

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: P1343989

Luminaire Tested: P3A13R209727DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1343989
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: P3A13R209727DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R20 optic, 2700K CCT AND, 97CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

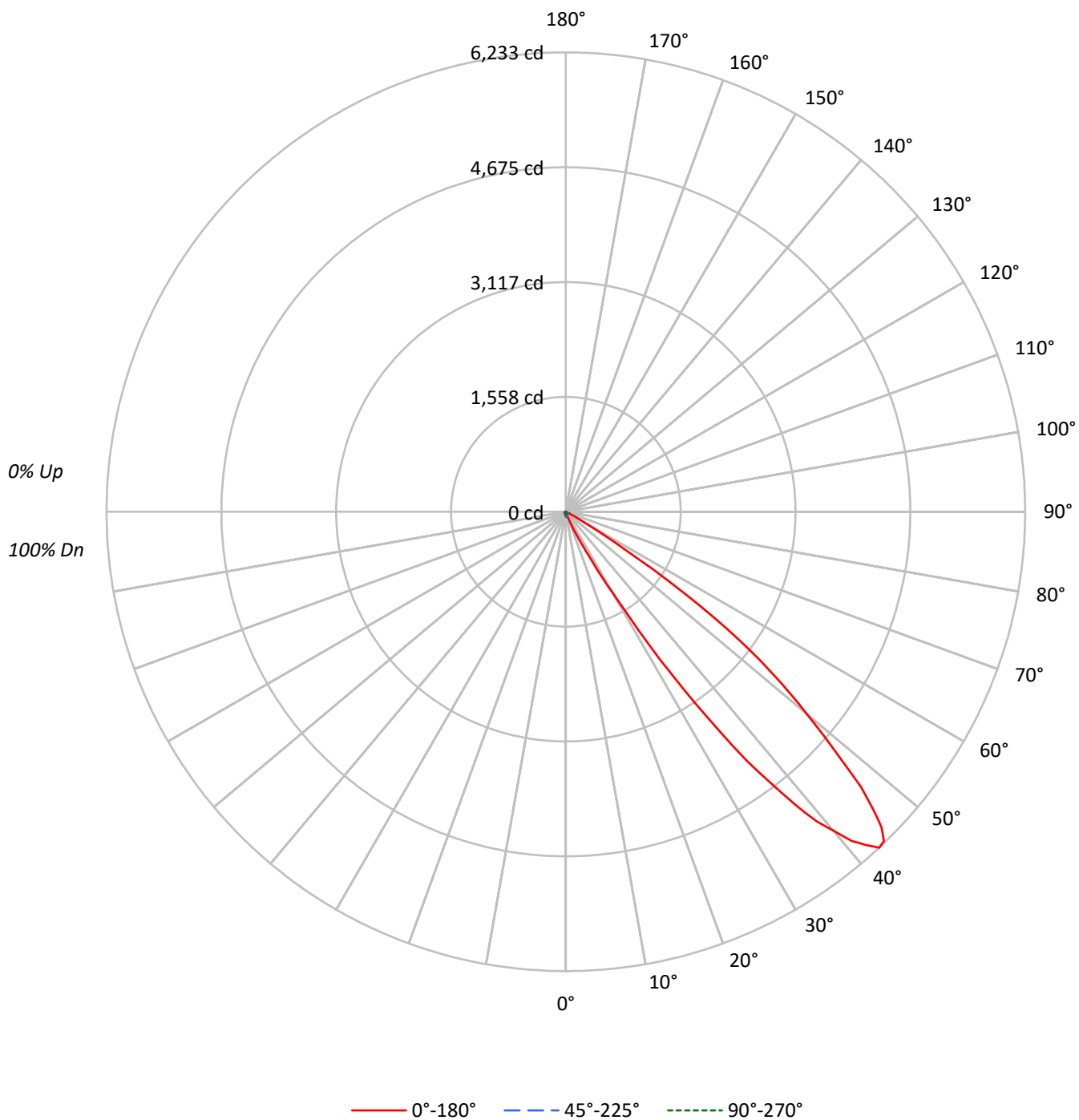
Lumens per Lamp: N/A
Luminaire Lumens: 866.0 lumens
Efficiency: N/A
Efficacy: 59.3 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 14.6
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	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°	13201	13201	13201	13201	13201
5°	15408	14330	12371	10742	10390
10°	15230	13048	9775	8328	8149
15°	13303	9966	7196	6652	7015
20°	19742	8354	5320	5694	6277
25°	85069	8662	4137	5129	6097
30°	321670	10508	3494	4937	5976
35°	975123	12635	3266	5006	6318
40°	1616972	12566	2805	5353	6756
45°	1879451	8590	2512	5551	7319
50°	1458954	4708	2490	5833	8324
55°	844434	3097	2485	6537	9022
60°	142752	702	2149	6798	9999
65°	11000	0	2542	7575	11415
70°	1539	0	3142	8335	13015
75°	1356	678	3474	9658	15166
80°	1010	1010	5177	10229	17426
85°	2013	2013	8303	10315	18367

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1879451 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	5.2	0.6
10°-20°	10.8	1.3
20°-30°	34.6	4.0
30°-40°	220.8	25.5
40°-50°	404.2	46.7
50°-60°	166.1	19.2
60°-70°	14.0	1.6
70°-80°	7.0	0.8
80°-90°	3.3	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°	50.6	5.8
0°-40°	271.4	31.3
0°-60°	841.7	97.2
0°-90°	866.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	866.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	60	60	60	60	60	
5°	70	65	56	49	47	7
15°	59	44	32	29	31	19
25°	352	36	17	21	25	231
35°	3643	47	12	19	24	2306
45°	6061	28	8	18	24	4352
55°	2209	8	6	17	24	1931
