

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: P1345988

Luminaire Tested: P3A13R409040DE010 E3CA451MB

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1345988
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: P3A13R409040DE010 E3CA451MB
Description: 3in Adjustable LED luminaire with, R40 optic, 4000K CCT AND, 90CRI , E3CA451MB TRIM
Light Source: -
Ballast/Driver: -

Summary

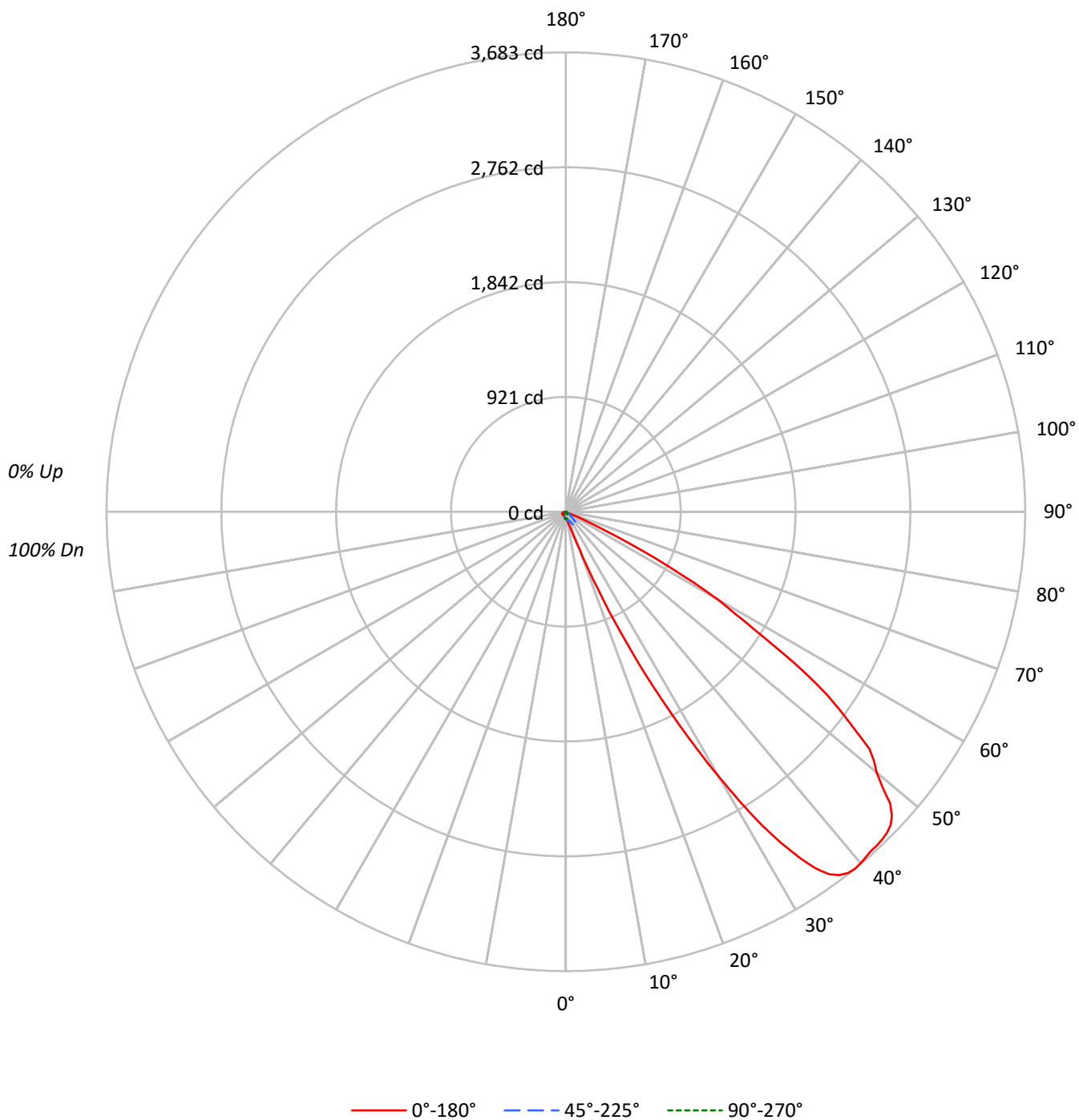
Lumens per Lamp: N/A
Luminaire Lumens: 1138.0 lumens
Efficiency: N/A
Efficacy: 77.9 lumens/watt
Spacing Criteria (0/90/45): 3.99 / 0.73 / 1.54
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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°	12828	12828	12828	12828	12828
5°	14264	13801	12657	11512	11270
10°	17212	14651	11645	10465	10243
15°	28241	15891	9966	9262	9489
20°	74626	18785	8284	8284	9031
25°	287750	23251	6581	7597	8855
30°	620804	30967	5292	7419	8736
35°	934407	36647	4470	7281	8941
40°	1052744	36783	3893	7471	9561
45°	1128830	28530	3566	7784	10358
50°	1109490	17842	3207	8187	11394
55°	976099	8793	3211	9175	12769
60°	617845	1842	3684	10087	14209
65°	126343	519	3788	10844	15722
70°	2693	641	4039	12053	18080
75°	2626	1779	4406	13302	20334
80°	2652	1263	5304	14522	23740
85°	2516	2516	10567	15851	26418

