

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: P1333981

Luminaire Tested: P3A02R159024DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1333981
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: P3A02R159024DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R15 optic, 2400K CCT AND, 90CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

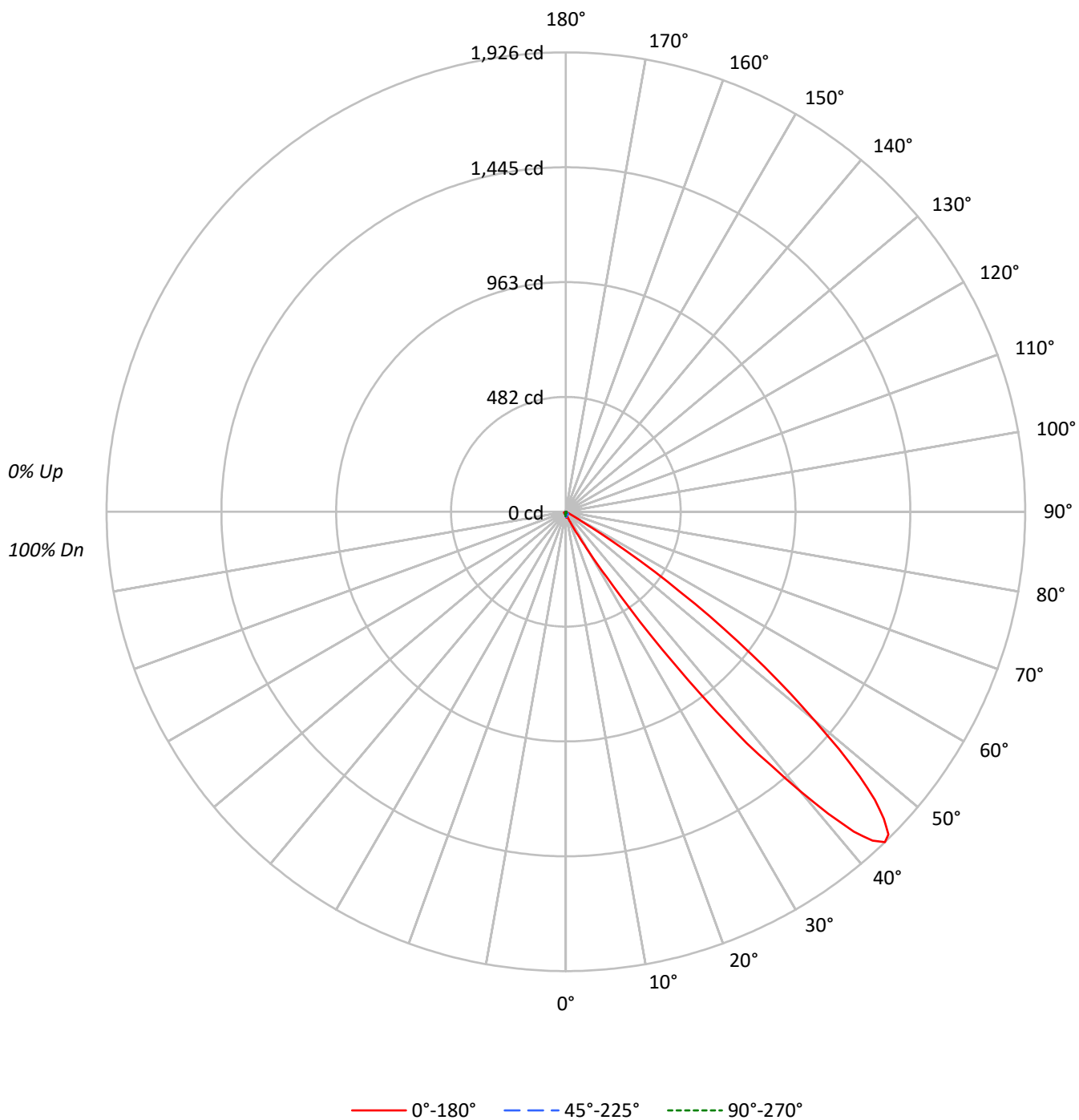
Lumens per Lamp: N/A
Luminaire Lumens: 215.0 lumens
Efficiency: N/A
Efficacy: 59.7 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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

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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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	110	106	102	99	107	104	100	97	100	97	94	96	93	91	92	90	89
2	101	93	87	81	98	91	85	80	87	83	78	84	80	77	81	78	75
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63
4	83	71	62	55	80	69	61	55	67	60	54	64	58	53	62	57	53
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	55	49	44
6	68	54	45	38	66	53	44	38	51	43	37	49	42	37	48	42	37
7	62	47	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31
8	56	42	33	27	55	41	33	27	40	32	26	39	31	26	37	31	26
9	52	37	28	22	50	37	28	22	35	28	22	34	27	22	33	27	22
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	23	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	4188	4188	4188	4188	4188
5°	5195	4622	3786	3302	3258
10°	5099	3963	2917	2583	2627
15°	4245	2815	2089	2134	2293
20°	7351	2240	1610	1843	2100
25°	16380	2686	1307	1718	1960
30°	49020	3317	1139	1671	2051
35°	188696	3721	1044	1713	2168
40°	437963	3263	973	1775	2319
45°	593209	2450	868	1923	2512
50°	465111	1467	887	2047	2763
55°	223266	650	803	2217	3020
60°	20393	88	746	2368	3377
65°	2231	0	675	2439	3684
70°	577	0	833	2629	3975
75°	508	169	1101	2881	4575
80°	505	505	1389	3031	4925
85°	503	503	2264	2768	5284

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 593209 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.6	0.8
