

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: P1346111

Luminaire Tested: P3A13R409835DE010 E3A451LI

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1346111
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: P3A13R409835DE010 E3A451LI
Description: 3in Adjustable LED luminaire with, R40 optic, 3500K CCT AND, 98CRI , E3A451LI TRIM
Light Source: -
Ballast/Driver: -

Summary

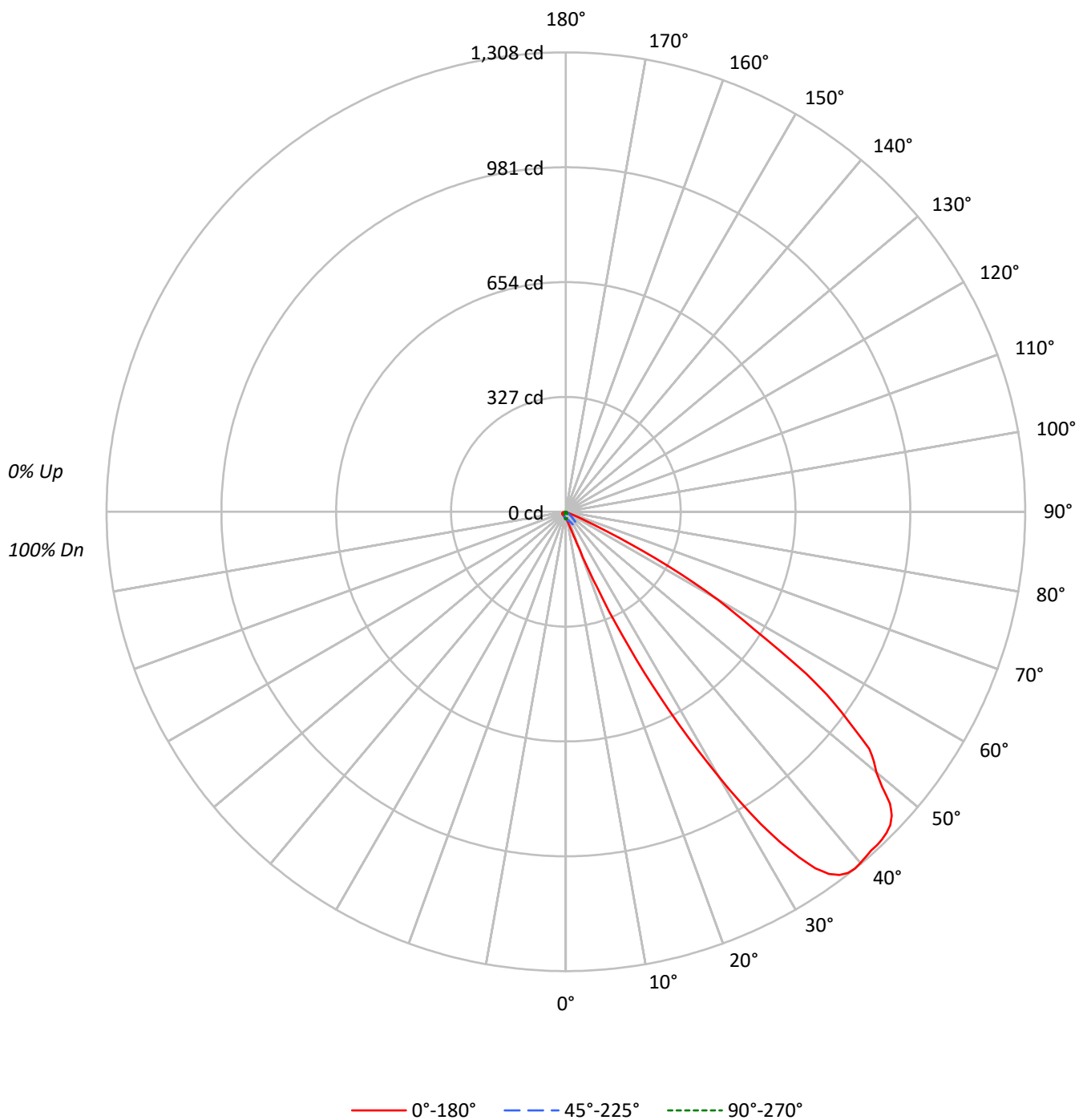
Lumens per Lamp: N/A
Luminaire Lumens: 404.0 lumens
Efficiency: N/A
Efficacy: 27.9 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	110	106	102	99	107	104	100	97	99	97	94		96	93	91		92
2	100	93	86	81	98	91	85	80	87	82	78		84	80	76		81
3	91	81	73	66	89	79	72	66	76	70	65		73	68	64		71
4	82	70	62	55	80	69	61	54	67	59	54		64	58	53		62
5	75	62	52	46	73	60	52	45	58	51	45		56	50	44		54
6	68	54	45	38	66	53	44	38	51	43	38		50	43	37		48
7	62	48	39	32	60	47	38	32	45	37	32		44	37	31		42
8	57	42	33	27	55	42	33	27	40	32	27		39	32	27		38
9	52	38	29	23	51	37	29	23	36	28	23		35	28	23		34
10	48	34	25	20	47	33	25	20	32	25	20		31	24	20		30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	4561	4561	4561	4561	4561
5°	5063	4909	4490	4094	4006
10°	6123	5210	4142	3718	3629
15°	10034	5653	3541	3292	3360
20°	26486	6674	2940	2940	3197
25°	102151	8250	2323	2686	3145
30°	220388	10989	1874	2633	3089
35°	331724	13010	1579	2570	3186
40°	373729	13053	1374	2662	3406
45°	400755	10110	1271	2760	3690
50°	393880	6345	1126	2900	4060
55°	346521	3135	1147	3250	4549
60°	219325	658	1316	3596	5043
65°	44830	208	1349	3840	5604
70°	962	256	1410	4296	6411
75°	932	593	1610	4745	7202
80°	884	505	1894	5177	8461
85°	1006	1006	3774	5535	9309

