

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: P1334147

Luminaire Tested: P3A02R159827DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1334147
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: P3A02R159827DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R15 optic, 2700K CCT AND, 98CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

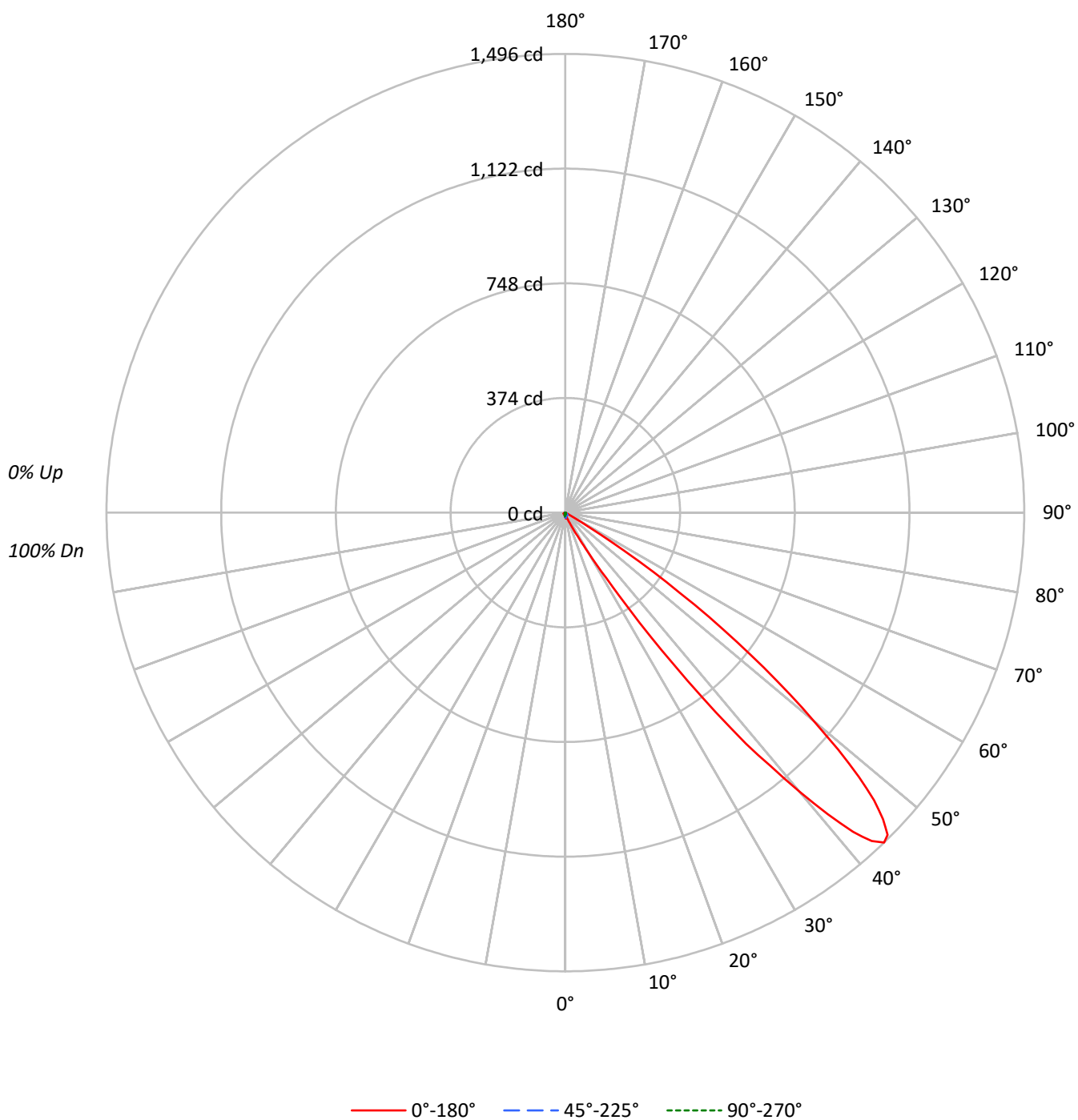
Lumens per Lamp: N/A
Luminaire Lumens: 167.0 lumens
Efficiency: N/A
Efficacy: 46.4 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.48 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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: P1334147

