

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: P1336878

Luminaire Tested: P3A05R209050DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1336878
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-74)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A05R209050DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R20 optic, 5000K CCT AND, 90CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

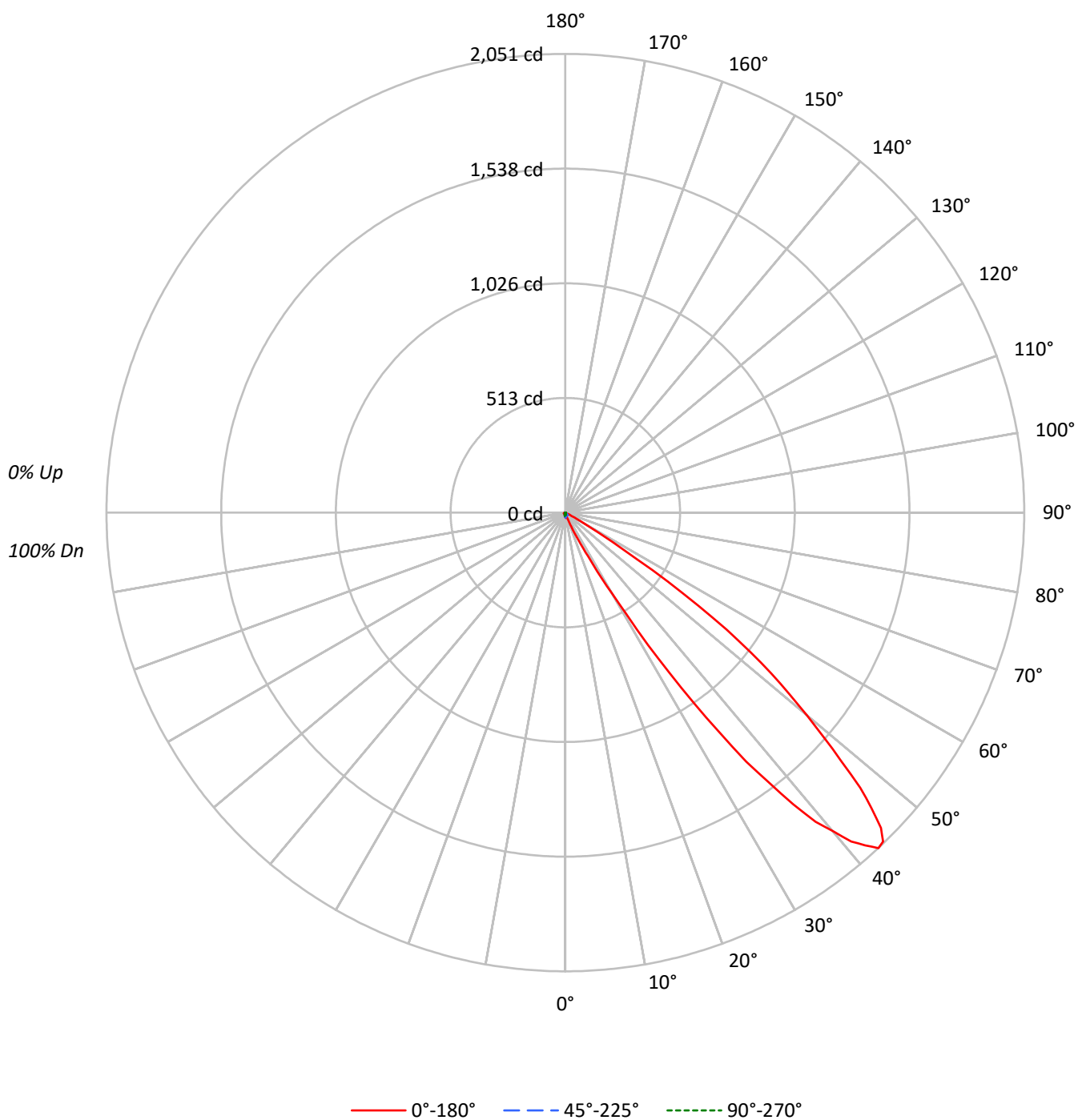
Lumens per Lamp: N/A
Luminaire Lumens: 285.0 lumens
Efficiency: N/A
Efficacy: 39.6 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.14
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

