

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: P1345426

Luminaire Tested: P3A13R359030D2WDE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1345426
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-77)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R359030D2WDE010 E3A451WMH
Description: 3in Adjustable Dim to Warm LED luminaire with, R35 optic, 3000K CCT AND, 90CRI ,
E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

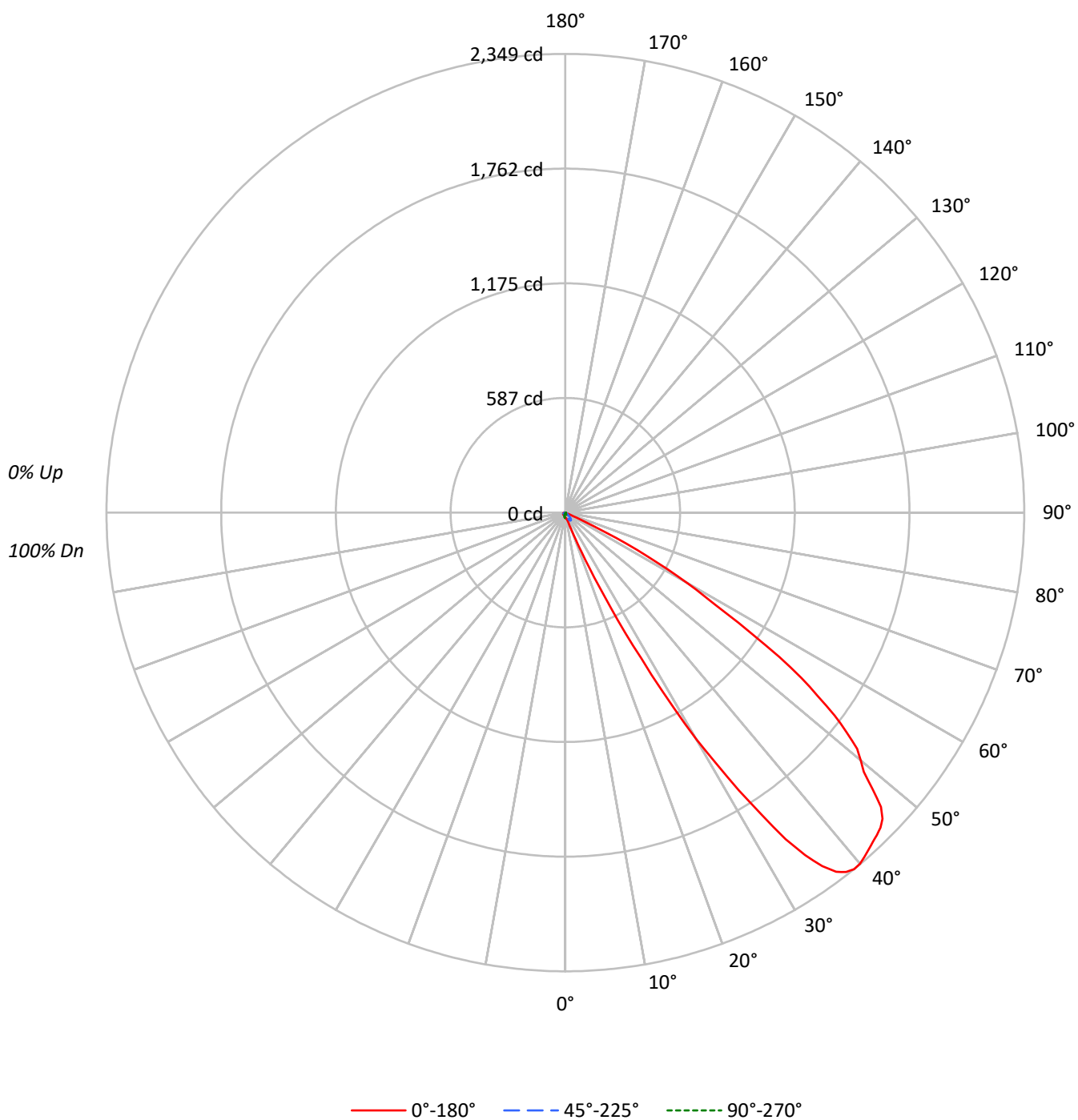
Lumens per Lamp: N/A
Luminaire Lumens: 585.0 lumens
Efficiency: N/A
Efficacy: 29.1 lumens/watt
Spacing Criteria (0/90/45): 4.01 / 0.66 / 1.41
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 20.1
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	100	93	86	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	52	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	38	50	43	37	48	42	37	35		
7	62	48	38	32	60	47	38	32	45	37	32	44	37	31	42	36	31	29		
8	57	42	33	27	55	41	33	27	40	32	27	39	32	26	38	31	26	24		
9	52	38	29	23	50	37	29	23	36	28	23	35	28	22	34	27	22	20		
10	48	34	25	19	46	33	25	19	32	25	19	31	24	19	30	24	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	5899	5899	5899	5899	5899
5°	6383	6273	5811	5239	5107
10°	6702	6123	5166	4476	4476
15°	9580	5993	4200	3837	3950
20°	24035	6417	3337	3337	3687
25°	111539	8178	2565	3073	3460
30°	339090	11090	2000	2811	3469
35°	573102	12876	1686	2677	3400
40°	671773	12710	1374	2719	3635
45°	707453	8993	1147	2946	3938
50°	673411	5390	1092	3070	4332
55°	564281	2217	1223	3441	5046
60°	315896	482	1403	3947	5570
65°	54532	259	1349	4358	6278
70°	1026	321	1667	4744	7117
75°	932	424	2203	5338	8049
80°	631	631	2652	6061	9345
85°	0	1258	5284	6542	10567

