

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: P1343489

Luminaire Tested: P3A13R159727DE010 E3CA451MMS

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1343489
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-73)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R159727DE010 E3CA451MMS
Description: 3in Adjustable LED luminaire with, R15 optic, 2700K CCT AND, 97CRI , E3CA451MMS TRIM
Light Source: -
Ballast/Driver: -

Summary

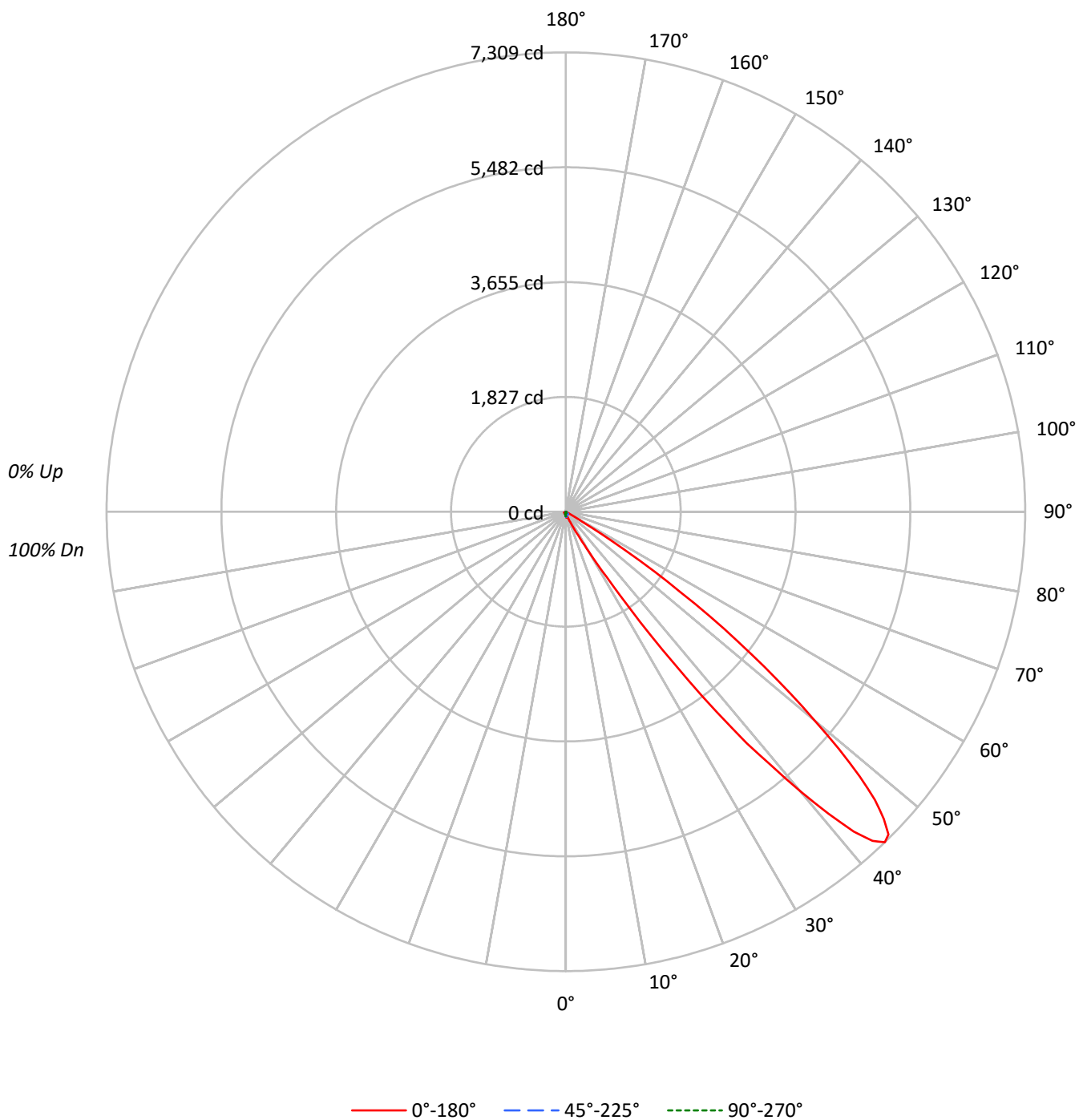
Lumens per Lamp: N/A
Luminaire Lumens: 816.0 lumens
Efficiency: N/A
Efficacy: 55.9 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	107	104	100	97	100	97	94	96	93	91	92	90	89	87		
2	101	93	87	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	53	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	37	49	42	37	48	42	37	35		
7	62	47	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31	29		
8	56	42	33	27	55	41	33	27	40	32	26	39	31	26	37	31	26	24		
9	52	37	28	22	50	37	28	22	35	28	22	34	27	22	33	27	22	20		
10	48	33	25	19	46	33	25	19	32	24	19	31	24	19	30	23	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	15876	15876	15876	15876	15876
5°	19701	17543	14330	12547	12349
10°	19394	15030	11044	9775	9953
15°	16073	10715	7946	8127	8672
20°	27909	8541	6067	7024	7981
25°	62205	10234	4912	6484	7476
30°	186029	12559	4330	6381	7824
35°	716130	14161	3908	6532	8272
40°	1662229	12337	3721	6756	8845
45°	2251396	9334	3287	7319	9582
50°	1765298	5561	3343	7778	10541
55°	847301	2485	3097	8411	11507
60°	77450	351	2851	8903	12850
65°	8457	0	2542	9288	13906
70°	2116	0	3142	9938	15131
75°	2033	678	4151	11014	17199
80°	2020	2020	5177	11239	18437
85°	2013	2013	8303	10315	20379

