

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: P1338961

Luminaire Tested: P3A05R409735DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1338961
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: P3A05R409735DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R40 optic, 3500K CCT AND, 97CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

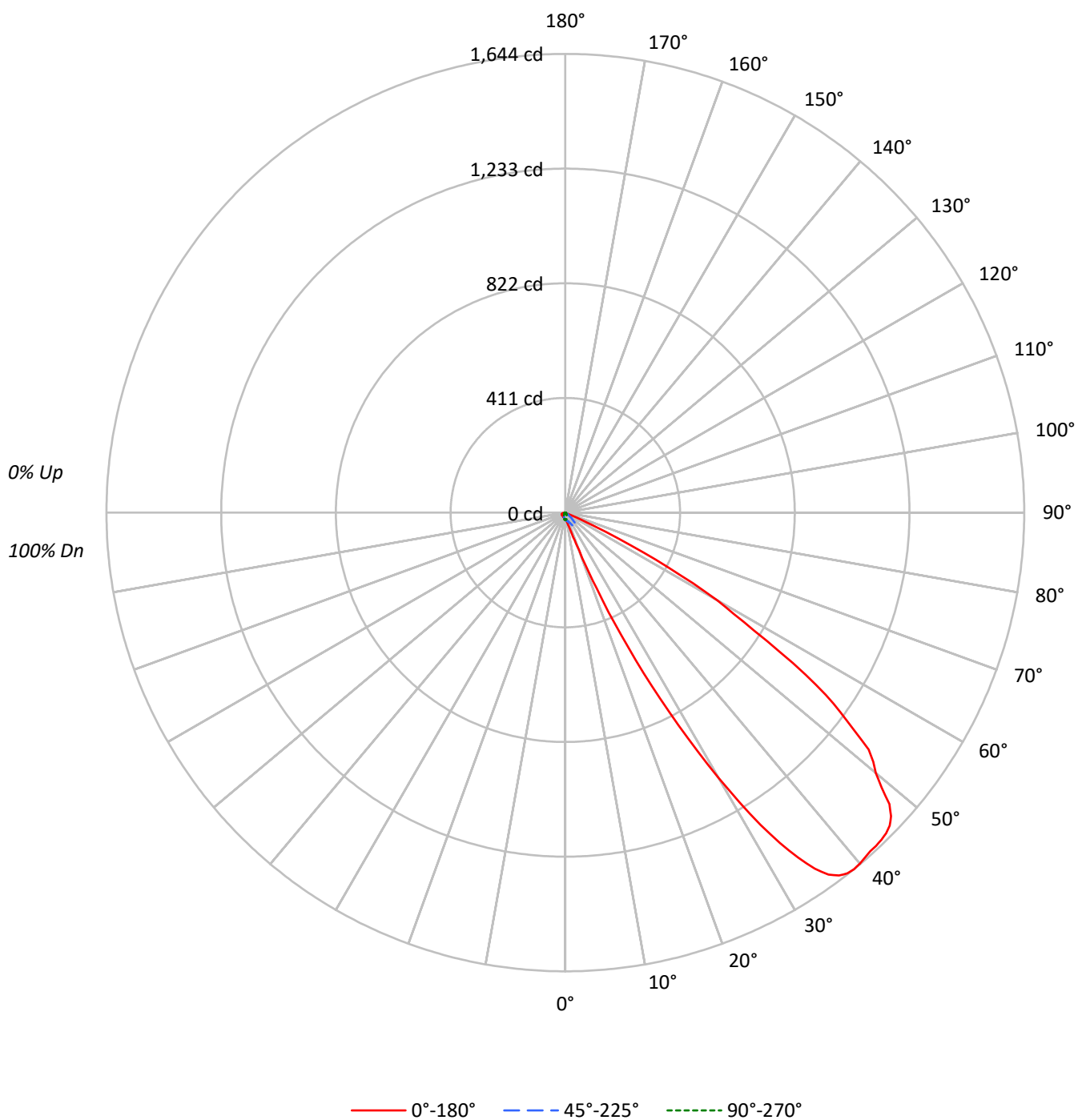
Lumens per Lamp: N/A
Luminaire Lumens: 508.0 lumens
Efficiency: N/A
Efficacy: 70.6 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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: P1338961

CATALOG NUMBER: P3A05R409735DE010 E3CA451MMS

Luminous Intensity Polar Plot



TEST NUMBER: P1338961

CATALOG NUMBER: P3A05R409735DE010 E3CA451MMS

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°	5723	5723	5723	5723	5723
5°	6361	6163	5657	5129	5041
10°	7682	6546	5188	4676	4565
15°	12599	7106	4450	4132	4245
20°	33323	8377	3710	3710	4037
25°	128451	10380	2928	3387	3944
30°	277131	13825	2355	3317	3899
35°	417118	16356	2008	3239	3989
40°	469938	16431	1746	3349	4265
45°	503897	12746	1582	3473	4621
50°	495267	7949	1433	3650	5083
55°	435712	3938	1415	4091	5696
60°	275811	833	1623	4517	6359
65°	56400	259	1712	4825	7005
70°	1218	321	1795	5386	8078
75°	1186	763	1949	5931	9065
80°	1137	631	2399	6440	10607
85°	1258	1258	4780	7045	11825