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 47°

Luminance: 1149201 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	5.5	0.5
10°-20°	18.0	1.6
20°-30°	88.4	7.8
30°-40°	287.5	25.3
40°-50°	396.3	34.8
50°-60°	276.1	24.3
60°-70°	52.3	4.6
70°-80°	9.5	0.8
80°-90°	4.4	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°	111.9	9.8
0°-40°	399.4	35.1
0°-60°	1071.8	94.2
0°-90°	1138.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1138.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	58	58	58	58	58	
5°	65	63	58	52	51	7
15°	124	70	44	41	42	45
25°	1189	96	27	31	37	612
35°	3491	137	17	27	33	2109
45°	3640	92	12	25	33	2768
55°	2553	23	8	24	33	2182
65°	244	1	7	21	30	431
75°	3	2	5	16	24	3
85°	1	1	4	6	10	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°	58.5	58.5	58.5	58.5	58.5	58.5	58.5	58.5	58.5	58.5	58.5
2.5°	60.6	60.6	60.6	60.6	60.6	60.6	60.6	60.6	60.6	59.6	58.5
5°	64.8	64.8	64.8	64.8	63.8	63.8	63.8	62.7	62.7	60.6	57.5
7.5°	69.0	69.0	69.0	69.0	67.9	66.9	65.8	65.8	64.8	59.6	55.4
10°	77.3	77.3	76.3	75.2	74.2	72.1	71.1	69.0	65.8	58.5	52.3
12.5°	94.1	92.0	90.9	88.8	85.7	81.5	77.3	74.2	66.9	56.4	49.1
15°	124.4	122.3	118.1	111.8	105.6	97.2	89.9	82.6	70.0	53.3	43.9
17.5°	177.7	171.4	165.1	154.7	139.0	124.4	108.7	95.1	74.2	50.2	39.7
20°	319.8	315.6	278.0	248.7	201.7	168.3	136.9	113.9	80.5	47.0	35.5
22.5°	659.5	615.6	553.9	453.6	353.2	260.2	189.2	143.2	86.7	42.8	31.4
25°	1189.3	1120.3	987.6	794.3	586.3	414.9	273.8	187.1	96.1	38.7	27.2
27.5°	1800.7	1730.7	1524.8	1258.3	918.6	626.0	390.9	247.7	108.7	34.5	24.0
30°	2451.8	2392.2	2130.9	1762.0	1294.9	876.8	523.6	309.3	122.3	30.3	20.9
31°	2714.1	2637.8	2355.6	1962.7	1471.5	980.3	576.9	335.5	127.5	29.3	19.9
32°	2955.5	2868.8	2576.2	2155.0	1614.7	1092.1	635.4	358.5	131.7	27.2	18.8
33°	3163.5	3062.1	2780.0	2336.8	1772.5	1196.6	696.0	380.4	134.8	25.1	17.8
34°	3340.1	3252.3	2949.3	2519.7	1912.5	1297.0	755.6	402.4	136.9	24.0	16.7
35°	3490.6	3411.2	3111.2	2658.7	2049.4	1394.2	809.9	423.3	136.9	21.9	16.7
