

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: P1343568

Luminaire Tested: P3A13R159830DE010 E3CA451MB

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1343568
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: P3A13R159830DE010 E3CA451MB
Description: 3in Adjustable LED luminaire with, R15 optic, 3000K CCT AND, 98CRI , E3CA451MB TRIM
Light Source: -
Ballast/Driver: -

Summary

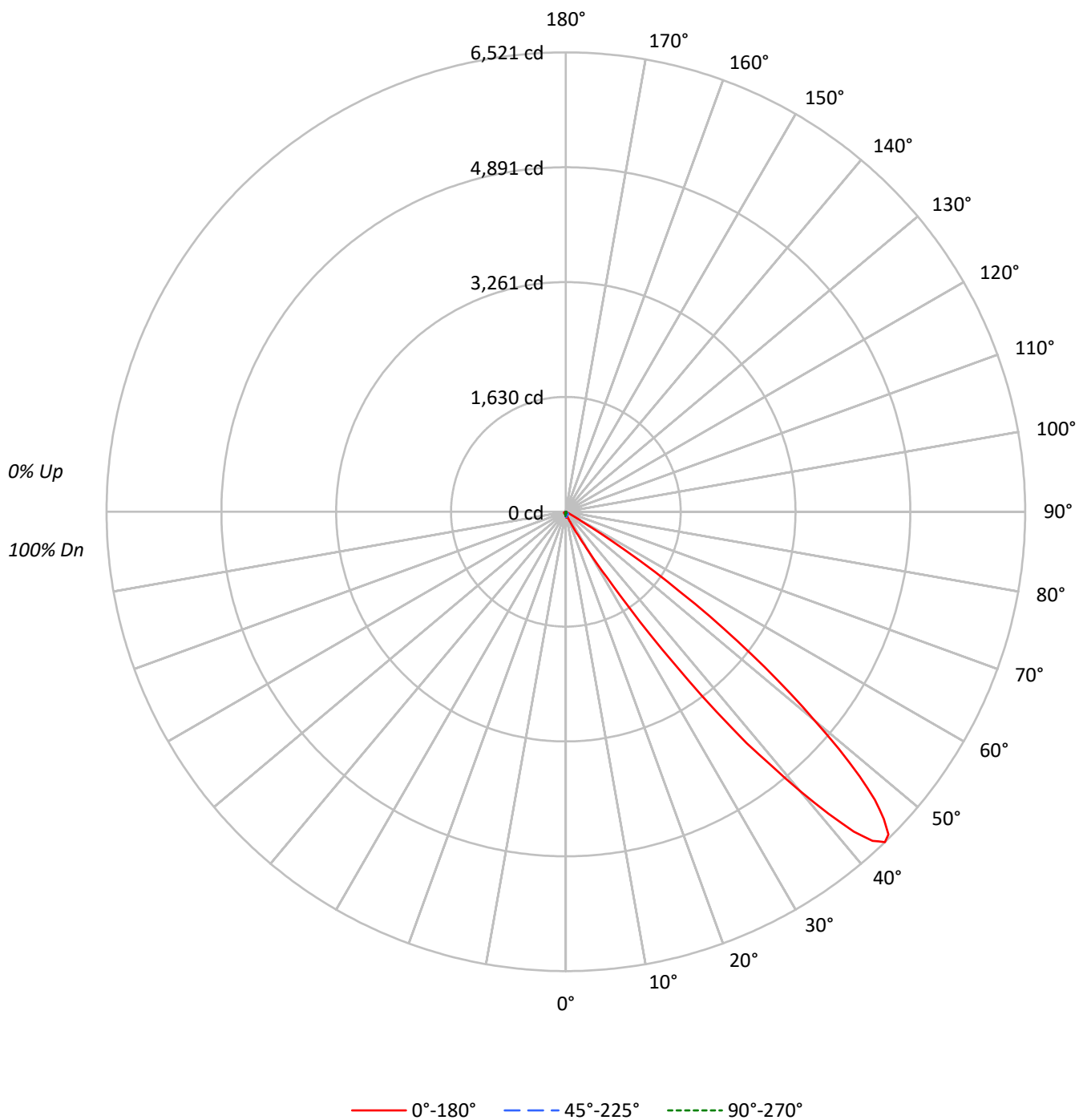
Lumens per Lamp: N/A
Luminaire Lumens: 728.0 lumens
Efficiency: N/A
Efficacy: 50.2 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.08
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 14.5
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°	14166	14166	14166	14166	14166
5°	17565	15650	12789	11182	11028
10°	17301	13404	9864	8728	8884
15°	14347	9557	7083	7242	7741
20°	24899	7631	5414	6277	7117
25°	55503	9121	4379	5807	6678
30°	165975	11217	3849	5697	6988
35°	638901	12635	3507	5836	7388
40°	1482950	11021	3321	6040	7901
45°	2008612	8342	2915	6543	8559
50°	1574908	4947	2968	6925	9415
55°	755930	2217	2791	7493	10284
60°	69073	307	2544	7938	11446
65°	7524	0	2283	8302	12453
70°	1859	0	2821	8848	13528
75°	1864	593	3728	9828	15335
80°	1894	1894	4546	10102	16543
85°	1761	1761	7296	9057	18367

