

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: P1343550

Luminaire Tested: P3A13R159827DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1343550
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: P3A13R159827DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R15 optic, 2700K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

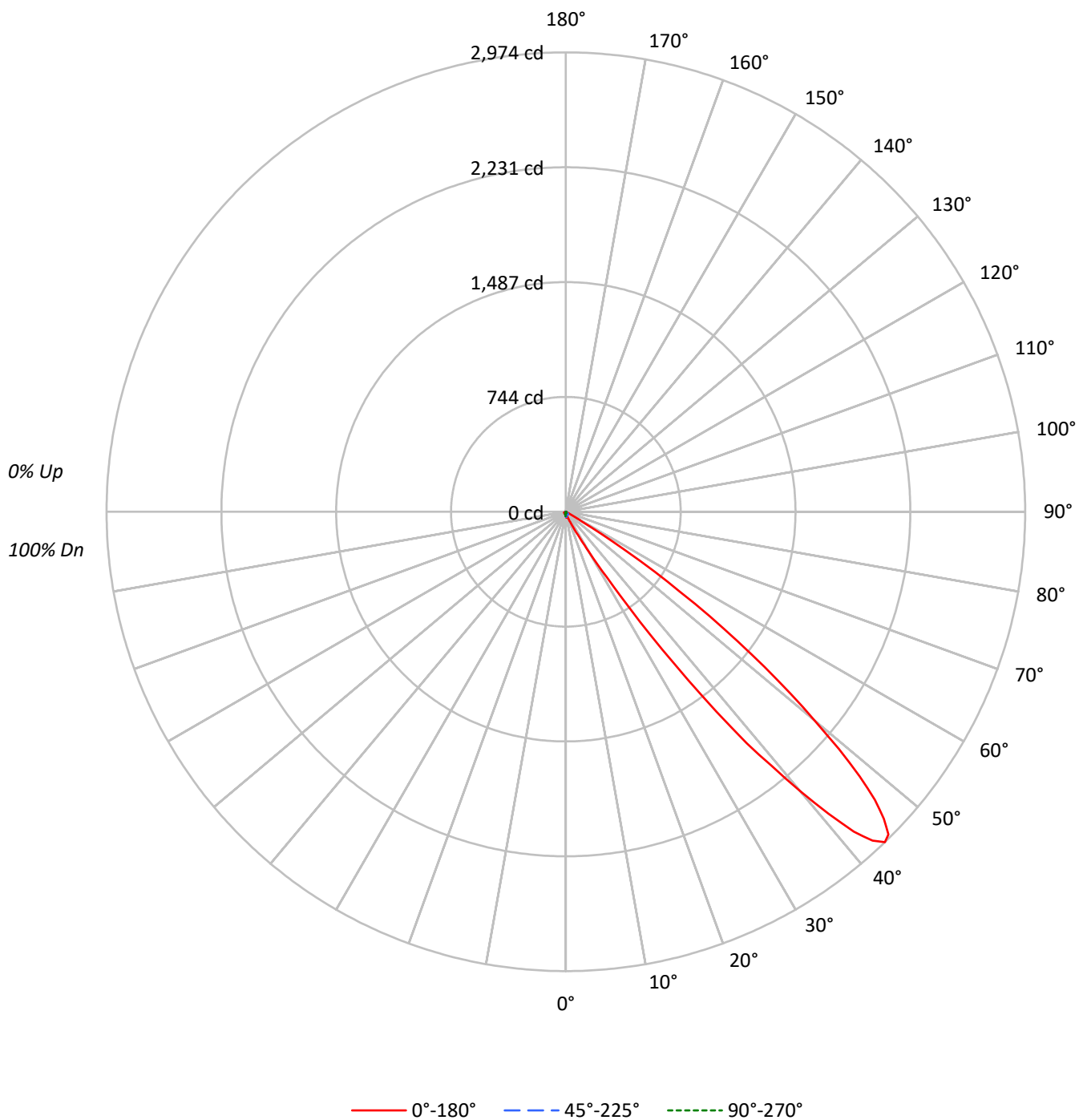
Lumens per Lamp: N/A
Luminaire Lumens: 332.0 lumens
Efficiency: N/A
Efficacy: 22.9 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 14.5
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	101	93	87	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	53	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	37		49	42	37		48	42	37	35
7	62	47	38	32	60	47	38	32	45	37	31		44	36	31		42	36	31	29
8	56	42	33	27	55	41	33	27	40	32	26		39	31	26		37	31	26	24
9	52	37	28	22	50	37	28	22	35	28	22		34	27	22		33	27	22	20
10	48	33	25	19	46	33	25	19	32	24	19		31	24	19		30	23	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	6469	6469	6469	6469	6469
5°	8012	7132	5833	5107	5019
10°	7882	6123	4498	3986	4052
15°	6538	4359	3224	3314	3541
20°	11364	3477	2474	2847	3244
25°	25308	4162	2008	2637	3049
30°	75683	5115	1772	2608	3190
35°	291356	5755	1606	2650	3373
40°	676296	5009	1517	2748	3607
45°	916002	3783	1333	2977	3907
50°	718237	2252	1365	3173	4298
55°	344724	994	1262	3403	4664
60°	31489	132	1140	3640	5219
65°	3424	0	1038	3788	5656
70°	833	0	1282	4039	6155
75°	847	254	1694	4490	7032
80°	884	884	2147	4546	7577
85°	755	755	3271	4277	8303

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 916002 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.5	0.8
10°-20°	5.2	1.6
20°-30°	12.5	3.8
30°-40°	68.7	20.7
40°-50°	166.3	50.1
50°-60°	66.3	20.0
60°-70°	5.7	1.7
70°-80°	3.2	1.0
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°	20.3	6.1
0°-40°	89.0	26.8
0°-60°	321.6	96.9
