

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: P1346069

Luminaire Tested: P3A13R409740DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1346069
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-78)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R409740DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R40 optic, 4000K CCT AND, 97CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

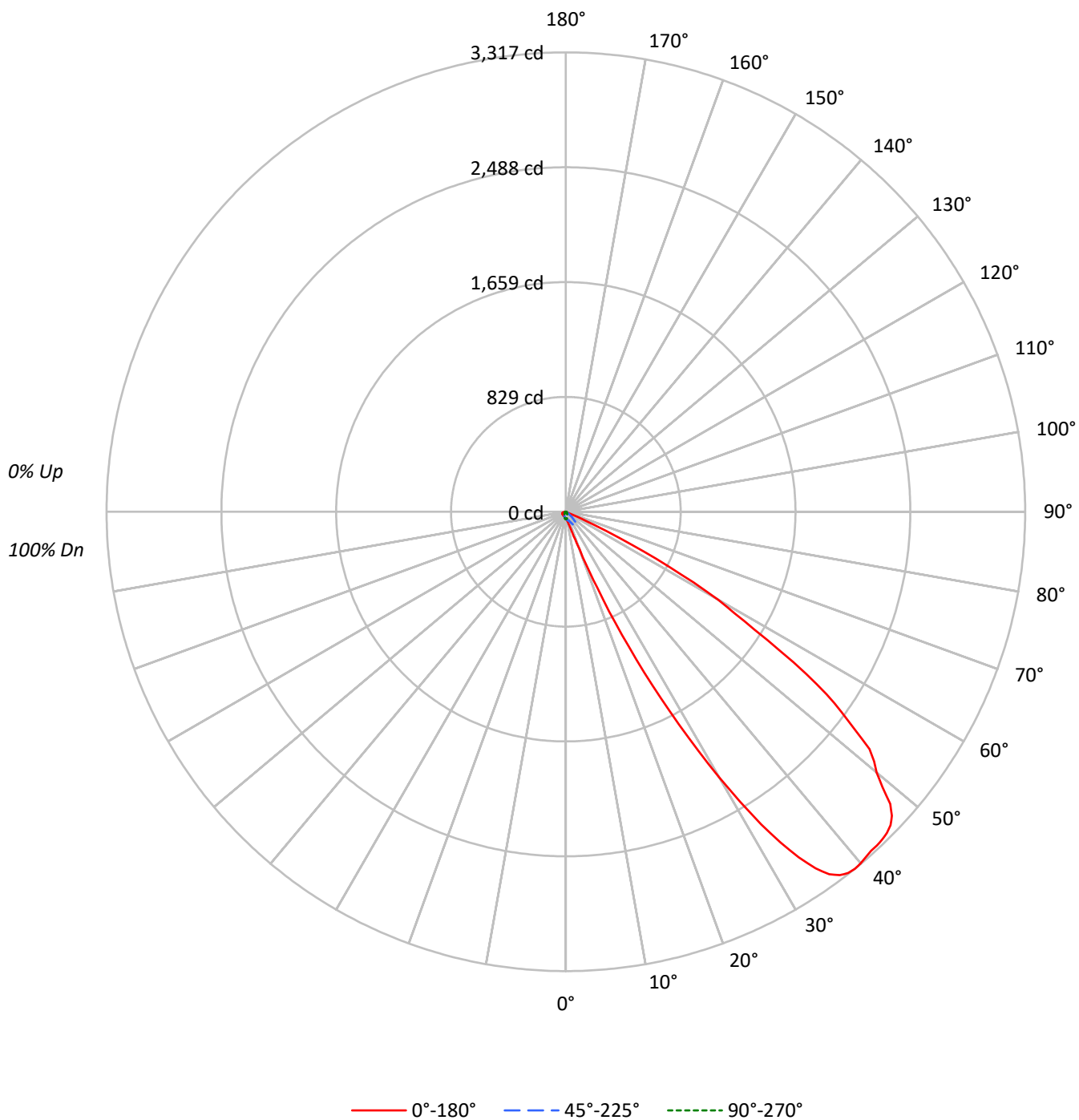
Lumens per Lamp: N/A
Luminaire Lumens: 1025.0 lumens
Efficiency: N/A
Efficacy: 70.2 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 14.6
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	102	102	100
1	110	106	102	99	107	104	100	97	99	97	94	96	93	91	92	90	88	88	88	86
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	75	75	72
3	91	81	73	66	89	79	72	66	76	70	65	73	68	64	71	66	62	62	62	60
4	82	70	62	55	80	69	61	54	67	59	54	64	58	53	62	57	52	52	52	50
5	75	62	52	46	73	60	52	45	58	51	45	56	50	44	54	49	44	44	44	42
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	37	37	35
7	62	48	39	32	60	47	38	32	45	37	32	44	37	31	42	36	31	31	31	29
8	57	42	33	27	55	42	33	27	40	32	27	39	32	27	38	31	26	26	26	24
9	52	38	29	23	51	37	29	23	36	28	23	35	28	23	34	27	23	23	23	21
10	48	34	25	20	47	33	25	20	32	25	20	31	24	20	30	24	19	19	19	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	11556	11556	11556	11556	11556
5°	12855	12437	11402	10368	10147
10°	15520	13204	10487	9441	9218
15°	25426	14325	8967	8331	8559
20°	67206	16918	7467	7467	8121
25°	259176	20953	5928	6823	7960
30°	559149	27878	4760	6685	7875
35°	841625	33006	4042	6558	8058
40°	948205	33148	3492	6727	8616
45°	1016726	25677	3225	7008	9334
50°	999336	16068	2900	7403	10268
55°	879147	7914	2867	8296	11507
60°	556491	1667	3289	9078	12806
65°	113786	467	3424	9755	14165
70°	2436	577	3590	10835	16285
75°	2372	1610	3982	11946	18385
80°	2399	1137	4799	13133	21341
85°	2264	2264	9561	14089	23650

