

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: P1342539

Luminaire Tested: P3A09R409827DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1342539
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-78)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A09R409827DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R40 optic, 2700K CCT AND, 98CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

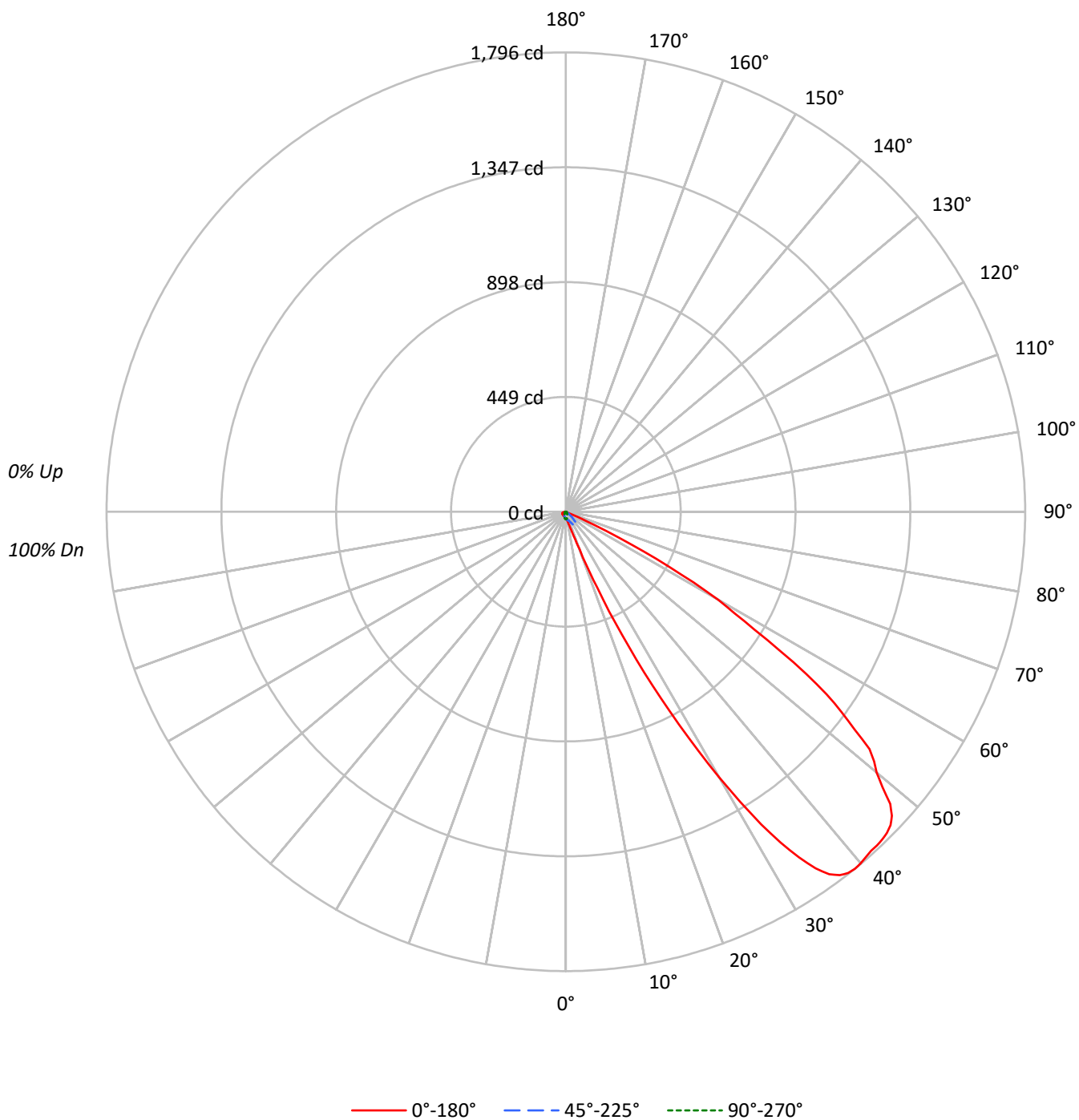
Lumens per Lamp: N/A
Luminaire Lumens: 555.0 lumens
Efficiency: N/A
Efficacy: 50.5 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 11
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: P1342539

