

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: P1336421

Luminaire Tested: P3A05R159735DE010 E3A451GPH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336421
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: P3A05R159735DE010 E3A451GPH
Description: 3in Adjustable LED luminaire with, R15 optic, 3500K CCT AND, 97CRI , E3A451GPH TRIM
Light Source: -
Ballast/Driver: -

Summary

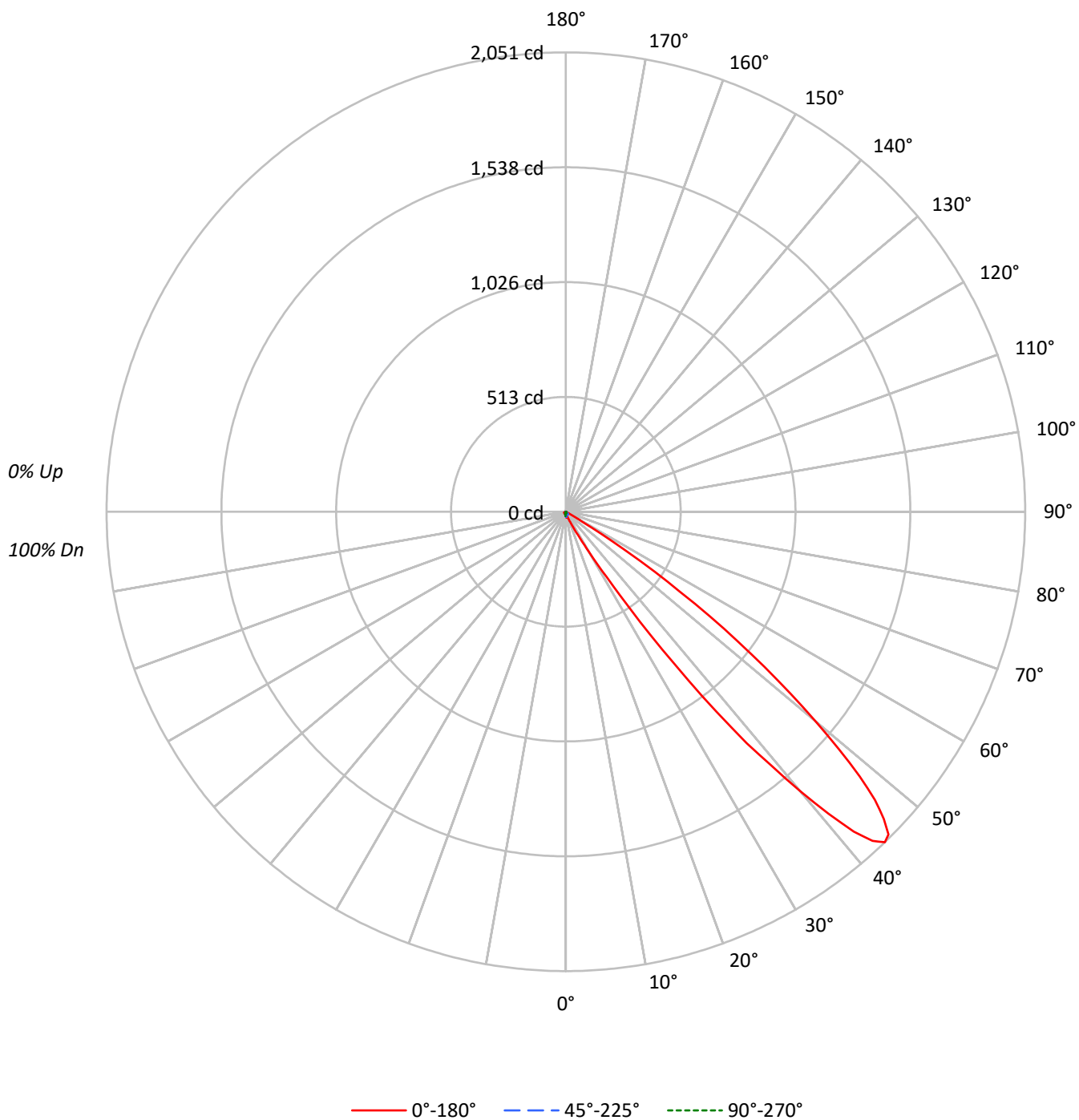
Lumens per Lamp: N/A
Luminaire Lumens: 229.0 lumens
Efficiency: N/A
Efficacy: 31.8 lumens/watt
Spacing Criteria (0/90/45): 3.26 / 0.47 / 1.09
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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°	4451	4451	4451	4451	4451
5°	5525	4931	4028	3522	3478
10°	5433	4231	3095	2739	2806
15°	4518	2997	2225	2270	2429
20°	7841	2404	1703	1960	2240
25°	17469	2879	1379	1815	2105
30°	52211	3520	1215	1798	2203
35°	200983	3962	1098	1847	2329
40°	466474	3464	1059	1889	2490
45°	631818	2605	930	2047	2698
50°	495404	1569	921	2183	2968
55°	237793	688	879	2370	3211
60°	21709	88	789	2500	3596
65°	2387	0	726	2594	3891
70°	577	0	898	2757	4231
75°	593	169	1186	3135	4829
80°	631	631	1389	3157	5177
85°	503	503	2264	2768	5787

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 631818 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.7	0.8
10°-20°	3.6	1.6
20°-30°	8.7	3.8
30°-40°	47.4	20.7
40°-50°	114.7	50.1
50°-60°	45.8	20.0
60°-70°	4.0	1.7
70°-80°	2.2	1.0
80°-90°	1.0	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°	14.0	6.1
0°-40°	61.4	26.8
0°-60°	221.8	96.9
0°-90°	229.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	229.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	20	20	20	20	20	
5°	25	22	18	16	16	2
15°	20	13	10	10	11	7
25°	72	12	6	8	9	44
35°	751	15	4	7	9	531
