

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: P1334131

Luminaire Tested: P3A02R159740DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1334131
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-73)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A02R159740DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R15 optic, 4000K CCT AND, 97CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

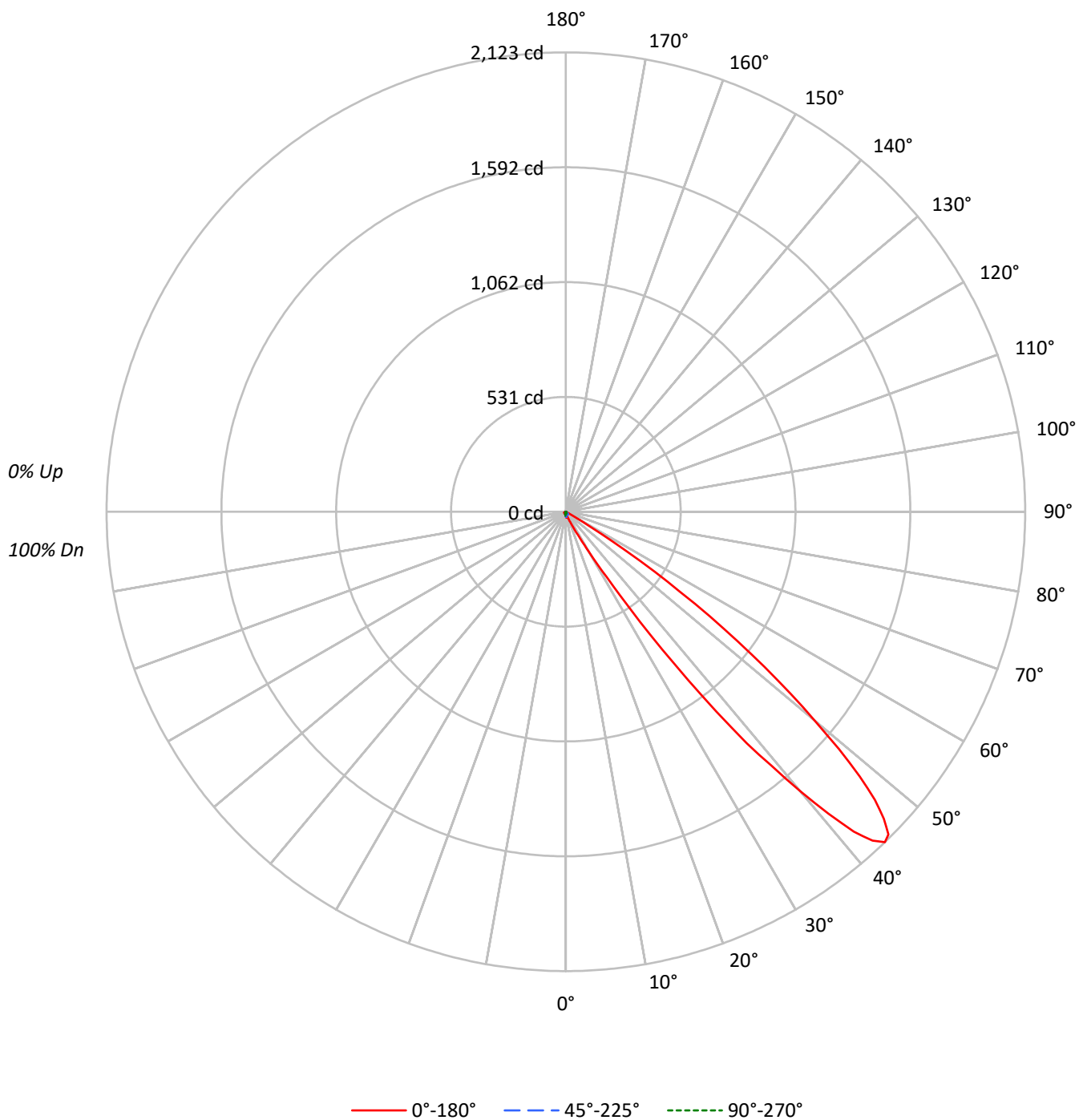
Lumens per Lamp: N/A
Luminaire Lumens: 237.0 lumens
Efficiency: N/A
Efficacy: 65.8 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.48 / 1.09
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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: P1334131

