

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: P1345554

Luminaire Tested: P3A13R359740DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1345554
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: P3A13R359740DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R35 optic, 4000K CCT AND, 97CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

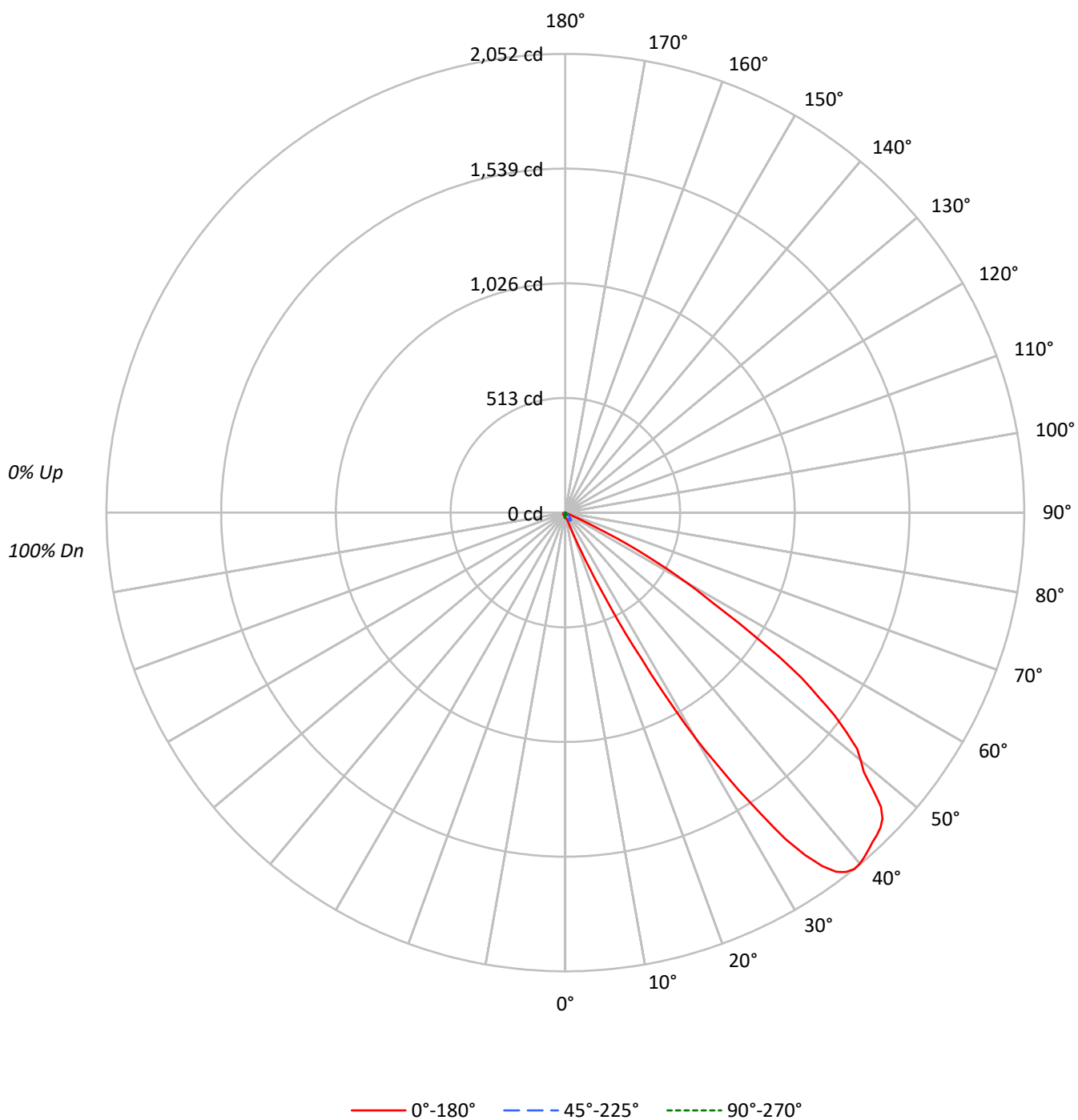
Lumens per Lamp: N/A
Luminaire Lumens: 511.0 lumens
Efficiency: N/A
Efficacy: 35.0 lumens/watt
Spacing Criteria (0/90/45): 4.01 / 0.66 / 1.41
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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
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	100	97	94		96	93	91		92
2	100	93	86	81	98	91	85	80	87	83	78		84	80	77		81
3	91	81	73	67	89	79	72	66	76	70	65		74	68	64		71
4	83	71	62	55	80	69	61	55	67	60	54		64	58	53		62
5	75	62	52	46	73	61	52	45	58	51	45		56	50	44		55
6	68	54	45	38	66	53	44	38	51	43	38		50	43	37		48
7	62	48	38	32	60	47	38	32	45	37	32		44	37	31		42
8	57	42	33	27	55	41	33	27	40	32	27		39	32	26		38
9	52	38	29	23	50	37	29	23	36	28	23		35	28	22		34
10	48	34	25	19	46	33	25	19	32	25	19		31	24	19		30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	5153	5153	5153	5153	5153
5°	5591	5481	5085	4578	4468
10°	5856	5344	4520	3897	3897
15°	8377	5244	3655	3360	3451
20°	21002	5600	2917	2917	3220
25°	97433	7138	2226	2686	3024
30°	296197	9698	1747	2456	3038
35°	500611	11243	1472	2356	2971
40°	586814	11078	1202	2376	3177
45°	617987	7877	992	2574	3442
50°	588228	4708	955	2661	3787
55°	492905	1950	1070	2982	4396
60°	275943	395	1228	3421	4868
65°	47632	259	1193	3840	5500
70°	898	321	1475	4167	6219
75°	763	424	1949	4660	7032
80°	631	631	2273	5304	8208
85°	0	1258	4529	5787	9309

