

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: P1345356

Luminaire Tested: P3A13R30W2N902765DE010 E3A451WMH_4000K

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1345356
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-76)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R30W2N902765DE010 E3A451WMH_4000K
Description: 3in Adjustable Tunable White LED luminaire with, R30 optic, 4000K CCT AND, 90CRI ,
E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

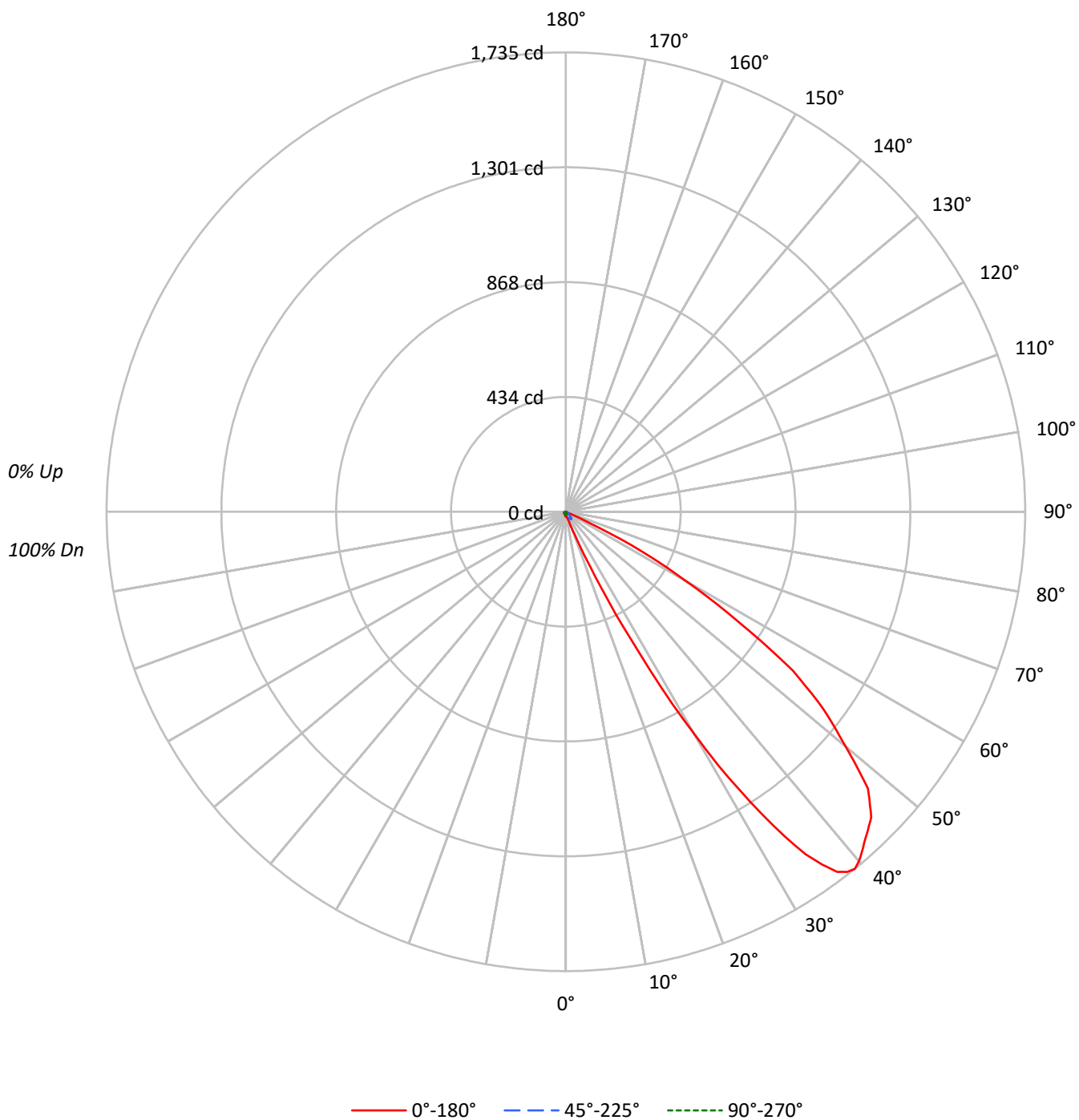
Lumens per Lamp: N/A
Luminaire Lumens: 451.0 lumens
Efficiency: N/A
Efficacy: 36.7 lumens/watt
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.44
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 12.3
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	0		
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	108	104	100	97	100	97	94	96	93	91	92	90	89	87		
2	100	93	86	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	52	50		
5	75	62	52	46	73	60	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	48	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	32	26	37	31	26	24		
9	52	37	29	23	50	37	28	23	36	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	24	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	3837	3837	3837	3837	3837
5°	4094	4006	3764	3434	3346
10°	4476	3986	3295	2961	2872
15°	6561	3973	2770	2497	2588
20°	16498	4340	2124	2124	2404
25°	76577	5420	1645	1936	2202
30°	243759	7495	1241	1823	2203
35°	422954	9155	1017	1740	2249
40°	493267	9131	773	1746	2290
45°	505882	6481	837	1892	2481
50°	470432	3616	648	1944	2866
55°	399852	1873	726	2179	3211
60°	230903	482	833	2324	3508
65°	47113	0	986	2750	3943
70°	705	256	1218	3142	4616
75°	678	339	1271	3219	5507
80°	505	505	1894	3788	6188
85°	0	1006	3774	3774	7548

