

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: P1336506

Luminaire Tested: P3A05R159840DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336506
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: P3A05R159840DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R15 optic, 4000K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

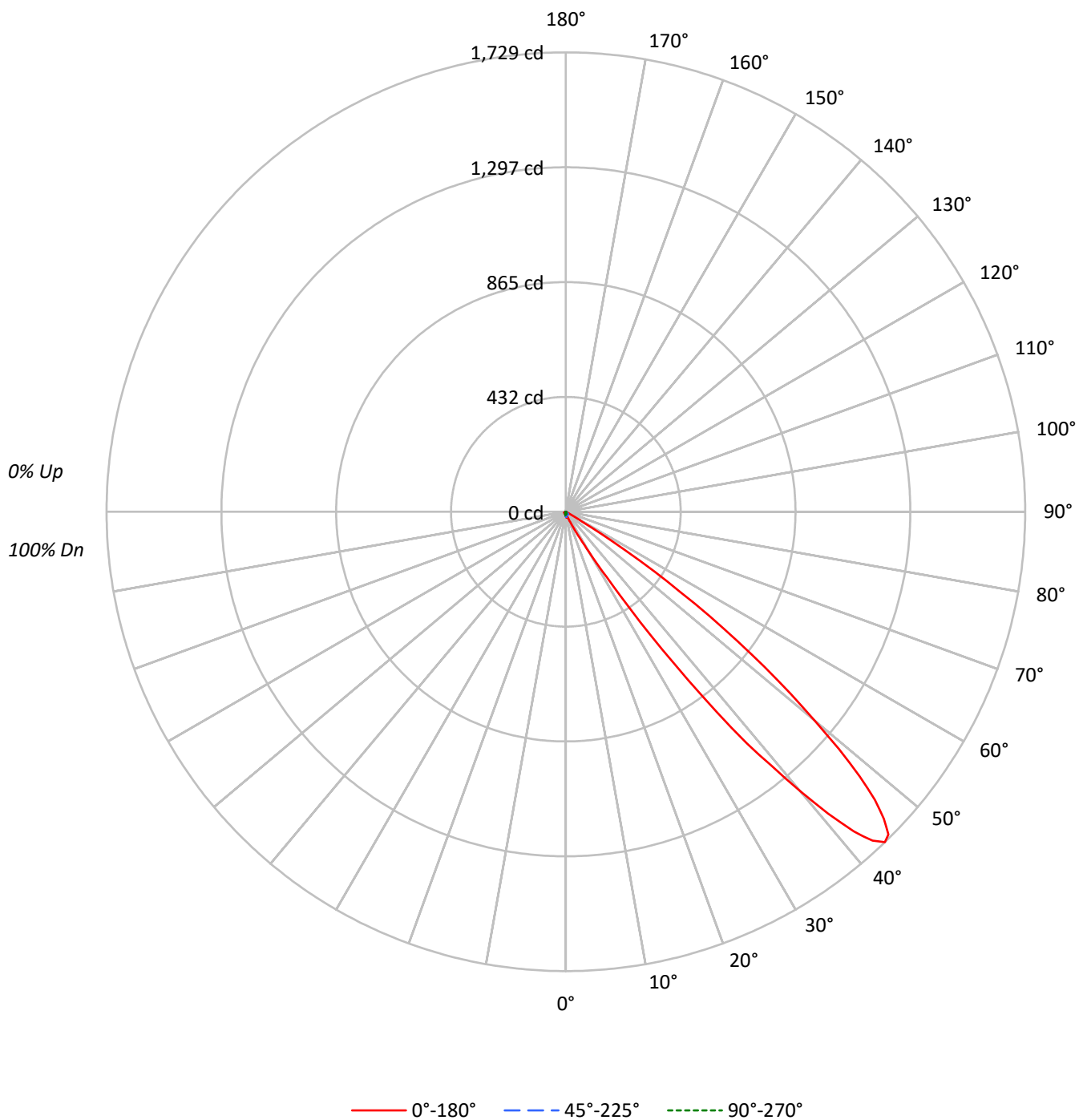
Lumens per Lamp: N/A
Luminaire Lumens: 193.0 lumens
Efficiency: N/A
Efficacy: 26.8 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.48 / 1.09
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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			0
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	99	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	54	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°	3750	3750	3750	3750	3750
5°	4667	4160	3390	2972	2928
10°	4587	3563	2605	2316	2360
15°	3791	2543	1884	1930	2043
20°	6604	2030	1447	1657	1890
25°	14711	2419	1161	1548	1766
30°	44007	2962	1013	1519	1848
35°	169369	3346	937	1553	1954
40°	393137	2920	887	1603	2090
45°	532489	2202	775	1737	2264
50°	417521	1296	785	1842	2490
55°	200404	573	726	1988	2714
60°	18332	88	658	2105	3026
65°	1972	0	623	2179	3321
70°	513	0	769	2372	3590
75°	508	169	1017	2626	4067
80°	505	505	1263	2652	4420
85°	503	503	2013	2516	4780

