



ZUMTOBEL



Autohaus Stegelmann, Lemgo

The most advanced car dealership in the region uses 100% LED lighting to set the stage for a brand that combines technical innovation with utmost energy awareness.



Autohaus Stegelmann GmbH & Co. KG, Lemgo | DE

Architects: nb+b Neumann-Berking und Bendorf, Wolfsburg | DE

Electrical installations: Elektro Fanenbruck, Bad Salzufen | DE

Lighting solution: CARDAN LED recessed spotlights, VIVO LED spotlights, LINCOR LED pendant luminaires, SLOTLIGHT II LED and LINARIA LED light lines, PANOS infinity and MICROS LED recessed downlights, TECTON LED continuous-row lighting system, SCUBA LED moisture-proof diffuser luminaires, ONLITE RESCLITE LED emergency luminaires



Autohaus Stegelmann was designed as a themed space that fascinates visitors and conveys messages at the same time. Light is used to arouse emotions and to strengthen the brand image. Spectacular lighting scenes seduce visitors to stay, and vibrant lighting scenarios make the customer king. At the same time, energy is saved through the intelligent use of daylight and efficient LED technology. Moreover, the LED luminaires' long service life of 50,000 hours, their resistance to vibrations and impact, and the low maintenance effort reduce operating costs. The package of LED benefits is rounded off by high colour constancy, virtually IR- and UV-free light and a low heat output.

LED saves energy



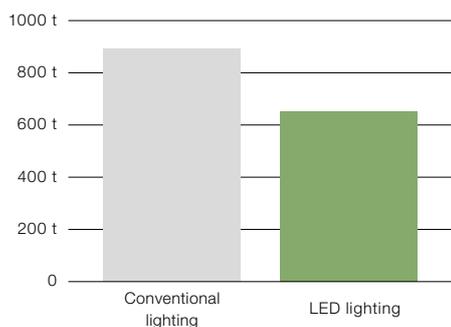
Sustainability is more than just a trend. An increasing number of consumers take companies up on their promise. Thinking and acting sustainably has become part of any profitable business strategy.

Sustainability aspects of the lighting solution developed for Autohaus Stegelmann:

- The high system efficiency level of the efficient, maintenance-free LED luminaires reduces energy consumption.
- The optimised lighting concept focuses the light to the cars in a targeted manner, distributing a lesser amount of light in the room. All luminaires are dimmable, the individual zones are switched and controlled separately from each other.
- Daylight-based lighting control with pre-defined scenarios for day and night uses energy feasibly.

As compared to conventional lighting, energy consumption was reduced by 30 per cent and CO₂ emissions by some 200 tonnes over a period of 15 years.

30% reduction of CO₂ emissions of interior and exterior lighting, calculated over a period of 15 years





At the car dealership, the lighting fulfils several functions. Depending on the zone within the room, lighting scenes are adjusted to the respective requirements.

Lighting quality aspects of the lighting solution developed for Autohaus Stegelmann:

- An interplay of diffuse and directional light presents objects in a tangible, unadulterated way.
- Excellent colour rendering supports the natural appearance of car finishes and materials.
- Gimbal-mounted luminaires and spotlights mounted on tracks provide options for flexible orientation, re-arrangements and future extensions.
- High luminous intensity levels and maximum glare limitation promote the employees' performance capacity.



Zumtobel emphasises the reliability and long service life of the products by providing a 5-year guarantee on the luminaires including LED modules.

First-hand information



Delf Schmidt
Managing director of Autohaus Stegelmann
www.stegelmann.de

The customer's experience, advice and sales are central aspects of your car dealership. Mr. Schmidt, in what way does the lighting support these functions?

The relationship between customer and car dealership is subject to many influences. Openness, transparency and – last but not least – brightness constitute the basis. A consistently designed lighting solution invites potential customers to come inside. Upon entering the showroom, the customer will first notice the highlights: the shapes of the illuminated cars. As soon as the sales staff offer their advice, the interior of the car must also be perfectly visible to be perceived by the customer. Here again, light is an indispensable factor. If there is no inconsistency here, this will create confidence. Following transparency in the showroom, the lighting in the sales staff's office is meant to "wind down" the customer, conveying a feeling of security. Concentration and receptiveness are what is wanted here. The same applies to the reception desk. Through lighting control, the lighting solution provided by Zumtobel is capable of balancing seasonal mood swings. The "pleasure zone" at the car dealership is the area where the cars are handed over to the customer. In this area, people's senses are addressed: primarily smelling and touching, that is, but not least visual perception in the right light.

