

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: P1336992

Luminaire Tested: P3A05R209835DE010 E3CA451MB

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336992
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: P3A05R209835DE010 E3CA451MB
Description: 3in Adjustable LED luminaire with, R20 optic, 3500K CCT AND, 98CRI , E3CA451MB TRIM
Light Source: -
Ballast/Driver: -

Summary

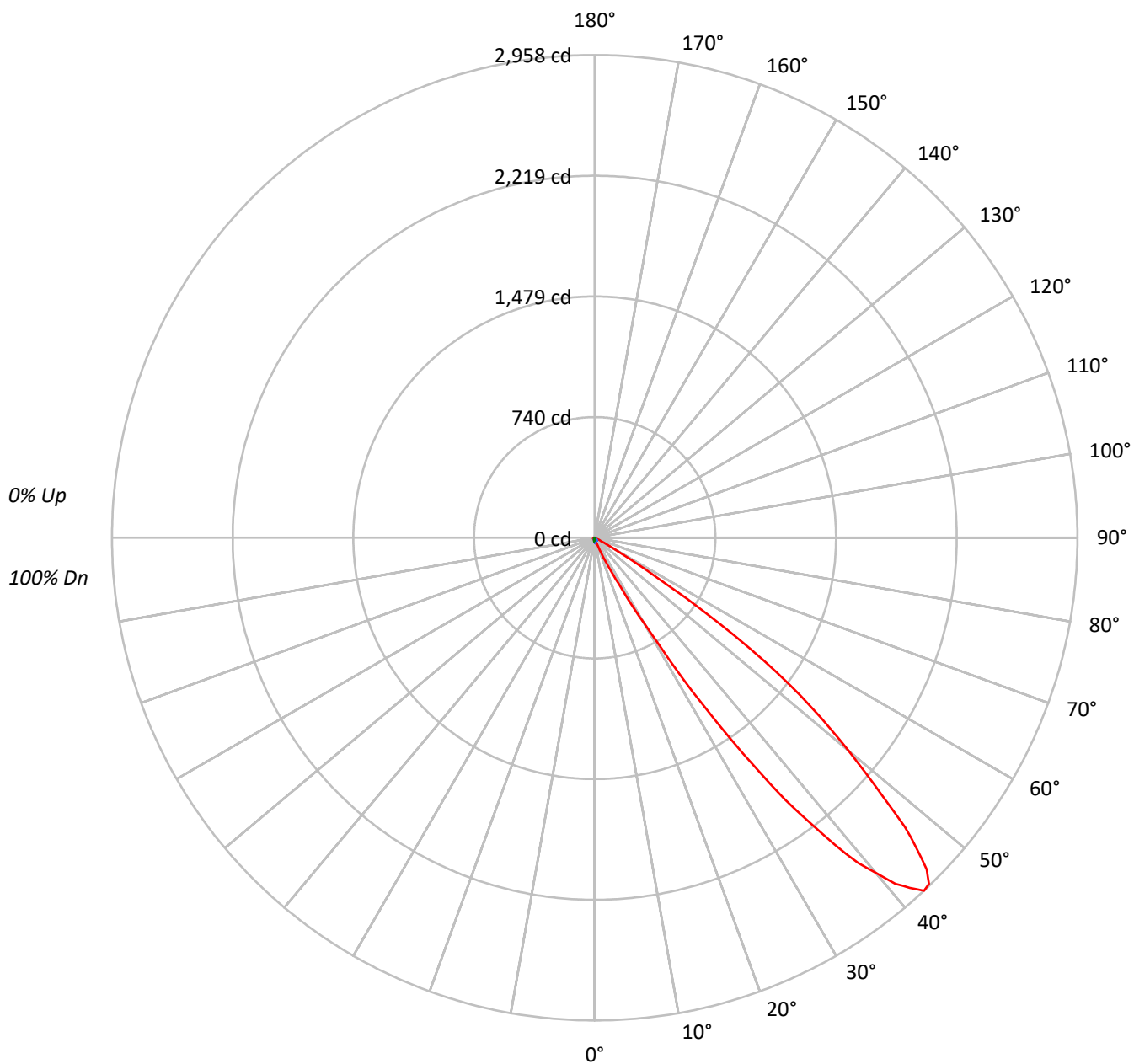
Lumens per Lamp: N/A
Luminaire Lumens: 411.0 lumens
Efficiency: N/A
Efficacy: 57.1 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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: P1336992

