

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: P1336978

Luminaire Tested: P3A05R209830DE010 E3CA451MW

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336978
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: P3A05R209830DE010 E3CA451MW
Description: 3in Adjustable LED luminaire with, R20 optic, 3000K CCT AND, 98CRI , E3CA451MW TRIM
Light Source: -
Ballast/Driver: -

Summary

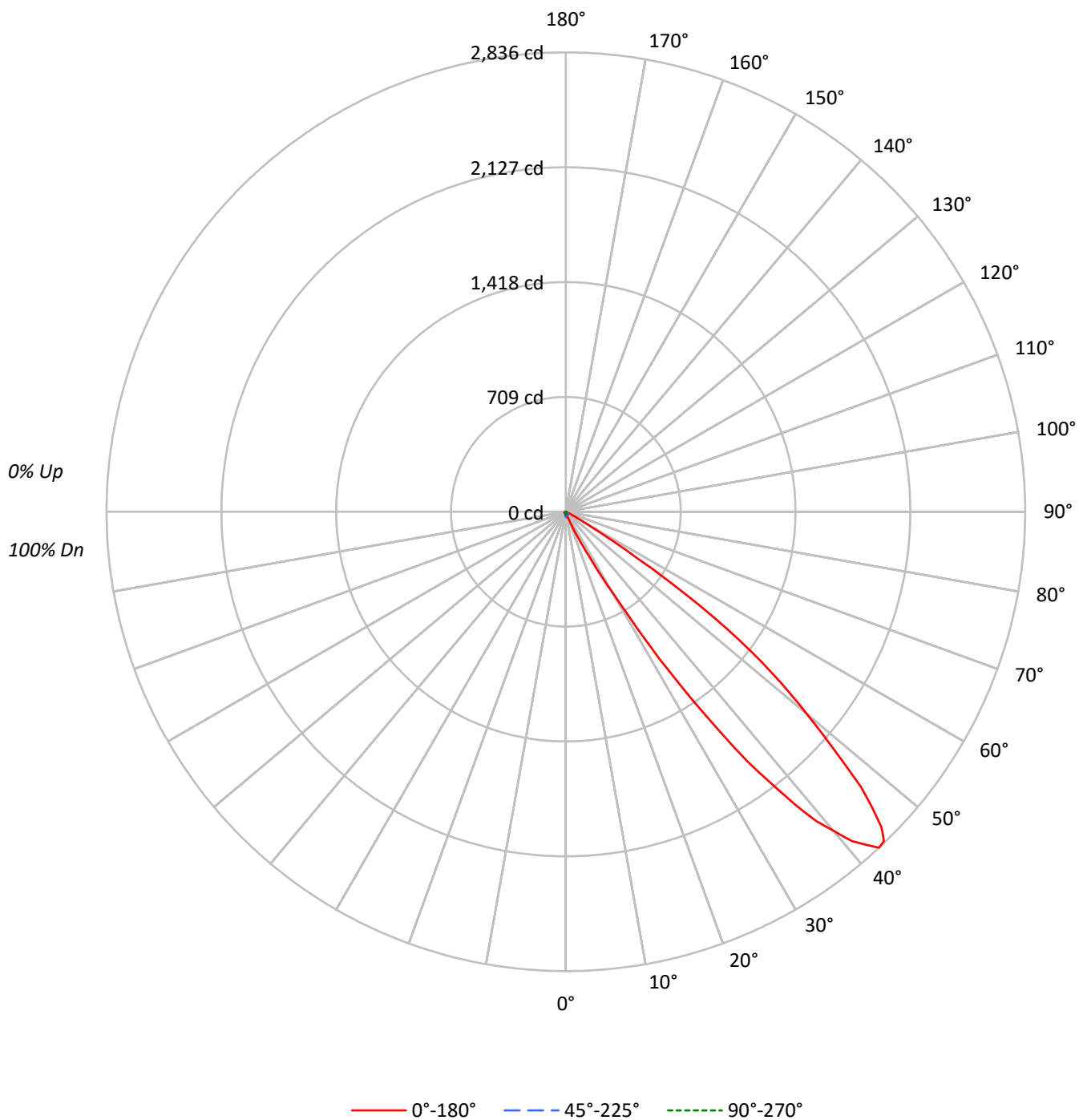
Lumens per Lamp: N/A
Luminaire Lumens: 394.0 lumens
Efficiency: N/A
Efficacy: 54.7 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 7.2
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: P1336978

