

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: P1345026

Luminaire Tested: P3A13R309735DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1345026
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-76)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R309735DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R30 optic, 3500K CCT AND, 97CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

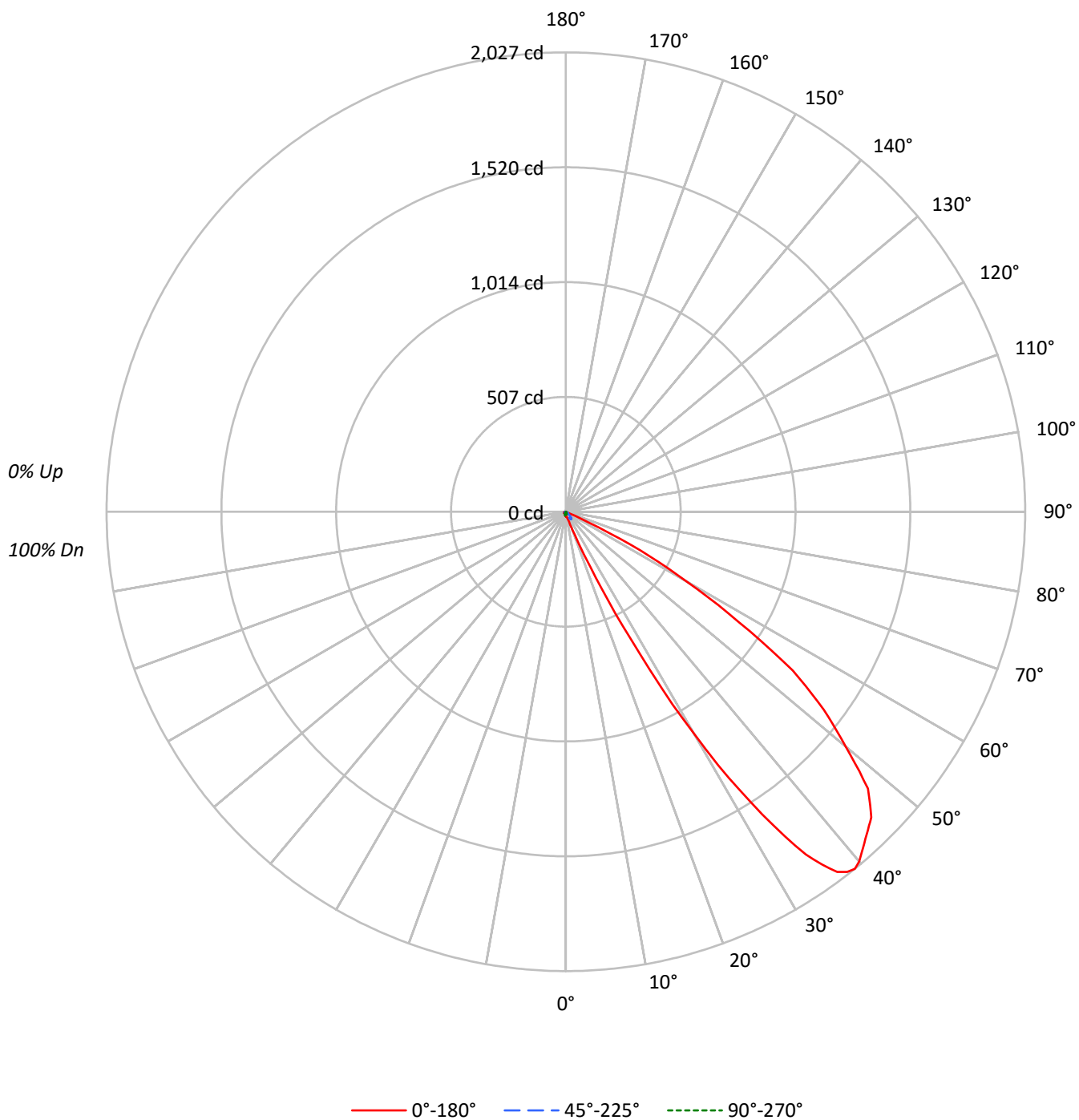
Lumens per Lamp: N/A
Luminaire Lumens: 527.0 lumens
Efficiency: N/A
Efficacy: 36.1 lumens/watt
Spacing Criteria (0/90/45): 4.07 / 0.66 / 1.44
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	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	100	97	100	97	94	96	93	91	92	90	89	87		
2	100	93	86	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	52	50		
5	75	62	52	46	73	60	52	45	58	51	45	56	50	44	54	49	44	42		
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	48	42	37	35		
7	62	48	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	32	26	37	31	26	24		
9	52	37	29	23	50	37	28	23	36	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	24	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	4473	4473	4473	4473	4473
5°	4799	4689	4402	4006	3918
10°	5233	4654	3852	3451	3362
15°	7650	4631	3224	2929	3019
20°	19275	5087	2497	2497	2800
25°	89473	6339	1936	2250	2589
30°	284829	8761	1469	2127	2583
35°	494240	10708	1178	2008	2623
40°	576394	10677	887	2032	2662
45°	591131	7567	961	2202	2884
50°	549713	4230	751	2286	3343
55°	467214	2217	841	2561	3747
60°	269847	570	965	2719	4079
65°	55051	0	1141	3217	4618
70°	833	256	1410	3719	5386
75°	763	339	1525	3728	6354
80°	505	505	2273	4546	7324
85°	0	1006	4529	4529	9057

