

Das gute Licht

02|2022

Illumination of residential complexes

A comfortable and appealing living space conveys an all-round sense of well-being. Sustainable design and implementation create value far beyond architecture. An optimal lighting design concept reinforces this added value, while providing a feeling of security, guidance and structure. We present solutions.





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Foreword



Dear reader,

The creation of attractive and affordable housing is one of the most pressing issues of our time. Funding programmes and government initiatives offered in many countries are testament to the urgency with which housing construction must be viewed and prioritised.

The supply chain issues of the recent past, which continue to this day, as well as enormous price hikes can and will temporarily create hurdles for these dynamics. Nevertheless, timely and efficient implementation will remain a priority.

Longevity, durability, price stability and the much-talked-about issue of sustainability are absolutely essential for any new housing project.

These terms will sound familiar to you when it comes to our BEGA products, because they are at the heart of the work we do every day to ensure your satisfaction. Your wishes and requirements are an important part of how we continue to develop our luminaires and systems. And creating groundbreaking innovations for the market is what drives us even further.

While working on this customer magazine on the topic of "Residential Complexes", it once again became apparent what a great advantage it is to have such an extensive product portfolio.

Our perfectly coordinated products and wide range of luminaires make it possible

to plan the perfect lighting solution for a residential complex from a single source.

And opting for BEGA products means added value:

We offer installers, designers and architect the peace of mind that their concepts will have exceptional longevity. This applies to outdoor, as well as indoor lighting concepts.

However, our service goes far beyond simply delivering premium-quality products. From the initial concept to the simple implementation of even the most complex lighting control systems, we are committed to reliability for you and your projects. This is how we define a successful and positive partnership.

Please allow us to inspire you with a variety of residential complexes in which our luminaires are used. And to offer you some suggestions that may hopefully enrich your concepts for attractive living spaces.

I hope you enjoy reading!

Heinrich Gantenbrink
Managing Partner



52° Nord · Berlin

Living and well-being in perfect harmony

Sustainable planning and design:
illumination for residential complexes from a single source



Many parameters must be taken into account when planning illumination for residential complexes. The focus should be on providing safe thoroughfares both indoors and outdoors, and on supporting the overall feeling of safety. It is important to avoid dark areas that are not easily visible – inside and around the complex, as well as in recreational and functional areas.

Luminaires give the area structure. Light points with adequate light distribution and warm light colours present the architecture and the surrounding facilities in

an expressive and attractive way. The comfort of a residential complex is therefore not only measured by how well the living space is designed, but by how much it enhances general well-being. The quality of the illumination, including the accompanying and accentuating light, rounds off the fundamental experience of returning home, living, enjoying and relaxing. The illumination is not in the foreground and yet has a lasting influence on the overall impression and structure of a residential complex. It helps to create a positive mood. Lighting design with BEGA luminaires means: sustainable design of a residential

complex, safety and reliability of all products used.

Selecting luminaires from a single source enables consistent design features to be used throughout, both outdoors and indoors.

As BEGA luminaires are DALI controllable, they can be integrated into both conventional circuits and smart control systems. ■



Orientation and safety

Comfort lighting along pathways and passages near the building



A wide range of luminaires with different light distributions allows tailor-made solutions in passageways, covered areas and pathways close to living areas. Light arranged in rows provides general or ambient lighting. It guides individuals to the entrances and other functional areas.

Soft light is the preferred choice to avoid harsh shadows at transitions or steps. It aids orientation with its high level of visual comfort. Possible trip hazards or obstacles are easily identified. Unshielded light is the preferred choice for uniform illumination in such areas. In passageways and covered areas, glare-free light from above meets all

requirements. It prevents dark zones along thoroughfares and comfortably illuminates pathways.