45°	2037	8	3	7	9	1437
55°	622	2	2	6	8	579
65°	5	0	1	5	8	12
75°	1	0	1	4	6	1
85°	0	0	1	1	2	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°	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3	20.3
2.5°	22.8	22.8	23.1	22.8	22.8	22.8	22.8	22.6	22.6	22.6	21.9
5°	25.1	25.1	25.1	25.1	24.9	24.9	24.9	24.7	24.7	24.4	22.4
7.5°	26.0	26.0	25.8	25.8	25.6	25.6	25.3	25.1	24.9	24.7	21.5
10°	24.4	24.4	24.4	24.2	24.2	24.0	23.7	23.5	23.3	22.8	19.0
12.5°	21.7	21.7	21.9	21.7	21.5	21.2	20.8	20.6	20.3	19.9	15.8
15°	19.9	19.9	19.9	19.6	19.4	19.0	18.7	18.3	18.0	17.4	13.2
17.5°	25.3	25.3	25.1	24.7	23.7	23.1	21.9	21.0	19.9	18.5	11.4
20°	33.6	33.6	33.1	32.7	31.5	30.4	28.5	26.9	25.1	23.5	10.3
22.5°	48.6	49.3	48.0	46.4	44.8	42.0	39.5	37.0	33.8	31.1	10.5
25°	72.2	72.8	72.2	68.5	65.5	61.9	57.1	52.1	46.6	41.6	11.9
27.5°	116.9	117.4	116.2	107.3	102.5	92.9	84.5	76.3	67.1	58.0	13.0
30°	206.2	206.4	199.1	181.3	165.5	144.5	126.7	109.6	95.2	80.6	13.9
31°	271.5	265.1	249.6	228.1	203.0	174.7	150.2	128.1	106.6	90.9	14.2
32°	344.8	343.9	318.1	280.9	247.3	211.9	175.1	146.8	122.2	100.7	14.4
33°	441.8	442.3	401.6	357.8	302.8	255.3	207.1	168.3	138.6	112.3	14.8
34°	593.4	557.8	510.1	450.7	375.8	304.4	241.8	193.2	153.4	123.5	14.8
35°	750.8	714.9	662.4	572.4	469.7	369.7	283.1	219.9	171.3	135.6	14.8
36°	927.0	896.7	817.2	702.4	571.3	431.3	327.0	250.7	188.8	146.6	14.6
37°	1117.5	1072.9	984.8	859.5	684.1	518.1	380.4	281.3	206.4	158.5	14.2
38°	1310.9	1270.7	1159.5	1007.6	818.8	609.7	433.8	310.8	222.6	167.4	13.5
39°	1457.5	1435.5	1325.3	1155.6	926.4	696.4	488.9	342.3	239.8	176.3	12.8
40°	1629.6	1594.2	1489.7	1279.8	1053.5	784.8	542.8	370.1	253.9	183.4	12.1
41°	1786.7	1742.0	1610.0	1407.2	1155.4	864.2	593.9	398.9	265.3	187.5	11.6
42°	1921.4	1869.4	1731.5	1516.4	1240.5	927.7	634.8	419.5	276.1	190.9	11.0
