

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: P1334025

Luminaire Tested: P3A02R159030DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1334025
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: P3A02R159030DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R15 optic, 3000K CCT AND, 90CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

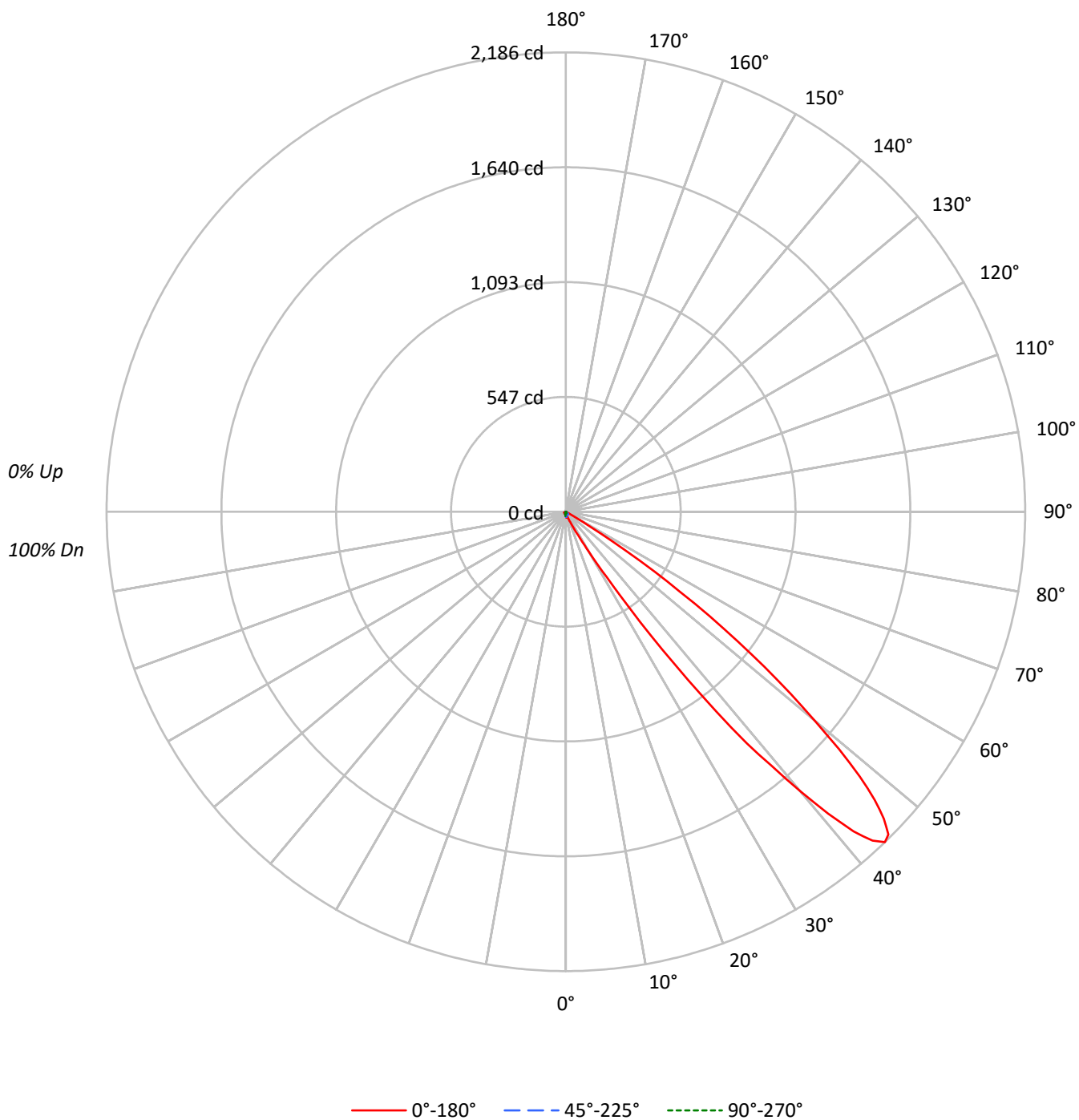
Lumens per Lamp: N/A
Luminaire Lumens: 244.0 lumens
Efficiency: N/A
Efficacy: 67.8 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	107	104	100	97	100	97	94	96	93	91	92	90	89	87		
2	101	93	87	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	53	50		
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	49	44	42		
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	48	42	37	35		
7	62	47	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	31	26	37	31	26	24		
9	52	37	28	22	50	37	28	22	35	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	23	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	4758	4758	4758	4758	4758
5°	5899	5239	4292	3742	3698
10°	5789	4498	3295	2917	2984
15°	4813	3201	2384	2429	2588
20°	8354	2544	1820	2100	2380
25°	18606	3073	1476	1936	2226
30°	55629	3747	1291	1899	2329
35°	214127	4230	1178	1954	2463
40°	497046	3693	1116	2032	2634
45°	673217	2791	992	2202	2853
50°	527846	1672	989	2320	3138
55°	253353	726	918	2523	3441
60°	23156	88	833	2675	3859
65°	2542	0	778	2802	4151
70°	641	0	962	2949	4552
75°	593	169	1271	3304	5168
80°	631	631	1515	3410	5556
85°	503	503	2516	3019	6038

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 673217 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.8	0.8
10°-20°	3.8	1.6
20°-30°	9.2	3.8
30°-40°	50.5	20.7
40°-50°	122.2	50.1
50°-60°	48.8	20.0
60°-70°	4.2	1.7
70°-80°	2.4	1.0
80°-90°	1.0	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°	14.9	6.1
0°-40°	65.4	26.8
