

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: P1336180

Luminaire Tested: P3A02R459840DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336180
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: P3A02R459840DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R45 optic, 4000K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

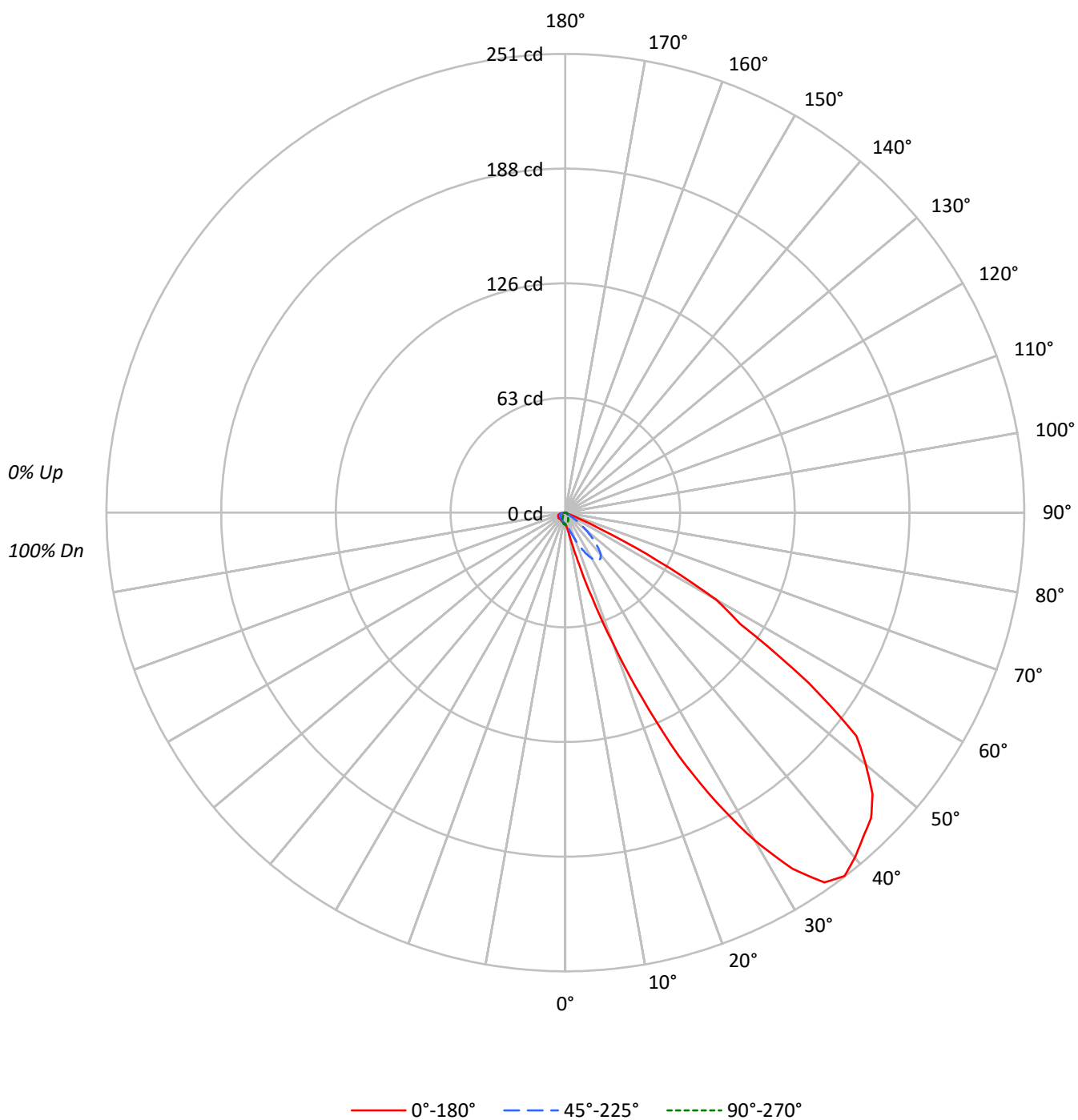
Lumens per Lamp: N/A
Luminaire Lumens: 112.0 lumens
Efficiency: N/A
Efficacy: 31.1 lumens/watt
Spacing Criteria (0/90/45): 3.81 / 0.82 / 1.83
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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