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 512996 cd/sqm

TEST NUMBER: P1338961

CATALOG NUMBER: P3A05R409735DE010 E3CA451MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.4	0.5
10°-20°	8.0	1.6
20°-30°	39.5	7.8
30°-40°	128.3	25.3
40°-50°	176.9	34.8
50°-60°	123.2	24.3
60°-70°	23.4	4.6
70°-80°	4.2	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°	50.0	9.8
0°-40°	178.3	35.1
0°-60°	478.5	94.2
0°-90°	508.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	508.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	26	26	26	26	26	
5°	29	28	26	23	23	3
15°	56	31	20	18	19	20
25°	531	43	12	14	16	273
35°	1558	61	8	12	15	942
45°	1625	41	5	11	15	1236
55°	1140	10	4	11	15	974
65°	109	0	3	9	14	192
75°	1	1	2	7	11	1
85°	0	0	2	3	5	0
90°	0	0	0	0	0	

TEST NUMBER: P1338961

CATALOG NUMBER: P3A05R409735DE010 E3CA451MMS

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
0°	26.1	26.1	26.1	26.1	26.1	26.1	26.1	26.1	26.1	26.1	26.1
2.5°	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1	27.1	26.6	26.1
5°	28.9	28.9	28.9	28.9	28.5	28.5	28.5	28.0	28.0	27.1	25.7
7.5°	30.8	30.8	30.8	30.8	30.3	29.9	29.4	29.4	28.9	26.6	24.7
10°	34.5	34.5	34.1	33.6	33.1	32.2	31.7	30.8	29.4	26.1	23.3
12.5°	42.0	41.1	40.6	39.7	38.3	36.4	34.5	33.1	29.9	25.2	21.9
15°	55.5	54.6	52.7	49.9	47.1	43.4	40.1	36.9	31.3	23.8	19.6
17.5°	79.3	76.5	73.7	69.0	62.0	55.5	48.5	42.5	33.1	22.4	17.7
20°	142.8	140.9	124.1	111.0	90.0	75.1	61.1	50.9	35.9	21.0	15.9
22.5°	294.4	274.8	247.3	202.5	157.7	116.2	84.4	63.9	38.7	19.1	14.0
25°	530.9	500.1	440.9	354.6	261.7	185.2	122.2	83.5	42.9	17.3	12.1
27.5°	803.8	772.6	680.7	561.7	410.1	279.4	174.5	110.6	48.5	15.4	10.7
30°	1094.5	1067.9	951.2	786.6	578.0	391.4	233.7	138.1	54.6	13.5	9.3
31°	1211.6	1177.5	1051.6	876.1	656.9	437.6	257.5	149.8	56.9	13.1	8.9
32°	1319.3	1280.6	1150.0	962.0	720.8	487.5	283.6	160.0	58.8	12.1	8.4
33°	1412.2	1366.9	1241.0	1043.2	791.2	534.2	310.7	169.8	60.2	11.2	7.9
34°	1491.0	1451.8	1316.5	1124.8	853.7	579.0	337.3	179.6	61.1	10.7	7.5
35°	1558.2	1522.7	1388.9	1186.8	914.9	622.3	361.6	188.9	61.1	9.8	7.5
36°	1603.5	1572.7	1451.4	1250.3	966.2	659.2	382.1	197.3	61.1	8.9	7.0
37°	1628.2	1598.3	1492.4	1302.5	1016.6	695.6	400.7	203.9	60.6	8.4	6.5
38°	1640.8	1614.7	1522.7	1345.0	1051.6	721.7	417.1	209.0	60.2	7.5	6.5
39°	1644.0	1622.1	1541.9	1375.8	1085.6	747.8	428.7	211.8	58.8	7.0	6.1
40°	1641.7	1622.6	1552.1	1403.3	1111.7	768.4	437.1	212.7	57.4	6.1	6.1
41°	1637.0	1622.1	1559.6	1422.4	1132.7	781.4	440.4	210.9	55.5	5.1	5.6
42°	1632.8	1616.5	1562.9	1435.5	1147.2	788.0	439.9	207.1	52.7	4.7	5.6
43°	1632.8	1614.2	1563.3	1443.9	1154.2	788.4	434.3	200.1	49.0	4.2	5.1
44°	1630.0	1612.8	1565.7	1449.5	1156.1	784.2	425.5	192.7	44.8	3.7	5.1
45°	1624.9	1606.7	1565.2	1450.0	1152.8	774.0	411.0	182.9	41.1	2.8	5.1
46°	1615.1	1598.8	1561.0	1446.7	1143.0	759.0	393.7	173.1	36.9	2.3	4.7
47°	1595.5	1582.9	1549.8	1435.5	1128.1	737.1	373.2	161.9	33.6	1.9	4.7
48°	1561.9	1553.1	1530.7	1410.8	1099.6	710.1	351.3	149.8	30.3	1.9	4.7
49°	1500.4	1493.4	1480.3	1371.1	1063.2	676.9	327.5	136.2	27.1	1.4	4.7
50°	1451.8	1444.4	1417.8	1304.4	1011.0	634.9	301.4	122.7	23.3	0.9	4.2
51°	1419.6	1407.5	1365.5	1227.0	934.9	579.0	272.9	109.2	19.6	0.9	4.2
52°	1379.1	1360.9	1308.6	1157.5	865.4	523.0	242.1	95.6	17.3	0.9	4.2
53°	1294.1	1287.6	1235.8	1082.8	795.9	469.3	210.4	84.4	14.9	0.9	4.2
54°	1220.0	1210.2	1139.7	979.2	720.3	409.6	177.7	74.6	12.6	0.9	4.2
55°	1139.7	1120.6	1058.1	892.0	631.7	354.6	146.5	64.4	10.3	0.9	3.7
56°	1038.5	1021.7	954.5	798.7	550.0	298.6	122.7	52.7	7.9	0.9	3.7
57°	915.3	899.9	848.1	683.9	465.1	244.0	99.8	42.5	6.1	0.9	3.7
58°	796.4	779.1	719.9	573.8	375.6	193.6	83.5	34.5	4.7	0.9	3.7
59°	704.9	681.6	605.1	481.9	293.9	147.0	66.2	27.5	3.3	0.9	3.7
60°	628.9	609.8	530.4	401.2	230.5	108.2	49.0	21.0	1.9	0.9	3.7
62.5°	364.4	359.2	287.8	206.7	108.7	50.4	24.3	9.8	0.9	1.4	3.7
65°	108.7	94.7	73.7	43.9	28.0	16.8	8.9	3.3	0.5	1.4	3.3



