

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: P1338977

Luminaire Tested: P3A05R409740DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1338977
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: P3A05R409740DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R40 optic, 4000K CCT AND, 97CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

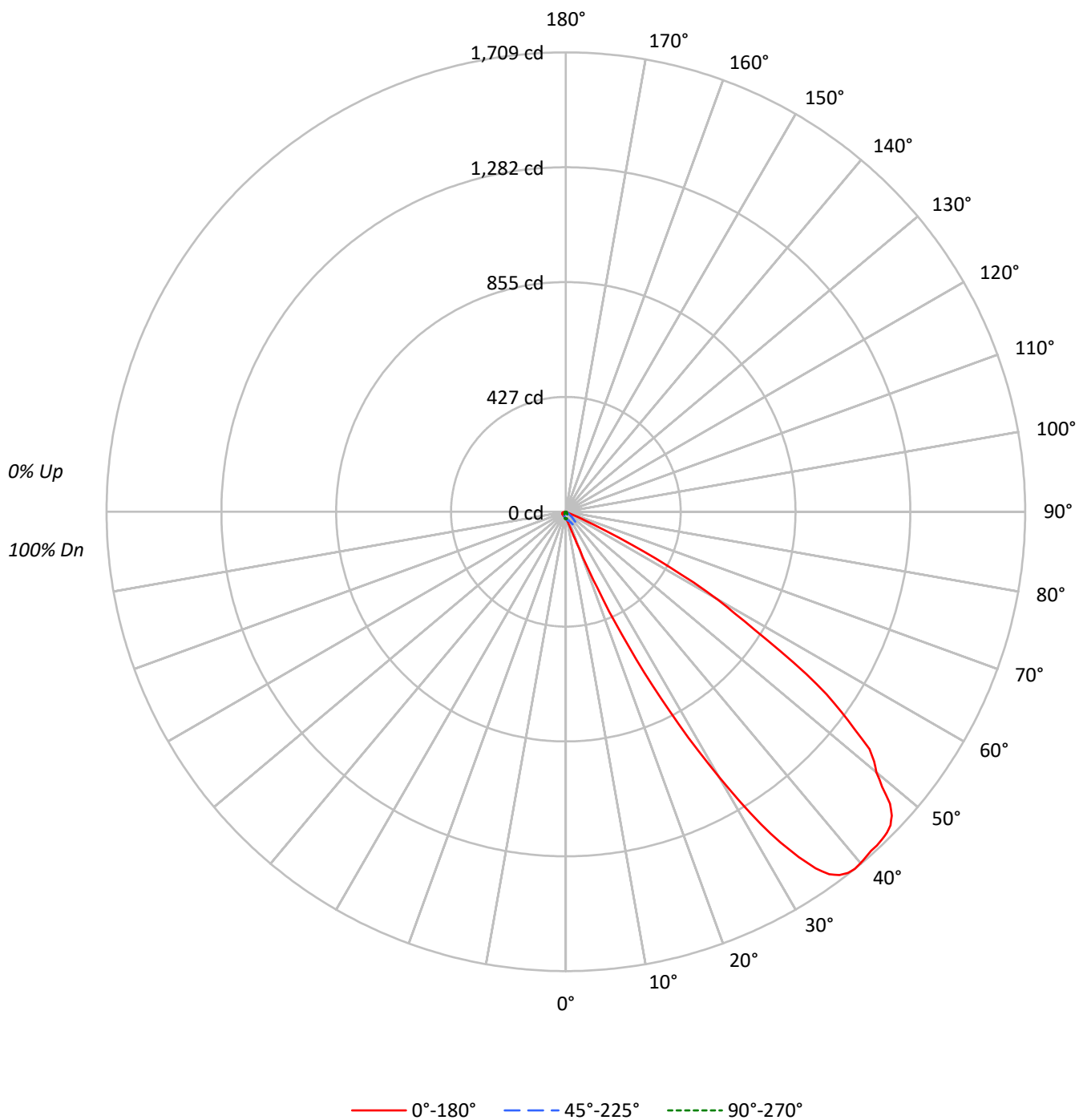
Lumens per Lamp: N/A
Luminaire Lumens: 528.0 lumens
Efficiency: N/A
Efficacy: 73.3 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1338977

