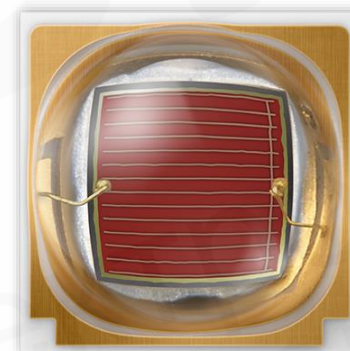
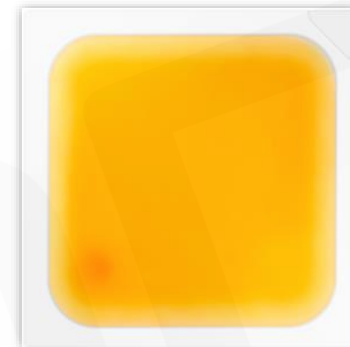


Samsung LED News

Human Centric Lighting

2021-09-29



First VDE Certification for HCL Lighting

Evaluation measurable of HCL certification by VDE:

- (1) light source power efficiency
- (2) Color Rendering Index
- (3) the package's Melanopic Daylight Efficiency Ratio (MDER)

Further information

<https://www.samsung.com/led/about-us/news-events/news/news-detail-63/>

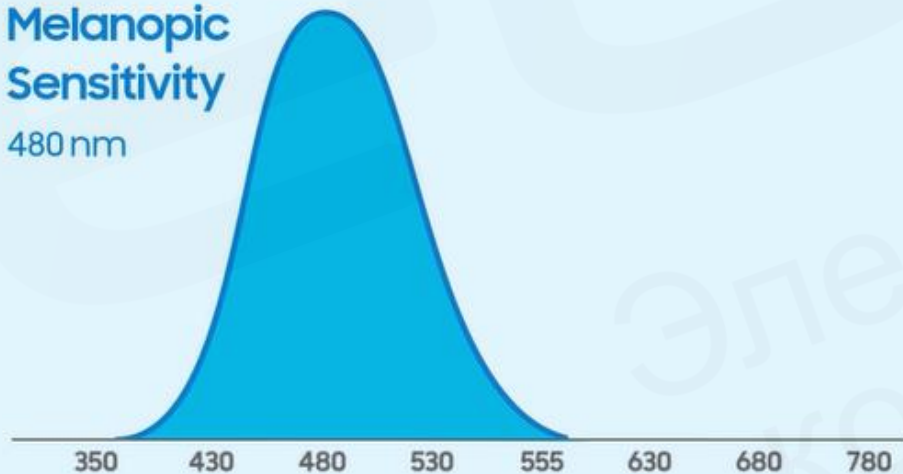




Since we spend most of our time indoors...

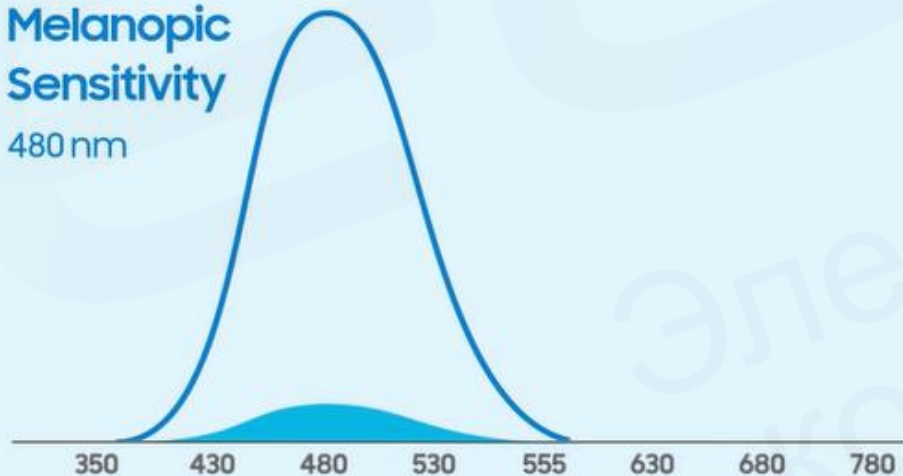
Indoor Lighting
needs to cover
for the sun's
**activation &
concentration**

