

Imprint

SEEGER

Technische Leuchten e. K. Schwerter Straße 324 44287 Dortmund Germany

Phone: +49 231 441092 Fax: +49 231 441076

info@seeger-licht.de www.seeger-licht.de

VAT ID No.: DE 124779953 Tax No.: 315/5231/0060

Amtsgericht Dortmund (Local first-instance court)

Commercial Register No.: HRA 16 133





Content

Intro Content 1 Product Summary 2

Products

Luminous Ceilings 4 Coved Lighting 10 Lighting Panels 16 Strip Lighting 26 Luminous Fields 66 **Trimless Downlights** 72 **Square Downlights** 82 Kardan/Shoplight 110 Round Downlights 134 Surface Luminaires 204 Wall/Ceiling Luminaires 226 Wall Luminaires 250 **Pendant Luminaires** 256 **Profile Luminaires** 260 Standing Luminaires 318 Light-Structure 320 **Exterior Luminaires** 326

Appendix

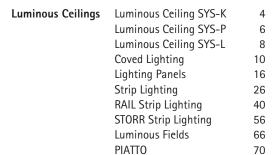
Operating Equipment 340 **Emergency Lighting** 342 Key to Article Numbers 344 Colour Key 344 **Explanation of Symbols** 345 Article Number Index 346 **Business Conditions** 348 Contact 352 **General Information**

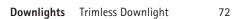


1









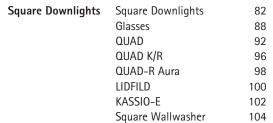


















Kardan/Shoplight	Kardan	110
	Recessed Kardan	112
	BOXs	118
	Pendant Kardan	120
	NV-Q	124
	BRITE	126
	LED Triple	128







Round Downlights	Round Downlights	134
	Glasses	140
	BASIC	148
	VERTIKAL	156
	SOBRA	160
	Duo-Focal	170
	Round Wallwasher	172
Downlights Decorative	NORTON	174

	KONUS	178
	HAYD	180
	DIFFUS	182
Louvre Luminaires	CROSS-Aura	184
	Downlight Louvre	186
	TURBO	188
	CROSS	190





Luminous Ceiling SYS-K





Luminous Ceiling

Diffuse light emanates from large illuminating surfaces and gives soft and even illumination. The light's natural appearance creates a visual picture of calm and quiet. Architecture becomes visible. Luminous ceilings as an integrated component of space and architecture allow room for creative design styling.

The SYS-K series is produced in modular style and made available up to a width of 1400mm without visible fastening elements. The individual modules are aligned together longitudinally. Large surfaces can be realized easily. The system can be controlled electronically and can also be equipped with a colour-mixing light control.

The lighting designer's ideas can be implemented and special designs made to suit specific project objectives.







Large format space luminaires with inserted LSG hardened security glass covers in Opti-white made of laminated glass. The composite use of special opal foils, distributing light and translucency, achieve an even and shadow-free illumination surface.



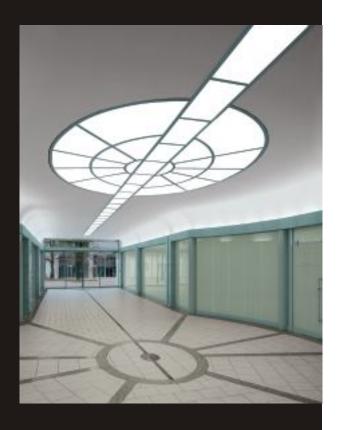
Luminaire module as steel construction with fastening options. Adapted to various ceiling requirements or as freely suspended construction. Fully equipped with luminaire units for fluorescent lamps with dimmable electronic control gears. Interface: 1–10V. Other interfaces such as DALI, Push or DSI available.



Luminous Ceiling with RGB

Colours are additively mixed by separately driving the primary colours of red, green and blue. Hereby a wider colour spectrum can be obtained. Individual, single colours can be produced as well as colour effects with scenic, decorative or inspiring colour changes.

Luminous Ceiling SYS-P



Luminous Ceiling with Visible Profile

In contrast to a scenery with point lights a visual picture of calm and quiet is created by diffuse illumination with luminous ceilings. Graphically divided illuminating surfaces support the stylistic architectural lines. As for the SYS-P series, a special manufacturing process allows these luminous ceilings to be designed with any shape and structure.









Luminous Ceiling, Visible Profile

Composed and connected as large format elements. Surface made of stainless steel (VA) either satin-brushed or steel/ aluminium powder-coated. The system is suspended either from a bare ceiling or has a separate carrying construction. Illuminating fields can be individually shaped. Sizes up to 1400mm x 1400mm or 1000mm x 2000mm per individual field. Made of LSG hardened safety glass panes in Opti-white with light distributing and translucent special opal foils.

Lighting Technology

Electrical units fully equipped with luminaire units for fluorescent lamps with dimmable electronic control gears. Choice of 1-10V, DSI, DALI or Push interface available. In addition a daylight-dependent control or a programmable control with pre-defined light scenes or even dynamic colour temperature regulation is possible.



Luminous Ceiling SYS-L





Invisible Profile Due to their homogenous and glare-free illumination, luminous ceilings can produce conditions virtually identical to natural daylight. The SYS-L series is noted for its individual surface pattern. Large-format glass panes are unobtrusively

point fastened. A translucent acrylic louvre gives a discreet

structure.

Luminous Ceiling,







Luminous Ceiling, Invisible Profile

The luminous ceiling is available in any shape and size as a custom build. The luminaire has an exterior frame adapted to the ceiling system. Available on request with a diffusing border, a fine edge or a shadowgap border. Luminous surface made of single, large-format LSG hardened safety glass panes screwed together with a satinized acrylic frame construction via 4-point fastening system. An even, discreetly structured luminous surface is all that can be seen.

Lighting Technology

Electrical units fully equipped with luminaire units for fluorescent lamps with dimmable electronic control gears. Choice of 1–10V, DSI, DALI or Push interface available. In addition a daylight-dependent controller or a programmable control with pre-defined light scenes or even dynamic colour temperature regulation is possible.

Luminous Ceiling with RGB

Colours are additively mixed by separately driving the primary colours of red, green and blue. Hereby a wider colour spectrum can be obtained. Individual, single colours can be produced as well as colour effects with scenic, decorative or inspiring colour changes.



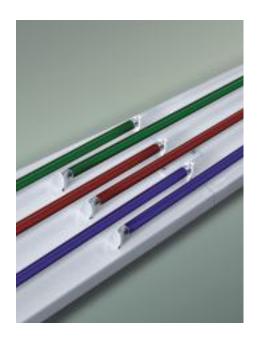


In modern architecture luminous ceilings and coved lighting have become discerning design features. They are the basis of a homogenous lighting design with a character similar to daylight. When implementing such lighting, it is important to prevent the characteristic dark zones in the gaps from one lamp to the next by overlapping the lamps.



Our system luminaires allow the lamps to be mounted in a diagonally offset, overlapping arrangement. This ensures illumination free of gaps or shadows.











Lighting Technology

Electric units equipped for fluorescent lamps with dimmable, electronic control gear are used for the lighting. To provide infinitely adjustable dimming, 1–10V interfaces are used as standard. Alternatively, DSI, DALI and Push interfaces are also available. A program control with predefined light scenes up to and including dynamic colour temperature is available as an optional extra.

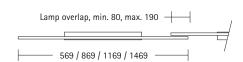
RGB Cove Luminaires

Colours are additively mixed by separately driving the primary colours of red, green and blue. This achieves a wide colour spectrum. Individual, single colours can be produced as well as colour effects with scenic, decorative or inspiring colour changes.





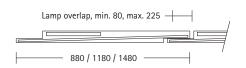
With a width of just 52mm this system luminaire is designed for particularly narrow installation scenarios. The lamps are arranged in an overlapping formation. The clip fixing for the lamps facilitates maintenance for inaccessible light shelves.





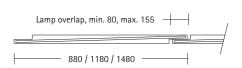


An installation height of just 36mm makes this luminaire suitable for particularly shallow installation scenarios. Despite the narrow width of just 100mm, the lamps are still arranged in an overlapping formation.





At 50mm high and just 75mm wide, this system luminaire is the standard fixture that fits in almost all lighting coves. The luminaire's flat top serves as a reflection surface.

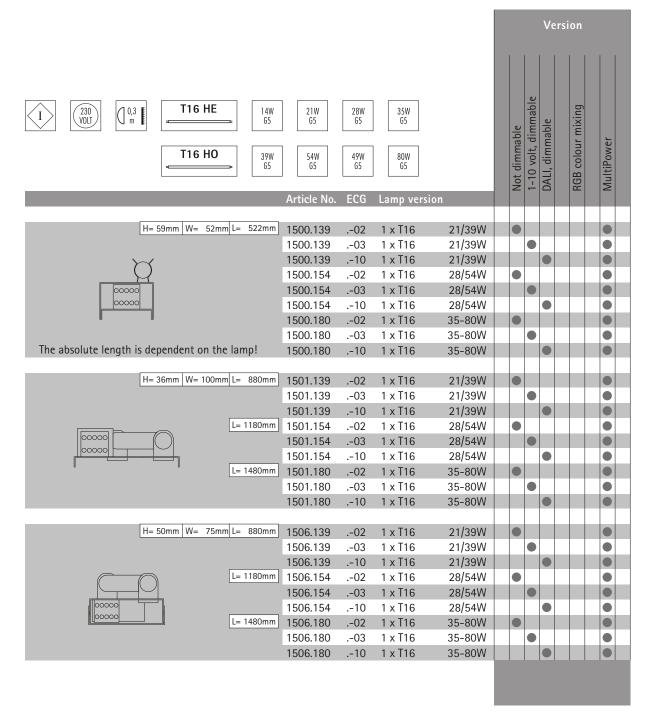




Cove Luminaire

Linear light for strip lighting with overlapping lamp arrangement. The recommended lamp overlap is 100mm. The minimum overlap required is 80mm. For the maximum lamp overlap, please see the schematic drawing.

The variable lamp overlap ensures the illumination has no transitions or shadows and allows the length of the lighting strip to be adjusted. Equipped for T5 fluorescent lamp with an electronic control gear in static or dimmable versions. Interface options are DALI or 1–10 volt.



Coved Lighting

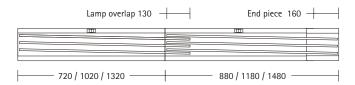
RGB Cove Luminaires

Colours are additively mixed by separately driving the primary colours of red, green and blue. This achieves a wide colour spectrum. Individual, single colours can be produced as well as colour effects with scenic, decorative or inspiring colour changes.



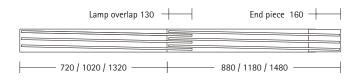


RGB panel for dynamic mixing of coloured light. This lighting system is prewired ready-to-connect and is noted for its flat dimensions, overlapping lamps and simple control.





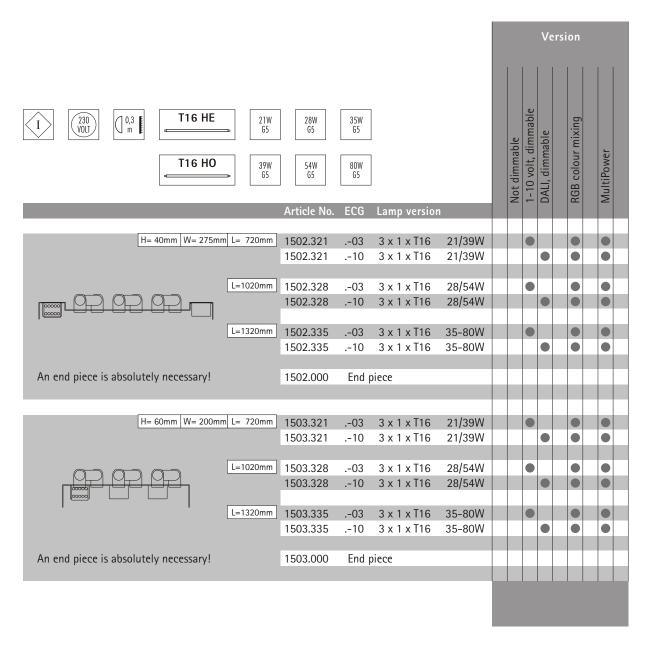
RGB panel for dynamic mixing of coloured light. Featuring a narrow design with overlapping lamps, this is a ready-to-connect lighting system for simple control.

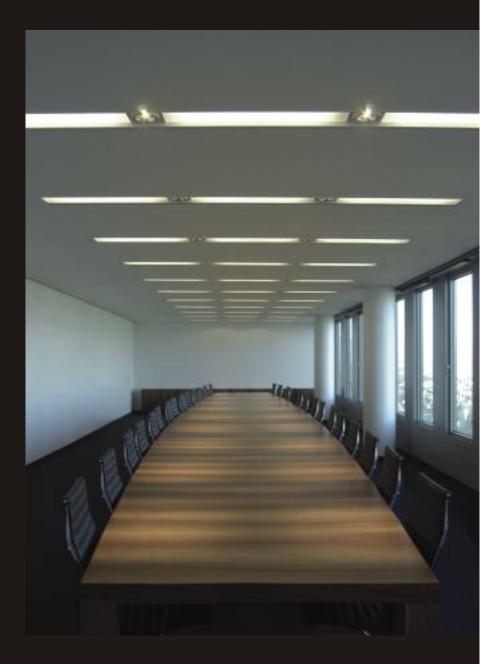




RGB Cove Luminaire

Linear light for strip lighting with an overlapping lamp arrangement to ensure the illumination is free of transitions and shadows. Equipped for T5 fluorescent lamps with electronic control gear, it is available in dimmable version. Interface options are DALI or 1–10V.





Lighting Panels

Lighting channels make a convincing choice since they integrate perfectly into the building. The large-scale diffusers reduce the luminance levels. They can be used to divide rooms or to partition or even link up areas. Available as a discreet ambient light or as a combo luminaire, featuring additionally integrated spotlights, for both ambient and accent lighting.



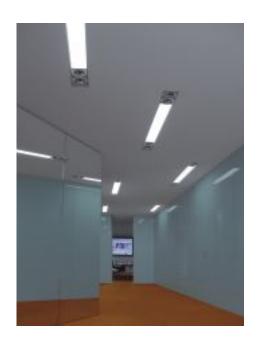
Lighting PanelsLighting panels is the name we give to linear lighting fields that are flush-fitted into suspended ceilings. The variability of width and length enables special design tasks to be solved. Light becomes visible through the evenly illuminated diffuser surface. Tension can be created by combining with spotlight elements and special visual tasks can be met.





Functions

In modern architecture, one approach to lighting design is to see the luminaires not as an object but as building-integrated entities that solely fulfil a purpose and are not an end in themselves. It is therefore appropriate to consider which functions can be fulfilled from this entity. We distinguish here between lighting technology and building technology.

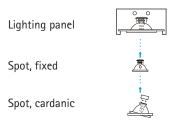






Dual Light Lighting Panels

To provide scenic lighting, spotlight inserts are available. The availability of individual luminaires and strip-light systems gives the designer a wide variety of design possibilities.

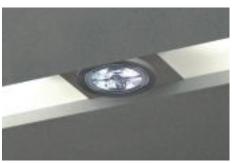


Dual Light

Many different lighting moods can be produced by using two different light sources. Whether as a soft light or a precise spotlight, the dual function is not intrusive. The plane basic light source is a fluorescent lamp T5 supplemented by independent, concentrically arranged auxiliary lighting.

Combined with fixed or adjustable projection, this unit permits high vertical accentuation. Light sources for the auxiliary lighting are compact fluorescent lamps, LV halogen lamps and ceramic HID lamps such as CDM-T, CDM-TC or CDM-TM.

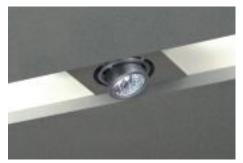




Module QR-111, fixed



Module QR-111, cardanic



Module QR-CBC 51, cardanic



Trimless Lighting Panels

In this "hall of reflections," lighting panels are used as individual luminaires in trimless design. These individual luminaires have been specially adapted for installation in the acoustic ceiling. Daylight control, emergency lighting, sensor technology and air-conditioning are built-in. It was even possible to largely dispense with inspection holes since this facility is also provided by the lighting system.

Lighting Panels

Flooded with light due to the large-format glass front and featuring large reflective surfaces, the foyer makes use of flat lighting panels to provide uniform lighting that is free of transitions. The trimless lighting channels emphasise the room's architectural lines and the transition to the wall is virtually imperceptible.



Lighting Panels - Shadow Gap
A filigree shadow gap running
around the edge of the luminaire characterises the appearance of this integrated and
therefore low-profile installation version. Intelligent accessories facilitate problem-free
installation into the ceiling.





Lighting Panels - Frame

A filigree frame around the edge enables the lighting panels to be retro-fitted without problem in apertures cut in the ceiling. The special spring system ensures a secure hold and reduced installation costs.





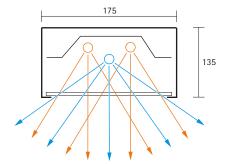
Lighting Control

To enable artificial lighting in indoor areas to have a natural effect, it should be adjusted to suit the circadian rhythm of the users. Altering the colour temperatures in line with the colour progression of natural light is, alongside brightness, the most significant factor when implementing biologically regulated light. In this way, periods of activity and rest can both be supported practically. In the mornings, the light is slightly bluish and has the

highest colour temperature. The red component in the colour of light increases as the evening approaches.

Lighting Technology

The light becomes biologically effective when large-area luminaires are aimed towards the human eye from above and from the front. This is the only way to reach large areas of the retina. The additional brightening of wall and ceiling surfaces augment this effect.





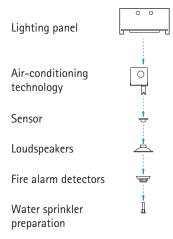






Multifunction Luminaires

Holistic building technology concepts reduce the construction costs and increase the flexibility. Multifunction luminaires offer a solution here by way of increased system integration without impairing the interior design. Incorporation into the building technology is achieved using system adapters or complete system elements. Detailed clarification is required for customised, project-specific implementation.





Safety Luminaires

Independent luminaire inserts with or without single batteries are integrated as system elements in a non-maintained circuit. A wide variety of wattages allows the emergency lighting units to be used as safety or secondary lighting. Rescue signs can be integrated in continuous circuits or into reference luminaires by using optical lighting accessories. Easy revision of the additional elements allows usage of single batteries.

Fire Alarm Detectors

In principle conventional fire alarm detectors can also be integrated as a system element into the multifunctional luminaires. To ensure conformity with the current German VDE Guidelines, the possibility of integration must be checked in detail and must be confirmed by the fire alarm detector manufacturer with a certificate of compliance (German regulation for the German market).

Tone

Wide band loudspeakers are available as a system element. A bayonet lock allows them to be integrated, aligned and reversed.

Water Sprinkler

System adaptors allow the installation of a covering plate with 50mm cut out hole. Avoiding frictional connected luminaire the installation of suspended screen sprinklers and the supply of the sprinkler pipes can be realized. A certificate of compliance by the water sprinkler manufacturer is recommended.

Special Equipment

Besides the mentioned basic elements further technical elements can be integrated in addition to the indicated basic modules. This includes: video monitors; alarm and sensor technology; revision elements for control valves and maintenance elements.



In addition to the harmonious design styling, the combination of air conditioning and lighting technology also reduces installation time by reducing the ceiling cut-outs. System adaptors allow the integration of additional elements at the same time fulfilling various climatic demands. A spatial separation of individual technical elements guarantees highly efficient individual functions. Controllable inte-

gration of air input and output.

Lighting Panels

Individual Luminaire

As a design aid we distinguish between individual luminaires and system luminaires. Individual luminaires are ready-to-connect one-piece units. They are prepared for installation as per mounting system F. The delivery includes the system related accessories including the end plates, the electrical components and the lens system.

▶ System Luminaire

Lighting channel system designed as a custom-length luminaire with which different system components can be individually combined. This makes it possible for luminaire arrangements that delineate a room or area to be realised according to the designer's plans. The detailed design-work for such a system is done by our design department.

Mounting Systems:



SYSTEM FMounting with retention springs

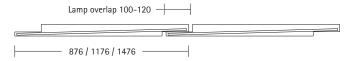


SYSTEM K
Mounting on stud bolts



SYSTEM H
Mounting on
auxiliary
construction

Unit length for lighting panels in overlapping formation:



Unit length for lighting panels:

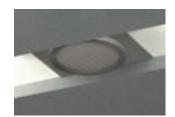




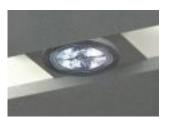
Mounting System F The luminaire is clipped into the ceiling tool-free using patented retention springs. For ceiling thicknesses of up to 25mm.

► System Components

The system components shown here are just a small excerpt of the current range of accessories that are available. More detailed design documents and an overview of the entire product range can be downloaded from our homepage as PDF files.



Receptacle module for technical components Art. No. 1400.097



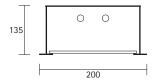
Module for luminaire unit Art. No. 1400.096

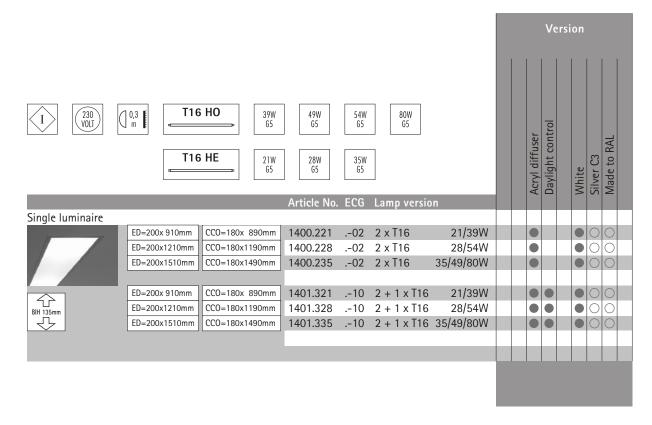


Lighting Panels

Individual luminaires made of sharply folded, galvanised sheet-steel with a narrow frame. Alternatively available as a trimless version or with a shadow gap to suit various ceiling situations. Complete luminaire with MultiPower technology electronic control gear. Also available as a controllable version with DALI or 1-10V interface. Equipped for T5, HE/HO fluorescent lamps. Prewired with heatresistant cable and ready-toconnect. Luminaire covered with a wide-beam diffuser made of highly dispersing, opal acrylic with satin-frosted surface finish. Alternatively also available with photometrically calculated microprism cover.



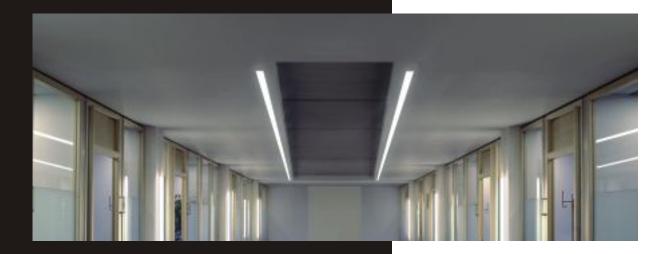




Strip Lighting

Strip Lighting

Recess-mounted linear luminaires as individual luminaires or as a custom-length system are used in prestigious rooms and in thoroughfares. Strip lighting delineates an area and, if required, can serve to underline architectural lines or to provide homogenous illumination of general areas. The systems can be used in wall and ceiling areas.





Strip Lighting

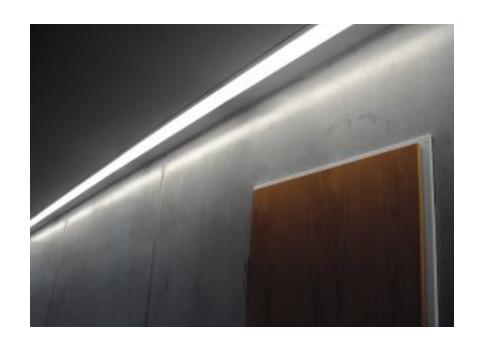
Freely extendable lighting channel made of aluminium profile with different inserts. Suitable for vertical and horizontal mounting. Available as a frameless version or with a filigree all-round edge profile. Can be used to provide luminaire arrangements functioning as ambient lighting and/or as accent lighting. The cover of the strip lighting is made of opal acrylic with satinized surface. The miniaturised louvred luminaires have highquality parabolic specular louvres made of aluminium. Spotlight systems and building technology components can be integrated into the system.



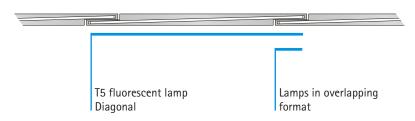
Lamp Overlap

When implementing the system, it is important to avoid the characteristic dark zones between one lamp and the next by overlapping the lamps.

Our system luminaires have been specially designed for this type of application. The illuminating surface of the diffuser is illuminated without any transitions or shadows.



Strip lighting with shadow-free acrylic lens





Diffuser

Cover designed as an acrylic diffuser. Satinized opal surface with high transmission factor for diffuse light distribution and glare-free light.



Parabolic Louvre

The parabolic louvres used are fitted as a continuously louvred strip with end plates. Our aluminium louvres are noted for their high efficiency and good glare control. They are suitable for use with computer workstations and for professional use in offices.





Strip lighting with parabolic louvre

Can be fitted as a continuously louvred

strip or positioned anywhere in the profile with blank covers over the empty elements.



Parabolic Louvre
Parabolic louvre with highly
reflective surfaces. Aluminium
with reflection-intensifying
coating to increase the light
output ratio. CAT 2



Dual Light

To provide scenic light, spotlight inserts are available. Highly diverse lighting moods can be created by using different light sources. Diffuse and pin-pointed light are combined as a double function in one luminaire that does not come to the fore itself. The even ambient light produced by the T5 fluorescent lamps is complemented by additional, independent lighting.

Spotlight Module

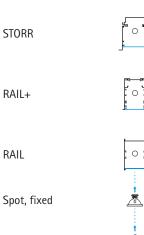
When combined with fixed or adjustable projection inserts, high vertical accentuation is possible. Light sources for the auxiliary lighting are halogen lamps in low voltage, ceramic HID lamps – such as BriteSpot Es50 – and LED.



Fixed luminaire inserts



Tiltable luminaire inserts



Spot, tiltable



T5 / LED Lighting Control

Altering the colour temperatures in line with the colour progression of natural light is, alongside brightness, the most significant factor when implementing biologically regulated light. In this way, periods of activity and rest can both be supported practically.

A program control with predefined light scenes up to and including dynamic colour temperature is possible as an optional extra.





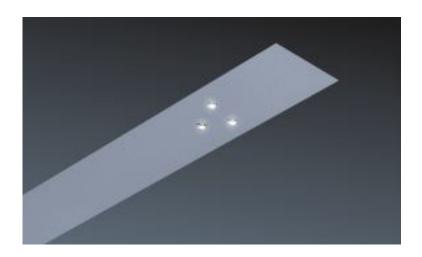


LED / RGB Strip Lighting

The additive colour mixing in infinitely adjustable colour spectra enable scenic colour changing, decorative and inspiring light or colour matching to suit the natural dynamics of our surroundings.







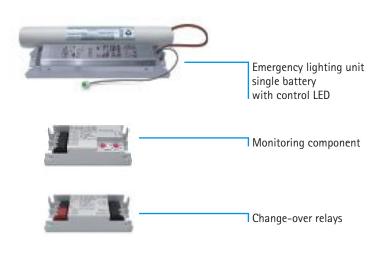
Safety Luminaires

Independent luminaire inserts with or without single batteries are integrated as system elements in a non-maintained circuit. A wide variety of wattages allows the emergency lighting units to be used as safety or secondary lighting. Rescue signs can be integrated in continuous circuits or into reference luminaires by using optical lighting accessories. Easy revision of the additional elements allows usage of single batteries.

LED Emergency Module Specific components such as

monitoring modules, AC/DC switching points, address modules and individual batteries can be integrated for the emergency lighting function.



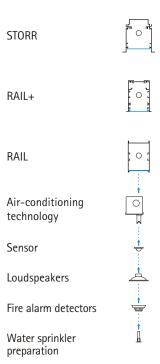






Multifunctional Luminaires

Holistic concepts in building engineering decrease construction costs and increase flexibility. Here multifunctional luminaires offer a solution through an increased system integration without affecting the interior design. System adaptors or complete system elements realize the connection to building engineering. Project related realization should be clarified in detail.



Fire Alarm Detectors

In principle conventional fire alarm detectors can also be integrated as a system element into the multifunctional luminaires. To ensure conformity with the current German VDE guidelines, the possibility of integration must be checked in detail and must be confirmed by the fire alarm detector manufacturer with a certificate of compliance (German regulation for the German market).

Water Sprinkler

System adaptors allow the installation of a covering plate with 50mm cut out hole. Avoiding frictional connected luminaire the installation of suspended screen sprinklers and the supply of the sprinkler pipes can be realized.

A certificate of compliance by the water sprinkler manufacturer is recommended.

Tone

Wide band loudspeakers are available as a system element. They integrated, aligned and reversible through bayonet lock.

Special Equipment

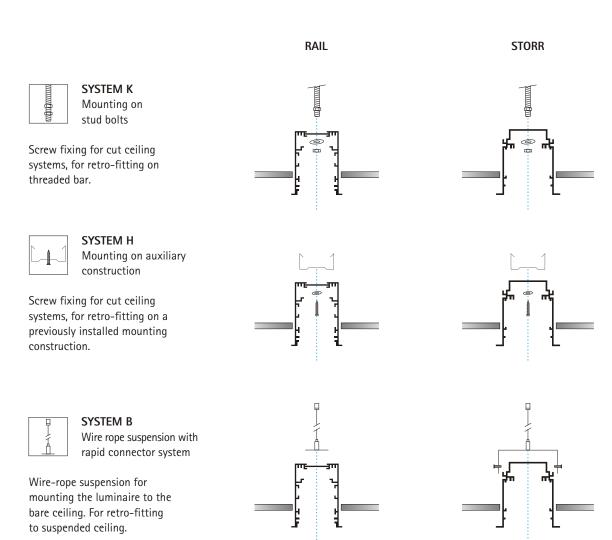
Besides the mentioned basic elements further technical elements can be integrated in addition to the indicated basic modules. This includes: video monitors; alarm and sensor technology; revision elements for control valves and maintenance elements.

Air Conditioning Technology In addition to the harmonious design styling, the combination

of air conditioning and lighting technology also reduces installation time by reducing the ceiling cut-outs. System adaptors allow the integration of additional elements at the same time fulfilling various climatic demands. A spatial separation of individual technical elements guarantees highly efficient individual functions. Controllable integration of air input and output.

Strip Lighting with Frame _____

Various mounting options are available for installation purposes. Please see below for an overview of the most commonly used systems. Project specific solutions are also possible and are solved by our design team.

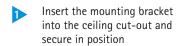


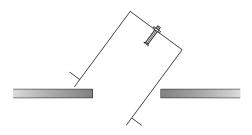




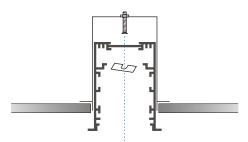
SYSTEM M Mounting with stirrup M

Bracket-mounting for cut ceiling systems for retro-fitting on a suspended-ceiling construction to be fabricated on-site.

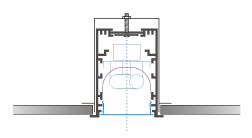




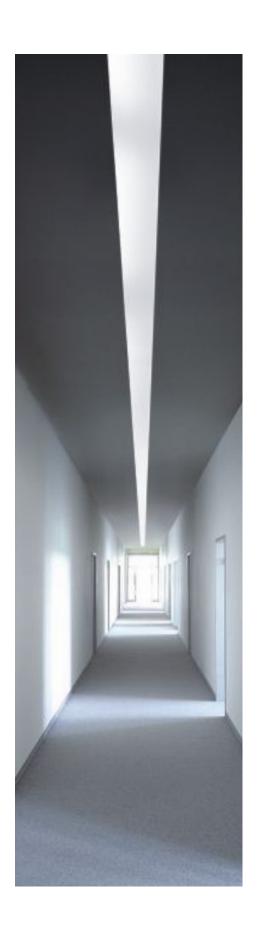
Insert the mounting plate



3 Tighten screw

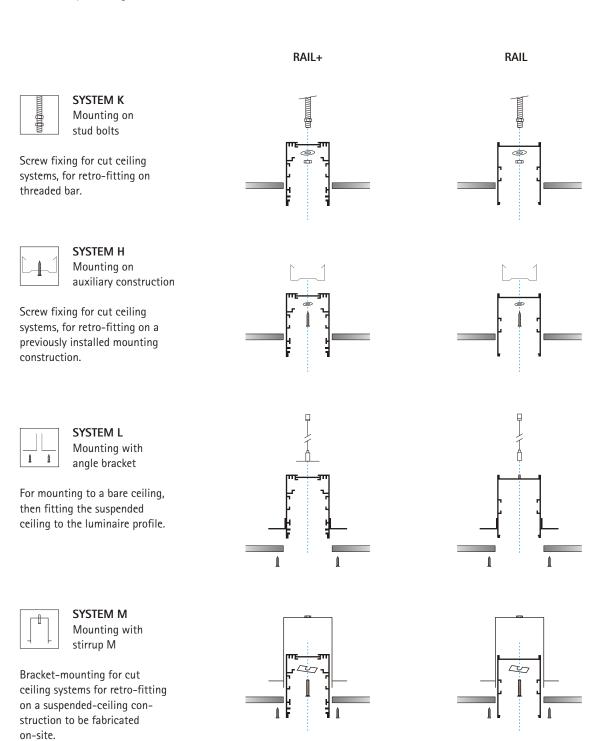


Connect the equipment carrier, screw in place, fit the lamps and check proper operation.



Strip Lighting Frameless

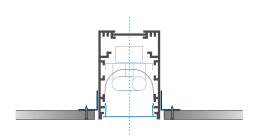
Various mounting options are available for installation purposes. Please see below for an overview of the most commonly used systems. Project specific solutions are also possible and are solved by our design team.





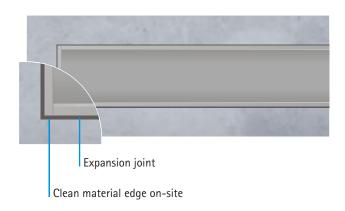


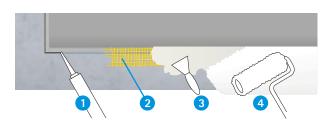
The plastered-in mounting allows the luminaire to be fully integrated into the building structure. To achieve a perfect result, the luminaires must be mounted and fitted with the utmost care. The expansion joint mentioned here is an absolute necessity.

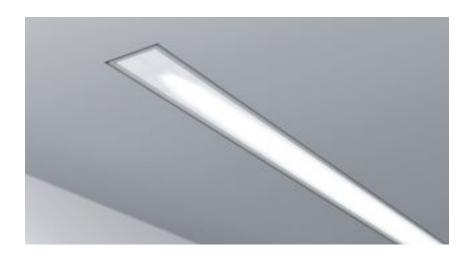


Steps

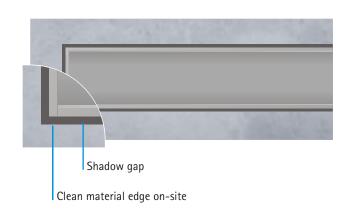
- 1. Insert permanently elastic expansion joint
- 2. Fit plaster gauze over transitions
- 3. Fill and plaster
- 4. Paint







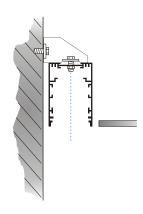
As an alternative to the abovementioned flush-plastered mounting, the installation with shadow gap is also recommendable. A cleanly finished ceiling cut-out can be easily produced using precast plaster parts or plaster rails. Various concrete installation housings are also available for our strip lights.

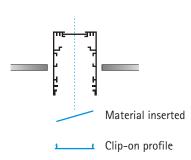


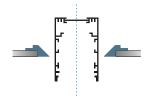
Wall-mounting the luminaire with wall bracket with predefined offset from wall. Fitting to the ceiling with joint. Ceiling finished with finishing profile.

Ceiling cut-out to be produced on-site by the ceiling builder. Ceiling finished with finishing profile.

Ceiling cut-out produced very exactly on-site using solid ceiling plaster profiles.



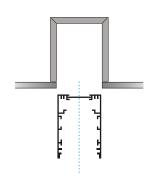




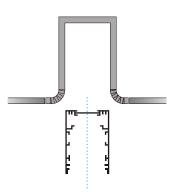


Using individually precast, shaped plaster parts produces a unified appearance of the ceiling system and luminaire. The shaped plaster parts are designed to fit the luminaires to be installed, ensuring uncomplicated installation by the specialist fitters. The variety of shapes is limitless, giving

the designer every possibility to be creative. We are happy to provide support for the technical implementation and can name suppliers once the requirements have been fixed.







Cast in Concrete

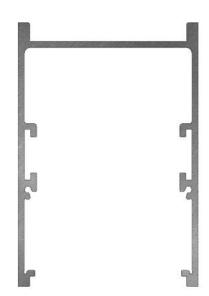
Direct mounting of the aluminium profiles is enabled using wooden cores on the concrete formwork. These have two to four insertion openings for the conduit. Mounting using internal mounting plates is provided in order to enable installation in bare concrete ceilings. Please indicate separately when ordering.

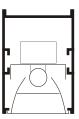


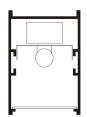
RAIL Strip Lighting	













Parabolic Louvre Parabolic louvre with highly reflective surfaces. Aluminium with reflection-intensifying coating to increase the light output ratio. CAT 2



DiffuserCover designed as an acrylic diffuser. Satinized opal surface with high transmission factor for diffuse light distribution and glare-free light.

RAIL

For luminaires with direct light distribution, the aluminium parabolic louvres are available in two different louvre heights. Both louvre types are compatible for use with computer workstations. The shallow version has very good glare control, CAT 2, combined with optimum efficiency and has a wide-beam light distribution. The high cross louvre ensures maximum glare control, CAT 1. Computer-workstation compatible, featuring a Darklight lens system. The louvres are fitted all the way along. In addition, this profile is also available as a surface mounted strip light, whereby the lamp is covered by a recessed opal diffuser in satin-frosted white.





Inserted Materials

With this profile, the luminaire covers are inserted. This means that in addition to the diffusers that have a purely technical function, decorative diffusers can also be fitted. Highly diverse materials are available.



Acrylic with linear anti-glare prism



Acrylic with conical anti-glare prism



Coloured acrylic



Satinized glass

RAIL Strip Lighting

RAIL Individual Luminaire

As a design aid we distinguish between individual luminaires and system luminaires. Individual luminaires are ready-to-connect one-piece units. They are prepared for installation as per mounting system H. The delivery includes the system related accessories including the end plates, the electrical components and the lens system.

Mounting Systems:



SYSTEM K

Mounting on stud bolts



SYSTEM H

Mounting on auxiliary construction



SYSTEM M

Mounting with stirrup

Unit length for RAIL luminaire row:



Unit length for RAIL strip lighting:

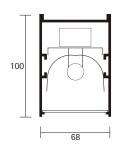


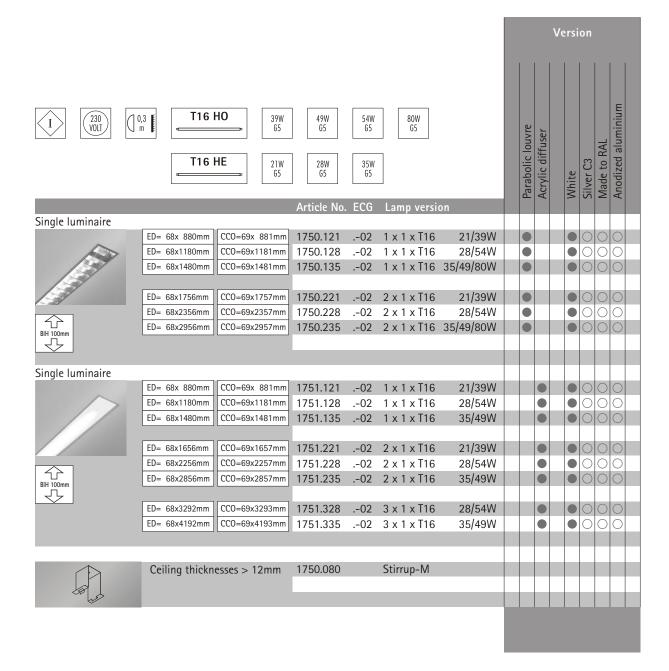


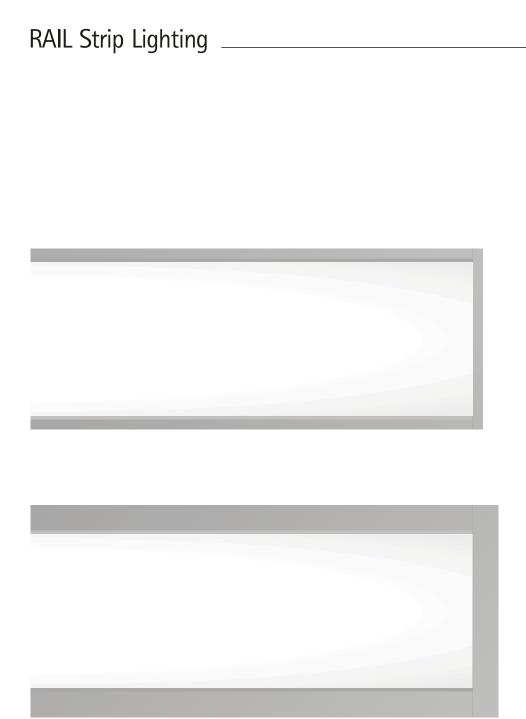
RAIL Strip Lighting

Individual luminaires made of sharp-edged extruded aluminium profile in trimless design. Complete luminaire with integrated MultiPower electronic control gear. Equipped for T5 fluorescent lamps, optionally HO or HE.

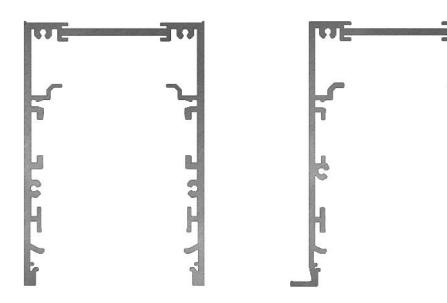
Wired ready-to-connect with heat resistant cable. Luminaire cover optionally available with computer-workstation compatible aluminium parabolic louvre or with wide-beam, opal, acrylic diffuser.









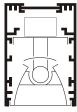


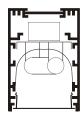
Strip Lighting Installation Profile

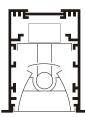
Special tasks require special solutions. The use of rigid aluminium profiles enables a wide variety of design possibilities. Clean transitions, horizontal or vertical corners, connectors, different lens systems and various luminaire inserts give the creative mind much freedom for design and are the basis for giving rooms a complete new feel.

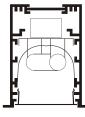








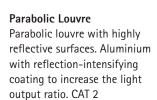




RAIL

This system is designed using empty profiles that are mounted in the ceiling and fitted with a wide range of luminaire inserts. For office applications it is possible to use fluorescent lamp modules with parabolic louvres made of high polish aluminium. Inserts for overlapping lamp arrangement are available to give a continuous, shadow-free strip of light. These light inserts act as the luminaire cover and, with their opal satinized surface finish, are light-dispersing diffusers with high transmittance. In addition, accentuating spotlights, blank covers and compartments for technical equipment can also be integrated into the system. The throughwiring is easily accessible and there is space for further cable routes.







Diffuser

Cover designed as an acrylic diffuser. Satinized opal surface with high transmission factor for diffuse light distribution and glare-free light.

RAIL Strip Lighting

▶ Individual Luminaire

As a design aid we distinguish between individual luminaires and system luminaires. Individual luminaires are ready-to-connect one-piece units. They are prepared for installation as per mounting system H. The delivery includes the system related accessories including the end plates, the electrical components and the lens system.

Mounting Systems:



SYSTEM K

Mounting on stud bolts



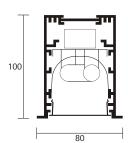
SYSTEM H

Mounting on auxiliary construction



SYSTEM M

Mounting with stirrup



RAIL Strip Lighting

Individual luminaires made of sharp-edged extruded aluminium profile. Complete luminaire with integrated MultiPower electronic control gear. Equipped for T5 fluorescent lamps, optionally H0 or HE. Wired ready-to-connect with heat resistant cable. Luminaire cover optionally available with computer-workstation compatible aluminium parabolic louvre or with wide-beam, opal, acrylic diffuser.

Unit length for RAIL luminaire row:



Unit length for RAIL strip lighting:





					Version				
I 230 VOLT	0,3 T 39W 65 T16 HE 21W 65	49W 65 28W 65 Article No.	54W 65 80W 65 35W 65 ECG Lamp versi	on	Parabolic louvre Acrylic diffuser	White Silver C3 Made to RAL Anodized aluminium			
RAIL, frameless (triml	ess)								
	ED= 68x 880mm CCO=69x 881mm	1753.121	02 1 x 1 x T16	21/39W					
	ED= 68x1180mm CCO=69x1181mm	1753.128	02 1 x 1 x T16	28/54W					
/ m_m	ED= 68x1480mm	1753.135	02 1 x 1 x T16	35/49/80W					
		1750 000	00 0 1 710	00/54141					
7	ED= 68x2356mm		02 2 x 1 x T16	28/54W					
F =	ED= 68x2956mm CCO=69x2957mm	1753.235	02 2 x 1 x T16	35/49/80W					
RAIL, frameless (triml	acc)								
TAIL, Hameless (tillin	ED= 68x 880mm CCO=69x 881mm	1754.121	02 1 x 1 x T16	21/39W					
	ED= 68x1180mm		02 1 x 1 x T16	28/54W		• 0 0 0			
	ED= 68x1480mm			35/49/80W					
				., ., .					
	ED= 68x2256mm	1754.228	02 2 x 1 x T16	28/54W		0000			
	ED= 68x2856mm	1754.235	02 2 x 1 x T16	35/49/80W		• 0 0 0			
RAIL with trim									
	ED= 80x 895mm CCO=69x 881mm		02 1 x 1 x T16	21/39W					
	ED= 80x1195mm CCO=69x1181mm		02 1 x 1 x T16	28/54W					
	ED= 80x1495mm CCO=69x1481mm	1755.135	02 1 x 1 x T16	35/49/80W					
	[D 00 0070 000 00 0077	4755.000	00 0 1 T10	00/54/4/					
	ED= 80x2372mm		02 2 x 1 x T16	28/54W					
	ED= 80x2972mm CCO=69x2957mm	1755.235	02 2 x 1 x T16	35/49/80W					
RAIL with trim									
IVAIL WITH THIII	ED= 80x 895mm	1756.121	02 1 x 1 x T16	21/39W					
^	ED= 80x1195mm		02 1 x 1 x T16	28/54W					
	ED= 80x1495mm			35/49/80W					
				., ., .					
	ED= 80x2272mm	1756.228	02 2 x 1 x T16	28/54W		• 0 0 0			
J	ED= 80x2872mm	1756.235	02 2 x 1 x T16	35/49/80W		• 0 0 0			
	Ceiling thicknesses > 12mm	1750.080	Stirrup-M						
	Width of cut-out 72mm								
Les .									



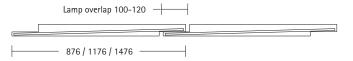
RAIL Strip Lighting

A system luminaire installation as a modular toolbox, consisting of sharp-edged, drawn aluminium extrusions in trimless design or in a version with a narrow, all-round edge frame. Mounting strips with integrated MultiPower electronic control gear. Equipped for T5 fluorescent lamps, optionally HO or HE. Prewired with heatresistant cable and ready-toconnect. Luminaire cover is optionally available with computer-workstation compatible aluminium parabolic louvre or with wide-beam, opal, acrylic diffuser.

► Louvre Spacing

The various louvre dimensions are dictated by the different lamp positions. With individual luminaires and with system luminaires that have louvres there is no overlapping arrangement of the fluorescent lamps. Therefore the construction dimension = lamp length plus lampholder.

Unit length for RAIL strip lighting:



Unit length for RAIL luminaire row:





▶ System Luminaire

Lighting channel system designed as a custom-length luminaire with which different system components can be individually combined. This makes it possible for luminaire arrangements that delineate a room or area to be realised according to the designer's plans. The detailed design-work for such a system can be done directly and easily.

System Luminaire Options

Luminaire profile, empty

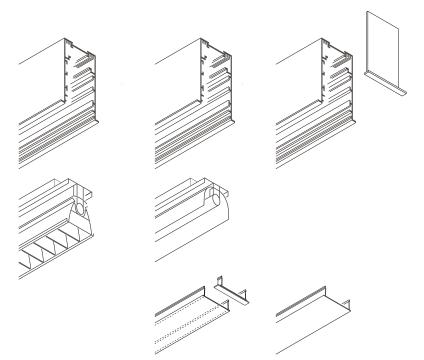
- Profile frameless (Trimless)
- Profile with edge frame

Light Unit

- Unit with parabolic louvre
- Unit with reflector for fluorescent lamp
- Unit with reflector for overlapping lamps

Luminaire Cover

- Blank aluminium profile
- Acrylic diffuser



Operating Equipment Order Codes

- .01 Low-loss control gear
- .02 Electronic control gear
- .03 Dimmable ECG 1-10 volt
- .04 2 x individual ECG
- .05 2 x dimmable ECG 1-10 volt
- .10 Dimmable ECG DALI
- .11 2 x dimmable ECG DALI

Colour Key

- .-14 Anodized aluminium
- .-20 Made to RAL
- .-23 Silver C3
- .-25 Titanium silver
- .-31 White
- .-32 Matt white



RAIL+ frameless (Trimless)



RAIL+ with frame (Frame)



End cover Art. No. 1762.099



End cover Art. No. 1763.099



T-connector Art. No. 1762.095



T-connector Art. No. 1763.095



L-connector angle 90° Art. No. 1762.093



L-connector angle 90° Art. No. 1763.093



L-connector special angle Art. No. 1762.090



L-connector special angle Art. No. 1763.090

▶ System Components

The system components shown here are just a small excerpt of the current range of accessories that are available. More detailed design documents and an overview of the entire product range can be downloaded from our homepage as PDF files.

Mounting Systems:



SYSTEM K
Mounting on stud
bolts



SYSTEM H
Mounting on
auxiliary construction



SYSTEM MMounting with stirrup



Straight connector Art. No. 1762.098



Spacing cover Art. No. 1764.099



Mounting brackets, system M

1750.080 For ceiling thicknesses 12mm Width of cut-out 72mm



Wire-rope suspension, system B

1762.111 wire rope L= 1000mm 1762.112 wire rope L= 2000mm



Wire-rope suspension with canopy and cable

1762.121 wire rope L= 1000mm 1762.122 wire rope L= 2000mm



Through-wiring

1772.528

1772.535

3-pole	Butted lamps	
1770.321	for luminaire insert	21W
1770.328	for luminaire insert	28W
1770.335	for luminaire insert	35W
3-pole	Overlapping lamps	
1772.321	for luminaire insert	21W
1772.328	for luminaire insert	28W
1772.335	for luminaire insert	35W
5-pole	Butted lamps	
1770.521	for luminaire insert	21W
1770.528	for luminaire insert	28W
1770.535	for luminaire insert	35W
1770.535	for luminaire insert	35W
1770.535 5-pole	for luminaire insert Overlapping lamps	35W

for luminaire insert

for luminaire insert 35W

28W

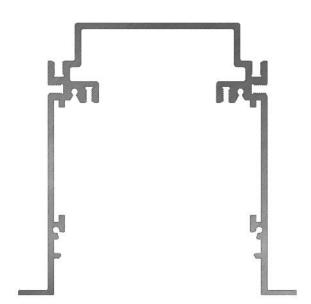


							Ve	rsion		
To specify the profile's length, the placeholders ".xxx" are replaced by the length in cm.	Empty p Length 3	g example: rofile RAIL+ 3100mm in w 1761.310.00	vhite would be: 0.32		Anndized EGEV1	White	Made to RAL	Not dimmable	DALI, dimmable	1-10 volt, dimmable
	W = 68mm CCO= 69mm	1760.xxx 1760.000	Empty profile Sawn	in metres to size						
	W = 80mm CCO= 69mm	1761.xxx 1761.000	Empty profile Sawn	in metres to size						
Luminaire insert with parabolic louv	Length 875mm Length 1175mm Length 1475mm	1770.121 1770.128 1770.135	02 1 x T16 02 1 x T16 02 1 x T16	21/39W 28/54W 35/49/80W						0
Luminaire insert with reflector (with	Length 175mm Length 1475mm Length 1475mm	1771.121 1771.128 1771.135	02 1 x T16 02 1 x T16 02 1 x T16	21/39W 28/54W 35/49/80W						0
Overlapping lamp arrangement	Length 875mm Length 1175mm Length 1475mm	1772.128	02 1 x T16 02 1 x T16 02 1 x T16	21/39W 28/54W 35/49/80W						0
Acrylic diffuser		1764.xxx 1764.000	Empty profile Sawn	in metres to size						
Blank aluminium cover		1765.xxx 1765.000	Empty profile Sawn	in metres to size						

STORR Strip Lighting _____

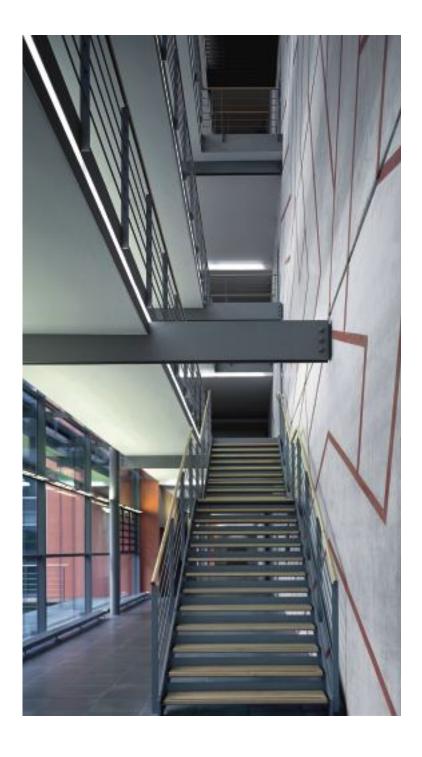




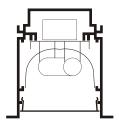


Strip Lighting Installation Profile

Special tasks require special solutions. The use of rigid aluminium profiles enables a wide variety of design possibilities. Clean transitions, horizontal or vertical corners, connectors, different lens systems and various luminaire inserts give the creative mind much freedom for design and are the basis for giving rooms a complete new feel.







