

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: P1334447

Luminaire Tested: P3A02R209740DE010 E3A451GPH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1334447
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-74)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A02R209740DE010 E3A451GPH
Description: 3in Adjustable LED luminaire with, R20 optic, 4000K CCT AND, 97CRI , E3A451GPH TRIM
Light Source: -
Ballast/Driver: -

Summary

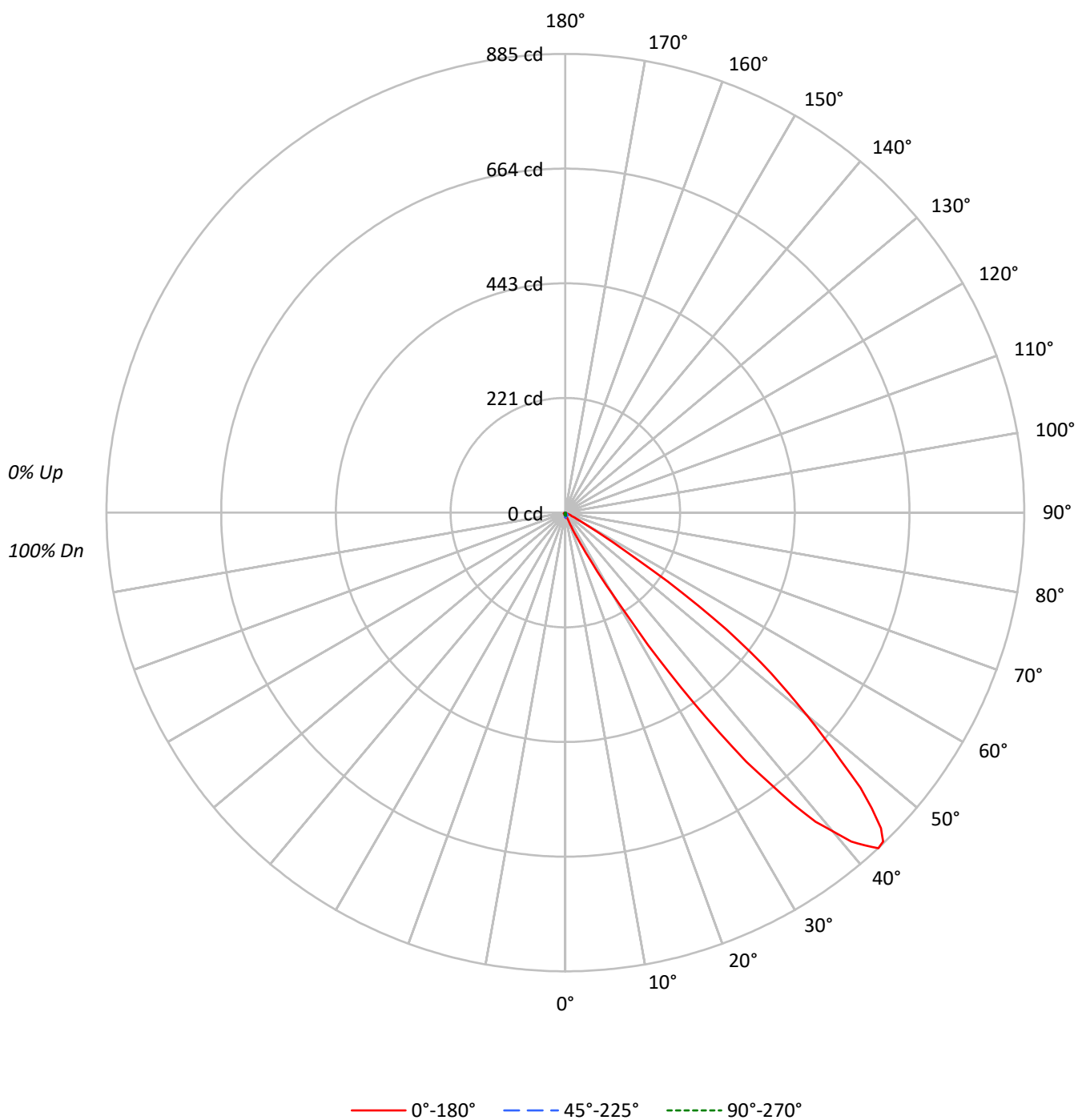
Lumens per Lamp: N/A
Luminaire Lumens: 123.0 lumens
Efficiency: N/A
Efficacy: 34.2 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.14
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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			0
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	101	97	100	97	94	96	94	92	92	91	89	87		
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73		
3	92	81	74	67	89	80	73	67	77	71	66	74	69	65	72	67	63	61		
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51		
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42		
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35		
7	62	48	39	32	60	47	38	32	46	38	32	44	37	32	43	36	31	29		
8	57	42	33	27	55	42	33	27	40	33	27	39	32	27	38	31	27	25		
9	52	38	29	23	51	37	29	23	36	28	23	35	28	23	34	27	23	21		
10	48	34	25	20	47	33	25	20	32	25	19	31	24	19	30	24	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	1886	1886	1886	1886	1886
5°	2179	2025	1761	1519	1475
10°	2160	1848	1381	1180	1158
15°	1884	1407	1022	953	999
20°	2800	1190	747	817	887
25°	12073	1234	581	726	871
30°	45678	1494	506	709	861
35°	138504	1794	455	723	910
40°	229659	1775	401	773	973
45°	266942	1209	372	775	1054
50°	207209	682	341	819	1194
55°	119929	459	344	918	1300
60°	20262	88	307	965	1403
65°	1557	0	363	1090	1608
70°	192	0	449	1154	1859
75°	169	85	508	1356	2118
80°	126	126	758	1515	2526
85°	252	252	1258	1510	2516

