

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: P1346066

Luminaire Tested: P3A13R409740DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1346066
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: P3A13R409740DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R40 optic, 4000K CCT AND, 97CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

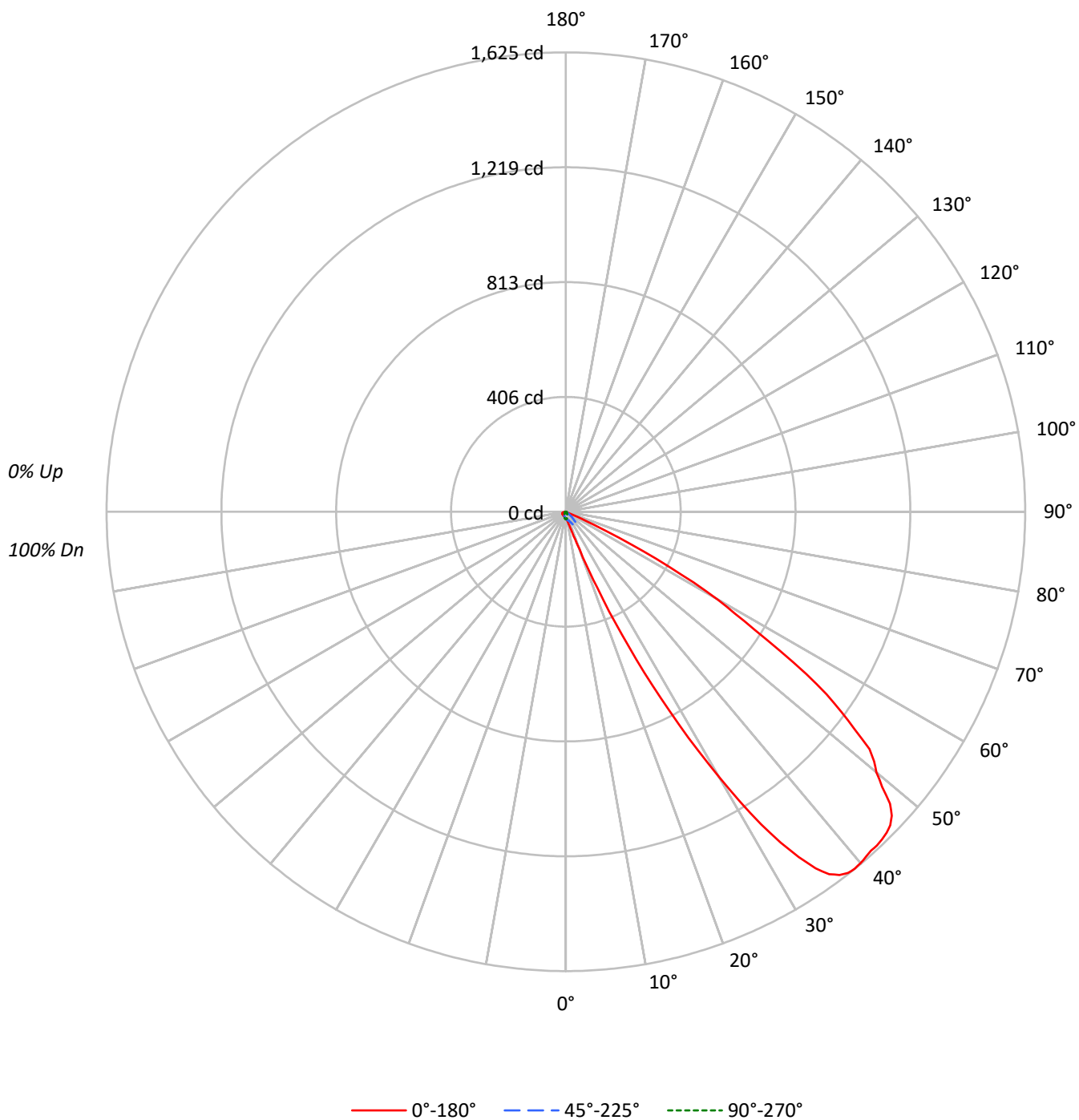
Lumens per Lamp: N/A
Luminaire Lumens: 502.0 lumens
Efficiency: N/A
Efficacy: 34.4 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 14.6
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
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°	5657	5657	5657	5657	5657
5°	6295	6097	5591	5085	4975
10°	7593	6457	5144	4609	4520
15°	12463	7015	4404	4086	4177
20°	32926	8284	3664	3664	3990
25°	126927	10259	2903	3339	3895
30°	273840	13648	2329	3266	3849
35°	412193	16169	1981	3212	3962
40°	464384	16230	1718	3292	4237
45°	497943	12590	1582	3442	4590
50°	489434	7880	1399	3616	5049
55°	430589	3861	1415	4052	5658
60°	272566	789	1623	4429	6271
65°	55726	259	1660	4774	6953
70°	1154	321	1795	5321	7950
75°	1186	763	1949	5846	8981
80°	1137	631	2273	6440	10481
85°	1258	1258	4529	7045	11573