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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
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	110	106	102	99	107	104	100	97	99	97	94		96	93	91		92
2	100	93	86	81	98	91	85	80	87	83	78		84	80	77		81
3	91	81	73	67	89	80	72	66	77	70	65		74	69	64		71
4	83	71	62	56	81	70	62	55	67	60	55		65	59	54		63
5	76	63	53	47	73	61	53	46	59	52	46		57	51	45		55
6	69	55	46	39	67	54	46	39	52	45	39		51	44	39		49
7	63	49	40	34	61	48	40	33	47	39	33		45	38	33		44
8	58	44	35	29	56	43	35	29	42	34	29		40	33	28		39
9	53	39	31	25	52	39	30	25	38	30	25		36	29	24		35
10	49	35	27	22	48	35	27	22	34	27	21		33	26	21		32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	1425	1425	1425	1425	1425
5°	1695	1563	1409	1299	1299
10°	2694	1826	1314	1247	1247
15°	6720	2452	1203	1158	1203
20°	17712	3664	1027	1097	1167
25°	35567	5444	895	1040	1137
30°	52413	7292	734	1013	1165
35°	66120	8539	616	990	1205
40°	70532	8645	544	1031	1288
45°	73310	7195	527	1116	1395
50°	73175	5015	512	1194	1569
55°	62201	2217	535	1338	1720
60°	41795	439	526	1491	1974
65°	11104	208	519	1608	2231
70°	321	256	513	1795	2565
75°	254	254	508	1864	2881
80°	253	379	631	2020	3283
85°	252	503	1006	2013	3271