43°	2008.7	1963.7	1828.0	1598.3	1313.4	985.9	672.9	440.9	282.7	193.2	10.0
44°	2051.1	2005.7	1874.4	1649.7	1358.1	1020.9	697.6	455.8	290.0	196.1	9.4
45°	2037.4	1991.3	1864.4	1650.6	1372.1	1033.4	708.1	462.4	293.9	198.9	8.4
46°	1974.6	1942.2	1814.3	1607.7	1345.6	1020.0	702.1	457.4	292.5	198.9	7.5
47°	1886.5	1849.5	1727.8	1534.0	1281.4	985.3	678.2	442.1	284.0	194.3	6.6
48°	1766.4	1734.9	1607.0	1416.8	1183.0	909.7	624.0	417.2	270.8	185.4	5.7
49°	1615.7	1571.9	1452.9	1267.0	1054.7	802.4	553.0	375.2	249.6	172.8	5.0
50°	1452.2	1398.1	1306.3	1117.0	922.0	688.0	459.6	317.2	219.7	156.4	4.6
51°	1292.1	1237.1	1149.7	988.7	780.4	570.8	370.8	253.2	180.8	133.8	3.9
52°	1126.1	1080.0	982.1	855.6	668.1	462.6	308.9	214.2	150.2	112.3	3.2
53°	960.8	929.3	836.2	708.1	536.8	377.9	252.3	183.4	131.1	96.1	2.5
54°	795.3	760.8	690.0	575.9	432.7	298.2	213.9	153.4	113.7	83.8	2.3
55°	622.0	604.2	538.9	439.1	327.9	237.9	173.5	132.0	95.2	70.1	1.8
56°	479.0	459.0	399.4	318.5	243.6	186.3	140.4	107.8	80.6	58.7	1.4
57°	313.7	293.2	253.7	222.4	177.4	135.9	107.3	84.9	65.5	48.6	1.1
58°	185.4	166.7	160.5	137.0	118.3	92.2	79.2	63.2	48.4	38.4	0.7
59°	85.2	86.5	76.9	72.2	65.5	58.7	48.2	42.2	33.1	27.6	0.5
60°	49.5	46.8	45.7	40.9	36.3	32.2	29.0	25.6	20.8	17.8	0.2
62.5°	16.9	16.2	16.7	15.1	14.2	13.7	12.6	10.7	8.9	7.3	0.0
65°	4.6	4.6	4.3	4.1	3.9	3.7	3.4	3.0	2.7	2.3	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°	1.6	1.6	1.4	1.4	1.1	1.1	0.9	0.9	0.7	0.7	0.0
70°	0.9	0.9	0.9	0.7	0.7	0.7	0.5	0.5	0.5	0.2	0.0
72.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.5	0.5	0.5	0.2	0.2
75°	0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2
77.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2	0.5
82.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.5
