

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: P1336510

Luminaire Tested: P3A05R159840DE010 E3CA451MW

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336510
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: P3A05R159840DE010 E3CA451MW
Description: 3in Adjustable LED luminaire with, R15 optic, 4000K CCT AND, 98CRI , E3CA451MW TRIM
Light Source: -
Ballast/Driver: -

Summary

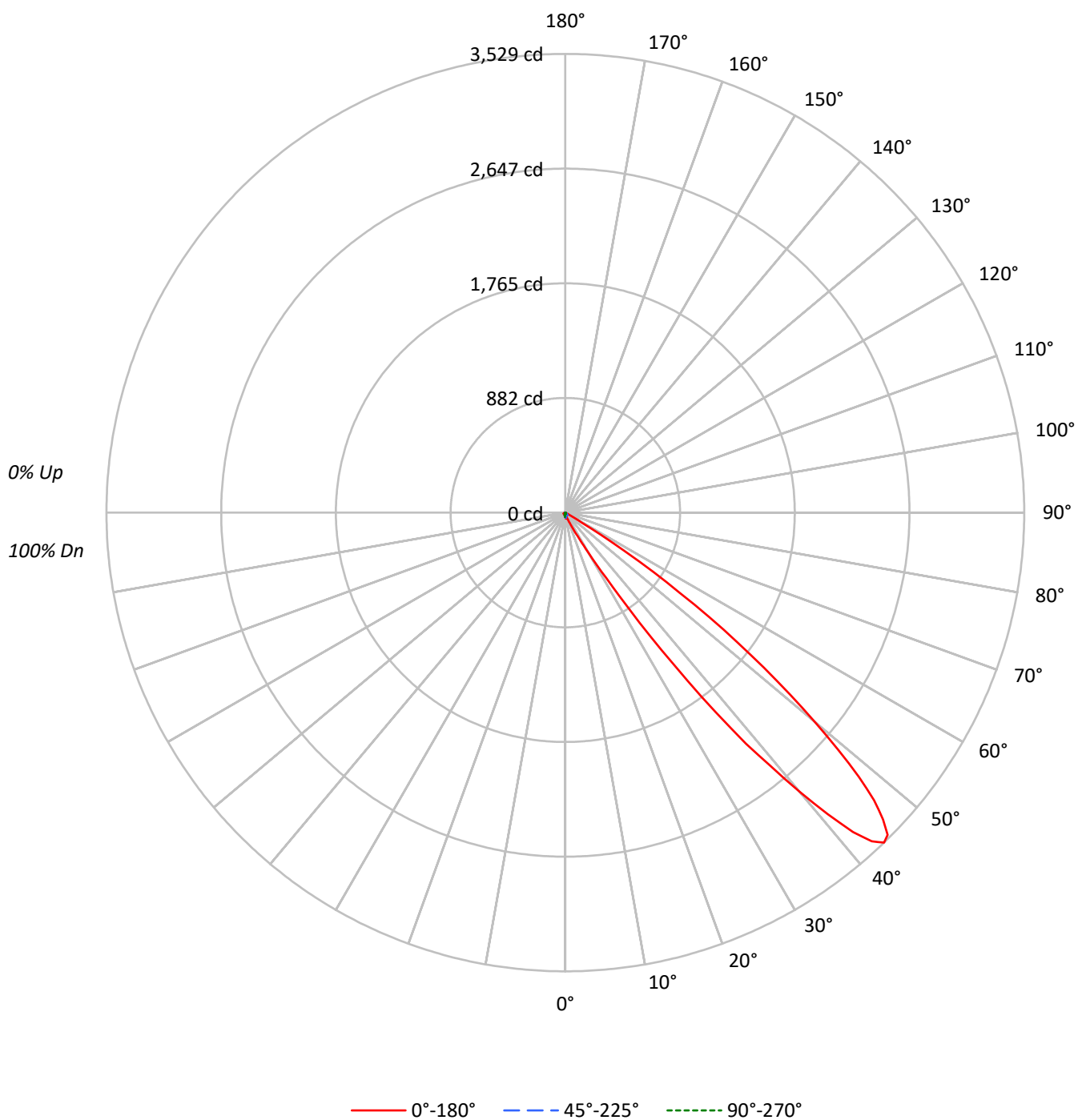
Lumens per Lamp: N/A
Luminaire Lumens: 394.0 lumens
Efficiency: N/A
Efficacy: 54.7 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 7.2
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°	7675	7675	7675	7675	7675
5°	9509	8475	6912	6053	5965
10°	9352	7259	5344	4720	4810
15°	7764	5176	3837	3927	4200
20°	13465	4130	2940	3384	3850
25°	30026	4936	2371	3145	3605
30°	89811	6077	2076	3089	3773
35°	345778	6826	1901	3159	3989
40°	802589	5954	1803	3263	4265
45°	1087059	4497	1582	3535	4621
50°	852373	2695	1603	3753	5083
55°	409104	1185	1491	4052	5543
60°	37365	175	1360	4298	6184
65°	4099	0	1245	4462	6745
70°	1026	0	1539	4809	7309
75°	1017	339	2033	5338	8303
80°	1010	1010	2526	5430	8966
85°	1006	1006	4026	5032	9812

