

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: P1335028

Luminaire Tested: P3A02R309040DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335028
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: P3A02R309040DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R30 optic, 4000K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

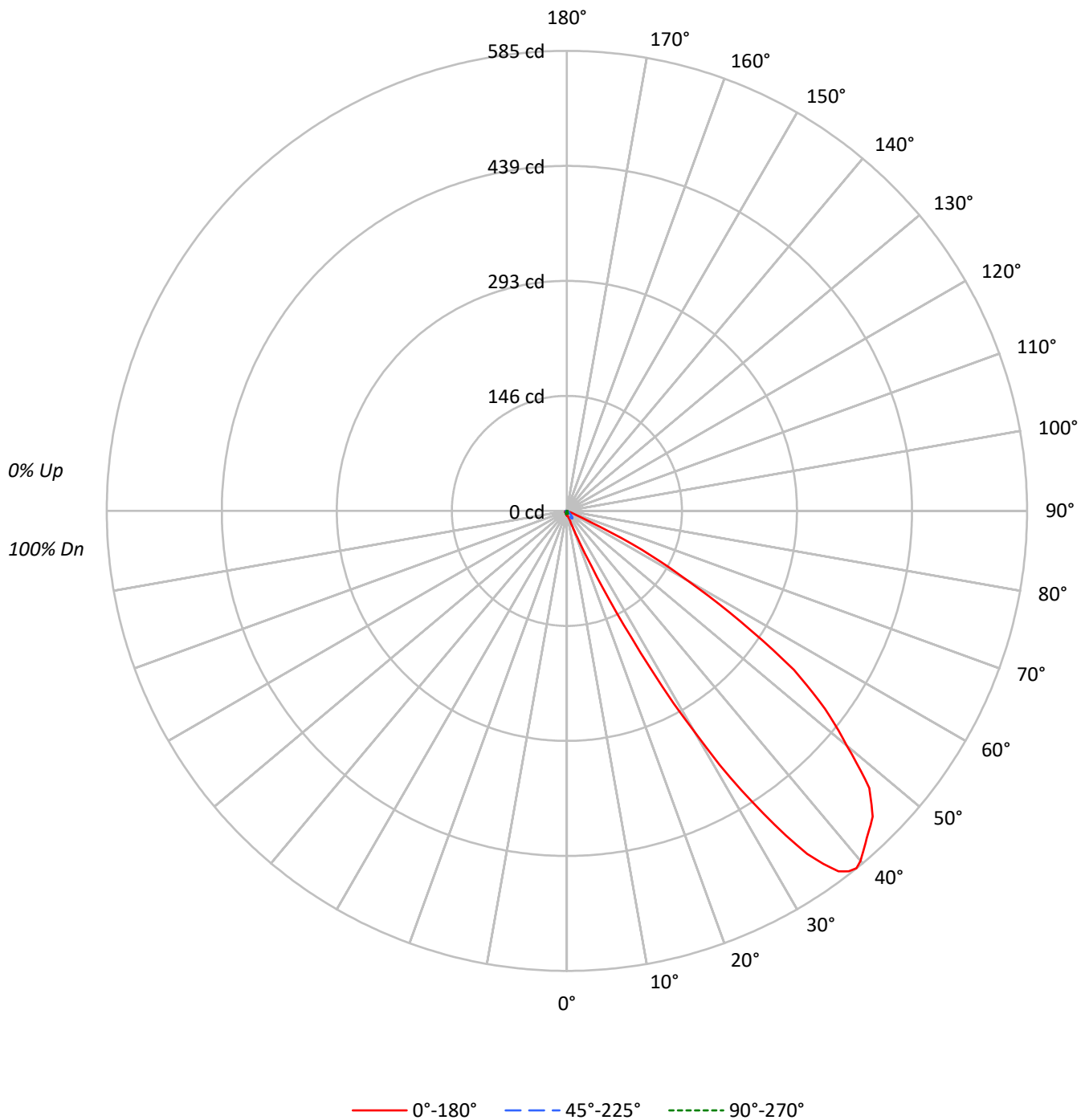
Lumens per Lamp: N/A
Luminaire Lumens: 152.0 lumens
Efficiency: N/A
Efficacy: 42.2 lumens/watt
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.43
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 3.6
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°	1294	1294	1294	1294	1294
5°	1387	1343	1277	1145	1123
10°	1514	1336	1113	1002	980
15°	2202	1339	931	840	863
20°	5554	1470	723	723	817
25°	25816	1839	556	653	750
30°	82139	2532	430	608	734
35°	142546	3078	348	589	750
40°	166254	3092	258	573	773
45°	170498	2171	279	620	837
50°	158562	1228	205	648	955
55°	134762	650	229	726	1070
60°	77845	175	263	789	1184
65°	15877	0	311	934	1349
70°	256	64	385	1090	1539
75°	254	85	424	1101	1864
80°	126	126	631	1263	2147
85°	0	252	1258	1258	2516