STORR

Individual lighting design with this lighting channel for recessed ceiling installation. The housing is made of extruded aluminium profile and has a narrow edge frame all-round to cover the edge of the ceiling cut-out. The wide range of accessories provides various options for fitting out the channel. In addition to fluorescent elements covered with parabolic louvres or diffusers, low-voltage inserts and LED inserts offer emotive lighting accents. The use of clip-on aluminium covers allows the luminaire insert to be positioned anywhere within the lighting strip.



Parabolic Louvre Parabolic louvre with highly reflective surfaces. Aluminiu with reflection-intensifying

reflective surfaces. Aluminium with reflection-intensifying coating to increase the light output ratio. CAT 2



Diffuser

Cover designed as an acrylic diffuser. Satinized opal surface with high transmission factor for diffuse light distribution and glare-free light.

► Individual Luminaire

As a design aid we distinguish between individual luminaires and system luminaires. Individual luminaires are ready-to-connect one-piece units. They are prepared for installation as per mounting system H. The delivery includes the system related accessories including the end plates, the electrical components and the lens system.

Mounting Systems:



SYSTEM K

Mounting on auxiliary construction



SYSTEM H

Mounting on stud bolts



SYSTEM M

Mounting with stirrup

Unit length for STORR luminaire row:

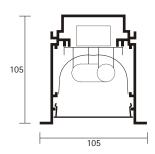


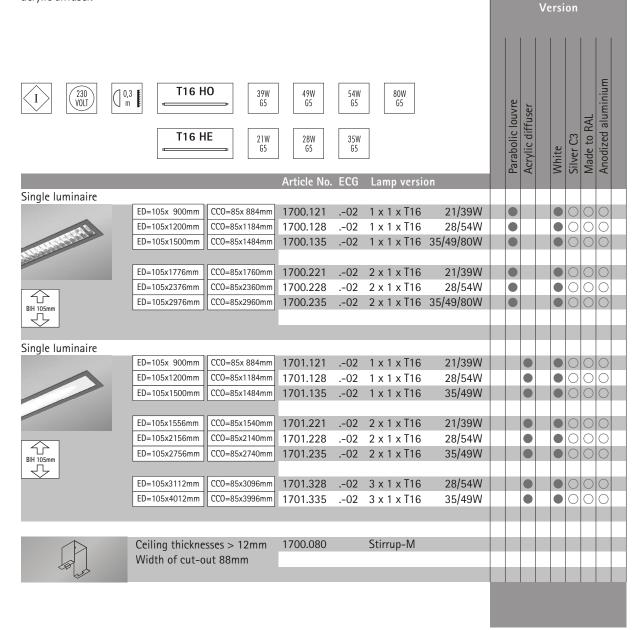
Unit length for STORR strip lighting:

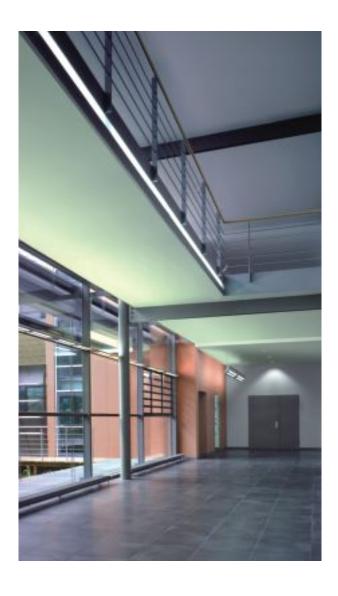




Individual luminaires made of sharp-edged extruded aluminium profile with an all-round trim overlapping onto the ceiling. Complete luminaire with integrated MultiPower electronic control gear. Equipped for T5 fluorescent lamps, optionally HO or HE. Wired ready-to-connect with heat resistant cable. Luminaire cover optionally available with computer-workstation compatible aluminium parabolic louvre or with wide-beam, opal, acrylic diffuser.





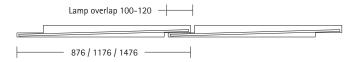


A system luminaire installation as a modular toolbox, consisting of sharp-edged, drawn aluminium extrusions in trimless design or in a version with a narrow, all-round edge frame. Mounting strips with integrated MultiPower electronic control gear. Equipped for T5 fluorescent lamps, optionally HO or HE. Prewired with heatresistant cable and ready-toconnect. Luminaire cover is optionally available with computer-workstation compatible aluminium parabolic louvre or with wide-beam, opal, acrylic diffuser.

► Louvre Spacing

The various louvre dimensions are dictated by the different lamp positions. With individual luminaires and with system luminaires that have louvres there is no overlapping arrangement of the fluorescent lamps. Therefore the construction dimension = lamp length plus lampholder.

Unit length for STORR strip lighting:



Unit length for STORR luminaire row:





▶ System Luminaire

Lighting channel system designed as a custom-length luminaire with which different system components can be individually combined. This makes it possible for luminaire arrangements that delineate a room or area to be realised according to the designer's plans. The detailed design-work for such a system can be done directly and easily.

System Luminaire Options:

Luminaire profile, empty

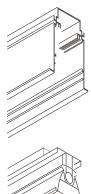
- Profile with edge frame

Light Unit

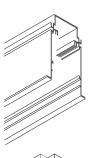
- Unit with parabolic louvre
- Unit with reflector for fluorescent lamp
- Unit with reflector for overlapping lamps

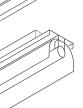
Luminaire Cover

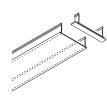
- Blank aluminium profile
- Acrylic diffuser

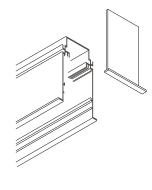














Operating Equipment Order Codes

- Low-loss control gear .01
- Electronic control gear .02
- Dimmable ECG 1-10 volt .03
- 2 x individual ECG .04
- .05 2 x dimmable ECG 1-10 volt
- Dimmable ECG DALI .10
- .11 2 x dimmable ECG DALI

Colour Key

- .-14 Anodized aluminium
- .-20 Made to RAL
- Silver C3 .-23
- .-25 Titanium silver
- .-31 White
- .-32 Matt white



STORR



End cover Art. No. 1712.099



T-connector
Art. No. 1712.095



L-connector angle 90° Art. No.1712.093



L-connector Special angle Art. No. 1712.090

▶ System Components

The system components shown here are just a small excerpt of the current range of accessories that are available. More detailed design documents and an overview of the entire product range can be downloaded from our homepage as PDF files.

Mounting Systems:



SYSTEM K
Mounting on
auxiliary construction



SYSTEM H Mounting on stud bolts



SYSTEM M Mounting with stirrup



Straight connector Art. No. 1712.098



Spacing cover Art. No. 1714.099



Mounting brackets, System M

1700.080 For ceiling thicknesses 12mm Width of cut-out 88mm



Wire-rope suspension, system B

1712.111 wire rope L= 1000mm 1712.112 wire rope L= 2000mm



Wire-rope suspension with canopy and cable

1712.121 wire rope L= 1000mm 1712.122 wire rope L= 2000mm



Through-wiring

1722.528

1722.535

_	5	
3-pole	Butted lamps	
1720.321	for luminaire insert	21W
1720.328	for luminaire insert	28W
1720.335	for luminaire insert	35W
3-pole	Overlapping lamps	
1722.321	for luminaire insert	21W
1722.328	for luminaire insert	28W
1722.335	for luminaire insert	35W
5-pole	Butted lamps	
1720.521	for luminaire insert	21W
1720.528	for luminaire insert	28W
1720.535	for luminaire insert	35W
5-pole	Overlapping lamps	
1722.521	for luminaire insert	21W

for luminaire insert 28W

for luminaire insert 35W

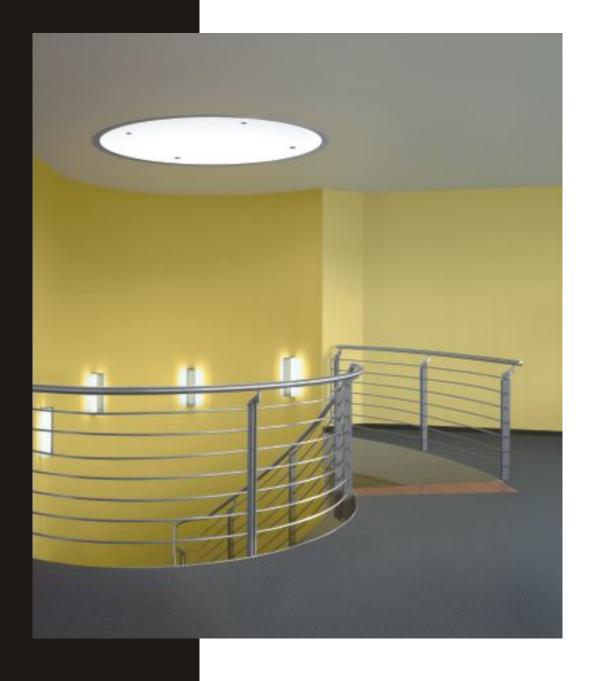


							Version							
To specify the profile's length, the placeholders ".xxx" are replaced by the length in cm.	Empty p Length 3	g example: rofile STORR 3100mm in v 1710.310.3:	vhite w 2	ould be:		·	Anodized E6EV1	White	Made to RAL	Not dimmable	DAIL dimmable	1-10 volt, dimmable		
STORR with frame	→ W= 105mm	1710 2002	Emnt	u profile	in motros						L			
BIH 10	5mm CCO- 85mm	1710.xxx 1710.000	Sawr		in metres to size			-						
									_		L	┸		
Luminaire insert with parabolic louvre														
Luminaire insert with parabolic louvre	Length 875mm	1720.121	02	1 x T16	21/39W									
	Length 1175mm	1720.128		1 x T16	28/54W	П	Т	П	Т	•				
	Length 1475mm	1720.135	02	1 x T16	35/49/80W									
							_	_	_		┵	┸		
Luminaire insert with reflector (withou	t diffuser)													
Lummane insert with reflector (without	Length 875mm	1721.121	02	1 x T16	21/39W									
	Length 1175mm	1721.128		1 x T16	28/54W	П	Т	П	Т	•				
	Length 1475mm	1721.135	02	1 x T16	35/49/80W									
								_	_	_		_		
Overlapping lamp arrangement														
Overlapping lamp arrangement	Length 875mm	1722.121	02	1 x T16	21/39W									
	Length 1175mm	1722.128	02	1 x T16	28/54W	П	Т	П	Т	•				
	Length 1475mm	1722.135	02	1 x T16	35/49/80W									
								_	_	_		_		
Acrylic diffuser														
Actylic diffuser		1714.xxx	Fmpt	v profile	in metres									
		1714.000	Sawr		to size	П	Т	П	Т		Т	Т		
A to the state of														
estate the second secon								_	_	_		_		
Blank aluminium cover														
Diank aluminum cover		1715.xxx	Empt	v profile	in metres									
		1715.000	Sawr		to size									

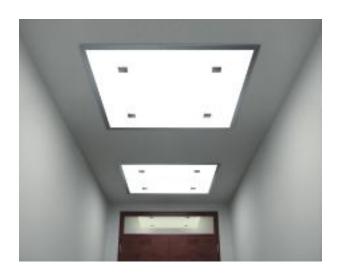
Luminous Fields

Large-shaped luminaires have gained rapid acceptance as design features and technical lighting solutions in architecture. The ability to use colour temperature changes to adapt the created pools of light to suit the dynamics of natural daylight enables the physiolog-

ical and psychological effects of a design to be reinforced. This enhances a feeling of wellbeing and good health. As a design element, colour allows architecture to be experienced more consciously. Additive colour mixing sets accents and positively influences moods.







Luminous Fields

Compact luminous ceilings in one piece with a constructive design which can therefore be mounted into ceiling cut-outs like a conventional single luminaire. The elements are supplied as standard with ceiling frames that are available in polished stainless steel or powder-coated steel. Also available as a finery frame version. The special glass diffuser pane is mounted subsequently in alignment with the ceiling from the underside.







Plane Spaced Luminaire

Applicable as modular luminous ceiling or as single luminaire. Enclosed sheet-metal body white powder-coated. Luminaire conclusion with spreading frame for mounting into sawn ceiling openings. Also available as a finery frame version for ceiling aligned mounting. The built-in depth can be adapted according to the site's requirements.

The luminaires are ready for installation and are supplied in one piece. Covered by a special diffuser combined with a colour neutralized Opti-white safety glass resulting in a LSG hardened genuine glass pane.

Lighting Technology

These luminaires are operated with electronic ballast for T5 HO/HE fluorescent lamps. The interface 1–10V is used for variable dimming as a standard, alternate other interfaces such as DSI, DALI or Push are possible. Available with daylight dependent control or a programmable control with predefined light scenes or even dynamic colour temperature regulation.

Luminous Fields with RGB

Colours are additively mixed by separately driving the primary colours of red, green and blue. This achieves a wide colour spectrum. Individual, single colours can be produced as well as colour effects with scenic, decorative or inspiring colour changes.



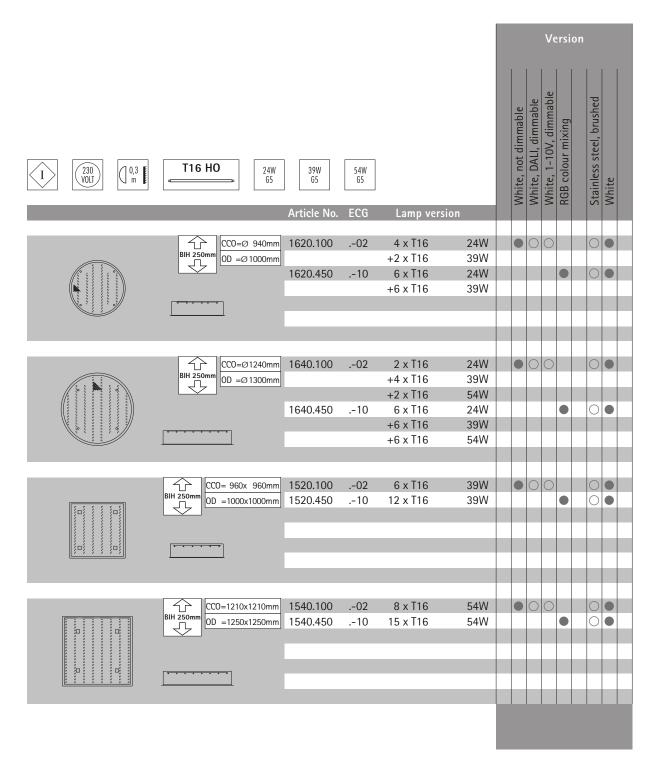












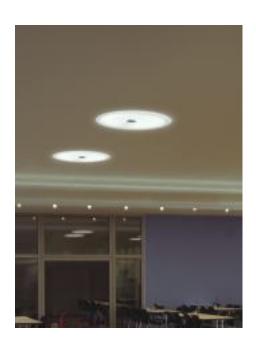


PIATTO

This recessed luminous field was developed for a diffuse illumination of large spaces. The streamlined design is distinguished by the large, bright glass surface held by a centrally positioned stainless steel plate. The luminous field is mounted into sawd ceiling openings. Spring clips allow easy and fast assembly. Powerful light is provided by T5 circular fluorescent lamps.

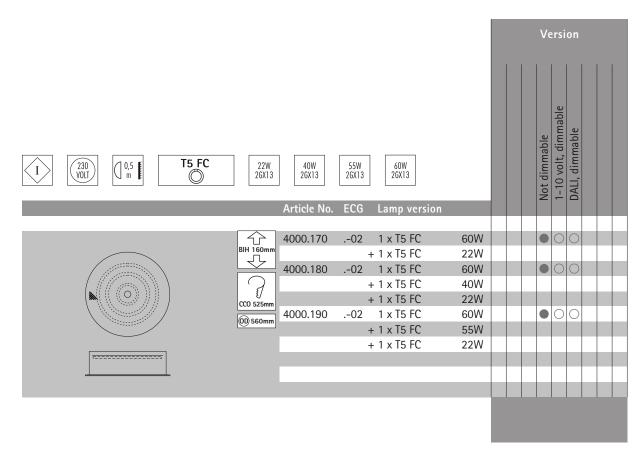






PIATTO

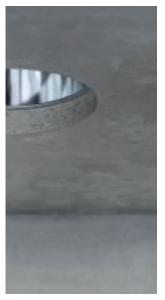
Luminous field as a single luminaire. Luminaire with electronic control gear for circular fluorescent lamps T5. Also dimmable with interface DALI or 1–10V. Prewired ready for installation with heat resistant cable. Luminaire suitable for emergency lighting. Closed sheet-metal body, white powder-coated. Lamp is covered with a complete satinized, genuine glass diffuser spreading over the rim.











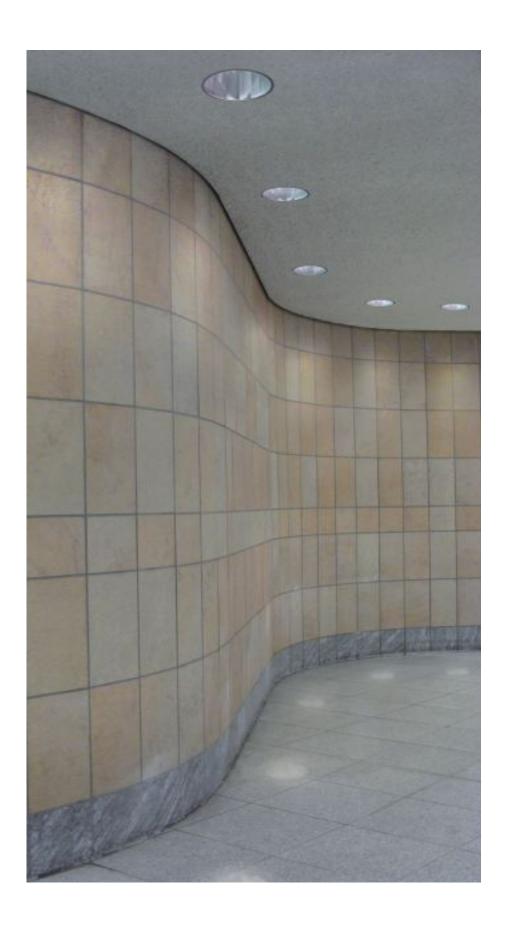
Trimless Luminaire System

The luminaires used are to be a discreet yet integral part of the architecture this contemporary design approach is perfected by our frameless luminaire series "Trimless". Installed flush with the ceiling or even recessed into it without any visible edge, these luminaires recede into the background, simply leaving discreet ceiling openings identifiable as the source of

light. The exact luminaire detail and the necessary accessories have been optimised and adapted to suit the respective on-site situation as dictated by the building. This ensures that the architectural idea can also be technically implemented without problem.



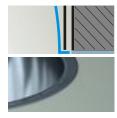
The trimless installation in cast concrete ceilings can be realised using specially developed cast-in housings. The use of a variable core element means this is also possible with bare concrete ceilings.



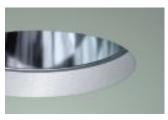


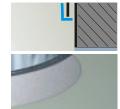
Downlight Luminaire Conclusions





Trimless, flush
The plastering frame is covered
by the lip of the reflector. The
reflector edge sits in a slight
recess and finishes flush with
the ceiling.





Trimless, recessed

Edge-less installation using a plastering frame with a mounting sleeve. This sleeve is plastered over and painted in the final ceiling colour on site.

Installation example for acoustic ceiling:

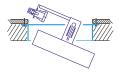
Mounting module with plastering edge



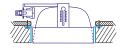
Acoustic plaster T = 10 - 50mm



Installing the downlight



Finished installation



Trimless Downlight



Trimless

Luminaire adapted to suit the ceiling system using a separate mounting frame. Optionally for flush installation or recessed installation. The plastering frame is fixed in the ceiling cut-out that was produced on site and is secured using drywall screws. Fitting to the ceiling system is performed on site. Luminaire housing for subsequent installation into finished ceiling.

Mounting module with plastering edge



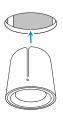
Securing and plastering



Painting



Installing the downlight









Trimless Downlight Equipped for TC-Te compact fluorescent lamps or CDM-T high-pressure discharge lamp in a vertical burning position. Luminaire housing and plastering frame made of powder-

coated sheet-steel. Prewired with heat-resistant cable and

ready-to-connect.

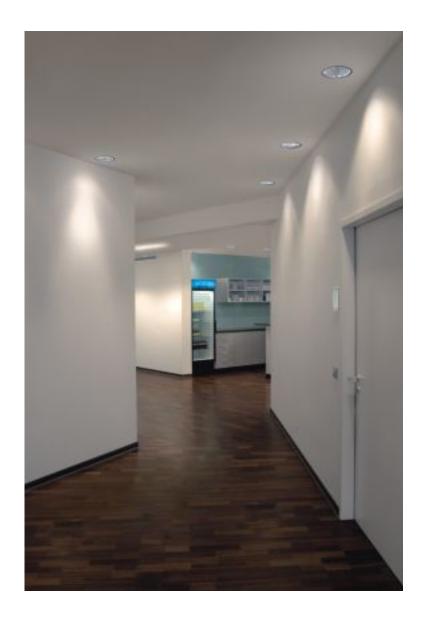
► To specify the choice of reflectors, please add:

S = Spot

M = Medium

F = Flood

					Version						
230 0,5 M	TC-Te GX24q-2 CDM-T ■ 35-70W G12	26/32W 6X24q-3 Article No.	ECG	Lamp version		Flush mounted	Recessed mounted		Reflector, spot		Reflector, flood
	BIH 230mm CC0166mm	4960.118 4960.132 4960.098	02 02	1 x TC-Te 1 x TC-Te 2	18W 26/32W						
	absolutely necessary!	4960.099 Plastering frame, recessed									
	BIH 170mm CCC0166mm	4970.035 4970.070	.02	1 x CDM-T 1 x CDM-T	35W 70W	•	-		0		
	Plastering frame absolutely necessary!	4960.098 4960.099		ring frame, flush ring frame, reces			H				
	Plastering frame	4975.035 4975.070 4975.098		1 x CDM-T 1 x CDM-T ring frame, flush							0
	absolutely necessary!	4975.099	Plaste	ring frame, reces	sed						



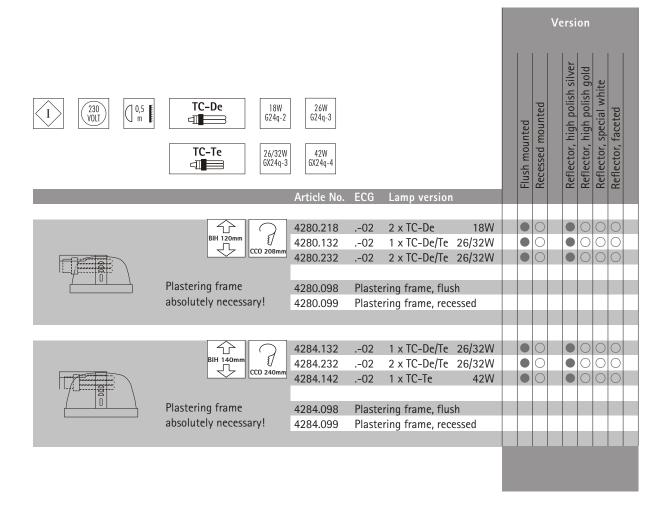
Trimless Downlight, Round Plastered-in installation using separate mounting frame. Optionally for flush installation or recessed installation. To simplify the installation, the plastering frame is in several parts and can be adapted to suit the respective ceiling system and the specific installation situation (e.g. recess depth). The plastering frame is fixed in the ceiling cut-out that was produced on site and is secured using drywall screws. Fitting to the ceiling system is to be done by specialist fitters. Luminaire housing for subsequent installation into finished ceiling. The narrow, all-round reflector edge forms the visible termination of the luminaire.



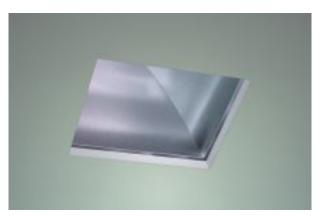


Trimless Downlight, Round
Recessed downlight for TC-De
26W or TC-Te 32W compact
fluorescent lamps either 1flame or 2-flame in horizontal
burning position, mainly with
MultiPower electronic control
gear. This allows an alternative
use of 26W or 32W lamps.
Prewired and ready for installation with heat resistant cable
and terminal block, 3-pole
(5-pole), for through wiring
with twin strain relief.





Trimless Downlight





Trimless Downlight, Square
Plastered-in installation using
separate mounting frame.
Optionally for flush installation
or recessed installation. For
fixing with drywall screws into
the ceiling cut-out that was
produced on site. Fitting to the
ceiling system is to be done by
specialist fitters. Luminaire
housing for subsequent installation into finished ceiling. The
narrow, all-round reflector edge
forms the visible termination of
the luminaire.



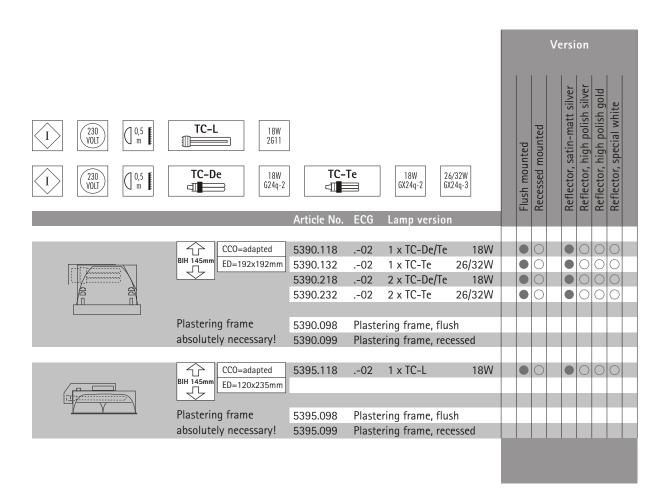
Trimless Downlight, Square Strong, one-piece housing made of galvanized sheet-steel for installation in mounting frame. The luminaire's height adjustment is possible with or without defined end-stop.







Trimless Downlight, Square
Recessed downlight for TC-De
26W or TC-Te 32W Compact
Fluorescent lamps either 1flame or 2-flame in horizontal
burning position, mainly with
MultiPower electronic control
gear. This allows an alternative
use of 26W or 32W lamps.
Prewired and ready for installation with heat resistant cable
and terminal block, 3-pole
(5-pole), for through wiring
with twin strain relief.



Square Downlights



Narrow standard frame



Folded-over reflector



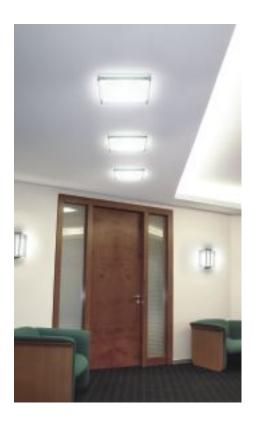
2-piece Changing frame

Standard Downlights

Three different recessed downlights are available to meet diverse design requirements. The particularly narrow standard frame is sharp-edged and flat. The folded-over reflector covers a narrow recessed frame. The Changing frame is a 2-piece system and consists of an easy-to-assemble base frame, which can adapt to take various accessories.







Decorative Glasses ▶ P. 88-91 Decorative ancillary glasses for QUAD downlights are available, mounted on an interchangeable frame or on a standard frame with 4 point fastening. These glasses are completely or partially frosted and equipped with an additional glare frame resulting in an unobtrusive ceiling brightness. An exact anti-glare reduction or even glare elimination can be achieved by diffusers and various optical accessories. The cover frame can be opened tool-free for easy cleaning and maintenance.



CF + glass type 20



CF + opal pane/conus



CF + glass type 22

Square Downlights

Modular plate for panel ceilings

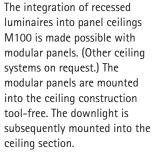


Added-on modular plate

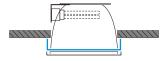


Before ordering please consult us for technical details.

Modular Panels



When using the added-on modular panels the luminaire frame is replaced by this modular panel. The luminaire cover frame is therefore made Frame for semi-recessed mounting

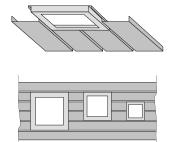


Semi recessing only possible with Changing frame. Changing frame system ▶ P. 86

Semi-Recessed Frame

Reduction of recessing height due to semi-recessing frame up to 40mm possible. Project related supply of appropriate tilting adaptors for recessed luminaires in slant ceilings possible.

145 x 145mm 190 x 190mm 310 x 310mm redundant. Article No. Version Positioning tracks 0905.145 DA 136 x 136 in pairs to 0905.190 DA 178 x 178 strengthen ceiling 0905.220 DA 208 x 208 0905.255 DA 243 x 243 panels 0905.310 DA 285 x 285 0995.190 DA 178 x 178 Cut-in frame 0995.220 DA 208 x 208 DA 243 x 243 0995.255 0995.310 DA 285 x 285 0901.145 2-Field DA 136 x 136 Modular panel for 3-Field DA 178 x 178 0901.190 ceiling system 0901.220 3-Field DA 208 x 208 3-Field panel 85/15 0901.255 DA 243 x 243 DA 285 x 285 0901.310 4-Field 0900.190 DA 178 x 178 Frame for semi-0900.220 DA 208 x 208 0900.255 recessed mounting DA 243 x 243

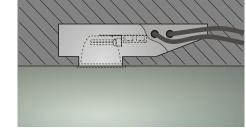


4-Field 3-Field 2-Field



Concrete Housings

The use of concrete housings allows recessed-mounted luminaires to be harmoniously integrated into the ceiling. Special adaptations also enable specific stress requirements to be met. This includes extended concrete runs.



Specification

Sturdy one-piece housing made of galvanized sheet-steel with a slanted concrete run. 2 to 4 entries for conduit. Attached throat can be extended as required. Maximum height 35mm. Fixing tabs for nailfastening to the wooden formwork. When installing in bare concrete ceilings, fixing with internal centring discs must be provided. Please order separately.



Flat Concrete Housings
Article No. 0898.xxxx (whereby xxxx = luminaire Article no.)
Can be used for standard downlights with a horizontal lamp position. Suitable for concrete ceilings and, when centring plates are used, for bare concrete ceilings.

Square Downlights

Downlight Luminaire's Edge

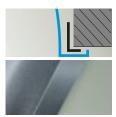




StandardNarrow luminaire conclusion frame in one piece. Recessed

reflector rim, level with frame.





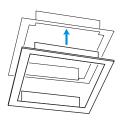
Folded-over Reflector Luminaire conclusion frame concealed (by the reflector rim) and therefore invisible.





Changing Cover Frame

Changing frame system in 2 parts where the luminaire is supplied with a fixed frame. One separate cover frame (to be ordered separately) which is fastened by a spring lock. Suitable for subsequent mounting of optical accessories. Available for frame sizes in 145mm, 190mm, 220mm and 255mm.



To order the Changing frame system please mention "CF" as additional order detail.

▶ The optional Changing frame is not normally included, please order separately.

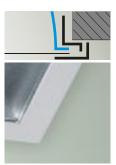
The covering frame can be mounted separately tool-free afterwards. This allows the mounting of luminaires at an early stage of site work.

Downlight Colour Codes

- .-10 Brass
- .-11 Chrome
- .-20 made to RAL
- .-23 Silver C3
- .-26 RAL 9006
- .-31 White
- .-32 Matt white







CF for Glass Panes

The Changing frame can be inserted, either with IP protected, decorative or diffuser glasses. It can also be combined with add-on decorative glass parts.

Various Covers for Various Tasks

Insertion panes made of diverse materials in various surfaces. Whether satin-frosted or opal for spreading light, an even and soft light is always given. Also in glass or acrylic version for protection. All insertion panes offer protection against splashing water, thereby attaining protection class IP43 from the underside when mounted into a closed ceiling system. Also suitable as theft and vandalism protection.

				Version						
To specify the luminaire size replace the placeholders .xxx the frame size.	e, Changin with with fra	g example: g frame for oper me size of 220 w : 0150.220.12					Chrome		Made to RAL	
		Article No.	Version							
	Changing frame for open downlight	0150.xxx12	Standard						0	
	Changing frame to fix glass accessories	0150.xxx13 0150.xxx14 0150.xxx15	Glass fixing bolt, chrome Glass fixing bolt, brass Glass fixing bolt, lacquered				0	•	0	





QUAD CF IP43 protection pane either in opal, satin-frosted or clear

				• (151011
To specify the luminaire size replace the placeholders .xxx the frame size.	with pane with	example: frame with IP43 frame size of 220 : 0160.220.20 Article No.		Chrome White Made to RAL
		Article No.	VCISIOII	
	CF with IP43 protection pane, optional printing is possible	0160.xxx20 0161.xxx20 0162.xxx20	Acrylic, clear Float glass, clear Hardened security glass, clear	
	CF with IP43 protection pane satin-frosted	0165.xxx20 0166.xxx20	Float glass, satin-frosted Hardened security glass, satin-frosted	
	CF with IP43 protection pane in acrylic	0172.xxx20	Acrylic, opal silk	

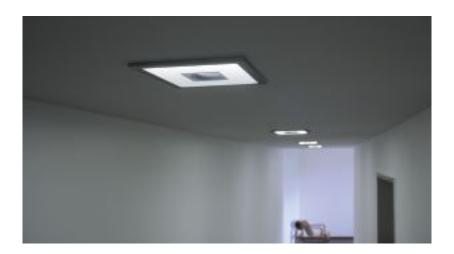






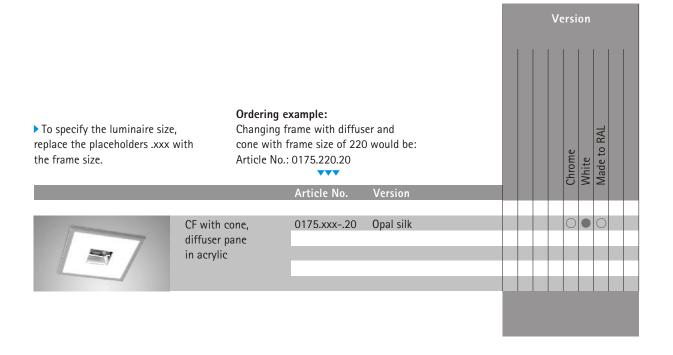
QUAD CF Partially–frostedChanging frame with permanently fitted security glass, fully etched on one side. To conceal the lamp, one side of the glass pane is additionally frosted in the centre.

To specify the luminaire size replace the placeholders .xxx the frame size.	with pane with	example: Frame with IP43 Frame size of 220: 0188.220.20		 Partially-frosted iff centre	ا ا	Chrome	White	Made to RAL	
					\perp				
F7	CF with IP43	0188.xxx20	Float glass, clear						
	protection pane	0189.xxx20	Hardened security glass,		┸	0		0	
	clear, partially-		clear						
Beard/	frosted in centre								
				\perp	┸		Ш		\perp
	CF with IP43	0178.xxx20	Float glass, clear						
	protection pane clear, partially-	0179.xxx20	Hardened security glass,			0		0	
			clear						
	frosted at edge			\perp	\perp		Ш		
			51						
17	CF with IP43	0168.xxx20	Float glass, satin-frosted						
	protection pane	0169.xxx20	Hardened security glass,	1				\circ	
	satin-frosted,		satin-frosted						
	partially-frosted								
	in centre								

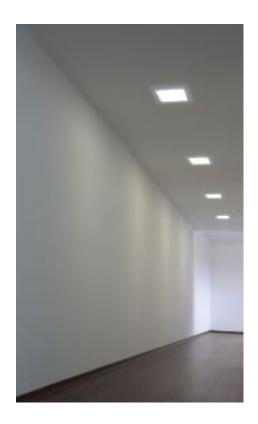




QUAD CF Diffuser + Cone This cover element not only produces a diffuse, glare-free beam via the large luminous surface but also a directed light, directly emitted by the conical reflector.



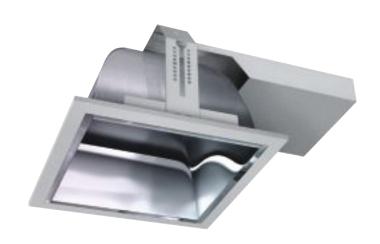






CAPPUCCIOOur decorative glasses are supplied in the float glass version as standard. Other versions available on request.

Partially-frosted in centre Partially-frosted at edge Frame, made to RAL Ordering example: Frame, chrome Frame, white To specify the luminaire size, CAPPUCCIO decorative glass replace the placeholders .xxx with element in frame size 220 would be: the frame size. Article No.: 0180.220.20 Article No. Version Changing frame to 0150.xxx-.13 Glass fixing bolt, chrome 000 fix glass accessories 0150.xxx-.14 Glass fixing bolt, brass 0150.xxx-.15 Glass fixing bolt, lacquered 0180.xxx-.20 Decorative float glass 0190.xxx-.20 Decorative float glass







Gold



High specular



Semi-specular



White



QUAD Luminaire System

Downlights for compact fluorescent lamps in a horizontal burning position. These are small luminaires with large lumen packages and precise glare reduction. This product family is available in four frame sizes with up to three different mounting depths each. It gives the same optical appearance even with various ceiling assembly situations. Electronic control gears either dimmable or non dimmable are exclusively used. Interface 1-10 volt / DALI / Push. Luminaires are suitable for operation with emergency power supply, also available on request with individual batteries.

Lighting Technology

Purely mirror-finish reflectors with superpure reflection strengthened aluminium and silver silk satinized surface are used. Further versions with different surfaces are also available.

Choice of three different luminaire versions which are specified by an order number suffix. Special developments for particular project solutions can be made at short notice.

The control gear unit is side mounted; the luminaire's recess depth has been reduced to a minimum. Luminaires also available in a backlight protected version.

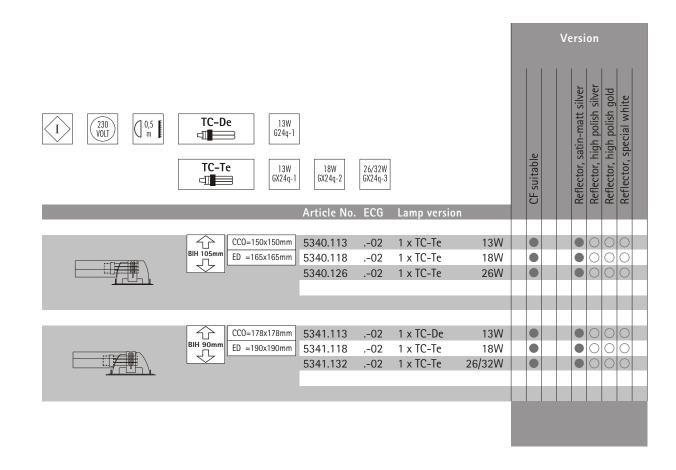
Wide variety of wattages, dimensions and lamp sources optimize the application options on the job. This luminaire program is rounded off by various technical and decorative accessories.

Lamp version	mm□	Built-i	n deptl	n in mn	n
TC-De / Te		90	105	130	140
1x 10/13W	165				
1x 18W					
1x 26W					
1x 10/13W	190				
1x 18W					
1x 26/32W					
1x 13W	220				
1x 18W		•		•	
1x 26/32W					
2x 18W					
2x 26/32W					
1x 26/32W	255				
1x 42W					
2x 18W					
2x 26/32W					
2x 42W					



QUAD

Recessed downlight QUAD. For TC-De 26W or TC-Te 32W compact fluorescent lamps either 1-flame or 2-flame in horizontal burning position, mainly with MultiPower electronic control gear. This allows an alternative use of 26W or 32W lamps. Prewired and ready for installation with heat resistant cable and terminal block, 3-pole (5-pole), for through wiring with twin strain relief.





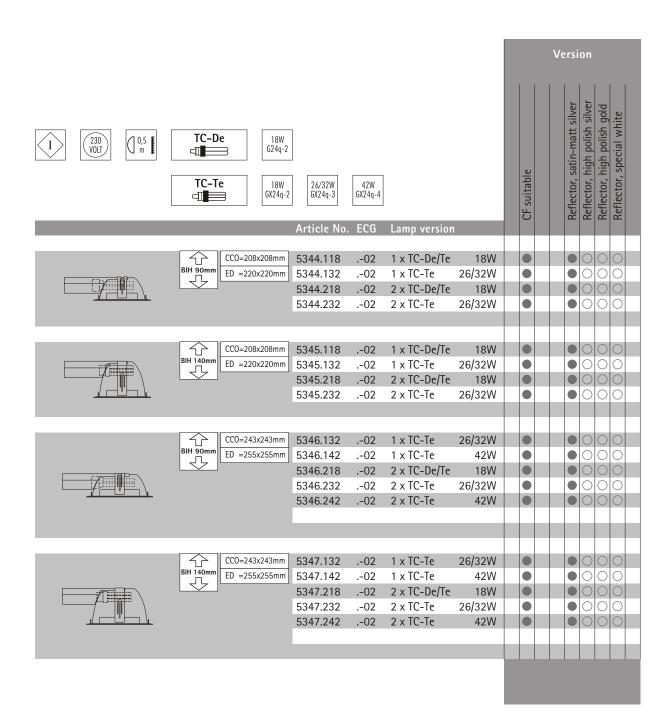
Reflector Technology

Silver aluminium reflector made of superpure reflection strengthened aluminium. Reflector surface in high polish opal silk. Other reflector surfaces are available.

► See chart

Changing Frame System

Luminaire conclusion either with white standard frame or fixed frame for 2-piece Changing frame system (order code = add on CF). This allows the subsequent mounting of optical accessories.





QUAD Cross Louvre

This compact downlight with its cross louvre offers an alternative to luminaires with standard louvres. Due to an excellent glare, reduction with 65° beam angle it is also suitable for working areas and PC workstations.



QUAD Konus

OUAD Konus has been designed with an eye to stylistic design. This compact, recessed luminaire offers essential technical and lighting advantages. The diffuser prevents direct view of the lamp and provides a homogenous, soft light, while also providing splash-water protection and preventing the electrical components from being touched.



Gold



High specular



Semi-specular



White



QUAD K/C

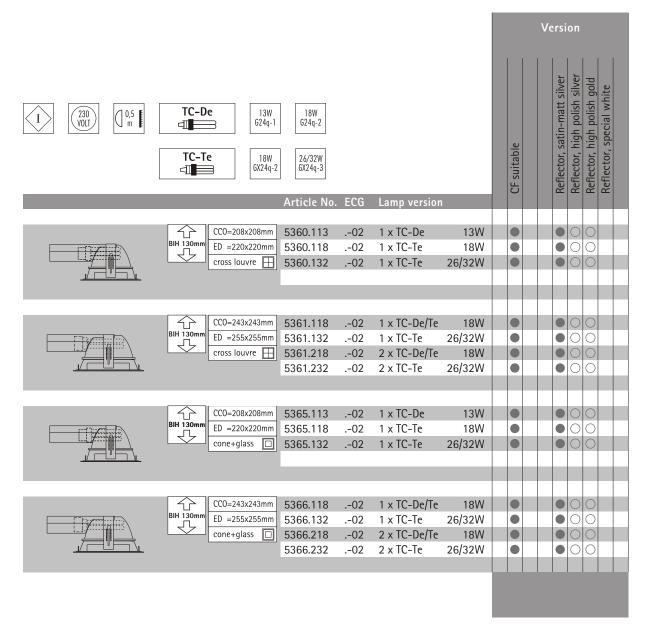
Recessed downlight QUAD K/R. For TC-De 26W or TC-Te 32W compact fluorescent lamps either 1-flame or 2-flame in horizontal burning position, mainly with MultiPower electronic control gear. This allows an alternative use of 26W or 32W lamps. Prewired and ready for installation with heat resistant cable and terminal block, 3-pole (5-pole), for through wiring with twin strain relief.

Reflector Technology

Reflector system in 2 parts with aluminium reflector and silver louvre/cone. Made of superpure reflection strengthened aluminium. Reflector surface in high polish opal silk. Removable toolfree.

Changing Frame System

Luminaire conclusion either with white standard frame or fixed frame for 2-piece Changing frame system (order code = add on CF). This allows the subsequent mounting of optical accessories.





QUAD-R Aura

Soft light and highlight combined as a double function in one luminaire. With its crossbaffle, this compact downlight offers an alternative to conventional louvred luminaires. A discreet luminaire that does not come to the fore itself, it is only a perimeter diffuser frame that indicates the light.







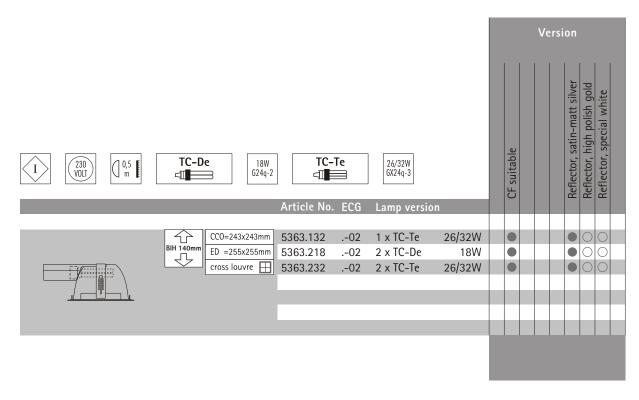
Reflector Technology

Silver aluminium reflector made of superpure reflection strengthened aluminium. With satin-matt silver surface. Lens removable tool-free, existing parabolic louvre with perimeter aura. Other reflector surfaces are available.

▶ See chart

QUAD-R Aura

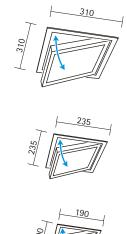
Recessed downlight with louver. For TC-De 18W or TC-Te 32W compact fluorescent lamps either 1-flame or 2-flame in horizontal burning position, mainly with MultiPower electronic control gear. This allows an alternative use of 26W or 32W lamps. Prewired and ready for installation with heat resistant cable and terminal block, 3-pole (5-pole), for through wiring with twin strain relief.





LIDFILD

The exclusive appearance is characterized by the discreet, square form and emphasized by the surrounding shadow gap. The ceiling aligned glass diffuser prevents looking directly at the lamp and gives a soft light distribution. While complementing the architecture, it also sets new styling accents.





LIDFILD RGB

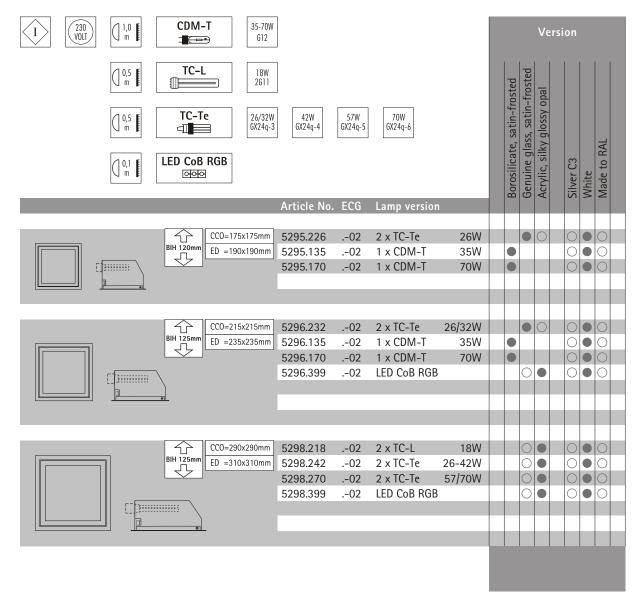
The entire luminaire family is conceived for use with LED's. The "chip on board" technology achieves an even surface lighting. The additive colour blend in unlimited chromatic spectra allows scenic, decorative and inspiring colour changes.





LIDFILD

Recessed luminaire, hinged cover tool-free. Either for compact fluorescent lamps or HID lamps with electronic control gear. Prewired and ready for installation with heat resistant cable and terminal block, 3-pole (5-pole), for through wiring with twin strain relief. Sheet-metal body with powder-coated surface.



KASSIO-E

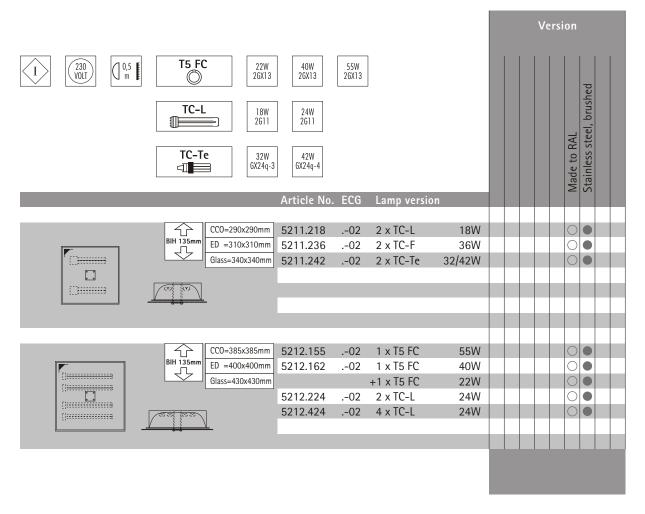
Prestigious areas and spaces with atmospheric requirements require luminaires which make a special statement. Glass luminaires add emphasis by way of their visible surfaces. A simple geometrical shape is combined with a genuine glass pane to create a floating impression, making this product a classic. The option of using high wattage lamps makes the luminaire perfectly suitable for ambient lighting even in large areas.

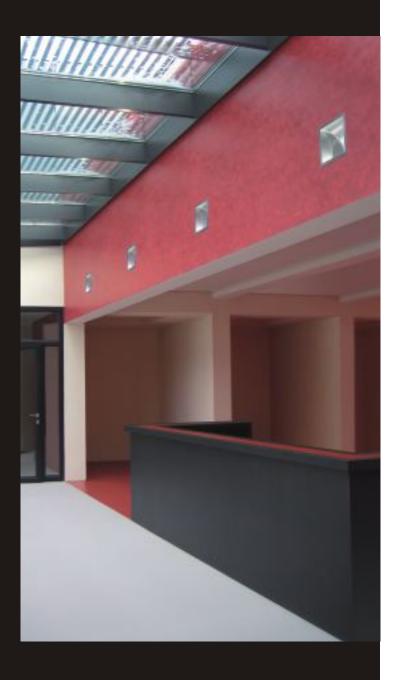






Square Recessed Luminaire White powder-coated, sheetmetal recessed body. Luminaire can be installed into sawn ceilings. Easy and fast assembly due to spring clips. With electronic control gear for compact fluorescent lamps. Dimmable either with DALI interface or 1–10V. The lamp itself is held floating in the centre and is covered by a partially satinized, genuine glass pane.





Square Wallwashers

Wallwashers are used wherever an even brightness or accents are required on vertical or horizontal surfaces. Room delineating surfaces become visible and rooms are experienced. Surface illumination is an important component of architectural lighting and a tool for any high quality light planning. This luminaire product line includes products for recessed mounting into walls, floors and ceilings.



Aluminium semi-specular



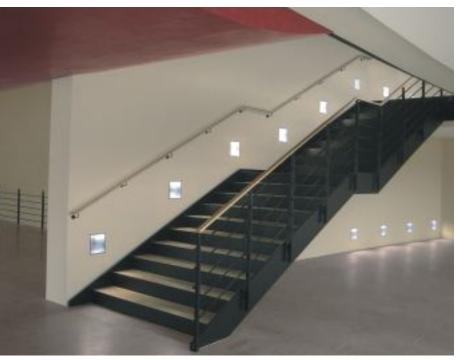
Aluminium ribbed

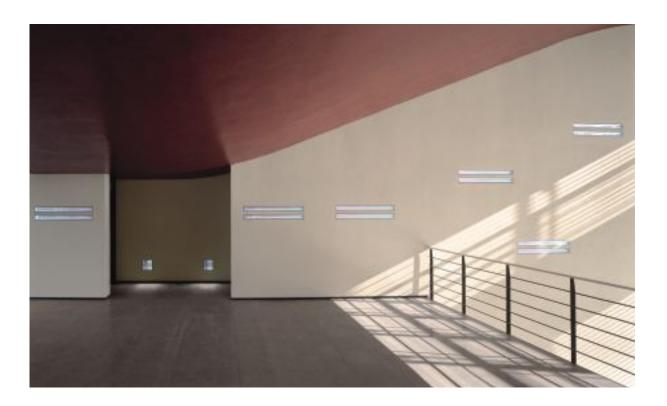


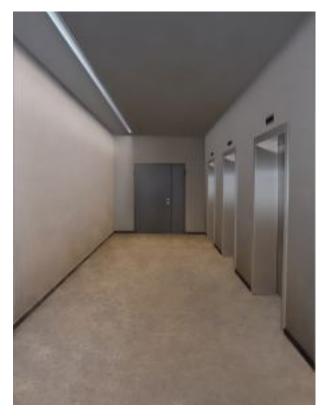
Square Wallwashers

The recessed lamp prevents a direct glare even in visible areas. Light is projected in a specific direction. The degree of diffusion is determined by using various reflector surfaces.









► The luminaire is also available as a system luminaire, as a continuous band of light.

