

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: P1336912

Luminaire Tested: P3A05R209730DE010 E3CA451MB

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336912
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: P3A05R209730DE010 E3CA451MB
Description: 3in Adjustable LED luminaire with, R20 optic, 3000K CCT AND, 97CRI , E3CA451MB TRIM
Light Source: -
Ballast/Driver: -

Summary

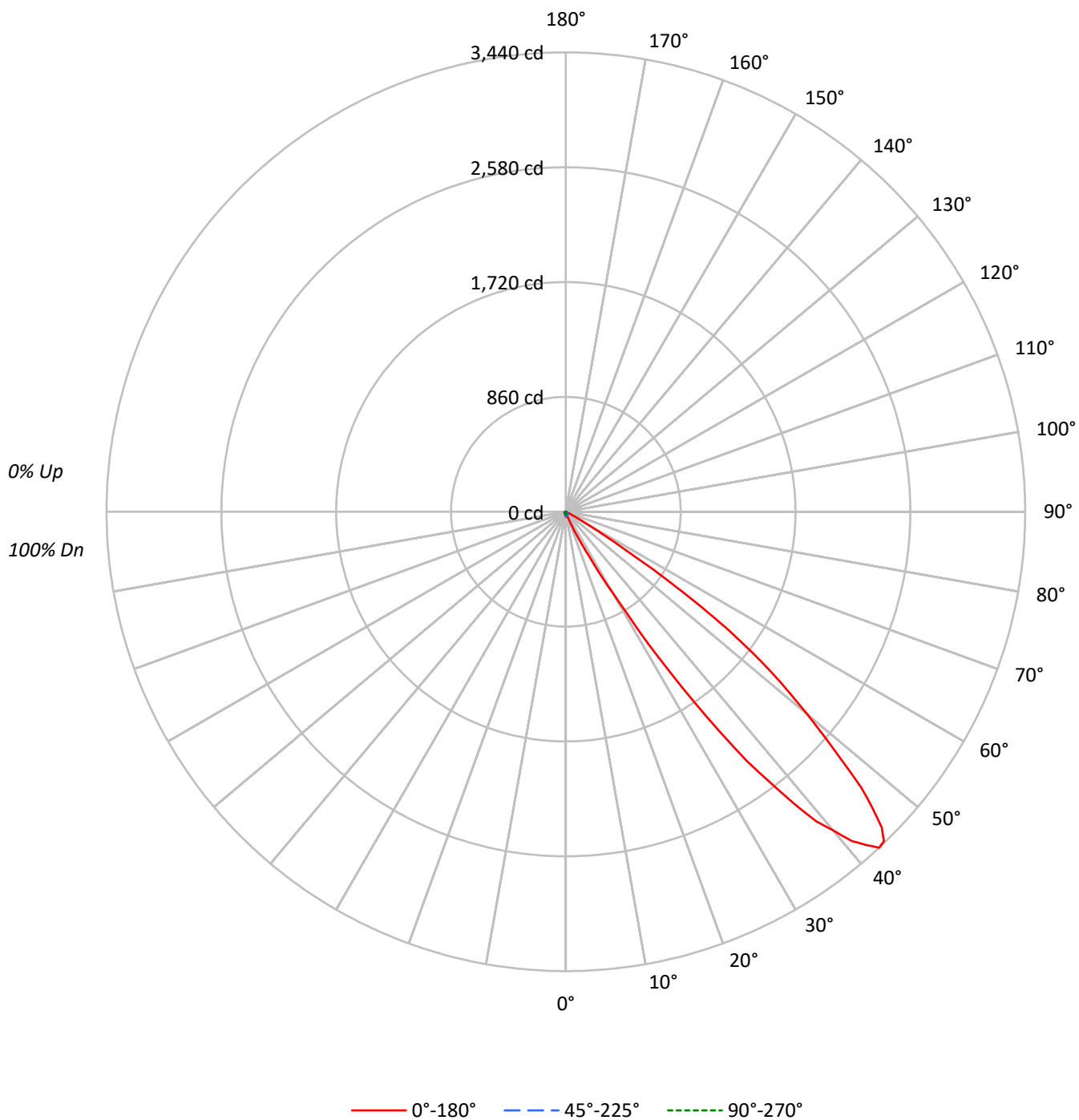
Lumens per Lamp: N/A
Luminaire Lumens: 477.9 lumens
Efficiency: N/A
Efficacy: 66.4 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.14
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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: P1336912

