

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: P1335687

Luminaire Tested: P3A02R409035DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335687
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-78)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A02R409035DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R40 optic, 3500K CCT AND, 90CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

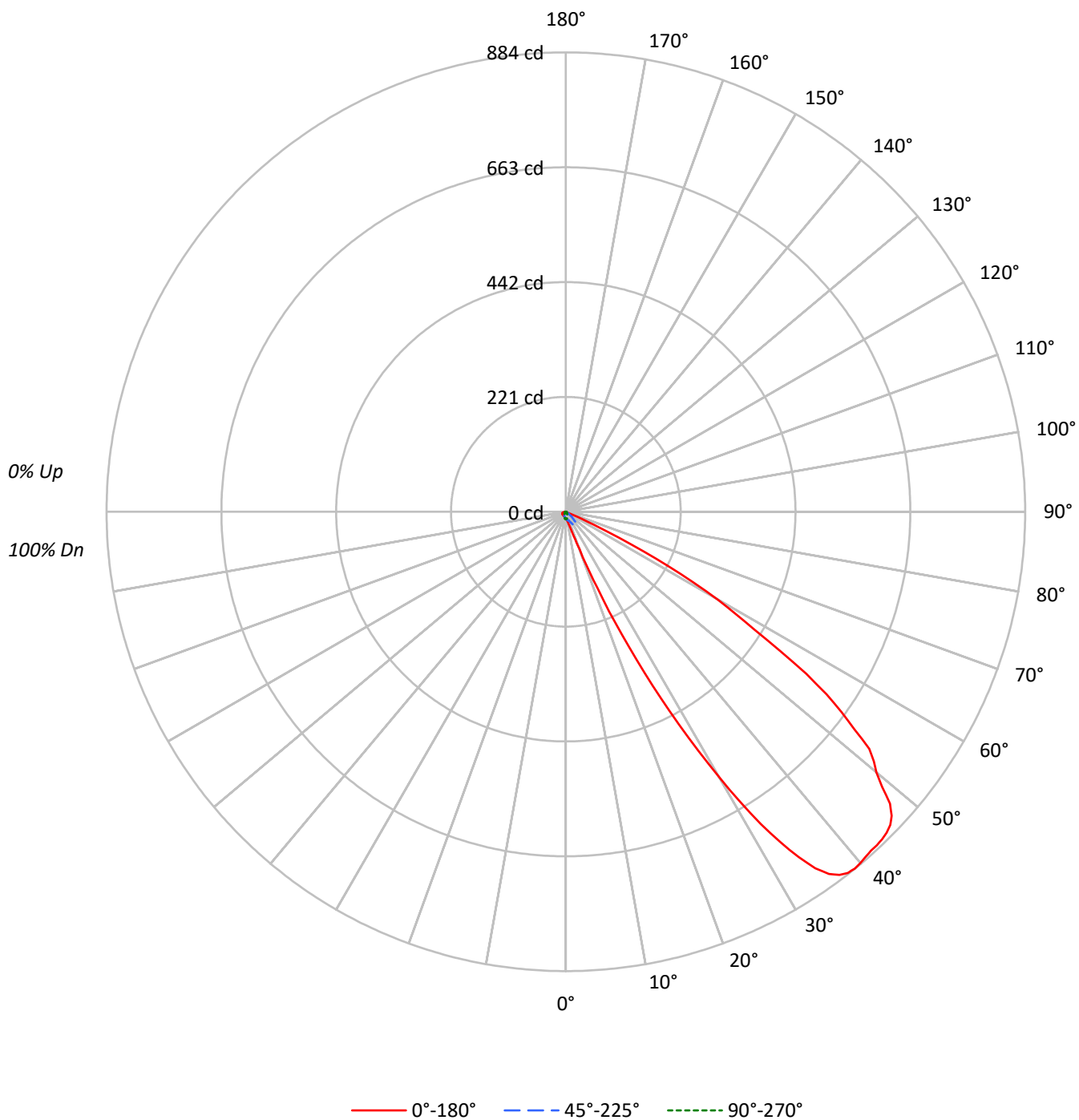
Lumens per Lamp: N/A
Luminaire Lumens: 273.1 lumens
Efficiency: N/A
Efficacy: 75.9 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.55
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	110	106	102	99	107	104	100	97	99	97	94		96	93	91		92
2	100	93	86	81	98	91	85	80	87	82	78		84	80	76		81
3	91	81	73	66	89	79	72	66	76	70	65		73	68	64		71
4	82	70	62	55	80	69	61	54	67	59	54		64	58	53		62
5	75	62	52	46	73	60	52	45	58	51	45		56	50	44		54
6	68	54	45	38	66	53	44	38	51	43	38		50	43	37		48
7	62	48	39	32	60	47	38	32	45	37	32		44	37	31		42
8	57	42	33	27	55	42	33	27	40	32	27		39	32	27		38
9	52	38	29	23	51	37	29	23	36	28	23		35	28	23		34
10	48	34	25	20	47	33	25	20	32	25	20		31	24	20		30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	3070	3070	3070	3070	3070
5°	3412	3302	3038	2751	2707
10°	4142	3518	2783	2516	2449
15°	6765	3814	2384	2225	2270
20°	17898	4504	1984	1984	2170
25°	69028	5589	1573	1815	2129
30°	148934	7419	1266	1772	2102
35°	224166	8780	1071	1740	2142
40°	252559	8817	945	1803	2290
45°	270788	6853	868	1861	2481
50°	266158	4264	785	1979	2729
55°	234161	2103	765	2217	3058
60°	148234	439	877	2412	3421
65°	30302	156	934	2594	3788
70°	641	192	962	2885	4360
75°	678	424	1101	3219	4914
80°	631	379	1263	3536	5683
85°	755	755	2516	3774	6290

