

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: P1336474

Luminaire Tested: P3A05R159830DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336474
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: P3A05R159830DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R15 optic, 3000K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

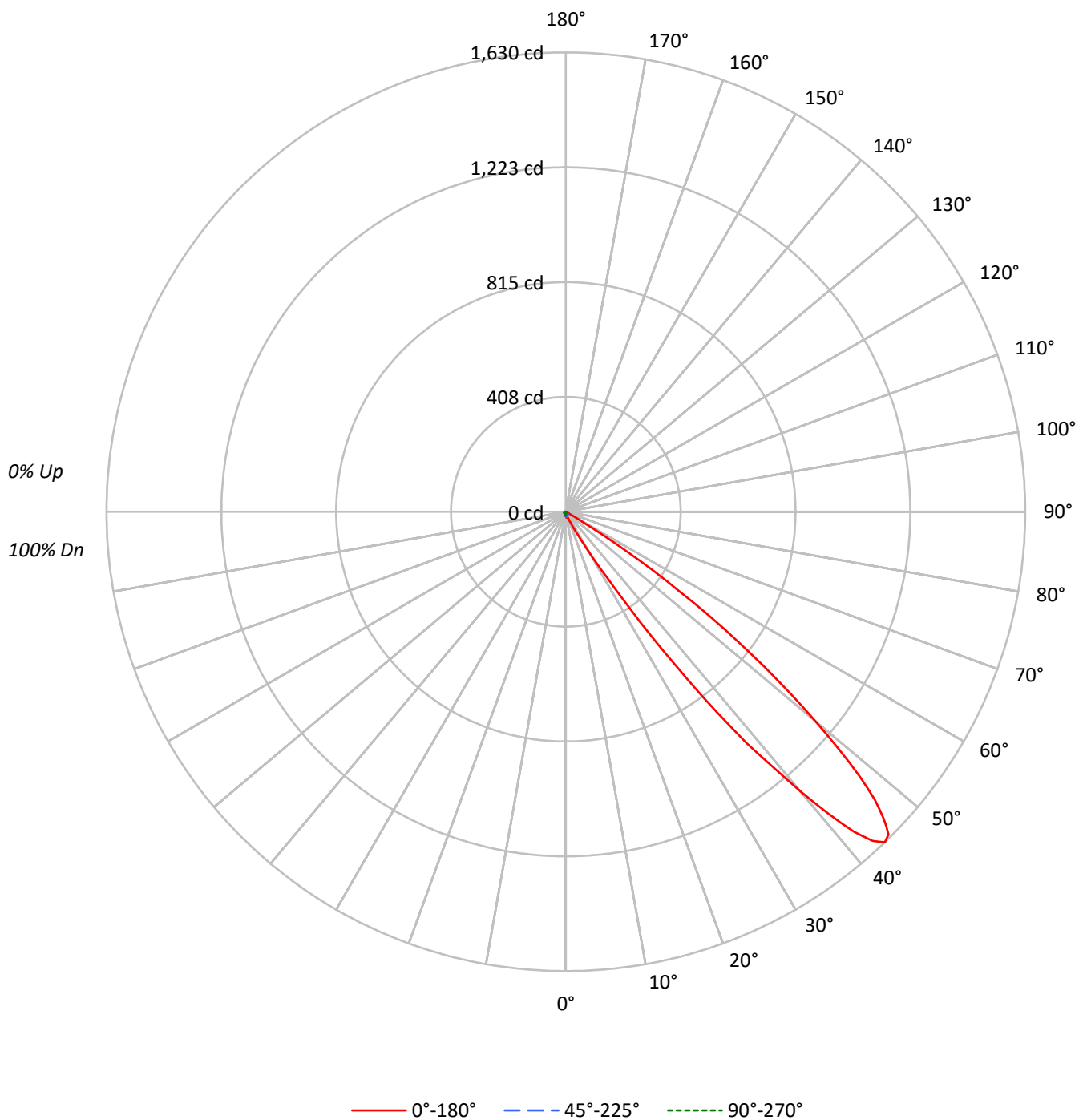
Lumens per Lamp: N/A
Luminaire Lumens: 182.0 lumens
Efficiency: N/A
Efficacy: 25.3 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	3552	3552	3552	3552	3552
5°	4402	3918	3192	2796	2751
10°	4320	3362	2472	2182	2227
15°	3587	2384	1771	1816	1930
20°	6231	1913	1353	1563	1773
25°	13864	2274	1089	1452	1669
30°	41500	2811	962	1418	1747
35°	159732	3159	883	1446	1847
40°	370752	2748	830	1517	1975
45°	502161	2078	744	1644	2140
50°	393744	1228	751	1740	2354
55°	188973	573	688	1873	2561
60°	17279	88	658	1974	2851
65°	1868	0	571	2075	3113
70°	449	0	705	2180	3398
75°	424	169	932	2457	3813
80°	505	505	1137	2526	4167
85°	503	503	1761	2264	4529