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2251396 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	6.2	0.8
10°-20°	12.9	1.6
20°-30°	30.8	3.8
30°-40°	168.8	20.7
40°-50°	408.7	50.1
50°-60°	163.1	20.0
60°-70°	14.1	1.7
70°-80°	7.9	1.0
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°	49.9	6.1
0°-40°	218.7	26.8
0°-60°	790.4	96.9
0°-90°	816.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	816.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	72	72	72	72	72	
5°	90	80	65	57	56	8
15°	71	47	35	36	38	25
25°	257	42	20	27	31	155
35°	2675	53	15	24	31	1890
45°	7260	30	11	24	31	5121
55°	2216	6	8	22	30	2065
65°	16	0	5	18	27	42
75°	2	1	5	13	20	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°	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4
2.5°	81.4	81.4	82.2	81.4	81.4	81.4	81.4	80.5	80.5	80.5	78.1
5°	89.5	89.5	89.5	89.5	88.7	88.7	88.7	87.9	87.9	87.1	79.7
7.5°	92.8	92.8	91.9	91.9	91.1	91.1	90.3	89.5	88.7	87.9	76.5
10°	87.1	87.1	87.1	86.2	86.2	85.4	84.6	83.8	83.0	81.4	67.5
12.5°	77.3	77.3	78.1	77.3	76.5	75.7	74.0	73.2	72.4	70.8	56.1
15°	70.8	70.8	70.8	70.0	69.2	67.5	66.7	65.1	64.3	61.8	47.2
17.5°	90.3	90.3	89.5	87.9	84.6	82.2	78.1	74.9	70.8	65.9	40.7
20°	119.6	119.6	118.0	116.3	112.3	108.2	101.7	96.0	89.5	83.8	36.6
22.5°	173.3	175.7	170.9	165.2	159.5	149.7	140.8	131.8	120.4	110.7	37.4
25°	257.1	259.5	257.1	244.1	233.5	220.5	203.4	185.5	166.0	148.1	42.3
27.5°	416.6	418.2	414.1	382.4	365.3	331.1	301.0	271.8	239.2	206.7	46.4
30°	734.7	735.5	709.5	646.0	589.9	515.0	451.6	390.5	339.3	287.2	49.6
31°	967.4	944.6	889.3	812.8	723.3	622.4	535.4	456.4	380.0	323.8	50.4
32°	1228.6	1225.3	1133.4	1000.8	881.2	755.0	624.1	523.2	435.3	358.8	51.3
33°	1574.4	1576.0	1431.2	1275.0	1078.9	909.6	738.0	599.6	493.9	400.3	52.9
34°	2114.6	1987.7	1817.6	1606.1	1339.2	1084.6	861.6	688.3	546.8	440.2	52.9
35°	2675.2	2547.5	2360.3	2039.8	1673.6	1317.3	1008.9	783.5	610.2	483.3	52.9
36°	3303.3	3195.1	2912.0	2502.7	2035.7	1536.9	1165.1	893.4	672.9	522.3	52.1
37°	3981.9	3823.2	3509.2	3062.5	2437.6	1846.1	1355.5	1002.4	735.5	564.7	50.4
38°	4671.0	4527.8	4131.6	3590.5	2917.7	2172.4	1545.9	1107.3	793.3	596.4	48.0
