

## THE TOOL YOU CAN USE

HIGH-EFFICIENCY LIGHTING BY DOUG STONEMAN

# Revolutionalize the upgrade market

In the early 1990s, T8 fluorescent lamps stormed onto a scene dominated by T12 technology. Today, a new generation of high-efficiency lamp and ballast technologies are poised to once again revolutionize the market.

**W**hen T8 fluorescent lamps and electronic ballasts were first popularized commercially 10 to 15 years ago, they revolutionized a market governed by T12 lamp and magnetic ballast technologies with their long life span, excellent color rendering, and energy-efficient operation. Before long, commercial, industrial, and institutional users nationwide were embracing the opportunity to upgrade their outmoded lighting systems and tap into the ability to reduce energy consumption and costs by as much as 30% to 40% while improving light levels and productivity. Since that time, many of these products have become standard in new construction applications.

But now a new generation of high-efficiency lamp and ballast technologies are poised to revolutionize the market once again, delivering an even greater level of energy reduction, cost savings, and value-added features.

## New T8 lamp technologies

New T8 fluorescent lamps are typically categorized in one of two ways: as energy-saving models (ranging from 25W to 30W) or as high-lumen, extended-life lamps with 2900+ mean lumens and 24,000+ hour rated life. When used in conjunction with new high-efficiency electronic ballasts, total system wattage can be reduced by over 45% relative to the use of older T12 fluorescent systems driven by magnetic ballasts and by as much as 20% to 30% relative to the use of conventional T8 lamps and electronic ballasts.

As an added benefit, these new T8 lamps utilize high CRI phosphors, which

improve color rendering and lumen-per-watt performance.

## High-efficiency electronic ballasts

Supporting the market's broad range of new T8 lamp technologies, the new high-efficiency electronic ballasts are available in both instant-start and programmed-start models, providing maximum flexibility for both extended burn hours and

**Suitable for both new construction and retrofit applications, these new T8 lamp and ballast technologies represent a maximum-efficiency, high-performing lighting solution for today's general office, retail, and warehouse settings.**

frequent switching applications. With the increasing use of occupancy sensors, selection of the right ballast/lamp combination has become even more critical.

Available features of these ballasts include multiple voltage technology (reducing maintenance/stocking requirements and enhancing ease of ordering), cold-start capability to as low as -20°F (on 32W lamps only) for assured operation in cold-temperature situations, and low-profile designs optimized for today's fixture designs.

Other powerful features available within new high-efficiency instant-start

and programmed-start electronic ballast models include anti-striation circuitry (eliminating flicker and improving visual comfort); lamp auto-restrike capability (eliminating the need to reset power mains after failed lamps are replaced); 20' remote mounting/tandem wiring capability for maximum application flexibility; anti-arcing technology (which can protect system components in the event of damaged sockets or poorly seated lamps); and independent or semi-independent lamp operation (ILO), which ensures that the fixture will remain partially lit when a lamp burns out.

## The bottom line

New high-efficiency T8 lamps and electronic ballasts combine maximum energy savings with enhanced design flexibility and versatility and are poised to take the lighting upgrade market to new and unprecedented heights.

Overall, these systems provide a more dramatic and quicker payback than ever before relative to T12 systems—and even customers who have upgraded to conventional T8 lighting technologies in the past decade can capitalize on additional savings. With new Department of Energy-mandated ballast efficacy standards taking effect, the time to help customers investigate their lighting upgrade opportunities has never been better. ■■■

*Stoneman manages Advance Transformer's fluorescent and HID ballast lines specifically for the distribution channel. This and other blueprints can be downloaded for use as handouts at [www.tedmag.com](http://www.tedmag.com).*