

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: P1345570

Luminaire Tested: P3A13R359827DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1345570
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: P3A13R359827DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R35 optic, 2700K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

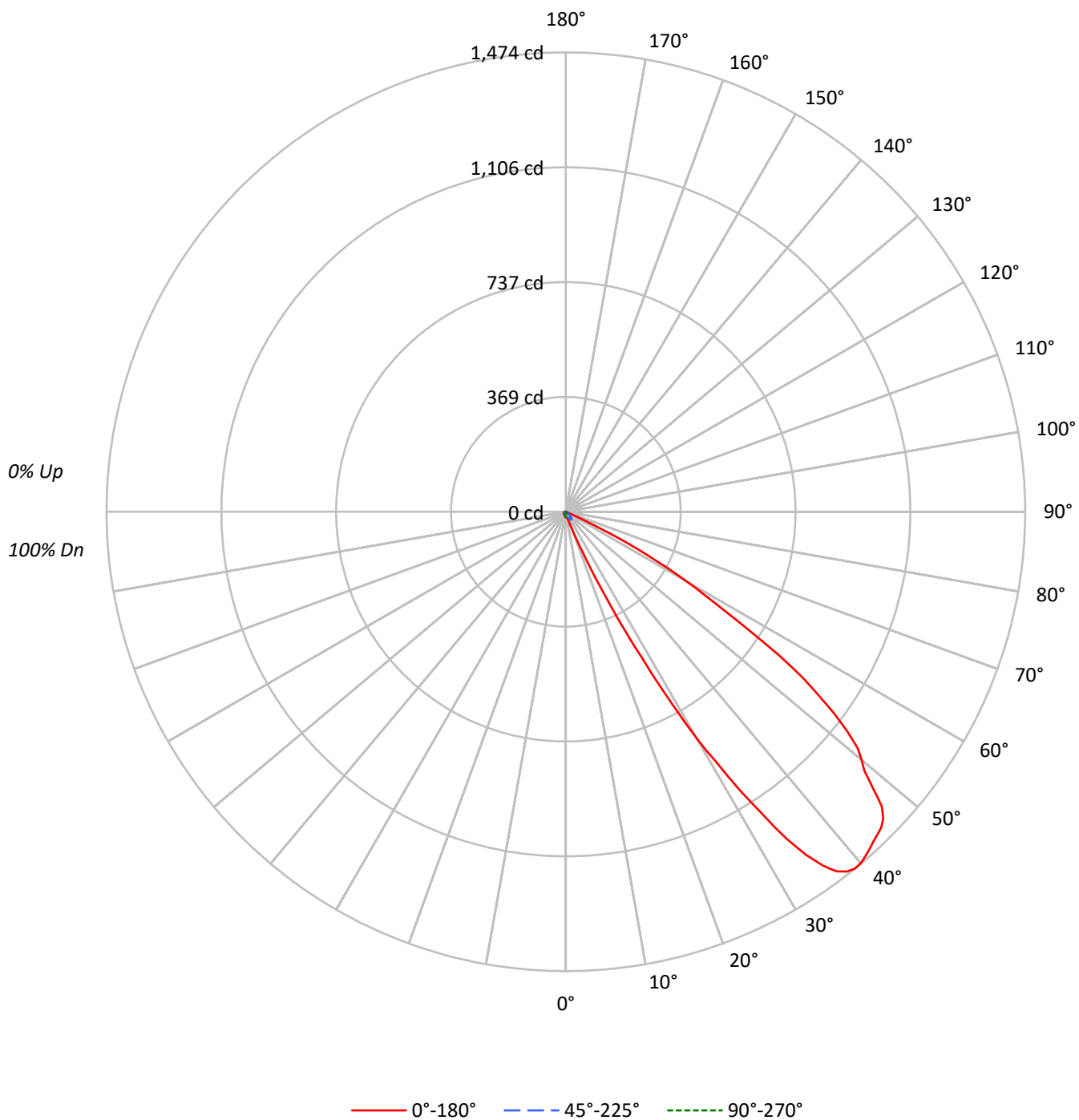
Lumens per Lamp: N/A
Luminaire Lumens: 367.0 lumens
Efficiency: N/A
Efficacy: 25.3 lumens/watt
Spacing Criteria (0/90/45): 4.01 / 0.66 / 1.41
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 14.5
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
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	102	102	100
1	110	106	102	99	107	104	100	97	100	97	94	96	93	91	92	90	89	89	89	87
2	100	93	86	81	98	91	85	80	87	83	78	84	80	77	81	78	75	75	75	73
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	63	63	61
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	52	52	52	50
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	49	44	44	44	42
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	37	37	35
7	62	48	38	32	60	47	38	32	45	37	32	44	37	31	42	36	31	31	31	29
8	57	42	33	27	55	41	33	27	40	32	27	39	32	26	38	31	26	26	26	24
9	52	38	29	23	50	37	29	23	36	28	23	35	28	22	34	27	22	22	22	20
10	48	34	25	19	46	33	25	19	32	25	19	31	24	19	30	24	19	19	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	3706	3706	3706	3706	3706
5°	4006	3940	3654	3280	3214
10°	4208	3830	3251	2806	2806
15°	6016	3768	2633	2406	2474
20°	15075	4014	2077	2077	2310
25°	69972	5129	1597	1936	2153
30°	212742	6963	1266	1772	2178
35°	359537	8058	1071	1686	2142
40°	421447	7958	859	1718	2290
45°	443829	5644	713	1861	2481
50°	422468	3377	682	1910	2729
55°	354014	1376	765	2141	3173
60°	198186	307	877	2456	3508
65°	34193	156	882	2750	3943
70°	641	192	1090	2949	4488
75°	593	254	1440	3389	5083
80°	379	379	1642	3788	5809
85°	0	755	3271	4277	6793

