

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: P1343945

Luminaire Tested: P3A13R209035DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1343945
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-74)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R209035DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R20 optic, 3500K CCT AND, 90CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

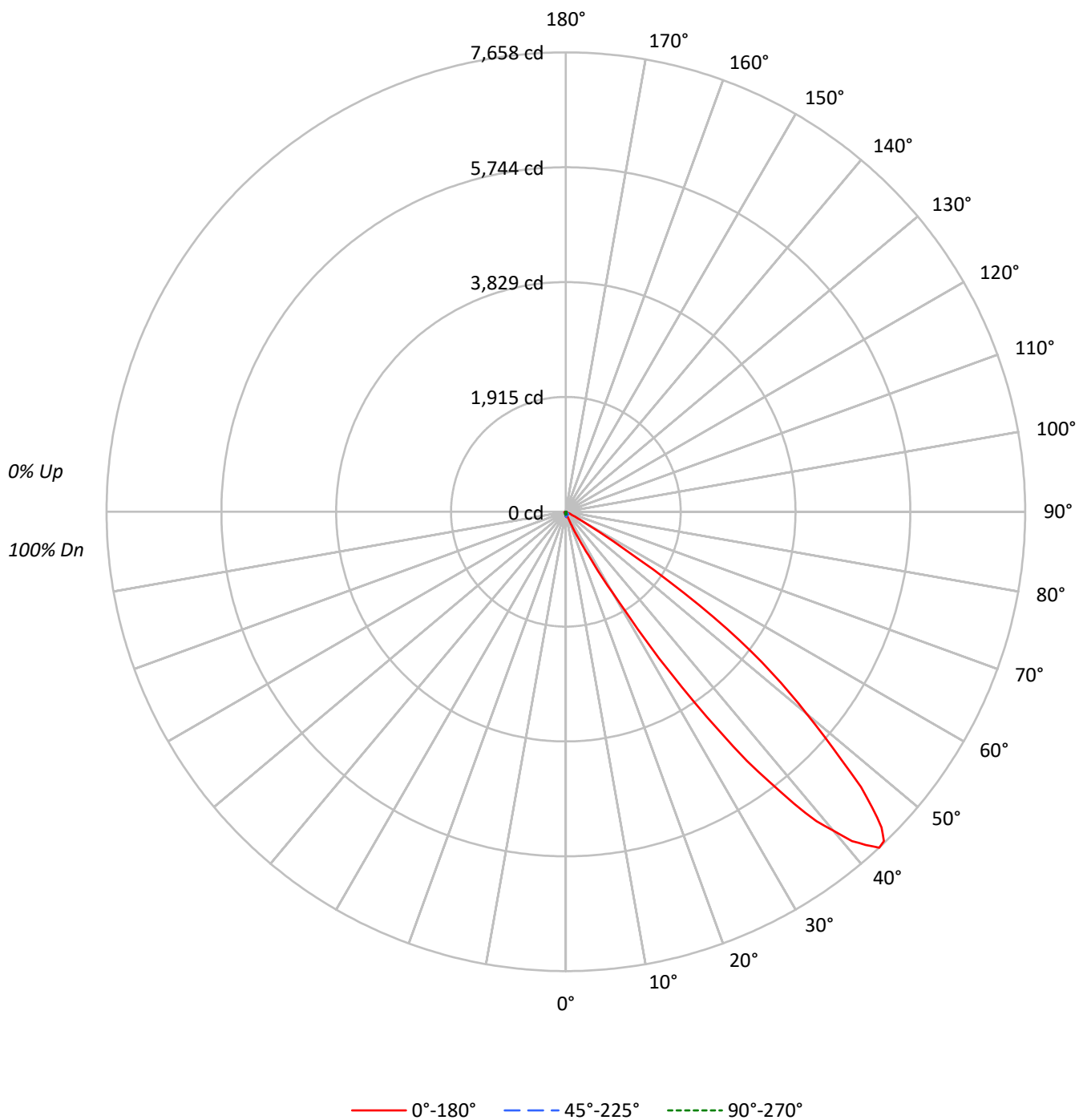
Lumens per Lamp: N/A
Luminaire Lumens: 1064.0 lumens
Efficiency: N/A
Efficacy: 72.9 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	108	104	101	97	100	97	94	96	94	92	92	91	89	87		
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73		
3	92	81	74	67	89	80	73	67	77	71	66	74	69	65	72	67	63	61		
4	83	71	62	56	81	70	62	55	67	60	55	65	59	54	63	58	53	51		
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42		
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35		
7	62	48	39	32	60	47	38	32	46	38	32	44	37	32	43	36	31	29		
8	57	42	33	27	55	42	33	27	40	33	27	39	32	27	38	31	27	25		
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	19	31	24	19	30	24	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	16227	16227	16227	16227	16227
5°	18930	17609	15188	13207	12767
10°	18704	16032	12024	10243	10020
15°	16345	12259	8854	8173	8627
20°	24269	10268	6534	7001	7701
25°	104522	10646	5081	6291	7500
30°	395225	12913	4304	6077	7343
35°	1198084	15526	4015	6157	7763
40°	1986694	15458	3435	6584	8301
45°	2309170	10544	3101	6822	8993
50°	1792521	5799	3070	7164	10234
55°	1037497	3823	3058	8028	11087
60°	175425	877	2631	8333	12280
65°	13490	0	3113	9340	14009
70°	1923	0	3847	10258	16028
75°	1694	847	4236	11861	18639
80°	1263	1263	6314	12628	21467
85°	2516	2516	10064	12580	22644

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2309170 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	6.4	0.6
10°-20°	13.3	1.3
20°-30°	42.5	4.0
30°-40°	271.3	25.5
40°-50°	496.6	46.7
50°-60°	204.1	19.2
60°-70°	17.2	1.6
70°-80°	8.6	0.8
80°-90°	4.0	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°	62.2	5.8