39°	5193.4	5115.3	4722.3	4117.8	3300.9	2481.6	1742.0	1219.6	854.3	628.1	45.6
40°	5806.9	5680.8	5308.1	4560.4	3754.1	2796.4	1934.0	1318.9	904.8	653.3	43.1
41°	6366.6	6207.2	5736.9	5014.4	4117.0	3079.6	2116.2	1421.4	945.4	668.0	41.5
42°	6846.7	6661.2	6169.7	5403.3	4420.4	3305.8	2261.9	1494.6	983.7	680.2	39.1
43°	7157.5	6997.2	6513.9	5695.4	4680.0	3513.2	2397.8	1571.1	1007.3	688.3	35.8
44°	7308.8	7146.9	6679.1	5878.5	4839.5	3637.7	2485.6	1624.0	1033.3	698.9	33.4
45°	7260.0	7095.7	6643.3	5881.7	4889.1	3682.5	2523.1	1647.6	1047.1	708.7	30.1
46°	7036.3	6920.7	6465.1	5728.8	4794.7	3634.5	2501.9	1629.7	1042.3	708.7	26.8
47°	6722.2	6590.4	6156.7	5466.0	4566.1	3510.8	2416.5	1575.2	1012.2	692.4	23.6
48°	6294.2	6182.0	5726.3	5048.6	4215.4	3241.5	2223.6	1486.5	965.0	660.7	20.3
49°	5757.2	5601.0	5177.1	4514.8	3758.2	2859.1	1970.6	1336.8	889.3	615.9	17.9
50°	5174.7	4981.8	4654.8	3980.3	3285.4	2451.5	1637.8	1130.1	782.7	557.3	16.3
51°	4604.3	4408.2	4096.6	3523.0	2781.0	2034.1	1321.3	902.3	644.4	476.8	13.8
52°	4012.8	3848.5	3499.4	3048.7	2380.7	1648.4	1100.8	763.2	535.4	400.3	11.4
53°	3423.7	3311.5	2979.5	2523.1	1912.8	1346.6	899.1	653.3	467.0	342.5	8.9
54°	2833.9	2711.0	2458.8	2052.0	1541.8	1062.6	762.4	546.8	405.2	298.6	8.1
55°	2216.3	2152.9	1920.2	1564.6	1168.4	847.8	618.4	470.3	339.3	249.8	6.5
56°	1707.0	1635.4	1423.0	1135.0	868.1	663.9	500.4	384.0	287.2	209.1	4.9
57°	1117.9	1044.7	903.9	792.5	632.2	484.1	382.4	302.7	233.5	173.3	4.1
58°	660.7	593.9	572.0	488.2	421.5	328.7	282.3	225.4	172.5	136.7	2.4
59°	303.5	308.4	274.2	257.1	233.5	209.1	171.7	150.5	118.0	98.4	1.6
60°	176.6	166.8	162.7	145.6	129.4	114.7	103.3	91.1	74.0	63.5	0.8
62.5°	60.2	57.8	59.4	53.7	50.4	48.8	44.7	38.2	31.7	26.0	0.0
65°	16.3	16.3	15.5	14.6	13.8	13.0	12.2	10.6	9.8	8.1	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°	5.7	5.7	4.9	4.9	4.1	4.1	3.3	3.3	2.4	2.4	0.0
70°	3.3	3.3	3.3	2.4	2.4	2.4	1.6	1.6	1.6	0.8	0.0
72.5°	2.4	2.4	2.4	2.4	2.4	2.4	1.6	1.6	1.6	0.8	0.8
75°	2.4	2.4	2.4	1.6	1.6	1.6	1.6	1.6	1.6	1.6	0.8
77.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
