

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: P1343428

Luminaire Tested: P3A13R159030DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1343428
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: P3A13R159030DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R15 optic, 3000K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

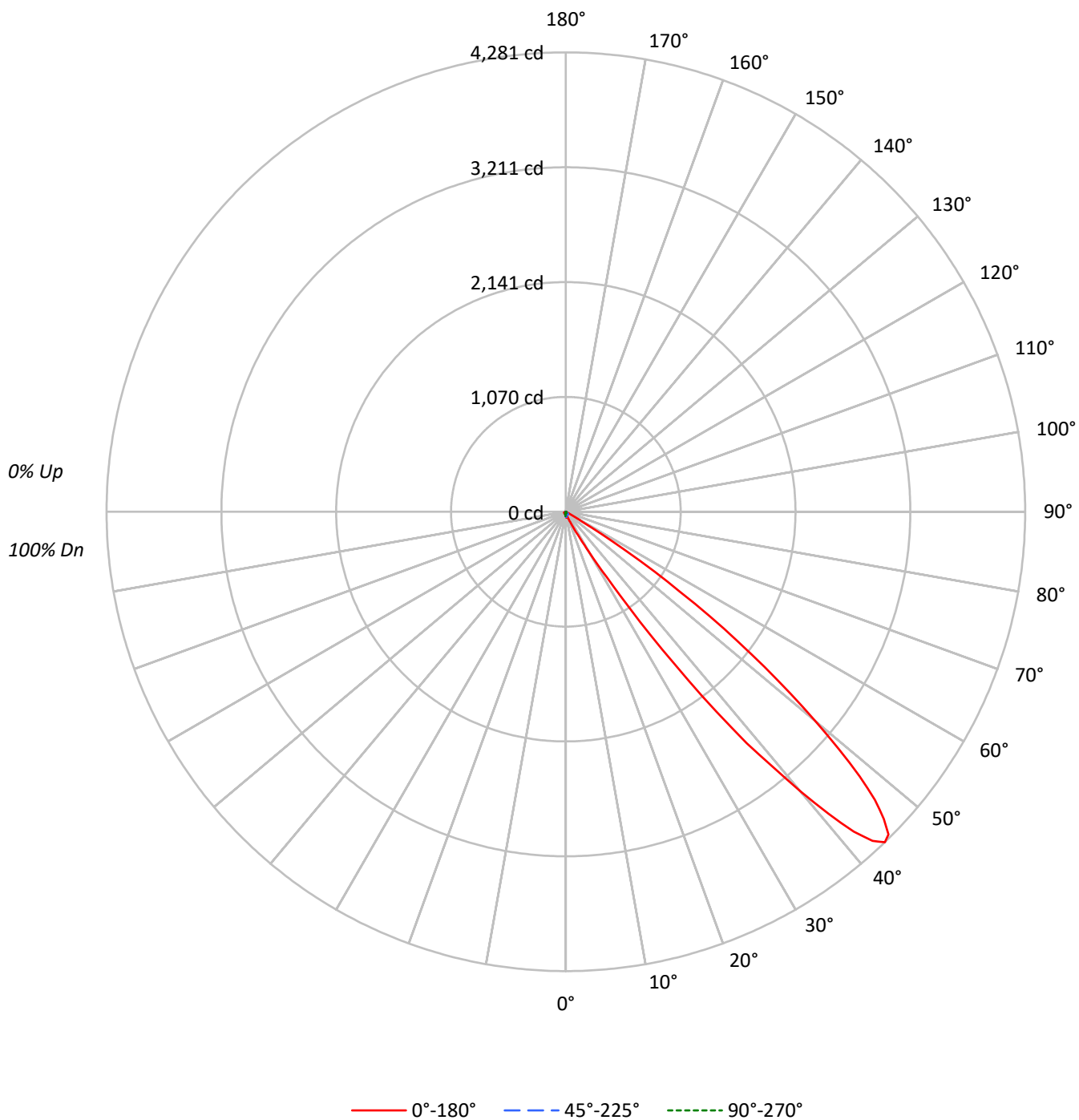
Lumens per Lamp: N/A
Luminaire Lumens: 478.0 lumens
Efficiency: N/A
Efficacy: 32.7 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 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
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°	9298	9298	9298	9298	9298
5°	11534	10280	8387	7352	7242
10°	11356	8817	6480	5722	5834
15°	9421	6266	4654	4767	5085
20°	16358	4994	3570	4107	4667
25°	36438	6000	2879	3799	4379
30°	108979	7368	2532	3747	4583
35°	419501	8298	2302	3828	4845
40°	973710	7242	2176	3950	5181
45°	1318835	5458	1923	4280	5613
50°	1034064	3241	1944	4537	6175
55°	496346	1453	1835	4932	6729
60°	45347	219	1667	5219	7543
65°	4929	0	1505	5448	8146
70°	1218	0	1859	5834	8848
75°	1186	424	2457	6439	10082
80°	1263	1263	3031	6566	10860
85°	1258	1258	4780	6038	12077

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1318835 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.6	0.8
10°-20°	7.5	1.6
20°-30°	18.1	3.8
30°-40°	98.9	20.7
40°-50°	239.4	50.1
50°-60°	95.5	20.0
60°-70°	8.3	1.7
70°-80°	4.7	1.0
80°-90°	2.1	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°	29.2	6.1
0°-40°	128.1	26.8
0°-60°	463.0	96.9
0°-90°	478.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	478.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	42	42	42	42	42	
5°	52	47	38	33	33	5
15°	42	28	20	21	22	14
25°	151	25	12	16	18	91
35°	1567	31	9	14	18	1107
45°	4253	18	6	14	18	3000