0°-90°	332.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	332.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	30	30	30	30	30	
5°	36	32	26	23	23	3
15°	29	19	14	15	16	10
25°	105	17	8	11	13	63
35°	1088	22	6	10	13	769
45°	2954	12	4	10	13	2084
55°	902	3	3	9	12	840
65°	7	0	2	7	11	17
75°	1	0	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°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5	29.5
2.5°	33.1	33.1	33.4	33.1	33.1	33.1	33.1	32.8	32.8	32.8	31.8
5°	36.4	36.4	36.4	36.4	36.1	36.1	36.1	35.8	35.8	35.4	32.4
7.5°	37.7	37.7	37.4	37.4	37.1	37.1	36.7	36.4	36.1	35.8	31.1
10°	35.4	35.4	35.4	35.1	35.1	34.8	34.4	34.1	33.8	33.1	27.5
12.5°	31.4	31.4	31.8	31.4	31.1	30.8	30.1	29.8	29.5	28.8	22.8
15°	28.8	28.8	28.8	28.5	28.1	27.5	27.1	26.5	26.2	25.2	19.2
17.5°	36.7	36.7	36.4	35.8	34.4	33.4	31.8	30.5	28.8	26.8	16.6
20°	48.7	48.7	48.0	47.3	45.7	44.0	41.4	39.1	36.4	34.1	14.9
22.5°	70.5	71.5	69.5	67.2	64.9	60.9	57.3	53.6	49.0	45.0	15.2
25°	104.6	105.6	104.6	99.3	95.0	89.7	82.8	75.5	67.5	60.2	17.2
27.5°	169.5	170.2	168.5	155.6	148.6	134.7	122.5	110.6	97.3	84.1	18.9
30°	298.9	299.3	288.7	262.8	240.0	209.5	183.7	158.9	138.0	116.9	20.2
31°	393.6	384.3	361.8	330.7	294.3	253.2	217.8	185.7	154.6	131.8	20.5
32°	499.9	498.5	461.1	407.2	358.5	307.2	253.9	212.9	177.1	146.0	20.9
33°	640.6	641.2	582.3	518.7	439.0	370.1	300.2	244.0	200.9	162.9	21.5
34°	860.4	808.7	739.5	653.5	544.9	441.3	350.6	280.1	222.5	179.1	21.5
35°	1088.4	1036.5	960.3	829.9	680.9	535.9	410.5	318.8	248.3	196.6	21.5
36°	1344.0	1300.0	1184.8	1018.3	828.3	625.3	474.0	363.5	273.8	212.5	21.2
37°	1620.1	1555.5	1427.8	1246.0	991.8	751.1	551.5	407.8	299.3	229.7	20.5
38°	1900.5	1842.2	1681.0	1460.9	1187.1	883.9	629.0	450.5	322.8	242.6	19.5
39°	2113.0	2081.2	1921.3	1675.4	1343.0	1009.7	708.7	496.2	347.6	255.6	18.5
40°	2362.6	2311.3	2159.7	1855.5	1527.4	1137.8	786.9	536.6	368.1	265.8	17.5
41°	2590.4	2525.5	2334.1	2040.2	1675.0	1253.0	861.0	578.3	384.7	271.8	16.9
