

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: P1343470

Luminaire Tested: P3A13R159050DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1343470
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: P3A13R159050DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R15 optic, 5000K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

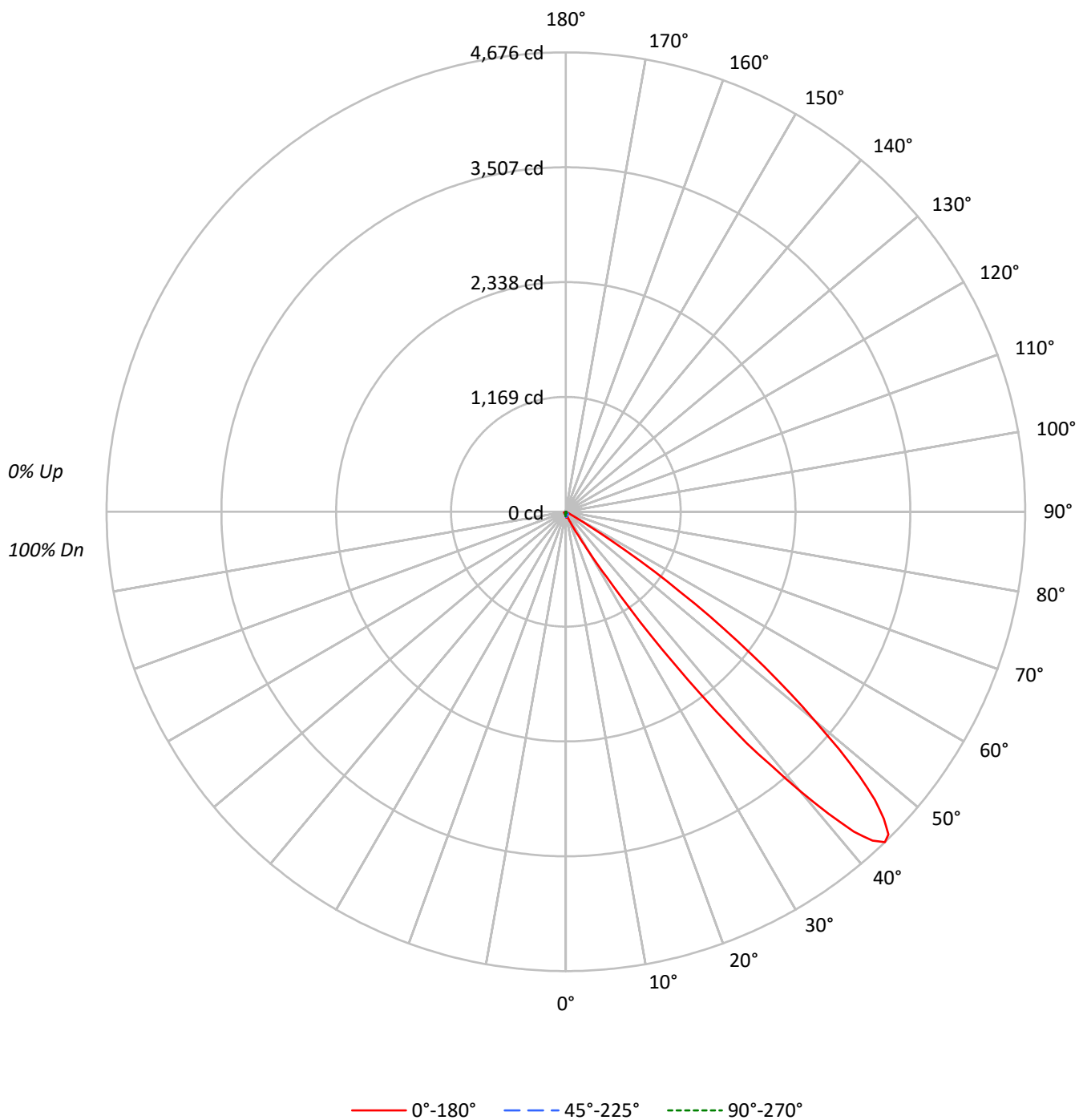
Lumens per Lamp: N/A
Luminaire Lumens: 522.0 lumens
Efficiency: N/A
Efficacy: 35.8 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.09
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 14.6
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°	10153	10153	10153	10153	10153
5°	12613	11226	9157	8012	7902
10°	12402	9619	7058	6257	6368
15°	10284	6856	5085	5199	5562
20°	17852	5460	3897	4504	5110
25°	39801	6557	3145	4162	4791
30°	119006	8027	2760	4077	5013
35°	458102	9048	2516	4176	5300
40°	1063335	7901	2376	4322	5668
45°	1440243	5985	2109	4683	6140
50°	1129276	3548	2115	4981	6755
55°	542031	1606	1988	5390	7378
60°	49514	219	1842	5701	8201
65°	5396	0	1608	5967	8924
70°	1346	0	1988	6347	9681
75°	1356	424	2626	7032	11014
80°	1263	1263	3283	7198	11870
85°	1258	1258	5284	6542	13083

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1440243 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4.0	0.8
10°-20°	8.2	1.6
20°-30°	19.7	3.8
30°-40°	108.0	20.7
40°-50°	261.5	50.1
50°-60°	104.3	20.0
60°-70°	9.0	1.7
70°-80°	5.1	1.0
80°-90°	2.2	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°	31.9	6.1
0°-40°	139.9	26.8
0°-60°	505.7	96.9
0°-90°	522.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	522.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	46	46	46	46	46	
5°	57	51	42	36	36	5
15°	45	30	22	23	24	16
25°	164	27	13	17	20	99
35°	1711	34	9	16	20	1209
45°	4644	19	7	15	20	3276
55°	1418	4	5	14	19	1321
65°	10	0	3	12	17	27
75°	2	0	3	8	13	2
