

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: P1342571

Luminaire Tested: P3A09R409835DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1342571
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: P3A09R409835DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R40 optic, 3500K CCT AND, 98CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

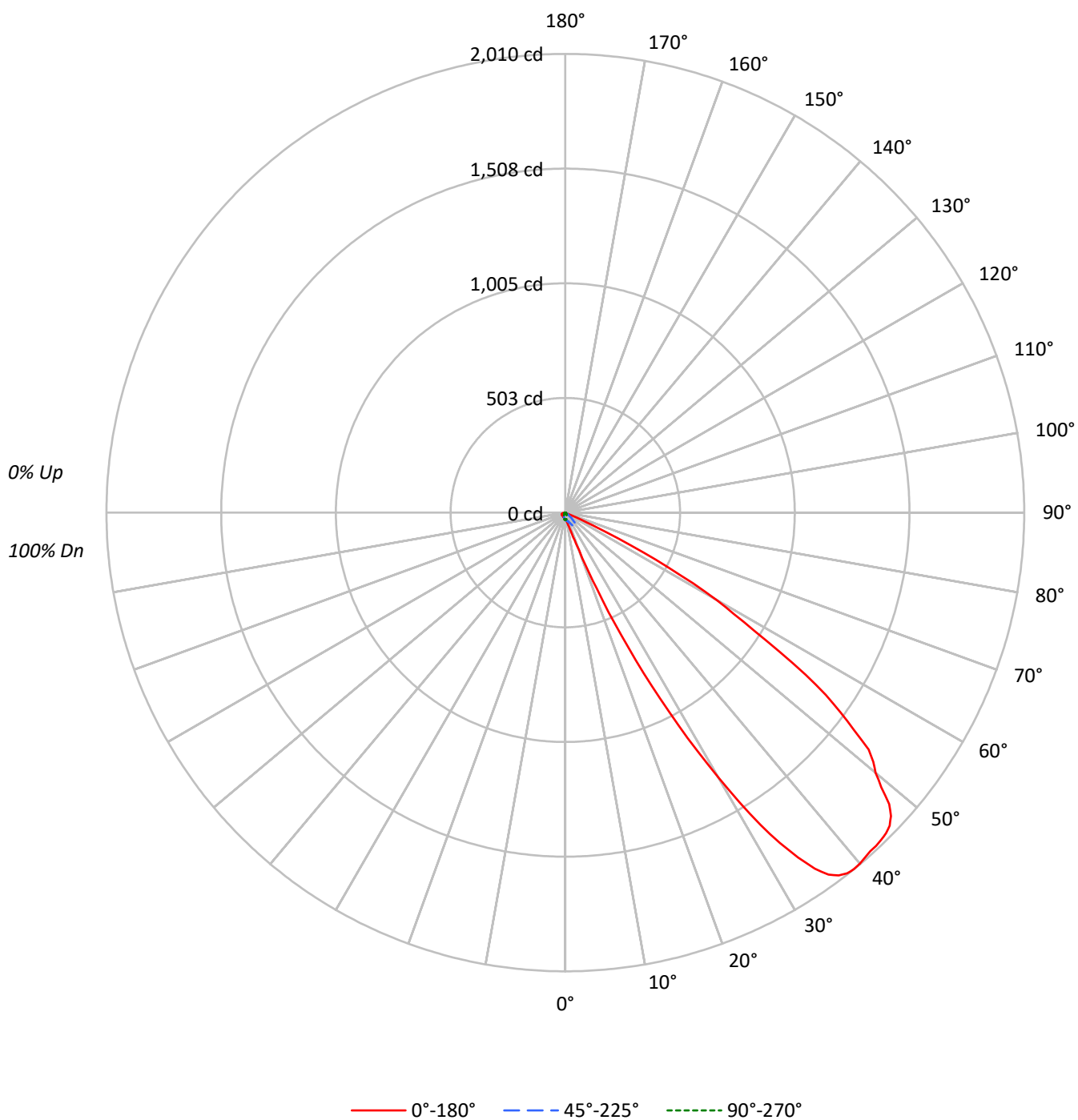
Lumens per Lamp: N/A
Luminaire Lumens: 621.0 lumens
Efficiency: N/A
Efficacy: 56.5 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 11
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°	6995	6995	6995	6995	6995
5°	7792	7528	6912	6273	6141
10°	9396	7994	6346	5722	5589
15°	15414	8672	5448	5040	5176
20°	40720	10244	4527	4527	4924
25°	157025	12702	3581	4137	4839
30°	338761	16889	2887	4051	4760
35°	509900	19997	2436	3962	4872
40°	574476	20066	2118	4093	5210
45°	616002	15568	1954	4249	5644
50°	605456	9722	1740	4469	6209
55°	532626	4779	1759	5008	6958
60°	337166	1009	2017	5482	7763
65°	68957	311	2075	5915	8561
70°	1475	385	2180	6604	9873
75°	1440	932	2457	7286	11099
80°	1389	758	2904	7956	13007
85°	1510	1510	5787	8554	14341