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	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	108	104	101	97	100	97	94		96	94	92		92	91	89	87
2	101	93	87	82	98	91	86	81	88	83	79		85	81	77		82	78	75	73
3	92	81	74	67	89	80	73	67	77	71	66		74	69	65		72	67	63	61
4	83	71	62	56	81	70	62	55	67	60	55		65	59	54		63	58	53	51
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		55	49	45	42
6	68	55	45	39	66	54	45	38	52	44	38		50	43	38		48	42	37	35
7	62	48	39	32	60	47	38	32	46	38	32		44	37	32		43	36	31	29
8	57	42	33	27	55	42	33	27	40	33	27		39	32	27		38	31	27	25
9	52	38	29	23	51	37	29	23	36	28	23		35	28	23		34	27	23	21
10	48	34	25	20	47	33	25	20	32	25	19		31	24	19		30	24	19	17

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	4342	4342	4342	4342	4342
5°	5063	4711	4072	3544	3412
10°	5010	4297	3229	2739	2694
15°	4381	3292	2361	2179	2316
20°	6511	2754	1750	1867	2054
25°	27994	2855	1355	1694	2008
30°	105864	3469	1165	1621	1975
35°	320910	4149	1071	1660	2088
40°	532140	4151	916	1775	2233
45°	618545	2822	837	1830	2419
50°	480155	1569	819	1910	2729
55°	277897	1032	803	2141	2982
60°	46970	219	702	2237	3289
65°	3632	0	830	2491	3736
70°	513	0	1026	2757	4296
75°	424	254	1101	3135	4999
80°	379	379	1642	3410	5809
85°	755	755	2768	3271	6038

