

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: P1338929

Luminaire Tested: P3A05R409727DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1338929
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: P3A05R409727DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R40 optic, 2700K CCT AND, 97CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

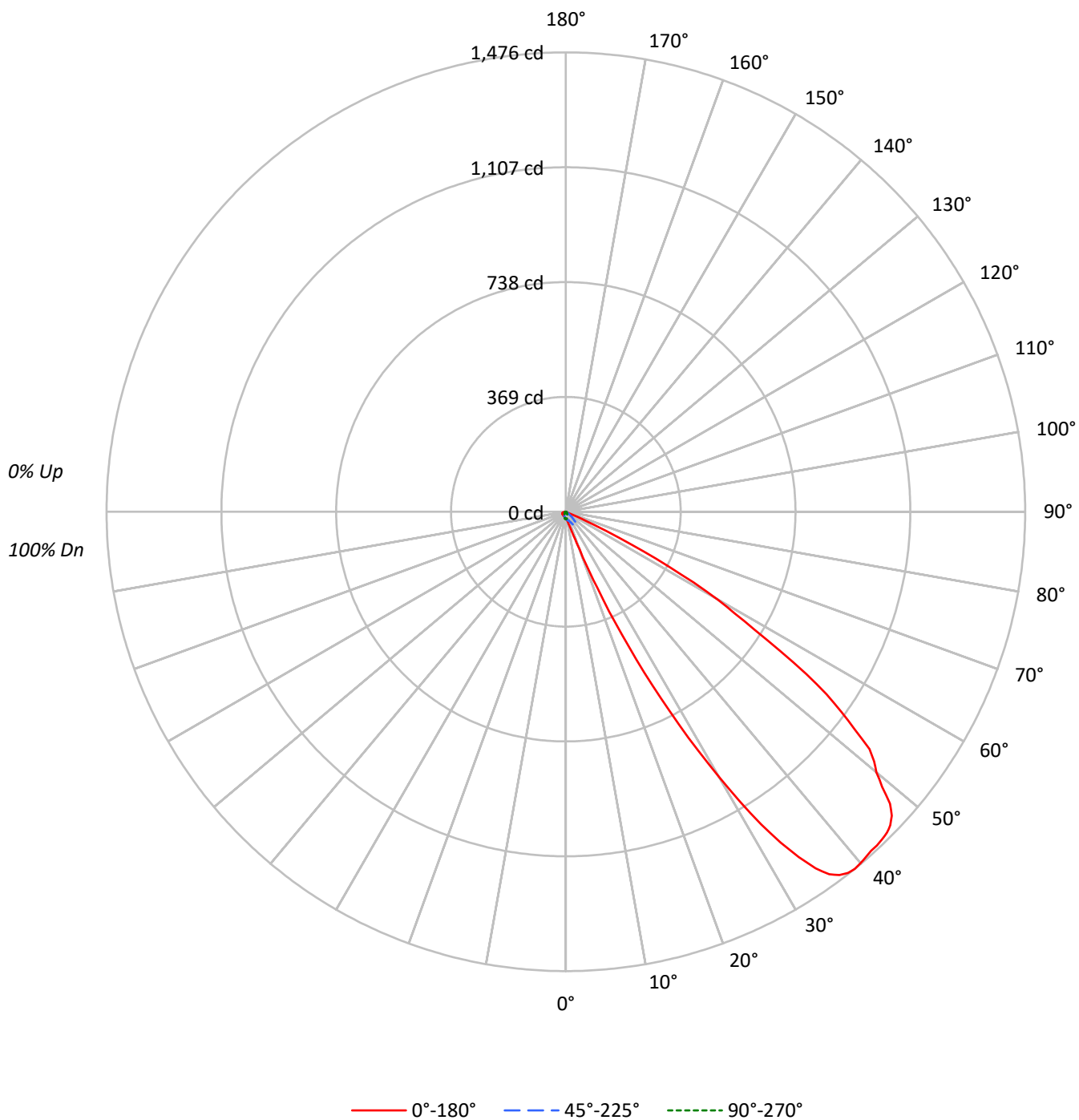
Lumens per Lamp: N/A
Luminaire Lumens: 456.0 lumens
Efficiency: N/A
Efficacy: 63.3 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 7.2
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°	5153	5153	5153	5153	5153
5°	5723	5525	5063	4600	4512
10°	6903	5878	4654	4186	4097
15°	11305	6379	3995	3700	3814
20°	29893	7514	3314	3314	3617
25°	115313	9315	2637	3049	3557
30°	248747	12407	2127	2962	3494
35°	374421	14696	1794	2918	3587
40°	421848	14742	1546	3006	3836
45°	452326	11443	1427	3132	4155
50°	444574	7130	1296	3275	4571
55°	391135	3517	1300	3670	5123
60°	247568	746	1491	4035	5701
65°	50641	208	1505	4358	6278
70°	1090	256	1603	4809	7245
75°	1101	678	1779	5338	8133
80°	1010	505	2147	5809	9471
85°	1006	1006	4277	6290	10567