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2008612 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	5.5	0.8
10°-20°	11.5	1.6
20°-30°	27.5	3.8
30°-40°	150.6	20.7
40°-50°	364.6	50.1
50°-60°	145.5	20.0
60°-70°	12.6	1.7
70°-80°	7.1	1.0
80°-90°	3.1	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°	44.5	6.1
0°-40°	195.1	26.8
0°-60°	705.2	96.9
0°-90°	728.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	728.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	65	65	65	65	65	
5°	80	71	58	51	50	8
15°	63	42	31	32	34	22
25°	229	38	18	24	28	138
35°	2387	47	13	22	28	1687
45°	6477	27	9	21	28	4569
55°	1977	6	7	20	27	1842
65°	14	0	4	16	24	37
75°	2	1	4	12	18	2
85°	1	1	3	4	7	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°	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6	64.6
2.5°	72.6	72.6	73.3	72.6	72.6	72.6	72.6	71.9	71.9	71.9	69.7
5°	79.8	79.8	79.8	79.8	79.1	79.1	79.1	78.4	78.4	77.7	71.1
7.5°	82.8	82.8	82.0	82.0	81.3	81.3	80.6	79.8	79.1	78.4	68.2
10°	77.7	77.7	77.7	76.9	76.9	76.2	75.5	74.8	74.0	72.6	60.2
12.5°	69.0	69.0	69.7	69.0	68.2	67.5	66.1	65.3	64.6	63.2	50.1
15°	63.2	63.2	63.2	62.4	61.7	60.2	59.5	58.1	57.3	55.2	42.1
17.5°	80.6	80.6	79.8	78.4	75.5	73.3	69.7	66.8	63.2	58.8	36.3
20°	106.7	106.7	105.3	103.8	100.2	96.5	90.7	85.7	79.8	74.8	32.7
22.5°	154.6	156.8	152.4	147.4	142.3	133.6	125.6	117.6	107.4	98.7	33.4
25°	229.4	231.6	229.4	217.8	208.3	196.7	181.5	165.5	148.1	132.1	37.7
27.5°	371.7	373.1	369.5	341.2	325.9	295.4	268.6	242.4	213.4	184.4	41.4
30°	655.5	656.2	633.0	576.4	526.3	459.5	402.9	348.4	302.7	256.2	44.3
31°	863.1	842.8	793.4	725.2	645.3	555.3	477.6	407.2	339.0	288.9	45.0
32°	1096.1	1093.2	1011.2	892.8	786.1	673.6	556.8	466.7	388.3	320.1	45.7
33°	1404.6	1406.0	1276.8	1137.5	962.5	811.5	658.4	535.0	440.6	357.1	47.2
34°	1886.6	1773.3	1621.6	1432.9	1194.8	967.6	768.7	614.1	487.8	392.7	47.2
35°	2386.7	2272.7	2105.8	1819.8	1493.1	1175.2	900.1	699.0	544.4	431.2	47.2
36°	2947.1	2850.5	2597.9	2232.8	1816.2	1371.2	1039.5	797.0	600.3	466.0	46.5
37°	3552.5	3410.9	3130.7	2732.2	2174.7	1647.0	1209.3	894.3	656.2	503.8	45.0
