

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: P1336309

Luminaire Tested: P3A05R159027DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336309
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: P3A05R159027DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R15 optic, 2700K CCT AND, 90CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

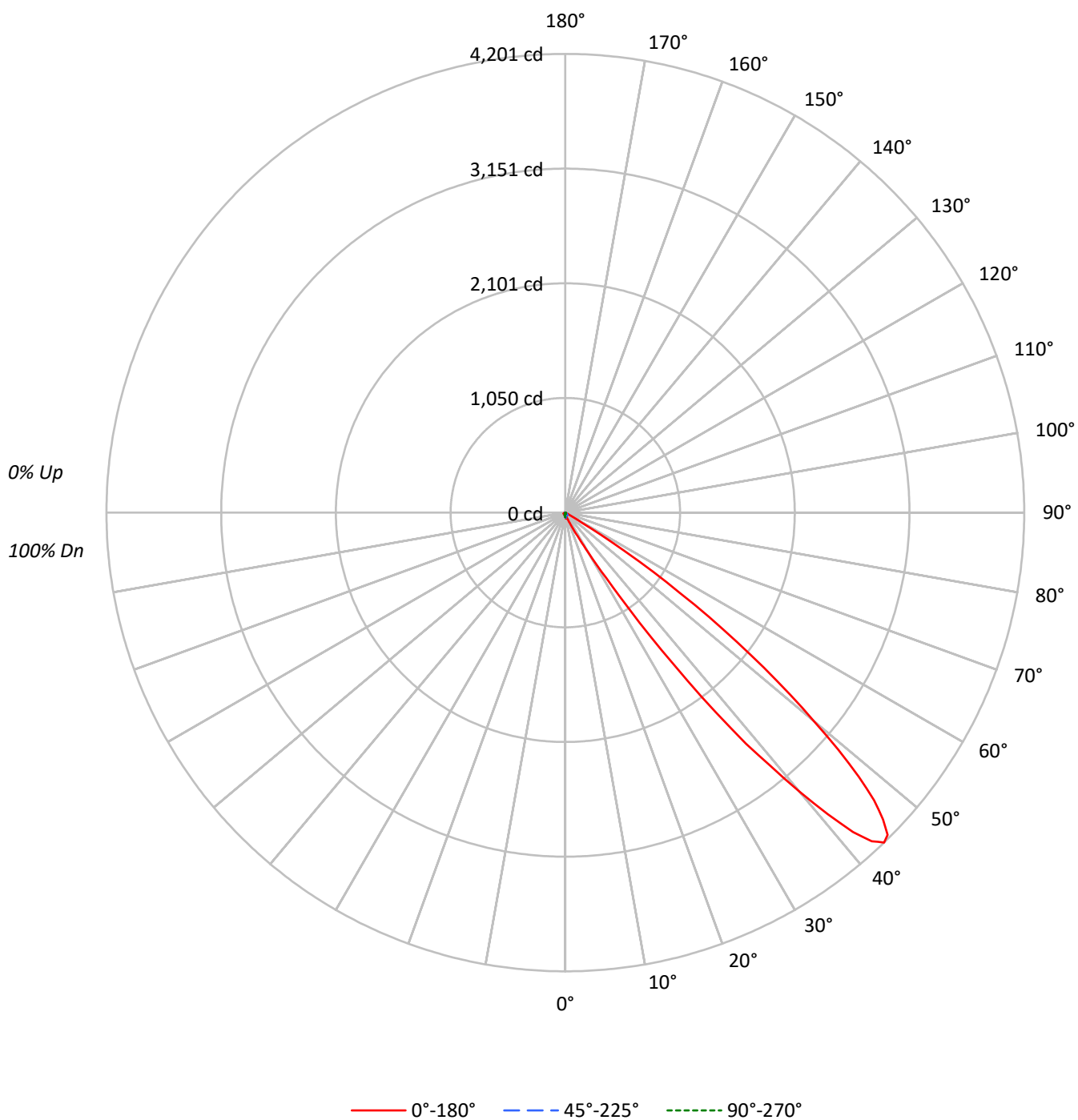
Lumens per Lamp: N/A
Luminaire Lumens: 469.0 lumens
Efficiency: N/A
Efficacy: 65.1 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 7.2
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	0
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°	9122	9122	9122	9122	9122
5°	11314	10081	8232	7198	7110
10°	11133	8639	6346	5633	5722
15°	9240	6152	4563	4677	4994
20°	16031	4900	3500	4037	4574
25°	35760	5879	2831	3726	4307
30°	106928	7216	2481	3671	4507
35°	411604	8138	2249	3748	4765
40°	955361	7099	2147	3893	5095
45°	1293995	5365	1892	4217	5520
50°	1014619	3207	1910	4469	6072
55°	486979	1415	1797	4817	6614
60°	44514	219	1623	5131	7368
65°	4877	0	1453	5344	7990
70°	1218	0	1795	5706	8719
75°	1186	424	2372	6354	9913
80°	1137	1137	2904	6440	10607
85°	1258	1258	4780	5787	11825

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1293995 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.6	0.8
10°-20°	7.4	1.6
20°-30°	17.7	3.8
30°-40°	97.0	20.7
40°-50°	234.9	50.1
50°-60°	93.7	20.0
60°-70°	8.1	1.7
70°-80°	4.6	1.0
80°-90°	2.0	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°	28.7	6.1
0°-40°	125.7	26.8
0°-60°	454.3	96.9
0°-90°	469.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	469.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	42	42	42	42	42	
5°	51	46	37	33	32	5
15°	41	27	20	21	22	14
25°	148	24	12	15	18	89
35°	1538	30	8	14	18	1087
45°	4173	17	6	14	18	2944
55°	1274	4	5	13	17	1187
65°	9	0	3	10	15	24