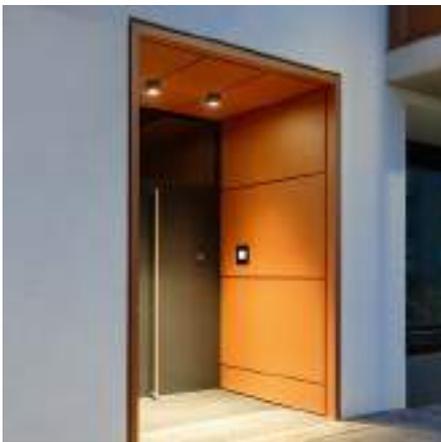
Recessed wall luminaires are a great solution for the illumination of walls and façades. The use of light-dark intervals draws the eye and creates a fascinating effect.

The right choice of light distribution in close proximity to the complex itself is essential. Ensuring the visual comfort of passers-by, as well as sufficient illumination with simultaneous shielding of the window areas must be taken into account in the initial concept. ■

Q K 0144

Focus on functionality and visibility

Safety and high user comfort for entrance areas



An inviting and well-organised area in front of the entrance combines function with an aesthetically pleasing overall appearance.

Safety and user comfort are the elementary requirements for illumination.

The light in the entrance area must be significantly brighter than the illumination in the surrounding area – in addition to the inviting effect and the visual guidance, a well-lit entrance enhances the feeling of safety. Potential trip hazards are highlighted without glare.

The functionality of the entrance area as an architectural invitation to the building that is used hundreds of times a day is rounded off by the targeted use of light.

Possible shadows cast by reveals, projections or the use of the entrance itself must be fully taken into account at the planning stage.

Architectural details can be used for the installation of luminaires in the entrance area. Porches or roofs to protect against the weather can be useful for the placement of recessed and surface-mounted ceiling luminaires. Reveals and projections can



Clouth-Quartier · Cologne

Checklist: lighting design for the entrance area

- Avoid shadows by using a suitable type of light, light distribution and light points
- Use brighter light to guide users to the entrance – must be glare-free
- Steps and possible trip hazards must be easily identifiable
- The door lock must always be clearly visible – even in the dark
- Doorplates and letterbox inscriptions must be clearly legible at all times
- The house number must be visible from a distance – the illumination of house numbers is mandatory in many regions already

accommodate ceiling luminaires or wall luminaires in surface-mounted or recessed versions.

Unshielded light with an integrated house number or other useful information helps with orientation from a distance. In the case of several similar-looking entrances, the use of bollards is a good way to make the guidance clear and to enhance the entrance in an eye-catching way. Together with ceiling or wall luminaires, they give depth to the door and the area in front of it.

An intelligent light control system takes into account the decreasing use of the entrance during the evening hours by reducing the power accordingly. Motion sensors take over this task of demand management, reduce the impact on the environment and save energy. ■

Q K 0299

Stylish entrance areas that are suitable for everyday use

Q K0938

Comfort, safety and creative light effects are the trifecta of successful lighting design



Cleverly used space – the functionality of the interior begins at the entrance. The area should be functional yet impressive to residents and guests.

The light in the entrance area and in the staircase provides uniform illumination and also sets somewhat brighter accents at letterboxes, staircases and at landings to apartment doors or corridors.

Light's purpose of showcasing the beauty and necessity of the architecture can be fulfilled in a variety of ways. The basic concept should not necessarily entail choosing just one type of luminaire. The broad BEGA portfolio offers a multitude of options for harmoniously showcasing architectural features and complying with safety requirements with different types of luminaires.

Luminaires with large dimensions create a special effect. They uniformly distribute soft, unshielded light. The luminaires are decorative points of orientation and provide safe illumination.

The use of unshielded pendant luminaires is recommended in stairwells with uniformly high ceiling elevations. While their light will in most cases suffice for the complete illumination of the stairwell, they are often complemented with additional light sources on stair landings or walls.