55°	1298	4	5	13	18	1209
65°	10	0	3	10	16	24
75°	1	0	3	8	12	1
85°	0	0	2	2	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°	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4	42.4
2.5°	47.7	47.7	48.1	47.7	47.7	47.7	47.7	47.2	47.2	47.2	45.8
5°	52.4	52.4	52.4	52.4	52.0	52.0	52.0	51.5	51.5	51.0	46.7
7.5°	54.3	54.3	53.9	53.9	53.4	53.4	52.9	52.4	52.0	51.5	44.8
10°	51.0	51.0	51.0	50.5	50.5	50.0	49.6	49.1	48.6	47.7	39.6
12.5°	45.3	45.3	45.8	45.3	44.8	44.3	43.4	42.9	42.4	41.5	32.9
15°	41.5	41.5	41.5	41.0	40.5	39.6	39.1	38.1	37.7	36.2	27.6
17.5°	52.9	52.9	52.4	51.5	49.6	48.1	45.8	43.8	41.5	38.6	23.8
20°	70.1	70.1	69.1	68.2	65.8	63.4	59.6	56.2	52.4	49.1	21.4
22.5°	101.5	102.9	100.1	96.8	93.4	87.7	82.5	77.2	70.5	64.8	21.9
25°	150.6	152.0	150.6	143.0	136.8	129.2	119.2	108.7	97.2	86.7	24.8
27.5°	244.0	245.0	242.6	224.0	214.0	194.0	176.3	159.2	140.1	121.1	27.2
30°	430.4	430.9	415.6	378.4	345.5	301.7	264.5	228.8	198.7	168.2	29.1
31°	566.7	553.3	520.9	476.1	423.7	364.6	313.6	267.4	222.6	189.7	29.5
32°	719.7	717.8	663.9	586.2	516.2	442.3	365.6	306.5	255.0	210.2	30.0
33°	922.2	923.2	838.4	746.8	632.0	532.9	432.3	351.3	289.3	234.5	31.0
34°	1238.7	1164.4	1064.7	940.8	784.5	635.3	504.7	403.2	320.3	257.8	31.0
35°	1567.1	1492.3	1382.6	1194.9	980.4	771.6	591.0	459.0	357.5	283.1	31.0
36°	1935.0	1871.7	1705.8	1466.1	1192.5	900.3	682.5	523.3	394.2	306.0	30.5
37°	2332.5	2239.6	2055.6	1794.0	1427.9	1081.4	794.0	587.2	430.9	330.8	29.5
38°	2736.2	2652.3	2420.2	2103.3	1709.1	1272.6	905.6	648.7	464.7	349.4	28.1
39°	3042.2	2996.5	2766.3	2412.1	1933.6	1453.7	1020.4	714.4	500.4	367.9	26.7
40°	3401.6	3327.7	3109.4	2671.4	2199.1	1638.1	1132.9	772.6	530.0	382.7	25.3
41°	3729.5	3636.1	3360.6	2937.4	2411.7	1804.0	1239.7	832.6	553.8	391.3	24.3
42°	4010.7	3902.0	3614.1	3165.2	2589.4	1936.5	1325.0	875.5	576.2	398.4	22.9