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 170498 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.5	0.3
10°-20°	1.5	1.0
20°-30°	8.8	5.8
30°-40°	40.9	26.9
40°-50°	57.9	38.1
50°-60°	35.6	23.4
60°-70°	5.4	3.6
70°-80°	0.9	0.6
80°-90°	0.4	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°	10.8	7.1
0°-40°	51.8	34.1
0°-60°	145.3	95.6
0°-90°	152.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	152.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	6	6	6	6	6	
5°	6	6	6	5	5	1
15°	10	6	4	4	4	3
25°	107	8	2	3	3	66
35°	532	12	1	2	3	320
45°	550	7	1	2	3	417
55°	352	2	1	2	3	300
65°	31	0	1	2	3	55
75°	0	0	0	1	2	0
85°	0	0	0	0	1	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°	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
2.5°	6.0	6.0	6.1	6.1	6.0	6.1	6.1	6.1	5.9	5.8	5.5
5°	6.3	6.3	6.3	6.4	6.3	6.3	6.1	6.0	5.8	5.4	5.2
7.5°	6.5	6.5	6.4	6.5	6.4	6.4	6.1	5.9	5.5	5.1	4.9
10°	6.8	6.8	6.7	6.7	6.5	6.5	6.0	5.6	5.0	4.6	4.5
12.5°	7.6	7.6	7.4	7.3	7.0	6.9	5.9	5.2	4.5	4.1	4.0
15°	9.7	9.6	9.3	9.0	8.3	8.2	5.9	4.9	4.1	3.7	3.7
17.5°	13.3	13.2	12.8	11.8	10.6	10.2	5.9	4.4	3.6	3.3	3.3
20°	23.8	22.8	20.9	18.3	15.6	14.2	6.3	3.8	3.1	2.9	3.1
21°	31.1	30.1	27.7	23.4	18.7	17.2	6.5	3.7	2.9	2.8	3.1
22°	42.4	41.2	36.2	30.5	23.7	21.0	6.7	3.5	2.7	2.7	2.9
23°	59.2	57.2	48.8	39.6	29.6	25.7	6.9	3.3	2.6	2.7	2.8
24°	77.5	75.8	66.2	52.4	37.8	32.3	7.2	3.2	2.4	2.4	2.7
25°	106.7	104.7	87.7	66.1	47.9	38.8	7.6	2.9	2.3	2.3	2.7
26°	144.4	135.6	112.9	85.1	59.0	48.7	7.9	2.8	2.2	2.3	2.6
27°	180.3	173.0	147.5	109.2	73.0	59.8	8.5	2.7	2.0	2.2	2.6
28°	227.4	217.2	185.0	138.2	91.9	72.3	9.0	2.6	1.9	2.2	2.4
29°	280.1	265.8	227.0	170.7	113.3	86.4	9.5	2.4	1.8	2.0	2.4
30°	324.4	311.0	272.2	209.2	137.9	105.0	10.0	2.3	1.7	2.0	2.4
31°	376.4	356.1	309.1	241.9	159.0	123.6	10.5	2.0	1.5	1.9	2.3
32°	418.6	404.3	354.4	278.7	186.8	144.0	10.9	1.9	1.5	1.9	2.3
33°	459.3	440.2	391.9	314.1	211.9	165.0	11.3	1.8	1.4	1.8	2.3
34°	498.2	480.7	427.4	342.6	235.6	185.0	11.5	1.5	1.4	1.8	2.2
35°	532.5	512.2	458.6	370.5	259.9	203.2	11.5	1.4	1.3	1.7	2.2
36°	554.8	540.2	485.8	398.1	281.9	220.5	11.5	1.3	1.2	1.7	2.0
37°	573.9	556.8	507.5	419.2	298.2	234.3	11.5	1.2	1.2	1.7	2.0
38°	581.7	567.1	522.5	437.9	313.4	248.4	11.4	1.0	1.0	1.5	2.0