CATALOG NUMBER: P3A05R409740DE010 E3CA451MMS

Luminous Intensity Polar Plot



TEST NUMBER: P1338977

CATALOG NUMBER: P3A05R409740DE010 E3CA451MMS

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20			
RC	80				70				50				30				10			0
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	100		
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	86		
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	72		
3	91	81	73	66	89	79	72	66	76	70	65	73	68	64	71	66	62	60		
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52	50		
5	75	62	52	46	73	60	52	45	58	51	45	56	50	44	54	49	44	42		
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35		
7	62	48	39	32	60	47	38	32	45	37	32	44	37	31	42	36	31	29		
8	57	42	33	27	55	42	33	27	40	32	27	39	32	27	38	31	26	24		
9	52	38	29	23	51	37	29	23	36	28	23	35	28	23	34	27	23	21		
10	48	34	25	20	47	33	25	20	32	25	20	31	24	20	30	24	19	18		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	5964	5964	5964	5964	5964
5°	6626	6405	5877	5327	5239
10°	7994	6791	5388	4854	4743
15°	13099	7378	4631	4291	4404
20°	34630	8704	3850	3850	4177
25°	133508	10791	3049	3508	4113
30°	288044	14357	2456	3444	4051
35°	433528	16998	2088	3373	4149
40°	488429	17061	1803	3464	4437
45°	523744	13242	1644	3597	4807
50°	514781	8256	1501	3821	5288
55°	452878	4091	1491	4282	5926
60°	286644	833	1710	4693	6578
65°	58631	259	1764	5033	7316
70°	1218	321	1859	5578	8399
75°	1271	847	2033	6185	9489
80°	1263	631	2399	6693	10986
85°	1258	1258	4780	7296	12077

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 533188 cd/sqm

TEST NUMBER: P1338977

CATALOG NUMBER: P3A05R409740DE010 E3CA451MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.5	0.5
10°-20°	8.4	1.6
20°-30°	41.0	7.8
30°-40°	133.4	25.3
40°-50°	183.9	34.8
50°-60°	128.1	24.3
60°-70°	24.3	4.6
70°-80°	4.4	0.8
80°-90°	2.0	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°	51.9	9.8
0°-40°	185.3	35.1
0°-60°	497.3	94.2
0°-90°	528.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	528.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	27	27	27	27	27	
5°	30	29	27	24	24	3
15°	58	32	20	19	19	21
25°	552	45	13	14	17	284
35°	1620	64	8	13	16	979
45°	1689	43	5	12	16	1284
55°	1185	11	4	11	16	1012
65°	113	0	3	10	14	200
75°	2	1	2	7	11	1
85°	0	0	2	3	5	0
90°	0	0	0	0	0	

