

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: P1346021

Luminaire Tested: P3A13R409727DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1346021
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: P3A13R409727DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R40 optic, 2700K CCT AND, 97CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

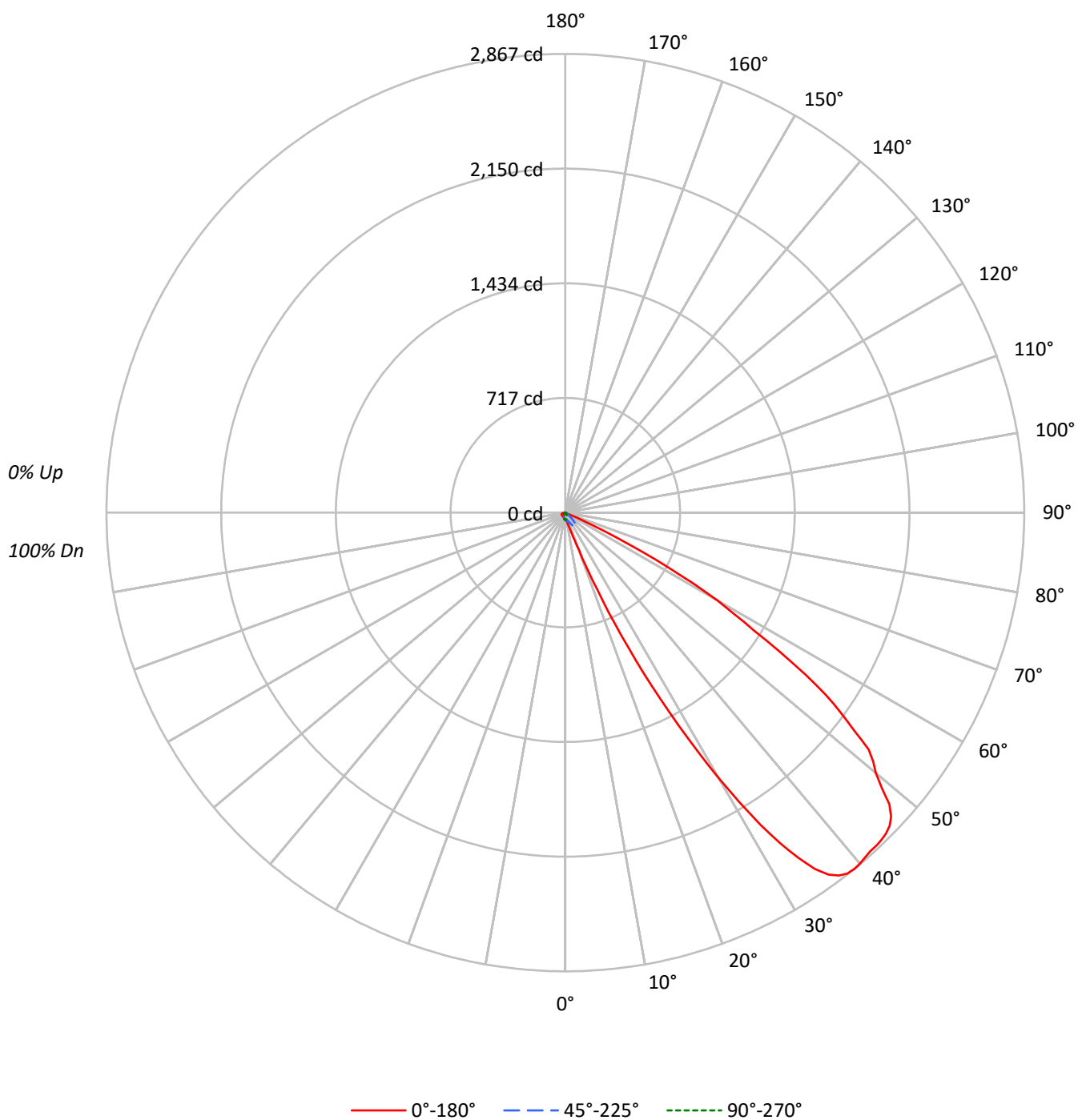
Lumens per Lamp: N/A
Luminaire Lumens: 886.0 lumens
Efficiency: N/A
Efficacy: 60.7 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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			0
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50	30	10	0
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	99	97	94		96	93	91		92	90	88	86
2	100	93	86	81	98	91	85	80	87	82	78		84	80	76		81	78	75	72
3	91	81	73	66	89	79	72	66	76	70	65		73	68	64		71	66	62	60
4	82	70	62	55	80	69	61	54	67	59	54		64	58	53		62	57	52	50
5	75	62	52	46	73	60	52	45	58	51	45		56	50	44		54	49	44	42
6	68	54	45	38	66	53	44	38	51	43	38		50	43	37		48	42	37	35
7	62	48	39	32	60	47	38	32	45	37	32		44	37	31		42	36	31	29
8	57	42	33	27	55	42	33	27	40	32	27		39	32	27		38	31	26	24
9	52	38	29	23	51	37	29	23	36	28	23		35	28	23		34	27	23	21
10	48	34	25	20	47	33	25	20	32	25	20		31	24	20		30	24	19	18

