

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: P1336445

Luminaire Tested: P3A05R159740DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336445
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: P3A05R159740DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R15 optic, 4000K CCT AND, 97CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

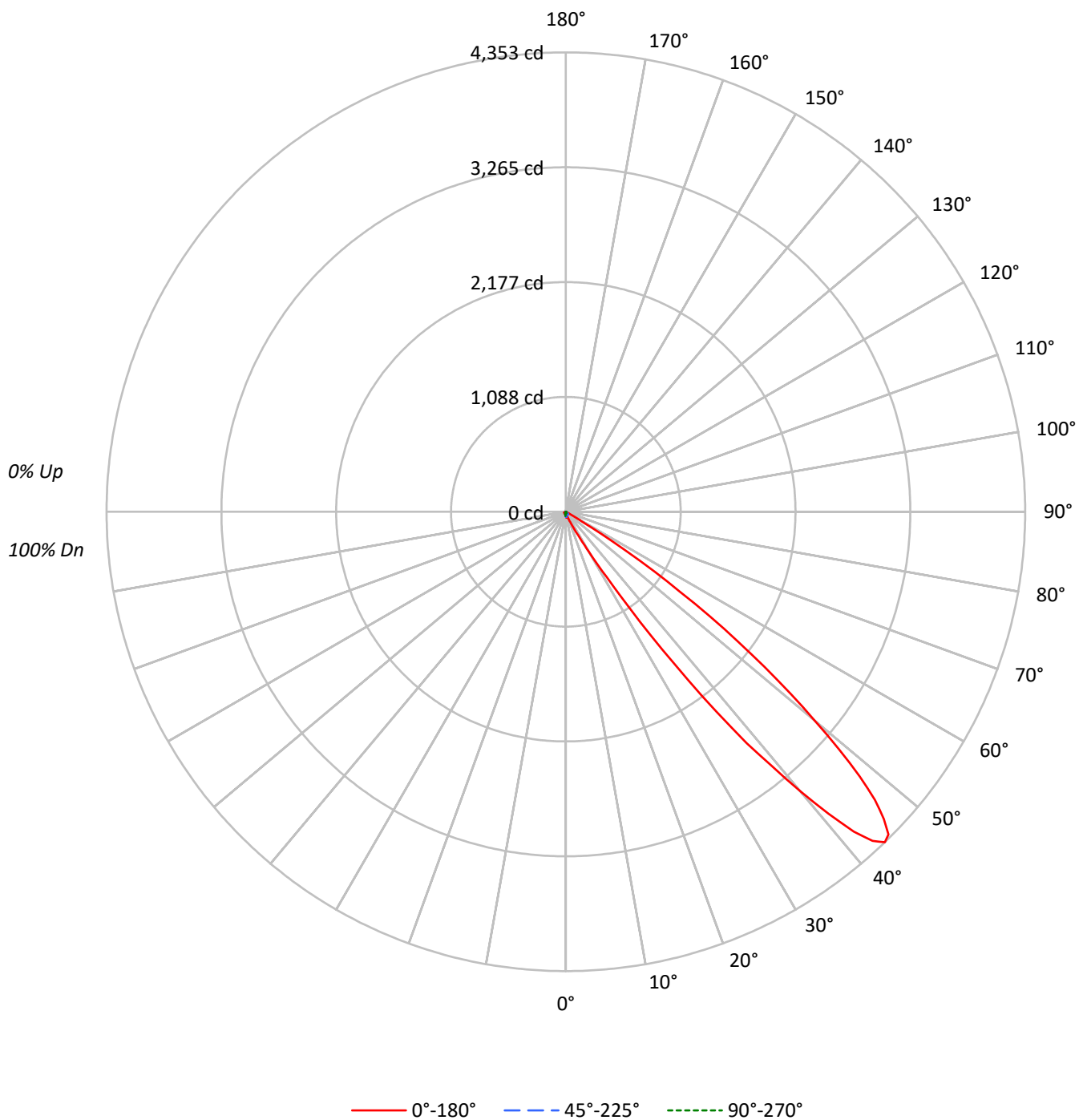
Lumens per Lamp: N/A
Luminaire Lumens: 486.0 lumens
Efficiency: N/A
Efficacy: 67.5 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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: P1336445

