

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: P1342024

Luminaire Tested: P3A09R359827DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1342024
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: P3A09R359827DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R35 optic, 2700K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

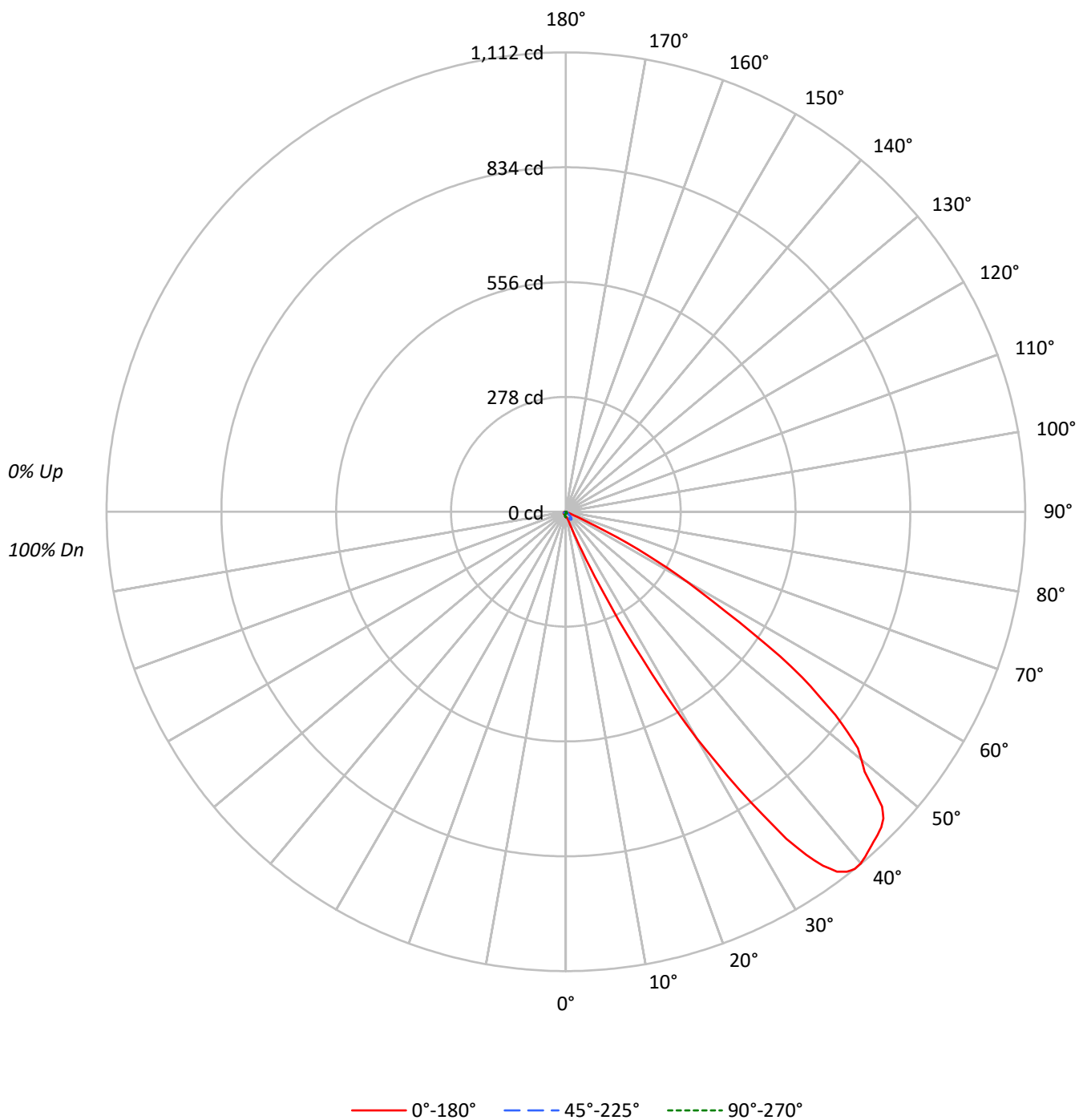
Lumens per Lamp: N/A
Luminaire Lumens: 277.2 lumens
Efficiency: N/A
Efficacy: 25.2 lumens/watt
Spacing Criteria (0/90/45): 4.01 / 0.66 / 1.41
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 11
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	99	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	61	52	45	58	51	45		56	50	44		55	49	44	42
6	68	54	45	38	66	53	44	38	51	43	38		50	43	37		48	42	37	35
7	62	48	38	32	60	47	38	32	45	37	32		44	37	31		42	36	31	29
8	57	42	33	27	55	41	33	27	40	32	27		39	32	26		38	31	26	24
9	52	38	29	23	50	37	29	23	36	28	23		35	28	22		34	27	22	20
10	48	34	25	19	46	33	25	19	32	25	19		31	24	19		30	24	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	2807	2807	2807	2807	2807
5°	3038	2972	2751	2487	2421
10°	3184	2895	2449	2115	2115
15°	4540	2838	1998	1816	1884
20°	11388	3034	1587	1587	1750
25°	52818	3871	1210	1452	1645
30°	160556	5267	962	1342	1646
35°	271360	6103	803	1285	1606
40°	318082	6011	658	1288	1718
45°	334981	4280	558	1395	1861
50°	318864	2559	512	1467	2047
55°	267192	1070	573	1644	2409
60°	149593	219	658	1886	2631
65°	25839	156	675	2075	3009
70°	513	192	833	2244	3398
75°	424	254	1101	2542	3813
80°	379	379	1263	2904	4420
85°	0	755	2516	3271	5032