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	9999	9999	9999	9999	9999
5°	11094	10742	9861	8959	8783
10°	13404	11423	9062	8149	7971
15°	21975	12372	7764	7196	7378
20°	58105	14631	6464	6464	7024
25°	224045	18122	5129	5904	6896
30°	483340	24105	4127	5773	6811
35°	727507	28536	3480	5675	6960
40°	819621	28654	3034	5811	7443
45°	878851	22204	2791	6047	8063
50°	863801	13884	2490	6379	8870
55°	759944	6843	2485	7149	9940
60°	481014	1447	2851	7850	11052
65°	98376	415	2958	8457	12245
70°	2116	513	3142	9361	14105
75°	2033	1356	3474	10336	15843
80°	2020	1010	4167	11365	18437
85°	2013	2013	8303	12328	20379

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 894712 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4.3	0.5
10°-20°	14.0	1.6
20°-30°	68.8	7.8
30°-40°	223.8	25.3
40°-50°	308.6	34.8
50°-60°	214.9	24.3
60°-70°	40.7	4.6
70°-80°	7.4	0.8
80°-90°	3.4	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°	87.1	9.8
0°-40°	311.0	35.1
0°-60°	834.5	94.2
0°-90°	886.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	886.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	46	46	46	46	46	
5°	50	49	45	41	40	5
15°	97	54	34	32	32	35
25°	926	75	21	24	28	477
35°	2718	107	13	21	26	1642
45°	2834	72	9	20	26	2155
55°	1988	18	6	19	26	1699
65°	190	1	6	16	24	335
75°	2	2	4	12	19	2
85°	1	1	3	5	8	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°	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6	45.6
2.5°	47.2	47.2	47.2	47.2	47.2	47.2	47.2	47.2	47.2	46.4	45.6
5°	50.4	50.4	50.4	50.4	49.6	49.6	49.6	48.8	48.8	47.2	44.8
7.5°	53.7	53.7	53.7	53.7	52.9	52.1	51.3	51.3	50.4	46.4	43.1
10°	60.2	60.2	59.4	58.6	57.8	56.1	55.3	53.7	51.3	45.6	40.7
12.5°	73.2	71.6	70.8	69.2	66.7	63.5	60.2	57.8	52.1	43.9	38.2
15°	96.8	95.2	91.9	87.1	82.2	75.7	70.0	64.3	54.5	41.5	34.2
17.5°	138.3	133.4	128.6	120.4	108.2	96.8	84.6	74.0	57.8	39.1	30.9
20°	249.0	245.7	216.4	193.7	157.0	131.0	106.6	88.7	62.7	36.6	27.7
22.5°	513.4	479.3	431.2	353.1	275.0	202.6	147.3	111.5	67.5	33.4	24.4
25°	926.0	872.3	768.9	618.4	456.5	323.0	213.2	145.6	74.9	30.1	21.2
27.5°	1401.9	1347.4	1187.1	979.7	715.2	487.4	304.3	192.8	84.6	26.9	18.7
30°	1908.9	1862.5	1659.1	1371.8	1008.1	682.7	407.6	240.8	95.2	23.6	16.3