CATALOG NUMBER: P3A05R209830DE010 E3CA451MW

Luminous Intensity Polar Plot



TEST NUMBER: P1336978

CATALOG NUMBER: P3A05R209830DE010 E3CA451MW

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°	6008	6008	6008	6008	6008
5°	7000	6516	5613	4887	4733
10°	6925	5945	4453	3785	3718
15°	6061	4540	3269	3019	3201
20°	8984	3804	2427	2590	2847
25°	38712	3944	1887	2323	2782
30°	146352	4786	1595	2254	2709
35°	443646	5755	1499	2275	2864
40°	735664	5725	1260	2433	3063
45°	855097	3907	1147	2512	3318
50°	663791	2149	1126	2661	3787
55°	384177	1415	1147	2982	4091
60°	64951	307	965	3070	4561
65°	4981	0	1141	3476	5189
70°	705	0	1410	3783	5963
75°	593	339	1610	4406	6863
80°	505	505	2399	4672	7956
85°	1006	1006	3774	4780	8303

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 855097 cd/sqm

TEST NUMBER: P1336978

CATALOG NUMBER: P3A05R209830DE010 E3CA451MW

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.4	0.6
10°-20°	4.9	1.3
20°-30°	15.7	4.0
30°-40°	100.5	25.5
40°-50°	183.9	46.7
50°-60°	75.6	19.2
60°-70°	6.4	1.6
70°-80°	3.2	0.8
80°-90°	1.5	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°	23.0	5.8
0°-40°	123.5	31.3
0°-60°	383.0	97.2
0°-90°	394.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	394.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	27	27	27	27	27	
5°	32	30	26	22	22	3
15°	27	20	14	13	14	8
25°	160	16	8	10	12	105
35°	1657	22	6	8	11	1049
45°	2757	13	4	8	11	1980
55°	1005	4	3	8	11	878
65°	10	0	2	7	10	31
75°	1	0	2	5	8	1
85°	0	0	2	2	3	0
90°	0	0	0	0	0	