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 506951 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.4	0.5
10°-20°	8.0	1.6
20°-30°	39.0	7.8
30°-40°	126.8	25.3
40°-50°	174.8	34.8
50°-60°	121.8	24.3
60°-70°	23.1	4.6
70°-80°	4.2	0.8
80°-90°	1.9	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°	49.4	9.8
0°-40°	176.2	35.1
0°-60°	472.8	94.2
0°-90°	502.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	502.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	26	26	26	26	26	
5°	29	28	25	23	23	3
15°	55	31	19	18	18	20
25°	525	42	12	14	16	270
35°	1540	60	7	12	15	930
45°	1606	41	5	11	15	1221
55°	1126	10	4	11	15	963
65°	107	0	3	9	13	190
75°	1	1	2	7	11	1
85°	0	0	2	3	5	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°	25.8	25.8	25.8	25.8	25.8	25.8	25.8	25.8	25.8	25.8	25.8
2.5°	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.7	26.3	25.8
5°	28.6	28.6	28.6	28.6	28.1	28.1	28.1	27.7	27.7	26.7	25.4
7.5°	30.4	30.4	30.4	30.4	30.0	29.5	29.0	29.0	28.6	26.3	24.4
10°	34.1	34.1	33.7	33.2	32.7	31.8	31.3	30.4	29.0	25.8	23.1
12.5°	41.5	40.6	40.1	39.2	37.8	36.0	34.1	32.7	29.5	24.9	21.7
15°	54.9	53.9	52.1	49.3	46.6	42.9	39.6	36.4	30.9	23.5	19.4
17.5°	78.4	75.6	72.8	68.2	61.3	54.9	47.9	42.0	32.7	22.1	17.5
20°	141.1	139.2	122.6	109.7	89.0	74.2	60.4	50.3	35.5	20.7	15.7
22.5°	290.9	271.5	244.3	200.1	155.8	114.8	83.4	63.2	38.3	18.9	13.8
25°	524.6	494.2	435.7	350.4	258.6	183.0	120.8	82.5	42.4	17.1	12.0
27.5°	794.3	763.4	672.6	555.1	405.2	276.1	172.4	109.3	47.9	15.2	10.6
30°	1081.5	1055.3	940.0	777.3	571.2	386.8	231.0	136.5	53.9	13.4	9.2
31°	1197.3	1163.6	1039.1	865.8	649.1	432.4	254.5	148.0	56.2	12.9	8.8
32°	1303.8	1265.5	1136.4	950.6	712.3	481.8	280.3	158.1	58.1	12.0	8.3
33°	1395.5	1350.8	1226.3	1030.8	781.9	527.9	307.0	167.8	59.5	11.1	7.8
34°	1473.4	1434.7	1301.0	1111.5	843.7	572.1	333.3	177.5	60.4	10.6	7.4
35°	1539.8	1504.8	1372.4	1172.8	904.1	615.0	357.3	186.7	60.4	9.7	7.4
36°	1584.5	1554.1	1434.2	1235.5	954.8	651.4	377.6	195.0	60.4	8.8	6.9
37°	1609.0	1579.4	1474.8	1287.2	1004.6	687.4	396.0	201.5	59.9	8.3	6.5
38°	1621.4	1595.6	1504.8	1329.1	1039.1	713.2	412.1	206.5	59.5	7.4	6.5
39°	1624.6	1603.0	1523.7	1359.5	1072.8	739.0	423.7	209.3	58.1	6.9	6.0
40°	1622.3	1603.4	1533.8	1386.7	1098.6	759.3	432.0	210.2	56.7	6.0	6.0
41°	1617.7	1603.0	1541.2	1405.6	1119.3	772.2	435.2	208.4	54.9	5.1	5.5
42°	1613.6	1597.4	1544.4	1418.6	1133.6	778.7	434.7	204.7	52.1	4.6	5.5
43°	1613.6	1595.1	1544.9	1426.8	1140.6	779.1	429.2	197.8	48.4	4.1	5.1
44°	1610.8	1593.7	1547.2	1432.4	1142.4	775.0	420.4	190.4	44.3	3.7	5.1
45°	1605.7	1587.7	1546.7	1432.8	1139.2	764.8	406.2	180.7	40.6	2.8	5.1
46°	1596.0	1579.9	1542.6	1429.6	1129.5	750.1	389.1	171.0	36.4	2.3	4.6
47°	1576.7	1564.2	1531.5	1418.6	1114.7	728.4	368.8	160.0	33.2	1.8	4.6
48°	1543.5	1534.7	1512.6	1394.1	1086.6	701.7	347.1	148.0	30.0	1.8	4.6