43°	4192.7	4098.9	3815.7	3336.3	2741.5	2058.0	1404.6	920.3	590.0	403.2	21.0
44°	4281.4	4186.6	3912.5	3443.5	2834.9	2130.9	1456.0	951.3	605.3	409.4	19.5
45°	4252.8	4156.5	3891.5	3445.4	2864.0	2157.1	1478.0	965.1	613.4	415.1	17.6
46°	4121.7	4054.1	3787.2	3355.8	2808.7	2129.0	1465.6	954.7	610.5	415.1	15.7
47°	3937.8	3860.5	3606.5	3201.9	2674.7	2056.6	1415.5	922.7	592.9	405.6	13.8
48°	3687.1	3621.3	3354.4	2957.4	2469.3	1898.8	1302.6	870.8	565.3	387.0	11.9
49°	3372.5	3281.0	3032.7	2644.7	2201.5	1674.8	1154.4	783.1	520.9	360.8	10.5
50°	3031.2	2918.3	2726.7	2331.6	1924.6	1436.0	959.4	662.0	458.5	326.5	9.5
51°	2697.1	2582.3	2399.7	2063.7	1629.1	1191.5	774.0	528.6	377.5	279.3	8.1
52°	2350.6	2254.4	2049.9	1785.9	1394.6	965.6	644.9	447.1	313.6	234.5	6.7
53°	2005.6	1939.8	1745.3	1478.0	1120.5	788.8	526.7	382.7	273.6	200.7	5.2
54°	1660.0	1588.1	1440.3	1202.0	903.2	622.5	446.6	320.3	237.4	174.9	4.8
55°	1298.3	1261.1	1124.8	916.5	684.4	496.6	362.2	275.5	198.7	146.3	3.8
56°	999.9	958.0	833.6	664.9	508.5	388.9	293.1	225.0	168.2	122.5	2.9
57°	654.9	612.0	529.5	464.2	370.3	283.6	224.0	177.3	136.8	101.5	2.4
58°	387.0	347.9	335.1	286.0	246.9	192.6	165.4	132.0	101.0	80.1	1.4
59°	177.8	180.6	160.6	150.6	136.8	122.5	100.6	88.2	69.1	57.7	1.0
60°	103.4	97.7	95.3	85.3	75.8	67.2	60.5	53.4	43.4	37.2	0.5
62.5°	35.3	33.8	34.8	31.5	29.5	28.6	26.2	22.4	18.6	15.3	0.0
65°	9.5	9.5	9.1	8.6	8.1	7.6	7.1	6.2	5.7	4.8	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°	3.3	3.3	2.9	2.9	2.4	2.4	1.9	1.9	1.4	1.4	0.0
70°	1.9	1.9	1.9	1.4	1.4	1.4	1.0	1.0	1.0	0.5	0.0
72.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.0	1.0	1.0	0.5	0.5
75°	1.4	1.4	1.4	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°	42.4	42.4	42.4	42.4	42.4	42.4
2.5°	43.8	41.9	39.6	38.1	37.7	37.2