Melanopic
Sensitivity
480 nm



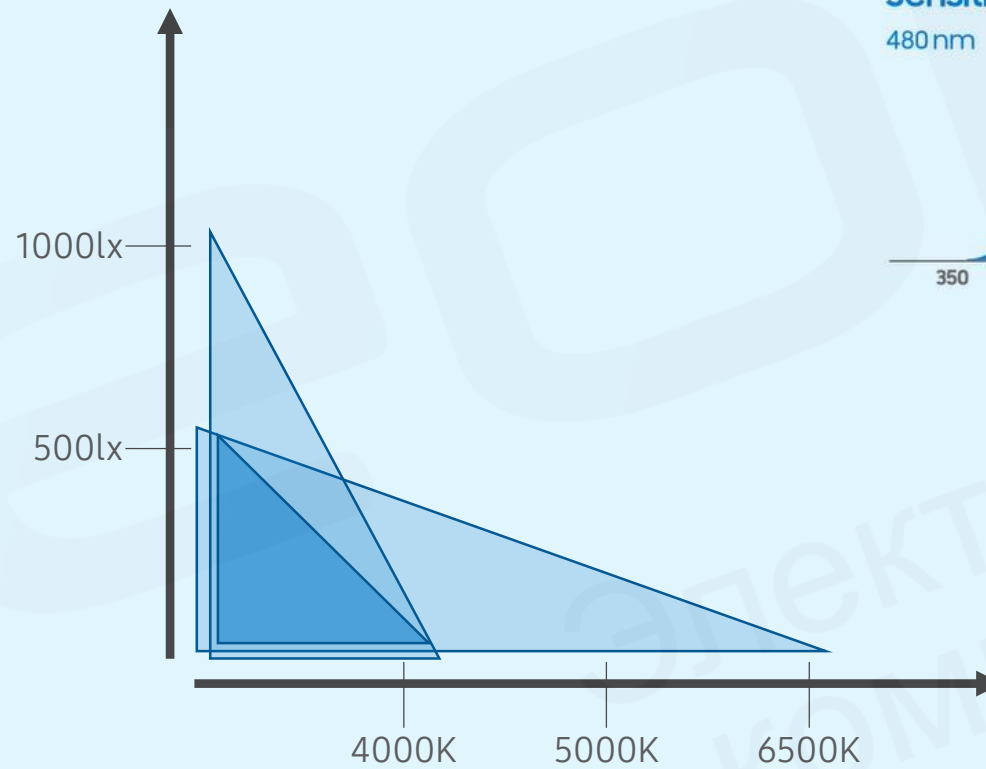
Indoor Lighting
needs to be
adapted for
**evening &
relaxation**