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 532489 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.5	0.8
10°-20°	3.0	1.6
20°-30°	7.3	3.8
30°-40°	39.9	20.7
40°-50°	96.7	50.1
50°-60°	38.6	20.0
60°-70°	3.3	1.7
70°-80°	1.9	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°	11.8	6.1
0°-40°	51.7	26.8
0°-60°	187.0	96.9
0°-90°	193.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	193.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	17	17	17	17	17	
5°	21	19	15	14	13	2
15°	17	11	8	8	9	6
25°	61	10	5	6	7	37
35°	633	12	4	6	7	447
45°	1717	7	2	6	7	1211
55°	524	2	2	5	7	488
65°	4	0	1	4	6	10
75°	1	0	1	3	5	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°	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1	17.1
2.5°	19.2	19.2	19.4	19.2	19.2	19.2	19.2	19.1	19.1	19.1	18.5
5°	21.2	21.2	21.2	21.2	21.0	21.0	21.0	20.8	20.8	20.6	18.9
7.5°	21.9	21.9	21.7	21.7	21.6	21.6	21.4	21.2	21.0	20.8	18.1
10°	20.6	20.6	20.6	20.4	20.4	20.2	20.0	19.8	19.6	19.2	16.0
12.5°	18.3	18.3	18.5	18.3	18.1	17.9	17.5	17.3	17.1	16.7	13.3
15°	16.7	16.7	16.7	16.5	16.4	16.0	15.8	15.4	15.2	14.6	11.2
17.5°	21.4	21.4	21.2	20.8	20.0	19.4	18.5	17.7	16.7	15.6	9.6
20°	28.3	28.3	27.9	27.5	26.6	25.6	24.1	22.7	21.2	19.8	8.7
22.5°	41.0	41.6	40.4	39.1	37.7	35.4	33.3	31.2	28.5	26.2	8.9
25°	60.8	61.4	60.8	57.7	55.2	52.2	48.1	43.9	39.3	35.0	10.0
27.5°	98.5	98.9	98.0	90.4	86.4	78.3	71.2	64.3	56.6	48.9	11.0
30°	173.8	174.0	167.8	152.8	139.5	121.8	106.8	92.4	80.2	67.9	11.7
31°	228.8	223.4	210.3	192.2	171.1	147.2	126.6	108.0	89.9	76.6	11.9
32°	290.6	289.8	268.1	236.7	208.4	178.6	147.6	123.7	103.0	84.9	12.1
33°	372.4	372.8	338.5	301.6	255.2	215.1	174.5	141.8	116.8	94.7	12.5
34°	500.1	470.1	429.9	379.9	316.8	256.5	203.8	162.8	129.3	104.1	12.5
35°	632.7	602.5	558.3	482.4	395.8	311.6	238.6	185.3	144.3	114.3	12.5
36°	781.3	755.7	688.7	591.9	481.5	363.5	275.6	211.3	159.1	123.5	12.3
37°	941.8	904.3	830.0	724.3	576.5	436.6	320.6	237.1	174.0	133.6	11.9
38°	1104.8	1070.9	977.2	849.2	690.1	513.8	365.6	261.9	187.6	141.1	11.4
39°	1228.3	1209.9	1116.9	973.9	780.7	586.9	412.0	288.5	202.1	148.6	10.8
40°	1373.4	1343.6	1255.5	1078.6	887.9	661.4	457.4	311.9	214.0	154.5	10.2
41°	1505.8	1468.1	1356.9	1186.0	973.7	728.4	500.5	336.2	223.6	158.0	9.8
42°	1619.4	1575.5	1459.3	1278.0	1045.5	781.9	535.0	353.5	232.7	160.9	9.2
43°	1692.9	1655.0	1540.7	1347.1	1106.9	831.0	567.1	371.6	238.2	162.8	8.5
44°	1728.7	1690.4	1579.7	1390.4	1144.6	860.4	587.9	384.1	244.4	165.3	7.9
45°	1717.1	1678.3	1571.3	1391.1	1156.4	871.0	596.8	389.7	247.7	167.6	7.1
46°	1664.2	1636.9	1529.1	1355.0	1134.0	859.6	591.8	385.5	246.5	167.6	6.4
47°	1589.9	1558.8	1456.2	1292.8	1080.0	830.4	571.5	372.6	239.4	163.8	5.6
48°	1488.7	1462.2	1354.4	1194.1	997.0	766.7	525.9	351.6	228.2	156.3	4.8
49°	1361.7	1324.8	1224.5	1067.8	888.9	676.2	466.1	316.2	210.3	145.7	4.2
