

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: P1344037

Luminaire Tested: P3A13R209740DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1344037
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: P3A13R209740DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R20 optic, 4000K CCT AND, 97CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

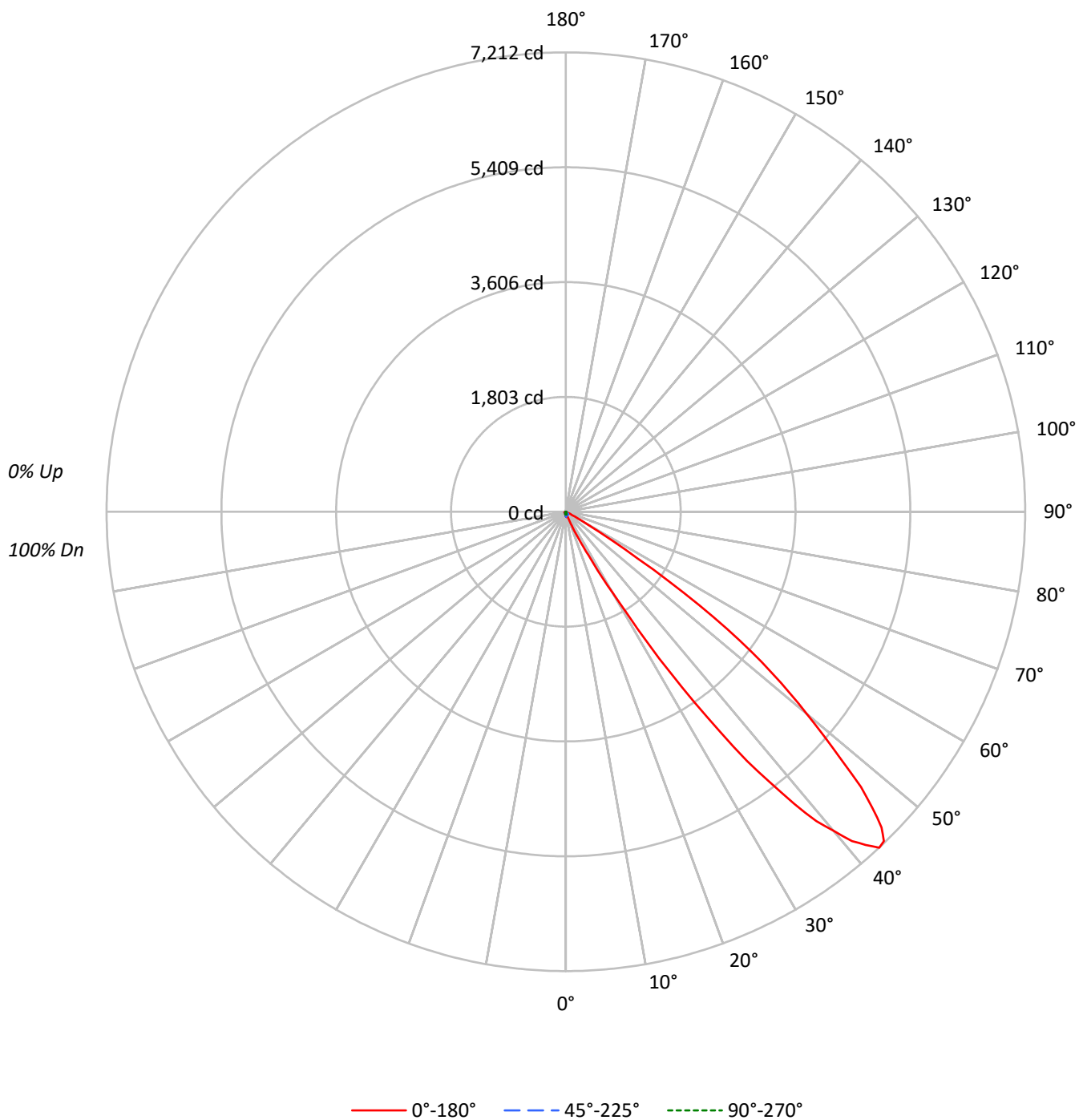
Lumens per Lamp: N/A
Luminaire Lumens: 1002.0 lumens
Efficiency: N/A
Efficacy: 68.6 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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			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	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°	15284	15284	15284	15284	15284
5°	17830	16575	14308	12437	12018
10°	17613	15097	11311	9641	9441
15°	15392	11532	8331	7696	8127
20°	22845	9661	6161	6581	7257
25°	98425	10017	4791	5928	7065
30°	372184	12154	4051	5722	6912
35°	1128269	14616	3774	5809	7308
40°	1870934	14542	3235	6212	7815
45°	2174613	9924	2915	6419	8466
50°	1688064	5458	2900	6755	9620
55°	977017	3594	2867	7570	10437
60°	165206	833	2456	7850	11578
65°	12712	0	2906	8769	13179
70°	1795	0	3590	9681	15067
75°	1610	763	3982	11184	17538
80°	1137	1137	5935	11870	20205
85°	2264	2264	9561	11825	21386

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2174613 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	6.0	0.6
10°-20°	12.5	1.3
20°-30°	40.0	4.0
30°-40°	255.5	25.5
40°-50°	467.7	46.7
50°-60°	192.2	19.2
60°-70°	16.2	1.6
70°-80°	8.1	0.8
80°-90°	3.8	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°	58.5	5.8
0°-40°	314.0	31.3
0°-60°	973.9	97.2
0°-90°	1002.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1002.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	70	70	70	70	70	
5°	81	75	65	56	55	8
15°	68	51	37	34	36	22
25°	407	41	20	24	29	267
35°	4215	55	14	22	27	2668