CATALOG NUMBER: P3A05R159740DE010 E3CA451MMS

Luminous Intensity Polar Plot



TEST NUMBER: P1336445

CATALOG NUMBER: P3A05R159740DE010 E3CA451MMS

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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	110	106	102	99	107	104	100	97	100	97	94		96	93	91		92
2	101	93	87	81	98	91	85	80	87	83	78		84	80	77		81
3	91	81	73	67	89	79	72	66	76	70	65		74	68	64		71
4	83	71	62	55	80	69	61	55	67	60	54		64	58	53		62
5	75	62	52	46	73	61	52	45	58	51	45		56	50	44		55
6	68	54	45	38	66	53	44	38	51	43	37		49	42	37		48
7	62	47	38	32	60	47	38	32	45	37	31		44	36	31		42
8	56	42	33	27	55	41	33	27	40	32	26		39	31	26		37
9	52	37	28	22	50	37	28	22	35	28	22		34	27	22		33
10	48	33	25	19	46	33	25	19	32	24	19		31	24	19		30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	9451	9451	9451	9451	9451
5°	11732	10456	8541	7462	7352
10°	11556	8951	6591	5834	5945
15°	9580	6379	4722	4835	5176
20°	16615	5087	3617	4177	4760
25°	37042	6097	2928	3871	4452
30°	110802	7495	2583	3798	4659
35°	426514	8432	2329	3882	4926
40°	989998	7357	2233	4036	5267
45°	1340914	5551	1954	4373	5706
50°	1051394	3309	1979	4640	6277
55°	504642	1491	1835	5008	6843
60°	46137	219	1710	5307	7631
65°	5033	0	1505	5552	8302
70°	1218	0	1859	5898	9040
75°	1271	424	2457	6608	10252
80°	1263	1263	3031	6693	10986
85°	1258	1258	4780	6038	12077

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1340914 cd/sqm

TEST NUMBER: P1336445

CATALOG NUMBER: P3A05R159740DE010 E3CA451MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.7	0.8
10°-20°	7.7	1.6
20°-30°	18.4	3.8
30°-40°	100.5	20.7
40°-50°	243.4	50.1
50°-60°	97.1	20.0
60°-70°	8.4	1.7
70°-80°	4.7	1.0
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°	29.7	6.1
0°-40°	130.2	26.8
0°-60°	470.8	96.9
0°-90°	486.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	486.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	43	43	43	43	43	
5°	53	48	39	34	33	5
15°	42	28	21	21	23	15
25°	153	25	12	16	18	92
35°	1593	32	9	14	18	1126
45°	4324	18	6	14	18	3050
55°	1320	4	5	13	18	1230
65°	10	0	3	11	16	25
75°	2	0	3	8	12	1
85°	0	0	2	2	5	0
90°	0	0	0	0	0	

