

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: P1334067

Luminaire Tested: P3A02R159050DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1334067
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: P3A02R159050DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R15 optic, 5000K CCT AND, 90CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

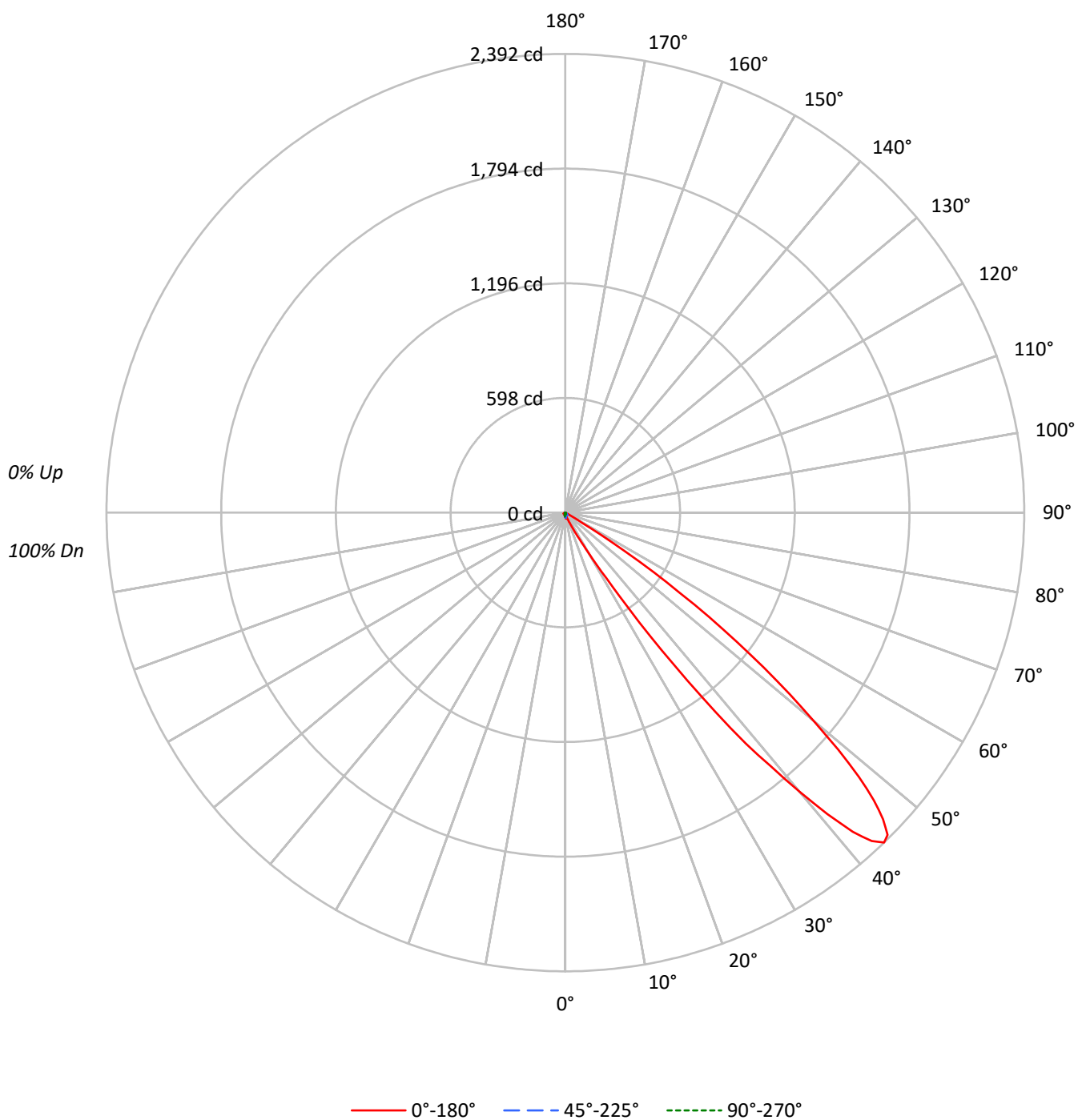
Lumens per Lamp: N/A
Luminaire Lumens: 267.0 lumens
Efficiency: N/A
Efficacy: 74.2 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 3.6
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: P1334067