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 46°

Luminance: 446984 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.5	0.4
10°-20°	4.3	1.2
20°-30°	22.5	6.1
30°-40°	97.2	26.5
40°-50°	138.7	37.8
50°-60°	85.9	23.4
60°-70°	13.1	3.6
70°-80°	2.4	0.7
80°-90°	1.2	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°	28.4	7.7
0°-40°	125.6	34.2
0°-60°	350.3	95.4
0°-90°	367.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	367.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	17	17	17	17	17	
5°	18	18	17	15	15	2
15°	26	17	12	11	11	10
25°	289	21	7	8	9	173
35°	1343	30	4	6	8	806
45°	1431	18	2	6	8	1081
55°	926	4	2	6	8	789
65°	66	0	2	5	8	135
75°	1	0	2	4	6	1
85°	0	0	1	2	3	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°	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9
2.5°	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6	16.9	16.6
5°	18.2	18.2	17.9	17.9	17.9	17.9	17.9	17.9	17.2	16.6	15.6
7.5°	18.6	18.6	18.2	18.2	18.2	18.2	17.9	17.6	16.9	15.6	14.6
10°	18.9	18.9	18.9	18.9	18.6	18.2	17.9	17.2	16.2	14.6	13.6
12.5°	21.2	21.2	20.9	20.2	19.5	18.9	18.2	16.9	14.9	13.3	12.3
15°	26.5	26.2	25.5	24.5	23.2	21.5	20.2	16.6	13.6	11.6	10.9
17.5°	37.1	36.4	35.4	32.1	29.2	26.2	23.5	16.6	12.3	10.3	9.6
20°	64.6	64.9	58.0	50.0	43.4	36.1	29.5	17.2	10.9	8.9	8.6
22.5°	134.8	129.5	113.0	93.8	71.6	55.3	41.7	18.9	9.6	7.6	7.6
25°	289.2	269.0	228.9	172.9	121.9	86.5	60.6	21.2	8.6	6.6	7.0
27.5°	528.1	509.9	429.4	323.3	214.7	130.5	82.2	24.2	7.6	5.6	6.3
30°	840.2	789.8	684.8	530.1	358.8	199.8	110.3	27.5	6.3	5.0	6.0
31°	937.6	914.4	786.5	613.2	420.4	237.2	122.2	28.5	6.0	5.0	5.6
32°	1053.2	1012.1	897.5	704.3	483.0	270.7	136.5	29.5	5.6	4.3	5.6
33°	1156.6	1116.8	977.3	784.5	546.3	308.8	151.7	29.8	5.0	4.3	5.3
34°	1265.2	1210.9	1072.7	868.3	611.2	349.8	165.6	30.1	4.6	4.0	5.3
35°	1343.1	1288.7	1154.9	934.6	667.2	386.3	181.6	30.1	4.3	4.0	5.0
36°	1403.4	1355.7	1225.8	1002.8	722.9	419.1	194.1	30.1	3.6	3.6	5.0
37°	1444.8	1399.4	1273.5	1061.5	765.3	448.2	205.4	30.1	3.3	3.6	5.0
38°	1465.0	1427.2	1319.6	1104.2	806.4	471.1	214.3	29.5	3.0	3.3	4.6
39°	1473.6	1442.8	1347.7	1140.3	837.2	491.0	221.0	28.8	2.7	3.3	4.6
40°	1472.3	1445.4	1363.6	1165.2	862.0	504.6	224.6	27.8	2.3	3.0	4.6
41°	1464.7	1441.5	1371.9	1186.4	876.9	513.8	225.6	26.8	2.0	3.0	4.3
42°	1456.0	1434.8	1374.5	1197.6	886.5	516.8	223.0	25.5	2.0	2.7	4.3
43°	1447.1	1427.6	1374.5	1201.3	888.9	514.8	218.7	23.2	1.7	2.7	4.3
44°	1439.8	1421.3	1370.2	1200.3	883.9	507.2	210.7	20.5	1.3	2.7	4.3
45°	1431.2	1413.0	1364.6	1194.0	874.3	494.3	200.8	18.2	1.0	2.3	4.3
46°	1416.0	1401.7	1354.7	1181.1	859.1	476.4	188.2	16.6	0.7	2.3	4.0
47°	1386.5	1374.2	1335.5	1161.9	838.8	455.2	175.3	14.9	0.7	2.3	4.0