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 627106 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.0	0.5
10°-20°	9.8	1.6
20°-30°	48.2	7.8
30°-40°	156.9	25.3
40°-50°	216.3	34.8
50°-60°	150.6	24.3
60°-70°	28.6	4.6
70°-80°	5.2	0.8
80°-90°	2.4	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°	61.1	9.8
0°-40°	217.9	35.1
0°-60°	584.9	94.2
0°-90°	621.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	621.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	32	32	32	32	32	
5°	35	34	31	28	28	4
15°	68	38	24	22	23	25
25°	649	52	15	17	20	334
35°	1905	75	9	15	18	1151
45°	1986	50	6	14	18	1511
55°	1393	12	5	13	18	1191
65°	133	1	4	11	16	235
75°	2	1	3	9	13	2
85°	1	1	2	3	6	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°	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9	31.9
2.5°	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	33.1	32.5	31.9
5°	35.4	35.4	35.4	35.4	34.8	34.8	34.8	34.2	34.2	33.1	31.4
7.5°	37.6	37.6	37.6	37.6	37.1	36.5	35.9	35.9	35.4	32.5	30.2
10°	42.2	42.2	41.6	41.1	40.5	39.4	38.8	37.6	35.9	31.9	28.5
12.5°	51.3	50.2	49.6	48.5	46.8	44.5	42.2	40.5	36.5	30.8	26.8
15°	67.9	66.7	64.4	61.0	57.6	53.0	49.0	45.1	38.2	29.1	24.0
17.5°	97.0	93.5	90.1	84.4	75.9	67.9	59.3	51.9	40.5	27.4	21.7
20°	174.5	172.2	151.7	135.7	110.1	91.8	74.7	62.2	43.9	25.7	19.4
22.5°	359.9	335.9	302.3	247.5	192.8	142.0	103.2	78.1	47.3	23.4	17.1
25°	649.0	611.4	538.9	433.4	319.9	226.4	149.4	102.1	52.5	21.1	14.8
27.5°	982.6	944.4	832.1	686.6	501.3	341.6	213.3	135.2	59.3	18.8	13.1
30°	1337.9	1305.4	1162.8	961.5	706.6	478.5	285.7	168.8	66.7	16.5	11.4
31°	1481.1	1439.4	1285.5	1071.0	803.0	534.9	314.8	183.1	69.6	16.0	10.8
32°	1612.8	1565.5	1405.8	1176.0	881.1	596.0	346.7	195.6	71.9	14.8	10.3
33°	1726.3	1671.0	1517.0	1275.2	967.2	653.0	379.8	207.6	73.6	13.7	9.7
34°	1822.7	1774.8	1609.4	1375.0	1043.7	707.7	412.3	219.6	74.7	13.1	9.1
35°	1904.8	1861.5	1697.8	1450.8	1118.4	760.8	442.0	231.0	74.7	12.0	9.1
36°	1960.1	1922.5	1774.2	1528.4	1181.1	805.8	467.1	241.2	74.7	10.8	8.6
37°	1990.4	1953.9	1824.4	1592.3	1242.7	850.3	489.9	249.2	74.1	10.3	8.0
38°	2005.8	1973.8	1861.5	1644.2	1285.5	882.3	509.9	255.5	73.6	9.1	8.0
39°	2009.7	1982.9	1884.8	1681.8	1327.1	914.2	524.1	258.9	71.9	8.6	7.4
40°	2006.9	1983.5	1897.4	1715.5	1359.0	939.3	534.4	260.1	70.1	7.4	7.4
41°	2001.2	1982.9	1906.5	1738.9	1384.7	955.3	538.4	257.8	67.9	6.3	6.8
42°	1996.1	1976.1	1910.5	1754.8	1402.4	963.2	537.8	253.2	64.4	5.7	6.8
43°	1996.1	1973.2	1911.1	1765.1	1410.9	963.8	531.0	244.7	59.9	5.1	6.3
44°	1992.6	1971.5	1913.9	1771.9	1413.2	958.7	520.1	235.5	54.7	4.6	6.3
45°	1986.4	1964.1	1913.4	1772.5	1409.2	946.1	502.4	223.6	50.2	3.4	6.3
46°	1974.4	1954.4	1908.2	1768.5	1397.2	927.9	481.3	211.6	45.1	2.9	5.7
47°	1950.4	1935.0	1894.5	1754.8	1379.0	901.1	456.2	197.9	41.1	2.3	5.7
48°	1909.4	1898.5	1871.2	1724.6	1344.2	868.0	429.4	183.1	37.1	2.3	5.7