CATALOG NUMBER: P3A02R159740DE010 E3CA451MMS

Luminous Intensity Polar Plot



TEST NUMBER: P1334131

CATALOG NUMBER: P3A02R159740DE010 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	107	104	100	97	100	97	94	96	93	91	92	90	89
2	101	93	87	81	98	91	85	80	87	83	78	84	80	77	81	78	75
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	53
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	49	44
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	48	42	37
7	62	47	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31
8	56	42	33	27	55	41	33	27	40	32	26	39	31	26	37	31	26
9	52	37	28	22	50	37	28	22	35	28	22	34	27	22	33	27	22
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	23	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	4605	4605	4605	4605	4605
5°	5723	5107	4160	3632	3588
10°	5633	4364	3206	2850	2895
15°	4677	3110	2316	2361	2520
20°	8097	2474	1773	2030	2310
25°	18074	2976	1428	1887	2178
30°	54034	3646	1266	1848	2279
35°	207997	4122	1151	1901	2409
40°	482790	3578	1088	1975	2576
45°	653897	2698	961	2140	2791
50°	512700	1603	955	2252	3070
55°	246089	726	918	2447	3326
60°	22498	88	833	2588	3728
65°	2439	0	726	2698	4047
70°	577	0	898	2885	4424
75°	593	169	1186	3219	4999
80°	631	631	1515	3283	5430
85°	503	503	2264	3019	6038

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 653897 cd/sqm

TEST NUMBER: P1334131

CATALOG NUMBER: P3A02R159740DE010 E3CA451MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.8	0.8
10°-20°	3.7	1.6
20°-30°	9.0	3.8
30°-40°	49.0	20.7
40°-50°	118.7	50.1
50°-60°	47.4	20.0
60°-70°	4.1	1.7
70°-80°	2.3	1.0
80°-90°	1.0	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°	14.5	6.1
0°-40°	63.5	26.8
0°-60°	229.6	96.9
0°-90°	237.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	237.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	21	21	21	21	21	
5°	26	23	19	16	16	2
15°	21	14	10	10	11	7
25°	75	12	6	8	9	45
35°	777	15	4	7	9	549
45°	2109	9	3	7	9	1487
55°	644	2	2	6	9	600
65°	5	0	1	5	8	12
75°	1	0	1	4	6	1
85°	0	0	1	1	2	0
90°	0	0	0	0	0	

