

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: P1345397

Luminaire Tested: P3A13R359024DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1345397
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-77)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R359024DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R35 optic, 2400K CCT AND, 90CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

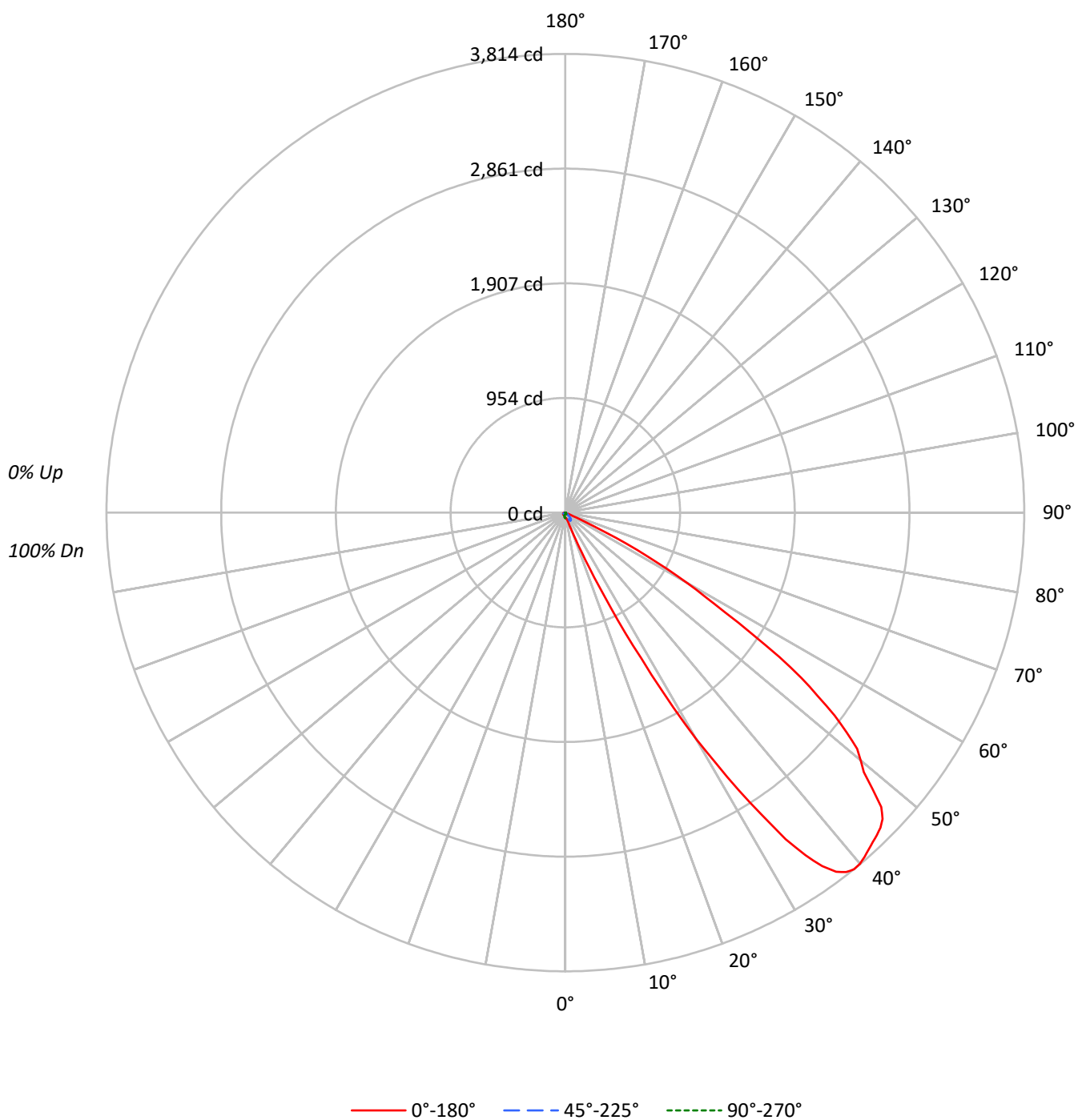
Lumens per Lamp: N/A
Luminaire Lumens: 950.0 lumens
Efficiency: N/A
Efficacy: 65.1 lumens/watt
Spacing Criteria (0/90/45): 4.01 / 0.66 / 1.41
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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			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	100	93	86	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	52	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	38		50	43	37		48	42	37	35
7	62	48	38	32	60	47	38	32	45	37	32		44	37	31		42	36	31	29
8	57	42	33	27	55	41	33	27	40	32	27		39	32	26		38	31	26	24
9	52	38	29	23	50	37	29	23	36	28	23		35	28	22		34	27	22	20
10	48	34	25	19	46	33	25	19	32	25	19		31	24	19		30	24	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	9583	9583	9583	9583	9583
5°	10390	10191	9443	8497	8298
10°	10888	9931	8394	7259	7259
15°	15573	9739	6810	6220	6425
20°	39017	10408	5414	5414	5997
25°	181148	13283	4162	4984	5613
30°	550667	18028	3266	4558	5646
35°	930659	20880	2757	4363	5514
40°	1090930	20610	2204	4408	5897
45°	1148863	14637	1861	4776	6388
50°	1093559	8767	1740	4981	7027
55°	916345	3594	1950	5582	8181
60°	512985	746	2237	6403	9034
65°	88570	467	2231	7108	10222
70°	1667	577	2757	7694	11540
75°	1440	763	3643	8727	13047
80°	1137	1137	4293	9723	15153
85°	0	2264	8554	10819	17360