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 46°

Luminance: 337353 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.2	0.4
10°-20°	3.3	1.2
20°-30°	17.0	6.1
30°-40°	73.4	26.5
40°-50°	104.7	37.8
50°-60°	64.9	23.4
60°-70°	9.9	3.6
70°-80°	1.9	0.7
80°-90°	1.0	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°	21.4	7.7
0°-40°	94.9	34.2
0°-60°	264.4	95.4
0°-90°	277.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	277.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	13	13	13	13	13	
5°	14	14	12	11	11	1
15°	20	12	9	8	8	7
25°	218	16	5	6	7	131
35°	1014	23	3	5	6	609
45°	1080	14	2	4	6	816
55°	699	3	2	4	6	595
65°	50	0	1	4	6	102
75°	0	0	1	3	4	1
85°	0	0	1	1	2	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°	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8
2.5°	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	12.8	12.5
5°	13.8	13.8	13.5	13.5	13.5	13.5	13.5	13.5	13.0	12.5	11.8
7.5°	14.0	14.0	13.8	13.8	13.8	13.8	13.5	13.3	12.8	11.8	11.0
10°	14.3	14.3	14.3	14.3	14.0	13.8	13.5	13.0	12.3	11.0	10.3
12.5°	16.0	16.0	15.8	15.3	14.8	14.3	13.8	12.8	11.3	10.0	9.3
15°	20.0	19.8	19.3	18.5	17.5	16.3	15.3	12.5	10.3	8.8	8.3
17.5°	28.0	27.5	26.8	24.3	22.0	19.8	17.8	12.5	9.3	7.8	7.3
20°	48.8	49.0	43.8	37.8	32.8	27.3	22.3	13.0	8.3	6.8	6.5
22.5°	101.8	97.8	85.3	70.8	54.0	41.8	31.5	14.3	7.3	5.8	5.8
25°	218.3	203.0	172.8	130.5	92.0	65.3	45.8	16.0	6.5	5.0	5.3
27.5°	398.6	384.8	324.1	244.1	162.0	98.5	62.0	18.3	5.8	4.3	4.8
30°	634.1	596.1	516.9	400.1	270.8	150.8	83.3	20.8	4.8	3.8	4.5
31°	707.6	690.1	593.6	462.8	317.3	179.0	92.3	21.5	4.5	3.8	4.3
32°	794.9	763.9	677.4	531.6	364.6	204.3	103.0	22.3	4.3	3.3	4.3
33°	872.9	842.9	737.7	592.1	412.3	233.0	114.5	22.5	3.8	3.3	4.0
34°	954.9	913.9	809.7	655.4	461.3	264.1	125.0	22.8	3.5	3.0	4.0
35°	1013.7	972.7	871.7	705.4	503.6	291.6	137.0	22.8	3.3	3.0	3.8
36°	1059.2	1023.2	925.2	756.9	545.6	316.3	146.5	22.8	2.8	2.8	3.8
37°	1090.5	1056.2	961.2	801.2	577.6	338.3	155.0	22.8	2.5	2.8	3.8
38°	1105.7	1077.2	996.0	833.4	608.6	355.6	161.8	22.3	2.3	2.5	3.5
39°	1112.2	1089.0	1017.2	860.7	631.9	370.6	166.8	21.8	2.0	2.5	3.5
40°	1111.2	1091.0	1029.2	879.4	650.6	380.8	169.5	21.0	1.8	2.3	3.5
41°	1105.5	1088.0	1035.5	895.4	661.9	387.8	170.3	20.3	1.5	2.3	3.3
42°	1099.0	1083.0	1037.5	903.9	669.1	390.1	168.3	19.3	1.5	2.0	3.3
43°	1092.2	1077.5	1037.5	906.7	670.9	388.6	165.0	17.5	1.3	2.0	3.3
44°	1086.7	1072.7	1034.2	905.9	667.1	382.8	159.0	15.5	1.0	2.0	3.3
45°	1080.2	1066.5	1030.0	901.2	659.9	373.1	151.5	13.8	0.8	1.8	3.3
46°	1068.7	1058.0	1022.5	891.4	648.4	359.6	142.0	12.5	0.5	1.8	3.0
47°	1046.5	1037.2	1008.0	876.9	633.1	343.6	132.3	11.3	0.5	1.8	3.0