65°	21	0	5	15	22	69
75°	2	1	4	11	18	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°	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2	60.2
2.5°	65.9	65.9	65.9	65.1	65.1	65.9	65.1	65.1	65.1	65.1	64.3
5°	70.0	70.0	70.0	70.0	70.0	70.0	70.0	69.2	69.2	68.4	65.1
7.5°	71.6	71.6	71.6	71.6	70.8	70.8	70.8	70.8	70.0	69.2	63.5
10°	68.4	68.4	68.4	67.5	67.5	67.5	66.7	66.7	65.9	65.1	58.6
12.5°	61.9	61.9	61.9	61.9	61.0	61.0	60.2	60.2	59.4	58.6	51.3
15°	58.6	58.6	58.6	57.8	57.8	57.0	56.2	55.3	54.5	52.9	43.9
17.5°	63.5	63.5	62.7	62.7	61.0	59.4	58.6	56.2	54.5	52.1	39.1
20°	84.6	85.5	82.2	79.8	78.1	73.2	70.8	66.7	63.5	59.4	35.8
22.5°	170.9	167.7	162.0	153.0	142.4	133.5	117.2	104.2	95.2	83.0	35.0
25°	351.6	348.3	332.9	319.8	287.3	262.1	227.1	198.6	169.3	140.8	35.8
27.5°	668.2	646.2	642.1	582.7	537.1	472.0	404.5	347.5	295.4	237.6	38.3
30°	1270.4	1245.2	1156.5	1066.9	944.1	804.9	672.2	548.5	445.2	351.6	41.5
31°	1612.2	1636.6	1532.5	1352.6	1171.1	992.9	811.4	654.3	520.9	404.5	43.1
32°	2119.2	2012.6	1902.8	1718.0	1454.3	1226.5	998.6	772.3	596.5	461.4	44.8
33°	2598.6	2535.9	2368.3	2137.9	1821.4	1501.5	1206.1	911.5	689.3	530.6	45.6
34°	3109.7	3040.5	2904.6	2574.2	2226.7	1807.5	1413.6	1071.8	800.0	598.2	46.4
35°	3642.7	3613.4	3351.4	3064.9	2637.6	2132.3	1663.5	1247.6	908.2	660.0	47.2
36°	4179.1	4084.6	3879.6	3461.2	3015.3	2432.6	1925.5	1411.2	1018.1	733.3	47.2
37°	4582.7	4561.6	4289.7	3882.0	3357.9	2753.2	2151.8	1592.7	1128.8	795.9	47.2
38°	5027.9	4944.1	4668.2	4253.1	3680.2	3047.0	2388.6	1750.6	1233.8	852.9	46.4
39°	5403.1	5278.5	5000.2	4590.0	3961.8	3270.0	2576.6	1903.6	1326.6	900.1	45.6
40°	5648.8	5562.6	5272.0	4810.6	4217.3	3480.8	2767.0	2029.7	1395.7	935.9	43.9
41°	5919.8	5776.6	5489.3	5025.4	4402.9	3666.3	2886.7	2112.7	1449.4	959.5	42.3
42°	6081.8	5964.6	5623.6	5169.5	4535.5	3772.1	2984.3	2176.2	1482.0	971.7	39.1