0°-60°	236.4	96.9
0°-90°	244.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	244.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	22	22	22	22	22	
5°	27	24	20	17	17	3
15°	21	14	10	11	11	7
25°	77	13	6	8	9	46
35°	800	16	4	7	9	565
45°	2171	9	3	7	9	1531
55°	663	2	2	7	9	617
65°	5	0	2	5	8	12
75°	1	0	2	4	6	1
85°	0	0	1	1	2	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°	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7
2.5°	24.3	24.3	24.6	24.3	24.3	24.3	24.3	24.1	24.1	24.1	23.4
5°	26.8	26.8	26.8	26.8	26.5	26.5	26.5	26.3	26.3	26.0	23.8
7.5°	27.7	27.7	27.5	27.5	27.2	27.2	27.0	26.8	26.5	26.3	22.9
10°	26.0	26.0	26.0	25.8	25.8	25.5	25.3	25.1	24.8	24.3	20.2
12.5°	23.1	23.1	23.4	23.1	22.9	22.6	22.1	21.9	21.7	21.2	16.8
15°	21.2	21.2	21.2	20.9	20.7	20.2	19.9	19.5	19.2	18.5	14.1
17.5°	27.0	27.0	26.8	26.3	25.3	24.6	23.4	22.4	21.2	19.7	12.2
20°	35.8	35.8	35.3	34.8	33.6	32.4	30.4	28.7	26.8	25.1	10.9
22.5°	51.8	52.6	51.1	49.4	47.7	44.8	42.1	39.4	36.0	33.1	11.2
25°	76.9	77.6	76.9	73.0	69.8	65.9	60.8	55.5	49.6	44.3	12.7
27.5°	124.6	125.1	123.8	114.3	109.2	99.0	90.0	81.3	71.5	61.8	13.9
30°	219.7	219.9	212.1	193.2	176.4	154.0	135.0	116.8	101.5	85.9	14.8
31°	289.3	282.5	265.9	243.0	216.3	186.1	160.1	136.5	113.6	96.8	15.1
32°	367.4	366.4	338.9	299.2	263.5	225.8	186.6	156.4	130.2	107.3	15.3
33°	470.8	471.3	427.9	381.2	322.6	272.0	220.7	179.3	147.7	119.7	15.8
34°	632.3	594.4	543.5	480.3	400.5	324.3	257.6	205.8	163.5	131.6	15.8
35°	799.9	761.7	705.8	609.9	500.4	393.9	301.7	234.3	182.5	144.5	15.8
36°	987.8	955.4	870.7	748.4	608.7	459.6	348.4	267.1	201.2	156.2	15.6
37°	1190.7	1143.2	1049.3	915.7	728.9	552.0	405.3	299.7	219.9	168.8	15.1
38°	1396.7	1353.9	1235.4	1073.6	872.4	649.6	462.3	331.1	237.2	178.3	14.4
39°	1552.9	1529.6	1412.1	1231.3	987.0	742.0	520.9	364.7	255.5	187.8	13.6
40°	1736.4	1698.7	1587.2	1363.6	1122.5	836.2	578.3	394.4	270.5	195.4	12.9