48°	1001.7	1001.5	979.0	849.9	608.9	323.6	122.0	10.0	0.5	1.8	3.0
49°	958.4	953.9	925.9	802.4	574.1	299.6	111.3	9.0	0.3	1.8	3.0
50°	934.7	924.9	878.9	746.4	529.6	266.3	99.8	7.5	0.3	1.5	3.0
51°	909.9	895.9	841.7	695.9	476.6	234.3	87.3	6.0	0.3	1.5	2.8
52°	865.2	851.9	791.2	647.6	425.1	201.5	75.3	5.0	0.3	1.5	3.0
53°	816.9	797.9	731.9	594.6	379.8	172.5	63.0	4.3	0.3	1.5	2.8
54°	756.2	747.7	671.9	529.6	326.8	144.5	51.8	3.5	0.3	1.5	2.8
55°	698.9	686.4	607.6	463.1	278.8	118.5	43.3	2.8	0.3	1.5	2.8
56°	625.9	607.1	533.4	402.1	230.0	95.5	36.5	2.3	0.3	1.5	2.8
57°	538.9	518.9	460.6	334.3	180.5	72.8	30.5	1.8	0.3	1.5	2.8
58°	455.8	438.6	376.1	258.1	136.0	50.5	25.3	1.3	0.3	1.3	2.8
59°	393.8	374.8	312.8	198.5	94.5	37.3	19.0	1.0	0.3	1.5	2.8
60°	341.1	316.6	251.8	153.8	67.5	26.8	14.0	0.5	0.5	1.5	2.8
62.5°	196.5	173.5	120.3	62.5	27.8	13.8	6.8	0.3	0.5	1.5	2.8
65°	49.8	44.3	28.8	13.5	7.8	4.8	2.5	0.3	0.5	1.3	2.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
67.5°	1.8	1.8	1.8	1.5	1.3	1.0	0.5	0.3	0.5	1.3	2.5
70°	0.8	0.8	0.8	0.5	0.5	0.3	0.3	0.3	0.5	1.3	2.3
72.5°	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0.8	1.3	2.0
75°	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0.8	1.3	2.0
77.5°	0.5	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.8	1.0	1.8
80°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.8	1.0	1.5
82.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.8	1.0	1.3
85°	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.8	1.0	1.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.8	1.0	0.8
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°	12.8	12.8	12.8
2.5°	12.0	12.0	12.0
5°	11.3	11.3	11.0
7.5°	10.5	10.3	10.3
10°	9.5	9.5	9.5
12.5°	8.8	8.8	8.8
15°	8.0	8.3	8.3
17.5°	7.3	7.8	7.8
20°	6.8	7.3	7.5
22.5°	6.3	6.8	7.0
25°	6.0	6.5	6.8
27.5°	5.5	6.3	6.8
30°	5.3	6.0	6.5
31°	5.3	6.0	6.3
32°	5.0	6.0	6.3
33°	5.0	6.0	6.3
34°	5.0	5.8	6.3
35°	4.8	5.8	6.0
36°	4.8	5.8	6.0
37°	4.8	5.8	6.3
38°	4.8	5.8	6.0
39°	4.5	5.8	6.0
40°	4.5	5.8	6.0
41°	4.5	5.8	6.0
42°	4.5	5.8	6.0
43°	4.5	5.8	6.0
44°	4.5	5.5	6.0
45°	4.5	5.5	6.0
46°	4.5	5.8	6.0
47°	4.5	5.8	6.3
48°	4.5	5.5	6.0
49°	4.3	5.5	6.0
50°	4.3	5.5	6.0
51°	4.3	5.8	6.3
52°	4.3	5.8	6.3
53°	4.3	5.8	6.3
54°	4.3	5.8	6.0
55°	4.3	5.8	6.3
56°	4.3	5.8	6.0
57°	4.3	5.8	6.0
58°	4.3	5.5	6.0
59°	4.3	5.5	6.0
60°	4.3	5.5	6.0
62.5°	4.0	5.5	6.0
65°	4.0	5.3	5.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	3.8	5.3	5.5
70°	3.5	5.0	5.3
72.5°	3.3	4.8	5.0
75°	3.0	4.3	4.5
77.5°	2.5	3.8	4.3
80°	2.3	3.3	3.5
82.5°	1.8	2.8	3.0
85°	1.3	2.0	2.0
87.5°	0.5	1.0	1.0
90°	0.0	0.0	0.0

(END OF REPORT)