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 46°

Luminance: 1157014 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.9	0.4
10°-20°	11.2	1.2
20°-30°	58.3	6.1
30°-40°	251.7	26.5
40°-50°	359.1	37.8
50°-60°	222.4	23.4
60°-70°	33.8	3.6
70°-80°	6.3	0.7
80°-90°	3.2	0.3
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°	73.4	7.7
0°-40°	325.2	34.2
0°-60°	906.7	95.4
0°-90°	950.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	950.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	44	44	44	44	44	
5°	47	46	43	39	38	5
15°	69	43	30	27	28	25
25°	749	55	17	21	23	448
35°	3477	78	10	16	21	2087
45°	3705	47	6	15	21	2799
55°	2397	9	5	15	21	2041
65°	171	1	4	14	20	349
75°	2	1	4	10	15	2
85°	0	1	3	4	7	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
0°	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7	43.7
2.5°	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	45.5	43.7	42.9
5°	47.2	47.2	46.3	46.3	46.3	46.3	46.3	46.3	44.6	42.9	40.3
7.5°	48.0	48.0	47.2	47.2	47.2	47.2	46.3	45.5	43.7	40.3	37.7
10°	48.9	48.9	48.9	48.9	48.0	47.2	46.3	44.6	42.0	37.7	35.2
12.5°	54.9	54.9	54.0	52.3	50.6	48.9	47.2	43.7	38.6	34.3	31.7
15°	68.6	67.7	66.0	63.5	60.0	55.7	52.3	42.9	35.2	30.0	28.3
17.5°	96.0	94.3	91.8	83.2	75.5	67.7	60.9	42.9	31.7	26.6	24.9
20°	167.2	168.1	150.1	129.5	112.3	93.5	76.3	44.6	28.3	23.2	22.3
22.5°	349.0	335.3	292.4	242.7	185.2	143.2	108.1	48.9	24.9	19.7	19.7
25°	748.7	696.4	592.6	447.7	315.6	223.8	156.9	54.9	22.3	17.2	18.0
27.5°	1367.0	1319.8	1111.4	837.0	555.7	337.9	212.7	62.6	19.7	14.6	16.3
30°	2174.8	2044.5	1772.6	1372.1	928.8	517.1	285.6	71.2	16.3	12.9	15.4
31°	2426.9	2366.9	2035.9	1587.4	1088.3	614.0	316.4	73.8	15.4	12.9	14.6
32°	2726.2	2619.9	2323.2	1823.2	1250.3	700.6	353.3	76.3	14.6	11.1	14.6
33°	2993.8	2890.9	2529.9	2030.7	1414.1	799.3	392.8	77.2	12.9	11.1	13.7
34°	3275.1	3134.4	2776.8	2247.7	1582.2	905.6	428.8	78.0	12.0	10.3	13.7
35°	3476.6	3336.0	2989.5	2419.2	1727.2	999.9	470.0	78.0	11.1	10.3	12.9
36°	3632.7	3509.2	3173.0	2595.9	1871.2	1084.8	502.5	78.0	9.4	9.4	12.9
37°	3739.9	3622.4	3296.5	2747.7	1981.0	1160.3	531.7	78.0	8.6	9.4	12.9
38°	3792.2	3694.4	3415.7	2858.3	2087.3	1219.5	554.9	76.3	7.7	8.6	12.0
39°	3814.5	3734.8	3488.6	2951.8	2167.1	1270.9	572.0	74.6	6.9	8.6	12.0
40°	3811.1	3741.6	3529.8	3016.1	2231.4	1306.1	581.4	72.0	6.0	7.7	12.0
41°	3791.4	3731.3	3551.2	3071.0	2270.0	1330.1	584.0	69.5	5.1	7.7	11.1
42°	3769.1	3714.2	3558.1	3100.1	2294.9	1337.8	577.2	66.0	5.1	6.9	11.1
43°	3745.9	3695.3	3558.1	3109.6	2300.9	1332.7	566.0	60.0	4.3	6.9	11.1
44°	3727.0	3679.0	3546.9	3107.0	2288.0	1313.0	545.4	53.2	3.4	6.9	11.1
45°	3704.7	3657.6	3532.4	3090.7	2263.1	1279.5	519.7	47.2	2.6	6.0	11.1
46°	3665.3	3628.4	3506.6	3057.3	2223.7	1233.2	487.1	42.9	1.7	6.0	10.3
47°	3589.0	3557.2	3456.9	3007.5	2171.4	1178.3	453.7	38.6	1.7	6.0	10.3
48°	3435.5	3434.6	3357.4	2914.9	2088.2	1109.7	418.5	34.3	1.7	6.0	10.3
49°	3287.1	3271.7	3175.6	2752.0	1969.0	1027.4	381.6	30.9	0.9	6.0	10.3
50°	3205.6	3172.2	3014.4	2559.9	1816.4	913.3	342.2	25.7	0.9	5.1	10.3
51°	3120.7	3072.7	2886.6	2386.6	1634.5	803.6	299.3	20.6	0.9	5.1	9.4
52°	2967.2	2921.8	2713.4	2221.1	1457.9	691.2	258.1	17.2	0.9	5.1	10.3
53°	2801.7	2736.5	2510.1	2039.3	1302.7	591.7	216.1	14.6	0.9	5.1	9.4
54°	2593.3	2564.2	2304.3	1816.4	1120.9	495.7	177.5	12.0	0.9	5.1	9.4
55°	2396.9	2354.1	2083.9	1588.2	956.2	406.5	148.4	9.4	0.9	5.1	9.4
56°	2146.5	2082.2	1829.2	1379.0	789.0	327.6	125.2	7.7	0.9	5.1	9.4
57°	1848.1	1779.5	1579.7	1146.6	619.2	249.6	104.6	6.0	0.9	5.1	9.4
58°	1563.4	1504.2	1289.8	885.0	466.5	173.2	86.6	4.3	0.9	4.3	9.4
59°	1350.7	1285.5	1072.8	680.9	324.2	127.8	65.2	3.4	0.9	5.1	9.4
60°	1169.7	1085.7	863.6	527.4	231.5	91.8	48.0	1.7	1.7	5.1	9.4
62.5°	674.1	595.2	412.5	214.4	95.2	47.2	23.2	0.9	1.7	5.1	9.4
65°	170.7	151.8	98.6	46.3	26.6	16.3	8.6	0.9	1.7	4.3	8.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
67.5°	6.0	6.0	6.0	5.1	4.3	3.4	1.7	0.9	1.7	4.3	8.6
70°	2.6	2.6	2.6	1.7	1.7	0.9	0.9	0.9	1.7	4.3	7.7
72.5°	1.7	1.7	1.7	1.7	0.9	0.9	0.9	0.9	2.6	4.3	6.9
75°	1.7	1.7	1.7	1.7	0.9	0.9	0.9	0.9	2.6	4.3	6.9
77.5°	1.7	1.7	0.9	0.9	0.9	0.9	0.9	0.9	2.6	3.4	6.0
80°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	2.6	3.4	5.1
82.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	2.6	3.4	4.3
85°	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.9	2.6	3.4	3.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	2.6	3.4	2.6
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):