85°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
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°	20.3	20.3	20.3	20.3	20.3	20.3
2.5°	21.0	20.1	19.0	18.3	18.0	17.8
5°	20.1	18.3	16.9	16.0	15.8	15.8
7.5°	18.0	16.0	14.6	14.2	13.9	13.9
10°	15.8	13.9	12.8	12.3	12.6	12.6
12.5°	13.2	11.6	11.2	11.2	11.4	11.6
15°	10.7	9.8	9.8	10.0	10.5	10.7
17.5°	8.9	8.4	8.7	9.1	9.6	10.0
20°	7.3	7.3	7.8	8.4	9.1	9.6
22.5°	6.2	6.4	7.1	7.8	8.7	9.1
25°	5.3	5.7	6.4	7.5	8.4	8.7
27.5°	4.6	5.3	6.2	7.3	8.2	8.7
30°	3.9	4.8	5.9	7.1	8.2	8.7
31°	3.7	4.6	5.7	7.1	8.2	8.7
32°	3.4	4.6	5.7	7.1	8.2	8.7
33°	3.2	4.3	5.7	6.9	8.2	8.7
34°	3.0	4.3	5.7	7.1	8.2	8.7
35°	2.7	4.1	5.5	6.9	8.0	8.7
36°	2.5	4.1	5.5	6.9	8.2	8.7
37°	2.3	4.1	5.5	6.9	8.0	8.7
38°	2.3	3.9	5.3	6.9	8.0	8.7
39°	2.1	3.7	5.3	6.9	8.0	8.7
40°	1.8	3.7	5.0	6.6	8.0	8.7
41°	1.6	3.4	5.0	6.6	8.0	8.7
42°	1.4	3.4	5.0	6.6	8.0	8.7
43°	1.1	3.2	4.8	6.6	8.0	8.7
44°	1.1	3.2	4.8	6.6	8.0	8.7
45°	0.9	3.0	4.6	6.6	8.0	8.7
46°	0.9	3.0	4.6	6.4	8.0	8.7
47°	0.7	3.0	4.6	6.4	8.0	8.7
48°	0.7	2.7	4.6	6.4	8.0	8.7
49°	0.5	2.7	4.6	6.4	8.0	8.7
50°	0.5	2.7	4.3	6.4	8.0	8.7
51°	0.5	2.7	4.3	6.4	8.0	8.7
52°	0.5	2.5	4.3	6.4	8.0	8.7
53°	0.5	2.5	4.3	6.4	8.0	8.7
54°	0.5	2.5	4.1	6.4	8.0	8.7
55°	0.5	2.3	4.1	6.2	8.0	8.4
56°	0.5	2.3	4.1	6.2	8.0	8.4
57°	0.5	2.3	3.9	6.2	8.0	8.4
58°	0.5	2.1	3.9	5.9	7.8	8.4
59°	0.5	2.1	3.7	5.9	7.8	8.2
60°	0.5	1.8	3.7	5.7	7.5	8.2
62.5°	0.5	1.6	3.2	5.5	7.3	7.8
65°	0.5	1.4	3.0	5.0	7.1	7.5



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.5	1.4	2.7	4.8	6.6	7.3
70°	0.5	1.4	2.5	4.3	6.4	6.6
72.5°	0.7	1.4	2.3	4.1	5.9	6.2
75°	0.9	1.4	2.1	3.7	5.5	5.7
77.5°	0.9	1.4	1.8	3.2	4.8	5.0
80°	0.9	1.1	1.6	2.5	3.9	4.1
82.5°	0.9	1.1	1.1	2.1	3.0	3.2
85°	0.7	0.9	0.9	1.1	2.1	2.3
87.5°	0.7	0.9	0.5	0.7	0.9	0.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)