75°	1	0	3	8	12	1
85°	0	0	2	2	5	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°	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6	41.6
2.5°	46.8	46.8	47.2	46.8	46.8	46.8	46.8	46.3	46.3	46.3	44.9
5°	51.4	51.4	51.4	51.4	51.0	51.0	51.0	50.5	50.5	50.0	45.8
7.5°	53.3	53.3	52.8	52.8	52.4	52.4	51.9	51.4	51.0	50.5	44.0
10°	50.0	50.0	50.0	49.6	49.6	49.1	48.6	48.2	47.7	46.8	38.8
12.5°	44.4	44.4	44.9	44.4	44.0	43.5	42.6	42.1	41.6	40.7	32.3
15°	40.7	40.7	40.7	40.2	39.7	38.8	38.3	37.4	36.9	35.5	27.1
17.5°	51.9	51.9	51.4	50.5	48.6	47.2	44.9	43.0	40.7	37.9	23.4
20°	68.7	68.7	67.8	66.9	64.5	62.2	58.5	55.2	51.4	48.2	21.0
22.5°	99.6	101.0	98.2	94.9	91.7	86.0	80.9	75.8	69.2	63.6	21.5
25°	147.8	149.2	147.8	140.3	134.2	126.7	116.9	106.6	95.4	85.1	24.3
27.5°	239.4	240.4	238.0	219.8	210.0	190.3	173.0	156.2	137.5	118.8	26.7
30°	422.3	422.7	407.8	371.3	339.0	296.0	259.5	224.5	195.0	165.1	28.5
31°	556.0	542.9	511.1	467.2	415.7	357.7	307.7	262.3	218.4	186.1	29.0
32°	706.1	704.3	651.4	575.2	506.5	434.0	358.7	300.7	250.2	206.2	29.5
33°	904.9	905.8	822.6	732.8	620.1	522.8	424.1	344.6	283.9	230.1	30.4
34°	1215.4	1142.4	1044.7	923.1	769.7	623.4	495.2	395.6	314.3	253.0	30.4
35°	1537.6	1464.2	1356.6	1172.4	961.9	757.1	579.9	450.3	350.7	277.8	30.4
36°	1898.6	1836.4	1673.7	1438.5	1170.0	883.4	669.7	513.5	386.7	300.2	29.9
37°	2288.6	2197.4	2016.9	1760.2	1401.0	1061.1	779.1	576.1	422.7	324.5	29.0
38°	2684.7	2602.4	2374.7	2063.7	1676.9	1248.6	888.5	636.5	455.9	342.8	27.6
39°	2984.9	2940.0	2714.2	2366.7	1897.2	1426.3	1001.2	701.0	491.0	361.0	26.2
40°	3337.5	3265.0	3050.9	2621.1	2157.7	1607.3	1111.6	758.0	520.0	375.5	24.8
41°	3659.3	3567.6	3297.3	2882.0	2366.2	1770.0	1216.3	817.0	543.4	383.9	23.8
42°	3935.2	3828.5	3546.1	3105.6	2540.7	1900.0	1300.0	859.0	565.4	390.9	22.4
43°	4113.8	4021.7	3743.9	3273.5	2689.8	2019.3	1378.1	903.0	578.9	395.6	20.6
