

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: P1346098

Luminaire Tested: P3A13R409830DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1346098
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-78)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R409830DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R40 optic, 3000K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

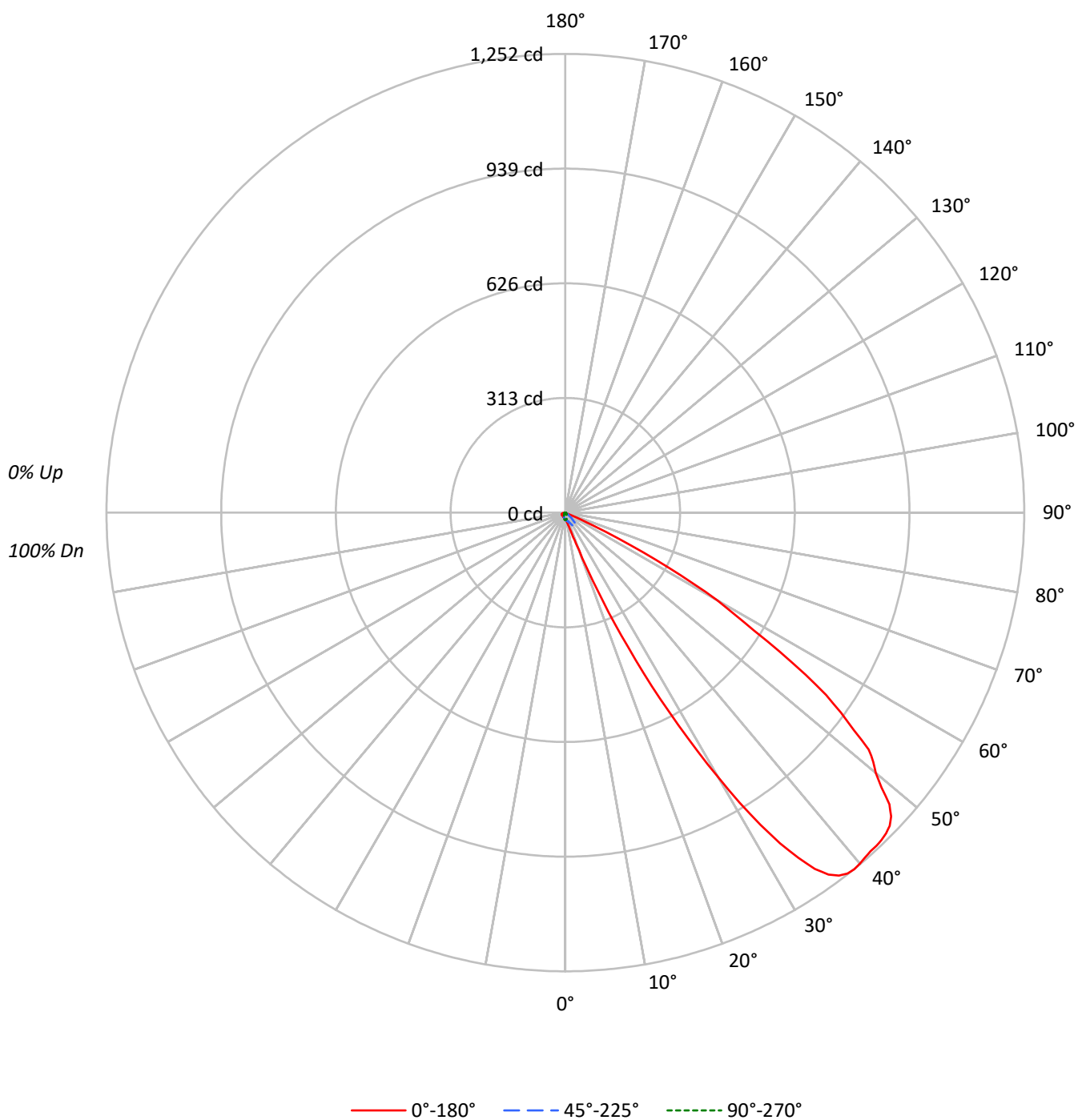
Lumens per Lamp: N/A
Luminaire Lumens: 387.0 lumens
Efficiency: N/A
Efficacy: 26.7 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	99	97	94	96	93	91	92	90	88	88	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	75	75	72
3	91	81	73	66	89	79	72	66	76	70	65	73	68	64	71	66	62	62	62	60
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52	52	52	50
5	75	62	52	46	73	60	52	45	58	51	45	56	50	44	54	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	39	32	60	47	38	32	45	37	32	44	37	31	42	36	31	31	31	29
8	57	42	33	27	55	42	33	27	40	32	27	39	32	27	38	31	26	26	26	24
9	52	38	29	23	51	37	29	23	36	28	23	35	28	23	34	27	23	23	23	21
10	48	34	25	20	47	33	25	20	32	25	20	31	24	20	30	24	19	19	19	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	4364	4364	4364	4364	4364
5°	4843	4689	4292	3918	3830
10°	5856	4988	3963	3563	3474
15°	9603	5403	3383	3156	3224
20°	25389	6394	2824	2824	3080
25°	97869	7912	2226	2589	3000
30°	211121	10533	1798	2532	2962
35°	317778	12474	1526	2463	3052
40°	358014	12509	1317	2548	3263
45°	383885	9706	1209	2636	3535
50°	377301	6072	1092	2797	3889
55°	331955	2982	1070	3135	4358
60°	210115	614	1228	3421	4824
65°	42962	208	1297	3684	5344
70°	898	256	1346	4103	6155
75°	932	593	1525	4490	6947
80°	884	505	1768	4925	8082
85°	1006	1006	3522	5284	9057

