

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: P1336990

Luminaire Tested: P3A05R209835DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336990
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-74)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A05R209835DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R20 optic, 3500K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

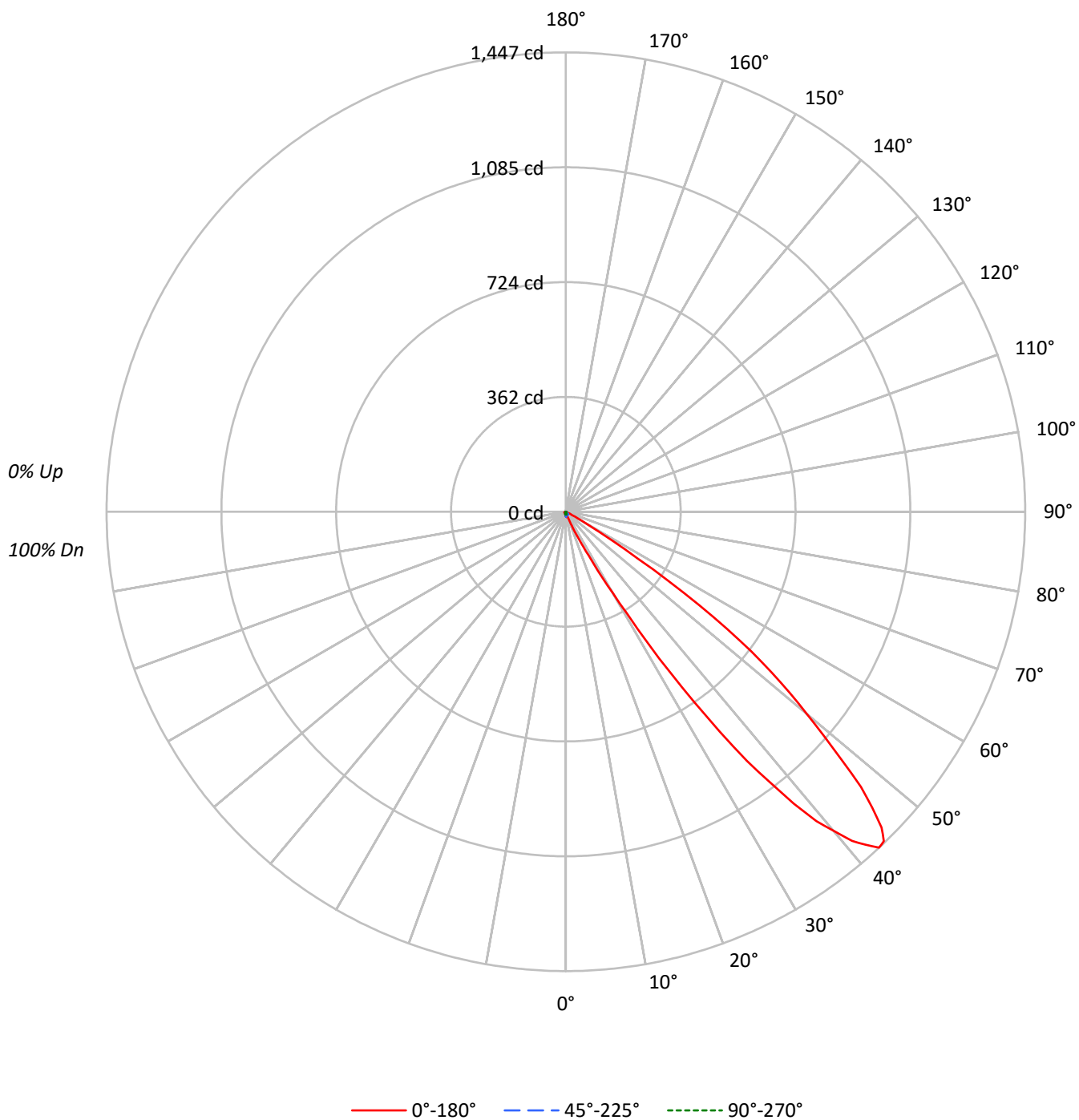
Lumens per Lamp: N/A
Luminaire Lumens: 201.0 lumens
Efficiency: N/A
Efficacy: 27.9 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 7.2
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	50	30	10
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	108	104	101	97	100	97	94	96	94	92	92	91	89	87		
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73		
3	92	81	74	67	89	80	73	67	77	71	66	74	69	65	72	67	63	61		
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51		
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42		
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35		
7	62	48	39	32	60	47	38	32	46	38	32	44	37	32	43	36	31	29		
8	57	42	33	27	55	42	33	27	40	33	27	39	32	27	38	31	27	25		
9	52	38	29	23	51	37	29	23	36	28	23	35	28	23	34	27	23	21		
10	48	34	25	20	47	33	25	20	32	25	19	31	24	19	30	24	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	3070	3070	3070	3070	3070
5°	3566	3324	2862	2487	2421
10°	3540	3028	2271	1937	1893
15°	3087	2316	1680	1544	1635
20°	4574	1937	1237	1330	1447
25°	19743	2008	968	1186	1428
30°	74670	2431	810	1139	1393
35°	226334	2945	750	1151	1472
40°	375303	2920	658	1231	1574
45°	436231	1985	589	1302	1706
50°	338616	1092	580	1365	1944
55°	196007	726	573	1529	2103
60°	33155	175	482	1579	2324
65°	2542	0	571	1764	2646
70°	385	0	705	1923	3013
75°	339	169	763	2203	3558
80°	253	253	1137	2399	4041
85°	503	503	2013	2264	4277

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 436231 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.2	0.6