TEST NUMBER: P1336978

CATALOG NUMBER: P3A05R209830DE010 E3CA451MW

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4	27.4
2.5°	30.0	30.0	30.0	29.6	29.6	30.0	29.6	29.6	29.6	29.6	29.3
5°	31.8	31.8	31.8	31.8	31.8	31.8	31.8	31.5	31.5	31.1	29.6
7.5°	32.6	32.6	32.6	32.6	32.2	32.2	32.2	32.2	31.8	31.5	28.9
10°	31.1	31.1	31.1	30.7	30.7	30.7	30.4	30.4	30.0	29.6	26.7
12.5°	28.1	28.1	28.1	28.1	27.8	27.8	27.4	27.4	27.0	26.7	23.3
15°	26.7	26.7	26.7	26.3	26.3	25.9	25.5	25.2	24.8	24.1	20.0
17.5°	28.9	28.9	28.5	28.5	27.8	27.0	26.7	25.5	24.8	23.7	17.8
20°	38.5	38.9	37.4	36.3	35.5	33.3	32.2	30.4	28.9	27.0	16.3
22.5°	77.8	76.3	73.7	69.6	64.8	60.7	53.3	47.4	43.3	37.8	15.9
25°	160.0	158.5	151.4	145.5	130.7	119.2	103.3	90.3	77.0	64.1	16.3
27.5°	304.0	294.0	292.1	265.1	244.4	214.8	184.0	158.1	134.4	108.1	17.4
30°	578.0	566.5	526.2	485.4	429.5	366.2	305.8	249.6	202.5	160.0	18.9
31°	733.5	744.6	697.2	615.4	532.8	451.7	369.2	297.7	237.0	184.0	19.6
32°	964.2	915.7	865.7	781.6	661.7	558.0	454.3	351.4	271.4	209.9	20.4
33°	1182.3	1153.8	1077.5	972.7	828.7	683.1	548.7	414.7	313.6	241.4	20.7
34°	1414.8	1383.3	1321.5	1171.2	1013.1	822.4	643.2	487.6	364.0	272.1	21.1
35°	1657.3	1644.0	1524.8	1394.4	1200.0	970.1	756.8	567.6	413.2	300.3	21.5
36°	1901.3	1858.4	1765.1	1574.7	1371.8	1106.7	876.1	642.0	463.2	333.6	21.5
37°	2085.0	2075.3	1951.7	1766.2	1527.7	1252.6	979.0	724.6	513.6	362.1	21.5
38°	2287.5	2249.4	2123.9	1935.0	1674.3	1386.3	1086.7	796.4	561.3	388.0	21.1
39°	2458.2	2401.6	2274.9	2088.3	1802.5	1487.7	1172.3	866.1	603.5	409.5	20.7
40°	2570.0	2530.8	2398.6	2188.7	1918.7	1583.6	1258.9	923.4	635.0	425.8	20.0
41°	2693.3	2628.2	2497.5	2286.4	2003.1	1668.1	1313.3	961.2	659.4	436.5	19.3
42°	2767.0	2713.7	2558.5	2351.9	2063.5	1716.2	1357.8	990.1	674.3	442.1	17.8
43°	2835.9	2763.3	2612.2	2390.1	2103.5	1750.3	1378.1	1003.4	677.6	442.1	15.9
44°	2826.6	2757.8	2601.1	2395.3	2112.4	1760.3	1386.7	1003.8	672.4	436.5	14.1
45°	2757.4	2688.9	2547.8	2350.1	2080.5	1740.6	1369.6	989.0	658.0	426.9	12.6
46°	2630.4	2562.3	2454.1	2274.6	2021.3	1696.2	1330.0	956.8	633.9	411.4	11.1
47°	2492.3	2426.0	2315.3	2152.7	1920.2	1617.0	1272.6	911.6	600.2	388.8	10.0
48°	2292.0	2250.5	2139.4	2000.6	1779.9	1492.9	1171.9	837.9	555.0	359.5	8.5
49°	2115.0	2071.3	1973.9	1824.7	1597.0	1348.5	1051.6	748.3	496.2	326.9	7.4
50°	1945.8	1907.6	1817.6	1649.2	1431.8	1174.1	889.0	635.4	422.1	286.6	6.3
51°	1780.2	1751.7	1659.9	1505.1	1284.5	1040.1	770.2	529.1	348.8	237.7	5.9
52°	1614.0	1610.7	1511.1	1354.4	1141.2	906.4	654.6	446.5	295.8	199.6	5.6
53°	1435.2	1413.7	1326.7	1186.0	981.2	767.2	555.0	376.6	254.7	170.0	4.8
54°	1231.5	1207.4	1114.1	987.1	801.6	628.3	447.3	304.4	212.2	143.7	4.4
55°	1004.9	963.8	896.0	765.7	626.1	479.5	345.5	241.0	169.6	119.6	3.7
56°	762.4	721.3	683.1	587.2	459.5	357.7	257.3	184.8	132.6	94.4	3.3
57°	530.2	528.0	465.4	391.7	307.3	243.6	176.2	130.3	93.7	73.3	2.6
58°	344.0	332.5	292.5	249.9	201.1	152.2	113.3	88.5	63.7	50.0	2.2
59°	241.0	218.1	196.6	166.6	126.6	95.9	72.9	56.7	44.1	34.8	1.5
60°	148.1	143.3	128.9	101.5	82.2	67.8	54.4	41.8	32.2	24.8	0.7
62.5°	42.2	43.0	38.9	34.4	29.6	25.5	23.0	19.6	16.3	13.0	0.0
65°	9.6	9.3	10.0	9.3	8.5	8.5	7.4	6.7	5.9	5.6	0.0



TEST NUMBER: P1336978

CATALOG NUMBER: P3A05R209830DE010 E3CA451MW

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	3.0	3.0	2.6	2.6	2.6	2.2	2.2	1.9	1.9	1.5	0.0
70°	1.1	1.1	1.1	1.1	1.1	0.7	0.7	0.7	0.4	0.4	0.0
72.5°	1.1	1.1	1.1	0.7	0.7	0.7	0.7	0.7	0.4	0.4	0.4
75°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.4	0.4	0.4	0.4
77.5°	0.7	0.7	0.7	0.7	0.7	0.4	0.7	0.4	0.4	0.4	0.4
80°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
82.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
85°	0.4	0.4	0.4	0.4	0.0	0.0	0.4	0.4	0.4	0.0	0.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
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: P1336978