Ceiling luminaires are also versatile light sources for these areas. They can be used as the sole source of illumination and provide pleasant, uniform light. In conjunction with other light sources, however, ceiling luminaires can also be used as additional support lighting. Their light is directed directly onto the usable surface without glare. ■

Options for a user-oriented light control concept in the stairwell

- The user indicates the need for illumination by touching the pushbutton:
The light control system tracks the user via sensors and only switches on light where the user is. A basic level of illumination is available at all times
- Automatic light activation as soon as the user enters the stairwell: only floors in use are illuminated. A basic level of illumination is available at all times
- Light request via pushbutton: a timer limits the light usage in the stairwell

Uniform lighting solution – individual use

Balcony luminaires round off the overall appearance of a residential complex

Köpenicker Straße · Berlin





Neckarbogen · Heilbronn

Residents use their balcony lighting according to their own needs. There are no limits in terms of individuality.

The selection of a suitable luminaire for all balconies or patios is, however, for the most part a centrally organised task for the lighting designer. This preserves the uniform overall appearance of the building. For solutions like these in particular, where large quantities of luminaires are required, BEGA offers a variety of high-quality and economical luminaires for the ceiling or wall.

This achieves a consistent lighting design for all residential units, taking into account all planning issues.

Conversely, the extension of the living space into the outdoor area connects the light on the balcony and its use with the illumination of the interior. In the case of balcony lighting, the spectrum of use ranges from subtle background lighting to full brightness for activities like reading. Integrating the light on the balcony into a convenient light control system is an individual decision for the occupant.

Whether dimmed or not, and regardless of the intensity, the highly individual light effect is not perceived as a foreign body, even from a distance, but rather blends harmoniously into the appearance of the residential complex due to the uniformity of the luminaires. ■



Q K 0716



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Outdoor bonus

Lighting principles for leisure and recreation areas in the residential environment

Recreational areas and the associated pathways create an additional feel-good factor in a residential complex. Spatial conditions permitting, the addition of a recreational area is a calming and relaxing design feature for residents. Beyond basic lighting, these leisure areas are enriched with the addition of lighting accents. Light building

elements give structure to spaces and create a pleasant ambience. When combined with bollards, the result is a harmonious overall ensemble. Light design elements invite residents to linger along pathways and in open spaces, and create impressive islands of light in the dark. ►



Q K 0525



Solutions for recreational areas

The large BEGA luminaire portfolio allows the creation of tailor-made lighting scenarios and the right control system for every application



52° Nord · Berlin

Safety along paths and on squares is a basic prerequisite for the lighting design of recreational areas in the vicinity of residential complexes. A suitable light control system ensures comfort and takes ecological concerns into account, which is particularly important for natural surroundings.

Soft, unshielded light provides great ambient lighting. The use of shielded luminaires directs light onto the areas to be illuminated.

This prevents light pollution and ensures compliance with ecological requirements. Where recreational areas border directly on residential units, the use of directional lighting also prevents unpleasant effects such as unwanted light spilling into apartments.

An energy-saving lighting control system adapted to the proximity to residential buildings and the expected footfall is recommended for the late evening and night-time hours. If there is a risk of too frequent changes between light and dark, which could cause dissatisfaction among residents, a reduction at night is recommended.

This enables a visually calming effect in a defined space with a high frequency of movement. Depending on the topography and surrounding architecture, supplementary light in dark areas is also an option.

The BEGA portfolio for pathway illumination in recreational areas is extensive. Pole-top luminaires shielded from above provide optimal illumination.

They prevent glare in the apartments and minimise light pollution at night. The selection of bollards available means that various light point heights can be achieved.



Jahn timer - Neu-Ulm

Q K 0525



Trees, shrubs and hedges offer great opportunities for scenic illumination. In-ground luminaires with focussed light distribution help create eye-catching islands of light. In conjunction with basic and accent lighting, light design elements offer attractive light effects. They can be used as illuminated seating elements, while creating an inviting ambiance and adding overall value to the concept. ■

Universal illumination for residential construction

New ceiling and wall luminaires – perfect for high-volume planning



We place great importance on intensive dialogue with our partners and customers. It opens up the opportunity of taking on board wishes and suggestions for new product developments that further enhance our BEGA portfolio.

Our new ceiling and wall luminaires are a perfect example of this. They were developed specifically for market segments where large

quantities and price sensitivity play an important role. Economical, durable and efficient – from quick installation to excellent lighting results – they are the perfect solution for residential construction.