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 618545 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.7	0.6
10°-20°	3.6	1.3
20°-30°	11.4	4.0
30°-40°	72.7	25.5
40°-50°	133.0	46.7
50°-60°	54.7	19.2
60°-70°	4.6	1.6
70°-80°	2.3	0.8
80°-90°	1.1	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°	16.7	5.8
0°-40°	89.3	31.3
0°-60°	277.0	97.2
0°-90°	285.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	285.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	20	20	20	20	20	
5°	23	21	18	16	16	2
15°	19	14	10	10	10	6
25°	116	12	6	7	8	76
35°	1199	16	4	6	8	759
45°	1995	9	3	6	8	1432
55°	727	3	2	6	8	635
65°	7	0	2	5	7	23
75°	0	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°	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8
2.5°	21.7	21.7	21.7	21.4	21.4	21.7	21.4	21.4	21.4	21.4	21.2
5°	23.0	23.0	23.0	23.0	23.0	23.0	23.0	22.8	22.8	22.5	21.4
7.5°	23.6	23.6	23.6	23.6	23.3	23.3	23.3	23.3	23.0	22.8	20.9
10°	22.5	22.5	22.5	22.2	22.2	22.2	22.0	22.0	21.7	21.4	19.3
12.5°	20.4	20.4	20.4	20.4	20.1	20.1	19.8	19.8	19.6	19.3	16.9
15°	19.3	19.3	19.3	19.0	19.0	18.7	18.5	18.2	17.9	17.4	14.5
17.5°	20.9	20.9	20.6	20.6	20.1	19.6	19.3	18.5	17.9	17.1	12.9
20°	27.9	28.1	27.1	26.2	25.7	24.1	23.3	22.0	20.9	19.6	11.8
22.5°	56.2	55.2	53.3	50.4	46.9	43.9	38.6	34.3	31.3	27.3	11.5
25°	115.7	114.6	109.5	105.3	94.5	86.2	74.7	65.4	55.7	46.3	11.8
27.5°	219.9	212.7	211.3	191.8	176.8	155.3	133.1	114.4	97.2	78.2	12.6
30°	418.1	409.8	380.6	351.1	310.7	264.9	221.2	180.5	146.5	115.7	13.7
31°	530.6	538.6	504.3	445.1	385.4	326.8	267.0	215.3	171.4	133.1	14.2
32°	697.4	662.4	626.2	565.4	478.6	403.6	328.6	254.2	196.3	151.9	14.7
33°	855.2	834.6	779.4	703.6	599.4	494.2	396.9	300.0	226.9	174.6	15.0
34°	1023.4	1000.6	955.9	847.2	732.8	594.9	465.2	352.7	263.3	196.9	15.3
35°	1198.8	1189.2	1102.9	1008.7	868.0	701.7	547.5	410.6	298.9	217.2	15.5
36°	1375.3	1344.3	1276.8	1139.1	992.3	800.6	633.7	464.4	335.1	241.3	15.5
37°	1508.2	1501.2	1411.7	1277.6	1105.1	906.1	708.2	524.1	371.5	261.9	15.5
38°	1654.7	1627.1	1536.3	1399.7	1211.1	1002.8	786.1	576.1	406.0	280.7	15.3
39°	1778.1	1737.2	1645.6	1510.6	1303.8	1076.2	848.0	626.5	436.6	296.2	15.0
40°	1859.0	1830.6	1735.0	1583.2	1387.9	1145.5	910.6	668.0	459.3	308.0	14.5
41°	1948.2	1901.1	1806.5	1653.9	1449.0	1206.6	950.0	695.3	477.0	315.8	13.9
42°	2001.5	1962.9	1850.7	1701.3	1492.6	1241.4	982.1	716.2	487.7	319.8	12.9
43°	2051.3	1998.8	1889.6	1728.9	1521.6	1266.0	996.9	725.8	490.1	319.8	11.5
44°	2044.6	1994.8	1881.5	1732.6	1528.0	1273.3	1003.0	726.1	486.4	315.8	10.2
45°	1994.6	1945.0	1843.0	1699.9	1505.0	1259.1	990.7	715.4	475.9	308.8	9.1
46°	1902.7	1853.4	1775.2	1645.3	1462.1	1226.9	962.1	692.1	458.5	297.6	8.0
47°	1802.8	1754.8	1674.8	1557.2	1389.0	1169.6	920.5	659.4	434.2	281.2	7.2
48°	1657.9	1627.9	1547.5	1447.1	1287.5	1079.9	847.7	606.1	401.5	260.1	6.2
49°	1529.9	1498.3	1427.8	1319.9	1155.2	975.4	760.6	541.3	358.9	236.5	5.4
50°	1407.5	1379.9	1314.8	1192.9	1035.7	849.3	643.1	459.6	305.3	207.3	4.6