10°-20°	3.4	1.6
20°-30°	8.1	3.8
30°-40°	44.5	20.7
40°-50°	107.7	50.1
50°-60°	43.0	20.0
60°-70°	3.7	1.7
70°-80°	2.1	1.0
80°-90°	0.9	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°	13.1	6.1
0°-40°	57.6	26.8
0°-60°	208.3	96.9
0°-90°	215.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	215.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	19	19	19	19	19	
5°	24	21	17	15	15	2
15°	19	12	9	9	10	6
25°	68	11	5	7	8	41
35°	705	14	4	6	8	498
45°	1913	8	3	6	8	1349
55°	584	2	2	6	8	544
65°	4	0	1	5	7	11
75°	1	0	1	3	5	1
85°	0	0	1	1	2	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°	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1	19.1
2.5°	21.4	21.4	21.7	21.4	21.4	21.4	21.4	21.2	21.2	21.2	20.6
5°	23.6	23.6	23.6	23.6	23.4	23.4	23.4	23.2	23.2	22.9	21.0
7.5°	24.4	24.4	24.2	24.2	24.0	24.0	23.8	23.6	23.4	23.2	20.2
10°	22.9	22.9	22.9	22.7	22.7	22.5	22.3	22.1	21.9	21.4	17.8
12.5°	20.4	20.4	20.6	20.4	20.2	19.9	19.5	19.3	19.1	18.7	14.8
15°	18.7	18.7	18.7	18.4	18.2	17.8	17.6	17.2	16.9	16.3	12.4
17.5°	23.8	23.8	23.6	23.2	22.3	21.7	20.6	19.7	18.7	17.4	10.7
20°	31.5	31.5	31.1	30.7	29.6	28.5	26.8	25.3	23.6	22.1	9.6
22.5°	45.7	46.3	45.0	43.5	42.0	39.4	37.1	34.7	31.7	29.2	9.9
25°	67.7	68.4	67.7	64.3	61.5	58.1	53.6	48.9	43.7	39.0	11.1
27.5°	109.8	110.2	109.1	100.8	96.3	87.3	79.3	71.6	63.0	54.5	12.2
30°	193.6	193.8	186.9	170.2	155.4	135.7	119.0	102.9	89.4	75.7	13.1
31°	254.9	248.9	234.3	214.2	190.6	164.0	141.1	120.3	100.1	85.3	13.3
32°	323.7	322.8	298.6	263.7	232.2	198.9	164.4	137.8	114.7	94.5	13.5
33°	414.8	415.2	377.1	335.9	284.3	239.7	194.4	158.0	130.1	105.5	13.9
34°	557.2	523.7	478.9	423.2	352.9	285.8	227.0	181.4	144.1	116.0	13.9
35°	704.9	671.2	621.9	537.4	441.0	347.1	265.8	206.4	160.8	127.3	13.9
36°	870.4	841.9	767.2	659.4	536.4	405.0	307.0	235.4	177.3	137.6	13.7
37°	1049.2	1007.3	924.6	806.9	642.3	486.4	357.1	264.1	193.8	148.8	13.3
