

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: P1345493

Luminaire Tested: P3A13R359050DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1345493
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-77)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R359050DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R35 optic, 5000K CCT AND, 90CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

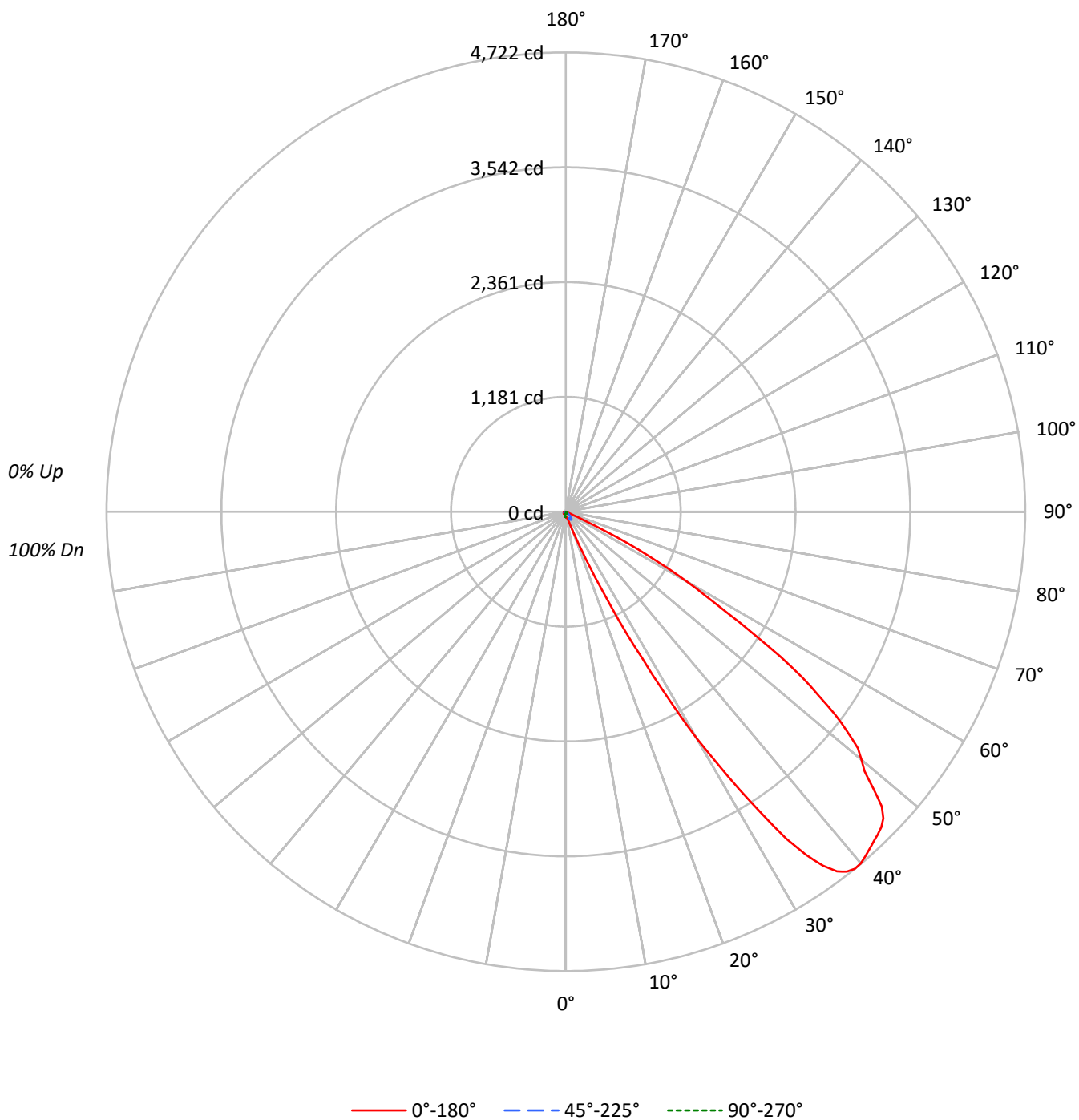
Lumens per Lamp: N/A
Luminaire Lumens: 1176.0 lumens
Efficiency: N/A
Efficacy: 80.5 lumens/watt
Spacing Criteria (0/90/45): 4.01 / 0.66 / 1.41
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	100		
1	110	106	102	99	107	104	100	97	100	97	94	96	93	91	92	90	89	87		
2	100	93	86	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	52	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	38	50	43	37	48	42	37	35		
7	62	48	38	32	60	47	38	32	45	37	32	44	37	31	42	36	31	29		
8	57	42	33	27	55	41	33	27	40	32	27	39	32	26	38	31	26	24		
9	52	38	29	23	50	37	29	23	36	28	23	35	28	22	34	27	22	20		
10	48	34	25	19	46	33	25	19	32	25	19	31	24	19	30	24	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	11863	11863	11863	11863	11863
5°	12855	12613	11688	10522	10280
10°	13471	12291	10398	8973	8973
15°	19274	12055	8445	7719	7946
20°	48304	12881	6697	6697	7421
25°	224239	16428	5129	6170	6944
30°	681675	22307	4026	5646	6988
35°	1152067	25859	3400	5407	6826
40°	1350444	25534	2748	5467	7299
45°	1422194	18110	2295	5923	7908
50°	1353712	10848	2183	6141	8699
55°	1134335	4473	2447	6881	10131
60°	635037	921	2807	7894	11183
65°	109636	571	2750	8821	12660
70°	2052	705	3398	9553	14297
75°	1779	932	4490	10760	16182
80°	1389	1389	5304	12123	18816
85°	0	2768	10567	13335	21386