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 46°

Luminance: 712460 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.4	0.4
10°-20°	6.9	1.2
20°-30°	35.9	6.1
30°-40°	155.0	26.5
40°-50°	221.1	37.8
50°-60°	136.9	23.4
60°-70°	20.8	3.6
70°-80°	3.9	0.7
80°-90°	1.9	0.3
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°	45.2	7.7
0°-40°	200.2	34.2
0°-60°	558.3	95.4
0°-90°	585.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	585.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	27	27	27	27	27	
5°	29	28	26	24	23	3
15°	42	26	18	17	17	15
25°	461	34	11	13	14	276
35°	2141	48	6	10	13	1285
45°	2281	29	4	10	13	1724
55°	1476	6	3	9	13	1257
65°	105	0	3	8	12	215
75°	1	0	3	6	10	1
85°	0	0	2	3	4	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°	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9
2.5°	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	26.9	26.4
5°	29.0	29.0	28.5	28.5	28.5	28.5	28.5	28.5	27.5	26.4	24.8
7.5°	29.6	29.6	29.0	29.0	29.0	29.0	28.5	28.0	26.9	24.8	23.2
10°	30.1	30.1	30.1	30.1	29.6	29.0	28.5	27.5	25.9	23.2	21.7
12.5°	33.8	33.8	33.3	32.2	31.2	30.1	29.0	26.9	23.8	21.1	19.5
15°	42.2	41.7	40.7	39.1	37.0	34.3	32.2	26.4	21.7	18.5	17.4
17.5°	59.1	58.1	56.5	51.2	46.5	41.7	37.5	26.4	19.5	16.4	15.3
20°	103.0	103.5	92.4	79.7	69.2	57.6	47.0	27.5	17.4	14.3	13.7
22.5°	214.9	206.5	180.1	149.4	114.1	88.2	66.5	30.1	15.3	12.1	12.1
25°	461.0	428.8	364.9	275.7	194.3	137.8	96.6	33.8	13.7	10.6	11.1
27.5°	841.8	812.7	684.4	515.4	342.2	208.1	131.0	38.6	12.1	9.0	10.0
30°	1339.2	1259.0	1091.6	844.9	571.9	318.4	175.9	43.8	10.0	7.9	9.5
31°	1494.5	1457.5	1253.7	977.5	670.1	378.1	194.9	45.4	9.5	7.9	9.0
32°	1678.8	1613.3	1430.6	1122.7	770.0	431.4	217.6	47.0	9.0	6.9	9.0
33°	1843.6	1780.2	1557.9	1250.5	870.8	492.2	241.9	47.5	7.9	6.9	8.4
34°	2016.8	1930.2	1709.9	1384.1	974.3	557.7	264.0	48.1	7.4	6.3	8.4
35°	2140.9	2054.3	1840.9	1489.7	1063.6	615.8	289.4	48.1	6.9	6.3	7.9
36°	2237.0	2160.9	1953.9	1598.5	1152.3	668.0	309.5	48.1	5.8	5.8	7.9
37°	2303.0	2230.6	2030.0	1692.0	1219.9	714.5	327.4	48.1	5.3	5.8	7.9
38°	2335.2	2275.0	2103.4	1760.1	1285.4	750.9	341.7	47.0	4.8	5.3	7.4
39°	2348.9	2299.8	2148.3	1817.7	1334.5	782.6	352.2	45.9	4.2	5.3	7.4
40°	2346.8	2304.0	2173.6	1857.3	1374.1	804.3	358.0	44.4	3.7	4.8	7.4
41°	2334.7	2297.7	2186.8	1891.1	1397.8	819.1	359.6	42.8	3.2	4.8	6.9
42°	2320.9	2287.1	2191.0	1909.0	1413.2	823.8	355.4	40.7	3.2	4.2	6.9
43°	2306.7	2275.5	2191.0	1914.8	1416.9	820.6	348.5	37.0	2.6	4.2	6.9
44°	2295.1	2265.5	2184.2	1913.3	1408.9	808.5	335.9	32.7	2.1	4.2	6.9
45°	2281.3	2252.3	2175.2	1903.2	1393.6	787.9	320.0	29.0	1.6	3.7	6.9
46°	2257.0	2234.3	2159.4	1882.6	1369.3	759.4	300.0	26.4	1.1	3.7	6.3
47°	2210.0	2190.5	2128.7	1852.0	1337.1	725.6	279.4	23.8	1.1	3.7	6.3
48°	2115.5	2115.0	2067.5	1795.0	1285.9	683.3	257.7	21.1	1.1	3.7	6.3
49°	2024.2	2014.7	1955.5	1694.6	1212.5	632.6	235.0	19.0	0.5	3.7	6.3
50°	1974.0	1953.4	1856.2	1576.3	1118.5	562.4	210.7	15.8	0.5	3.2	6.3
51°	1921.7	1892.1	1777.5	1469.7	1006.5	494.8	184.3	12.7	0.5	3.2	5.8
52°	1827.2	1799.2	1670.9	1367.7	897.7	425.6	159.0	10.6	0.5	3.2	6.3
53°	1725.3	1685.1	1545.7	1255.8	802.2	364.4	133.1	9.0	0.5	3.2	5.8
54°	1596.9	1579.0	1419.0	1118.5	690.2	305.2	109.3	7.4	0.5	3.2	5.8
55°	1476.0	1449.6	1283.3	978.0	588.8	250.3	91.4	5.8	0.5	3.2	5.8
56°	1321.8	1282.2	1126.4	849.2	485.8	201.7	77.1	4.8	0.5	3.2	5.8
57°	1138.0	1095.8	972.7	706.1	381.3	153.7	64.4	3.7	0.5	3.2	5.8
58°	962.7	926.3	794.2	545.0	287.3	106.7	53.3	2.6	0.5	2.6	5.8
59°	831.7	791.6	660.6	419.3	199.6	78.7	40.1	2.1	0.5	3.2	5.8
60°	720.3	668.6	531.8	324.8	142.6	56.5	29.6	1.1	1.1	3.2	5.8
62.5°	415.1	366.5	254.0	132.0	58.6	29.0	14.3	0.5	1.1	3.2	5.8
65°	105.1	93.5	60.7	28.5	16.4	10.0	5.3	0.5	1.1	2.6	5.3



