

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: P1344598

Luminaire Tested: P3A13R259840DE010 E3A451WMH

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1344598
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-75)
Test Lab: INNOVATION CENTER
Issue Date: 2/13/2026
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: IRiS
Catalog Number: P3A13R259840DE010 E3A451WMH
Description: 3in Adjustable LED luminaire with, R25 optic, 4000K CCT AND, 98CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

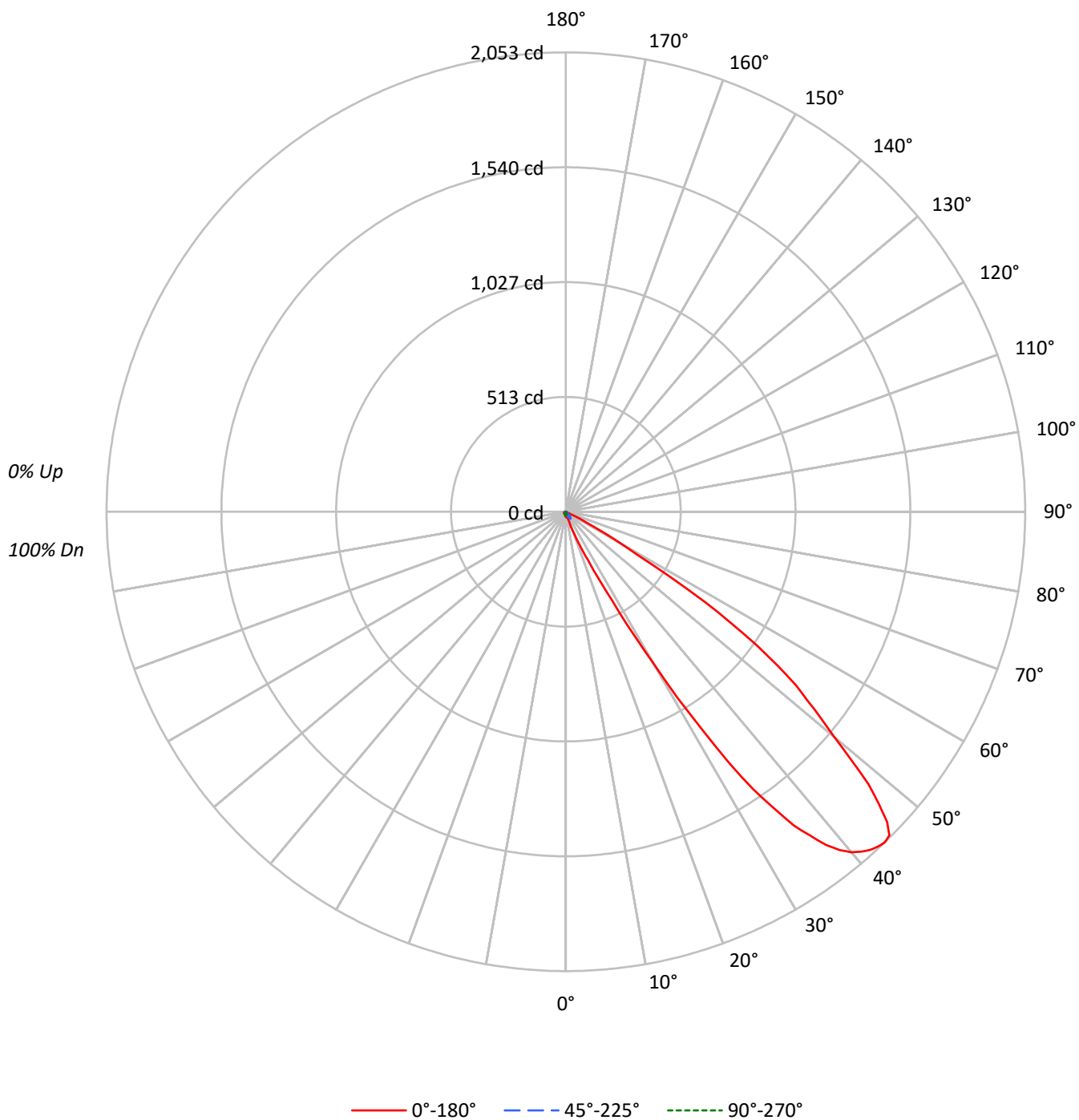
Lumens per Lamp: N/A
Luminaire Lumens: 428.0 lumens
Efficiency: N/A
Efficacy: 29.5 lumens/watt
Spacing Criteria (0/90/45): 3.65 / 0.61 / 1.37
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 14.5
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	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	64	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	39	52	44	38	50	43	38	48	42	37	35		
7	62	48	39	32	60	47	39	32	46	38	32	44	37	32	43	36	32	29		
8	57	43	34	27	55	42	33	27	40	33	27	39	32	27	38	32	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	20	31	24	19	30	24	19	17		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	4780	4780	4780	4780	4780
5°	5481	5217	4644	4138	4072
10°	5455	4943	3941	3429	3429
15°	6061	4268	3087	2906	3087
20°	21445	4224	2380	2450	2730
25°	61697	5371	1911	2274	2637
30°	196840	8305	1519	2203	2659
35°	431118	9771	1312	2115	2730
40°	568694	8845	1088	2147	2920
45°	634205	6202	1054	2326	3163
50°	533850	3207	1023	2456	3480
55°	399126	1300	994	2753	3900
60°	123543	351	1009	2982	4298
65°	10533	0	1193	3113	4670
70°	705	256	1218	3590	5321
75°	678	339	1610	3813	6100
80°	505	505	2399	4293	7072
85°	1006	1006	3774	4780	7548