CATALOG NUMBER: P3A02R159827DE010 E3CA451MMS

Luminous Intensity Polar Plot



TEST NUMBER: P1334147

CATALOG NUMBER: P3A02R159827DE010 E3CA451MMS

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20			
RC	80				70				50				30				10			0
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	107	104	100	97	100	97	94	96	93	91	92	90	89	87		
2	101	93	87	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73		
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61		
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	53	50		
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	49	44	42		
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	48	42	37	35		
7	62	47	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31	29		
8	56	42	33	27	55	41	33	27	40	32	26	39	31	26	37	31	26	24		
9	52	37	28	22	50	37	28	22	35	28	22	34	27	22	33	27	22	20		
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	23	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	3245	3245	3245	3245	3245
5°	4028	3588	2928	2575	2531
10°	3963	3073	2271	2004	2049
15°	3292	2202	1635	1657	1771
20°	5717	1750	1237	1447	1633
25°	12727	2105	1016	1331	1524
30°	38082	2583	886	1317	1595
35°	146562	2891	803	1338	1686
40°	340180	2519	773	1374	1803
45°	460761	1923	682	1489	1954
50°	361267	1126	682	1603	2149
55°	173413	497	650	1720	2370
60°	15832	88	570	1842	2631
65°	1712	0	519	1920	2854
70°	449	0	641	2052	3077
75°	424	169	847	2288	3558
80°	379	379	1010	2273	3788
85°	503	503	1761	2013	4277

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 460761 cd/sqm

TEST NUMBER: P1334147

CATALOG NUMBER: P3A02R159827DE010 E3CA451MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.3	0.8
10°-20°	2.6	1.6
20°-30°	6.3	3.8
30°-40°	34.5	20.7
40°-50°	83.6	50.1
50°-60°	33.4	20.0
60°-70°	2.9	1.7
70°-80°	1.6	1.0
80°-90°	0.7	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°	10.2	6.1
0°-40°	44.8	26.8
0°-60°	161.8	96.9
0°-90°	167.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	167.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	15	15	15	15	15	
5°	18	16	13	12	12	2
15°	14	10	7	7	8	5
25°	53	9	4	6	6	32
35°	548	11	3	5	6	387
45°	1486	6	2	5	6	1048
55°	454	1	2	4	6	423
65°	3	0	1	4	6	9
75°	0	0	1	3	4	0
85°	0	0	1	1	2	0
90°	0	0	0	0	0	