44°	4200.8	4107.7	3838.8	3378.7	2781.5	2090.8	1428.6	933.4	593.9	401.7	19.2
45°	4172.7	4078.3	3818.3	3380.5	2810.0	2116.5	1450.1	947.0	601.8	407.3	17.3
46°	4044.1	3977.7	3715.8	3292.6	2755.8	2088.9	1438.0	936.7	599.0	407.3	15.4
47°	3863.6	3787.9	3538.6	3141.6	2624.4	2017.9	1388.9	905.3	581.7	398.0	13.6
48°	3617.6	3553.1	3291.2	2901.7	2422.8	1863.1	1278.1	854.4	554.6	379.7	11.7
49°	3309.0	3219.2	2975.6	2594.9	2160.0	1643.3	1132.6	768.3	511.1	354.0	10.3
50°	2974.2	2863.3	2675.4	2287.7	1888.3	1409.0	941.4	649.5	449.9	320.3	9.4
51°	2646.4	2533.7	2354.6	2024.9	1598.4	1169.1	759.4	518.6	370.4	274.0	7.9
52°	2306.4	2211.9	2011.3	1752.2	1368.3	947.4	632.7	438.6	307.7	230.1	6.5
53°	1967.8	1903.3	1712.5	1450.1	1099.4	773.9	516.7	375.5	268.4	196.9	5.1
54°	1628.8	1558.2	1413.2	1179.4	886.2	610.7	438.2	314.3	232.9	171.6	4.7
55°	1273.8	1237.4	1103.6	899.3	671.5	487.3	355.4	270.3	195.0	143.6	3.7
56°	981.1	940.0	817.9	652.4	499.0	381.6	287.6	220.7	165.1	120.2	2.8
57°	642.5	600.4	519.5	455.5	363.4	278.2	219.8	174.0	134.2	99.6	2.3
58°	379.7	341.4	328.7	280.6	242.2	188.9	162.3	129.5	99.1	78.6	1.4
59°	174.4	177.2	157.6	147.8	134.2	120.2	98.7	86.5	67.8	56.6	0.9
60°	101.5	95.9	93.5	83.7	74.4	65.9	59.4	52.4	42.6	36.5	0.5
62.5°	34.6	33.2	34.1	30.9	29.0	28.1	25.7	22.0	18.2	15.0	0.0
65°	9.4	9.4	8.9	8.4	7.9	7.5	7.0	6.1	5.6	4.7	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°	3.3	3.3	2.8	2.8	2.3	2.3	1.9	1.9	1.4	1.4	0.0
70°	1.9	1.9	1.9	1.4	1.4	1.4	0.9	0.9	0.9	0.5	0.0
72.5°	1.4	1.4	1.4	1.4	1.4	1.4	0.9	0.9	0.9	0.5	0.5
75°	1.4	1.4	1.4	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.5
77.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
80°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.5	0.9
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.9
85°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