The robust luminaires with shielded or unshielded light are available in round and square designs, in two sizes each. They also offer various additional features for their universal use on the outside and inside of the

home: white, translucent synthetic covers, high impact resistance; on request, some luminaires can be provided with an integrated emergency lighting battery for three hours of emergency operation in case of a mains power failure; as well as the delivery of weather-proof numbers, symbols and inscriptions on request (e.g. for use on house number luminaires). ■

Size

Ø 200 · 260 mm

□ 200 · 270 mm

Luminaire luminous flux

640 – 1400 lm

Connected wattage

7,5 – 14,9 W

Protection class

IP 65

Impact resistance

IK 10

Colour temperature

3000 K

Luminaire colour

Graphite · Silver



Q P 0762



Q P 0762



Q P 0474



Q P 0474

Prominent long-distance effect

Light showcases façades and architectural details



Showing the attractiveness of a residential complex during night-time hours ensures that the architecture has a prominent long-distance effect and integrates it into the cityscape. The targeted use of illumination on façades and pathways exploits the unique accentuating power of intelligent lighting design.

Ideally, light should set the stage without unwanted side effects like glare or excessive brightness. The local lighting conditions and ambient light should shape the design and subsequent control of the illumination. All planning should centre around making people feel safe. Dark and confusing areas cause discomfort. They counteract the feeling of well-being that emanates from a cleverly planned residential complex with its clearly defined functional areas.

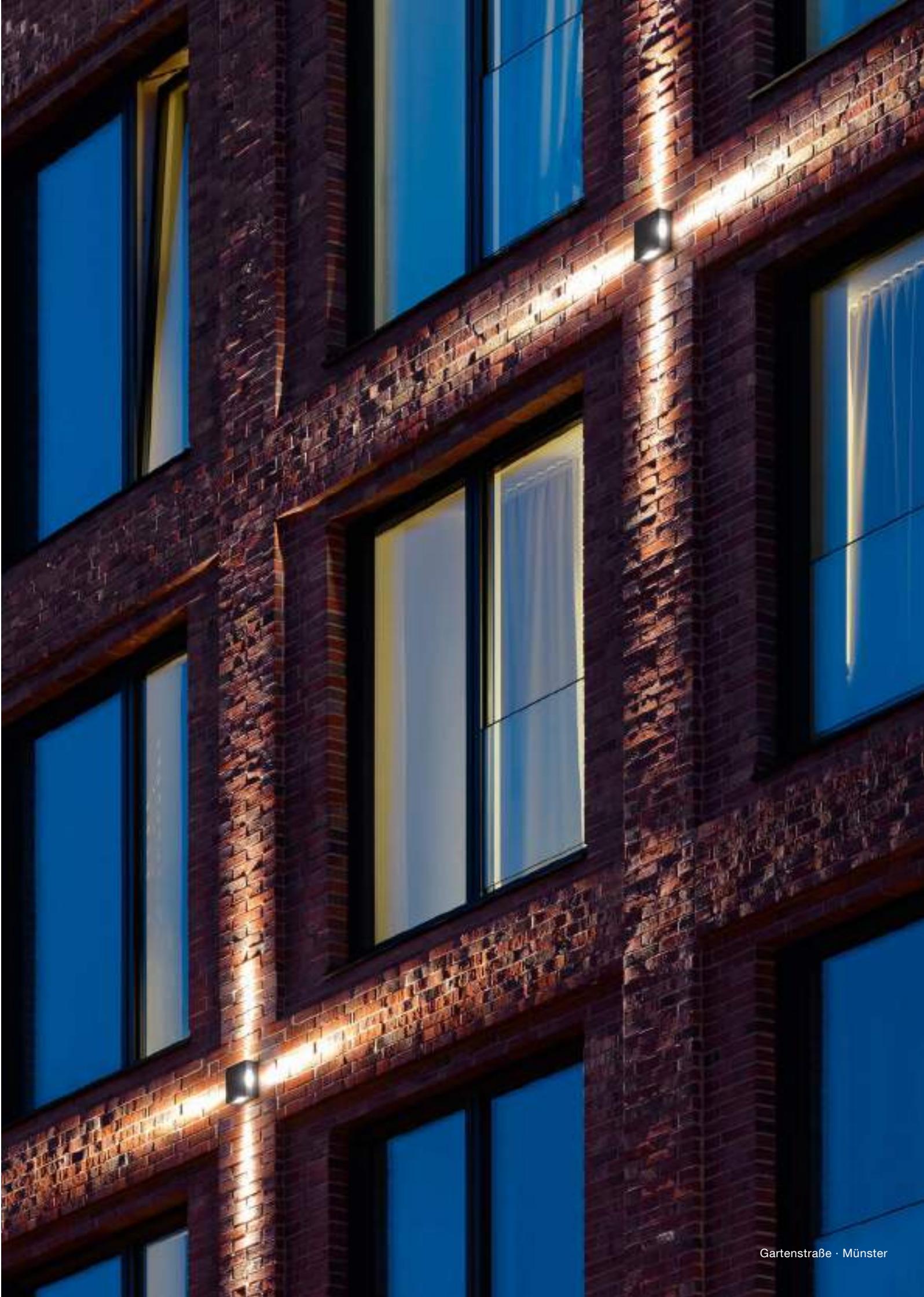
The design accents of a lighting designed defined at an early stage can be implemented with a variety of luminaire types. They help complement the general illumination. Special architectural features are highlighted.