TEST NUMBER: P1334147

CATALOG NUMBER: P3A02R159827DE010 E3CA451MMS

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
2.5°	16.7	16.7	16.8	16.7	16.7	16.7	16.7	16.5	16.5	16.5	16.0
5°	18.3	18.3	18.3	18.3	18.2	18.2	18.2	18.0	18.0	17.8	16.3
7.5°	19.0	19.0	18.8	18.8	18.6	18.6	18.5	18.3	18.2	18.0	15.7
10°	17.8	17.8	17.8	17.7	17.7	17.5	17.3	17.2	17.0	16.7	13.8
12.5°	15.8	15.8	16.0	15.8	15.7	15.5	15.2	15.0	14.8	14.5	11.5
15°	14.5	14.5	14.5	14.3	14.2	13.8	13.7	13.3	13.2	12.7	9.7
17.5°	18.5	18.5	18.3	18.0	17.3	16.8	16.0	15.3	14.5	13.5	8.3
20°	24.5	24.5	24.1	23.8	23.0	22.1	20.8	19.6	18.3	17.2	7.5
22.5°	35.5	36.0	35.0	33.8	32.6	30.6	28.8	27.0	24.6	22.6	7.7
25°	52.6	53.1	52.6	50.0	47.8	45.1	41.6	38.0	34.0	30.3	8.7
27.5°	85.3	85.6	84.8	78.3	74.8	67.8	61.6	55.6	49.0	42.3	9.5
30°	150.4	150.5	145.2	132.2	120.7	105.4	92.4	79.9	69.4	58.8	10.2
31°	198.0	193.3	182.0	166.3	148.0	127.4	109.6	93.4	77.8	66.3	10.3
32°	251.4	250.8	232.0	204.8	180.3	154.5	127.7	107.1	89.1	73.4	10.5
33°	322.2	322.5	292.9	260.9	220.8	186.2	151.0	122.7	101.1	81.9	10.8
34°	432.8	406.8	372.0	328.7	274.1	222.0	176.3	140.9	111.9	90.1	10.8
35°	547.5	521.4	483.1	417.5	342.5	269.6	206.5	160.4	124.9	98.9	10.8
36°	676.0	653.9	596.0	512.2	416.6	314.5	238.4	182.8	137.7	106.9	10.7
37°	814.9	782.5	718.2	626.8	498.9	377.8	277.4	205.1	150.5	115.6	10.3
38°	956.0	926.7	845.6	734.8	597.1	444.6	316.4	226.6	162.4	122.1	9.8
39°	1062.9	1046.9	966.5	842.7	675.6	507.9	356.5	249.6	174.8	128.5	9.3
40°	1188.4	1162.6	1086.3	933.3	768.3	572.3	395.8	269.9	185.2	133.7	8.8
41°	1303.0	1270.3	1174.1	1026.2	842.6	630.3	433.1	290.9	193.5	136.7	8.5
42°	1401.2	1363.3	1262.7	1105.8	904.7	676.5	462.9	305.9	201.3	139.2	8.0
43°	1464.8	1432.0	1333.1	1165.6	957.8	719.0	490.7	321.5	206.1	140.9	7.3
44°	1495.8	1462.7	1366.9	1203.1	990.4	744.5	508.7	332.4	211.5	143.0	6.8
45°	1485.8	1452.2	1359.6	1203.7	1000.6	753.6	516.4	337.2	214.3	145.0	6.2
46°	1440.0	1416.4	1323.1	1172.4	981.3	743.8	512.0	333.5	213.3	145.0	5.5
47°	1375.7	1348.8	1260.0	1118.6	934.5	718.5	494.5	322.4	207.1	141.7	4.8
48°	1288.2	1265.2	1171.9	1033.2	862.7	663.4	455.1	304.2	197.5	135.2	4.2
49°	1178.3	1146.3	1059.5	924.0	769.1	585.1	403.3	273.6	182.0	126.1	3.7
50°	1059.0	1019.6	952.6	814.6	672.4	501.7	335.2	231.3	160.2	114.1	3.3
51°	942.3	902.2	838.4	721.0	569.1	416.3	270.4	184.7	131.9	97.6	2.8
52°	821.3	787.6	716.2	623.9	487.2	337.4	225.3	156.2	109.6	81.9	2.3
53°	700.7	677.7	609.8	516.4	391.5	275.6	184.0	133.7	95.6	70.1	1.8
54°	580.0	554.8	503.2	420.0	315.5	217.5	156.0	111.9	82.9	61.1	1.7
55°	453.6	440.6	393.0	320.2	239.1	173.5	126.6	96.2	69.4	51.1	1.3
56°	349.3	334.7	291.2	232.3	177.7	135.9	102.4	78.6	58.8	42.8	1.0
57°	228.8	213.8	185.0	162.2	129.4	99.1	78.3	61.9	47.8	35.5	0.8
58°	135.2	121.6	117.1	99.9	86.3	67.3	57.8	46.1	35.3	28.0	0.5
59°	62.1	63.1	56.1	52.6	47.8	42.8	35.1	30.8	24.1	20.1	0.3
60°	36.1	34.1	33.3	29.8	26.5	23.5	21.1	18.6	15.2	13.0	0.2
62.5°	12.3	11.8	12.2	11.0	10.3	10.0	9.2	7.8	6.5	5.3	0.0
65°	3.3	3.3	3.2	3.0	2.8	2.7	2.5	2.2	2.0	1.7	0.0



