



PROVIDING LIGHT IS MORE PLEASANT THAN USING POWER

LED lighting for elevator cars lowers energy costs by up to 75%, provides a great many practical advantages and is perceived by passengers as very pleasant.

Pleasant lighting atmosphere

When using an elevator from now on where you suddenly have an unusual sense of well-being, it can be due to two reasons: either you are meeting a nice person that you really like or you are standing a latest generation LED light (LED: light emitting diode).

Surveys show: the majority of elevator passengers feel very uncomfortable and uneasy in poorly lit elevator cars. "If the light in the elevator doesn't even work properly, how can I trust the rest of the technology?" is what many are bound to think, and the unease persists.

LED light in the elevator provides practical advantages

Conventional elevator car lighting – especially on older elevator systems – can be characterized as follows: frequent blow-outs, high heat development, large dimensions and high power costs. With LED technology, these disadvantages could become a thing of the past. It is only with LEDs of the latest generation that the required brightness becomes available at economical costs.

Long durability

LEDs have a durability of well over 50,000 hours, and only then do they lose 30% of their brightness. No one will suddenly have to stand in the dark. During this period of time, conventional lighting equipment has to be replaced a number of times and the disposal is often costly. LEDs, on the other hand, are free of pollutants such as mercury, cadmium and lead, and can be disposed of in an environmentally friendly manner.

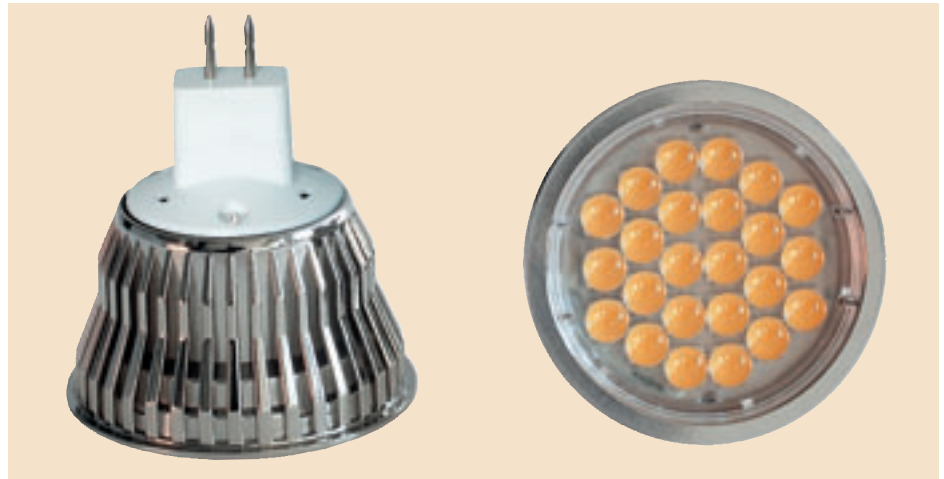


Fig. 2: LED spotlight to replace halogen spotlight

Source: LiftEquip

Low energy costs

The high energy efficiency of elevator car lighting with LED lighting means it is particularly economical to operate. Up to 75% of the energy costs can be cut compared to conventional lighting. This is especially relevant in the case of elevator car lighting that is on constantly day and night and has no automatic shutdown. The high efficiency delivers a pleasant side-effect: no danger of tall passengers getting burned – heat development characteristic to halogen spotlights, does not occur with LEDs.

Slim design

The elevator car lighting can even affect the exterior shape of the building! Elevators take up less and less space in the building. The popular machine-room-less elevators mean that an entire room, the "hut" which used to dominate the building silhouette, is no longer required. In addition, other measures have significantly reduced the space requirement in the shaft head (overtravel). The elevator car itself, however, should have a minimum height of 2100 to 2200 mm so that future generations will not bump their

heads either. This means that hardly any space is left for the ceiling light if the shaft is not supposed to protrude beyond the level of the flat roof. LED technology also has advantages to offer in this area: it is possible to have a construction height that is two thirds smaller compared to conventional fluorescent lamps.

Solutions for new construction and retrofitting

With the SlimPanel, the elevator specialist LiftEquip from Neuhausen, Germany, offers the latest LED technology for elegant and safe installation in elevator cars. The square unit (30 cm x 30 cm) is integrated into the ceiling or fitted in the stainless steel housing with a structural height of only 26 mm. This means that even existing elevator systems can be retrofitted with this innovative technology without difficulty. The sealed construction means that neither dust nor insects can enter the light. Even halogen spotlights can be replaced by LED spots. The technology originates from German production and features excellent luminous efficiency. The pièce de résistance: the colour temperature can be chosen from a range between cold white (6,500° Kelvin) and warm white (3,700° Kelvin), and the brightness can be dimmed easily.

Good lighting even in the event of a power failure

Every elevator must have emergency lighting that switches on automatically in the event of a power failure. In many cases, a small bulb with an output of one Watt is used, providing hardly any brightness – not helping at all to keep passengers calm in such a situation. With LED



Fig. 1: SlimPanel with LED technology in a stainless steel housing, also for retrofitting

Source: LiftEquip



Fig. 3: LED emergency power supply for bright lighting even in the event of a power failure

Source: LiftEquip

technology, it is possible that the elevator car remains illuminated at the usual level of brightness for up to one and a half hours or, with lower output, for even longer. This is achieved by activating a compact emergency power supply. LiftEquip offers an emergency power supply that matches the LED lighting elements described above.

Modern effect on the building

There are numerous reasons for architects and operators of buildings to think seriously about the deployment of LED lighting in elevators. The solutions offered mean that this innovative technology is at last also available in an economical form. Existing and future energy regulations for buildings and their technical facilities will make LED lighting successful. Moreover, the modern light enriches any building and experience has shown it gives elevator passengers a sense of safety and trust.

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