

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: P1334139

Luminaire Tested: P3A02R159827DE010 E3A451GPH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1334139
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: P3A02R159827DE010 E3A451GPH
Description: 3in Adjustable LED luminaire with, R15 optic, 2700K CCT AND, 98CRI , E3A451GPH TRIM
Light Source: -
Ballast/Driver: -

Summary

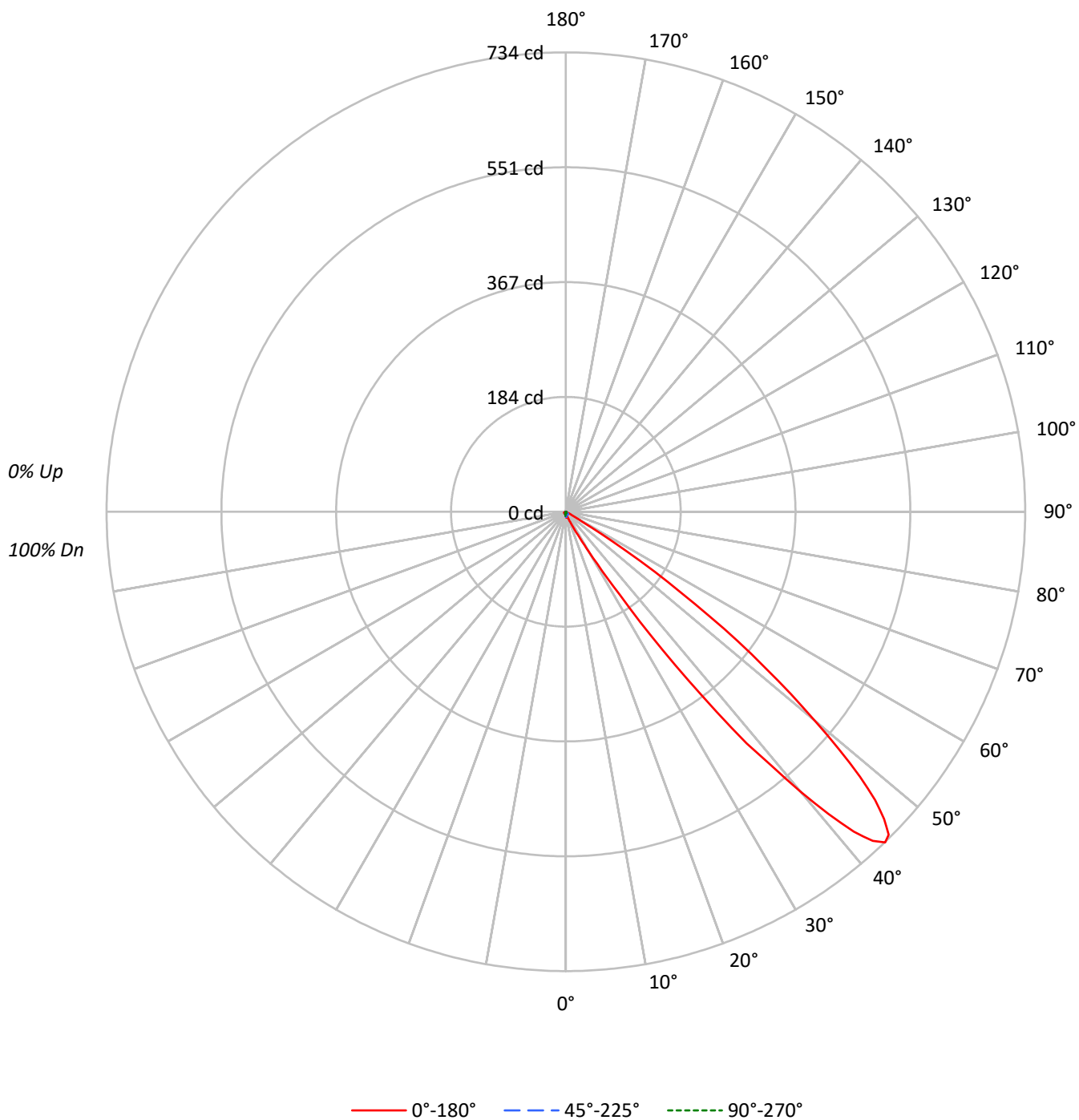
Lumens per Lamp: N/A
Luminaire Lumens: 82.0 lumens
Efficiency: N/A
Efficacy: 22.8 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.09
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 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
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	54	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°	1601	1601	1601	1601	1601
5°	1981	1761	1431	1255	1233
10°	1937	1514	1113	980	1002
15°	1612	1067	795	817	863
20°	2800	863	607	700	793
25°	6242	1040	484	653	750
30°	18686	1266	430	633	785
35°	71956	1419	402	669	830
40°	167027	1231	372	687	887
45°	226256	930	341	744	961
50°	177393	546	341	785	1058
55°	85139	268	306	841	1147
60°	7763	44	307	877	1272
65°	830	0	259	934	1401
70°	192	0	321	1026	1539
75°	169	85	424	1101	1694
80°	253	253	505	1137	1894
85°	252	252	755	1006	2013

