

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: P1334377

Luminaire Tested: P3A02R209040DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1334377
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-74)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A02R209040DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R20 optic, 4000K CCT AND, 90CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

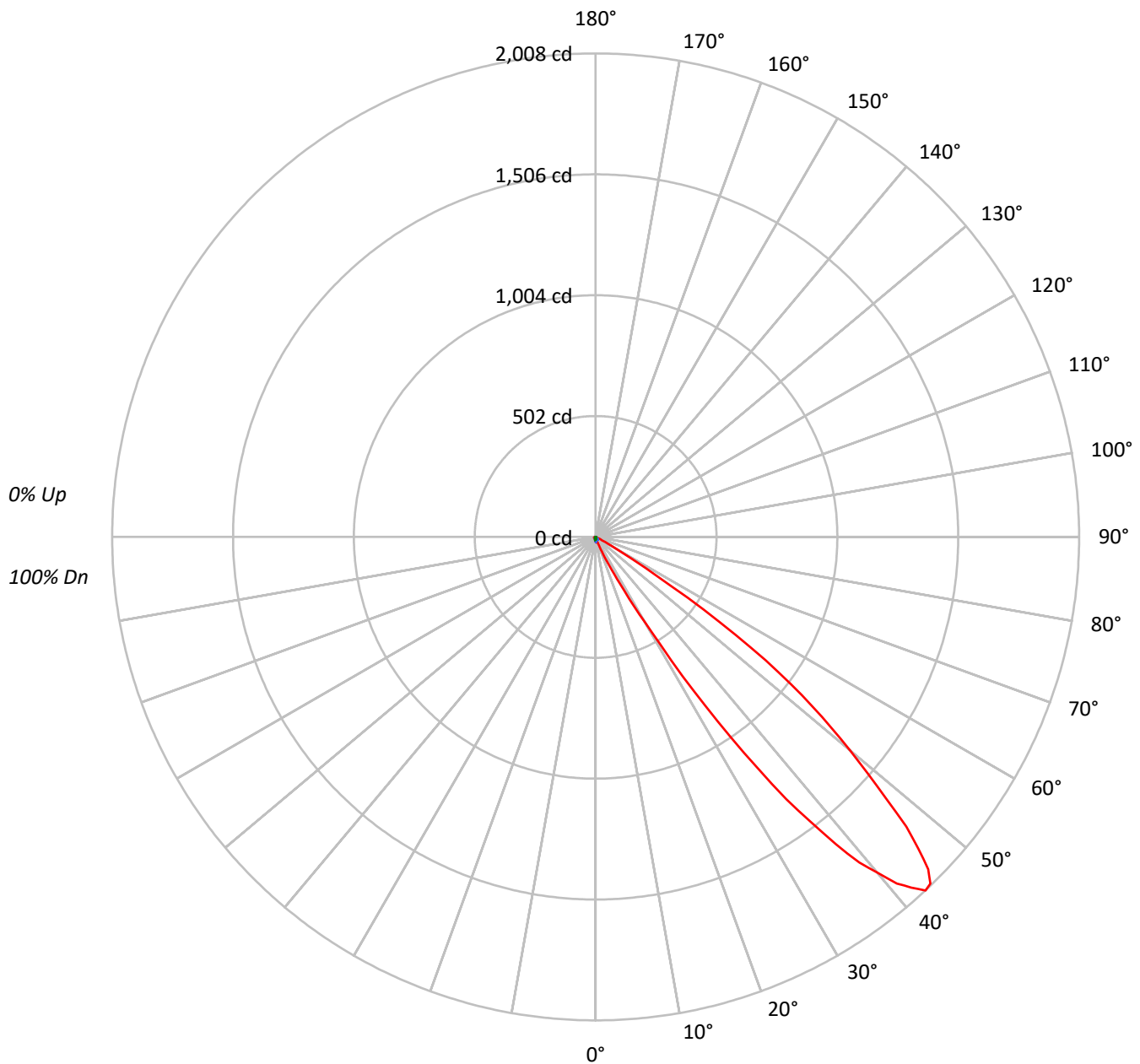
Lumens per Lamp: N/A
Luminaire Lumens: 279.0 lumens
Efficiency: N/A
Efficacy: 77.5 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 3.6
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