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 505882 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.6	0.4
10°-20°	4.5	1.0
20°-30°	26.0	5.8
30°-40°	121.5	26.9
40°-50°	171.8	38.1
50°-60°	105.7	23.4
60°-70°	16.1	3.6
70°-80°	2.6	0.6
80°-90°	1.3	0.3
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°	32.1	7.1
0°-40°	153.6	34.1
0°-60°	431.1	95.6
0°-90°	451.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	451.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	18	18	18	18	18	
5°	19	18	17	16	15	2
15°	29	18	12	11	11	10
25°	316	22	7	8	9	195
35°	1580	34	4	6	8	948
45°	1631	21	3	6	8	1237
55°	1046	5	2	6	8	890
65°	91	0	2	5	8	164
75°	1	0	2	4	6	1
85°	0	0	2	2	3	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	45°	67.5°	90°	112.5°	135°
0°	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
2.5°	17.9	17.9	18.2	18.2	17.9	18.2	18.2	18.2	17.5	17.1	16.3
5°	18.6	18.6	18.6	19.0	18.6	18.6	18.2	17.9	17.1	16.0	15.6
7.5°	19.4	19.4	19.0	19.4	19.0	19.0	18.2	17.5	16.3	15.2	14.4
10°	20.1	20.1	19.8	19.8	19.4	19.4	17.9	16.7	14.8	13.7	13.3
12.5°	22.4	22.4	22.0	21.7	20.9	20.5	17.5	15.6	13.3	12.2	11.8
15°	28.9	28.5	27.7	26.6	24.7	24.3	17.5	14.4	12.2	11.0	11.0
17.5°	39.5	39.1	38.0	35.0	31.5	30.4	17.5	12.9	10.6	9.9	9.9
20°	70.7	67.6	61.9	54.3	46.3	42.2	18.6	11.4	9.1	8.7	9.1
21°	92.3	89.3	82.1	69.5	55.5	50.9	19.4	11.0	8.7	8.4	9.1
22°	125.7	122.3	107.5	90.4	70.3	62.3	19.8	10.3	8.0	8.0	8.7
23°	175.5	169.8	144.7	117.4	87.8	76.4	20.5	9.9	7.6	8.0	8.4
24°	229.8	224.9	196.4	155.4	112.1	95.7	21.3	9.5	7.2	7.2	8.0
25°	316.5	310.8	260.2	196.0	142.1	115.1	22.4	8.7	6.8	6.8	8.0
26°	428.5	402.3	335.1	252.6	175.1	144.4	23.6	8.4	6.5	6.8	7.6
27°	534.9	513.2	437.6	324.1	216.5	177.4	25.1	8.0	6.1	6.5	7.6
28°	674.7	644.3	549.0	409.9	272.8	214.6	26.6	7.6	5.7	6.5	7.2
29°	831.2	788.7	673.6	506.4	336.2	256.4	28.1	7.2	5.3	6.1	7.2
30°	962.7	922.8	807.7	620.8	409.2	311.5	29.6	6.8	4.9	6.1	7.2
31°	1116.9	1056.5	917.1	717.6	471.8	366.6	31.2	6.1	4.6	5.7	6.8
32°	1241.9	1199.7	1051.6	827.0	554.3	427.4	32.3	5.7	4.6	5.7	6.8
33°	1362.7	1306.1	1162.9	931.9	628.7	489.7	33.4	5.3	4.2	5.3	6.8
34°	1478.2	1426.2	1268.1	1016.6	699.0	549.0	34.2	4.6	4.2	5.3	6.5
35°	1580.0	1519.6	1360.8	1099.4	771.2	602.9	34.2	4.2	3.8	4.9	6.5
36°	1646.1	1602.8	1441.4	1181.1	836.5	654.2	34.2	3.8	3.4	4.9	6.1
37°	1702.7	1652.2	1505.9	1243.8	884.8	695.2	34.2	3.4	3.4	4.9	6.1
38°	1725.9	1682.6	1550.4	1299.3	930.0	737.0	33.8	3.0	3.0	4.6	6.1
39°	1735.0	1696.3	1583.8	1339.2	963.4	765.1	33.1	2.7	3.0	4.6	6.1
40°	1723.2	1694.0	1600.9	1365.0	990.0	785.6	31.9	2.3	2.7	4.6	6.1
42.5°	1674.6	1655.2	1597.1	1390.8	1012.8	800.8	27.7	1.5	2.7	4.2	6.1
45°	1631.3	1610.0	1558.7	1363.9	983.2	770.8	20.9	0.8	2.7	4.2	6.1
47.5°	1547.3	1534.0	1493.8	1295.1	918.2	703.2	14.8	0.4	2.3	3.8	5.7
50°	1379.0	1366.5	1313.3	1124.5	789.8	594.5	10.6	0.4	1.9	3.8	5.7
52.5°	1228.2	1214.9	1138.6	934.9	606.7	435.7	6.8	0.4	1.9	3.8	5.7
55°	1045.9	1022.7	922.4	709.7	430.1	292.1	4.9	0.4	1.9	3.4	5.7
57.5°	774.2	740.4	650.8	484.0	247.7	158.4	2.7	0.4	1.9	3.4	5.7
60°	526.5	506.4	407.3	255.3	105.6	66.9	1.1	0.4	1.9	3.4	5.3
62.5°	319.1	293.7	204.8	108.7	45.6	30.4	0.0	0.8	1.9	3.4	5.3
65°	90.8	80.5	53.6	24.7	12.9	9.9	0.0	0.8	1.9	3.4	5.3
67.5°	3.0	3.0	3.0	2.7	1.9	1.9	0.4	0.8	1.9	3.4	4.9
70°	1.1	1.1	1.1	0.8	0.8	0.4	0.4	0.8	1.9	3.0	4.9
72.5°	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.8	1.5	2.7	4.6
75°	0.8	0.8	0.8	0.4	0.4	0.4	0.4	1.1	1.5	2.7	3.8
77.5°	0.8	0.8	0.8	0.4	0.4	0.4	0.4	1.1	1.5	2.3	3.8
80°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.1	1.5	2.3	3.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	45°	67.5°	90°	112.5°	135°
82.5°	0.4	0.4	0.4	0.0	0.0	0.0	0.4	1.1	1.5	1.5	2.3
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.1	1.5	1.1	1.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.1	1.1	1.1	0.8
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):

