

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: P1343456

Luminaire Tested: P3A13R159040DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1343456
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-73)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R159040DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R15 optic, 4000K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

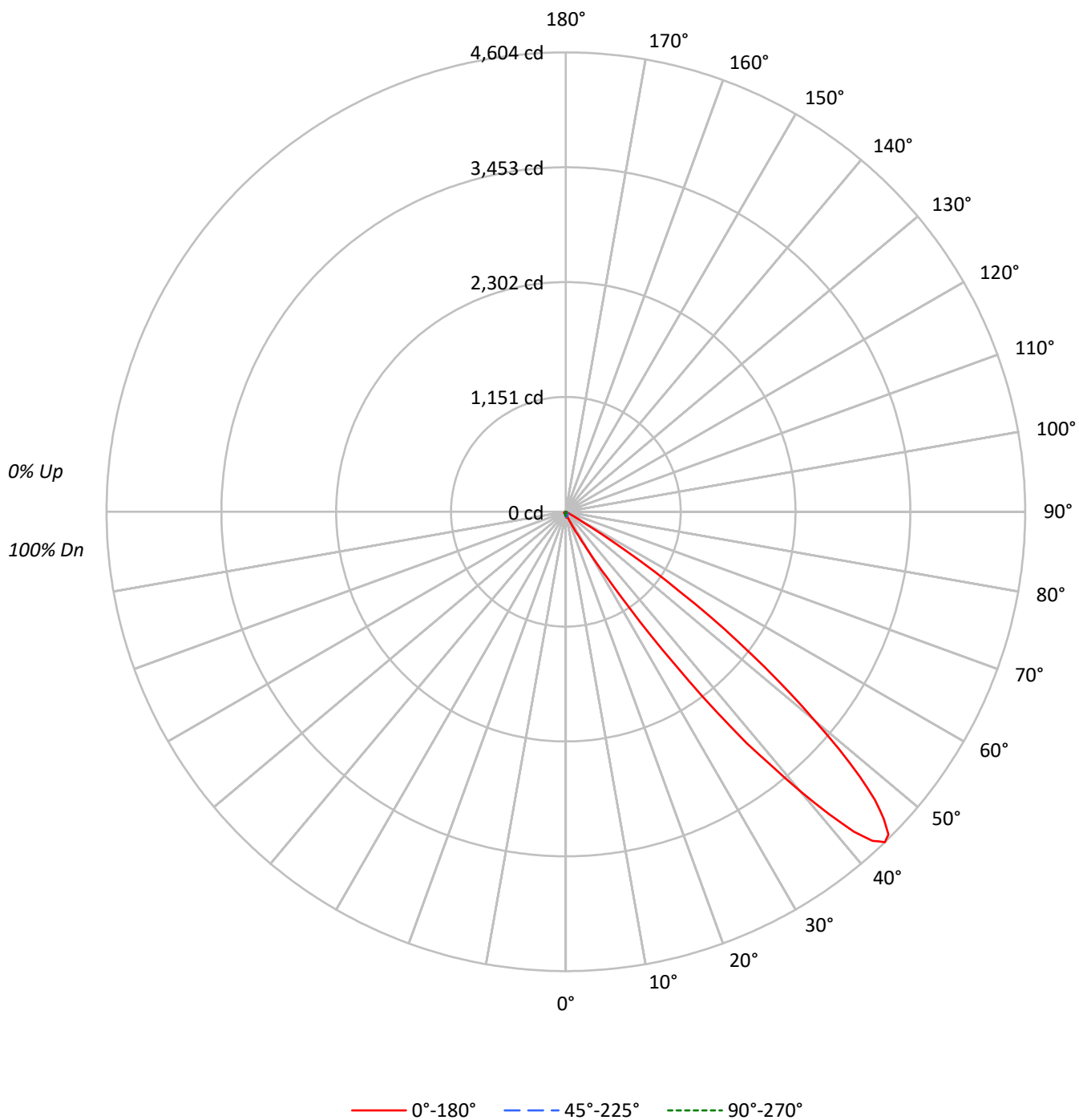
Lumens per Lamp: N/A
Luminaire Lumens: 514.0 lumens
Efficiency: N/A
Efficacy: 35.2 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.09
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	101	93	87	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	37		49	42	37		48
7	62	47	38	32	60	47	38	32	45	37	31		44	36	31		42
8	56	42	33	27	55	41	33	27	40	32	26		39	31	26		37
9	52	37	28	22	50	37	28	22	35	28	22		34	27	22		33
10	48	33	25	19	46	33	25	19	32	24	19		31	24	19		30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	9999	9999	9999	9999	9999
5°	12415	11050	9025	7902	7792
10°	12202	9463	6969	6168	6279
15°	10125	6742	4994	5131	5471
20°	17572	5390	3827	4434	5017
25°	39196	6460	3097	4089	4718
30°	117183	7925	2735	4026	4937
35°	451088	8914	2463	4122	5220
40°	1047047	7786	2347	4265	5582
45°	1418163	5892	2078	4621	6047
50°	1111946	3514	2115	4912	6652
55°	533735	1567	1950	5276	7264
60°	48768	219	1798	5614	8113
65°	5344	0	1608	5863	8769
70°	1346	0	1988	6219	9553
75°	1271	424	2626	6947	10845
80°	1263	1263	3283	7072	11618
85°	1258	1258	5284	6542	12831

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1418163 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.9	0.8
10°-20°	8.1	1.6
20°-30°	19.4	3.8
30°-40°	106.3	20.7
40°-50°	257.5	50.1
50°-60°	102.7	20.0
60°-70°	8.9	1.7
70°-80°	5.0	1.0
80°-90°	2.2	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°	31.4	6.1
0°-40°	137.8	26.8
0°-60°	497.9	96.9
0°-90°	514.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	514.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	46	46	46	46	46	
