

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: P1343887

Luminaire Tested: P3A13R209024DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1343887
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: P3A13R209024DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R20 optic, 2400K CCT AND, 90CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

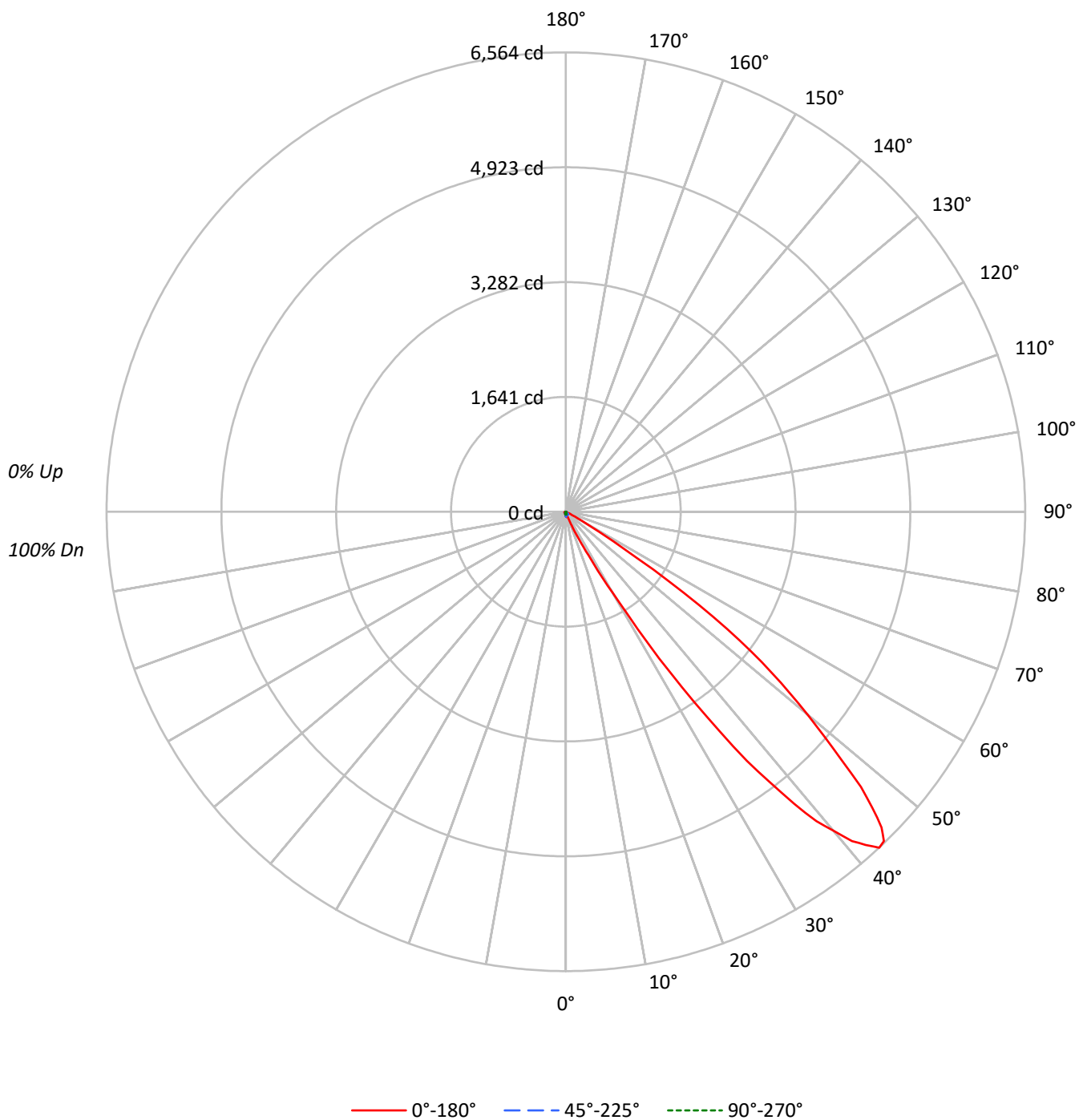
Lumens per Lamp: N/A
Luminaire Lumens: 912.0 lumens
Efficiency: N/A
Efficacy: 62.5 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.14
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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°	13902	13902	13902	13902	13902
5°	16223	15100	13009	11314	10940
10°	16032	13738	10309	8773	8595
15°	14007	10511	7582	7015	7401
20°	20792	8797	5600	5997	6604
25°	89594	9121	4355	5395	6436
30°	338761	11065	3697	5216	6305
35°	1026921	13304	3453	5274	6666
40°	1702876	13253	2948	5639	7128
45°	1979306	9024	2667	5861	7722
50°	1536461	4981	2627	6141	8767
55°	889278	3288	2638	6881	9519
60°	150339	746	2237	7149	10525
65°	11571	0	2646	7990	11986
70°	1667	0	3270	8784	13720
75°	1440	763	3643	10167	16013
80°	1137	1137	5430	10860	18437
85°	2264	2264	8554	10819	19373

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1979306 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	5.4	0.6
10°-20°	11.4	1.3
20°-30°	36.4	4.0
30°-40°	232.6	25.5
40°-50°	425.7	46.7
50°-60°	174.9	19.2
60°-70°	14.7	1.6
70°-80°	7.4	0.8
80°-90°	3.5	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°	53.3	5.8
0°-40°	285.8	31.3
0°-60°	886.4	97.2
0°-90°	912.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	912.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	63	63	63	63	63	
5°	74	69	59	51	50	7
15°	62	46	33	31	33	20
25°	370	38	18	22	27	243
35°	3836	50	13	20	25	2428
45°	6383	29	9	19	25	4583
55°	2326	9	7	18	25	2033
65°	22	0	5	15	23	73
75°	2	1	4	12	19	2