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 266942 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.7	0.6
10°-20°	1.5	1.2
20°-30°	4.9	4.0
30°-40°	31.4	25.5
40°-50°	57.4	46.7
50°-60°	23.6	19.2
60°-70°	2.0	1.6
70°-80°	1.0	0.8
80°-90°	0.5	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°	7.2	5.8
0°-40°	38.6	31.3
0°-60°	119.5	97.2
0°-90°	123.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	123.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	9	9	9	9	9	
5°	10	9	8	7	7	1
15°	8	6	4	4	4	3
25°	50	5	2	3	4	33
35°	517	7	2	3	3	327
45°	861	4	1	2	3	618
55°	314	1	1	2	3	274
65°	3	0	1	2	3	10
75°	0	0	1	2	2	0
85°	0	0	0	1	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°	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
2.5°	9.4	9.4	9.4	9.2	9.2	9.4	9.2	9.2	9.2	9.2	9.1
5°	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.8	9.8	9.7	9.2
7.5°	10.2	10.2	10.2	10.2	10.1	10.1	10.1	10.1	9.9	9.8	9.0
10°	9.7	9.7	9.7	9.6	9.6	9.6	9.5	9.5	9.4	9.2	8.3
12.5°	8.8	8.8	8.8	8.8	8.7	8.7	8.6	8.6	8.4	8.3	7.3
15°	8.3	8.3	8.3	8.2	8.2	8.1	8.0	7.9	7.7	7.5	6.2
17.5°	9.0	9.0	8.9	8.9	8.7	8.4	8.3	8.0	7.7	7.4	5.5
20°	12.0	12.1	11.7	11.3	11.1	10.4	10.1	9.5	9.0	8.4	5.1
22.5°	24.3	23.8	23.0	21.7	20.2	19.0	16.6	14.8	13.5	11.8	5.0
25°	49.9	49.5	47.3	45.4	40.8	37.2	32.2	28.2	24.0	20.0	5.1
27.5°	94.9	91.8	91.2	82.8	76.3	67.0	57.4	49.4	42.0	33.8	5.4
30°	180.4	176.9	164.3	151.5	134.1	114.3	95.5	77.9	63.2	49.9	5.9
31°	229.0	232.5	217.7	192.1	166.3	141.0	115.2	92.9	74.0	57.4	6.1
32°	301.0	285.9	270.3	244.0	206.6	174.2	141.8	109.7	84.7	65.5	6.4
33°	369.1	360.2	336.4	303.7	258.7	213.3	171.3	129.5	97.9	75.4	6.5
34°	441.7	431.8	412.5	365.6	316.3	256.7	200.8	152.2	113.6	85.0	6.6
35°	517.4	513.2	476.0	435.3	374.6	302.8	236.3	177.2	129.0	93.7	6.7
36°	593.6	580.2	551.0	491.6	428.3	345.5	273.5	200.4	144.6	104.1	6.7
37°	650.9	647.9	609.3	551.4	476.9	391.0	305.6	226.2	160.3	113.0	6.7