5°	56	50	41	36	35	5
15°	45	30	22	23	24	16
25°	162	27	13	17	20	98
35°	1685	33	9	15	20	1191
45°	4573	19	7	15	20	3226
55°	1396	4	5	14	19	1301
65°	10	0	3	11	17	26
75°	2	0	3	8	13	1
85°	0	0	2	3	5	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6
2.5°	51.3	51.3	51.8	51.3	51.3	51.3	51.3	50.7	50.7	50.7	49.2
5°	56.4	56.4	56.4	56.4	55.9	55.9	55.9	55.4	55.4	54.8	50.2
7.5°	58.4	58.4	57.9	57.9	57.4	57.4	56.9	56.4	55.9	55.4	48.2
10°	54.8	54.8	54.8	54.3	54.3	53.8	53.3	52.8	52.3	51.3	42.5
12.5°	48.7	48.7	49.2	48.7	48.2	47.7	46.6	46.1	45.6	44.6	35.4
15°	44.6	44.6	44.6	44.1	43.6	42.5	42.0	41.0	40.5	39.0	29.7
17.5°	56.9	56.9	56.4	55.4	53.3	51.8	49.2	47.2	44.6	41.5	25.6
20°	75.3	75.3	74.3	73.3	70.7	68.2	64.1	60.5	56.4	52.8	23.1
22.5°	109.2	110.7	107.6	104.0	100.5	94.3	88.7	83.0	75.9	69.7	23.6
25°	162.0	163.5	162.0	153.8	147.1	138.9	128.1	116.9	104.6	93.3	26.7
27.5°	262.4	263.4	260.9	240.9	230.1	208.6	189.6	171.2	150.7	130.2	29.2
30°	462.8	463.3	446.9	406.9	371.6	324.4	284.4	246.0	213.7	180.9	31.3
31°	609.4	595.0	560.2	512.0	455.6	392.1	337.2	287.5	239.3	204.0	31.8
32°	773.9	771.8	713.9	630.4	555.0	475.6	393.1	329.5	274.2	226.0	32.3
33°	991.7	992.7	901.5	803.1	679.6	573.0	464.8	377.7	311.1	252.2	33.3
34°	1332.0	1252.1	1144.9	1011.7	843.6	683.2	542.7	433.6	344.4	277.3	33.3
35°	1685.1	1604.7	1486.8	1284.9	1054.2	829.7	635.5	493.5	384.4	304.4	33.3
36°	2080.8	2012.6	1834.3	1576.5	1282.3	968.1	733.9	562.7	423.8	329.0	32.8
37°	2508.2	2408.3	2210.4	1929.1	1535.5	1162.9	853.8	631.4	463.3	355.7	31.8
38°	2942.3	2852.1	2602.5	2261.7	1837.8	1368.4	973.8	697.5	499.7	375.7	30.2
39°	3271.3	3222.1	2974.6	2593.8	2079.2	1563.1	1097.3	768.2	538.1	395.7	28.7
40°	3657.8	3578.3	3343.6	2872.6	2364.7	1761.5	1218.2	830.8	569.9	411.5	27.2
41°	4010.4	3909.9	3613.7	3158.6	2593.3	1939.8	1333.0	895.3	595.5	420.8	26.1
42°	4312.7	4195.9	3886.3	3403.6	2784.4	2082.3	1424.8	941.5	619.6	428.5	24.6