38°	1230.7	1193.0	1088.6	946.0	768.7	572.4	407.3	291.8	209.0	157.1	12.6
39°	1368.4	1347.8	1244.2	1085.0	869.7	653.8	459.0	321.3	225.1	165.5	12.0
40°	1530.0	1496.8	1398.6	1201.6	989.1	736.8	509.6	347.5	238.4	172.1	11.4
41°	1677.5	1635.5	1511.6	1321.2	1084.7	811.4	557.6	374.5	249.1	176.0	10.9
42°	1804.0	1755.1	1625.6	1423.7	1164.7	871.0	596.0	393.8	259.2	179.2	10.3
43°	1885.9	1843.6	1716.3	1500.6	1233.1	925.7	631.8	414.0	265.4	181.4	9.4
44°	1925.7	1883.1	1759.8	1548.9	1275.1	958.5	654.9	427.9	272.3	184.1	8.8
45°	1912.9	1869.6	1750.4	1549.7	1288.2	970.3	664.8	434.1	275.9	186.7	7.9
46°	1853.9	1823.5	1703.4	1509.4	1263.3	957.6	659.2	429.4	274.6	186.7	7.1
47°	1771.2	1736.4	1622.2	1440.2	1203.1	925.0	636.7	415.0	266.7	182.4	6.2
48°	1658.4	1628.8	1508.8	1330.2	1110.7	854.1	585.9	391.7	254.2	174.1	5.4
49°	1516.9	1475.8	1364.1	1189.6	990.2	753.3	519.2	352.2	234.3	162.3	4.7
50°	1363.4	1312.6	1226.4	1048.7	865.6	645.9	431.5	297.8	206.2	146.8	4.3
51°	1213.1	1161.5	1079.4	928.2	732.7	535.9	348.1	237.7	169.8	125.6	3.6
52°	1057.3	1014.0	922.0	803.3	627.3	434.3	290.0	201.1	141.1	105.5	3.0
53°	902.1	872.5	785.0	664.8	504.0	354.8	236.9	172.1	123.1	90.3	2.4
54°	746.7	714.3	647.8	540.7	406.2	280.0	200.9	144.1	106.8	78.7	2.1
55°	584.0	567.2	505.9	412.2	307.8	223.4	162.9	123.9	89.4	65.8	1.7
56°	449.8	430.9	374.9	299.1	228.7	174.9	131.8	101.2	75.7	55.1	1.3
57°	294.6	275.3	238.2	208.8	166.6	127.6	100.8	79.7	61.5	45.7	1.1
58°	174.1	156.5	150.7	128.6	111.0	86.6	74.4	59.4	45.4	36.0	0.6
59°	80.0	81.2	72.2	67.7	61.5	55.1	45.2	39.7	31.1	25.9	0.4
60°	46.5	43.9	42.9	38.4	34.1	30.2	27.2	24.0	19.5	16.7	0.2
62.5°	15.9	15.2	15.6	14.1	13.3	12.9	11.8	10.1	8.4	6.9	0.0
65°	4.3	4.3	4.1	3.9	3.6	3.4	3.2	2.8	2.6	2.1	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°	1.5	1.5	1.3	1.3	1.1	1.1	0.9	0.9	0.6	0.6	0.0
70°	0.9	0.9	0.9	0.6	0.6	0.6	0.4	0.4	0.4	0.2	0.0
72.5°	0.6	0.6	0.6	0.6	0.6	0.6	0.4	0.4	0.4	0.2	0.2
75°	0.6	0.6	0.6	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.2
