

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: P1335839

Luminaire Tested: P3A02R409840DE010 E3A451GPH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335839
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-78)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A02R409840DE010 E3A451GPH
Description: 3in Adjustable LED luminaire with, R40 optic, 4000K CCT AND, 98CRI , E3A451GPH TRIM
Light Source: -
Ballast/Driver: -

Summary

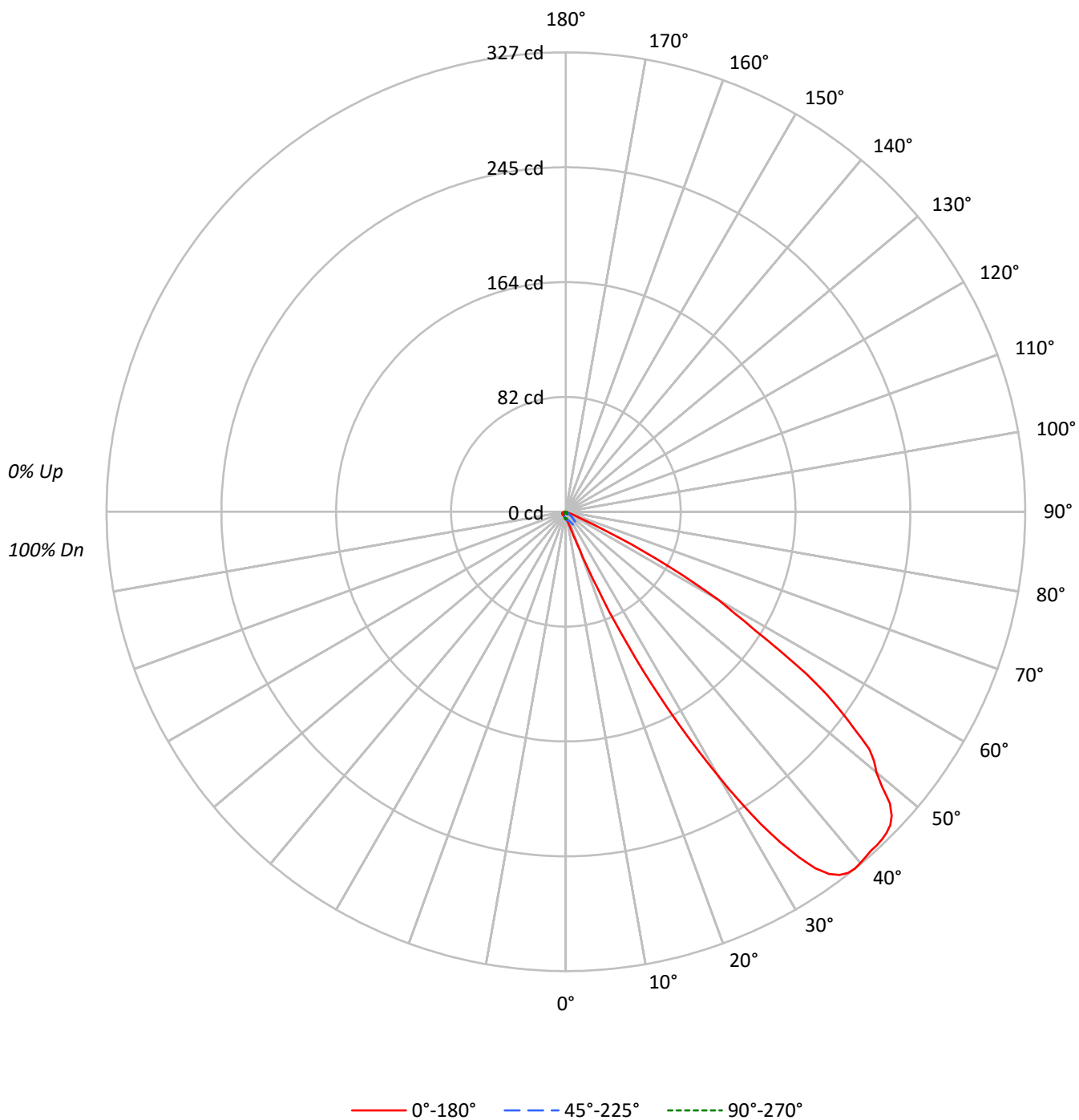
Lumens per Lamp: N/A
Luminaire Lumens: 101.0 lumens
Efficiency: N/A
Efficacy: 28.1 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.74 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	102	102	100
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86	86	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	72	72	72
3	91	81	73	66	89	79	72	66	76	70	65	73	68	64	71	66	62	60	60	60
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52	50	50	50
5	75	62	52	46	73	60	52	45	58	51	45	56	50	44	54	49	44	42	42	42
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35	35	35
7	62	48	39	32	60	47	38	32	45	37	32	44	37	31	42	36	31	29	29	29
8	57	42	33	27	55	42	33	27	40	32	27	39	32	27	38	31	26	24	24	24
9	52	38	29	23	51	37	29	23	36	28	23	35	28	23	34	27	23	21	21	21
10	48	34	25	20	47	33	25	20	32	25	20	31	24	20	30	24	19	18	18	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	1140	1140	1140	1140	1140
5°	1277	1233	1123	1013	991
10°	1536	1291	1024	935	913
15°	2497	1407	885	817	840
20°	6627	1657	747	747	793
25°	25550	2057	581	677	774
30°	55097	2760	481	658	785
35°	82931	3266	402	642	803
40°	93432	3263	344	658	859
45°	100196	2543	310	682	930
50°	98487	1569	273	716	1023
55°	86630	765	268	803	1147
60°	54820	175	307	877	1272
65°	11207	52	311	986	1401
70°	256	64	385	1090	1603
75°	254	169	424	1186	1779
80°	253	126	505	1263	2147
85°	252	252	1006	1510	2264