38°	4167.3	4039.5	3686.0	3203.3	2603.0	1938.1	1379.2	987.9	707.7	532.1	42.8
39°	4633.3	4563.6	4213.0	3673.7	2944.9	2213.9	1554.1	1088.1	762.2	560.4	40.6
40°	5180.6	5068.1	4735.7	4068.6	3349.2	2494.9	1725.4	1176.7	807.2	582.9	38.5
41°	5680.0	5537.8	5118.2	4473.6	3673.0	2747.5	1888.0	1268.1	843.5	596.0	37.0
42°	6108.3	5942.8	5504.4	4820.6	3943.7	2949.3	2018.0	1333.4	877.6	606.8	34.8
43°	6385.6	6242.6	5811.4	5081.2	4175.3	3134.4	2139.2	1401.7	898.6	614.1	31.9
44°	6520.6	6376.2	5958.8	5244.5	4317.6	3245.4	2217.6	1448.9	921.9	623.5	29.8
45°	6477.1	6330.4	5926.8	5247.4	4361.8	3285.4	2251.0	1469.9	934.2	632.2	26.9
46°	6277.4	6174.4	5767.9	5111.0	4277.6	3242.5	2232.1	1453.9	929.9	632.2	24.0
47°	5997.3	5879.7	5492.8	4876.5	4073.7	3132.2	2155.9	1405.3	903.0	617.7	21.1
48°	5615.4	5515.3	5108.8	4504.1	3760.8	2891.9	1983.8	1326.2	860.9	589.4	18.1
49°	5136.4	4997.0	4618.8	4027.9	3352.9	2550.8	1758.1	1192.6	793.4	549.5	16.0
50°	4616.6	4444.6	4152.8	3551.0	2931.1	2187.1	1461.2	1008.3	698.3	497.2	14.5
51°	4107.8	3932.8	3654.8	3143.1	2481.1	1814.7	1178.8	805.0	574.9	425.4	12.3
52°	3580.1	3433.4	3122.0	2719.9	2123.9	1470.6	982.1	680.9	477.6	357.1	10.2
53°	3054.5	2954.3	2658.2	2251.0	1706.6	1201.3	802.1	582.9	416.7	305.6	8.0
54°	2528.3	2418.6	2193.6	1830.7	1375.6	948.0	680.2	487.8	361.5	266.4	7.3
55°	1977.3	1920.7	1713.1	1395.9	1042.4	756.4	551.7	419.6	302.7	222.8	5.8
56°	1522.9	1459.0	1269.6	1012.6	774.5	592.3	446.4	342.6	256.2	186.6	4.4
57°	997.4	932.0	806.5	707.0	564.0	431.9	341.2	270.0	208.3	154.6	3.6
58°	589.4	529.9	510.3	435.5	376.0	293.3	251.9	201.1	153.9	121.9	2.2
59°	270.8	275.1	244.6	229.4	208.3	186.6	153.2	134.3	105.3	87.8	1.5
60°	157.5	148.8	145.2	129.9	115.4	102.3	92.2	81.3	66.1	56.6	0.7
62.5°	53.7	51.5	53.0	47.9	45.0	43.6	39.9	34.1	28.3	23.2	0.0
65°	14.5	14.5	13.8	13.1	12.3	11.6	10.9	9.4	8.7	7.3	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°	5.1	5.1	4.4	4.4	3.6	3.6	2.9	2.9	2.2	2.2	0.0
70°	2.9	2.9	2.9	2.2	2.2	2.2	1.5	1.5	1.5	0.7	0.0
72.5°	2.2	2.2	2.2	2.2	2.2	2.2	1.5	1.5	1.5	0.7	0.7
75°	2.2	2.2	2.2	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.7
77.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
