

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: P1344085

Luminaire Tested: P3A13R209835DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1344085
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: P3A13R209835DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R20 optic, 3500K CCT AND, 98CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

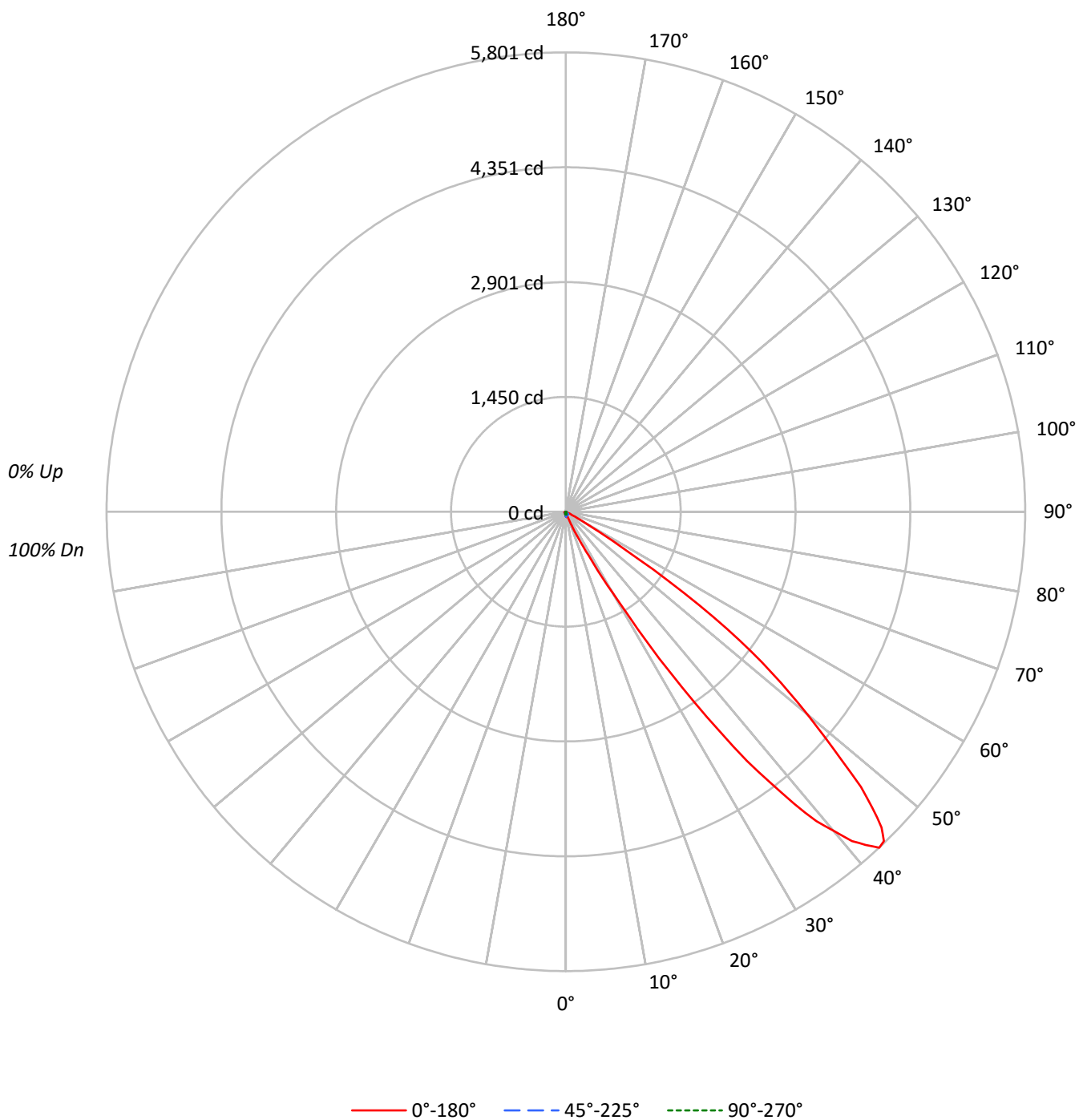
Lumens per Lamp: N/A
Luminaire Lumens: 806.0 lumens
Efficiency: N/A
Efficacy: 55.6 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 14.5
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°	12302	12302	12302	12302	12302
5°	14330	13339	11512	9993	9663
10°	14161	12135	9107	7749	7593
15°	12372	9285	6697	6198	6538
20°	18388	7771	4947	5297	5834
25°	79166	8057	3847	4766	5686
30°	299388	9774	3266	4608	5570
35°	907557	11752	3052	4658	5889
40°	1504962	11708	2605	4981	6298
45°	1749236	8001	2357	5179	6822
50°	1357874	4401	2320	5424	7744
55°	785903	2906	2332	6079	8411
60°	132884	658	1974	6315	9298
65°	10222	0	2335	7057	10637
70°	1475	0	2885	7758	12117
75°	1271	678	3219	8981	14149
80°	1010	1010	4799	9597	16290
85°	2013	2013	7548	9561	17109

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1749236 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4.8	0.6
10°-20°	10.1	1.3
20°-30°	32.2	4.0
30°-40°	205.5	25.5
40°-50°	376.2	46.7
50°-60°	154.6	19.2
60°-70°	13.0	1.6
70°-80°	6.5	0.8
80°-90°	3.1	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°	47.1	5.8
0°-40°	252.6	31.3
0°-60°	783.4	97.2
0°-90°	806.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	806.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	56	56	56	56	56	
5°	65	61	52	45	44	6
15°	54	41	30	27	29	17
25°	327	33	16	20	24	215
35°	3390	44	11	17	22	2146
45°	5641	26	8	17	22	4050
55°	2056	8	6	16	22	1797
65°	20	0	4	14	20	64
75°	2	1	4	11	17	2
85°	1	1	3	4	7	1