TEST NUMBER: P1338977

CATALOG NUMBER: P3A05R409740DE010 E3CA451MMS

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
0°	27.2	27.2	27.2	27.2	27.2	27.2	27.2	27.2	27.2	27.2	27.2
2.5°	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	27.6	27.2
5°	30.1	30.1	30.1	30.1	29.6	29.6	29.6	29.1	29.1	28.1	26.7
7.5°	32.0	32.0	32.0	32.0	31.5	31.0	30.5	30.5	30.1	27.6	25.7
10°	35.9	35.9	35.4	34.9	34.4	33.5	33.0	32.0	30.5	27.2	24.2
12.5°	43.6	42.7	42.2	41.2	39.8	37.8	35.9	34.4	31.0	26.2	22.8
15°	57.7	56.7	54.8	51.9	49.0	45.1	41.7	38.3	32.5	24.7	20.4
17.5°	82.4	79.5	76.6	71.8	64.5	57.7	50.4	44.1	34.4	23.3	18.4
20°	148.4	146.4	129.0	115.4	93.6	78.1	63.5	52.9	37.3	21.8	16.5
22.5°	306.0	285.6	257.0	210.4	163.9	120.7	87.8	66.4	40.2	19.9	14.5
25°	551.8	519.8	458.2	368.5	272.0	192.5	127.0	86.8	44.6	17.9	12.6
27.5°	835.5	803.0	707.5	583.8	426.2	290.5	181.4	114.9	50.4	16.0	11.2
30°	1137.6	1109.9	988.7	817.5	600.8	406.8	242.9	143.5	56.7	14.1	9.7
31°	1259.3	1223.9	1093.0	910.6	682.7	454.8	267.7	155.7	59.2	13.6	9.2
32°	1371.3	1331.0	1195.3	999.9	749.2	506.7	294.8	166.3	61.1	12.6	8.7
33°	1467.8	1420.7	1289.8	1084.2	822.4	555.2	322.9	176.5	62.6	11.6	8.2
34°	1549.7	1509.0	1368.4	1169.1	887.4	601.8	350.6	186.7	63.5	11.2	7.8
35°	1619.5	1582.7	1443.5	1233.6	950.9	646.8	375.8	196.4	63.5	10.2	7.8
36°	1666.6	1634.6	1508.5	1299.5	1004.2	685.2	397.1	205.1	63.5	9.2	7.3
37°	1692.3	1661.2	1551.2	1353.8	1056.6	723.0	416.5	211.9	63.0	8.7	6.8
38°	1705.4	1678.2	1582.7	1398.0	1093.0	750.1	433.5	217.2	62.6	7.8	6.8
39°	1708.8	1686.0	1602.6	1430.0	1128.3	777.3	445.6	220.1	61.1	7.3	6.3
40°	1706.3	1686.5	1613.2	1458.6	1155.5	798.6	454.3	221.1	59.6	6.3	6.3
41°	1701.5	1686.0	1621.0	1478.4	1177.3	812.2	457.7	219.2	57.7	5.3	5.8
42°	1697.1	1680.2	1624.4	1492.0	1192.4	819.0	457.3	215.3	54.8	4.8	5.8
43°	1697.1	1677.7	1624.9	1500.7	1199.6	819.5	451.4	208.0	50.9	4.4	5.3
44°	1694.2	1676.3	1627.3	1506.6	1201.6	815.1	442.2	200.3	46.5	3.9	5.3
45°	1688.9	1670.0	1626.8	1507.1	1198.2	804.4	427.2	190.1	42.7	2.9	5.3
46°	1678.7	1661.7	1622.5	1503.7	1188.0	788.9	409.3	179.9	38.3	2.4	4.8
47°	1658.3	1645.2	1610.8	1492.0	1172.5	766.1	387.9	168.3	34.9	1.9	4.8
48°	1623.4	1614.2	1590.9	1466.3	1142.9	738.0	365.1	155.7	31.5	1.9	4.8
49°	1559.4	1552.1	1538.6	1425.1	1105.1	703.6	340.4	141.6	28.1	1.5	4.8
50°	1509.0	1501.2	1473.6	1355.8	1050.8	659.9	313.2	127.5	24.2	1.0	4.4
51°	1475.5	1462.9	1419.3	1275.3	971.7	601.8	283.7	113.5	20.4	1.0	4.4
52°	1433.3	1414.4	1360.1	1203.0	899.5	543.6	251.7	99.4	17.9	1.0	4.4
53°	1345.1	1338.3	1284.5	1125.4	827.2	487.8	218.7	87.8	15.5	1.0	4.4
54°	1268.0	1257.8	1184.6	1017.8	748.7	425.7	184.7	77.6	13.1	1.0	4.4
55°	1184.6	1164.7	1099.7	927.1	656.5	368.5	152.3	66.9	10.7	1.0	3.9
56°	1079.4	1061.9	992.1	830.1	571.7	310.3	127.5	54.8	8.2	1.0	3.9
57°	951.4	935.4	881.5	710.9	483.4	253.6	103.8	44.1	6.3	1.0	3.9
58°	827.7	809.8	748.2	596.4	390.3	201.2	86.8	35.9	4.8	1.0	3.9
59°	732.7	708.4	628.9	500.9	305.5	152.7	68.9	28.6	3.4	1.0	3.9
60°	653.6	633.8	551.3	417.0	239.5	112.5	50.9	21.8	1.9	1.0	3.9
62.5°	378.7	373.4	299.2	214.8	113.0	52.4	25.2	10.2	1.0	1.5	3.9
65°	113.0	98.4	76.6	45.6	29.1	17.5	9.2	3.4	0.5	1.5	3.4