CATALOG NUMBER: P3A09R409827DE010 E3CA451MMS

Luminous Intensity Polar Plot



TEST NUMBER: P1342539

CATALOG NUMBER: P3A09R409827DE010 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	99	97	94	96	93	91	92	90	88	86		
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	72		
3	91	81	73	66	89	79	72	66	76	70	65	73	68	64	71	66	62	60		
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52	50		
5	75	62	52	46	73	60	52	45	58	51	45	56	50	44	54	49	44	42		
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35		
7	62	48	39	32	60	47	38	32	45	37	32	44	37	31	42	36	31	29		
8	57	42	33	27	55	42	33	27	40	32	27	39	32	27	38	31	26	24		
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	20	31	24	20	30	24	19	18		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	6249	6249	6249	6249	6249
5°	6956	6736	6163	5613	5503
10°	8394	7147	5678	5099	4988
15°	13780	7741	4858	4518	4631
20°	36403	9147	4037	4037	4410
25°	140331	11347	3218	3702	4307
30°	302755	15091	2583	3621	4254
35°	455719	17882	2195	3560	4363
40°	513419	17948	1889	3635	4666
45°	550538	13924	1737	3783	5055
50°	541117	8699	1569	3991	5561
55°	476045	4282	1567	4473	6232
60°	301336	877	1798	4912	6929
65°	61641	259	1868	5292	7679
70°	1282	321	1988	5898	8848
75°	1271	847	2118	6439	9913
80°	1263	631	2526	7072	11618
85°	1258	1258	5032	7799	12831

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 560453 cd/sqm

TEST NUMBER: P1342539

CATALOG NUMBER: P3A09R409827DE010 E3CA451MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.7	0.5
10°-20°	8.8	1.6
20°-30°	43.1	7.8
30°-40°	140.2	25.3
40°-50°	193.3	34.8
50°-60°	134.6	24.3
60°-70°	25.5	4.6
70°-80°	4.6	0.8
80°-90°	2.1	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°	54.6	9.8
0°-40°	194.8	35.1
0°-60°	522.7	94.2
0°-90°	555.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	555.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	28	28	28	28	28	
5°	32	31	28	26	25	3
15°	61	34	21	20	20	22
25°	580	47	13	15	18	299
35°	1702	67	8	13	16	1029
45°	1775	45	6	12	16	1350
55°	1245	11	4	12	16	1064
65°	119	0	4	10	15	210
75°	2	1	2	8	12	1
85°	0	0	2	3	5	0
90°	0	0	0	0	0	