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 390816 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.9	0.5
10°-20°	6.1	1.6
20°-30°	30.1	7.8
30°-40°	97.8	25.3
40°-50°	134.8	34.8
50°-60°	93.9	24.3
60°-70°	17.8	4.6
70°-80°	3.2	0.8
80°-90°	1.5	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°	38.1	9.8
0°-40°	135.8	35.1
0°-60°	364.5	94.2
0°-90°	387.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	387.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	20	20	20	20	20	
5°	22	21	20	18	17	2
15°	42	24	15	14	14	15
25°	404	33	9	11	12	208
35°	1187	47	6	9	11	717
45°	1238	31	4	8	11	941
55°	868	8	3	8	11	742
65°	83	0	2	7	10	146
75°	1	1	2	5	8	1
85°	0	0	1	2	4	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
0°	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9
2.5°	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.6	20.3	19.9
5°	22.0	22.0	22.0	22.0	21.7	21.7	21.7	21.3	21.3	20.6	19.5
7.5°	23.5	23.5	23.5	23.5	23.1	22.7	22.4	22.4	22.0	20.3	18.8
10°	26.3	26.3	25.9	25.6	25.2	24.5	24.2	23.5	22.4	19.9	17.8
12.5°	32.0	31.3	30.9	30.2	29.1	27.7	26.3	25.2	22.7	19.2	16.7
15°	42.3	41.6	40.2	38.0	35.9	33.1	30.6	28.1	23.8	18.1	14.9
17.5°	60.4	58.3	56.2	52.6	47.3	42.3	37.0	32.3	25.2	17.1	13.5
20°	108.8	107.3	94.5	84.6	68.6	57.2	46.6	38.7	27.4	16.0	12.1
22.5°	224.3	209.3	188.4	154.2	120.1	88.5	64.3	48.7	29.5	14.6	10.7
25°	404.5	381.0	335.9	270.1	199.4	141.1	93.1	63.6	32.7	13.2	9.2
27.5°	612.4	588.6	518.5	427.9	312.4	212.9	132.9	84.2	37.0	11.7	8.2
30°	833.8	813.5	724.7	599.2	440.3	298.2	178.1	105.2	41.6	10.3	7.1
31°	923.0	897.0	801.1	667.5	500.4	333.4	196.2	114.1	43.4	10.0	6.8
32°	1005.1	975.6	876.1	732.8	549.1	371.4	216.1	121.9	44.8	9.2	6.4
33°	1075.8	1041.3	945.4	794.7	602.8	406.9	236.7	129.4	45.8	8.5	6.0
34°	1135.9	1106.0	1003.0	856.9	650.4	441.1	257.0	136.8	46.6	8.2	5.7
35°	1187.1	1160.0	1058.0	904.2	697.0	474.1	275.4	143.9	46.6	7.5	5.7
36°	1221.5	1198.1	1105.7	952.5	736.0	502.2	291.1	150.3	46.6	6.8	5.3
37°	1240.4	1217.6	1136.9	992.3	774.4	529.9	305.3	155.3	46.2	6.4	5.0
38°	1250.0	1230.1	1160.0	1024.6	801.1	549.8	317.7	159.2	45.8	5.7	5.0
39°	1252.4	1235.7	1174.6	1048.1	827.0	569.7	326.6	161.4	44.8	5.3	4.6
40°	1250.7	1236.1	1182.4	1069.1	846.9	585.4	333.0	162.1	43.7	4.6	4.6
41°	1247.1	1235.7	1188.1	1083.6	862.9	595.3	335.5	160.6	42.3	3.9	4.3
42°	1243.9	1231.5	1190.6	1093.6	873.9	600.3	335.1	157.8	40.2	3.6	4.3
43°	1243.9	1229.7	1191.0	1100.0	879.3	600.6	330.9	152.5	37.3	3.2	3.9
44°	1241.8	1228.6	1192.7	1104.2	880.7	597.4	324.1	146.8	34.1	2.8	3.9
45°	1237.9	1224.0	1192.4	1104.6	878.2	589.6	313.1	139.3	31.3	2.1	3.9
46°	1230.4	1218.0	1189.2	1102.1	870.7	578.2	300.0	131.9	28.1	1.8	3.6
47°	1215.5	1205.9	1180.7	1093.6	859.4	561.5	284.3	123.3	25.6	1.4	3.6
48°	1189.9	1183.1	1166.1	1074.7	837.7	540.9	267.6	114.1	23.1	1.4	3.6
49°	1143.0	1137.7	1127.7	1044.5	810.0	515.7	249.5	103.8	20.6	1.1	3.6
50°	1106.0	1100.3	1080.1	993.7	770.2	483.7	229.6	93.5	17.8	0.7	3.2
51°	1081.5	1072.3	1040.3	934.7	712.2	441.1	207.9	83.2	14.9	0.7	3.2
52°	1050.6	1036.7	996.9	881.8	659.3	398.4	184.5	72.9	13.2	0.7	3.2
53°	985.9	980.9	941.5	824.9	606.3	357.5	160.3	64.3	11.4	0.7	3.2
54°	929.4	921.9	868.3	746.0	548.7	312.0	135.4	56.9	9.6	0.7	3.2
55°	868.3	853.7	806.1	679.5	481.2	270.1	111.6	49.0	7.8	0.7	2.8
56°	791.1	778.3	727.2	608.5	419.0	227.5	93.5	40.2	6.0	0.7	2.8
57°	697.3	685.6	646.1	521.0	354.3	185.9	76.1	32.3	4.6	0.7	2.8
58°	606.7	593.5	548.4	437.1	286.1	147.5	63.6	26.3	3.6	0.7	2.8
59°	537.0	519.2	461.0	367.1	223.9	112.0	50.5	21.0	2.5	0.7	2.8
60°	479.1	464.5	404.1	305.6	175.6	82.5	37.3	16.0	1.4	0.7	2.8
62.5°	277.6	273.7	219.3	157.4	82.8	38.4	18.5	7.5	0.7	1.1	2.8
65°	82.8	72.1	56.2	33.4	21.3	12.8	6.8	2.5	0.4	1.1	2.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	2.5	2.5	2.5	2.5	2.5	2.5	1.4	0.7	0.4	1.1	2.5
70°	1.4	1.1	1.1	1.1	1.1	0.7	0.7	0.4	0.4	1.1	2.1
72.5°	1.1	1.1	1.1	1.1	0.7	0.7	0.7	0.4	0.7	1.1	1.8
75°	1.1	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.7	1.1	1.8
77.5°	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.7	1.1	1.8
80°	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.1	1.4
82.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.1	1.4
85°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.1	1.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	1.1	1.1
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):

