

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: P1344178

Luminaire Tested: P3A13R20B2750DE010 E3A451WMH_5000K

Issue Date: 2/13/2026

Test Information

Test Method: LM-79-2019
Report Number: P1344178
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: P3A13R20B2750DE010 E3A451WMH_5000K
Description: 3in Adjustable Boosted Cyan Tunable White LED luminaire with, R20 optic, 5000K CCT AND, 80CRI , E3A451WMH TRIM
Light Source: -
Ballast/Driver: -

Summary

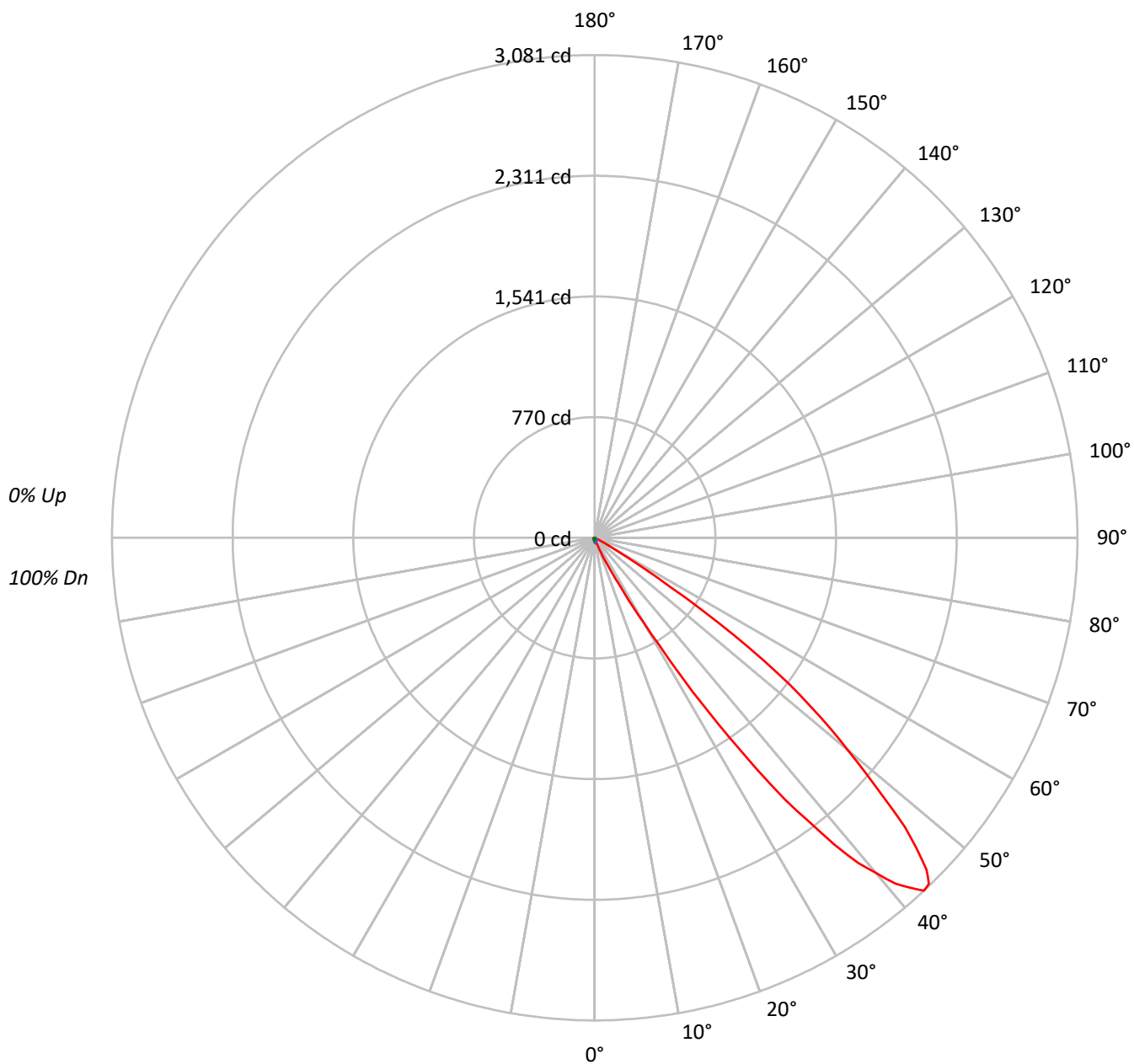
Lumens per Lamp: N/A
Luminaire Lumens: 428.0 lumens
Efficiency: N/A
Efficacy: 22.4 lumens/watt
Spacing Criteria (0/90/45): 3.39 / 0.51 / 1.13
Luminous Opening: Circular (Dia: 0.25' x H: 0')
CIE Type: Direct