TEST NUMBER: P1342539

CATALOG NUMBER: P3A09R409827DE010 E3CA451MMS

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
0°	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5	28.5
2.5°	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.6	29.1	28.5
5°	31.6	31.6	31.6	31.6	31.1	31.1	31.1	30.6	30.6	29.6	28.0
7.5°	33.6	33.6	33.6	33.6	33.1	32.6	32.1	32.1	31.6	29.1	27.0
10°	37.7	37.7	37.2	36.7	36.2	35.2	34.7	33.6	32.1	28.5	25.5
12.5°	45.9	44.9	44.3	43.3	41.8	39.8	37.7	36.2	32.6	27.5	24.0
15°	60.7	59.6	57.6	54.5	51.5	47.4	43.8	40.3	34.1	26.0	21.4
17.5°	86.6	83.6	80.5	75.4	67.8	60.7	53.0	46.4	36.2	24.5	19.4
20°	156.0	153.9	135.6	121.3	98.4	82.1	66.8	55.6	39.2	22.9	17.3
22.5°	321.6	300.2	270.1	221.2	172.3	126.9	92.3	69.8	42.3	20.9	15.3
25°	580.0	546.4	481.7	387.4	285.9	202.3	133.5	91.2	46.9	18.9	13.3
27.5°	878.2	844.0	743.6	613.7	448.0	305.3	190.6	120.8	53.0	16.8	11.7
30°	1195.7	1166.7	1039.3	859.3	631.5	427.6	255.4	150.9	59.6	14.8	10.2
31°	1323.7	1286.5	1148.8	957.2	717.6	478.1	281.3	163.6	62.2	14.3	9.7
32°	1441.4	1399.1	1256.4	1051.0	787.5	532.6	309.9	174.8	64.2	13.3	9.2
33°	1542.8	1493.4	1355.8	1139.7	864.4	583.6	339.5	185.5	65.8	12.2	8.7
34°	1629.0	1586.2	1438.3	1228.9	932.7	632.5	368.5	196.2	66.8	11.7	8.2
35°	1702.4	1663.6	1517.3	1296.7	999.5	679.9	395.0	206.4	66.8	10.7	8.2
36°	1751.8	1718.2	1585.6	1366.0	1055.6	720.2	417.4	215.6	66.8	9.7	7.6
37°	1778.8	1746.2	1630.5	1423.1	1110.6	759.9	437.8	222.7	66.3	9.2	7.1
38°	1792.6	1764.0	1663.6	1469.4	1148.8	788.5	455.7	228.3	65.8	8.2	7.1
39°	1796.1	1772.2	1684.5	1503.1	1186.0	817.0	468.4	231.4	64.2	7.6	6.6
40°	1793.6	1772.7	1695.7	1533.1	1214.6	839.5	477.6	232.4	62.7	6.6	6.6
41°	1788.5	1772.2	1703.9	1554.0	1237.5	853.7	481.1	230.4	60.7	5.6	6.1
42°	1783.9	1766.1	1707.5	1568.3	1253.3	860.9	480.6	226.3	57.6	5.1	6.1
43°	1783.9	1763.5	1708.0	1577.5	1261.0	861.4	474.5	218.7	53.5	4.6	5.6
44°	1780.9	1762.0	1710.5	1583.6	1263.0	856.8	464.8	210.5	48.9	4.1	5.6
45°	1775.3	1755.4	1710.0	1584.1	1259.4	845.6	449.0	199.8	44.9	3.1	5.6
46°	1764.5	1746.7	1705.4	1580.5	1248.7	829.3	430.2	189.1	40.3	2.5	5.1
47°	1743.1	1729.4	1693.2	1568.3	1232.4	805.3	407.8	176.9	36.7	2.0	5.1
48°	1706.4	1696.8	1672.3	1541.3	1201.3	775.7	383.8	163.6	33.1	2.0	5.1
49°	1639.2	1631.5	1617.2	1498.0	1161.6	739.6	357.8	148.8	29.6	1.5	5.1
50°	1586.2	1578.0	1548.9	1425.1	1104.5	693.7	329.3	134.0	25.5	1.0	4.6
51°	1551.0	1537.7	1491.9	1340.5	1021.4	632.5	298.2	119.3	21.4	1.0	4.6
52°	1506.6	1486.8	1429.7	1264.5	945.5	571.4	264.5	104.5	18.9	1.0	4.6
53°	1413.9	1406.7	1350.2	1183.0	869.5	512.7	229.9	92.3	16.3	1.0	4.6
54°	1332.8	1322.1	1245.2	1069.8	787.0	447.5	194.2	81.6	13.8	1.0	4.6
55°	1245.2	1224.3	1156.0	974.5	690.1	387.4	160.0	70.3	11.2	1.0	4.1
56°	1134.6	1116.2	1042.8	872.6	600.9	326.2	134.0	57.6	8.7	1.0	4.1
57°	1000.0	983.2	926.6	747.2	508.2	266.6	109.1	46.4	6.6	1.0	4.1
58°	870.0	851.2	786.5	626.9	410.3	211.5	91.2	37.7	5.1	1.0	4.1
59°	770.1	744.7	661.1	526.5	321.1	160.6	72.4	30.1	3.6	1.0	4.1
60°	687.1	666.2	579.5	438.3	251.8	118.2	53.5	22.9	2.0	1.0	4.1
62.5°	398.1	392.5	314.5	225.8	118.8	55.0	26.5	10.7	1.0	1.5	4.1
65°	118.8	103.5	80.5	47.9	30.6	18.3	9.7	3.6	0.5	1.5	3.6