31°	2113.1	2053.7	1834.0	1528.1	1145.6	763.2	449.1	261.2	99.3	22.8	15.5
32°	2301.1	2233.5	2005.7	1677.8	1257.1	850.3	494.7	279.1	102.5	21.2	14.6
33°	2463.0	2384.0	2164.4	1819.4	1380.0	931.6	541.9	296.2	105.0	19.5	13.8
34°	2600.5	2532.1	2296.2	1961.8	1489.0	1009.8	588.3	313.3	106.6	18.7	13.0
35°	2717.7	2655.8	2422.3	2070.0	1595.6	1085.4	630.6	329.5	106.6	17.1	13.0
36°	2796.6	2742.9	2531.3	2180.6	1685.1	1149.7	666.4	344.2	106.6	15.5	12.2
37°	2839.7	2787.6	2602.9	2271.8	1773.0	1213.2	698.9	355.6	105.8	14.6	11.4
38°	2861.7	2816.1	2655.8	2345.8	1834.0	1258.7	727.4	364.5	105.0	13.0	11.4
39°	2867.4	2829.1	2689.2	2399.5	1893.4	1304.3	747.8	369.4	102.5	12.2	10.6
40°	2863.3	2829.9	2707.1	2447.5	1939.0	1340.1	762.4	371.0	100.1	10.6	10.6
41°	2855.2	2829.1	2720.1	2480.9	1975.6	1362.9	768.1	367.8	96.8	9.0	9.8
42°	2847.8	2819.4	2725.8	2503.7	2000.8	1374.3	767.3	361.3	91.9	8.1	9.8
43°	2847.8	2815.3	2726.6	2518.3	2013.0	1375.1	757.5	349.1	85.4	7.3	9.0
44°	2843.0	2812.8	2730.7	2528.1	2016.3	1367.8	742.1	336.0	78.1	6.5	9.0
45°	2834.0	2802.3	2729.9	2528.9	2010.6	1349.9	716.8	319.0	71.6	4.9	9.0
46°	2816.9	2788.4	2722.5	2523.2	1993.5	1323.8	686.7	301.9	64.3	4.1	8.1
47°	2782.7	2760.8	2703.0	2503.7	1967.4	1285.6	650.9	282.3	58.6	3.3	8.1
48°	2724.2	2708.7	2669.6	2460.5	1917.8	1238.4	612.7	261.2	52.9	3.3	8.1
49°	2616.8	2604.6	2581.8	2391.4	1854.3	1180.6	571.2	237.6	47.2	2.4	8.1
50°	2532.1	2519.1	2472.7	2275.0	1763.2	1107.4	525.6	214.0	40.7	1.6	7.3
51°	2476.0	2454.8	2381.6	2139.9	1630.6	1009.8	476.0	190.4	34.2	1.6	7.3
52°	2405.2	2373.5	2282.3	2018.7	1509.4	912.1	422.3	166.8	30.1	1.6	7.3
53°	2257.1	2245.7	2155.4	1888.5	1388.1	818.5	367.0	147.3	26.0	1.6	7.3
54°	2127.7	2110.7	1987.8	1707.9	1256.3	714.4	310.0	130.2	22.0	1.6	7.3
55°	1987.8	1954.4	1845.4	1555.7	1101.7	618.4	255.5	112.3	17.9	1.6	6.5
56°	1811.2	1781.9	1664.8	1393.0	959.3	520.7	214.0	91.9	13.8	1.6	6.5
57°	1596.4	1569.6	1479.2	1192.8	811.2	425.5	174.1	74.0	10.6	1.6	6.5
58°	1388.9	1358.8	1255.5	1000.8	655.0	337.7	145.6	60.2	8.1	1.6	6.5
59°	1229.5	1188.8	1055.3	840.5	512.6	256.3	115.5	48.0	5.7	1.6	6.5
60°	1096.8	1063.5	925.1	699.8	402.0	188.8	85.4	36.6	3.3	1.6	6.5
62.5°	635.5	626.5	502.0	360.5	189.6	87.9	42.3	17.1	1.6	2.4	6.5
65°	189.6	165.2	128.6	76.5	48.8	29.3	15.5	5.7	0.8	2.4	5.7



