

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: P1344417

Luminaire Tested: P3A13R259030D2WDE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1344417
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-75)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R259030D2WDE010 E3CA451MMS
Description: 3in Adjustable Dim to Warm LED luminaire with, R25 optic, 3000K CCT AND, 90CRI ,
E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

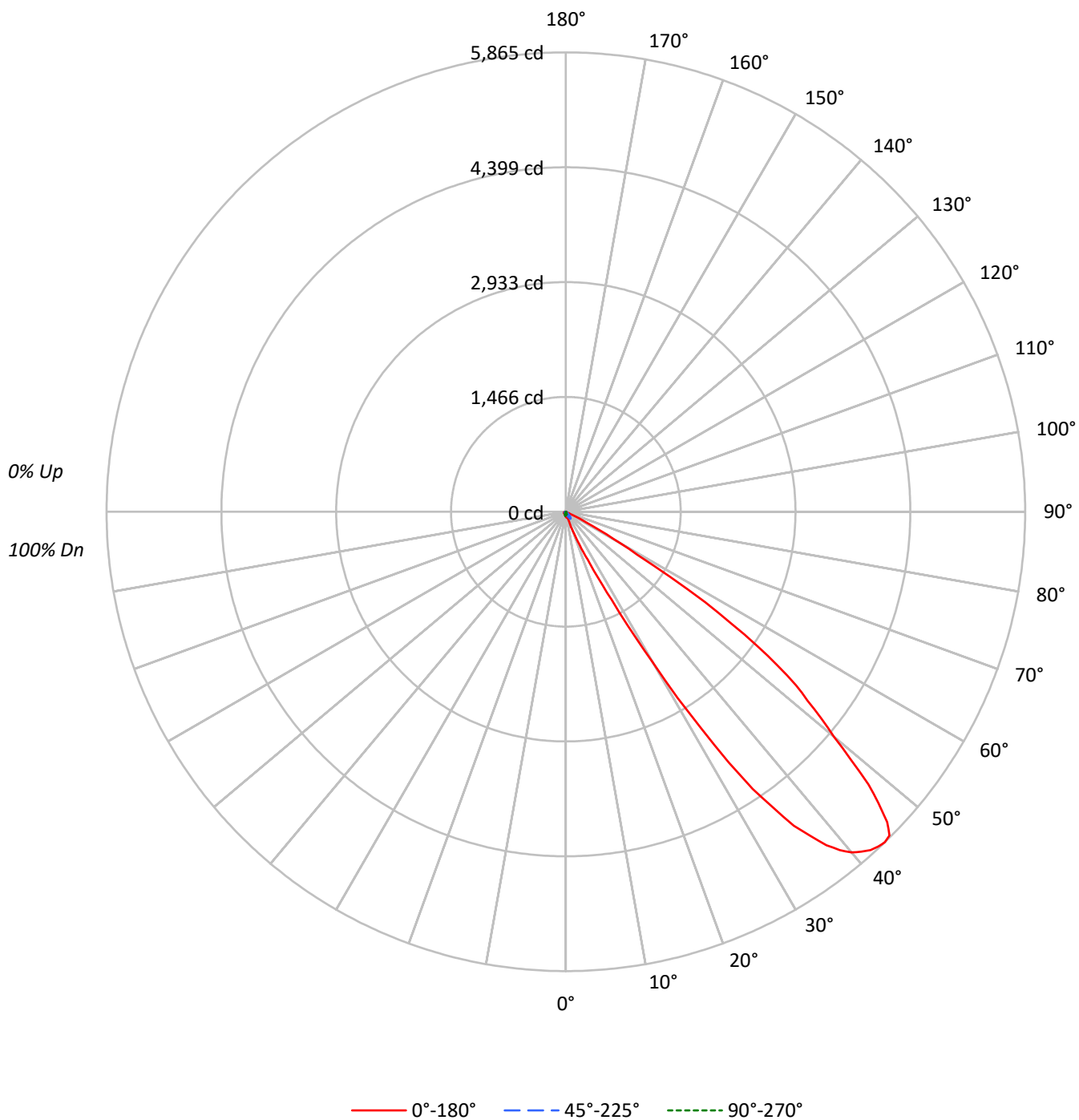
Lumens per Lamp: N/A
Luminaire Lumens: 1223.0 lumens
Efficiency: N/A
Efficacy: 60.8 lumens/watt
Spacing Criteria (0/90/45): 3.65 / 0.6 / 1.37
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 20.1
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	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	64	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	39	52	44	38	50	43	38	48	42	37	35		
7	62	48	39	32	60	47	39	32	46	38	32	44	37	32	43	36	32	29		
8	57	43	34	27	55	42	33	27	40	33	27	39	32	27	38	32	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	20	31	24	19	30	24	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	13683	13683	13683	13683	13683
5°	15628	14924	13273	11842	11600
10°	15586	14139	11267	9819	9819
15°	17344	12213	8786	8309	8786
20°	61279	12064	6791	7024	7794
25°	176284	15364	5468	6508	7549
30°	562441	23700	4355	6279	7621
35°	1231893	27947	3748	6050	7790
40°	1625045	25247	3092	6154	8330
45°	1812219	17676	3008	6667	9024
50°	1525477	9177	2934	6959	9927
55°	1140528	3708	2867	7799	11125
60°	353042	965	2851	8508	12280
65°	30146	0	3373	8924	13387
70°	2052	705	3462	10322	15195
75°	1864	932	4575	10929	17284
80°	1389	1389	6819	12249	20331
85°	2768	2768	10819	13586	21637

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1812219 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	5.6	0.5
10°-20°	14.4	1.2
20°-30°	67.7	5.5
30°-40°	325.8	26.6
40°-50°	510.6	41.8
50°-60°	261.8	21.4
60°-70°	24.7	2.0
70°-80°	8.3	0.7
80°-90°	4.2	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°	87.7	7.2
0°-40°	413.4	33.8
0°-60°	1185.8	97.0