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 46°

Luminance: 622337 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.1	0.4
10°-20°	6.0	1.2
20°-30°	31.4	6.1
30°-40°	135.4	26.5
40°-50°	193.1	37.8
50°-60°	119.6	23.4
60°-70°	18.2	3.6
70°-80°	3.4	0.7
80°-90°	1.7	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°	39.5	7.7
0°-40°	174.9	34.2
0°-60°	487.7	95.4
0°-90°	511.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	511.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	24	24	24	24	24	
5°	25	25	23	21	20	2
15°	37	23	16	15	15	13
25°	403	30	9	11	12	241
35°	1870	42	6	9	11	1123
45°	1993	25	3	8	11	1506
55°	1289	5	3	8	12	1098
65°	92	0	2	7	11	188
75°	1	0	2	6	8	1
85°	0	0	2	2	4	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°	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
2.5°	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	24.4	23.5	23.1
5°	25.4	25.4	24.9	24.9	24.9	24.9	24.9	24.9	24.0	23.1	21.7
7.5°	25.8	25.8	25.4	25.4	25.4	25.4	24.9	24.4	23.5	21.7	20.3
10°	26.3	26.3	26.3	26.3	25.8	25.4	24.9	24.0	22.6	20.3	18.9
12.5°	29.5	29.5	29.1	28.1	27.2	26.3	25.4	23.5	20.8	18.5	17.1
15°	36.9	36.4	35.5	34.1	32.3	30.0	28.1	23.1	18.9	16.1	15.2
17.5°	51.7	50.7	49.4	44.7	40.6	36.4	32.8	23.1	17.1	14.3	13.4
20°	90.0	90.4	80.7	69.7	60.4	50.3	41.1	24.0	15.2	12.5	12.0
22.5°	187.7	180.4	157.3	130.5	99.6	77.0	58.1	26.3	13.4	10.6	10.6
25°	402.7	374.6	318.7	240.8	169.8	120.4	84.4	29.5	12.0	9.2	9.7
27.5°	735.3	709.9	597.8	450.2	298.9	181.7	114.4	33.7	10.6	7.8	8.8
30°	1169.8	1099.7	953.5	738.1	499.6	278.2	153.6	38.3	8.8	6.9	8.3
31°	1305.4	1273.2	1095.1	853.8	585.4	330.3	170.2	39.7	8.3	6.9	7.8
32°	1466.4	1409.2	1249.6	980.7	672.6	376.9	190.1	41.1	7.8	6.0	7.8
33°	1610.4	1555.0	1360.8	1092.3	760.7	429.9	211.3	41.5	6.9	6.0	7.4
34°	1761.7	1686.0	1493.6	1209.0	851.1	487.1	230.6	42.0	6.5	5.5	7.4
35°	1870.1	1794.4	1608.0	1301.3	929.0	537.9	252.8	42.0	6.0	5.5	6.9
36°	1954.0	1887.6	1706.8	1396.3	1006.5	583.5	270.3	42.0	5.1	5.1	6.9
37°	2011.7	1948.5	1773.2	1478.0	1065.6	624.1	286.0	42.0	4.6	5.1	6.9
38°	2039.8	1987.2	1837.3	1537.5	1122.8	655.9	298.5	41.1	4.2	4.6	6.5
39°	2051.8	2008.9	1876.5	1587.7	1165.7	683.6	307.7	40.1	3.7	4.6	6.5
40°	2050.0	2012.6	1898.7	1622.3	1200.3	702.5	312.8	38.7	3.2	4.2	6.5
41°	2039.3	2007.1	1910.2	1651.9	1221.0	715.5	314.1	37.4	2.8	4.2	6.0
42°	2027.4	1997.8	1913.9	1667.6	1234.4	719.6	310.4	35.5	2.8	3.7	6.0
43°	2014.9	1987.7	1913.9	1672.6	1237.6	716.8	304.4	32.3	2.3	3.7	6.0
44°	2004.8	1978.9	1907.9	1671.2	1230.7	706.2	293.4	28.6	1.8	3.7	6.0
45°	1992.8	1967.4	1900.0	1662.5	1217.3	688.2	279.5	25.4	1.4	3.2	6.0
46°	1971.5	1951.7	1886.2	1644.5	1196.1	663.3	262.0	23.1	0.9	3.2	5.5