43°	6233.2	6073.7	5741.6	5253.3	4623.4	3847.0	3029.1	2205.5	1489.3	971.7	35.0
44°	6212.8	6061.5	5717.2	5264.7	4642.9	3869.0	3047.8	2206.3	1477.9	959.5	30.9
45°	6060.6	5910.1	5600.0	5165.4	4572.9	3825.8	3010.4	2173.8	1446.2	938.4	27.7
46°	5781.5	5631.8	5394.1	4999.4	4442.7	3728.2	2923.3	2103.0	1393.3	904.2	24.4
47°	5477.9	5332.3	5088.9	4731.6	4220.6	3554.0	2797.2	2003.7	1319.2	854.5	22.0
48°	5037.6	4946.5	4702.3	4397.2	3912.1	3281.4	2575.8	1841.7	1219.9	790.2	18.7
49°	4648.6	4552.6	4338.6	4010.6	3510.1	2964.0	2311.3	1644.8	1090.5	718.6	16.3
50°	4276.7	4192.9	3995.1	3624.8	3147.1	2580.7	1954.0	1396.5	927.8	629.9	13.8
51°	3912.9	3850.3	3648.4	3308.2	2823.2	2286.1	1692.8	1163.0	766.6	522.5	13.0
52°	3547.5	3540.2	3321.3	2977.0	2508.2	1992.3	1438.9	981.5	650.3	438.7	12.2
53°	3154.4	3107.2	2916.0	2606.7	2156.7	1686.3	1219.9	827.7	559.9	373.6	10.6
54°	2706.8	2653.9	2448.8	2169.7	1762.0	1381.1	983.1	669.0	466.3	315.8	9.8
55°	2208.8	2118.4	1969.5	1683.0	1376.2	1053.9	759.3	529.8	372.7	262.9	8.1
56°	1675.7	1585.4	1501.5	1290.7	1010.0	786.2	565.6	406.1	291.4	207.5	7.3
57°	1165.4	1160.5	1023.0	861.0	675.5	535.5	387.4	286.5	205.9	161.1	5.7
58°	756.1	730.8	642.9	549.3	441.9	334.5	249.0	194.5	140.0	109.9	4.9
59°	529.8	479.3	432.1	366.2	278.3	210.8	160.3	124.5	96.8	76.5	3.3
60°	325.5	315.0	283.2	223.0	180.7	148.9	119.6	92.0	70.8	54.5	1.6
62.5°	92.8	94.4	85.5	75.7	65.1	56.2	50.5	43.1	35.8	28.5	0.0
65°	21.2	20.3	22.0	20.3	18.7	18.7	16.3	14.6	13.0	12.2	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°	6.5	6.5	5.7	5.7	5.7	4.9	4.9	4.1	4.1	3.3	0.0
70°	2.4	2.4	2.4	2.4	2.4	1.6	1.6	1.6	0.8	0.8	0.0
72.5°	2.4	2.4	2.4	1.6	1.6	1.6	1.6	1.6	0.8	0.8	0.8
75°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	0.8	0.8	0.8	0.8
77.5°	1.6	1.6	1.6	1.6	1.6	0.8	1.6	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°	60.2	60.2	60.2	60.2	60.2	60.2