43°	4508.5	4407.6	4103.1	3587.5	2947.9	2213.0	1510.4	989.6	634.5	433.6	22.6
44°	4603.8	4501.9	4207.2	3702.9	3048.4	2291.4	1565.7	1023.0	650.9	440.2	21.0
45°	4573.1	4469.6	4184.6	3704.9	3079.7	2319.6	1589.3	1037.8	659.6	446.4	19.0
46°	4432.2	4359.4	4072.4	3608.6	3020.2	2289.4	1576.0	1026.6	656.5	446.4	16.9
47°	4234.3	4151.3	3878.1	3443.0	2876.2	2211.5	1522.1	992.2	637.6	436.1	14.9
48°	3964.7	3894.0	3607.0	3180.1	2655.3	2041.8	1400.7	936.3	607.8	416.2	12.8
49°	3626.5	3528.1	3261.1	2843.9	2367.3	1800.9	1241.3	842.0	560.2	388.0	11.3
50°	3259.5	3138.1	2932.0	2507.2	2069.5	1544.2	1031.7	711.9	493.0	351.1	10.3
51°	2900.3	2776.8	2580.5	2219.2	1751.7	1281.3	832.3	568.4	405.9	300.3	8.7
52°	2527.7	2424.2	2204.3	1920.4	1499.6	1038.3	693.4	480.7	337.2	252.2	7.2
53°	2156.6	2085.9	1876.8	1589.3	1204.9	848.2	566.3	411.5	294.2	215.8	5.6
54°	1785.1	1707.7	1548.8	1292.5	971.2	669.3	480.2	344.4	255.2	188.1	5.1
55°	1396.1	1356.1	1209.5	985.5	736.0	534.0	389.5	296.2	213.7	157.3	4.1
56°	1075.2	1030.1	896.4	714.9	546.8	418.2	315.2	241.9	180.9	131.7	3.1
57°	704.2	658.1	569.4	499.2	398.2	304.9	240.9	190.7	147.1	109.2	2.6
58°	416.2	374.1	360.3	307.5	265.5	207.1	177.8	142.0	108.7	86.1	1.5
59°	191.2	194.2	172.7	162.0	147.1	131.7	108.1	94.8	74.3	62.0	1.0
60°	111.2	105.1	102.5	91.7	81.5	72.3	65.1	57.4	46.6	40.0	0.5
62.5°	37.9	36.4	37.4	33.8	31.8	30.8	28.2	24.1	20.0	16.4	0.0
65°	10.3	10.3	9.7	9.2	8.7	8.2	7.7	6.7	6.2	5.1	0.0



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CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	3.6	3.6	3.1	3.1	2.6	2.6	2.1	2.1	1.5	1.5	0.0
70°	2.1	2.1	2.1	1.5	1.5	1.5	1.0	1.0	1.0	0.5	0.0
72.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.0	1.0	1.0	0.5	0.5
75°	1.5	1.5	1.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5
77.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
80°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5	1.0
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.0
85°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
