

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: P1334319

Luminaire Tested: P3A02R209027DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1334319
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: P3A02R209027DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R20 optic, 2700K CCT AND, 90CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

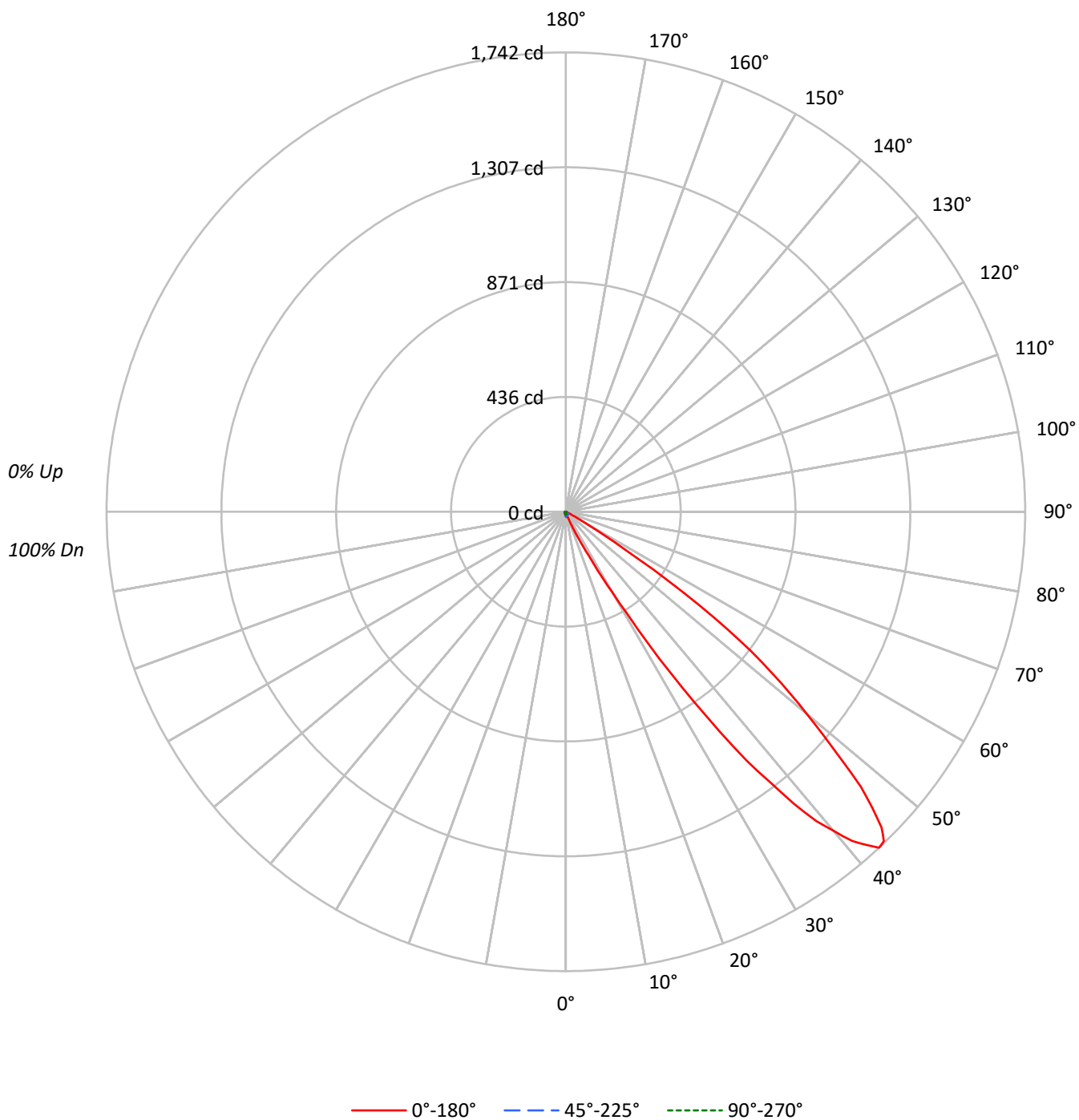
Lumens per Lamp: N/A
Luminaire Lumens: 242.0 lumens
Efficiency: N/A
Efficacy: 67.2 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.52 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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: P1334319