TEST NUMBER: P1336445

CATALOG NUMBER: P3A05R159740DE010 E3CA451MMS

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1	43.1
2.5°	48.5	48.5	48.9	48.5	48.5	48.5	48.5	48.0	48.0	48.0	46.5
5°	53.3	53.3	53.3	53.3	52.8	52.8	52.8	52.3	52.3	51.9	47.5
7.5°	55.2	55.2	54.8	54.8	54.3	54.3	53.8	53.3	52.8	52.3	45.6
10°	51.9	51.9	51.9	51.4	51.4	50.9	50.4	49.9	49.4	48.5	40.2
12.5°	46.0	46.0	46.5	46.0	45.6	45.1	44.1	43.6	43.1	42.2	33.4
15°	42.2	42.2	42.2	41.7	41.2	40.2	39.7	38.8	38.3	36.8	28.1
17.5°	53.8	53.8	53.3	52.3	50.4	48.9	46.5	44.6	42.2	39.3	24.2
20°	71.2	71.2	70.3	69.3	66.9	64.5	60.6	57.2	53.3	49.9	21.8
22.5°	103.2	104.7	101.8	98.4	95.0	89.2	83.8	78.5	71.7	65.9	22.3
25°	153.1	154.6	153.1	145.4	139.1	131.3	121.1	110.5	98.9	88.2	25.2
27.5°	248.1	249.1	246.7	227.8	217.6	197.2	179.3	161.9	142.5	123.1	27.6
30°	437.6	438.1	422.6	384.8	351.3	306.7	268.9	232.6	202.1	171.1	29.6
31°	576.2	562.6	529.7	484.1	430.8	370.7	318.9	271.9	226.3	192.9	30.0
32°	731.7	729.8	675.0	596.0	524.8	449.7	371.7	311.6	259.3	213.7	30.5
33°	937.7	938.6	852.4	759.3	642.6	541.8	439.5	357.1	294.1	238.4	31.5
34°	1259.4	1183.8	1082.6	956.6	797.6	646.0	513.2	410.0	325.6	262.2	31.5
35°	1593.3	1517.2	1405.8	1214.9	996.8	784.5	600.9	466.7	363.4	287.8	31.5
36°	1967.4	1903.0	1734.3	1490.6	1212.4	915.4	693.9	532.1	400.8	311.1	31.0
37°	2371.6	2277.1	2090.0	1824.0	1451.8	1099.5	807.3	597.0	438.1	336.3	30.0
38°	2782.0	2696.7	2460.7	2138.5	1737.7	1293.8	920.7	659.5	472.5	355.2	28.6
39°	3093.1	3046.6	2812.5	2452.5	1966.0	1478.0	1037.5	726.4	508.8	374.1	27.1
40°	3458.5	3383.4	3161.5	2716.1	2235.9	1665.5	1151.9	785.5	538.9	389.1	25.7
41°	3791.9	3696.9	3416.8	2986.5	2452.0	1834.2	1260.4	846.6	563.1	397.8	24.7
42°	4077.8	3967.3	3674.6	3218.1	2632.8	1968.9	1347.2	890.2	585.9	405.1	23.3
43°	4262.9	4167.5	3879.6	3392.1	2787.3	2092.4	1428.1	935.7	599.9	410.0	21.3
44°	4353.1	4256.6	3978.0	3501.1	2882.3	2166.6	1480.4	967.2	615.4	416.3	19.9
45°	4324.0	4226.1	3956.7	3503.1	2911.9	2193.2	1502.7	981.3	623.7	422.1	17.9
46°	4190.7	4121.9	3850.5	3412.0	2855.7	2164.7	1490.1	970.6	620.8	422.1	16.0
47°	4003.7	3925.2	3666.9	3255.5	2719.5	2091.0	1439.2	938.2	602.8	412.4	14.1
48°	3748.8	3681.9	3410.5	3006.9	2510.6	1930.6	1324.4	885.3	574.7	393.5	12.1
49°	3428.9	3335.9	3083.4	2689.0	2238.3	1702.8	1173.7	796.2	529.7	366.8	10.7
50°	3082.0	2967.1	2772.3	2370.6	1956.8	1460.1	975.5	673.1	466.2	331.9	9.7
51°	2742.3	2625.5	2439.9	2098.3	1656.3	1211.5	787.0	537.4	383.8	284.0	8.2
52°	2390.0	2292.1	2084.2	1815.8	1417.9	981.8	655.6	454.5	318.9	238.4	6.8
53°	2039.1	1972.3	1774.6	1502.7	1139.3	802.0	535.5	389.1	278.2	204.0	5.3
54°	1687.8	1614.6	1464.4	1222.1	918.3	632.9	454.1	325.6	241.3	177.8	4.8
55°	1320.0	1282.2	1143.6	931.9	695.9	504.9	368.3	280.1	202.1	148.8	3.9
56°	1016.7	974.0	847.5	676.0	517.1	395.4	298.0	228.7	171.1	124.5	2.9
57°	665.8	622.2	538.4	472.0	376.5	288.3	227.8	180.3	139.1	103.2	2.4
58°	393.5	353.7	340.7	290.8	251.0	195.8	168.2	134.2	102.7	81.4	1.5
59°	180.8	183.7	163.3	153.1	139.1	124.5	102.2	89.6	70.3	58.6	1.0
60°	105.2	99.3	96.9	86.7	77.0	68.3	61.5	54.3	44.1	37.8	0.5
62.5°	35.9	34.4	35.4	32.0	30.0	29.1	26.7	22.8	18.9	15.5	0.0
65°	9.7	9.7	9.2	8.7	8.2	7.8	7.3	6.3	5.8	4.8	0.0



