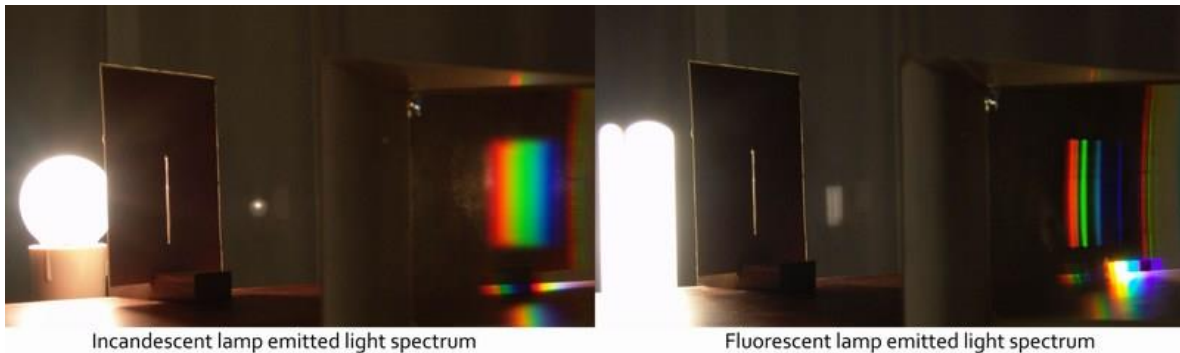


## Color Rendering Index (CRI)

Color Rendering Index (CRI) of a lamp tells us how rich colors look under the lamp. Two lamps may have the same Color Temperature but they can render colors differently. The Color Rendering Index of the lamp is determined with the emitted light spectrum.



CRI is the ability of a light source to reproduce the colors of various objects faithfully in comparison with an ideal or natural light source. A reference source, such as daylight, is defined as having a CRI of 100. The best possible faithfulness to a reference is specified by a CRI of 100, while the very poorest is specified by a CRI below 0.



If we compare different light sources the tri-phosphor warm-white fluorescent tubes can reach CRI 73. The best LED lights can reach a CRI up to 95. The color rendering index has been used to compare fluorescent and HID lamps for over 40 years, but the International Commission on Illumination (CIE) does not recommend its use with white LED lights. In fact, many RGB-based LED products have CRI 20, yet the light appears to render colors well. CIE is already developing new CRI measuring method which will be capable of comparing traditional light sources and LED light sources.