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1087059 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	3.0	0.8
10°-20°	6.2	1.6
20°-30°	14.9	3.8
30°-40°	81.5	20.7
40°-50°	197.3	50.1
50°-60°	78.7	20.0
60°-70°	6.8	1.7
70°-80°	3.8	1.0
80°-90°	1.7	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°	24.1	6.1
0°-40°	105.6	26.8
0°-60°	381.6	96.9
0°-90°	394.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	394.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	35	35	35	35	35	
5°	43	38	31	28	27	4
15°	34	23	17	17	18	12
25°	124	20	10	13	15	75
35°	1292	26	7	12	15	913
45°	3505	14	5	11	15	2473
55°	1070	3	4	11	14	997
65°	8	0	2	9	13	20
75°	1	0	2	6	10	1
85°	0	0	2	2	4	0
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°	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0
2.5°	39.3	39.3	39.7	39.3	39.3	39.3	39.3	38.9	38.9	38.9	37.7
5°	43.2	43.2	43.2	43.2	42.8	42.8	42.8	42.4	42.4	42.0	38.5
7.5°	44.8	44.8	44.4	44.4	44.0	44.0	43.6	43.2	42.8	42.4	36.9
10°	42.0	42.0	42.0	41.6	41.6	41.2	40.9	40.5	40.1	39.3	32.6
12.5°	37.3	37.3	37.7	37.3	36.9	36.5	35.7	35.4	35.0	34.2	27.1
15°	34.2	34.2	34.2	33.8	33.4	32.6	32.2	31.4	31.0	29.9	22.8
17.5°	43.6	43.6	43.2	42.4	40.9	39.7	37.7	36.1	34.2	31.8	19.6
20°	57.7	57.7	57.0	56.2	54.2	52.2	49.1	46.4	43.2	40.5	17.7
22.5°	83.7	84.9	82.5	79.7	77.0	72.3	68.0	63.6	58.1	53.4	18.1
25°	124.1	125.3	124.1	117.9	112.7	106.5	98.2	89.6	80.1	71.5	20.4
27.5°	201.1	201.9	200.0	184.6	176.4	159.9	145.4	131.2	115.5	99.8	22.4
30°	354.7	355.1	342.6	311.9	284.8	248.7	218.0	188.6	163.8	138.7	24.0
31°	467.1	456.1	429.4	392.5	349.2	300.5	258.5	220.4	183.5	156.4	24.4
32°	593.2	591.6	547.2	483.2	425.5	364.6	301.3	252.6	210.2	173.2	24.7
33°	760.2	761.0	691.0	615.6	520.9	439.2	356.3	289.5	238.5	193.3	25.5
34°	1021.0	959.7	877.6	775.5	646.6	523.7	416.0	332.4	264.0	212.5	25.5
35°	1291.7	1230.0	1139.7	984.9	808.1	636.0	487.1	378.3	294.6	233.4	25.5
36°	1595.0	1542.7	1406.0	1208.4	982.9	742.1	562.6	431.4	324.9	252.2	25.1
37°	1922.6	1846.0	1694.4	1478.7	1177.0	891.4	654.5	484.0	355.1	272.6	24.4