85°	0	0	2	3	5	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°	46.3	46.3	46.3	46.3	46.3	46.3	46.3	46.3	46.3	46.3	46.3
2.5°	52.0	52.0	52.6	52.0	52.0	52.0	52.0	51.5	51.5	51.5	50.0
5°	57.3	57.3	57.3	57.3	56.7	56.7	56.7	56.2	56.2	55.7	51.0
7.5°	59.3	59.3	58.8	58.8	58.3	58.3	57.8	57.3	56.7	56.2	48.9
10°	55.7	55.7	55.7	55.2	55.2	54.7	54.1	53.6	53.1	52.0	43.2
12.5°	49.4	49.4	50.0	49.4	48.9	48.4	47.4	46.8	46.3	45.3	35.9
15°	45.3	45.3	45.3	44.8	44.2	43.2	42.7	41.6	41.1	39.6	30.2
17.5°	57.8	57.8	57.3	56.2	54.1	52.6	50.0	47.9	45.3	42.2	26.0
20°	76.5	76.5	75.5	74.4	71.8	69.2	65.1	61.4	57.3	53.6	23.4
22.5°	110.9	112.4	109.3	105.7	102.0	95.8	90.0	84.3	77.0	70.8	23.9
25°	164.5	166.0	164.5	156.1	149.4	141.1	130.1	118.7	106.2	94.7	27.1
27.5°	266.5	267.5	264.9	244.6	233.7	211.8	192.6	173.8	153.0	132.2	29.7
30°	470.0	470.5	453.9	413.3	377.4	329.5	288.9	249.8	217.0	183.7	31.7
31°	618.9	604.3	568.9	520.0	462.7	398.2	342.5	292.0	243.1	207.2	32.3
32°	785.9	783.8	725.0	640.2	563.7	483.0	399.2	334.7	278.5	229.5	32.8
33°	1007.1	1008.2	915.5	815.6	690.2	581.9	472.1	383.6	315.9	256.1	33.8
34°	1352.7	1271.5	1162.8	1027.4	856.7	693.8	551.2	440.3	349.8	281.6	33.8
35°	1711.3	1629.6	1509.9	1304.9	1070.6	842.7	645.4	501.2	390.4	309.2	33.8
36°	2113.2	2043.9	1862.8	1601.0	1302.2	983.2	745.3	571.5	430.4	334.2	33.3
37°	2547.2	2445.8	2244.8	1959.1	1559.4	1181.0	867.1	641.2	470.5	361.2	32.3
38°	2988.1	2896.5	2643.0	2296.9	1866.5	1389.7	988.9	708.4	507.5	381.5	30.7
39°	3322.2	3272.3	3020.9	2634.2	2111.6	1587.5	1114.4	780.2	546.5	401.8	29.1
40°	3714.7	3634.0	3395.6	2917.3	2401.5	1788.9	1237.2	843.7	578.8	417.9	27.6
41°	4072.8	3970.8	3669.9	3207.7	2633.6	1970.0	1353.8	909.3	604.8	427.3	26.5
42°	4379.9	4261.2	3946.8	3456.5	2827.8	2114.7	1446.9	956.1	629.3	435.1	25.0
43°	4578.7	4476.2	4167.0	3643.4	2993.8	2247.4	1533.9	1005.1	644.4	440.3	22.9
