



Emergency/Night Lighting

A highly efficient lighting system, an offshoot of technology originally developed for the Skylab manned orbiting laboratory, is finding wide acceptance among industrial and commercial firms as an energy-saving means of providing emergency and night lighting. The Skylab system, which consisted of small, high frequency fluorescent light fixtures powered by solar cells, provided a base for formation of a company—UDEEC Corporation, Waltham, Massachusetts—which has refined the original technology and developed an expanded product line. The advantages of UDEEC's lighting systems

stem from the qualities required for the Skylab installation: high reliability and high light output with very low energy drain.

The principal components of the UDEEC systems are long-life fluorescent lamps operated by electronic circuitry, a sealed gelatine cell battery that needs no maintenance for as much as eight years, and a solid-state automatic battery charger. A typical installation consists of a master module with battery and an eight-watt lamp, plus as many as 18 "Satellight" modules powered by the master's battery. The emergency lights turn on automatically if the primary lighting system fails due to power outage, insuring employee safety. As a night lighting system, the fixtures can bypass the battery and operate on normal current for a fraction of the energy demand of conventional night lighting. UDEEC also produces supplemental systems, such as "always on" stairwell lights, illuminated exit signs, elevator and rest room lights; for the latter applications, the company offers a timing device that turns off the lights when the elevator or rest room is not occupied. A new feature, introduced this year, is a system which automatically tests every battery and every lamp each 24 hours and notifies the building superintendent or plant engineer if a malfunction has occurred since the last test.

UDEEC systems, says founder and president John F. Morten, have attracted many customers because they usually pay for themselves—in energy savings—within a year or less. An example is Morton's Shoe Stores, Inc., Boston, Massachusetts, whose investment was paid back in six months. Installation of a UDEEC emergency/night lighting system in the company's six-and-a-half acre warehouse/office facility cut Morton Shoe's night lighting electric bill from \$8,000 a year to \$300. The upper photo on the opposite page shows the level of light available in the Morton lobby from the night light fixtures. Below it is a night-lighted portion of the warehouse. At left, the view of the company's office area represents a simulated blackout of the primary lighting system; a single emergency light provides ample illumination for the employees to continue their work.