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 591131 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.8	0.4
10°-20°	5.3	1.0
20°-30°	30.4	5.8
30°-40°	142.0	26.9
40°-50°	200.7	38.1
50°-60°	123.5	23.4
60°-70°	18.8	3.6
70°-80°	3.0	0.6
80°-90°	1.5	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°	37.5	7.1
0°-40°	179.5	34.1
0°-60°	503.7	95.6
0°-90°	527.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	527.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	20	20	20	20	20	
5°	22	21	20	18	18	2
15°	34	20	14	13	13	12
25°	370	26	8	9	11	228
35°	1846	40	4	8	10	1108
45°	1906	24	3	7	9	1445
55°	1222	6	2	7	10	1040
65°	106	0	2	6	9	192
75°	1	0	2	4	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°	22.5°	45°	67.5°	90°	112.5°	135°
0°	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4	20.4
2.5°	20.9	20.9	21.3	21.3	20.9	21.3	21.3	21.3	20.4	20.0	19.1
5°	21.8	21.8	21.8	22.2	21.8	21.8	21.3	20.9	20.0	18.6	18.2
7.5°	22.6	22.6	22.2	22.6	22.2	22.2	21.3	20.4	19.1	17.8	16.9
10°	23.5	23.5	23.1	23.1	22.6	22.6	20.9	19.5	17.3	16.0	15.5
12.5°	26.2	26.2	25.7	25.3	24.4	24.0	20.4	18.2	15.5	14.2	13.8
15°	33.7	33.3	32.4	31.1	28.9	28.4	20.4	16.9	14.2	12.9	12.9
17.5°	46.2	45.7	44.4	40.8	36.8	35.5	20.4	15.1	12.4	11.5	11.5
20°	82.6	79.0	72.4	63.5	54.2	49.3	21.8	13.3	10.7	10.2	10.7
21°	107.9	104.3	95.9	81.2	64.8	59.5	22.6	12.9	10.2	9.8	10.7
22°	146.9	142.9	125.6	105.7	82.1	72.8	23.1	12.0	9.3	9.3	10.2
23°	205.1	198.4	169.1	137.2	102.5	89.2	24.0	11.5	8.9	9.3	9.8
24°	268.6	262.8	229.5	181.6	131.0	111.9	24.9	11.1	8.4	8.4	9.3
25°	369.8	363.1	304.1	229.1	166.0	134.5	26.2	10.2	8.0	8.0	9.3
26°	500.7	470.1	391.5	295.2	204.6	168.7	27.5	9.8	7.5	8.0	8.9
27°	625.0	599.7	511.4	378.7	253.0	207.3	29.3	9.3	7.1	7.5	8.9
28°	788.4	752.9	641.5	479.0	318.7	250.8	31.1	8.9	6.7	7.5	8.4
29°	971.3	921.6	787.1	591.7	392.9	299.6	32.9	8.4	6.2	7.1	8.4
30°	1124.9	1078.3	943.8	725.4	478.1	364.0	34.6	8.0	5.8	7.1	8.4
31°	1305.1	1234.5	1071.6	838.6	551.4	428.4	36.4	7.1	5.3	6.7	8.0
32°	1451.2	1401.9	1228.8	966.4	647.7	499.4	37.7	6.7	5.3	6.7	8.0
33°	1592.4	1526.2	1358.8	1088.9	734.7	572.2	39.1	6.2	4.9	6.2	8.0
34°	1727.3	1666.5	1481.8	1187.9	816.8	641.5	40.0	5.3	4.9	6.2	7.5
35°	1846.3	1775.7	1590.1	1284.7	901.2	704.5	40.0	4.9	4.4	5.8	7.5
36°	1923.5	1872.9	1684.2	1380.2	977.5	764.4	40.0	4.4	4.0	5.8	7.1
37°	1989.7	1930.6	1759.7	1453.4	1033.9	812.4	40.0	4.0	4.0	5.8	7.1
38°	2016.7	1966.1	1811.6	1518.2	1086.7	861.2	39.5	3.6	3.6	5.3	7.1
39°	2027.4	1982.1	1850.7	1564.8	1125.8	894.1	38.6	3.1	3.6	5.3	7.1
40°	2013.6	1979.5	1870.7	1595.0	1156.9	918.0	37.3	2.7	3.1	5.3	7.1
42.5°	1956.8	1934.2	1866.3	1625.2	1183.5	935.8	32.4	1.8	3.1	4.9	7.1
45°	1906.2	1881.3	1821.4	1593.7	1148.9	900.7	24.4	0.9	3.1	4.9	7.1
47.5°	1808.1	1792.6	1745.5	1513.3	1073.0	821.7	17.3	0.4	2.7	4.4	6.7
50°	1611.4	1596.8	1534.6	1314.0	922.9	694.7	12.4	0.4	2.2	4.4	6.7
52.5°	1435.2	1419.7	1330.4	1092.5	708.9	509.2	8.0	0.4	2.2	4.4	6.7
55°	1222.1	1195.0	1077.8	829.2	502.5	341.4	5.8	0.4	2.2	4.0	6.7
57.5°	904.7	865.2	760.4	565.6	289.4	185.1	3.1	0.4	2.2	4.0	6.7
60°	615.3	591.7	475.9	298.3	123.4	78.1	1.3	0.4	2.2	4.0	6.2
62.5°	372.9	343.2	239.3	127.0	53.3	35.5	0.0	0.9	2.2	4.0	6.2
65°	106.1	94.1	62.6	28.9	15.1	11.5	0.0	0.9	2.2	4.0	6.2
67.5°	3.6	3.6	3.6	3.1	2.2	2.2	0.4	0.9	2.2	4.0	5.8
70°	1.3	1.3	1.3	0.9	0.9	0.4	0.4	0.9	2.2	3.6	5.8
72.5°	0.9	0.9	0.9	0.9	0.4	0.4	0.4	0.9	1.8	3.1	5.3
75°	0.9	0.9	0.9	0.4	0.4	0.4	0.4	1.3	1.8	3.1	4.4
77.5°	0.9	0.9	0.9	0.4	0.4	0.4	0.4	1.3	1.8	2.7	4.4
80°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.3	1.8	2.7	3.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	45°	67.5°	90°	112.5°	135°
82.5°	0.4	0.4	0.4	0.0	0.0	0.0	0.4	1.3	1.8	1.8	2.7
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.3	1.8	1.3	1.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.3	1.3	1.3	0.9
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):