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 634205 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.0	0.5
10°-20°	5.0	1.2
20°-30°	23.7	5.5
30°-40°	114.0	26.6
40°-50°	178.7	41.8
50°-60°	91.6	21.4
60°-70°	8.7	2.0
70°-80°	2.9	0.7
80°-90°	1.5	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°	30.7	7.2
0°-40°	144.7	33.8
0°-60°	415.0	97.0
0°-90°	428.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	428.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	22	22	22	22	22	
5°	25	24	21	19	18	2
15°	27	19	14	13	14	11
25°	255	22	8	9	11	158
35°	1610	36	5	8	10	978
45°	2045	20	3	8	10	1496
55°	1044	3	3	7	10	869
65°	20	0	2	6	9	64
75°	1	0	2	4	7	1
85°	0	0	2	2	3	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°	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8	21.8
2.5°	23.7	23.7	23.7	23.7	23.7	23.7	23.4	23.4	23.7	23.4	23.4
5°	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.5	24.5	24.5	23.7
7.5°	25.2	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.5	24.5	23.4
10°	24.5	24.5	24.5	24.5	24.1	24.1	24.1	23.7	23.7	23.7	22.2
12.5°	24.5	24.5	24.5	24.5	24.1	24.1	23.7	23.7	23.4	23.0	20.3
15°	26.7	26.7	26.7	26.4	26.0	25.6	25.2	24.9	24.5	23.7	18.8
17.5°	39.2	38.0	37.7	36.2	34.3	32.4	30.9	29.4	27.9	26.7	18.1
20°	91.9	91.5	89.6	85.1	80.2	74.6	68.9	62.5	53.5	47.5	18.1
22.5°	159.3	157.1	153.7	150.3	141.6	131.4	120.9	108.8	97.2	84.7	19.2
25°	255.0	260.3	249.0	239.9	224.8	206.4	186.4	169.9	148.8	129.2	22.2
27.5°	443.3	446.7	424.5	395.1	360.1	321.3	283.6	255.4	220.0	187.6	27.9
30°	777.4	780.8	743.5	680.9	608.6	545.0	458.7	383.0	313.4	259.5	32.8
31°	970.2	943.8	900.5	839.9	748.4	652.3	548.7	457.2	369.1	298.3	34.3
32°	1137.8	1135.5	1085.1	993.2	901.3	782.6	654.2	534.8	426.7	337.5	35.4
33°	1335.5	1320.5	1249.3	1162.7	1041.0	921.6	755.9	619.6	485.9	381.1	36.2
34°	1494.1	1453.4	1424.0	1325.0	1196.6	1044.4	867.0	709.2	559.7	423.3	36.5
35°	1610.5	1601.8	1544.6	1452.3	1321.6	1166.0	986.8	802.2	621.4	472.3	36.5
36°	1733.6	1706.9	1651.1	1567.5	1440.2	1279.4	1078.3	882.8	693.4	516.4	36.2
37°	1810.8	1795.0	1739.7	1653.4	1528.7	1375.1	1180.7	967.9	750.6	560.4	35.4
38°	1890.3	1858.3	1803.7	1721.2	1598.8	1454.5	1254.9	1033.5	803.4	599.2	34.3
39°	1945.3	1912.2	1856.4	1774.3	1654.5	1511.4	1313.7	1089.2	849.3	628.2	32.8