CATALOG NUMBER: P3A02R159050DE010 E3CA451MMS

Luminous Intensity Polar Plot



TEST NUMBER: P1334067

CATALOG NUMBER: P3A02R159050DE010 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	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	100	97	94	96	93	91	92	90	89	87		
2	101	93	87	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73		
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61		
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	53	50		
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	49	44	42		
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	48	42	37	35		
7	62	47	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31	29		
8	56	42	33	27	55	41	33	27	40	32	26	39	31	26	37	31	26	24		
9	52	37	28	22	50	37	28	22	35	28	22	34	27	22	33	27	22	20		
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	23	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	5197	5197	5197	5197	5197
5°	6449	5745	4689	4094	4050
10°	6346	4921	3607	3206	3251
15°	5267	3496	2588	2656	2838
20°	9124	2800	1984	2310	2614
25°	20348	3339	1621	2129	2444
30°	60870	4102	1418	2102	2557
35°	234311	4631	1285	2142	2704
40°	543876	4036	1231	2204	2891
45°	736666	3070	1085	2388	3132
50°	577619	1808	1092	2559	3446
55°	277247	803	1032	2753	3785
60°	25349	132	921	2938	4210
65°	2750	0	830	3061	4566
70°	705	0	1026	3270	4937
75°	678	254	1356	3643	5676
80°	631	631	1642	3662	6061
85°	755	755	2768	3271	6793

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 736666 cd/sqm

TEST NUMBER: P1334067

CATALOG NUMBER: P3A02R159050DE010 E3CA451MMS

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.0	0.8
10°-20°	4.2	1.6
20°-30°	10.1	3.8
30°-40°	55.2	20.7
40°-50°	133.7	50.1
50°-60°	53.4	20.0
60°-70°	4.6	1.7
70°-80°	2.6	1.0
80°-90°	1.2	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°	16.3	6.1
0°-40°	71.6	26.8
0°-60°	258.6	96.9
0°-90°	267.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	267.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	24	24	24	24	24	
5°	29	26	21	19	18	3
15°	23	15	11	12	12	8
25°	84	14	7	9	10	51
35°	875	17	5	8	10	619
45°	2376	10	4	8	10	1676
55°	725	2	3	7	10	676
65°	5	0	2	6	9	14
75°	1	0	2	4	7	1
85°	0	0	1	1	3	0
90°	0	0	0	0	0	