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 502161 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.4	0.8
10°-20°	2.9	1.6
20°-30°	6.9	3.8
30°-40°	37.6	20.7
40°-50°	91.2	50.1
50°-60°	36.4	20.0
60°-70°	3.2	1.7
70°-80°	1.8	1.0
80°-90°	0.8	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°	11.1	6.1
0°-40°	48.8	26.8
0°-60°	176.3	96.9
0°-90°	182.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	182.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	16	16	16	16	16	
5°	20	18	14	13	12	2
15°	16	10	8	8	8	5
25°	57	9	4	6	7	35
35°	597	12	3	5	7	422
45°	1619	7	2	5	7	1142
55°	494	2	2	5	7	460
65°	4	0	1	4	6	9
75°	0	0	1	3	4	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°	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.2
2.5°	18.1	18.1	18.3	18.1	18.1	18.1	18.1	18.0	18.0	18.0	17.4
5°	20.0	20.0	20.0	20.0	19.8	19.8	19.8	19.6	19.6	19.4	17.8
7.5°	20.7	20.7	20.5	20.5	20.3	20.3	20.1	20.0	19.8	19.6	17.1
10°	19.4	19.4	19.4	19.2	19.2	19.1	18.9	18.7	18.5	18.1	15.1
12.5°	17.2	17.2	17.4	17.2	17.1	16.9	16.5	16.3	16.2	15.8	12.5
15°	15.8	15.8	15.8	15.6	15.4	15.1	14.9	14.5	14.3	13.8	10.5
17.5°	20.1	20.1	20.0	19.6	18.9	18.3	17.4	16.7	15.8	14.7	9.1
20°	26.7	26.7	26.3	26.0	25.0	24.1	22.7	21.4	20.0	18.7	8.2
22.5°	38.7	39.2	38.1	36.8	35.6	33.4	31.4	29.4	26.9	24.7	8.3
25°	57.3	57.9	57.3	54.4	52.1	49.2	45.4	41.4	37.0	33.0	9.4
27.5°	92.9	93.3	92.4	85.3	81.5	73.9	67.1	60.6	53.4	46.1	10.3
30°	163.9	164.0	158.2	144.1	131.6	114.9	100.7	87.1	75.7	64.1	11.1
31°	215.8	210.7	198.3	181.3	161.3	138.8	119.4	101.8	84.7	72.2	11.3
32°	274.0	273.3	252.8	223.2	196.5	168.4	139.2	116.7	97.1	80.0	11.4
33°	351.1	351.5	319.2	284.4	240.6	202.9	164.6	133.7	110.2	89.3	11.8
34°	471.6	443.3	405.4	358.2	298.7	241.9	192.2	153.5	121.9	98.2	11.8
35°	596.7	568.2	526.4	454.9	373.3	293.8	225.0	174.8	136.1	107.8	11.8
36°	736.8	712.6	649.5	558.2	454.0	342.8	259.9	199.3	150.1	116.5	11.6
37°	888.1	852.7	782.7	683.1	543.7	411.8	302.3	223.6	164.0	125.9	11.3
38°	1041.8	1009.9	921.5	800.8	650.8	484.5	344.8	247.0	176.9	133.0	10.7
39°	1158.3	1140.9	1053.3	918.4	736.2	553.5	388.5	272.0	190.5	140.1	10.2
40°	1295.2	1267.0	1183.9	1017.1	837.3	623.7	431.4	294.2	201.8	145.7	9.6
41°	1420.0	1384.4	1279.6	1118.4	918.2	686.9	472.0	317.0	210.9	149.0	9.3
42°	1527.1	1485.7	1376.1	1205.1	985.9	737.3	504.5	333.4	219.4	151.7	8.7
43°	1596.4	1560.7	1452.9	1270.3	1043.8	783.6	534.8	350.4	224.7	153.5	8.0
44°	1630.2	1594.0	1489.7	1311.1	1079.4	811.4	554.4	362.2	230.5	155.9	7.4
45°	1619.3	1582.6	1481.7	1311.9	1090.5	821.3	562.7	367.5	233.6	158.1	6.7
46°	1569.4	1543.6	1442.0	1277.7	1069.4	810.6	558.0	363.5	232.5	158.1	6.0
47°	1499.3	1469.9	1373.2	1219.1	1018.4	783.0	539.0	351.3	225.8	154.4	5.3
48°	1403.9	1378.8	1277.2	1126.0	940.2	723.0	496.0	331.5	215.2	147.4	4.5
49°	1284.1	1249.2	1154.7	1007.0	838.2	637.7	439.5	298.2	198.3	137.4	4.0