TEST NUMBER: P1338977

CATALOG NUMBER: P3A05R409740DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	3.4	3.4	3.4	3.4	3.4	3.4	1.9	1.0	0.5	1.5	3.4
70°	1.9	1.5	1.5	1.5	1.5	1.0	1.0	0.5	0.5	1.5	2.9
72.5°	1.5	1.5	1.5	1.5	1.0	1.0	1.0	0.5	1.0	1.5	2.4
75°	1.5	1.0	1.0	1.0	1.0	0.5	0.5	0.5	1.0	1.5	2.4
77.5°	1.0	1.0	1.0	1.0	0.5	0.5	0.5	0.5	1.0	1.5	2.4
80°	1.0	1.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.5	1.9
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.5	1.9
85°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.5	1.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	1.5	1.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P1338977

CATALOG NUMBER: P3A05R409740DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
0°	27.2	27.2	27.2	27.2
2.5°	26.2	25.7	25.2	25.2
5°	25.2	24.2	24.2	23.8
7.5°	23.8	22.8	22.8	22.8
10°	22.3	21.8	21.8	21.3
12.5°	20.4	20.4	20.4	20.4
15°	18.9	18.9	19.4	19.4
17.5°	17.0	17.5	18.4	18.9
20°	15.5	16.5	17.5	17.9
22.5°	14.5	15.5	17.0	17.5
25°	13.1	14.5	16.5	17.0
27.5°	12.1	14.1	15.5	16.5
30°	11.2	13.6	15.0	16.0
31°	11.2	13.1	15.0	16.0
32°	10.7	12.6	15.0	15.5
33°	10.7	12.6	15.0	15.5
34°	10.2	12.6	14.5	15.5
35°	10.2	12.6	14.5	15.5
36°	9.7	12.1	14.5	15.5
37°	9.7	12.1	14.5	15.5
38°	9.2	12.1	14.5	15.5
39°	9.2	12.1	14.5	15.5
40°	9.2	12.1	14.5	15.5
41°	8.7	12.1	14.5	15.5
42°	8.7	12.1	14.5	15.5
43°	8.7	11.6	14.5	15.5
44°	8.7	11.6	14.5	15.5
45°	8.2	11.6	14.5	15.5
46°	8.2	11.6	14.5	15.5
47°	8.2	11.6	14.5	15.5
48°	8.2	11.6	14.5	15.5
49°	8.2	11.6	14.5	15.5
50°	7.8	11.2	14.5	15.5
51°	7.8	11.2	14.5	15.5
52°	7.8	11.2	14.5	15.5
53°	7.8	11.2	14.5	15.5
54°	7.3	11.2	14.5	15.5
55°	7.3	11.2	14.5	15.5
56°	7.3	11.2	14.5	15.0
57°	7.3	11.2	14.1	15.0
58°	7.3	10.7	14.1	15.0
59°	7.3	10.7	14.1	15.0
60°	7.3	10.7	14.1	15.0
62.5°	6.8	10.7	13.6	14.5
65°	6.3	9.7	13.6	14.1



TEST NUMBER: P1338977

CATALOG NUMBER: P3A05R409740DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	6.3	9.2	12.6	13.6
70°	5.8	8.7	12.1	13.1
72.5°	4.8	8.2	11.2	12.1
75°	4.4	7.3	10.2	11.2
77.5°	3.9	6.3	9.2	9.7
80°	3.4	5.3	7.8	8.7
82.5°	2.4	3.9	6.3	6.8
85°	1.9	2.9	4.4	4.8
87.5°	1.5	1.5	2.4	2.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)