

Mellon Building Upgrade Combines Historical Restoration With Modern Ballast Technology



The General Services Administration (GSA) needed specialized contractors to restore the historic Mellon Building complex in Washington, D.C., which was being converted into a new headquarters for the Environmental Protection Agency (EPA). The delicate job of re-creating and updating lighting fixtures that were originally built in the mid-1930s had to be done flawlessly, in keeping with the Andrew Mellon Building's stature as a prominent National Historic Landmark. Beginning the three-year project in 1999, the GSA turned to Jefferson Lighting & Brass Works of Lynchburg, Virginia, one of the nation's leading lighting restoration firms.

The 1.25-million-square-foot Mellon Building is perhaps best known as the site where the charter of the North Atlantic Treaty Organization (NATO) was signed in 1949. It was also the venue for a 19-country NATO summit meeting 50 years later. A large auditorium at the center of the building separates two large wings of office space. The international architecture firm of RKTL Associates oversaw the restoration project.

"Many of the lighting fixtures were originally made by European craftsmen," said David Norton, president of Jefferson Lighting. "The skill and attention to detail we found went way beyond what was normal for the time. Our craftsmen treated the fixtures with reverence as they went about repairing, restoring and re-creating them for this important job."

In addition to historical accuracy, Norton was aware the government wanted high-quality energy-saving technology to be built into every fixture. The building's tenant, the EPA, is at the forefront of energy conservation in lighting with their Energy Star[®] and Green Lights[®] programs. For that reason, Norton selected Universal ballasts to be used wherever possible on the project. More than 4,000 ballasts were installed in the Mellon Building. Magnetic (catalog number 4139F2P) and electronic (catalog number C242UNVSE) compact fluorescent ballasts were used in the building's interior renovation, and High Intensity Discharge (HID) metal halide core and coil ballasts were used on the exterior.

In Brief:

Project:

Historic Mellon Building
Restoration

Location:

Washington, D.C.

Products Used:

Interior: Magnetic compact fluorescent ballasts (4139F2P) for 28W compact fluorescent lamps and electronic compact fluorescent ballasts (C242UNVSE) for 26, 32 and 42W compact fluorescent lamps.

Exterior: 50-, 70-, 100- and 175-watt High Intensity Discharge (HID) metal halide and high-pressure sodium core and coil ballasts

Total Number Installed:

Approximately 4,000 total

For more information about:

Jefferson Lighting & Brass Works

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"Rebuilding and repairing these fixtures using modern ballasts and lamps was the opportunity of a lifetime," said Norton. He described how his staff used original wax castings, which were thought to be lost, to capture the shapes of the original fixtures. Then they created molds out of

rubber, applewood and steel, into which glass was blown to duplicate the original shapes. Jefferson used brass, aluminum and architectural bronze to create the metal portions of the lights, restoring and repairing the old, damaged fixtures when possible and creating new ones where necessary. Some of the antique fixtures and chandeliers were eight to ten feet tall. Brass leaves were hand-hammered into several fixtures to re-create their original designs. The crowning touch on the project was the use of gold leaf, pressed by hand onto the most ornate fixtures on the exterior of the building.

Most of the interior lights were retrofitted with magnetic compact fluorescent ballasts. Retrofitting existing fixtures to acceptable lumen output levels required installing two, three and sometimes four 28W lamps in the same fixture. "The increased wattage and heat associated with putting multiple lamps in an enclosed unit made the 4139F2P an ideal choice," Norton said. "It is a workhorse of a ballast, able to handle extreme temperatures that

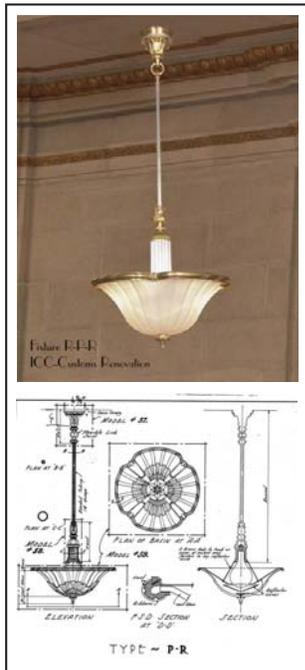
would destroy its electronic counterparts, but still efficient enough to meet the EPA's Green Lights requirements. In most cases, we were switching from incandescent and mercury lamps to energy-efficient fluorescent lamps within the same

fixture body," added Norton. "Size and fit were important considerations in finding the right ballasts for these older fixtures because we had to accommodate considerations of both space and heat."

The exterior lights on the Mellon Building required a variety of wattages of HID ballasts. The building's huge, ornate lanterns, some of the most prominent fixtures in all of Washington, are now powered by Universal's 50-, 70-, 100- and 175-watt metal halide core and coil ballasts, providing a safer, brighter

atmosphere for the building's employees and the thousands of tourists passing by each day. Universal's HID ballast kits made installation retrofits and replacements fast and easy, according to Norton.

As state and federal government agencies around the country continue to invest in the preservation of historic buildings, Universal ballasts are preferred for their versatility, compactness, energy savings and reliability in a wide variety of applications, for the projects of yesterday, today and tomorrow.



About Universal Lighting Technologies

Based in Nashville, Tenn., Universal Lighting Technologies has offered the most innovative selection of lighting ballasts and controls for more than 50 years. The company manufactures ballasts for all lighting applications, with a full line of ballasts designed for exceptional performance in lamps ranging from 5 to 2000 watts. These include magnetic, electronic, and compact fluorescent, high intensity discharge, sign and neon. As a major manufacturer of electrical equipment, Universal Lighting Technologies plays a lead role in setting industry standards for quality and energy efficiency. The company actively participates in trade associations and assists in the development of many standards through ANSI, NEMA and IESNA. With operations and distribution worldwide, the products of Universal Lighting Technologies are marketed under the Universal® and Triad® brand names.

Want to Know More?

Universal Lighting Technologies' ballasts are available through a nationwide network of several thousand electrical distributors and are also incorporated in the designs of leading OEM lighting fixture manufacturers. 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 615-316-5146, or visit the company's Web site at www.universalballast.com.



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