**Melanopic
Sensitivity**
480 nm

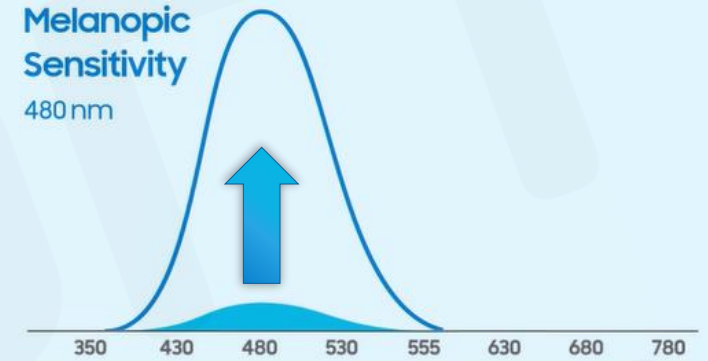


2-dimensional
control of the
biologically
active light with
brightness & CCT

Brightness

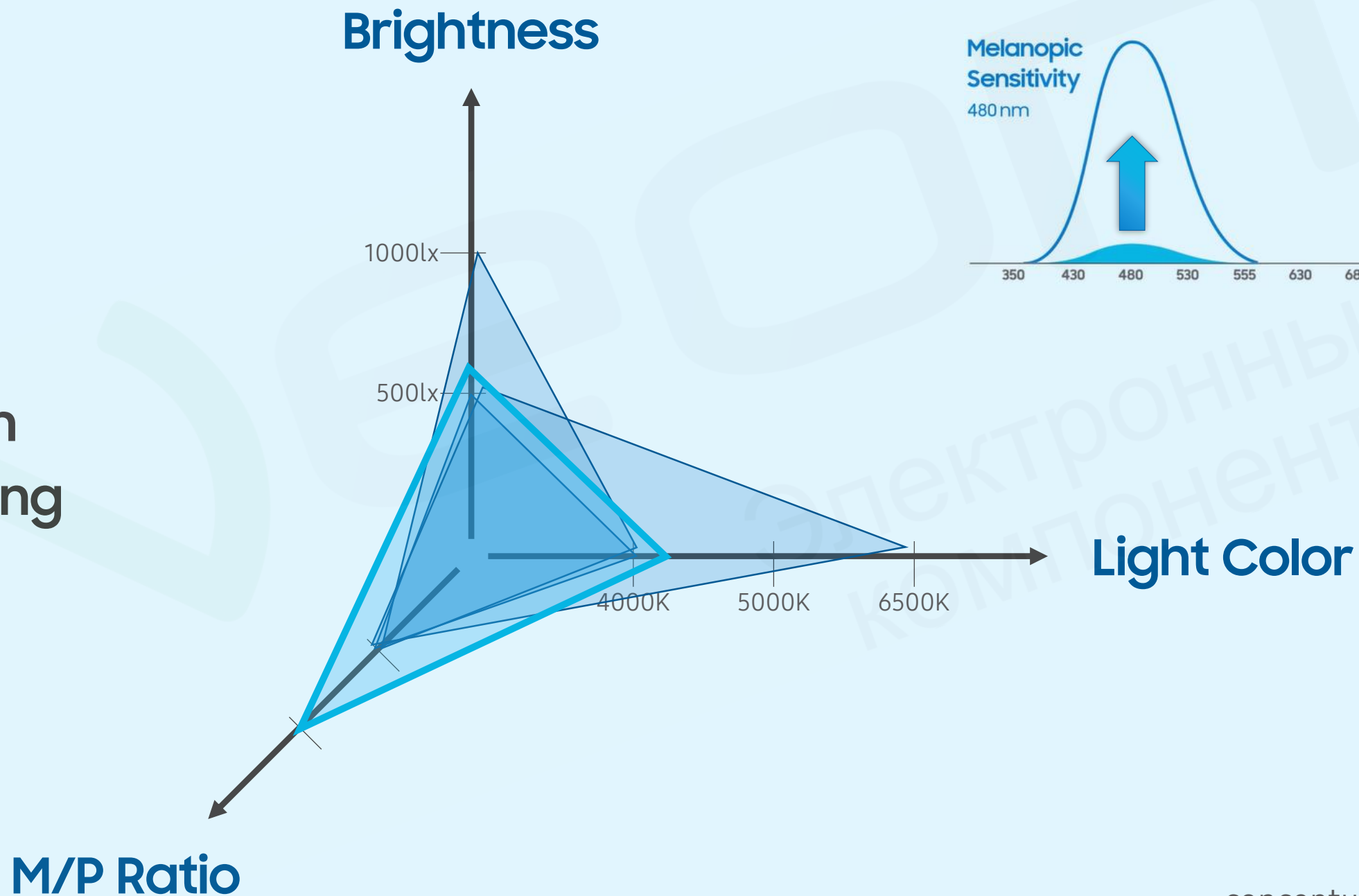


Melanopic
Sensitivity
480 nm



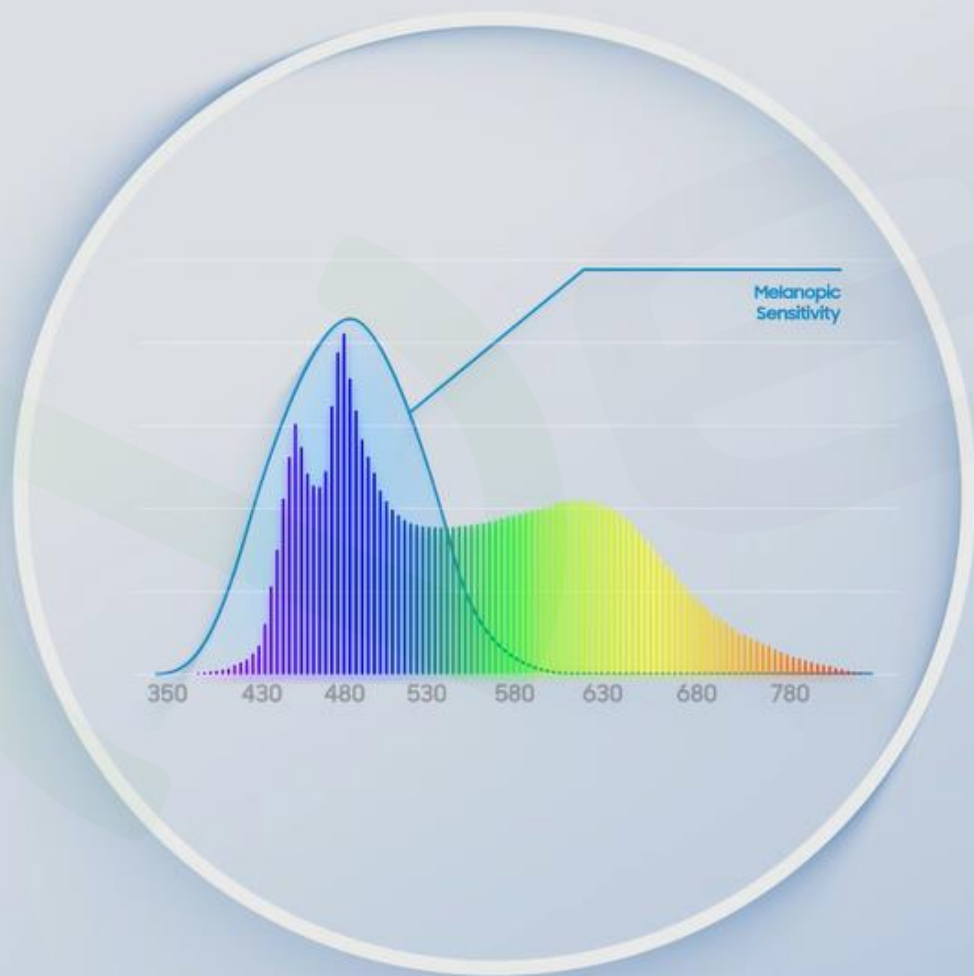
Light Color

Adding Spectrum Engineering