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 10°

Vertical Angle: 47.5°

Luminance: 75172 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.6	0.6
10°-20°	3.2	2.8
20°-30°	13.0	11.6
30°-40°	27.5	24.5
40°-50°	33.9	30.2
50°-60°	25.4	22.7
60°-70°	6.5	5.8
70°-80°	1.4	1.2
80°-90°	0.6	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°	16.8	15.0
0°-40°	44.3	39.5
0°-60°	103.6	92.4
0°-90°	112.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	112.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	6	6	6	6	6	
5°	8	7	6	6	6	1
15°	30	11	5	5	5	11
25°	147	22	4	4	5	68
35°	247	32	2	4	4	151
45°	236	23	2	4	4	181
55°	163	6	1	4	4	140
65°	21	0	1	3	4	31
75°	0	0	1	2	3	0
85°	0	0	0	1	1	0
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
0°	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
2.5°	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.7	6.5	6.3
5°	7.7	7.6	7.6	7.6	7.5	7.4	7.4	7.1	6.8	6.4	6.1
7.5°	9.1	9.1	9.0	8.8	8.7	8.5	8.3	7.6	6.8	6.2	5.8
10°	12.1	11.9	11.7	11.5	11.0	10.4	9.9	8.2	6.7	5.9	5.6
12.5°	18.1	18.5	17.6	16.7	15.4	14.2	12.7	9.3	6.7	5.6	5.4
15°	29.6	30.3	28.5	26.7	23.5	20.5	17.8	10.8	6.5	5.3	5.0
17.5°	48.4	49.2	46.3	41.9	37.0	31.1	26.0	12.9	6.3	4.9	4.7
20°	75.9	75.8	70.1	64.6	55.2	46.5	36.9	15.7	6.0	4.4	4.4
22.5°	109.7	110.0	103.0	93.2	79.8	65.8	50.6	19.1	5.6	4.1	4.2
25°	147.0	143.8	135.5	123.5	106.4	87.1	67.1	22.5	5.3	3.7	3.9
27.5°	178.1	175.0	165.5	151.3	132.9	109.9	83.8	25.9	4.8	3.3	3.6
30°	207.0	203.1	191.7	175.6	153.7	128.9	99.6	28.8	4.3	2.9	3.3
32.5°	230.9	227.4	214.3	195.7	171.9	145.2	112.9	31.0	3.7	2.6	3.1
35°	247.0	243.4	231.4	210.9	184.9	157.0	123.7	31.9	3.2	2.3	3.1
37.5°	250.7	248.8	240.1	221.0	193.9	164.6	130.7	31.6	2.7	2.1	2.9
40°	246.4	246.9	242.8	226.9	198.7	167.9	133.5	30.2	2.2	1.9	2.8
42.5°	241.0	242.2	241.9	229.3	200.7	168.1	132.3	27.2	1.8	1.8	2.7
45°	236.4	237.6	239.2	228.3	199.3	165.7	128.5	23.2	1.3	1.7	2.7
47.5°	227.9	229.2	231.6	220.2	192.3	159.5	121.7	18.9	0.9	1.6	2.6
50°	214.5	215.2	214.5	201.7	178.8	149.5	110.6	14.7	0.6	1.5	2.6
52.5°	200.7	199.4	194.1	177.8	157.3	133.6	96.6	10.5	0.5	1.4	2.5
55°	162.7	160.7	156.7	146.7	135.0	114.2	78.1	5.8	0.5	1.4	2.4
57.5°	113.4	114.5	115.9	113.8	108.5	90.0	59.3	2.6	0.5	1.3	2.4
60°	95.3	94.4	94.5	93.2	84.3	65.6	40.8	1.0	0.5	1.2	2.3
62.5°	56.9	57.6	58.8	59.0	50.3	36.6	21.4	0.5	0.5	1.1	2.2
65°	21.4	22.4	19.6	17.0	13.5	9.9	5.0	0.4	0.6	1.0	2.0
67.5°	0.6	0.7	0.9	0.8	0.8	0.7	0.6	0.4	0.6	0.9	1.9
70°	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.5	0.8	1.8
72.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.7	1.6
75°	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.6	1.3
77.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.6	1.1
80°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.4	0.5	0.9
82.5°	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.4	0.4	0.7
85°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.5
87.5°	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.3	0.3	0.3
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):

	135°	157.5°	180°
0°	6.5	6.5	6.5
2.5°	6.1	6.1	6.1
5°	5.9	5.9	5.9
7.5°	5.7	5.7	5.7
10°	5.6	5.6	5.6
12.5°	5.4	5.4	5.5
15°	5.1	5.3	5.3
17.5°	4.9	5.1	5.2
20°	4.7	4.9	5.0
22.5°	4.4	4.7	4.9
25°	4.3	4.6	4.7
27.5°	4.1	4.5	4.7
30°	4.0	4.4	4.6
32.5°	3.8	4.3	4.5
35°	3.7	4.3	4.5
37.5°	3.7	4.3	4.5
40°	3.6	4.3	4.5
42.5°	3.6	4.3	4.5
45°	3.6	4.3	4.5
47.5°	3.5	4.3	4.6
50°	3.5	4.3	4.6
52.5°	3.5	4.3	4.6
55°	3.5	4.3	4.5
57.5°	3.4	4.3	4.5
60°	3.4	4.3	4.5
62.5°	3.2	4.2	4.4
65°	3.1	4.1	4.3
67.5°	3.0	4.0	4.2
70°	2.8	3.7	4.0
72.5°	2.5	3.5	3.8
75°	2.2	3.2	3.4
77.5°	1.9	2.9	3.1
80°	1.6	2.4	2.6
82.5°	1.2	1.9	1.9
85°	0.8	1.2	1.3
87.5°	0.4	0.6	0.6
90°	0.0	0.0	0.0

(END OF REPORT)