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 101988 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.5	0.5
10°-20°	1.6	1.6
20°-30°	7.8	7.8
30°-40°	25.5	25.3
40°-50°	35.2	34.8
50°-60°	24.5	24.3
60°-70°	4.6	4.6
70°-80°	0.8	0.8
80°-90°	0.4	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°	9.9	9.8
0°-40°	35.5	35.1
0°-60°	95.1	94.2
0°-90°	101.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	101.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	5	5	5	5	5	
5°	6	6	5	5	4	1
15°	11	6	4	4	4	4
25°	106	8	2	3	3	54
35°	310	12	2	2	3	187
45°	323	8	1	2	3	246
55°	227	2	1	2	3	194
65°	22	0	1	2	3	38
75°	0	0	0	1	2	0
85°	0	0	0	1	1	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
0°	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
2.5°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.3	5.2
5°	5.8	5.8	5.8	5.8	5.7	5.7	5.7	5.6	5.6	5.4	5.1
7.5°	6.1	6.1	6.1	6.1	6.0	5.9	5.8	5.8	5.8	5.3	4.9
10°	6.9	6.9	6.8	6.7	6.6	6.4	6.3	6.1	5.8	5.2	4.6
12.5°	8.3	8.2	8.1	7.9	7.6	7.2	6.9	6.6	5.9	5.0	4.4
15°	11.0	10.9	10.5	9.9	9.4	8.6	8.0	7.3	6.2	4.7	3.9
17.5°	15.8	15.2	14.7	13.7	12.3	11.0	9.6	8.4	6.6	4.5	3.5
20°	28.4	28.0	24.7	22.1	17.9	14.9	12.2	10.1	7.1	4.2	3.2
22.5°	58.5	54.6	49.2	40.3	31.4	23.1	16.8	12.7	7.7	3.8	2.8
25°	105.6	99.4	87.7	70.5	52.0	36.8	24.3	16.6	8.5	3.4	2.4
27.5°	159.8	153.6	135.3	111.7	81.5	55.6	34.7	22.0	9.6	3.1	2.1
30°	217.6	212.3	189.1	156.4	114.9	77.8	46.5	27.5	10.9	2.7	1.9
31°	240.9	234.1	209.1	174.2	130.6	87.0	51.2	29.8	11.3	2.6	1.8
32°	262.3	254.6	228.6	191.3	143.3	96.9	56.4	31.8	11.7	2.4	1.7
33°	280.8	271.8	246.7	207.4	157.3	106.2	61.8	33.8	12.0	2.2	1.6
34°	296.4	288.7	261.8	223.6	169.7	115.1	67.1	35.7	12.2	2.1	1.5
35°	309.8	302.8	276.1	236.0	181.9	123.7	71.9	37.6	12.2	1.9	1.5
36°	318.8	312.7	288.6	248.6	192.1	131.1	76.0	39.2	12.2	1.8	1.4
37°	323.7	317.8	296.7	259.0	202.1	138.3	79.7	40.5	12.1	1.7	1.3
38°	326.2	321.0	302.8	267.4	209.1	143.5	82.9	41.6	12.0	1.5	1.3
39°	326.9	322.5	306.6	273.5	215.8	148.7	85.2	42.1	11.7	1.4	1.2
40°	326.4	322.6	308.6	279.0	221.0	152.8	86.9	42.3	11.4	1.2	1.2
41°	325.5	322.5	310.1	282.8	225.2	155.4	87.6	41.9	11.0	1.0	1.1
42°	324.6	321.4	310.7	285.4	228.1	156.7	87.5	41.2	10.5	0.9	1.1
43°	324.6	320.9	310.8	287.1	229.5	156.8	86.4	39.8	9.7	0.8	1.0
44°	324.1	320.7	311.3	288.2	229.8	155.9	84.6	38.3	8.9	0.7	1.0
45°	323.1	319.4	311.2	288.3	229.2	153.9	81.7	36.4	8.2	0.6	1.0
46°	321.1	317.9	310.4	287.6	227.2	150.9	78.3	34.4	7.3	0.5	0.9
47°	317.2	314.7	308.1	285.4	224.3	146.6	74.2	32.2	6.7	0.4	0.9
48°	310.5	308.8	304.3	280.5	218.6	141.2	69.8	29.8	6.0	0.4	0.9
49°	298.3	296.9	294.3	272.6	211.4	134.6	65.1	27.1	5.4	0.3	0.9
50°	288.7	287.2	281.9	259.3	201.0	126.2	59.9	24.4	4.6	0.2	0.8
51°	282.3	279.8	271.5	243.9	185.9	115.1	54.3	21.7	3.9	0.2	0.8
52°	274.2	270.6	260.2	230.1	172.1	104.0	48.1	19.0	3.4	0.2	0.8
53°	257.3	256.0	245.7	215.3	158.2	93.3	41.8	16.8	3.0	0.2	0.8
54°	242.6	240.6	226.6	194.7	143.2	81.4	35.3	14.8	2.5	0.2	0.8
55°	226.6	222.8	210.4	177.3	125.6	70.5	29.1	12.8	2.0	0.2	0.7
56°	206.5	203.1	189.8	158.8	109.4	59.4	24.4	10.5	1.6	0.2	0.7
57°	182.0	178.9	168.6	136.0	92.5	48.5	19.8	8.4	1.2	0.2	0.7
58°	158.3	154.9	143.1	114.1	74.7	38.5	16.6	6.9	0.9	0.2	0.7
59°	140.2	135.5	120.3	95.8	58.4	29.2	13.2	5.5	0.6	0.2	0.7
60°	125.0	121.2	105.5	79.8	45.8	21.5	9.7	4.2	0.4	0.2	0.7
62.5°	72.4	71.4	57.2	41.1	21.6	10.0	4.8	1.9	0.2	0.3	0.7
65°	21.6	18.8	14.7	8.7	5.6	3.3	1.8	0.6	0.1	0.3	0.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.4	0.2	0.1	0.3	0.6
70°	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.3	0.6
72.5°	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.2	0.3	0.5
75°	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.3	0.5
77.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.3	0.5
80°	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4
82.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4
85°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	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):

