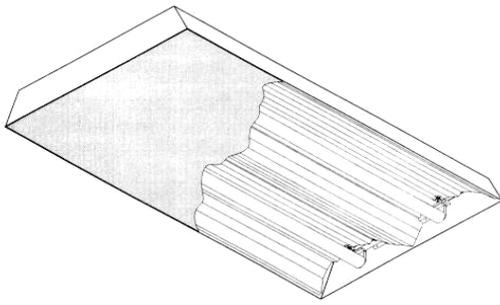




Energy Efficient Lighting: Electronic Ballast Fluorescent Fixtures – Commercial



Electronic ballast fluorescent fixtures with reflectors use 40 to 70 percent less energy than standard (magnetic ballast) fluorescents, have higher color rendition (75 to 85 CRI*), have higher lumen maintenance (90 to 95% of light original light level is maintained, vs. 50% for magnetic ballast), and operate without the hum and flicker typically associated with fluorescent fixtures. The key to these advantages is the electronic ballast which operates at a much higher frequency than magnetic ballasts, and the T8 or T5 lamps (8 or 5 eighths of an inch in diameter versus a standard T12 lamp at 12 eighths of an inch diameter) which are coated with special tri-phosphors to provide the higher color rendering light and are rated to last 20,000 hours. Electronic ballasts for are rated to last 100,000 hours.



This 2' x 4' lay-in fixture uses an electronic ballast, two T8 lamps and a reflector, using only 62W of electricity to provide the light output of a 4-lamp magnetic ballast fixture using 190W. The reflector positions the lamps symmetrically in the fixture and drives more light out of the fixture than a standard flat, white top of a fixture cavity. This reflector, electronic ballast and T8 lamp setup can also be retrofitted into existing lay-in fixtures for big energy savings.



T-5 Electronic Ballast High Output Fixture – This fixture replaces high-bay HID fixtures in retail, manufacturing and warehouses. The 16" x 4' fixture with four T-5 lamps and a specular reflector uses only 234W to provide the light output of a 450W metal halide fixture (typical in Home Depot, Gymnasiums, Manufacturing). Other advantages over HID include instant re-strike, high color rendition (84 CRI vs. 60 CRI) and 95% lumen maintenance (only 5% light loss over

20,000 hour lamp life).



Occupancy and Light Level Sensors are often an excellent compliment to energy efficient lighting. With instant re-strike fixtures, light fixtures can be turned fully or partially off, only to be brought to full brightness when the room is occupied, or when daylight levels are not sufficient for the task. These strategies can add an additional 25 to 50 percent energy savings to a commercial lighting project.

***CRI** – **C**olor **R**endering **I**ndex, the ability of a light source to illuminate an object so that the viewer sees the object in its true colors. Sunlight is the standard with a CRI of 100, standard (magnetic ballast / older tube type fluorescents) have a CRI of 60 to 65.

For more information, and to purchase energy efficient lighting contact:

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All Eco-Smart products are approved by the nonprofit Florida House Institute for Sustainable Development