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 460491 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.2	0.5
10°-20°	7.2	1.6
20°-30°	35.4	7.8
30°-40°	115.2	25.3
40°-50°	158.8	34.8
50°-60°	110.6	24.3
60°-70°	21.0	4.6
70°-80°	3.8	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°	44.8	9.8
0°-40°	160.0	35.1
0°-60°	429.5	94.2
0°-90°	456.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	456.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	24	24	24	24	24	
5°	26	25	23	21	20	3
15°	50	28	18	16	17	18
25°	477	38	11	13	15	245
35°	1399	55	7	11	13	845
45°	1459	37	5	10	13	1109
55°	1023	9	3	10	13	874
65°	98	0	3	8	12	173
75°	1	1	2	6	10	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°	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
2.5°	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3	24.3	23.9	23.5
5°	26.0	26.0	26.0	26.0	25.5	25.5	25.5	25.1	25.1	24.3	23.0
7.5°	27.6	27.6	27.6	27.6	27.2	26.8	26.4	26.4	26.0	23.9	22.2
10°	31.0	31.0	30.6	30.2	29.7	28.9	28.5	27.6	26.4	23.5	20.9
12.5°	37.7	36.9	36.4	35.6	34.3	32.7	31.0	29.7	26.8	22.6	19.7
15°	49.8	49.0	47.3	44.8	42.3	38.9	36.0	33.1	28.1	21.4	17.6
17.5°	71.2	68.7	66.2	62.0	55.7	49.8	43.6	38.1	29.7	20.1	15.9
20°	128.1	126.5	111.4	99.7	80.8	67.4	54.9	45.6	32.2	18.8	14.2
22.5°	264.2	246.7	221.9	181.7	141.5	104.3	75.8	57.4	34.8	17.2	12.6
25°	476.6	448.9	395.7	318.3	234.9	166.3	109.7	75.0	38.5	15.5	10.9
27.5°	721.5	693.5	611.0	504.2	368.1	250.8	156.6	99.2	43.6	13.8	9.6
30°	982.4	958.6	853.9	706.1	518.9	351.4	209.8	124.0	49.0	12.1	8.4
31°	1087.6	1057.0	943.9	786.5	589.6	392.8	231.2	134.4	51.1	11.7	8.0
32°	1184.3	1149.5	1032.3	863.5	647.0	437.6	254.6	143.6	52.8	10.9	7.5
33°	1267.6	1227.0	1113.9	936.4	710.2	479.5	278.9	152.4	54.0	10.1	7.1
34°	1338.4	1303.2	1181.8	1009.7	766.4	519.7	302.8	161.2	54.9	9.6	6.7
35°	1398.7	1366.9	1246.7	1065.4	821.2	558.6	324.5	169.6	54.9	8.8	6.7
36°	1439.3	1411.7	1302.8	1122.3	867.3	591.7	343.0	177.1	54.9	8.0	6.3
37°	1461.5	1434.7	1339.7	1169.2	912.5	624.4	359.7	183.0	54.4	7.5	5.9
38°	1472.8	1449.4	1366.9	1207.3	943.9	647.8	374.4	187.6	54.0	6.7	5.9
39°	1475.8	1456.1	1384.0	1235.0	974.5	671.3	384.9	190.1	52.8	6.3	5.4
40°	1473.7	1456.5	1393.3	1259.7	997.9	689.7	392.4	191.0	51.5	5.4	5.4
41°	1469.5	1456.1	1400.0	1276.8	1016.8	701.4	395.3	189.3	49.8	4.6	5.0
42°	1465.7	1451.0	1402.9	1288.6	1029.8	707.3	394.9	185.9	47.3	4.2	5.0
43°	1465.7	1449.0	1403.3	1296.1	1036.0	707.7	389.9	179.7	44.0	3.8	4.6
44°	1463.2	1447.7	1405.4	1301.1	1037.7	704.0	381.9	173.0	40.2	3.4	4.6
45°	1458.6	1442.3	1405.0	1301.5	1034.8	694.7	368.9	164.2	36.9	2.5	4.6
46°	1449.8	1435.1	1401.2	1298.6	1026.0	681.3	353.4	155.4	33.1	2.1	4.2
47°	1432.2	1420.9	1391.2	1288.6	1012.6	661.7	335.0	145.3	30.2	1.7	4.2