85°	1	1	3	4	8	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°	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4	63.4
2.5°	69.4	69.4	69.4	68.6	68.6	69.4	68.6	68.6	68.6	68.6	67.7
5°	73.7	73.7	73.7	73.7	73.7	73.7	73.7	72.9	72.9	72.0	68.6
7.5°	75.4	75.4	75.4	75.4	74.6	74.6	74.6	74.6	73.7	72.9	66.9
10°	72.0	72.0	72.0	71.1	71.1	71.1	70.3	70.3	69.4	68.6	61.7
12.5°	65.1	65.1	65.1	65.1	64.3	64.3	63.4	63.4	62.6	61.7	54.0
15°	61.7	61.7	61.7	60.9	60.9	60.0	59.1	58.3	57.4	55.7	46.3
17.5°	66.9	66.9	66.0	66.0	64.3	62.6	61.7	59.1	57.4	54.9	41.1
20°	89.1	90.0	86.6	84.0	82.3	77.1	74.6	70.3	66.9	62.6	37.7
22.5°	180.0	176.6	170.6	161.1	150.0	140.6	123.4	109.7	100.3	87.4	36.9
25°	370.3	366.8	350.5	336.8	302.5	276.0	239.1	209.1	178.3	148.3	37.7
27.5°	703.7	680.5	676.2	613.7	565.7	497.1	426.0	366.0	311.1	250.3	40.3
30°	1337.9	1311.3	1217.9	1123.6	994.2	847.6	707.9	577.7	468.8	370.3	43.7
31°	1697.8	1723.6	1613.9	1424.4	1233.3	1045.6	854.5	689.1	548.5	426.0	45.4
32°	2231.8	2119.5	2003.8	1809.3	1531.6	1291.6	1051.6	813.4	628.2	486.0	47.1
33°	2736.6	2670.6	2494.1	2251.5	1918.1	1581.3	1270.2	959.9	725.9	558.8	48.0
34°	3274.8	3202.0	3058.9	2710.9	2344.9	1903.5	1488.7	1128.8	842.5	629.9	48.9
35°	3836.2	3805.4	3529.4	3227.7	2777.8	2245.5	1751.8	1313.9	956.5	695.1	49.7
36°	4401.0	4301.6	4085.6	3645.1	3175.4	2561.8	2027.8	1486.2	1072.2	772.2	49.7
37°	4826.1	4803.9	4517.6	4088.2	3536.3	2899.5	2266.1	1677.3	1188.8	838.2	49.7
38°	5295.0	5206.7	4916.1	4479.0	3875.7	3208.9	2515.5	1843.5	1299.3	898.2	48.9
39°	5690.1	5558.9	5265.8	4833.9	4172.2	3443.7	2713.5	2004.7	1397.0	947.9	48.0
40°	5948.9	5858.0	5552.1	5066.1	4441.3	3665.7	2914.0	2137.5	1469.9	985.6	46.3
41°	6234.3	6083.5	5780.9	5292.4	4636.7	3861.1	3040.0	2224.9	1526.4	1010.5	44.6
42°	6404.9	6281.4	5922.3	5444.1	4776.4	3972.5	3142.9	2291.8	1560.7	1023.3	41.1
43°	6564.3	6396.3	6046.6	5532.4	4869.0	4051.4	3190.0	2322.6	1568.4	1023.3	36.9