CATALOG NUMBER: P3A02R209027DE010 E3CA451MMS

Luminous Intensity Polar Plot



TEST NUMBER: P1334319

CATALOG NUMBER: P3A02R209027DE010 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	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	108	104	101	97	100	97	94	96	94	92	92	91	89	87		
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73		
3	92	81	74	67	89	80	73	67	77	71	66	74	69	65	72	67	63	61		
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51		
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42		
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35		
7	62	48	39	32	60	47	38	32	46	38	32	44	37	32	43	36	31	29		
8	57	42	33	27	55	42	33	27	40	33	27	39	32	27	38	31	27	25		
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	19	31	24	19	30	24	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	3684	3684	3684	3684	3684
5°	4314	4006	3456	2994	2906
10°	4253	3652	2739	2338	2271
15°	3723	2792	2020	1862	1952
20°	5530	2334	1493	1587	1750
25°	23759	2419	1161	1428	1718
30°	89887	2937	987	1393	1671
35°	272484	3534	910	1392	1767
40°	451847	3521	773	1489	1889
45°	525202	2388	713	1551	2047
50°	407697	1330	682	1637	2320
55°	235958	879	688	1835	2523
60°	39909	219	614	1886	2807
65°	3061	0	726	2127	3165
70°	449	0	898	2308	3654
75°	424	169	932	2711	4236
80°	253	253	1389	2904	4925
85°	503	503	2264	2768	5032

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 525202 cd/sqm

TEST NUMBER: P1334319

CATALOG NUMBER: P3A02R209027DE010 E3CA451MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.4	0.6
10°-20°	3.0	1.3
20°-30°	9.7	4.0
30°-40°	61.7	25.5
40°-50°	112.9	46.7
50°-60°	46.4	19.2
60°-70°	3.9	1.6
70°-80°	1.9	0.8
80°-90°	0.9	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°	14.1	5.8
0°-40°	75.9	31.3
0°-60°	235.2	97.2
0°-90°	242.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	242.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	17	17	17	17	17	
5°	20	18	16	14	13	2
15°	16	12	9	8	9	5
25°	98	10	5	6	7	65
35°	1018	13	3	5	7	644
45°	1694	8	2	5	7	1216
55°	617	2	2	5	7	540
65°	6	0	1	4	6	19
75°	0	0	1	3	5	1
85°	0	0	1	1	2	0
90°	0	0	0	0	0	

