

## **Bi-level HID Control Equals Savings for Mervyn's Distribution Center**

The desire to save energy and improve the quality of lighting compelled the energy manager at Mervyn's Northern California Distribution Center to overhaul the lighting system.

High intensity discharge (HID) fixtures light the Mervyn's warehouse. Because of the long restrike time of the HIDs, switching lights on and off during times of vacancy is impractical. The Watt Stopper's DM-100 Bi-Level control units solved this problem with their ability to turn lights to high or low based on signals from occupancy sensors.

All in all, estimates show that Mervyn's could realize \$20,000 per year in savings – a 2 1/2 to 3 year return on investment.

The distribution center, located in Fremont, California, supports all of California, approximately 100 stores. Peter Bemnet, the Energy Manager for Mervyn's Western Division, knew the savings potential of The Watt Stopper's products. Mervyn's, part of Target Corporation, was one of the first customers of Tomstar's (acquired by



The Watt Stopper controls cover approximately 160,000 sq. ft. of the 360,000 sq. ft. warehouse facility. Rotating shifts mean the HID fixtures needed to light the facility stay on continuously during long hours of operation. However, the facility's storage areas are often vacant for long periods throughout the day. When they're occupied, it is usually only for a short amount of time – ideal conditions for using occupancy sensors to turn lighting to low.

At Mervyn's, The Watt Stopper's passive infrared occupancy sensors detect movement and signal the DM-100 to switch HID fixtures to full output. When movement is no longer detected and the time delay elapses, the occupancy sensors signal the DMs to switch lighting to lower levels. So now storage and sorting areas are only at full light levels when necessary.

Divided into two phases, the project started in October 2000. First, in order to improve lighting quality, 150 Watt high pressure sodium fixtures

were removed and replaced with 175 Watt metal halide fixtures.

Next, to accomplish energy efficiency, three groups of HID fixtures were retrofitted with The Watt Stopper's DM-100 Bi-Level control units and occupancy sensors.

Installation of the products went off without a hitch, and occupancy sensors only needed minor adjustments depending on height, angle, and sensitivity. Bemnet said, "So far our employees are satisfied with the retrofit. The results are very positive." As an added bonus, Bemnet also took advantage of the utility rebates offered by Pacific Gas & Electric (PG&E) in 2000.

Bi-level dimming has proven a great solution for Mervyn's, and the complete project satisfies the original goal by improving both the quality and the energy efficiency of the lighting. The Watt Stopper is excited to continue to work with Mervyn's and Peter Bemnet on future lighting control projects.

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The Watt Stopper in 1998) panel products, and he has maintained an 18 year relationship with the company. So the decision to use The Watt Stopper's products was an easy one. Bemnet stated, "After such a long history with [The Watt Stopper's] products, I knew I could count on them to be reliable and to save us energy."