The materials and structure of the buildings as well as the reflectivity of formative details of the complex are ideal aids for the lighting concept.

Shielded, directed light catches the eye and highlights the beauty of façades in the dark. Grazing light features underline the texture and materials, while creating glare-free and eye-catching details.

Illumination emanating from the ground up adds expression to the ideas of the architects, installers and lighting designers. Illuminating the façade from ground level using focused light distribution also allows for areas of darkness on the area in question. The interplay of light and dark significantly enhances the beauty of the building and how it is perceived by the viewer. Fully illuminating the walls without distracting light cones explicitly highlights the texture and colour of the façade.

The light effect doubles as orientation lighting as well. ■



Safety first

Lighting design in parking areas

Residential parking should ideally be out of sight so as not to detract from the overall perception of the architecture. The following applies both to underground garages and ground-level parking spaces in the immediate vicinity of the complex: The basic requirement for ensuring the safety and quick overview

of the entire area – which applies for traffic guidance as well as for the perceived personal safety of the user – is good illumination. Dark and poorly visible areas must be avoided; user comfort when driving, parking and on the footpaths is essential. Different light zones are a factor to be

taken into account in the planning of underground garages. Creating a harmonious overall appearance begins at the access point: During the day, the illumination must adapt to the transition from daylight to darkness. Conversely, it must be significantly brighter in the garage at night than outside.