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 46°

Luminance: 1432244 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	4.9	0.4
10°-20°	13.9	1.2
20°-30°	72.2	6.1
30°-40°	311.6	26.5
40°-50°	444.5	37.8
50°-60°	275.3	23.4
60°-70°	41.9	3.6
70°-80°	7.8	0.7
80°-90°	3.9	0.3
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°	90.9	7.7
0°-40°	402.5	34.2
0°-60°	1122.3	95.4
0°-90°	1176.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1176.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	54	54	54	54	54	
5°	58	57	53	48	47	6
15°	85	53	37	34	35	31
25°	927	68	21	26	29	555
35°	4304	97	13	20	26	2584
45°	4586	58	7	19	26	3465
55°	2967	12	6	18	26	2527
65°	211	1	5	17	24	432
75°	2	1	5	13	19	2
85°	0	1	4	5	8	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
0°	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1	54.1
2.5°	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	56.3	54.1	53.1
5°	58.4	58.4	57.3	57.3	57.3	57.3	57.3	57.3	55.2	53.1	49.9
7.5°	59.4	59.4	58.4	58.4	58.4	58.4	57.3	56.3	54.1	49.9	46.7
10°	60.5	60.5	60.5	60.5	59.4	58.4	57.3	55.2	52.0	46.7	43.5
12.5°	67.9	67.9	66.9	64.8	62.6	60.5	58.4	54.1	47.8	42.5	39.3
15°	84.9	83.9	81.7	78.6	74.3	69.0	64.8	53.1	43.5	37.2	35.0
17.5°	118.9	116.8	113.6	103.0	93.4	83.9	75.4	53.1	39.3	32.9	30.8
20°	207.0	208.1	185.8	160.3	139.1	115.7	94.5	55.2	35.0	28.7	27.6
22.5°	432.1	415.1	362.0	300.4	229.3	177.3	133.8	60.5	30.8	24.4	24.4
25°	926.8	862.0	733.6	554.2	390.7	277.1	194.3	67.9	27.6	21.2	22.3
27.5°	1692.2	1633.8	1375.8	1036.1	687.9	418.3	263.3	77.5	24.4	18.0	20.2
30°	2692.2	2530.8	2194.3	1698.5	1149.7	640.1	353.5	88.1	20.2	15.9	19.1
31°	3004.3	2930.0	2520.2	1965.0	1347.2	760.1	391.7	91.3	19.1	15.9	18.0
32°	3374.8	3243.2	2875.9	2256.9	1547.8	867.3	437.4	94.5	18.0	13.8	18.0
33°	3706.0	3578.6	3131.7	2513.8	1750.6	989.4	486.2	95.5	15.9	13.8	17.0
34°	4054.2	3880.1	3437.4	2782.4	1958.6	1121.0	530.8	96.6	14.9	12.7	17.0
35°	4303.7	4129.6	3700.7	2994.8	2138.0	1237.8	581.8	96.6	13.8	12.7	15.9
36°	4496.9	4344.0	3927.9	3213.4	2316.4	1342.9	622.1	96.6	11.7	11.7	15.9
37°	4629.6	4484.2	4080.8	3401.3	2452.3	1436.3	658.2	96.6	10.6	11.7	15.9
38°	4694.4	4573.3	4228.3	3538.3	2583.9	1509.6	686.8	94.5	9.6	10.6	14.9
39°	4722.0	4623.2	4318.6	3654.0	2682.6	1573.3	708.1	92.4	8.5	10.6	14.9
40°	4717.7	4631.7	4369.5	3733.6	2762.3	1616.8	719.8	89.2	7.4	9.6	14.9
41°	4693.3	4619.0	4396.1	3801.6	2810.0	1646.5	722.9	86.0	6.4	9.6	13.8
42°	4665.7	4597.8	4404.5	3837.7	2840.8	1656.1	714.5	81.7	6.4	8.5	13.8
43°	4637.0	4574.4	4404.5	3849.3	2848.3	1649.7	700.7	74.3	5.3	8.5	13.8
44°	4613.7	4554.2	4390.7	3846.1	2832.3	1625.3	675.2	65.8	4.2	8.5	13.8
45°	4586.1	4527.7	4372.7	3826.0	2801.5	1583.9	643.3	58.4	3.2	7.4	13.8
46°	4537.2	4491.6	4340.8	3784.6	2752.7	1526.6	603.0	53.1	2.1	7.4	12.7
47°	4442.8	4403.5	4279.3	3723.0	2688.0	1458.6	561.6	47.8	2.1	7.4	12.7
48°	4252.7	4251.7	4156.1	3608.4	2585.0	1373.7	518.1	42.5	2.1	7.4	12.7
49°	4069.1	4050.0	3931.1	3406.6	2437.4	1271.8	472.4	38.2	1.1	7.4	12.7
50°	3968.2	3926.8	3731.5	3168.9	2248.5	1130.6	423.6	31.8	1.1	6.4	12.7
51°	3863.1	3803.7	3573.3	2954.4	2023.4	994.7	370.5	25.5	1.1	6.4	11.7
52°	3673.1	3616.8	3358.9	2749.5	1804.7	855.6	319.5	21.2	1.1	6.4	12.7
53°	3468.2	3387.5	3107.3	2524.5	1612.6	732.5	267.5	18.0	1.1	6.4	11.7
54°	3210.3	3174.2	2852.5	2248.5	1387.5	613.6	219.7	14.9	1.1	6.4	11.7
55°	2967.1	2914.1	2579.7	1966.1	1183.7	503.2	183.7	11.7	1.1	6.4	11.7
56°	2657.2	2577.5	2264.4	1707.0	976.7	405.5	155.0	9.6	1.1	6.4	11.7
57°	2287.7	2202.8	1955.5	1419.3	766.5	308.9	129.5	7.4	1.1	6.4	11.7
58°	1935.3	1862.0	1596.6	1095.6	577.5	214.4	107.2	5.3	1.1	5.3	11.7
59°	1672.0	1591.3	1328.1	842.9	401.3	158.2	80.7	4.2	1.1	6.4	11.7
60°	1448.0	1344.0	1069.0	652.9	286.6	113.6	59.4	2.1	2.1	6.4	11.7
62.5°	834.4	736.7	510.6	265.4	117.8	58.4	28.7	1.1	2.1	6.4	11.7
65°	211.3	187.9	122.1	57.3	32.9	20.2	10.6	1.1	2.1	5.3	10.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
67.5°	7.4	7.4	7.4	6.4	5.3	4.2	2.1	1.1	2.1	5.3	10.6
70°	3.2	3.2	3.2	2.1	2.1	1.1	1.1	1.1	2.1	5.3	9.6
72.5°	2.1	2.1	2.1	2.1	1.1	1.1	1.1	1.1	3.2	5.3	8.5
75°	2.1	2.1	2.1	2.1	1.1	1.1	1.1	1.1	3.2	5.3	8.5
77.5°	2.1	2.1	1.1	1.1	1.1	1.1	1.1	1.1	3.2	4.2	7.4
80°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	3.2	4.2	6.4
82.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	3.2	4.2	5.3
85°	0.0	0.0	0.0	0.0	0.0	1.1	0.0	1.1	3.2	4.2	4.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	3.2	4.2	3.2
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):