40°	1986.7	1954.7	1898.2	1813.8	1695.6	1556.2	1362.6	1138.6	887.7	653.5	30.9
41°	2012.3	1982.6	1926.5	1842.5	1723.8	1581.8	1394.7	1170.6	913.7	670.4	29.0
42°	2033.8	2003.3	1946.0	1860.2	1741.2	1603.7	1414.2	1190.9	931.4	679.1	27.5
43°	2045.9	2015.3	1959.6	1871.9	1751.7	1613.9	1424.8	1200.3	937.4	677.9	24.9
44°	2052.6	2021.0	1964.9	1877.1	1756.2	1616.5	1425.5	1198.4	933.3	668.9	22.6
45°	2045.1	2013.8	1959.6	1871.9	1748.3	1608.2	1418.0	1188.3	917.5	651.2	20.0
46°	1996.1	1972.0	1922.3	1841.7	1723.5	1587.1	1398.8	1168.7	893.0	629.3	16.9
47°	1909.9	1890.7	1842.5	1782.6	1675.6	1548.3	1363.4	1131.4	858.7	596.6	13.6
48°	1819.9	1791.6	1746.8	1685.4	1595.0	1478.6	1305.0	1076.8	806.7	553.6	12.1
49°	1686.9	1670.4	1630.8	1562.3	1487.3	1384.9	1222.5	1006.7	743.1	506.9	10.5
50°	1564.9	1553.6	1498.2	1447.8	1368.3	1272.6	1110.7	914.5	664.0	448.9	9.4
51°	1469.6	1456.1	1416.1	1353.2	1268.5	1157.4	1004.8	794.7	573.2	380.0	7.5
52°	1370.2	1362.6	1327.2	1262.5	1179.2	1068.5	902.0	693.0	485.1	321.3	6.0
53°	1288.8	1277.9	1234.6	1177.0	1087.0	972.5	790.5	598.5	410.9	270.0	5.3
54°	1170.2	1165.7	1137.8	1077.5	980.0	855.3	689.6	503.9	342.7	229.0	4.5
55°	1044.0	1029.0	1000.7	952.9	863.2	746.9	572.9	417.7	277.2	192.8	3.4
56°	890.4	889.6	839.1	799.2	719.7	596.2	457.6	326.2	225.2	160.8	3.0
57°	743.5	719.7	671.2	631.6	546.1	452.3	339.7	244.4	176.3	130.3	2.3
58°	549.9	537.5	524.6	466.6	387.6	320.5	242.5	171.7	130.3	99.4	1.5
59°	373.2	372.9	357.8	313.7	268.2	199.6	151.4	116.8	89.6	73.1	1.1
60°	281.7	274.9	244.8	215.8	168.7	126.2	89.6	68.9	55.7	47.1	0.8
62.5°	98.7	102.4	90.0	74.6	56.9	46.7	35.8	29.0	23.7	19.2	0.0
65°	20.3	22.2	19.2	18.1	14.3	12.4	10.9	9.4	7.9	6.8	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°	2.6	2.3	2.3	2.3	1.9	1.9	1.9	1.9	1.5	1.5	0.4
70°	1.1	1.1	1.1	1.1	1.1	1.1	0.8	0.8	0.8	0.8	0.4
72.5°	1.1	1.1	1.1	0.8	0.8	0.8	0.8	0.8	0.8	0.4	0.4
75°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4
77.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.4	0.4	0.4
80°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
82.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.8
85°	0.4	0.4	0.4	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.4
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	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