What is the contribution of light in the service and workshop area?

Service not only means cost, but sort of provides for the conservation of a car's value. In the car reception area, nothing should detract from car technology and obvious defects. The competence of our service representatives becomes palpable here and provides insights into the cost and effort required for car safety. The lighting supports this atmosphere through high illuminance levels at cool colour temperatures. At the workshop, the perfect visibility of materials, surfaces and colours is indispensable for the repairman.

Today, each type of car is different even under the hood, the engine components are arranged differently. The TECTON LED continuous-row lighting system, installed on both sides alongside the vehicle, ensures illumination of the engine compartment. Additional luminaires are largely unnecessary, which allows the repairman to work with both hands. This is highly ergonomic and prevents fatigue.

LEDs in the spare parts store – isn't that a contradiction? In many buildings, these areas are considered subordinate, also with respect to investments into the lighting.

As regards our store, we use it to supply not only our own but also third-party workshops. The complexity of the parts is enormous, the stock turn rate is massive. Incorrectly sorted or removed components cause enormous follow-up costs. Attempting to save money for optimum lighting would be disastrous in this place. Perfect visual conditions down to the last corridor and into the depth of shelves are absolutely required to avoid mistakes and to work efficiently. Ask my skilled staff in the store: they rave about LEDs.

Today, every building must face the requirements of sustainability. Which measures were implemented in your Volkswagen car dealership?

LED = energy savings; to us this equation was a matter of course already in the early stages of the project. We have looked out for additional potential together with the architects. Finally, the requirements of EnEV 2009 will be undercut by 30 per cent. Our heat and electrical energy are supplied by the adjacent CHP of the Lemgo municipal utilities. Over the course of many training sessions, the responsible use of resources has become a matter of course for our employees.



Christoph Fanenbruck
Elektro Fanenbruck, Bad Salzflen
www.fanenbruck.de



Andrea Berthold
Responsible project manager
Zumtobel Licht GmbH



Knut Riechmann, Dipl.-Ing. (FH)
Lighting design, Hanover consulting center
Zumtobel Licht GmbH

Autohaus Stegelmann is illuminated by LEDs throughout. Mr. Fanenbruck, will you be able to use the experience gained from this project for future building projects?

LED technology has reached marketability. Accordingly, the electrical installer must be able to handle the technology without reservations and to recommend it to the user as a future-proof solution. A one-stop solution ensures clarity: the lighting solution for the car dealership originates from the Zumtobel product portfolio at a rate of 100%.

You are working with an experienced team of engineers at the building site. What about their acceptance of LEDs?

We are demonstrably a highly motivated team. At Fanenbruck, continued further training for each employee is a matter of course, as we need to benefit from permanent innovative developments. The range of training events we offer is perceived as an opportunity. This is also true for the handling of LED technology and building management systems. On the part of the electrical design engineer, the KNX system was specified, which is fully compatible with all DALI luminaires by Zumtobel. The DALI standard reduces the effort for installation and cableways and allows for uncomplicated adjustment of the lighting in case of modified use. Our engineers work with mouse and keyboard instead of screwdriver and ladder.

Maintenance work is part of the traditional range of services provided by electrical installers. The replacement of light sources is a cost item for the operator and no really profitable activity for the installer. What is the effect of LED technology in this area?

At Stegelmann, we have created an LED lighting solution designed to minimise operating costs with simultaneously high user flexibility. The service costs for the replacement of faulty lamps have been eliminated and, accordingly, also the scaffolding required for high ceilings in the showroom. Moreover, there is no need to re-arrange the vehicles on display in the showroom, which would block employee capacity and disturb current operation – both in the customer area and in the workshop.