48°	1402.1	1394.1	1374.0	1266.4	987.0	637.4	315.3	134.4	27.2	1.7	4.2
49°	1346.8	1340.5	1328.8	1230.8	954.4	607.6	294.0	122.3	24.3	1.3	4.2
50°	1303.2	1296.5	1272.6	1170.9	907.5	569.9	270.5	110.1	20.9	0.8	3.8
51°	1274.3	1263.4	1225.7	1101.4	839.2	519.7	245.0	98.0	17.6	0.8	3.8
52°	1237.9	1221.6	1174.7	1039.0	776.8	469.4	217.3	85.8	15.5	0.8	3.8
53°	1161.7	1155.8	1109.3	972.0	714.4	421.3	188.9	75.8	13.4	0.8	3.8
54°	1095.1	1086.3	1023.1	879.0	646.6	367.7	159.6	67.0	11.3	0.8	3.8
55°	1023.1	1005.9	949.8	800.7	567.0	318.3	131.5	57.8	9.2	0.8	3.4
56°	932.2	917.1	856.8	716.9	493.7	268.0	110.1	47.3	7.1	0.8	3.4
57°	821.6	807.8	761.3	613.9	417.5	219.0	89.6	38.1	5.4	0.8	3.4
58°	714.8	699.4	646.2	515.1	337.1	173.8	75.0	31.0	4.2	0.8	3.4
59°	632.8	611.8	543.1	432.6	263.8	131.9	59.5	24.7	2.9	0.8	3.4
60°	564.5	547.3	476.1	360.1	206.9	97.2	44.0	18.8	1.7	0.8	3.4
62.5°	327.1	322.5	258.4	185.5	97.6	45.2	21.8	8.8	0.8	1.3	3.4
65°	97.6	85.0	66.2	39.4	25.1	15.1	8.0	2.9	0.4	1.3	2.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	2.9	2.9	2.9	2.9	2.9	2.9	1.7	0.8	0.4	1.3	2.9
70°	1.7	1.3	1.3	1.3	1.3	0.8	0.8	0.4	0.4	1.3	2.5
72.5°	1.3	1.3	1.3	1.3	0.8	0.8	0.8	0.4	0.8	1.3	2.1
75°	1.3	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.8	1.3	2.1
77.5°	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4	0.8	1.3	2.1
80°	0.8	0.8	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°	23.5	23.5	23.5	23.5
2.5°	22.6	22.2	21.8	21.8
5°	21.8	20.9	20.9	20.5
7.5°	20.5	19.7	19.7	19.7
10°	19.3	18.8	18.8	18.4
12.5°	17.6	17.6	17.6	17.6
15°	16.3	16.3	16.8	16.8
17.5°	14.7	15.1	15.9	16.3
20°	13.4	14.2	15.1	15.5
22.5°	12.6	13.4	14.7	15.1
25°	11.3	12.6	14.2	14.7
27.5°	10.5	12.1	13.4	14.2
30°	9.6	11.7	13.0	13.8
31°	9.6	11.3	13.0	13.8
32°	9.2	10.9	13.0	13.4
33°	9.2	10.9	13.0	13.4
34°	8.8	10.9	12.6	13.4
35°	8.8	10.9	12.6	13.4
36°	8.4	10.5	12.6	13.4
37°	8.4	10.5	12.6	13.4
38°	8.0	10.5	12.6	13.4
39°	8.0	10.5	12.6	13.4
40°	8.0	10.5	12.6	13.4
41°	7.5	10.5	12.6	13.4
42°	7.5	10.5	12.6	13.4
43°	7.5	10.1	12.6	13.4
44°	7.5	10.1	12.6	13.4
45°	7.1	10.1	12.6	13.4
46°	7.1	10.1	12.6	13.4
47°	7.1	10.1	12.6	13.4
48°	7.1	10.1	12.6	13.4
49°	7.1	10.1	12.6	13.4
50°	6.7	9.6	12.6	13.4
51°	6.7	9.6	12.6	13.4
52°	6.7	9.6	12.6	13.4
53°	6.7	9.6	12.6	13.4
54°	6.3	9.6	12.6	13.4
55°	6.3	9.6	12.6	13.4
56°	6.3	9.6	12.6	13.0
57°	6.3	9.6	12.1	13.0
58°	6.3	9.2	12.1	13.0
59°	6.3	9.2	12.1	13.0
60°	6.3	9.2	12.1	13.0
62.5°	5.9	9.2	11.7	12.6
65°	5.4	8.4	11.7	12.1



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	5.4	8.0	10.9	11.7
70°	5.0	7.5	10.5	11.3
72.5°	4.2	7.1	9.6	10.5
75°	3.8	6.3	8.8	9.6
77.5°	3.4	5.4	8.0	8.4
80°	2.9	4.6	6.7	7.5
82.5°	2.1	3.4	5.4	5.9
85°	1.7	2.5	3.8	4.2
87.5°	1.3	1.3	2.1	2.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)