Input Watts (W): 19.1
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

TEST NUMBER: P1344178

CATALOG NUMBER: P3A13R20B2750DE010 E3A451WMH_5000K

Luminous Intensity Polar Plot



— 0°-180° - - 45°-225° - - - 90°-270°



TEST NUMBER: P1344178

CATALOG NUMBER: P3A13R20B2750DE010 E3A451WMH_5000K

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°	6535	6535	6535	6535	6535
5°	7616	7088	6119	5305	5129
10°	7526	6457	4832	4119	4030
15°	6583	4926	3564	3292	3473
20°	9754	4130	2637	2824	3104
25°	42051	4283	2032	2540	3024
30°	158986	5191	1722	2456	2962
35°	481926	6237	1606	2490	3132
40°	799154	6212	1374	2662	3349
45°	928872	4249	1240	2729	3628
50°	721068	2320	1228	2866	4128
55°	417323	1529	1223	3211	4473
60°	70565	351	1053	3333	4956
65°	5448	0	1245	3736	5656
70°	769	0	1539	4103	6475
75°	678	339	1694	4745	7456
80°	505	505	2526	5051	8587
85°	1006	1006	4026	5032	9057

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 928872 cd/sqm

TEST NUMBER: P1344178

CATALOG NUMBER: P3A13R20B2750DE010 E3A451WMH_5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	2.6	0.6
10°-20°	5.4	1.3
20°-30°	17.1	4.0
30°-40°	109.1	25.5
40°-50°	199.8	46.7
50°-60°	82.1	19.2
60°-70°	6.9	1.6
70°-80°	3.4	0.8
80°-90°	1.6	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°	25.0	5.8
0°-40°	134.2	31.3
0°-60°	416.0	97.2
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°	30	30	30	30	30	
5°	35	32	28	24	23	3
15°	29	22	16	14	15	9
25°	174	18	8	10	12	114
35°	1800	23	6	9	12	1140
45°	2995	14	4	9	12	2151
55°	1092	4	3	8	12	954
65°	10	0	2	7	11	34
75°	1	0	2	6	9	1
85°	0	0	2	2	4	0
90°	0	0	0	0	0	