	157.5°	180°
0°	17.5	17.5
2.5°	16.3	16.3
5°	15.2	15.2
7.5°	14.1	14.1
10°	12.9	12.9
12.5°	12.2	12.2
15°	11.0	11.4
17.5°	10.3	10.6
20°	9.9	10.3
21°	9.9	10.3
22°	9.5	9.9
23°	9.5	9.9
24°	9.1	9.5
25°	8.7	9.1
26°	8.7	9.1
27°	8.7	9.1
28°	8.4	9.1
29°	8.4	8.7
30°	8.4	8.7
31°	8.0	8.7
32°	8.0	8.7
33°	8.0	8.4
34°	7.6	8.4
35°	7.6	8.4
36°	7.6	8.4
37°	7.6	8.0
38°	7.6	8.4
39°	7.6	8.0
40°	7.6	8.0
42.5°	7.6	8.0
45°	7.6	8.0
47.5°	7.6	8.4
50°	7.6	8.4
52.5°	7.6	8.4
55°	7.6	8.4
57.5°	7.6	8.0
60°	7.6	8.0
62.5°	7.2	8.0
65°	7.2	7.6
67.5°	7.2	7.6
70°	6.8	7.2
72.5°	6.5	6.8
75°	5.7	6.5
77.5°	5.3	5.7
80°	4.6	4.9

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CANDELA DISTRIBUTION (continued):

	157.5°	180°
82.5°	3.8	3.8
85°	2.7	3.0
87.5°	1.5	1.5
90°	0.0	0.0

(END OF REPORT)