44°	4675.5	4571.9	4272.6	3760.5	3095.8	2327.1	1590.1	1038.9	661.0	447.1	21.3
45°	4644.3	4539.1	4249.7	3762.6	3127.6	2355.7	1614.0	1054.0	669.9	453.3	19.3
46°	4501.1	4427.2	4135.8	3664.7	3067.2	2325.0	1600.5	1042.5	666.7	453.3	17.2
47°	4300.2	4215.9	3938.5	3496.6	2921.0	2245.9	1545.8	1007.7	647.5	442.9	15.1
48°	4026.5	3954.6	3663.2	3229.6	2696.6	2073.6	1422.5	950.9	617.3	422.6	13.0
49°	3682.9	3583.0	3311.8	2888.2	2404.1	1829.0	1260.6	855.2	568.9	394.0	11.5
50°	3310.3	3186.9	2977.7	2546.2	2101.7	1568.2	1047.7	723.0	500.7	356.5	10.4
51°	2945.4	2820.0	2620.6	2253.7	1779.0	1301.2	845.3	577.2	412.2	305.0	8.8
52°	2567.0	2461.9	2238.6	1950.3	1522.9	1054.5	704.2	488.2	342.5	256.1	7.3
53°	2190.2	2118.4	1906.0	1614.0	1223.7	861.4	575.1	417.9	298.8	219.1	5.7
54°	1812.8	1734.2	1572.9	1312.7	986.3	679.8	487.7	349.8	259.2	191.0	5.2
55°	1417.8	1377.2	1228.3	1000.9	747.4	542.3	395.6	300.8	217.0	159.8	4.2
56°	1092.0	1046.2	910.3	726.1	555.4	424.7	320.1	245.7	183.7	133.8	3.1
57°	715.1	668.3	578.3	507.0	404.4	309.7	244.6	193.6	149.4	110.9	2.6
58°	422.6	380.0	365.9	312.3	269.6	210.3	180.6	144.2	110.3	87.4	1.6
59°	194.1	197.3	175.4	164.5	149.4	133.8	109.8	96.3	75.5	63.0	1.0
60°	112.9	106.7	104.1	93.2	82.8	73.4	66.1	58.3	47.4	40.6	0.5
62.5°	38.5	37.0	38.0	34.4	32.3	31.2	28.6	24.5	20.3	16.7	0.0
65°	10.4	10.4	9.9	9.4	8.8	8.3	7.8	6.8	6.2	5.2	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°	3.6	3.6	3.1	3.1	2.6	2.6	2.1	2.1	1.6	1.6	0.0
70°	2.1	2.1	2.1	1.6	1.6	1.6	1.0	1.0	1.0	0.5	0.0
72.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.0	1.0	1.0	0.5	0.5
75°	1.6	1.6	1.6	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5
77.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
80°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5	1.0
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.0
85°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
