

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: P1334349

Luminaire Tested: P3A02R209030DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1334349
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: P3A02R209030DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R20 optic, 3000K CCT AND, 90CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

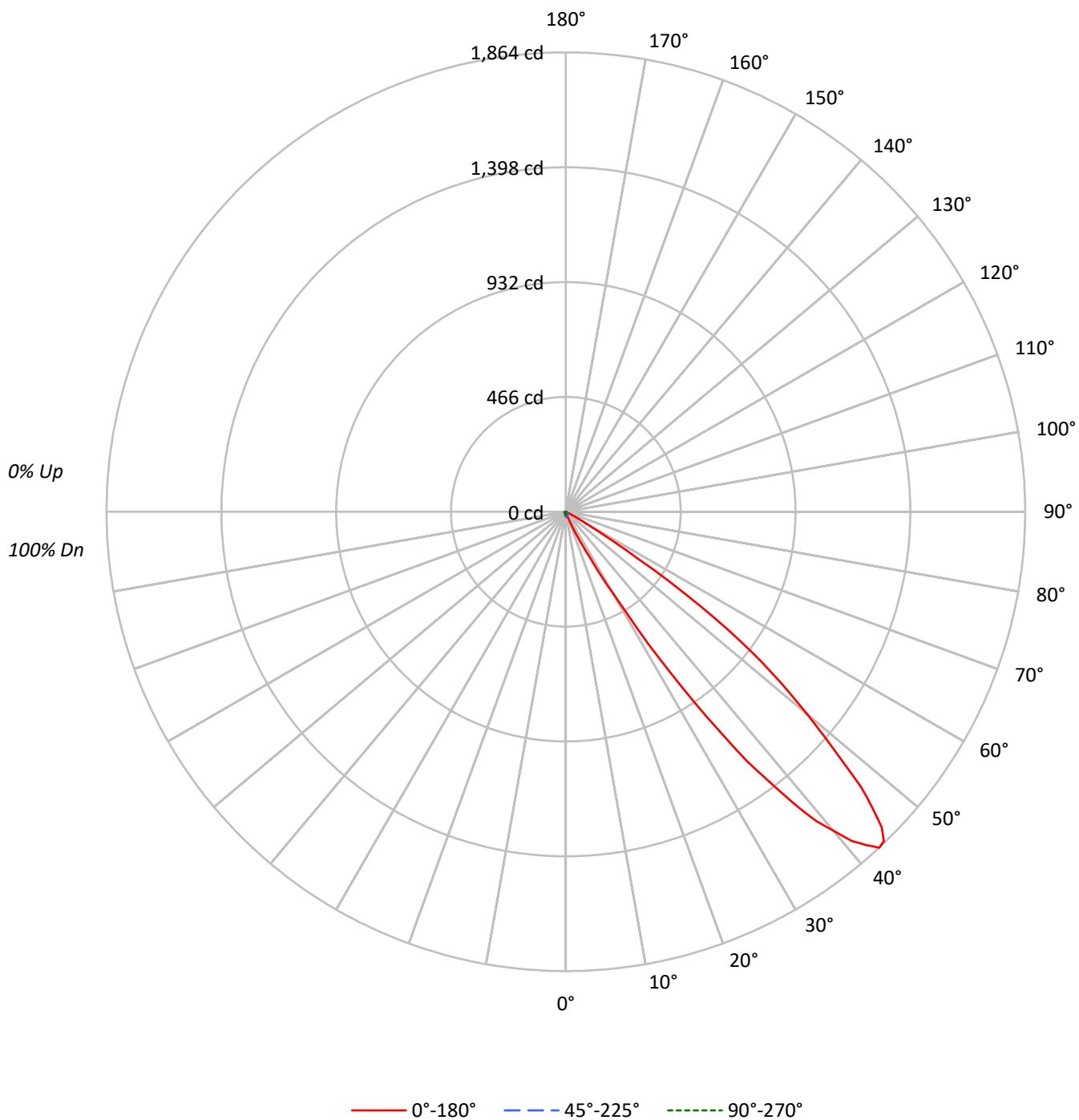
Lumens per Lamp: N/A
Luminaire Lumens: 259.0 lumens
Efficiency: N/A
Efficacy: 71.9 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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: P1334349