48°	1327.2	1326.8	1297.0	1126.1	806.7	428.7	161.7	13.3	0.7	2.3	4.0
49°	1269.9	1263.9	1226.8	1063.1	760.7	396.9	147.4	11.9	0.3	2.3	4.0
50°	1238.4	1225.5	1164.5	988.9	701.7	352.8	132.2	9.9	0.3	2.0	4.0
51°	1205.6	1187.0	1115.1	922.0	631.5	310.4	115.6	8.0	0.3	2.0	3.6
52°	1146.3	1128.7	1048.2	858.1	563.2	267.0	99.7	6.6	0.3	2.0	4.0
53°	1082.3	1057.2	969.7	787.8	503.2	228.6	83.5	5.6	0.3	2.0	3.6
54°	1001.8	990.6	890.2	701.7	433.0	191.5	68.6	4.6	0.3	2.0	3.6
55°	926.0	909.4	805.0	613.6	369.4	157.0	57.3	3.6	0.3	2.0	3.6
56°	829.2	804.4	706.7	532.7	304.8	126.6	48.4	3.0	0.3	2.0	3.6
57°	713.9	687.4	610.2	442.9	239.2	96.4	40.4	2.3	0.3	2.0	3.6
58°	604.0	581.1	498.3	341.9	180.2	66.9	33.5	1.7	0.3	1.7	3.6
59°	521.8	496.6	414.5	263.0	125.2	49.4	25.2	1.3	0.3	2.0	3.6
60°	451.9	419.4	333.6	203.7	89.4	35.4	18.6	0.7	0.7	2.0	3.6
62.5°	260.4	229.9	159.4	82.8	36.8	18.2	8.9	0.3	0.7	2.0	3.6
65°	65.9	58.6	38.1	17.9	10.3	6.3	3.3	0.3	0.7	1.7	3.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
67.5°	2.3	2.3	2.3	2.0	1.7	1.3	0.7	0.3	0.7	1.7	3.3
70°	1.0	1.0	1.0	0.7	0.7	0.3	0.3	0.3	0.7	1.7	3.0
72.5°	0.7	0.7	0.7	0.7	0.3	0.3	0.3	0.3	1.0	1.7	2.7
75°	0.7	0.7	0.7	0.7	0.3	0.3	0.3	0.3	1.0	1.7	2.7
77.5°	0.7	0.7	0.3	0.3	0.3	0.3	0.3	0.3	1.0	1.3	2.3
80°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	1.0	1.3	2.0
82.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	1.0	1.3	1.7
85°	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3	1.0	1.3	1.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.0	1.3	1.0
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°	16.9	16.9	16.9
2.5°	15.9	15.9	15.9
5°	14.9	14.9	14.6
7.5°	13.9	13.6	13.6
10°	12.6	12.6	12.6
12.5°	11.6	11.6	11.6
15°	10.6	10.9	10.9
17.5°	9.6	10.3	10.3
20°	8.9	9.6	9.9
22.5°	8.3	8.9	9.3
25°	8.0	8.6	8.9
27.5°	7.3	8.3	8.9
30°	7.0	8.0	8.6
31°	7.0	8.0	8.3
32°	6.6	8.0	8.3
33°	6.6	8.0	8.3
34°	6.6	7.6	8.3
35°	6.3	7.6	8.0
36°	6.3	7.6	8.0
37°	6.3	7.6	8.3
38°	6.3	7.6	8.0
39°	6.0	7.6	8.0
40°	6.0	7.6	8.0
41°	6.0	7.6	8.0
42°	6.0	7.6	8.0
43°	6.0	7.6	8.0
44°	6.0	7.3	8.0
45°	6.0	7.3	8.0
46°	6.0	7.6	8.0
47°	6.0	7.6	8.3
48°	6.0	7.3	8.0
49°	5.6	7.3	8.0
50°	5.6	7.3	8.0
51°	5.6	7.6	8.3
52°	5.6	7.6	8.3
53°	5.6	7.6	8.3
54°	5.6	7.6	8.0
55°	5.6	7.6	8.3
56°	5.6	7.6	8.0
57°	5.6	7.6	8.0
58°	5.6	7.3	8.0
59°	5.6	7.3	8.0
60°	5.6	7.3	8.0
62.5°	5.3	7.3	8.0
65°	5.3	7.0	7.6



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CATALOG NUMBER: P3A13R359827DE010 E3A451WMH

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	5.0	7.0	7.3
70°	4.6	6.6	7.0
72.5°	4.3	6.3	6.6
75°	4.0	5.6	6.0
77.5°	3.3	5.0	5.6
80°	3.0	4.3	4.6
82.5°	2.3	3.6	4.0
85°	1.7	2.7	2.7
87.5°	0.7	1.3	1.3
90°	0.0	0.0	0.0

(END OF REPORT)