50°	1154.2	1111.1	1038.2	887.8	732.8	546.8	365.3	252.1	174.6	124.3	3.6
51°	1026.9	983.2	913.7	785.8	620.3	453.7	294.7	201.3	143.7	106.3	3.1
52°	895.0	858.4	780.5	680.0	531.0	367.7	245.5	170.2	119.4	89.3	2.5
53°	763.6	738.6	664.5	562.7	426.6	300.3	200.5	145.7	104.2	76.4	2.0
54°	632.1	604.7	548.4	457.7	343.9	237.0	170.0	121.9	90.4	66.6	1.8
55°	494.3	480.2	428.3	349.0	260.6	189.1	137.9	104.9	75.7	55.7	1.5
56°	380.7	364.8	317.4	253.2	193.6	148.1	111.6	85.7	64.1	46.6	1.1
57°	249.3	233.0	201.6	176.8	141.0	108.0	85.3	67.5	52.1	38.7	0.9
58°	147.4	132.5	127.6	108.9	94.0	73.3	63.0	50.3	38.5	30.5	0.5
59°	67.7	68.8	61.2	57.3	52.1	46.6	38.3	33.6	26.3	22.0	0.4
60°	39.4	37.2	36.3	32.5	28.9	25.6	23.0	20.3	16.5	14.2	0.2
62.5°	13.4	12.9	13.2	12.0	11.3	10.9	10.0	8.5	7.1	5.8	0.0
65°	3.6	3.6	3.4	3.3	3.1	2.9	2.7	2.4	2.2	1.8	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°	1.3	1.3	1.1	1.1	0.9	0.9	0.7	0.7	0.5	0.5	0.0
70°	0.7	0.7	0.7	0.5	0.5	0.5	0.4	0.4	0.4	0.2	0.0
72.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.2	0.2
75°	0.5	0.5	0.5	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°	16.2	16.2	16.2	16.2	16.2	16.2
2.5°	16.7	16.0	15.1	14.5	14.3	14.2
5°	16.0	14.5	13.4	12.7	12.5	12.5
7.5°	14.3	12.7	11.6	11.3	11.1	11.1
10°	12.5	11.1	10.2	9.8	10.0	10.0
12.5°	10.5	9.3	8.9	8.9	9.1	9.3
15°	8.5	7.8	7.8	8.0	8.3	8.5
17.5°	7.1	6.7	6.9	7.3	7.6	8.0
20°	5.8	5.8	6.2	6.7	7.3	7.6
22.5°	4.9	5.1	5.6	6.2	6.9	7.3
25°	4.2	4.5	5.1	6.0	6.7	6.9
27.5°	3.6	4.2	4.9	5.8	6.5	6.9
30°	3.1	3.8	4.7	5.6	6.5	6.9
31°	2.9	3.6	4.5	5.6	6.5	6.9
32°	2.7	3.6	4.5	5.6	6.5	6.9
33°	2.5	3.4	4.5	5.4	6.5	6.9
34°	2.4	3.4	4.5	5.6	6.5	6.9
35°	2.2	3.3	4.4	5.4	6.4	6.9
36°	2.0	3.3	4.4	5.4	6.5	6.9
37°	1.8	3.3	4.4	5.4	6.4	6.9
38°	1.8	3.1	4.2	5.4	6.4	6.9
39°	1.6	2.9	4.2	5.4	6.4	6.9
40°	1.5	2.9	4.0	5.3	6.4	6.9
41°	1.3	2.7	4.0	5.3	6.4	6.9
42°	1.1	2.7	4.0	5.3	6.4	6.9
43°	0.9	2.5	3.8	5.3	6.4	6.9
44°	0.9	2.5	3.8	5.3	6.4	6.9
45°	0.7	2.4	3.6	5.3	6.4	6.9
46°	0.7	2.4	3.6	5.1	6.4	6.9
47°	0.5	2.4	3.6	5.1	6.4	6.9
48°	0.5	2.2	3.6	5.1	6.4	6.9
49°	0.4	2.2	3.6	5.1	6.4	6.9
50°	0.4	2.2	3.4	5.1	6.4	6.9
51°	0.4	2.2	3.4	5.1	6.4	6.9
52°	0.4	2.0	3.4	5.1	6.4	6.9
53°	0.4	2.0	3.4	5.1	6.4	6.9
54°	0.4	2.0	3.3	5.1	6.4	6.9
55°	0.4	1.8	3.3	4.9	6.4	6.7
56°	0.4	1.8	3.3	4.9	6.4	6.7
57°	0.4	1.8	3.1	4.9	6.4	6.7
58°	0.4	1.6	3.1	4.7	6.2	6.7
59°	0.4	1.6	2.9	4.7	6.2	6.5
60°	0.4	1.5	2.9	4.5	6.0	6.5
62.5°	0.4	1.3	2.5	4.4	5.8	6.2
65°	0.4	1.1	2.4	4.0	5.6	6.0



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.4	1.1	2.2	3.8	5.3	5.8
70°	0.4	1.1	2.0	3.4	5.1	5.3
72.5°	0.5	1.1	1.8	3.3	4.7	4.9
75°	0.7	1.1	1.6	2.9	4.4	4.5
77.5°	0.7	1.1	1.5	2.5	3.8	4.0
80°	0.7	0.9	1.3	2.0	3.1	3.3
82.5°	0.7	0.9	0.9	1.6	2.4	2.5
85°	0.5	0.7	0.7	0.9	1.6	1.8
87.5°	0.5	0.7	0.4	0.5	0.7	0.7
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)