



## **Innovative LED lighting combines strengths**

### **SCHOTT and Lufthansa Technik create new ideas in aircraft cabin lighting with HelioJet**

*Las Vegas (USA)/Mainz (Germany), October 10th, 2011*

The trend toward LED illumination of aircraft cabins continues to grow stronger. At the NBAA trade fair, Lufthansa Technik and SCHOTT Lighting and Imaging will be presenting a joint development that combines the strengths of modern lighting technologies in a way that has never been seen before. HelioJet uses light diodes, glass elements and fiber optic know-how to illuminate cabins in a homogenous and energy-efficient manner.

HelioJet's slender glass rod emits light evenly and consistently, just like a fluorescent tube. Unlike the gas-filled light source, however, HelioJet relies on two LEDs that guide their light into the opposite face sides of the round rod. This technology uses fiber optic principles on how to conduct light and offers many advantages over the cabin lighting solutions often used in the past. For instance, the light impression is both homogeneous and brilliant, like a fluorescent tube. The light output is also quite comparable to existing technologies, but consumes considerably less power. On the other hand, the LED light sources have much longer life spans. In addition, HelioJet does not emit light in every direction, instead both the light and aperture angle can be adjusted precisely.

This approach also offers advantages over LED strips that consist of a large number of light diodes, a concept that is becoming more and more popular in modern aircraft cabins. These deliver a design that consists of individual points of light that cannot be hidden completely, not even by guiding light in an indirect manner by way of reflection. The LED light that HelioJet produces, on the other hand, mixes directly inside the glass rod to deliver extremely homogeneous light distribution with linear emission.

Visit Lufthansa Technik AG and SCHOTT AG at:  
NBAA 2011  
Las Vegas, USA  
October 10 – 12, 2011  
Hall C, Booth 9919

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Yet another characteristic of the LED technique can thus no longer be observed: LED light changes over time in terms of color shades and brightness, whereby each light diode ages differently. With the lighting mix of HelioJet, however, these differences remain every bit as hidden as the LED light sources. In addition, this new solution requires only one-tenth as many light diodes as the conventional LED solutions used in the past. This, too, has a positive impact on reliability, maintenance and costs.

“HelioJet thus combines the best traits of existing lighting technologies and offers many good reasons to be put to use in scheduled planes and business jets,” concludes Klaus Portmanns, Business Manager for Aviation at SCHOTT Lighting and Imaging. His division of the international technology company developed HelioJet together with Lufthansa Technik AG. A test installation has already been completed in an Airbus 319 and an initial close-to-production solution that features white LEDs will be on display at the NBAA (National Business Aviation Association) meeting, the world’s largest business jet exhibition, in Las Vegas. “Versions that feature colored LED light for use in mood lighting scenarios are also already in the works and are certain to offer additional advantages,” Klaus Portmanns promises.

HelioJet is the first product of the cooperation between SCHOTT AG and Lufthansa Technik AG. The two companies signed an agreement to cooperate more closely on developing and marketing advanced solutions for cabin lighting in passenger aircraft in August of 2011. Both companies belong to the newly formed “INAIRVATION” alliance, a cooperation consisting of five partners with various unique expertise in the area of developing innovative, design-oriented interior fittings and electronic solutions for aircraft cabins. “INAIRVATION” will be presenting HelioJet for the first time ever at the Lufthansa Technik booth at the NBAA.

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About **INAIRVATION**: Five leading companies have teamed up to design the next generation aircraft interior environments for top-level business jets, VVIP aircraft and first class airline cabins. The INAIRVATION alliance was founded by the Innovation Business Unit of Lufthansa Technik AG, LIST components & furniture GmbH, DesignQ, SCHOTT AG and Fischer + Entwicklungen GmbH & CO KG. The parties act under the common brand INAIRVATION, share their knowledge and assist each other in gaining access to new markets.

**SCHOTT Lighting and Imaging**, a Business Unit of the international technology company SCHOTT AG, has been active in the area of cabin illumination since the early 1990s. Today, its product portfolio includes general illumination, ambient scenario and seat illumination solutions. Especially the technological expertise in the field of optical fibers combined with LED based light sources gives SCHOTT a competitive edge. Additionally, SCHOTT is market leader for pure LED based Reading Lights, which fulfill not just technical requirements but also more design related expectations.

**SCHOTT** is an international technology group with more than 125 years of experience in the areas of specialty glasses and materials and advanced technologies. SCHOTT ranks number one in the world with many of its products. Its core markets are the household appliance, solar power, pharmaceuticals, electronics, optics, transportation and architecture industries. The company is strongly committed to contributing to its customers' success and making SCHOTT an important part of people's lives with high-quality products and intelligent solutions. SCHOTT is committed to managing its business in a sustainable manner and supporting its employees, society and the environment. The SCHOTT Group maintains close proximity to its customers with manufacturing and sales units in all major markets. Its workforce of around 17,500 employees generated worldwide sales of approximately 2.9 billion euros for the 2009/2010 fiscal year. SCHOTT AG, with its headquarters in Mainz (Germany) is owned by the Carl Zeiss Foundation.

**The Lufthansa Technik Group**, with more than 30 subsidiaries and about 26,000 employees worldwide, is one of the leading manufacturer-independent providers of services for the aviation industry. Lufthansa Technik is licensed internationally as a repair, production and development enterprise. The Group's portfolio encompasses the entire spectrum of services in the areas of maintenance, repair, overhaul, modification and conversion, engines and components.

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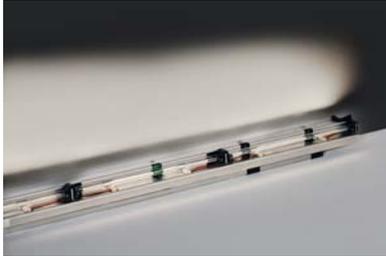


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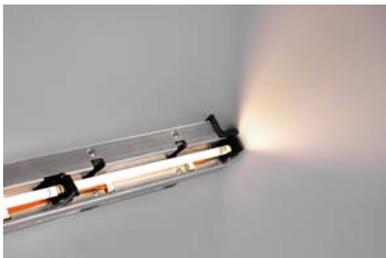


**Lufthansa Technik**

**SCHOTT**



Picture ID 132128: HelioJet: A joint development from Lufthansa Technik and SCHOTT sets a new standard for LED cabin lighting.  
Photo: SCHOTT



Picture ID 132129: HelioJet is a flexible, modular concept which uses all the advantages of fluorescent tubes and LED technology.  
Photo: SCHOTT

Download link to a ZIP file that contains this photograph in print quality:

<http://www.schott-pictures.net/presskit/130992.pi-160-2011-heliojet>

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