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 226256 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.6	0.8
10°-20°	1.3	1.6
20°-30°	3.1	3.8
30°-40°	17.0	20.7
40°-50°	41.1	50.1
50°-60°	16.4	20.0
60°-70°	1.4	1.7
70°-80°	0.8	1.0
80°-90°	0.3	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°	5.0	6.1
0°-40°	22.0	26.8
0°-60°	79.4	96.9
0°-90°	82.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	82.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	7	7	7	7	7	
5°	9	8	6	6	6	1
15°	7	5	4	4	4	2
25°	26	4	2	3	3	16
35°	269	5	2	2	3	190
45°	730	3	1	2	3	515
55°	223	1	1	2	3	207
65°	2	0	0	2	3	4
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°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3	7.3
2.5°	8.2	8.2	8.3	8.2	8.2	8.2	8.2	8.1	8.1	8.1	7.8
5°	9.0	9.0	9.0	9.0	8.9	8.9	8.9	8.8	8.8	8.7	8.0
7.5°	9.3	9.3	9.2	9.2	9.2	9.2	9.1	9.0	8.9	8.8	7.7
10°	8.7	8.7	8.7	8.7	8.7	8.6	8.5	8.4	8.3	8.2	6.8
12.5°	7.8	7.8	7.8	7.8	7.7	7.6	7.4	7.4	7.3	7.1	5.6
15°	7.1	7.1	7.1	7.0	6.9	6.8	6.7	6.5	6.5	6.2	4.7
17.5°	9.1	9.1	9.0	8.8	8.5	8.3	7.8	7.5	7.1	6.6	4.1
20°	12.0	12.0	11.9	11.7	11.3	10.9	10.2	9.6	9.0	8.4	3.7
22.5°	17.4	17.7	17.2	16.6	16.0	15.0	14.1	13.2	12.1	11.1	3.8
25°	25.8	26.1	25.8	24.5	23.5	22.2	20.4	18.6	16.7	14.9	4.3
27.5°	41.9	42.0	41.6	38.4	36.7	33.3	30.3	27.3	24.0	20.8	4.7
30°	73.8	73.9	71.3	64.9	59.3	51.8	45.4	39.2	34.1	28.9	5.0
31°	97.2	94.9	89.4	81.7	72.7	62.5	53.8	45.9	38.2	32.5	5.1
32°	123.5	123.1	113.9	100.6	88.5	75.9	62.7	52.6	43.7	36.1	5.2
33°	158.2	158.4	143.8	128.1	108.4	91.4	74.2	60.3	49.6	40.2	5.3
34°	212.5	199.7	182.7	161.4	134.6	109.0	86.6	69.2	54.9	44.2	5.3
35°	268.8	256.0	237.2	205.0	168.2	132.4	101.4	78.7	61.3	48.6	5.3
36°	332.0	321.1	292.6	251.5	204.6	154.4	117.1	89.8	67.6	52.5	5.2
37°	400.1	384.2	352.6	307.8	245.0	185.5	136.2	100.7	73.9	56.7	5.1
38°	469.4	455.0	415.2	360.8	293.2	218.3	155.3	111.3	79.7	59.9	4.8
39°	521.9	514.0	474.5	413.8	331.7	249.4	175.1	122.6	85.8	63.1	4.6
40°	583.5	570.9	533.4	458.3	377.2	281.0	194.3	132.5	90.9	65.7	4.3
41°	639.8	623.8	576.5	503.9	413.7	309.5	212.7	142.8	95.0	67.1	4.2
42°	688.0	669.4	620.0	543.0	444.2	332.2	227.3	150.2	98.8	68.4	3.9
43°	719.3	703.2	654.6	572.3	470.3	353.0	241.0	157.9	101.2	69.2	3.6
44°	734.5	718.2	671.2	590.7	486.3	365.6	249.8	163.2	103.8	70.2	3.4
45°	729.6	713.0	667.6	591.1	491.3	370.1	253.5	165.6	105.2	71.2	3.0
46°	707.1	695.5	649.7	575.7	481.8	365.2	251.4	163.8	104.7	71.2	2.7
47°	675.5	662.3	618.7	549.3	458.8	352.8	242.8	158.3	101.7	69.6	2.4
48°	632.5	621.2	575.4	507.3	423.6	325.7	223.5	149.4	97.0	66.4	2.0
49°	578.5	562.8	520.2	453.7	377.7	287.3	198.0	134.3	89.4	61.9	1.8
50°	520.0	500.6	467.8	400.0	330.2	246.3	164.6	113.6	78.7	56.0	1.6
51°	462.7	443.0	411.7	354.0	279.5	204.4	132.8	90.7	64.8	47.9	1.4
52°	403.2	386.7	351.7	306.4	239.2	165.6	110.6	76.7	53.8	40.2	1.1