0°-90°	1223.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1223.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	62	62	62	62	62	
5°	71	68	60	54	53	7
15°	76	54	39	37	39	32
25°	729	64	23	27	31	452
35°	4602	104	14	23	29	2793
45°	5844	57	10	22	29	4276
55°	2983	10	8	20	29	2484
65°	58	0	6	17	26	182
75°	2	1	5	13	20	3
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°	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4	62.4
2.5°	67.8	67.8	67.8	67.8	67.8	67.8	66.7	66.7	67.8	66.7	66.7
5°	71.0	71.0	71.0	71.0	71.0	71.0	71.0	70.0	70.0	70.0	67.8
7.5°	72.1	71.0	71.0	71.0	71.0	71.0	71.0	71.0	70.0	70.0	66.7
10°	70.0	70.0	70.0	70.0	68.9	68.9	68.9	67.8	67.8	67.8	63.5
12.5°	70.0	70.0	70.0	70.0	68.9	68.9	67.8	67.8	66.7	65.6	58.1
15°	76.4	76.4	76.4	75.3	74.3	73.2	72.1	71.0	70.0	67.8	53.8
17.5°	111.9	108.7	107.6	103.3	97.9	92.6	88.2	83.9	79.6	76.4	51.7
20°	262.6	261.5	256.1	243.2	229.2	213.1	196.9	178.7	152.8	135.6	51.7
22.5°	455.2	448.8	439.1	429.4	404.7	375.6	345.5	311.0	277.7	242.1	54.9
25°	728.6	743.7	711.4	685.5	642.5	589.8	532.7	485.4	425.1	369.1	63.5
27.5°	1266.7	1276.4	1212.9	1128.9	1028.9	918.0	810.4	729.7	628.5	536.0	79.6
30°	2221.3	2231.0	2124.4	1945.8	1739.2	1557.3	1310.8	1094.5	895.4	741.5	93.6
31°	2772.3	2697.0	2573.2	2400.0	2138.4	1864.0	1568.0	1306.5	1054.7	852.4	97.9
32°	3251.2	3244.8	3100.6	2838.0	2575.4	2236.4	1869.4	1528.2	1219.3	964.3	101.2
33°	3816.2	3773.2	3569.8	3322.3	2974.6	2633.5	2160.0	1770.4	1388.3	1089.1	103.3
34°	4269.3	4153.1	4069.2	3786.1	3419.1	2984.3	2477.4	2026.5	1599.2	1209.7	104.4
35°	4601.9	4577.1	4413.5	4149.9	3776.4	3331.9	2819.7	2292.3	1775.7	1349.6	104.4
36°	4953.8	4877.4	4718.1	4479.2	4115.4	3655.9	3081.2	2522.6	1981.3	1475.5	103.3
37°	5174.4	5129.2	4971.0	4724.6	4368.3	3929.2	3373.9	2765.9	2144.9	1601.4	101.2
38°	5401.5	5310.0	5154.0	4918.3	4568.5	4156.3	3585.9	2953.1	2295.6	1712.3	97.9
39°	5558.6	5463.9	5304.6	5070.0	4727.8	4318.8	3753.8	3112.4	2426.9	1795.1	93.6
40°	5677.0	5585.5	5424.1	5183.0	4845.1	4446.9	3893.7	3253.4	2536.6	1867.2	88.2
41°	5750.2	5665.2	5504.8	5264.8	4925.8	4520.1	3985.2	3344.9	2610.9	1915.7	82.9