TEST NUMBER: P1344178

CATALOG NUMBER: P3A13R20B2750DE010 E3A451WMH_5000K

CANDELA DISTRIBUTION (FULL):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
0°	29.8	29.8	29.8	29.8	29.8	29.8	29.8	29.8	29.8	29.8	29.8
2.5°	32.6	32.6	32.6	32.2	32.2	32.6	32.2	32.2	32.2	32.2	31.8
5°	34.6	34.6	34.6	34.6	34.6	34.6	34.6	34.2	34.2	33.8	32.2
7.5°	35.4	35.4	35.4	35.4	35.0	35.0	35.0	35.0	34.6	34.2	31.4
10°	33.8	33.8	33.8	33.4	33.4	33.4	33.0	33.0	32.6	32.2	29.0
12.5°	30.6	30.6	30.6	30.6	30.2	30.2	29.8	29.8	29.4	29.0	25.3
15°	29.0	29.0	29.0	28.6	28.6	28.2	27.8	27.4	26.9	26.1	21.7
17.5°	31.4	31.4	31.0	31.0	30.2	29.4	29.0	27.8	26.9	25.7	19.3
20°	41.8	42.2	40.6	39.4	38.6	36.2	35.0	33.0	31.4	29.4	17.7
22.5°	84.5	82.9	80.0	75.6	70.4	66.0	57.9	51.5	47.1	41.0	17.3
25°	173.8	172.1	164.5	158.1	142.0	129.5	112.2	98.1	83.7	69.6	17.7
27.5°	330.2	319.4	317.4	288.0	265.5	233.3	199.9	171.7	146.0	117.4	18.9
30°	627.9	615.4	571.6	527.3	466.6	397.8	332.2	271.1	220.0	173.8	20.5
31°	796.8	808.9	757.4	668.5	578.8	490.7	401.0	323.4	257.4	199.9	21.3
32°	1047.4	994.7	940.4	849.1	718.8	606.1	493.5	381.7	294.8	228.1	22.1
33°	1284.3	1253.3	1170.5	1056.6	900.2	742.1	596.1	450.5	340.7	262.2	22.5
34°	1536.9	1502.7	1435.5	1272.2	1100.5	893.3	698.7	529.7	395.4	295.6	22.9
35°	1800.3	1785.9	1656.3	1514.8	1303.6	1053.8	822.1	616.6	448.9	326.2	23.3
36°	2065.4	2018.7	1917.4	1710.6	1490.2	1202.2	951.7	697.4	503.2	362.4	23.3
37°	2264.9	2254.4	2120.1	1918.6	1659.6	1360.7	1063.5	787.1	557.9	393.4	23.3
38°	2484.9	2443.5	2307.1	2102.0	1818.8	1505.9	1180.5	865.2	609.8	421.5	22.9
39°	2670.3	2608.8	2471.2	2268.5	1958.0	1616.1	1273.4	940.8	655.6	444.9	22.5
40°	2791.8	2749.2	2605.6	2377.5	2084.3	1720.3	1367.5	1003.1	689.8	462.6	21.7
41°	2925.7	2855.0	2713.0	2483.7	2176.0	1812.0	1426.7	1044.2	716.4	474.2	20.9
42°	3005.8	2947.9	2779.3	2554.9	2241.6	1864.3	1474.9	1075.5	732.4	480.3	19.3
43°	3080.6	3001.8	2837.7	2596.3	2285.0	1901.3	1497.1	1090.0	736.1	480.3	17.3
44°	3070.5	2995.7	2825.6	2602.0	2294.7	1912.2	1506.3	1090.4	730.4	474.2	15.3
45°	2995.3	2920.9	2767.7	2552.9	2260.1	1890.8	1487.8	1074.3	714.7	463.8	13.7
46°	2857.4	2783.4	2665.9	2470.8	2195.7	1842.6	1444.8	1039.3	688.6	446.9	12.1
47°	2707.3	2635.3	2515.1	2338.5	2085.9	1756.5	1382.4	990.3	652.0	422.3	10.9
48°	2489.7	2444.7	2324.0	2173.2	1933.5	1621.7	1273.0	910.2	602.9	390.6	9.3
49°	2297.5	2250.0	2144.2	1982.1	1734.8	1464.9	1142.3	812.9	539.0	355.2	8.0
50°	2113.7	2072.2	1974.5	1791.5	1555.4	1275.4	965.7	690.2	458.5	311.3	6.8
51°	1933.9	1902.9	1803.2	1635.0	1395.3	1129.8	836.6	574.8	378.9	258.2	6.4
52°	1753.3	1749.7	1641.5	1471.3	1239.6	984.6	711.1	485.1	321.4	216.8	6.0
53°	1559.0	1535.7	1441.2	1288.3	1065.9	833.4	602.9	409.1	276.7	184.6	5.2
54°	1337.8	1311.6	1210.3	1072.3	870.8	682.6	485.9	330.6	230.5	156.1	4.8
55°	1091.6	1047.0	973.4	831.8	680.2	520.9	375.3	261.8	184.2	129.9	4.0
56°	828.2	783.5	742.1	637.9	499.2	388.5	279.5	200.7	144.0	102.6	3.6
57°	576.0	573.6	505.6	425.5	333.8	264.7	191.5	141.6	101.8	79.6	2.8
58°	373.7	361.2	317.8	271.5	218.4	165.3	123.1	96.1	69.2	54.3	2.4
59°	261.8	236.9	213.6	181.0	137.6	104.2	79.2	61.5	47.9	37.8	1.6
60°	160.9	155.7	140.0	110.2	89.3	73.6	59.1	45.5	35.0	26.9	0.8
62.5°	45.9	46.7	42.2	37.4	32.2	27.8	24.9	21.3	17.7	14.1	0.0
65°	10.5	10.1	10.9	10.1	9.3	9.3	8.0	7.2	6.4	6.0	0.0



TEST NUMBER: P1344178

CATALOG NUMBER: P3A13R20B2750DE010 E3A451WMH_5000K

CANDELA DISTRIBUTION (continued):