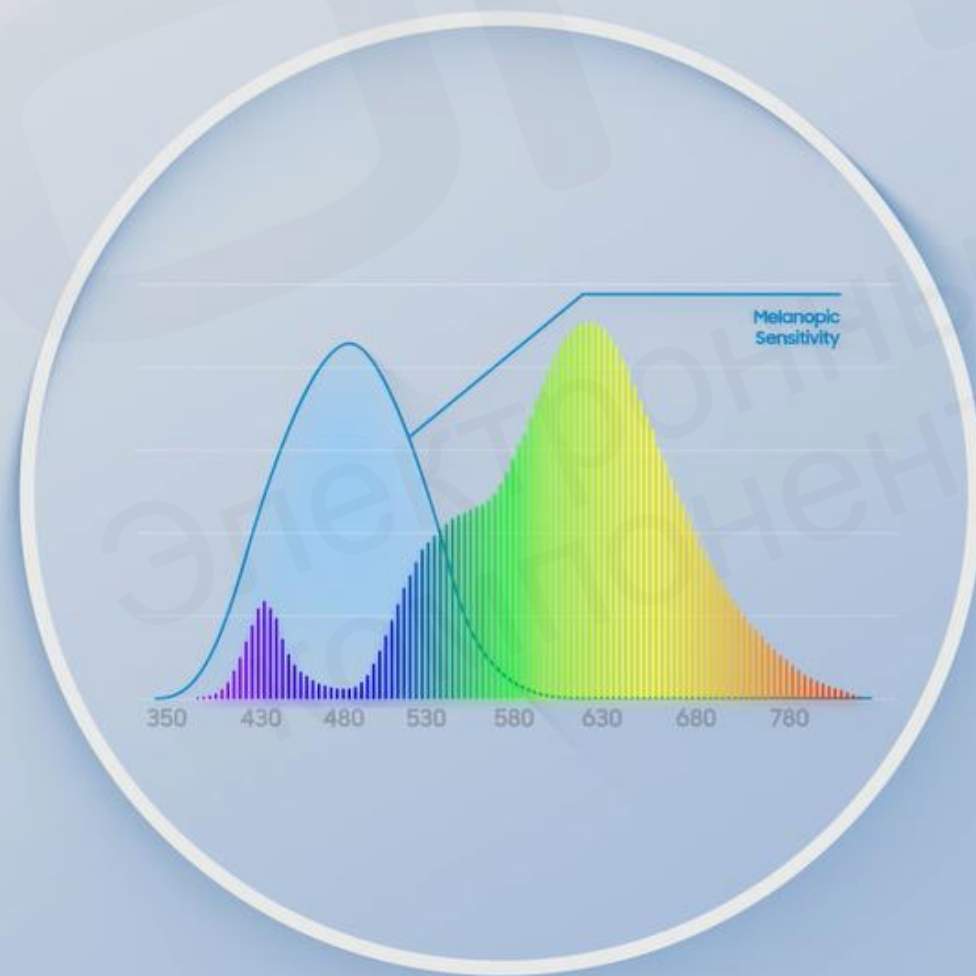


conceptual model

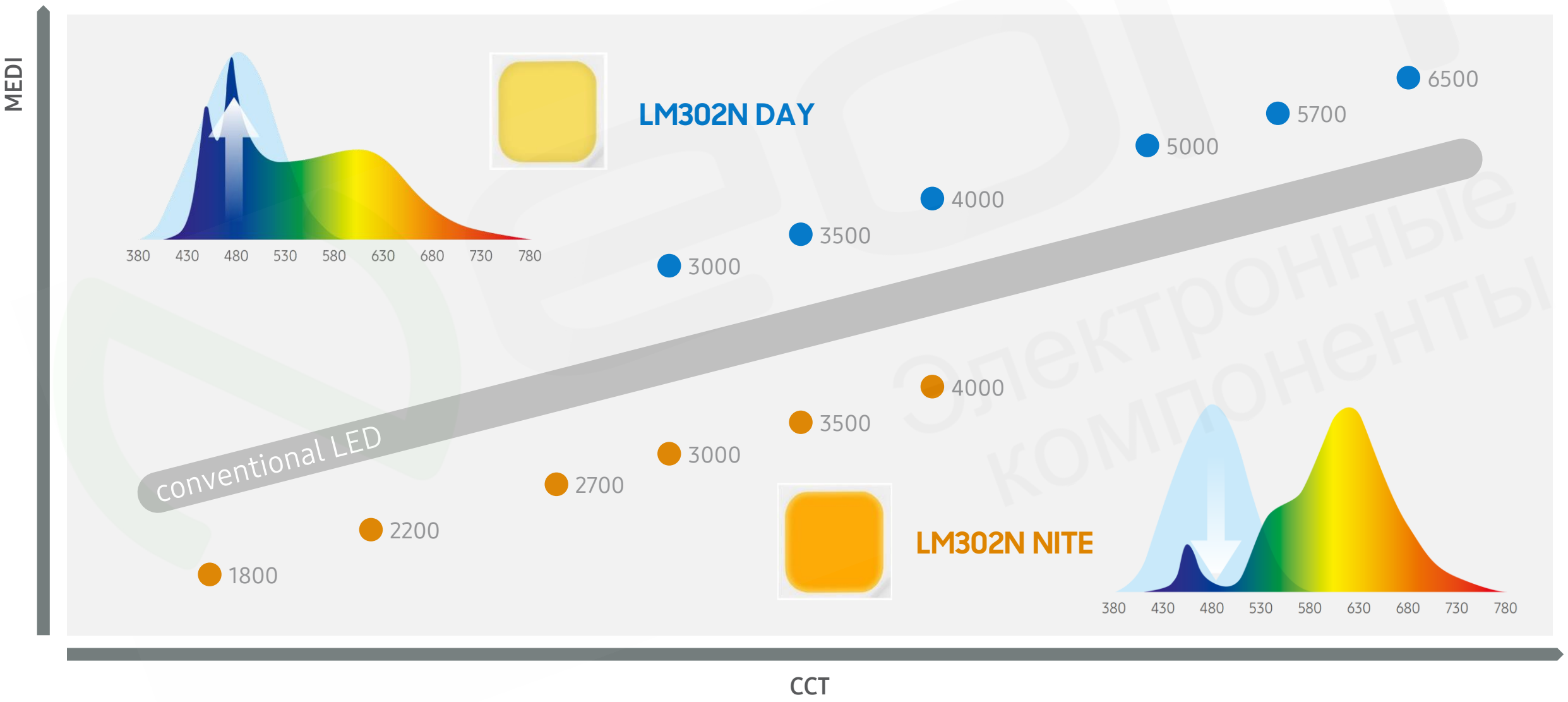
For the Energetic Moments



For the Relaxing Moments