CATALOG NUMBER: P3A05R209730DE010 E3CA451MB

Luminous Intensity Polar Plot



TEST NUMBER: P1336912

CATALOG NUMBER: P3A05R209730DE010 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°	7280	7280	7280	7280	7280
5°	8497	7902	6824	5943	5745
10°	8394	7192	5411	4609	4498
15°	7333	5516	3973	3678	3882
20°	10898	4620	2940	3150	3454
25°	46962	4791	2274	2831	3363
30°	177546	5798	1924	2735	3292
35°	538249	6987	1794	2757	3480
40°	892529	6956	1546	2948	3721
45°	1037410	4745	1395	3070	4031
50°	805295	2593	1365	3207	4605
55°	466067	1720	1376	3594	4970
60°	78809	395	1184	3728	5526
65°	6071	0	1401	4203	6278
70°	833	0	1731	4616	7181
75°	763	339	1864	5338	8388
80°	505	505	2778	5683	9597
85°	1006	1006	4529	5535	10064

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1037410 cd/sqm

TEST NUMBER: P1336912

CATALOG NUMBER: P3A05R209730DE010 E3CA451MB

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.9	0.6
10°-20°	6.0	1.3
20°-30°	19.1	4.0
30°-40°	121.9	25.5
40°-50°	223.1	46.7
50°-60°	91.7	19.2
60°-70°	7.7	1.6
70°-80°	3.8	0.8
80°-90°	1.8	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°	27.9	5.8
0°-40°	149.8	31.3
0°-60°	464.6	97.2
0°-90°	477.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	477.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	33	33	33	33	33	
5°	39	36	31	27	26	4
15°	32	24	18	16	17	10
25°	194	20	9	12	14	128
35°	2011	26	7	10	13	1273
45°	3345	15	4	10	13	2402
55°	1219	4	4	9	13	1066
65°	12	0	3	8	12	38
75°	1	0	2	6	10	1
85°	0	0	2	2	4	0
90°	0	0	0	0	0	