0°-40°	333.5	31.3
0°-60°	1034.2	97.2
0°-90°	1064.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1064.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	74	74	74	74	74	
5°	86	80	69	60	58	8
15°	72	54	39	36	38	23
25°	432	44	21	26	31	284
35°	4476	58	15	23	29	2833
45°	7446	34	10	22	29	5346
55°	2714	10	8	21	29	2372
65°	26	0	6	18	27	85
75°	2	1	5	14	22	2
85°	1	1	4	5	9	1
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°	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0	74.0
2.5°	81.0	81.0	81.0	80.0	80.0	81.0	80.0	80.0	80.0	80.0	79.0
5°	86.0	86.0	86.0	86.0	86.0	86.0	86.0	85.0	85.0	84.0	80.0
7.5°	88.0	88.0	88.0	88.0	87.0	87.0	87.0	87.0	86.0	85.0	78.0
10°	84.0	84.0	84.0	83.0	83.0	83.0	82.0	82.0	81.0	80.0	72.0
12.5°	76.0	76.0	76.0	76.0	75.0	75.0	74.0	74.0	73.0	72.0	63.0
15°	72.0	72.0	72.0	71.0	71.0	70.0	69.0	68.0	67.0	65.0	54.0
17.5°	78.0	78.0	77.0	77.0	75.0	73.0	72.0	69.0	67.0	64.0	48.0
20°	104.0	105.0	101.0	98.0	96.0	90.0	87.0	82.0	78.0	73.0	44.0
22.5°	210.0	206.0	199.0	188.0	175.0	164.0	144.0	128.0	117.0	102.0	43.0
25°	432.0	428.0	409.0	393.0	353.0	322.0	279.0	244.0	208.0	173.0	44.0
27.5°	820.9	793.9	788.9	715.9	659.9	579.9	497.0	427.0	363.0	292.0	47.0
30°	1560.9	1529.9	1420.9	1310.9	1159.9	988.9	825.9	673.9	547.0	432.0	51.0
31°	1980.8	2010.8	1882.8	1661.9	1438.9	1219.9	996.9	803.9	639.9	497.0	53.0
32°	2603.8	2472.8	2337.8	2110.8	1786.8	1506.9	1226.9	948.9	732.9	566.9	55.0
33°	3192.7	3115.7	2909.7	2626.8	2237.8	1844.8	1481.9	1119.9	846.9	651.9	56.0
34°	3820.7	3735.7	3568.7	3162.7	2735.8	2220.8	1736.8	1316.9	982.9	734.9	57.0
35°	4475.6	4439.6	4117.6	3765.7	3240.7	2619.8	2043.8	1532.9	1115.9	810.9	58.0
36°	5134.5	5018.5	4766.6	4252.6	3704.7	2988.7	2365.8	1733.8	1250.9	900.9	58.0
37°	5630.5	5604.5	5270.5	4769.6	4125.6	3382.7	2643.8	1956.8	1386.9	977.9	58.0
38°	6177.4	6074.5	5735.5	5225.5	4521.6	3743.7	2934.7	2150.8	1515.9	1047.9	57.0
39°	6638.4	6485.4	6143.4	5639.5	4867.6	4017.6	3165.7	2338.8	1629.9	1105.9	56.0
40°	6940.4	6834.4	6477.4	5910.5	5181.5	4276.6	3399.7	2493.8	1714.8	1149.9	54.0