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	5.7	5.7	5.7	5.7	5.7	5.7	3.3	1.6	0.8	2.4	5.7
70°	3.3	2.4	2.4	2.4	2.4	1.6	1.6	0.8	0.8	2.4	4.9
72.5°	2.4	2.4	2.4	2.4	1.6	1.6	1.6	0.8	1.6	2.4	4.1
75°	2.4	1.6	1.6	1.6	1.6	0.8	0.8	0.8	1.6	2.4	4.1
77.5°	1.6	1.6	1.6	1.6	0.8	0.8	0.8	0.8	1.6	2.4	4.1
80°	1.6	1.6	0.8	0.8	0.8	0.8	0.8	0.8	0.8	2.4	3.3
82.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	2.4	3.3
85°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	2.4	3.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8	2.4	2.4
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°	45.6	45.6	45.6	45.6
2.5°	43.9	43.1	42.3	42.3
5°	42.3	40.7	40.7	39.9
7.5°	39.9	38.2	38.2	38.2
10°	37.4	36.6	36.6	35.8
12.5°	34.2	34.2	34.2	34.2
15°	31.7	31.7	32.5	32.5
17.5°	28.5	29.3	30.9	31.7
20°	26.0	27.7	29.3	30.1
22.5°	24.4	26.0	28.5	29.3
25°	22.0	24.4	27.7	28.5
27.5°	20.3	23.6	26.0	27.7
30°	18.7	22.8	25.2	26.9
31°	18.7	22.0	25.2	26.9
32°	17.9	21.2	25.2	26.0
33°	17.9	21.2	25.2	26.0
34°	17.1	21.2	24.4	26.0
35°	17.1	21.2	24.4	26.0
36°	16.3	20.3	24.4	26.0
37°	16.3	20.3	24.4	26.0
38°	15.5	20.3	24.4	26.0
39°	15.5	20.3	24.4	26.0
40°	15.5	20.3	24.4	26.0
41°	14.6	20.3	24.4	26.0
42°	14.6	20.3	24.4	26.0
43°	14.6	19.5	24.4	26.0
44°	14.6	19.5	24.4	26.0
45°	13.8	19.5	24.4	26.0
46°	13.8	19.5	24.4	26.0
47°	13.8	19.5	24.4	26.0
48°	13.8	19.5	24.4	26.0
49°	13.8	19.5	24.4	26.0
50°	13.0	18.7	24.4	26.0
51°	13.0	18.7	24.4	26.0
52°	13.0	18.7	24.4	26.0
53°	13.0	18.7	24.4	26.0
54°	12.2	18.7	24.4	26.0
55°	12.2	18.7	24.4	26.0
56°	12.2	18.7	24.4	25.2
57°	12.2	18.7	23.6	25.2
58°	12.2	17.9	23.6	25.2
59°	12.2	17.9	23.6	25.2
60°	12.2	17.9	23.6	25.2
62.5°	11.4	17.9	22.8	24.4
65°	10.6	16.3	22.8	23.6



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	10.6	15.5	21.2	22.8
70°	9.8	14.6	20.3	22.0
72.5°	8.1	13.8	18.7	20.3
75°	7.3	12.2	17.1	18.7
77.5°	6.5	10.6	15.5	16.3
80°	5.7	9.0	13.0	14.6
82.5°	4.1	6.5	10.6	11.4
85°	3.3	4.9	7.3	8.1
87.5°	2.4	2.4	4.1	4.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)