CATALOG NUMBER: P3A05R209835DE010 E3CA451MB

Luminous Intensity Polar Plot



— 0°-180° - - 45°-225° - - - 90°-270°

TEST NUMBER: P1336992

CATALOG NUMBER: P3A05R209835DE010 E3CA451MB

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°	6271	6271	6271	6271	6271
5°	7308	6802	5877	5107	4931
10°	7214	6190	4654	3963	3874
15°	6311	4745	3428	3156	3337
20°	9381	3967	2520	2707	2964
25°	40381	4113	1960	2419	2903
30°	152656	4988	1671	2355	2836
35°	462786	5996	1553	2382	2998
40°	767409	5983	1317	2548	3206
45°	892000	4062	1209	2636	3473
50°	692412	2252	1194	2763	3957
55°	400769	1491	1185	3097	4282
60°	67758	351	1009	3201	4736
65°	5189	0	1193	3632	5396
70°	769	0	1475	3975	6219
75°	678	339	1610	4575	7202
80°	505	505	2399	4925	8334
85°	1006	1006	3774	4780	8806

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 892000 cd/sqm

TEST NUMBER: P1336992

CATALOG NUMBER: P3A05R209835DE010 E3CA451MB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.5	0.6
10°-20°	5.1	1.3
20°-30°	16.4	4.0
30°-40°	104.8	25.5
40°-50°	191.8	46.7
50°-60°	78.8	19.2
60°-70°	6.7	1.6
70°-80°	3.3	0.8
80°-90°	1.6	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°	24.0	5.8
0°-40°	128.8	31.3
0°-60°	399.5	97.2
0°-90°	411.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	411.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	29	29	29	29	29	
5°	33	31	27	23	22	3
15°	28	21	15	14	15	9
25°	167	17	8	10	12	110
35°	1729	22	6	9	11	1094
45°	2876	13	4	8	11	2065
55°	1048	4	3	8	11	916
65°	10	0	2	7	10	33
75°	1	0	2	5	8	1
85°	0	0	2	2	4	0
90°	0	0	0	0	0	