45°	7012	32	9	21	27	5035
55°	2556	9	8	20	27	2234
65°	24	0	6	17	25	80
75°	2	1	5	13	21	2
85°	1	1	4	5	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°	69.7	69.7	69.7	69.7	69.7	69.7	69.7	69.7	69.7	69.7	69.7
2.5°	76.3	76.3	76.3	75.3	75.3	76.3	75.3	75.3	75.3	75.3	74.4
5°	81.0	81.0	81.0	81.0	81.0	81.0	81.0	80.0	80.0	79.1	75.3
7.5°	82.9	82.9	82.9	82.9	81.9	81.9	81.9	81.9	81.0	80.0	73.4
10°	79.1	79.1	79.1	78.2	78.2	78.2	77.2	77.2	76.3	75.3	67.8
12.5°	71.6	71.6	71.6	71.6	70.6	70.6	69.7	69.7	68.7	67.8	59.3
15°	67.8	67.8	67.8	66.9	66.9	65.9	65.0	64.0	63.1	61.2	50.8
17.5°	73.4	73.4	72.5	72.5	70.6	68.7	67.8	65.0	63.1	60.3	45.2
20°	97.9	98.9	95.1	92.3	90.4	84.7	81.9	77.2	73.4	68.7	41.4
22.5°	197.7	194.0	187.4	177.0	164.8	154.4	135.6	120.5	110.2	96.0	40.5
25°	406.8	403.0	385.1	370.1	332.4	303.2	262.7	229.8	195.9	162.9	41.4
27.5°	773.1	747.7	743.0	674.2	621.5	546.2	468.0	402.1	341.8	275.0	44.3
30°	1469.9	1440.7	1338.1	1234.5	1092.3	931.3	777.8	634.7	515.1	406.8	48.0
31°	1865.4	1893.6	1773.1	1565.0	1355.0	1148.8	938.8	757.1	602.7	468.0	49.9
32°	2452.0	2328.7	2201.6	1987.8	1682.7	1419.1	1155.4	893.6	690.2	533.9	51.8
33°	3006.7	2934.2	2740.2	2473.7	2107.4	1737.3	1395.5	1054.6	797.6	614.0	52.7
34°	3598.0	3518.0	3360.7	2978.4	2576.3	2091.4	1635.6	1240.1	925.6	692.1	53.7
35°	4214.8	4180.9	3877.7	3546.2	3051.9	2467.1	1924.7	1443.5	1050.9	763.7	54.6
36°	4835.3	4726.1	4488.8	4004.8	3488.8	2814.6	2227.9	1632.8	1178.0	848.4	54.6
37°	5302.4	5277.9	4963.4	4491.6	3885.2	3185.6	2489.7	1842.8	1306.1	920.9	54.6
38°	5817.5	5720.5	5401.3	4921.0	4258.1	3525.5	2763.7	2025.5	1427.5	986.8	53.7
39°	6251.6	6107.5	5785.5	5310.9	4583.9	3783.5	2981.2	2202.5	1534.9	1041.5	52.7
40°	6536.0	6436.1	6100.0	5566.1	4879.6	4027.4	3201.6	2348.5	1614.9	1082.9	50.8
41°	6849.5	6683.8	6351.4	5814.7	5094.3	4242.1	3340.0	2444.5	1677.1	1110.2	49.0
42°	7036.9	6901.3	6506.8	5981.3	5247.8	4364.5	3453.0	2518.0	1714.7	1124.3	45.2