44°	6542.8	6383.4	6020.9	5544.4	4889.6	4074.5	3209.7	2323.5	1556.4	1010.5	32.6
45°	6382.6	6224.0	5897.5	5439.8	4815.9	4029.1	3170.3	2289.2	1523.0	988.2	29.1
46°	6088.6	5930.9	5680.6	5265.0	4678.7	3926.2	3078.6	2214.7	1467.3	952.2	25.7
47°	5768.9	5615.5	5359.2	4983.0	4444.7	3742.8	2945.7	2110.1	1389.3	899.9	23.1
48°	5305.2	5209.2	4952.1	4630.7	4119.9	3455.7	2712.6	1939.5	1284.7	832.2	19.7
49°	4895.6	4794.4	4569.0	4223.6	3696.5	3121.4	2434.1	1732.1	1148.5	756.8	17.1
50°	4503.9	4415.6	4207.3	3817.4	3314.3	2717.8	2057.8	1470.7	977.1	663.4	14.6
51°	4120.8	4054.8	3842.2	3484.0	2973.2	2407.5	1782.7	1224.7	807.4	550.2	13.7
52°	3736.0	3728.2	3497.7	3135.1	2641.5	2098.1	1515.3	1033.6	684.8	462.0	12.9
53°	3322.0	3272.3	3070.9	2745.2	2271.2	1775.8	1284.7	871.6	589.7	393.4	11.1
54°	2850.6	2794.9	2578.9	2284.9	1855.5	1454.4	1035.3	704.5	491.1	332.5	10.3
55°	2326.1	2230.9	2074.1	1772.4	1449.3	1109.9	799.6	557.9	392.5	276.8	8.6
56°	1764.7	1669.6	1581.3	1359.3	1063.6	827.9	595.7	427.7	306.8	218.6	7.7
57°	1227.3	1222.2	1077.3	906.8	711.4	563.9	408.0	301.7	216.8	169.7	6.0
58°	796.2	769.6	677.1	578.5	465.4	352.3	262.3	204.8	147.4	115.7	5.1
59°	557.9	504.8	455.1	385.7	293.1	222.0	168.8	131.1	102.0	80.6	3.4
60°	342.8	331.7	298.3	234.8	190.3	156.8	126.0	96.8	74.6	57.4	1.7
62.5°	97.7	99.4	90.0	79.7	68.6	59.1	53.1	45.4	37.7	30.0	0.0
65°	22.3	21.4	23.1	21.4	19.7	19.7	17.1	15.4	13.7	12.9	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°	6.9	6.9	6.0	6.0	6.0	5.1	5.1	4.3	4.3	3.4	0.0
70°	2.6	2.6	2.6	2.6	2.6	1.7	1.7	1.7	0.9	0.9	0.0
72.5°	2.6	2.6	2.6	1.7	1.7	1.7	1.7	1.7	0.9	0.9	0.9
75°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	0.9	0.9	0.9	0.9
77.5°	1.7	1.7	1.7	1.7	1.7	0.9	1.7	0.9	0.9	0.9	0.9
80°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
82.5°	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
85°	0.9	0.9	0.9	0.9	0.0	0.0	0.9	0.9	0.9	0.0	0.9
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
