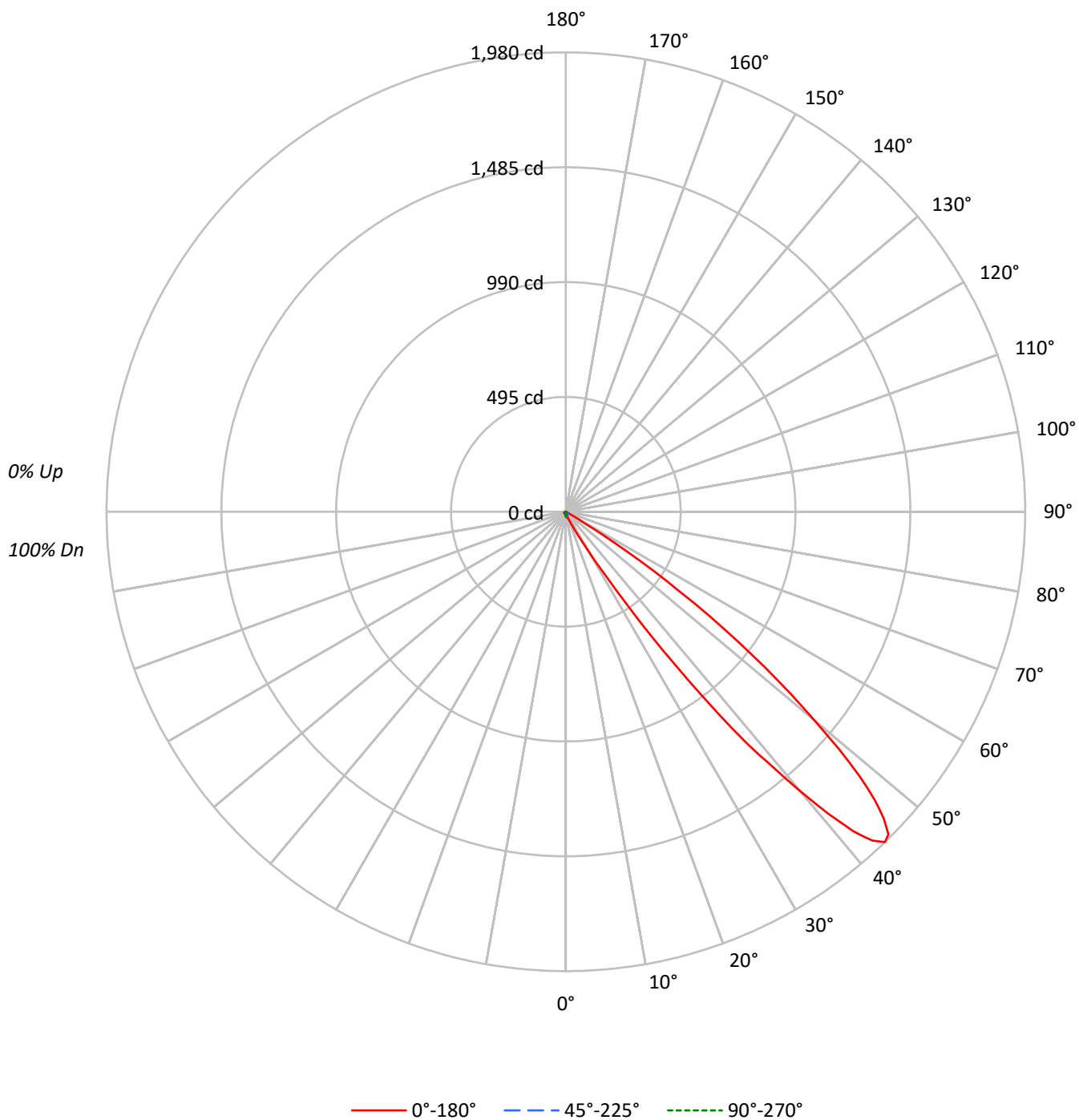
Lumens per Lamp: N/A
Luminaire Lumens: 221.0 lumens
Efficiency: N/A
Efficacy: 30.7 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.09
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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

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Luminous Intensity Polar Plot



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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°	4298	4298	4298	4298	4298
5°	5327	4755	3874	3390	3346
10°	5255	4075	2984	2650	2694
15°	4359	2906	2157	2202	2361
20°	7561	2310	1657	1913	2170
25°	16840	2782	1331	1766	2032
30°	50387	3393	1165	1722	2127
35°	193943	3828	1071	1767	2249
40°	450186	3349	1002	1832	2405
45°	609769	2543	899	1985	2605
50°	478108	1501	887	2115	2866
55°	229497	688	841	2256	3135
60°	20963	88	789	2412	3465
65°	2283	0	675	2491	3788
70°	577	0	833	2693	4103
75°	593	169	1101	2965	4660
80°	505	505	1389	3031	5051
85°	503	503	2264	2768	5535