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 1035091 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4.9	0.5
10°-20°	16.2	1.6
20°-30°	79.6	7.8
30°-40°	259.0	25.3
40°-50°	357.0	34.8
50°-60°	248.7	24.3
60°-70°	47.1	4.6
70°-80°	8.5	0.8
80°-90°	3.9	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°	100.8	9.8
0°-40°	359.7	35.1
0°-60°	965.4	94.2
0°-90°	1025.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1025.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	53	53	53	53	53	
5°	58	56	52	47	46	6
15°	112	63	40	37	38	41
25°	1071	87	24	28	33	552
35°	3144	123	15	24	30	1900
45°	3279	83	10	23	30	2493
55°	2300	21	8	22	30	1965
65°	219	1	7	19	27	388
75°	3	2	5	14	22	3
85°	1	1	4	6	9	1
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
0°	52.7	52.7	52.7	52.7	52.7	52.7	52.7	52.7	52.7	52.7	52.7
2.5°	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6	54.6	53.7	52.7
5°	58.4	58.4	58.4	58.4	57.4	57.4	57.4	56.5	56.5	54.6	51.8
7.5°	62.1	62.1	62.1	62.1	61.2	60.2	59.3	59.3	58.4	53.7	49.9
10°	69.7	69.7	68.7	67.8	66.8	65.0	64.0	62.1	59.3	52.7	47.1
12.5°	84.7	82.8	81.9	80.0	77.2	73.4	69.7	66.8	60.2	50.8	44.2
15°	112.0	110.1	106.4	100.7	95.1	87.5	81.0	74.4	63.1	48.0	39.5
17.5°	160.0	154.4	148.7	139.3	125.2	112.0	97.9	85.7	66.8	45.2	35.8
20°	288.0	284.3	250.4	224.0	181.7	151.6	123.3	102.6	72.5	42.4	32.0
22.5°	594.0	554.4	498.9	408.5	318.2	234.4	170.4	129.0	78.1	38.6	28.2
25°	1071.2	1009.1	889.5	715.4	528.1	373.7	246.6	168.5	86.6	34.8	24.5
27.5°	1621.9	1558.8	1373.4	1133.3	827.4	563.9	352.1	223.1	97.9	31.1	21.7
30°	2208.3	2154.7	1919.4	1587.1	1166.3	789.8	471.6	278.6	110.1	27.3	18.8
31°	2444.6	2375.9	2121.7	1767.8	1325.4	883.0	519.6	302.2	114.8	26.4	17.9
32°	2662.1	2583.9	2320.4	1941.0	1454.3	983.7	572.3	322.9	118.6	24.5	16.9
33°	2849.4	2758.1	2503.9	2104.8	1596.5	1077.8	626.9	342.6	121.4	22.6	16.0
34°	3008.5	2929.4	2656.4	2269.5	1722.6	1168.2	680.6	362.4	123.3	21.7	15.1
35°	3144.0	3072.5	2802.3	2394.7	1845.9	1255.7	729.5	381.2	123.3	19.8	15.1