41°	7273.3	7097.4	6744.4	6174.4	5409.5	4504.6	3546.7	2595.8	1780.8	1178.9	52.0
42°	7472.3	7328.3	6909.4	6351.4	5572.5	4634.6	3666.7	2673.8	1820.8	1193.9	48.0
43°	7658.3	7462.3	7054.4	6454.4	5680.5	4726.6	3721.7	2709.8	1829.8	1193.9	43.0
44°	7633.3	7447.3	7024.4	6468.4	5704.5	4753.6	3744.7	2710.8	1815.8	1178.9	38.0
45°	7446.3	7261.3	6880.4	6346.4	5618.5	4700.6	3698.7	2670.8	1776.8	1152.9	34.0
46°	7103.4	6919.4	6627.4	6142.4	5458.5	4580.6	3591.7	2583.8	1711.8	1110.9	30.0
47°	6730.4	6551.4	6252.4	5813.5	5185.5	4366.6	3436.7	2461.8	1620.9	1049.9	27.0
48°	6189.4	6077.5	5777.5	5402.5	4806.6	4031.6	3164.7	2262.8	1498.9	970.9	23.0
49°	5711.5	5593.5	5330.5	4927.6	4312.6	3641.7	2839.7	2020.8	1339.9	882.9	20.0
50°	5254.5	5151.5	4908.6	4453.6	3866.7	3170.7	2400.8	1715.8	1139.9	773.9	17.0
51°	4807.6	4730.6	4482.6	4064.6	3468.7	2808.7	2079.8	1428.9	941.9	641.9	16.0
52°	4358.6	4349.6	4080.6	3657.7	3081.7	2447.8	1767.8	1205.9	798.9	539.0	15.0
53°	3875.7	3817.7	3582.7	3202.7	2649.8	2071.8	1498.9	1016.9	687.9	459.0	13.0
54°	3325.7	3260.7	3008.7	2665.8	2164.8	1696.8	1207.9	821.9	572.9	388.0	12.0
55°	2713.8	2602.8	2419.8	2067.8	1690.8	1294.9	932.9	650.9	458.0	323.0	10.0
56°	2058.8	1947.8	1844.8	1585.9	1240.9	965.9	694.9	499.0	358.0	255.0	9.0
57°	1431.9	1425.9	1256.9	1057.9	829.9	657.9	476.0	352.0	253.0	198.0	7.0
58°	928.9	897.9	789.9	674.9	543.0	411.0	306.0	239.0	172.0	135.0	6.0
59°	650.9	588.9	531.0	450.0	342.0	259.0	197.0	153.0	119.0	94.0	4.0
60°	400.0	387.0	348.0	274.0	222.0	183.0	147.0	113.0	87.0	67.0	2.0
62.5°	114.0	116.0	105.0	93.0	80.0	69.0	62.0	53.0	44.0	35.0	0.0
65°	26.0	25.0	27.0	25.0	23.0	23.0	20.0	18.0	16.0	15.0	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°	8.0	8.0	7.0	7.0	7.0	6.0	6.0	5.0	5.0	4.0	0.0
70°	3.0	3.0	3.0	3.0	3.0	2.0	2.0	2.0	1.0	1.0	0.0
72.5°	3.0	3.0	3.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0
75°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	1.0	1.0
77.5°	2.0	2.0	2.0	2.0	2.0	1.0	2.0	1.0	1.0	1.0	1.0
80°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
82.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