38°	714.1	702.2	663.0	604.1	522.7	432.8	339.3	248.6	175.2	121.1	6.6
39°	767.4	749.7	710.2	651.9	562.7	464.4	366.0	270.4	188.4	127.8	6.5
40°	802.3	790.1	748.8	683.3	599.0	494.4	393.0	288.3	198.2	132.9	6.2
41°	840.8	820.5	779.7	713.8	625.3	520.7	410.0	300.1	205.9	136.3	6.0
42°	863.8	847.2	798.7	734.2	644.2	535.8	423.9	309.1	210.5	138.0	5.5
43°	885.3	862.7	815.5	746.1	656.7	546.4	430.2	313.3	211.5	138.0	5.0
44°	882.4	860.9	812.0	747.8	659.4	549.5	432.9	313.4	209.9	136.3	4.4
45°	860.8	839.4	795.4	733.7	649.5	543.4	427.6	308.7	205.4	133.3	3.9
46°	821.2	799.9	766.1	710.1	631.0	529.5	415.2	298.7	197.9	128.4	3.5
47°	778.0	757.4	722.8	672.0	599.5	504.8	397.3	284.6	187.4	121.4	3.1
48°	715.5	702.6	667.9	624.5	555.6	466.1	365.8	261.6	173.3	112.2	2.7
49°	660.3	646.6	616.2	569.6	498.5	421.0	328.3	233.6	154.9	102.1	2.3
50°	607.4	595.5	567.4	514.8	447.0	366.5	277.5	198.4	131.8	89.5	2.0
51°	555.8	546.9	518.2	469.9	401.0	324.7	240.4	165.2	108.9	74.2	1.8
52°	503.9	502.8	471.7	422.8	356.3	283.0	204.4	139.4	92.4	62.3	1.7
53°	448.0	441.3	414.2	370.2	306.3	239.5	173.3	117.6	79.5	53.1	1.5
54°	384.5	376.9	347.8	308.2	250.3	196.2	139.6	95.0	66.2	44.8	1.4
55°	313.7	300.9	279.7	239.0	195.5	149.7	107.8	75.2	52.9	37.3	1.2
56°	238.0	225.2	213.3	183.3	143.4	111.7	80.3	57.7	41.4	29.5	1.0
57°	165.5	164.8	145.3	122.3	95.9	76.1	55.0	40.7	29.2	22.9	0.8
58°	107.4	103.8	91.3	78.0	62.8	47.5	35.4	27.6	19.9	15.6	0.7
59°	75.2	68.1	61.4	52.0	39.5	29.9	22.8	17.7	13.8	10.9	0.5
60°	46.2	44.7	40.2	31.7	25.7	21.2	17.0	13.1	10.1	7.7	0.2
62.5°	13.2	13.4	12.1	10.7	9.2	8.0	7.2	6.1	5.1	4.0	0.0
65°	3.0	2.9	3.1	2.9	2.7	2.7	2.3	2.1	1.8	1.7	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°	0.9	0.9	0.8	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.0
70°	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.0
72.5°	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1
75°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1