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°	46.3	46.3	46.3	46.3	46.3	46.3
2.5°	47.9	45.8	43.2	41.6	41.1	40.6
5°	45.8	41.6	38.5	36.4	35.9	35.9
7.5°	41.1	36.4	33.3	32.3	31.7	31.7
10°	35.9	31.7	29.1	28.1	28.6	28.6
12.5°	30.2	26.5	25.5	25.5	26.0	26.5
15°	24.5	22.4	22.4	22.9	23.9	24.5
17.5°	20.3	19.3	19.8	20.8	21.9	22.9
20°	16.7	16.7	17.7	19.3	20.8	21.9
22.5°	14.1	14.6	16.1	17.7	19.8	20.8
25°	12.0	13.0	14.6	17.2	19.3	19.8
27.5°	10.4	12.0	14.1	16.7	18.7	19.8
30°	8.8	10.9	13.5	16.1	18.7	19.8
31°	8.3	10.4	13.0	16.1	18.7	19.8
32°	7.8	10.4	13.0	16.1	18.7	19.8
33°	7.3	9.9	13.0	15.6	18.7	19.8
34°	6.8	9.9	13.0	16.1	18.7	19.8
35°	6.2	9.4	12.5	15.6	18.2	19.8
36°	5.7	9.4	12.5	15.6	18.7	19.8
37°	5.2	9.4	12.5	15.6	18.2	19.8
38°	5.2	8.8	12.0	15.6	18.2	19.8
39°	4.7	8.3	12.0	15.6	18.2	19.8
40°	4.2	8.3	11.5	15.1	18.2	19.8
41°	3.6	7.8	11.5	15.1	18.2	19.8
42°	3.1	7.8	11.5	15.1	18.2	19.8
43°	2.6	7.3	10.9	15.1	18.2	19.8
44°	2.6	7.3	10.9	15.1	18.2	19.8
45°	2.1	6.8	10.4	15.1	18.2	19.8
46°	2.1	6.8	10.4	14.6	18.2	19.8
47°	1.6	6.8	10.4	14.6	18.2	19.8
48°	1.6	6.2	10.4	14.6	18.2	19.8
49°	1.0	6.2	10.4	14.6	18.2	19.8
50°	1.0	6.2	9.9	14.6	18.2	19.8
51°	1.0	6.2	9.9	14.6	18.2	19.8
52°	1.0	5.7	9.9	14.6	18.2	19.8
53°	1.0	5.7	9.9	14.6	18.2	19.8
54°	1.0	5.7	9.4	14.6	18.2	19.8
55°	1.0	5.2	9.4	14.1	18.2	19.3
56°	1.0	5.2	9.4	14.1	18.2	19.3
57°	1.0	5.2	8.8	14.1	18.2	19.3
58°	1.0	4.7	8.8	13.5	17.7	19.3
59°	1.0	4.7	8.3	13.5	17.7	18.7
60°	1.0	4.2	8.3	13.0	17.2	18.7
62.5°	1.0	3.6	7.3	12.5	16.7	17.7
65°	1.0	3.1	6.8	11.5	16.1	17.2



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.0	3.1	6.2	10.9	15.1	16.7
70°	1.0	3.1	5.7	9.9	14.6	15.1
72.5°	1.6	3.1	5.2	9.4	13.5	14.1
75°	2.1	3.1	4.7	8.3	12.5	13.0
77.5°	2.1	3.1	4.2	7.3	10.9	11.5
80°	2.1	2.6	3.6	5.7	8.8	9.4
82.5°	2.1	2.6	2.6	4.7	6.8	7.3
85°	1.6	2.1	2.1	2.6	4.7	5.2
87.5°	1.6	2.1	1.0	1.6	2.1	2.1
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)