

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: P1335655

Luminaire Tested: P3A02R409030D2WDE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335655
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: P3A02R409030D2WDE010 E3CA451MMS
Description: 3in Adjustable Dim to Warm LED luminaire with, R40 optic, 3000K CCT AND, 90CRI ,
E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

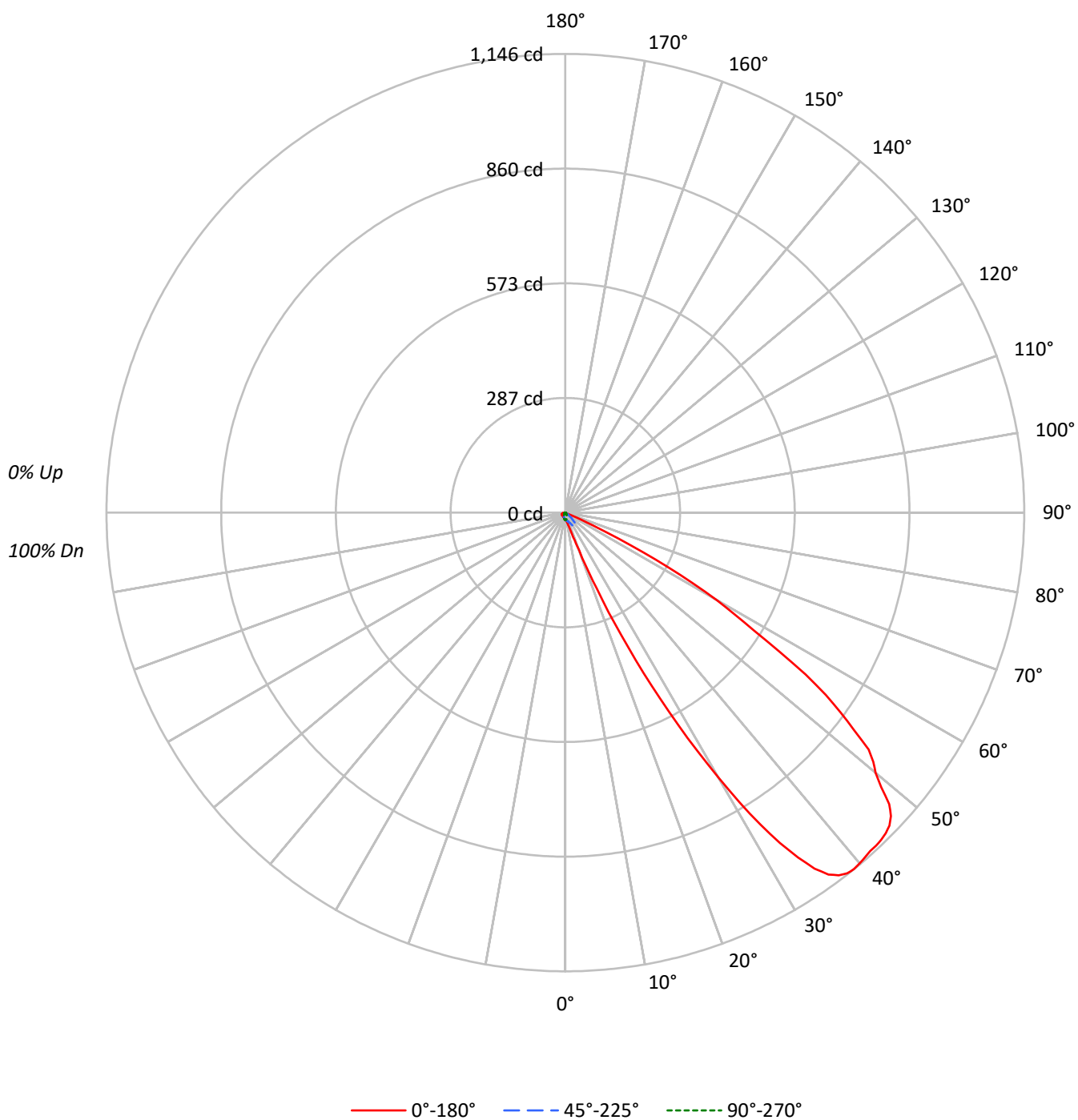
Lumens per Lamp: N/A
Luminaire Lumens: 354.1 lumens
Efficiency: N/A
Efficacy: 49.2 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.74 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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
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	107	104	100	97	99	97	94	96	93	91	92	90	88
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75
3	91	81	73	66	89	79	72	66	76	70	65	73	68	64	71	66	62
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52
5	75	62	52	46	73	60	52	45	58	51	45	56	50	44	54	49	44
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37
7	62	48	39	32	60	47	38	32	45	37	32	44	37	31	42	36	31
8	57	42	33	27	55	42	33	27	40	32	27	39	32	27	38	31	26
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	20	31	24	20	30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	3991	3991	3991	3991	3991
5°	4446	4292	3940	3588	3500
10°	5366	4565	3629	3251	3184
15°	8786	4949	3110	2883	2951
20°	23219	5834	2590	2590	2800
25°	89521	7234	2057	2371	2758
30°	193118	9622	1646	2304	2709
35°	290660	11404	1392	2275	2784
40°	327471	11450	1202	2319	2977
45°	351137	8869	1116	2419	3225
50°	345132	5561	989	2559	3548
55°	303626	2753	994	2867	3976
60°	192178	570	1140	3158	4429
65°	39278	156	1193	3373	4877
70°	833	192	1282	3783	5642
75°	847	593	1356	4151	6354
80°	884	379	1642	4546	7450
85°	755	755	3271	5032	8303

