

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: P1344962

Luminaire Tested: P3A13R309040DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1344962
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: P3A13R309040DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R30 optic, 4000K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

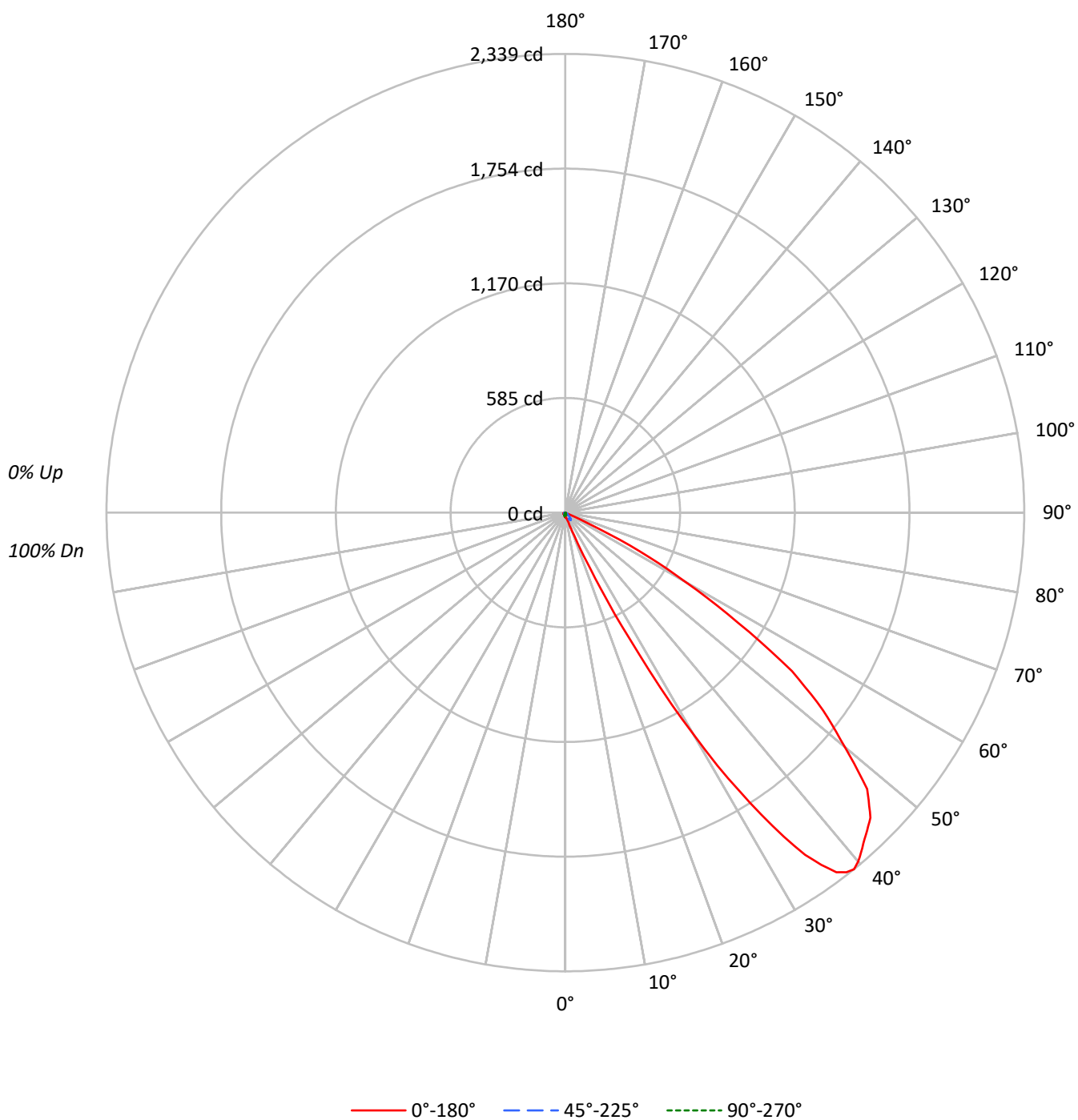
Lumens per Lamp: N/A
Luminaire Lumens: 608.0 lumens
Efficiency: N/A
Efficacy: 41.6 lumens/watt
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.44
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	5175	5175	5175	5175	5175
5°	5525	5415	5063	4622	4512
10°	6034	5366	4453	3986	3874
15°	8831	5358	3723	3383	3496
20°	22239	5857	2870	2870	3220
25°	103216	7307	2226	2613	2976
30°	328608	10103	1696	2456	2988
35°	570185	12341	1365	2329	3025
40°	664989	12309	1031	2347	3092
45°	681993	8745	1116	2543	3349
50°	634214	4878	887	2627	3855
55°	539049	2561	994	2944	4320
60°	311291	658	1140	3158	4736
65°	63509	0	1349	3736	5292
70°	962	321	1667	4296	6219
75°	847	424	1694	4321	7371
80°	631	631	2526	5177	8461
85°	0	1258	5032	5032	10315