CATALOG NUMBER: P3A02R209030DE010 E3CA451MMS

Luminous Intensity Polar Plot



TEST NUMBER: P1334349

CATALOG NUMBER: P3A02R209030DE010 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°	3947	3947	3947	3947	3947
5°	4600	4292	3698	3214	3104
10°	4542	3897	2917	2494	2449
15°	3973	2974	2157	1998	2089
20°	5904	2497	1587	1703	1867
25°	25429	2589	1234	1524	1815
30°	96192	3140	1038	1469	1798
35°	291651	3774	990	1499	1901
40°	483592	3750	830	1603	2032
45°	562105	2574	744	1675	2202
50°	436352	1399	751	1740	2490
55°	252550	918	726	1950	2714
60°	42716	219	658	2017	2982
65°	3269	0	778	2283	3424
70°	449	0	962	2500	3911
75°	424	169	1017	2881	4575
80°	253	253	1515	3031	5177
85°	503	503	2516	3019	5535

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 562105 cd/sqm

TEST NUMBER: P1334349

CATALOG NUMBER: P3A02R209030DE010 E3CA451MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.5	0.6
10°-20°	3.2	1.3
20°-30°	10.3	4.0
30°-40°	66.0	25.5
40°-50°	120.9	46.7
50°-60°	49.7	19.2
60°-70°	4.2	1.6
70°-80°	2.1	0.8
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°	15.1	5.8
0°-40°	81.2	31.3
0°-60°	251.7	97.2
0°-90°	259.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	259.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	18	18	18	18	18	
5°	21	20	17	15	14	2
15°	18	13	10	9	9	6
25°	105	11	5	6	8	69
35°	1090	14	4	6	7	690
45°	1813	8	2	5	7	1301
55°	661	2	2	5	7	577
65°	6	0	2	4	7	21
75°	0	0	1	3	5	1
85°	0	0	1	1	2	0
90°	0	0	0	0	0	