	135°	157.5°	180°
0°	43.7	43.7	43.7
2.5°	41.2	41.2	41.2
5°	38.6	38.6	37.7
7.5°	36.0	35.2	35.2
10°	32.6	32.6	32.6
12.5°	30.0	30.0	30.0
15°	27.4	28.3	28.3
17.5°	24.9	26.6	26.6
20°	23.2	24.9	25.7
22.5°	21.4	23.2	24.0
25°	20.6	22.3	23.2
27.5°	18.9	21.4	23.2
30°	18.0	20.6	22.3
31°	18.0	20.6	21.4
32°	17.2	20.6	21.4
33°	17.2	20.6	21.4
34°	17.2	19.7	21.4
35°	16.3	19.7	20.6
36°	16.3	19.7	20.6
37°	16.3	19.7	21.4
38°	16.3	19.7	20.6
39°	15.4	19.7	20.6
40°	15.4	19.7	20.6
41°	15.4	19.7	20.6
42°	15.4	19.7	20.6
43°	15.4	19.7	20.6
44°	15.4	18.9	20.6
45°	15.4	18.9	20.6
46°	15.4	19.7	20.6
47°	15.4	19.7	21.4
48°	15.4	18.9	20.6
49°	14.6	18.9	20.6
50°	14.6	18.9	20.6
51°	14.6	19.7	21.4
52°	14.6	19.7	21.4
53°	14.6	19.7	21.4
54°	14.6	19.7	20.6
55°	14.6	19.7	21.4
56°	14.6	19.7	20.6
57°	14.6	19.7	20.6
58°	14.6	18.9	20.6
59°	14.6	18.9	20.6
60°	14.6	18.9	20.6
62.5°	13.7	18.9	20.6
65°	13.7	18.0	19.7



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	12.9	18.0	18.9
70°	12.0	17.2	18.0
72.5°	11.1	16.3	17.2
75°	10.3	14.6	15.4
77.5°	8.6	12.9	14.6
80°	7.7	11.1	12.0
82.5°	6.0	9.4	10.3
85°	4.3	6.9	6.9
87.5°	1.7	3.4	3.4
90°	0.0	0.0	0.0

(END OF REPORT)