

# THE INNOVATIVE LED LIGHTING SYSTEM WHICH ENHANCES THE VIEW RANGE IN DENTAL PRACTICE WORKING AREA.



**THEIA**TECH is the innovative LED lighting system which enhances the view range of the pre-operative area, through a lighting balance inside the dental practice in order to **reduce the doctor's visual stress**.

The **operative area** illuminance is included between 15.000 and 50.000 LUX, while the surrounding areas (**pre-operative area and circulation area**) are characterized by a softer lighting (500 LUX).

The continuous passage between different levels of illuminance forces the doctor to **a constant focusing** which implies recurring contractions and dilations of the iris. This **eye-strain** is harmful for the doctor's health and can compromise the success of his work.



The contraction phase of iris, when exposed to a strong light



The dilation phase of iris in case of exposure to low intensity light

**THEIA**TECH was studied and designed by FARO S.p.A. to create an **illuminated range of transition where the instruments are usually placed,** in order to allow the doctor to perform accurate operations, inspect the pre-operative area and interact with the staff **in complete confort.** 







Area 1 - operative area

Maximun level of Illuminance higher than 15.000 LUX (ISO 9680) variable to 50.000 LUX, depending on the treatment.

### Area 2 - pre-operative area

Maximun level of Illuminance of 1.500 LUX variable according to the level of Area 1.

**Area 3 - circulation area** Ambient lighting level of 500 LUX (EN 12464-1).



## A GOOD CONDITION OF LIGHT IS IMPORTANT FOR THE DOCTOR'S HEALTH.

Dental practice lighting is crucial for both the success of the work and the health and safety of the staff who require a better view and an adequate visual comfort.

According to some studies, 30% of the dentists are affected within the age of 30 by early deterioration of the eyesight, mainly caused by visual stress. To relieve this fatigue, the only viable solution lies in increasing the illumination of the working area in order to make the visual passage from the oral cavity to the surrounding areas much more gradual.









Integrated into the rear arm of ALYA dental light, **THEIA**TECH was created to work in synergy with the operative light: the illuminance level of the arm is synchronized with the head light in order to ensure a uniform illumination over the whole working area.

**THEIA**TECH light source consists of 54 LEDs which, through a dedicated diffuser, distribute a cone of light that spreads into the surrounding environment, preventing the glare created by the sudden change of light.

# TECHNICAL SPECIFICATIONS

GENERAL SPECIFICATIONS*	
Power Supply (without power supply unit)	24 Vac +/- 10%
Power consumption	40 VA
Light source	54 LEDs
Lux	from 800 to 1.500 LUX (at 500 mm distance)
Colour temperature	5,000 K

\*(The technical data specified refer to typical values subject to tolerance)



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