What is the viewing standard?

ISO 3664:2009

Viewing Conditions - for Graphic Technology and Photography

The standard is a technical document which is written with engineers and lighting design companies in mind. It is not a road map for users who wish to build or set up their own viewing area, rather it is a highly technical set of specifications which enables lighting manufacturers to design, test, and certify color viewing systems. The standard specifies a set of five conditions which ALL must be present in order to assure the benefits of the standard. The five conditions include:

Color Quality

- Chromaticity
- Color temperature
- Spectral power distribution

**Chromaticity**

The apparent color of a light source is specified by its chromaticity coordinates. The aimpoint and tolerance are specified in CIE color space. When two viewing systems are plotted, the closer the plot, the greater the visual agreement between the viewers’ color appearance.

**Color Temperature**

- 5000K

**Spectral Power Distribution**

The true "fingerprint" of a light source. The spectral power distribution is the key factor in how a light source renders colors. The closer a light source's spectral power distribution is to D65, the more consistent and accurate it is. CRI and CIE 1931 tests are used to assure that your light source closely approximates D65. New in 2009 is a tighter match in the UV region.

Light Intensity

- 2000 lux preferred (should be) tolerance +/- 250 lux
- 1270 cd/m² preferred (should be) tolerance +/- 160 cd/m²

Evenness

- 2000 lux intensity at all points on viewing surface

Surround

- 5%-10% luminance level 50 mm on all sides

Geometry

A system of elements designed to increase your bottom line.

WARNING: the graphic arts industry has PROVEN that consistent color appearance & effective color communication depend on YOUR lighting / viewing environment! Only by meeting all of the above elements will your viewing system provide maximum benefits.

Have more questions? Ask GTI, it’s our favorite subject.

gti graphic technology, inc.
845-562-7066 www.gtiart.com info@gtiart.com