

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: P1335999

Luminaire Tested: P3A02R459030DE010 E3A451GPH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1335999
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-84)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A02R459030DE010 E3A451GPH
Description: 3in Adjustable LED luminaire with, R45 optic, 3000K CCT AND, 90CRI , E3A451GPH TRIM
Light Source: -
Ballast/Driver: -

Summary

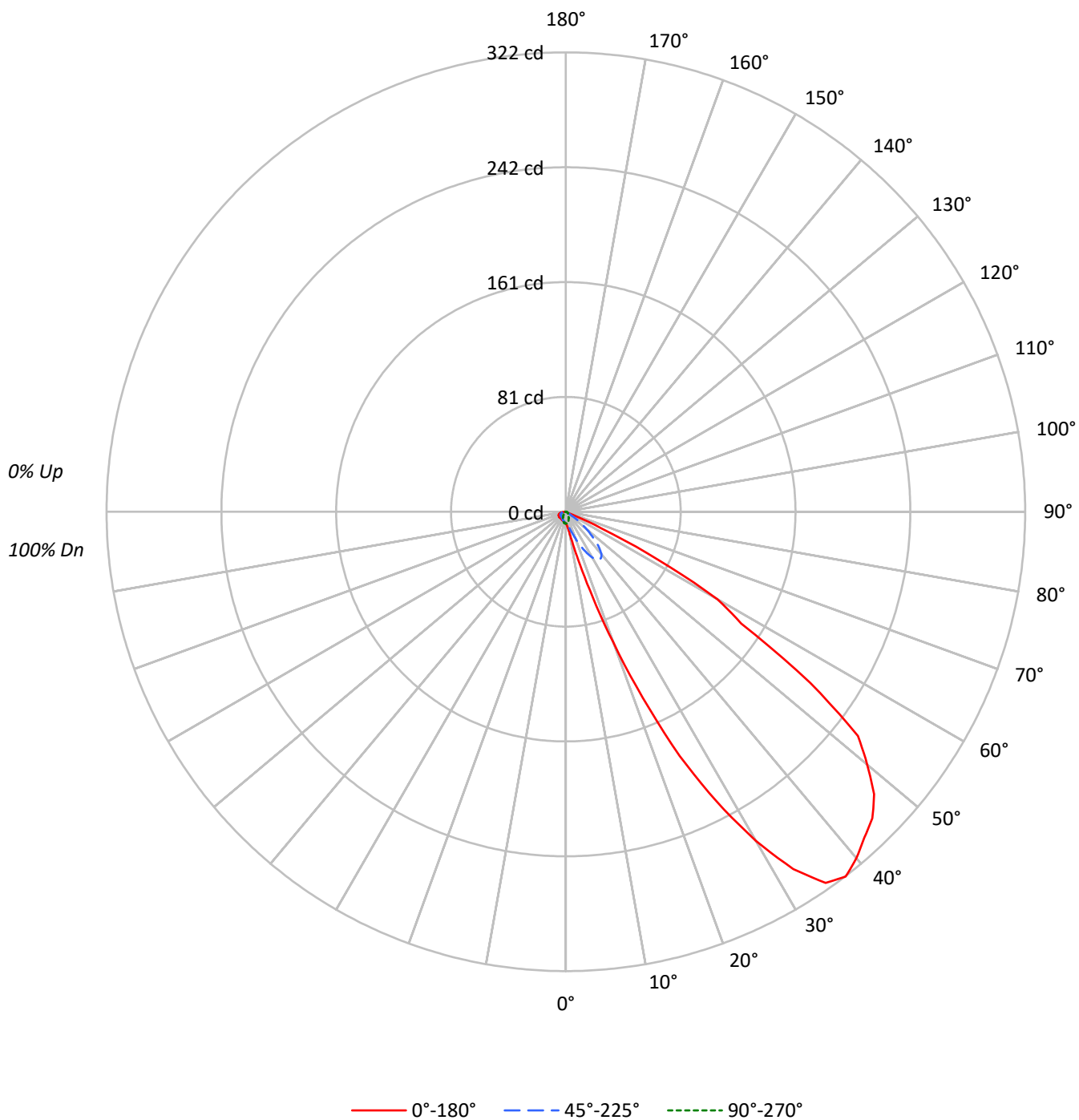
Lumens per Lamp: N/A
Luminaire Lumens: 144.0 lumens
Efficiency: N/A
Efficacy: 40.0 lumens/watt
Spacing Criteria (0/90/45): 3.81 / 0.82 / 1.83
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 3.6
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