5°	41.9	38.1	35.3	33.4	32.9	32.9
7.5°	37.7	33.4	30.5	29.5	29.1	29.1
10°	32.9	29.1	26.7	25.7	26.2	26.2
12.5°	27.6	24.3	23.4	23.4	23.8	24.3
15°	22.4	20.5	20.5	21.0	21.9	22.4
17.5°	18.6	17.6	18.1	19.1	20.0	21.0
20°	15.3	15.3	16.2	17.6	19.1	20.0
22.5°	12.9	13.3	14.8	16.2	18.1	19.1
25°	11.0	11.9	13.3	15.7	17.6	18.1
27.5°	9.5	11.0	12.9	15.3	17.2	18.1
30°	8.1	10.0	12.4	14.8	17.2	18.1
31°	7.6	9.5	11.9	14.8	17.2	18.1
32°	7.1	9.5	11.9	14.8	17.2	18.1
33°	6.7	9.1	11.9	14.3	17.2	18.1
34°	6.2	9.1	11.9	14.8	17.2	18.1
35°	5.7	8.6	11.4	14.3	16.7	18.1
36°	5.2	8.6	11.4	14.3	17.2	18.1
37°	4.8	8.6	11.4	14.3	16.7	18.1
38°	4.8	8.1	11.0	14.3	16.7	18.1
39°	4.3	7.6	11.0	14.3	16.7	18.1
40°	3.8	7.6	10.5	13.8	16.7	18.1
41°	3.3	7.1	10.5	13.8	16.7	18.1
42°	2.9	7.1	10.5	13.8	16.7	18.1
43°	2.4	6.7	10.0	13.8	16.7	18.1
44°	2.4	6.7	10.0	13.8	16.7	18.1
45°	1.9	6.2	9.5	13.8	16.7	18.1
46°	1.9	6.2	9.5	13.3	16.7	18.1
47°	1.4	6.2	9.5	13.3	16.7	18.1
48°	1.4	5.7	9.5	13.3	16.7	18.1
49°	1.0	5.7	9.5	13.3	16.7	18.1
50°	1.0	5.7	9.1	13.3	16.7	18.1
51°	1.0	5.7	9.1	13.3	16.7	18.1
52°	1.0	5.2	9.1	13.3	16.7	18.1
53°	1.0	5.2	9.1	13.3	16.7	18.1
54°	1.0	5.2	8.6	13.3	16.7	18.1
55°	1.0	4.8	8.6	12.9	16.7	17.6
56°	1.0	4.8	8.6	12.9	16.7	17.6
57°	1.0	4.8	8.1	12.9	16.7	17.6
58°	1.0	4.3	8.1	12.4	16.2	17.6
59°	1.0	4.3	7.6	12.4	16.2	17.2
60°	1.0	3.8	7.6	11.9	15.7	17.2
62.5°	1.0	3.3	6.7	11.4	15.3	16.2
65°	1.0	2.9	6.2	10.5	14.8	15.7



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.0	2.9	5.7	10.0	13.8	15.3
70°	1.0	2.9	5.2	9.1	13.3	13.8
72.5°	1.4	2.9	4.8	8.6	12.4	12.9
75°	1.9	2.9	4.3	7.6	11.4	11.9
77.5°	1.9	2.9	3.8	6.7	10.0	10.5
80°	1.9	2.4	3.3	5.2	8.1	8.6
82.5°	1.9	2.4	2.4	4.3	6.2	6.7
85°	1.4	1.9	1.9	2.4	4.3	4.8
87.5°	1.4	1.9	1.0	1.4	1.9	1.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)