	0°	2.5°	5°	7.5°	10°	12.5°	15°	17.5°	20°	22.5°	45°
67.5°	3.2	3.2	2.8	2.8	2.8	2.4	2.4	2.0	2.0	1.6	0.0
70°	1.2	1.2	1.2	1.2	1.2	0.8	0.8	0.8	0.4	0.4	0.0
72.5°	1.2	1.2	1.2	0.8	0.8	0.8	0.8	0.8	0.4	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	0.4	0.8	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	0.4
85°	0.4	0.4	0.4	0.4	0.0	0.0	0.4	0.4	0.4	0.0	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

TEST NUMBER: P1344178

CATALOG NUMBER: P3A13R20B2750DE010 E3A451WMH_5000K

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
0°	29.8	29.8	29.8	29.8	29.8	29.8
2.5°	31.0	29.4	28.2	26.9	26.5	26.5
5°	30.2	27.8	25.3	24.1	23.3	23.3
7.5°	27.8	24.9	22.5	21.3	20.9	20.9
10°	24.9	21.7	19.3	18.5	18.5	18.1
12.5°	21.7	18.5	16.9	16.5	16.5	16.5
15°	18.1	15.7	14.5	14.5	14.9	15.3
17.5°	15.3	12.9	12.5	13.3	14.1	14.1
20°	12.9	11.3	11.3	12.1	12.9	13.3
22.5°	10.9	9.7	10.1	11.3	12.5	12.9
25°	9.7	8.4	9.3	10.5	11.7	12.5
27.5°	8.0	7.6	8.4	10.1	11.7	12.1
30°	6.8	6.8	8.0	9.7	11.3	11.7
31°	6.4	6.4	8.0	9.7	11.3	11.7
32°	6.0	6.4	7.6	9.7	11.3	11.7
33°	5.6	6.0	7.6	9.3	11.3	11.7
34°	5.2	6.0	7.6	9.3	11.3	11.7
35°	4.8	6.0	7.6	9.3	11.3	11.7
36°	4.4	5.6	7.2	9.3	11.3	11.7
37°	4.0	5.6	7.2	9.3	11.3	11.7
38°	3.6	5.2	7.2	9.3	11.3	11.7
39°	3.6	5.2	6.8	9.3	10.9	11.7
40°	3.2	4.8	6.8	9.3	10.9	11.7
41°	2.8	4.8	6.8	8.8	10.9	11.7
42°	2.4	4.4	6.4	8.8	10.9	11.7
43°	2.0	4.4	6.4	8.8	10.9	11.7
44°	2.0	4.0	6.4	8.8	10.9	11.7
45°	1.6	4.0	6.4	8.8	10.9	11.7
46°	1.2	4.0	6.4	8.8	10.9	11.7
47°	1.2	3.6	6.0	8.8	10.9	11.7
48°	0.8	3.6	6.0	8.8	10.9	11.7
49°	0.8	3.6	6.0	8.8	10.9	12.1
50°	0.8	3.6	6.0	8.4	10.9	12.1
51°	0.4	3.6	6.0	8.4	10.9	12.1
52°	0.4	3.6	5.6	8.4	11.3	12.1
53°	0.4	3.2	5.6	8.4	11.3	12.1
54°	0.4	3.2	5.6	8.4	11.3	11.7
55°	0.4	3.2	5.6	8.4	10.9	11.7
56°	0.4	2.8	5.6	8.4	10.9	11.7
57°	0.4	2.8	5.2	8.0	10.9	11.3
58°	0.4	2.8	5.2	8.0	10.9	11.3
59°	0.4	2.8	5.2	8.0	10.5	11.3
60°	0.8	2.4	4.8	7.6	10.5	11.3
62.5°	0.8	2.4	4.8	7.6	10.1	10.9
65°	0.8	2.4	4.4	7.2	10.1	10.9



TEST NUMBER: P1344178

CATALOG NUMBER: P3A13R20B2750DE010 E3A451WMH_5000K

CANDELA DISTRIBUTION (continued):

	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	0.8	2.0	4.0	6.8	9.7	10.5
70°	0.8	2.4	4.0	6.4	9.3	10.1
72.5°	1.2	2.0	3.6	6.0	8.8	9.7
75°	1.2	2.0	3.6	5.6	8.4	8.8
77.5°	1.6	2.0	3.2	4.8	7.6	8.0
80°	1.6	2.0	2.8	4.0	6.4	6.8
82.5°	1.6	2.0	2.0	3.2	4.8	5.2
85°	1.2	1.6	1.6	2.0	3.2	3.6
87.5°	1.2	1.6	1.2	0.8	1.6	1.6
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)