

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: P1346034

Luminaire Tested: P3A13R409730DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1346034
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: P3A13R409730DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R40 optic, 3000K CCT AND, 97CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

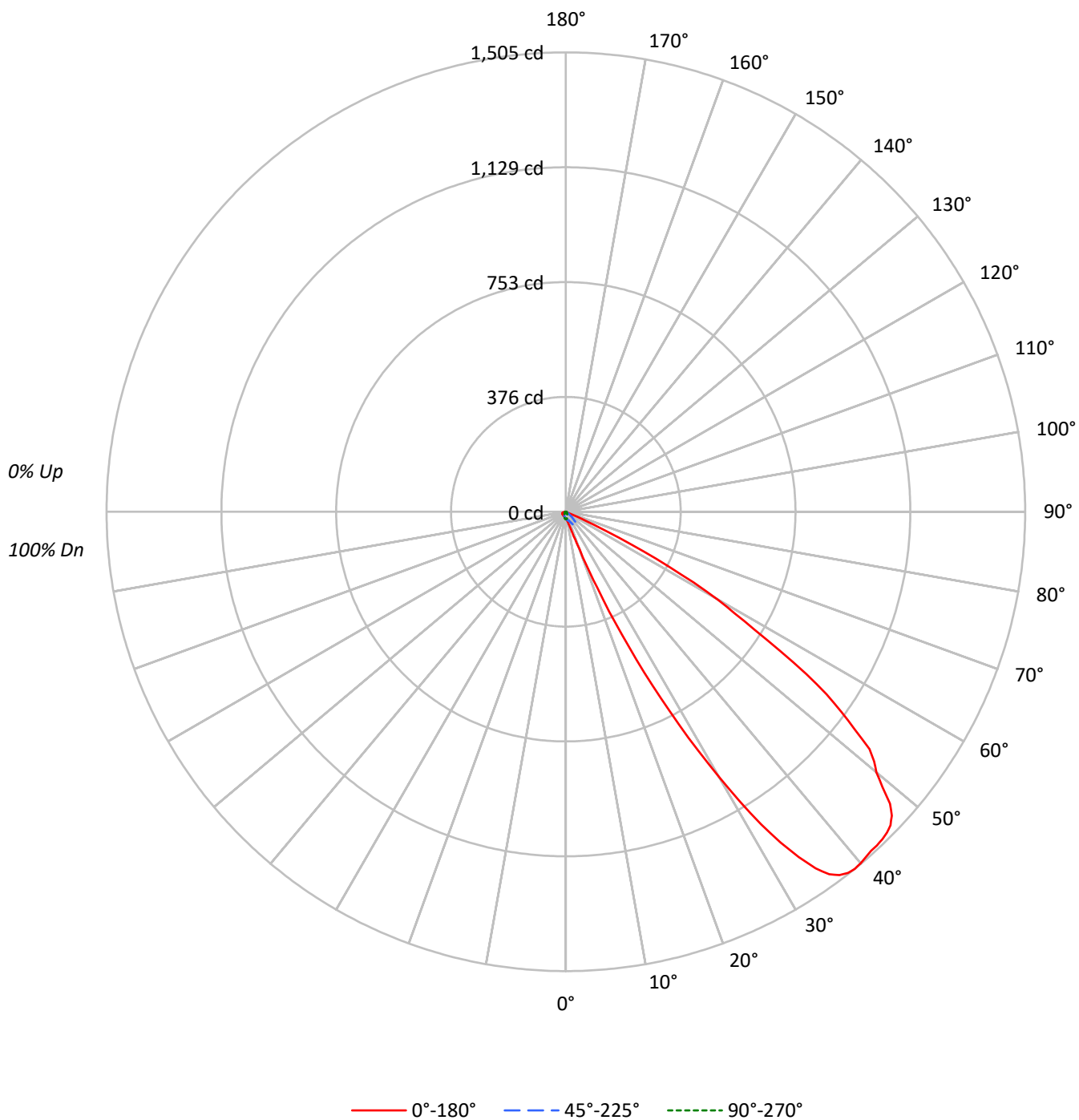
Lumens per Lamp: N/A
Luminaire Lumens: 465.0 lumens
Efficiency: N/A
Efficacy: 31.8 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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°	5241	5241	5241	5241	5241
5°	5833	5635	5173	4711	4600
10°	7036	5990	4765	4275	4186
15°	11532	6493	4064	3791	3882
20°	30499	7677	3384	3384	3687
25°	117587	9509	2686	3097	3605
30°	253659	12660	2152	3038	3570
35°	381809	14964	1820	2971	3667
40°	430149	15028	1603	3063	3922
45°	461257	11660	1458	3163	4249
50°	453341	7300	1296	3343	4674
55°	398858	3594	1300	3747	5238
60°	252436	746	1491	4122	5789
65°	51627	208	1557	4410	6434
70°	1090	256	1667	4937	7373
75°	1101	763	1779	5422	8303
80°	1137	505	2147	5935	9723
85°	1006	1006	4277	6542	10819