TEST NUMBER: P1334377

CATALOG NUMBER: P3A02R209040DE010 E3CA451MMS

Luminous Intensity Polar Plot



— 0°-180° - - 45°-225° - - - 90°-270°

TEST NUMBER: P1334377

CATALOG NUMBER: P3A02R209040DE010 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	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75
3	92	81	74	67	89	80	73	67	77	71	66	74	69	65	72	67	63
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37
7	62	48	39	32	60	47	38	32	46	38	32	44	37	32	43	36	31
8	57	42	33	27	55	42	33	27	40	33	27	39	32	27	38	31	27
9	52	38	29	23	51	37	29	23	36	28	23	35	28	23	34	27	23
10	48	34	25	20	47	33	25	20	32	25	19	31	24	19	30	24	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	4254	4254	4254	4254	4254
5°	4953	4622	3984	3456	3346
10°	4899	4208	3162	2694	2627
15°	4291	3224	2316	2134	2270
20°	6371	2684	1703	1843	2030
25°	27413	2782	1331	1645	1960
30°	103636	3393	1139	1595	1924
35°	314164	4069	1044	1606	2034
40°	520947	4065	887	1718	2176
45°	605520	2760	806	1799	2357
50°	470023	1535	819	1876	2695
55°	272048	994	803	2103	2906
60°	46005	219	702	2193	3201
65°	3528	0	830	2439	3684
70°	513	0	1026	2693	4231
75°	424	254	1101	3135	4914
80°	379	379	1642	3283	5683
85°	755	755	2516	3271	6038

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 605520 cd/sqm

TEST NUMBER: P1334377

CATALOG NUMBER: P3A02R209040DE010 E3CA451MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.7	0.6
10°-20°	3.5	1.3
20°-30°	11.1	4.0
30°-40°	71.1	25.5
40°-50°	130.2	46.7
50°-60°	53.5	19.2
60°-70°	4.5	1.6
70°-80°	2.3	0.8
80°-90°	1.1	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°	16.3	5.8
0°-40°	87.4	31.3
0°-60°	271.2	97.2
0°-90°	279.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	279.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	19	19	19	19	19	
5°	22	21	18	16	15	2
15°	19	14	10	9	10	6
25°	113	12	6	7	8	74
35°	1174	15	4	6	8	743
45°	1953	9	3	6	8	1402
55°	712	3	2	6	8	622
65°	7	0	2	5	7	22
75°	0	0	1	4	6	1
85°	0	0	1	1	2	0
90°	0	0	0	0	0	