Ms. Berthold, what are the responsibilities you have assumed in your function as Zumtobel project manager for Autohaus Stegelmann?

Starting from a certain volume, we classify building proposals as "projects". Project manager and field staff closely cooperate from preparation of the proposal via technical clarifications and sampling through to implementation of the contract and delivery. As project manager, my work is mainly done at the desk, therefore I can be contacted easily. Right from preparation of the proposal, I am involved in the network consisting of electrical consultant, specialist wholesaler and installer.

Mr. Riechmann, as Zumtobel lighting designer, you have provided advice to Autohaus Stegelmann in the area of lighting technology and implementation. What were the challenges, in particular?

Project engineering for the car dealership is based on the modular concept of Volkswagen. Within this scope, LEDs have only been applied in some areas, while luminaires with conventional light sources have been used primarily. Our task was to transfer the existing concept to LED technology without losing track of the aesthetic and photometric requirements regarding the lighting in VW car dealerships.

Which photometric aspects had to be taken into account in the car dealership?

Basically, the focus was on ensuring excellent lighting quality. The main thing was for the lighting to not only observe photometric standards and quality criteria, but also the VW requirements exceeding the former. Illuminance levels beyond standard and colour temperatures were specified precisely. Another aspect was the creation of a pleasant atmosphere satisfying both the customers and staff of the car dealership.

Lighting solutions in the car dealership

1 Making brand universes perceivable

In order to set a vibrant stage for the automobile, an icon of prestige, Autohaus Stegelmann relies on uniform, very bright background lighting combined with targeted accents. Diffuse light conveys clear lines to the reflective, specular car bodies. Brilliant pinpoint light provides for the visibility of high-quality details such as rims, emphasising their dynamic character.

The view from outside makes people feel like going inside. Thanks to high illuminance levels, the vehicles are visible even with high amounts of daylight. The cars are presented like leading actors on a stage. The ideal response to dynamic daylight changes is lighting control.



1 Shop windows and showroom

2 Making work easier

The lighting solution for the reception area meets all requirements made on ergonomic task lighting. A correspondingly high level of lighting promotes the employees' motivation and facilitates communication with customers. Uniform illumination of the workstation additionally provides options for flexible use.



2 Reception

Lighting solutions in the car dealership

3 Fascinating naturalness

In natural environments, sun and clouds create varying impressions of light. In the showroom, on the platform for the presentation of highlights, this interaction is continued by a combination of diffuse and targeted light.

4 Conveying brand messages

Through an impressive presentation, more attention will be paid to car accessories and merchandising articles. Accent luminaires with a narrow beam pattern can be directed perfectly to the objects exhibited, while glare is prevented by furniture-related arrangement of luminaires.



3 Highlight platform

4 Shop for car accessories

5 Making waiting times feel shorter

If an atmosphere of well-being can be created in the lounge or in the waiting zone, waiting times will feel shorter. A tried-and-tested means in this respect is to allow for reading and communication.



