

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: P1334053

Luminaire Tested: P3A02R159040DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1334053
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: P3A02R159040DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R15 optic, 4000K CCT AND, 90CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

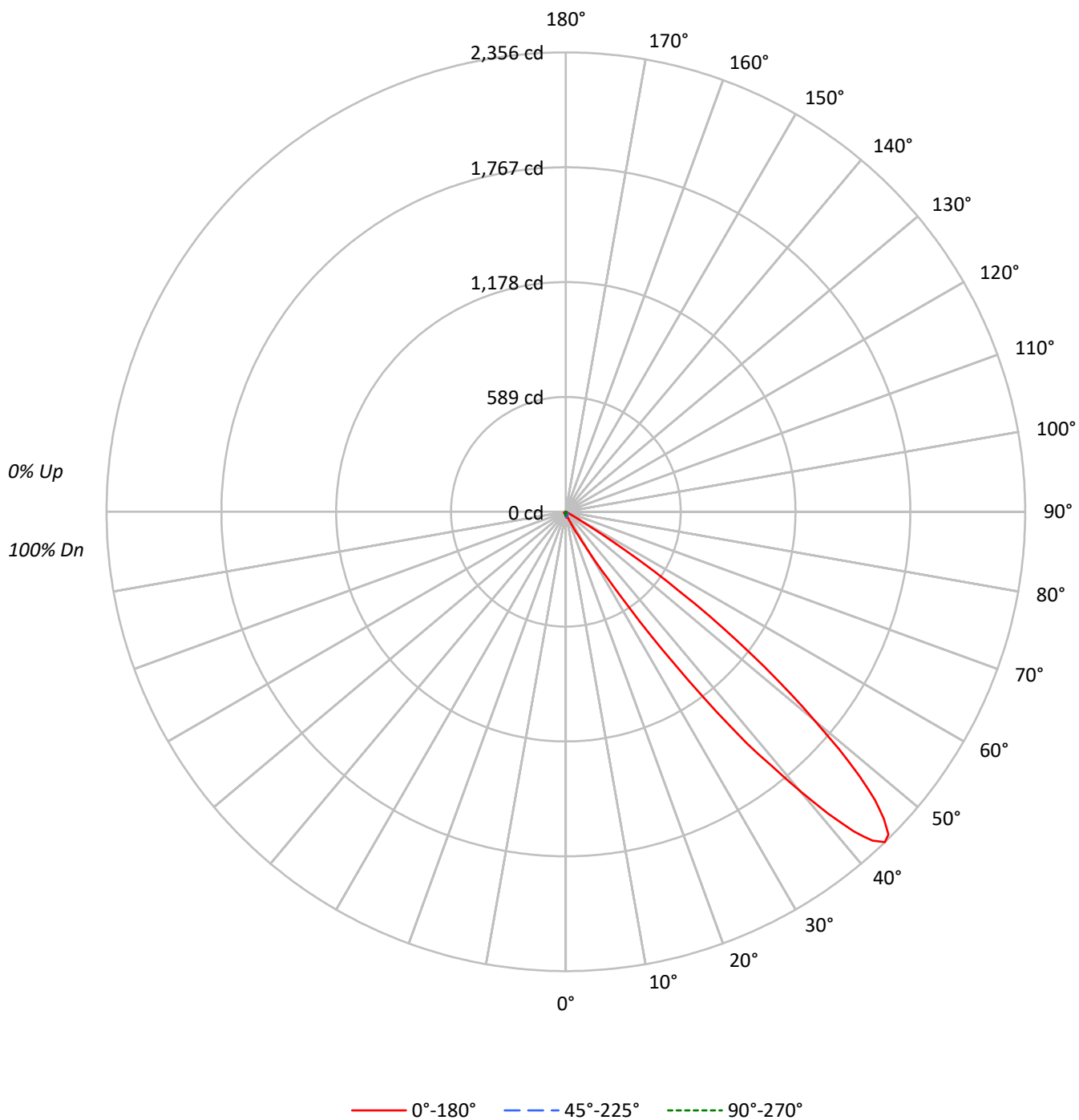
Lumens per Lamp: N/A
Luminaire Lumens: 263.0 lumens
Efficiency: N/A
Efficacy: 73.1 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.48 / 1.09
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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

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Luminous Intensity Polar Plot



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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°	5109	5109	5109	5109	5109
5°	6339	5657	4622	4050	3984
10°	6257	4854	3563	3162	3206
15°	5176	3451	2565	2611	2792
20°	8984	2754	1960	2264	2567
25°	20058	3291	1597	2105	2419
30°	59959	4051	1393	2051	2532
35°	230804	4551	1258	2115	2677
40°	535747	3979	1202	2176	2863
45°	725626	3008	1054	2357	3101
50°	568954	1774	1058	2490	3411
55°	273080	803	994	2714	3708
60°	24954	132	921	2895	4122
65°	2698	0	830	3009	4514
70°	641	0	1026	3206	4873
75°	678	254	1356	3558	5592
80°	631	631	1642	3662	5935
85°	755	755	2516	3271	6542

