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## Universal Display Presents All-Phosphorescent White OLED to Address Initial Commercial Niche White Lighting Applications

Company demonstrates long-lived, energy-efficient 15 cm x 15 cm white OLED lighting panel using novel high-performance, light-blue UniversalPHOLED emitter system at SID 2010

SID Display Week 2010

EWING, N.J.--([BUSINESS WIRE](#))--Universal Display Corporation (NASDAQ:PANL), enabling energy-efficient displays and lighting with its UniversalPHOLED™ technology and materials, will announce advances today in white OLED performance on a commercial-scale 15 cm x 15 cm lighting panel using the company's highly-efficient phosphorescent OLED technology and materials. This new white OLED panel is believed to have the most energy-efficient performance, at this scale, reported to date.

“Highly Efficient Phosphorescent OLED Lighting Panels for Solid-State Lighting”

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Dr. Peter A. Levermore, Research Scientist at Universal Display, will present the advances in a paper titled, “Highly Efficient Phosphorescent OLED Lighting Panels for Solid-State Lighting,” at 11:40 a.m. PDT today in Ballroom 6C at the 2010 Society for Information Display (SID) International Symposium, Seminar & Exhibition. The conference is being held at the Washington State Convention Center in Seattle, WA from May 23 through May 28, 2010.

Funded in part by the U.S. Department of Energy, Universal Display has been working to scale its record-breaking, research-scale PHOLED results to commercial-sized lighting panels that meet Energy Star targets. During his talk, Dr. Levermore will discuss Universal Display's development of a new all-phosphorescent white OLED lighting panel, 15 cm x 15 cm in size. This panel emits a warm-white light with a color rendering index (CRI) of 87 and a correlated color temperature (CCT) of 3055K. It also has a luminous efficacy of 50 lumens per Watt using an optical outcoupling treatment with a modest 1.5x enhancement factor. With an operating lifetime of approximately 10,000 hours to 70% of an initial luminance of 1,000 cd/m<sup>2</sup>, this panel performance has the potential to meet the requirements for a number of initial commercial niche OLED lighting applications, and is an important step toward white OLED panel performance that achieves Energy Star targets.

To achieve these results, the company employed a new light-blue UniversalPHOLED emitter system. This new light-blue PHOLED system helps reduce the power consumption of the panel and extend its operational lifetime and emission color stability with aging. Added to the company's red and green UniversalPHOLED emitter systems for white lighting, Universal Display can now offer a full set of emitters for certain warm-white OLED lighting applications.

“With up to four times the efficiency of conventional OLED technology, our proprietary PHOLED technology and materials have enabled the demonstration of power-efficient, white OLEDs that have the potential to meet Energy Star requirements for solid-state lighting. This recent advance in white OLED panel performance is a considerable step toward those targets,” said Steven V. Abramson, President and Chief Executive Officer of Universal Display. “With our new light-blue PHOLED emitter system, manufacturers can now employ an all-PHOLED materials set for white OLEDs to achieve power efficiency, spectral and lifetime targets for a variety of initial commercial niche lighting products.”

To see how Universal Display Corporation is changing the face of the display and lighting industries, please visit the

Company at [www.universaldisplay.com](http://www.universaldisplay.com).

## About Universal Display Corporation

Universal Display Corporation (Nasdaq: PANL) is a leader in developing and delivering state-of-the-art, organic light emitting device (OLED) technologies, materials and services to the display and lighting industries. Founded in 1994, the company currently owns or has exclusive, co-exclusive or sole license rights with respect to more than 1,000 issued and pending patents worldwide. Universal Display licenses its proprietary technologies, including its breakthrough high-efficiency UniversalPHOLED™ phosphorescent OLED technology, that can enable the development of low power and eco-friendly displays and white lighting. The company also develops and offers high-quality, state-of-the-art UniversalPHOLED materials that are recognized as key ingredients in the fabrication of OLEDs with peak performance. In addition, Universal Display delivers innovative and customized solutions to its clients and partners through technology transfer, collaborative technology development and on-site training.

Based in Ewing, New Jersey, Universal Display works and partners with a network of world-class organizations, including Princeton University, the University of Southern California, the University of Michigan, and PPG Industries, Inc. The company has also established relationships with companies such as AU Optronics Corporation, Chi Mei EL Corporation, DuPont Displays, Inc., Konica Minolta Technology Center, Inc., LG Display Co., Ltd., Samsung Mobile Display Co, Ltd., Seiko Epson Corporation, Sony Corporation, Showa Denko K.K., and Tohoku Pioneer Corporation. To learn more about Universal Display, please visit [www.universaldisplay.com](http://www.universaldisplay.com).

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