50°	1223.9	1178.3	1100.9	941.4	777.1	579.8	387.4	267.3	185.1	131.8	3.8
51°	1089.0	1042.6	968.9	833.3	657.8	481.1	312.5	213.4	152.4	112.8	3.3
52°	949.1	910.2	827.7	721.1	563.1	389.9	260.4	180.5	126.6	94.7	2.7
53°	809.8	783.2	704.7	596.8	452.4	318.5	212.6	154.5	110.5	81.0	2.1
54°	670.3	641.2	581.6	485.3	364.7	251.3	180.3	129.3	95.8	70.6	1.9
55°	524.2	509.2	454.2	370.1	276.3	200.5	146.3	111.2	80.2	59.1	1.5
56°	403.7	386.8	336.6	268.5	205.3	157.0	118.4	90.8	67.9	49.5	1.2
57°	264.4	247.1	213.8	187.4	149.5	114.5	90.4	71.6	55.2	41.0	1.0
58°	156.3	140.5	135.3	115.5	99.7	77.7	66.8	53.3	40.8	32.3	0.6
59°	71.8	72.9	64.9	60.8	55.2	49.5	40.6	35.6	27.9	23.3	0.4
60°	41.8	39.5	38.5	34.4	30.6	27.1	24.4	21.6	17.5	15.0	0.2
62.5°	14.2	13.7	14.0	12.7	11.9	11.5	10.6	9.0	7.5	6.2	0.0
65°	3.8	3.8	3.7	3.5	3.3	3.1	2.9	2.5	2.3	1.9	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	1.2	1.2	1.0	1.0	0.8	0.8	0.6	0.6	0.0
70°	0.8	0.8	0.8	0.6	0.6	0.6	0.4	0.4	0.4	0.2	0.0
72.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.4	0.4	0.4	0.2	0.2
75°	0.6	0.6	0.6	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°	17.1	17.1	17.1	17.1	17.1	17.1
2.5°	17.7	16.9	16.0	15.4	15.2	15.0
5°	16.9	15.4	14.2	13.5	13.3	13.3
7.5°	15.2	13.5	12.3	11.9	11.7	11.7
10°	13.3	11.7	10.8	10.4	10.6	10.6
12.5°	11.2	9.8	9.4	9.4	9.6	9.8
15°	9.0	8.3	8.3	8.5	8.9	9.0
17.5°	7.5	7.1	7.3	7.7	8.1	8.5
20°	6.2	6.2	6.5	7.1	7.7	8.1
22.5°	5.2	5.4	6.0	6.5	7.3	7.7
25°	4.4	4.8	5.4	6.4	7.1	7.3
27.5°	3.8	4.4	5.2	6.2	6.9	7.3
30°	3.3	4.0	5.0	6.0	6.9	7.3
31°	3.1	3.8	4.8	6.0	6.9	7.3
32°	2.9	3.8	4.8	6.0	6.9	7.3
33°	2.7	3.7	4.8	5.8	6.9	7.3
34°	2.5	3.7	4.8	6.0	6.9	7.3
35°	2.3	3.5	4.6	5.8	6.7	7.3
36°	2.1	3.5	4.6	5.8	6.9	7.3
37°	1.9	3.5	4.6	5.8	6.7	7.3
38°	1.9	3.3	4.4	5.8	6.7	7.3
39°	1.7	3.1	4.4	5.8	6.7	7.3
40°	1.5	3.1	4.2	5.6	6.7	7.3
41°	1.3	2.9	4.2	5.6	6.7	7.3
42°	1.2	2.9	4.2	5.6	6.7	7.3
43°	1.0	2.7	4.0	5.6	6.7	7.3
44°	1.0	2.7	4.0	5.6	6.7	7.3
45°	0.8	2.5	3.8	5.6	6.7	7.3
46°	0.8	2.5	3.8	5.4	6.7	7.3
47°	0.6	2.5	3.8	5.4	6.7	7.3
48°	0.6	2.3	3.8	5.4	6.7	7.3
49°	0.4	2.3	3.8	5.4	6.7	7.3
50°	0.4	2.3	3.7	5.4	6.7	7.3
51°	0.4	2.3	3.7	5.4	6.7	7.3
52°	0.4	2.1	3.7	5.4	6.7	7.3
53°	0.4	2.1	3.7	5.4	6.7	7.3
54°	0.4	2.1	3.5	5.4	6.7	7.3
55°	0.4	1.9	3.5	5.2	6.7	7.1
56°	0.4	1.9	3.5	5.2	6.7	7.1
57°	0.4	1.9	3.3	5.2	6.7	7.1
58°	0.4	1.7	3.3	5.0	6.5	7.1
59°	0.4	1.7	3.1	5.0	6.5	6.9
60°	0.4	1.5	3.1	4.8	6.4	6.9
62.5°	0.4	1.3	2.7	4.6	6.2	6.5
65°	0.4	1.2	2.5	4.2	6.0	6.4



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.4	1.2	2.3	4.0	5.6	6.2
70°	0.4	1.2	2.1	3.7	5.4	5.6
72.5°	0.6	1.2	1.9	3.5	5.0	5.2
75°	0.8	1.2	1.7	3.1	4.6	4.8
77.5°	0.8	1.2	1.5	2.7	4.0	4.2
80°	0.8	1.0	1.3	2.1	3.3	3.5
82.5°	0.8	1.0	1.0	1.7	2.5	2.7
85°	0.6	0.8	0.8	1.0	1.7	1.9
87.5°	0.6	0.8	0.4	0.6	0.8	0.8
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)