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°	41.6	41.6	41.6	41.6	41.6	41.6
2.5°	43.0	41.2	38.8	37.4	36.9	36.5
5°	41.2	37.4	34.6	32.7	32.3	32.3
7.5°	36.9	32.7	29.9	29.0	28.5	28.5
10°	32.3	28.5	26.2	25.3	25.7	25.7
12.5°	27.1	23.8	22.9	22.9	23.4	23.8
15°	22.0	20.1	20.1	20.6	21.5	22.0
17.5°	18.2	17.3	17.8	18.7	19.6	20.6
20°	15.0	15.0	15.9	17.3	18.7	19.6
22.5°	12.6	13.1	14.5	15.9	17.8	18.7
25°	10.8	11.7	13.1	15.4	17.3	17.8
27.5°	9.4	10.8	12.6	15.0	16.8	17.8
30°	7.9	9.8	12.2	14.5	16.8	17.8
31°	7.5	9.4	11.7	14.5	16.8	17.8
32°	7.0	9.4	11.7	14.5	16.8	17.8
33°	6.5	8.9	11.7	14.0	16.8	17.8
34°	6.1	8.9	11.7	14.5	16.8	17.8
35°	5.6	8.4	11.2	14.0	16.4	17.8
36°	5.1	8.4	11.2	14.0	16.8	17.8
37°	4.7	8.4	11.2	14.0	16.4	17.8
38°	4.7	7.9	10.8	14.0	16.4	17.8
39°	4.2	7.5	10.8	14.0	16.4	17.8
40°	3.7	7.5	10.3	13.6	16.4	17.8
41°	3.3	7.0	10.3	13.6	16.4	17.8
42°	2.8	7.0	10.3	13.6	16.4	17.8
43°	2.3	6.5	9.8	13.6	16.4	17.8
44°	2.3	6.5	9.8	13.6	16.4	17.8
45°	1.9	6.1	9.4	13.6	16.4	17.8
46°	1.9	6.1	9.4	13.1	16.4	17.8
47°	1.4	6.1	9.4	13.1	16.4	17.8
48°	1.4	5.6	9.4	13.1	16.4	17.8
49°	0.9	5.6	9.4	13.1	16.4	17.8
50°	0.9	5.6	8.9	13.1	16.4	17.8
51°	0.9	5.6	8.9	13.1	16.4	17.8
52°	0.9	5.1	8.9	13.1	16.4	17.8
53°	0.9	5.1	8.9	13.1	16.4	17.8
54°	0.9	5.1	8.4	13.1	16.4	17.8
55°	0.9	4.7	8.4	12.6	16.4	17.3
56°	0.9	4.7	8.4	12.6	16.4	17.3
57°	0.9	4.7	7.9	12.6	16.4	17.3
58°	0.9	4.2	7.9	12.2	15.9	17.3
59°	0.9	4.2	7.5	12.2	15.9	16.8
60°	0.9	3.7	7.5	11.7	15.4	16.8
62.5°	0.9	3.3	6.5	11.2	15.0	15.9
65°	0.9	2.8	6.1	10.3	14.5	15.4



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.9	2.8	5.6	9.8	13.6	15.0
70°	0.9	2.8	5.1	8.9	13.1	13.6
72.5°	1.4	2.8	4.7	8.4	12.2	12.6
75°	1.9	2.8	4.2	7.5	11.2	11.7
77.5°	1.9	2.8	3.7	6.5	9.8	10.3
80°	1.9	2.3	3.3	5.1	7.9	8.4
82.5°	1.9	2.3	2.3	4.2	6.1	6.5
85°	1.4	1.9	1.9	2.3	4.2	4.7
87.5°	1.4	1.9	0.9	1.4	1.9	1.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)