77.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	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	0.2	0.4
82.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4
85°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
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°	19.1	19.1	19.1	19.1	19.1	19.1
2.5°	19.7	18.9	17.8	17.2	16.9	16.7
5°	18.9	17.2	15.9	15.0	14.8	14.8
7.5°	16.9	15.0	13.7	13.3	13.1	13.1
10°	14.8	13.1	12.0	11.6	11.8	11.8
12.5°	12.4	10.9	10.5	10.5	10.7	10.9
15°	10.1	9.2	9.2	9.4	9.9	10.1
17.5°	8.4	7.9	8.1	8.6	9.0	9.4
20°	6.9	6.9	7.3	7.9	8.6	9.0
22.5°	5.8	6.0	6.6	7.3	8.1	8.6
25°	4.9	5.4	6.0	7.1	7.9	8.1
27.5°	4.3	4.9	5.8	6.9	7.7	8.1
30°	3.6	4.5	5.6	6.6	7.7	8.1
31°	3.4	4.3	5.4	6.6	7.7	8.1
32°	3.2	4.3	5.4	6.6	7.7	8.1
33°	3.0	4.1	5.4	6.4	7.7	8.1
34°	2.8	4.1	5.4	6.6	7.7	8.1
35°	2.6	3.9	5.1	6.4	7.5	8.1
36°	2.4	3.9	5.1	6.4	7.7	8.1
37°	2.1	3.9	5.1	6.4	7.5	8.1
38°	2.1	3.6	4.9	6.4	7.5	8.1
39°	1.9	3.4	4.9	6.4	7.5	8.1
40°	1.7	3.4	4.7	6.2	7.5	8.1
41°	1.5	3.2	4.7	6.2	7.5	8.1
42°	1.3	3.2	4.7	6.2	7.5	8.1
43°	1.1	3.0	4.5	6.2	7.5	8.1
44°	1.1	3.0	4.5	6.2	7.5	8.1
45°	0.9	2.8	4.3	6.2	7.5	8.1
46°	0.9	2.8	4.3	6.0	7.5	8.1
47°	0.6	2.8	4.3	6.0	7.5	8.1
48°	0.6	2.6	4.3	6.0	7.5	8.1
49°	0.4	2.6	4.3	6.0	7.5	8.1
50°	0.4	2.6	4.1	6.0	7.5	8.1
51°	0.4	2.6	4.1	6.0	7.5	8.1
52°	0.4	2.4	4.1	6.0	7.5	8.1
53°	0.4	2.4	4.1	6.0	7.5	8.1
54°	0.4	2.4	3.9	6.0	7.5	8.1
55°	0.4	2.1	3.9	5.8	7.5	7.9
56°	0.4	2.1	3.9	5.8	7.5	7.9
57°	0.4	2.1	3.6	5.8	7.5	7.9
58°	0.4	1.9	3.6	5.6	7.3	7.9
59°	0.4	1.9	3.4	5.6	7.3	7.7
60°	0.4	1.7	3.4	5.4	7.1	7.7
62.5°	0.4	1.5	3.0	5.1	6.9	7.3
65°	0.4	1.3	2.8	4.7	6.6	7.1



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.4	1.3	2.6	4.5	6.2	6.9
70°	0.4	1.3	2.4	4.1	6.0	6.2
72.5°	0.6	1.3	2.1	3.9	5.6	5.8
75°	0.9	1.3	1.9	3.4	5.1	5.4
77.5°	0.9	1.3	1.7	3.0	4.5	4.7
80°	0.9	1.1	1.5	2.4	3.6	3.9
82.5°	0.9	1.1	1.1	1.9	2.8	3.0
85°	0.6	0.9	0.9	1.1	1.9	2.1
87.5°	0.6	0.9	0.4	0.6	0.9	0.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)