5 Waiting zone, lounge

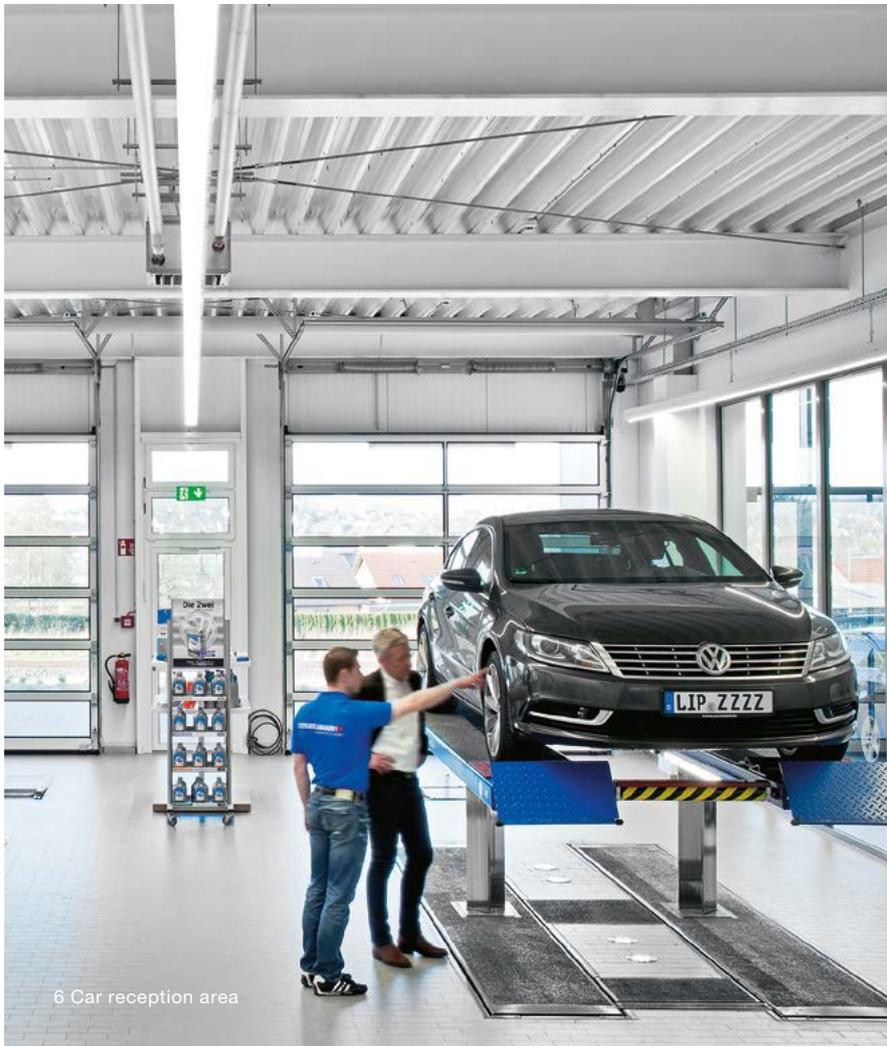
Lighting solutions in the car dealership

6 Making good work transparent

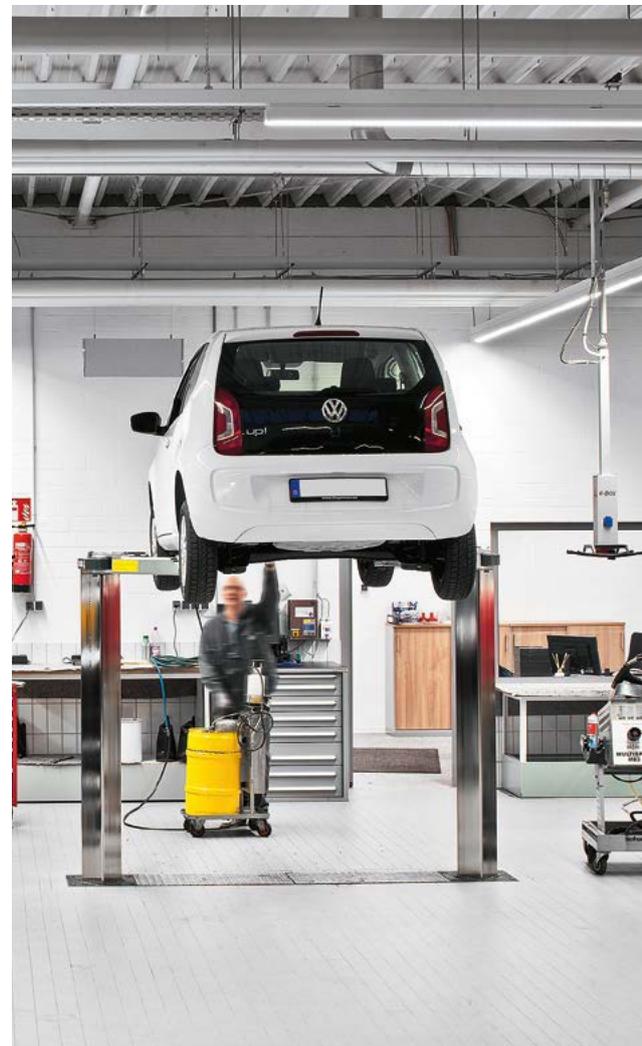
In the car reception area, the focus is on customers and their wishes and demands. Excellent lighting conditions provide for the required insights, emphasise the factual, technically sophisticated ambiance and make the potential of expert maintenance and repair visible. For this purpose, the cars on the work platform are illuminated by LEDs from below.

