University of Mary Washington's Dodd Auditorium

A Case Study: Making Every Night a Brillant Performance

Home to over 4,200 students on a scenic 176-acre campus nestled in Fredericksburg, VA, the University of Mary Washington boasts a colorful and high-profile history. Founded in 1908 as the State Normal and Industrial School for Women, the college was eventually renamed after Mary Ball Washington, mother of the nation's first president, and was subsequently affiliated with the University of Virginia and made a co-ed institution, becoming an autonomous college with its own governing board in 1972 and achieving university status in 2004. The beautiful neo-classical, Georgian, and Jeffersonian architecture throughout the campus is one of the reasons why the Princeton Review has consistently ranked Mary Washington as one of the top 20 most beautiful campuses in the nation.

In a continuous effort to keep its vintage architectural spaces as modern and functional as possible, Mary Washington recently pursued a lighting upgrade within its majestic Dodd Auditorium. The university's location for a broad spectrum of concerts, lectures, and public events throughout the year, the 1,400-seat auditorium is the official site of the Fredericksburg Forum, a bi-annual event that has brought such famous authors, historians, and political luminaries to UMW as Elie Wiesel, Ken Burns, James Carville, Dave Barry, and Frank McCourt.

Originally built in the 1920's, the Dodd Auditorium housed an inefficient dimmable incandescent lighting system, which delivered extremely low light levels and created ongoing maintenance issues. Said UMW Senior Director of Conference Management Susan Knick of the upgrade, "our objectives for the Dodd Auditorium were to increase energy efficiency, reduce maintenance requirements, and obtain greater dimming abilities while offering a lighting system that was more aesthetically-pleasing and flexible."

The solution came in the form of a cutting-edge dimmable lighting system involving 55W compact fluorescent Philips PL-L 950 High Light Output lamps from Philips Lighting driven by Philips Advance Mark 10® *Powerline* 2-lamp electronic dimming ballasts. With a 20,000 hour rated average life, a color rendering index (CRI) of 91, and a 5000 Kelvin temperature rating, these lamps combine all of the long life and energy efficiency benefits of fluorescent technology with the pleasing appearance typically associated with incandescent lighting. Versatile and energy-efficient, the ballasts are flexible and easy to install because they require no additional wiring. And with the ability to dim from 100% down to 5%, the ballasts provide the Dodd Auditorium with the ability to adjust light levels for all manner of events and activities.

Says Bill Jennings, Electrical Engineering Consultant on the project and President of William R. Jennings, Jr., P.E.—Consulting Engineering in Forest, VA, "the new lamps and ballasts were fully compatible with the existing dimming system in the Dodd Auditorium such that we were able to re-use the facility's dimmer banks and controls with only minor modifications and all of its branch circuit wiring without any changes. In addition to saving a great deal of time and cost, this made for an extremely easy installation process and resulted in outstanding lighting performance that exceeded our expectations."

Revolving around the installation of new cove lighting and custom-designed 5-foot diameter pendants by project architect and designer Lora Katz, AIA and her team from Roanoke, VA-based Katz, McConnel & Associates, the results of the upgrade were impressive.

PHILIPS
ADVANCE

The new compact fluorescent system has reduced energy consumption in the Dodd Auditorium by up to 40%, while footcandle levels increased from the 5–10 range to nearly 30. Other design treatments, including a repainting and redecorating of the interior, have supported the new lighting strategy while helping to further enhance the look and feel of this vintage space. Says Lora Katz, "the conversion to a more traditional darker ceiling color worked well with the new lighting system and helped emphasize both the facility's new gold-leafing on the vintage egg-and-dart detailing around the perimeter as well as the beauty of its original beamed ceiling. We are extremely happy with the color rendition of the lighting and the way it enhances the new finishes."

The management team at the University of Mary Washington has been delighted with the new lighting system, which has met all of their performance objectives while helping to modernize an important campus structure and local landmark. According to UMW's Susan Knick, "we are extremely happy with the auditorium's new lighting system. It has elevated visibility within the space immeasurably and has allowed us to better respond to the needs of a wide range of audiences, including the elderly and end users with disabilities. Overall, the new lighting system has made the auditorium space feel so much more cheery and has helped draw attention to the many beautiful vintage elements in the room. Our whole Technical Staff is very satisfied with the upgrade and we strongly encourage other institutions to consider this type of lighting system in their theaters based on its flexibility and appeal."Concludes Philips Lighting Professional Lighting & Distribution Marketing Development Representative Larry Wilson in a sentiment echoed by Philips Lighting Electronics N.A. Senior Product Manager Stuart Berjansky, "we are delighted to have successfully designed a dimmable fluorescent solution that has optimally met the University's needs for performance, energy efficiency, aesthetics, and dimmability. And we are proud of the way in which this fluorescent dimming system also promotes environmental sustainability." Average life under specified test conditions with lamps turned off and restarted no more frequently than once every three operating hours. Lamp life is appreciably longer if lamps are started less frequently.

Project Overview

Project Site:

University of Mary Washington (Fredrickson, VA), 1,400 seat Dodd Auditorium

Project Scope:

Upgrade of existing dimming incandescent lighting to a system involving 55W compact fluorescent lamps with electronic ballasts to improve light levels, reduce energy

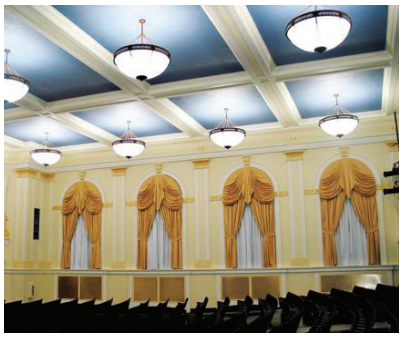
Products Involved:

360 55W PL-L 950 High Light Output compact fluorescent lamps with a CRI of 91 from Philips Lighting driven by 180 Philips Advance Mark 10® *Powerline* 2-lamp electronic dimming ballasts; the project also utilized 200 28W T5 ALTO® lamps from Philips Lighting

Results of Installation:

- Up to 40% cost reduction
- Light level improvements
  - Footcandles increased from 5-10 up to as much 30, a nearly 200% improvement
- Dimmable up to 5%
- 20,000 hour rated average life* of new fluorescent lamps (vs. 1,000 hour rated average life* of previous incandescents) reduces costs and maintenance concerns
- Relative to the use of incandescent systems, fluorescent dimming systems promote sustainability

A leader in the ballast industry for over 60 years, Philips Lighting Electronics N.A., based in Rosemont, Illinois, offers a full line of Philips Advance branded ballasts and drivers for fluorescent, HID, and LED light sources to the market's broad range of lighting fixture manufacturers and electrical distributors. For more information on Philips Lighting Electronics' complete product line and range of Smart Solutions™, visit our website at www.philips.com/advance or call us at (800) 322-2086



Form No. CS-1260-R01 03/09

Philips Lighting Electronics N.A.
10275 W. Higgins Road
Rosemont IL 60018
Tel: 800-322-2086 Fax: 888-423-1882
Customer Support/Technical Service: 800-372-3331
OEM Support: 866-915-5886
www.philips.com/advance