CATALOG NUMBER: P3A05R209830DE010 E3CA451MW

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	27.4	27.4	27.4	27.4	27.4	27.4
2.5°	28.5	27.0	25.9	24.8	24.4	24.4
5°	27.8	25.5	23.3	22.2	21.5	21.5
7.5°	25.5	23.0	20.7	19.6	19.3	19.3
10°	23.0	20.0	17.8	17.0	17.0	16.7
12.5°	20.0	17.0	15.6	15.2	15.2	15.2
15°	16.7	14.4	13.3	13.3	13.7	14.1
17.5°	14.1	11.8	11.5	12.2	13.0	13.0
20°	11.8	10.4	10.4	11.1	11.8	12.2
22.5°	10.0	8.9	9.3	10.4	11.5	11.8
25°	8.9	7.8	8.5	9.6	10.7	11.5
27.5°	7.4	7.0	7.8	9.3	10.7	11.1
30°	6.3	6.3	7.4	8.9	10.4	10.7
31°	5.9	5.9	7.4	8.9	10.4	10.7
32°	5.6	5.9	7.0	8.9	10.4	10.7
33°	5.2	5.6	7.0	8.5	10.4	10.7
34°	4.8	5.6	7.0	8.5	10.4	10.7
35°	4.4	5.6	7.0	8.5	10.4	10.7
36°	4.1	5.2	6.7	8.5	10.4	10.7
37°	3.7	5.2	6.7	8.5	10.4	10.7
38°	3.3	4.8	6.7	8.5	10.4	10.7
39°	3.3	4.8	6.3	8.5	10.0	10.7
40°	3.0	4.4	6.3	8.5	10.0	10.7
41°	2.6	4.4	6.3	8.1	10.0	10.7
42°	2.2	4.1	5.9	8.1	10.0	10.7
43°	1.9	4.1	5.9	8.1	10.0	10.7
44°	1.9	3.7	5.9	8.1	10.0	10.7
45°	1.5	3.7	5.9	8.1	10.0	10.7
46°	1.1	3.7	5.9	8.1	10.0	10.7
47°	1.1	3.3	5.6	8.1	10.0	10.7
48°	0.7	3.3	5.6	8.1	10.0	10.7
49°	0.7	3.3	5.6	8.1	10.0	11.1
50°	0.7	3.3	5.6	7.8	10.0	11.1
51°	0.4	3.3	5.6	7.8	10.0	11.1
52°	0.4	3.3	5.2	7.8	10.4	11.1
53°	0.4	3.0	5.2	7.8	10.4	11.1
54°	0.4	3.0	5.2	7.8	10.4	10.7
55°	0.4	3.0	5.2	7.8	10.0	10.7
56°	0.4	2.6	5.2	7.8	10.0	10.7
57°	0.4	2.6	4.8	7.4	10.0	10.4
58°	0.4	2.6	4.8	7.4	10.0	10.4
59°	0.4	2.6	4.8	7.4	9.6	10.4
60°	0.7	2.2	4.4	7.0	9.6	10.4
62.5°	0.7	2.2	4.4	7.0	9.3	10.0
65°	0.7	2.2	4.1	6.7	9.3	10.0



TEST NUMBER: P1336978

CATALOG NUMBER: P3A05R209830DE010 E3CA451MW

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.7	1.9	3.7	6.3	8.9	9.6
70°	0.7	2.2	3.7	5.9	8.5	9.3
72.5°	1.1	1.9	3.3	5.6	8.1	8.9
75°	1.1	1.9	3.3	5.2	7.8	8.1
77.5°	1.5	1.9	3.0	4.4	7.0	7.4
80°	1.5	1.9	2.6	3.7	5.9	6.3
82.5°	1.5	1.9	1.9	3.0	4.4	4.8
85°	1.1	1.5	1.5	1.9	3.0	3.3
87.5°	1.1	1.5	1.1	0.7	1.5	1.5
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)