41°	1903.8	1856.1	1715.4	1499.4	1231.1	920.9	632.8	425.0	282.7	199.7	12.4
42°	2047.3	1991.8	1844.9	1615.7	1321.8	988.5	676.3	446.9	294.1	203.4	11.7
43°	2140.2	2092.3	1947.8	1703.0	1399.4	1050.5	717.0	469.8	301.2	205.8	10.7
44°	2185.5	2137.1	1997.2	1757.8	1447.1	1087.8	743.3	485.6	309.0	209.0	10.0
45°	2170.9	2121.7	1986.5	1758.8	1461.9	1101.1	754.4	492.7	313.1	211.9	9.0
46°	2104.0	2069.4	1933.2	1713.0	1433.7	1086.8	748.1	487.3	311.7	211.9	8.0
47°	2010.1	1970.7	1841.0	1634.4	1365.3	1049.8	722.6	471.0	302.7	207.0	7.1
48°	1882.1	1848.5	1712.3	1509.6	1260.5	969.3	664.9	444.5	288.5	197.6	6.1
49°	1721.5	1674.8	1548.1	1350.0	1123.8	854.9	589.3	399.7	265.9	184.2	5.4
50°	1547.3	1489.7	1391.9	1190.2	982.4	733.0	489.7	337.9	234.0	166.7	4.9
51°	1376.8	1318.2	1225.0	1053.4	831.6	608.2	395.1	269.8	192.7	142.6	4.1
52°	1199.9	1150.8	1046.4	911.6	711.9	492.9	329.2	228.2	160.1	119.7	3.4
53°	1023.8	990.2	890.9	754.4	572.0	402.6	268.8	195.4	139.6	102.4	2.7
54°	847.4	810.6	735.2	613.6	461.0	317.7	228.0	163.5	121.2	89.3	2.4
55°	662.7	643.7	574.2	467.8	349.4	253.5	184.9	140.6	101.5	74.7	1.9
56°	510.4	489.0	425.5	339.4	259.6	198.5	149.6	114.8	85.9	62.5	1.5
57°	334.3	312.4	270.3	237.0	189.0	144.8	114.3	90.5	69.8	51.8	1.2
58°	197.6	177.6	171.0	146.0	126.0	98.3	84.4	67.4	51.6	40.9	0.7
59°	90.7	92.2	82.0	76.9	69.8	62.5	51.3	45.0	35.3	29.4	0.5
60°	52.8	49.9	48.7	43.5	38.7	34.3	30.9	27.2	22.1	19.0	0.2
62.5°	18.0	17.3	17.8	16.1	15.1	14.6	13.4	11.4	9.5	7.8	0.0
65°	4.9	4.9	4.6	4.4	4.1	3.9	3.6	3.2	2.9	2.4	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°	1.7	1.7	1.5	1.5	1.2	1.2	1.0	1.0	0.7	0.7	0.0
70°	1.0	1.0	1.0	0.7	0.7	0.7	0.5	0.5	0.5	0.2	0.0
72.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.5	0.5	0.5	0.2	0.2
75°	0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2
77.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.5