43°	7212.1	7027.5	6643.3	6078.3	5349.5	4451.2	3504.8	2551.9	1723.2	1124.3	40.5
44°	7188.5	7013.4	6615.1	6091.5	5372.1	4476.6	3526.5	2552.8	1710.0	1110.2	35.8
45°	7012.4	6838.2	6479.5	5976.6	5291.1	4426.7	3483.1	2515.1	1673.3	1085.7	32.0
46°	6689.4	6516.2	6241.2	5784.5	5140.4	4313.7	3382.4	2433.2	1612.1	1046.2	28.2
47°	6338.2	6169.7	5888.1	5474.7	4883.4	4112.2	3236.4	2318.3	1526.4	988.7	25.4
48°	5828.8	5723.3	5440.8	5087.7	4526.5	3796.7	2980.3	2130.9	1411.5	914.3	21.7
49°	5378.7	5267.6	5019.9	4640.4	4061.3	3429.5	2674.3	1903.1	1261.8	831.5	18.8
50°	4948.3	4851.4	4622.5	4194.1	3641.3	2986.0	2260.9	1615.9	1073.5	728.8	16.0
51°	4527.4	4454.9	4221.4	3827.8	3266.6	2645.1	1958.6	1345.6	887.0	604.5	15.1
52°	4104.6	4096.2	3842.9	3444.5	2902.1	2305.1	1664.8	1135.6	752.4	507.5	14.1
53°	3649.8	3595.2	3373.9	3016.1	2495.4	1951.1	1411.5	957.7	647.9	432.2	12.2
54°	3131.9	3070.7	2833.4	2510.4	2038.7	1598.0	1137.5	774.0	539.6	365.4	11.3
55°	2555.6	2451.1	2278.8	1947.3	1592.3	1219.4	878.6	613.0	431.3	304.2	9.4
56°	1938.8	1834.3	1737.3	1493.4	1168.6	909.6	654.4	469.9	337.1	240.1	8.5
57°	1348.4	1342.8	1183.6	996.3	781.6	619.6	448.2	331.5	238.2	186.4	6.6
58°	874.8	845.6	743.9	635.6	511.3	387.0	288.1	225.1	162.0	127.1	5.6
59°	613.0	554.6	500.0	423.7	322.0	243.9	185.5	144.1	112.1	88.5	3.8
60°	376.7	364.4	327.7	258.0	209.0	172.3	138.4	106.4	81.9	63.1	1.9
62.5°	107.3	109.2	98.9	87.6	75.3	65.0	58.4	49.9	41.4	33.0	0.0
65°	24.5	23.5	25.4	23.5	21.7	21.7	18.8	16.9	15.1	14.1	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	7.5	6.6	6.6	6.6	5.6	5.6	4.7	4.7	3.8	0.0
70°	2.8	2.8	2.8	2.8	2.8	1.9	1.9	1.9	0.9	0.9	0.0
72.5°	2.8	2.8	2.8	1.9	1.9	1.9	1.9	1.9	0.9	0.9	0.9
75°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	0.9	0.9	0.9	0.9
77.5°	1.9	1.9	1.9	1.9	1.9	0.9	1.9	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°	69.7	69.7	69.7	69.7	69.7	69.7