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 407985 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.9	0.5
10°-20°	6.4	1.6
20°-30°	31.4	7.8
30°-40°	102.1	25.3
40°-50°	140.7	34.8
50°-60°	98.0	24.3
60°-70°	18.6	4.6
70°-80°	3.4	0.8
80°-90°	1.6	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°	39.7	9.8
0°-40°	141.8	35.1
0°-60°	380.5	94.2
0°-90°	404.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	404.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	21	21	21	21	21	
5°	23	22	20	19	18	2
15°	44	25	16	14	15	16
25°	422	34	10	11	13	217
35°	1239	49	6	10	12	749
45°	1292	33	4	9	12	983
55°	906	8	3	8	12	775
65°	86	0	3	7	11	153
75°	1	1	2	6	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°	25°	30°	35°	45°	67.5°	90°
0°	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8	20.8
2.5°	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.5	21.1	20.8
5°	23.0	23.0	23.0	23.0	22.6	22.6	22.6	22.3	22.3	21.5	20.4
7.5°	24.5	24.5	24.5	24.5	24.1	23.7	23.4	23.4	23.0	21.1	19.7
10°	27.5	27.5	27.1	26.7	26.3	25.6	25.2	24.5	23.4	20.8	18.6
12.5°	33.4	32.6	32.3	31.5	30.4	28.9	27.5	26.3	23.7	20.0	17.4
15°	44.2	43.4	41.9	39.7	37.5	34.5	31.9	29.3	24.9	18.9	15.6
17.5°	63.1	60.8	58.6	54.9	49.3	44.2	38.6	33.8	26.3	17.8	14.1
20°	113.5	112.0	98.7	88.3	71.6	59.7	48.6	40.4	28.6	16.7	12.6
22.5°	234.1	218.5	196.6	161.0	125.4	92.4	67.2	50.8	30.8	15.2	11.1
25°	422.2	397.7	350.6	282.0	208.1	147.3	97.2	66.4	34.1	13.7	9.6
27.5°	639.3	614.4	541.3	446.7	326.1	222.2	138.8	87.9	38.6	12.2	8.5
30°	870.4	849.3	756.5	625.5	459.7	311.3	185.9	109.8	43.4	10.8	7.4
31°	963.5	936.4	836.3	696.8	522.4	348.0	204.8	119.1	45.3	10.4	7.0
32°	1049.2	1018.4	914.6	765.0	573.2	387.7	225.6	127.3	46.7	9.6	6.7
33°	1123.1	1087.1	986.9	829.6	629.2	424.8	247.1	135.1	47.9	8.9	6.3
34°	1185.8	1154.6	1047.0	894.5	679.0	460.4	268.2	142.8	48.6	8.5	5.9
35°	1239.2	1211.0	1104.5	943.9	727.6	494.9	287.5	150.3	48.6	7.8	5.9
36°	1275.2	1250.7	1154.2	994.3	768.4	524.2	303.9	156.9	48.6	7.0	5.6
37°	1294.9	1271.1	1186.9	1035.9	808.4	553.2	318.7	162.1	48.2	6.7	5.2
38°	1304.9	1284.1	1211.0	1069.6	836.3	574.0	331.7	166.2	47.9	5.9	5.2
39°	1307.5	1290.0	1226.2	1094.1	863.4	594.7	341.0	168.4	46.7	5.6	4.8
40°	1305.6	1290.4	1234.4	1116.0	884.1	611.1	347.6	169.2	45.6	4.8	4.8
41°	1301.9	1290.0	1240.3	1131.2	900.8	621.5	350.2	167.7	44.2	4.1	4.5
42°	1298.6	1285.6	1242.9	1141.6	912.3	626.6	349.9	164.7	41.9	3.7	4.5
43°	1298.6	1283.7	1243.3	1148.3	917.9	627.0	345.4	159.2	39.0	3.3	4.1
44°	1296.3	1282.6	1245.1	1152.8	919.4	623.7	338.4	153.2	35.6	3.0	4.1
45°	1292.3	1277.8	1244.8	1153.1	916.8	615.5	326.9	145.4	32.6	2.2	4.1
46°	1284.5	1271.5	1241.4	1150.5	909.0	603.6	313.1	137.6	29.3	1.9	3.7
47°	1268.9	1258.9	1232.5	1141.6	897.1	586.2	296.8	128.7	26.7	1.5	3.7
48°	1242.2	1235.1	1217.3	1122.0	874.5	564.7	279.4	119.1	24.1	1.5	3.7