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 469590 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.2	0.5
10°-20°	7.4	1.6
20°-30°	36.1	7.8
30°-40°	117.5	25.3
40°-50°	161.9	34.8
50°-60°	112.8	24.3
60°-70°	21.4	4.6
70°-80°	3.9	0.8
80°-90°	1.8	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°	45.7	9.8
0°-40°	163.2	35.1
0°-60°	438.0	94.2
0°-90°	465.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	465.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	24	24	24	24	24	
5°	26	26	24	21	21	3
15°	51	29	18	17	17	18
25°	486	39	11	13	15	250
35°	1426	56	7	11	14	862
45°	1487	38	5	10	14	1131
55°	1043	9	3	10	14	892
65°	100	0	3	8	12	176
75°	1	1	2	6	10	1
85°	0	0	2	3	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°	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9	23.9
2.5°	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.8	24.3	23.9
5°	26.5	26.5	26.5	26.5	26.0	26.0	26.0	25.6	25.6	24.8	23.5
7.5°	28.2	28.2	28.2	28.2	27.8	27.3	26.9	26.9	26.5	24.3	22.6
10°	31.6	31.6	31.2	30.7	30.3	29.5	29.0	28.2	26.9	23.9	21.4
12.5°	38.4	37.6	37.2	36.3	35.0	33.3	31.6	30.3	27.3	23.1	20.1
15°	50.8	50.0	48.3	45.7	43.1	39.7	36.7	33.7	28.6	21.8	17.9
17.5°	72.6	70.0	67.5	63.2	56.8	50.8	44.4	38.9	30.3	20.5	16.2
20°	130.7	129.0	113.6	101.6	82.4	68.8	55.9	46.5	32.9	19.2	14.5
22.5°	269.5	251.5	226.3	185.3	144.3	106.3	77.3	58.5	35.4	17.5	12.8
25°	486.0	457.8	403.6	324.5	239.6	169.5	111.9	76.4	39.3	15.8	11.1
27.5°	735.8	707.2	623.0	514.2	375.4	255.8	159.7	101.2	44.4	14.1	9.8
30°	1001.8	977.5	870.7	720.0	529.1	358.3	213.9	126.4	50.0	12.4	8.5
31°	1109.0	1077.8	962.5	802.0	601.3	400.6	235.7	137.1	52.1	12.0	8.1
32°	1207.7	1172.2	1052.6	880.6	659.8	446.3	259.6	146.5	53.8	11.1	7.7
33°	1292.6	1251.2	1135.9	954.9	724.3	489.0	284.4	155.4	55.1	10.2	7.3
34°	1364.8	1328.9	1205.1	1029.6	781.5	530.0	308.7	164.4	55.9	9.8	6.8
35°	1426.3	1393.9	1271.3	1086.4	837.4	569.7	331.0	173.0	55.9	9.0	6.8
36°	1467.7	1439.5	1328.5	1144.5	884.4	603.4	349.7	180.6	55.9	8.1	6.4
37°	1490.4	1463.0	1366.1	1192.3	930.5	636.7	366.8	186.6	55.5	7.7	6.0
38°	1501.9	1478.0	1393.9	1231.2	962.5	660.6	381.8	191.3	55.1	6.8	6.0
39°	1504.9	1484.8	1411.4	1259.3	993.7	684.5	392.4	193.9	53.8	6.4	5.6
40°	1502.7	1485.2	1420.8	1284.5	1017.6	703.3	400.1	194.7	52.5	5.6	5.6
41°	1498.5	1484.8	1427.6	1302.0	1036.8	715.3	403.1	193.0	50.8	4.7	5.1
42°	1494.6	1479.7	1430.6	1314.0	1050.1	721.3	402.7	189.6	48.3	4.3	5.1
43°	1494.6	1477.6	1431.0	1321.7	1056.5	721.7	397.6	183.2	44.8	3.8	4.7
44°	1492.1	1476.3	1433.1	1326.8	1058.2	717.9	389.5	176.4	41.0	3.4	4.7
45°	1487.4	1470.7	1432.7	1327.2	1055.2	708.5	376.2	167.4	37.6	2.6	4.7
46°	1478.4	1463.5	1428.9	1324.2	1046.2	694.8	360.4	158.4	33.7	2.1	4.3
47°	1460.5	1448.9	1418.6	1314.0	1032.6	674.7	341.6	148.2	30.7	1.7	4.3
48°	1429.7	1421.6	1401.1	1291.4	1006.5	650.0	321.6	137.1	27.8	1.7	4.3