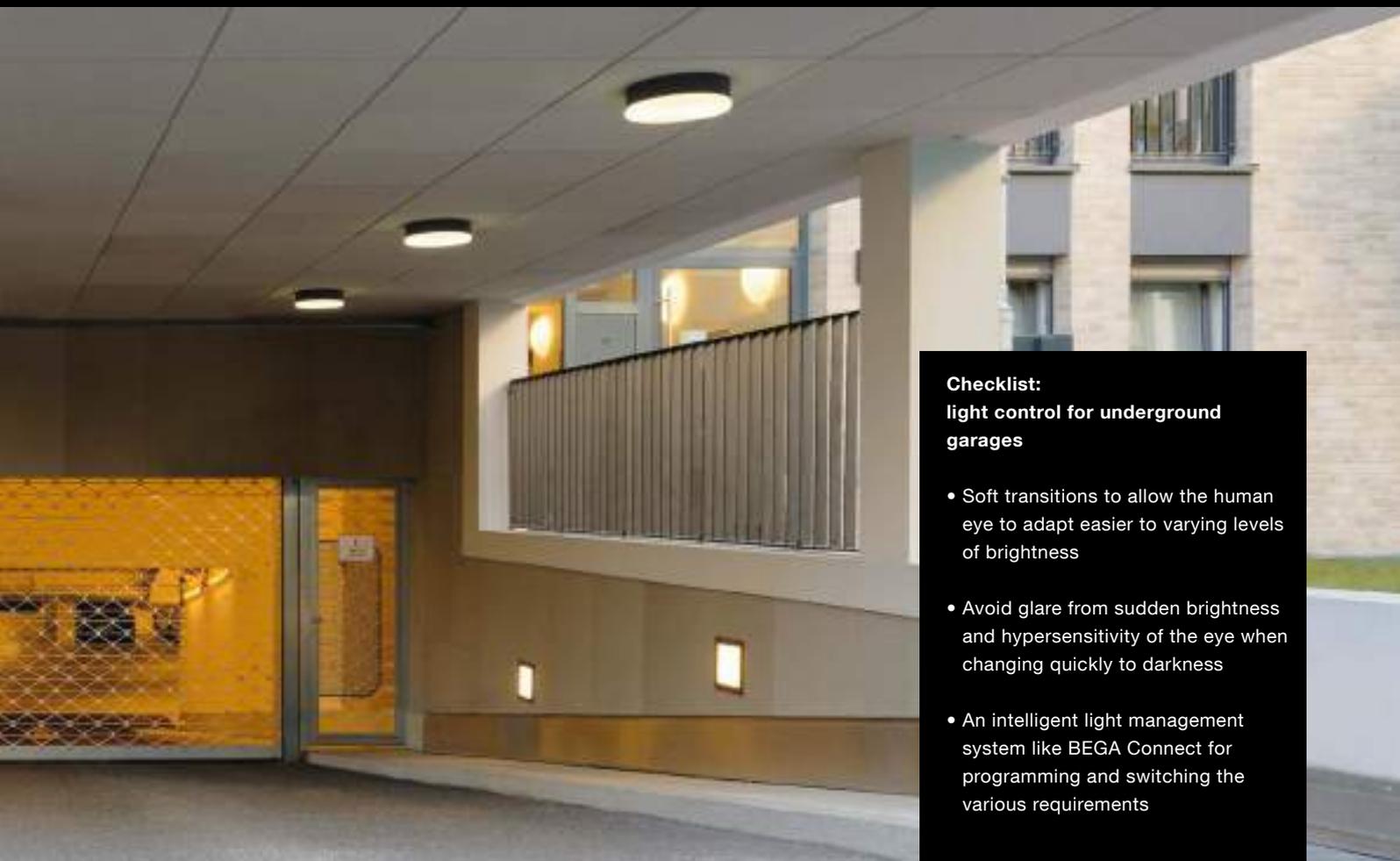
Schwannstraße · Düsseldorf



The most important factor for stairwells that often lack daylight is safe illumination. In addition to basic lighting to eliminate dark areas and allow a quick overview of the location, the actual stairs must be well lit. Soft shadows differentiate the steps from one another and ensure safe footing. As a result, even in the dark, an

underground car park is perceived as a functional area that is not only highly valued but also safe. ■

🔍 **K 0577**



Checklist:
light control for underground garages

- Soft transitions to allow the human eye to adapt easier to varying levels of brightness
- Avoid glare from sudden brightness and hypersensitivity of the eye when changing quickly to darkness
- An intelligent light management system like BEGA Connect for programming and switching the various requirements

The STUDIO LINE light experience



Luminaire and light object in one. Distinctive and expressive. Our STUDIO LINE luminaire series creates memorable accents with luxurious and striking exterior finishes as well as contrasting metallic interior colours. These luminaires have much more to offer than just pure function. Their design, materials and lighting experience form the perfect trifecta for demanding indoor lighting requirements.

Get inspired:
bega.com/studioline

Come and see us at our BEGA stand at
Light + Building from 2nd to 6th October 2022
in Frankfurt am Main. We look forward to seeing you!

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