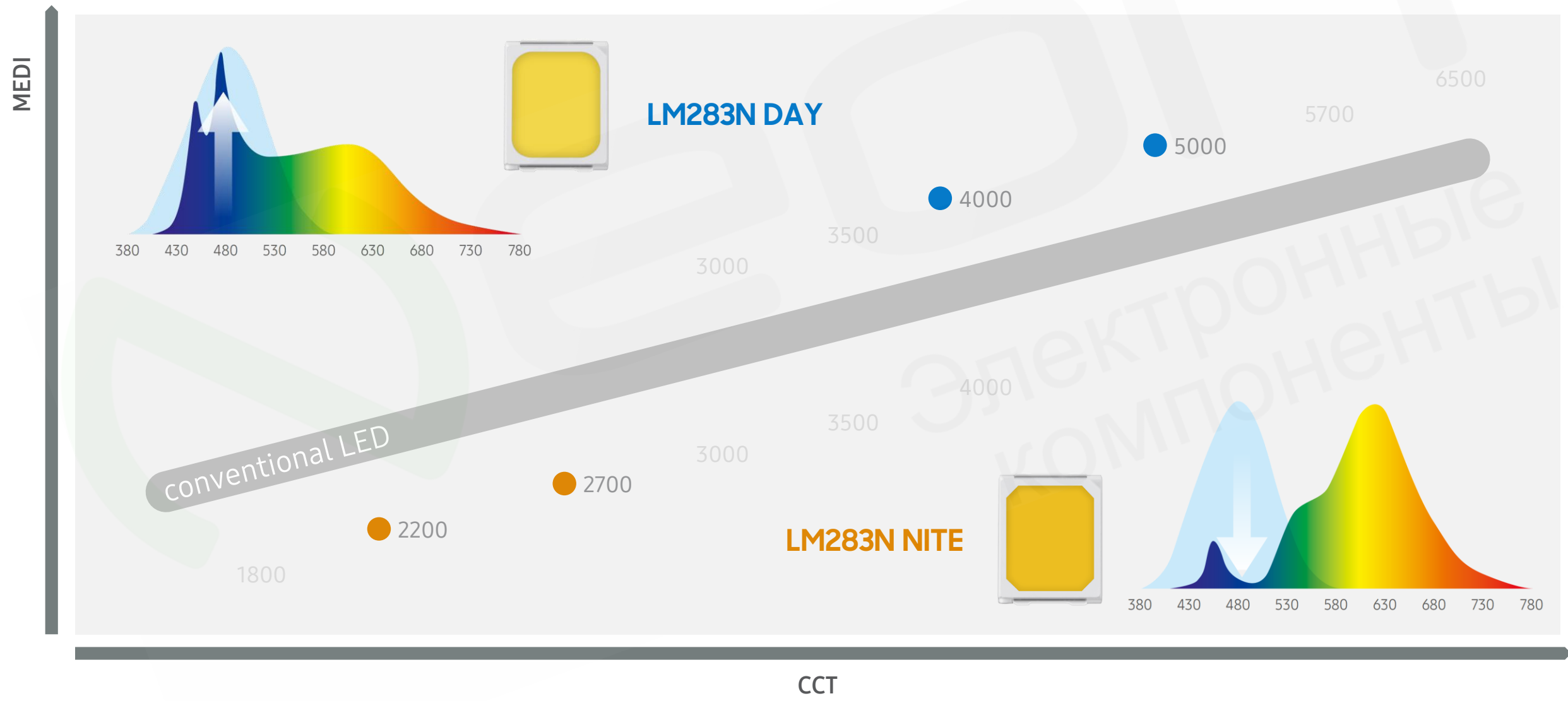


LM302N DAY & NITE



** MEDI (Melanopic Equivalent Daylight Illuminance)

LM302N DAY & NITE



** MEDI (Melanopic Equivalent Daylight Illuminance)