TEST NUMBER: P1334067

CATALOG NUMBER: P3A02R159050DE010 E3CA451MMS

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7	23.7
2.5°	26.6	26.6	26.9	26.6	26.6	26.6	26.6	26.4	26.4	26.4	25.6
5°	29.3	29.3	29.3	29.3	29.0	29.0	29.0	28.8	28.8	28.5	26.1
7.5°	30.3	30.3	30.1	30.1	29.8	29.8	29.6	29.3	29.0	28.8	25.0
10°	28.5	28.5	28.5	28.2	28.2	28.0	27.7	27.4	27.2	26.6	22.1
12.5°	25.3	25.3	25.6	25.3	25.0	24.8	24.2	24.0	23.7	23.2	18.4
15°	23.2	23.2	23.2	22.9	22.6	22.1	21.8	21.3	21.0	20.2	15.4
17.5°	29.6	29.6	29.3	28.8	27.7	26.9	25.6	24.5	23.2	21.6	13.3
20°	39.1	39.1	38.6	38.1	36.7	35.4	33.3	31.4	29.3	27.4	12.0
22.5°	56.7	57.5	55.9	54.0	52.2	49.0	46.1	43.1	39.4	36.2	12.2
25°	84.1	84.9	84.1	79.9	76.4	72.1	66.6	60.7	54.3	48.5	13.8
27.5°	136.3	136.8	135.5	125.1	119.5	108.4	98.5	88.9	78.3	67.6	15.2
30°	240.4	240.7	232.1	211.4	193.0	168.5	147.8	127.8	111.0	94.0	16.2
31°	316.5	309.1	291.0	266.0	236.7	203.7	175.2	149.4	124.3	106.0	16.5
32°	402.0	400.9	370.9	327.5	288.3	247.1	204.2	171.2	142.4	117.4	16.8
33°	515.1	515.7	468.3	417.2	353.0	297.6	241.5	196.2	161.6	131.0	17.3
34°	691.9	650.4	594.7	525.5	438.2	354.9	281.9	225.2	178.9	144.0	17.3
35°	875.3	833.5	772.3	667.4	547.6	431.0	330.1	256.4	199.7	158.1	17.3
36°	1080.9	1045.5	952.8	818.9	666.1	502.9	381.2	292.3	220.2	170.9	17.0
37°	1302.9	1251.0	1148.2	1002.1	797.6	604.1	443.5	328.0	240.7	184.8	16.5
38°	1528.4	1481.5	1351.9	1174.8	954.7	710.8	505.8	362.3	259.6	195.1	15.7
39°	1699.3	1673.8	1545.2	1347.4	1080.1	812.0	570.0	399.1	279.5	205.5	14.9
40°	1900.0	1858.8	1736.8	1492.2	1228.4	915.0	632.8	431.5	296.0	213.8	14.1
41°	2083.2	2031.0	1877.1	1640.7	1347.1	1007.7	692.4	465.1	309.4	218.6	13.6
42°	2240.3	2179.6	2018.8	1768.0	1446.4	1081.7	740.1	489.1	321.9	222.6	12.8
43°	2342.0	2289.5	2131.4	1863.6	1531.3	1149.6	784.6	514.1	329.6	225.2	11.7
44°	2391.5	2338.5	2185.4	1923.5	1583.5	1190.3	813.3	531.4	338.1	228.7	10.9
45°	2375.5	2321.7	2173.7	1924.5	1599.7	1204.9	825.6	539.1	342.6	231.9	9.9
46°	2302.3	2264.5	2115.4	1874.5	1568.9	1189.2	818.6	533.2	341.0	231.9	8.8
47°	2199.5	2156.4	2014.5	1788.5	1494.0	1148.8	790.7	515.4	331.2	226.6	7.7
48°	2059.5	2022.8	1873.7	1651.9	1379.3	1060.6	727.6	486.4	315.7	216.2	6.7
49°	1883.8	1832.7	1694.0	1477.3	1229.7	935.5	644.8	437.4	291.0	201.5	5.9
50°	1693.2	1630.1	1523.1	1302.4	1075.0	802.1	535.9	369.8	256.1	182.4	5.3
51°	1506.6	1442.4	1340.4	1152.8	910.0	665.6	432.3	295.2	210.8	156.0	4.5
52°	1313.0	1259.2	1145.0	997.5	779.0	539.4	360.2	249.7	175.2	131.0	3.7
53°	1120.3	1083.5	974.9	825.6	625.9	440.6	294.2	213.8	152.8	112.1	2.9
54°	927.3	887.1	804.5	671.4	504.5	347.7	249.5	178.9	132.6	97.7	2.7
55°	725.2	704.4	628.3	511.9	382.3	277.4	202.3	153.9	111.0	81.7	2.1
56°	558.5	535.1	465.6	371.4	284.1	217.2	163.7	125.7	94.0	68.4	1.6
57°	365.8	341.8	295.8	259.3	206.9	158.4	125.1	99.0	76.4	56.7	1.3
58°	216.2	194.3	187.2	159.7	137.9	107.6	92.4	73.7	56.4	44.7	0.8
59°	99.3	100.9	89.7	84.1	76.4	68.4	56.2	49.3	38.6	32.2	0.5
60°	57.8	54.6	53.2	47.7	42.3	37.5	33.8	29.8	24.2	20.8	0.3
62.5°	19.7	18.9	19.4	17.6	16.5	16.0	14.6	12.5	10.4	8.5	0.0
65°	5.3	5.3	5.1	4.8	4.5	4.3	4.0	3.5	3.2	2.7	0.0