TEST NUMBER: P1336912

CATALOG NUMBER: P3A05R209730DE010 E3CA451MB

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2	33.2
2.5°	36.4	36.4	36.4	35.9	35.9	36.4	35.9	35.9	35.9	35.9	35.5
5°	38.6	38.6	38.6	38.6	38.6	38.6	38.6	38.2	38.2	37.7	35.9
7.5°	39.5	39.5	39.5	39.5	39.1	39.1	39.1	39.1	38.6	38.2	35.0
10°	37.7	37.7	37.7	37.3	37.3	37.3	36.8	36.8	36.4	35.9	32.3
12.5°	34.1	34.1	34.1	34.1	33.7	33.7	33.2	33.2	32.8	32.3	28.3
15°	32.3	32.3	32.3	31.9	31.9	31.4	31.0	30.5	30.1	29.2	24.3
17.5°	35.0	35.0	34.6	34.6	33.7	32.8	32.3	31.0	30.1	28.7	21.6
20°	46.7	47.2	45.4	44.0	43.1	40.4	39.1	36.8	35.0	32.8	19.8
22.5°	94.3	92.5	89.4	84.5	78.6	73.7	64.7	57.5	52.6	45.8	19.3
25°	194.1	192.3	183.7	176.5	158.6	144.6	125.3	109.6	93.4	77.7	19.8
27.5°	368.8	356.7	354.4	321.6	296.5	260.5	223.3	191.8	163.1	131.2	21.1
30°	701.2	687.3	638.3	588.9	521.1	444.3	371.0	302.8	245.7	194.1	22.9
31°	889.9	903.4	845.9	746.6	646.4	548.0	447.9	361.2	287.5	223.3	23.8
32°	1169.7	1110.9	1050.2	948.3	802.7	677.0	551.2	426.3	329.3	254.7	24.7
33°	1434.3	1399.7	1307.2	1180.1	1005.3	828.8	665.7	503.1	380.5	292.9	25.2
34°	1716.4	1678.2	1603.2	1420.8	1229.0	997.7	780.3	591.6	441.6	330.2	25.6
35°	2010.7	1994.5	1849.8	1691.7	1455.9	1176.9	918.2	688.6	501.3	364.3	26.1
36°	2306.7	2254.6	2141.4	1910.5	1664.3	1342.7	1062.8	778.9	562.0	404.7	26.1
37°	2529.5	2517.8	2367.8	2142.7	1853.4	1519.7	1187.7	879.1	623.1	439.3	26.1
38°	2775.2	2728.9	2576.7	2347.6	2031.3	1681.8	1318.4	966.2	681.0	470.8	25.6
39°	2982.3	2913.6	2759.9	2533.5	2186.7	1804.9	1422.2	1050.7	732.2	496.8	25.2
40°	3118.0	3070.3	2910.0	2655.3	2327.8	1921.3	1527.3	1120.3	770.4	516.6	24.3
41°	3267.5	3188.5	3029.9	2773.9	2430.2	2023.7	1593.3	1166.1	800.0	529.6	23.4
42°	3356.9	3292.2	3104.0	2853.4	2503.4	2082.1	1647.2	1201.2	818.0	536.4	21.6
43°	3440.5	3352.4	3169.2	2899.6	2551.9	2123.4	1672.0	1217.4	822.1	536.4	19.3
44°	3429.3	3345.7	3155.7	2905.9	2562.7	2135.5	1682.3	1217.8	815.8	529.6	17.1
45°	3345.3	3262.1	3091.0	2851.1	2524.1	2111.7	1661.6	1199.8	798.2	517.9	15.3
46°	3191.2	3108.5	2977.3	2759.5	2452.2	2057.8	1613.6	1160.8	769.0	499.1	13.5
47°	3023.6	2943.2	2808.9	2611.7	2329.6	1961.7	1543.9	1105.9	728.2	471.7	12.1
48°	2780.6	2730.3	2595.5	2427.1	2159.3	1811.2	1421.7	1016.6	673.4	436.2	10.3
49°	2565.9	2512.9	2394.7	2213.7	1937.4	1636.0	1275.8	907.8	601.9	396.7	9.0
50°	2360.6	2314.3	2205.2	2000.8	1737.1	1424.4	1078.5	770.8	512.1	347.7	7.6
51°	2159.8	2125.2	2013.8	1826.0	1558.3	1261.8	934.4	641.9	423.2	288.4	7.2
52°	1958.1	1954.1	1833.2	1643.2	1384.5	1099.7	794.2	541.7	358.9	242.1	6.7
53°	1741.1	1715.1	1609.5	1438.8	1190.4	930.8	673.4	456.8	309.1	206.2	5.8
54°	1494.1	1464.9	1351.7	1197.6	972.5	762.3	542.6	369.2	257.4	174.3	5.4
55°	1219.1	1169.3	1087.1	929.0	759.6	581.7	419.1	292.4	205.7	145.1	4.5
56°	924.9	875.1	828.8	712.4	557.5	433.9	312.2	224.2	160.8	114.5	4.0
57°	643.3	640.6	564.7	475.3	372.8	295.6	213.8	158.1	113.6	88.9	3.1
58°	417.3	403.4	354.9	303.2	243.9	184.6	137.5	107.4	77.3	60.6	2.7
59°	292.4	264.6	238.5	202.1	153.6	116.3	88.5	68.7	53.5	42.2	1.8
60°	179.7	173.8	156.3	123.1	99.7	82.2	66.0	50.8	39.1	30.1	0.9
62.5°	51.2	52.1	47.2	41.8	35.9	31.0	27.9	23.8	19.8	15.7	0.0
65°	11.7	11.2	12.1	11.2	10.3	10.3	9.0	8.1	7.2	6.7	0.0



TEST NUMBER: P1336912

CATALOG NUMBER: P3A05R209730DE010 E3CA451MB

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	3.6	3.6	3.1	3.1	3.1	2.7	2.7	2.2	2.2	1.8	0.0
70°	1.3	1.3	1.3	1.3	1.3	0.9	0.9	0.9	0.4	0.4	0.0
72.5°	1.3	1.3	1.3	0.9	0.9	0.9	0.9	0.9	0.4	0.4	0.4
75°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.4	0.4	0.4	0.4
77.5°	0.9	0.9	0.9	0.9	0.9	0.4	0.9	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: P1336912