TEST NUMBER: P1334377

CATALOG NUMBER: P3A02R209040DE010 E3CA451MMS

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4	19.4
2.5°	21.2	21.2	21.2	21.0	21.0	21.2	21.0	21.0	21.0	21.0	20.7
5°	22.5	22.5	22.5	22.5	22.5	22.5	22.5	22.3	22.3	22.0	21.0
7.5°	23.1	23.1	23.1	23.1	22.8	22.8	22.8	22.8	22.5	22.3	20.5
10°	22.0	22.0	22.0	21.8	21.8	21.8	21.5	21.5	21.2	21.0	18.9
12.5°	19.9	19.9	19.9	19.9	19.7	19.7	19.4	19.4	19.1	18.9	16.5
15°	18.9	18.9	18.9	18.6	18.6	18.4	18.1	17.8	17.6	17.0	14.2
17.5°	20.5	20.5	20.2	20.2	19.7	19.1	18.9	18.1	17.6	16.8	12.6
20°	27.3	27.5	26.5	25.7	25.2	23.6	22.8	21.5	20.5	19.1	11.5
22.5°	55.1	54.0	52.2	49.3	45.9	43.0	37.8	33.6	30.7	26.7	11.3
25°	113.3	112.2	107.2	103.0	92.6	84.4	73.2	64.0	54.5	45.4	11.5
27.5°	215.3	208.2	206.9	187.7	173.0	152.1	130.3	112.0	95.2	76.6	12.3
30°	409.3	401.2	372.6	343.7	304.1	259.3	216.6	176.7	143.4	113.3	13.4
31°	519.4	527.3	493.7	435.8	377.3	319.9	261.4	210.8	167.8	130.3	13.9
32°	682.8	648.4	613.0	553.5	468.5	395.1	321.7	248.8	192.2	148.7	14.4
33°	837.2	817.0	763.0	688.8	586.8	483.7	388.6	293.7	222.1	171.0	14.7
34°	1001.8	979.6	935.8	829.3	717.4	582.3	455.4	345.3	257.7	192.7	14.9
35°	1173.6	1164.1	1079.7	987.4	849.8	686.9	535.9	401.9	292.6	212.6	15.2
36°	1346.4	1316.0	1249.9	1115.1	971.4	783.7	620.4	454.6	328.0	236.2	15.2
37°	1476.4	1469.6	1382.0	1250.7	1081.8	887.0	693.2	513.1	363.7	256.4	15.2
38°	1619.8	1592.8	1503.9	1370.2	1185.6	981.7	769.5	564.0	397.5	274.8	14.9
39°	1740.7	1700.6	1610.9	1478.8	1276.4	1053.5	830.1	613.3	427.4	290.0	14.7
40°	1819.9	1792.1	1698.5	1549.8	1358.7	1121.4	891.5	653.9	449.7	301.5	14.2
41°	1907.2	1861.1	1768.5	1619.1	1418.5	1181.2	930.0	680.7	467.0	309.1	13.6
42°	1959.4	1921.6	1811.8	1665.5	1461.2	1215.3	961.5	701.1	477.5	313.1	12.6
43°	2008.1	1956.8	1849.8	1692.5	1489.5	1239.4	975.9	710.5	479.8	313.1	11.3
44°	2001.6	1952.8	1841.9	1696.1	1495.8	1246.5	981.9	710.8	476.1	309.1	10.0
45°	1952.6	1904.1	1804.2	1664.1	1473.3	1232.6	969.9	700.3	465.9	302.3	8.9
46°	1862.6	1814.4	1737.8	1610.7	1431.3	1201.1	941.8	677.5	448.9	291.3	7.9
47°	1764.8	1717.9	1639.5	1524.4	1359.7	1145.0	901.2	645.5	425.0	275.3	7.1
48°	1623.0	1593.6	1515.0	1416.6	1260.4	1057.2	829.8	593.3	393.0	254.6	6.0
49°	1497.7	1466.7	1397.8	1292.1	1130.8	954.9	744.6	529.9	351.3	231.5	5.2
50°	1377.8	1350.8	1287.1	1167.8	1013.9	831.4	629.5	449.9	298.9	202.9	4.5
51°	1260.6	1240.4	1175.4	1065.8	909.6	736.5	545.4	374.7	247.0	168.3	4.2
52°	1142.9	1140.5	1070.0	959.1	808.1	641.9	463.6	316.2	209.5	141.3	3.9
53°	1016.3	1001.1	939.4	839.8	694.8	543.3	393.0	266.7	180.4	120.3	3.4
54°	872.1	855.0	788.9	699.0	567.7	444.9	316.7	215.5	150.2	101.7	3.1
55°	711.6	682.5	634.5	542.2	443.4	339.5	244.6	170.7	120.1	84.7	2.6
56°	539.9	510.8	483.7	415.8	325.4	253.3	182.2	130.8	93.9	66.9	2.4
57°	375.5	373.9	329.6	277.4	217.6	172.5	124.8	92.3	66.3	51.9	1.8
58°	243.6	235.5	207.1	177.0	142.4	107.8	80.2	62.7	45.1	35.4	1.6
59°	170.7	154.4	139.2	118.0	89.7	67.9	51.7	40.1	31.2	24.6	1.0
60°	104.9	101.5	91.2	71.8	58.2	48.0	38.5	29.6	22.8	17.6	0.5
62.5°	29.9	30.4	27.5	24.4	21.0	18.1	16.3	13.9	11.5	9.2	0.0
65°	6.8	6.6	7.1	6.6	6.0	6.0	5.2	4.7	4.2	3.9	0.0



