

Improved spectral properties of the JUST daylight 6500 proIndustry D65 fluorescent lamp for color assessment in the manufacturing industry



Press Release

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Weilheim a.d. Teck: JUST Normlicht is presenting the new JUST daylight 6500 proIndustry D65 fluorescent lamp. It is the heart of all D65 devices from JUST Normlicht and has even better spectral properties than its predecessor. As a result, controlled, reproducible lighting conditions are possible for standard-compliant color matching of a wide variety of materials in accordance with international standards.

Generally applicable standards, such as ASTM D1729, DIN 6173-2 and ISO 3668, define the parameters to be complied with for visual color matching of different surfaces and materials. Standard-compliant color matching imposes demands both on the observer, and also on the viewing devices and lamps used. Reproducible and reliable color assessments thus require compliance with the specifications of the DIN and ISO standards regarding color temperature, chromaticity error, spectral energy distribution of the generated daylight, UV components, and metamerism indices.

Particularly amendments in ISO/DIS 3668:2014 regarding colorimetric values occasioned JUST Normlicht to develop a new fluorescent lamp that also complies with these stringent standards. For example, the amendment in the standard calls for adaptation of the D65 light to natural daylight by increasing the UV component, this permitting more reliable assessment of fluorescent substances and brighteners. The new JUST daylight 6500 proIndustry fluorescent lamp fully meets the specified values, and can be used for standardized color quality controls by test departments in a diverse range of industries, such as the automotive, textile and furniture sectors.

The JUST daylight 6500 proIndustry has a minimal chromaticity error of $0.003^\circ (x, y^{10^\circ})$, a high color rendering index (CRI) of $R_a \geq 98$ at a correlated color temperature (CCT) of 6500 Kelvin, and very good metamerism properties with a Quality Class to CIE 51.2 of BC or better. The new fluorescent lamp from JUST is available in three lengths with wattages of 18, 36 and 58 W, and is shipped with a test record confirming the quality of the light and compliance with the standards.

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Fig. 1:

The JUST daylight 6500 proIndustry fluorescent lamps with improved spectral properties