

FURTHER INFORMATION

- DGUV (German Statutory Accident Insurance) Information 215-210 "Natural and Artificial Lighting of Workplaces" will be published soon and will, in particular, help small and medium-sized enterprises to effectively put into practice occupational health and safety requirements for the lighting of workplaces.
- DGUV (German Statutory Accident Insurance) Information 215-410 "Screen and Office Workplaces - Guidelines for the Design"
- DGUV (German Statutory Accident Insurance) Information 215-444 "Sun Protection in the Office - Helps for the Selection of suitable Glare and Heat Protection Devices at Screen and Office Workplaces"
- DGUV (German Statutory Accident Insurance) Information 215-442 "Lighting in Office Aids for the Planning of Artificial Lighting in Offices"
- DGUV (German Statutory Accident Insurance) Information 215-211 "Daylight at the workplace improves performance and health"
- Federal Institute for Occupational Safety and Health "Safe Use of LED Tube Lamps"
- Central Association for Electrical Engineering and Electronics e. V. "LED lamps as a replacement for fluorescent lamps" (03/2014)
- "Planning Security in LED Lighting (guideline)" 2nd edition (11/2015)



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HOFFMEIER

SGU - Action Plan 2017



More light, more sight, more safety. Lighting at workplaces

Focus:

"The right light at the right time has a high impact on the safety, health, and well-being of employees"

The quality of lighting is determined by the lighting quality characteristics:

- Amount of daylight
- Lighting level
- Luminance distribution
- Limiting of glare and prevention of disturbing reflections
- Direction of light, shadiness and body rendering
- Color of light and color reproduction
- Flickering

Work area and surrounding area

The minimum requirements for the lighting of workplaces are listed in the Technical Rule for Workplaces ASR A3.4 "Lighting". The requirements apply to workplaces, workspaces and activities. When setting up and operating workplaces, the minimum illuminance values of the ASR A3.4 must be complied with.

The lighting can be performed as a space-related, related to the area of the workplace or required for a specific lighting of a part of an area.



Planning

Lighting systems should be planned by a qualified person. As part of the planning, errors such as an unfavorable positioning of the lights on machines, construction sites, at workplaces or obstruction by fixtures, machine parts, etc. can be identified and corrected at an early stage. The timely assessment of the situation on site offers the possibility to consider the actual operating conditions, which have an influence on the quality of the lighting, in advance.

In order to limit the glare, it is advisable to comply with the UGR limits (assessment of the psychological glare), as laid down in the EN 12464-1 "Light and Lighting - Lighting of Workplaces - Part 1: Workplaces."

Maintenance and repair

As part of the planning, a maintenance factor must be defined, resulting in a detailed maintenance plan. Lighting systems are constantly subject to changes in lighting parameters, dirty or may be damaged. In order not to jeopardize the safety and health of the employees, they must be checked and, if necessary, repaired. Defective lamps should only be replaced with the same characteristics (light color, color reproduction and lamp power). In most cases, a group replacement of the lamps is recommended.

Attention:

The replacement of fluorescent lamps and other lamp types by LED lamps significantly changes the characteristics of the lighting systems. It could be that the operational safety is no longer given and the lighting conditions are changing to the detriment of the employees. Malaise and discomfort can be the result. Compliance with the requirements of the ASR A3.4 must be checked.

Inspection:

Lighting systems should be checked on a regular basis to see whether they still meet the

requirements of the ASR A3.4. Since this inspection requires consideration of various factors as well as experience, it should be carried out by qualified persons. These persons should at least have the knowledge and experience required in the DGUV (German Statutory Accident Insurance) Principle 315-201 "Requirements for the Training of Skilled Persons for the Inspection and Evaluation of Lighting of Workplaces."