Wallwasher RGB

The additive colour mixing in infinitely adjustable colour spectra enable scenic colour changing, decorative and inspiring light or colour matching to suit the natural dynamics of our surroundings.

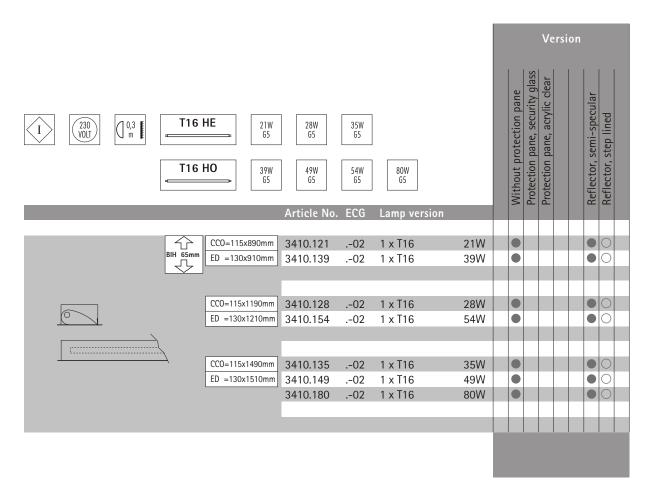


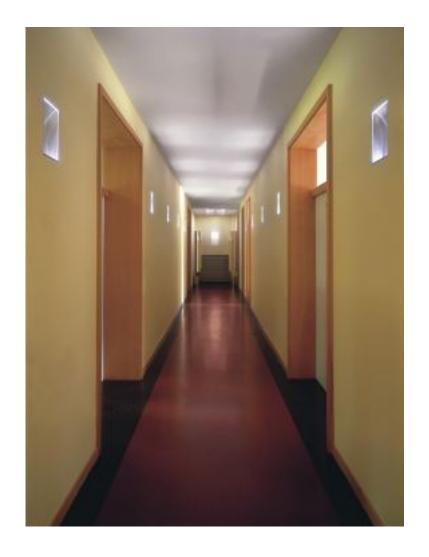




Square Wallwashers

Angular wallwasher with electronic control gear either for T5 HE and HO fluorescent lamps 1-flame. Dimmable either with DALI interface or 1-10V. Prewired and ready for installation with heat resistant cable and terminal block, 3-pole (5-pole), for through wiring with twin folded strain relief.

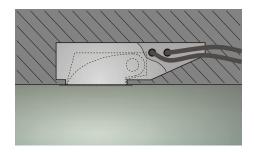




Square Wallwashers

Reflector made of finest aluminium, silver anodized satin-matt finish or with ribbed surface. Housing made of powder-coated sheet-steel. Fitted as standard with electronic control gear units with hot-start function.





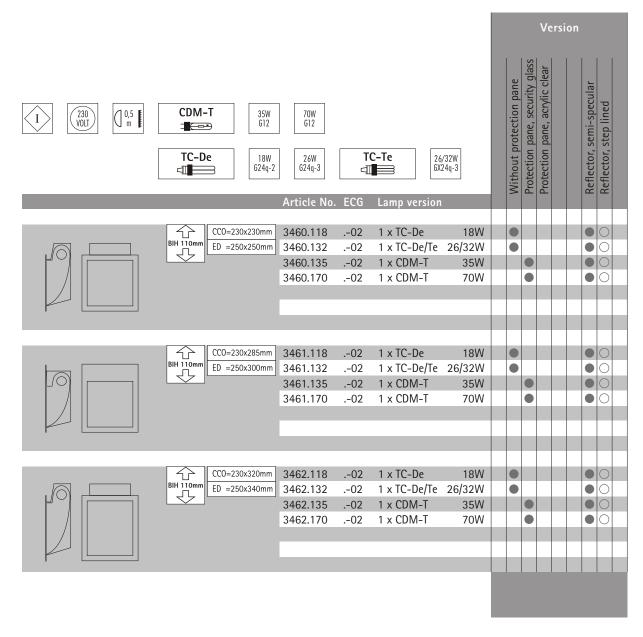
Concrete Housings P. 85
By using concrete cast
armatures there are optional
applications for a harmonious
integration of recessed
luminaires into the ceiling,
otherwise reserved for surface
mounted luminaires.





Wallwasher Square

Angular wallwasher with electronic control gear either for compact fluorescent lamps TC-De / TC-Te or ceramic metal halide lamps CDM-T 1-flame. Prewired and ready for installation with heat resistant cable and terminal block, 3-pole (5-pole), for through wiring with twin folded strain relief. Also available with protection cover glass.





The cardanic suspension was named after the Italian physician and mathematician Geronimo Cardano (1501-1576). The cardanic suspension was originally a technical device for holding measuring instruments such as a ship's compass while allowing free rotation, independent of any external movement. Technically speaking it is a metal ring inside which two further metal rings are mounted one inside the other on pivots oriented at 90° to each other. The measuring instrument is then fastened to the inner ring.





Cardanic Projection Spots

Scenic lighting is used in many architectural applications. Directional spotlights are not only used in retail lighting but also wherever areas are to be visually divided into different zones of illumination. For this purpose we offer a complete

product line. This luminaire family contains recessed and surface mounted luminaires, floor and pendant luminaires. Available as 1- to 4-flame, as single luminaire or as system luminaire with an unlimited quantity of light sources.

Cardanic Floor Luminaire

Multi-flame luminaire unit which can be flexibly used as a floor luminaire. Luminaires available complete with mains plug and integrated electronic control gear.



Recessed Cardanic Luminaire

Square recessed luminaire with light trap. Black inner body, the luminaire elements are available in silver C3 or any other RAL colour. Changing reflectors in removable anti-glare cone.



Round recessed luminaire with spring fastening. Luminaire elements available in silver C3 or any other RAL colour. Changing reflectors in removable anti-glare cone.



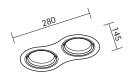


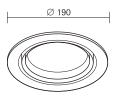












Recessed Cardan

Minimalistic housing with decorative, flat surround. The luminaire head is cradled on a cardan joint and can be tilted to all sides. The reflectors are optionally available in three different beam characteristics: flood, medium or narrow.

Equipped for 20–70W CDM-TC lamps. With separate electronic control gear unit. 1– to 6-flame luminaires are available as standard. Special layouts can be realised without problem. The electrical connection to the separate control gear is made without tools using the ST18

plug-in system. Changing reflectors enable multi-flame luminaires to be fitted with reflectors with different photometric properties. A later exchange or replacement of reflectors is possible.





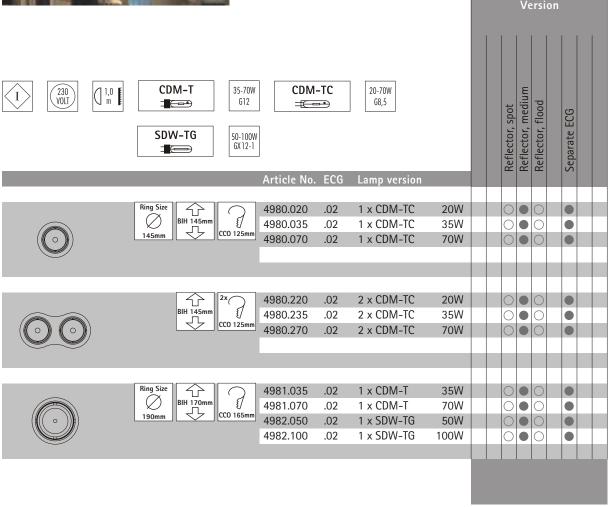
Choice of Reflectors

For these luminaires reflectors with 24° = medium beam angle are supplied as standard. However, a choice of beam angles is available (spot, medium or flood). Reflectors changeable. If medium is not required, please indicate when ordering.

► To specify the choice of reflector, please add:

S = Spot M = Medium F = Flood

For luminaires with multiple lamp units, multiple specification of reflectors is possible.



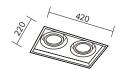


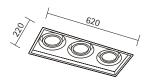












Recessed Cardan

Recessed cardan with cone tiltable to all sides. The cone and the tiltable luminaire insert form a subassembly and can be removed tool-free to enable installation and repair. The reflectors are optionally available in three different

medium or narrow. Equipped for 20-70W CDM-TC lamps. With separate electronic control gear unit. 1- to 3-flame luminaires are available as standard. Special layouts can be realised without problem. The electrical connection to the separate control gear is made

tool-free using the ST18 plugin system. Interchangeable reflectors enable multi-flame luminaires to be fitted with reflectors with different photometric properties. A later exchange or replacement of reflectors is possible.



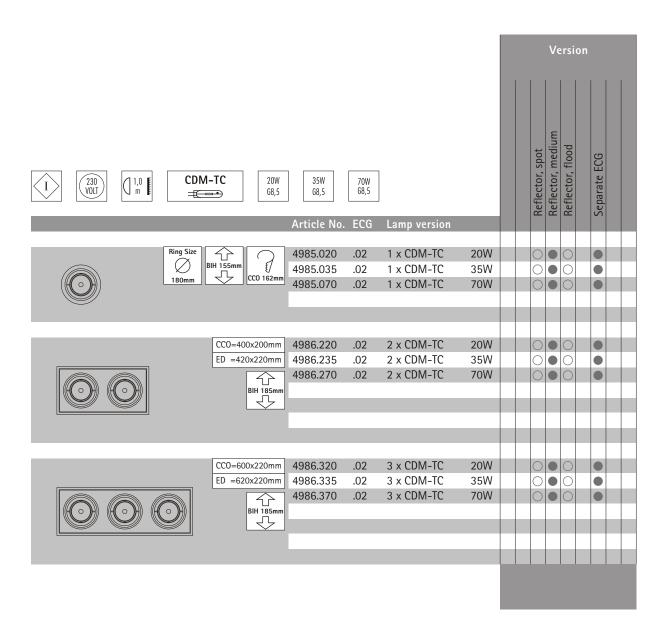
Choice of Reflectors

For these luminaires reflectors with 24° = medium beam angle are supplied as standard. However, a choice of beam angles is available (spot, medium or flood). Reflectors changeable. If medium is not required, please indicate when ordering.

► To specify the choice of reflector, please add:

S = Spot M = Medium F = Flood

For luminaires with multiple lamp units, multiple specification of reflectors is possible.

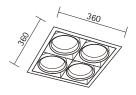


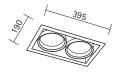














Recessed Cardan Luminaire, Square

Tiltable to all sides. Cone removable tool-free. Beam angle characteristics in spot, medium or flood. Luminaire for one CDM-T 35W or 70W with separate electronic control gear. Up to 4 luminaire units can be mounted in one enclosed, recessed body made of a black powder-coated light trap. A special spring fastening allows the adjustment of the previously installed luminaires. The electrical connection to the separate control gear is made without tools using the ST18

plug-in system. Interchangeable reflectors enable multiflame luminaires to be fitted with reflectors with different photometric properties. A later exchange or replacement of reflectors is possible.



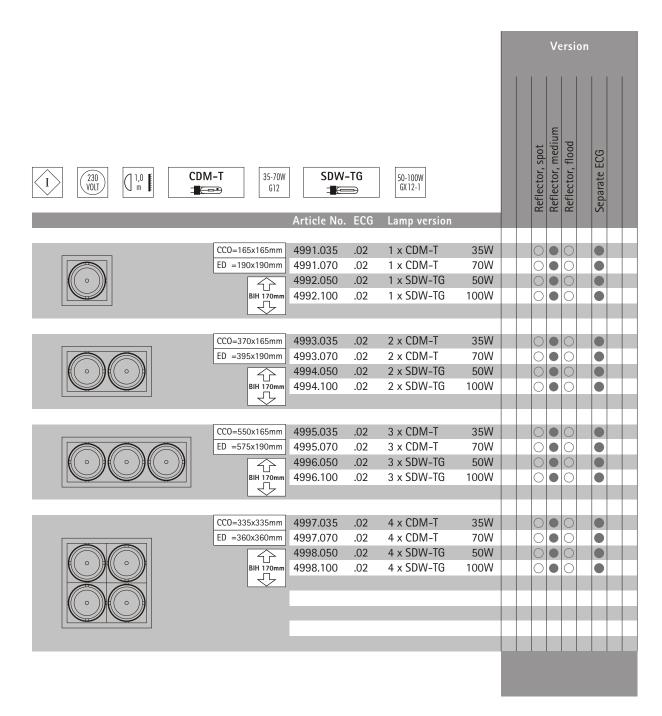
Choice of Reflectors

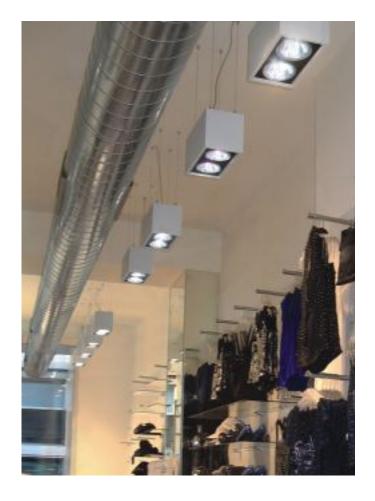
For these luminaires reflectors with 24° = medium beam angle are supplied as standard. However, a choice of beam angles is available (spot, medium or flood). Reflectors changeable. If medium is not required, please indicate when ordering.

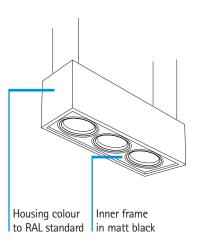
► To specify the choice of reflector, please add:

S = Spot M = Medium F = Flood

For luminaires with multiple lamp units, multiple specification of reflectors is possible.







BOXs

This surface-mounted and pendant version arose as a custom project solution and now forms an addition to our successful cardan product range. Stripped to the bare essentials and manufactured as if from one piece, this product is discreet and unimposing. The housing is greatly reduced and therefore harmonises well with all areas. The special thermal management has enabled all electronic components to be integrated in the housing.

Choice of Reflectors

Various beam angles are available. Changing reflectors enable multi-flame luminaires to be fitted with different reflectors. For these luminaires reflectors with 24° = medium beam angle are supplied as standard. However, a choice of beam angles is available (spot, medium or flood). If medium is not required, please indicate when ordering.

➤ To specify the choice of reflector, please add:

S = Spot

M = Medium

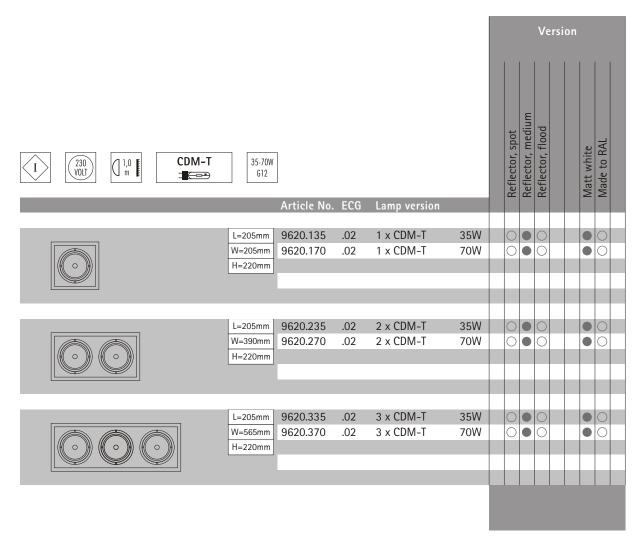
F = Flood

For luminaires with multiple lamp units, multiple specification of reflectors is possible.





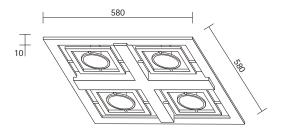
Pendant Cardan Luminaire, Square Equipped for 35-70W CDM-T with integrated electronic control gear units. 1- to 3flame luminaires. Luminaire housing made of powdercoated sheet-steel, colour to RAL standard. Inner housing closed, powder-coated in matt black. Suspensions with rapidconnector system and supply cable.

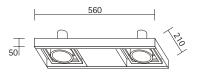




Pendant Cardan Luminaires, CDM-TC

CDM-TC are the lamps with the smallest arc tube chamber within the Master Colour family of Philips. For this reason a very high light intensity can be produced. The high luminous efficiency together with a long lamp life result in low operating costs. The colour temperature of 3000°K and a very good colour rendering are the optimum for scenic retail lighting.









Pendant Cardan Luminaires, CDM-TC

Aluminium and steel luminaire body. Silver anodized aluminium reflectors. Choice of several beam angles is available.
Complete with integrated electronic control gears, suspension with fast tensioning system and supply cable.
Luminaire can be suspended either level or inclined

► To specify the choice of reflector, please add:

S = Spot M = Medium F = Flood

For luminaires with multiple lamp units, multiple specification of reflectors is possible.

either level or inclined.							ot	dium	po			
1 CDM-TC	35W G8,5	70W 68,5 Article No.	FCG	Lamp version			Reflector, spot		Reflector, flood		Silver C3	Made to RAL
				•				\exists				
	L=560mm	9608.235	.02	2 x CDM-TC	35W							0
	W=210mm	9608.270	.02	2 x CDM-TC	70W	(\circ	_		
	H=130mm								1			
	L=580mm	9610.435	.02	4 x CDM-TC	35W	(
	W=580mm	9610.470	.02	4 x CDM-TC	70W	($\overline{\bigcirc}$			0
	H=130mm											
								_	_			
								7				



System Luminaire

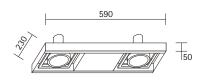
In addition to the previously mentioned individual luminaires, this product group is also available as system luminaire. Luminaires can be produced as continuous elements. For this it is necessary to know:

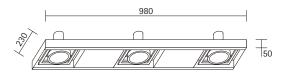
- overall system length
- required light source
- luminaire distance to each other

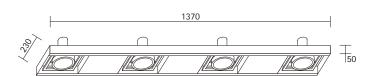
Systems also available with fluorescent lamps T5 direct or direct/indirect with either louvre cover, acrylic cover or as free projection, in addition PL downlights and wall mounted floodlights can be square and integrated. A selection of technical accessories such as loudspeaker, fire alarm, sprinkler and monitoring camera units is available.

Pendant Cardan Luminaires, CDM-TC

Aluminium and steel luminaire body. Silver anodized aluminium reflectors. Choice of several beam angles is available.
Complete with integrated electronic control gears, suspension with fast tensioning system and supply cable.
Luminaire can be suspended either level or inclined.











Choice of Reflectors

For these luminaires reflectors with 24° = medium beam angle are supplied as standard. However, a choice of beam angles is available (spot, medium or flood). Reflectors changeable. If medium is not required, please indicate when ordering.

To specify the choice of reflector, please add:

S = SpotM = Medium

F = Flood

For luminaires with multiple lamp units, multiple specification of reflectors is possible. Reflector, medium flood Reflector, spot Made to RAL 230 VOLT CDM-T 35-70W SDW-TG Reflector, () 1,0 m Silver C3 50-100W G12 Article No. ECG Lamp version L=590mm 9612.035 .02 2 x CDM-T 35W W=230mm 9612.070 .02 2 x CDM-T 70W H=160mm 9612.050 2 x SDW-TG 50W .02 9612.100 2 x SDW-TG 100W .02 L=980mm • 0 .02 3 x CDM-T 35W 9613.035 W=230mm 3 x CDM-T 9613.070 70W .02 H=160mm 9613.050 3 x SDW-TG 50W .02 9613.100 .02 3 x SDW-TG 100W L=1370mm 35W 9614.035 .02 4 x CDM-T 70W W= 230mm 9614.070 .02 4 x CDM-T H= 160mm 4 x SDW-TG 50W 9614.050 .02 4 x SDW-TG 100W \bigcirc 9614.100 .02



NV-Q

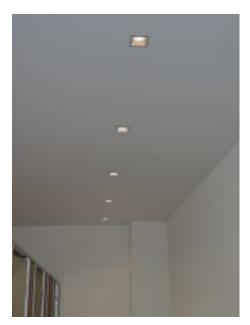
Recessed luminaire designed for ceiling and wall mounting. Characteristic design featuring a light source recessed deeply inside the luminiare. Several versions are available for various lamps. Various wattages are possible, from 20W to 100W, as well as different beam angles for focused or diffuse light. This product range meets highly diverse lighting requirements.





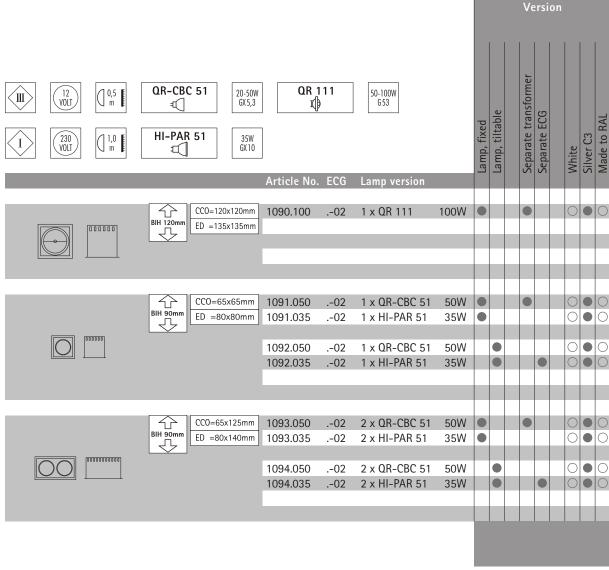






NV Square Downlight

Silver C3 powder-coated recessed body made of sheet-metal. Luminaire can be installed in sawn ceiling openings and wall holes. Wherever necessary, it has a separate electronic control gear for halogen lamps and for HID lamps. Optionally available with special accessories, for example with IP-rated protection glass cover, colour filter or additional mounting body.







BRITE

This luminaire was developed for the innovative, miniaturized metal halide lamp BriteSpot ES50. With only 35W and 38° beam angle this lamp reaches 4000cd, together with a colour temperature of 3000°K. This lamp is perfectly suited to use in shop areas. The luminaire's characteristic is the refining scotched aluminium surface which appears extraordinarily metallic and precious.





CDM-TM, Spot

The new Philips CDM-TM lamp was integrated during further development of our Mini Cardanic series. Changing reflectors are available to meet required illumination tasks. Alternatively these luminaires are available for halogen lamps.

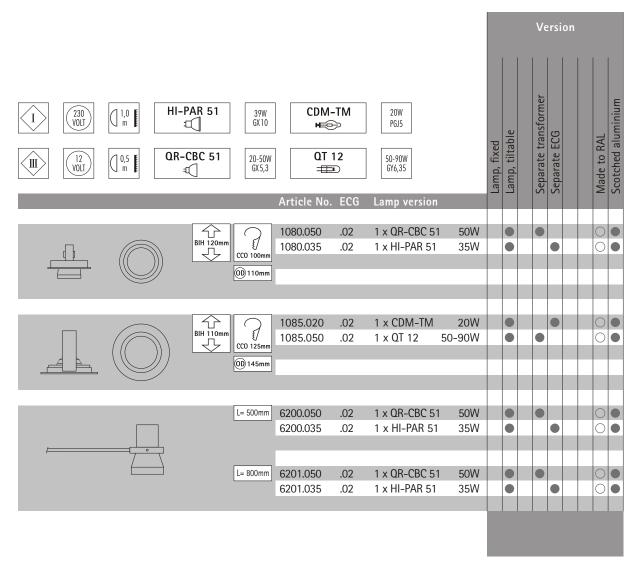


Scotched surface





Swivel arm luminaire tiltable and turnable. Massive aluminium scotched and zaponized, alternatively with powder-coated finish. Complete with separate electronic control gear.











LED TRIPLE

This luminaire makes an individual statement thanks to its unique material surface. A solid aluminium disc with a finely brushed finish provides an aesthetic detail, an effect that is particularly highlighted by the conically milled light apertures. Featuring powerful and economical LED emitters, the luminaire is available with wide-beam, directed light or lenses for different beam characteristics.



Scotched surface





LED TRIPLE

This solid wall-mounted luminaire has been specially developed for accentuating vertical surfaces and for use as pathway lighting. The light emission is "up and down". The beam angle for both direct and indirect beam directions can be separately individually selected and adjusted to suit the individual requirements. The highquality housing is made of aluminium and therefore corrosion resistant. This luminaire is suitable for indoor and outdoor applications and is protection rated to IP20 or IP44.



Luminous flux with 15°20°40° lens

300 lm 350 mA 4,2W white 520 lm 700 mA 8,7W white 230 lm 350 mA 4,2W warm 390 lm 700 mA 8,7W warm

Values stated are approximate.



Luminous flux for 90° emission

330 lm 350 mA 4,2W white 570 lm 700 mA 8,7W white

260 lm 350 mA 4,2W warm 440 lm 700 mA 8,7W warm



Luminous flux with 15°20°40° lens

300 lm 350 mA 4,2W white 520 lm 700 mA 8,7W white

240 lm 350 mA 4,2W warm 400 lm 700 mA 8,7W warm

Values stated are approximate.

Colour of Light

The LEDs used are made by CREE and are always sourced from the best binning. The highest efficiency currently possible is achieved in conjunction with the optimised thermal management. A choice of two colours of light is available.

A warm tone with a correlating colour temperature between 2800 and 3000 Kelvin and white with a colour temperature between 5700 and 6700 Kelvin.



Neutral white



Warm white



Lens Options

These luminaires are supplied as standard with lenses with a 20° beam angle (= medium). Additional lenses with spot or flood beam angles are optional. The lenses are prefabricated in the factory. The required beam angles of the lenses are to be stated as a suffix to the article number when ordering.

Order suffix for lens:

 $S = 15^{\circ} Spot$

M = 20° Medium

 $F = 40^{\circ} Flood$

 $W = 90^{\circ}$ Wide flood

									Ve	ersi	on		
230 VOLT 0,2 M	LED HighPower 3x4W CREE	Article No.	ECG	Lamp v	version		Neutral white LED	Warm white LED	15° Spot	20° Medium	40° Flood	90° Wide flood	Scotched aluminium
	Ring Size BIH 70mm CCO 85mm	1101.351 1101.352	02 02 02 02	CREE CREE CREE CREE	350mA 350mA 700mA 700mA	4,2W 8,7W	•	•	0	•	0000		•
	Ring Size BIH 70mm CCC0 85mm	1103.351 1103.352 1103.701 1103.702	02 02 02 02	CREE CREE CREE CREE	350mA 350mA 700mA 700mA	4,2W 8,7W	•	•	0	•	0	0 0 0	•
	Ring Size BIH 70mm CCO 100mm	1105.351 1105.352 1105.701 1105.702	02 02 02 02	CREE CREE CREE CREE	350mA 350mA 700mA 700mA	4,2W 8,7W	•	•	0 0 0	•	0000		0



TUBE

Solid aluminium housing with minimised dimensions and particularly refined, brushed finish. With integrated control gear for connection to 230V. Thanks to the use of highly efficient LEDs, the Power Emitters used ensure a very high lumen output of up to 520 lm/700 mA for white and 390 lm/700 mA for warm white.



WALL

Solid aluminium housing with minimised dimensions and particularly refined, brushed finish. With integrated control gear for connection to 230V. Up and down light distribution, with selectable beam characteristics. Applicable for scenic or general lighting tasks. The luminaire features a wall plate and open cables. The connection is pressed together on site or soldered with shrink-fit tubing for electrical insulation. The wall connection is also possible with a large wall connection housing.





Scotched surface



Colour of Light

The LEDs used are made by CREE and are always sourced from the best binning.

The highest efficiency currently possible is achieved in conjunction with the optimised thermal management. A choice of two colours of light is available. A warm tone with a correlating colour temperature between 2800 and 3000 Kelvin and white with a colour temperature between 5700 and 6700 Kelvin.



These luminaires are supplied as standard with lenses with a 15° beam angle (= narrow). Additional lenses with spot or flood beam angles are optional. The lenses are prefabricated in the factory. The required beam angles of the lenses are to be stated as a suffix to the article number when ordering.





Neutral white

Warm white

Order Suffix for lens:

S = 15° Spot M = 20° Medium F = 40° Flood

						Version					
230 VOLT 0,2 LE	D HighPower CREE					Neutral white LED	Warm white LED	15° Spot	20° Medium	40° Flood	Scotched aluminium
		Article No.	ECG	Lamp v	ersion						
	Ø= 70mm H= 90mm	1140.351 1140.352 1140.701 1140.702	02 02 02 02	CREE CREE CREE CREE	350mA 4,2W 350mA 4,2W 700mA 8,7W 700mA 8,7W		•	0	0	0	•
	Ø= 70mm H=138mm D=110mm	1145.351 1145.352 1146.351 1146.352	02 02 02	CREE CREE CREE CREE	350mA 8,4W 350mA 8,4W 350mA 8,4W 350mA 8,4W	•	•	•			•



Standard Downlights

To meet various design requirements, three different luminaire conclusions are available for recessed downlights.

These are based on a particularly narrow standard ring with a recessed reflector. The folded over reflector has a returned edge that covers the narrow mounting ring, thereby forming a design feature. A Changing ring system consisting of an easy-to assemble base ring can be adapted to many different multifunctional accessories.











CAPPUCCIO P. 141
Decorative ancillary glasses
for the downlight series BASIC,
VERTIKAL and SOBRA. Mounted
on an changing cover ring with
3-point fastening. The glasses
are completely or partially
frosted. These optical light
accessories discreetly brighten
the ceiling and give a precise
glare reduction. Easy cleaning
and maintenance is possible
because the cover ring can be
removed tool-free.















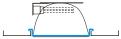
Wallwasher P. 172 DIFFUS P. 182

Round Downlights

Modular plate for panel ceilings

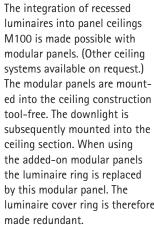


Added-on modular plate

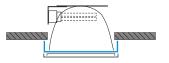


Before ordering please consult us for technical details.

Modular Panels



Cylinder for semi-recessed mounting



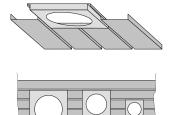
Semi-recessed mounting is only possible with a cover ring.

Changing ring system ▶ P. 138

Semi-Recessing Cylinder

Reduction of recessing height due to semi-recessing cylinder up to 40mm possible. Project related supply of appropriate tilting adaptors for recessed luminaires in slant ceilings is possible.

luminaire cover ring is therefore Ø 125mm
Ø 140mm Ø 190mm Ø Article No. Version Positioning tracks 0805.165 CCO 145 in pairs to 0805.190 CCO 165 0805.220 CCO 195 strengthen ceiling 0805.255 CCO 235 panels 0805.315 CCO 300 0895.190 CCO 165 0895.220 CCO 195 Cut-in ring 0895.255 CCO 235 CCO 300 0895.315 0801.125 2-Field CCO 105 Modular panel for 0801.140 2-Field CCO 120 2-Field ceiling system 0801.165 CCO 145 0801.190 3-Field CCO 165 panel 85/15 0801.220 3-Field CCO 195 CCO 235 0801.255 3-Field CCO 300 0801.315 4-Field 0800.190 CCO 165 Cylinder for semi-0800.225 CCO 195 0800.255 CCO 235 recessed mounting

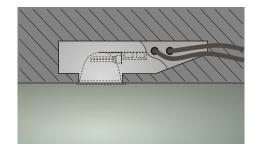


4-Field 3-Field 2-Field



Concrete Housing

The use of concrete housings allows recessed-mounted luminaires to be harmoniously integrated into the ceiling. Special adaptations also enable specific stress requirements to be met. This includes extended concrete runs up to a maximum of 35mm in order to guide the armouring underneath the fitting. Flat or round fittings (with highly reduced volume) are available, depending on the ceiling situation. If round concrete castings are being used, only specially adapted downlights, allowing the installation of the electronic component groups on top.



Specification

Sturdy one-piece housing made of galvanized sheet-steel with a slanted concrete run. 2 to 4 entries for conduit. Attached throat can be extended as required. Maximum height 35mm. Fixing tabs for nail-fastening to the wooden formwork. When installing in bare concrete ceilings, fixing with internal centring discs must be provided. Please order separately.



Concrete Housing, Flat Article No. 0898.xxxx (whereby xxxx = luminaire Article no.) Can be used for standard downlights with a horizontal lamp position. Suitable for concrete ceilings and, where centring plates are used, suitable

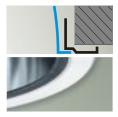
for fairfaced concrete ceilings.



Concrete Housing, High
Article No. 0899.xxxx (whereby
xxxx = luminaire Article no.)
Can be used for standard downlights with a vertical lamp position
and downlights with top mounted
control gear. Suitable for concrete
ceilings and, where centring plates
are used, also suitable for fairfaced
concrete ceilings.

Downlight Luminaire Conclusions

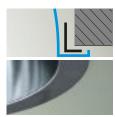




Standard Narrow luminaire conclusion ring in one piece. Discreetly

recessed reflector rim.





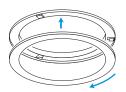
Folded-over Reflector Concealed luminaire conclusion ring (by the reflector rim) and therefore invisible.





Changing Cover Ring

Changing ring system in 2 parts where the luminaire is supplied with a fixed ring. One separate cover ring (to be ordered separately) which is fastened by a bayonet lock. Suitable for subsequent mounting of optical accessories. Available for ring sizes 125, 140, 190, 220 and 255mm. Other sizes available on request.



To order the Changing ring system please add "CR" to the order code.

▶ The optional cover ring is not normally included, please order separately.

The covering ring can be mounted separately tool-free afterwards. This allows the mounting of luminaires at an early stage of site work.

Downlight Colour Codes

- .-10 Brass
- .-11 Chrome
- .-20 made to RAL
- .-23 Silver C3
- .-26 RAL 9006
- .-31 White
- .-32 Matt white







CR for Glass Panes Changing ring for insertion of glass panes as IP protection, decorative or diffuser glass. Can also be used with CAPPUCCIO ancillary glass.

Various Covers for Various Tasks

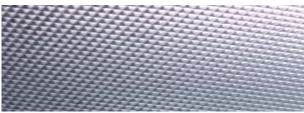
Insertion panes made of diverse materials in various finishes. Whether satinized or opal for spreading light, an even and soft light is always given. Also in glass or acrylic version for protection. All insertion panes offer protection against splashing water, thereby attaining protection class IP43 from the underside when mounted into a closed ceiling system. Also suitable as theft and vandalism protection.

				Version
To specify the luminaire size replace the placeholders .xxx with ring size.	with with frame	example: ring for open dov e size of 220 wou e: 0100.220.12		Brass Chrome White Made to RAL
		Article No.	Version	
	Changing ring for open downlight	0100.xxx12	Standard	
	CR for open downlight with CAPPUCIO glass accessories	0100.xxx13 0100.xxx14 0100.xxx15	Glass fixing bolt, chrome Glass fixing bolt, brass Glass fixing bolt, lacquered	

Round Downlights — Glasses

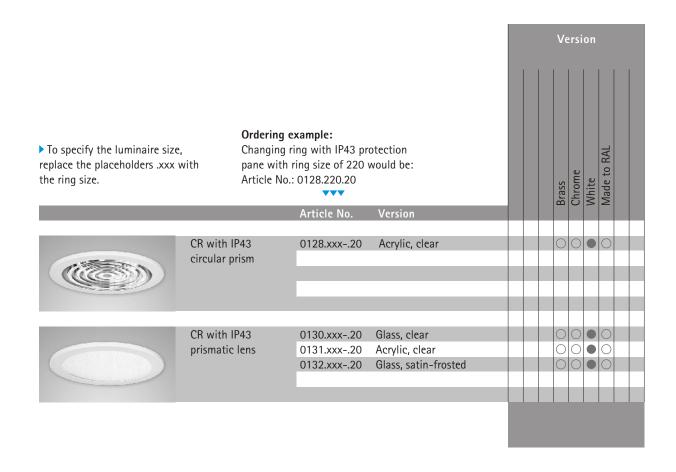


All glass inserts provide splash water protection. Luminaires with permanently glued-in glass covers attain protection mode IP43 (from below) when installed in closed ceiling systems.



Detail of prismatic surface

Microstructure-prismatic lens. This product's features are: high lighting efficiency, softly starting glare control simultaneously combined with an opal lens.







CAPPUCCIO

The supplied standard version is the decorative glass CAPPUCCIO as float glass. For other versions, please inquire separately.See chart

Changing ring for open down combined with glass type 2 d			l.				Versi	on 	
		Article No.	Version		Hardened security glass	Float glass	Acrylic glass	Glass satin-frosted	Glass, partially-frosted
				~					
		4600.125	Decorative glass	Ø 135mm	0	-			
THE PARTY NAMED IN		4600.140	Decorative glass	Ø 150mm	0		0		
		4600.165	Decorative glass	Ø 180mm	0				
		4600.190 4600.220	Decorative glass	Ø 200mm	0				
		4600.255	Decorative glass Decorative glass	Ø 240mm Ø 280mm	0				
		4600.255	Decorative glass	Ø 260mm					
		4620.125	Decorative glass	Ø 140mm	0		0		
		4620.140	Decorative glass	Ø 160mm	0				
		4620.165	Decorative glass		0		0		
		4620.190	Decorative glass	Ø 220mm	0		0		
		4620.220	Decorative glass	Ø 250mm	0		0		
		4620.255	Decorative glass	Ø 280mm	0		0		
		4620.315	Decorative glass	Ø 340mm	0		0		
				~					
		4680.165	Decorative glass		0		0		
		4680.190	Decorative glass	Ø 200mm	0				,
		4680.220	Decorative glass Decorative glass	Ø 240mm Ø 280mm	0				
10 19		4680.255 4680.315	Decorative glass	Ø 340mm					,
		+000.515	Decorative glass	2 3-топпп					
		4612.165	Decorative glass	Ø 180mm	0				
ON E THE		4612.190	Decorative glass	Ø 200mm	0		Ŏ		
		4612.220	Decorative glass	Ø 240mm	0		0		
	-	4612.255	Decorative glass	Ø 280mm	0		0		
		4612.315	Decorative glass	Ø 340mm	0				



Changing ring, IP43 protection pane in acrylic: opal satin-matt / frosted glass / clear glass

				V	ersi	ion		
To specify the luminaire size replace the placeholders .xxx the ring size.	with pane with	ring with IP43 pr ring size of 220 : 0110.220.20	would be:	Brass	Chrome	White	Made to RAL	
		Article No.	Version					
	CR with IP43 protection pane, clear	0110.xxx20 0111.xxx20 0112.xxx20	Acrylic, clear Float glass, clear Hardened security glass, clear	0	0	•	0 0	
	CR with IP43 protection pane, satin-frosted	0115.xxx20 0116.xxx20	Float glass, satin-frosted Hardened security glass, satin-frosted	0	0	•	0	
	CR with IP43 protection pane, acrylic	0127.xxx20	Acrylic opal	0	0			





All glass inserts provide splash water protection. Luminaires with permanently glued-in glass covers attain protection mode IP43 (from below) when installed in closed ceiling systems.

Ordering example: To specify the luminaire size, Changing ring with IP43 protection replace the placeholders .xxx with pane with ring size of 220 would be: the ring size. Article No.: 0117.220.20 Article No. CR with protection 0117.xxx-.20 Float glass, pane, IP43 partially-frosted clear partially-0118.xxx-.20 Hardened security glass, frosted in centre partially-frosted CR with protection 0120.xxx-.20 Float glass, pane, IP43 partially-frosted clear partially-0121.xxx-.20 Hardened security glass, frosted at edge partially-frosted CR with protection 0123.xxx-.20 Float glass, frosted pane, IP43 0124.xxx-.20 Hardened security glass, satin-frosted, frosted additionally satinized in centre



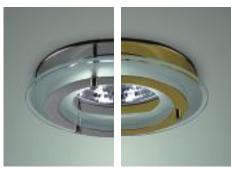
CAPPUCCIO

The supplied standard version is the decorative glass CAPPUCCIO as float glass. For versions in hardened security glass, acrylic glass and borosilicate glass, please inquire separately.

		Article No.	Version		Float glass	Acrylic glass	Borosilicate gl		Glass, satin-fro	
		4610.125	Decorative glass	Ø 140mm			0			4
		4610.140	Decorative glass	Ø 170mm			0			1
, 401110,		4610.165	Decorative glass	Ø 215mm			0			4
1		4610.190	Decorative glass	Ø 240mm			0			/
		4610.220	Decorative glass	Ø 270mm			0			4
		4610.255	Decorative glass	Ø 320mm			0			1
		4610.315	Decorative glass	Ø 380mm			0			4
		4618.165	Decorative glass	Ø 180mm			0	(
A THE REAL PROPERTY.		4618.190	Decorative glass	Ø 200mm			0	(
		4618.220	Decorative glass	Ø 240mm			0	1		
el		4618.255	Decorative glass	Ø 280mm			0	(
		4618.315	Decorative glass	Ø 340mm			0	1		
		4615.165	Decorative glass	Ø 180mm			0	1		
THE REAL PROPERTY.		4615.190	Decorative glass	Ø 200mm			0	(
		4615.220	Decorative glass	Ø 240mm			0	1		
C. C		4615.255	Decorative glass	Ø 280mm			0	(
		4615.315	Decorative glass	Ø 340mm			0	(







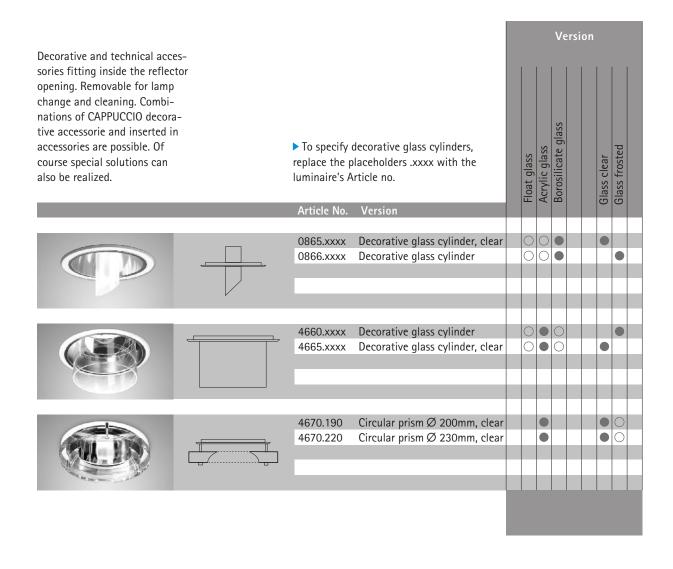
Specially designed for the requirements of hotels and restaurants. Effective and functional, with high-quality materials for use in interior design.

					Version						
	Article No.	Version		Hardened security glass	Float glass Acrylic glass	Glass, satin-frosted	Glass, partially-frosted	Brass	Chrome		
	4675.190 4675.220 4675.255	Decorative glass Decorative glass Decorative glass	Ø 190mm Ø 220mm Ø 255mm				0	0	•		
	4691.190 4691.220 4691.255 4691.315	Decorative glass Decorative glass Decorative glass Decorative glass	Ø 200mm Ø 240mm Ø 280mm Ø 340mm					0	•		
	4690.190 4690.220 4690.255		Ø 240mm Ø 270mm Ø 340mm				0	0	•		













		Version
These accessories are not only used for glare control, but also as a decorative element. Since they are mounted centrally, they can also be retro-fitted in existing installations.	► To specify decorative glass cylinders, replace the placeholders .xxxx with the luminaire's Article no.	Float glass Acrylic glass Borosilicate glass Glass, satin-frosted Glass, partially-frosted
	Article No. Version	
	4650.190 Decorative glass Ø 120mm 4650.220 Decorative glass Ø 150mm 4650.255 Decorative glass Ø 190mm 4650.315 Decorative glass Ø 240mm	
	0824.190 Ring louvre silver 0824.220 Ring louvre silver 0824.255 Ring louvre silver 0825.190 Ring louvre white 0825.220 Ring louvre white 0825.255 Ring louvre white	







Gold



High specular



Satinized rim



Semi-specular

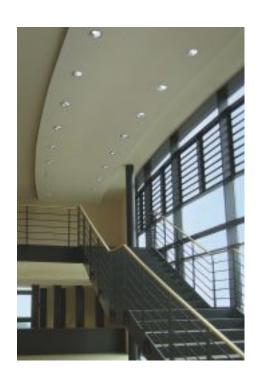


Faceted rim



White





BASIC Luminaire System

Downlights for compact fluorescent lamps in a horizontal burning position. Small luminaire with large lumen package and precise glare reduction. Available in four diameters and up to three different built-in depths each giving the same optical appearance even with variable ceiling mounting situations. Only electronic control gears are used, either non-dimmable or dimmable 1-10V / DALI / Push. Also suitable as emergency lighting which can be supplied with individual batteries.

Lighting Technology

Only polished and piece anodized aluminium reflectors with a smooth silver and high polish surface are used. Other reflector surfaces are available. Luminaire conclusions are available in three different versions. Special designs for particular project solutions can be realized at short notice taking specific requirements into consideration. The luminaire body with control gears mounted along-side results in a particularly low built-in depth. Also available in a light leak-proof version.

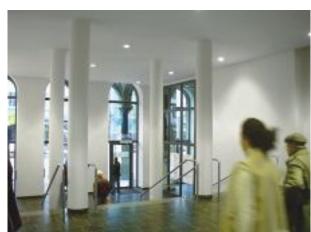
A wide range of efficiencies, sizes and lighting technology optimizes the project options. The luminaire program is rounded off by various technical and decorative accessories.

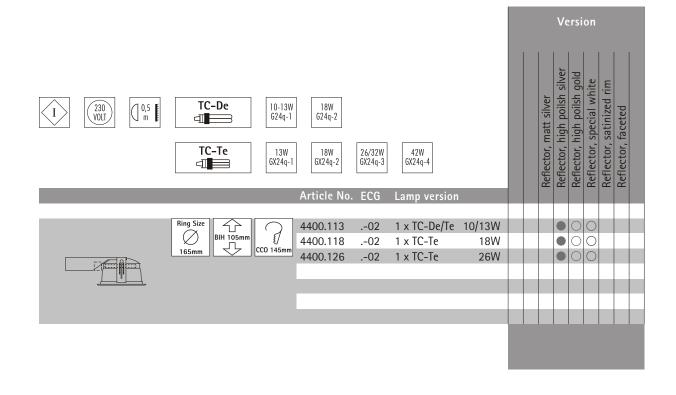
Lamp version	ODØ	Built-i	n deptl	n (mm)						
TC-De / Te	(mm)	65	85	105	120	135	140	150	160	170
1x 10/13W	165									
1x 18W				•						
1x 26W				•						
1x 10/13W	190									
1x 18W	150									
1x 26/32W				•						
1x 42W				•	•					
2x 18W				•						
1x 18W	220									
1x 26/32W								•		
1x 42W										
2x 18W		•								
2x 26W										
2x 26/32W										
1., 10\//	255									
1x 18W	255									
1x 26/32W										
1x 42W										
2x 18W										
2x 26/32W										
2x 42W										



BASIC 165 / 190

Recessed downlight BASIC. For TC-De 26W or TC-Te 32W compact fluorescent lamps either 1-flame or 2-flame in horizontal burning position, mainly with MultiPower electronic control gear. This allows an alternative use of 26W or 32W lamps. Prewired and ready for installation with heat resistant cable and terminal block, 3-pole (5-pole), for through wiring with twin strain relief.







Reflector Technology

Polished and piece anodized reflector made of aluminium 99.98% with smooth, high polish silver surface. Other reflector surfaces are available.

See chart

Changing Ring System

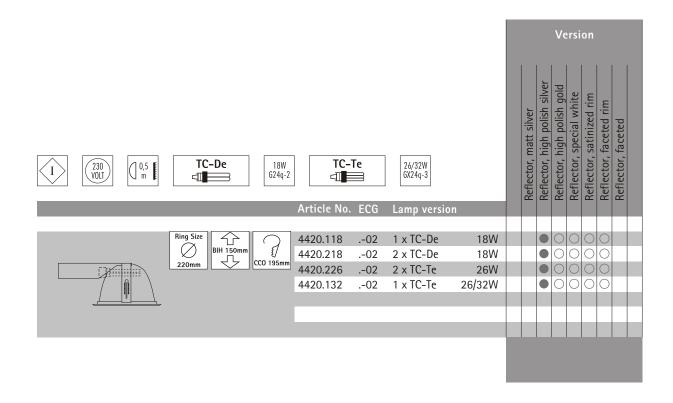
Luminaire conclusion either with white standard ring or fixed ring for 2-piece Changing ring system (order code = add on CR). This allows the subsequent mounting of optical accessories.

					Version						
						Reflector, matt silver	Reflector, high polish silver	Reflector, high polish gold	Reflector, special white	Reflector, satinized rim Reflector, faceted	
	Article No.	ECG	Lamp version								
Ring Size BIH 120mm CCC0 165mm	4404.118 4404.218 4404.132 4404.142	02 02 02 02	1 x TC-De/Te 2 x TC-De 1 x TC-Te 1 x TC-Te	18W 18W 26/32W 42W			0	0000	0		
Ring Size BIH 135mm CCO 165mm	4405.113 4405.118 4405.132	02 02 02	1 x TC-Te 1 x TC-Te 1 x TC-Te	13W 18W 26/32W			•	0	0		
Ring Size BIH 120mm CCC0 165mm	4406.113 4406.118 4406.132	02 02 02	1 x TC-Te 1 x TC-Te 1 x TC-Te	13W 18W 26/32W			•	0	0		
Ring Size BIH 105mm CCC0 165mm	4408.118 4408.218 4408.132 4408.142	02 02 02 02	1 x TC-De/Te 2 x TC-De/Te 1 x TC-Te 1 x TC-Te	18W 18W 26/32W 42W			0	0000	0 0 0 0	0	
Ring Size BIH 85mm CCC0 165mm	4410.118 4410.218 4410.132	02 02 02	1 x TC-De/Te 2 x TC-De/Te 1 x TC-Te	18W 18W 26/32W			•	0	0	0	
							1				



BASIC 220

Recessed downlight BASIC.
For TC-De 26W or TC-Te 32W compact fluorescent lamps either 1-flame or 2-flame in horizontal burning position, mainly with MultiPower electronic control gear. This allows an alternative use of 26W or 32W lamps. Prewired ready-to-connect with heat resistant cable and terminal block, 3-pole (5-pole), for throughwiring with twin strain relief.





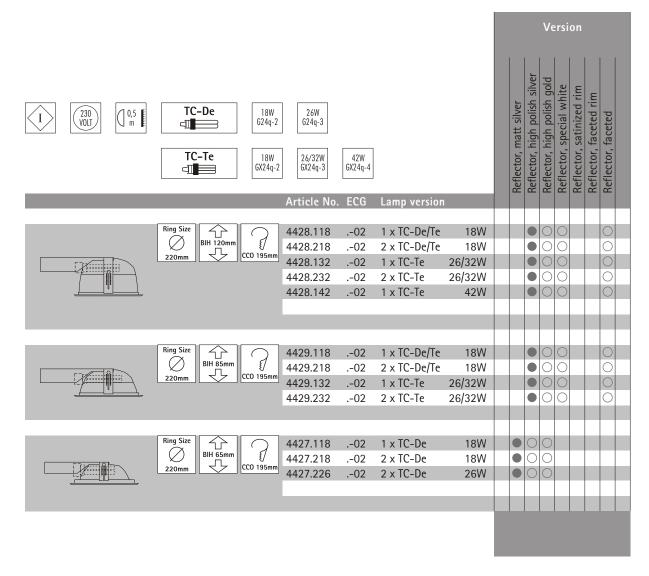
Reflector Technology

Polished and piece anodized reflector made of aluminium 99.98% with smooth, high polish silver surface. Other reflector surfaces are available.

See chart

Changing Ring System

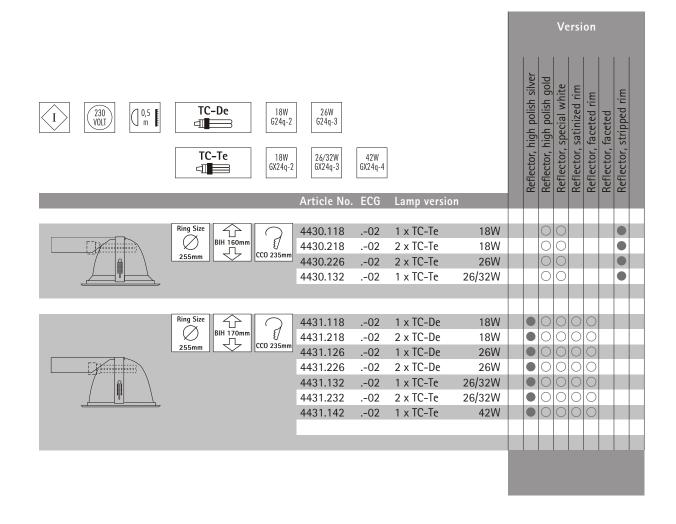
Luminaire conclusion either with white standard ring or fixed ring for 2-piece Changing ring system (order code = add on CR). This allows the subsequent mounting of optical accessories.





BASIC 255

Recessed downlight BASIC.
For TC-De 26W or TC-Te 32W compact fluorescent lamps either 1-flame or 2-flame in horizontal burning position, mainly with MultiPower electronic control gear. This allows an alternative use of 26W or 32W lamps. Prewired ready-to-connect with heat resistant cable and terminal block, 3-pole (5-pole), for throughwiring with twin strain relief.