TEST NUMBER: P1335999

CATALOG NUMBER: P3A02R459030DE010 E3A451GPH

Luminous Intensity Polar Plot



TEST NUMBER: P1335999

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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	0
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	99	97	94		96	93	91		92	90	88	86
2	100	93	86	81	98	91	85	80	87	83	78		84	80	77		81	78	75	73
3	91	81	73	67	89	80	72	66	77	70	65		74	69	64		71	67	63	61
4	83	71	62	56	81	70	62	55	67	60	55		65	59	54		63	58	53	51
5	76	63	53	47	73	61	53	46	59	52	46		57	51	45		55	50	45	43
6	69	55	46	39	67	54	46	39	52	45	39		51	44	39		49	43	38	36
7	63	49	40	34	61	48	40	33	47	39	33		45	38	33		44	37	33	31
8	58	44	35	29	56	43	35	29	42	34	29		40	33	28		39	33	28	26
9	53	39	31	25	52	39	30	25	38	30	25		36	29	25		35	29	24	22
10	49	35	27	22	48	35	27	22	34	27	21		33	26	21		32	26	21	19

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	1820	1820	1820	1820	1820
5°	2179	2025	1805	1673	1673
10°	3474	2360	1692	1581	1581
15°	8649	3156	1544	1476	1544
20°	22775	4714	1330	1423	1493
25°	45704	6992	1161	1331	1476
30°	67403	9369	937	1291	1494
35°	85019	10975	803	1285	1553
40°	90713	11107	716	1317	1660
45°	94242	9272	651	1427	1799
50°	94086	6448	648	1535	2013
55°	79978	2867	688	1720	2217
60°	53768	570	658	1930	2544
65°	14269	259	675	2075	2906
70°	385	321	705	2308	3270
75°	339	339	678	2457	3728
80°	253	505	758	2526	4167
85°	252	503	1258	2768	4277

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 10°

Vertical Angle: 47.5°

Luminance: 96659 cd/sqm

TEST NUMBER: P1335999

CATALOG NUMBER: P3A02R459030DE010 E3A451GPH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.8	0.6
10°-20°	4.1	2.8
20°-30°	16.8	11.6
30°-40°	35.3	24.5
40°-50°	43.6	30.2
50°-60°	32.6	22.7
60°-70°	8.4	5.8
70°-80°	1.8	1.2
80°-90°	0.7	0.5
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°	21.6	15.0
0°-40°	56.9	39.5
0°-60°	133.2	92.5
0°-90°	144.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	144.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	8	8	8	8	8	
5°	10	9	8	8	8	1
15°	38	14	7	6	7	14
25°	189	29	5	6	6	88
35°	318	41	3	5	6	194
45°	304	30	2	5	6	233
55°	209	8	2	4	6	181
65°	28	0	1	4	6	40
75°	0	0	1	3	4	0
85°	0	0	0	1	2	0
90°	0	0	0	0	0	