TEST NUMBER: P1334319

CATALOG NUMBER: P3A02R209027DE010 E3CA451MMS

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8
2.5°	18.4	18.4	18.4	18.2	18.2	18.4	18.2	18.2	18.2	18.2	18.0
5°	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.3	19.3	19.1	18.2
7.5°	20.0	20.0	20.0	20.0	19.8	19.8	19.8	19.8	19.6	19.3	17.7
10°	19.1	19.1	19.1	18.9	18.9	18.9	18.6	18.6	18.4	18.2	16.4
12.5°	17.3	17.3	17.3	17.3	17.1	17.1	16.8	16.8	16.6	16.4	14.3
15°	16.4	16.4	16.4	16.1	16.1	15.9	15.7	15.5	15.2	14.8	12.3
17.5°	17.7	17.7	17.5	17.5	17.1	16.6	16.4	15.7	15.2	14.6	10.9
20°	23.7	23.9	23.0	22.3	21.8	20.5	19.8	18.6	17.7	16.6	10.0
22.5°	47.8	46.8	45.3	42.8	39.8	37.3	32.7	29.1	26.6	23.2	9.8
25°	98.2	97.3	93.0	89.4	80.3	73.2	63.5	55.5	47.3	39.3	10.0
27.5°	186.7	180.6	179.4	162.8	150.1	131.9	113.0	97.1	82.6	66.4	10.7
30°	355.0	348.0	323.2	298.2	263.8	224.9	187.9	153.3	124.4	98.2	11.6
31°	450.5	457.3	428.2	378.0	327.3	277.5	226.7	182.8	145.6	113.0	12.1
32°	592.2	562.4	531.7	480.1	406.4	342.7	279.0	215.8	166.7	128.9	12.5
33°	726.2	708.7	661.8	597.4	509.0	419.6	337.0	254.7	192.6	148.3	12.7
34°	869.0	849.7	811.7	719.3	622.2	505.1	395.0	299.5	223.6	167.2	13.0
35°	1017.9	1009.8	936.5	856.5	737.1	595.8	464.9	348.6	253.8	184.4	13.2
36°	1167.8	1141.4	1084.1	967.2	842.6	679.8	538.1	394.4	284.5	204.9	13.2
37°	1280.6	1274.7	1198.7	1084.8	938.3	769.4	601.3	445.1	315.4	222.4	13.2
38°	1405.0	1381.6	1304.5	1188.5	1028.4	851.5	667.5	489.2	344.8	238.3	13.0
39°	1509.9	1475.1	1397.3	1282.7	1107.1	913.8	720.0	531.9	370.7	251.5	12.7
40°	1578.5	1554.4	1473.2	1344.3	1178.5	972.7	773.2	567.2	390.0	261.5	12.3
41°	1654.3	1614.2	1534.0	1404.3	1230.4	1024.5	806.7	590.4	405.0	268.1	11.8
42°	1699.5	1666.8	1571.5	1444.6	1267.4	1054.1	834.0	608.1	414.1	271.5	10.9
43°	1741.8	1697.3	1604.5	1468.0	1292.0	1075.0	846.5	616.3	416.2	271.5	9.8
44°	1736.1	1693.8	1597.6	1471.2	1297.4	1081.2	851.7	616.5	413.0	268.1	8.6
45°	1693.6	1651.5	1564.9	1443.5	1277.9	1069.1	841.2	607.4	404.1	262.2	7.7
46°	1615.6	1573.8	1507.4	1397.1	1241.5	1041.8	816.9	587.7	389.3	252.7	6.8
47°	1530.8	1490.1	1422.1	1322.2	1179.4	993.2	781.7	559.9	368.7	238.8	6.1
48°	1407.7	1382.3	1314.1	1228.8	1093.2	917.0	719.8	514.7	340.9	220.8	5.2
49°	1299.0	1272.2	1212.4	1120.7	980.9	828.3	645.9	459.6	304.7	200.8	4.5
50°	1195.1	1171.7	1116.4	1012.9	879.4	721.2	546.0	390.3	259.3	176.0	3.9
51°	1093.5	1075.9	1019.5	924.5	788.9	638.8	473.0	325.0	214.2	146.0	3.6
52°	991.3	989.3	928.1	831.9	700.9	556.7	402.1	274.3	181.7	122.6	3.4
53°	881.5	868.3	814.9	728.4	602.7	471.2	340.9	231.3	156.5	104.4	3.0
54°	756.4	741.6	684.3	606.3	492.4	385.9	274.7	186.9	130.3	88.2	2.7
55°	617.2	592.0	550.4	470.3	384.6	294.5	212.2	148.1	104.2	73.5	2.3
56°	468.3	443.0	419.6	360.7	282.2	219.7	158.1	113.5	81.4	58.0	2.0
57°	325.7	324.3	285.9	240.6	188.8	149.6	108.3	80.1	57.5	45.0	1.6
58°	211.3	204.2	179.7	153.5	123.5	93.5	69.6	54.4	39.1	30.7	1.4
59°	148.1	134.0	120.8	102.3	77.8	58.9	44.8	34.8	27.1	21.4	0.9
60°	91.0	88.0	79.1	62.3	50.5	41.6	33.4	25.7	19.8	15.2	0.5
62.5°	25.9	26.4	23.9	21.2	18.2	15.7	14.1	12.1	10.0	8.0	0.0
65°	5.9	5.7	6.1	5.7	5.2	5.2	4.5	4.1	3.6	3.4	0.0



TEST NUMBER: P1334319

CATALOG NUMBER: P3A02R209027DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	1.8	1.8	1.6	1.6	1.6	1.4	1.4	1.1	1.1	0.9	0.0
70°	0.7	0.7	0.7	0.7	0.7	0.5	0.5	0.5	0.2	0.2	0.0
72.5°	0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.2	0.2	0.2
75°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.2	0.2	0.2
77.5°	0.5	0.5	0.5	0.5	0.5	0.2	0.5	0.2	0.2	0.2	0.2
80°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
82.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
85°	0.2	0.2	0.2	0.2	0.0	0.0	0.2	0.2	0.2	0.0	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: P1334319