36°	3235.3	3173.2	2928.4	2522.7	1949.5	1330.1	770.9	398.2	123.3	17.9	14.1
37°	3285.2	3225.0	3011.3	2628.2	2051.1	1403.5	808.6	411.4	122.4	16.9	13.2
38°	3310.6	3257.9	3072.5	2713.8	2121.7	1456.2	841.5	421.7	121.4	15.1	13.2
39°	3317.2	3273.0	3111.1	2776.0	2190.5	1508.9	865.1	427.4	118.6	14.1	12.2
40°	3312.5	3273.9	3131.8	2831.5	2243.2	1550.4	882.0	429.2	115.8	12.2	12.2
41°	3303.1	3273.0	3146.8	2870.1	2285.5	1576.7	888.6	425.5	112.0	10.4	11.3
42°	3294.6	3261.7	3153.4	2896.4	2314.7	1589.9	887.7	417.9	106.4	9.4	11.3
43°	3294.6	3257.0	3154.4	2913.4	2328.8	1590.8	876.4	403.8	98.8	8.5	10.4
44°	3289.0	3254.1	3159.1	2924.7	2332.6	1582.4	858.5	388.8	90.4	7.5	10.4
45°	3278.6	3241.9	3158.1	2925.6	2326.0	1561.6	829.3	369.0	82.8	5.6	10.4
46°	3258.8	3225.9	3149.7	2919.0	2306.2	1531.5	794.5	349.2	74.4	4.7	9.4
47°	3219.3	3193.9	3127.1	2896.4	2276.1	1487.3	753.1	326.6	67.8	3.8	9.4
48°	3151.5	3133.7	3088.5	2846.6	2218.7	1432.7	708.8	302.2	61.2	3.8	9.4
49°	3027.3	3013.2	2986.8	2766.5	2145.3	1365.9	660.8	274.9	54.6	2.8	9.4
50°	2929.4	2914.3	2860.7	2631.9	2039.8	1281.1	608.1	247.6	47.1	1.9	8.5
51°	2864.4	2840.0	2755.2	2475.7	1886.4	1168.2	550.7	220.3	39.5	1.9	8.5
52°	2782.5	2745.8	2640.4	2335.4	1746.1	1055.2	488.5	193.0	34.8	1.9	8.5
53°	2611.2	2598.0	2493.6	2184.8	1605.9	947.0	424.5	170.4	30.1	1.9	8.5
54°	2461.6	2441.8	2299.6	1975.8	1453.4	826.5	358.6	150.6	25.4	1.9	8.5
55°	2299.6	2261.1	2134.9	1799.8	1274.5	715.4	295.6	129.9	20.7	1.9	7.5
56°	2095.4	2061.5	1925.9	1611.5	1109.8	602.4	247.6	106.4	16.0	1.9	7.5
57°	1846.9	1815.8	1711.3	1380.0	938.5	492.3	201.4	85.7	12.2	1.9	7.5
58°	1606.8	1572.0	1452.5	1157.8	757.8	390.6	168.5	69.7	9.4	1.9	7.5
59°	1422.3	1375.3	1220.9	972.4	593.0	296.5	133.7	55.5	6.6	1.9	7.5
60°	1268.9	1230.3	1070.3	809.5	465.0	218.4	98.8	42.4	3.8	1.9	7.5
62.5°	735.2	724.8	580.8	417.0	219.3	101.7	48.9	19.8	1.9	2.8	7.5
65°	219.3	191.1	148.7	88.5	56.5	33.9	17.9	6.6	0.9	2.8	6.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	6.6	6.6	6.6	6.6	6.6	6.6	3.8	1.9	0.9	2.8	6.6