47°	1930.5	1913.4	1859.4	1617.7	1168.0	633.8	244.0	20.8	0.9	3.2	5.5
48°	1847.9	1847.5	1805.9	1567.9	1123.2	596.9	225.1	18.5	0.9	3.2	5.5
49°	1768.1	1759.8	1708.1	1480.3	1059.1	552.6	205.3	16.6	0.5	3.2	5.5
50°	1724.3	1706.3	1621.4	1376.9	977.0	491.3	184.1	13.8	0.5	2.8	5.5
51°	1678.6	1652.8	1552.7	1283.8	879.2	432.2	161.0	11.1	0.5	2.8	5.1
52°	1596.1	1571.6	1459.5	1194.7	784.2	371.8	138.8	9.2	0.5	2.8	5.5
53°	1507.0	1472.0	1350.2	1096.9	700.7	318.3	116.2	7.8	0.5	2.8	5.1
54°	1394.9	1379.2	1239.5	977.0	602.9	266.6	95.5	6.5	0.5	2.8	5.1
55°	1289.3	1266.2	1120.9	854.3	514.3	218.6	79.8	5.1	0.5	2.8	5.1
56°	1154.6	1120.0	983.9	741.7	424.4	176.2	67.3	4.2	0.5	2.8	5.1
57°	994.1	957.2	849.7	616.7	333.0	134.2	56.3	3.2	0.5	2.8	5.1
58°	840.9	809.1	693.8	476.0	250.9	93.2	46.6	2.3	0.5	2.3	5.1
59°	726.5	691.5	577.1	366.3	174.4	68.7	35.1	1.8	0.5	2.8	5.1
60°	629.2	584.0	464.5	283.7	124.5	49.4	25.8	0.9	0.9	2.8	5.1
62.5°	362.6	320.1	221.9	115.3	51.2	25.4	12.5	0.5	0.9	2.8	5.1
65°	91.8	81.6	53.0	24.9	14.3	8.8	4.6	0.5	0.9	2.3	4.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
67.5°	3.2	3.2	3.2	2.8	2.3	1.8	0.9	0.5	0.9	2.3	4.6
70°	1.4	1.4	1.4	0.9	0.9	0.5	0.5	0.5	0.9	2.3	4.2
72.5°	0.9	0.9	0.9	0.9	0.5	0.5	0.5	0.5	1.4	2.3	3.7
75°	0.9	0.9	0.9	0.9	0.5	0.5	0.5	0.5	1.4	2.3	3.7
77.5°	0.9	0.9	0.5	0.5	0.5	0.5	0.5	0.5	1.4	1.8	3.2
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.4	1.8	2.8
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.4	1.8	2.3
85°	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.5	1.4	1.8	1.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.4	1.8	1.4
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°	23.5	23.5	23.5
2.5°	22.1	22.1	22.1
5°	20.8	20.8	20.3
7.5°	19.4	18.9	18.9
10°	17.5	17.5	17.5
12.5°	16.1	16.1	16.1
15°	14.8	15.2	15.2
17.5°	13.4	14.3	14.3
20°	12.5	13.4	13.8
22.5°	11.5	12.5	12.9
25°	11.1	12.0	12.5
27.5°	10.1	11.5	12.5
30°	9.7	11.1	12.0
31°	9.7	11.1	11.5
32°	9.2	11.1	11.5
33°	9.2	11.1	11.5
34°	9.2	10.6	11.5
35°	8.8	10.6	11.1
36°	8.8	10.6	11.1
37°	8.8	10.6	11.5
38°	8.8	10.6	11.1
39°	8.3	10.6	11.1
40°	8.3	10.6	11.1
41°	8.3	10.6	11.1
42°	8.3	10.6	11.1
43°	8.3	10.6	11.1
44°	8.3	10.1	11.1
45°	8.3	10.1	11.1
46°	8.3	10.6	11.1
47°	8.3	10.6	11.5
48°	8.3	10.1	11.1
49°	7.8	10.1	11.1
50°	7.8	10.1	11.1
51°	7.8	10.6	11.5
52°	7.8	10.6	11.5
53°	7.8	10.6	11.5
54°	7.8	10.6	11.1
55°	7.8	10.6	11.5
56°	7.8	10.6	11.1
57°	7.8	10.6	11.1
58°	7.8	10.1	11.1
59°	7.8	10.1	11.1
60°	7.8	10.1	11.1
62.5°	7.4	10.1	11.1
65°	7.4	9.7	10.6



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	6.9	9.7	10.1
70°	6.5	9.2	9.7
72.5°	6.0	8.8	9.2
75°	5.5	7.8	8.3
77.5°	4.6	6.9	7.8
80°	4.2	6.0	6.5
82.5°	3.2	5.1	5.5
85°	2.3	3.7	3.7
87.5°	0.9	1.8	1.8
90°	0.0	0.0	0.0

(END OF REPORT)