TEST NUMBER: P1334349

CATALOG NUMBER: P3A02R209030DE010 E3CA451MMS

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0	18.0
2.5°	19.7	19.7	19.7	19.5	19.5	19.7	19.5	19.5	19.5	19.5	19.2
5°	20.9	20.9	20.9	20.9	20.9	20.9	20.9	20.7	20.7	20.4	19.5
7.5°	21.4	21.4	21.4	21.4	21.2	21.2	21.2	21.2	20.9	20.7	19.0
10°	20.4	20.4	20.4	20.2	20.2	20.2	20.0	20.0	19.7	19.5	17.5
12.5°	18.5	18.5	18.5	18.5	18.3	18.3	18.0	18.0	17.8	17.5	15.3
15°	17.5	17.5	17.5	17.3	17.3	17.0	16.8	16.6	16.3	15.8	13.1
17.5°	19.0	19.0	18.7	18.7	18.3	17.8	17.5	16.8	16.3	15.6	11.7
20°	25.3	25.6	24.6	23.9	23.4	21.9	21.2	20.0	19.0	17.8	10.7
22.5°	51.1	50.1	48.4	45.8	42.6	39.9	35.0	31.2	28.5	24.8	10.5
25°	105.1	104.2	99.6	95.7	85.9	78.4	67.9	59.4	50.6	42.1	10.7
27.5°	199.8	193.3	192.0	174.3	160.6	141.2	121.0	103.9	88.4	71.1	11.4
30°	379.9	372.4	345.9	319.1	282.3	240.7	201.0	164.1	133.1	105.1	12.4
31°	482.2	489.5	458.3	404.5	350.3	296.9	242.7	195.7	155.8	121.0	12.9
32°	633.8	601.9	569.1	513.8	435.0	366.8	298.7	231.0	178.4	138.0	13.4
33°	777.2	758.4	708.3	639.4	544.7	449.1	360.7	272.6	206.2	158.7	13.6
34°	930.0	909.3	868.7	769.9	665.9	540.6	422.8	320.6	239.3	178.9	13.9
35°	1089.5	1080.7	1002.3	916.6	788.9	637.7	497.5	373.1	271.6	197.4	14.1
36°	1249.9	1221.6	1160.3	1035.2	901.8	727.5	575.9	422.1	304.5	219.3	14.1
37°	1370.6	1364.3	1283.0	1161.0	1004.3	823.4	643.5	476.3	337.6	238.0	14.1
38°	1503.7	1478.7	1396.1	1272.0	1100.7	911.3	714.4	523.6	369.0	255.1	13.9
39°	1615.9	1578.7	1495.4	1372.8	1184.9	978.0	770.6	569.3	396.7	269.2	13.6
40°	1689.4	1663.6	1576.7	1438.7	1261.3	1041.0	827.6	607.0	417.4	279.9	13.1
41°	1770.5	1727.6	1641.7	1503.0	1316.8	1096.5	863.3	631.9	433.5	287.0	12.7
42°	1818.9	1783.9	1681.9	1546.1	1356.5	1128.2	892.5	650.8	443.2	290.6	11.7
43°	1864.2	1816.5	1717.2	1571.1	1382.8	1150.5	905.9	659.6	445.4	290.6	10.5
44°	1858.1	1812.8	1709.9	1574.5	1388.6	1157.1	911.5	659.9	442.0	287.0	9.2
45°	1812.6	1767.6	1674.8	1544.9	1367.7	1144.2	900.3	650.1	432.5	280.6	8.3
46°	1729.1	1684.3	1613.2	1495.2	1328.7	1115.0	874.3	628.9	416.7	270.4	7.3
47°	1638.3	1594.8	1522.0	1415.1	1262.3	1062.9	836.6	599.2	394.6	255.6	6.6
48°	1506.6	1479.4	1406.4	1315.1	1170.0	981.4	770.4	550.8	364.9	236.3	5.6
49°	1390.3	1361.6	1297.6	1199.5	1049.8	886.5	691.3	491.9	326.2	214.9	4.9
50°	1279.1	1254.0	1194.8	1084.1	941.2	771.8	584.4	417.7	277.5	188.4	4.1
51°	1170.3	1151.5	1091.2	989.4	844.4	683.7	506.3	347.8	229.3	156.3	3.9
52°	1061.0	1058.8	993.3	890.4	750.2	595.8	430.3	293.5	194.5	131.2	3.7
53°	943.4	929.3	872.1	779.6	645.0	504.3	364.9	247.5	167.5	111.7	3.2
54°	809.5	793.7	732.4	648.9	527.0	413.0	294.0	200.1	139.5	94.4	2.9
55°	660.6	633.6	589.0	503.3	411.6	315.2	227.1	158.5	111.5	78.6	2.4
56°	501.2	474.1	449.1	386.0	302.1	235.1	169.2	121.5	87.1	62.1	2.2
57°	348.5	347.1	306.0	257.5	202.0	160.2	115.9	85.7	61.6	48.2	1.7
58°	226.1	218.6	192.3	164.3	132.2	100.0	74.5	58.2	41.9	32.9	1.5
59°	158.5	143.4	129.2	109.5	83.2	63.0	47.9	37.2	29.0	22.9	1.0
60°	97.4	94.2	84.7	66.7	54.0	44.5	35.8	27.5	21.2	16.3	0.5
62.5°	27.7	28.2	25.6	22.6	19.5	16.8	15.1	12.9	10.7	8.5	0.0
65°	6.3	6.1	6.6	6.1	5.6	5.6	4.9	4.4	3.9	3.7	0.0



