

## Light Atmosphere in Hospital Wards

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Sociocultural aspects of light are important for the user experience of the atmosphere in a ward. According to the Danish Regulation for light in hospitals (DS703, 1983), a home-like feeling is required to support the patients, as they need a pleasant environment for their recovery. The term 'Light Atmosphere' is explored using methods in the practice of lighting design where qualitative and quantitative methods are used to qualify important aspects of a lighting design. Measurable parameters such as the amount of Lux, composition of CRI and degree of Kelvin is well described so the designer can handle the requirements. What does it mean to create a 'home-like' and 'pleasant or appealing' light in this context? Does the composition of CRI and degree of Kelvin tell it all? Is it enough information to provide a proper illumination in which the patient can have a homely and pleasant experience? The 'Model of Light Atmosphere' is the focal point developed through the study. Primarily, the model frames the study and serves as a design tool for creating the light atmosphere in hospital wards. First, brainstorming is used to open up the field supported by theoretical aspects based on Gernot Böhmes' concept of atmosphere, and visual studies of atmosphere are generated. Explorative studies investigate unknown or tacit knowledge on how light is used in a Danish context. An observation of the atmosphere in a ward is presented followed by a study of lighting preferences in Danish homes and lighting trends analyzed by using images from the Danish interior design magazine BO BEDRE. The findings show that the placement of light atmosphere in Denmark are determined as three horizontal light zones: 'High Lighting Zone', 'Center Lighting Zone' and 'Low Lighting Zone'. An experimental study evaluates the experience of the atmosphere in a ward in a comparative study using traditional lighting application and design based on horizontal tripartition.

The conclusion is a commendation to considerations including the knowledge of emotional and sensory qualities of light in lighting design and a recommendation of more research on the cultural aspects of light.

**Keywords:** lightning design, atmosphere, sensory design, socio-cultural

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