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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	21.8	21.8	21.8	21.8	21.8	21.8
2.5°	23.0	22.2	21.1	20.7	20.3	20.3
5°	22.6	21.1	20.0	18.8	18.5	18.5
7.5°	21.5	19.6	18.1	17.3	16.9	16.6
10°	20.3	17.7	16.2	15.4	15.4	15.4
12.5°	18.1	15.8	14.3	13.9	14.3	14.3
15°	16.2	13.6	12.8	12.8	13.2	13.6
17.5°	13.9	12.1	11.3	11.7	12.1	12.4
20°	12.4	10.2	10.2	10.5	11.7	11.7
22.5°	10.9	9.0	9.0	10.2	10.9	11.3
25°	9.8	7.9	8.3	9.4	10.5	10.9
27.5°	8.3	6.8	7.5	9.0	10.2	10.5
30°	7.2	6.0	7.2	8.7	9.8	10.5
31°	6.8	5.6	7.2	8.3	9.8	10.5
32°	6.0	5.6	6.8	8.3	9.8	10.2
33°	5.6	5.3	6.8	8.3	9.8	10.2
34°	5.3	4.9	6.4	8.3	9.8	10.2
35°	4.5	4.9	6.4	7.9	9.4	10.2
36°	4.1	4.5	6.4	7.9	9.4	10.2
37°	3.8	4.5	6.0	7.9	9.4	10.2
38°	3.4	4.1	6.0	7.9	9.4	10.2
39°	3.0	4.1	5.6	7.9	9.4	10.2
40°	2.6	3.8	5.6	7.5	9.4	10.2
41°	2.6	3.8	5.6	7.5	9.4	10.2
42°	2.3	3.8	5.6	7.5	9.4	10.2
43°	1.9	3.4	5.6	7.5	9.4	10.2
44°	1.5	3.4	5.3	7.5	9.4	10.2
45°	1.5	3.4	5.3	7.5	9.4	10.2
46°	1.1	3.0	5.3	7.5	9.4	10.2
47°	0.8	3.0	5.3	7.2	9.4	10.2
48°	0.8	3.0	5.3	7.2	9.4	10.2
49°	0.8	3.0	4.9	7.2	9.4	10.2
50°	0.8	3.0	4.9	7.2	9.4	10.2
51°	0.4	2.6	4.9	7.2	9.4	10.2
52°	0.4	2.6	4.9	7.2	9.4	10.5
53°	0.4	2.6	4.9	7.2	9.4	10.2
54°	0.4	2.6	4.5	7.2	9.4	10.2
55°	0.4	2.6	4.5	7.2	9.4	10.2
56°	0.4	2.3	4.5	6.8	9.4	10.2
57°	0.8	2.3	4.5	6.8	9.4	9.8
58°	0.8	2.3	4.5	6.8	9.0	9.8
59°	0.8	2.3	4.5	6.8	9.0	9.8
60°	0.8	2.3	4.1	6.8	9.0	9.8
62.5°	0.8	2.3	4.1	6.4	8.7	9.4
65°	0.8	2.3	3.8	6.0	8.7	9.0



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CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.8	1.9	3.8	5.6	8.3	8.7
70°	1.1	1.9	3.4	5.6	7.9	8.3
72.5°	1.1	1.9	3.4	4.9	7.2	7.9
75°	1.1	1.9	3.0	4.5	6.8	7.2
77.5°	1.1	1.9	2.6	4.1	6.0	6.4
80°	1.5	1.9	2.3	3.4	5.3	5.6
82.5°	1.5	1.9	1.9	2.6	4.1	4.5
85°	1.1	1.5	1.5	1.9	2.6	3.0
87.5°	1.1	1.5	1.1	0.8	1.5	1.5
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)