42°	2785.7	2710.2	2510.2	2198.4	1798.5	1345.0	920.3	608.1	400.2	276.7	15.9
43°	2912.1	2846.9	2650.3	2317.2	1904.1	1429.4	975.6	639.2	409.8	280.1	14.6
44°	2973.7	2907.8	2717.5	2391.7	1969.0	1480.1	1011.3	660.7	420.4	284.4	13.6
45°	2953.8	2887.0	2702.9	2393.1	1989.2	1498.3	1026.5	670.3	426.0	288.3	12.2
46°	2862.8	2815.8	2630.4	2330.8	1950.8	1478.7	1017.9	663.1	424.1	288.3	10.9
47°	2735.0	2681.4	2504.9	2223.9	1857.8	1428.4	983.2	640.9	411.8	281.7	9.6
48°	2560.9	2515.2	2329.8	2054.1	1715.1	1318.8	904.7	604.8	392.6	268.8	8.3
49°	2342.4	2278.8	2106.4	1836.9	1529.1	1163.3	801.8	543.9	361.8	250.6	7.3
50°	2105.4	2026.9	1893.9	1619.4	1336.7	997.4	666.4	459.8	318.5	226.8	6.6
51°	1873.3	1793.5	1666.8	1433.4	1131.5	827.6	537.6	367.1	262.2	194.0	5.6
52°	1632.7	1565.8	1423.8	1240.4	968.6	670.7	447.9	310.5	217.8	162.9	4.6
53°	1393.0	1347.3	1212.3	1026.5	778.3	547.9	365.8	265.8	190.0	139.4	3.6
54°	1153.0	1103.0	1000.4	834.9	627.3	432.3	310.2	222.5	164.9	121.5	3.3
55°	901.7	875.9	781.2	636.6	475.4	344.9	251.6	191.3	138.0	101.6	2.6
56°	694.5	665.4	579.0	461.8	353.2	270.1	203.6	156.2	116.9	85.1	2.0
57°	454.8	425.0	367.8	322.4	257.2	197.0	155.6	123.1	95.0	70.5	1.7
58°	268.8	241.7	232.7	198.6	171.5	133.7	114.9	91.7	70.2	55.6	1.0
59°	123.5	125.5	111.6	104.6	95.0	85.1	69.8	61.2	48.0	40.1	0.7
60°	71.8	67.9	66.2	59.3	52.6	46.7	42.0	37.1	30.1	25.8	0.3
62.5°	24.5	23.5	24.2	21.8	20.5	19.9	18.2	15.6	12.9	10.6	0.0
65°	6.6	6.6	6.3	6.0	5.6	5.3	5.0	4.3	4.0	3.3	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°	2.3	2.3	2.0	2.0	1.7	1.7	1.3	1.3	1.0	1.0	0.0
70°	1.3	1.3	1.3	1.0	1.0	1.0	0.7	0.7	0.7	0.3	0.0
72.5°	1.0	1.0	1.0	1.0	1.0	1.0	0.7	0.7	0.7	0.3	0.3
75°	1.0	1.0	1.0	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.3
77.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
80°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.3	0.7
82.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.7