39°	584.8	571.7	533.8	451.3	324.7	257.9	11.1	0.9	1.0	1.5	2.0
40°	580.8	570.9	539.6	460.0	333.7	264.8	10.8	0.8	0.9	1.5	2.0
42.5°	564.4	557.9	538.3	468.7	341.4	269.9	9.3	0.5	0.9	1.4	2.0
45°	549.8	542.6	525.3	459.7	331.4	259.8	7.0	0.3	0.9	1.4	2.0
47.5°	521.5	517.0	503.4	436.5	309.5	237.0	5.0	0.1	0.8	1.3	1.9
50°	464.8	460.6	442.6	379.0	266.2	200.4	3.6	0.1	0.6	1.3	1.9
52.5°	413.9	409.5	383.7	315.1	204.5	146.9	2.3	0.1	0.6	1.3	1.9
55°	352.5	344.7	310.9	239.2	144.9	98.5	1.7	0.1	0.6	1.2	1.9
57.5°	260.9	249.5	219.3	163.1	83.5	53.4	0.9	0.1	0.6	1.2	1.9
60°	177.5	170.7	137.3	86.0	35.6	22.5	0.4	0.1	0.6	1.2	1.8
62.5°	107.6	99.0	69.0	36.6	15.4	10.2	0.0	0.3	0.6	1.2	1.8
65°	30.6	27.1	18.1	8.3	4.4	3.3	0.0	0.3	0.6	1.2	1.8
67.5°	1.0	1.0	1.0	0.9	0.6	0.6	0.1	0.3	0.6	1.2	1.7
70°	0.4	0.4	0.4	0.3	0.3	0.1	0.1	0.3	0.6	1.0	1.7
72.5°	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.3	0.5	0.9	1.5
75°	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.4	0.5	0.9	1.3
77.5°	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.4	0.5	0.8	1.3
80°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.5	0.8	1.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	45°	67.5°	90°	112.5°	135°
82.5°	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.4	0.5	0.5	0.8
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.5	0.4	0.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4	0.4	0.4	0.3
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°	5.9	5.9
2.5°	5.5	5.5
5°	5.1	5.1
7.5°	4.7	4.7
10°	4.4	4.4
12.5°	4.1	4.1
15°	3.7	3.8
17.5°	3.5	3.6
20°	3.3	3.5
21°	3.3	3.5
22°	3.2	3.3
23°	3.2	3.3
24°	3.1	3.2
25°	2.9	3.1
26°	2.9	3.1
27°	2.9	3.1
28°	2.8	3.1
29°	2.8	2.9
30°	2.8	2.9
31°	2.7	2.9
32°	2.7	2.9
33°	2.7	2.8
34°	2.6	2.8
35°	2.6	2.8
36°	2.6	2.8
37°	2.6	2.7
38°	2.6	2.8
39°	2.6	2.7
40°	2.6	2.7
42.5°	2.6	2.7
45°	2.6	2.7
47.5°	2.6	2.8
50°	2.6	2.8
52.5°	2.6	2.8
55°	2.6	2.8
57.5°	2.6	2.7
60°	2.6	2.7
62.5°	2.4	2.7
65°	2.4	2.6
67.5°	2.4	2.6
70°	2.3	2.4
72.5°	2.2	2.3
75°	1.9	2.2
77.5°	1.8	1.9
80°	1.5	1.7

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CANDELA DISTRIBUTION (continued):

	157.5°	180°
82.5°	1.3	1.3
85°	0.9	1.0
87.5°	0.5	0.5
90°	0.0	0.0

(END OF REPORT)