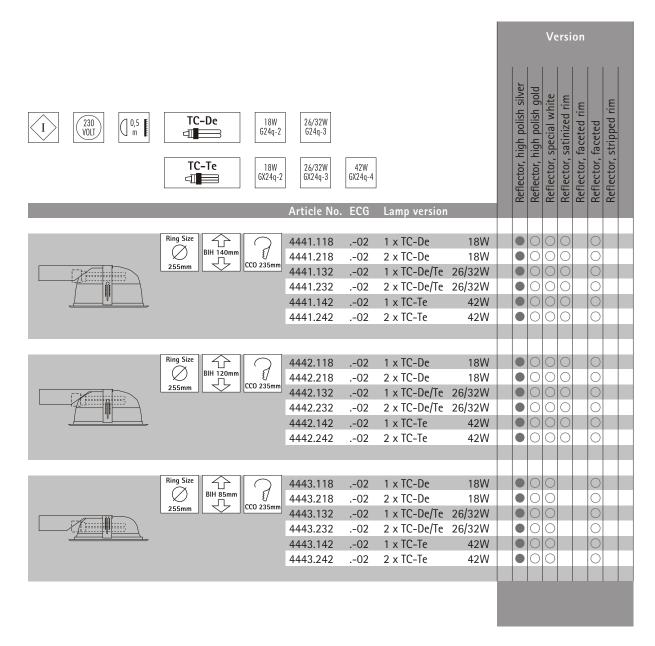
Reflector Technology

Polished and piece anodized reflector made of aluminium 99.98% with smooth, high polish silver surface. Other reflector surfaces are available.

See chart

Changing Ring System

Luminaire conclusion either with white standard ring or fixed ring for 2-piece Changing ring system (order code = add on CR). This allows the subsequent mounting of optical accessories.





VERTIKAL

The vertical burning position allows the utilization of recessed downlights with smaller diameters. The central light spot allows a higher self-luminous intensity as per luminaires for lamps in horizontal burning position. The smaller ceiling cut-out implies a deeper built-in height.

Reflector Technology Polished and piece anodized reflector made of aluminium 99.98% with smooth, high polish silver surface. Other reflector surfaces are available.

▶ See chart

Changing Ring System Luminaire conclusion either with white standard ring or fixed ring for 2-piece Changing ring system (order code = add on CR). This allows the subsequent mounting of optical accessories.



Gold



High specular



Satinized rim



Semi-specular

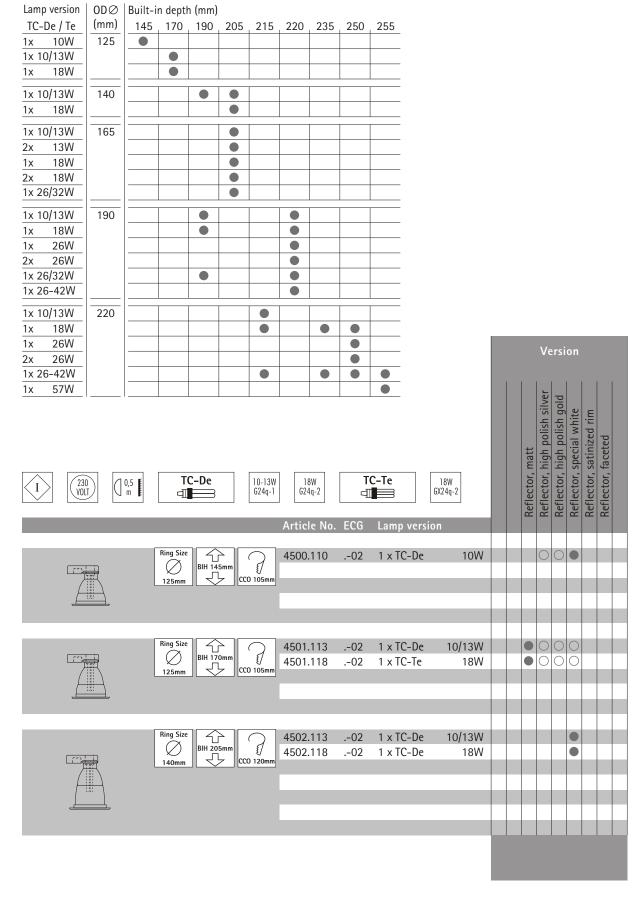


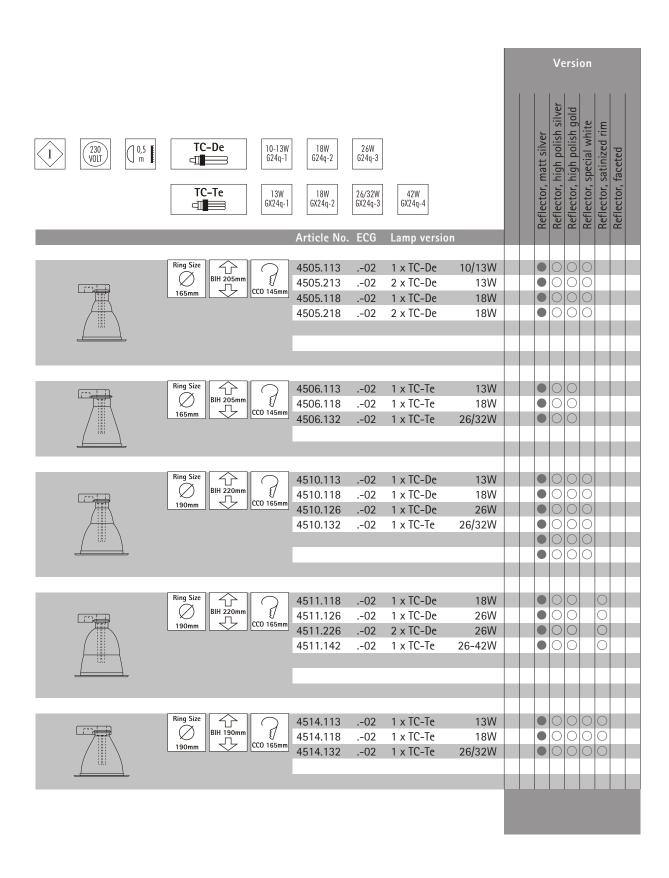
Faceted rim



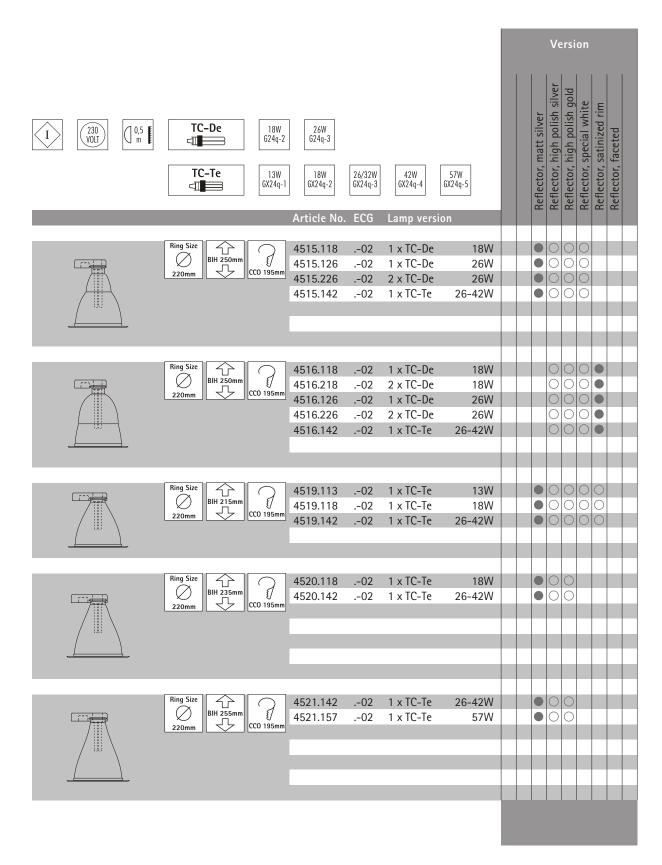
White

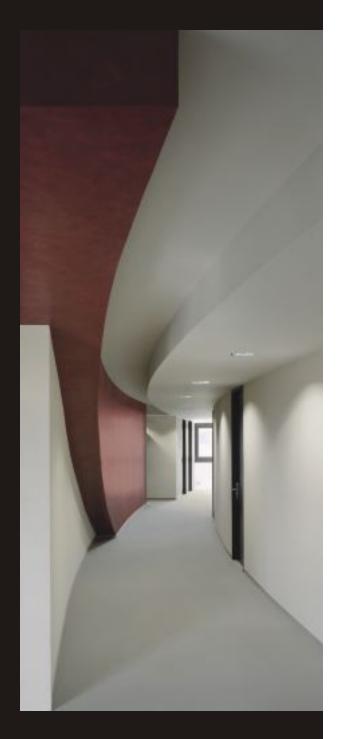












Optimized light solutions for every lighting purpose. Fascinating scenic light with high or partially increased light intensity. Visualization through deliberate glare effects and bright surfaces. Or completely invisible, integrated into the architecture through glare-free reflectors and additional cones. Luminaires are equipped with standard ring. Alternatively can be used with the Changing ring system (when ordering add "CR"), allowing the majority of the optical lighting accessories to be fitted.



Gold



High specular



Satinized rim



Semi-specular



Faceted rim



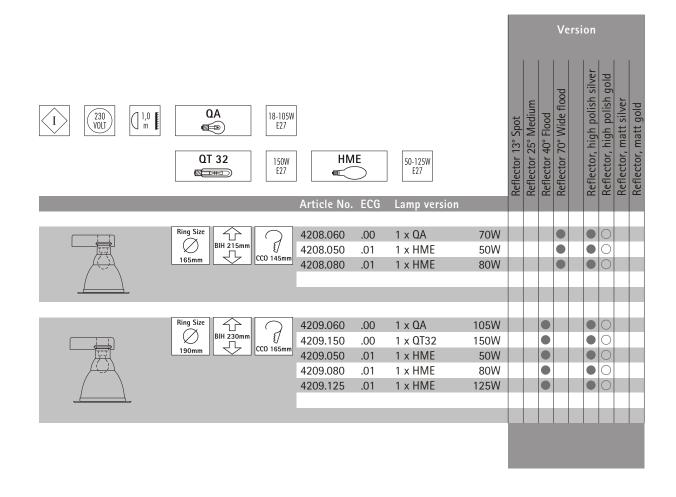
This product group covers downlights for general service lamps and high-pressure discharge lamps. Ceramic discharge tubes (CDM-T/-TD) are also used as high-pressure discharge lamps. They are operated with electronic control gear. The power supply units are included and are prewired with primary and secondary wiring.



Lamp version	0DØ	Built-i	n depth	n (mm)								
	(mm)	120	135	140	145	170	180	190	200	215	220	230
1x CDM-TC 20W	125											
1x CDM-TC 35W												
1x QA 70W	165	-										
1x HME 50W												
1x HME 80W												
1x CDM-T 35W												
1x CDM-T 70W												
1x QA 105W	190											
1x QT32 150W												
1x HME 50W												
1x HME 80W												
1x HME 125W												
1x CDM-T 35W												
1x CDM-T 70W												
1x CDM-T 150W												
1x CDM-TD 70W												
1x CDM-TD 150W												
1x SDW-T 50W												
1x SDW-T 100W												
1x CDM-T 35W	220											
1x CDM-T 70W												
1x CDM-T 150W												
1x CDM-TD 70W												
1x CDM-TD 150W												



SOBRA recessed downlight equipped for general service lamps and high-pressure discharge lamps with E27 lampholder. Vertical burning position. Aluminium reflector, polished and piece silver anodized.







► Control gear order code

.00 without control gear

.01 low loss gear

.02 electronic control gear

To specify the choice of reflector, please add:

= 17° Spot

M = 25° Medium

 $F = 50^{\circ} Flood$

W = 60° Wide flood

SOBRA

SOBRA recessed downlight equipped for SDW-T high-pressure discharge lamps. Vertical burning position. Protection pane possible. Luminaire with electronic control gear, non-regulable, in separate housing, connected via St18 Wieland plug-in system.

Reflector Technology

2-part reflector system. Reflector made of 99.98% aluminium, polished and piece anodized. Cone removable tool-free. High polish silver surface. Other reflector surface finishes are also available.

► See chart

						Version					
1 230 0 1,0 M	SDW-T 50W PG12	100W P612 Article No.	ECG	Lamp version		Reflector 17° Spot	Reflector 25° Medium Reflector 50° Flood	Reflector 60° Wide flood	Reflector, high polish silver	Reflector, high polish gold	Reflector, matt gold
	Ring Size BIH 230mm	4240.050 4240.100	.01	1 x SDW-T 1 x SDW-T	50W 100W				00		
	190mm CCO 165mm										
							I				
	Ring Size BIH 180mm CCC 165mm	4242.050 4242.100	.01 .01	1 x SDW-T 1 x SDW-T	50W 100W	(



SOBRA recessed downlight equipped for CDM-T high-pressure discharge lamps. Horizontal burning position. Luminaire with electronic control gear, non-regulable, in separate housing.

Reflector Technology

2-part reflector system. Reflector made of 99.98% aluminium, polished and piece anodized. Cone removable tool-free. High polish silver surface. Other reflector surface finishes are also available.

► See chart





Control gear order code

.00 without control gear

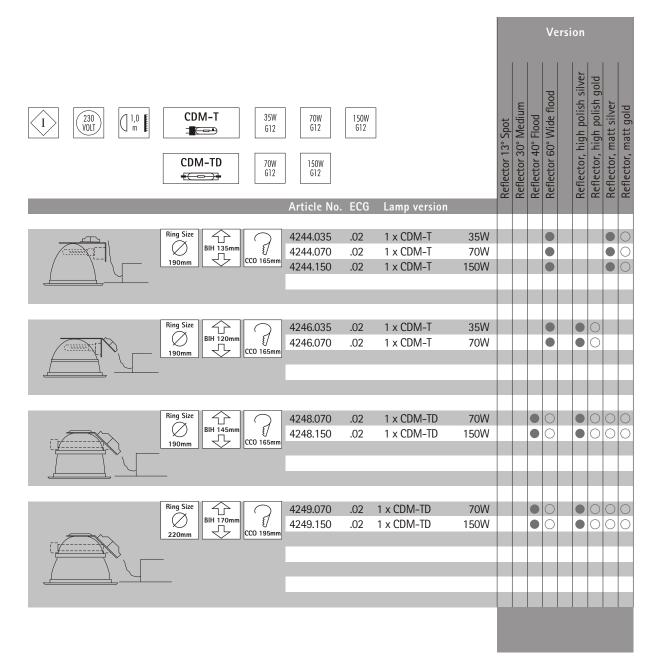
.01 low loss gear

.02 electronic control gear

► To specify the choice of reflector, please add:

S = 17° Spot M = 25° Medium

F = 50° Flood W = 60° Wide flood



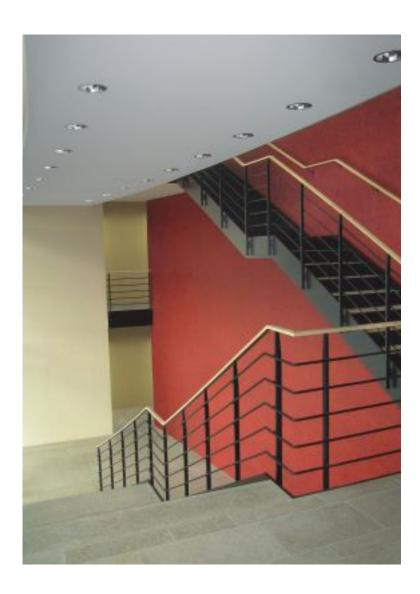
SOBRA recessed downlight equipped for CDM-T high-pressure discharge lamps. Vertical burning position. Security glass fixed in the cone. Luminaire with electronic control gear, non-regulable, in separate housing.

Reflector Technology

2-part reflector system. Reflector made of 99.98% aluminium, polished and piece anodized. Cone removable tool-free. High polish silver surface. Other reflector surface finishes are also available.

See chart







► Control gear order code

.00 without control gear

.01 low loss gear

.02 electronic control gear

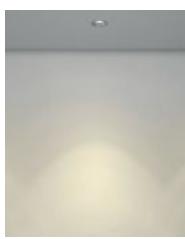
► To specify the choice of reflector, please add:

S = 17° Spot M = 25° Medium F = 50° Flood W = 60° Wide floor

F = 50° Flood W = 60° Wide flood									Ver	sion			
230 VOIT 1,0 M	CDM-T 35W 612 CDM-TC 20W 68,5	70W 612 35W 68,5	150W G12	Lamp version		Reflector 13° Spot	Reflector 30° Medium	Reflector 50° Flood	Reflector 60° Wide flood	Cone, high polish silver	Cone, high polish gold	Cone, frosted	Cone, faceted
	Ring Size BIH 140mm CCC0 100mm	4232.020 4232.035	.02	1 x CDM-TC 1 x CDM-TC	20W 35W	0	•	0	0	•	0		
	Ring Size BIH 190mm CCC 145mm	4235.035 4235.070	.02	1 x CDM-T 1 x CDM-T	35W 70W	0	_	•	0	•	0	0	0
	Ring Size BIH 180mm CCC0 165mm	4234.035 4234.070 4234.150	.02 .02 .02	1 x CDM-T 1 x CDM-T 1 x CDM-T	35W 70W 150W	0	000	•	0	•	000		
	Ring Size BIH 200mm CCC0 165mm	4238.035 4238.070 4238.150	.02 .02 .02	1 x CDM-T 1 x CDM-T 1 x CDM-T	35W 70W 150W	0	000		0	•	000	0 0	000
	Ring Size BIH 220mm CCC0 195mm	4245.035 4245.070 4245.150	.02 .02 .02	1 x CDM-T 1 x CDM-T 1 x CDM-T	35W 70W 150W	0	\bigcirc	000			000	0	







SOBRA Milieu Luminaire Day-night, Biodynamic Lighting fulfils different objectives depending on the specific purpose of use. In themed environments such as shopping centres, for instance, creating an atmosphere that is conducive to sales takes priority over purely economic aspects. To enable artificial lighting in indoor areas to have a natural effect, it should be adjusted to suit the circadian rhythm of the users. Altering the colour temperatures in line with the colour progression of natural light is, alongside brightness, the most significant factor when implementing biologically regulated light. This enables the tone to be set in order to practically support and characterise periods of both activity and rest.



SOBRA-DUO

Recessed milieu luminaire with two separate lamps for separate switching. Equipped for CDM-T high-pressure discharge lamps in diagonal burning position. Luminaire with electronic control gear units, non-regulable, in separate housing.

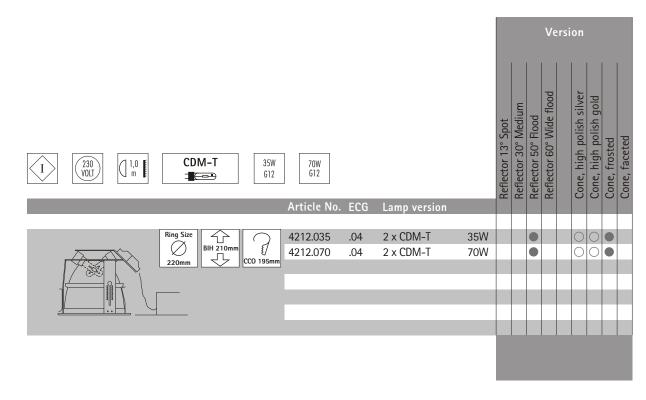
Reflector Technology

2-part reflector system. Reflector made of 99.98% aluminium, polished and piece anodized. Cone removable tool-free. High polish silver surface. Other reflector surface finishes are also available.

See chart

Lighting Technology

A constrained, clean colour mixing of the two light sources is achieved by the cross-arrangement of the lamps. This results in a two-sided light distribution which is slightly asymmetrical.



Duo-Focal Downlights



Ceiling Cover Ring
Luminaire cover with 2-part
Changing ring system. Special
flat cover ring is secured toolfree using a bayonet lock.
It features a reduced reflector
opening acting as a "roundaperture emitter". Cover ring is
powder-coated in satin-matt
white.

Designed for rooms where high demands are placed on the ambient lighting. With the dual-focus principle, the light is focussed in a reflector chamber and then passes through a very small light aperture where the light is focussed a second time in order to be emitted as a concentrated beam. The visible cone is well shielded, enabling high illuminance levels without glare.

Double-focus Recessed Luminaire

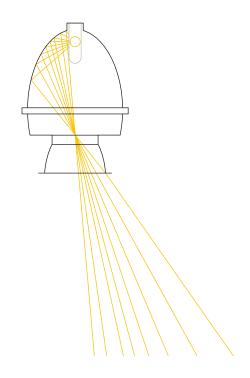
Recessed downlight for installation from below in closed ceilings. Equipped for CDM-T or CDM/TM high-pressure discharge lamps or QT12 low-voltage halogen lamps. Vertical burning position. Power supply unit located in separate housing, prewired with primary and secondary wiring. The control gear units are also included.

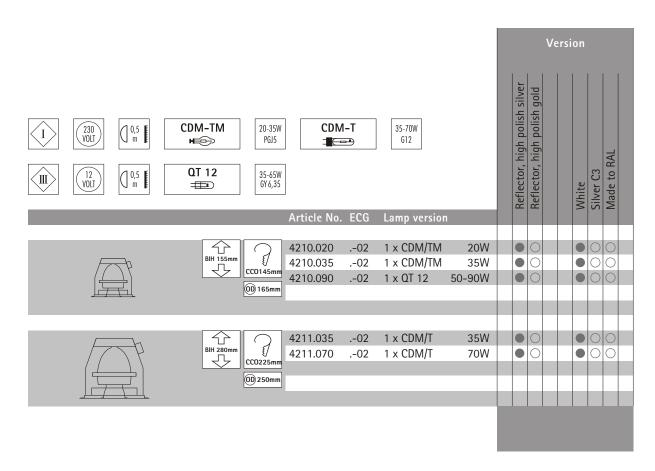




Reflector Technology

A combination of a two-part ellipsoid reflector and an antidazzle cone. The beam is definitively focused immediately before it exits the luminaire. The reflector unit is made of polished and piece anodized 99.98% aluminium with smooth, high polish surface.





Round Wallwasher



Round Wallwasher

Illuminating walls and vertical surfaces can fulfil several tasks. For the illumination of informal or merchandise displays and also for indirect general lighting of an area. The result is an atmospheric lighting mood. Bright illumination of clear surfaces and completely glarefree. In addition the room depths can be emphasized and the observer is strongly drawn into the room.





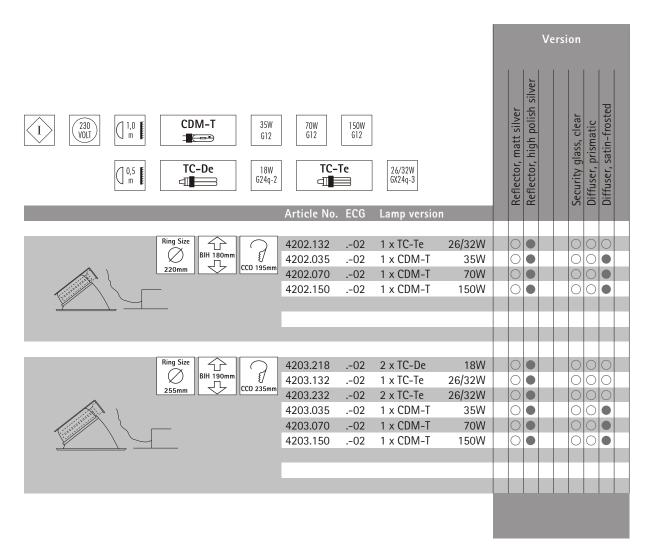
Reflector Technology

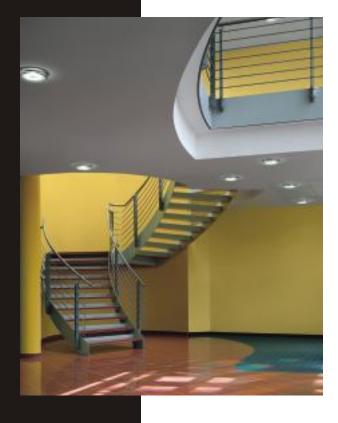
Polished and piece anodized reflector made of aluminium 99.98% with smooth, high polish silver surface. Inclined reflector cone for optimized light control.

▶ See chart

Changing Ring System

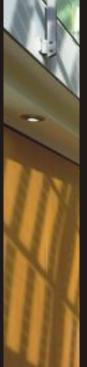
Luminaire conclusion either with white standard ring or fixed ring for 2-piece Changing ring system (order code = add on CR). This allows the subsequent mounting of optical accessories.





NORTON

This luminaire is noted for its individual surface material. The solid aluminium surround has a finely brushed finish acting as an aesthetic detail. This is further enhanced by a visible reflector edge. Diffuse light is produced using efficient and economical compact fluorescent lamps.





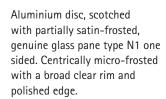
Scotched surface















Aluminium disc, scotched with partially satin-frosted, genuine glass pane type N2 one sided. Fully micro-frosted with a narrow clear rim and polished edge.





Visible parabolic reflector silver polished. A decorative element for the interior design of prestigious locations.





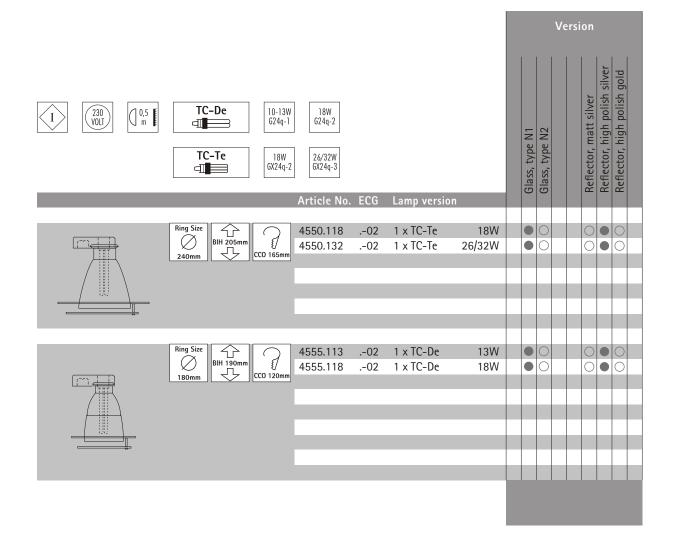
Solid turned aluminium disc, scotched surface, with visible reflector edge. Parabolic reflector silver polished.





NORTON

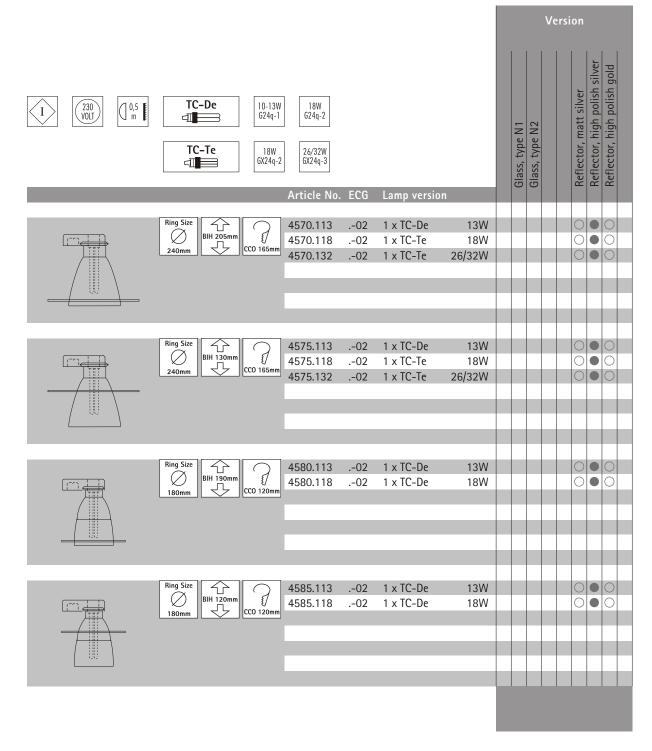
Recessed downlight NORTON. For TC-De 26W or TC-Te 32W compact fluorescent lamps either 1-flame or 2-flame in vertical burning position, mainly with MultiPower electronic control gear. This allows an alternative use of 26W or 32W lamps. Prewired ready-to-connect, with heat resistant cable and terminal block, 3-pole (5-pole), for throughwiring with twin strain relief.













KONUS

Recessed downlight KONUS.
For TC-Te 18W, 26W, 32W
or 42W compact fluorescent
lamps either 1-flame or 2-flame
in horizontal burning position,
mainly with MultiPower electronic control gear. This allows
an alternative use of 26W or
32W lamps. Prewired ready-toconnect, with heat resistant
cable and terminal block,
3-pole (5-pole), for throughwiring with twin strain relief.



Recessed downlight with acrylic, frosted opal silk diffuser mounted into the cone.
Reduced light intensities, reduced contrasts, pleasing glare-free lighting technology for optically highly discerning areas.



Recessed downlight with prismatic glass diffuser mounted into the cone. Increased brilliance. Reduced light intensities, pleasing glare-free lighting technology for optically highly discerning areas.



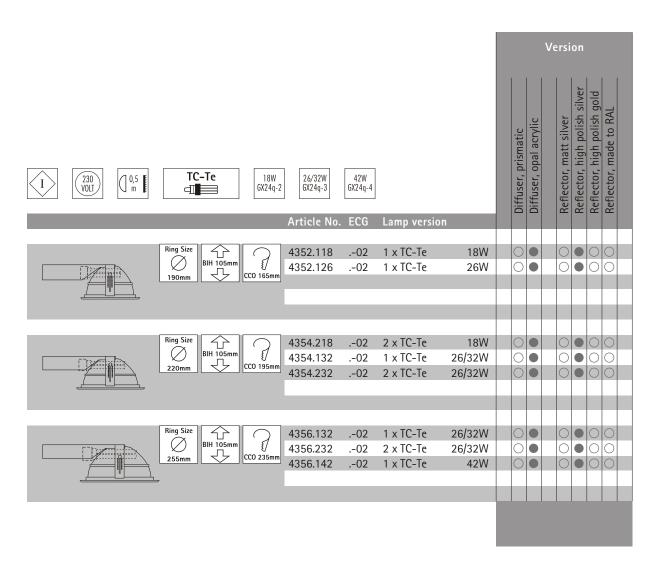
Reflector Technology

Polished and piece anodized reflector made of aluminium 99.98% with smooth, high polish silver surface. Other reflector surfaces are available.

▶ See chart

Changing Ring System

Luminaire conclusion either with white standard ring or fixed ring for 2-piece Changing ring system (order code = add on CR). This allows the subsequent mounting of optical accessories.





Recessed Luminaire with Light Optics

Flat, recessed luminaire with decorative, interchangeable ring for prestigious areas. Glare-free and soft light distribution provided by the fitted diffuser, which is made of satin-frosted, genuine glass. Also available with prismatic glass or acrylic glass, opal silk frosted. With wide and angular cover ring, available in different finishes either in chrome, brass, white silver C3 or any other RAL colour.



Light optics with diffuser made of highly diffuse, UV deflecting acrylic glass opal silk frosted. Impact resistant and IP43 when mounted into closed ceiling systems.



Light optics with diffuser made of genuine glass. Also available with prismatic surface either clear or frosted, or with a smooth surface micro-frosted on one side.



HAYD

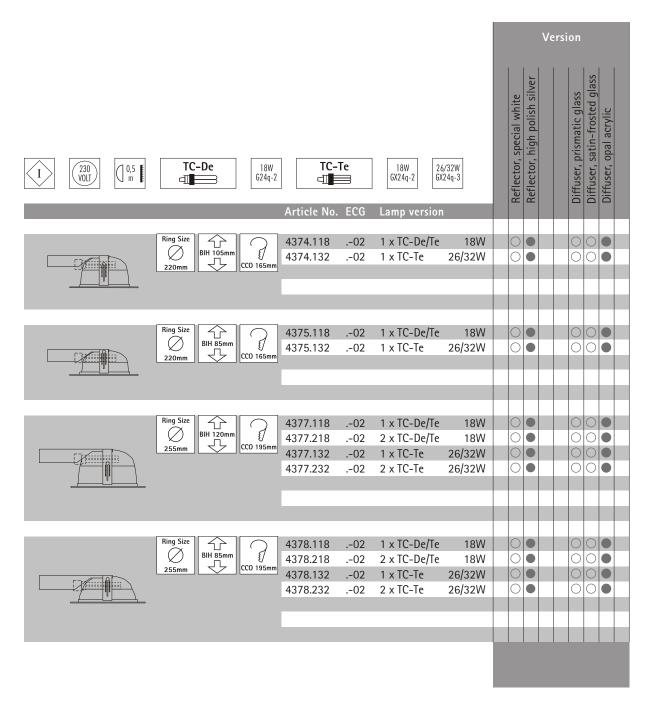
Recessed downlight HAYD.
For TC-De or TC-Te compact
fluorescent lamps either
1-flame or 2-flame in horizontal burning position, mainly
with MultiPower electronic
control gear. Prewired readyto-connect, with heat resistant
cable and terminal block,

3-pole (5-pole), for throughwiring with twin strain relief.

Reflector Technology

Polished and piece anodized reflector made of aluminium 99.98% with smooth, high polish silver surface. Other reflector surfaces are available.

▶ See chart





DIFFUS

Due to its distinctive appearance and unusual lighting technology this luminaire represents a special lighting tool for state-of-the-art architecture. Besides the diffuse illumination created by the brightened light surface this downlight gives a directional light beam which is projected directly by the parabolic reflector. Islands of light are becoming and offer a lot of space for created styling. The covering ring is narrow and angular, available in chrome, brass, silver C3, white or other RAL colour.



Recessed Luminaire with Light Optics

Experience light through contemporary luminaire design, consisting of an acrylic diffuser for the diffuse component of light and a recessed parabolic reflector made of aluminium to increase the luminance below the luminaire.



DIFFUS

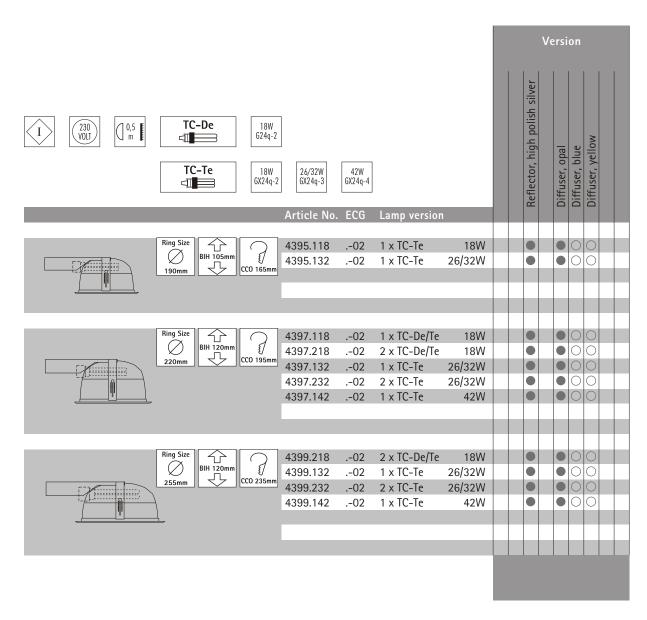
Recessed downlight DIFFUS. For TC-De or TC-Te compact fluorescent lamps either 1-flame or 2-flame in horizontal burning position, mainly with MultiPower electronic control gear. Prewired ready-to-connect, with heat resistant cable and terminal block,

3-pole (5-pole), for throughwiring with twin strain relief.

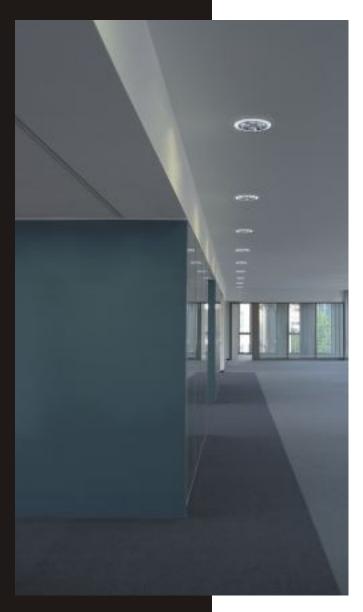
Reflector Technology

Polished and piece anodized reflector made of aluminium 99.98% with smooth, high polish silver surface. Other reflector surfaces are available.

▶ See chart







CROSS-Aura

Soft and accentuated light combined as a double function in one luminaire. With its crossbaffle, this compact downlight offers an alternative to conventional louvred luminaires. A discreet luminaire that does not come to the fore itself, it is only a perimeter diffuser ring that indicates the light.



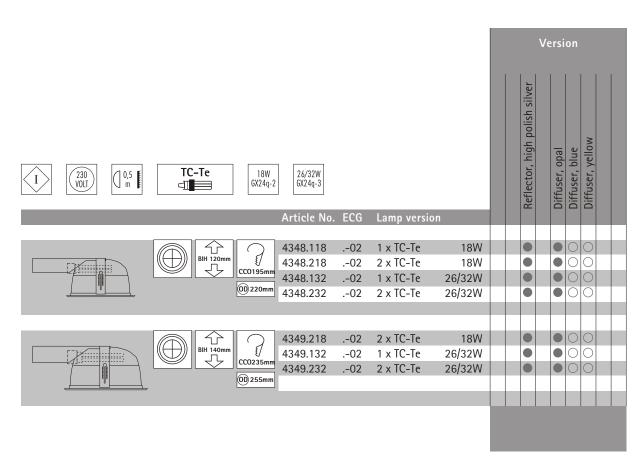
CROSS-Aura

Recessed downlight equipped for compact fluorescent lamps TC-Te 18W, 26W or 32W either 1-flame or 2-flame in horizontal burning position, mainly with MultiPower electronic control gear. This allows an alternative use of 26W or 32W lamps. Prewired ready-toconnect, with heat resistant cable and terminal block, 3-pole (5-pole), for throughwiring with twin strain relief. Includes Changing ring system. Cover with integrated light optics removable tool-free via bayonet lock.

Reflector Technology

Polished and piece anodized reflector made of 99.98% aluminium with smooth, high polish surface. Light optics removable tool-free. Parabolic louvres with perimeter aura. Other reflector surfaces are available.

▶ See chart





Recessed Luminaire with Rounded Louvre

The lighting technology used here combines louvre and rounded reflector. Suitable for PC supported office workplaces. The parabolic louvre is available in different versions and can be removed tool-free.

Smooth aluminium, silver highly polished louvre with reflector. Other reflector surfaces are available.

Lamp version	0D∅	Built-i	n depth	n (mm)		
TC-De / Te	mm	105	130	140	145	150
1x 10/13W	190					
1x 18W						
1x 26/32W						
1x 10/13W	220					
1x 18W						
1x 26/32W						
1x 42W						
2x 10/13W						
2x 18W						
2x 26/32W						
1x 18W	255	•				
1x 26/32W						
1x 42W						
2x 10/13W						
2x 18W						
2x 26/32W						
1x 42W	315					
1x 57W						
2x 18W					•	
2x 26/32W						
2x 42W						
2x 57W						





TURBO

Central cone with parabolic diagonal lamellas in various segmentations.









Crossed parabolic diagonal lamellas in two different mounting heights







SEGMENT

Flat louvre with four parabolic cross lamellas and central hub. Also available with additional anti-glare ring.







Flat louvre with six parabolic diagonal lamellas and central hub. Also available with additional anti-glare ring.





Luminaire Conclusions

Two luminaire conclusions are available for rounded louvres.

Standard

Narrow ring with stamped insert for the reflector.



Changing Ring System ▶ P. 138

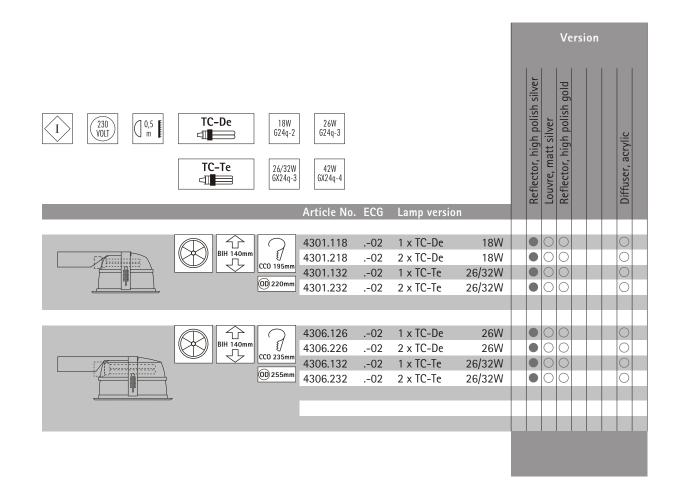
In 2 parts. Basic ring firmly mounted onto luminaire, can be combined with various cover rings (by adding "CR" when ordering).





TURBO

Recessed downlight TURBO. For TC-De 26W or TC-Te 32W compact fluorescent lamps either 1-flame or 2-flame in horizontal burning position, mainly with MultiPower electronic control gear. This allows an alternative use of 26W or 32W lamps. Prewired ready-to-connect, with heat resistant cable and terminal block, 3-pole (5-pole), for through-wiring with twin strain relief.







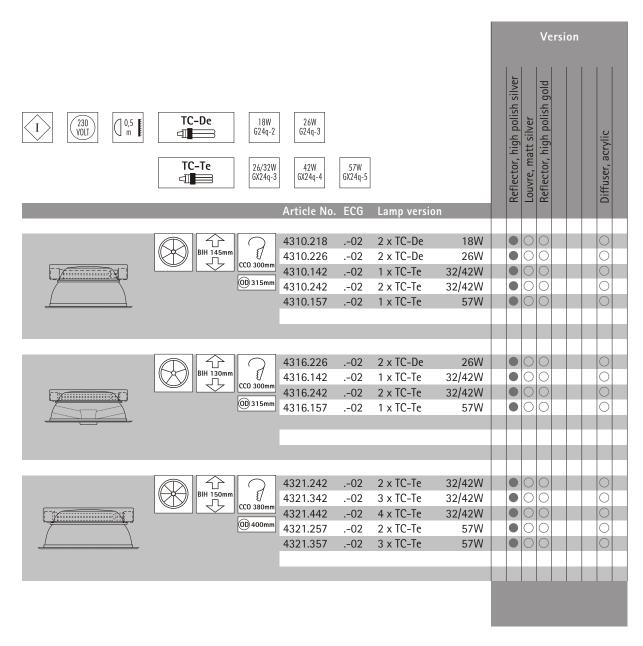
Reflector Technology

Reflector system in 2 parts. Polished and piece anodized reflector made of aluminium 99.98%. Parabolic louvre removable tool-free, reflector suitable for PC workplaces. Smooth, high polish silver reflector surface. Other reflector surfaces on request.

See chart

Changing Ring System

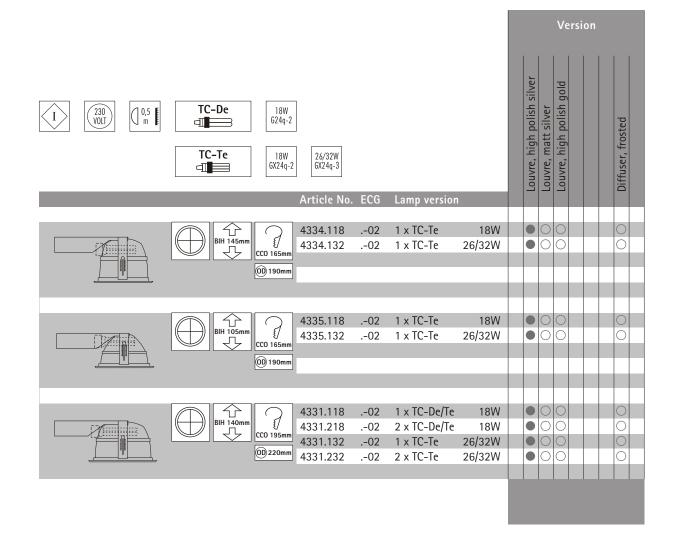
Luminaire conclusion either with white standard ring or fixed ring for Changing ring system in 2 parts (order code = add on CR). This allows the subsequent assembly of optical light accessories.





CROSS

Recessed downlight CROSS. For TC-De 26W or TC-Te 32W compact fluorescent lamps either 1-flame or 2-flame in horizontal burning position, mainly with MultiPower electronic control gear. This allows an alternative use of 26W or 32W lamps. Prewired ready-to-connect, with heat resistant cable and terminal block, 3-pole (5-pole), for through-wiring with twin strain relief.



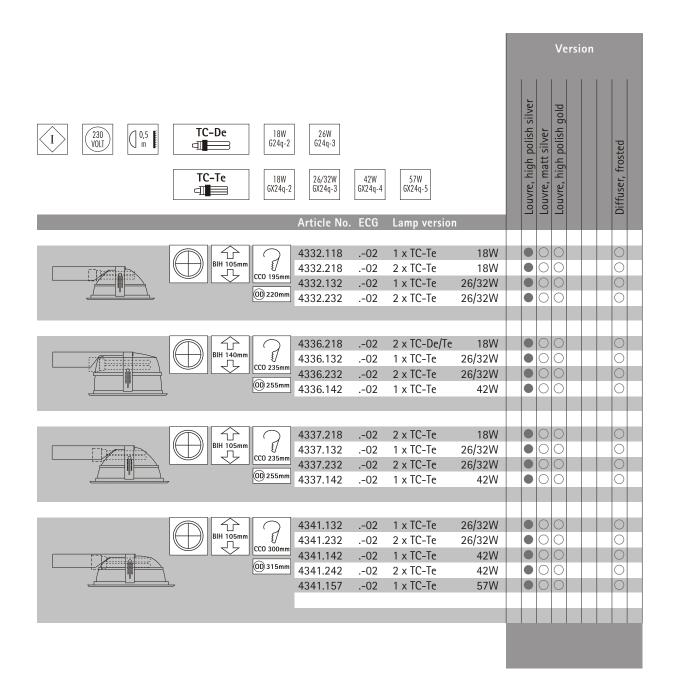


Reflector Technology

Reflector system in 2 parts.
Polished and piece anodized reflector made of aluminium 99.98%. Parabolic louvre removable tool-free, reflector suitable for PC workplaces.
Smooth, high polish silver reflector surfaces are available on request.
See chart

Changing Ring System

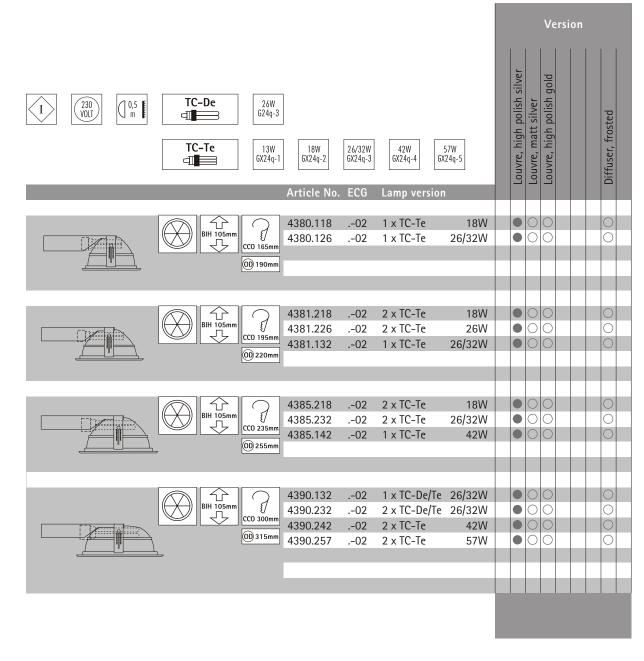
Luminaire conclusion either with white standard ring or fixed ring for Changing ring system in 2 parts (order code = add on CR). This allows the subsequent assembly of optical light accessories.





SEGMENT

Flat louvre luminaire SEGMENT. The flat parabolic louvre construction used in this luminaire is virtually glare-free despite its flat design. As an accessory, a translucent anti-glare pane can be mounted into the reflector cone resulting in a pleasing diffused light.







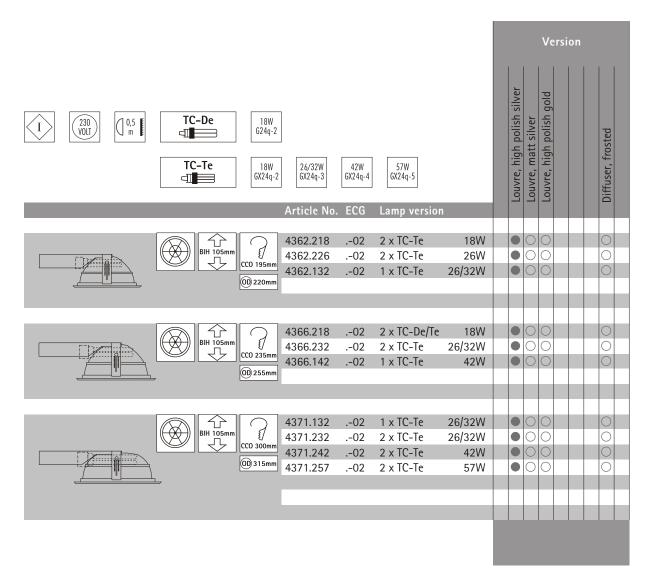
Reflector Technology

▶ See chart

Reflector system in 2 parts.
Polished and piece anodized reflector made of aluminium 99.98%. Parabolic louvre removable tool-free, reflector suitable for PC workplaces.
Smooth, high polish silver reflector surface. Other reflector surfaces are available on request.

Changing Ring System

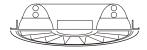
Luminaire conclusion either with white standard ring or fixed ring for Changing ring system in 2 parts (order code = add on CR). This allows the subsequent assembly of optical light accessories.





Based on our long-term experience in louvre technology for T5 fluorescent lamps, we developed parabolic, round louvre luminaires. The availability of T5 circular fluorescent lamps allows the technical advantages of conventional louvre luminaries to be transferred compact downlights, making this luminaire a real alternative to linear solutions.

This luminaire satisfies the demanding requirements of building engineering and lighting technology. It provides good glare reduction with high luminaire operating efficiency. It is also highly flexible due to a variety of options and integrated building engineering elements – and all that in a compact yet architecturally distinctive luminaire design.



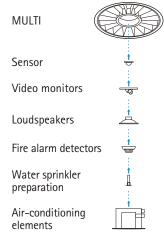
Wattage

Unique 2-flame assembly equipped with two T5 FC 55W lamps which allows the illumination of large public areas without affecting ceiling appearance.



An accentuated or even illumination can be achieved with luminaires of this series. The high glare reduction (65°) makes them suitable for work zones with PC workstations. The additional use of centred light sources in the luminaire allows the advantages of dual light to be seen.

Equipped for 1-flame or 2- flame. Two different lamp versions in 40W or 55W are available. Fixed or adjustable auxiliary lighting and building engineering accessories such as loud-speakers, sprinklers and air conditioning technology can be combined with the basic luminaire.



Multi Functional Elements

System adaptors or complete system elements enable connection to the building engineering. Because of the multiple options available all adjustments must be clarified in detail. The description in submissions refers to the selected luminaire's article no. and to the added technical element.

For example: MULTI 1x T5 FC in 55W with loudspeaker corresponds to: Article No.: 4100.155.02 + system element loudspeaker

MULTI Standard

This luminaire is supplied with round parabolic louvre and a centric closed cone as standard.



Multi + Accessories

The centred louvre cone can be accessed with the lighting and building engineering accessory elements. The optical appearance is retained.



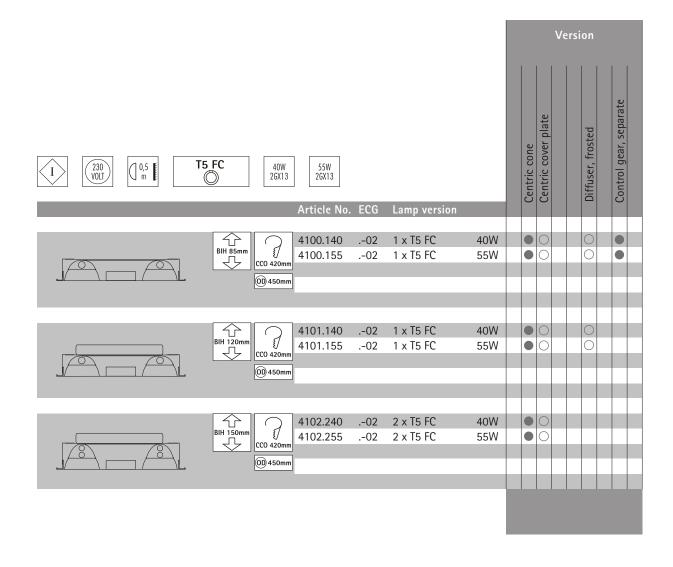
MULTI TR

The louvre centre is locked by a sealing plate. This emphasizes the ring appearance of the luminaire and allows combination with luminaires of the TR-GLAS.





Dual light is the characteristic feature of this luminaire. A large selection of additional, separately switchable, central lamps is available. With this luminaire, a distinction is made between single-flame or double-flame basic luminaire. In addition, the central luminaire inserts are available in fixed and tiltable formats. The version for the 13W TC-Te is intended for emergency lighting use and can be combined with additional emergency lighting elements.



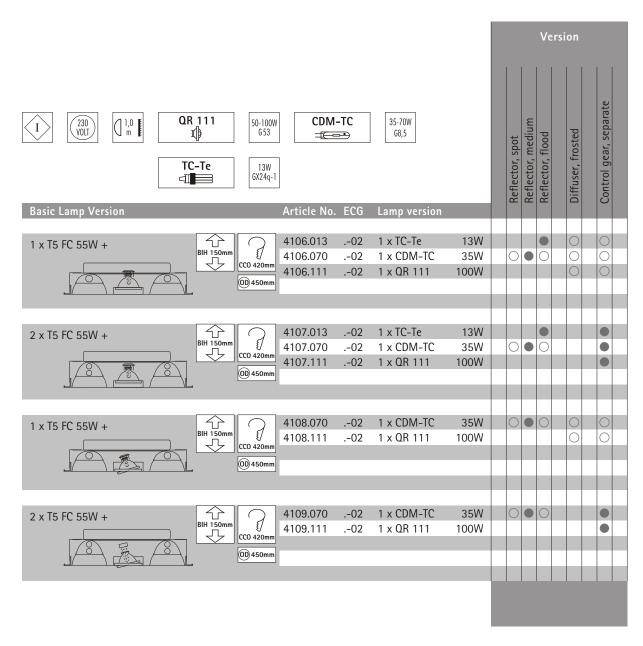


Recessed downlight MULTI. For circular fluorescent T5 lamps in 40W or 55W either 1-flame or 2-flame with electronic control gear. Wired ready-to-connect with heat resistant cable and terminal block, 3-pole (5-pole), for through-wiring with twin strain relief.