49°	1482.6	1475.7	1462.8	1354.9	1050.7	668.9	323.6	134.6	26.7	1.4	4.6
50°	1434.7	1427.3	1401.0	1289.0	999.0	627.4	297.8	121.2	23.1	0.9	4.1
51°	1402.9	1390.9	1349.4	1212.5	923.9	572.1	269.7	107.9	19.4	0.9	4.1
52°	1362.8	1344.8	1293.2	1143.8	855.2	516.8	239.3	94.5	17.1	0.9	4.1
53°	1278.9	1272.4	1221.2	1070.0	786.5	463.8	207.9	83.4	14.8	0.9	4.1
54°	1205.6	1195.9	1126.3	967.7	711.8	404.8	175.6	73.8	12.4	0.9	4.1
55°	1126.3	1107.4	1045.6	881.5	624.2	350.4	144.8	63.6	10.1	0.9	3.7
56°	1026.2	1009.6	943.2	789.3	543.5	295.1	121.2	52.1	7.8	0.9	3.7
57°	904.5	889.3	838.1	675.9	459.6	241.1	98.7	42.0	6.0	0.9	3.7
58°	787.0	769.9	711.3	567.1	371.1	191.3	82.5	34.1	4.6	0.9	3.7
59°	696.6	673.5	597.9	476.2	290.4	145.2	65.5	27.2	3.2	0.9	3.7
60°	621.5	602.5	524.2	396.5	227.7	107.0	48.4	20.7	1.8	0.9	3.7
62.5°	360.1	355.0	284.4	204.2	107.4	49.8	24.0	9.7	0.9	1.4	3.7
65°	107.4	93.6	72.8	43.3	27.7	16.6	8.8	3.2	0.5	1.4	3.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	3.2	3.2	3.2	3.2	3.2	3.2	1.8	0.9	0.5	1.4	3.2
70°	1.8	1.4	1.4	1.4	1.4	0.9	0.9	0.5	0.5	1.4	2.8
72.5°	1.4	1.4	1.4	1.4	0.9	0.9	0.9	0.5	0.9	1.4	2.3
75°	1.4	0.9	0.9	0.9	0.9	0.5	0.5	0.5	0.9	1.4	2.3
77.5°	0.9	0.9	0.9	0.9	0.5	0.5	0.5	0.5	0.9	1.4	2.3
80°	0.9	0.9	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.4	1.8
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.4	1.8
85°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.4	1.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	1.4	1.4
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°	25.8	25.8	25.8	25.8
2.5°	24.9	24.4	24.0	24.0
5°	24.0	23.1	23.1	22.6
7.5°	22.6	21.7	21.7	21.7
10°	21.2	20.7	20.7	20.3
12.5°	19.4	19.4	19.4	19.4
15°	18.0	18.0	18.4	18.4
17.5°	16.1	16.6	17.5	18.0
20°	14.8	15.7	16.6	17.1
22.5°	13.8	14.8	16.1	16.6
25°	12.4	13.8	15.7	16.1
27.5°	11.5	13.4	14.8	15.7
30°	10.6	12.9	14.3	15.2
31°	10.6	12.4	14.3	15.2
32°	10.1	12.0	14.3	14.8
33°	10.1	12.0	14.3	14.8
34°	9.7	12.0	13.8	14.8
35°	9.7	12.0	13.8	14.8
36°	9.2	11.5	13.8	14.8
37°	9.2	11.5	13.8	14.8
38°	8.8	11.5	13.8	14.8
39°	8.8	11.5	13.8	14.8
40°	8.8	11.5	13.8	14.8
41°	8.3	11.5	13.8	14.8
42°	8.3	11.5	13.8	14.8
43°	8.3	11.1	13.8	14.8
44°	8.3	11.1	13.8	14.8
45°	7.8	11.1	13.8	14.8
46°	7.8	11.1	13.8	14.8
47°	7.8	11.1	13.8	14.8
48°	7.8	11.1	13.8	14.8
49°	7.8	11.1	13.8	14.8
50°	7.4	10.6	13.8	14.8
51°	7.4	10.6	13.8	14.8
52°	7.4	10.6	13.8	14.8
53°	7.4	10.6	13.8	14.8
54°	6.9	10.6	13.8	14.8
55°	6.9	10.6	13.8	14.8
56°	6.9	10.6	13.8	14.3
57°	6.9	10.6	13.4	14.3
58°	6.9	10.1	13.4	14.3
59°	6.9	10.1	13.4	14.3
60°	6.9	10.1	13.4	14.3
62.5°	6.5	10.1	12.9	13.8
65°	6.0	9.2	12.9	13.4



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	6.0	8.8	12.0	12.9
70°	5.5	8.3	11.5	12.4
72.5°	4.6	7.8	10.6	11.5
75°	4.1	6.9	9.7	10.6
77.5°	3.7	6.0	8.8	9.2
80°	3.2	5.1	7.4	8.3
82.5°	2.3	3.7	6.0	6.5
85°	1.8	2.8	4.1	4.6
87.5°	1.4	1.4	2.3	2.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)