38°	2255.4	2186.2	1994.9	1733.7	1408.8	1048.9	746.4	534.7	383.0	288.0	23.2
39°	2507.6	2469.9	2280.1	1988.2	1593.8	1198.2	841.1	588.9	412.5	303.3	22.0
40°	2803.8	2742.9	2563.0	2202.0	1812.6	1350.2	933.8	636.8	436.9	315.5	20.8
41°	3074.1	2997.1	2770.0	2421.2	1987.8	1487.0	1021.8	686.3	456.5	322.5	20.0
42°	3305.9	3216.3	2979.0	2609.0	2134.4	1596.2	1092.1	721.7	475.0	328.4	18.9
43°	3455.9	3378.6	3145.2	2750.0	2259.7	1696.3	1157.7	758.6	486.4	332.4	17.3
44°	3529.0	3450.8	3224.9	2838.4	2336.7	1756.5	1200.2	784.1	498.9	337.5	16.1
45°	3505.4	3426.1	3207.7	2839.9	2360.7	1778.1	1218.2	795.5	505.6	342.2	14.5
46°	3397.4	3341.6	3121.6	2766.1	2315.1	1754.9	1208.0	786.9	503.2	342.2	13.0
47°	3245.8	3182.1	2972.7	2639.2	2204.7	1695.2	1166.8	760.6	488.7	334.3	11.4
48°	3039.1	2984.9	2764.9	2437.7	2035.4	1565.1	1073.7	717.7	465.9	319.0	9.8
49°	2779.8	2704.4	2499.7	2180.0	1814.6	1380.5	951.5	645.5	429.4	297.4	8.6
50°	2498.6	2405.5	2247.5	1921.8	1586.3	1183.7	790.8	545.7	377.9	269.1	7.9
51°	2223.2	2128.5	1978.0	1701.1	1342.8	982.1	638.0	435.7	311.1	230.2	6.7
52°	1937.6	1858.2	1689.7	1472.0	1149.5	795.9	531.5	368.5	258.5	193.3	5.5
53°	1653.1	1598.9	1438.6	1218.2	923.6	650.2	434.1	315.5	225.5	165.4	4.3
54°	1368.3	1309.0	1187.2	990.8	744.5	513.1	368.1	264.0	195.6	144.2	3.9
55°	1070.1	1039.5	927.1	755.5	564.1	409.4	298.6	227.1	163.8	120.6	3.1
56°	824.2	789.6	687.1	548.0	419.2	320.6	241.6	185.4	138.7	101.0	2.4
57°	539.8	504.4	436.5	382.6	305.2	233.7	184.6	146.1	112.7	83.7	2.0
58°	319.0	286.8	276.2	235.7	203.5	158.7	136.3	108.8	83.3	66.0	1.2
59°	146.5	148.9	132.4	124.1	112.7	101.0	82.9	72.7	57.0	47.5	0.8
60°	85.2	80.5	78.6	70.3	62.5	55.4	49.9	44.0	35.7	30.6	0.4
62.5°	29.1	27.9	28.7	25.9	24.4	23.6	21.6	18.5	15.3	12.6	0.0
65°	7.9	7.9	7.5	7.1	6.7	6.3	5.9	5.1	4.7	3.9	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°	2.7	2.7	2.4	2.4	2.0	2.0	1.6	1.6	1.2	1.2	0.0
70°	1.6	1.6	1.6	1.2	1.2	1.2	0.8	0.8	0.8	0.4	0.0
72.5°	1.2	1.2	1.2	1.2	1.2	1.2	0.8	0.8	0.8	0.4	0.4
75°	1.2	1.2	1.2	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.4
77.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
