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STAGES OF DEVELOPMENT OF SPECIAL LIGHTING TECHNOLOGIES

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Annotation
This article deals with lighting, improving the visual sensitivity of objects or ensuring that they are exposed to light-sensitive materials, choosing the right lighting in the construction of houses, providing adequate lighting in individual rooms, and other types of lighting.

Keywords: lighting, objects, appearance, sensitive materials, construction, rooms, decorative.

Introduction

Lighting is the act of creating a certain amount of light to improve the visual sensitivity of objects or to allow them to be exposed to light-sensitive materials. There are natural, artificial and mixed types of lighting. Natural lighting is the most comfortable for humans and is created by the sun, skylights, atmospheric electric discharges, and more. In order to provide adequate lighting in houses and individual rooms, their walls and partitions are made of light-transmitting materials, and holes are made in the roofs of windows. It is better to choose the right lighting when building houses. Artificial lighting is usually created with the help of lighting fixtures, lighting fixtures. It is available in general, local (workplace lighting) and mixed, work (for daily use) and emergency (used when work lighting is off). Artificial lighting is used to illuminate residential areas, highways, streets, squares, etc. Natural lighting and artificial lighting of rooms are carried out in accordance with building codes and regulations.

Gradually, manufacturers have moved from the basic capabilities of automatic control of working lighting technology methods to more complex tasks. The next step was to adjust the brightness and color of the lamp to suit the current operating conditions of the device. For example, when the TV is on, the light intensity decreases - again without user intervention. Samsung recently unveiled a "smart" lighting system that allows it to control the internet. This means that the homeowner can do the ventilation work directly in the workplace, at a distance.

The direction represents the shape, quality and uniformity of the lamp. The light pattern created by the instrument is mainly determined by three factors. The

distinctive features of the former are the lamp, the reflector, and the objective assembly. Different mounting positions for the lamp (axial, base up, base down), different sizes and reflector shapes, and the nature of the lenses (or lenses) used can affect the pattern of the light. Second, how the lamp is oriented affects its pattern. In the year there are ellipsoidal reflector lamps (ERS) or profile lamps, two beams emitted from a lamp. When the cones of the two cross the shooting distance (distance to the stage), the lamp has a sharply defined “hard” edge. If the two cones do not intersect at this distance, the edge will be blurry and “soft”. Depending on which light (direct or reflected) is outside the other, the pattern can be “thin and soft” or “thick and soft”. Finally, the gobo or fragmentation scheme can be applied to ERS and similar tools. It is usually a thin layer of metal that has been cut into shape. It is inserted into the instrument near the diaphragm. Gobos or stencils come in a variety of shapes, but often include leaves, waves, stars, and similar patterns.

A lighting designer (LD) is well versed in different types of lighting fixtures and how to use them. In consultation with the Director, the DSM (Deputy Stage Manager) and the landscape designer, after observing the exercise, LD will compile the instrument table and lighting plot, as well as each DSM

The LX (lighting) symbol is intended to be displayed in the script, which the DSM records in their plots. The table lists all the necessary lighting equipment, including colored gel, gobos, color wheels, barndoors and other accessories. The lighting plot is usually marked with a plan view of each lighting fixture in the theater where the play is performed. It is usually the dimming system or lighting control that determines the direction and direction of the lighting, the reference number, the accessories and the channel number.

The lighting designer must meet the requirements set by the director or general planner. Practical experience is required to know the effective use of different lighting fixtures and when creating a color design. Many designers start their careers as lighting professionals. Often, after that, a professional college or university offers theater courses. In larger venues and industries, many jobs are required at the level of vocational school or college theater lighting, or at least at the undergraduate level.

Types and functions of lighting are different. Traditional devices are used in the organization of general lighting. This is usually the most common choice of light used for personal needs. The main difference of such a system is to provide a room with lighting sources that completely cover the entire living or workplace. One type of device is often used to solve this problem.

Local lighting In this case, lighting equipment is usually used to service the workers. These can be, for example, functional areas where production equipment operators work. The peculiarity of this approach to lighting is that the whole room is covered not with light, but only with a certain part. In a sense, such configurations are similar to point lighting.

Combined systems Depending on the performance of the room, a combined lighting system may be needed. This means the realization of two concepts here - general and local light. High basic lighting is possible for beginners. However, scattered optical visibility may not be sufficient. In such cases, spot or directional lighting systems can be used in addition to highlight one or more corners of the room.

Unlike street lighting in terms of lighting, there are street lights. With the help of such equipment, complex systems are created to service special plots, public places, stadiums, highways, parks and other facilities. However, there are different technical approaches in performing such tasks. For example, street lighting designed for a residential area may include the use of lights, lamps, lights, and other fixtures. Source installation approaches deserve special attention. Typically, lamps are mounted on supported structures. There may be cables, sensors, poles equipped with cables and wires.

Features of decorative lighting Manufacturers of lighting fixtures strive to combine the functional features of fixtures with quality in design. Although there are exceptions to similar combinations with production equipment, this is not necessary. Decorative lighting is commonly used in the placement of dwellings and houses. The main condition in such projects is the inclusion of internal means in the internal structure. Thus, there is a significant design impact by LED lighting systems connected to LED ceilings. Typically, these weapons are point devices hidden in a place on the lower ceiling. When in use, they emphasize the prestige of the room and provide a pleasant and bright light. On the other hand, floor lamps, lanterns and lights have not lost their importance, they are aesthetically expressed in the performance of buildings.

Types of technical lighting The aesthetic and decorative functions of this light in general have become a fan and a practical goal. The most common type of this type of system is lighting work. Special luminaires are used to illuminate workplaces, as well as for ceiling structures for general protection of buildings. Technical lighting systems may have an additional functional load. In particular, emergency light sources have been set aside to continue the production process in the event of a planned power outage. Often such systems are included in general management alarm systems. In addition, safety light sources are distributed - they are also distributed in the area adjacent to the building and structure.

Production Lighting Requirements Each light source uses its own standard, which is regulated by occupational safety standards. For example, for gas discharge lamps, higher normative indicators of lighting are used compared to traditional incandescent lamps. The result is explained by the large light output. In addition, when implementing a combined scheme, the share of total illumination should not be less than 10% of the illuminated value. In addition, the performance of the landscaping effect is not low. The regulation of this standard takes into account the duration of operation and the level of operation in terms of visibility. Normative values may vary

depending on the time of day and other conditions of the work process. A lighting control system is used to adjust the parameters, allowing the device to be adjusted for a specific operating mode.

The advantages of natural light also contribute to the emergence of new developments in this direction. These systems are usually created during the construction and decoration phase. In particular, specialized companies offer to equip holes with semi-transparent barriers that allow to reduce the risk of radiation exposure and manage heat loss. In areas with hot climates, lighting systems based on glass walls are also prevalent. True, there is no question of the complete elimination of artificial systems. Usually they are combined with natural light.

Most locations require the installation of another metal safety cable or chain or other wired base anchors between the armature and its truss. Some larger devices may weigh more than 100 pounds (45 kg) and be suspended much higher than the performers 'heads, and if they are accidentally dropped or improperly attached, serious injury or o can lead to 'lim. If it fails, the cable will stop the armature from collapsing before it is severely damaged or damaged. In many places there are strict guidelines for the use of safety cables.

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