

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: P1340491

Luminaire Tested: P3A09R209740DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1340491
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: P3A09R209740DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R20 optic, 4000K CCT AND, 97CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

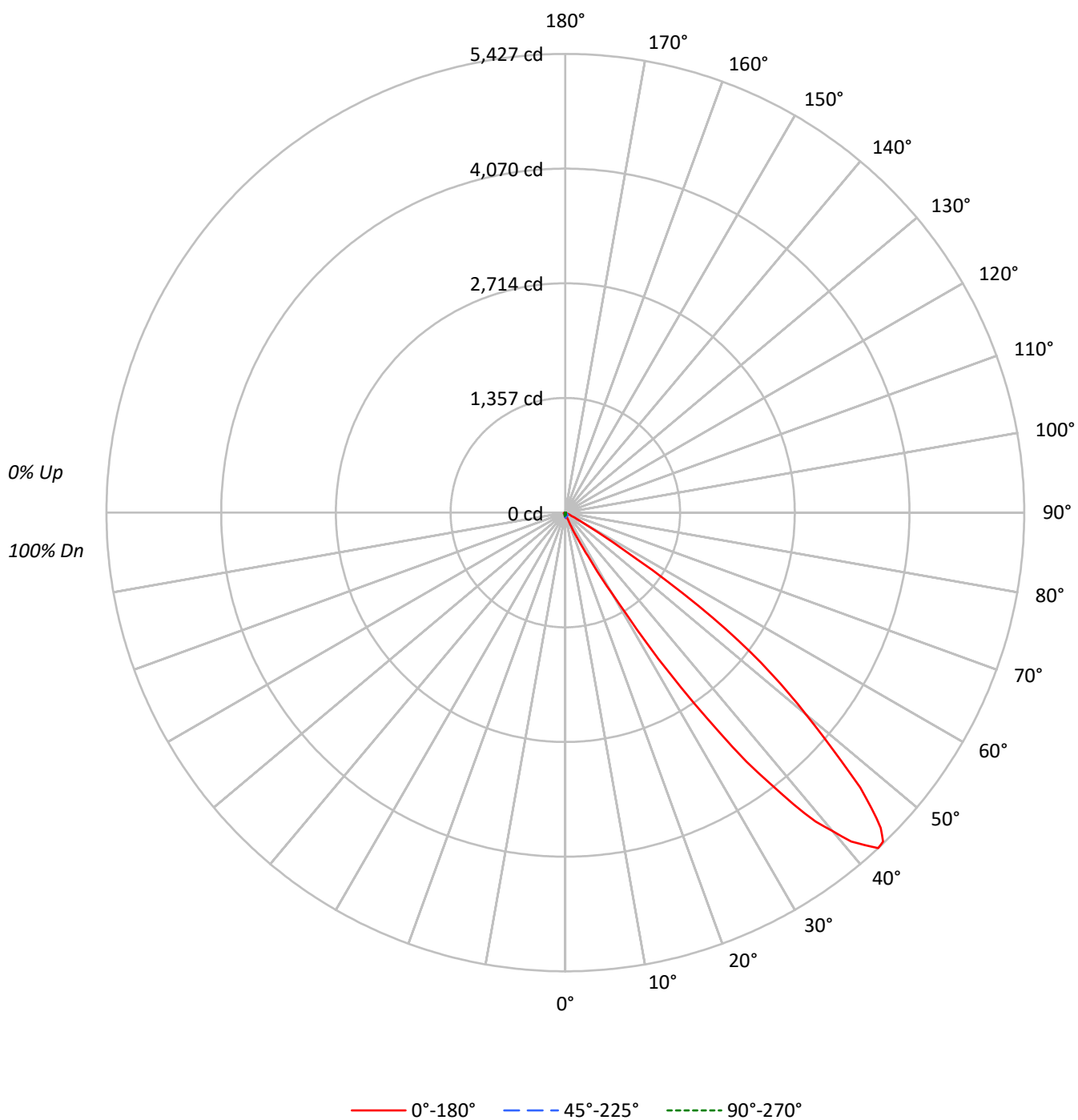
Lumens per Lamp: N/A
Luminaire Lumens: 754.0 lumens
Efficiency: N/A
Efficacy: 67.9 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.14
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 11.1
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	108	104	101	97	100	97	94	96	94	92	92	91	89
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75
3	92	81	74	67	89	80	73	67	77	71	66	74	69	65	72	67	63
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37
7	62	48	39	32	60	47	38	32	46	38	32	44	37	32	43	36	31
8	57	42	33	27	55	42	33	27	40	33	27	39	32	27	38	31	27
9	52	38	29	23	51	37	29	23	36	28	23	35	28	23	34	27	23
10	48	34	25	20	47	33	25	20	32	25	19	31	24	19	30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	11490	11490	11490	11490	11490
5°	13405	12481	10764	9355	9047
10°	13248	11356	8528	7259	7103
15°	11578	8695	6266	5789	6107
20°	17198	7281	4620	4970	5460
25°	74061	7549	3605	4452	5323
30°	280068	9141	3038	4304	5191
35°	849013	11002	2838	4363	5488
40°	1407866	10963	2433	4666	5868
45°	1636387	7474	2202	4838	6357
50°	1270270	4094	2183	5083	7266
55°	735209	2714	2179	5696	7837
60°	124288	614	1886	5921	8684
65°	9547	0	2231	6641	9910
70°	1346	0	2757	7245	11348
75°	1186	593	2965	8388	13217
80°	884	884	4420	8966	15153
85°	1761	1761	7045	8806	16102

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1636387 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4.5	0.6
10°-20°	9.4	1.3
20°-30°	30.1	4.0
30°-40°	192.3	25.5
40°-50°	351.9	46.7
50°-60°	144.6	19.2
60°-70°	12.2	1.6
70°-80°	6.1	0.8
80°-90°	2.8	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°	44.0	5.8
0°-40°	236.3	31.3