49°	1834.1	1825.5	1809.6	1676.1	1299.7	827.5	400.4	166.5	33.1	1.7	5.7
50°	1774.8	1765.7	1733.1	1594.6	1235.8	776.2	368.4	150.0	28.5	1.1	5.1
51°	1735.4	1720.6	1669.3	1499.9	1142.9	707.7	333.6	133.5	24.0	1.1	5.1
52°	1685.8	1663.6	1599.7	1414.9	1057.9	639.3	296.0	116.9	21.1	1.1	5.1
53°	1582.0	1574.0	1510.7	1323.7	972.9	573.7	257.2	103.2	18.2	1.1	5.1
54°	1491.3	1479.4	1393.2	1197.1	880.5	500.7	217.3	91.2	15.4	1.1	5.1
55°	1393.2	1369.9	1293.4	1090.4	772.2	433.4	179.1	78.7	12.5	1.1	4.6
56°	1269.5	1249.0	1166.8	976.4	672.4	365.0	150.0	64.4	9.7	1.1	4.6
57°	1118.9	1100.1	1036.8	836.1	568.6	298.3	122.0	51.9	7.4	1.1	4.6
58°	973.5	952.4	880.0	701.5	459.1	236.7	102.1	42.2	5.7	1.1	4.6
59°	861.7	833.2	739.7	589.1	359.3	179.6	81.0	33.6	4.0	1.1	4.6
60°	768.8	745.4	648.4	490.5	281.7	132.3	59.9	25.7	2.3	1.1	4.6
62.5°	445.4	439.1	351.9	252.6	132.9	61.6	29.7	12.0	1.1	1.7	4.6
65°	132.9	115.8	90.1	53.6	34.2	20.5	10.8	4.0	0.6	1.7	4.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	4.0	4.0	4.0	4.0	4.0	4.0	2.3	1.1	0.6	1.7	4.0
70°	2.3	1.7	1.7	1.7	1.7	1.1	1.1	0.6	0.6	1.7	3.4
72.5°	1.7	1.7	1.7	1.7	1.1	1.1	1.1	0.6	1.1	1.7	2.9
75°	1.7	1.1	1.1	1.1	1.1	0.6	0.6	0.6	1.1	1.7	2.9
77.5°	1.1	1.1	1.1	1.1	0.6	0.6	0.6	0.6	1.1	1.7	2.9
80°	1.1	1.1	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.7	2.3
82.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.7	2.3
85°	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	1.7	2.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	1.7	1.7
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°	31.9	31.9	31.9	31.9
2.5°	30.8	30.2	29.7	29.7
5°	29.7	28.5	28.5	27.9
7.5°	27.9	26.8	26.8	26.8
10°	26.2	25.7	25.7	25.1
12.5°	24.0	24.0	24.0	24.0
15°	22.2	22.2	22.8	22.8
17.5°	20.0	20.5	21.7	22.2
20°	18.2	19.4	20.5	21.1
22.5°	17.1	18.2	20.0	20.5
25°	15.4	17.1	19.4	20.0
27.5°	14.3	16.5	18.2	19.4
30°	13.1	16.0	17.7	18.8
31°	13.1	15.4	17.7	18.8
32°	12.5	14.8	17.7	18.2
33°	12.5	14.8	17.7	18.2
34°	12.0	14.8	17.1	18.2
35°	12.0	14.8	17.1	18.2
36°	11.4	14.3	17.1	18.2
37°	11.4	14.3	17.1	18.2
38°	10.8	14.3	17.1	18.2
39°	10.8	14.3	17.1	18.2
40°	10.8	14.3	17.1	18.2
41°	10.3	14.3	17.1	18.2
42°	10.3	14.3	17.1	18.2
43°	10.3	13.7	17.1	18.2
44°	10.3	13.7	17.1	18.2
45°	9.7	13.7	17.1	18.2
46°	9.7	13.7	17.1	18.2
47°	9.7	13.7	17.1	18.2
48°	9.7	13.7	17.1	18.2
49°	9.7	13.7	17.1	18.2
50°	9.1	13.1	17.1	18.2
51°	9.1	13.1	17.1	18.2
52°	9.1	13.1	17.1	18.2
53°	9.1	13.1	17.1	18.2
54°	8.6	13.1	17.1	18.2
55°	8.6	13.1	17.1	18.2
56°	8.6	13.1	17.1	17.7
57°	8.6	13.1	16.5	17.7
58°	8.6	12.5	16.5	17.7
59°	8.6	12.5	16.5	17.7
60°	8.6	12.5	16.5	17.7
62.5°	8.0	12.5	16.0	17.1
65°	7.4	11.4	16.0	16.5



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	7.4	10.8	14.8	16.0
70°	6.8	10.3	14.3	15.4
72.5°	5.7	9.7	13.1	14.3
75°	5.1	8.6	12.0	13.1
77.5°	4.6	7.4	10.8	11.4
80°	4.0	6.3	9.1	10.3
82.5°	2.9	4.6	7.4	8.0
85°	2.3	3.4	5.1	5.7
87.5°	1.7	1.7	2.9	2.9
90°	0.0	0.0	0.0	0.0

(END OF REPORT)