36°	3592.0	3523.0	3251.3	2800.9	2164.4	1476.7	855.9	442.1	136.9	19.9	15.7
37°	3647.4	3580.5	3343.3	2917.9	2277.3	1558.2	897.7	456.7	135.9	18.8	14.6
38°	3675.6	3617.1	3411.2	3013.0	2355.6	1616.8	934.3	468.2	134.8	16.7	14.6
39°	3682.9	3633.8	3454.0	3082.0	2431.9	1675.3	960.4	474.5	131.7	15.7	13.6
40°	3677.7	3634.8	3477.0	3143.6	2490.5	1721.3	979.3	476.6	128.5	13.6	13.6
41°	3667.2	3633.8	3493.8	3186.5	2537.5	1750.5	986.6	472.4	124.4	11.5	12.5
42°	3657.8	3621.3	3501.1	3215.8	2569.9	1765.2	985.5	464.0	118.1	10.5	12.5
43°	3657.8	3616.0	3502.1	3234.6	2585.6	1766.2	973.0	448.3	109.7	9.4	11.5
44°	3651.6	3612.9	3507.3	3247.1	2589.7	1756.8	953.1	431.6	100.3	8.4	11.5
45°	3640.1	3599.3	3506.3	3248.2	2582.4	1733.8	920.7	409.7	92.0	6.3	11.5
46°	3618.1	3581.5	3496.9	3240.8	2560.5	1700.4	882.1	387.7	82.6	5.2	10.5
47°	3574.2	3546.0	3471.8	3215.8	2527.0	1651.2	836.1	362.6	75.2	4.2	10.5
48°	3499.0	3479.1	3429.0	3160.4	2463.3	1590.6	787.0	335.5	67.9	4.2	10.5
49°	3361.0	3345.3	3316.1	3071.5	2381.8	1516.4	733.7	305.2	60.6	3.1	10.5
50°	3252.3	3235.6	3176.0	2922.1	2264.7	1422.4	675.1	274.9	52.3	2.1	9.4
51°	3180.2	3153.1	3059.0	2748.6	2094.4	1297.0	611.4	244.6	43.9	2.1	9.4
52°	3089.3	3048.5	2931.5	2592.9	1938.7	1171.6	542.4	214.2	38.7	2.1	9.4
53°	2899.1	2884.5	2768.5	2425.7	1782.9	1051.4	471.3	189.2	33.4	2.1	9.4
54°	2732.9	2711.0	2553.2	2193.7	1613.6	917.6	398.2	167.2	28.2	2.1	9.4
55°	2553.2	2510.3	2370.3	1998.2	1415.1	794.3	328.2	144.2	23.0	2.1	8.4
56°	2326.4	2288.8	2138.3	1789.2	1232.2	668.9	274.9	118.1	17.8	2.1	8.4
57°	2050.5	2016.0	1900.0	1532.1	1042.0	546.6	223.7	95.1	13.6	2.1	8.4
58°	1784.0	1745.3	1612.6	1285.5	841.3	433.7	187.1	77.3	10.5	2.1	8.4
59°	1579.1	1526.9	1355.5	1079.6	658.4	329.2	148.4	61.7	7.3	2.1	8.4
60°	1408.8	1365.9	1188.3	898.8	516.3	242.5	109.7	47.0	4.2	2.1	8.4
62.5°	816.2	804.7	644.8	463.0	243.5	112.9	54.3	21.9	2.1	3.1	8.4
65°	243.5	212.2	165.1	98.2	62.7	37.6	19.9	7.3	1.0	3.1	7.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	45°	67.5°	90°
67.5°	7.3	7.3	7.3	7.3	7.3	7.3	4.2	2.1	1.0	3.1	7.3
