

# Chroma Zenit Circadian Lighting

The Maternity Ward, Ringerike Hospital  
Hønefoss, Norway



# Ringerike Hospital improves births with stimulation- and circadian lighting

At Ringerike Hospital in Hønefoss, Norway, the newly renovated maternity ward was completed in June 2021 after four years of construction. During the renovation, the department installed Chroma Zenit Circadian Lighting from Chromaviso, which has shown remarkable effects on staff, birth-givers, and relatives.

After installing stimulation- and circadian lighting at the maternity ward, the well-being of staff, birth-givers, and their relatives has increased. Mette Nordbø, a midwife at the maternity ward, emphasizes that the environment surrounding births plays an important role.

“As a midwife, you are concerned with creating a good atmosphere for the best possible experience.” According to Mette Nordbø, the ‘cozy light’ is one of the new lighting settings that contributes to a good atmosphere.

*“The ‘cozy light’ is often used. The yellow light creates a calm atmosphere when people arrive in the delivery room with the result of reducing stress”*

Mette Nordbø, head of department  
at Ringerike Hospital

She elaborates that the first impression of the delivery room is essential since it indicates what is about to happen. Different details and room elements create a

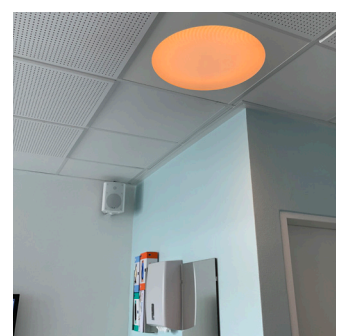
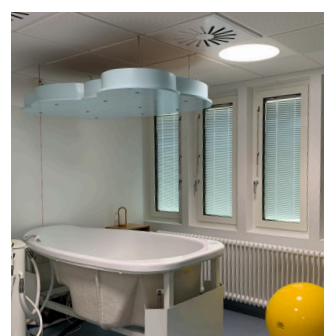
particular atmosphere, and too much visual noise can be stressful and worrying. That is why the right lighting is vital for the complete experience.

## Working in a comfortable lighting environment

The staff is very happy with the circadian lighting. According to Mette Nordbø, they express that it’s “comfortable to work in and that it improves the working conditions.” The staff also highlights the importance of having lighting settings adapted for different situations, including emergencies.

Mette Nordbø explains that the staff used to apply the operation lamp for indirect lighting, but some people associate this with operations and surgical procedures. In such situations, the circadian lighting works better while continuously providing good working light.

The rosa-colored soothing light is also being used a lot during births. The staff experience that it creates a good and relaxing atmosphere, which is essential to provide the best birth-giving conditions.



### User-friendly design:

The solution is controlled through intuitive operation and can easily be used by both staff and parents.

### Circadian Lighting:

Automatically controlled lighting changes during the day and follows the natural outside light. The circadian lighting supports different use- and birth-giving situations while also having a blue-free night light.

### Soothing light:

Rosa-colored light. It calms parents and children and has a psychological and muscle-relaxing effect. Rosa-colored light is also what children perceive in the amniotic sac of their mothers.

### Activity light:

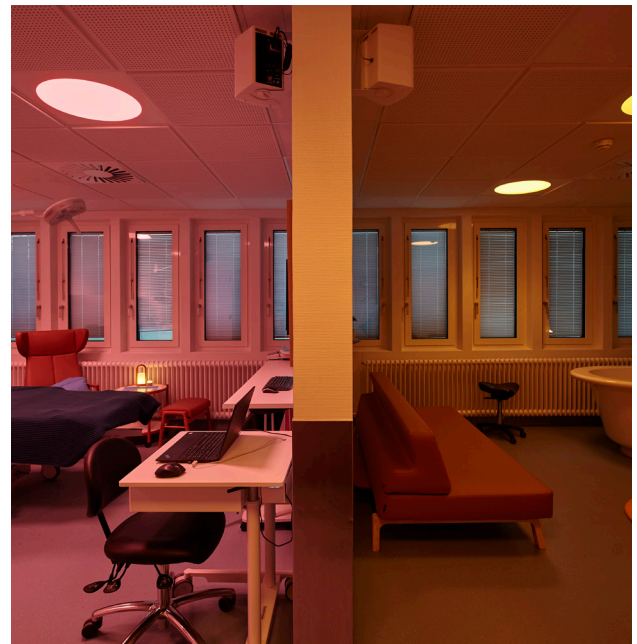
White light. It is used to perform different kinds of work tasks or activities.

### Cozy light:

Warm and amber light. It provides calmness and comfort to parents and children.

### Emergency light:

Intense white light. It is used for emergencies or situations where better visual conditions are needed.



### The user survey indicates great satisfaction

In September 2021, Chromaviso made a user survey in collaboration with the staff of Ringerike Hospital about the circadian lighting. The questions were based on the staff's experiences with circadian lighting and the reactions of birth-givers and relatives. Among respondents were midwives, doctors, and nurses.

The survey showed great satisfaction with the circadian lighting. The different lighting settings are used in different phases of the birth and as an active tool to create a good atmosphere. At the same time, the staff also experiences that the control panels are user-friendly and easy to operate. Furthermore, circadian lighting also positively affects the staff's energy level, sleep, and mood while reducing headaches.



# User survey at the maternity ward on Ringerike Hospital, September 2021



## The staff experiences



72% more calmness

72% Increased well-being

71% less tiredness

71% better mood/less depressed

71% less visual fatigue

71% less exhaustion and fatigue

71% more energy

57% less stress

## Circadian lighting supports different phases of the birth



100% use the **emergency light in case of complications**



78% use the **soothing light at arrival**



62% use the **cozy light in the contraction phase**

## The light settings are actively used every day

88% think it's essential with different **light settings adapted for different situations**

78% of birth **gives/relatives have positively mentioned the light**

63% experience that it's **comfortable to stay in an environment with circadian lighting**

Creates calmness and a good atmosphere

Offers a better overview if needed

Comfortable work environment and nice to regulate the light to specific phases of the birth.

Creates a good atmosphere in the delivery room. Calming/relaxing. Gives a good light when needed, e.g in emergency situations