2.5°	72.5	68.7	65.9	63.1	62.1	62.1
5°	70.6	65.0	59.3	56.5	54.6	54.6
7.5°	65.0	58.4	52.7	49.9	49.0	49.0
10°	58.4	50.8	45.2	43.3	43.3	42.4
12.5°	50.8	43.3	39.5	38.6	38.6	38.6
15°	42.4	36.7	33.9	33.9	34.8	35.8
17.5°	35.8	30.1	29.2	31.1	33.0	33.0
20°	30.1	26.4	26.4	28.2	30.1	31.1
22.5°	25.4	22.6	23.5	26.4	29.2	30.1
25°	22.6	19.8	21.7	24.5	27.3	29.2
27.5°	18.8	17.9	19.8	23.5	27.3	28.2
30°	16.0	16.0	18.8	22.6	26.4	27.3
31°	15.1	15.1	18.8	22.6	26.4	27.3
32°	14.1	15.1	17.9	22.6	26.4	27.3
33°	13.2	14.1	17.9	21.7	26.4	27.3
34°	12.2	14.1	17.9	21.7	26.4	27.3
35°	11.3	14.1	17.9	21.7	26.4	27.3
36°	10.4	13.2	16.9	21.7	26.4	27.3
37°	9.4	13.2	16.9	21.7	26.4	27.3
38°	8.5	12.2	16.9	21.7	26.4	27.3
39°	8.5	12.2	16.0	21.7	25.4	27.3
40°	7.5	11.3	16.0	21.7	25.4	27.3
41°	6.6	11.3	16.0	20.7	25.4	27.3
42°	5.6	10.4	15.1	20.7	25.4	27.3
43°	4.7	10.4	15.1	20.7	25.4	27.3
44°	4.7	9.4	15.1	20.7	25.4	27.3
45°	3.8	9.4	15.1	20.7	25.4	27.3
46°	2.8	9.4	15.1	20.7	25.4	27.3
47°	2.8	8.5	14.1	20.7	25.4	27.3
48°	1.9	8.5	14.1	20.7	25.4	27.3
49°	1.9	8.5	14.1	20.7	25.4	28.2
50°	1.9	8.5	14.1	19.8	25.4	28.2
51°	0.9	8.5	14.1	19.8	25.4	28.2
52°	0.9	8.5	13.2	19.8	26.4	28.2
53°	0.9	7.5	13.2	19.8	26.4	28.2
54°	0.9	7.5	13.2	19.8	26.4	27.3
55°	0.9	7.5	13.2	19.8	25.4	27.3
56°	0.9	6.6	13.2	19.8	25.4	27.3
57°	0.9	6.6	12.2	18.8	25.4	26.4
58°	0.9	6.6	12.2	18.8	25.4	26.4
59°	0.9	6.6	12.2	18.8	24.5	26.4
60°	1.9	5.6	11.3	17.9	24.5	26.4
62.5°	1.9	5.6	11.3	17.9	23.5	25.4
65°	1.9	5.6	10.4	16.9	23.5	25.4



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.9	4.7	9.4	16.0	22.6	24.5
70°	1.9	5.6	9.4	15.1	21.7	23.5
72.5°	2.8	4.7	8.5	14.1	20.7	22.6
75°	2.8	4.7	8.5	13.2	19.8	20.7
77.5°	3.8	4.7	7.5	11.3	17.9	18.8
80°	3.8	4.7	6.6	9.4	15.1	16.0
82.5°	3.8	4.7	4.7	7.5	11.3	12.2
85°	2.8	3.8	3.8	4.7	7.5	8.5
87.5°	2.8	3.8	2.8	1.9	3.8	3.8
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)