0°-60°	732.9	97.2
0°-90°	754.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	754.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	52	52	52	52	52	
5°	61	57	49	42	41	6
15°	51	38	28	26	27	16
25°	306	31	15	18	22	201
35°	3172	41	11	16	20	2007
45°	5277	24	7	16	20	3789
55°	1923	7	6	15	20	1681
65°	18	0	4	13	19	60
75°	1	1	4	10	16	2
85°	1	1	3	4	6	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°	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4	52.4
2.5°	57.4	57.4	57.4	56.7	56.7	57.4	56.7	56.7	56.7	56.7	56.0
5°	60.9	60.9	60.9	60.9	60.9	60.9	60.9	60.2	60.2	59.5	56.7
7.5°	62.4	62.4	62.4	62.4	61.6	61.6	61.6	61.6	60.9	60.2	55.3
10°	59.5	59.5	59.5	58.8	58.8	58.8	58.1	58.1	57.4	56.7	51.0
12.5°	53.9	53.9	53.9	53.9	53.1	53.1	52.4	52.4	51.7	51.0	44.6
15°	51.0	51.0	51.0	50.3	50.3	49.6	48.9	48.2	47.5	46.1	38.3
17.5°	55.3	55.3	54.6	54.6	53.1	51.7	51.0	48.9	47.5	45.3	34.0
20°	73.7	74.4	71.6	69.4	68.0	63.8	61.6	58.1	55.3	51.7	31.2
22.5°	148.8	146.0	141.0	133.2	124.0	116.2	102.0	90.7	82.9	72.3	30.5
25°	306.1	303.3	289.8	278.5	250.1	228.2	197.7	172.9	147.4	122.6	31.2
27.5°	581.7	562.6	559.1	507.3	467.7	411.0	352.2	302.6	257.2	206.9	33.3
30°	1106.1	1084.1	1006.9	929.0	822.0	700.8	585.3	477.6	387.6	306.1	36.1
31°	1403.7	1425.0	1334.3	1177.7	1019.7	864.5	706.5	569.7	453.5	352.2	37.6
32°	1845.2	1752.3	1656.7	1495.8	1266.2	1067.8	869.4	672.4	519.4	401.8	39.0
33°	2262.5	2207.9	2062.0	1861.4	1585.8	1307.3	1050.1	793.6	600.2	462.0	39.7
34°	2707.5	2647.3	2528.9	2241.2	1938.7	1573.8	1230.8	933.2	696.5	520.8	40.4
35°	3171.6	3146.1	2917.9	2668.5	2296.5	1856.5	1448.3	1086.3	790.8	574.7	41.1
36°	3638.6	3556.4	3377.8	3013.6	2625.3	2118.0	1676.5	1228.7	886.4	638.4	41.1
37°	3990.0	3971.6	3734.9	3379.9	2923.6	2397.1	1873.5	1386.7	982.8	693.0	41.1
38°	4377.6	4304.6	4064.4	3703.1	3204.2	2652.9	2079.7	1524.2	1074.2	742.6	40.4
39°	4704.3	4595.9	4353.5	3996.4	3449.4	2847.1	2243.4	1657.4	1155.0	783.7	39.7
40°	4918.3	4843.2	4590.2	4188.4	3671.9	3030.6	2409.2	1767.2	1215.2	814.9	38.3