85°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
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°	29.5	29.5	29.5	29.5	29.5	29.5
2.5°	30.5	29.1	27.5	26.5	26.2	25.8
5°	29.1	26.5	24.5	23.2	22.8	22.8
7.5°	26.2	23.2	21.2	20.5	20.2	20.2
10°	22.8	20.2	18.5	17.9	18.2	18.2
12.5°	19.2	16.9	16.2	16.2	16.6	16.9
15°	15.6	14.2	14.2	14.6	15.2	15.6
17.5°	12.9	12.2	12.6	13.2	13.9	14.6
20°	10.6	10.6	11.3	12.2	13.2	13.9
22.5°	8.9	9.3	10.3	11.3	12.6	13.2
25°	7.6	8.3	9.3	10.9	12.2	12.6
27.5°	6.6	7.6	8.9	10.6	11.9	12.6
30°	5.6	7.0	8.6	10.3	11.9	12.6
31°	5.3	6.6	8.3	10.3	11.9	12.6
32°	5.0	6.6	8.3	10.3	11.9	12.6
33°	4.6	6.3	8.3	9.9	11.9	12.6
34°	4.3	6.3	8.3	10.3	11.9	12.6
35°	4.0	6.0	7.9	9.9	11.6	12.6
36°	3.6	6.0	7.9	9.9	11.9	12.6
37°	3.3	6.0	7.9	9.9	11.6	12.6
38°	3.3	5.6	7.6	9.9	11.6	12.6
39°	3.0	5.3	7.6	9.9	11.6	12.6
40°	2.6	5.3	7.3	9.6	11.6	12.6
41°	2.3	5.0	7.3	9.6	11.6	12.6
42°	2.0	5.0	7.3	9.6	11.6	12.6
43°	1.7	4.6	7.0	9.6	11.6	12.6
44°	1.7	4.6	7.0	9.6	11.6	12.6
45°	1.3	4.3	6.6	9.6	11.6	12.6
46°	1.3	4.3	6.6	9.3	11.6	12.6
47°	1.0	4.3	6.6	9.3	11.6	12.6
48°	1.0	4.0	6.6	9.3	11.6	12.6
49°	0.7	4.0	6.6	9.3	11.6	12.6
50°	0.7	4.0	6.3	9.3	11.6	12.6
51°	0.7	4.0	6.3	9.3	11.6	12.6
52°	0.7	3.6	6.3	9.3	11.6	12.6
53°	0.7	3.6	6.3	9.3	11.6	12.6
54°	0.7	3.6	6.0	9.3	11.6	12.6
55°	0.7	3.3	6.0	8.9	11.6	12.2
56°	0.7	3.3	6.0	8.9	11.6	12.2
57°	0.7	3.3	5.6	8.9	11.6	12.2
58°	0.7	3.0	5.6	8.6	11.3	12.2
59°	0.7	3.0	5.3	8.6	11.3	11.9
60°	0.7	2.6	5.3	8.3	10.9	11.9
62.5°	0.7	2.3	4.6	7.9	10.6	11.3
65°	0.7	2.0	4.3	7.3	10.3	10.9



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.7	2.0	4.0	7.0	9.6	10.6
70°	0.7	2.0	3.6	6.3	9.3	9.6
72.5°	1.0	2.0	3.3	6.0	8.6	8.9
75°	1.3	2.0	3.0	5.3	7.9	8.3
77.5°	1.3	2.0	2.6	4.6	7.0	7.3
80°	1.3	1.7	2.3	3.6	5.6	6.0
82.5°	1.3	1.7	1.7	3.0	4.3	4.6
85°	1.0	1.3	1.3	1.7	3.0	3.3
87.5°	1.0	1.3	0.7	1.0	1.3	1.3
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)