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 725626 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.0	0.8
10°-20°	4.1	1.6
20°-30°	9.9	3.8
30°-40°	54.4	20.7
40°-50°	131.7	50.1
50°-60°	52.6	20.0
60°-70°	4.5	1.7
70°-80°	2.6	1.0
80°-90°	1.1	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°	16.1	6.1
0°-40°	70.5	26.8
0°-60°	254.8	96.9
0°-90°	263.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	263.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	23	23	23	23	23	
5°	29	26	21	18	18	3
15°	23	15	11	12	12	8
25°	83	14	7	9	10	50
35°	862	17	5	8	10	609
45°	2340	10	3	8	10	1651
55°	714	2	3	7	10	665
65°	5	0	2	6	9	13
75°	1	0	2	4	7	1
85°	0	0	1	1	3	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3	23.3
2.5°	26.2	26.2	26.5	26.2	26.2	26.2	26.2	26.0	26.0	26.0	25.2
5°	28.8	28.8	28.8	28.8	28.6	28.6	28.6	28.3	28.3	28.1	25.7
7.5°	29.9	29.9	29.6	29.6	29.4	29.4	29.1	28.8	28.6	28.3	24.7
10°	28.1	28.1	28.1	27.8	27.8	27.5	27.3	27.0	26.7	26.2	21.8
12.5°	24.9	24.9	25.2	24.9	24.7	24.4	23.9	23.6	23.3	22.8	18.1
15°	22.8	22.8	22.8	22.6	22.3	21.8	21.5	21.0	20.7	19.9	15.2
17.5°	29.1	29.1	28.8	28.3	27.3	26.5	25.2	24.1	22.8	21.2	13.1
20°	38.5	38.5	38.0	37.5	36.2	34.9	32.8	30.9	28.8	27.0	11.8
22.5°	55.9	56.6	55.1	53.2	51.4	48.3	45.4	42.5	38.8	35.7	12.1
25°	82.9	83.7	82.9	78.7	75.3	71.1	65.6	59.8	53.5	47.7	13.6
27.5°	134.3	134.8	133.5	123.3	117.7	106.7	97.0	87.6	77.1	66.6	14.9
30°	236.8	237.1	228.7	208.2	190.1	166.0	145.5	125.9	109.4	92.6	16.0
31°	311.8	304.5	286.6	262.0	233.1	200.6	172.6	147.1	122.5	104.4	16.3
32°	396.0	394.9	365.3	322.5	284.0	243.4	201.1	168.6	140.3	115.6	16.5
33°	507.4	508.0	461.3	410.9	347.7	293.2	237.8	193.3	159.2	129.0	17.0
34°	681.6	640.6	585.8	517.7	431.6	349.6	277.7	221.9	176.2	141.9	17.0
35°	862.2	821.1	760.7	657.4	539.4	424.6	325.2	252.5	196.7	155.8	17.0
36°	1064.7	1029.8	938.5	806.6	656.1	495.4	375.5	287.9	216.9	168.4	16.8
37°	1283.4	1232.2	1131.0	987.1	785.7	595.0	436.9	323.1	237.1	182.0	16.3
38°	1505.5	1459.3	1331.6	1157.2	940.4	700.2	498.2	356.9	255.7	192.2	15.5
39°	1673.9	1648.7	1522.0	1327.2	1063.9	799.8	561.4	393.1	275.3	202.4	14.7
40°	1871.6	1830.9	1710.8	1469.8	1210.0	901.3	623.3	425.1	291.6	210.6	13.9
41°	2052.0	2000.6	1849.0	1616.2	1326.9	992.6	682.1	458.1	304.7	215.3	13.4
42°	2206.7	2146.9	1988.5	1741.5	1424.7	1065.5	729.0	481.7	317.0	219.2	12.6
43°	2306.9	2255.2	2099.5	1835.7	1508.4	1132.3	772.8	506.4	324.6	221.9	11.5
44°	2355.7	2303.5	2152.7	1894.7	1559.8	1172.5	801.1	523.4	333.0	225.3	10.8
45°	2339.9	2287.0	2141.2	1895.7	1575.8	1186.9	813.2	531.0	337.5	228.4	9.7
46°	2267.8	2230.6	2083.7	1846.4	1545.4	1171.4	806.4	525.3	335.9	228.4	8.7
47°	2166.6	2124.1	1984.3	1761.7	1471.7	1131.5	778.8	507.7	326.2	223.2	7.6
48°	2028.7	1992.5	1845.6	1627.2	1358.6	1044.7	716.7	479.1	311.0	212.9	6.6
49°	1855.6	1805.2	1668.6	1455.1	1211.3	921.5	635.1	430.9	286.6	198.5	5.8
50°	1667.8	1605.7	1500.3	1282.9	1058.9	790.1	527.9	364.2	252.3	179.6	5.2
51°	1484.0	1420.8	1320.4	1135.5	896.3	655.6	425.9	290.8	207.7	153.7	4.5
52°	1293.3	1240.4	1127.9	982.6	767.3	531.3	354.8	246.0	172.6	129.0	3.7
53°	1103.5	1067.3	960.3	813.2	616.5	434.0	289.8	210.6	150.5	110.4	2.9
54°	913.4	873.8	792.5	661.4	496.9	342.5	245.7	176.2	130.6	96.2	2.6
55°	714.3	693.9	618.9	504.3	376.6	273.2	199.3	151.6	109.4	80.5	2.1
56°	550.2	527.1	458.7	365.8	279.8	214.0	161.3	123.8	92.6	67.4	1.6
57°	360.3	336.7	291.3	255.4	203.8	156.0	123.3	97.6	75.3	55.9	1.3
58°	212.9	191.4	184.4	157.3	135.8	105.9	91.0	72.6	55.6	44.1	0.8
59°	97.8	99.4	88.4	82.9	75.3	67.4	55.3	48.5	38.0	31.7	0.5
60°	56.9	53.8	52.4	46.9	41.7	37.0	33.3	29.4	23.9	20.5	0.3
62.5°	19.4	18.6	19.1	17.3	16.3	15.7	14.4	12.3	10.2	8.4	0.0
65°	5.2	5.2	5.0	4.7	4.5	4.2	3.9	3.4	3.1	2.6	0.0