TEST NUMBER: P1336992

CATALOG NUMBER: P3A05R209835DE010 E3CA451MB

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6	28.6
2.5°	31.3	31.3	31.3	30.9	30.9	31.3	30.9	30.9	30.9	30.9	30.5
5°	33.2	33.2	33.2	33.2	33.2	33.2	33.2	32.8	32.8	32.4	30.9
7.5°	34.0	34.0	34.0	34.0	33.6	33.6	33.6	33.6	33.2	32.8	30.1
10°	32.4	32.4	32.4	32.1	32.1	32.1	31.7	31.7	31.3	30.9	27.8
12.5°	29.4	29.4	29.4	29.4	29.0	29.0	28.6	28.6	28.2	27.8	24.3
15°	27.8	27.8	27.8	27.4	27.4	27.0	26.7	26.3	25.9	25.1	20.9
17.5°	30.1	30.1	29.7	29.7	29.0	28.2	27.8	26.7	25.9	24.7	18.5
20°	40.2	40.6	39.0	37.9	37.1	34.8	33.6	31.7	30.1	28.2	17.0
22.5°	81.1	79.6	76.9	72.6	67.6	63.3	55.6	49.4	45.2	39.4	16.6
25°	166.9	165.3	158.0	151.8	136.3	124.4	107.8	94.2	80.3	66.8	17.0
27.5°	317.1	306.7	304.7	276.6	254.9	224.0	192.0	164.9	140.2	112.8	18.2
30°	602.9	591.0	548.9	506.4	448.0	382.0	319.0	260.3	211.3	166.9	19.7
31°	765.1	776.7	727.3	641.9	555.8	471.2	385.1	310.5	247.2	192.0	20.5
32°	1005.8	955.2	903.0	815.4	690.2	582.1	473.9	366.5	283.1	219.0	21.2
33°	1233.3	1203.5	1124.0	1014.7	864.4	712.6	572.4	432.6	327.1	251.8	21.6
34°	1475.8	1443.0	1378.5	1221.7	1056.8	857.8	670.9	508.7	379.7	283.9	22.0
35°	1728.8	1714.9	1590.6	1454.6	1251.8	1012.0	789.5	592.1	431.0	313.2	22.4
36°	1983.4	1938.6	1841.2	1642.7	1431.0	1154.5	913.9	669.7	483.2	348.0	22.4
37°	2174.9	2164.9	2035.9	1842.4	1593.6	1306.7	1021.2	755.9	535.7	377.7	22.4
38°	2386.2	2346.4	2215.5	2018.5	1746.6	1446.1	1133.6	830.8	585.5	404.8	22.0
39°	2564.3	2505.2	2373.1	2178.4	1880.2	1551.9	1222.8	903.4	629.6	427.2	21.6
40°	2680.9	2640.0	2502.1	2283.1	2001.5	1652.0	1313.2	963.3	662.4	444.2	20.9
41°	2809.5	2741.6	2605.2	2385.1	2089.6	1740.0	1370.0	1002.7	687.9	455.4	20.1
42°	2886.4	2830.8	2668.9	2453.4	2152.5	1790.2	1416.4	1032.8	703.3	461.2	18.5
43°	2958.2	2882.5	2724.9	2493.2	2194.2	1825.8	1437.6	1046.7	706.8	461.2	16.6
44°	2948.6	2876.7	2713.4	2498.6	2203.5	1836.2	1446.5	1047.1	701.4	455.4	14.7
45°	2876.4	2804.9	2657.7	2451.5	2170.3	1815.7	1428.7	1031.7	686.4	445.3	13.1
46°	2743.9	2672.8	2560.0	2372.7	2108.5	1769.4	1387.4	998.1	661.2	429.1	11.6
47°	2599.8	2530.7	2415.2	2245.6	2003.1	1686.7	1327.5	950.9	626.1	405.6	10.4
48°	2390.8	2347.6	2231.7	2086.9	1856.7	1557.3	1222.5	874.1	579.0	375.0	8.9
49°	2206.2	2160.6	2059.1	1903.4	1665.9	1406.7	1096.9	780.6	517.6	341.1	7.7
50°	2029.7	1989.9	1896.1	1720.3	1493.6	1224.8	927.4	662.8	440.3	299.0	6.6
51°	1857.1	1827.3	1731.5	1570.1	1339.9	1085.0	803.4	551.9	363.8	248.0	6.2
52°	1683.6	1680.2	1576.3	1412.9	1190.4	945.5	682.9	465.8	308.6	208.2	5.8
53°	1497.1	1474.7	1383.9	1237.1	1023.5	800.3	579.0	392.8	265.7	177.3	5.0
54°	1284.6	1259.5	1162.2	1029.7	836.2	655.5	466.6	317.5	221.3	149.9	4.6
55°	1048.3	1005.4	934.7	798.8	653.1	500.2	360.4	251.4	176.9	124.8	3.9
56°	795.3	752.4	712.6	612.6	479.3	373.1	268.4	192.7	138.3	98.5	3.5
57°	553.1	550.8	485.5	408.6	320.6	254.1	183.9	136.0	97.7	76.5	2.7
58°	358.8	346.8	305.1	260.7	209.7	158.7	118.2	92.3	66.4	52.1	2.3
59°	251.4	227.5	205.1	173.8	132.1	100.0	76.1	59.1	46.0	36.3	1.5
60°	154.5	149.5	134.4	105.8	85.7	70.7	56.8	43.6	33.6	25.9	0.8
62.5°	44.0	44.8	40.6	35.9	30.9	26.7	23.9	20.5	17.0	13.5	0.0
65°	10.0	9.7	10.4	9.7	8.9	8.9	7.7	7.0	6.2	5.8	0.0



TEST NUMBER: P1336992

CATALOG NUMBER: P3A05R209835DE010 E3CA451MB

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	3.1	3.1	2.7	2.7	2.7	2.3	2.3	1.9	1.9	1.5	0.0
70°	1.2	1.2	1.2	1.2	1.2	0.8	0.8	0.8	0.4	0.4	0.0
72.5°	1.2	1.2	1.2	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.4
75°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4
77.5°	0.8	0.8	0.8	0.8	0.8	0.4	0.8	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: P1336992