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 275677 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.3	0.5
10°-20°	4.3	1.6
20°-30°	21.2	7.8
30°-40°	69.0	25.3
40°-50°	95.1	34.8
50°-60°	66.2	24.3
60°-70°	12.6	4.6
70°-80°	2.3	0.8
80°-90°	1.1	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°	26.8	9.8
0°-40°	95.8	35.1
0°-60°	257.1	94.2
0°-90°	273.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	273.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	14	14	14	14	14	
5°	16	15	14	12	12	2
15°	30	17	10	10	10	11
25°	285	23	6	8	9	147
35°	837	33	4	6	8	506
45°	873	22	3	6	8	664
55°	612	6	2	6	8	523
65°	58	0	2	5	7	103
75°	1	0	1	4	6	1
85°	0	0	1	2	2	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
0°	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
2.5°	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.5	14.3	14.0
5°	15.5	15.5	15.5	15.5	15.3	15.3	15.3	15.0	15.0	14.5	13.8
7.5°	16.5	16.5	16.5	16.5	16.3	16.0	15.8	15.8	15.5	14.3	13.3
10°	18.6	18.6	18.3	18.1	17.8	17.3	17.0	16.5	15.8	14.0	12.5
12.5°	22.6	22.1	21.8	21.3	20.6	19.6	18.6	17.8	16.0	13.5	11.8
15°	29.8	29.3	28.3	26.8	25.3	23.3	21.6	19.8	16.8	12.8	10.5
17.5°	42.6	41.1	39.6	37.1	33.3	29.8	26.1	22.8	17.8	12.0	9.5
20°	76.7	75.7	66.7	59.7	48.4	40.4	32.8	27.3	19.3	11.3	8.5
22.5°	158.2	147.7	132.9	108.8	84.7	62.4	45.4	34.3	20.8	10.3	7.5
25°	285.3	268.8	236.9	190.5	140.6	99.5	65.7	44.9	23.1	9.3	6.5
27.5°	432.0	415.2	365.8	301.9	220.4	150.2	93.8	59.4	26.1	8.3	5.8
30°	588.2	573.9	511.2	422.7	310.6	210.3	125.6	74.2	29.3	7.3	5.0
31°	651.1	632.8	565.1	470.8	353.0	235.2	138.4	80.5	30.6	7.0	4.8
32°	709.0	688.2	618.0	517.0	387.4	262.0	152.4	86.0	31.6	6.5	4.5
33°	758.9	734.6	666.9	560.6	425.2	287.1	167.0	91.3	32.3	6.0	4.3
34°	801.3	780.2	707.5	604.5	458.8	311.1	181.3	96.5	32.8	5.8	4.0
35°	837.4	818.3	746.4	637.8	491.6	334.5	194.3	101.5	32.8	5.3	4.0
36°	861.7	845.2	780.0	671.9	519.2	354.3	205.3	106.1	32.8	4.8	3.8
37°	875.0	858.9	802.0	700.0	546.3	373.8	215.4	109.6	32.6	4.5	3.5
38°	881.8	867.7	818.3	722.8	565.1	387.9	224.1	112.3	32.3	4.0	3.5
39°	883.5	871.7	828.6	739.4	583.4	401.9	230.4	113.8	31.6	3.8	3.3
40°	882.3	872.0	834.1	754.1	597.4	412.9	234.9	114.3	30.8	3.3	3.3
41°	879.8	871.7	838.1	764.4	608.7	419.9	236.7	113.3	29.8	2.8	3.0
42°	877.5	868.7	839.9	771.4	616.5	423.5	236.4	111.3	28.3	2.5	3.0
43°	877.5	867.5	840.1	776.0	620.3	423.7	233.4	107.6	26.3	2.3	2.8
44°	876.0	866.7	841.4	779.0	621.3	421.4	228.6	103.5	24.1	2.0	2.8
45°	873.2	863.5	841.1	779.2	619.5	415.9	220.9	98.3	22.1	1.5	2.8
46°	868.0	859.2	838.9	777.5	614.2	407.9	211.6	93.0	19.8	1.3	2.5
47°	857.4	850.7	832.9	771.4	606.2	396.1	200.6	87.0	18.1	1.0	2.5
48°	839.4	834.6	822.6	758.2	590.9	381.6	188.8	80.5	16.3	1.0	2.5
49°	806.3	802.5	795.5	736.8	571.4	363.8	176.0	73.2	14.5	0.8	2.5
50°	780.2	776.2	761.9	701.0	543.3	341.2	162.0	65.9	12.5	0.5	2.3
51°	762.9	756.4	733.8	659.4	502.4	311.1	146.7	58.7	10.5	0.5	2.3
52°	741.1	731.3	703.2	622.0	465.1	281.0	130.1	51.4	9.3	0.5	2.3
53°	695.5	692.0	664.1	581.9	427.7	252.2	113.1	45.4	8.0	0.5	2.3
54°	655.6	650.3	612.5	526.2	387.1	220.1	95.5	40.1	6.8	0.5	2.3
55°	612.5	602.2	568.6	479.4	339.5	190.5	78.7	34.6	5.5	0.5	2.0
56°	558.1	549.1	513.0	429.2	295.6	160.5	65.9	28.3	4.3	0.5	2.0
57°	491.9	483.6	455.8	367.5	250.0	131.1	53.7	22.8	3.3	0.5	2.0
58°	428.0	418.7	386.8	308.4	201.8	104.0	44.9	18.6	2.5	0.5	2.0
59°	378.8	366.3	325.2	259.0	157.9	79.0	35.6	14.8	1.8	0.5	2.0
60°	338.0	327.7	285.1	215.6	123.9	58.2	26.3	11.3	1.0	0.5	2.0
62.5°	195.8	193.0	154.7	111.1	58.4	27.1	13.0	5.3	0.5	0.8	2.0
65°	58.4	50.9	39.6	23.6	15.0	9.0	4.8	1.8	0.3	0.8	1.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.0	0.5	0.3	0.8	1.8
70°	1.0	0.8	0.8	0.8	0.8	0.5	0.5	0.3	0.3	0.8	1.5
72.5°	0.8	0.8	0.8	0.8	0.5	0.5	0.5	0.3	0.5	0.8	1.3
75°	0.8	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.5	0.8	1.3
77.5°	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0.5	0.8	1.3
80°	0.5	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.8	1.0
82.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.8	1.0
85°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.8	1.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.8	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):