49°	1373.4	1366.9	1355.0	1255.1	973.2	619.6	299.8	124.7	24.8	1.3	4.3
50°	1328.9	1322.1	1297.8	1194.0	925.4	581.2	275.9	112.3	21.4	0.9	3.8
51°	1299.5	1288.4	1249.9	1123.1	855.8	530.0	249.8	99.9	17.9	0.9	3.8
52°	1262.3	1245.7	1197.8	1059.5	792.2	478.7	221.6	87.5	15.8	0.9	3.8
53°	1184.6	1178.6	1131.2	991.2	728.5	429.6	192.6	77.3	13.7	0.9	3.8
54°	1116.7	1107.7	1043.3	896.4	659.3	374.9	162.7	68.3	11.5	0.9	3.8
55°	1043.3	1025.7	968.5	816.5	578.2	324.5	134.1	58.9	9.4	0.9	3.4
56°	950.6	935.2	873.7	731.1	503.5	273.3	112.3	48.3	7.3	0.9	3.4
57°	837.8	823.8	776.4	626.0	425.8	223.3	91.4	38.9	5.6	0.9	3.4
58°	729.0	713.2	658.9	525.3	343.8	177.2	76.4	31.6	4.3	0.9	3.4
59°	645.3	623.9	553.9	441.1	269.0	134.5	60.6	25.2	3.0	0.9	3.4
60°	575.6	558.1	485.5	367.3	211.0	99.1	44.8	19.2	1.7	0.9	3.4
62.5°	333.5	328.8	263.5	189.2	99.5	46.1	22.2	9.0	0.9	1.3	3.4
65°	99.5	86.7	67.5	40.1	25.6	15.4	8.1	3.0	0.4	1.3	3.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	3.0	3.0	3.0	3.0	3.0	3.0	1.7	0.9	0.4	1.3	3.0
70°	1.7	1.3	1.3	1.3	1.3	0.9	0.9	0.4	0.4	1.3	2.6
72.5°	1.3	1.3	1.3	1.3	0.9	0.9	0.9	0.4	0.9	1.3	2.1
75°	1.3	0.9	0.9	0.9	0.9	0.4	0.4	0.4	0.9	1.3	2.1
77.5°	0.9	0.9	0.9	0.9	0.4	0.4	0.4	0.4	0.9	1.3	2.1
80°	0.9	0.9	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.3	1.7
82.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.3	1.7
85°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	1.3	1.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	1.3	1.3
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°	23.9	23.9	23.9	23.9
2.5°	23.1	22.6	22.2	22.2
5°	22.2	21.4	21.4	20.9
7.5°	20.9	20.1	20.1	20.1
10°	19.6	19.2	19.2	18.8
12.5°	17.9	17.9	17.9	17.9
15°	16.7	16.7	17.1	17.1
17.5°	14.9	15.4	16.2	16.7
20°	13.7	14.5	15.4	15.8
22.5°	12.8	13.7	14.9	15.4
25°	11.5	12.8	14.5	14.9
27.5°	10.7	12.4	13.7	14.5
30°	9.8	12.0	13.2	14.1
31°	9.8	11.5	13.2	14.1
32°	9.4	11.1	13.2	13.7
33°	9.4	11.1	13.2	13.7
34°	9.0	11.1	12.8	13.7
35°	9.0	11.1	12.8	13.7
36°	8.5	10.7	12.8	13.7
37°	8.5	10.7	12.8	13.7
38°	8.1	10.7	12.8	13.7
39°	8.1	10.7	12.8	13.7
40°	8.1	10.7	12.8	13.7
41°	7.7	10.7	12.8	13.7
42°	7.7	10.7	12.8	13.7
43°	7.7	10.2	12.8	13.7
44°	7.7	10.2	12.8	13.7
45°	7.3	10.2	12.8	13.7
46°	7.3	10.2	12.8	13.7
47°	7.3	10.2	12.8	13.7
48°	7.3	10.2	12.8	13.7
49°	7.3	10.2	12.8	13.7
50°	6.8	9.8	12.8	13.7
51°	6.8	9.8	12.8	13.7
52°	6.8	9.8	12.8	13.7
53°	6.8	9.8	12.8	13.7
54°	6.4	9.8	12.8	13.7
55°	6.4	9.8	12.8	13.7
56°	6.4	9.8	12.8	13.2
57°	6.4	9.8	12.4	13.2
58°	6.4	9.4	12.4	13.2
59°	6.4	9.4	12.4	13.2
60°	6.4	9.4	12.4	13.2
62.5°	6.0	9.4	12.0	12.8
65°	5.6	8.5	12.0	12.4



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	5.6	8.1	11.1	12.0
70°	5.1	7.7	10.7	11.5
72.5°	4.3	7.3	9.8	10.7
75°	3.8	6.4	9.0	9.8
77.5°	3.4	5.6	8.1	8.5
80°	3.0	4.7	6.8	7.7
82.5°	2.1	3.4	5.6	6.0
85°	1.7	2.6	3.8	4.3
87.5°	1.3	1.3	2.1	2.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)