51°	1287.7	1267.1	1200.7	1088.7	929.1	752.3	557.1	382.7	252.3	171.9	4.3
52°	1167.5	1165.1	1093.0	979.7	825.5	655.7	473.5	323.0	214.0	144.4	4.0
53°	1038.1	1022.6	959.6	857.9	709.8	555.0	401.5	272.4	184.3	122.9	3.5
54°	890.8	873.4	805.9	714.0	579.9	454.5	323.5	220.2	153.5	103.9	3.2
55°	726.9	697.2	648.2	553.9	452.9	346.8	249.9	174.4	122.7	86.5	2.7
56°	551.5	521.7	494.2	424.8	332.4	258.7	186.1	133.6	95.9	68.3	2.4
57°	383.5	381.9	336.7	283.4	222.3	176.2	127.5	94.3	67.8	53.0	1.9
58°	248.8	240.5	211.6	180.8	145.4	110.1	82.0	64.0	46.1	36.2	1.6
59°	174.4	157.8	142.2	120.5	91.6	69.4	52.8	41.0	31.9	25.2	1.1
60°	107.1	103.7	93.2	73.4	59.5	49.0	39.4	30.3	23.3	17.9	0.5
62.5°	30.5	31.1	28.1	24.9	21.4	18.5	16.6	14.2	11.8	9.4	0.0
65°	7.0	6.7	7.2	6.7	6.2	6.2	5.4	4.8	4.3	4.0	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°	2.1	2.1	1.9	1.9	1.9	1.6	1.6	1.3	1.3	1.1	0.0
70°	0.8	0.8	0.8	0.8	0.8	0.5	0.5	0.5	0.3	0.3	0.0
72.5°	0.8	0.8	0.8	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3
75°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.3	0.3	0.3	0.3
77.5°	0.5	0.5	0.5	0.5	0.5	0.3	0.5	0.3	0.3	0.3	0.3
80°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
82.5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
85°	0.3	0.3	0.3	0.3	0.0	0.0	0.3	0.3	0.3	0.0	0.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	19.8	19.8	19.8	19.8	19.8	19.8
2.5°	20.6	19.6	18.7	17.9	17.7	17.7
5°	20.1	18.5	16.9	16.1	15.5	15.5
7.5°	18.5	16.6	15.0	14.2	13.9	13.9
10°	16.6	14.5	12.9	12.3	12.3	12.1
12.5°	14.5	12.3	11.2	11.0	11.0	11.0
15°	12.1	10.4	9.6	9.6	9.9	10.2
17.5°	10.2	8.6	8.3	8.8	9.4	9.4
20°	8.6	7.5	7.5	8.0	8.6	8.8
22.5°	7.2	6.4	6.7	7.5	8.3	8.6
25°	6.4	5.6	6.2	7.0	7.8	8.3
27.5°	5.4	5.1	5.6	6.7	7.8	8.0
30°	4.6	4.6	5.4	6.4	7.5	7.8
31°	4.3	4.3	5.4	6.4	7.5	7.8
32°	4.0	4.3	5.1	6.4	7.5	7.8
33°	3.7	4.0	5.1	6.2	7.5	7.8
34°	3.5	4.0	5.1	6.2	7.5	7.8
35°	3.2	4.0	5.1	6.2	7.5	7.8
36°	2.9	3.7	4.8	6.2	7.5	7.8
37°	2.7	3.7	4.8	6.2	7.5	7.8
38°	2.4	3.5	4.8	6.2	7.5	7.8
39°	2.4	3.5	4.6	6.2	7.2	7.8
40°	2.1	3.2	4.6	6.2	7.2	7.8
41°	1.9	3.2	4.6	5.9	7.2	7.8
42°	1.6	2.9	4.3	5.9	7.2	7.8
43°	1.3	2.9	4.3	5.9	7.2	7.8
44°	1.3	2.7	4.3	5.9	7.2	7.8
45°	1.1	2.7	4.3	5.9	7.2	7.8
46°	0.8	2.7	4.3	5.9	7.2	7.8
47°	0.8	2.4	4.0	5.9	7.2	7.8
48°	0.5	2.4	4.0	5.9	7.2	7.8
49°	0.5	2.4	4.0	5.9	7.2	8.0
50°	0.5	2.4	4.0	5.6	7.2	8.0
51°	0.3	2.4	4.0	5.6	7.2	8.0
52°	0.3	2.4	3.7	5.6	7.5	8.0
53°	0.3	2.1	3.7	5.6	7.5	8.0
54°	0.3	2.1	3.7	5.6	7.5	7.8
55°	0.3	2.1	3.7	5.6	7.2	7.8
56°	0.3	1.9	3.7	5.6	7.2	7.8
57°	0.3	1.9	3.5	5.4	7.2	7.5
58°	0.3	1.9	3.5	5.4	7.2	7.5
59°	0.3	1.9	3.5	5.4	7.0	7.5
60°	0.5	1.6	3.2	5.1	7.0	7.5
62.5°	0.5	1.6	3.2	5.1	6.7	7.2
65°	0.5	1.6	2.9	4.8	6.7	7.2



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.5	1.3	2.7	4.6	6.4	7.0
70°	0.5	1.6	2.7	4.3	6.2	6.7
72.5°	0.8	1.3	2.4	4.0	5.9	6.4
75°	0.8	1.3	2.4	3.7	5.6	5.9
77.5°	1.1	1.3	2.1	3.2	5.1	5.4
80°	1.1	1.3	1.9	2.7	4.3	4.6
82.5°	1.1	1.3	1.3	2.1	3.2	3.5
85°	0.8	1.1	1.1	1.3	2.1	2.4
87.5°	0.8	1.1	0.8	0.5	1.1	1.1
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)