42°	5811.5	5724.4	5560.8	5315.4	4975.3	4582.5	4041.2	3403.0	2661.5	1940.4	78.6
43°	5846.0	5758.8	5599.5	5348.8	5005.5	4611.6	4071.3	3429.9	2678.7	1937.2	71.0
44°	5865.4	5774.9	5614.6	5363.8	5018.4	4619.1	4073.5	3424.5	2666.9	1911.4	64.6
45°	5843.8	5754.5	5599.5	5348.8	4995.8	4595.4	4051.9	3395.4	2621.7	1860.8	57.0
46°	5703.9	5635.0	5493.0	5262.7	4924.7	4535.2	3997.0	3339.5	2551.7	1798.3	48.4
47°	5457.5	5402.6	5264.8	5093.7	4788.1	4424.3	3895.9	3232.9	2453.8	1704.7	38.7
48°	5200.3	5119.5	4991.5	4816.0	4557.8	4225.2	3729.1	3076.9	2305.2	1582.0	34.4
49°	4820.4	4773.0	4660.0	4464.1	4250.0	3957.2	3493.4	2876.7	2123.4	1448.6	30.1
50°	4471.7	4439.4	4281.2	4137.0	3909.9	3636.5	3173.7	2613.0	1897.4	1282.8	26.9
51°	4199.4	4160.6	4046.6	3866.8	3624.7	3307.2	2871.3	2270.8	1638.0	1085.9	21.5
52°	3915.3	3893.7	3792.6	3607.5	3369.6	3053.2	2577.5	1980.2	1386.2	918.0	17.2
53°	3682.8	3651.6	3527.8	3363.2	3105.9	2778.8	2259.0	1710.1	1174.1	771.6	15.1
54°	3343.8	3330.9	3251.2	3079.0	2800.3	2444.1	1970.5	1440.0	979.4	654.3	12.9
55°	2983.3	2940.2	2859.5	2722.8	2466.7	2134.1	1636.9	1193.5	792.1	551.0	9.7
56°	2544.2	2542.0	2397.8	2283.7	2056.6	1703.6	1307.6	932.0	643.6	459.5	8.6
57°	2124.4	2056.6	1917.8	1804.8	1560.5	1292.5	970.7	698.5	503.7	372.4	6.5
58°	1571.3	1535.8	1499.2	1333.4	1107.4	915.9	693.1	490.8	372.4	284.1	4.3
59°	1066.5	1065.4	1022.4	896.5	766.3	570.4	432.6	333.6	256.1	208.8	3.2
60°	805.0	785.6	699.5	616.7	482.1	360.5	256.1	196.9	159.3	134.5	2.2
62.5°	282.0	292.7	257.2	213.1	162.5	133.5	102.2	82.9	67.8	54.9	0.0
65°	58.1	63.5	54.9	51.7	40.9	35.5	31.2	26.9	22.6	19.4	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°	7.5	6.5	6.5	6.5	5.4	5.4	5.4	5.4	4.3	4.3	1.1
70°	3.2	3.2	3.2	3.2	3.2	3.2	2.2	2.2	2.2	2.2	1.1
72.5°	3.2	3.2	3.2	2.2	2.2	2.2	2.2	2.2	2.2	1.1	1.1
75°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.1	1.1	1.1	1.1
77.5°	2.2	2.2	2.2	2.2	2.2	2.2	1.1	1.1	1.1	1.1	1.1
80°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
82.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	2.2