70°	4.2	3.1	3.1	3.1	3.1	2.1	2.1	1.0	1.0	3.1	6.3
72.5°	3.1	3.1	3.1	3.1	2.1	2.1	2.1	1.0	2.1	3.1	5.2
75°	3.1	2.1	2.1	2.1	2.1	1.0	1.0	1.0	2.1	3.1	5.2
77.5°	2.1	2.1	2.1	2.1	1.0	1.0	1.0	1.0	2.1	3.1	5.2
80°	2.1	2.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	3.1	4.2
82.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	3.1	4.2
85°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	3.1	4.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	3.1	3.1
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°	58.5	58.5	58.5	58.5
2.5°	56.4	55.4	54.3	54.3
5°	54.3	52.3	52.3	51.2
7.5°	51.2	49.1	49.1	49.1
10°	48.1	47.0	47.0	46.0
12.5°	43.9	43.9	43.9	43.9
15°	40.8	40.8	41.8	41.8
17.5°	36.6	37.6	39.7	40.8
20°	33.4	35.5	37.6	38.7
22.5°	31.4	33.4	36.6	37.6
25°	28.2	31.4	35.5	36.6
27.5°	26.1	30.3	33.4	35.5
30°	24.0	29.3	32.4	34.5
31°	24.0	28.2	32.4	34.5
32°	23.0	27.2	32.4	33.4
33°	23.0	27.2	32.4	33.4
34°	21.9	27.2	31.4	33.4
35°	21.9	27.2	31.4	33.4
36°	20.9	26.1	31.4	33.4
37°	20.9	26.1	31.4	33.4
38°	19.9	26.1	31.4	33.4
39°	19.9	26.1	31.4	33.4
40°	19.9	26.1	31.4	33.4
41°	18.8	26.1	31.4	33.4
42°	18.8	26.1	31.4	33.4
43°	18.8	25.1	31.4	33.4
44°	18.8	25.1	31.4	33.4
45°	17.8	25.1	31.4	33.4
46°	17.8	25.1	31.4	33.4
47°	17.8	25.1	31.4	33.4
48°	17.8	25.1	31.4	33.4
49°	17.8	25.1	31.4	33.4
50°	16.7	24.0	31.4	33.4
51°	16.7	24.0	31.4	33.4
52°	16.7	24.0	31.4	33.4
53°	16.7	24.0	31.4	33.4
54°	15.7	24.0	31.4	33.4
55°	15.7	24.0	31.4	33.4
56°	15.7	24.0	31.4	32.4
57°	15.7	24.0	30.3	32.4
58°	15.7	23.0	30.3	32.4
59°	15.7	23.0	30.3	32.4
60°	15.7	23.0	30.3	32.4
62.5°	14.6	23.0	29.3	31.4
65°	13.6	20.9	29.3	30.3



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CANDELA DISTRIBUTION (continued):

	112.5°	135°	157.5°	180°
67.5°	13.6	19.9	27.2	29.3
70°	12.5	18.8	26.1	28.2
72.5°	10.5	17.8	24.0	26.1
75°	9.4	15.7	21.9	24.0
77.5°	8.4	13.6	19.9	20.9
80°	7.3	11.5	16.7	18.8
82.5°	5.2	8.4	13.6	14.6
85°	4.2	6.3	9.4	10.5
87.5°	3.1	3.1	5.2	5.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)