7 Working productively

Apart from optimum lighting conditions, professional work requires a high degree of flexibility and functionality. High-performance luminaires on suspended trunking uniformly illuminate the task area. Asymmetrical reflectors next to the walls provide for the brightening of vertical surfaces. Chemically resistant and mechanically robust luminaires guarantee that the solution is reliable in the long term. In the store, a lighting scene similar to daylight facilitates the act of looking for and finding articles.



6 Car reception area



8 Enjoying the big moment

The delivery of a car is an event the excitement of which can be enhanced through a special mis-en-scène. A combination of diffuse and directed light can make the new owner experience the interaction of sun and clouds that is familiar to us from nature. The clear contours of the highly reflective car body are enhanced by means of a luminous ceiling, with even dark finishes shining extensively. Additional spotlights put the customer at the focus of events. Ideally, the lighting scenes can be adjusted individually.



7 Workshop



8 Car delivery

Recommended products for the car dealership



VIVO LED

Flexible spotlight system with large package of benefits: precise, uniform light distribution in Stable White to Tunable Colour versions, maximum efficiency with minimum energy consumption.

Product recommended for illumination of the shop window, the entrance area and the welcome wall.



CARDAN LED

Recessed luminaire with pivoting lighting heads and highly specular mirror reflectors. Thanks to different beam angles, ideally suited for brilliant accents and homogeneous ambient lighting.

Product recommended for illumination of the exhibition areas, of the highlight platform, the accessories shop, the lounge, and the car delivery area.



PERLUCE LED

The surface-mounted luminaire for ceiling and walls combines diffuse wide-area lighting with efficient LED technology and higher protection. As an individually combinable design element, the luminaire is a flexible modular system for luminous surfaces.

Product recommended for car delivery and highlight platform.



LINCOR LED

With its contemporary minimalist design, LINCOR with direct/indirect light distribution emphasises room axes and architectural concepts. Efficient LED technology takes full effect with a section of only 63 mm squared.

Product recommended for consultation desks.



SLOTLIGHT II LED

The homogeneously lit LED light line is available in 300 mm steps. The huge freedom of design is rounded off by luminescent L-connectors and versions in protection ratings of IP 40 and IP 54.

Product recommended for the reception desk.



TECTON LED

The robust continuous-row lighting system fulfils sophisticated lighting tasks – at low costs for power and maintenance. Even when different beam patterns are placed next to each other, TECTON LED appears as a consistent continuous-row system.

Product recommended for the car reception area and the workshop.



SIMES outdoor luminaires

The wall-mounted PARK and MINILOFT luminaires and the matching PARK pole-mounted luminaires by SIMES make use of the advantages of LEDs for efficient and reliable illumination of buildings and parking lots. When it is dark, they form an impressive skyline, providing for additional security by illuminating pathways.

Product recommended for outdoor lighting.



ONLITE emergency lighting

Unobtrusive appearance, easy installation, low maintenance effort. These are the main features of emergency lighting by Zumtobel – whether provided with separate battery supply or with the new central supply via eBox.

Product recommended for emergency lighting.



SCUBA LED

High-quality LED luminaires are a reliable lighting tool for keeping operating costs sustainably low. SCUBA LED combines these economic qualities with robustness and a homogeneous luminaire appearance.

Product recommended for the storage area.



LUXMATE lighting management

A lighting management system makes any lighting solution complete: it perfectly integrates daylight into the artificial lighting system, reduces energy consumption, adjusts the lighting quality to the tasks at hand, and also offers the possibility to integrate the emergency lighting system as well.

Product recommended for lighting management.



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Top quality – with a five-year guarantee.

As a globally leading luminaire manufacturer, Zumtobel provides a five year manufacturer's guarantee on all Zumtobel branded products subject to registration within 90 days from the invoice date and in accordance with the terms of guarantee at zumtobel.com/guarantee.

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