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 681993 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.1	0.4
10°-20°	6.1	1.0
20°-30°	35.1	5.8
30°-40°	163.8	26.9
40°-50°	231.6	38.1
50°-60°	142.5	23.4
60°-70°	21.7	3.6
70°-80°	3.4	0.6
80°-90°	1.7	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°	43.3	7.1
0°-40°	207.1	34.1
0°-60°	581.1	95.6
0°-90°	608.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	608.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	24	24	24	24	24	
5°	25	25	23	21	20	2
15°	39	24	16	15	15	14
25°	427	30	9	11	12	263
35°	2130	46	5	9	11	1278
45°	2199	28	4	8	11	1667
55°	1410	7	3	8	11	1200
65°	122	0	3	7	10	222
75°	1	0	2	5	9	1
85°	0	0	2	2	4	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°	23.6	23.6	23.6	23.6	23.6	23.6	23.6	23.6	23.6	23.6	23.6
2.5°	24.1	24.1	24.6	24.6	24.1	24.6	24.6	24.6	23.6	23.0	22.0
5°	25.1	25.1	25.1	25.6	25.1	25.1	24.6	24.1	23.0	21.5	21.0
7.5°	26.1	26.1	25.6	26.1	25.6	25.6	24.6	23.6	22.0	20.5	19.5
10°	27.1	27.1	26.6	26.6	26.1	26.1	24.1	22.5	20.0	18.4	17.9
12.5°	30.2	30.2	29.7	29.2	28.2	27.7	23.6	21.0	17.9	16.4	15.9
15°	38.9	38.4	37.4	35.9	33.3	32.8	23.6	19.5	16.4	14.9	14.9
17.5°	53.3	52.8	51.2	47.1	42.5	41.0	23.6	17.4	14.3	13.3	13.3
20°	95.3	91.2	83.5	73.2	62.5	56.8	25.1	15.4	12.3	11.8	12.3
21°	124.5	120.4	110.6	93.7	74.8	68.6	26.1	14.9	11.8	11.3	12.3
22°	169.5	164.9	144.9	121.9	94.7	84.0	26.6	13.8	10.8	10.8	11.8
23°	236.6	228.9	195.1	158.3	118.3	102.9	27.7	13.3	10.2	10.8	11.3
24°	309.9	303.2	264.8	209.5	151.1	129.1	28.7	12.8	9.7	9.7	10.8
25°	426.6	418.9	350.8	264.3	191.5	155.2	30.2	11.8	9.2	9.2	10.8
26°	577.7	542.4	451.7	340.6	236.1	194.6	31.8	11.3	8.7	9.2	10.2
27°	721.1	691.9	590.0	436.9	291.9	239.2	33.8	10.8	8.2	8.7	10.2
28°	909.6	868.6	740.1	552.6	367.7	289.4	35.9	10.2	7.7	8.7	9.7
29°	1120.6	1063.2	908.0	682.7	453.3	345.7	37.9	9.7	7.2	8.2	9.7
30°	1297.8	1244.0	1088.8	836.9	551.6	420.0	39.9	9.2	6.7	8.2	9.7
31°	1505.7	1424.3	1236.3	967.5	636.1	494.2	42.0	8.2	6.1	7.7	9.2
32°	1674.2	1617.4	1417.6	1115.0	747.2	576.2	43.5	7.7	6.1	7.7	9.2
33°	1837.1	1760.8	1567.7	1256.3	847.6	660.2	45.1	7.2	5.6	7.2	9.2
34°	1992.8	1922.6	1709.6	1370.5	942.4	740.1	46.1	6.1	5.6	7.2	8.7
35°	2130.0	2048.6	1834.5	1482.2	1039.7	812.8	46.1	5.6	5.1	6.7	8.7
36°	2219.2	2160.8	1943.1	1592.3	1127.8	881.9	46.1	5.1	4.6	6.7	8.2