Reflector Technology

Reflector system in 2 parts. Polished and piece anodized reflector made of aluminium 99.98%. Parabolic louvre removable tool-free, reflector suitable for PC workplaces. Smooth, high polish silver reflector surfaces. Other reflector surfaces are available on request.

▶ See chart







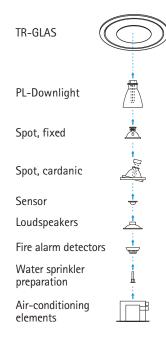
TR-GLAS

Functionality is an important topic in lighting technology. The TR-GLAS luminaire is the multi-talent in this sector. The centric plate allows the diffuser to be fastened and is also the receptable platform of all system elements.

TR-GLAS + Surface ElementsThis product displays ist charm when ceiling-integrated with original ceiling material filling ist centre, creating the impression of a ring, rather than a circle.

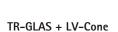






TR-GLAS + LV

The minimalistic system adaptor with ist recessed halogen luminaire insert can only be recognized as a luminaire when in operation.



Vertical accentuation and the combination of different colour temperatures allow various lighting moods.

TR-GLAS + PL Vertical

The integrated PL Downlight for auxiliary illumination and mood lighting can also be used for appropriate emergency lighting according to guidelines.

TR-GLAS + CDM-T Cardanic

The cardanic spotlight luminaire allows architectural elements and objects to be highlighted.











TR-GLAS Climate



TR-GLAS Audio

TR-GLAS Multifunctional

The design of this luminaire is shaped by the concentric cover plate. This flexible luminaire center therefore allows the optical and harmonious integration of dual light and building engineering.

Ordering example:

TR-GLAS 1 x T5 FC 55W with loudspeaker would be: Article No.: 4055.155.02 + system element loudspeaker

Multifunctional Elements

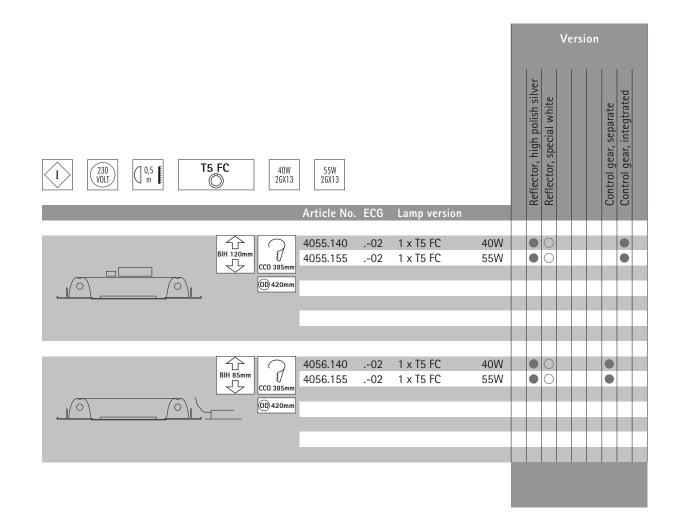
System adaptors or complete system elements enable connection to the building engineering. Because of the multiple options available all adjustments must be clarified in detail. The description in submissions refers to the selected luminaire's article number and to the added technical element.





► TR-GLAS

An enclosed adaptor ring is supplied as standard cover to which the glass diffuser is firmly connected.













TR-GLAS + NV

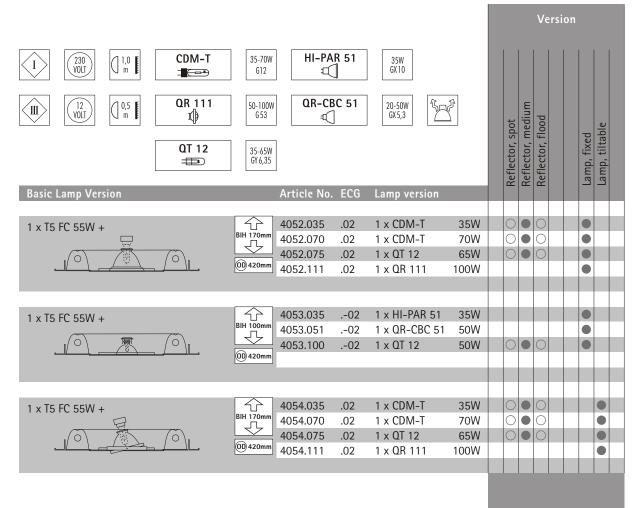
System adapters for low-voltage luminaires serve to provide accentuating lighting. Pleasant pools of light can be created thanks to the high lumen output.

► To specify the choice of reflector, please add:

F = Flood

M = Medium

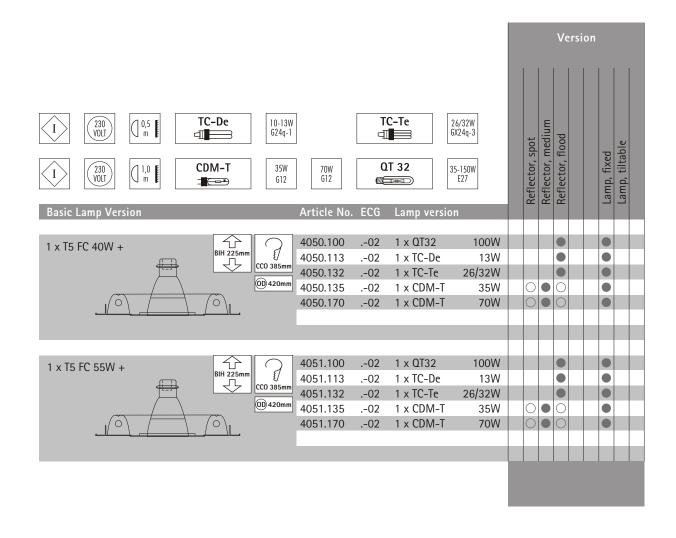
S = Spot





► TR-GLAS Dual Light

The TR-GLAS luminaire with dual light is available in two different basic assemblies, T5 FC 40W or 55W. The separate auxiliary lighting is available in different wattages. It can also be used as emergency lighting.



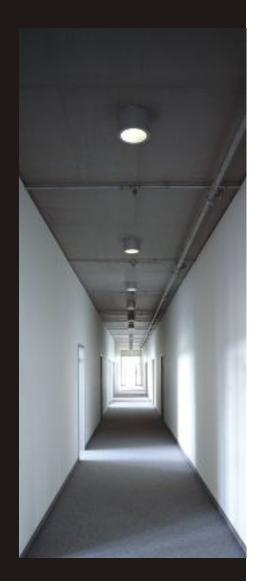




MULTI-A GLAS
For further models and information, please refer to
P. 206



Surface Luminaires



Surface Mounted Downlight

A surface mounted luminaire can be used where it is not possible to install recessed luminaires. It is also suitable for special lighting solutions in specifically designed areas. The ability to use surface mounted luminaires in particular as a stylistic interior design feature has led us to offer a wide variety of such luminaires. Despite the compact design, large lumen outputs can be achieved. Depending on requirements, the light output can be projected in a diffuse or straight beam.



TUBE P. 216



TUBE CR Opal P. 218



TUBE CR Open P. 218





MULTI-A Louvre

P. 207



FLAT-VI

P. 210

Surface Mounted Downlight

Discreet ceiling brightening and accurate glare limitation is achieved by optical lighting accessories. Because of the application of parabolic louvres it is possible to use these luminaires above PC workstations. Can be optionally combined with interchangeable ring accessories from standard downlights to allow individual styling and adjustment to suit alterations in room layout.

Surface Mounted Luminaire Our program is completed by a

decorative and high performance surface mounted luminaire. These luminaires are particularly used in public and representative areas. They are glare-free and accentuating, which is why they are "THE" design element in creative lighting architecture.



TUBE-ACRYL

P. 222



FLAT-CR

P. 214



TUBE-AL

P. 220



FLAT

T5 FC Surface Mounted Downlight

Functional lighting or design element? The surface mounted MULTI-A luminaire fulfils both requirements. The flat design allows this product to harmonize with interior architecture. The large lumen package of up to 4200 lumen combined with an outstanding lighting technique, a high luminaire operating efficiency and excellent glare reduction form the basis for an economical surface illumination.







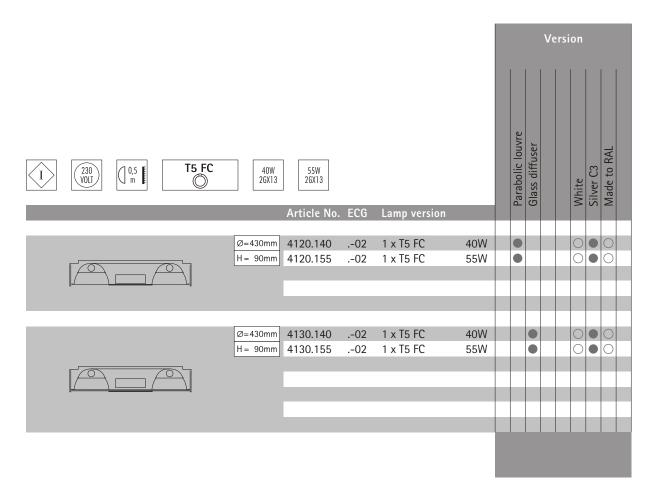
MULTI-A

The parabolic louvre provides exceptionally glare reduced light with high lumen packages. The reflector is suitable for PC workstations with a mean brilliance >= 1000 cd/m² at a projection beam angle of 65 degrees all around.



MULTI-A GLAS

Utilizing the opal diffuser achieves a gentle diffusion of light with an extremely broad projection of light distribution. High efficiency is achieved through the optimized reflector system.





The MULTI-A pendant luminaire is noted for its clinical modern design. Its use as a functional luminaire is made possible by the large lumen output of up to 6500lm combined with exceptional lighting technology, a high light output ratio and good glare control. This forms the basis for an economical and efficient area lighting.

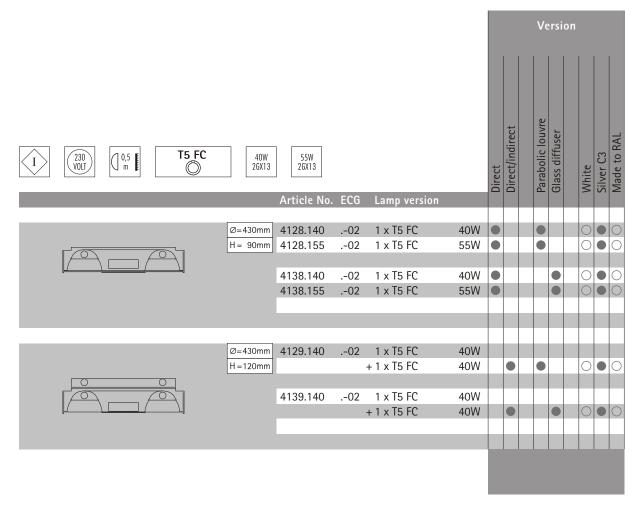
The surface mounted luminaire is suspended using a wire-rope pendent kit. When combined with the additionally selectable, separate indirect unit, an emotive lighting atmosphere can be created. The pendant kit consists of the ceiling shroud, the wire-rope suspensions with rapid-connector height adjustment and the transparent supply cable. Length: 2000mm



MULTI-A Pendant

Luminaire in solely direct or direct/indirect versions. Equipped for 40W or 55W T5 FC ring-form fluorescent lamp. Features a direct beam and, as optional additional lighting, an indirect 40W fluorescent ring. Luminaire with electronic control gear. Strong, one-piece housing made of aluminium, powder-coated in silver C3 colour or to RAL standard. Wired ready-toconnect with heat resistant cable. With pendant kit, 3-pole transparent supply cable and ceiling shroud.









FLAT-VI Surface mounted downlight for use in functional and work areas with increased visual tasks. The parabolic louvre provides high lumen packages with excellent glare reduction. For further reduction of the light intensity below the luminaire a translucent diffuser can be inserted into the reflector cone as an accessory. The low mounting height combined with the optically floating luminaire body also permits use in architectural areas.





Glass Diffuser
This luminaire is especially
popular in prestigious areas.
The float glass pane, mounted
in a floating position, produces
a spaced light. The discreet
luminaire with its oriented
ceiling illumination produces
pools of light underscoring the
accentuated areas.

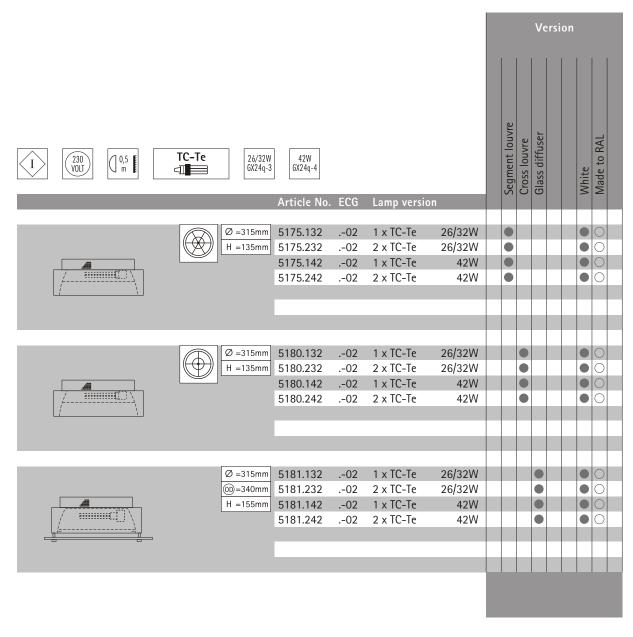


Surface Mounted Luminaire

For TC-De 26W up to TC-Te 42W compact fluorescent lamps either 1-flame or 2-flame in horizontal burning position, mainly with MultiPower electronic control gear. This allows an alternative use of 26W or 32W lamps. Prewired ready-to-connect, with heat resistant cable and terminal block, 3-pole (5-pole), for through-wiring.

Reflector Technology

Reflector system in 2 parts. Polished and piece anodized reflector made of aluminium 99.98%. Parabolic louvre removable tool-free, reflector suitable for PC workplaces. Smooth, high polish silver reflector surfaces. Other reflector surfaces are available on request.







FLAT

These surface mounted luminaires are particularly flat and give a high performance. The lighting technology is served by a particularly wide-beam, polished and piece silver anodized aluminium reflector. Two different covers are available. Either with glare-free ring louvre in high polish silver or with a decorative genuine glass diffuser partially frosted.



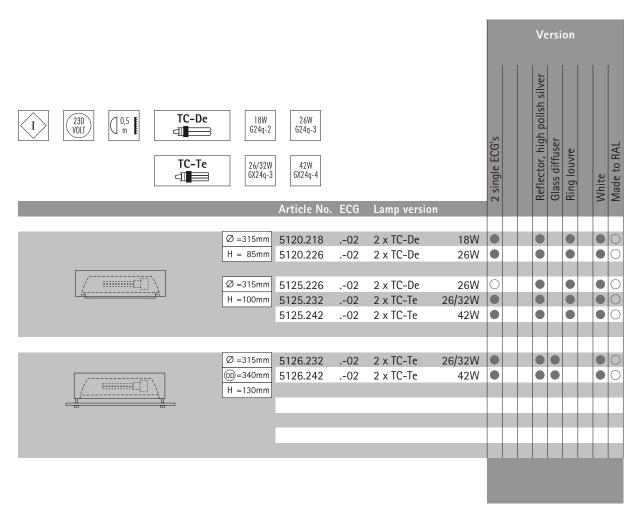
Surface Mounted Luminaire

Body made of aluminium and steel. Easy mounting is ensured by the separate installation housing. Equipped for compact fluorescent lamps, 18W up to 42W, 2-flame in horizontal burning position, mainly with MultiPower electronic control gear. This allows an alternative use of 26W or 32W lamps. Prewired ready-to-connect, with heat resistant cable and terminal block, 3-pole (5-pole), for through-wiring.

Reflector Technology

Polished and piece anodized reflector made of aluminium 99.98% with smooth, high polish silver surface. Other reflector surfaces are available.

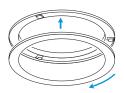
▶ See chart





Changing Ring System (CR)

This surface mounted downlight has a bayonet ring for affixing various covers of our 2-part Changing ring system covering the luminaire. In addition, the CAPPUCCIO decorative glass accessories, either built-in or separate, are available in various materials and surfaces. They are also used as diffuser or IP-protection. In this way the luminaires achieve protection class IP43. Also protected from theft and vandalism in public spaces.



▶ The optional cover ring is not normally included, please order separately.



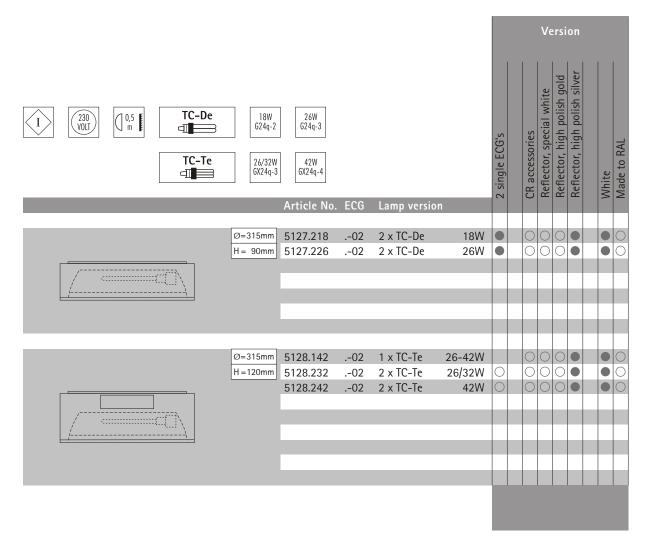
Prism acrylic pane



FLAT-CR

This surface mounted luminaires are particularly flat and give a high performance. The sturdy one-piece aluminium body is available in white or any other RAL colour. Polished and piece anodized reflector made of aluminium 99.98% with smooth, high polish silver surface. Changing ring system with one separate covering ring with opal or prismatic pane for glare and IP protection.

Cover fastened by a bayonet lock. Equipped for compact fluorescent lamps, 18W up to 42W, 2-flame in horizontal burning position, with electronic control gear. Prewired ready-to-connect, with heat resistant cable and terminal block, 3-pole (5-pole), for through-wiring.







TUBE

This surface mounted luminaire is made of steel and aluminium. The surface mounted housing is a separate and removable component which also allows the realization of semi-recessed installation. The fully accessible base plate can easily be assembled and connected. To finish the installation, the surface mounted pot is pulled onto the base plate and fastened together with the reflector.

▶ Pendant Set

As a special item, a pendant set for luminaire article no. 5109.xxx is also available. The luminaire can be used as a pendant luminaire. The set must be ordered separately stating the required pendant length.





TUBE

PL surface mounted downlight TUBE. For TC-De or TC-Te compact fluorescent lamps either 1-flame or 2-flame mainly with MultiPower electronic control gear. This allows an alternative use of 26W or 32W lamps. Prewired ready-to-connect, with heat resistant cable and terminal block, 3-pole (5-pole), for through-wiring.

Reflector Technology

Polished and piece anodized reflector made of aluminium 99.98% with smooth, high polish silver surface. Other reflector surfaces are available.

► See chart

	Version		
TC-De 18W 624q-2 TC-Te 18W 6X24q-2 Reflector, bigh bolish silver Article No. ECG Lamp version	Reflector, special white Reflector, diamond faceted	White Made to RAL	
Ø =220mm 5100.11802 1 x TC-De 18W			
H =125mm 5100.21802 2 x TC-Te 18W			
5100.13202 1 x TC-Te 26/32W			
Ø =170mm		• 0	
Pendant set 5109.099			
Ø =200mm 5110.11802 1 x TC-De 18W			
Ø = 200mm 5110.11802 1 x TC-De 18W		• 0	
5110.14202 1 x TC-Te 42W			





TUBE CR

This surface mounted downlight has a bayonet ring for affixing various covers of our 2-part Changing ring system covering the luminaire. In addition, the CAPPUCCIO decorative glass accessories, either built-in or separate, are available in various materials and surfaces. They are also used as diffuser or IP-protection. In this way the luminaires achieve protection class IP43. Also protected from theft and vandalism in public spaces.

▶ P. 138 gives more information about our Changing ring system.



Changing ring in 2 parts



TUBE CR

PL surface mounted downlight TUBE CR. For TC-De or TC-Te compact fluorescent lamps either 1-flame or 2-flame mainly with MultiPower electronic control gear. This allows an alternative use of 26W or 32W lamps. Prewired ready-to-connect, with heat resistant cable and terminal block, 3-pole (5-pole), for through-wiring.

Changing Ring System

Luminaire conclusion with fixed ring for Changing ring system in 2 parts.

The optional cover ring is not included as standard. Please order separately.

Reflector Technology

Polished and piece anodized reflector made of aluminium 99.98% with smooth, high polish silver surface. Other reflector surfaces are available.

► See chart

						Version			
230 VOIT TC-De	18W 624q-2	TC-T ⊴I ■ rticle No.	∄	26/32W 6X24q-3 Lamp version	1	CR accessories	Reflector, high polish silver	Reflector, diamond faceted	White Made to RAL
		101.118 101.132	02 02	1 x TC-De 1 x TC-Te	18W 26/32W	0			
	H =125mm 5	103.218 103.132 103.232	02 02 02	2 x TC-De 1 x TC-Te 2 x TC-Te	18W 26/32W 26/32W	0			
		106.118 106.132	02 02	1 x TC-De 1 x TC-Te	18W 26/32W	0			
	H =160mm 5	108.218 108.132 108.232	02 02 02	2 x TC-De 1 x TC-Te 2 x TC-Te	18W 26/32W 26/32W	0			



TUBE-AL

A surface mounted luminaire whose quality underscores the high demands of architecture. The glare ring creates a decorative lighting effect with an unobtrusively radiating ceiling brightening. This product is characterized by an aluminium housing with its elegant scotched surface. Also available as a sturdy exterior luminaire in protection class IP54.

▶ Pendant Set

Both a wire or a tube pendant suspension are available.





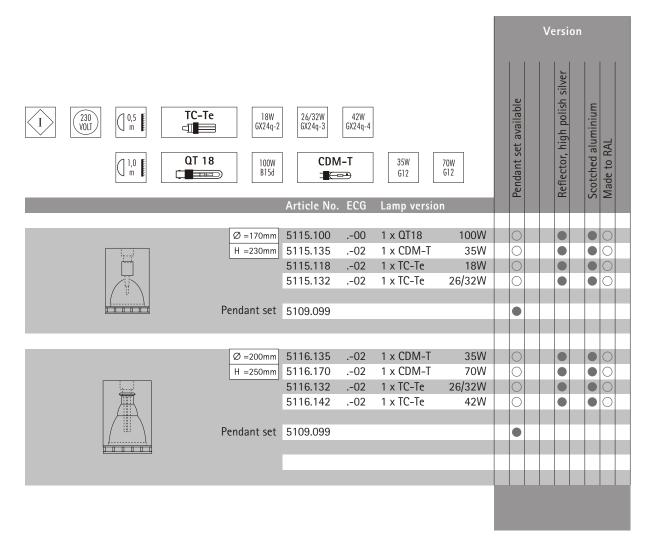
Scotched surface





Surface Mounted Luminaire

This luminaire has an integrated electronic gear and is equipped for ceramic metal halide lamps CDM-T or compact fluorescent lamps in vertical burning position. Housing and glare ring are made of aluminium in scotched and satin zaponized surface or are powder-coated in any RAL colour. Prewired ready-toconnect, with heat resistant cable and terminal block for 3-pole (5-pole) through-wiring. The pendant set can be ordered separately as an option if required.



TUBE-ACRYL



TUBE-ACRYL

This surface mounted cylinder luminaire serves as a high quality stylistic element for interior design. The satinized acrylic diffuser produces a pleasing ceiling illumination. The mounted reflector cone reduces the direct luminaire glare and projects the light onto the areas to be illuminated. The special character of these luminaires is emphasized by the high quality, frosted aluminium surface of the luminaire's base.

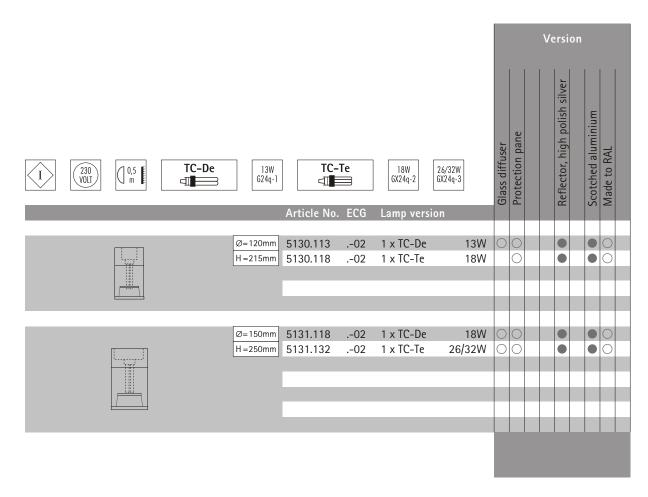


Scotched surface



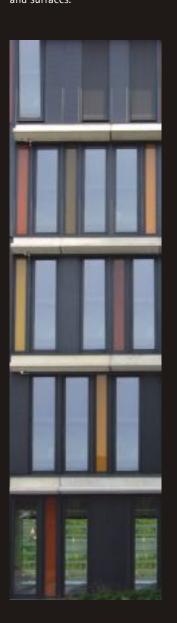


PL Surface Mounted Luminaire For compact fluorescent lamps in vertical burning position with electronic control gear. The housing is made of aluminium in scotched and satin zaponized surface or is powdercoated in any RAL colour. The cylindrical satinized acrylic diffuser serves for ceiling brightening. The projected light is produced by the silver coloured cone reflector. You can choose between a clear protection or a frosted diffuser cover glass. Prewired and ready for installation with heat resistant cable.

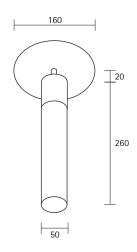


DEO

This minimalistic surface mounted ceiling luminaire can be used in prestigious areas as a single or group luminaire. The luminaire is covered with a satinized acrylic diffuser. Available in various lengths and surfaces.











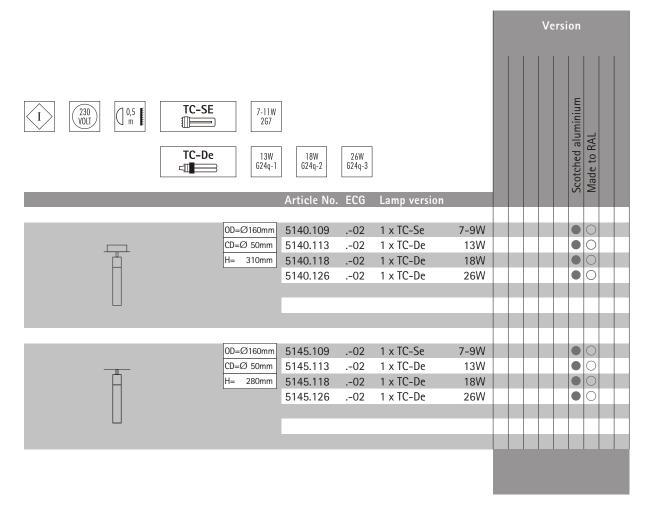
Scotched surface





PL Surface Mounted Luminaire

This luminaire has an electronic control gear and is equipped for compact fluorescent lamps TC-Se or TC-De 7-26W. Covered by an acrylic diffuser, the surface of the aluminium housing is scotched and satin zaponized. Prewired ready-to-connect, with heat resistant cable. 3-pole terminal block for through-wiring.





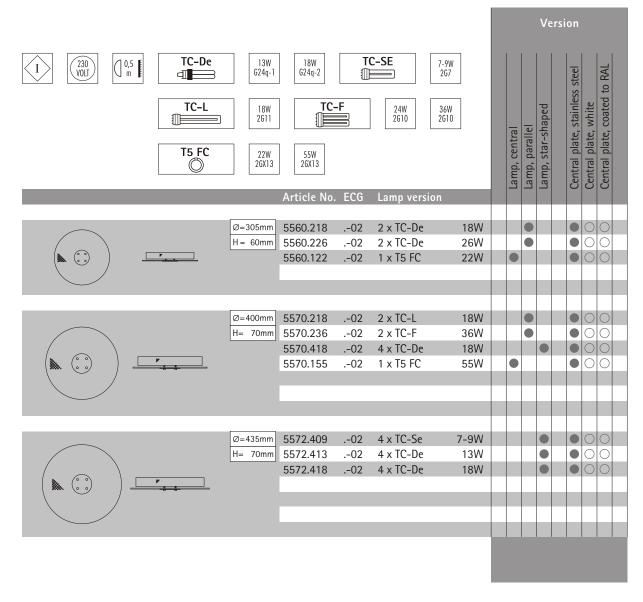


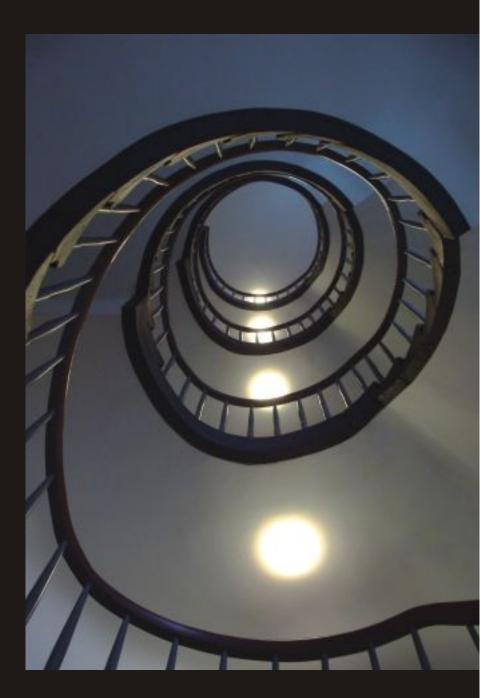


RONDA

The modern classic of surface mounted ceiling luminaires. These luminaires are operated with electronic control gear and are equipped with TC-De compact fluorescent lamps orcircular fluorescent lamps T5 either 1-flame or 2-flame. The white luminaire housing is made of sheet-metal, the translucent cover is micro-perforated. It is covered by a floating, partially frosted glass diffuser. The concentric glass mounting plate is made of brushed stainless steel.







Classical wall/ceiling luminaire giving an even glare-free light through the satinized opal silk glass cover.





VIENA + Emergency Light
Specific components such as
monitoring modules, AC/DC
switching points, address
modules and individual batteries can be integrated for the
emergency lighting function.



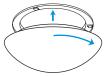
► To specify choice of emergency components, please add:

.06 Emergency light E14 .07 Single battery 1 hour .08 Single battery 3 hour

.09 Mains-battery switch

VIENA

Universally usable series of "just glass" luminaires. With 3-point bayonet fixing, enabling simple installation and maintenance of the luminaires tool-free.



Lighting Technology

Milky flashed glass/opal glass, still produced by hand by glass blowers. Once cooled down, the edges are ground off and the surface of the glass body is treated. Dipped in hydrofluoric acid, the glass receives its characteristic, satin-matt surface finish.



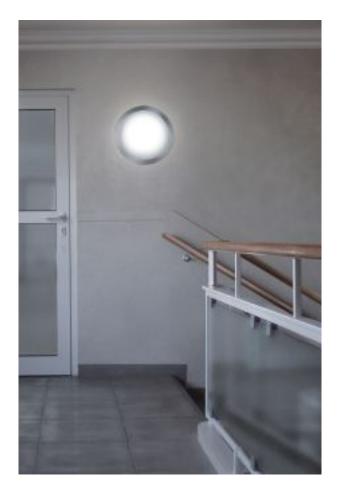


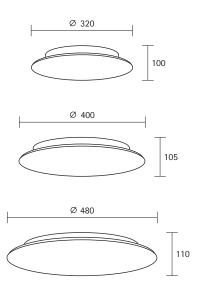










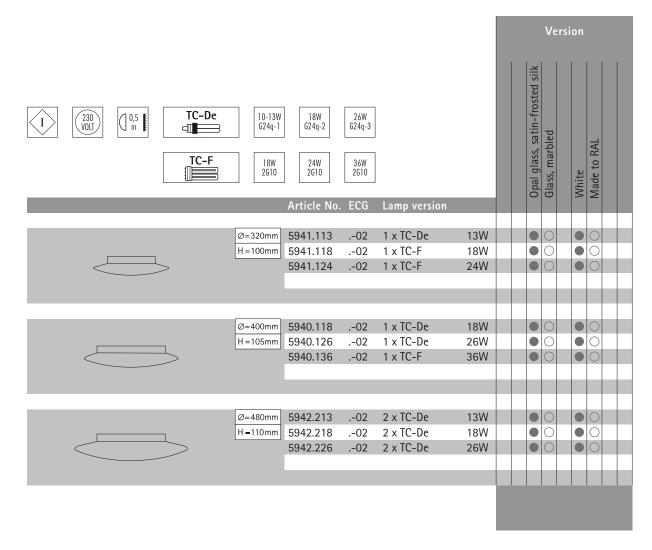


Customer requests can be individually catered for using accessories and add-on parts. VIENA project luminaires with wide, solid aluminium rings are finished with a scotched surface as a high-quality detail.



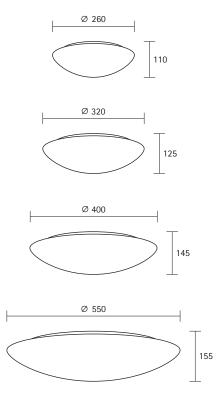
Classic surface-mounted wall/ceiling luminaire with opalized glass cover with satinmatt finish. Luminaire fixture made of sheet-steel, powder-coated satin-matt white. Glass mounted with 3-point bayonet fixing.

Equipped for compact fluorescent lamps with electronic control gear. Electrical components covered by inner reflector. Prewired with heat-resistant cable and ready-to-connect. Double cable entry. Terminal block for through-wiring, 3-pole. Emergency lighting versions compliant to DIN VDE 0108 are available.





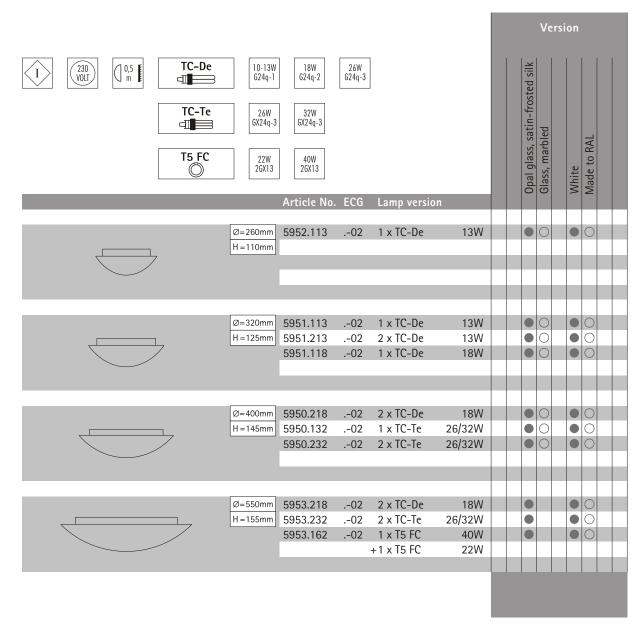
Classic surface-mounted wall/ceiling luminaire with opalized glass cover with satinmatt finish. Luminaire fixture made of sheet-steel, powder-coated satin-matt white.
Glass mounted with 3-point bayonet fixing.



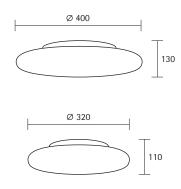


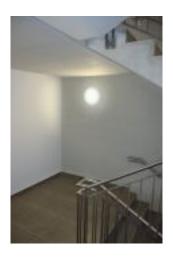


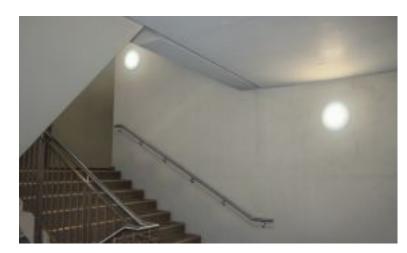
Equipped for compact fluorescent lamps with electronic control gear. Electrical components covered by inner reflector. Prewired with heat-resistant cable and ready-to-connect. Double cable entry. Terminal block for through-wiring, 3-pole. Emergency lighting versions compliant to DIN VDE 0108 are available.



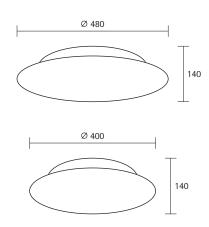














Classic surface-mounted wall/ceiling luminaire with opalized glass cover with satinmatt finish. Luminaire fixture made of sheet-steel, powder-coated satin-matt white. Glass mounted with 3-point bayonet fixing.

Equipped for compact fluorescent lamps with electronic control gear. Electrical components covered by inner reflector. Prewired with heat-resistant cable and ready-to-connect. Double cable entry. Terminal block for through-wiring, 3-pole. Emergency lighting versions compliant to DIN VDE 0108 are

Emergency lighting versions compliant to DIN VDE 0108 are available.					Version					
TC-De	10-13W 18W 624q-2 18W 6X24q-2 26/32W 6X24q-3 Article No	26W G24q-3	Lamp versio	n		Opal glass, satin-frosted silk Glass, marbled	White	Made to KAL		
	Ø=400mm 5980.213 H=130mm 5980.118 5980.126	02 02 02	2 x TC-De 1 x TC-De 1 x TC-Te	13W 18W 26W		•				
	Ø=320mm 5981.113 H=110mm 5981.118	02 02	1 x TC-De 1 x TC-Te	13W 18W		•				
	Ø=480mm 5970.218 H=140mm 5970.226 5970.232	02 02 02	2 x TC-De 2 x TC-De 2 x TC-Te	18W 26W 26/32W		•				
	Ø=400mm 5971.218 H=140mm 5971.226	02 02	2 x TC-De 2 x TC-De	18W 26W						
	5971.232	02	2 x TC-Te	26/32W						



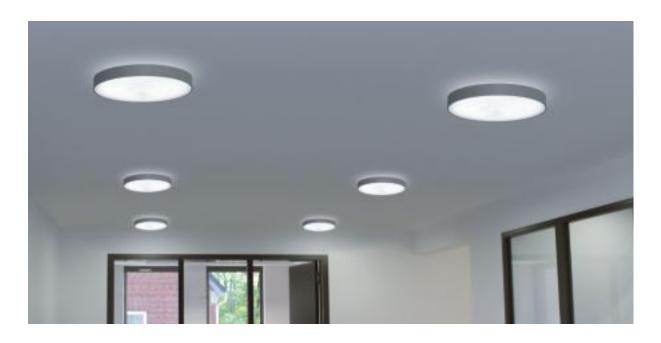


UNIK Surface-Mounted Luminaire

This round panel of light is particularly suitable for uniform ambient lighting. High illuminance levels are achieved using ring-form fluorescent lamps in single-flame and double-flame formats. Since a high-quality diffuser is used, the resultant freedom of glare means this luminaire can be wall-mounted without problem. The indirect component of light lends the UNIK a floating character.





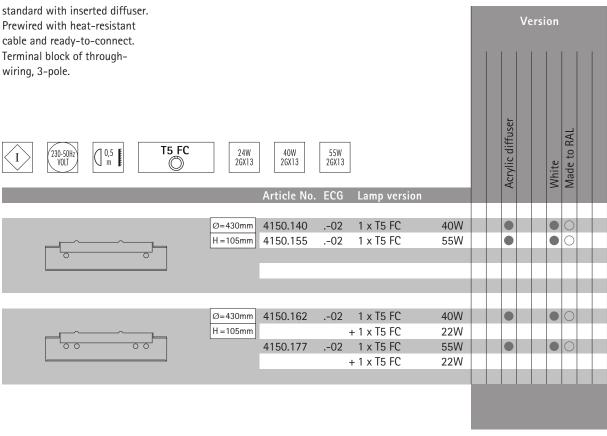


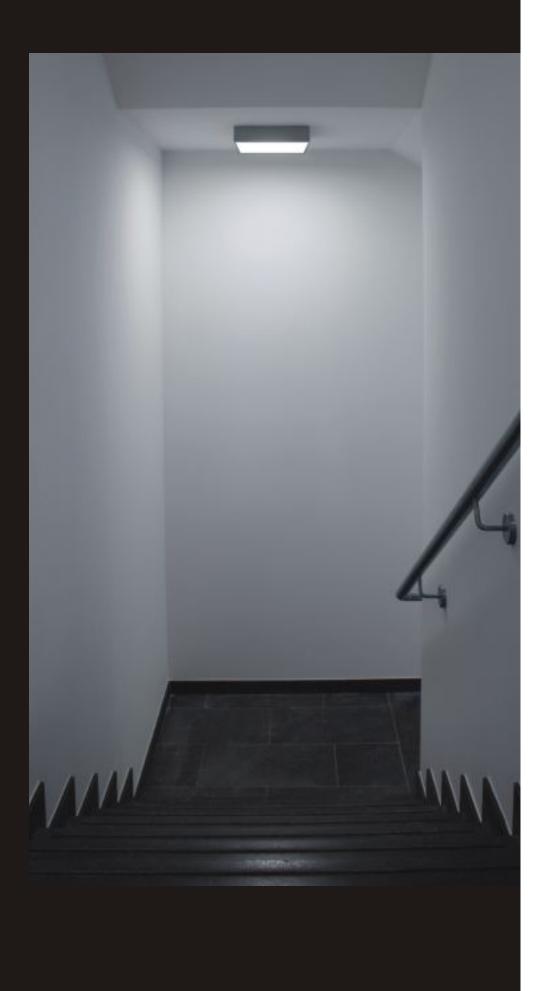
UNIK Surface-Mounted Luminaire

Equipped for 1- to 2-flame, 22W to 55W T5 FC ring-form fluorescent lamps. Luminaire with electronic control gear. Strong, one-piece housing made of aluminium in white or to RAL standard with inserted diffuser. Prewired with heat-resistant cable and ready-to-connect. Terminal block of throughwiring, 3-pole.

Direct/indirect Lighting Technology

Diffuser pane made of special, highly dispersing, translucent acrylic. Diffuser surface is satinmatt opal.







Light panel as a powerful, flat, individual luminaire. Decorative, large-area luminaire for wall, ceiling and pendant-mounting. The puristic appearance of this design-orientated luminaire range makes them a convincing choice. Different versions are available. Made of high-quality materials, available in various surface finishes. The TABLA luminaire's versatile and compatible design allows it to be used throughout all areas of modern architecture. Also available in custom dimensions. Can be combined to form light walls or light fields.



TABLA Pendant

As pendant luminaire in direct or in direct/indirect versions. The light panel features a very wide-beam indirect component of light.

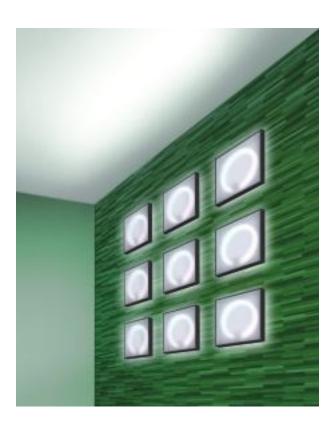
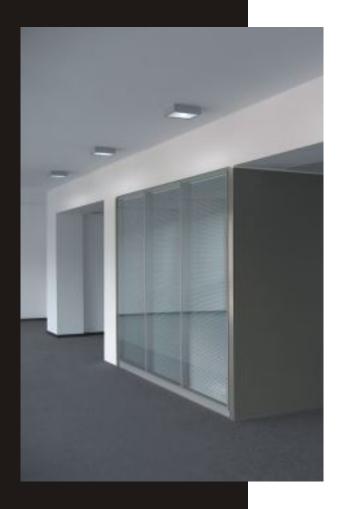


TABLA-AURA

Luminaire with indirect illumination from stepped housing. The discreet illumination at the rear lends a feeling of lightness to the flat light panel, making it appear weightless.



The design of the TABLA series of luminaires is characterised by its clear lines. The value of the crisp-edged housing rests on the high demands placed on materials and build-quality. Due to its optimised lighting technology, this product provides economical wide-area lighting in functional areas. The wide spectrum of power ratings makes it the convincing choice both for use in decorative, diffuse applications and in areas where high demands are placed on the illuminance.







Partially-frosted glass



Acrylic opal





Luminaire housing made of crisp-edged aluminium section with recessed diffuser in glass or acrylic. Upper section of housing can be removed tool-free, while easy mounting is ensured by the separate installation housing. Equipped for compact fluorescent lamps with electronic control gear. Aluminium reflector in silver. Wired ready-to-connect with heat resistant cable. 3-pole terminal block for throughwiring.

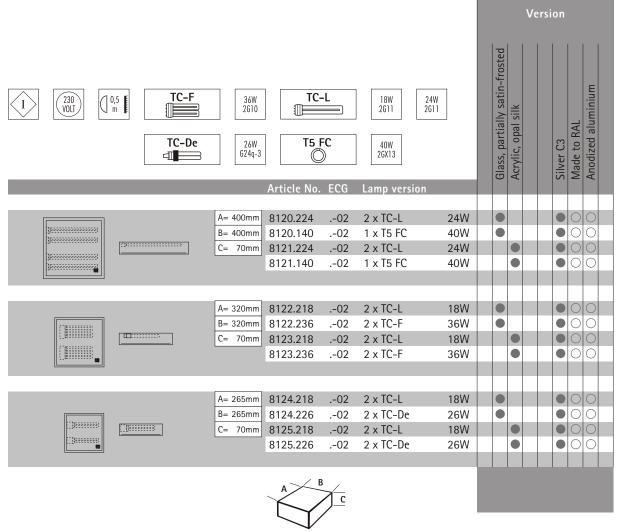
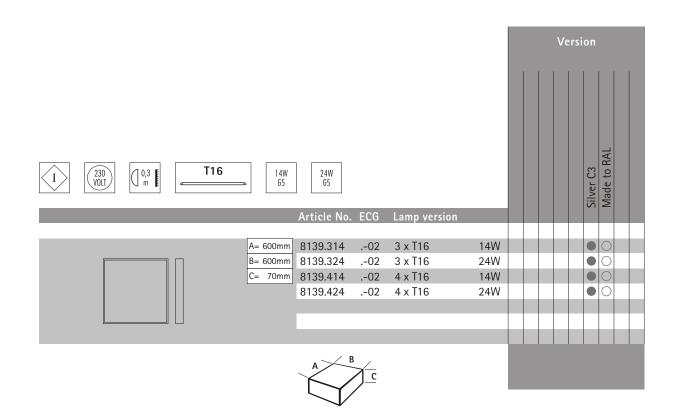




TABLA Light Panel

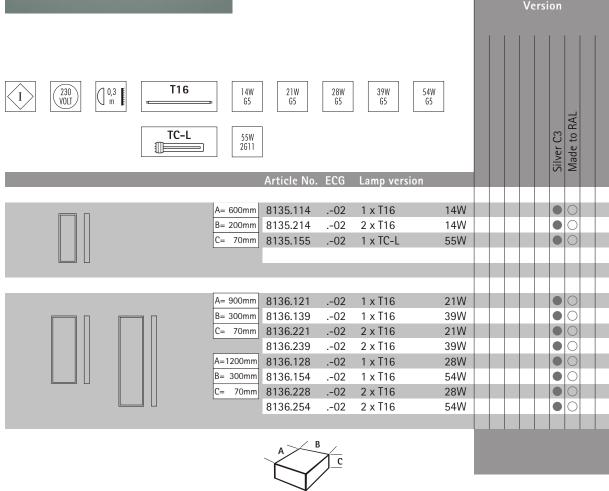
Two-piece luminaire housing to accommodate all electrical components, consisting of a sheet-steel mounting plate and a white powder-coated reflector. Complete with reflector covers. Luminaire cover can be removed tool-free, made of sharp-edged drawn aluminium profile, mitred and joined. With permanently fitted diffuser made of highly dispersing, translucent acrylic. Plastic surface is satin-matt opal.



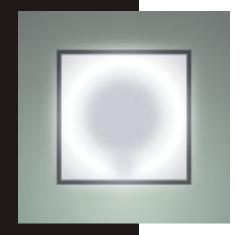


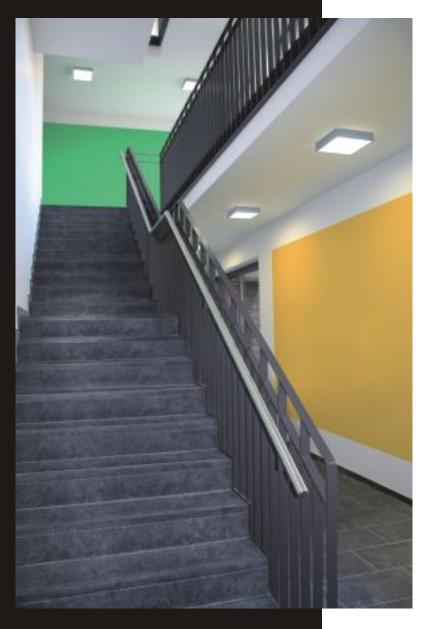


Equipped for T5 fluorescent lamps or compact fluorescent lamps. With electronic control gear, AC/DC. Also available as dimmable MultiPower version with DALI or 1–10V interface. Prewired and ready for installation with heat resistant cable and terminal block for through wiring, 3–pole (5–pole). Luminaire suitable as emergency light. Installation of specific emergency-light components such as monitoring parts and single batteries is possible.



Light panel as flat and square single luminaire. Decorative large surface luminaire for wall and ceiling mounting. The light is made visible as it disperses through a large-format, satinized opal silk diffuser surface. The indirect illumination lends an even greater feeling of lightness to the flat light panel, making it appear weightless.

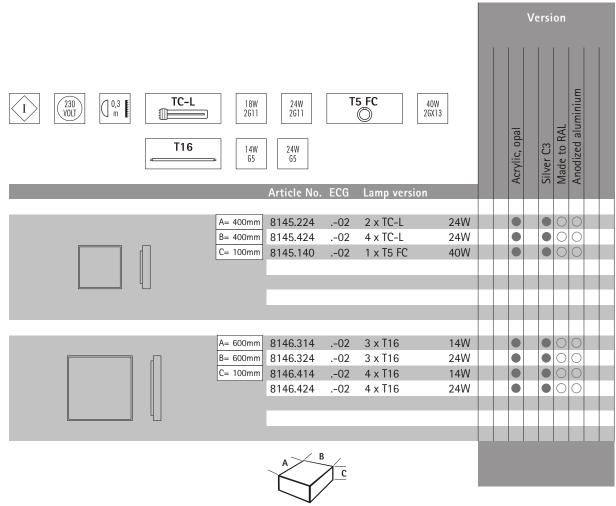








Equipped for T5 fluorescent lamps or compact fluorescent lamps. With electronic control gear, AC/DC. Also available as dimmable MultiPower version with DALI or 1–10V interface. Prewired and ready for installation with heat resistant cable and terminal block for through wiring, 3–pole (5–pole). Luminaire suitable as emergency light. Installation of specific emergency-light components such as monitoring parts and single batteries is possible.



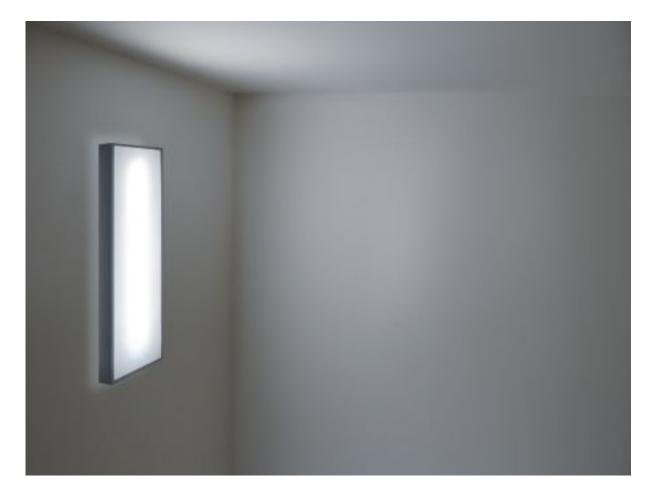


TABLA-Aura

Light is only visible when it is reflected from a surface and received by an observer. Here, the light is made visible through the large-format, satin-matt diffuser surface. The additional, indirect illumination makes the flat light panel appear weightless.



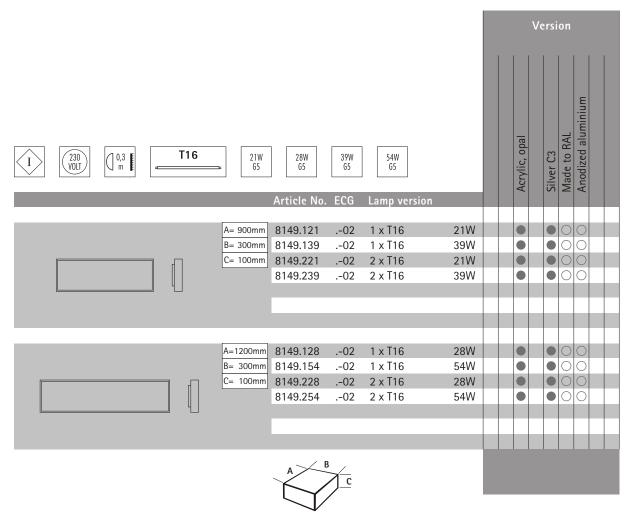
Combined into groups, the light panels provide an alternative to luminous ceilings. The indirect light well allows all the individual elements to optically blend together, forming one large, luminous plane.