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°	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1	56.1
2.5°	61.4	61.4	61.4	60.6	60.6	61.4	60.6	60.6	60.6	60.6	59.8
5°	65.1	65.1	65.1	65.1	65.1	65.1	65.1	64.4	64.4	63.6	60.6
7.5°	66.7	66.7	66.7	66.7	65.9	65.9	65.9	65.9	65.1	64.4	59.1
10°	63.6	63.6	63.6	62.9	62.9	62.9	62.1	62.1	61.4	60.6	54.5
12.5°	57.6	57.6	57.6	57.6	56.8	56.8	56.1	56.1	55.3	54.5	47.7
15°	54.5	54.5	54.5	53.8	53.8	53.0	52.3	51.5	50.7	49.2	40.9
17.5°	59.1	59.1	58.3	58.3	56.8	55.3	54.5	52.3	50.7	48.5	36.4
20°	78.8	79.5	76.5	74.2	72.7	68.2	65.9	62.1	59.1	55.3	33.3
22.5°	159.1	156.0	150.7	142.4	132.6	124.2	109.1	97.0	88.6	77.3	32.6
25°	327.2	324.2	309.8	297.7	267.4	243.9	211.3	184.8	157.5	131.0	33.3
27.5°	621.9	601.4	597.6	542.3	499.9	439.3	376.5	323.4	275.0	221.2	35.6
30°	1182.4	1158.9	1076.3	993.0	878.6	749.1	625.7	510.5	414.3	327.2	38.6
31°	1500.5	1523.2	1426.3	1258.9	1090.0	924.1	755.2	609.0	484.8	376.5	40.1
32°	1972.4	1873.2	1770.9	1599.0	1353.6	1141.5	929.4	718.8	555.2	429.5	41.7
33°	2418.5	2360.2	2204.2	1989.8	1695.2	1397.5	1122.5	848.3	641.6	493.9	42.4
34°	2894.2	2829.8	2703.3	2395.8	2072.4	1682.3	1315.7	997.6	744.6	556.7	43.2
35°	3390.3	3363.1	3119.2	2852.6	2454.9	1984.5	1548.2	1161.2	845.3	614.3	43.9
36°	3889.5	3801.6	3610.8	3221.4	2806.4	2264.0	1792.1	1313.4	947.6	682.5	43.9
37°	4265.2	4245.5	3992.5	3613.0	3125.2	2562.5	2002.7	1482.3	1050.6	740.8	43.9
38°	4679.5	4601.5	4344.7	3958.4	3425.2	2835.9	2223.1	1629.3	1148.3	793.8	43.2
39°	5028.7	4912.8	4653.8	4272.0	3687.3	3043.4	2398.1	1771.7	1234.6	837.7	42.4
40°	5257.5	5177.2	4906.8	4477.3	3925.1	3239.6	2575.3	1889.1	1299.0	871.1	40.9
41°	5509.7	5376.4	5109.0	4677.3	4097.8	3412.3	2686.7	1966.3	1349.0	893.0	39.4
42°	5660.4	5551.4	5234.0	4811.3	4221.3	3510.8	2777.6	2025.4	1379.3	904.4	36.4
43°	5801.3	5652.9	5343.8	4889.3	4303.1	3580.5	2819.2	2052.7	1386.1	904.4	32.6
44°	5782.4	5641.5	5321.1	4899.9	4321.3	3600.9	2836.7	2053.4	1375.5	893.0	28.8
