



Chroma Zona

Evidence-based Ergonomic Lighting at the Surgical Unit, Värnamo Hospital, Sweden

A big part of the work environment

When the opportunity came to build a new surgical unit at Värnamo Hospital, the department traveled around Sweden to find inspiration of a modernized unit. By looking at other hospitals, the discovery turned out to be that the future lies in Ergonomic Lighting.



The surgical unit at Värnamo Hospital practices surgery, laparoscopy, orthopedics, urology, gynecology, plastic surgery and cholecystectomy. The unit has 10 operation theaters, all using Ergonomic Lighting. “If you are building a new surgical unit, I think that you should consider implementing Ergonomic Lighting because it is a big part of the work environment”, says Magnus Trofast, Operations Manager.

“If you are building a new operating department, I think it’s important to consider incorporating ergonomic lighting as it is a significant aspect of the working environment.”

Magnus Trofast, Operations Manager

Work environment

“It feels like they care about us working here”, says Ida Höglund, Surgeon.

At hospitals using Ergonomic Lighting, there is a documented effect on well-being and energy levels. A better working climate is positive for the image of the hospital and in the recruitment of new staff. “I think that

all operation theatres should have this Ergonomic Lighting, to have a better work environment for the employees”, says Anna Skoogh.

Improved screen image

Ergonomic Lighting increases the quality of the screen image and improves the visual capabilities of the operators.

Green light behind the screen enhances image quality, minimizes reflections, and reduces eye strain. The red color brings out contrasts and contours in greyscale while decreasing reflection.

By bettering the visual capabilities there is a positive increase in eye-blink rate which helps to spread the tear to all parts of the eye to keep it moist.

It reduces fatigue, dry eyes, headache and tension. The improved workflow increases safety, quality and concentration during surgery or procedure. “The better light we have, the better we can perform”, states Mimmi Peralta, Surgeon.

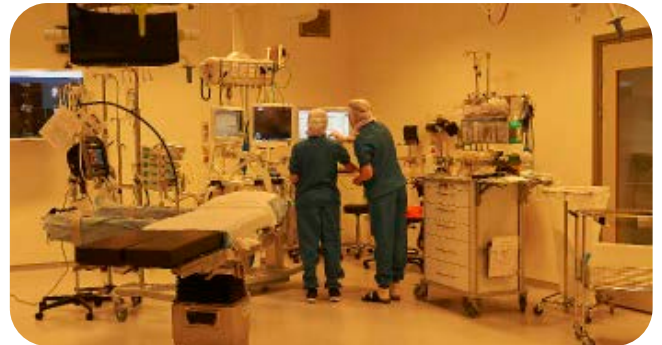
How does Chroma Zona work?

Ergonomic lighting creates optimal lighting to before-during-after the procedure in the operation theatre.

- Before the procedure, warm light is used to calm the patient
- During the procedure, a zoned colored light is used with the complementary colors red and green.
- During open surgery, powerful white light is used to decrease glare.
- After procedure daylight is used for cleaning and to give energy.

The future is ergonomic lighting. When we had the chance and were given the opportunity, we wanted the best solution.

Magnus Trofast, Operations Manager



Open surgery

During open surgery, a clean and powerful white lighting is used to complement the operation lamp. It establishes a comfortable light environment and minimizes glare, which creates better conditions for the staff during surgery. The function is based on an extensive PhD study that documents the effect.

Simple usage

The light is controlled through a user-developed service device. The module uses simple icons which secures an easy use. The solution includes a smooth integration between different systems and screens.



Benefits of Chroma Zona

Chroma Zona ergonomic lighting is a zone-divided, colored lighting solution for operating and examination rooms.

The lighting solution consists of the effective combination of green and red light, which provides documented results in terms of the working environment, procedure quality, and patient safety

- Evidence-based effect in minimizing reflections and glare on screens and optimizing screen quality
- Less strain on the eyes and reduced tension
- Reduced fatigue and increased concentration
- Zone-divided lighting provides the right illumination for everyone simultaneously
- High user satisfaction and user-friendly interface
- Option for daylight simulation between procedures

About Chromaviso

Chromaviso is changing the standards of lighting to improve health, treatment quality, care, work environment, and efficiency within the healthcare sector. Through technological innovation and close collaboration with healthcare professionals, we create and apply integrated and highly preferred lighting solutions with proven effectiveness.

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