TEST NUMBER: P1334067

CATALOG NUMBER: P3A02R159050DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	1.9	1.9	1.6	1.6	1.3	1.3	1.1	1.1	0.8	0.8	0.0
70°	1.1	1.1	1.1	0.8	0.8	0.8	0.5	0.5	0.5	0.3	0.0
72.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.5	0.5	0.5	0.3	0.3
75°	0.8	0.8	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.3
77.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.3	0.5
82.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5
85°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
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: P1334067

CATALOG NUMBER: P3A02R159050DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	23.7	23.7	23.7	23.7	23.7	23.7
2.5°	24.5	23.4	22.1	21.3	21.0	20.8
5°	23.4	21.3	19.7	18.6	18.4	18.4
7.5°	21.0	18.6	17.0	16.5	16.2	16.2
10°	18.4	16.2	14.9	14.4	14.6	14.6
12.5°	15.4	13.6	13.0	13.0	13.3	13.6
15°	12.5	11.4	11.4	11.7	12.2	12.5
17.5°	10.4	9.9	10.1	10.6	11.2	11.7
20°	8.5	8.5	9.1	9.9	10.6	11.2
22.5°	7.2	7.5	8.3	9.1	10.1	10.6
25°	6.1	6.7	7.5	8.8	9.9	10.1
27.5°	5.3	6.1	7.2	8.5	9.6	10.1
30°	4.5	5.6	6.9	8.3	9.6	10.1
31°	4.3	5.3	6.7	8.3	9.6	10.1
32°	4.0	5.3	6.7	8.3	9.6	10.1
33°	3.7	5.1	6.7	8.0	9.6	10.1
34°	3.5	5.1	6.7	8.3	9.6	10.1
35°	3.2	4.8	6.4	8.0	9.3	10.1
36°	2.9	4.8	6.4	8.0	9.6	10.1
37°	2.7	4.8	6.4	8.0	9.3	10.1
38°	2.7	4.5	6.1	8.0	9.3	10.1
39°	2.4	4.3	6.1	8.0	9.3	10.1
40°	2.1	4.3	5.9	7.7	9.3	10.1
41°	1.9	4.0	5.9	7.7	9.3	10.1
42°	1.6	4.0	5.9	7.7	9.3	10.1
43°	1.3	3.7	5.6	7.7	9.3	10.1
44°	1.3	3.7	5.6	7.7	9.3	10.1
45°	1.1	3.5	5.3	7.7	9.3	10.1
46°	1.1	3.5	5.3	7.5	9.3	10.1
47°	0.8	3.5	5.3	7.5	9.3	10.1
48°	0.8	3.2	5.3	7.5	9.3	10.1
49°	0.5	3.2	5.3	7.5	9.3	10.1
50°	0.5	3.2	5.1	7.5	9.3	10.1
51°	0.5	3.2	5.1	7.5	9.3	10.1
52°	0.5	2.9	5.1	7.5	9.3	10.1
53°	0.5	2.9	5.1	7.5	9.3	10.1
54°	0.5	2.9	4.8	7.5	9.3	10.1
55°	0.5	2.7	4.8	7.2	9.3	9.9
56°	0.5	2.7	4.8	7.2	9.3	9.9
57°	0.5	2.7	4.5	7.2	9.3	9.9
58°	0.5	2.4	4.5	6.9	9.1	9.9
59°	0.5	2.4	4.3	6.9	9.1	9.6
60°	0.5	2.1	4.3	6.7	8.8	9.6
62.5°	0.5	1.9	3.7	6.4	8.5	9.1
65°	0.5	1.6	3.5	5.9	8.3	8.8



TEST NUMBER: P1334067

CATALOG NUMBER: P3A02R159050DE010 E3CA451MMS

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.5	1.6	3.2	5.6	7.7	8.5
70°	0.5	1.6	2.9	5.1	7.5	7.7
72.5°	0.8	1.6	2.7	4.8	6.9	7.2
75°	1.1	1.6	2.4	4.3	6.4	6.7
77.5°	1.1	1.6	2.1	3.7	5.6	5.9
80°	1.1	1.3	1.9	2.9	4.5	4.8
82.5°	1.1	1.3	1.3	2.4	3.5	3.7
85°	0.8	1.1	1.1	1.3	2.4	2.7
87.5°	0.8	1.1	0.5	0.8	1.1	1.1
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)