TEST NUMBER: P1334131

CATALOG NUMBER: P3A02R159740DE010 E3CA451MMS

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0	21.0
2.5°	23.6	23.6	23.9	23.6	23.6	23.6	23.6	23.4	23.4	23.4	22.7
5°	26.0	26.0	26.0	26.0	25.8	25.8	25.8	25.5	25.5	25.3	23.2
7.5°	26.9	26.9	26.7	26.7	26.5	26.5	26.2	26.0	25.8	25.5	22.2
10°	25.3	25.3	25.3	25.0	25.0	24.8	24.6	24.3	24.1	23.6	19.6
12.5°	22.4	22.4	22.7	22.4	22.2	22.0	21.5	21.3	21.0	20.6	16.3
15°	20.6	20.6	20.6	20.3	20.1	19.6	19.4	18.9	18.7	18.0	13.7
17.5°	26.2	26.2	26.0	25.5	24.6	23.9	22.7	21.7	20.6	19.1	11.8
20°	34.7	34.7	34.3	33.8	32.6	31.4	29.5	27.9	26.0	24.3	10.6
22.5°	50.3	51.0	49.6	48.0	46.3	43.5	40.9	38.3	35.0	32.1	10.9
25°	74.7	75.4	74.7	70.9	67.8	64.0	59.1	53.9	48.2	43.0	12.3
27.5°	121.0	121.5	120.3	111.1	106.1	96.2	87.4	78.9	69.5	60.0	13.5
30°	213.4	213.6	206.1	187.6	171.3	149.6	131.2	113.4	98.5	83.4	14.4
31°	281.0	274.4	258.3	236.1	210.1	180.8	155.5	132.6	110.4	94.1	14.7
32°	356.8	355.9	329.2	290.7	255.9	219.3	181.3	151.9	126.4	104.2	14.9
33°	457.3	457.7	415.7	370.3	313.3	264.2	214.3	174.2	143.4	116.3	15.4
34°	614.2	577.3	527.9	466.5	389.0	315.0	250.3	199.9	158.8	127.8	15.4
35°	777.0	739.9	685.5	592.4	486.1	382.6	293.0	227.6	177.2	140.4	15.4
36°	959.4	928.0	845.8	726.9	591.3	446.4	338.4	259.5	195.4	151.7	15.1
37°	1156.5	1110.4	1019.2	889.5	708.0	536.2	393.7	291.1	213.6	164.0	14.7
38°	1356.7	1315.1	1200.0	1042.8	847.4	631.0	449.0	321.6	230.4	173.2	13.9
39°	1508.4	1485.7	1371.6	1196.0	958.7	720.7	505.9	354.2	248.1	182.4	13.2
40°	1686.6	1649.9	1541.7	1324.5	1090.3	812.2	561.7	383.1	262.8	189.8	12.5
41°	1849.1	1802.8	1666.2	1456.4	1195.7	894.4	614.6	412.8	274.6	194.0	12.1
42°	1988.6	1934.7	1791.9	1569.3	1283.9	960.1	656.9	434.1	285.7	197.6	11.3
43°	2078.8	2032.3	1891.9	1654.2	1359.3	1020.4	696.4	456.3	292.6	199.9	10.4
44°	2122.8	2075.8	1939.9	1707.3	1405.6	1056.5	721.9	471.7	300.1	203.0	9.7
45°	2108.6	2060.9	1929.5	1708.3	1420.0	1069.5	732.8	478.5	304.1	205.8	8.7
46°	2043.6	2010.1	1877.7	1663.9	1392.6	1055.6	726.7	473.3	302.7	205.8	7.8
47°	1952.4	1914.1	1788.2	1587.5	1326.2	1019.7	701.8	457.5	294.0	201.1	6.9
48°	1828.1	1795.5	1663.2	1466.3	1224.3	941.5	645.8	431.7	280.3	191.9	5.9
49°	1672.1	1626.8	1503.6	1311.3	1091.5	830.4	572.3	388.3	258.3	178.9	5.2
50°	1502.9	1446.9	1351.9	1156.0	954.2	712.0	475.7	328.2	227.3	161.9	4.7
51°	1337.3	1280.3	1189.8	1023.2	807.7	590.8	383.8	262.1	187.2	138.5	4.0
52°	1165.5	1117.8	1016.4	885.5	691.4	478.8	319.7	221.7	155.5	116.3	3.3
53°	994.4	961.8	865.4	732.8	555.6	391.1	261.1	189.8	135.6	99.5	2.6
54°	823.1	787.4	714.1	596.0	447.8	308.6	221.4	158.8	117.7	86.7	2.4
55°	643.7	625.3	557.7	454.4	339.3	246.2	179.6	136.6	98.5	72.5	1.9
56°	495.8	475.0	413.3	329.7	252.1	192.8	145.3	111.5	83.4	60.7	1.4
57°	324.7	303.4	262.5	230.2	183.6	140.6	111.1	87.9	67.8	50.3	1.2
58°	191.9	172.5	166.1	141.8	122.4	95.5	82.0	65.5	50.1	39.7	0.7
59°	88.1	89.6	79.6	74.7	67.8	60.7	49.9	43.7	34.3	28.6	0.5
60°	51.3	48.4	47.3	42.3	37.6	33.3	30.0	26.5	21.5	18.4	0.2
62.5°	17.5	16.8	17.3	15.6	14.7	14.2	13.0	11.1	9.2	7.6	0.0
65°	4.7	4.7	4.5	4.3	4.0	3.8	3.5	3.1	2.8	2.4	0.0