45°	5640.7	5500.6	5212.0	4807.5	4256.1	3560.8	2801.8	2023.2	1346.0	873.3	25.8
46°	5380.9	5241.6	5020.4	4653.0	4134.9	3469.9	2720.8	1957.3	1296.8	841.5	22.7
47°	5098.4	4962.8	4736.3	4403.8	3928.1	3307.8	2603.4	1864.8	1227.8	795.3	20.5
48°	4688.6	4603.8	4376.6	4092.5	3641.1	3054.0	2397.3	1714.1	1135.4	735.5	17.4
49°	4326.6	4237.2	4038.0	3732.7	3266.9	2758.6	2151.2	1530.8	1015.0	668.8	15.1
50°	3980.4	3902.4	3718.3	3373.7	2929.1	2401.9	1818.6	1299.8	863.5	586.3	12.9
51°	3641.8	3583.5	3395.7	3079.0	2627.6	2127.7	1575.5	1082.4	713.5	486.3	12.1
52°	3301.7	3294.9	3091.2	2770.8	2334.5	1854.2	1339.2	913.5	605.2	408.3	11.4
53°	2935.9	2891.9	2713.9	2426.1	2007.2	1569.4	1135.4	770.3	521.1	347.7	9.8
54°	2519.3	2470.0	2279.2	2019.4	1639.9	1285.4	915.0	622.6	434.0	293.9	9.1
55°	2055.7	1971.6	1833.0	1566.4	1280.8	980.9	706.7	493.1	346.9	244.7	7.6
56°	1559.6	1475.5	1397.5	1201.3	940.0	731.7	526.4	378.0	271.2	193.1	6.8
57°	1084.7	1080.1	952.1	801.4	628.7	498.4	360.5	266.6	191.6	150.0	5.3
58°	703.7	680.2	598.4	511.3	411.3	311.3	231.8	181.0	130.3	102.3	4.5
59°	493.1	446.1	402.2	340.9	259.0	196.2	149.2	115.9	90.1	71.2	3.0
60°	303.0	293.1	263.6	207.5	168.2	138.6	111.3	85.6	65.9	50.7	1.5
62.5°	86.3	87.9	79.5	70.4	60.6	52.3	47.0	40.1	33.3	26.5	0.0
65°	19.7	18.9	20.5	18.9	17.4	17.4	15.1	13.6	12.1	11.4	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°	6.1	6.1	5.3	5.3	5.3	4.5	4.5	3.8	3.8	3.0	0.0
70°	2.3	2.3	2.3	2.3	2.3	1.5	1.5	1.5	0.8	0.8	0.0
72.5°	2.3	2.3	2.3	1.5	1.5	1.5	1.5	1.5	0.8	0.8	0.8
75°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.8	0.8	0.8	0.8
77.5°	1.5	1.5	1.5	1.5	1.5	0.8	1.5	0.8	0.8	0.8	0.8
80°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
82.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
85°	0.8	0.8	0.8	0.8	0.0	0.0	0.8	0.8	0.8	0.0	0.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