49°	1193.2	1187.6	1177.2	1090.4	845.5	538.3	260.5	108.3	21.5	1.1	3.7
50°	1154.6	1148.7	1127.5	1037.4	804.0	505.0	239.7	97.6	18.6	0.7	3.3
51°	1129.0	1119.4	1086.0	975.8	743.5	460.4	217.0	86.8	15.6	0.7	3.3
52°	1096.7	1082.3	1040.7	920.5	688.2	415.9	192.6	76.1	13.7	0.7	3.3
53°	1029.2	1024.0	982.8	861.1	633.0	373.2	167.3	67.2	11.9	0.7	3.3
54°	970.2	962.4	906.4	778.8	572.9	325.8	141.4	59.4	10.0	0.7	3.3
55°	906.4	891.2	841.5	709.4	502.4	282.0	116.5	51.2	8.2	0.7	3.0
56°	825.9	812.5	759.1	635.2	437.4	237.5	97.6	41.9	6.3	0.7	3.0
57°	727.9	715.7	674.5	543.9	369.9	194.0	79.4	33.8	4.8	0.7	3.0
58°	633.3	619.6	572.5	456.4	298.7	154.0	66.4	27.5	3.7	0.7	3.0
59°	560.6	542.1	481.2	383.3	233.7	116.9	52.7	21.9	2.6	0.7	3.0
60°	500.1	484.9	421.8	319.1	183.3	86.1	39.0	16.7	1.5	0.7	3.0
62.5°	289.8	285.7	228.9	164.4	86.4	40.1	19.3	7.8	0.7	1.1	3.0
65°	86.4	75.3	58.6	34.9	22.3	13.4	7.0	2.6	0.4	1.1	2.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	2.6	2.6	2.6	2.6	2.6	2.6	1.5	0.7	0.4	1.1	2.6
70°	1.5	1.1	1.1	1.1	1.1	0.7	0.7	0.4	0.4	1.1	2.2
72.5°	1.1	1.1	1.1	1.1	0.7	0.7	0.7	0.4	0.7	1.1	1.9
75°	1.1	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.7	1.1	1.9
77.5°	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4	0.7	1.1	1.9
80°	0.7	0.7	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.1	1.5
82.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.1	1.5
85°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.1	1.5
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°	20.8	20.8	20.8	20.8
2.5°	20.0	19.7	19.3	19.3
5°	19.3	18.6	18.6	18.2
7.5°	18.2	17.4	17.4	17.4
10°	17.1	16.7	16.7	16.3
12.5°	15.6	15.6	15.6	15.6
15°	14.5	14.5	14.8	14.8
17.5°	13.0	13.4	14.1	14.5
20°	11.9	12.6	13.4	13.7
22.5°	11.1	11.9	13.0	13.4
25°	10.0	11.1	12.6	13.0
27.5°	9.3	10.8	11.9	12.6
30°	8.5	10.4	11.5	12.2
31°	8.5	10.0	11.5	12.2
32°	8.2	9.6	11.5	11.9
33°	8.2	9.6	11.5	11.9
34°	7.8	9.6	11.1	11.9
35°	7.8	9.6	11.1	11.9
36°	7.4	9.3	11.1	11.9
37°	7.4	9.3	11.1	11.9
38°	7.0	9.3	11.1	11.9
39°	7.0	9.3	11.1	11.9
40°	7.0	9.3	11.1	11.9
41°	6.7	9.3	11.1	11.9
42°	6.7	9.3	11.1	11.9
43°	6.7	8.9	11.1	11.9
44°	6.7	8.9	11.1	11.9
45°	6.3	8.9	11.1	11.9
46°	6.3	8.9	11.1	11.9
47°	6.3	8.9	11.1	11.9
48°	6.3	8.9	11.1	11.9
49°	6.3	8.9	11.1	11.9
50°	5.9	8.5	11.1	11.9
51°	5.9	8.5	11.1	11.9
52°	5.9	8.5	11.1	11.9
53°	5.9	8.5	11.1	11.9
54°	5.6	8.5	11.1	11.9
55°	5.6	8.5	11.1	11.9
56°	5.6	8.5	11.1	11.5
57°	5.6	8.5	10.8	11.5
58°	5.6	8.2	10.8	11.5
59°	5.6	8.2	10.8	11.5
60°	5.6	8.2	10.8	11.5
62.5°	5.2	8.2	10.4	11.1
65°	4.8	7.4	10.4	10.8



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	4.8	7.0	9.6	10.4
70°	4.5	6.7	9.3	10.0
72.5°	3.7	6.3	8.5	9.3
75°	3.3	5.6	7.8	8.5
77.5°	3.0	4.8	7.0	7.4
80°	2.6	4.1	5.9	6.7
82.5°	1.9	3.0	4.8	5.2
85°	1.5	2.2	3.3	3.7
87.5°	1.1	1.1	1.9	1.9
90°	0.0	0.0	0.0	0.0

(END OF REPORT)