TEST NUMBER: P1335999

CATALOG NUMBER: P3A02R459030DE010 E3A451GPH

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
0°	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
2.5°	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.7	8.6	8.3	8.1
5°	9.9	9.8	9.8	9.8	9.6	9.5	9.5	9.2	8.7	8.2	7.9
7.5°	11.7	11.7	11.5	11.3	11.2	10.9	10.7	9.8	8.7	8.0	7.5
10°	15.6	15.3	15.0	14.8	14.2	13.3	12.7	10.6	8.6	7.6	7.3
12.5°	23.3	23.8	22.6	21.4	19.8	18.2	16.3	12.0	8.6	7.3	6.9
15°	38.1	38.9	36.6	34.3	30.2	26.4	22.8	13.9	8.3	6.8	6.4
17.5°	62.2	63.3	59.5	53.9	47.6	40.0	33.4	16.5	8.1	6.3	6.1
20°	97.6	97.4	90.1	83.1	70.9	59.7	47.5	20.2	7.7	5.7	5.7
22.5°	141.0	141.5	132.4	119.8	102.6	84.6	65.1	24.5	7.3	5.2	5.4
25°	188.9	184.9	174.2	158.8	136.8	112.0	86.3	28.9	6.8	4.8	5.0
27.5°	228.9	225.0	212.7	194.5	170.9	141.4	107.8	33.3	6.2	4.3	4.6
30°	266.2	261.2	246.4	225.8	197.6	165.7	128.0	37.0	5.5	3.7	4.3
32.5°	296.9	292.3	275.6	251.7	221.0	186.7	145.2	39.9	4.8	3.3	4.0
35°	317.6	312.9	297.5	271.2	237.7	201.9	159.1	41.0	4.2	3.0	3.9
37.5°	322.3	319.8	308.8	284.1	249.3	211.7	168.0	40.7	3.5	2.7	3.7
40°	316.9	317.4	312.2	291.7	255.5	215.8	171.7	38.8	2.9	2.5	3.6
42.5°	309.8	311.4	311.0	294.8	258.1	216.1	170.1	35.0	2.3	2.3	3.5
45°	303.9	305.4	307.6	293.5	256.3	213.0	165.3	29.9	1.7	2.1	3.5
47.5°	293.1	294.7	297.8	283.1	247.2	205.0	156.5	24.3	1.2	2.0	3.3
50°	275.8	276.6	275.8	259.3	229.9	192.2	142.2	18.9	0.8	1.9	3.3
52.5°	258.1	256.4	249.5	228.6	202.3	171.8	124.2	13.4	0.6	1.8	3.2
55°	209.2	206.6	201.4	188.6	173.6	146.8	100.4	7.5	0.6	1.8	3.1
57.5°	145.8	147.2	149.0	146.3	139.4	115.7	76.3	3.3	0.6	1.7	3.1
60°	122.6	121.4	121.5	119.8	108.4	84.4	52.5	1.3	0.6	1.5	3.0
62.5°	73.2	74.0	75.6	75.9	64.6	47.1	27.5	0.6	0.6	1.4	2.9
65°	27.5	28.8	25.2	21.9	17.4	12.7	6.4	0.5	0.7	1.3	2.6
67.5°	0.8	1.0	1.2	1.1	1.1	1.0	0.7	0.5	0.7	1.2	2.5
70°	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.6	1.1	2.3
72.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	1.0	2.0
75°	0.4	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.6	0.8	1.7
77.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.7	1.4
80°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.5	0.6	1.2
82.5°	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.5	0.5	1.0
85°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.5	0.6
87.5°	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.4	0.4	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

TEST NUMBER: P1335999

CATALOG NUMBER: P3A02R459030DE010 E3A451GPH

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	8.3	8.3	8.3
2.5°	7.9	7.9	7.9
5°	7.6	7.6	7.6
7.5°	7.4	7.4	7.4
10°	7.1	7.1	7.1
12.5°	6.9	6.9	7.0
15°	6.5	6.8	6.8
17.5°	6.3	6.5	6.7
20°	6.1	6.3	6.4
22.5°	5.7	6.1	6.3
25°	5.5	5.9	6.1
27.5°	5.2	5.8	6.1
30°	5.1	5.7	5.9
32.5°	4.9	5.6	5.8
35°	4.8	5.6	5.8
37.5°	4.8	5.5	5.8
40°	4.6	5.5	5.8
42.5°	4.6	5.5	5.8
45°	4.6	5.5	5.8
47.5°	4.5	5.5	5.9
50°	4.5	5.6	5.9
52.5°	4.5	5.6	5.9
55°	4.5	5.6	5.8
57.5°	4.4	5.5	5.8
60°	4.4	5.5	5.8
62.5°	4.2	5.4	5.7
65°	4.0	5.2	5.6
67.5°	3.8	5.1	5.4
70°	3.6	4.8	5.1
72.5°	3.2	4.5	4.9
75°	2.9	4.2	4.4
77.5°	2.5	3.7	3.9
80°	2.0	3.1	3.3
82.5°	1.5	2.4	2.5
85°	1.1	1.5	1.7
87.5°	0.5	0.7	0.8
90°	0.0	0.0	0.0

(END OF REPORT)