41°	5154.2	5029.5	4779.4	4375.5	3833.4	3192.2	2513.3	1839.5	1262.0	835.4	36.8
42°	5295.2	5193.2	4896.3	4500.9	3948.9	3284.3	2598.4	1894.8	1290.3	846.0	34.0
43°	5427.0	5288.2	4999.1	4573.9	4025.5	3349.5	2637.3	1920.3	1296.7	846.0	30.5
44°	5409.3	5277.5	4977.8	4583.8	4042.5	3368.6	2653.6	1921.0	1286.8	835.4	26.9
45°	5276.8	5145.7	4875.8	4497.4	3981.5	3331.0	2621.0	1892.6	1259.2	817.0	24.1
46°	5033.8	4903.4	4696.5	4352.8	3868.2	3246.0	2545.2	1831.0	1213.1	787.2	21.3
47°	4769.5	4642.6	4430.8	4119.7	3674.7	3094.4	2435.4	1744.5	1148.6	744.0	19.1
48°	4386.1	4306.8	4094.2	3828.5	3406.2	2857.0	2242.7	1603.5	1062.2	688.0	16.3
49°	4047.4	3963.8	3777.5	3491.9	3056.1	2580.7	2012.4	1432.0	949.5	625.7	14.2
50°	3723.6	3650.6	3478.4	3156.0	2740.1	2246.9	1701.3	1215.9	807.8	548.4	12.0
51°	3406.9	3352.3	3176.6	2880.4	2458.1	1990.4	1473.9	1012.6	667.5	454.9	11.3
52°	3088.7	3082.3	2891.7	2592.0	2183.9	1734.6	1252.8	854.6	566.2	381.9	10.6
53°	2746.5	2705.4	2538.9	2269.6	1877.7	1468.2	1062.2	720.6	487.5	325.2	9.2
54°	2356.7	2310.7	2132.1	1889.1	1534.1	1202.5	856.0	582.5	406.0	274.9	8.5
55°	1923.1	1844.4	1714.8	1465.3	1198.2	917.6	661.1	461.3	324.5	228.9	7.1
56°	1459.0	1380.3	1307.3	1123.8	879.4	684.5	492.5	353.6	253.7	180.7	6.4
57°	1014.7	1010.4	890.7	749.7	588.1	466.2	337.3	249.4	179.3	140.3	5.0
58°	658.3	636.3	559.8	478.3	384.8	291.2	216.8	169.4	121.9	95.7	4.3
59°	461.3	417.4	376.3	318.9	242.3	183.5	139.6	108.4	84.3	66.6	2.8
60°	283.4	274.2	246.6	194.2	157.3	129.7	104.2	80.1	61.6	47.5	1.4
62.5°	80.8	82.2	74.4	65.9	56.7	48.9	43.9	37.6	31.2	24.8	0.0
65°	18.4	17.7	19.1	17.7	16.3	16.3	14.2	12.8	11.3	10.6	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°	5.7	5.7	5.0	5.0	5.0	4.3	4.3	3.5	3.5	2.8	0.0
70°	2.1	2.1	2.1	2.1	2.1	1.4	1.4	1.4	0.7	0.7	0.0
72.5°	2.1	2.1	2.1	1.4	1.4	1.4	1.4	1.4	0.7	0.7	0.7
75°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.7	0.7	0.7	0.7
77.5°	1.4	1.4	1.4	1.4	1.4	0.7	1.4	0.7	0.7	0.7	0.7
80°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
82.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