	157.5°	180°
0°	20.4	20.4
2.5°	19.1	19.1
5°	17.8	17.8
7.5°	16.4	16.4
10°	15.1	15.1
12.5°	14.2	14.2
15°	12.9	13.3
17.5°	12.0	12.4
20°	11.5	12.0
21°	11.5	12.0
22°	11.1	11.5
23°	11.1	11.5
24°	10.7	11.1
25°	10.2	10.7
26°	10.2	10.7
27°	10.2	10.7
28°	9.8	10.7
29°	9.8	10.2
30°	9.8	10.2
31°	9.3	10.2
32°	9.3	10.2
33°	9.3	9.8
34°	8.9	9.8
35°	8.9	9.8
36°	8.9	9.8
37°	8.9	9.3
38°	8.9	9.8
39°	8.9	9.3
40°	8.9	9.3
42.5°	8.9	9.3
45°	8.9	9.3
47.5°	8.9	9.8
50°	8.9	9.8
52.5°	8.9	9.8
55°	8.9	9.8
57.5°	8.9	9.3
60°	8.9	9.3
62.5°	8.4	9.3
65°	8.4	8.9
67.5°	8.4	8.9
70°	8.0	8.4
72.5°	7.5	8.0
75°	6.7	7.5
77.5°	6.2	6.7
80°	5.3	5.8

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CANDELA DISTRIBUTION (continued):

	157.5°	180°
82.5°	4.4	4.4
85°	3.1	3.6
87.5°	1.8	1.8
90°	0.0	0.0

(END OF REPORT)