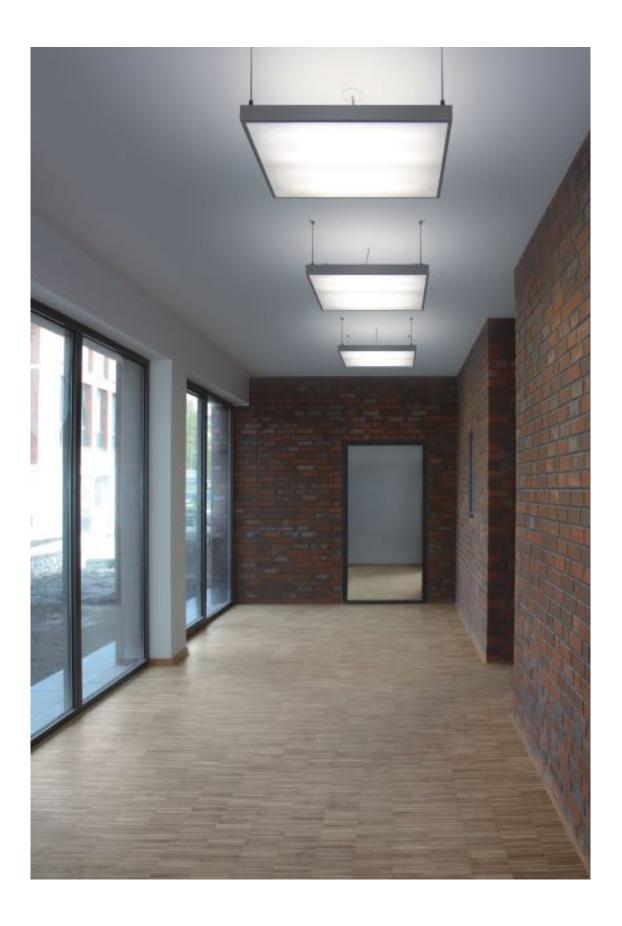


Light Panel

Stepped luminaire housing to accommodate all electrical components, consisting of a sheet-steel mounting plate and a white powder-coated reflector. Complete with reflector covers. Luminaire cover can be removed tool-free, made of sharp-edged drawn aluminium profile, mitred and joined. With acrylic diffuser in satin-matt opal.

Equipped for T5 fluorescent lamps HE/HO with electronic control gear. Prewired and ready for installation with heat resistant cable and terminal block 3-pole for through wiring. Luminaire suitable as emergency light AC/DC. Installation of specific emergency-light installation components such as monitoring parts and single batteries is possible.

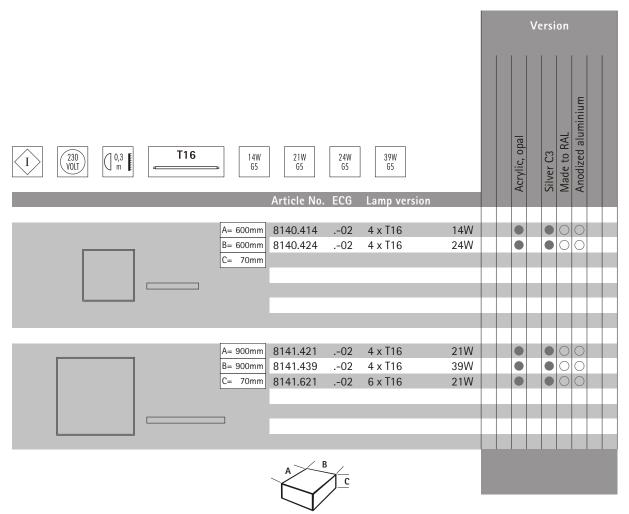


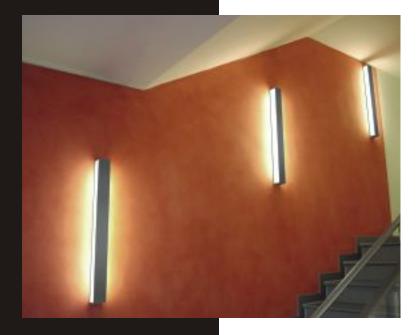


Light Panel

Two-piece luminaire housing made of sheet-steel with luminaire cover, made of sharpedged drawn aluminium profile, mitred and joined, which can be removed tool-free. With permanently fitted diffuser made of highly dispersing, translucent acrylic. Plastic surface is satin-matt opal. Featuring direct/indirect light distribution. Complete with pendant kit, consisting of wirerope suspension, transparent 3-pole supply cable and ceiling shroud.



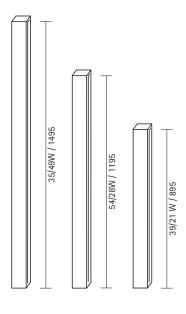




LIMIT

This light bar impresses with its low-key design and makes a convincing choice due to the unusual quality of its illumination. Glare-free despite a high light output. Can be installed horizontally or vertically. Used as durable, high performance corridor/stairway luminaire, but also as glare-free mirror luminaire.





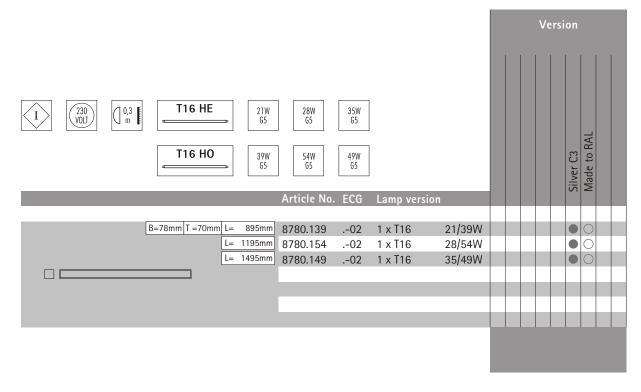


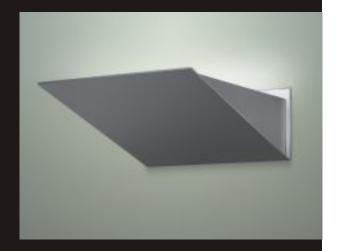


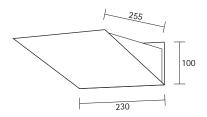
Wall Luminaire, Indirect

A single luminaire. Aluminium profile luminaire in powder-coated silver C3 or any RAL colour. Lateral light output covered with satinized opal silk acrylic diffuser. Luminaire equipped for T5 HE or HO fluorescent lamps with integrated electronic control gear. 3-pole terminal block for through-wiring. Easy wall assembly due to accessible installation housing.

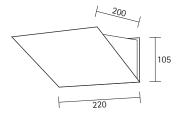












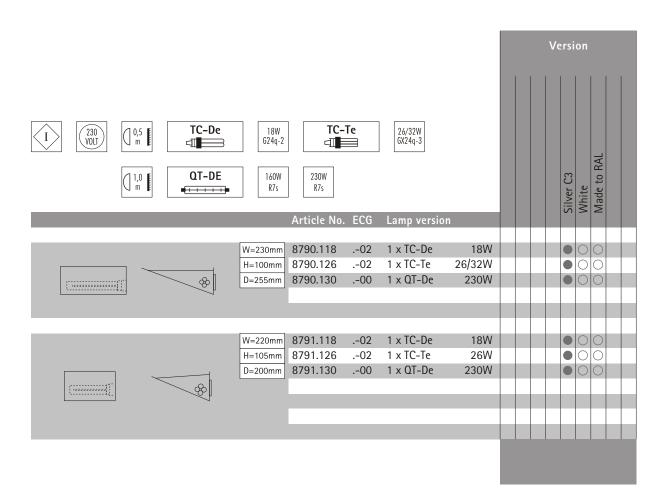
TRIAS-F

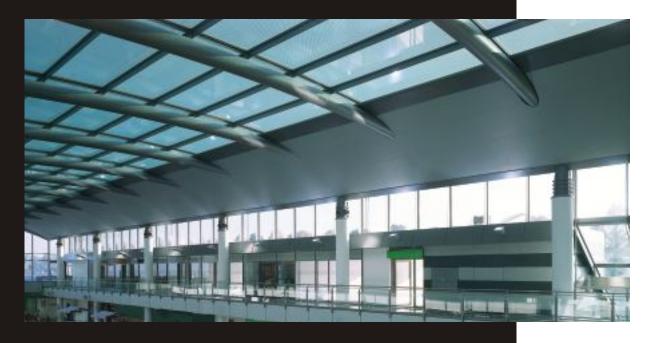
Wall mounted luminaire designed for deliberately neutral appearance. Indirect light output towards ceiling luminaire. Shaded body to prevent interference with the light within the wall area above the light output.



Wall Luminaire, Indirect

Sheet-metal luminaire body in white or silver C3 powder-coated. Special colours available on request. Satin-frosted silver reflector inside the luminaire. Luminaire equipped for HV halogen lamps or compact fluorescent lamps TC-De/Te with integrated electronic control gear. Prewired ready-to-connect, with heat resistant cable and 3-pole terminal block for through-wiring.





SOFTEC / VAUTEC

Wall mounted luminaire as indirect spotlight. Light output directed by high performance aluminium reflector. Glarefree indirect light. Particularly suitable for illuminating public areas by integrating the reflection ability of ceiling systems. The additional SOFTEC reflector screen allows direct surface illumination through secondary technology.





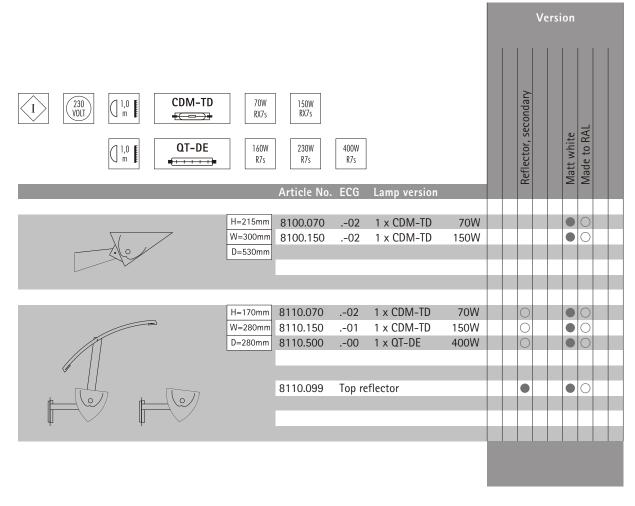








Wall Luminaire, Indirect
Sheet-metal luminaire housing
in satinized white powdercoated or any RAL colour.
Luminaire equipped for double
ended HID lamps complete with
integrated electronic control
gear. Covered by protection
glass on the upper side. 3-pole
terminal block. Easy wall
installation due to accessible
mounting plate. Luminaire
with aluminium reflector and
variable lighting technology.





FACTORY II

With its defined, industrial appearance, this powerful pendant luminaire has retained its place in modern architecture. This luminaire can be fitted with many different lamps in compliance with the site regulations. Acrylic refractors and aluminium reflectors are available.

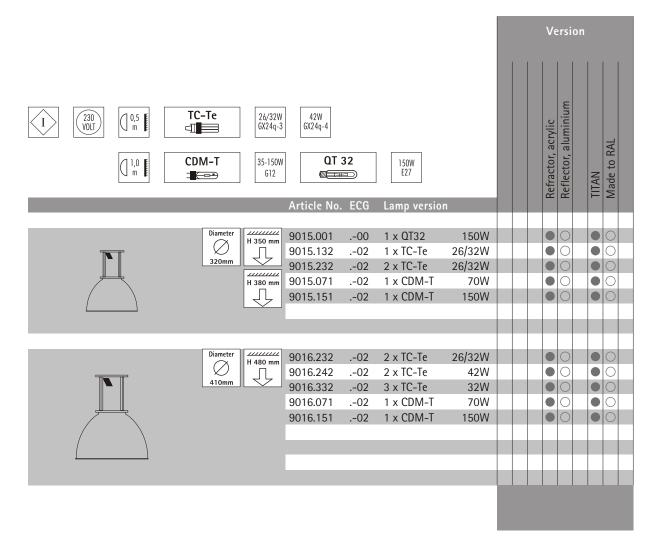




Pendant Luminaire FACTORY II

For compact fluorescent lamps TC-Te 26W up to 42W, 1-flame up to 3-flame and for CDM-T 35W up to 150W in vertical burning position. Integrated electronic control gear. Silver C3 aluminium body also available in any other RAL colour. Prewired ready-to-connect, 2m transparent cable and steel wire suspension with rapid connector system. Available as translucent acrylic prismatic refractor with 17% indirect part or as high efficiency aluminium reflector with satinized and anodized outer coating.







FACTORY V

Decorative pendant luminaire with diffuse direct illumination and high indirect component. Ceiling brightening for soft general illumination. This timelessly elegant luminaire is available with two different reflector options: either clear acrylic refractor or satinized silk opal glass reflector.



Reflector, acrylic

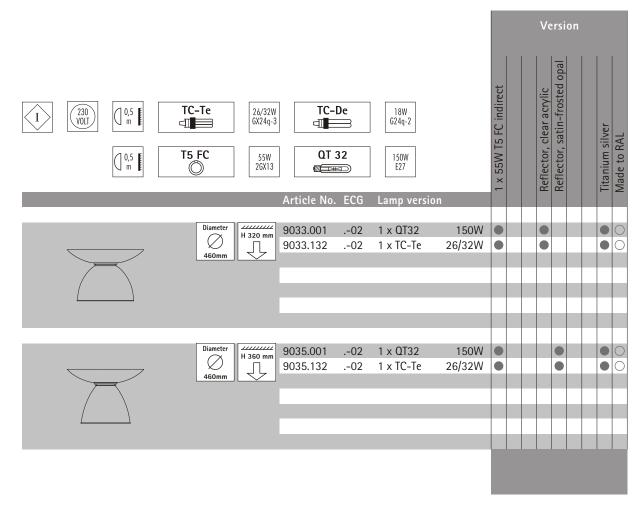


Reflector, satinized opal



FACTORY V

Pendant luminaire direct/indirect. Luminaire body made of a metal luminaire bowl for the indirectcomponent and an acrylic reflector either with 17% light translucency or satinized silk opal glass. Luminaire with ceiling plate and decorative 3 point suspension. Indirect for one T5 circular fluorescent lamp 40W or 50W. Direct for compact fluorescent lamp or QT32 HV halogen lamp. Luminaire with integrated electronic control gear. Titanium silver body also available in any other RAL colour. Prewired and ready-to-connect, 2m transparent cable and steel wire suspension with rapid connector system.





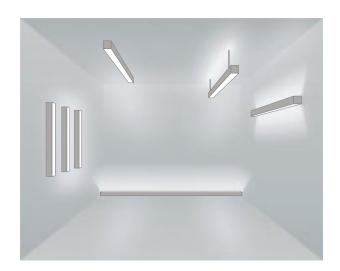




Profile Luminaires

Luminaires and lighting systems made of extruded aluminium profile are indispensable for meeting the high demands of contemporary architecture. By integrating functional properties into the profile and by utilising the excellent thermal properties of the material it is possible to offer luminaires with extremely compact dimensions and high performance potential. The high rigidity of the profiles enables long luminaire lengths with just a few mounting points and with low weight.





Mounting Situations

A major advantage of profile luminaires is the versatility of the system. They can be used as pendant, surface mounted or wall luminaires - the possibilities are endless, allowing them to become an easily recognisable feature. The freedom of the designer can be further expanded by using the luminaire profiles as floor channels in which the electrical components of the building technology can also be integrated.

Profile Luminaires

The possible designs that can be given to profile luminaires are virtually unlimited. We offer a large number of standard profiles built to different technical and design specifications. The most varied of requirements can be fulfilled by the variable lighting technology. A large selection of accessories rounds off this range of luminaires.

Our products are continuously being adapted to suit the growing requirements of the market. We are continually in touch with lighting designers, especially in the field of profile luminaires, so that we can implement new ideas. This enables us to custom build special profiles for specific projects.





1.202



mini RAIL P. 314

midi RAIL P. 308

TRIXS

Miniaturisation was the name of the game when it came to designing the new TRIXS system luminaire. The starting point was the development of a particularly small parabolic specular louvre that achieves excellent photometric values despite its small size. This is due to the new type of geometry of louvre and the use of a highly reflective base material.







Parabolic Louvre

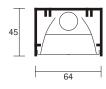
Parabolic louvre with highly reflective surfaces. Aluminium with reflection-intensifying coating to increase the light output ratio. Computerworkstation compatible CAT 2.

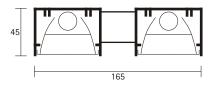
Diffuser

Cover designed as an acrylic diffuser. Satin-matt opal surface with high transmission factor for diffuse light distribution and glare-free light.









TRIXS

Pendant luminaire made of sharp-edged, drawn aluminium profile, direct/indirect, equipped for high output T5 fluorescent lamps with electronic control gear. The control gear is integrated in the blank section of the design. The control gear compartment is linearly coupled to the housing; on double units it is positioned between the profiles.

A direct/indirect parabolic louvre is used as the optical system. An opal acrylic diffuser is available as an alternative. Luminaire complete with flush fitting end plates. Wired ready-to-connect with heat resistant cable. Output line: transparent, 2m. Optionally available with pendant tube set or with wirerope/rapid connector system.

OW 65	Direct/indirect		Parabolic louvre	Acrylic diffuser	Silver C3	Made to RAL	Anodized aluminium	
/49/80W							\bigcirc	
28/54W	0		•		•			
35/49W						0	0	
28/54W						0	0	
28/54W						0	0	
/49/80W	0				•	0	\circ	
28/54W						0	0	
35/49W	•			•	•	0	\circ	
28/54W						\bigcirc	\bigcirc	
/49/80W			•		•	0	\circ	
28/54W	•					0	0	
35/49W						0	0	

$\langle I \rangle$	

203

.....





T16



1480mm

2360mm

1480mm

2260mm

1565mm

1965mm

1565mm

1965mm

1620mm

1920mm

1620mm

1920mm

L=

L=



Article No.

9540.249

9540.454

9541.249

9541.454

9544.254

9544.280

9545.254

9545.249

9542.154

9542.180

9543.154

9543.149



Lamp version

2 x T16

4 x T16

2 x T16

4 x T16

2 x T16

2 x T16

2 x T16

2 x T16

1 x T16

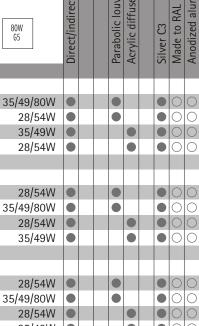
1 x T16

1 x T16

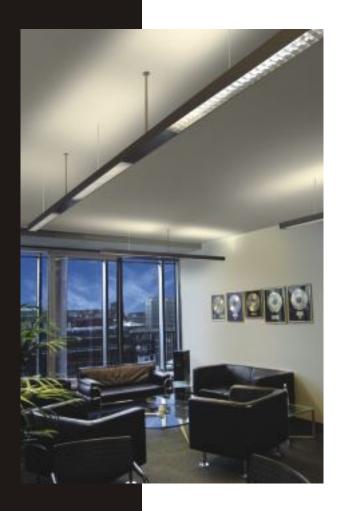
1 x T16



80W G5



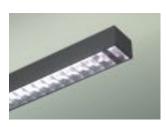
A luminaire system that was developed together with renowned architects and electrical design engineers. The result is a contemporary, purist product design combined with innovative lighting technology. A streamlined form demonstrating uncluttered clarity was rigorously pursued in the STORRsystem. This aluminium profile, with a housing cross-section of 83 x 62mm, is a trendsetting design and forms the basis of our sharp-edged rectangular profiles.





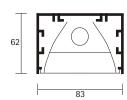


The profiles are available as single-length or multiplelength individual luminaires. The particular strength of the housing allows the number of required suspension points to be reduced. The blank sections necessitated by the design feature adjustable length. This makes it possible to take over the room's axis dimensions and to position the luminaires symmetrically within the building and as if they continued through walls. The great flexibility in terms of the possible applications as pendant, surface mounted, wall mounted and recessed luminaire is augmented by the wide selection of different lighting technology.



Parabolic Louvre

Parabolic louvre with highly reflective surfaces. Aluminium with reflection-intensifying coating to increase the light output ratio. Computerworkstation compatible. CAT 2





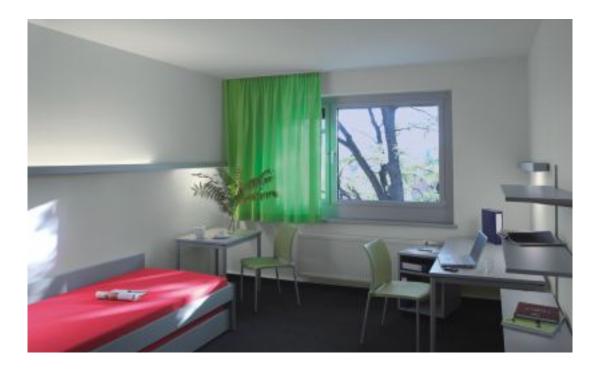
Cover designed as an acrylic diffuser. Satin-matt opal surface with high transmission factor for diffuse light distribution and glare-free light.



Uplight/Indirect

Purely indirect-beam light distribution with wide-beam reflector for glare-free ambient light.







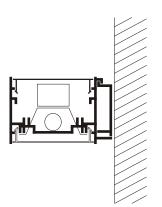
STORR Wall

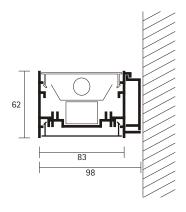
This media channel was developed from the idea of using a lighting system for routing the cables and for basic installation. It features separate cable routing in the wall channel and an additional through-wiring for lighting elements and technical elements, combined with discerning lighting technology. The lighting is direct and indirect, switchable and regulable. Bedside luminaires and workplace task lighting are used at the defined locations. In addition, switches and plug sockets are positioned in the system as specified.





These profile sections are available as single-length or multi-length individual luminaires. The luminaire housing is suspended in the mounted carrier profile and secured with a concealed screw. The blank sections necessary for accommodating the equipment are variable in length. The profiles' lengths are to choice and, on request, are also available in single pieces up to 4500mm. The great versatility is supported by the selection of different lighting technology available.





On-wall Mounting

Mounted with optical shadowgaps or with spacers, these units can be used as individual luminaires or as a lighting strip. Light emission is direct, direct/indirect or indirect.

Lighting Technology

With luminaires featuring direct light distribution, a choice is offered between a satin-matt, white opal diffuser and a clear, longitudinal prismatic diffuser. For special tasks, a computerworkstation compatible aluminium parabolic louvre is also available.

Uplight/Indirect

Luminaire with solely indirect light distribution for mild, glare-free ambient light, whereby the ceiling and wall act as a reflection surface. The lamp is covered by an opal diffuser or a prismatic diffuser, although a lamp cover is not absolutely necessary.



Various decorative versions of this system have been developed for the area of "prestigious architecture". Very different lighting moods can be created by combining with additional luminaire inserts. The indirect component of light ensures the best lighting comfort even at high illuminance levels.

Spotlight Module

A combination with the utilization of fixed or an adjustable projection unit permits a high vertical accentuation. Light sources for the auxiliary lighting are halogen lamps in low-voltage, ceramic HID lamps – such as BriteSpot Es50 – and LED.

STORR



Spot, fixed



Spot, tiltable



Fixed luminaire inserts



Tiltable luminaire inserts

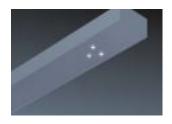


Safety Luminaires

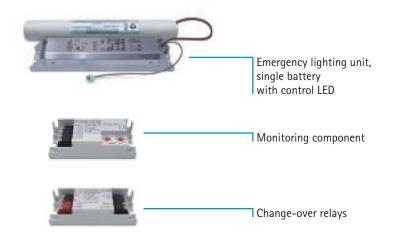
Independent luminaire inserts with or without single batteries are integrated as system elements in a non-maintained circuit. A wide variety of wattages for the emergency lighting units allow usage as safety or secondary lighting. The integration of rescue signals in continuous circuit or into reference luminaires is also possible with optical light accessories. Easy revision of the additional elements allows usage of single batteries.

LED Emergency Module

Specific components such as monitoring modules, AC/DC switching points, address modules and individual batteries can be integrated for the emergency lighting function.











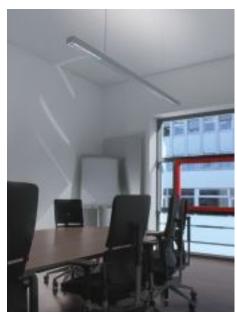
The design brief for this new version of our system luminaire STORR was glare-free light and a high indirect component. The result is a small, mirror-finish parabolic louvre that attains exceptional photometric properties despite its compact size. It is therefore able to help implement lighting engineering tasks very economically and efficiently.





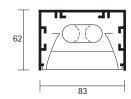
Parabolic Louvre
Parabolic louvre with highly
reflective surfaces. Aluminium
with reflection-intensifying
coating to increase the light
output ratio. CAT 2

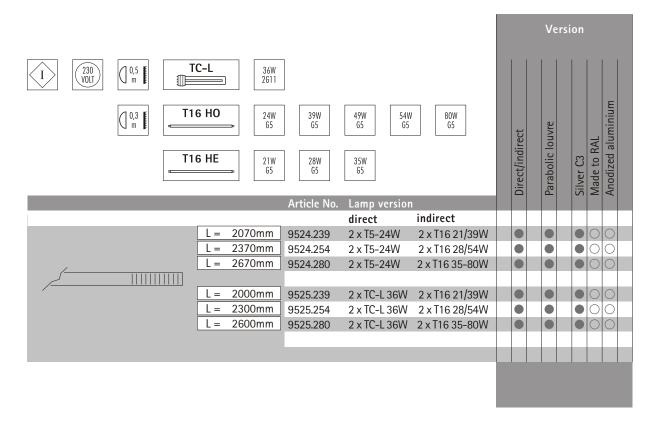




Equipped for T5 fluorescent lamps, high output or high efficient, with MultiPower electronic control gear. Wired ready-to-connect with heat resistant cable. Luminaire with transparent output line, 2m long. Luminaire cover optionally available with aluminium parabolic louvre (compatible with computer workstations) or with wide-beam, opal, acrylic diffuser.









► Individual Luminaire

As a design aid we distinguish between individual luminaires and system luminaires. Individual luminaires are always designed for pendant mounting and include the system related accessories including the end plates, the suspension and a 2m long transparent supply cable.

Possible suspension systems:

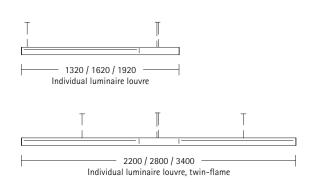


SYSTEM B Wire-rope suspension rapid connector system



SYSTEM EPendant suspension for concrete ceilings

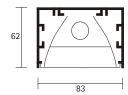


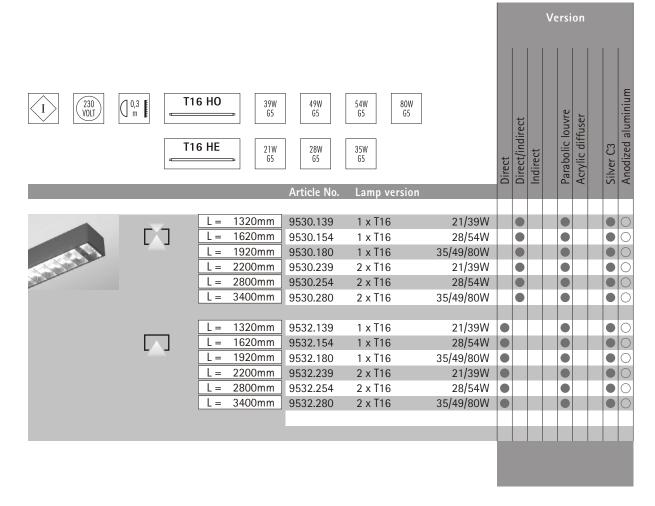




Sharp-edged, drawn aluminium profile with minimum dimensions. One-piece housing with just two suspension points. The electronic control gear is integrated in the blank constructional elements. Mounting as pendant luminaire with wirerope rapid connector system. In terms of lighting technology, the individual luminaires are available as direct and as direct/indirect versions.

Equipped for T5 fluorescent lamps, high output or high efficient, with MultiPower electronic control gear. Wired ready-to-connect with heat resistant cable. Luminaire with transparent output line, 2m long. Luminaire cover with aluminium parabolic louvre (compatible with computer workstations).







▶ Individual Luminaire

As a design aid we distinguish between individual luminaires and system luminaires. Individual luminaires are always designed for pendant mounting and include the system related accessories including the end plates, the suspension and a 2m long transparent supply cable. These luminaires are designed for individual installation.

Possible Suspension Systems:



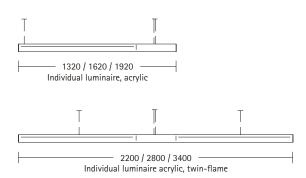
SYSTEM B

Wire-rope suspension rapid connector system



SYSTEM E

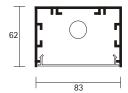
Pendant suspension for concrete ceilings

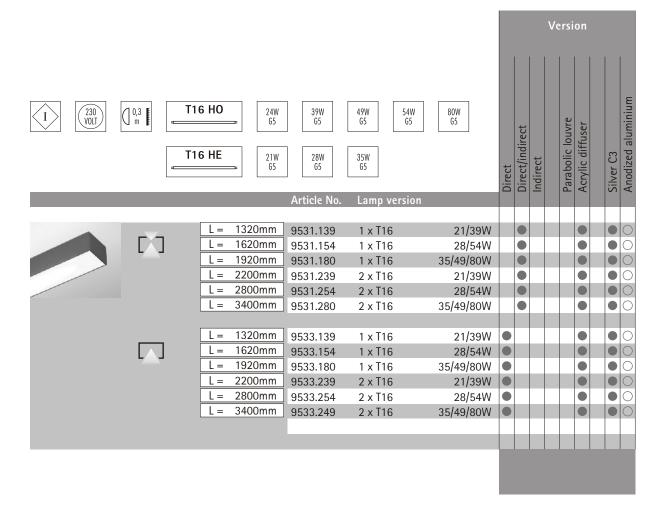




Sharp-edged, drawn aluminium profile with minimum dimensions. One-piece housing with just two suspension points. The electronic control gear is integrated in the blank constructional elements. Mounting as pendant luminaire with wirerope rapid connector system. In terms of lighting technology, the individual luminaires are available as direct and as direct/indirect versions.

Equipped for T5 fluorescent lamps, high output or high efficient, with MultiPower electronic control gear. Wired ready-to-connect with heat resistant cable. Luminaire with transparent output line, 2m long. Luminaire cover with wide-beam, opal, acrylic diffuser.

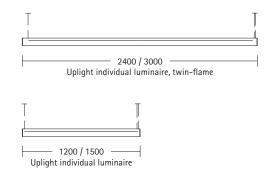


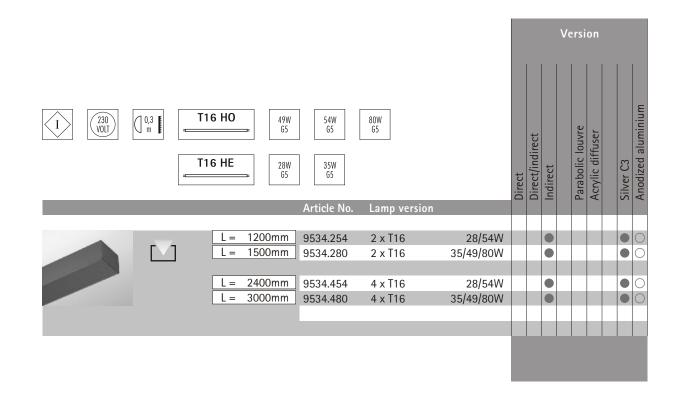




Sharp-edged, drawn aluminium profile with minimum dimensions. One-piece housing with just two suspension points. The electronic control gear is integrated in the blank constructional elements. Mounting as pendant luminaire with wirerope rapid connector system.

Equipped for T5 fluorescent lamps, high output or high efficient, with MultiPower electronic control gear. Wired ready-to-connect with heat resistant cable. Luminaire with transparent output line, 2m long.







." ":

STORR



End cover Art. No. 9535.099



T-connector Art. No. 9535.095



L-connector angle 90° Art. No. 9535.093



L-connector special angle Art. No. 9535.090

▶ System Luminaire

The system components shown here are just a small excerpt of the current range of accessories that are available. More detailed design documents and an overview of the entire product range can be downloaded from our homepage as PDF files.

Possible Suspension Systems:



SYSTEM B Wire-rope suspension rapid connector system



SYSTEM E
Pendant suspension
for concrete ceilings



Straight connector Art. No. 9535.098



Spacing cover Art. No. 9538.099



Wire-rope suspension, system B

9535.111 wire rope L= 1000mm 9535.112 wire rope L= 2000mm



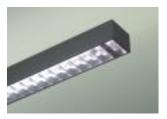
Wire-rope suspension with canopy and cable

9535.121 wire rope L= 1000mm 9535.122 wire rope L= 2000mm



▶ Individual Luminaire

As a design aid we distinguish between individual luminaires and system luminaires. Individual luminaires are always prewired ready-to-connect and are one-piece items. System-related accessories such as end caps are included. The electric components are integrated. They are designed for ceiling mounting.





Parabolic Louvre

Parabolic louvre with highly reflective surfaces. Aluminium with reflection-intensifying coating to increase the light output ratio.

Diffuser

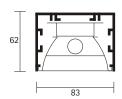
Cover designed as an acrylic diffuser. Satin-matt opal surface with high transmission factor for diffuse light distribution and glare-free light.

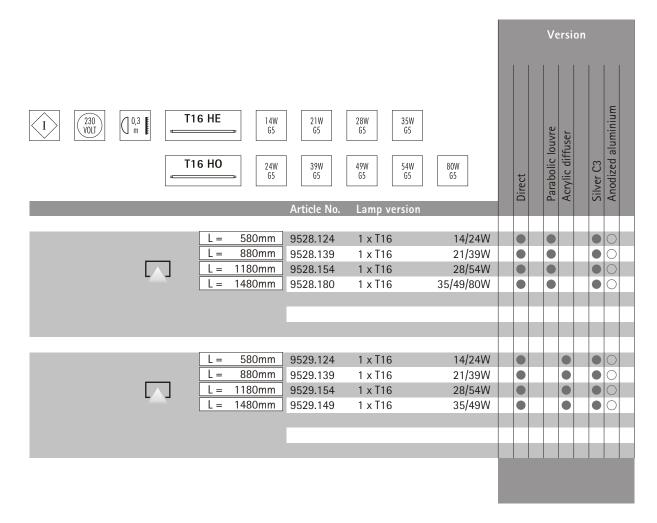


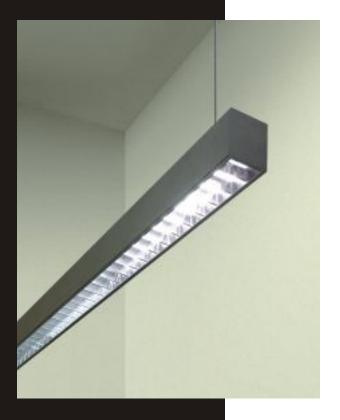


STORR-Surface Mounted

Sharp-edged, drawn aluminium profile with minimum dimensions. One-piece housing with just two mounting points. The electronic control gear is integrated in the blank constructional elements. Equipped for T5 fluorescent lamps, high output or high efficient, with MultiPower electronic control gear. Wired ready-to-connect with heat resistant cable. Luminaire cover optionally available with aluminium parabolic louvre (compatible with computer workstations) or with widebeam, opal, acrylic diffuser.







RAIL

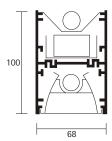
The compact size makes this crisp-edged aluminium profile an inconspicuous architectural detail. The versatility of the lighting technology makes it universally useable, being equally suited for lighting office and functional areas and for prestigious architecture. Many special functions are possible and can be optimised for the project.

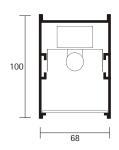






RAIL Wall Luminaire







Parabolic Louvre Parabolic louvre with highly reflective surfaces. Aluminium with reflection-intensifying coating to increase the light output ratio. CAT 2



Diffuser
Cover designed as an acrylic diffuser. Satin-matt opal surface with high transmission factor for diffuse light distribution and glare-free light.

RAIL

For luminaires with direct light distribution, the aluminium parabolic louvres are available in two different louvre heights. Both louvre types are compatible for use with computer workstations. The shallow version has very good glare control, CAT 2, combined with optimum efficiency and has a wide-beam light distribution. The high cross louvre ensures maximum glare control, CAT 1. Computer-workstation compatible, featuring a darklight lens system. The louvres are fitted all the way along. The direct/indirect version is only available with shallow louvres (computer-workstation compatible). In addition, this profile is also available as a surface mounted strip light, whereby the lamp is covered by a recessed opal diffuser in satinmatt white.



RAIL

Various decorative versions of this system have been developed for the area of "prestigious architecture". Very different lighting moods can be created by combining with additional luminaire inserts. The indirect lighting along the entire length ensures the best visual comfort even at high illuminance levels.

Individual

The designer's creative ideas can be realised. Large module lengths reduce the number of suspension points and contribute to the design freedom.







RAIL

This system offers new freedom. Extensive mounting options are offered for ceilings, walls and floors. Surface-mounting, recessed-mounting and pendant mounting can be flexibly realised using the various fixing materials available. When mounted as a floor channel, additional cable guides can also be built in. It is also possible to install plug sockets. This system offers an inexpensive solution particularly in areas with limited accessibility.











On-ceiling Mounting A choice is offered between louvred or non-louvred strip lights. These may be interrupted by blank surfaces, low-voltage spotlights or fitted technical components. Connectors and

angle brackets are available.



On-wall Mounting
Mounted with optical shadowgaps, these units can be installed as individual luminaires
or as a luminaire row. Light
emission: direct, indirect or
direct/indirect.



On-floor Mounting
When used as a floor profile,
this profile can be used not
only to illuminate wall areas
but also as a conduit duct. It
is even possible to install plug
sockets and communication
components.

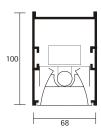


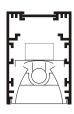
Lighting Technology

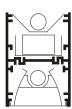
To suit the application, as the cover for the fluorescent lamps, this luminaire system offers a choice between the parabolic louvres, which give excellent glare control, and two different acrylic diffusers.

Parabolic Louvres

The parabolic louvres used are fitted as a continuously louvred strip with end plates. Our aluminium louvres are noted for their high efficiency and good glare control. They are suitable for use with computer workstations and for professional use in offices.





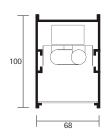


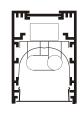
Linear light with parabolic louvre

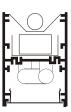
Can be fitted as a continuously louvered strip or positioned anywhere in the profile with blank covers over the empty elements.





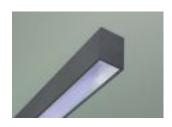


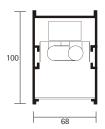




Diffuser

Cover designed as an acrylic diffuser. Satin-matt opal surface with high transmission factor for diffuse light distribution and glare-free light.

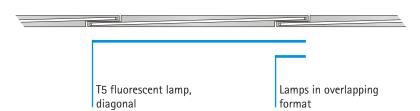




Prismatic Diffuser

Cover in clear acrylic, with longitudinal prismatic profile. Lens used for increased brilliance and glare-free light. Optionally also available as CDP version with anti-dazzle cone.

Strip lighting with shadow-free acrylic lens





RAIL

Various decorative versions of this system have been developed for the area of "prestigious architecture". Very different lighting moods can be created by combining with additional luminaire inserts. The indirect lighting along the entire length ensures the best visual comfort even at high illuminance levels.

Spotlight Module

High vertical accentuation can be achieved by combining the modules of fixed or adjustable spotlight units. In addition to low-voltage and high-voltage halogen lamps, high-pressure discharge lamps (e.g. BriteSpot Es50) and LEDs are also available as the light source for the additional lighting.





RAIL+ (U-section)



RAIL (U-section)



Spot, fixed



Spot, tiltable



Fixed luminaire inserts



Tiltable luminaire inserts



Safety Luminaires

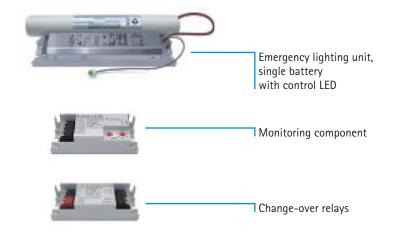
Independent luminaire inserts with or without single batteries are integrated as system elements in a non-maintained circuit. A wide variety of wattages for the emergency lighting units allow usage as safety or secondary lighting. The integration of rescue signals in continuous circuit or into reference luminaires is also possible with optical light accessories. The use of individual batteries facilitates easy maintenance.

LED Emergency Module

Specific components such as monitoring modules, AC/DC switching points, address modules and individual batteries can be integrated for the emergency lighting function.











Possible Suspension Systems:



SYSTEM B

Wire-rope suspension rapid connect system

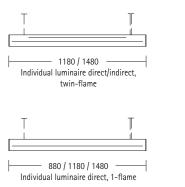


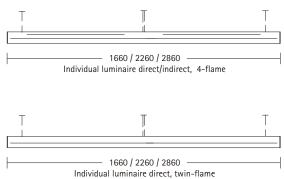
SYSTEM E

Pendant suspension for concrete ceilings

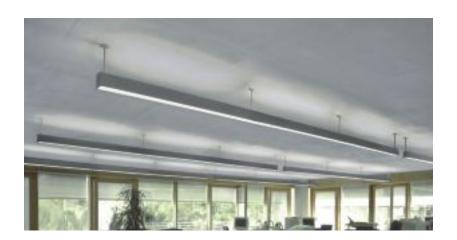
▶ Individual Luminaire

As a design aid we distinguish between individual luminaires and system luminaires. Individual luminaires are always designed for pendant mounting and include the system related accessories including the end plates, the suspension and a 2m long transparent supply cable. These luminaires are designed for individual installation.





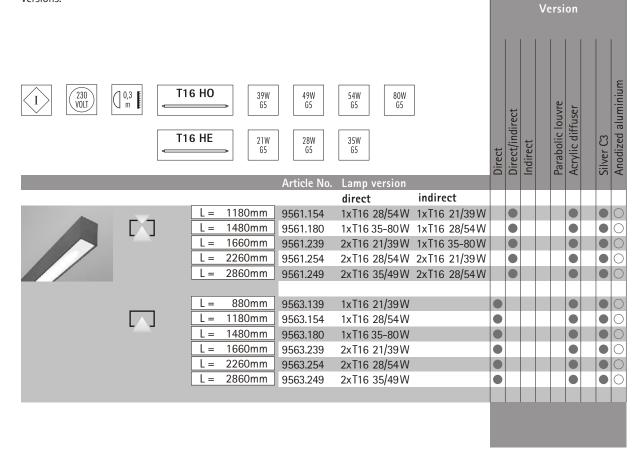




RAIL

Sharp-edged, drawn aluminium profile with minimum dimensions. One-piece housing with just two suspension points. The electronic control gear is integrated. Mounted as pendant luminaire with wire-rope, rapid-connector system. In terms of lighting technology, the individual luminaires are available as direct and as direct/indirect versions.

Equipped for T5 fluorescent lamps, high output, with electronic control gear (static). Prewired with heat-resistant cable and ready-to-connect. Transparent output cable, 2m. Luminaire with wide-beam, opal acrylic diffuser as clip-on profile.





▶ Individual Luminaire

As a design aid we distinguish between individual luminaires and system luminaires. Individual luminaires are always designed for pendant mounting and include the system related accessories including the end plates, the suspension and a 2m long transparent supply cable. These luminaires are designed for individual installation.

Possible Suspension Systems:



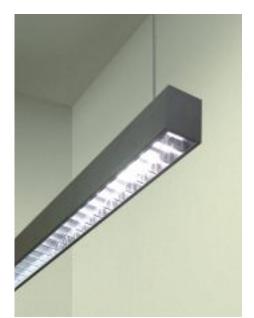
SYSTEM B

Wire-rope suspension rapid connect system



SYSTEM E

Pendant suspension for concrete ceilings

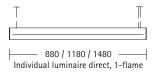


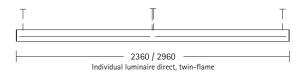


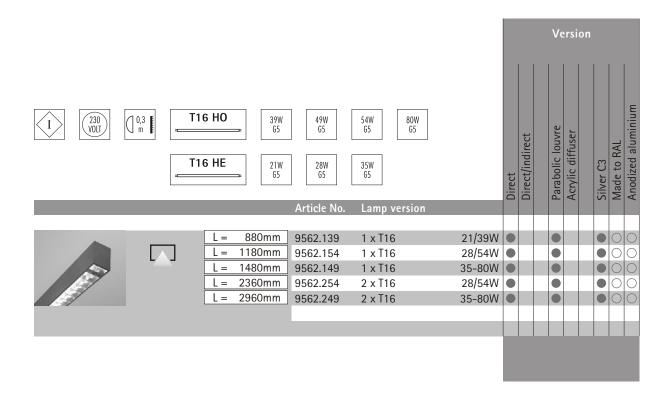
RAIL

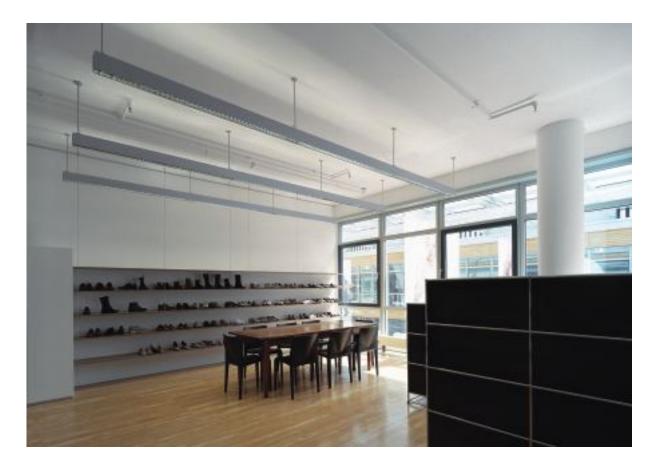
Sharp-edged, drawn aluminium profile with minimum dimensions. One-piece housing with just two suspension points. The electronic control gear is built in. Mounting as pendant luminaire with wire-rope rapid connector system. In terms of lighting technology, the individual luminaires are available as direct version.

Equipped for T5 fluorescent lamps, high output or high efficiency, with MultiPower technology electronic control gear. Prewired with heat-resistant cable and ready-to-connect. Transparent output cable, 2m. With aluminium parabolic louvre (compatible with computer workstations).



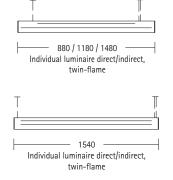


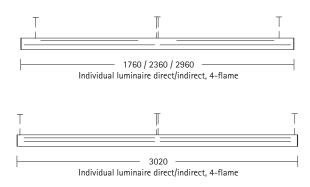




► Individual Luminaire

As a design aid we distinguish between individual luminaires and system luminaires. Individual luminaires are always designed for pendant mounting and include the system related accessories including the end plates, the suspension and a 2m long transparent supply cable. These luminaires are designed for individual installation.









RAIL

Sharp-edged, drawn aluminium profile with minimum dimensions. One-piece housing with just two suspension points. The electronic control gear is integrated. Mounted as pendant luminaire with wire-rope, rapid connector system. Direct illumination version.

Equipped for T5 fluorescent lamps, high output or high efficiency, with MultiPower technology electronic control gear. Prewired with heatresistant cable and ready-to-connect. Transparent output cable, 2m. Luminaire with aluminium parabolic louvres, suitable for use with computer workstations. CAT 2

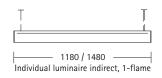
						Version						
(230 VOLT)	m =	39W 65 16 HE 21W 65	49W 65 28W 65	54W 65 80W 65 35W 65		Direct	Direct/indirect	Parabolic louvre	Acrylic diffuser	Silver C3	Made to RAL	Anodized aluminium
			Article No.	Lamp version direct	indirect							
		L = 1180mm	9560.154		1xT16 21/39W							
		L = 1480mm	9560.180		1xT16 28/54W							
		L = 1760mm	9560.239		1xT16 35-80W						0	
		L = 2360mm	9560.254		2xT16 21/39W		•			•	0	0
//3/		L = 2960mm	9560.280	2xT16 35-80W	2xT16 28/54W							\bigcirc
		L = 1540mm	9560.135		1xT16 35-80W						0	0
	L	L = 3020mm	9560.235	2x116 35-80W	2xT16 35-80W							

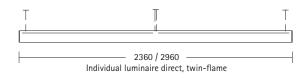


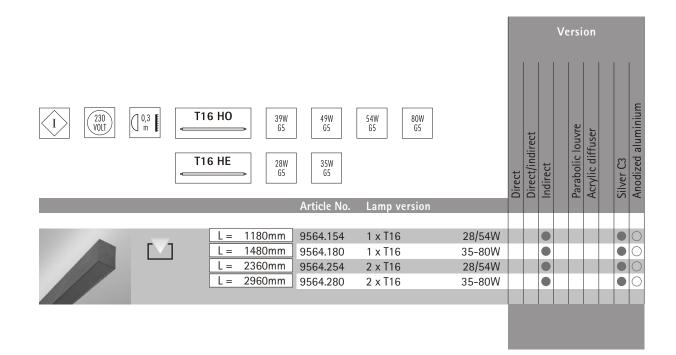
RAIL

Sharp-edged, drawn aluminium profile. One-piece housing with just two suspension points. The electronic control gear is built in. Mounted as pendant luminaire with wire-rope, rapid connector system. Individual luminaires for indirect illumination.

Equipped for T5 fluorescent lamps, high output or high efficiency, with MultiPower technology electronic control gear. Prewired with heat-resistant cable and ready-to-connect. Transparent output cable, 2m. Wide-beam, indirect luminaire without cover.











RAIL+



RAIL



End cover **Art. No. 1762.099**



End cover Art. No. 9565.099



T-connector Art. No. 1762.095



T-connector Art. No. 9565.095



L-connector angle 90° Art. No. 1762.093



L-connector angle 90° Art. No. 9565.093



L-connector special angle Art. No. 1762.090



L-connector special angle Art. No. 9565.090

▶ System Components

The system components shown here are just a small excerpt of the current range of accessories that are available. More detailed design documents and an overview of the entire product range can be downloaded from our homepage as PDF files.

Possible Suspension Systems:



SYSTEM B

Wire-rope suspension rapid connect system



SYSTEM E

Pendant suspension for concrete ceilings



Straight connector Art. No. 1762.098



Spacing cover Art. No. 1764.099



Wire-rope suspension, system B

1762.111 wire rope L= 1000mm 1762.112 wire rope L= 2000mm



Wire-rope suspension with canopy and cable

1762.121 wire rope L= 1000mm 1762.122 wire rope L= 2000mm



Through-wiring

3-pole	Butted lamps	
1770.321	for luminaire insert	21W
1770.328	for luminaire insert	28W
1770.335	for luminaire insert	35W
3-pole	Overlapping lamps	



1772.321for luminaire insert21W1772.328for luminaire insert28W1772.335for luminaire insert35W

5-pole	Butted lamps				
1770.521	for luminaire insert	21W			
1770.528	for luminaire insert	28W			
1770.535	for luminaire insert	35W			

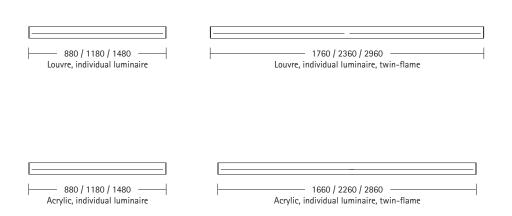
5-pole	Overlapping lamps	
1772.521	for luminaire insert	21W
1772.528	for luminaire insert	28W
1772.535	for luminaire insert	35W



RAIL, Surface-Mounted Multifunctional luminaire with strict geometric shape, stripped to the bare essentials, for surface mounting on the ceiling. Despite its filigree design, this product is equipped with state-of-the-art lighting technology and electronics, making it a powerful and highly efficient package. Many special functions are possible and can

be optimised for the project.





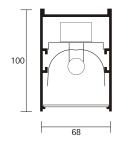


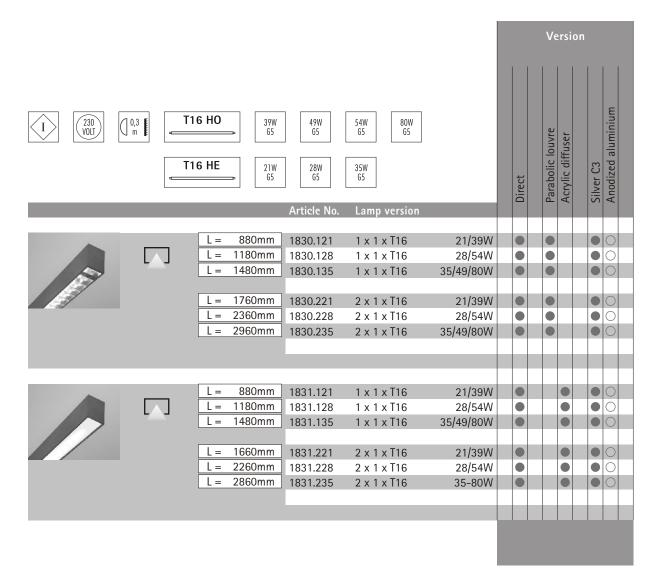
▶ Individual Luminaire

As a design aid we distinguish between individual luminaires and system luminaires. Individual luminaires are always prewired ready-to-connect and are supplied in one piece. The delivery includes the system related accessories including the end plates, the electrical components and the lens system. They are only suitable for individual installation.