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	45°	67.5°	90°	112.5°
67.5°	3.7	3.7	3.7	3.2	2.6	2.1	1.1	0.5	1.1	2.6	5.3
70°	1.6	1.6	1.6	1.1	1.1	0.5	0.5	0.5	1.1	2.6	4.8
72.5°	1.1	1.1	1.1	1.1	0.5	0.5	0.5	0.5	1.6	2.6	4.2
75°	1.1	1.1	1.1	1.1	0.5	0.5	0.5	0.5	1.6	2.6	4.2
77.5°	1.1	1.1	0.5	0.5	0.5	0.5	0.5	0.5	1.6	2.1	3.7
80°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.6	2.1	3.2
82.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.6	2.1	2.6
85°	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.5	1.6	2.1	2.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.6	2.1	1.6
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°	26.9	26.9	26.9
2.5°	25.3	25.3	25.3
5°	23.8	23.8	23.2
7.5°	22.2	21.7	21.7
10°	20.1	20.1	20.1
12.5°	18.5	18.5	18.5
15°	16.9	17.4	17.4
17.5°	15.3	16.4	16.4
20°	14.3	15.3	15.8
22.5°	13.2	14.3	14.8
25°	12.7	13.7	14.3
27.5°	11.6	13.2	14.3
30°	11.1	12.7	13.7
31°	11.1	12.7	13.2
32°	10.6	12.7	13.2
33°	10.6	12.7	13.2
34°	10.6	12.1	13.2
35°	10.0	12.1	12.7
36°	10.0	12.1	12.7
37°	10.0	12.1	13.2
38°	10.0	12.1	12.7
39°	9.5	12.1	12.7
40°	9.5	12.1	12.7
41°	9.5	12.1	12.7
42°	9.5	12.1	12.7
43°	9.5	12.1	12.7
44°	9.5	11.6	12.7
45°	9.5	11.6	12.7
46°	9.5	12.1	12.7
47°	9.5	12.1	13.2
48°	9.5	11.6	12.7
49°	9.0	11.6	12.7
50°	9.0	11.6	12.7
51°	9.0	12.1	13.2
52°	9.0	12.1	13.2
53°	9.0	12.1	13.2
54°	9.0	12.1	12.7
55°	9.0	12.1	13.2
56°	9.0	12.1	12.7
57°	9.0	12.1	12.7
58°	9.0	11.6	12.7
59°	9.0	11.6	12.7
60°	9.0	11.6	12.7
62.5°	8.4	11.6	12.7
65°	8.4	11.1	12.1



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CATALOG NUMBER: P3A13R359030D2WDE010 E3A451WMH

CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	7.9	11.1	11.6
70°	7.4	10.6	11.1
72.5°	6.9	10.0	10.6
75°	6.3	9.0	9.5
77.5°	5.3	7.9	9.0
80°	4.8	6.9	7.4
82.5°	3.7	5.8	6.3
85°	2.6	4.2	4.2
87.5°	1.1	2.1	2.1
90°	0.0	0.0	0.0

(END OF REPORT)