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 357473 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.7	0.5
10°-20°	5.6	1.6
20°-30°	27.5	7.8
30°-40°	89.4	25.3
40°-50°	123.3	34.8
50°-60°	85.9	24.3
60°-70°	16.3	4.6
70°-80°	3.0	0.8
80°-90°	1.4	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°	34.8	9.8
0°-40°	124.3	35.1
0°-60°	333.4	94.2
0°-90°	354.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	354.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	18	18	18	18	18	
5°	20	20	18	16	16	2
15°	39	22	14	13	13	14
25°	370	30	8	10	11	190
35°	1086	43	5	8	10	656
45°	1132	29	4	8	10	861
55°	794	7	3	8	10	679
65°	76	0	2	6	9	134
75°	1	1	2	5	8	1
85°	0	0	1	2	3	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°	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2
2.5°	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.5	18.2
5°	20.2	20.2	20.2	20.2	19.8	19.8	19.8	19.5	19.5	18.9	17.9
7.5°	21.5	21.5	21.5	21.5	21.1	20.8	20.5	20.5	20.2	18.5	17.2
10°	24.1	24.1	23.7	23.4	23.1	22.4	22.1	21.5	20.5	18.2	16.3
12.5°	29.3	28.6	28.3	27.6	26.7	25.4	24.1	23.1	20.8	17.6	15.3
15°	38.7	38.0	36.7	34.8	32.8	30.2	28.0	25.7	21.8	16.6	13.7
17.5°	55.3	53.3	51.4	48.1	43.2	38.7	33.8	29.6	23.1	15.6	12.4
20°	99.5	98.2	86.5	77.4	62.7	52.3	42.6	35.4	25.0	14.6	11.1
22.5°	205.1	191.5	172.3	141.1	109.9	80.9	58.8	44.5	27.0	13.3	9.8
25°	370.0	348.5	307.2	247.1	182.4	129.1	85.2	58.2	29.9	12.0	8.5
27.5°	560.1	538.4	474.3	391.4	285.8	194.7	121.6	77.0	33.8	10.7	7.5
30°	762.7	744.2	662.9	548.1	402.8	272.8	162.9	96.2	38.0	9.4	6.5
31°	844.3	820.6	732.8	610.5	457.7	304.9	179.5	104.4	39.7	9.1	6.2
32°	919.4	892.4	801.4	670.4	502.3	339.7	197.7	111.5	41.0	8.5	5.9
33°	984.1	952.5	864.8	726.9	551.4	372.2	216.5	118.3	41.9	7.8	5.5
34°	1039.0	1011.7	917.4	783.8	594.9	403.4	235.0	125.2	42.6	7.5	5.2
35°	1085.8	1061.1	967.8	827.1	637.5	433.7	252.0	131.7	42.6	6.8	5.2
36°	1117.4	1095.9	1011.4	871.3	673.3	459.4	266.3	137.5	42.6	6.2	4.9
37°	1134.6	1113.8	1040.0	907.7	708.4	484.7	279.3	142.1	42.3	5.9	4.6
38°	1143.4	1125.2	1061.1	937.3	732.8	502.9	290.6	145.6	41.9	5.2	4.6
39°	1145.7	1130.4	1074.5	958.7	756.5	521.1	298.8	147.6	41.0	4.9	4.2
40°	1144.0	1130.7	1081.6	977.9	774.7	535.4	304.6	148.2	40.0	4.2	4.2
41°	1140.8	1130.4	1086.8	991.2	789.3	544.5	306.9	146.9	38.7	3.6	3.9
42°	1137.8	1126.5	1089.1	1000.3	799.4	549.1	306.6	144.3	36.7	3.3	3.9
43°	1137.8	1124.8	1089.4	1006.2	804.3	549.4	302.7	139.5	34.1	2.9	3.6
44°	1135.9	1123.9	1091.0	1010.1	805.6	546.5	296.5	134.3	31.2	2.6	3.6
45°	1132.3	1119.6	1090.7	1010.4	803.3	539.3	286.4	127.4	28.6	2.0	3.6
46°	1125.5	1114.1	1087.8	1008.1	796.5	528.9	274.4	120.6	25.7	1.6	3.3
47°	1111.8	1103.1	1080.0	1000.3	786.1	513.7	260.1	112.8	23.4	1.3	3.3
48°	1088.4	1082.3	1066.7	983.1	766.3	494.8	244.8	104.4	21.1	1.3	3.3
