

# SCHOTT® HelioJet Spectrum<sup>CC</sup>

With Active Color Control to secure ultimate color fidelity in the entire cabin



Colorful and Homogeneous

## Application

- Aircraft Cabin Illumination
    - Functional light (white)
    - Moodlight (colored)
- More than 16 Mio. color shades

HelioJet Spectrum<sup>CC</sup>

## The Challenge: How to replace your fluorescent cabin lights with a smart LED solution?

Up until today LED lighting solutions have not been able to satisfactorily replace fluorescent tubes in aircraft cabins.

### Conventional LED strips show certain disadvantages:

- No homogeneous light pattern
- Change of light stability over time
- Mismatching color LEDs due to exposed temperature and aging pattern
- High maintenance efforts due to the large number of LEDs involved

## The Solution: HelioJet Spectrum<sup>CC</sup> with Active Color Control

HelioJet Spectrum<sup>CC</sup> is based on an optical light converter at the ends of which four LEDs in the colors red, green, blue and white (RGBW) generate light. **16 million different color shades are possible.**

Unlike conventional LED strips, HelioJet Spectrum<sup>CC</sup> technology allows for the individual LEDs in the lighting system to be controlled and regulated by an advanced sensor technology. **Every LED is permanently monitored and controlled to secure:**

- **Homogeneous light distribution** due to perfect light mix in the optical light converter
- **Light stability** due to the active color control sensor technology
- **Color stability** due to the active color control sensor technology

Due to relatively small number of LEDs involved and the possibility to exchange single segments HelioJet Spectrum<sup>CC</sup> is:

- **Maintenance friendly**
- **Ecologically friendly**

HelioJet Spectrum<sup>CC</sup> has been designed to work in any cabin management system based on RS-485 bus technology.



## Product Characteristics



- HelioJet Spectrum<sup>CC</sup> eliminates color shifts from aging LEDs by transforming light in the optical light converter into homogeneous light pattern.
- The meantime between failure (MTBF) is calculated at > 50.000 OH, which reduces the maintenance efforts substantially.
- It is designed for use in new aircraft as well as for retrofit projects. The modular production concept provides a high compatibility with different aircraft and operating systems.

### Technical Data (for length 928 mm unit)

<b>Weight</b>	450 g (lamp unit with cable and connector)
<b>Dimensions</b>	26 x 28 x 928 mm, length customizable
<b>Power</b>	Power consumption 28 W / lamp unit ext. Power supply for connection of two lamp units with integrated I/O module for connection with Cabin Management System 115 VAC, 360-900 Hz, 60 W
<b>Color temperature</b>	Tunable white, 2800 – 9000 K
<b>Color rendering index (CRI)</b>	> 85 (3500 K .. 4000 K) > 90 (> 4000 K)
<b>Light intensity</b>	1m distance > 300 lx
<b>Color gamut</b>	Sensor controlled RGBW-system fulfills major aircraft manufacturer specification for color gamut
<b>Light stability</b>	Color shift ≤ 3 SDCM Brightness shift < 1% over specified temperature range and lifetime
<b>Beam angle</b>	60°
<b>Communication</b>	Integrated in external Power Supply box with RS 485 bus for communication with Cabin Management Systems Individual LEDs addressable