53°	344.1	332.8	299.4	253.5	192.2	135.3	90.3	65.7	46.9	34.4	0.9
54°	284.8	272.4	247.1	206.2	154.9	106.8	76.6	54.9	40.7	30.0	0.8
55°	222.7	216.3	193.0	157.2	117.4	85.2	62.1	47.3	34.1	25.1	0.7
56°	171.5	164.3	143.0	114.1	87.2	66.7	50.3	38.6	28.9	21.0	0.5
57°	112.3	105.0	90.8	79.6	63.5	48.6	38.4	30.4	23.5	17.4	0.4
58°	66.4	59.7	57.5	49.1	42.4	33.0	28.4	22.6	17.3	13.7	0.2
59°	30.5	31.0	27.6	25.8	23.5	21.0	17.3	15.1	11.9	9.9	0.2
60°	17.7	16.8	16.4	14.6	13.0	11.5	10.4	9.2	7.4	6.4	0.1
62.5°	6.1	5.8	6.0	5.4	5.1	4.9	4.5	3.8	3.2	2.6	0.0
65°	1.6	1.6	1.6	1.5	1.4	1.3	1.2	1.1	1.0	0.8	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°	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.3	0.2	0.2	0.0
70°	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.0
72.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1
75°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
77.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
80°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2
82.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
85°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
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°	7.3	7.3	7.3	7.3	7.3	7.3
2.5°	7.5	7.2	6.8	6.5	6.5	6.4
5°	7.2	6.5	6.1	5.7	5.6	5.6
7.5°	6.5	5.7	5.2	5.1	5.0	5.0
10°	5.6	5.0	4.6	4.4	4.5	4.5
12.5°	4.7	4.2	4.0	4.0	4.1	4.2
15°	3.8	3.5	3.5	3.6	3.8	3.8
17.5°	3.2	3.0	3.1	3.3	3.4	3.6
20°	2.6	2.6	2.8	3.0	3.3	3.4
22.5°	2.2	2.3	2.5	2.8	3.1	3.3
25°	1.9	2.0	2.3	2.7	3.0	3.1
27.5°	1.6	1.9	2.2	2.6	2.9	3.1
30°	1.4	1.7	2.1	2.5	2.9	3.1
31°	1.3	1.6	2.0	2.5	2.9	3.1
32°	1.2	1.6	2.0	2.5	2.9	3.1
33°	1.1	1.6	2.0	2.5	2.9	3.1
34°	1.1	1.6	2.0	2.5	2.9	3.1
35°	1.0	1.5	2.0	2.5	2.9	3.1
36°	0.9	1.5	2.0	2.5	2.9	3.1
37°	0.8	1.5	2.0	2.5	2.9	3.1
38°	0.8	1.4	1.9	2.5	2.9	3.1
39°	0.7	1.3	1.9	2.5	2.9	3.1
40°	0.7	1.3	1.8	2.4	2.9	3.1
41°	0.6	1.2	1.8	2.4	2.9	3.1
42°	0.5	1.2	1.8	2.4	2.9	3.1
43°	0.4	1.1	1.7	2.4	2.9	3.1
44°	0.4	1.1	1.7	2.4	2.9	3.1
45°	0.3	1.1	1.6	2.4	2.9	3.1
46°	0.3	1.1	1.6	2.3	2.9	3.1
47°	0.2	1.1	1.6	2.3	2.9	3.1
48°	0.2	1.0	1.6	2.3	2.9	3.1
49°	0.2	1.0	1.6	2.3	2.9	3.1
50°	0.2	1.0	1.6	2.3	2.9	3.1
51°	0.2	1.0	1.6	2.3	2.9	3.1
52°	0.2	0.9	1.6	2.3	2.9	3.1
53°	0.2	0.9	1.6	2.3	2.9	3.1
54°	0.2	0.9	1.5	2.3	2.9	3.1
55°	0.2	0.8	1.5	2.2	2.9	3.0
56°	0.2	0.8	1.5	2.2	2.9	3.0
57°	0.2	0.8	1.4	2.2	2.9	3.0
58°	0.2	0.7	1.4	2.1	2.8	3.0
59°	0.2	0.7	1.3	2.1	2.8	2.9
60°	0.2	0.7	1.3	2.0	2.7	2.9
62.5°	0.2	0.6	1.1	2.0	2.6	2.8
65°	0.2	0.5	1.1	1.8	2.5	2.7



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.2	0.5	1.0	1.7	2.4	2.6
70°	0.2	0.5	0.9	1.6	2.3	2.4
72.5°	0.2	0.5	0.8	1.5	2.1	2.2
75°	0.3	0.5	0.7	1.3	2.0	2.0
77.5°	0.3	0.5	0.7	1.1	1.7	1.8
80°	0.3	0.4	0.6	0.9	1.4	1.5
82.5°	0.3	0.4	0.4	0.7	1.1	1.1
85°	0.2	0.3	0.3	0.4	0.7	0.8
87.5°	0.2	0.3	0.2	0.2	0.3	0.3
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)