TEST NUMBER: P1336445

CATALOG NUMBER: P3A05R159740DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	3.4	3.4	2.9	2.9	2.4	2.4	1.9	1.9	1.5	1.5	0.0
70°	1.9	1.9	1.9	1.5	1.5	1.5	1.0	1.0	1.0	0.5	0.0
72.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.0	1.0	1.0	0.5	0.5
75°	1.5	1.5	1.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5
77.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
80°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.5	1.0
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.0
85°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
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: P1336445

CATALOG NUMBER: P3A05R159740DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	43.1	43.1	43.1	43.1	43.1	43.1
2.5°	44.6	42.6	40.2	38.8	38.3	37.8
5°	42.6	38.8	35.9	33.9	33.4	33.4
7.5°	38.3	33.9	31.0	30.0	29.6	29.6
10°	33.4	29.6	27.1	26.2	26.7	26.7
12.5°	28.1	24.7	23.7	23.7	24.2	24.7
15°	22.8	20.8	20.8	21.3	22.3	22.8
17.5°	18.9	17.9	18.4	19.4	20.4	21.3
20°	15.5	15.5	16.5	17.9	19.4	20.4
22.5°	13.1	13.6	15.0	16.5	18.4	19.4
25°	11.1	12.1	13.6	16.0	17.9	18.4
27.5°	9.7	11.1	13.1	15.5	17.4	18.4
30°	8.2	10.2	12.6	15.0	17.4	18.4
31°	7.8	9.7	12.1	15.0	17.4	18.4
32°	7.3	9.7	12.1	15.0	17.4	18.4
33°	6.8	9.2	12.1	14.5	17.4	18.4
34°	6.3	9.2	12.1	15.0	17.4	18.4
35°	5.8	8.7	11.6	14.5	17.0	18.4
36°	5.3	8.7	11.6	14.5	17.4	18.4
37°	4.8	8.7	11.6	14.5	17.0	18.4
38°	4.8	8.2	11.1	14.5	17.0	18.4
39°	4.4	7.8	11.1	14.5	17.0	18.4
40°	3.9	7.8	10.7	14.1	17.0	18.4
41°	3.4	7.3	10.7	14.1	17.0	18.4
42°	2.9	7.3	10.7	14.1	17.0	18.4
43°	2.4	6.8	10.2	14.1	17.0	18.4
44°	2.4	6.8	10.2	14.1	17.0	18.4
45°	1.9	6.3	9.7	14.1	17.0	18.4
46°	1.9	6.3	9.7	13.6	17.0	18.4
47°	1.5	6.3	9.7	13.6	17.0	18.4
48°	1.5	5.8	9.7	13.6	17.0	18.4
49°	1.0	5.8	9.7	13.6	17.0	18.4
50°	1.0	5.8	9.2	13.6	17.0	18.4
51°	1.0	5.8	9.2	13.6	17.0	18.4
52°	1.0	5.3	9.2	13.6	17.0	18.4
53°	1.0	5.3	9.2	13.6	17.0	18.4
54°	1.0	5.3	8.7	13.6	17.0	18.4
55°	1.0	4.8	8.7	13.1	17.0	17.9
56°	1.0	4.8	8.7	13.1	17.0	17.9
57°	1.0	4.8	8.2	13.1	17.0	17.9
58°	1.0	4.4	8.2	12.6	16.5	17.9
59°	1.0	4.4	7.8	12.6	16.5	17.4
60°	1.0	3.9	7.8	12.1	16.0	17.4
62.5°	1.0	3.4	6.8	11.6	15.5	16.5
65°	1.0	2.9	6.3	10.7	15.0	16.0



TEST NUMBER: P1336445

CATALOG NUMBER: P3A05R159740DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.0	2.9	5.8	10.2	14.1	15.5
70°	1.0	2.9	5.3	9.2	13.6	14.1
72.5°	1.5	2.9	4.8	8.7	12.6	13.1
75°	1.9	2.9	4.4	7.8	11.6	12.1
77.5°	1.9	2.9	3.9	6.8	10.2	10.7
80°	1.9	2.4	3.4	5.3	8.2	8.7
82.5°	1.9	2.4	2.4	4.4	6.3	6.8
85°	1.5	1.9	1.9	2.4	4.4	4.8
87.5°	1.5	1.9	1.0	1.5	1.9	1.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)