TEST NUMBER: P1334131

CATALOG NUMBER: P3A02R159740DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	1.7	1.7	1.4	1.4	1.2	1.2	0.9	0.9	0.7	0.7	0.0
70°	0.9	0.9	0.9	0.7	0.7	0.7	0.5	0.5	0.5	0.2	0.0
72.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.5	0.5	0.5	0.2	0.2
75°	0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2
77.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.5
82.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5
85°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
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: P1334131

CATALOG NUMBER: P3A02R159740DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	21.0	21.0	21.0	21.0	21.0	21.0
2.5°	21.7	20.8	19.6	18.9	18.7	18.4
5°	20.8	18.9	17.5	16.5	16.3	16.3
7.5°	18.7	16.5	15.1	14.7	14.4	14.4
10°	16.3	14.4	13.2	12.8	13.0	13.0
12.5°	13.7	12.1	11.6	11.6	11.8	12.1
15°	11.1	10.2	10.2	10.4	10.9	11.1
17.5°	9.2	8.7	9.0	9.5	9.9	10.4
20°	7.6	7.6	8.0	8.7	9.5	9.9
22.5°	6.4	6.6	7.3	8.0	9.0	9.5
25°	5.4	5.9	6.6	7.8	8.7	9.0
27.5°	4.7	5.4	6.4	7.6	8.5	9.0
30°	4.0	5.0	6.1	7.3	8.5	9.0
31°	3.8	4.7	5.9	7.3	8.5	9.0
32°	3.5	4.7	5.9	7.3	8.5	9.0
33°	3.3	4.5	5.9	7.1	8.5	9.0
34°	3.1	4.5	5.9	7.3	8.5	9.0
35°	2.8	4.3	5.7	7.1	8.3	9.0
36°	2.6	4.3	5.7	7.1	8.5	9.0
37°	2.4	4.3	5.7	7.1	8.3	9.0
38°	2.4	4.0	5.4	7.1	8.3	9.0
39°	2.1	3.8	5.4	7.1	8.3	9.0
40°	1.9	3.8	5.2	6.9	8.3	9.0
41°	1.7	3.5	5.2	6.9	8.3	9.0
42°	1.4	3.5	5.2	6.9	8.3	9.0
43°	1.2	3.3	5.0	6.9	8.3	9.0
44°	1.2	3.3	5.0	6.9	8.3	9.0
45°	0.9	3.1	4.7	6.9	8.3	9.0
46°	0.9	3.1	4.7	6.6	8.3	9.0
47°	0.7	3.1	4.7	6.6	8.3	9.0
48°	0.7	2.8	4.7	6.6	8.3	9.0
49°	0.5	2.8	4.7	6.6	8.3	9.0
50°	0.5	2.8	4.5	6.6	8.3	9.0
51°	0.5	2.8	4.5	6.6	8.3	9.0
52°	0.5	2.6	4.5	6.6	8.3	9.0
53°	0.5	2.6	4.5	6.6	8.3	9.0
54°	0.5	2.6	4.3	6.6	8.3	9.0
55°	0.5	2.4	4.3	6.4	8.3	8.7
56°	0.5	2.4	4.3	6.4	8.3	8.7
57°	0.5	2.4	4.0	6.4	8.3	8.7
58°	0.5	2.1	4.0	6.1	8.0	8.7
59°	0.5	2.1	3.8	6.1	8.0	8.5
60°	0.5	1.9	3.8	5.9	7.8	8.5
62.5°	0.5	1.7	3.3	5.7	7.6	8.0
65°	0.5	1.4	3.1	5.2	7.3	7.8



TEST NUMBER: P1334131

CATALOG NUMBER: P3A02R159740DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.5	1.4	2.8	5.0	6.9	7.6
70°	0.5	1.4	2.6	4.5	6.6	6.9
72.5°	0.7	1.4	2.4	4.3	6.1	6.4
75°	0.9	1.4	2.1	3.8	5.7	5.9
77.5°	0.9	1.4	1.9	3.3	5.0	5.2
80°	0.9	1.2	1.7	2.6	4.0	4.3
82.5°	0.9	1.2	1.2	2.1	3.1	3.3
85°	0.7	0.9	0.9	1.2	2.1	2.4
87.5°	0.7	0.9	0.5	0.7	0.9	0.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)