TEST NUMBER: P1334349

CATALOG NUMBER: P3A02R209030DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	1.9	1.9	1.7	1.7	1.7	1.5	1.5	1.2	1.2	1.0	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: P1334349

CATALOG NUMBER: P3A02R209030DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	18.0	18.0	18.0	18.0	18.0	18.0
2.5°	18.7	17.8	17.0	16.3	16.1	16.1
5°	18.3	16.8	15.3	14.6	14.1	14.1
7.5°	16.8	15.1	13.6	12.9	12.7	12.7
10°	15.1	13.1	11.7	11.2	11.2	11.0
12.5°	13.1	11.2	10.2	10.0	10.0	10.0
15°	11.0	9.5	8.8	8.8	9.0	9.2
17.5°	9.2	7.8	7.5	8.0	8.5	8.5
20°	7.8	6.8	6.8	7.3	7.8	8.0
22.5°	6.6	5.8	6.1	6.8	7.5	7.8
25°	5.8	5.1	5.6	6.3	7.1	7.5
27.5°	4.9	4.6	5.1	6.1	7.1	7.3
30°	4.1	4.1	4.9	5.8	6.8	7.1
31°	3.9	3.9	4.9	5.8	6.8	7.1
32°	3.7	3.9	4.6	5.8	6.8	7.1
33°	3.4	3.7	4.6	5.6	6.8	7.1
34°	3.2	3.7	4.6	5.6	6.8	7.1
35°	2.9	3.7	4.6	5.6	6.8	7.1
36°	2.7	3.4	4.4	5.6	6.8	7.1
37°	2.4	3.4	4.4	5.6	6.8	7.1
38°	2.2	3.2	4.4	5.6	6.8	7.1
39°	2.2	3.2	4.1	5.6	6.6	7.1
40°	1.9	2.9	4.1	5.6	6.6	7.1
41°	1.7	2.9	4.1	5.4	6.6	7.1
42°	1.5	2.7	3.9	5.4	6.6	7.1
43°	1.2	2.7	3.9	5.4	6.6	7.1
44°	1.2	2.4	3.9	5.4	6.6	7.1
45°	1.0	2.4	3.9	5.4	6.6	7.1
46°	0.7	2.4	3.9	5.4	6.6	7.1
47°	0.7	2.2	3.7	5.4	6.6	7.1
48°	0.5	2.2	3.7	5.4	6.6	7.1
49°	0.5	2.2	3.7	5.4	6.6	7.3
50°	0.5	2.2	3.7	5.1	6.6	7.3
51°	0.2	2.2	3.7	5.1	6.6	7.3
52°	0.2	2.2	3.4	5.1	6.8	7.3
53°	0.2	1.9	3.4	5.1	6.8	7.3
54°	0.2	1.9	3.4	5.1	6.8	7.1
55°	0.2	1.9	3.4	5.1	6.6	7.1
56°	0.2	1.7	3.4	5.1	6.6	7.1
57°	0.2	1.7	3.2	4.9	6.6	6.8
58°	0.2	1.7	3.2	4.9	6.6	6.8
59°	0.2	1.7	3.2	4.9	6.3	6.8
60°	0.5	1.5	2.9	4.6	6.3	6.8
62.5°	0.5	1.5	2.9	4.6	6.1	6.6
65°	0.5	1.5	2.7	4.4	6.1	6.6



TEST NUMBER: P1334349

CATALOG NUMBER: P3A02R209030DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.5	1.2	2.4	4.1	5.8	6.3
70°	0.5	1.5	2.4	3.9	5.6	6.1
72.5°	0.7	1.2	2.2	3.7	5.4	5.8
75°	0.7	1.2	2.2	3.4	5.1	5.4
77.5°	1.0	1.2	1.9	2.9	4.6	4.9
80°	1.0	1.2	1.7	2.4	3.9	4.1
82.5°	1.0	1.2	1.2	1.9	2.9	3.2
85°	0.7	1.0	1.0	1.2	1.9	2.2
87.5°	0.7	1.0	0.7	0.5	1.0	1.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)