85°	0.7	0.7	0.7	0.7	0.0	0.0	0.7	0.7	0.7	0.0	0.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7
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°	52.4	52.4	52.4	52.4	52.4	52.4
2.5°	54.6	51.7	49.6	47.5	46.8	46.8
5°	53.1	48.9	44.6	42.5	41.1	41.1
7.5°	48.9	43.9	39.7	37.6	36.8	36.8
10°	43.9	38.3	34.0	32.6	32.6	31.9
12.5°	38.3	32.6	29.8	29.1	29.1	29.1
15°	31.9	27.6	25.5	25.5	26.2	26.9
17.5°	26.9	22.7	22.0	23.4	24.8	24.8
20°	22.7	19.8	19.8	21.3	22.7	23.4
22.5°	19.1	17.0	17.7	19.8	22.0	22.7
25°	17.0	14.9	16.3	18.4	20.5	22.0
27.5°	14.2	13.5	14.9	17.7	20.5	21.3
30°	12.0	12.0	14.2	17.0	19.8	20.5
31°	11.3	11.3	14.2	17.0	19.8	20.5
32°	10.6	11.3	13.5	17.0	19.8	20.5
33°	9.9	10.6	13.5	16.3	19.8	20.5
34°	9.2	10.6	13.5	16.3	19.8	20.5
35°	8.5	10.6	13.5	16.3	19.8	20.5
36°	7.8	9.9	12.8	16.3	19.8	20.5
37°	7.1	9.9	12.8	16.3	19.8	20.5
38°	6.4	9.2	12.8	16.3	19.8	20.5
39°	6.4	9.2	12.0	16.3	19.1	20.5
40°	5.7	8.5	12.0	16.3	19.1	20.5
41°	5.0	8.5	12.0	15.6	19.1	20.5
42°	4.3	7.8	11.3	15.6	19.1	20.5
43°	3.5	7.8	11.3	15.6	19.1	20.5
44°	3.5	7.1	11.3	15.6	19.1	20.5
45°	2.8	7.1	11.3	15.6	19.1	20.5
46°	2.1	7.1	11.3	15.6	19.1	20.5
47°	2.1	6.4	10.6	15.6	19.1	20.5
48°	1.4	6.4	10.6	15.6	19.1	20.5
49°	1.4	6.4	10.6	15.6	19.1	21.3
50°	1.4	6.4	10.6	14.9	19.1	21.3
51°	0.7	6.4	10.6	14.9	19.1	21.3
52°	0.7	6.4	9.9	14.9	19.8	21.3
53°	0.7	5.7	9.9	14.9	19.8	21.3
54°	0.7	5.7	9.9	14.9	19.8	20.5
55°	0.7	5.7	9.9	14.9	19.1	20.5
56°	0.7	5.0	9.9	14.9	19.1	20.5
57°	0.7	5.0	9.2	14.2	19.1	19.8
58°	0.7	5.0	9.2	14.2	19.1	19.8
59°	0.7	5.0	9.2	14.2	18.4	19.8
60°	1.4	4.3	8.5	13.5	18.4	19.8
62.5°	1.4	4.3	8.5	13.5	17.7	19.1
65°	1.4	4.3	7.8	12.8	17.7	19.1



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.4	3.5	7.1	12.0	17.0	18.4
70°	1.4	4.3	7.1	11.3	16.3	17.7
72.5°	2.1	3.5	6.4	10.6	15.6	17.0
75°	2.1	3.5	6.4	9.9	14.9	15.6
77.5°	2.8	3.5	5.7	8.5	13.5	14.2
80°	2.8	3.5	5.0	7.1	11.3	12.0
82.5°	2.8	3.5	3.5	5.7	8.5	9.2
85°	2.1	2.8	2.8	3.5	5.7	6.4
87.5°	2.1	2.8	2.1	1.4	2.8	2.8
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)