	112.5°	135°	157.5°	180°
0°	19.9	19.9	19.9	19.9
2.5°	19.2	18.8	18.5	18.5
5°	18.5	17.8	17.8	17.4
7.5°	17.4	16.7	16.7	16.7
10°	16.3	16.0	16.0	15.6
12.5°	14.9	14.9	14.9	14.9
15°	13.9	13.9	14.2	14.2
17.5°	12.4	12.8	13.5	13.9
20°	11.4	12.1	12.8	13.2
22.5°	10.7	11.4	12.4	12.8
25°	9.6	10.7	12.1	12.4
27.5°	8.9	10.3	11.4	12.1
30°	8.2	10.0	11.0	11.7
31°	8.2	9.6	11.0	11.7
32°	7.8	9.2	11.0	11.4
33°	7.8	9.2	11.0	11.4
34°	7.5	9.2	10.7	11.4
35°	7.5	9.2	10.7	11.4
36°	7.1	8.9	10.7	11.4
37°	7.1	8.9	10.7	11.4
38°	6.8	8.9	10.7	11.4
39°	6.8	8.9	10.7	11.4
40°	6.8	8.9	10.7	11.4
41°	6.4	8.9	10.7	11.4
42°	6.4	8.9	10.7	11.4
43°	6.4	8.5	10.7	11.4
44°	6.4	8.5	10.7	11.4
45°	6.0	8.5	10.7	11.4
46°	6.0	8.5	10.7	11.4
47°	6.0	8.5	10.7	11.4
48°	6.0	8.5	10.7	11.4
49°	6.0	8.5	10.7	11.4
50°	5.7	8.2	10.7	11.4
51°	5.7	8.2	10.7	11.4
52°	5.7	8.2	10.7	11.4
53°	5.7	8.2	10.7	11.4
54°	5.3	8.2	10.7	11.4
55°	5.3	8.2	10.7	11.4
56°	5.3	8.2	10.7	11.0
57°	5.3	8.2	10.3	11.0
58°	5.3	7.8	10.3	11.0
59°	5.3	7.8	10.3	11.0
60°	5.3	7.8	10.3	11.0
62.5°	5.0	7.8	10.0	10.7
65°	4.6	7.1	10.0	10.3



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	4.6	6.8	9.2	10.0
70°	4.3	6.4	8.9	9.6
72.5°	3.6	6.0	8.2	8.9
75°	3.2	5.3	7.5	8.2
77.5°	2.8	4.6	6.8	7.1
80°	2.5	3.9	5.7	6.4
82.5°	1.8	2.8	4.6	5.0
85°	1.4	2.1	3.2	3.6
87.5°	1.1	1.1	1.8	1.8
90°	0.0	0.0	0.0	0.0

(END OF REPORT)