49°	1045.5	1040.6	1031.5	955.5	740.9	471.7	228.2	94.9	18.9	1.0	3.3
50°	1011.7	1006.5	988.0	909.0	704.5	442.5	210.0	85.5	16.3	0.7	2.9
51°	989.3	980.8	951.6	855.0	651.5	403.4	190.2	76.1	13.7	0.7	2.9
52°	961.0	948.3	911.9	806.6	603.1	364.4	168.7	66.6	12.0	0.7	2.9
53°	901.8	897.3	861.2	754.6	554.6	327.1	146.6	58.8	10.4	0.7	2.9
54°	850.1	843.3	794.2	682.4	502.0	285.4	123.9	52.0	8.8	0.7	2.9
55°	794.2	780.9	737.3	621.6	440.2	247.1	102.1	44.9	7.2	0.7	2.6
56°	723.7	712.0	665.2	556.6	383.3	208.1	85.5	36.7	5.5	0.7	2.6
57°	637.8	627.1	591.0	476.6	324.1	170.0	69.6	29.6	4.2	0.7	2.6
58°	554.9	542.9	501.6	399.9	261.7	134.9	58.2	24.1	3.3	0.7	2.6
59°	491.2	475.0	421.7	335.8	204.8	102.4	46.2	19.2	2.3	0.7	2.6
60°	438.2	424.9	369.6	279.6	160.6	75.4	34.1	14.6	1.3	0.7	2.6
62.5°	253.9	250.3	200.6	144.0	75.7	35.1	16.9	6.8	0.7	1.0	2.6
65°	75.7	66.0	51.4	30.6	19.5	11.7	6.2	2.3	0.3	1.0	2.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	2.3	2.3	2.3	2.3	2.3	2.3	1.3	0.7	0.3	1.0	2.3
70°	1.3	1.0	1.0	1.0	1.0	0.7	0.7	0.3	0.3	1.0	2.0
72.5°	1.0	1.0	1.0	1.0	0.7	0.7	0.7	0.3	0.7	1.0	1.6
75°	1.0	0.7	0.7	0.7	0.7	0.3	0.3	0.3	0.7	1.0	1.6
77.5°	0.7	0.7	0.7	0.7	0.3	0.3	0.3	0.3	0.7	1.0	1.6
80°	0.7	0.7	0.3	0.3	0.3	0.3	0.3	0.3	0.3	1.0	1.3
82.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	1.0	1.3
85°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	1.0	1.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	1.0	1.0
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°	18.2	18.2	18.2	18.2
2.5°	17.6	17.2	16.9	16.9
5°	16.9	16.3	16.3	15.9
7.5°	15.9	15.3	15.3	15.3
10°	15.0	14.6	14.6	14.3
12.5°	13.7	13.7	13.7	13.7
15°	12.7	12.7	13.0	13.0
17.5°	11.4	11.7	12.4	12.7
20°	10.4	11.1	11.7	12.0
22.5°	9.8	10.4	11.4	11.7
25°	8.8	9.8	11.1	11.4
27.5°	8.1	9.4	10.4	11.1
30°	7.5	9.1	10.1	10.7
31°	7.5	8.8	10.1	10.7
32°	7.2	8.5	10.1	10.4
33°	7.2	8.5	10.1	10.4
34°	6.8	8.5	9.8	10.4
35°	6.8	8.5	9.8	10.4
36°	6.5	8.1	9.8	10.4
37°	6.5	8.1	9.8	10.4
38°	6.2	8.1	9.8	10.4
39°	6.2	8.1	9.8	10.4
40°	6.2	8.1	9.8	10.4
41°	5.9	8.1	9.8	10.4
42°	5.9	8.1	9.8	10.4
43°	5.9	7.8	9.8	10.4
44°	5.9	7.8	9.8	10.4
45°	5.5	7.8	9.8	10.4
46°	5.5	7.8	9.8	10.4
47°	5.5	7.8	9.8	10.4
48°	5.5	7.8	9.8	10.4
49°	5.5	7.8	9.8	10.4
50°	5.2	7.5	9.8	10.4
51°	5.2	7.5	9.8	10.4
52°	5.2	7.5	9.8	10.4
53°	5.2	7.5	9.8	10.4
54°	4.9	7.5	9.8	10.4
55°	4.9	7.5	9.8	10.4
56°	4.9	7.5	9.8	10.1
57°	4.9	7.5	9.4	10.1
58°	4.9	7.2	9.4	10.1
59°	4.9	7.2	9.4	10.1
60°	4.9	7.2	9.4	10.1
62.5°	4.6	7.2	9.1	9.8
65°	4.2	6.5	9.1	9.4



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	4.2	6.2	8.5	9.1
70°	3.9	5.9	8.1	8.8
72.5°	3.3	5.5	7.5	8.1
75°	2.9	4.9	6.8	7.5
77.5°	2.6	4.2	6.2	6.5
80°	2.3	3.6	5.2	5.9
82.5°	1.6	2.6	4.2	4.6
85°	1.3	2.0	2.9	3.3
87.5°	1.0	1.0	1.6	1.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)