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CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	1.8	1.8	1.6	1.6	1.3	1.3	1.0	1.0	0.8	0.8	0.0
70°	1.0	1.0	1.0	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

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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	23.3	23.3	23.3	23.3	23.3	23.3
2.5°	24.1	23.1	21.8	21.0	20.7	20.5
5°	23.1	21.0	19.4	18.4	18.1	18.1
7.5°	20.7	18.4	16.8	16.3	16.0	16.0
10°	18.1	16.0	14.7	14.2	14.4	14.4
12.5°	15.2	13.4	12.8	12.8	13.1	13.4
15°	12.3	11.3	11.3	11.5	12.1	12.3
17.5°	10.2	9.7	10.0	10.5	11.0	11.5
20°	8.4	8.4	8.9	9.7	10.5	11.0
22.5°	7.1	7.3	8.1	8.9	10.0	10.5
25°	6.0	6.6	7.3	8.7	9.7	10.0
27.5°	5.2	6.0	7.1	8.4	9.4	10.0
30°	4.5	5.5	6.8	8.1	9.4	10.0
31°	4.2	5.2	6.6	8.1	9.4	10.0
32°	3.9	5.2	6.6	8.1	9.4	10.0
33°	3.7	5.0	6.6	7.9	9.4	10.0
34°	3.4	5.0	6.6	8.1	9.4	10.0
35°	3.1	4.7	6.3	7.9	9.2	10.0
36°	2.9	4.7	6.3	7.9	9.4	10.0
37°	2.6	4.7	6.3	7.9	9.2	10.0
38°	2.6	4.5	6.0	7.9	9.2	10.0
39°	2.4	4.2	6.0	7.9	9.2	10.0
40°	2.1	4.2	5.8	7.6	9.2	10.0
41°	1.8	3.9	5.8	7.6	9.2	10.0
42°	1.6	3.9	5.8	7.6	9.2	10.0
43°	1.3	3.7	5.5	7.6	9.2	10.0
44°	1.3	3.7	5.5	7.6	9.2	10.0
45°	1.0	3.4	5.2	7.6	9.2	10.0
46°	1.0	3.4	5.2	7.3	9.2	10.0
47°	0.8	3.4	5.2	7.3	9.2	10.0
48°	0.8	3.1	5.2	7.3	9.2	10.0
49°	0.5	3.1	5.2	7.3	9.2	10.0
50°	0.5	3.1	5.0	7.3	9.2	10.0
51°	0.5	3.1	5.0	7.3	9.2	10.0
52°	0.5	2.9	5.0	7.3	9.2	10.0
53°	0.5	2.9	5.0	7.3	9.2	10.0
54°	0.5	2.9	4.7	7.3	9.2	10.0
55°	0.5	2.6	4.7	7.1	9.2	9.7
56°	0.5	2.6	4.7	7.1	9.2	9.7
57°	0.5	2.6	4.5	7.1	9.2	9.7
58°	0.5	2.4	4.5	6.8	8.9	9.7
59°	0.5	2.4	4.2	6.8	8.9	9.4
60°	0.5	2.1	4.2	6.6	8.7	9.4
62.5°	0.5	1.8	3.7	6.3	8.4	8.9
65°	0.5	1.6	3.4	5.8	8.1	8.7



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.5	1.6	3.1	5.5	7.6	8.4
70°	0.5	1.6	2.9	5.0	7.3	7.6
72.5°	0.8	1.6	2.6	4.7	6.8	7.1
75°	1.0	1.6	2.4	4.2	6.3	6.6
77.5°	1.0	1.6	2.1	3.7	5.5	5.8
80°	1.0	1.3	1.8	2.9	4.5	4.7
82.5°	1.0	1.3	1.3	2.4	3.4	3.7
85°	0.8	1.0	1.0	1.3	2.4	2.6
87.5°	0.8	1.0	0.5	0.8	1.0	1.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)