TEST NUMBER: P1334377

CATALOG NUMBER: P3A02R209040DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	2.1	2.1	1.8	1.8	1.8	1.6	1.6	1.3	1.3	1.0	0.0
70°	0.8	0.8	0.8	0.8	0.8	0.5	0.5	0.5	0.3	0.3	0.0
72.5°	0.8	0.8	0.8	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3
75°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.3
77.5°	0.5	0.5	0.5	0.5	0.5	0.3	0.5	0.3	0.3	0.3	0.3
80°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
82.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
85°	0.3	0.3	0.3	0.3	0.0	0.0	0.3	0.3	0.3	0.0	0.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
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: P1334377

CATALOG NUMBER: P3A02R209040DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	19.4	19.4	19.4	19.4	19.4	19.4
2.5°	20.2	19.1	18.4	17.6	17.3	17.3
5°	19.7	18.1	16.5	15.7	15.2	15.2
7.5°	18.1	16.3	14.7	13.9	13.6	13.6
10°	16.3	14.2	12.6	12.1	12.1	11.8
12.5°	14.2	12.1	11.0	10.7	10.7	10.7
15°	11.8	10.2	9.4	9.4	9.7	10.0
17.5°	10.0	8.4	8.1	8.7	9.2	9.2
20°	8.4	7.3	7.3	7.9	8.4	8.7
22.5°	7.1	6.3	6.6	7.3	8.1	8.4
25°	6.3	5.5	6.0	6.8	7.6	8.1
27.5°	5.2	5.0	5.5	6.6	7.6	7.9
30°	4.5	4.5	5.2	6.3	7.3	7.6
31°	4.2	4.2	5.2	6.3	7.3	7.6
32°	3.9	4.2	5.0	6.3	7.3	7.6
33°	3.7	3.9	5.0	6.0	7.3	7.6
34°	3.4	3.9	5.0	6.0	7.3	7.6
35°	3.1	3.9	5.0	6.0	7.3	7.6
36°	2.9	3.7	4.7	6.0	7.3	7.6
37°	2.6	3.7	4.7	6.0	7.3	7.6
38°	2.4	3.4	4.7	6.0	7.3	7.6
39°	2.4	3.4	4.5	6.0	7.1	7.6
40°	2.1	3.1	4.5	6.0	7.1	7.6
41°	1.8	3.1	4.5	5.8	7.1	7.6
42°	1.6	2.9	4.2	5.8	7.1	7.6
43°	1.3	2.9	4.2	5.8	7.1	7.6
44°	1.3	2.6	4.2	5.8	7.1	7.6
45°	1.0	2.6	4.2	5.8	7.1	7.6
46°	0.8	2.6	4.2	5.8	7.1	7.6
47°	0.8	2.4	3.9	5.8	7.1	7.6
48°	0.5	2.4	3.9	5.8	7.1	7.6
49°	0.5	2.4	3.9	5.8	7.1	7.9
50°	0.5	2.4	3.9	5.5	7.1	7.9
51°	0.3	2.4	3.9	5.5	7.1	7.9
52°	0.3	2.4	3.7	5.5	7.3	7.9
53°	0.3	2.1	3.7	5.5	7.3	7.9
54°	0.3	2.1	3.7	5.5	7.3	7.6
55°	0.3	2.1	3.7	5.5	7.1	7.6
56°	0.3	1.8	3.7	5.5	7.1	7.6
57°	0.3	1.8	3.4	5.2	7.1	7.3
58°	0.3	1.8	3.4	5.2	7.1	7.3
59°	0.3	1.8	3.4	5.2	6.8	7.3
60°	0.5	1.6	3.1	5.0	6.8	7.3
62.5°	0.5	1.6	3.1	5.0	6.6	7.1
65°	0.5	1.6	2.9	4.7	6.6	7.1



TEST NUMBER: P1334377

CATALOG NUMBER: P3A02R209040DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.5	1.3	2.6	4.5	6.3	6.8
70°	0.5	1.6	2.6	4.2	6.0	6.6
72.5°	0.8	1.3	2.4	3.9	5.8	6.3
75°	0.8	1.3	2.4	3.7	5.5	5.8
77.5°	1.0	1.3	2.1	3.1	5.0	5.2
80°	1.0	1.3	1.8	2.6	4.2	4.5
82.5°	1.0	1.3	1.3	2.1	3.1	3.4
85°	0.8	1.0	1.0	1.3	2.1	2.4
87.5°	0.8	1.0	0.8	0.5	1.0	1.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)