	135°	157.5°	180°
0°	54.1	54.1	54.1
2.5°	51.0	51.0	51.0
5°	47.8	47.8	46.7
7.5°	44.6	43.5	43.5
10°	40.3	40.3	40.3
12.5°	37.2	37.2	37.2
15°	34.0	35.0	35.0
17.5°	30.8	32.9	32.9
20°	28.7	30.8	31.8
22.5°	26.5	28.7	29.7
25°	25.5	27.6	28.7
27.5°	23.4	26.5	28.7
30°	22.3	25.5	27.6
31°	22.3	25.5	26.5
32°	21.2	25.5	26.5
33°	21.2	25.5	26.5
34°	21.2	24.4	26.5
35°	20.2	24.4	25.5
36°	20.2	24.4	25.5
37°	20.2	24.4	26.5
38°	20.2	24.4	25.5
39°	19.1	24.4	25.5
40°	19.1	24.4	25.5
41°	19.1	24.4	25.5
42°	19.1	24.4	25.5
43°	19.1	24.4	25.5
44°	19.1	23.4	25.5
45°	19.1	23.4	25.5
46°	19.1	24.4	25.5
47°	19.1	24.4	26.5
48°	19.1	23.4	25.5
49°	18.0	23.4	25.5
50°	18.0	23.4	25.5
51°	18.0	24.4	26.5
52°	18.0	24.4	26.5
53°	18.0	24.4	26.5
54°	18.0	24.4	25.5
55°	18.0	24.4	26.5
56°	18.0	24.4	25.5
57°	18.0	24.4	25.5
58°	18.0	23.4	25.5
59°	18.0	23.4	25.5
60°	18.0	23.4	25.5
62.5°	17.0	23.4	25.5
65°	17.0	22.3	24.4



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	15.9	22.3	23.4
70°	14.9	21.2	22.3
72.5°	13.8	20.2	21.2
75°	12.7	18.0	19.1
77.5°	10.6	15.9	18.0
80°	9.6	13.8	14.9
82.5°	7.4	11.7	12.7
85°	5.3	8.5	8.5
87.5°	2.1	4.2	4.2
90°	0.0	0.0	0.0

(END OF REPORT)