TEST NUMBER: P1342539

CATALOG NUMBER: P3A09R409827DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	3.6	3.6	3.6	3.6	3.6	3.6	2.0	1.0	0.5	1.5	3.6
70°	2.0	1.5	1.5	1.5	1.5	1.0	1.0	0.5	0.5	1.5	3.1
72.5°	1.5	1.5	1.5	1.5	1.0	1.0	1.0	0.5	1.0	1.5	2.5
75°	1.5	1.0	1.0	1.0	1.0	0.5	0.5	0.5	1.0	1.5	2.5
77.5°	1.0	1.0	1.0	1.0	0.5	0.5	0.5	0.5	1.0	1.5	2.5
80°	1.0	1.0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.5	2.0
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.5	2.0
85°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.5	2.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.5	1.5	1.5
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: P1342539

CATALOG NUMBER: P3A09R409827DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
0°	28.5	28.5	28.5	28.5
2.5°	27.5	27.0	26.5	26.5
5°	26.5	25.5	25.5	25.0
7.5°	25.0	24.0	24.0	24.0
10°	23.4	22.9	22.9	22.4
12.5°	21.4	21.4	21.4	21.4
15°	19.9	19.9	20.4	20.4
17.5°	17.8	18.3	19.4	19.9
20°	16.3	17.3	18.3	18.9
22.5°	15.3	16.3	17.8	18.3
25°	13.8	15.3	17.3	17.8
27.5°	12.7	14.8	16.3	17.3
30°	11.7	14.3	15.8	16.8
31°	11.7	13.8	15.8	16.8
32°	11.2	13.3	15.8	16.3
33°	11.2	13.3	15.8	16.3
34°	10.7	13.3	15.3	16.3
35°	10.7	13.3	15.3	16.3
36°	10.2	12.7	15.3	16.3
37°	10.2	12.7	15.3	16.3
38°	9.7	12.7	15.3	16.3
39°	9.7	12.7	15.3	16.3
40°	9.7	12.7	15.3	16.3
41°	9.2	12.7	15.3	16.3
42°	9.2	12.7	15.3	16.3
43°	9.2	12.2	15.3	16.3
44°	9.2	12.2	15.3	16.3
45°	8.7	12.2	15.3	16.3
46°	8.7	12.2	15.3	16.3
47°	8.7	12.2	15.3	16.3
48°	8.7	12.2	15.3	16.3
49°	8.7	12.2	15.3	16.3
50°	8.2	11.7	15.3	16.3
51°	8.2	11.7	15.3	16.3
52°	8.2	11.7	15.3	16.3
53°	8.2	11.7	15.3	16.3
54°	7.6	11.7	15.3	16.3
55°	7.6	11.7	15.3	16.3
56°	7.6	11.7	15.3	15.8
57°	7.6	11.7	14.8	15.8
58°	7.6	11.2	14.8	15.8
59°	7.6	11.2	14.8	15.8
60°	7.6	11.2	14.8	15.8
62.5°	7.1	11.2	14.3	15.3
65°	6.6	10.2	14.3	14.8



TEST NUMBER: P1342539

CATALOG NUMBER: P3A09R409827DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	6.6	9.7	13.3	14.3
70°	6.1	9.2	12.7	13.8
72.5°	5.1	8.7	11.7	12.7
75°	4.6	7.6	10.7	11.7
77.5°	4.1	6.6	9.7	10.2
80°	3.6	5.6	8.2	9.2
82.5°	2.5	4.1	6.6	7.1
85°	2.0	3.1	4.6	5.1
87.5°	1.5	1.5	2.5	2.5
90°	0.0	0.0	0.0	0.0

(END OF REPORT)