10°-20°	2.5	1.3
20°-30°	8.0	4.0
30°-40°	51.3	25.5
40°-50°	93.8	46.7
50°-60°	38.6	19.2
60°-70°	3.2	1.6
70°-80°	1.6	0.8
80°-90°	0.8	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°	11.7	5.8
0°-40°	63.0	31.3
0°-60°	195.4	97.2
0°-90°	201.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	201.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	14	14	14	14	14	
5°	16	15	13	11	11	2
15°	14	10	7	7	7	4
25°	82	8	4	5	6	54
35°	846	11	3	4	6	535
45°	1407	6	2	4	6	1010
55°	513	2	2	4	6	448
65°	5	0	1	3	5	16
75°	0	0	1	3	4	0
85°	0	0	1	1	2	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°	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0	14.0
2.5°	15.3	15.3	15.3	15.1	15.1	15.3	15.1	15.1	15.1	15.1	14.9
5°	16.2	16.2	16.2	16.2	16.2	16.2	16.2	16.1	16.1	15.9	15.1
7.5°	16.6	16.6	16.6	16.6	16.4	16.4	16.4	16.4	16.2	16.1	14.7
10°	15.9	15.9	15.9	15.7	15.7	15.7	15.5	15.5	15.3	15.1	13.6
12.5°	14.4	14.4	14.4	14.4	14.2	14.2	14.0	14.0	13.8	13.6	11.9
15°	13.6	13.6	13.6	13.4	13.4	13.2	13.0	12.8	12.7	12.3	10.2
17.5°	14.7	14.7	14.5	14.5	14.2	13.8	13.6	13.0	12.7	12.1	9.1
20°	19.6	19.8	19.1	18.5	18.1	17.0	16.4	15.5	14.7	13.8	8.3
22.5°	39.7	38.9	37.6	35.5	33.1	31.0	27.2	24.2	22.1	19.3	8.1
25°	81.6	80.8	77.3	74.2	66.7	60.8	52.7	46.1	39.3	32.7	8.3
27.5°	155.1	150.0	149.0	135.2	124.7	109.6	93.9	80.7	68.6	55.2	8.9
30°	294.9	289.0	268.4	247.6	219.1	186.8	156.0	127.3	103.3	81.6	9.6
31°	374.2	379.9	355.7	313.9	271.8	230.4	188.3	151.9	120.9	93.9	10.0
32°	491.9	467.1	441.6	398.8	337.6	284.7	231.8	179.3	138.5	107.1	10.4
33°	603.1	588.6	549.7	496.2	422.7	348.5	279.9	211.6	160.0	123.2	10.6
34°	721.8	705.7	674.2	597.5	516.8	419.5	328.1	248.8	185.7	138.8	10.8
35°	845.5	838.7	777.9	711.4	612.2	494.9	386.1	289.6	210.8	153.2	11.0
36°	970.0	948.1	900.5	803.4	699.8	564.6	446.9	327.5	236.3	170.2	11.0
37°	1063.7	1058.7	995.7	901.0	779.4	639.0	499.4	369.7	262.0	184.7	11.0
38°	1167.0	1147.5	1083.5	987.2	854.2	707.2	554.4	406.3	286.4	198.0	10.8