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°	56.1	56.1	56.1	56.1	56.1	56.1
2.5°	58.3	55.3	53.0	50.7	50.0	50.0
5°	56.8	52.3	47.7	45.4	43.9	43.9
7.5°	52.3	47.0	42.4	40.1	39.4	39.4
10°	47.0	40.9	36.4	34.8	34.8	34.1
12.5°	40.9	34.8	31.8	31.1	31.1	31.1
15°	34.1	29.5	27.3	27.3	28.0	28.8
17.5°	28.8	24.2	23.5	25.0	26.5	26.5
20°	24.2	21.2	21.2	22.7	24.2	25.0
22.5°	20.5	18.2	18.9	21.2	23.5	24.2
25°	18.2	15.9	17.4	19.7	22.0	23.5
27.5°	15.1	14.4	15.9	18.9	22.0	22.7
30°	12.9	12.9	15.1	18.2	21.2	22.0
31°	12.1	12.1	15.1	18.2	21.2	22.0
32°	11.4	12.1	14.4	18.2	21.2	22.0
33°	10.6	11.4	14.4	17.4	21.2	22.0
34°	9.8	11.4	14.4	17.4	21.2	22.0
35°	9.1	11.4	14.4	17.4	21.2	22.0
36°	8.3	10.6	13.6	17.4	21.2	22.0
37°	7.6	10.6	13.6	17.4	21.2	22.0
38°	6.8	9.8	13.6	17.4	21.2	22.0
39°	6.8	9.8	12.9	17.4	20.5	22.0
40°	6.1	9.1	12.9	17.4	20.5	22.0
41°	5.3	9.1	12.9	16.7	20.5	22.0
42°	4.5	8.3	12.1	16.7	20.5	22.0
43°	3.8	8.3	12.1	16.7	20.5	22.0
44°	3.8	7.6	12.1	16.7	20.5	22.0
45°	3.0	7.6	12.1	16.7	20.5	22.0
46°	2.3	7.6	12.1	16.7	20.5	22.0
47°	2.3	6.8	11.4	16.7	20.5	22.0
48°	1.5	6.8	11.4	16.7	20.5	22.0
49°	1.5	6.8	11.4	16.7	20.5	22.7
50°	1.5	6.8	11.4	15.9	20.5	22.7
51°	0.8	6.8	11.4	15.9	20.5	22.7
52°	0.8	6.8	10.6	15.9	21.2	22.7
53°	0.8	6.1	10.6	15.9	21.2	22.7
54°	0.8	6.1	10.6	15.9	21.2	22.0
55°	0.8	6.1	10.6	15.9	20.5	22.0
56°	0.8	5.3	10.6	15.9	20.5	22.0
57°	0.8	5.3	9.8	15.1	20.5	21.2
58°	0.8	5.3	9.8	15.1	20.5	21.2
59°	0.8	5.3	9.8	15.1	19.7	21.2
60°	1.5	4.5	9.1	14.4	19.7	21.2
62.5°	1.5	4.5	9.1	14.4	18.9	20.5
65°	1.5	4.5	8.3	13.6	18.9	20.5



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.5	3.8	7.6	12.9	18.2	19.7
70°	1.5	4.5	7.6	12.1	17.4	18.9
72.5°	2.3	3.8	6.8	11.4	16.7	18.2
75°	2.3	3.8	6.8	10.6	15.9	16.7
77.5°	3.0	3.8	6.1	9.1	14.4	15.1
80°	3.0	3.8	5.3	7.6	12.1	12.9
82.5°	3.0	3.8	3.8	6.1	9.1	9.8
85°	2.3	3.0	3.0	3.8	6.1	6.8
87.5°	2.3	3.0	2.3	1.5	3.0	3.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)