	112.5°	135°	157.5°	180°
0°	14.0	14.0	14.0	14.0
2.5°	13.5	13.3	13.0	13.0
5°	13.0	12.5	12.5	12.3
7.5°	12.3	11.8	11.8	11.8
10°	11.5	11.3	11.3	11.0
12.5°	10.5	10.5	10.5	10.5
15°	9.8	9.8	10.0	10.0
17.5°	8.8	9.0	9.5	9.8
20°	8.0	8.5	9.0	9.3
22.5°	7.5	8.0	8.8	9.0
25°	6.8	7.5	8.5	8.8
27.5°	6.3	7.3	8.0	8.5
30°	5.8	7.0	7.8	8.3
31°	5.8	6.8	7.8	8.3
32°	5.5	6.5	7.8	8.0
33°	5.5	6.5	7.8	8.0
34°	5.3	6.5	7.5	8.0
35°	5.3	6.5	7.5	8.0
36°	5.0	6.3	7.5	8.0
37°	5.0	6.3	7.5	8.0
38°	4.8	6.3	7.5	8.0
39°	4.8	6.3	7.5	8.0
40°	4.8	6.3	7.5	8.0
41°	4.5	6.3	7.5	8.0
42°	4.5	6.3	7.5	8.0
43°	4.5	6.0	7.5	8.0
44°	4.5	6.0	7.5	8.0
45°	4.3	6.0	7.5	8.0
46°	4.3	6.0	7.5	8.0
47°	4.3	6.0	7.5	8.0
48°	4.3	6.0	7.5	8.0
49°	4.3	6.0	7.5	8.0
50°	4.0	5.8	7.5	8.0
51°	4.0	5.8	7.5	8.0
52°	4.0	5.8	7.5	8.0
53°	4.0	5.8	7.5	8.0
54°	3.8	5.8	7.5	8.0
55°	3.8	5.8	7.5	8.0
56°	3.8	5.8	7.5	7.8
57°	3.8	5.8	7.3	7.8
58°	3.8	5.5	7.3	7.8
59°	3.8	5.5	7.3	7.8
60°	3.8	5.5	7.3	7.8
62.5°	3.5	5.5	7.0	7.5
65°	3.3	5.0	7.0	7.3



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	3.3	4.8	6.5	7.0
70°	3.0	4.5	6.3	6.8
72.5°	2.5	4.3	5.8	6.3
75°	2.3	3.8	5.3	5.8
77.5°	2.0	3.3	4.8	5.0
80°	1.8	2.8	4.0	4.5
82.5°	1.3	2.0	3.3	3.5
85°	1.0	1.5	2.3	2.5
87.5°	0.8	0.8	1.3	1.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)