RAIL, Surface-Mounted

Sharp-edged, drawn aluminium profile. The electronic control gear is built in. Equipped for T5 fluorescent lamps, high output or high efficiency, with MultiPower technology electronic control gear. Wired ready-to-connect with heat resistant cable. Luminaire cover optionally available with aluminium parabolic louvre (compatible with computer workstations) or with wide-beam, opal, acrylic diffuser.





RAIL Wall

Due to its compact size, this crisp-edged aluminium profile is an inconspicuous architectural detail. The versatility of the lighting technology makes it universally useable, being equally suited for lighting office and functional areas and for prestigious architecture. Many special functions are possible and can be optimised for the project.



Diffuser Opal

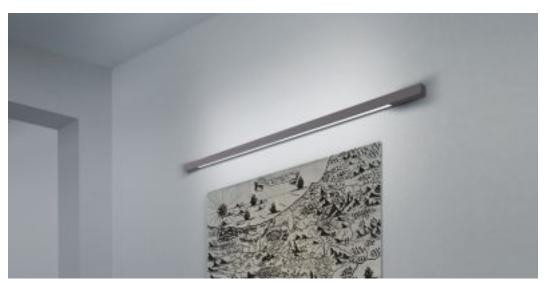
Cover designed as an acrylic diffuser. Satin-matt opal surface with high transmission factor for diffuse light distribution and glare-free light. Luminaire supplied with the opal diffuser.



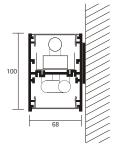
Parabolic Louvre

On request, RAIL Wall luminaire can be fitted with a computer-workstation compatible aluminium parabolic louvre. Aluminium with reflection-intensifying coating to increase the light output ratio.



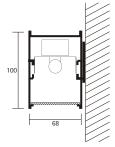


RAIL Wall luminaire built to project specifications.



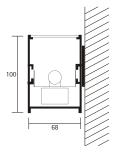
On-wall Mounting

Fitted with optical shadow gap or with spacer, these units can be installed as indiviual luminaires or as a luminaire row. Light emission: direct, indirect or direct/indirect.



Lighting Technology

With luminaires featuring direct light distribution, a choice is offered between a set-back white, opal diffuser and a clear, longitudinal prismatic diffuser. For special tasks, a computerworkstation compatible aluminium parabolic louvre is also available.



Uplight/Indirect

Luminaire with solely indirect light distribution for mild, glare-free ambient light, whereby the ceiling and wall act as a reflection surface. The lamp is covered by an opal diffuser or a clear, prismatic diffuser, although a lamp cover is not absolutely necessary.



RAIL Wall

T5 fluorescent lamps in HO and HE formats are used, driven by electronic control gear, AC/DC, in MultiPower version. The luminaires are fitted with separate lamps for direct and indirect light distribution. DIN-conformant luminance and lighting levels can be produced thanks to the high lumen output and the good light output ratio.



RAIL LED Emergency Lighting Emergency lighting can be integrated using specific components such as monitoring modules, AC/DC switching points, address modules and individual batteries.

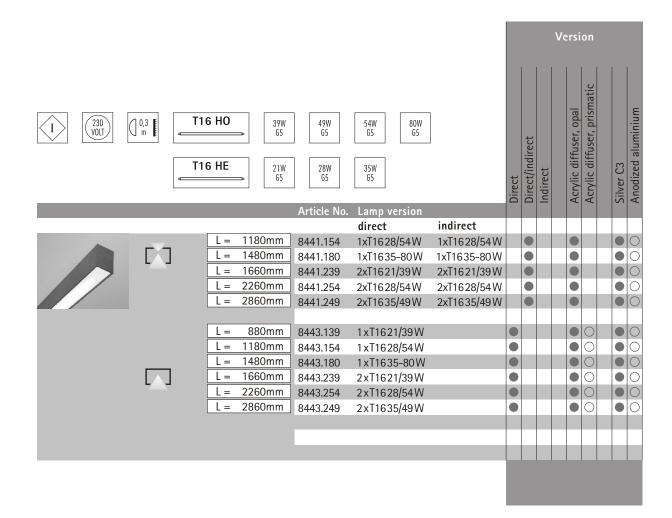


RAIL

Sharp-edged, drawn aluminium profile. One-piece housing for mounting on wall with mounting plate. Surface mounted as a wall-mounted luminaire. In terms of lighting technology, the individual luminaires are available in direct, indirect and direct/indirect versions.

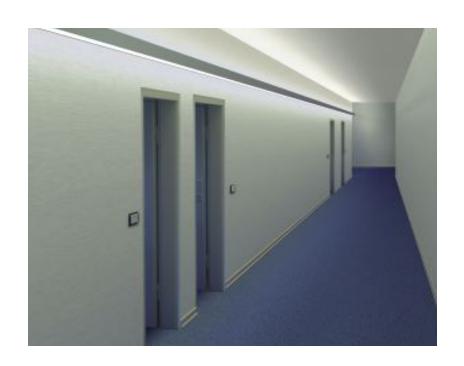
Equipped for T5 fluorescent lamps, high output or high efficiency, with MultiPower technology electronic control gear. Wired ready-to-connect with heat resistant cable. Luminaire cover is optionally available with an aluminium parabolic louvre or with acrylic diffuser, available in opal or longitudinal prismatic, clear version.

1180 / 1480	1660 / 2260 / 2860
Direct/indirect individual luminaire, 2-flame	Direct/indirect individual luminaire, 4-flame
880 / 1180 / 1480	1660 / 2260 / 2860 —
Direct individual luminaire 1-flame	Direct illumination individual luminaire, 2-flame



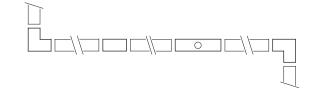
▶ System Luminaire

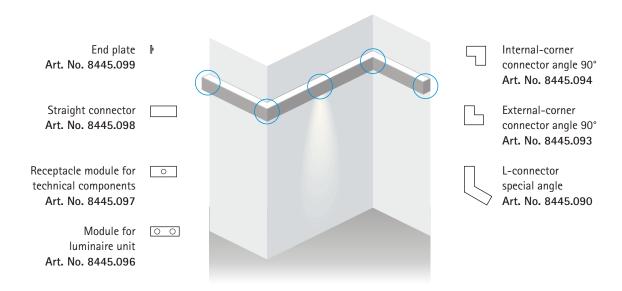
For complex lighting structures, this product is also available as a system luminaire, whereby various luminaire modules can be individually combined with different system components. Luminaire arrangements that give shape to a room can be implemented according to the designer's plans. The detailed design-work for such a system is done by our design department.



▶ System Components

The system components shown here are just a small excerpt of the current range of accessories that are available.



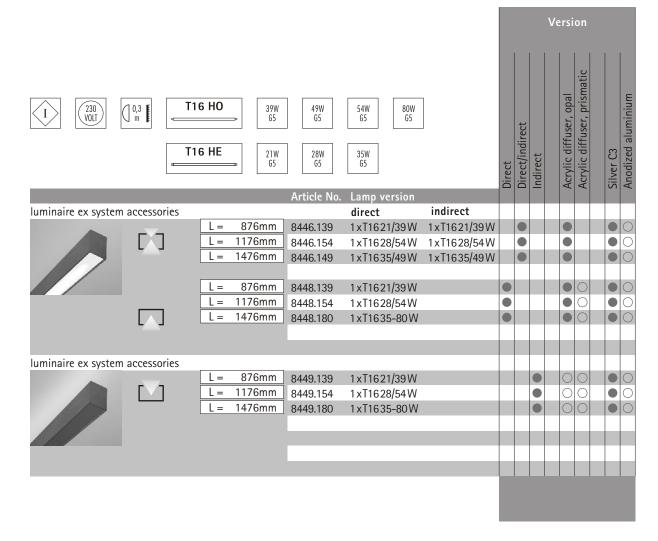




RAIL

Sharp-edged, drawn aluminium profile. The electronic control gear is built in. Equipped for T5 fluorescent lamps, high output or high efficiency, with MultiPower technology electronic control gear. Wired ready-to-connect with heat resistant cable. Luminaire cover optionally available with aluminium parabolic louvre (compatible with computer workstations) or with wide-beam, opal, acrylic diffuser.







SOLAR

This uplight pendant system offers clarity of design in a compact size. Features a large span with suspension points that can be positioned as required; this system can be discreetly integrated into the architecture. The possible partial illumination in the direct illumination area not only lends the system a special elegance, but also underlines the lighting effect. The use of additional directional spotlights also allows a scenic lighting characteristic to be created.







On-wall Mounting
SOLAR wall-mounted luminaire, indirect beam with additional glare-free direct illumination.
Available as an individual luminaire or as a luminaire row.



SOLAR + Directional SpotlightSOLAR, indirect beam with
additional directional spotlights. Further versions available
on request.



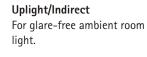


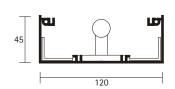
Side Diffuser

Cover designed as an acrylic diffuser. Satin-matt opal surface with high transmission factor for diffuse light distribution and glare-free light.

Central Diffuser

Cover designed as an acrylic diffuser. Satin-matt opal surface with high transmission factor for diffuse light distribution and glare-free light.





SOLAR

Sharp-edged, drawn aluminium profile. One-piece housing with just two suspension points. Individual luminaires in lengths up to 3600mm. The electronic control gear is built in. Mounting as pendant luminaire with wire-rope rapid connector system. Two versions are available with this system: indirect and indirect with partial direct illumination. Further technical requirements and design requests can also be catered for.

Single-flame, equipped for T5 fluorescent lamps, HE/HO, with electronic control gear. Wired ready-to-connect with heat resistant cable. Indirect with wide-beam reflector. A satinmatt, opal acrylic diffuser lies behind the partially milled elements. Luminaire with permanently mounted end pieces, Y-wire-rope suspension and a 2m long transparent output line with canopy.

Possible Suspension Systems:



SYSTEM A

Pendant suspension for mounting boxes



SYSTEM C

Y-suspension with rapid connector system



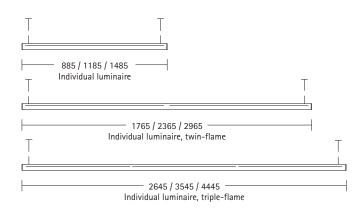
SYSTEM D

Pendant suspension for ceiling hooks



SYSTEM E

Pendant suspension for concrete ceilings



► System Luminaire

The system components shown here are just a small excerpt of the current range of accessories that are available. More detailed design documents and an overview of the entire product range can be downloaded from our homepage as PDF files.



End plate

Art No. 9355

Art. No. 9355.099

Art. No. 9355.097

0 0

Module for luminaire

unit

Art. No. 9355.096

Straight connector
Art. No. 9355.098

L _

T-connector Art. No. 9355.095

Receptacle module for technical components

L-connector 90° Art. No. 9355.093



▶ Individual Luminaire

As a design aid we distinguish between individual luminaires and system luminaires. Individual luminaires are always designed for pendant mounting and include the system related accessories including end plates, Y-wire-rope suspension, a 2m long transparent supply cable and a canopy. They are suitable for individual installation.

		Version			
T16 HE 21W 65 65 65 T16 HO 39W 65 65 80W 65 Article No. Lamp version	Direct Direct	Indirect	Side diffuser	Central diffuser	Silver C3 Anodized aluminium
$\begin{array}{ c c c c c c c }\hline L = & 1185mm & 9350.154 & 1 \times T16 & 28/54 \\ \hline L = & 1485mm & 9350.180 & 1 \times T16 & 35/49/80 \\ \hline L = & 1765mm & 9350.239 & 2 \times T16 & 21/39 \\ \hline L = & 2365mm & 9350.254 & 2 \times T16 & 28/54 \\ \hline L = & 2965mm & 9350.280 & 2 \times T16 & 35/49/80 \\ \hline L = & 3545mm & 9350.354 & 3 \times T16 & 28/54 \\ \hline \end{array}$	V V V		0		OOOOO
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	V V V				
L = 1185mm 9352.154 1 x T16 28/54) L = 1485mm 9352.180 1 x T16 35/49/80) L = 1765mm 9352.239 2 x T16 21/39) L = 2365mm 9352.254 2 x T16 28/54) L = 2965mm 9352.280 2 x T16 35/49/80) L = 3545mm 9352.354 3 x T16 28/54)	V V V V V				

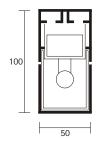


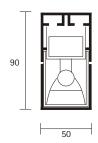


This luminaire system is distinguished by its reduced and clear use of forms. A convincing choice as an individual luminaire or as a complex luminaire row, which can be combined with very different system components. The luminaires are suitable for wall and ceiling mounting and can also be suspended as a lighting structure using suspension kits. The particular strength of the housing enables multiplelength luminaire units to be used unsupported. This reduces the number of suspension points required for mounting.



Sharp-edged, drawn aluminium profile with lampholder covers shaped to fit. These can be removed tool-free to facilitate lamp replacement. The lamps are covered by the longitudinally ribbed acrylic diffuser.







Acrylic Diffuser, Clear Diffuser made of longitudinally ribbed, clear, acrylic profile for brilliant, glare-free light.



Acrylic Diffuser, Opal Diffuser made of longitudinally ribbed, opal acrylic profile for comfortable, glare-free light.



Louvre with Acrylic Diffuser Parabolic louvre covered with a diffuser, for brilliant glare-free

Shading

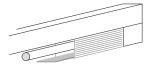
The shading is glued into the acrylic diffuser along the side or inserted reversibly.

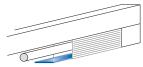


This allows partial colour styling. All the sides can be individually fitted.

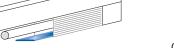
Clip Colour Filter

The alternative to coloured fluorescent lamps. A colour filter is clipped onto a white T5-lamp. 70% coverage.





- Acrylic diffuser
- Micro-perforated sheet-metal Other material available on request.



Colours on request







Sharp-edged, drawn aluminium profile. The strong housing allows even multiple-length luminaires to be offered as one-piece units. These follow the shape and are particularly easy to install. Delivered in individual lengths up to 3600mm. The electronic control gear is built in. Equipped for T5 fluorescent lamps, both HE and HO. Seven different wattages are available.

Equipped for T5 fluorescent lamps, with electronic control gear. Wired ready-to-connect with heat resistant cable. 3-pole terminal block, suitable for through wiring. General-diffuse emission with acrylic diffuser for glare control. Colour filters and lamp shields are available as lighting accessories. Luminaire complete with clipon lampholder covers that are shaped to fit.

Possible Suspension Systems:



SYSTEM A

Pendant suspension for mounting boxes



SYSTEM C

Y-suspension with rapid connector system



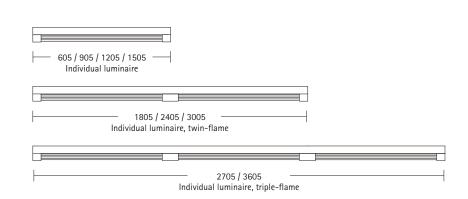
SYSTEM D

Pendant suspension for ceiling hooks



SYSTEM E

Pendant suspension for concrete ceilings





▶ System Luminaire

The system components shown here are just a small excerpt of the current range of accessories that are available. More detailed design documents and an overview of the entire product range can be downloaded from our homepage as PDF files.

End plate

Art. No. 8905.099

Straight connector Art. No. 8905.098

Receptacle module for technical components
Art. No. 8905.097

0 0

Module for luminaire

Art. No. 8905.096

T-connector

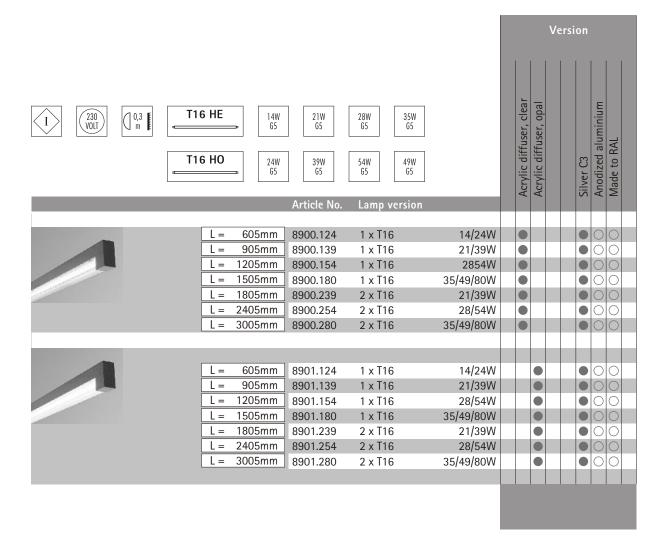
☐ Art. No. 8905.095

L-connector 90°
Art. No. 8905.093



▶ Individual Luminaire

As a design aid we distinguish between individual luminaires and system luminaires. Individual luminaires are always pre-wired ready-to-connect and in one piece. The delivery includes the system related accessories including the end plates and diffuser. The electrical components are built in. These luminaires are designed for ceiling mounting. Unsupported spans of up to 3000mm are possible.





This luminaire system is distinguished by its clear and simplified style. The luminaires are suitable for wall and ceiling-mounting and can also be suspended as a lighting structure using suspension kits.

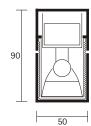
Louvre with Acrylic Diffuser Parabolic louvre with high polish surfaces. Aluminium with reflection-intensifying coating to increase the light output ratio. Diffuser made of clear, longitudinally profiled acrylic section for brilliant glare-free light.

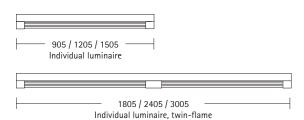


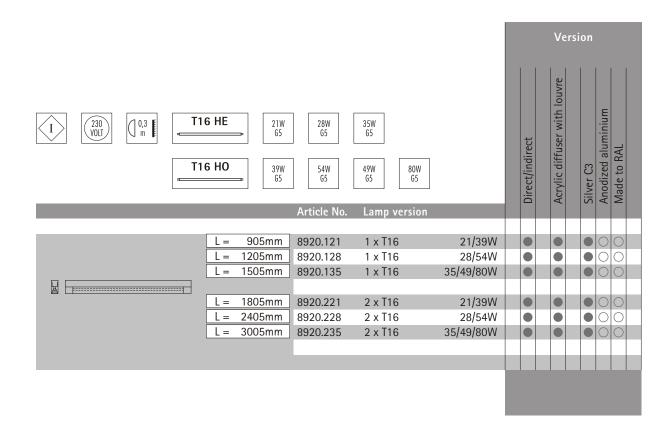


Sharp-edged, drawn aluminium profile. One-piece housing with just two suspension points. The electronic control gear is built in. Mounting as pendant luminaire with wire-rope rapid connector system. In terms of lighting technology, the following versions are available for individual luminaires: direct, indirect and direct/indirect.

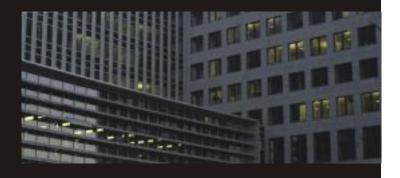
Equipped for T5 fluorescent lamps, HE/HO, with electronic control gear, non-dimmable. Wired ready-to-connect with heat resistant cable. Luminaire with transparent output line, 2m. Luminaire cover with aluminium parabolic louvre (compatible with computer workstations).









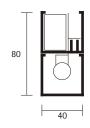


mini RAIL

A filigree, no-nonsense design, reduced to its essential elements this product is a welcome tool for scenic lighting in rooms. A convincing choice as an individual luminaire and as a complex luminaire row, which can be combined with very different system components. The luminaires are suitable for wall and ceiling mounting. They can also be suspended as a lighting structure using the suspension systems offered.







mini RAIL

Sharp-edged, drawn aluminium profile with partly fitted with luminaire elements. The specially shaped lampholder covers can be removed toolfree to facilitate lamp replacement.

mini RAIL

As a base version in an open design with a general-diffuse lamp. The lampholder covering is contoured to fit.



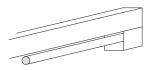
Accessories: despite the compact size, a fully-fledged louvre (computer-workstation compatible) is used here. Light distribution: direct/indirect, 80/20%.

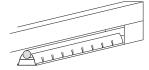
Wallwasher

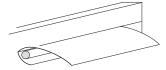
Accessories: the asymmetric aluminium reflector is fitted tool-free. The light emission is directed and enables an even illumination of vertical surfaces.

Clip Colour Filter

The alternative to coloured fluorescent lamps. The colour filter is clipped onto a white T5-lamp. 70% coverage.













mini RAIL

Sharp-edged, drawn aluminium profile. The strong housing allows even multiple-length luminaires to be offered as one-piece units. These follow the shape and are particularly easy to install. Delivered in individual lengths up to 3600mm. The electronic control gear is built in. Equipped for T5 fluorescent lamps, both HE and HO. Seven different wattages are available.

Equipped for T5 fluorescent lamps, with electronic control gear. Wired ready-to-connect with heat resistant cable. 3-pole terminal block, suitable for through wiring. As a base version with general-diffuse lighting technology. Parabolic louvre for glare control, colour filters and asymmetric reflectors are available as lighting accessories. Luminaire complete with clip-on lampholder covers.

Possible Suspension Systems:



SYSTEM A

Pendant suspension for mounting boxes



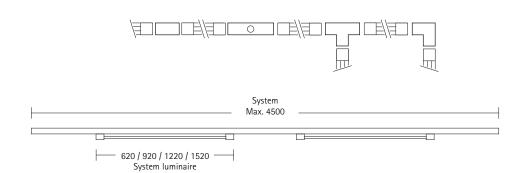
SYSTEM D

Pendant suspension for ceiling hooks



SYSTEM E

Pendant suspension for concrete ceilings



▶ System Luminaire

The system components shown here are just a small excerpt of the current range of accessories that are available. More detailed design documents and an overview of the entire product range can be downloaded from our homepage as PDF files.

End plate

Art. No. 8955.099

Straight connector Art. No. 8955.098

Receptacle module for technical components
Art. No. 8955.097

O O Module for luminaire

Art. No. 8955.096

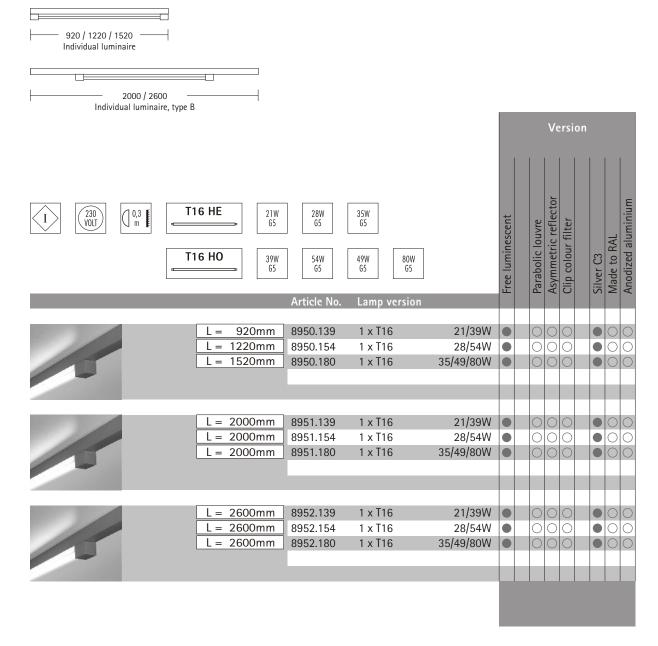
T-connector Art. No. 8955.095

L-connector 90°
Art. No. 8955.093



Individual luminaire

As a design aid we distinguish between individual luminaires and system luminaires. Individual luminaires are always pre-wired ready-to-connect and in one piece. The delivery includes the system related accessories. The electric components are built in. These luminaires are designed for ceiling mounting. Unsupported spans of up to 3000mm are possible.



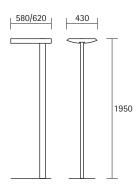
Standing Luminaires



MICROS

Highly efficient free-standing luminaires are the alternative to classical office lighting. MICROS is absolutely glarefree and can be flexibly used. Projecting indirectly with a discreet direct component. Modern design and many technical options facilitate innovative office solutions.





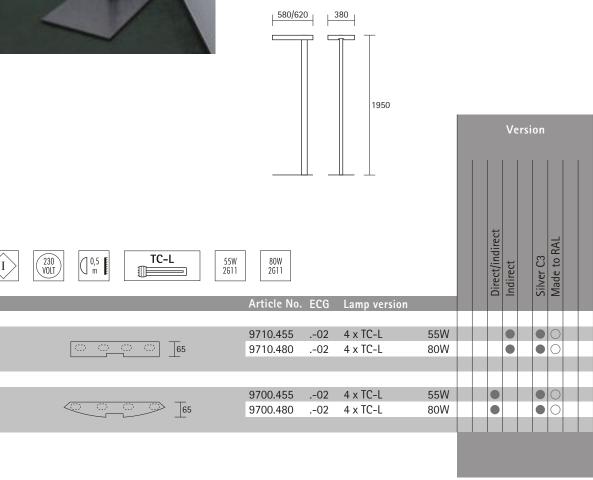




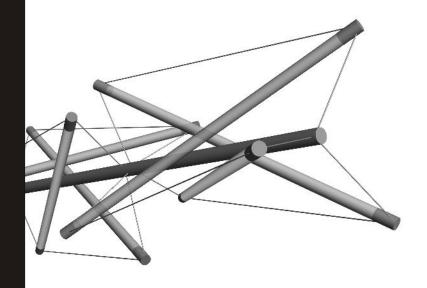


PANELL

Angular linearity is the design statement of this floor luminaire. Highly efficient through high quality lighting technology and 4-flame assembly with state-of-the-art TC-L lamps in 55W and 80W. Indirect projection, upon request also with direct illumination or direct auxiliary lighting. Therefore the ideal office floor luminaire as a complete or an auxiliary lighting concept.









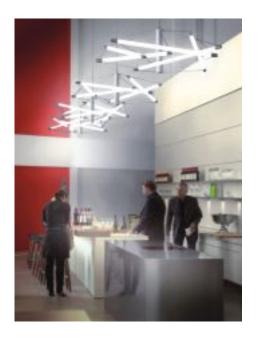


The innovative "Light-Structure" series of luminaires by Lars Meeß-Olsohn, a patented, strikingly designed lighting system that combines structure and light in one module. The "Light-Structure" series of luminaires is based on the principles of the art of light-weight construction. By balancing the tension and compression forces, this construction method results in highly rigid

structures, enabling a lighting design that fills the room yet remains filigree. The modular character of the "Light-Structure" opens up a wide variety of application possibilities for designers and planners. We achieve a high degree of energy efficiency by using dimmable fluorescent lamps. Our products are also particularly noted for their design and economic efficiency.

The term "Tensegrity" is a combination of the words "tension" and "integrity" and describes the active interplay of tension and compression forces. Lars Meeß-Olsohn's passion for the strikingly and artistically designed Tensegrity Sculptures by the sculptor Kenneth Snelson led to the development of his "Light-Structure" series of luminaires.





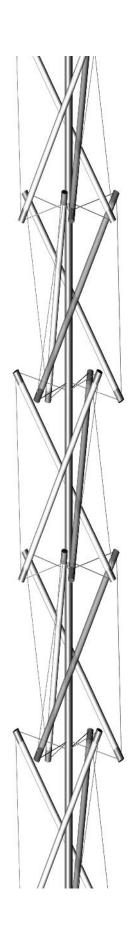
Light-Structure can be used as an individual luminaire or also as a modular lighting system. Whether horizontal or vertical, the self-supporting tensegrity structure allows almost limitless possibilities for combining and extending. Individual luminaires can be series connected as desired using vertical or horizontal straight connectors. Thus, for instance, six T3 - 150 pendent luminaires can be combined to produce an impressive, 8-metre-long luminaire structure.

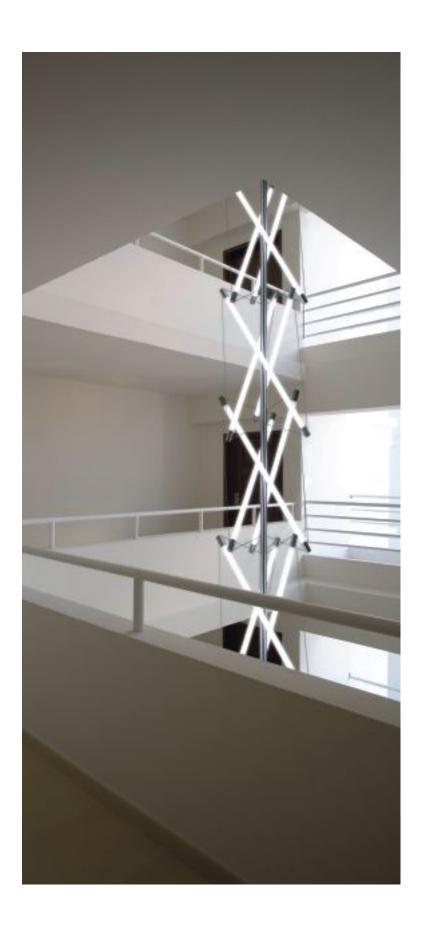
TENSEGRITY T3 Special

Pendant luminaire with vertical orientation. Individual luminaire made of aluminium with acrylic diffusers. The total structure is equipped for 18 x 35W HE T5 fluorescent lamps, with integrated, regulable, electronic control gear units. Prewired with heat-resistant cable and ready-to-connect.

Approx. length: 8000mm. Approx. diameter: 700mm.

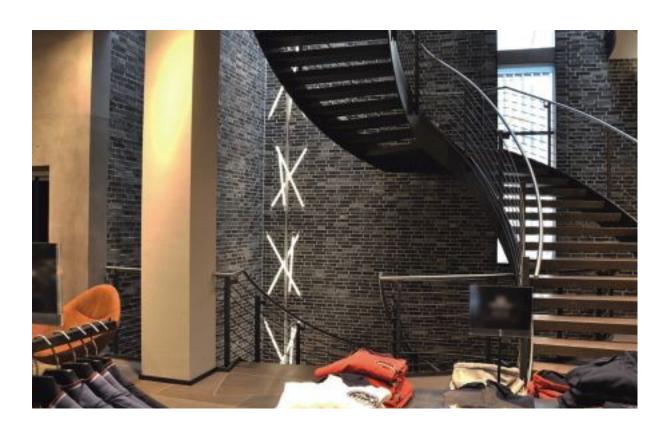


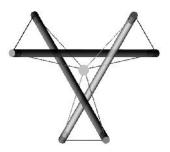












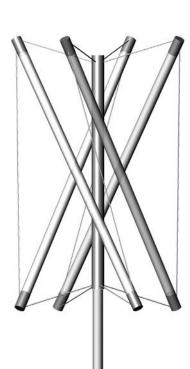
Structure

Stairway lighting using vertical structures in the stairwell provides an architecturally highly discerning and photometrically optimum solution. The use of the Light-Structure lighting systems achieves a step illumination that is absolutely uniform, shadow-free and therefore conformant to lighting standards. It is also glare-free and regulable.

TENSEGRITY Special Structure

Pendant luminaire with vertical orientation. Individual luminaire made of aluminium with acrylic diffusers. Equipped for fluorescent lamps with regulable, integrated, electronic control gear units. DALI/Push interface. Other control signals can also be used. Prewired with heatresistant cable and ready-to-connect.









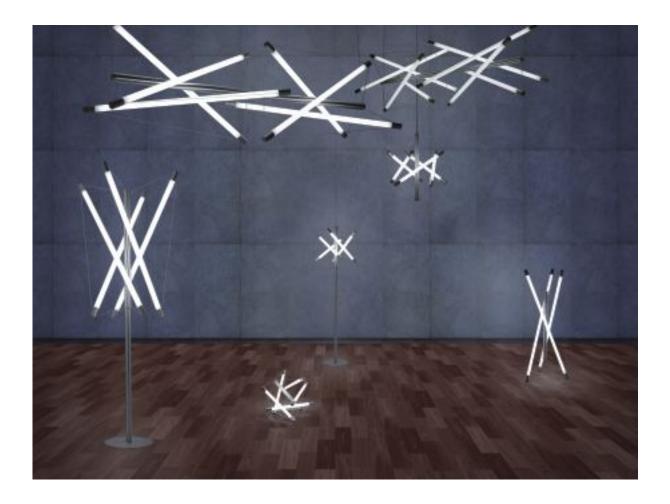


TENSEGRITY IP

Our mast luminaires for external use are visible from afar. They are elegant, longlasting landmarks that feature high-quality components and weatherproof materials.

TENSEGRITY T4

Decorative mast-mounted luminaire. Individual luminaire made of aluminium. The acrylic diffusers function as protective tube and are specially sealed and IP-rated. They are suspended between rust-free, stainless steel wire-ropes. Equipped for four 35W HE T5 fluorescent lamps. Luminaire with integrated, electronic control gear units. Prewired with heat-resistant cable and ready-to-connect. Approx. diameter: 800mm.



This is a highly varied and versatile luminaire range: as an individual luminaire with integrated dimming function or as a system luminaire, adapted to suit the project specifications.



Installation, Gas AG connect-ion network, Leipzig, 2007



T5 presentation, Technology Centre, Bottrop



Pendant lamp



T3 - 120 Pendant lamp 3 x 28W H 1100 Ø 700mm Art. No. 9101.328.10.13 T3 - 150 Pendant lamp 3 x 35W H 1380 Ø 820mm Art. No. 9101.335.10.13



T4 - 120 Pendant lamp 4 x 28W H 1090 Ø 720mm Art. No. 9101.428.10.13 T4 - 150 Pendant lamp 4 x 35W H 1420 Ø 820mm Art. No. 9101.435.10.13



T4 - 120 Pendant lamp 4 x 28W Cup form H 1090 Ø 720mm Art. No. 9102.428.10.13 T4 - 150 Pendant lamp 4 x 35W Cup form H 1420 Ø 820mm Art. No. 9102.435.10.13



T5 - 90 Pendant lamp 5 x 21W H 570 Ø 1140mm Art. No. 9101.521.10.13 T5 - 120 Pendant lamp 5 x 28W H 570 Ø 1470mm Art. No. 9101.528.10.13

Connector for pendant lamps

Coupling piece, horizontal

Art. No. 9100.098.00.13

Coupling piece, vertical Art. No. 9100.097.00.13 Suspension kit with shroud, horizontal Art. No. 9100.122.00.13

Suspension kit with shroud, vertical Art. No. 9100.121.00.13

Floor lamp



T3 - 150 Floor lamp 3 x 35W H 1380 Ø 820mm Art. No. 9103.335.10.13

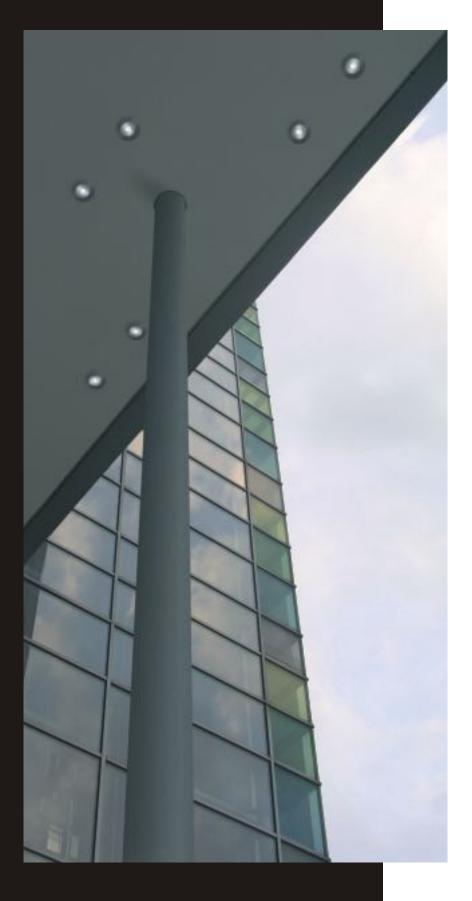


T4 - 150 Floor lamp 4 x 35W H 1420 Ø 820mm Art. No. 9103.435.10.13

Outdoor lighting



T4 - 150 Outdoor lighting 4 x 35W H 3400 Ø 900mm Art. No. 9107.435.10.13



Recessed Downlight IP

Increased protection class: IP54 from below when installed in closed ceiling systems. For indoor and outdoor areas where increased load on the luminaire is to be expected due to moisture, dust and other environmental influences. Robust and corrosion-resistant housing made of aluminium and stainless steel. Threaded cover ring in stainless steel as vandal protection. Cover ring optionally available in powdercoated matt white or according to the RAL colour chart. Equipped for high-voltage halogen lamps, high-pressure CDM-T lamps or compact fluorescent lamps. Luminaire with separate, electronic control gear.

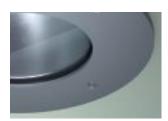


Faceted

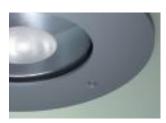


Matt





Clear cover glass for a penetrating beam with high brilliance. Sharp-edged cover ring, sealed with gasket.



The partially-frosted cover to prevent direct view of the lamp is also a decorative element. Crisp-edged cover ring, sealed with gasket.



Frosted cover glass for a widebeam light intensity distribution. Sharp-edged cover ring, sealed with gasket.



Three-piece luminaire housing consisting of a mounting frame with mounting system, luminaire housing and crisp-edged cover ring with fixing screws.





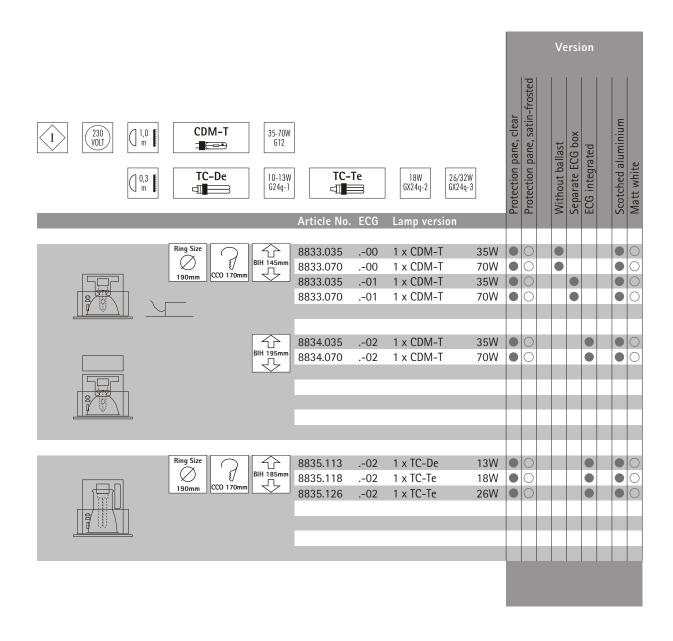
Control Gears Ordering Code

▶ P. 344

.00 without control gear

.01 low loss gear

.02 electronic control gear





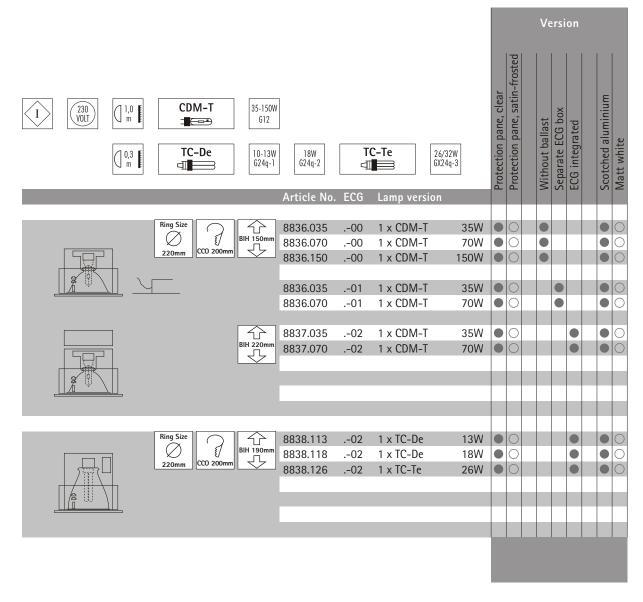
Reflector Technology

Polished and piece anodized reflector made of aluminium 99.98% with smooth, high polish silver surface. Other reflector surfaces are available.

▶ See chart

Ring Systems

Luminaire cover with solid aluminium cover ring finished with scotched surface and additional protective lacquer or, alternatively, powder-coated in white or a RAL standard colour. Ring with recessed gasket. Secured with stainless-steel screws.





Surface-Mounted Downlight

IP54 protection class. For indoor and outdoor areas where increased load on the luminaire is to be expected due to moisture, dust and other environmental influences. Housing made of aluminium profile sealed with threaded cover ring. With inserted cover glass with gasket. Available in white or according to the RAL colour chart. A wide range of lamps possible. Luminaire with built in, electronic control gear. Wired ready-to-connect with heat resistant cable. 3-pole (5-pole) terminal block for through-wiring.



Clear cover glass for a penetrating beam with high brilliance. Sharp-edged cover ring, sealed with gasket.

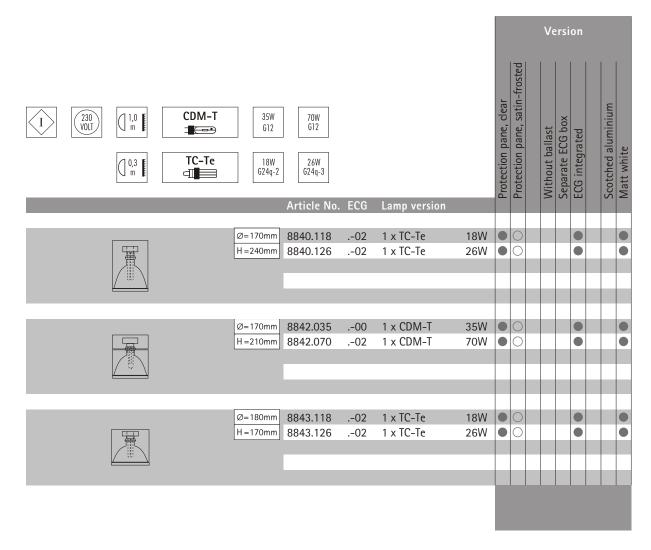


Frosted cover glass for a widebeam light intensity distribution. Sharp-edged cover ring, sealed with gasket.







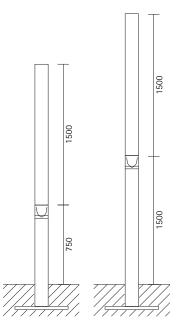






STEELE

Prestigious exterior luminaire in purist form for glare-free but highly visible light which serves to delineate and emphasise the individual architectural areas by day and by night. Different lighting effects can be achieved by using various lamp types. These integrated high performance luminaires give a soft brilliance inside the opal acrylic glass tube. Additive colour mixing when using LED RGB chips enhances the illuminated product effect and creates new impressions.

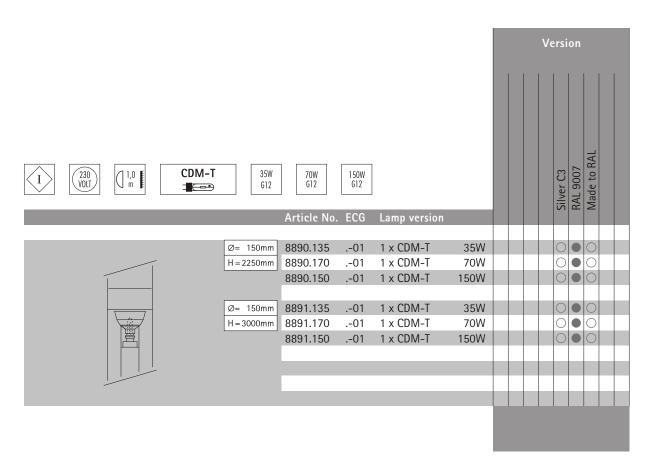






Exterior Luminaire

This luminaire housing is made of powder-coated aluminium and is vertically extended by an opal acrylic glass tube. Equipped with an integrated uplight for ceramic metal halide CDM-T lamps with integrated control gear, prewired and ready-to-connect, with heatresistant cable and 5-pole terminal block, suitable for through-wiring. Protection class IP65. To be installed with base plate or alternatively with earth spike. LED versions and customized sizes on request.

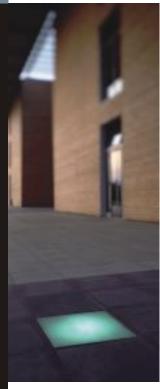




▶ Frameless floor-mounted luminaire

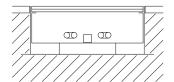
Luminous Tile

This floor-mounted luminaire features a heavy-duty construction and its size can be matched to the given dimensions of the existing pavement slabs. The totally matt finish glass covers make these luminaires almost completely invisible during the day. Only when the light is switched on are external areas illuminated or lit up. Two different technical versions are available. Either equipped with concealed floodlights so that porches or objects, sculptures or plants are illuminated, or equipped with compact fluorescent lamps so that walkways are marked by the evenly illuminated glass covers.



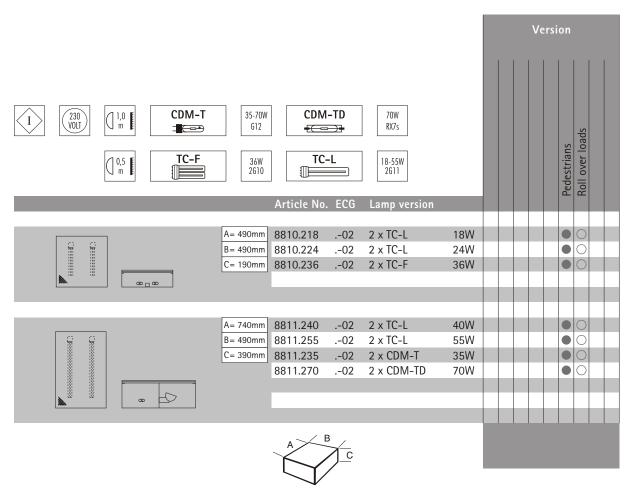






Luminous Tile

Mounting frame made of stainless steel for assembly on a concrete foundation. Independent luminaire body rated to IP65 protection class, equipped for compact fluorescent lamps with integrated control gear. Alternatively available as individual luminaire rated to IP66 protection class, equipped for ceramic metal halide CDM-TD lamps and integrated control gear. Multilayered safety glass cover with opal foil and anti-slip resistance. The glass component can be removed with suction levers to facilitate maintenance work. A solid mounting base and drainage must be provided. The luminaire surface may be traversed by pedestrians and motor vehicles with pneumatic tires.



Operating Equipment

Control Gear Unit for Metal Halide Lamps

Metal halide lamps can be operated with electronic and also with electromagnetic control gear. Electromagnetic control gear units for HI lamps are equipped with all the components required for safe and proper operation. A digital timed-ignitor featuring IPP++ technology (Intelligent Pulse Pause Mode), a compensation capacitor and a temperature switch with automatic reset are also integrated in addition to the control gear. All components are matched to each other as a system. Conventional control gear units are available in increased protection mode, up to IP65.

Electronic control gear for metal halide lamps with and without ceramic discharge tubes (C-HI and HI respectively) form the basis for highly efficient lighting systems. The control electronics used, safely switch off the operated lamp at the end of its functional life. The lamps are optimally driven and stabilised. This ensures a long functional life and perfect colour rendition. The burning life is extended.

Electronic co	ontrol gear	
0340.020.02	IP20 with terminal block	20W
0340.035.02	IP20 with terminal block	35W
0340.070.02	IP20 with terminal block	70W
0340.150.02	IP20 with terminal block	150W
0344.020.02	ECG mini f. PGJ5	20W
0344.035.02	ECG mini f. PGJ5	35W

iviagnetic	control gear	
0350.035.0	01 IP40 with terminal block	35W
0350.070.0	01 IP40 with terminal block	70W
0350.150.0	01 IP40 with terminal block	150W
0352.035.0	01 IP65 with output cable	35W
0352.070.0	01 IP65 with output cable	70W
0352.150.0	01 IP65 with output cable	150W

Control Gear for Low-Voltage Halogen Lamps

Electronic transformers are regulable with trailing-edge dimmers. With trailing-edge control, semiconductor components are used to "cut-off" the decreasing sections of the sinusoidal half-wave, i.e. a kind of voltage reduction of the rear of the waveform is achieved. In addition, most of our converters have a separate potentiometer connection to allow the lamp voltage and thus the brightness to be directly regulated.

Electronic DALI converter

DALI transformers (Digital Addressable Lighting Interface) can be controlled via the DALI interface. To ensure electronic converters operate safely, it is important to observe the maximum permitted housing temperature at the measuring point. To prevent radio interference being emitted from the lighting system, the length of the secondary cable should be limited to 2m.

Electronic tra	nsformer, 12 volt	
0300.060.02	Leading and trailing edge	60VA
0300.105.02	Leading and trailing edge	105VA
0300.150.02	Leading and trailing edge	150VA
0300.200.02	Leading and trailing edge	200VA
0301.105.03	1-10V interface	105VA
0302.070.10	DALI interface	70VA
0302.105.10	DALI interface	105VA
0302.150.10	DALI interface	150VA
0303.105.02	AC/DC Emergency lighting	105VA
0303.105.10	AC/DC Emergency lighting DALI	105VA



LED Drivers

Depending on the purpose of use and the geometrical shape, LEDs can be operated with constant current or constant voltage.

Constant-Current Driver
Light emitting diodes are semiconductor components with a
light-emitting PN junction. Due
to the diode characteristic, the
current can only flow in one
direction through the LED. In
addition, this non-linear behaviour and the special properties
of the semiconductor can cause
the current consumption and
power consumption of an LED
to increase as it becomes hot.

If this effect is not restricted, the heat can continue to increase and ultimately destroy the semiconductor junction. When operating high-power LED luminaires, we therefore recommend the use of an external constant-current driver. To ensure the same current flows through each LED, high-power modules must only be connected in series. For each individual application, it is necessary to select a constant-current source that supplies the required current and makes sufficient voltage available for

current source that supplies the required current and makes sufficient voltage available for								Version				
the LED line.	Article No.	ECG	ì			Constant current	Constant voltage	Dimmable	Suitable for emergency lighting	Protection mode: IP20	Protection mode: IP54	Protection mode: IP67
350 mA	0360.008			8W	2-22V			0				
	0360.011			11W	2-31V			0			\circ	
	0360.042	02	Driver	42W 4	40-115 V	•		0				
						_						
700 mA	0361.017		Driver	17W	2-34V			0			0	
	0361.034	10	Driver	34W	9-48V	•					0	
1050 mA	0362.020	02	Driver	20W	2-19V			0				
1250 mA	0363.025	02	Driver	25W	2-20V			0				
24 Volt	0364.010	02	Convertor	10W	24V						\bigcirc	
	0364.020			20W	24V		•	0		•	\circ	
	0364.030	02	Convertor	30W	24V			0				
	0364.070				24V		•	0		•	0	
	0364.071	02	Convertor	70W	24V			0				
	0364.130	02	Convertor	130W	24V		•	0			0	
	0364.131	02	Convertor	130W	24V			0				

Emergency Lighting / Safety Lighting

Safety Luminaires

Independent luminaire inserts with or without single batteries are integrated as system elements in a non-maintained circuit. A wide variety of wattages for the emergency lighting units allow usage as safety or secondary lighting. The integration of rescue signals in continuous circuit or into reference luminaires is also possible with optical light accessories.

The use of individual batteries facilitates easy maintenance.

LED Emergency Module

Specific components such as monitoring modules, AC/DC switching points, address modules and individual batteries can be integrated for the emergency lighting function.

Emergency lighting battery pack:



Emergency	lighting components	
0400.001	Battery pack	Operating time 1h
0400.003	Battery pack	Operating time 3h
0550.001	Monitoring module	CEAG
0550.002	Monitoring module	INOTEC
0550.000	Monitoring module	other
0445.000	Monitoring module	
0446.000	Change-over relays	
0500.014	Emergency lampholder	E14
0500.000	Emergency lampholder	other
0450.004	LED emergency lighting	insert 4W



Orientation in buildings is greatly hampered if there is a power failure. In Germany and most other countries, it is therefore obligatory to install a second lighting system, which is completely independent from the normal mains power grid, to ensure the safe and speedy evacuation of a building. The risk for the people in the building is reduced and the work of the emergency forces is made easier. German building regulations and workplace regulations prescribe emergency lighting for the following buildings or parts of buildings: meeting places, cinemas, theatres, exhibition halls, retail outlets. restaurants, accommodation facilities, residential care homes, schools, car park buildings, underground car parks, airports, train stations and blocks of flats. They also prescribe escape routes in workplaces with a particular hazard.

A distinction is made between three types of circuit for the emergency power supply: Firstly, there is non-maintained emergency lighting, which only operates in the event of a mains power failure. This circuit may be used in all types of building to light the escape routes. Secondly, there is the maintained emergency lighting, whereby the emergency lighting is always switched on. Safety signs must only be connected as maintained emergency lighting. Thirdly, there is the switchable emergency lighting, whereby the emergency lighting is switched on and off together with the luminaires for the general lighting. The switchover from normal operation to the power supply for the emergency lighting must

take place when the mains

voltage drops 15% below the

nominal value of the rated operational voltage for longer than 0.5 seconds. After the mains power comes back on, the emergency lighting must not switch off again until a delay of at least one minute has expired. An exception is made for meeting rooms that are darkened by their nature of operation, e.g. cinemas, and systems in which the light sources used for the general lighting have longer start-up times, e.g. high-pressure discharge lamps. Emergency lighting can be divided into safety lighting and back-up lighting. Safety lighting can be subdivided into "escape lighting", "anti-panic lighting" and "safety lighting for workplaces with particular hazard". The safety lighting allows people to vacate a room or building safely in the event of danger. The purpose of anti-panic lighting is to reduce the likelihood of panic and to provide sufficient visual conditions to enable the people concerned to reach the escape route safely. Anti-panic lighting should be aimed directly downwards and illuminate any obstacles up to 2m above the reference plane. The back-up lighting ensures that work can continue for a certain period in the event of mains power failure. Back-up lighting is used in operating theatres in hospitals for instance.