85°	1.1	1.1	1.1	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
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):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	62.4	62.4	62.4	62.4	62.4	62.4
2.5°	65.6	63.5	60.3	59.2	58.1	58.1
5°	64.6	60.3	57.0	53.8	52.7	52.7
7.5°	61.3	56.0	51.7	49.5	48.4	47.4
10°	58.1	50.6	46.3	44.1	44.1	44.1
12.5°	51.7	45.2	40.9	39.8	40.9	40.9
15°	46.3	38.7	36.6	36.6	37.7	38.7
17.5°	39.8	34.4	32.3	33.4	34.4	35.5
20°	35.5	29.1	29.1	30.1	33.4	33.4
22.5°	31.2	25.8	25.8	29.1	31.2	32.3
25°	28.0	22.6	23.7	26.9	30.1	31.2
27.5°	23.7	19.4	21.5	25.8	29.1	30.1
30°	20.4	17.2	20.4	24.8	28.0	30.1
31°	19.4	16.1	20.4	23.7	28.0	30.1
32°	17.2	16.1	19.4	23.7	28.0	29.1
33°	16.1	15.1	19.4	23.7	28.0	29.1
34°	15.1	14.0	18.3	23.7	28.0	29.1
35°	12.9	14.0	18.3	22.6	26.9	29.1
36°	11.8	12.9	18.3	22.6	26.9	29.1
37°	10.8	12.9	17.2	22.6	26.9	29.1
38°	9.7	11.8	17.2	22.6	26.9	29.1
39°	8.6	11.8	16.1	22.6	26.9	29.1
40°	7.5	10.8	16.1	21.5	26.9	29.1
41°	7.5	10.8	16.1	21.5	26.9	29.1
42°	6.5	10.8	16.1	21.5	26.9	29.1
43°	5.4	9.7	16.1	21.5	26.9	29.1
44°	4.3	9.7	15.1	21.5	26.9	29.1
45°	4.3	9.7	15.1	21.5	26.9	29.1
46°	3.2	8.6	15.1	21.5	26.9	29.1
47°	2.2	8.6	15.1	20.4	26.9	29.1
48°	2.2	8.6	15.1	20.4	26.9	29.1
49°	2.2	8.6	14.0	20.4	26.9	29.1
50°	2.2	8.6	14.0	20.4	26.9	29.1
51°	1.1	7.5	14.0	20.4	26.9	29.1
52°	1.1	7.5	14.0	20.4	26.9	30.1
53°	1.1	7.5	14.0	20.4	26.9	29.1
54°	1.1	7.5	12.9	20.4	26.9	29.1
55°	1.1	7.5	12.9	20.4	26.9	29.1
56°	1.1	6.5	12.9	19.4	26.9	29.1
57°	2.2	6.5	12.9	19.4	26.9	28.0
58°	2.2	6.5	12.9	19.4	25.8	28.0
59°	2.2	6.5	12.9	19.4	25.8	28.0
60°	2.2	6.5	11.8	19.4	25.8	28.0
62.5°	2.2	6.5	11.8	18.3	24.8	26.9
65°	2.2	6.5	10.8	17.2	24.8	25.8



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	2.2	5.4	10.8	16.1	23.7	24.8
70°	3.2	5.4	9.7	16.1	22.6	23.7
72.5°	3.2	5.4	9.7	14.0	20.4	22.6
75°	3.2	5.4	8.6	12.9	19.4	20.4
77.5°	3.2	5.4	7.5	11.8	17.2	18.3
80°	4.3	5.4	6.5	9.7	15.1	16.1
82.5°	4.3	5.4	5.4	7.5	11.8	12.9
85°	3.2	4.3	4.3	5.4	7.5	8.6
87.5°	3.2	4.3	3.2	2.2	4.3	4.3
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)