80°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.4	0.8
82.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.8
85°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
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°	35.0	35.0	35.0	35.0	35.0	35.0
2.5°	36.1	34.6	32.6	31.4	31.0	30.6
5°	34.6	31.4	29.1	27.5	27.1	27.1
7.5°	31.0	27.5	25.1	24.4	24.0	24.0
10°	27.1	24.0	22.0	21.2	21.6	21.6
12.5°	22.8	20.0	19.2	19.2	19.6	20.0
15°	18.5	16.9	16.9	17.3	18.1	18.5
17.5°	15.3	14.5	14.9	15.7	16.5	17.3
20°	12.6	12.6	13.4	14.5	15.7	16.5
22.5°	10.6	11.0	12.2	13.4	14.9	15.7
25°	9.0	9.8	11.0	13.0	14.5	14.9
27.5°	7.9	9.0	10.6	12.6	14.1	14.9
30°	6.7	8.2	10.2	12.2	14.1	14.9
31°	6.3	7.9	9.8	12.2	14.1	14.9
32°	5.9	7.9	9.8	12.2	14.1	14.9
33°	5.5	7.5	9.8	11.8	14.1	14.9
34°	5.1	7.5	9.8	12.2	14.1	14.9
35°	4.7	7.1	9.4	11.8	13.7	14.9
36°	4.3	7.1	9.4	11.8	14.1	14.9
37°	3.9	7.1	9.4	11.8	13.7	14.9
38°	3.9	6.7	9.0	11.8	13.7	14.9
39°	3.5	6.3	9.0	11.8	13.7	14.9
40°	3.1	6.3	8.6	11.4	13.7	14.9
41°	2.7	5.9	8.6	11.4	13.7	14.9
42°	2.4	5.9	8.6	11.4	13.7	14.9
43°	2.0	5.5	8.2	11.4	13.7	14.9
44°	2.0	5.5	8.2	11.4	13.7	14.9
45°	1.6	5.1	7.9	11.4	13.7	14.9
46°	1.6	5.1	7.9	11.0	13.7	14.9
47°	1.2	5.1	7.9	11.0	13.7	14.9
48°	1.2	4.7	7.9	11.0	13.7	14.9
49°	0.8	4.7	7.9	11.0	13.7	14.9
50°	0.8	4.7	7.5	11.0	13.7	14.9
51°	0.8	4.7	7.5	11.0	13.7	14.9
52°	0.8	4.3	7.5	11.0	13.7	14.9
53°	0.8	4.3	7.5	11.0	13.7	14.9
54°	0.8	4.3	7.1	11.0	13.7	14.9
55°	0.8	3.9	7.1	10.6	13.7	14.5
56°	0.8	3.9	7.1	10.6	13.7	14.5
57°	0.8	3.9	6.7	10.6	13.7	14.5
58°	0.8	3.5	6.7	10.2	13.4	14.5
59°	0.8	3.5	6.3	10.2	13.4	14.1
60°	0.8	3.1	6.3	9.8	13.0	14.1
62.5°	0.8	2.7	5.5	9.4	12.6	13.4
65°	0.8	2.4	5.1	8.6	12.2	13.0



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.8	2.4	4.7	8.2	11.4	12.6
70°	0.8	2.4	4.3	7.5	11.0	11.4
72.5°	1.2	2.4	3.9	7.1	10.2	10.6
75°	1.6	2.4	3.5	6.3	9.4	9.8
77.5°	1.6	2.4	3.1	5.5	8.2	8.6
80°	1.6	2.0	2.7	4.3	6.7	7.1
82.5°	1.6	2.0	2.0	3.5	5.1	5.5
85°	1.2	1.6	1.6	2.0	3.5	3.9
87.5°	1.2	1.6	0.8	1.2	1.6	1.6
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)