Our range of emergency lighting is highly varied and is continually being expanded and updated to suit market requirements. The following emergency lighting elements can be integrated:

LED emergency lighting insert Highly efficient emergency lighting can be implemented using our latest LED emergency lighting modules. Power ratings of less than 5 watts and spacings between light points of up to 12 metres are redefining the quality of emergency lighting giving better economy.

E14 emergency lampholder Luminaires fitted with the E14 emergency lampholder have an additional terminal block to which the separate power cable for the back-up power supply is connected.

Separated, individual ECG If there is an on-site switchover and a shared supply cable, the mains supply and the emergency supply can be provided via the same lamps. Our electronic control gear units are suitable for both alternating and direct currents (AC/DC). The large

voltage range permits operation

using a central battery.

3-hr individual battery pack
The individual battery pack is
used for circuits that do not
have a central emergency
power supply. The switchover
from mains power to emergency power is made by an integrated monitoring module.
Maintained or non-maintained

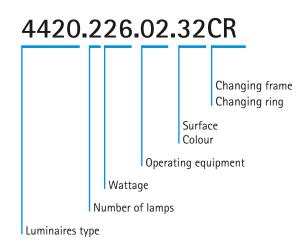
operation is possible.

Key to Article Numbers

The article number is always made up of lamp type / assembly / surface and/or colour.
The colour code and operating equipment code are broken down here to show you how to read the complete article number.

➤ To order the Changing frame or Changing ring, please quote order suffix "CF" or "CR".

More information on... Changing frame system P. 86 Changing ring system P. 138



Colour Key

.-67

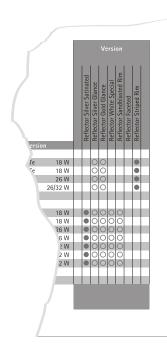
Operating Equipment Order Codes

10	Brass	.00	Without operating equipment
11	Chrome	.01	Low-loss control gear
12	Matt chrome	.02	Electronic control gear
13	Aluminium scotched, zaponized	.03	Dimmable ECG 1-10 volt
14	Anodized aluminium	.04	2 x individual ECG
18	Stainless steel, brushed	.05	2 x dimmable ECG 1-10 volt
20	Made to RAL	.06	Emergency light E14
23	Silver C3	.07	Single battery 1 hour
25	Titanium silver	.08	Single battery 3 hour
26	RAL 9006	.09	Mains-battery switch
27	RAL 9007	.10	Dimmable ECG DALI
30	Matt black	.11	2 x dimmable ECG DALI
31	White		
32	Matt white		

▶ All luminaires are available in custom colour to RAL standard.

Titanium ceiling frame + housing/light trap black





Version

In the table, a solid dot indicates the product's definite properties, whereas a circle indicates that the version concerned can be produced and supplied as a special adaptation which may affect the price.

Standard = Product property = Special version Optional

Mounting Systems:



SYSTEM A

Pendant suspension for recessed housings



Wire rope suspension with rapid connector system



SYSTEM C

Y wire rope suspension with rapid connector system



SYSTEM D

Pendant suspension for ceiling hook



SYSTEM E

Pendant suspension for concrete ceilings



SYSTEM H

Mounting on auxiliary construction



SYSTEM K

Mounting on stud bolts



SYSTEM L

Mounting with angle bracket



SYSTEM M

Mounting with stirrup



Luminaires suitable for mounting on normally inflammable surfaces



Luminaires for connection to an earth conductor



Luminaires for protected low-voltage



Luminaires for connection to 12V



Luminaires for connection to 230V



Minimum distance to flammable materials in metres



Luminaires for halogen coolbeam



Max. wattage of a luminaire and lampholder reference



Required built-in depth



Required height



Required ceiling aperture round



Required ceiling aperture square



Required ceiling aperture



Ring size of the luminaire cover ring



Diameter



Outer diameter



Luminaire dimensions Width, height, depth,



Edge lengths

diameter



A, B, C



Edge lengths A, B, C

0100. 139	No.	Page	No.	Page	No.	Page	No.	Page
0110. 142 0800. 136 1760. 55 4245. 167 0111. 142 0801. 136 1761. 55 4246. 165 0115. 142 0805. 136 1762. 54 4248. 165 0116. 142 0825. 147 1763. 54 4249. 165 0117. 143 0866. 146 1765. 55 4284. 79 0118. 143 0866. 146 1770. 55 4301. 188 0120. 143 0895. 136 1771. 55 4306. 188 0121. 143 0900. 84 1772. 55 4301. 188 0122. 143 0901. 84 1831. 297 4316. 189 0124. 143 0901. 84 1831. 297 4321. 189 0127. 140 1081. 127 <								
0110. 142 0800. 136 1760. 55 4245. 167 0111. 142 0801. 136 1761. 55 4246. 165 0115. 142 0805. 136 1762. 54 4248. 165 0116. 142 0825. 147 1763. 54 4249. 165 0117. 143 0866. 146 1765. 55 4284. 79 0118. 143 0866. 146 1770. 55 4301. 188 0120. 143 0895. 136 1771. 55 4306. 188 0121. 143 0900. 84 1772. 55 4301. 188 0122. 143 0901. 84 1831. 297 4316. 189 0124. 143 0901. 84 1831. 297 4321. 189 0127. 140 1081. 127 <	0100	139	0550	342	1756	51	4244	165
0111. 142 0801. 136 1761. 55 4248. 165 0112. 142 0805. 136 1762. 54 4248. 165 0115. 142 0825. 147 1763. 54 4249. 165 0116. 142 0825. 147 1764. 55 4284. 79 0117. 143 0866. 146 1770. 55 4300. 188 0120. 143 0895. 136 1771. 55 4300. 188 0121. 143 0900. 84 1772. 55 4310. 189 0123. 143 0905. 84 1831. 297 4316. 189 0124. 143 0905. 84 1831. 297 4316. 189 0127. 142 0995. 84 1831. 297 4318. 189 0127. 142 4334. 190 <								
0112. 142 0825. 136 1762. 54 4248. 165 0116. 142 0824. 147 1763. 54 4249. 165 0116. 142 0825. 147 1764. 55 4284. 79 0118. 143 0865. 146 1765. 55 4301. 188 0120. 143 0895. 136 1771. 55 4301. 188 0121. 143 0890. 84 1772. 55 4310. 189 0123. 143 0901. 84 1830. 297 4316. 189 0124. 143 0905. 84 1831. 297 4316. 189 0122. 142 0995. 84 3410. 107 4331. 190 0128. 140 1080. 127 3461. 109 4332. 191 0130. 140 1085. 127								
0115. 142 0824. 147 1763. 54 4249. 165 0116. 142 0825. 147 1764. 55 4280. 79 0118. 143 0866. 146 1770. 55 4284. 79 0118. 143 0866. 146 1770. 55 4301. 188 0120. 143 0895. 136 1771. 55 4310. 188 0121. 143 0900. 84 1830. 297 4316. 189 0123. 143 0901. 84 1831. 297 4316. 189 0127. 142 0995. 84 1831. 297 4316. 189 0122. 142 0995. 84 1831. 107 4331. 190 0123. 140 1080. 127 3460. 109 4332. 191 0133. 140 1091. 125								
0116. 142 0825. 147 1764. 55 4280. 79 0117. 143 0865. 146 1765. 55 4284. 79 0118. 143 0866. 146 1770. 55 4301. 188 0120. 143 0895. 136 1771. 55 4306. 188 0121. 143 0900. 84 1772. 55 4310. 189 0123. 143 0901. 84 1830. 297 4316. 189 0124. 143 0905. 84 1831. 297 4321. 189 0127. 142 0995. 84 3410. 107 4331. 190 0128. 140 1080. 127 3460. 109 4332. 191 0130. 140 1085. 127 3461. 109 4334. 190 0131. 140 1090. 125 3462. 109 4335. 191 0130. 140 1091. 125 3462. 109 4335. 191 0130. 87 1092. 125 4000. 71 4336. 191 0150. 87 1092. 125 4050. 202 4337. 191 0160. 88 1093. 125 4051. 202 4341. 191 0160. 88 1093. 125 4051. 202 4341. 185 0162. 88 1101. 131 4053. 201 4348. 185 0165. 88 1103. 31 4054. 201 4349. 185 0166. 88 1103. 131 4054. 201 4349. 185 0166. 88 1103. 131 4054. 201 4349. 185 0166. 88 1104. 133 4056. 200 4356. 179 0169. 89 1145. 133 4100. 196 4366. 193 0172. 88 1146. 133 4100. 196 4366. 193 0172. 88 1146. 133 4100. 196 4366. 193 0178. 89 1401. 25 4102. 196 4371. 193 0178. 89 1401. 25 4102. 196 4371. 193 0178. 89 1401. 25 4102. 196 4371. 193 0179. 89 1500. 13 4107. 197 4375. 181 0180. 91 1501. 13 4108. 197 4375. 181 0180. 91 1501. 13 4108. 197 4375. 181 0180. 91 1501. 13 4108. 197 4375. 181 0180. 91 1501. 13 4108. 197 4375. 181 0180. 91 1500. 13 4107. 197 4375. 181 0180. 91 1500. 13 4107. 197 4375. 181 0180. 91 1500. 13 4107. 197 4375. 181 0180. 91 1500. 13 4108. 197 4377. 181 0180. 91 1500. 13 4108. 197 4377. 181 0180. 91 1500. 13 4108. 197 4377. 181 0180. 91 1500. 13 4108. 209 4381. 192 0300. 340 1640. 69 4139. 209 4381. 192 0300. 340 1640. 69 4139. 209 4385. 183 0333. 340 1640. 69 4139. 209 4385. 183 0344. 340 1701. 66 4200. 173 4400. 150 0350. 340 1700. 61 4200. 173 4400. 150 0360. 341 1714. 65 4201. 171 4410. 151 0361. 341 1715. 65 4210. 171 4408. 151 0362. 341 1721. 66 4203. 173 4404. 151 0363. 341 1721. 66 4209. 162 0446. 342 1751. 45 4235. 167 4429. 153 0446. 342 1751. 45 4235. 167 4429. 153								
0117. 143 0865. 146 1776. 55 4284. 79 0118. 143 0866. 146 1770. 55 4301. 188 0120. 143 0895. 136 1771. 55 4306. 188 0121. 143 0900. 84 1772. 55 4310. 189 0123. 143 0901. 84 1831. 297 4316. 189 0124. 143 0905. 84 1831. 297 4321. 189 0127. 142 0995. 84 3410. 107 4331. 190 0127. 142 0995. 84 3410. 107 4331. 190 0127. 142 0995. 84 3410. 107 4331. 190 0122. 140 1090. 125 3462. 109 4335. 190 0131. 140 1090. 125								
0118. 143 0866. 146 1770. 55 4301. 188 0120. 143 0895. 136 1771. 55 4306. 188 0121. 143 0900. 84 1772. 55 4310. 189 0123. 143 0901. 84 1830. 297 4316. 189 0124. 143 0905. 84 1831. 297 4321. 189 0127. 142 0995. 84 3410. 107 4331. 190 0128. 140 1080. 127 3460. 109 4334. 190 0131. 140 1090. 125 3462. 109 4335. 190 0132. 140 1091. 125 4050. 202 4331. 190 0132. 140 1091. 125 4050. 202 4334. 191 0150. 87 1092. 125								
0120. 143 0895. 136 1771. 55 4306. 188 0121. 143 0900. 84 1772. 55 4310. 189 0123. 143 0901. 84 1830. 297 4316. 189 0124. 143 0905. 84 1831. 297 4321. 189 0122. 142 0995. 84 3410. 107 4331. 189 0128. 140 1080. 127 3460. 109 4332. 191 0130. 140 1085. 127 3461. 109 4335. 190 0131. 140 1091. 125 4000. 71 4336. 191 0150. 87 1092. 125 4050. 202 4337. 191 0160. 88 1093. 125 4051. 202 4341. 191 0160. 88 1093. 125								
0121. 143 0900. 84 1772. 55 4310. 189 0123. 143 0901. 84 1830. 297 4316. 189 0124. 143 0905. 84 1831. 297 4321. 189 0127. 142 0995. 84 3410. 107 4331. 190 0128. 140 1080. 127 3460. 109 4332. 191 0130. 140 1085. 127 3461. 109 4332. 191 0131. 140 1091. 125 3462. 109 4335. 190 0132. 140 1091. 125 4050. 202 4337. 191 0160. 87 1092. 125 4050. 202 4337. 191 0161. 88 1094. 125 4052. 201 4348. 185 0162. 88 1101. 131	0120.			136	1771.		4306.	
0123. 143 0901. 84 1830. 297 4316. 189 0124. 143 0905. 84 1831. 297 4321. 189 0127. 142 0995. 84 3410. 107 4331. 190 0128. 140 1080. 127 3460. 109 4332. 191 0130. 140 1085. 127 3461. 109 4334. 190 0132. 140 1091. 125 3462. 109 4335. 190 0150. 87 1092. 125 4050. 202 4337. 191 0160. 88 1093. 125 4051. 202 4341. 191 0161. 88 1093. 125 4052. 201 4348. 185 0162. 88 1101. 131 4054. 201 4352. 179 0166. 88 1103. 131		143	0900.		1772.		4310.	
0127. 142 0995. 84 3410. 107 4331. 190 0128. 140 1080. 127 3460. 109 4332. 191 0130. 140 1085. 127 3461. 109 4334. 190 0131. 140 1090. 125 3462. 109 4335. 190 0132. 140 1091. 125 4000. 71 4336. 191 0150. 87 1092. 125 4050. 202 4337. 191 0160. 88 1093. 125 4051. 202 4341. 191 0161. 88 1094. 125 4052. 201 4348. 185 0162. 88 1101. 131 4053. 201 4349. 185 0168. 89 1140. 133 4056. 200 4356. 179 0168. 89 1140. 133		143	0901.		1830.		4316.	189
0128. 140 1080. 127 3460. 109 4332. 191 0130. 140 1085. 127 3461. 109 4334. 190 0131. 140 1090. 125 3462. 109 4335. 190 0132. 140 1091. 125 4000. 71 4336. 191 0150. 87 1092. 125 4050. 202 4337. 191 0160. 88 1093. 125 4051. 202 4341. 191 0161. 88 1094. 125 4052. 201 4348. 185 0162. 88 1103. 131 4054. 201 4352. 179 0168. 88 1103. 131 4054. 201 4354. 179 0168. 89 1140. 133 4056. 200 4354. 179 0168. 89 1140. 133	0124.	143	0905.	84	1831.	297	4321.	189
0130. 140 1085. 127 3461. 109 4334. 190 0131. 140 1090. 125 3462. 109 4336. 190 0132. 140 1091. 125 4000. 71 4336. 191 0150. 87 1092. 125 4050. 202 4337. 191 0160. 88 1093. 125 4051. 202 4341. 191 0161. 88 1094. 125 4052. 201 4348. 185 0162. 88 1101. 131 4054. 201 4352. 179 0166. 88 1105. 132 4055. 200 4354. 179 0168. 89 1140. 133 4066. 200 4356. 179 0169. 89 1145. 133 4101. 196 4366. 193 0172. 88 1146. 133	0127.	142	0995.	84	3410.	107	4331.	190
0131. 140 1090. 125 3462. 109 4335. 190 0132. 140 1091. 125 4000. 71 4336. 191 0150. 87 1092. 125 4050. 202 4337. 191 0160. 88 1093. 125 4051. 202 4341. 191 0161. 88 1094. 125 4052. 201 4348. 185 0162. 88 1101. 131 4053. 201 4349. 185 0166. 88 1103. 131 4054. 201 4352. 179 0168. 89 1140. 133 4055. 200 4356. 179 0169. 89 1145. 133 4100. 196 4362. 193 0175. 90 1400. 25 4102. 196 4371. 193 0178. 89 1500. 13 <	0128.	140	1080.	127	3460.	109	4332.	191
0132. 140 1091. 125 4000. 71 4336. 191 0150. 87 1092. 125 4050. 202 4337. 191 0160. 88 1093. 125 4051. 202 4341. 191 0161. 88 1094. 125 4052. 201 4348. 185 0162. 88 1101. 131 4053. 201 4349. 185 0165. 88 1103. 131 4054. 201 4352. 179 0166. 88 1105. 132 4055. 200 4354. 179 0168. 89 1140. 133 4056. 200 4356. 179 0169. 89 1145. 133 4100. 196 4362. 193 0175. 90 1400. 25 4102. 196 4371. 193 0178. 89 1500. 13 <t< td=""><td>0130.</td><td>140</td><td>1085.</td><td>127</td><td>3461.</td><td>109</td><td>4334.</td><td>190</td></t<>	0130.	140	1085.	127	3461.	109	4334.	190
0150. 87 1092. 125 4050. 202 4337. 191 0160. 88 1093. 125 4051. 202 4341. 191 0161. 88 1094. 125 4052. 201 4348. 185 0162. 88 1101. 131 4053. 201 4349. 185 0165. 88 1103. 131 4054. 201 4352. 179 0166. 88 1105. 132 4055. 200 4354. 179 0168. 89 1140. 133 4056. 200 4356. 179 0169. 89 1146. 133 4100. 196 4362. 193 0172. 88 1146. 133 4101. 196 4371. 193 0175. 90 1400. 25 4102. 196 4371. 193 0178. 89 1501. 13 <t< td=""><td>0131.</td><td>140</td><td>1090.</td><td>125</td><td>3462.</td><td>109</td><td>4335.</td><td>190</td></t<>	0131.	140	1090.	125	3462.	109	4335.	190
0160. 88 1093. 125 4051. 202 4341. 191 0161. 88 1094. 125 4052. 201 4348. 185 0162. 88 1101. 131 4053. 201 4352. 179 0166. 88 1105. 132 4055. 200 4354. 179 0168. 89 1140. 133 4056. 200 4356. 179 0169. 89 1145. 133 4100. 196 4362. 193 0175. 90 1400. 25 4102. 196 4371. 193 0175. 90 1400. 25 4102. 196 4371. 193 0175. 90 1400. 25 4106. 197 4374. 181 0179. 89 1500. 13 4107. 197 4375. 181 0180. 91 1501. 13 4	0132.	140	1091.	125	4000.	71	4336.	191
0161. 88 1094. 125 4052. 201 4348. 185 0162. 88 1101. 131 4053. 201 4349. 185 0165. 88 1103. 131 4054. 201 4352. 179 0166. 88 1105. 132 4055. 200 4354. 179 0168. 89 1140. 133 4056. 200 4356. 179 0169. 89 1145. 133 4100. 196 4362. 193 0172. 88 1146. 133 4101. 196 4371. 193 0175. 90 1400. 25 4102. 196 4371. 193 0178. 89 1401. 25 4106. 197 4374. 181 0179. 89 1500. 13 4107. 197 4375. 181 0180. 91 1501. 13	0150.	87	1092.	125	4050.	202	4337.	191
0162. 88 1101. 131 4053. 201 4349. 185 0165. 88 1103. 131 4054. 201 4352. 179 0166. 88 1105. 132 4055. 200 4354. 179 0168. 89 1140. 133 4056. 200 4356. 179 0169. 89 1145. 133 4100. 196 4362. 193 0172. 88 1146. 133 4101. 196 4371. 193 0175. 90 1400. 25 4102. 196 4371. 193 0178. 89 1401. 25 4106. 197 4374. 181 0179. 89 1500. 13 4107. 197 4375. 181 0180. 91 1501. 13 4108. 197 4378. 181 0182. 39 1503. 15 4	0160.		1093.		4051.	202	4341.	
0165. 88 1103. 131 4054. 201 4352. 179 0166. 88 1105. 132 4055. 200 4354. 179 0168. 89 1140. 133 4056. 200 4356. 179 0169. 89 1145. 133 4100. 196 4362. 193 0172. 88 1146. 133 4101. 196 4366. 193 0175. 90 1400. 25 4102. 196 4371. 193 0178. 89 1401. 25 4106. 197 4374. 181 0179. 89 1500. 13 4107. 197 4375. 181 0180. 91 1501. 13 4108. 197 4378. 181 0189. 89 1502. 15 4109. 197 4380. 192 0300. 340 1506. 13 4	0161.		1094.	125	4052.		4348.	
0166. 88 1105. 132 4055. 200 4354. 179 0168. 89 1140. 133 4056. 200 4356. 179 0169. 89 1145. 133 4100. 196 4362. 193 0172. 88 1146. 133 4101. 196 4366. 193 0175. 90 1400. 25 4102. 196 4371. 193 0178. 89 1401. 25 4106. 197 4374. 181 0179. 89 1500. 13 4107. 197 4375. 181 0180. 91 1501. 13 4108. 197 4378. 181 0180. 91 1501. 13 4108. 197 4378. 181 0180. 91 1506. 13 4120. 207 4380. 192 0190. 91 1506. 13 412	0162.	88	1101.	131	4053.	201	4349.	185
0168. 89 1140. 133 4056. 200 4356. 179 0169. 89 1145. 133 4100. 196 4362. 193 0172. 88 1146. 133 4101. 196 4366. 193 0175. 90 1400. 25 4102. 196 4371. 193 0178. 89 1401. 25 4106. 197 4374. 181 0179. 89 1500. 13 4107. 197 4375. 181 0180. 91 1501. 13 4108. 197 4377. 181 0188. 89 1502. 15 4109. 197 4378. 181 0189. 89 1503. 15 4120. 207 4380. 192 0300. 340 1520. 69 4129. 209 4385. 192 0301. 340 1620. 69 41			1103.	131	4054.			179
0169. 89 1145. 133 4100. 196 4362. 193 0172. 88 1146. 133 4101. 196 4366. 193 0175. 90 1400. 25 4102. 196 4371. 193 0178. 89 1401. 25 4106. 197 4374. 181 0179. 89 1500. 13 4107. 197 4375. 181 0180. 91 1501. 13 4108. 197 4377. 181 0188. 89 1502. 15 4109. 197 4378. 181 0189. 89 1503. 15 4120. 207 4380. 192 0190. 91 1506. 13 4128. 209 4381. 192 0301. 340 1540. 69 4130. 207 4390. 192 0302. 340 1620. 69 413								
0172. 88 1146. 133 4101. 196 4366. 193 0175. 90 1400. 25 4102. 196 4371. 193 0178. 89 1401. 25 4106. 197 4374. 181 0179. 89 1500. 13 4107. 197 4375. 181 0180. 91 1501. 13 4108. 197 4377. 181 0188. 89 1502. 15 4109. 197 4378. 181 0189. 89 1503. 15 4120. 207 4380. 192 0190. 91 1506. 13 4128. 209 4381. 192 0300. 340 1520. 69 4129. 209 4385. 192 0301. 340 1540. 69 4130. 207 4390. 192 0302. 340 1620. 69 413								
0175. 90 1400. 25 4102. 196 4371. 193 0178. 89 1401. 25 4106. 197 4374. 181 0179. 89 1500. 13 4107. 197 4375. 181 0180. 91 1501. 13 4108. 197 4377. 181 0188. 89 1502. 15 4109. 197 4378. 181 0189. 89 1503. 15 4120. 207 4380. 192 0190. 91 1506. 13 4128. 209 4381. 192 0300. 340 1520. 69 4129. 209 4385. 192 0301. 340 1540. 69 4130. 207 4390. 192 0302. 340 1620. 69 4138. 209 4395. 183 0340. 340 1700. 61 415								
0178. 89 1401. 25 4106. 197 4374. 181 0179. 89 1500. 13 4107. 197 4375. 181 0180. 91 1501. 13 4108. 197 4377. 181 0188. 89 1502. 15 4109. 197 4378. 181 0189. 89 1503. 15 4120. 207 4380. 192 0190. 91 1506. 13 4128. 209 4381. 192 0301. 340 1520. 69 4129. 209 4385. 192 0301. 340 1540. 69 4130. 207 4390. 192 0302. 340 1620. 69 4138. 209 4395. 183 0340. 340 1640. 69 4139. 209 4397. 183 0344. 340 1701. 61 45								
0179. 89 1500. 13 4107. 197 4375. 181 0180. 91 1501. 13 4108. 197 4377. 181 0188. 89 1502. 15 4109. 197 4378. 181 0189. 89 1503. 15 4120. 207 4380. 192 0300. 340 1506. 13 4128. 209 4381. 192 0301. 340 1520. 69 4129. 209 4385. 192 0301. 340 1540. 69 4130. 207 4390. 192 0302. 340 1620. 69 4138. 209 4395. 183 0303. 340 1640. 69 4139. 209 4397. 183 0340. 340 1700. 61 4150. 237 4399. 183 0344. 340 1710. 65								
0180. 91 1501. 13 4108. 197 4377. 181 0188. 89 1502. 15 4109. 197 4378. 181 0189. 89 1503. 15 4120. 207 4380. 192 0190. 91 1506. 13 4128. 209 4381. 192 0300. 340 1520. 69 4129. 209 4385. 192 0301. 340 1540. 69 4130. 207 4390. 192 0302. 340 1620. 69 4138. 209 4395. 183 0340. 340 1640. 69 4139. 209 4397. 183 0344. 340 1700. 61 4150. 237 4399. 183 0350. 340 1701. 61 4202. 173 4404. 151 0352. 340 1710. 65								
0188. 89 1502. 15 4109. 197 4378. 181 0189. 89 1503. 15 4120. 207 4380. 192 0190. 91 1506. 13 4128. 209 4381. 192 0300. 340 1520. 69 4129. 209 4385. 192 0301. 340 1540. 69 4130. 207 4390. 192 0302. 340 1620. 69 4138. 209 4395. 183 0303. 340 1640. 69 4139. 209 4397. 183 0340. 340 1700. 61 4150. 237 4399. 183 0344. 340 1701. 61 4202. 173 4400. 150 0350. 340 1710. 65 4203. 173 4404. 151 0362. 341 1714. 65 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>								
0189. 89 1503. 15 4120. 207 4380. 192 0190. 91 1506. 13 4128. 209 4381. 192 0300. 340 1520. 69 4129. 209 4385. 192 0301. 340 1540. 69 4130. 207 4390. 192 0302. 340 1620. 69 4138. 209 4395. 183 0303. 340 1640. 69 4139. 209 4397. 183 0340. 340 1700. 61 4150. 237 4399. 183 0344. 340 1701. 61 4202. 173 4400. 150 0350. 340 1710. 65 4203. 173 4404. 151 0362. 340 1712. 64 4208. 162 4405. 151 0361. 341 1714. 65 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>								
0190. 91 1506. 13 4128. 209 4381. 192 0300. 340 1520. 69 4129. 209 4385. 192 0301. 340 1540. 69 4130. 207 4390. 192 0302. 340 1620. 69 4138. 209 4395. 183 0303. 340 1640. 69 4139. 209 4397. 183 0340. 340 1700. 61 4150. 237 4399. 183 0344. 340 1701. 61 4202. 173 4400. 150 0350. 340 1710. 65 4203. 173 4404. 151 0352. 340 1712. 64 4208. 162 4405. 151 0360. 341 1714. 65 4209. 162 4406. 151 0361. 341 1720. 65 <								
0300. 340 1520. 69 4129. 209 4385. 192 0301. 340 1540. 69 4130. 207 4390. 192 0302. 340 1620. 69 4138. 209 4395. 183 0303. 340 1640. 69 4139. 209 4397. 183 0340. 340 1700. 61 4150. 237 4399. 183 0344. 340 1701. 61 4202. 173 4400. 150 0350. 340 1710. 65 4203. 173 4404. 151 0352. 340 1712. 64 4208. 162 4405. 151 0360. 341 1714. 65 4209. 162 4406. 151 0361. 341 1720. 65 4210. 171 4408. 151 0363. 341 1720. 65								
0301. 340 1540. 69 4130. 207 4390. 192 0302. 340 1620. 69 4138. 209 4395. 183 0303. 340 1640. 69 4139. 209 4397. 183 0340. 340 1700. 61 4150. 237 4399. 183 0344. 340 1701. 61 4202. 173 4400. 150 0350. 340 1710. 65 4203. 173 4404. 151 0352. 340 1712. 64 4208. 162 4405. 151 0360. 341 1714. 65 4209. 162 4406. 151 0361. 341 1715. 65 4210. 171 4408. 151 0362. 341 1720. 65 4211. 171 4410. 151 0363. 341 1721. 65								
0302. 340 1620. 69 4138. 209 4395. 183 0303. 340 1640. 69 4139. 209 4397. 183 0340. 340 1700. 61 4150. 237 4399. 183 0344. 340 1701. 61 4202. 173 4400. 150 0350. 340 1710. 65 4203. 173 4404. 151 0352. 340 1712. 64 4208. 162 4405. 151 0360. 341 1714. 65 4209. 162 4406. 151 0361. 341 1715. 65 4210. 171 4408. 151 0362. 341 1720. 65 4211. 171 4410. 151 0363. 341 1721. 65 4212. 169 4420. 152 0364. 341 1722. 65								
0303. 340 1640. 69 4139. 209 4397. 183 0340. 340 1700. 61 4150. 237 4399. 183 0344. 340 1701. 61 4202. 173 4400. 150 0350. 340 1710. 65 4203. 173 4404. 151 0352. 340 1712. 64 4208. 162 4405. 151 0360. 341 1714. 65 4209. 162 4406. 151 0361. 341 1715. 65 4210. 171 4408. 151 0362. 341 1720. 65 4211. 171 4410. 151 0363. 341 1721. 65 4212. 169 4420. 152 0364. 341 1722. 65 4232. 167 4427. 153 0440. 342 1750. 45 4234. 167 4428. 153 0445. 342 1753.								
0340. 340 1700. 61 4150. 237 4399. 183 0344. 340 1701. 61 4202. 173 4400. 150 0350. 340 1710. 65 4203. 173 4404. 151 0352. 340 1712. 64 4208. 162 4405. 151 0360. 341 1714. 65 4209. 162 4406. 151 0361. 341 1715. 65 4210. 171 4408. 151 0362. 341 1720. 65 4211. 171 4410. 151 0363. 341 1721. 65 4212. 169 4420. 152 0364. 341 1722. 65 4232. 167 4427. 153 0440. 342 1750. 45 4234. 167 4428. 153 0446. 342 1753. 51								
0344. 340 1701. 61 4202. 173 4400. 150 0350. 340 1710. 65 4203. 173 4404. 151 0352. 340 1712. 64 4208. 162 4405. 151 0360. 341 1714. 65 4209. 162 4406. 151 0361. 341 1715. 65 4210. 171 4408. 151 0362. 341 1720. 65 4211. 171 4410. 151 0363. 341 1721. 65 4212. 169 4420. 152 0364. 341 1722. 65 4232. 167 4427. 153 0400. 342 1750. 45 4234. 167 4428. 153 0445. 342 1751. 45 4235. 167 4429. 153 0446. 342 1753. 51								
0350. 340 1710. 65 4203. 173 4404. 151 0352. 340 1712. 64 4208. 162 4405. 151 0360. 341 1714. 65 4209. 162 4406. 151 0361. 341 1715. 65 4210. 171 4408. 151 0362. 341 1720. 65 4211. 171 4410. 151 0363. 341 1721. 65 4212. 169 4420. 152 0364. 341 1722. 65 4232. 167 4427. 153 0400. 342 1750. 45 4234. 167 4428. 153 0445. 342 1751. 45 4235. 167 4429. 153 0446. 342 1753. 51 4238. 167 4430. 154 0450. 342 1754. 51								
0352. 340 1712. 64 4208. 162 4405. 151 0360. 341 1714. 65 4209. 162 4406. 151 0361. 341 1715. 65 4210. 171 4408. 151 0362. 341 1720. 65 4211. 171 4410. 151 0363. 341 1721. 65 4212. 169 4420. 152 0364. 341 1722. 65 4232. 167 4427. 153 0400. 342 1750. 45 4234. 167 4428. 153 0445. 342 1751. 45 4235. 167 4429. 153 0446. 342 1753. 51 4238. 167 4430. 154 0450. 342 1754. 51 4240. 163 4431. 154								
0360. 341 1714. 65 4209. 162 4406. 151 0361. 341 1715. 65 4210. 171 4408. 151 0362. 341 1720. 65 4211. 171 4410. 151 0363. 341 1721. 65 4212. 169 4420. 152 0364. 341 1722. 65 4232. 167 4427. 153 0400. 342 1750. 45 4234. 167 4428. 153 0445. 342 1751. 45 4235. 167 4429. 153 0446. 342 1753. 51 4238. 167 4430. 154 0450. 342 1754. 51 4240. 163 4431. 154								
0361. 341 1715. 65 4210. 171 4408. 151 0362. 341 1720. 65 4211. 171 4410. 151 0363. 341 1721. 65 4212. 169 4420. 152 0364. 341 1722. 65 4232. 167 4427. 153 0400. 342 1750. 45 4234. 167 4428. 153 0445. 342 1751. 45 4235. 167 4430. 154 0450. 342 1754. 51 4240. 163 4431. 154								
0362. 341 1720. 65 4211. 171 4410. 151 0363. 341 1721. 65 4212. 169 4420. 152 0364. 341 1722. 65 4232. 167 4427. 153 0400. 342 1750. 45 4234. 167 4428. 153 0445. 342 1751. 45 4235. 167 4430. 154 0450. 342 1754. 51 4240. 163 4431. 154								
0363. 341 1721. 65 4212. 169 4420. 152 0364. 341 1722. 65 4232. 167 4427. 153 0400. 342 1750. 45 4234. 167 4428. 153 0445. 342 1751. 45 4235. 167 4429. 153 0446. 342 1753. 51 4238. 167 4430. 154 0450. 342 1754. 51 4240. 163 4431. 154								
0364. 341 1722. 65 4232. 167 4427. 153 0400. 342 1750. 45 4234. 167 4428. 153 0445. 342 1751. 45 4235. 167 4429. 153 0446. 342 1753. 51 4238. 167 4430. 154 0450. 342 1754. 51 4240. 163 4431. 154								
0400. 342 1750. 45 4234. 167 4428. 153 0445. 342 1751. 45 4235. 167 4429. 153 0446. 342 1753. 51 4238. 167 4430. 154 0450. 342 1754. 51 4240. 163 4431. 154								
0445. 342 1751. 45 4235. 167 4429. 153 0446. 342 1753. 51 4238. 167 4430. 154 0450. 342 1754. 51 4240. 163 4431. 154								
0446. 342 1753. 51 4238. 167 4430. 154 0450. 342 1754. 51 4240. 163 4431. 154								
0450. 342 1754. 51 4240. 163 4431. 154		342	1753.	51	4238.	167	4430.	
	0450.	342		51		163	4431.	
	0500.	342	1755.	51	4242.	163	4441.	155



No.	Page	No.	Page	No.	Page	No.	Page
4442.	155	5100.	217	5980.	235	9016.	257
4443.	155	5101.	219	5981.	235	9033.	259
4500.	157	5103.	219	6200.	127	9035.	259
4501.	157	5106.	219	6201.	127	9100.	329
4502.	157	5108.	219	8100.	255	9101.	329
4505.	158	5109.	217	8110.	255	9102.	329
4506.	158	5110.	217	8120.	241	9103.	329
4510.	158	5115.	221	8121.	241	9107.	329
4511.	158	5116.	221	8122.	241	9350.	307
4514.	158	5120.	213	8123.	241	9351.	307
4515.	159	5125.	213	8124.	241	9352.	307
4516.	159	5126.	213	8125.	241	9355.	306
4519.	159	5127.	215	8135.	243	9524.	271
4520.	159	5128.	215	8136.	243	9525.	271
4521.	159	5130.	223	8139.	242	9528.	279
4550. 4555.	176 176	5131. 5140.	223	8140. 9141	249	9529.	279
4555. 4570.	176 177	5140.	225 225	8141. 8145.	249 245	9530. 9531.	273
4575.	177	5175.	211	8146.	245	9531.	275 273
4575. 4580.	177	5173.	211	8149.	247	9533.	275
4585.	177	5181.	211	8441.	301	9534.	276
4600.	141	5211.	103	8443.	301	9535.	277
4610.	144	5211.	103	8445.	302	9538.	277
4612.	141	5295.	101	8446.	303	9540.	263
4615.	144	5296.	101	8448.	303	9541.	263
4618.	144	5298.	101	8449.	303	9542.	263
4620.	141	5340.	94	8780	251	9543.	263
4650.	147	5341.	94	8790.	253	9544.	263
4660.	146	5344.	95	8791.	253	9545.	263
4665.	146	5345.	95	8810.	339	9560.	293
4670.	146	5346.	95	8811.	339	9561.	289
4675.	145	5347.	95	8833.	332	9562.	291
4680.	141	5360.	97	8834.	332	9563.	289
4690.	145	5361.	97	8835.	332	9564.	294
4691.	145	5363.	99	8836.	333	9565.	295
4960.	77	5365.	97	8837.	333	9608.	121
4970.	77	5366.	97	8838.	333	9610.	121
4975.	77	5390.	81	8840.	335	9612.	123
4980.	113	5395.	81	8842.	335	9613.	123
4981.	113	5560.	227	8843.	335	9614.	123
4982.	113	5570.	227	8890.	337	9620.	119
4985.	115	5572.	227	8891.	337	9700.	319
4986.	115	5940.	231	8900.	311	9710.	319
4991.	117	5941.	231	8901.	311		
4992.	117	5942	231	8905.	310		
4993.	117 117	5950.	233	8920.	313		
4994. 4995.	117 117	5951. 5952.	233 233	8950. 8951.	317 317		
4995. 4996.	117	5952. 5953.	233	8952.	317		
4997.	117	5970.	235	8955.	316		
4998.	117	5971.	235	9015.	257		
.000.		507 11		20.0.			

Verkaufs- und Lieferbedingungen.

Note:

You agree to be bound by our Terms and Conditions. The original German version, an English version of which attached, is binding.

I.) Allgemeine Bestimmungen

- 1. Unsere sämtlichen auch zukünftigen Lieferungen und Leistungen einschließlich Nebenleistungen, wie Beratungen und Planungsleistungen vor und nach Abschluss, erfolgen ausschließlich aufgrund der nachstehenden Bedingungen, auch bei allen Angleichungsgeschäften. Für zukünftige Geschäftsbeziehungen gelten diese AGB auch dann, wenn nicht noch einmal ausdrücklich auf sie hingewiesen wurde.
- 2. Den Allgemeinen Geschäftsbedingungen (auch Einkaufsbedingungen) des Bestellers wird hiermit ausdrücklich widersprochen. Sie verpflichten uns auch dann nicht, wenn wir nicht noch einmal bei Vertragsabschluss widersprechen.
- 3. Maßgebend für den Abschluss eines Kaufvertrages und den Umfang der sich daraus ergebenden Lieferverpflichtungen ist die Abgabe dementsprechender schriftlicher Willenserklärungen beider Vertragsparteien. Bei Nichtvorliegen solcher schriftlicher Willenserklärungen ist allein die schriftliche Auftragsbestätigung des Lieferers rechtsverbindlich. Dabei einhergehend gelten die nachstehend aufgeführten Verkaufs- und Lieferbedingungen als vereinbart.

II.) Abschluss

- 1. Schriftliche, mündliche und fernmündliche Angebote sind unverbindlich und freibleibend. Die Abgabe von Angeboten verpflichtet den Lieferer nicht zur Auftragsannahme.
- 2. Die vom Lieferer gemachten Angaben über Abmessungen und Gewichte, ebenso wie die Abbildungen, Zeichnungen, Maß- und Gewichtsangaben o.ä. in vom Lieferer herausgegebenen Unterlagen und Beschreibungen beinhalten nur Näherungswerte und sind daher unverbindlich. Die zum Angebot gehörenden Unterlagen stellen keine Zusicherung von Eigenschaften dar, sie dienen nur der Orientierung des Bestellers.
- 3. Die Zusicherung bestimmter Eigenschaften und/oder der Eignung der Ware zu einem bestimmten Verwendungszweck ist nur verbindlich, wenn dies schriftlich ausdrücklich als Zusicherung erfolgt.

III.) Preis

- Die angegebenen Preise gelten ab Werk, einschließlich handelsüblicher Verpackung. Änderungen in Bezug auf Versand und Verpackung der Ware bedingen eine ergänzende Vereinbarung.
- 2. Alle Preise verstehen sich grundsätzlich zuzüglich der am Tage der Lieferung geltenden gesetzlichen Mehrwertsteuer. Diese wird nach den jeweils geltenden Sätzen in den Rechnungen zusätzlich berücksichtigt und gesondert ausgewiesen. Alle sonstigen Steuern, Zölle, Abgaben und dergleichen gehen zulasten des Bestellers.
- 3. Die für Sonderleuchten bzw. Sonderkonstruktionen gemachten Preise gelten bis zur endgültigen Festsetzung in der Auftragsbestätigung des Lieferers als Näherungswert. Als Sonderleuchte wird die konstruktive Modifizierung bestehender Leuchtentypen und die Anfertigung nach eigenen und/oder nach Zeichnungen des Kunden verstanden. Ersatzteile und Ersatzfarben zu Sonderleuchten sind vom Besteller separat zu bestellen und werden durch den Lieferer berechnet.
- 4. Soweit keine gegenteiligen Vereinbarungen getroffen sind werden Muster nur gegen Berechnung gemäß Preisliste geliefert. Muster sind vom Umtausch/Rückgabe ausgeschlossen. Muster- und Sonderleuchten werden nach Aufwand kalkuliert und berechnet.

IV.) Eigentumsvorbehalt

- 1. Bis zur vollständigen Bezahlung aller aus der Geschäftsverbindung herrührenden Forderungen bleibt die gelieferte Ware, auch nach Veräußerung durch den Besteller, Eigentum des Lieferers. Der Eigentumsvorbehalt des Lieferers erstreckt sich auch auf bereits eingebaute und/oder weiterveräußerte Erzeugnisse.
- 2. Die Forderung aus dem Wiederverkauf der Ware durch den Besteller wird automatisch mit ihrer Entstehung an den Lieferer abgetreten. Er nimmt diese Abtretung ausdrücklich an.
- 3. Bei Einbau von Waren des Lieferers gilt der Wertanteil für die Ware des Lieferers an der Gesamtforderung aus dem Verkauf des Produktes/Projektes durch den Besteller mit Ihrer Entstehung als an den Lieferer abgetreten. Das Anteilige Eigentum am Erlös der wiederverkauften Ware geht mit Zahlung an den Besteller auf den Lieferer über. Unbezahlte Waren des Lieferers dürfen weder verpfändet noch sicherungsübereignet werden. Sämtliche Forderungen aus der Geschäftsbeziehung werden sofort fällig bei Zahlungseinstellung und/oder Nachsuchen eines Vergleichs oder Moratoriums seitens des Bestellers.

V.) Zahlung

- 1. Die Rechnungen des Lieferers sind spätesten 14 Tage nach Rechnungsdatum ohne jeden Abzug zahlbar. Teillieferungen werden einzeln berechnet. Bei Zahlungen innerhalb von 8 Tagen ab Rechnungsdatum gewährt der Lieferer 2 % Skonto. Als Zahlungstag gilt der Tag, an dem das Geld für den Lieferer verfügbar ist. Soweit noch Forderungen aufgrund von älteren Rechnungen fällig sind ist ein Skontoabzug unzulässig.
- 2. Zahlungsverzug des Bestellers tritt ohne weiteres auch ohne Mahnung, in jedem Falle nach Ablauf von 14 Tagen nach Rechnungsdatum, ein. Bei Zahlungsverzug werden Verzugszinsen in Höhe des banküblichen Zinssatzes für Kontokorrentkredite berechnet. Bei Zahlungsverzug des Bestellers kann der Lieferer sofortige Zahlung auch aller später fällig werdenden Forderungen ohne Rücksicht auf entgegenstehende Vereinbarungen verlangen.
- 3. Die Aufrechnung und/oder Zurückhaltung von Zahlungen wegen irgendwelcher vom Lieferer nicht anerkannter Gegenansprüche des Bestellers sind nicht statthaft
- 4. Unabhängig von im Einzelfall gesondert vereinbarten Zahlungsvereinbarungen werden dem Lieferer zustehende Forderungen sofort fällig, wenn in der Person des Bestellers Umstände eintreten, die ein Festhalten an getroffenen Zahlungsvereinbarungen nicht mehr zumutbar machen. Dieses ist der Fall bei begründeten Anzeichen für eine wesentliche Verschlechterung der Vermögenslage des Bestellers, insbesondere bei Einstellung der Zahlungen, Scheck- oder Wechselprotesten oder Zahlungsverzug, wenn dadurch erkennbar wird, dass der Anspruch des Lieferers auf die Gegenleistung durch mangelnde Leistungsfähigkeit des Bestellers gefährdet wird. In diesen Fällen ist der Lieferer darüber hinaus berechtigt, Erfüllung Zug um Zug oder die Bestellung weiterer Sicherheiten zu verlangen.

VI.) Lieferung

1. Die Einhaltung von Fristen für Lieferungen setzt den rechtzeitigen Eingang sämtlicher vom Besteller zu liefernden Spezifikationen, Unterlagen, erforderlichen Genehmigungen und Freigaben, insbesondere von Plänen und Zeichnungen, sowie die Einhaltung der vereinbarten Zahlungsbedingungen und sonstigen Verpflichtungen durch den Besteller voraus. Werden die



Voraussetzungen nicht rechtzeitig erfüllt, so verlängern sich die Lieferfristen angemessen, soweit eine Verzögerung nicht von dem Lieferer zu vertreten ist. Fixgeschäfte bedürfen der ausdrücklichen schriftlichen Bestätigung eines Bevollmächtigten.

- 2. Die vom Lieferer genannten Liefertermine sind annähernd und stehen unter dem Vorbehalt der rechtzeitigen und ordnungsgemäßen Belieferung durch seine Vorlieferanten. Der Lieferer haftet für die Einhaltung von Lieferfristen nur bei ausdrücklicher Übernahme einer Gewähr. Werden diese Verpflichtungen nicht rechtzeitig erfüllt, wird die Lieferfrist angemessen verlängert ohne eine Verpflichtung des Lieferers zu Schadenersatz.
- 3. Die Transportgefahr geht auf den Besteller über, auch wenn frachtfreie Lieferung vereinbart wurde, wenn die Ware die Fertigungsstätte des Lieferers verlassen hat. Auf Wunsch und Kosten des Bestellers kann die Ware vom Lieferer gegen Verlust der Sendung, Bruch-, Transport- und Feuerschäden versichert werden.

VII.) Entgegennahme und Erfüllung

- 1. Gelieferte Erzeugnisse sind, auch wenn sie unwesentliche, die Funktion des Erzeugnisses nicht hemmende Anstände aufweisen, vom Besteller entgegenzunehmen.
- 2. Teillieferungen sind zulässig.
- **3.** Die dem Besteller gemeldete Versandbereitschaft der Ware gilt als Erfüllung des Liefervertrages.

VIII.) Gewährleistung und Haftung

- 1. Der Besteller hat jede Lieferung sofort nach Empfang sorgfältig und vollständig zu prüfen. Bei der Prüfung erkennbare Mängel und Fehlbestände müssen innerhalb von 8 Tagen schriftlich gerügt werden. Zeigt sich später ein nicht sofort erkennbarer Mangel, so hat der Besteller den Lieferer davon unverzüglich schriftlich zu unterrichten.
- 2. Die Gewährleistung erstreckt sich über 12 Monate ab Gefahrenübergang auf zugesicherte Eigenschaften und die Fehlerfreiheit der Ware hinsichtlich Material und Verarbeitung entsprechend dem jeweiligen Stand der Technik. Für gelieferte Leuchtmittel gelten ausschließlich die Garantieleistungen des jeweiligen Leuchtmittelherstellers. Gelieferte Leuchtmittel sind von Rücknahme und Umtausch ausgeschlossen.
- 3. Eine Gewährleistungspflicht besteht nur, wenn ein Mangel trotz ordnungsgemäßer und in Übereinstimmung mit etwaigen Betriebsanleitungen durchgeführter Montage, Inbetriebsetzung, Pflege, Wartung und normaler Beanspruchung eingetreten ist und nicht auf dem natürlichen Verschleiß oder der Korrosion einzelner Teile oder unsachgemäßen Reparaturen und Umbauten beruht. Eine Gewährleistungspflicht wird nicht ausgelöst durch unwesentliche Abweichungen in Farbe, Abmessungen und/oder anderen Qualitätsmerkmalen.
- 4. Begründete und ordnungsgemäß gerügte Mängel verpflichten den Lieferer, nach seiner Wahl entweder diese zu beseitigen oder das fehlerhafte Teil innerhalb einer angemessenen Lieferzeit umzutauschen. Montagekosten werden durch den Lieferer nicht übernommen.
- 5. Ein Recht den Vertrag rückgängig zu machen oder den Preis zu mindern hat der Besteller nur dann, wenn der Lieferer entweder die Mängelbeseitigung und den Umtausch ablehnt oder sich auf die begründete Beanstandung innerhalb einer angemessenen Frist von mindestens 4 Wochen nicht äußert. Der Vertrag kann nur dann rückgängig gemacht werden, wenn dem Besteller

die Übernahme der Ware zu einem geminderten Preis billigender Weise nicht zugemutet werden kann.

6. Schadensersatzansprüche, gleichgültig auf welcher Rechtsgrundlage gestützt, bestehen nur in den Fällen der §§ 11, Nr. 7 AGBG (grob fahrlässige Vertragsverletzung), 11, Nr. 8(b) AGBG (Verzug und Unmöglichkeit, soweit von uns grob fahrlässig verschuldet), 11, Nr. 9 AGBG (Interessewegfall des Bestellers bei Teilverzug und Teilunmöglichkeit, jedoch auch nur hier, soweit diese vom Lieferer grob fahrlässig verschuldet sind) und bei grob fahrlässig falsch zugesicherten Eigenschaften. Darüber hinaus besteht auch in diesen Fällen Anspruch auf Ersatz des so genannten mittelbaren bzw. Mangelfolgeschadens nur, soweit dieser bei Vertragsschluss vom Lieferer vorhersehbar bzw. bei der Zusicherung ins Auge gefasst war.

IX.) Erfüllungsort und Gerichtsstand

- 1. Erfüllungsort ist für alle Lieferungen und Zahlungen einschließlich Rücklieferungen Dortmund.
- 2. Alleiniger Gerichtsstand ist bei allen aus dem Vertragsverhältnis mittelbar oder unmittelbar sich ergebenden Streitigkeiten der Sitz des Lieferers.
- 3. Für die Rechtsbeziehung im Zusammenhang mit diesem Vertrag gilt deutsches materielles Recht unter Ausschluss des Übereinkommens der Vereinten Nationen über Verträge über den internationalen Warenkauf.

X.) Sonstiges

- 1. An Kostenvoranschlägen, Zeichnungen und anderen Unterlagen (im Folgenden "Unterlagen") behält sich der Lieferer seine eigentums- und urheberrechtlichen Verwertungsrechte uneingeschränkt vor. Die Unterlagen dürfen nur nach vorheriger Zustimmung des Lieferers Dritten zugänglich gemacht werden und sind, wenn der Auftrag dem Lieferer nicht erteilt wird, diesem auf Verlangen unverzüglich zurückzugeben. Die Sätze 1 und 2 gelten entsprechend für Unterlagen des Bestellers; diese dürfen jedoch solchen Dritten zugänglich gemacht werden, denen der Lieferer zulässigerweise die Lieferungen übertragen hat.
- 2. Sollte eine Bestimmung in diesen Geschäftsbedingungen oder eine Bestimmung im Rahmen sonstiger Vereinbarungen unwirksam sein oder werden, so wird hiervon die Wirksamkeit aller sonstigen Bestimmungen oder Vereinbarungen nicht berührt.

Seeger

Technische Leuchten e.K. Stand November 2006

Terms and Conditions

Note:

You agree to be bound by our Terms and Conditions. The original German version, an English version of which attached, is binding.

I.) General Terms and Conditions

- 1. All of our existing and future shipments and services, including secondary services such as consultancy and planning services prior to and after delivery, are based exclusively on these Terms and Conditions. The same shall apply to any adjustment services. These Terms and Conditions shall also apply to future business dealings irrespective of whether they are expressly mentioned or not.
- 2. The Buyer's Terms and Conditions (also known as Conditions for Purchasing) are herewith expressly excluded. They are equally not binding even where we do not exclude them at the time of entering into a contract.
- 3. The conclusion of a purchase contract and the dimensions of the delivery obligations arising out of such a contract are governed by a corresponding declaration of intent by both contracting parties. Where such a declaration of intent is not available, a written order confirmation from the supplier shall be exclusively binding whereby the following Terms and Conditions shall be deemed agreed.

II.) Contractual Agreement

- 1. Written and oral offers and offers made by telephone are unbinding and subject to confirmation. Offers made do not oblige the supplier to accept an order.
- 2. Statements made by the supplier with regard to measurement and weight, as well as graphic representations, drawing and details of dimension and weight or similar provided by the supplier in documentation or descriptions are only approximate values and are therefore not binding. The documentation comprising the offer does not represent a guarantee of the product's properties but serves purely as orientation for the buyer.
- 3. A guarantee with regard to specific properties and/or the suitability of a product for a particular use shall only be binding where this is expressly stated as such in writing.

III.) Price

- 1. The stated prices are ex works, including standard packaging. