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## LIGHTING LABS

### DENTAL INDUSTRY'S SECRET ASSET

Dental laboratories place high demands on light quality. The LED luminaire TANE0 and the efficient TEVISIO magnifier are ideally suited for the needs of a dental laboratory workplace.

#### High light quality

The advanced reflection and light control technology produces a diffused, glare-free, even light, relieving the technician's eyes from strain and fatigue. Lenses can be customized with a choice of the clear prismatic lens or a more translucent style, according to preference.

#### Custom capabilities

Dimming capabilities with memory function allow the light intensity to be adapted to the visual task at hand. TANE0 also has a state-of-the-art arm system for user-friendly handling. It is easy to adjust, yet remains firmly in place. The most optimal setting can be locked if required.

#### High-quality LED technology

Compared with conventional fluorescents delivering the same light output, TANE0 consumes 30% less energy thanks to its technically advanced LED technology and intelligent thermal management. Moreover, the long service life of the LEDs ensures up to 50,000 or more hours of maintenance-free operation.

TANE0 ensures ideal viewing conditions for the laboratory delivering light output of up to 3600 lux and color temperature of 5000K. With a color rendering index of 90 using the translucent lens, colors can be measured and compared, showing contrasts and shading especially well.





TANEO offers a robust aluminum arm system designed for years of trouble-free versatility. The spring-balanced arm can be effortlessly adjusted into any position and offers complete rotation without exposed springs or hardware.

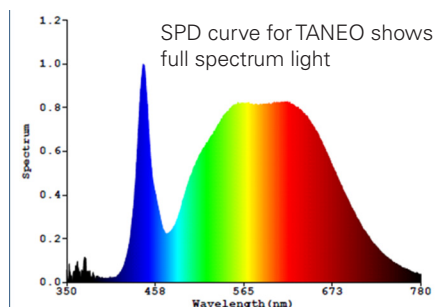
The flexible 3D head joint allows for complete freedom of movement with up to 90° rotation in any direction.

## Measuring Light

There are three key measurements to consider when choosing a task light for the dental environment: spectral power distribution (SPD), color temperature, and color rendering index (CRI).

### Spectral Power Distribution

When choosing a task light for the dental environment, ideally the light should mimic the entire range of visible wavelengths. To measure how well a luminaire does this, refer to a spectral power distribution (SPD) curve to show the precise color output of the source across the visible spectrum.



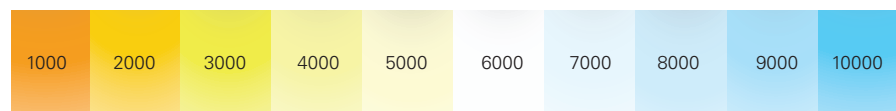
### Color Temperature

Color temperature is measured in kelvin units and reflects the “warmth” or “coolness” of a light source. When choosing a laboratory fixture the optimal color temperature is 5000K. If the color temperature is less than this, an orange/yellow cast (warm) will distort the true color. If the color temperature is beyond this range, the color will be distorted with a blue cast (cool).

### Color Rendering Index

The Color Rendering Index (CRI) measures light’s ability to present color “naturally,” including all frequencies of the color spectrum. The higher the CRI, the more accurately the light source is able to represent the object in its “true color.” A low CRI will indicate that the color is being distorted, lacking a full display of the color spectrum. A high color rendering index – at least 80 – is recommended for dental labs.

### Color Temperature Scale





## The right light *where* you need it, *when* you need it

Headaches? Vision fatigue? Tension? Poor lighting could be the reason why.

Light plays a major role in workplace ergonomics. Good lighting makes work easier and reduces eye strain.

When you see better, the results of your work are better too. As an added bonus, effective light will influence the general environment and contribute to a greater sense of well-being.

The importance of high quality light in the dental setting – spectral power distribution (SPD), color temperature, and color rendering index (CRI) – has been established. (See *Measuring Light* on previous page) But there are two areas for improvement that are often

overlooked when designing work spaces: *luminaire placement*, *multiple light sources* and *personal controls over lighting*.

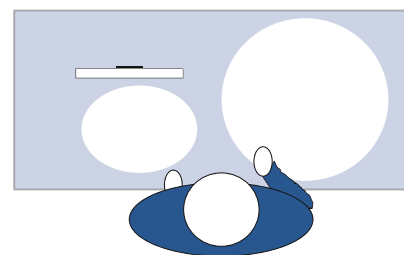
**Luminaire placement**  
Modern lighting solutions offer greater comfort by moving the light source down to the area requiring illumination *below the employee's line of sight*.

In the illustration (right), two light sources illuminate the area where the employee is working. The light is not coming from overhead down-lighting, a frequent cause of headaches and vision fatigue.

**Multiple light sources**  
Consider using multiple high-quality light sources to improve performance by creating contrast.

By using multiple light sources, direct and indirect glare as well as reflection is diminished. This means less eye strain for the employee plus improved perception of color recognition.

**Personal lighting controls**  
The ergonomic trend in lighting fixtures is meant to do more than just project light. Choose luminaires with adjustable arms, dimming capabilities, swivel mounts and even retractable suspension systems to customize work spaces and increase comfort and performance.





# TANEO LED Task Lighting

*Optimal lighting for the dental industry*



- Choice of length: 8.5", 15.5" or 22"
- 5000K color temperature
- Color Rendering Index (CRI) = 90
- 50,000 hours maintenance-free LED life
- Glare-free clear prismatic lens
- Spring-balanced arm or system-mounted versions
- Touch panel integrated in the luminaire head
- 100-240V, 50/60Hz
- ETL/cETL approved

# TEVISIO LED Magnifier

*Combine high efficiency with ergonomic design*



- 48 premium LEDs surround magnifier
- 4000K color temperature
- Color Rendering Index (CRI) = 90
- 50,000 hours maintenance-free LED life
- 3.5 diopter or 3.5 + 8d magnification
- 6-inch diameter wide-angle, scratch-proof glass lens
- Spring-balanced arm for easy adjustments
- 40% energy savings compared to fluorescents
- 100-240V, 50/60Hz
- ETL/cETL approved

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