39°	1254.1	1225.2	1160.6	1065.4	919.5	759.0	598.0	441.8	307.9	208.9	10.6
40°	1311.1	1291.1	1223.6	1116.5	978.8	807.9	642.2	471.1	324.0	217.2	10.2
41°	1374.0	1340.8	1274.1	1166.4	1021.9	851.0	670.0	490.4	336.4	222.7	9.8
42°	1411.6	1384.4	1305.2	1199.8	1052.7	875.5	692.7	505.1	344.0	225.5	9.1
43°	1446.7	1409.7	1332.6	1219.3	1073.1	892.9	703.1	511.9	345.7	225.5	8.1
44°	1442.0	1406.9	1327.0	1221.9	1077.6	898.0	707.4	512.1	343.0	222.7	7.2
45°	1406.7	1371.7	1299.8	1198.9	1061.4	888.0	698.7	504.5	335.7	217.8	6.4
46°	1341.9	1307.1	1252.0	1160.4	1031.2	865.3	678.5	488.1	323.4	209.9	5.7
47°	1271.4	1237.6	1181.1	1098.2	979.6	824.9	649.2	465.1	306.2	198.3	5.1
48°	1169.2	1148.1	1091.4	1020.6	908.0	761.6	597.8	427.5	283.2	183.4	4.3
49°	1079.0	1056.7	1007.0	930.9	814.7	687.9	536.5	381.8	253.1	166.8	3.8
50°	992.6	973.2	927.3	841.3	730.4	599.0	453.5	324.1	215.3	146.2	3.2
51°	908.2	893.7	846.8	767.8	655.3	530.6	392.9	269.9	177.9	121.3	3.0
52°	823.4	821.7	770.9	691.0	582.2	462.4	334.0	227.8	150.9	101.8	2.8
53°	732.1	721.2	676.8	605.0	500.6	391.4	283.2	192.1	130.0	86.7	2.5
54°	628.3	616.0	568.4	503.6	409.0	320.6	228.2	155.3	108.2	73.3	2.3
55°	512.7	491.7	457.1	390.6	319.4	244.6	176.2	123.0	86.5	61.0	1.9
56°	388.9	368.0	348.5	299.6	234.4	182.5	131.3	94.3	67.6	48.2	1.7
57°	270.5	269.4	237.4	199.8	156.8	124.3	89.9	66.5	47.8	37.4	1.3
58°	175.5	169.6	149.2	127.5	102.6	77.6	57.8	45.1	32.5	25.5	1.1
59°	123.0	111.3	100.3	85.0	64.6	48.9	37.2	28.9	22.5	17.8	0.8
60°	75.6	73.1	65.7	51.8	41.9	34.6	27.8	21.3	16.4	12.7	0.4
62.5°	21.5	21.9	19.8	17.6	15.1	13.0	11.7	10.0	8.3	6.6	0.0
65°	4.9	4.7	5.1	4.7	4.3	4.3	3.8	3.4	3.0	2.8	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°	1.5	1.5	1.3	1.3	1.3	1.1	1.1	0.9	0.9	0.8	0.0
70°	0.6	0.6	0.6	0.6	0.6	0.4	0.4	0.4	0.2	0.2	0.0
72.5°	0.6	0.6	0.6	0.4	0.4	0.4	0.4	0.4	0.2	0.2	0.2
75°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2	0.2	0.2	0.2
77.5°	0.4	0.4	0.4	0.4	0.4	0.2	0.4	0.2	0.2	0.2	0.2