37°	2295.5	2227.4	2030.2	1676.8	1192.8	937.2	46.1	4.6	4.6	6.7	8.2
38°	2326.7	2268.3	2090.1	1751.6	1253.8	993.6	45.6	4.1	4.1	6.1	8.2
39°	2339.0	2286.8	2135.2	1805.3	1298.8	1031.5	44.6	3.6	4.1	6.1	8.2
40°	2323.1	2283.7	2158.2	1840.2	1334.7	1059.1	43.0	3.1	3.6	6.1	8.2
42.5°	2257.6	2231.5	2153.1	1875.0	1365.4	1079.6	37.4	2.0	3.6	5.6	8.2
45°	2199.2	2170.5	2101.4	1838.6	1325.5	1039.2	28.2	1.0	3.6	5.6	8.2
47.5°	2086.0	2068.1	2013.8	1745.9	1237.9	948.0	20.0	0.5	3.1	5.1	7.7
50°	1859.1	1842.2	1770.5	1516.0	1064.8	801.5	14.3	0.5	2.6	5.1	7.7
52.5°	1655.8	1637.9	1534.9	1260.4	817.9	587.4	9.2	0.5	2.6	5.1	7.7
55°	1410.0	1378.7	1243.5	956.7	579.8	393.8	6.7	0.5	2.6	4.6	7.7
57.5°	1043.8	998.2	877.3	652.5	333.9	213.6	3.6	0.5	2.6	4.6	7.7
60°	709.8	682.7	549.0	344.2	142.4	90.1	1.5	0.5	2.6	4.6	7.2
62.5°	430.2	395.9	276.1	146.5	61.5	41.0	0.0	1.0	2.6	4.6	7.2
65°	122.4	108.6	72.2	33.3	17.4	13.3	0.0	1.0	2.6	4.6	7.2
67.5°	4.1	4.1	4.1	3.6	2.6	2.6	0.5	1.0	2.6	4.6	6.7
70°	1.5	1.5	1.5	1.0	1.0	0.5	0.5	1.0	2.6	4.1	6.7
72.5°	1.0	1.0	1.0	1.0	0.5	0.5	0.5	1.0	2.0	3.6	6.1
75°	1.0	1.0	1.0	0.5	0.5	0.5	0.5	1.5	2.0	3.6	5.1
77.5°	1.0	1.0	1.0	0.5	0.5	0.5	0.5	1.5	2.0	3.1	5.1
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.5	2.0	3.1	4.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	45°	67.5°	90°	112.5°	135°
82.5°	0.5	0.5	0.5	0.0	0.0	0.0	0.5	1.5	2.0	2.0	3.1
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.5	2.0	1.5	2.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.5	1.5	1.5	1.0
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°	23.6	23.6
2.5°	22.0	22.0
5°	20.5	20.5
7.5°	18.9	18.9
10°	17.4	17.4
12.5°	16.4	16.4
15°	14.9	15.4
17.5°	13.8	14.3
20°	13.3	13.8
21°	13.3	13.8
22°	12.8	13.3
23°	12.8	13.3
24°	12.3	12.8
25°	11.8	12.3
26°	11.8	12.3
27°	11.8	12.3
28°	11.3	12.3
29°	11.3	11.8
30°	11.3	11.8
31°	10.8	11.8
32°	10.8	11.8
33°	10.8	11.3
34°	10.2	11.3
35°	10.2	11.3
36°	10.2	11.3
37°	10.2	10.8
38°	10.2	11.3
39°	10.2	10.8
40°	10.2	10.8
42.5°	10.2	10.8
45°	10.2	10.8
47.5°	10.2	11.3
50°	10.2	11.3
52.5°	10.2	11.3
55°	10.2	11.3
57.5°	10.2	10.8
60°	10.2	10.8
62.5°	9.7	10.8
65°	9.7	10.2
67.5°	9.7	10.2
70°	9.2	9.7
72.5°	8.7	9.2
75°	7.7	8.7
77.5°	7.2	7.7
80°	6.1	6.7

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CANDELA DISTRIBUTION (continued):

	157.5°	180°
82.5°	5.1	5.1
85°	3.6	4.1
87.5°	2.0	2.0
90°	0.0	0.0

(END OF REPORT)