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 609769 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.7	0.8
10°-20°	3.5	1.6
20°-30°	8.4	3.8
30°-40°	45.7	20.7
40°-50°	110.7	50.1
50°-60°	44.2	20.0
60°-70°	3.8	1.7
70°-80°	2.1	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°	13.5	6.1
0°-40°	59.2	26.8
0°-60°	214.1	96.9
0°-90°	221.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	221.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	20	20	20	20	20	
5°	24	22	18	15	15	2
15°	19	13	10	10	10	7
25°	70	12	6	7	8	42
35°	724	14	4	7	8	512
45°	1966	8	3	6	8	1387
55°	600	2	2	6	8	559
65°	4	0	1	5	7	11
75°	1	0	1	4	6	1
85°	0	0	1	1	2	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
2.5°	22.0	22.0	22.3	22.0	22.0	22.0	22.0	21.8	21.8	21.8	21.2
5°	24.2	24.2	24.2	24.2	24.0	24.0	24.0	23.8	23.8	23.6	21.6
7.5°	25.1	25.1	24.9	24.9	24.7	24.7	24.5	24.2	24.0	23.8	20.7
10°	23.6	23.6	23.6	23.4	23.4	23.1	22.9	22.7	22.5	22.0	18.3
12.5°	20.9	20.9	21.2	20.9	20.7	20.5	20.1	19.8	19.6	19.2	15.2
15°	19.2	19.2	19.2	19.0	18.7	18.3	18.1	17.6	17.4	16.7	12.8
17.5°	24.5	24.5	24.2	23.8	22.9	22.3	21.2	20.3	19.2	17.8	11.0
20°	32.4	32.4	32.0	31.5	30.4	29.3	27.5	26.0	24.2	22.7	9.9
22.5°	46.9	47.6	46.3	44.7	43.2	40.5	38.1	35.7	32.6	30.0	10.1
25°	69.6	70.3	69.6	66.1	63.2	59.7	55.1	50.2	45.0	40.1	11.5
27.5°	112.8	113.3	112.2	103.6	98.9	89.7	81.5	73.6	64.8	56.0	12.6
30°	199.0	199.2	192.2	175.0	159.8	139.5	122.3	105.8	91.9	77.8	13.4
31°	262.0	255.8	240.9	220.1	195.9	168.6	145.0	123.6	102.9	87.7	13.7
32°	332.7	331.9	307.0	271.0	238.6	204.5	169.0	141.7	117.9	97.2	13.9
33°	426.4	426.8	387.6	345.3	292.2	246.4	199.9	162.4	133.8	108.4	14.3
34°	572.7	538.3	492.3	435.0	362.7	293.7	233.4	186.4	148.1	119.2	14.3
35°	724.5	689.9	639.3	552.4	453.3	356.8	273.2	212.2	165.3	130.9	14.3
36°	894.7	865.3	788.7	677.8	551.3	416.3	315.6	242.0	182.2	141.5	14.1
37°	1078.4	1035.5	950.4	829.4	660.2	500.0	367.1	271.5	199.2	152.9	13.7
38°	1265.1	1226.3	1119.0	972.4	790.2	588.4	418.7	299.9	214.8	161.5	13.0
39°	1406.5	1385.4	1279.0	1115.2	894.0	672.1	471.8	330.3	231.4	170.1	12.3
40°	1572.7	1538.5	1437.6	1235.1	1016.7	757.4	523.8	357.2	245.0	176.9	11.7
41°	1724.3	1681.1	1553.7	1358.1	1115.0	834.1	573.2	385.0	256.1	180.9	11.2
42°	1854.3	1804.1	1671.0	1463.4	1197.2	895.3	612.6	404.8	266.4	184.2	10.6
43°	1938.5	1895.1	1764.2	1542.5	1267.5	951.5	649.4	425.5	272.8	186.4	9.7
44°	1979.5	1935.6	1808.9	1592.1	1310.7	985.2	673.2	439.8	279.9	189.3	9.0
45°	1966.3	1921.7	1799.2	1593.0	1324.1	997.3	683.3	446.2	283.6	191.9	8.2
46°	1905.7	1874.4	1751.0	1551.5	1298.6	984.3	677.6	441.4	282.3	191.9	7.3
47°	1820.6	1784.9	1667.4	1480.4	1236.6	950.8	654.5	426.6	274.1	187.5	6.4
48°	1704.7	1674.3	1550.9	1367.3	1141.7	877.9	602.2	402.6	261.3	178.9	5.5
49°	1559.3	1516.9	1402.1	1222.8	1017.8	774.3	533.7	362.0	240.9	166.8	4.8
50°	1401.5	1349.3	1260.7	1078.0	889.8	663.9	443.6	306.1	212.0	150.9	4.4
51°	1247.0	1193.9	1109.5	954.1	753.2	550.9	357.9	244.4	174.5	129.1	3.7
52°	1086.8	1042.3	947.8	825.7	644.8	446.4	298.1	206.7	145.0	108.4	3.1
53°	927.3	896.9	807.0	683.3	518.1	364.7	243.5	176.9	126.5	92.8	2.4
54°	767.5	734.2	665.9	555.7	417.6	287.8	206.5	148.1	109.7	80.9	2.2
55°	600.3	583.1	520.0	423.7	316.4	229.6	167.5	127.4	91.9	67.6	1.8
56°	462.3	442.9	385.4	307.4	235.1	179.8	135.5	104.0	77.8	56.6	1.3
57°	302.8	282.9	244.8	214.6	171.2	131.1	103.6	82.0	63.2	46.9	1.1
58°	178.9	160.9	154.9	132.2	114.1	89.0	76.5	61.0	46.7	37.0	0.7
59°	82.2	83.5	74.3	69.6	63.2	56.6	46.5	40.8	32.0	26.7	0.4
60°	47.8	45.2	44.1	39.4	35.0	31.1	28.0	24.7	20.1	17.2	0.2
62.5°	16.3	15.6	16.1	14.5	13.7	13.2	12.1	10.4	8.6	7.1	0.0
65°	4.4	4.4	4.2	4.0	3.7	3.5	3.3	2.9	2.6	2.2	0.0