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):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	45.6	45.6	45.6	45.6	45.6	45.6
2.5°	47.2	45.1	42.5	41.0	40.5	40.0
5°	45.1	41.0	37.9	35.9	35.4	35.4
7.5°	40.5	35.9	32.8	31.8	31.3	31.3
10°	35.4	31.3	28.7	27.7	28.2	28.2
12.5°	29.7	26.1	25.1	25.1	25.6	26.1
15°	24.1	22.0	22.0	22.6	23.6	24.1
17.5°	20.0	19.0	19.5	20.5	21.5	22.6
20°	16.4	16.4	17.4	19.0	20.5	21.5
22.5°	13.8	14.4	15.9	17.4	19.5	20.5
25°	11.8	12.8	14.4	16.9	19.0	19.5
27.5°	10.3	11.8	13.8	16.4	18.5	19.5
30°	8.7	10.8	13.3	15.9	18.5	19.5
31°	8.2	10.3	12.8	15.9	18.5	19.5
32°	7.7	10.3	12.8	15.9	18.5	19.5
33°	7.2	9.7	12.8	15.4	18.5	19.5
34°	6.7	9.7	12.8	15.9	18.5	19.5
35°	6.2	9.2	12.3	15.4	17.9	19.5
36°	5.6	9.2	12.3	15.4	18.5	19.5
37°	5.1	9.2	12.3	15.4	17.9	19.5
38°	5.1	8.7	11.8	15.4	17.9	19.5
39°	4.6	8.2	11.8	15.4	17.9	19.5
40°	4.1	8.2	11.3	14.9	17.9	19.5
41°	3.6	7.7	11.3	14.9	17.9	19.5
42°	3.1	7.7	11.3	14.9	17.9	19.5
43°	2.6	7.2	10.8	14.9	17.9	19.5
44°	2.6	7.2	10.8	14.9	17.9	19.5
45°	2.1	6.7	10.3	14.9	17.9	19.5
46°	2.1	6.7	10.3	14.4	17.9	19.5
47°	1.5	6.7	10.3	14.4	17.9	19.5
48°	1.5	6.2	10.3	14.4	17.9	19.5
49°	1.0	6.2	10.3	14.4	17.9	19.5
50°	1.0	6.2	9.7	14.4	17.9	19.5
51°	1.0	6.2	9.7	14.4	17.9	19.5
52°	1.0	5.6	9.7	14.4	17.9	19.5
53°	1.0	5.6	9.7	14.4	17.9	19.5
54°	1.0	5.6	9.2	14.4	17.9	19.5
55°	1.0	5.1	9.2	13.8	17.9	19.0
56°	1.0	5.1	9.2	13.8	17.9	19.0
57°	1.0	5.1	8.7	13.8	17.9	19.0
58°	1.0	4.6	8.7	13.3	17.4	19.0
59°	1.0	4.6	8.2	13.3	17.4	18.5
60°	1.0	4.1	8.2	12.8	16.9	18.5
62.5°	1.0	3.6	7.2	12.3	16.4	17.4
65°	1.0	3.1	6.7	11.3	15.9	16.9



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.0	3.1	6.2	10.8	14.9	16.4
70°	1.0	3.1	5.6	9.7	14.4	14.9
72.5°	1.5	3.1	5.1	9.2	13.3	13.8
75°	2.1	3.1	4.6	8.2	12.3	12.8
77.5°	2.1	3.1	4.1	7.2	10.8	11.3
80°	2.1	2.6	3.6	5.6	8.7	9.2
82.5°	2.1	2.6	2.6	4.6	6.7	7.2
85°	1.5	2.1	2.1	2.6	4.6	5.1
87.5°	1.5	2.1	1.0	1.5	2.1	2.1
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)