85°	1.0	1.0	1.0	1.0	0.0	0.0	1.0	1.0	1.0	0.0	1.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
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°	74.0	74.0	74.0	74.0	74.0	74.0
2.5°	77.0	73.0	70.0	67.0	66.0	66.0
5°	75.0	69.0	63.0	60.0	58.0	58.0
7.5°	69.0	62.0	56.0	53.0	52.0	52.0
10°	62.0	54.0	48.0	46.0	46.0	45.0
12.5°	54.0	46.0	42.0	41.0	41.0	41.0
15°	45.0	39.0	36.0	36.0	37.0	38.0
17.5°	38.0	32.0	31.0	33.0	35.0	35.0
20°	32.0	28.0	28.0	30.0	32.0	33.0
22.5°	27.0	24.0	25.0	28.0	31.0	32.0
25°	24.0	21.0	23.0	26.0	29.0	31.0
27.5°	20.0	19.0	21.0	25.0	29.0	30.0
30°	17.0	17.0	20.0	24.0	28.0	29.0
31°	16.0	16.0	20.0	24.0	28.0	29.0
32°	15.0	16.0	19.0	24.0	28.0	29.0
33°	14.0	15.0	19.0	23.0	28.0	29.0
34°	13.0	15.0	19.0	23.0	28.0	29.0
35°	12.0	15.0	19.0	23.0	28.0	29.0
36°	11.0	14.0	18.0	23.0	28.0	29.0
37°	10.0	14.0	18.0	23.0	28.0	29.0
38°	9.0	13.0	18.0	23.0	28.0	29.0
39°	9.0	13.0	17.0	23.0	27.0	29.0
40°	8.0	12.0	17.0	23.0	27.0	29.0
41°	7.0	12.0	17.0	22.0	27.0	29.0
42°	6.0	11.0	16.0	22.0	27.0	29.0
43°	5.0	11.0	16.0	22.0	27.0	29.0
44°	5.0	10.0	16.0	22.0	27.0	29.0
45°	4.0	10.0	16.0	22.0	27.0	29.0
46°	3.0	10.0	16.0	22.0	27.0	29.0
47°	3.0	9.0	15.0	22.0	27.0	29.0
48°	2.0	9.0	15.0	22.0	27.0	29.0
49°	2.0	9.0	15.0	22.0	27.0	30.0
50°	2.0	9.0	15.0	21.0	27.0	30.0
51°	1.0	9.0	15.0	21.0	27.0	30.0
52°	1.0	9.0	14.0	21.0	28.0	30.0
53°	1.0	8.0	14.0	21.0	28.0	30.0
54°	1.0	8.0	14.0	21.0	28.0	29.0
55°	1.0	8.0	14.0	21.0	27.0	29.0
56°	1.0	7.0	14.0	21.0	27.0	29.0
57°	1.0	7.0	13.0	20.0	27.0	28.0
58°	1.0	7.0	13.0	20.0	27.0	28.0
59°	1.0	7.0	13.0	20.0	26.0	28.0
60°	2.0	6.0	12.0	19.0	26.0	28.0
62.5°	2.0	6.0	12.0	19.0	25.0	27.0
65°	2.0	6.0	11.0	18.0	25.0	27.0



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	2.0	5.0	10.0	17.0	24.0	26.0
70°	2.0	6.0	10.0	16.0	23.0	25.0
72.5°	3.0	5.0	9.0	15.0	22.0	24.0
75°	3.0	5.0	9.0	14.0	21.0	22.0
77.5°	4.0	5.0	8.0	12.0	19.0	20.0
80°	4.0	5.0	7.0	10.0	16.0	17.0
82.5°	4.0	5.0	5.0	8.0	12.0	13.0
85°	3.0	4.0	4.0	5.0	8.0	9.0
87.5°	3.0	4.0	3.0	2.0	4.0	4.0
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)