80°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
82.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
85°	0.2	0.2	0.2	0.2	0.0	0.0	0.2	0.2	0.2	0.0	0.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
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°	14.0	14.0	14.0	14.0	14.0	14.0
2.5°	14.5	13.8	13.2	12.7	12.5	12.5
5°	14.2	13.0	11.9	11.3	11.0	11.0
7.5°	13.0	11.7	10.6	10.0	9.8	9.8
10°	11.7	10.2	9.1	8.7	8.7	8.5
12.5°	10.2	8.7	7.9	7.7	7.7	7.7
15°	8.5	7.4	6.8	6.8	7.0	7.2
17.5°	7.2	6.0	5.9	6.2	6.6	6.6
20°	6.0	5.3	5.3	5.7	6.0	6.2
22.5°	5.1	4.5	4.7	5.3	5.9	6.0
25°	4.5	4.0	4.3	4.9	5.5	5.9
27.5°	3.8	3.6	4.0	4.7	5.5	5.7
30°	3.2	3.2	3.8	4.5	5.3	5.5
31°	3.0	3.0	3.8	4.5	5.3	5.5
32°	2.8	3.0	3.6	4.5	5.3	5.5
33°	2.6	2.8	3.6	4.3	5.3	5.5
34°	2.5	2.8	3.6	4.3	5.3	5.5
35°	2.3	2.8	3.6	4.3	5.3	5.5
36°	2.1	2.6	3.4	4.3	5.3	5.5
37°	1.9	2.6	3.4	4.3	5.3	5.5
38°	1.7	2.5	3.4	4.3	5.3	5.5
39°	1.7	2.5	3.2	4.3	5.1	5.5
40°	1.5	2.3	3.2	4.3	5.1	5.5
41°	1.3	2.3	3.2	4.2	5.1	5.5
42°	1.1	2.1	3.0	4.2	5.1	5.5
43°	0.9	2.1	3.0	4.2	5.1	5.5
44°	0.9	1.9	3.0	4.2	5.1	5.5
45°	0.8	1.9	3.0	4.2	5.1	5.5
46°	0.6	1.9	3.0	4.2	5.1	5.5
47°	0.6	1.7	2.8	4.2	5.1	5.5
48°	0.4	1.7	2.8	4.2	5.1	5.5
49°	0.4	1.7	2.8	4.2	5.1	5.7
50°	0.4	1.7	2.8	4.0	5.1	5.7
51°	0.2	1.7	2.8	4.0	5.1	5.7
52°	0.2	1.7	2.6	4.0	5.3	5.7
53°	0.2	1.5	2.6	4.0	5.3	5.7
54°	0.2	1.5	2.6	4.0	5.3	5.5
55°	0.2	1.5	2.6	4.0	5.1	5.5
56°	0.2	1.3	2.6	4.0	5.1	5.5
57°	0.2	1.3	2.5	3.8	5.1	5.3
58°	0.2	1.3	2.5	3.8	5.1	5.3
59°	0.2	1.3	2.5	3.8	4.9	5.3
60°	0.4	1.1	2.3	3.6	4.9	5.3
62.5°	0.4	1.1	2.3	3.6	4.7	5.1
65°	0.4	1.1	2.1	3.4	4.7	5.1



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.4	0.9	1.9	3.2	4.5	4.9
70°	0.4	1.1	1.9	3.0	4.3	4.7
72.5°	0.6	0.9	1.7	2.8	4.2	4.5
75°	0.6	0.9	1.7	2.6	4.0	4.2
77.5°	0.8	0.9	1.5	2.3	3.6	3.8
80°	0.8	0.9	1.3	1.9	3.0	3.2
82.5°	0.8	0.9	0.9	1.5	2.3	2.5
85°	0.6	0.8	0.8	0.9	1.5	1.7
87.5°	0.6	0.8	0.6	0.4	0.8	0.8
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)