2.5°	62.7	59.4	57.0	54.5	53.7	53.7
5°	61.0	56.2	51.3	48.8	47.2	47.2
7.5°	56.2	50.5	45.6	43.1	42.3	42.3
10°	50.5	43.9	39.1	37.4	37.4	36.6
12.5°	43.9	37.4	34.2	33.4	33.4	33.4
15°	36.6	31.7	29.3	29.3	30.1	30.9
17.5°	30.9	26.0	25.2	26.9	28.5	28.5
20°	26.0	22.8	22.8	24.4	26.0	26.9
22.5°	22.0	19.5	20.3	22.8	25.2	26.0
25°	19.5	17.1	18.7	21.2	23.6	25.2
27.5°	16.3	15.5	17.1	20.3	23.6	24.4
30°	13.8	13.8	16.3	19.5	22.8	23.6
31°	13.0	13.0	16.3	19.5	22.8	23.6
32°	12.2	13.0	15.5	19.5	22.8	23.6
33°	11.4	12.2	15.5	18.7	22.8	23.6
34°	10.6	12.2	15.5	18.7	22.8	23.6
35°	9.8	12.2	15.5	18.7	22.8	23.6
36°	9.0	11.4	14.6	18.7	22.8	23.6
37°	8.1	11.4	14.6	18.7	22.8	23.6
38°	7.3	10.6	14.6	18.7	22.8	23.6
39°	7.3	10.6	13.8	18.7	22.0	23.6
40°	6.5	9.8	13.8	18.7	22.0	23.6
41°	5.7	9.8	13.8	17.9	22.0	23.6
42°	4.9	9.0	13.0	17.9	22.0	23.6
43°	4.1	9.0	13.0	17.9	22.0	23.6
44°	4.1	8.1	13.0	17.9	22.0	23.6
45°	3.3	8.1	13.0	17.9	22.0	23.6
46°	2.4	8.1	13.0	17.9	22.0	23.6
47°	2.4	7.3	12.2	17.9	22.0	23.6
48°	1.6	7.3	12.2	17.9	22.0	23.6
49°	1.6	7.3	12.2	17.9	22.0	24.4
50°	1.6	7.3	12.2	17.1	22.0	24.4
51°	0.8	7.3	12.2	17.1	22.0	24.4
52°	0.8	7.3	11.4	17.1	22.8	24.4
53°	0.8	6.5	11.4	17.1	22.8	24.4
54°	0.8	6.5	11.4	17.1	22.8	23.6
55°	0.8	6.5	11.4	17.1	22.0	23.6
56°	0.8	5.7	11.4	17.1	22.0	23.6
57°	0.8	5.7	10.6	16.3	22.0	22.8
58°	0.8	5.7	10.6	16.3	22.0	22.8
59°	0.8	5.7	10.6	16.3	21.2	22.8
60°	1.6	4.9	9.8	15.5	21.2	22.8
62.5°	1.6	4.9	9.8	15.5	20.3	22.0
65°	1.6	4.9	9.0	14.6	20.3	22.0



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.6	4.1	8.1	13.8	19.5	21.2
70°	1.6	4.9	8.1	13.0	18.7	20.3
72.5°	2.4	4.1	7.3	12.2	17.9	19.5
75°	2.4	4.1	7.3	11.4	17.1	17.9
77.5°	3.3	4.1	6.5	9.8	15.5	16.3
80°	3.3	4.1	5.7	8.1	13.0	13.8
82.5°	3.3	4.1	4.1	6.5	9.8	10.6
85°	2.4	3.3	3.3	4.1	6.5	7.3
87.5°	2.4	3.3	2.4	1.6	3.3	3.3
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)