



Portraits

In Brief

Project:

Jiyugaoka Station

Location:

Tokyo, Japan

Products Used:

Panasonic OLED and LED lighting modules

Number Installed:

29 OLED fixtures and 1,174 LED fixtures

For More Information:

Universal Lighting Technologies
26 Century Blvd., Suite 500
Nashville, TN 37214
1-800-BALLAST
webmaster@unvlt.com
unvlt.com

On Board for Major Energy Savings

Ultra-busy Tokyo Train Station Slashes Power Use with Panasonic LED and OLED Technology

With the help of Panasonic LED and OLED lighting fixtures, the Japanese Ministry of the Environment has successfully slashed overall energy use at a public train station by 25 percent—with a 40-percent reduction in energy use by its lighting alone.

It's all part of a pilot community development program called the Smart Station Project taking place at Jiyugaoka Station in Tokyo. Completion of the project was celebrated with an official lighting ceremony on March 30, 2012.

Tokyu Corporation operates the extraordinarily busy Jiyugaoka Station and proposed the energy-saving retrofit project as part of the "Challenge 25" Initiative by the Ministry of the Environment. Once the plan was approved by the Japanese government, Tokyu installed 29 OLED fixtures and 1,174 LED fixtures provided by Panasonic Corporation Eco Solutions Company, which also supplied a power monitoring

system to record and adjust energy use as needed in the future.

This project represents the first use of Organic Light Emitting Diode (OLED) technology in a train station in Japan for general lighting purposes. Of the 29 OLED lighting fixtures at Jiyugaoka Station, 19 are installed at the ticket gate office and 10 in the train pass office. These fixtures incorporate 275 Panasonic OLED lighting modules, which can reduce energy use up to 85 percent compared to mini-halogen fixtures and operate up to 10 times as long as an ordinary incandescent

lamp (approximately 10,000 hours).

Panasonic's thin, narrow-frame OLED lighting modules are now available in the U.S. and Canada via Universal Lighting Technologies, a Panasonic subsidiary.

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The station's LED lighting fixtures are designed to change color temperature throughout the day, which not only saves energy but increases visual



comfort for station visitors and employees. Both photocells and infrared occupancy sensors are installed to ensure ideal color temperature levels based on natural light and the number of occupants at the station. Of the 1,174 LED lighting fixtures at Jiyugaoka Station, 494 are on the platform, 238 are in the concourse, 290 are in the station office and bathroom, and 152 are in the travel center.

According to the Ministry of the Environment, cutting energy consumption 25 percent at Jiyugaoka Station will reduce CO₂ emissions in Tokyo by 131 tons each year.

Organic LEDs, or OLEDs, are comprised of multiple thin layers of organic compounds that emit light when energized. The different layers within the OLED provide different colors of light, but when combined together in a single panel, they produce a high-quality white light. This method of light production generates little heat and is very efficient. And Panasonic's ultra-thin design (9mm) makes it simple for OEMs to embed these modules into a wide variety of new styles and designs of lighting fixtures. A "slide-in" structure also allows for safe and easy panel replacement without tools.

Panasonic Corporation Eco Solutions Company introduced "warm white" (3,000K), "natural white" (4,000K), and "daylight white" (5,000K) OLED lighting modules in 2012. In addition to energy

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savings, these modules feature the world's highest level of color rendering (CRI>90). OLED technology also allows each fixture to be individually dimmed to set optimal light levels for different lighting environments. OLED modules are mercury-



free and emit no UV rays, which can be damaging to light-sensitive materials.

Panasonic OLED modules incorporate the OLED Lighting Panel launched by Panasonic Idemitsu OLED Lighting Co., Ltd., (PIOL) in September 2011. PIOL is a joint venture of Panasonic Corporation Eco Solutions Company and Idemitsu Kosan Co., Ltd., established in 2011. Making use of various global networks (including Universal Lighting Technologies), Panasonic Corporation Eco Solutions Company is currently developing and selling OLED modules for application-specific products ranging from lighting fixtures to furniture, cars, and home electronic equipment for various manufacturers worldwide.

About Universal Lighting Technologies

Universal Lighting Technologies, Inc., produces some of the world's most advanced linear fluorescent, compact fluorescent, HID, eHID, and LED solutions for commercial lighting applications, as well as the most cost-effective energy management systems in the lighting industry today. A global leader in research and development since 1947, Universal Lighting Technologies joined the Panasonic family of companies as a wholly owned subsidiary of Panasonic Corporation Eco Solutions Company in 2007. Today, the company manufactures and distributes products under the Universal®, Triad®, Panasonic, Vossloh-Schwabe, DCL®, DEMANDflex™, EVERLINE™, and Signa® brand names.

Want to know more?

To learn more about the full line of Universal Lighting Technologies' ballasts or to request a catalog, call 1-800-BALLAST, fax your request to 615-316-5162, or visit the website at www.unvlt.com. Universal Lighting Technologies —Energy Intelligence in Lighting.



Address 26 Century Blvd., Suite 500
Nashville, TN 37214-3683

Phone 1-800-BALLAST

E-mail webmaster@unvlt.com

Web site www.unvlt.com