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°	63.4	63.4	63.4	63.4	63.4	63.4
2.5°	66.0	62.6	60.0	57.4	56.6	56.6
5°	64.3	59.1	54.0	51.4	49.7	49.7
7.5°	59.1	53.1	48.0	45.4	44.6	44.6
10°	53.1	46.3	41.1	39.4	39.4	38.6
12.5°	46.3	39.4	36.0	35.1	35.1	35.1
15°	38.6	33.4	30.9	30.9	31.7	32.6
17.5°	32.6	27.4	26.6	28.3	30.0	30.0
20°	27.4	24.0	24.0	25.7	27.4	28.3
22.5°	23.1	20.6	21.4	24.0	26.6	27.4
25°	20.6	18.0	19.7	22.3	24.9	26.6
27.5°	17.1	16.3	18.0	21.4	24.9	25.7
30°	14.6	14.6	17.1	20.6	24.0	24.9
31°	13.7	13.7	17.1	20.6	24.0	24.9
32°	12.9	13.7	16.3	20.6	24.0	24.9
33°	12.0	12.9	16.3	19.7	24.0	24.9
34°	11.1	12.9	16.3	19.7	24.0	24.9
35°	10.3	12.9	16.3	19.7	24.0	24.9
36°	9.4	12.0	15.4	19.7	24.0	24.9
37°	8.6	12.0	15.4	19.7	24.0	24.9
38°	7.7	11.1	15.4	19.7	24.0	24.9
39°	7.7	11.1	14.6	19.7	23.1	24.9
40°	6.9	10.3	14.6	19.7	23.1	24.9
41°	6.0	10.3	14.6	18.9	23.1	24.9
42°	5.1	9.4	13.7	18.9	23.1	24.9
43°	4.3	9.4	13.7	18.9	23.1	24.9
44°	4.3	8.6	13.7	18.9	23.1	24.9
45°	3.4	8.6	13.7	18.9	23.1	24.9
46°	2.6	8.6	13.7	18.9	23.1	24.9
47°	2.6	7.7	12.9	18.9	23.1	24.9
48°	1.7	7.7	12.9	18.9	23.1	24.9
49°	1.7	7.7	12.9	18.9	23.1	25.7
50°	1.7	7.7	12.9	18.0	23.1	25.7
51°	0.9	7.7	12.9	18.0	23.1	25.7
52°	0.9	7.7	12.0	18.0	24.0	25.7
53°	0.9	6.9	12.0	18.0	24.0	25.7
54°	0.9	6.9	12.0	18.0	24.0	24.9
55°	0.9	6.9	12.0	18.0	23.1	24.9
56°	0.9	6.0	12.0	18.0	23.1	24.9
57°	0.9	6.0	11.1	17.1	23.1	24.0
58°	0.9	6.0	11.1	17.1	23.1	24.0
59°	0.9	6.0	11.1	17.1	22.3	24.0
60°	1.7	5.1	10.3	16.3	22.3	24.0
62.5°	1.7	5.1	10.3	16.3	21.4	23.1
65°	1.7	5.1	9.4	15.4	21.4	23.1



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.7	4.3	8.6	14.6	20.6	22.3
70°	1.7	5.1	8.6	13.7	19.7	21.4
72.5°	2.6	4.3	7.7	12.9	18.9	20.6
75°	2.6	4.3	7.7	12.0	18.0	18.9
77.5°	3.4	4.3	6.9	10.3	16.3	17.1
80°	3.4	4.3	6.0	8.6	13.7	14.6
82.5°	3.4	4.3	4.3	6.9	10.3	11.1
85°	2.6	3.4	3.4	4.3	6.9	7.7
87.5°	2.6	3.4	2.6	1.7	3.4	3.4
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)