80°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	0.8	1.6
82.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.6
85°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
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°	72.4	72.4	72.4	72.4	72.4	72.4
2.5°	74.9	71.6	67.5	65.1	64.3	63.5
5°	71.6	65.1	60.2	57.0	56.1	56.1
7.5°	64.3	57.0	52.1	50.4	49.6	49.6
10°	56.1	49.6	45.6	43.9	44.7	44.7
12.5°	47.2	41.5	39.9	39.9	40.7	41.5
15°	38.2	35.0	35.0	35.8	37.4	38.2
17.5°	31.7	30.1	30.9	32.5	34.2	35.8
20°	26.0	26.0	27.7	30.1	32.5	34.2
22.5°	22.0	22.8	25.2	27.7	30.9	32.5
25°	18.7	20.3	22.8	26.8	30.1	30.9
27.5°	16.3	18.7	22.0	26.0	29.3	30.9
30°	13.8	17.1	21.2	25.2	29.3	30.9
31°	13.0	16.3	20.3	25.2	29.3	30.9
32°	12.2	16.3	20.3	25.2	29.3	30.9
33°	11.4	15.5	20.3	24.4	29.3	30.9
34°	10.6	15.5	20.3	25.2	29.3	30.9
35°	9.8	14.6	19.5	24.4	28.5	30.9
36°	8.9	14.6	19.5	24.4	29.3	30.9
37°	8.1	14.6	19.5	24.4	28.5	30.9
38°	8.1	13.8	18.7	24.4	28.5	30.9
39°	7.3	13.0	18.7	24.4	28.5	30.9
40°	6.5	13.0	17.9	23.6	28.5	30.9
41°	5.7	12.2	17.9	23.6	28.5	30.9
42°	4.9	12.2	17.9	23.6	28.5	30.9
43°	4.1	11.4	17.1	23.6	28.5	30.9
44°	4.1	11.4	17.1	23.6	28.5	30.9
45°	3.3	10.6	16.3	23.6	28.5	30.9
46°	3.3	10.6	16.3	22.8	28.5	30.9
47°	2.4	10.6	16.3	22.8	28.5	30.9
48°	2.4	9.8	16.3	22.8	28.5	30.9
49°	1.6	9.8	16.3	22.8	28.5	30.9
50°	1.6	9.8	15.5	22.8	28.5	30.9
51°	1.6	9.8	15.5	22.8	28.5	30.9
52°	1.6	8.9	15.5	22.8	28.5	30.9
53°	1.6	8.9	15.5	22.8	28.5	30.9
54°	1.6	8.9	14.6	22.8	28.5	30.9
55°	1.6	8.1	14.6	22.0	28.5	30.1
56°	1.6	8.1	14.6	22.0	28.5	30.1
57°	1.6	8.1	13.8	22.0	28.5	30.1
58°	1.6	7.3	13.8	21.2	27.7	30.1
59°	1.6	7.3	13.0	21.2	27.7	29.3
60°	1.6	6.5	13.0	20.3	26.8	29.3
62.5°	1.6	5.7	11.4	19.5	26.0	27.7
65°	1.6	4.9	10.6	17.9	25.2	26.8



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.6	4.9	9.8	17.1	23.6	26.0
70°	1.6	4.9	8.9	15.5	22.8	23.6
72.5°	2.4	4.9	8.1	14.6	21.2	22.0
75°	3.3	4.9	7.3	13.0	19.5	20.3
77.5°	3.3	4.9	6.5	11.4	17.1	17.9
80°	3.3	4.1	5.7	8.9	13.8	14.6
82.5°	3.3	4.1	4.1	7.3	10.6	11.4
85°	2.4	3.3	3.3	4.1	7.3	8.1
87.5°	2.4	3.3	1.6	2.4	3.3	3.3
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)