80°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	0.7	1.5
82.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.5
85°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7
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°	64.6	64.6	64.6	64.6	64.6	64.6
2.5°	66.8	63.9	60.2	58.1	57.3	56.6
5°	63.9	58.1	53.7	50.8	50.1	50.1
7.5°	57.3	50.8	46.5	45.0	44.3	44.3
10°	50.1	44.3	40.6	39.2	39.9	39.9
12.5°	42.1	37.0	35.6	35.6	36.3	37.0
15°	34.1	31.2	31.2	31.9	33.4	34.1
17.5°	28.3	26.9	27.6	29.0	30.5	31.9
20°	23.2	23.2	24.7	26.9	29.0	30.5
22.5°	19.6	20.3	22.5	24.7	27.6	29.0
25°	16.7	18.1	20.3	24.0	26.9	27.6
27.5°	14.5	16.7	19.6	23.2	26.1	27.6
30°	12.3	15.2	18.9	22.5	26.1	27.6
31°	11.6	14.5	18.1	22.5	26.1	27.6
32°	10.9	14.5	18.1	22.5	26.1	27.6
33°	10.2	13.8	18.1	21.8	26.1	27.6
34°	9.4	13.8	18.1	22.5	26.1	27.6
35°	8.7	13.1	17.4	21.8	25.4	27.6
36°	8.0	13.1	17.4	21.8	26.1	27.6
37°	7.3	13.1	17.4	21.8	25.4	27.6
38°	7.3	12.3	16.7	21.8	25.4	27.6
39°	6.5	11.6	16.7	21.8	25.4	27.6
40°	5.8	11.6	16.0	21.1	25.4	27.6
41°	5.1	10.9	16.0	21.1	25.4	27.6
42°	4.4	10.9	16.0	21.1	25.4	27.6
43°	3.6	10.2	15.2	21.1	25.4	27.6
44°	3.6	10.2	15.2	21.1	25.4	27.6
45°	2.9	9.4	14.5	21.1	25.4	27.6
46°	2.9	9.4	14.5	20.3	25.4	27.6
47°	2.2	9.4	14.5	20.3	25.4	27.6
48°	2.2	8.7	14.5	20.3	25.4	27.6
49°	1.5	8.7	14.5	20.3	25.4	27.6
50°	1.5	8.7	13.8	20.3	25.4	27.6
51°	1.5	8.7	13.8	20.3	25.4	27.6
52°	1.5	8.0	13.8	20.3	25.4	27.6
53°	1.5	8.0	13.8	20.3	25.4	27.6
54°	1.5	8.0	13.1	20.3	25.4	27.6
55°	1.5	7.3	13.1	19.6	25.4	26.9
56°	1.5	7.3	13.1	19.6	25.4	26.9
57°	1.5	7.3	12.3	19.6	25.4	26.9
58°	1.5	6.5	12.3	18.9	24.7	26.9
59°	1.5	6.5	11.6	18.9	24.7	26.1
60°	1.5	5.8	11.6	18.1	24.0	26.1
62.5°	1.5	5.1	10.2	17.4	23.2	24.7
65°	1.5	4.4	9.4	16.0	22.5	24.0



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	1.5	4.4	8.7	15.2	21.1	23.2
70°	1.5	4.4	8.0	13.8	20.3	21.1
72.5°	2.2	4.4	7.3	13.1	18.9	19.6
75°	2.9	4.4	6.5	11.6	17.4	18.1
77.5°	2.9	4.4	5.8	10.2	15.2	16.0
80°	2.9	3.6	5.1	8.0	12.3	13.1
82.5°	2.9	3.6	3.6	6.5	9.4	10.2
85°	2.2	2.9	2.9	3.6	6.5	7.3
87.5°	2.2	2.9	1.5	2.2	2.9	2.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)