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CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	1.5	1.5	1.3	1.3	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	0.4	0.4	0.4	0.2	0.0
72.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.2	0.2
75°	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2
77.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
80°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2	0.4
82.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4
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

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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	19.6	19.6	19.6	19.6	19.6	19.6
2.5°	20.3	19.4	18.3	17.6	17.4	17.2
5°	19.4	17.6	16.3	15.4	15.2	15.2
7.5°	17.4	15.4	14.1	13.7	13.4	13.4
10°	15.2	13.4	12.3	11.9	12.1	12.1
12.5°	12.8	11.2	10.8	10.8	11.0	11.2
15°	10.4	9.5	9.5	9.7	10.1	10.4
17.5°	8.6	8.2	8.4	8.8	9.3	9.7
20°	7.1	7.1	7.5	8.2	8.8	9.3
22.5°	5.9	6.2	6.8	7.5	8.4	8.8
25°	5.1	5.5	6.2	7.3	8.2	8.4
27.5°	4.4	5.1	5.9	7.1	7.9	8.4
30°	3.7	4.6	5.7	6.8	7.9	8.4
31°	3.5	4.4	5.5	6.8	7.9	8.4
32°	3.3	4.4	5.5	6.8	7.9	8.4
33°	3.1	4.2	5.5	6.6	7.9	8.4
34°	2.9	4.2	5.5	6.8	7.9	8.4
35°	2.6	4.0	5.3	6.6	7.7	8.4
36°	2.4	4.0	5.3	6.6	7.9	8.4
37°	2.2	4.0	5.3	6.6	7.7	8.4
38°	2.2	3.7	5.1	6.6	7.7	8.4
39°	2.0	3.5	5.1	6.6	7.7	8.4
40°	1.8	3.5	4.8	6.4	7.7	8.4
41°	1.5	3.3	4.8	6.4	7.7	8.4
42°	1.3	3.3	4.8	6.4	7.7	8.4
43°	1.1	3.1	4.6	6.4	7.7	8.4
44°	1.1	3.1	4.6	6.4	7.7	8.4
45°	0.9	2.9	4.4	6.4	7.7	8.4
46°	0.9	2.9	4.4	6.2	7.7	8.4
47°	0.7	2.9	4.4	6.2	7.7	8.4
48°	0.7	2.6	4.4	6.2	7.7	8.4
49°	0.4	2.6	4.4	6.2	7.7	8.4
50°	0.4	2.6	4.2	6.2	7.7	8.4
51°	0.4	2.6	4.2	6.2	7.7	8.4
52°	0.4	2.4	4.2	6.2	7.7	8.4
53°	0.4	2.4	4.2	6.2	7.7	8.4
54°	0.4	2.4	4.0	6.2	7.7	8.4
55°	0.4	2.2	4.0	5.9	7.7	8.2
56°	0.4	2.2	4.0	5.9	7.7	8.2
57°	0.4	2.2	3.7	5.9	7.7	8.2
58°	0.4	2.0	3.7	5.7	7.5	8.2
59°	0.4	2.0	3.5	5.7	7.5	7.9
60°	0.4	1.8	3.5	5.5	7.3	7.9
62.5°	0.4	1.5	3.1	5.3	7.1	7.5
65°	0.4	1.3	2.9	4.8	6.8	7.3



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.4	1.3	2.6	4.6	6.4	7.1
70°	0.4	1.3	2.4	4.2	6.2	6.4
72.5°	0.7	1.3	2.2	4.0	5.7	5.9
75°	0.9	1.3	2.0	3.5	5.3	5.5
77.5°	0.9	1.3	1.8	3.1	4.6	4.8
80°	0.9	1.1	1.5	2.4	3.7	4.0
82.5°	0.9	1.1	1.1	2.0	2.9	3.1
85°	0.7	0.9	0.9	1.1	2.0	2.2
87.5°	0.7	0.9	0.4	0.7	0.9	0.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)