CATALOG NUMBER: P3A02R209027DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	16.8	16.8	16.8	16.8	16.8	16.8
2.5°	17.5	16.6	15.9	15.2	15.0	15.0
5°	17.1	15.7	14.3	13.6	13.2	13.2
7.5°	15.7	14.1	12.7	12.1	11.8	11.8
10°	14.1	12.3	10.9	10.5	10.5	10.2
12.5°	12.3	10.5	9.6	9.3	9.3	9.3
15°	10.2	8.9	8.2	8.2	8.4	8.6
17.5°	8.6	7.3	7.1	7.5	8.0	8.0
20°	7.3	6.4	6.4	6.8	7.3	7.5
22.5°	6.1	5.5	5.7	6.4	7.1	7.3
25°	5.5	4.8	5.2	5.9	6.6	7.1
27.5°	4.5	4.3	4.8	5.7	6.6	6.8
30°	3.9	3.9	4.5	5.5	6.4	6.6
31°	3.6	3.6	4.5	5.5	6.4	6.6
32°	3.4	3.6	4.3	5.5	6.4	6.6
33°	3.2	3.4	4.3	5.2	6.4	6.6
34°	3.0	3.4	4.3	5.2	6.4	6.6
35°	2.7	3.4	4.3	5.2	6.4	6.6
36°	2.5	3.2	4.1	5.2	6.4	6.6
37°	2.3	3.2	4.1	5.2	6.4	6.6
38°	2.0	3.0	4.1	5.2	6.4	6.6
39°	2.0	3.0	3.9	5.2	6.1	6.6
40°	1.8	2.7	3.9	5.2	6.1	6.6
41°	1.6	2.7	3.9	5.0	6.1	6.6
42°	1.4	2.5	3.6	5.0	6.1	6.6
43°	1.1	2.5	3.6	5.0	6.1	6.6
44°	1.1	2.3	3.6	5.0	6.1	6.6
45°	0.9	2.3	3.6	5.0	6.1	6.6
46°	0.7	2.3	3.6	5.0	6.1	6.6
47°	0.7	2.0	3.4	5.0	6.1	6.6
48°	0.5	2.0	3.4	5.0	6.1	6.6
49°	0.5	2.0	3.4	5.0	6.1	6.8
50°	0.5	2.0	3.4	4.8	6.1	6.8
51°	0.2	2.0	3.4	4.8	6.1	6.8
52°	0.2	2.0	3.2	4.8	6.4	6.8
53°	0.2	1.8	3.2	4.8	6.4	6.8
54°	0.2	1.8	3.2	4.8	6.4	6.6
55°	0.2	1.8	3.2	4.8	6.1	6.6
56°	0.2	1.6	3.2	4.8	6.1	6.6
57°	0.2	1.6	3.0	4.5	6.1	6.4
58°	0.2	1.6	3.0	4.5	6.1	6.4
59°	0.2	1.6	3.0	4.5	5.9	6.4
60°	0.5	1.4	2.7	4.3	5.9	6.4
62.5°	0.5	1.4	2.7	4.3	5.7	6.1
65°	0.5	1.4	2.5	4.1	5.7	6.1



TEST NUMBER: P1334319

CATALOG NUMBER: P3A02R209027DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.5	1.1	2.3	3.9	5.5	5.9
70°	0.5	1.4	2.3	3.6	5.2	5.7
72.5°	0.7	1.1	2.0	3.4	5.0	5.5
75°	0.7	1.1	2.0	3.2	4.8	5.0
77.5°	0.9	1.1	1.8	2.7	4.3	4.5
80°	0.9	1.1	1.6	2.3	3.6	3.9
82.5°	0.9	1.1	1.1	1.8	2.7	3.0
85°	0.7	0.9	0.9	1.1	1.8	2.0
87.5°	0.7	0.9	0.7	0.5	0.9	0.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)