CATALOG NUMBER: P3A05R209730DE010 E3CA451MB

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	33.2	33.2	33.2	33.2	33.2	33.2
2.5°	34.6	32.8	31.4	30.1	29.6	29.6
5°	33.7	31.0	28.3	27.0	26.1	26.1
7.5°	31.0	27.9	25.2	23.8	23.4	23.4
10°	27.9	24.3	21.6	20.7	20.7	20.2
12.5°	24.3	20.7	18.9	18.4	18.4	18.4
15°	20.2	17.5	16.2	16.2	16.6	17.1
17.5°	17.1	14.4	13.9	14.8	15.7	15.7
20°	14.4	12.6	12.6	13.5	14.4	14.8
22.5°	12.1	10.8	11.2	12.6	13.9	14.4
25°	10.8	9.4	10.3	11.7	13.0	13.9
27.5°	9.0	8.5	9.4	11.2	13.0	13.5
30°	7.6	7.6	9.0	10.8	12.6	13.0
31°	7.2	7.2	9.0	10.8	12.6	13.0
32°	6.7	7.2	8.5	10.8	12.6	13.0
33°	6.3	6.7	8.5	10.3	12.6	13.0
34°	5.8	6.7	8.5	10.3	12.6	13.0
35°	5.4	6.7	8.5	10.3	12.6	13.0
36°	4.9	6.3	8.1	10.3	12.6	13.0
37°	4.5	6.3	8.1	10.3	12.6	13.0
38°	4.0	5.8	8.1	10.3	12.6	13.0
39°	4.0	5.8	7.6	10.3	12.1	13.0
40°	3.6	5.4	7.6	10.3	12.1	13.0
41°	3.1	5.4	7.6	9.9	12.1	13.0
42°	2.7	4.9	7.2	9.9	12.1	13.0
43°	2.2	4.9	7.2	9.9	12.1	13.0
44°	2.2	4.5	7.2	9.9	12.1	13.0
45°	1.8	4.5	7.2	9.9	12.1	13.0
46°	1.3	4.5	7.2	9.9	12.1	13.0
47°	1.3	4.0	6.7	9.9	12.1	13.0
48°	0.9	4.0	6.7	9.9	12.1	13.0
49°	0.9	4.0	6.7	9.9	12.1	13.5
50°	0.9	4.0	6.7	9.4	12.1	13.5
51°	0.4	4.0	6.7	9.4	12.1	13.5
52°	0.4	4.0	6.3	9.4	12.6	13.5
53°	0.4	3.6	6.3	9.4	12.6	13.5
54°	0.4	3.6	6.3	9.4	12.6	13.0
55°	0.4	3.6	6.3	9.4	12.1	13.0
56°	0.4	3.1	6.3	9.4	12.1	13.0
57°	0.4	3.1	5.8	9.0	12.1	12.6
58°	0.4	3.1	5.8	9.0	12.1	12.6
59°	0.4	3.1	5.8	9.0	11.7	12.6
60°	0.9	2.7	5.4	8.5	11.7	12.6
62.5°	0.9	2.7	5.4	8.5	11.2	12.1
65°	0.9	2.7	4.9	8.1	11.2	12.1



TEST NUMBER: P1336912

CATALOG NUMBER: P3A05R209730DE010 E3CA451MB

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.9	2.2	4.5	7.6	10.8	11.7
70°	0.9	2.7	4.5	7.2	10.3	11.2
72.5°	1.3	2.2	4.0	6.7	9.9	10.8
75°	1.3	2.2	4.0	6.3	9.4	9.9
77.5°	1.8	2.2	3.6	5.4	8.5	9.0
80°	1.8	2.2	3.1	4.5	7.2	7.6
82.5°	1.8	2.2	2.2	3.6	5.4	5.8
85°	1.3	1.8	1.8	2.2	3.6	4.0
87.5°	1.3	1.8	1.3	0.9	1.8	1.8
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)