82.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5
85°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
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°	21.7	21.7	21.7	21.7	21.7	21.7
2.5°	22.4	21.4	20.2	19.5	19.2	19.0
5°	21.4	19.5	18.0	17.0	16.8	16.8
7.5°	19.2	17.0	15.6	15.1	14.8	14.8
10°	16.8	14.8	13.6	13.1	13.4	13.4
12.5°	14.1	12.4	11.9	11.9	12.2	12.4
15°	11.4	10.5	10.5	10.7	11.2	11.4
17.5°	9.5	9.0	9.2	9.7	10.2	10.7
20°	7.8	7.8	8.3	9.0	9.7	10.2
22.5°	6.6	6.8	7.5	8.3	9.2	9.7
25°	5.6	6.1	6.8	8.0	9.0	9.2
27.5°	4.9	5.6	6.6	7.8	8.8	9.2
30°	4.1	5.1	6.3	7.5	8.8	9.2
31°	3.9	4.9	6.1	7.5	8.8	9.2
32°	3.6	4.9	6.1	7.5	8.8	9.2
33°	3.4	4.6	6.1	7.3	8.8	9.2
34°	3.2	4.6	6.1	7.5	8.8	9.2
35°	2.9	4.4	5.8	7.3	8.5	9.2
36°	2.7	4.4	5.8	7.3	8.8	9.2
37°	2.4	4.4	5.8	7.3	8.5	9.2
38°	2.4	4.1	5.6	7.3	8.5	9.2
39°	2.2	3.9	5.6	7.3	8.5	9.2
40°	1.9	3.9	5.4	7.1	8.5	9.2
41°	1.7	3.6	5.4	7.1	8.5	9.2
42°	1.5	3.6	5.4	7.1	8.5	9.2
43°	1.2	3.4	5.1	7.1	8.5	9.2
44°	1.2	3.4	5.1	7.1	8.5	9.2
45°	1.0	3.2	4.9	7.1	8.5	9.2
46°	1.0	3.2	4.9	6.8	8.5	9.2
47°	0.7	3.2	4.9	6.8	8.5	9.2
48°	0.7	2.9	4.9	6.8	8.5	9.2
49°	0.5	2.9	4.9	6.8	8.5	9.2
50°	0.5	2.9	4.6	6.8	8.5	9.2
51°	0.5	2.9	4.6	6.8	8.5	9.2
52°	0.5	2.7	4.6	6.8	8.5	9.2
53°	0.5	2.7	4.6	6.8	8.5	9.2
54°	0.5	2.7	4.4	6.8	8.5	9.2
55°	0.5	2.4	4.4	6.6	8.5	9.0
56°	0.5	2.4	4.4	6.6	8.5	9.0
57°	0.5	2.4	4.1	6.6	8.5	9.0
58°	0.5	2.2	4.1	6.3	8.3	9.0
59°	0.5	2.2	3.9	6.3	8.3	8.8
60°	0.5	1.9	3.9	6.1	8.0	8.8
62.5°	0.5	1.7	3.4	5.8	7.8	8.3
65°	0.5	1.5	3.2	5.4	7.5	8.0



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.5	1.5	2.9	5.1	7.1	7.8
70°	0.5	1.5	2.7	4.6	6.8	7.1
72.5°	0.7	1.5	2.4	4.4	6.3	6.6
75°	1.0	1.5	2.2	3.9	5.8	6.1
77.5°	1.0	1.5	1.9	3.4	5.1	5.4
80°	1.0	1.2	1.7	2.7	4.1	4.4
82.5°	1.0	1.2	1.2	2.2	3.2	3.4
85°	0.7	1.0	1.0	1.2	2.2	2.4
87.5°	0.7	1.0	0.5	0.7	1.0	1.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)