77.5°	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1
80°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
82.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
85°	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.0	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°	8.6	8.6	8.6	8.6	8.6	8.6
2.5°	8.9	8.4	8.1	7.7	7.6	7.6
5°	8.7	8.0	7.3	6.9	6.7	6.7
7.5°	8.0	7.2	6.5	6.1	6.0	6.0
10°	7.2	6.2	5.5	5.3	5.3	5.2
12.5°	6.2	5.3	4.9	4.7	4.7	4.7
15°	5.2	4.5	4.2	4.2	4.3	4.4
17.5°	4.4	3.7	3.6	3.8	4.0	4.0
20°	3.7	3.2	3.2	3.5	3.7	3.8
22.5°	3.1	2.8	2.9	3.2	3.6	3.7
25°	2.8	2.4	2.7	3.0	3.4	3.6
27.5°	2.3	2.2	2.4	2.9	3.4	3.5
30°	2.0	2.0	2.3	2.8	3.2	3.4
31°	1.8	1.8	2.3	2.8	3.2	3.4
32°	1.7	1.8	2.2	2.8	3.2	3.4
33°	1.6	1.7	2.2	2.7	3.2	3.4
34°	1.5	1.7	2.2	2.7	3.2	3.4
35°	1.4	1.7	2.2	2.7	3.2	3.4
36°	1.3	1.6	2.1	2.7	3.2	3.4
37°	1.2	1.6	2.1	2.7	3.2	3.4
38°	1.0	1.5	2.1	2.7	3.2	3.4
39°	1.0	1.5	2.0	2.7	3.1	3.4
40°	0.9	1.4	2.0	2.7	3.1	3.4
41°	0.8	1.4	2.0	2.5	3.1	3.4
42°	0.7	1.3	1.8	2.5	3.1	3.4
43°	0.6	1.3	1.8	2.5	3.1	3.4
44°	0.6	1.2	1.8	2.5	3.1	3.4
45°	0.5	1.2	1.8	2.5	3.1	3.4
46°	0.3	1.2	1.8	2.5	3.1	3.4
47°	0.3	1.0	1.7	2.5	3.1	3.4
48°	0.2	1.0	1.7	2.5	3.1	3.4
49°	0.2	1.0	1.7	2.5	3.1	3.5
50°	0.2	1.0	1.7	2.4	3.1	3.5
51°	0.1	1.0	1.7	2.4	3.1	3.5
52°	0.1	1.0	1.6	2.4	3.2	3.5
53°	0.1	0.9	1.6	2.4	3.2	3.5
54°	0.1	0.9	1.6	2.4	3.2	3.4
55°	0.1	0.9	1.6	2.4	3.1	3.4
56°	0.1	0.8	1.6	2.4	3.1	3.4
57°	0.1	0.8	1.5	2.3	3.1	3.2
58°	0.1	0.8	1.5	2.3	3.1	3.2
59°	0.1	0.8	1.5	2.3	3.0	3.2
60°	0.2	0.7	1.4	2.2	3.0	3.2
62.5°	0.2	0.7	1.4	2.2	2.9	3.1
65°	0.2	0.7	1.3	2.1	2.9	3.1



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.2	0.6	1.2	2.0	2.8	3.0
70°	0.2	0.7	1.2	1.8	2.7	2.9
72.5°	0.3	0.6	1.0	1.7	2.5	2.8
75°	0.3	0.6	1.0	1.6	2.4	2.5
77.5°	0.5	0.6	0.9	1.4	2.2	2.3
80°	0.5	0.6	0.8	1.2	1.8	2.0
82.5°	0.5	0.6	0.6	0.9	1.4	1.5
85°	0.3	0.5	0.5	0.6	0.9	1.0
87.5°	0.3	0.5	0.3	0.2	0.5	0.5
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)