70°	3.8	2.8	2.8	2.8	2.8	1.9	1.9	0.9	0.9	2.8	5.6
72.5°	2.8	2.8	2.8	2.8	1.9	1.9	1.9	0.9	1.9	2.8	4.7
75°	2.8	1.9	1.9	1.9	1.9	0.9	0.9	0.9	1.9	2.8	4.7
77.5°	1.9	1.9	1.9	1.9	0.9	0.9	0.9	0.9	1.9	2.8	4.7
80°	1.9	1.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	2.8	3.8
82.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	2.8	3.8
85°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	2.8	3.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.9	2.8	2.8
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):

	112.5°	135°	157.5°	180°
0°	52.7	52.7	52.7	52.7
2.5°	50.8	49.9	48.9	48.9
5°	48.9	47.1	47.1	46.1
7.5°	46.1	44.2	44.2	44.2
10°	43.3	42.4	42.4	41.4
12.5°	39.5	39.5	39.5	39.5
15°	36.7	36.7	37.7	37.7
17.5°	32.9	33.9	35.8	36.7
20°	30.1	32.0	33.9	34.8
22.5°	28.2	30.1	32.9	33.9
25°	25.4	28.2	32.0	32.9
27.5°	23.5	27.3	30.1	32.0
30°	21.7	26.4	29.2	31.1
31°	21.7	25.4	29.2	31.1
32°	20.7	24.5	29.2	30.1
33°	20.7	24.5	29.2	30.1
34°	19.8	24.5	28.2	30.1
35°	19.8	24.5	28.2	30.1
36°	18.8	23.5	28.2	30.1
37°	18.8	23.5	28.2	30.1
38°	17.9	23.5	28.2	30.1
39°	17.9	23.5	28.2	30.1
40°	17.9	23.5	28.2	30.1
41°	16.9	23.5	28.2	30.1
42°	16.9	23.5	28.2	30.1
43°	16.9	22.6	28.2	30.1
44°	16.9	22.6	28.2	30.1
45°	16.0	22.6	28.2	30.1
46°	16.0	22.6	28.2	30.1
47°	16.0	22.6	28.2	30.1
48°	16.0	22.6	28.2	30.1
49°	16.0	22.6	28.2	30.1
50°	15.1	21.7	28.2	30.1
51°	15.1	21.7	28.2	30.1
52°	15.1	21.7	28.2	30.1
53°	15.1	21.7	28.2	30.1
54°	14.1	21.7	28.2	30.1
55°	14.1	21.7	28.2	30.1
56°	14.1	21.7	28.2	29.2
57°	14.1	21.7	27.3	29.2
58°	14.1	20.7	27.3	29.2
59°	14.1	20.7	27.3	29.2
60°	14.1	20.7	27.3	29.2
62.5°	13.2	20.7	26.4	28.2
65°	12.2	18.8	26.4	27.3



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	12.2	17.9	24.5	26.4
70°	11.3	16.9	23.5	25.4
72.5°	9.4	16.0	21.7	23.5
75°	8.5	14.1	19.8	21.7
77.5°	7.5	12.2	17.9	18.8
80°	6.6	10.4	15.1	16.9
82.5°	4.7	7.5	12.2	13.2
85°	3.8	5.6	8.5	9.4
87.5°	2.8	2.8	4.7	4.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)