TEST NUMBER: P1334147

CATALOG NUMBER: P3A02R159827DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	1.2	1.2	1.0	1.0	0.8	0.8	0.7	0.7	0.5	0.5	0.0
70°	0.7	0.7	0.7	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.0
72.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.2
75°	0.5	0.5	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2
77.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	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	0.2	0.3
82.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
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: P1334147

CATALOG NUMBER: P3A02R159827DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	14.8	14.8	14.8	14.8	14.8	14.8
2.5°	15.3	14.7	13.8	13.3	13.2	13.0
5°	14.7	13.3	12.3	11.7	11.5	11.5
7.5°	13.2	11.7	10.7	10.3	10.2	10.2
10°	11.5	10.2	9.3	9.0	9.2	9.2
12.5°	9.7	8.5	8.2	8.2	8.3	8.5
15°	7.8	7.2	7.2	7.3	7.7	7.8
17.5°	6.5	6.2	6.3	6.7	7.0	7.3
20°	5.3	5.3	5.7	6.2	6.7	7.0
22.5°	4.5	4.7	5.2	5.7	6.3	6.7
25°	3.8	4.2	4.7	5.5	6.2	6.3
27.5°	3.3	3.8	4.5	5.3	6.0	6.3
30°	2.8	3.5	4.3	5.2	6.0	6.3
31°	2.7	3.3	4.2	5.2	6.0	6.3
32°	2.5	3.3	4.2	5.2	6.0	6.3
33°	2.3	3.2	4.2	5.0	6.0	6.3
34°	2.2	3.2	4.2	5.2	6.0	6.3
35°	2.0	3.0	4.0	5.0	5.8	6.3
36°	1.8	3.0	4.0	5.0	6.0	6.3
37°	1.7	3.0	4.0	5.0	5.8	6.3
38°	1.7	2.8	3.8	5.0	5.8	6.3
39°	1.5	2.7	3.8	5.0	5.8	6.3
40°	1.3	2.7	3.7	4.8	5.8	6.3
41°	1.2	2.5	3.7	4.8	5.8	6.3
42°	1.0	2.5	3.7	4.8	5.8	6.3
43°	0.8	2.3	3.5	4.8	5.8	6.3
44°	0.8	2.3	3.5	4.8	5.8	6.3
45°	0.7	2.2	3.3	4.8	5.8	6.3
46°	0.7	2.2	3.3	4.7	5.8	6.3
47°	0.5	2.2	3.3	4.7	5.8	6.3
48°	0.5	2.0	3.3	4.7	5.8	6.3
49°	0.3	2.0	3.3	4.7	5.8	6.3
50°	0.3	2.0	3.2	4.7	5.8	6.3
51°	0.3	2.0	3.2	4.7	5.8	6.3
52°	0.3	1.8	3.2	4.7	5.8	6.3
53°	0.3	1.8	3.2	4.7	5.8	6.3
54°	0.3	1.8	3.0	4.7	5.8	6.3
55°	0.3	1.7	3.0	4.5	5.8	6.2
56°	0.3	1.7	3.0	4.5	5.8	6.2
57°	0.3	1.7	2.8	4.5	5.8	6.2
58°	0.3	1.5	2.8	4.3	5.7	6.2
59°	0.3	1.5	2.7	4.3	5.7	6.0
60°	0.3	1.3	2.7	4.2	5.5	6.0
62.5°	0.3	1.2	2.3	4.0	5.3	5.7
65°	0.3	1.0	2.2	3.7	5.2	5.5



TEST NUMBER: P1334147

CATALOG NUMBER: P3A02R159827DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.3	1.0	2.0	3.5	4.8	5.3
70°	0.3	1.0	1.8	3.2	4.7	4.8
72.5°	0.5	1.0	1.7	3.0	4.3	4.5
75°	0.7	1.0	1.5	2.7	4.0	4.2
77.5°	0.7	1.0	1.3	2.3	3.5	3.7
80°	0.7	0.8	1.2	1.8	2.8	3.0
82.5°	0.7	0.8	0.8	1.5	2.2	2.3
85°	0.5	0.7	0.7	0.8	1.5	1.7
87.5°	0.5	0.7	0.3	0.5	0.7	0.7
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)