CATALOG NUMBER: P3A05R209835DE010 E3CA451MB

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	28.6	28.6	28.6	28.6	28.6	28.6
2.5°	29.7	28.2	27.0	25.9	25.5	25.5
5°	29.0	26.7	24.3	23.2	22.4	22.4
7.5°	26.7	23.9	21.6	20.5	20.1	20.1
10°	23.9	20.9	18.5	17.8	17.8	17.4
12.5°	20.9	17.8	16.2	15.8	15.8	15.8
15°	17.4	15.1	13.9	13.9	14.3	14.7
17.5°	14.7	12.4	12.0	12.7	13.5	13.5
20°	12.4	10.8	10.8	11.6	12.4	12.7
22.5°	10.4	9.3	9.7	10.8	12.0	12.4
25°	9.3	8.1	8.9	10.0	11.2	12.0
27.5°	7.7	7.3	8.1	9.7	11.2	11.6
30°	6.6	6.6	7.7	9.3	10.8	11.2
31°	6.2	6.2	7.7	9.3	10.8	11.2
32°	5.8	6.2	7.3	9.3	10.8	11.2
33°	5.4	5.8	7.3	8.9	10.8	11.2
34°	5.0	5.8	7.3	8.9	10.8	11.2
35°	4.6	5.8	7.3	8.9	10.8	11.2
36°	4.2	5.4	7.0	8.9	10.8	11.2
37°	3.9	5.4	7.0	8.9	10.8	11.2
38°	3.5	5.0	7.0	8.9	10.8	11.2
39°	3.5	5.0	6.6	8.9	10.4	11.2
40°	3.1	4.6	6.6	8.9	10.4	11.2
41°	2.7	4.6	6.6	8.5	10.4	11.2
42°	2.3	4.2	6.2	8.5	10.4	11.2
43°	1.9	4.2	6.2	8.5	10.4	11.2
44°	1.9	3.9	6.2	8.5	10.4	11.2
45°	1.5	3.9	6.2	8.5	10.4	11.2
46°	1.2	3.9	6.2	8.5	10.4	11.2
47°	1.2	3.5	5.8	8.5	10.4	11.2
48°	0.8	3.5	5.8	8.5	10.4	11.2
49°	0.8	3.5	5.8	8.5	10.4	11.6
50°	0.8	3.5	5.8	8.1	10.4	11.6
51°	0.4	3.5	5.8	8.1	10.4	11.6
52°	0.4	3.5	5.4	8.1	10.8	11.6
53°	0.4	3.1	5.4	8.1	10.8	11.6
54°	0.4	3.1	5.4	8.1	10.8	11.2
55°	0.4	3.1	5.4	8.1	10.4	11.2
56°	0.4	2.7	5.4	8.1	10.4	11.2
57°	0.4	2.7	5.0	7.7	10.4	10.8
58°	0.4	2.7	5.0	7.7	10.4	10.8
59°	0.4	2.7	5.0	7.7	10.0	10.8
60°	0.8	2.3	4.6	7.3	10.0	10.8
62.5°	0.8	2.3	4.6	7.3	9.7	10.4
65°	0.8	2.3	4.2	7.0	9.7	10.4



TEST NUMBER: P1336992

CATALOG NUMBER: P3A05R209835DE010 E3CA451MB

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.8	1.9	3.9	6.6	9.3	10.0
70°	0.8	2.3	3.9	6.2	8.9	9.7
72.5°	1.2	1.9	3.5	5.8	8.5	9.3
75°	1.2	1.9	3.5	5.4	8.1	8.5
77.5°	1.5	1.9	3.1	4.6	7.3	7.7
80°	1.5	1.9	2.7	3.9	6.2	6.6
82.5°	1.5	1.9	1.9	3.1	4.6	5.0
85°	1.2	1.5	1.5	1.9	3.1	3.5
87.5°	1.2	1.5	1.2	0.8	1.5	1.5
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)