	112.5°	135°	157.5°	180°
0°	5.2	5.2	5.2	5.2
2.5°	5.0	4.9	4.8	4.8
5°	4.8	4.6	4.6	4.5
7.5°	4.5	4.4	4.4	4.4
10°	4.3	4.2	4.2	4.1
12.5°	3.9	3.9	3.9	3.9
15°	3.6	3.6	3.7	3.7
17.5°	3.2	3.3	3.5	3.6
20°	3.0	3.2	3.3	3.4
22.5°	2.8	3.0	3.2	3.3
25°	2.5	2.8	3.2	3.2
27.5°	2.3	2.7	3.0	3.2
30°	2.1	2.6	2.9	3.1
31°	2.1	2.5	2.9	3.1
32°	2.0	2.4	2.9	3.0
33°	2.0	2.4	2.9	3.0
34°	1.9	2.4	2.8	3.0
35°	1.9	2.4	2.8	3.0
36°	1.9	2.3	2.8	3.0
37°	1.9	2.3	2.8	3.0
38°	1.8	2.3	2.8	3.0
39°	1.8	2.3	2.8	3.0
40°	1.8	2.3	2.8	3.0
41°	1.7	2.3	2.8	3.0
42°	1.7	2.3	2.8	3.0
43°	1.7	2.2	2.8	3.0
44°	1.7	2.2	2.8	3.0
45°	1.6	2.2	2.8	3.0
46°	1.6	2.2	2.8	3.0
47°	1.6	2.2	2.8	3.0
48°	1.6	2.2	2.8	3.0
49°	1.6	2.2	2.8	3.0
50°	1.5	2.1	2.8	3.0
51°	1.5	2.1	2.8	3.0
52°	1.5	2.1	2.8	3.0
53°	1.5	2.1	2.8	3.0
54°	1.4	2.1	2.8	3.0
55°	1.4	2.1	2.8	3.0
56°	1.4	2.1	2.8	2.9
57°	1.4	2.1	2.7	2.9
58°	1.4	2.0	2.7	2.9
59°	1.4	2.0	2.7	2.9
60°	1.4	2.0	2.7	2.9
62.5°	1.3	2.0	2.6	2.8
65°	1.2	1.9	2.6	2.7



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	1.2	1.8	2.4	2.6
70°	1.1	1.7	2.3	2.5
72.5°	0.9	1.6	2.1	2.3
75°	0.8	1.4	1.9	2.1
77.5°	0.7	1.2	1.8	1.9
80°	0.6	1.0	1.5	1.7
82.5°	0.5	0.7	1.2	1.3
85°	0.4	0.6	0.8	0.9
87.5°	0.3	0.3	0.5	0.5
90°	0.0	0.0	0.0	0.0

(END OF REPORT)