TEST NUMBER: P1338961

CATALOG NUMBER: P3A05R409735DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	3.3	3.3	3.3	3.3	3.3	3.3	1.9	0.9	0.5	1.4	3.3
70°	1.9	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	1.9
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.4	1.9
85°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.4	1.9
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



TEST NUMBER: P1338961

CATALOG NUMBER: P3A05R409735DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
0°	26.1	26.1	26.1	26.1
2.5°	25.2	24.7	24.3	24.3
5°	24.3	23.3	23.3	22.9
7.5°	22.9	21.9	21.9	21.9
10°	21.5	21.0	21.0	20.5
12.5°	19.6	19.6	19.6	19.6
15°	18.2	18.2	18.7	18.7
17.5°	16.3	16.8	17.7	18.2
20°	14.9	15.9	16.8	17.3
22.5°	14.0	14.9	16.3	16.8
25°	12.6	14.0	15.9	16.3
27.5°	11.7	13.5	14.9	15.9
30°	10.7	13.1	14.5	15.4
31°	10.7	12.6	14.5	15.4
32°	10.3	12.1	14.5	14.9
33°	10.3	12.1	14.5	14.9
34°	9.8	12.1	14.0	14.9
35°	9.8	12.1	14.0	14.9
36°	9.3	11.7	14.0	14.9
37°	9.3	11.7	14.0	14.9
38°	8.9	11.7	14.0	14.9
39°	8.9	11.7	14.0	14.9
40°	8.9	11.7	14.0	14.9
41°	8.4	11.7	14.0	14.9
42°	8.4	11.7	14.0	14.9
43°	8.4	11.2	14.0	14.9
44°	8.4	11.2	14.0	14.9
45°	7.9	11.2	14.0	14.9
46°	7.9	11.2	14.0	14.9
47°	7.9	11.2	14.0	14.9
48°	7.9	11.2	14.0	14.9
49°	7.9	11.2	14.0	14.9
50°	7.5	10.7	14.0	14.9
51°	7.5	10.7	14.0	14.9
52°	7.5	10.7	14.0	14.9
53°	7.5	10.7	14.0	14.9
54°	7.0	10.7	14.0	14.9
55°	7.0	10.7	14.0	14.9
56°	7.0	10.7	14.0	14.5
57°	7.0	10.7	13.5	14.5
58°	7.0	10.3	13.5	14.5
59°	7.0	10.3	13.5	14.5
60°	7.0	10.3	13.5	14.5
62.5°	6.5	10.3	13.1	14.0
65°	6.1	9.3	13.1	13.5



TEST NUMBER: P1338961

CATALOG NUMBER: P3A05R409735DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	6.1	8.9	12.1	13.1
70°	5.6	8.4	11.7	12.6
72.5°	4.7	7.9	10.7	11.7
75°	4.2	7.0	9.8	10.7
77.5°	3.7	6.1	8.9	9.3
80°	3.3	5.1	7.5	8.4
82.5°	2.3	3.7	6.1	6.5
85°	1.9	2.8	4.2	4.7
87.5°	1.4	1.4	2.3	2.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)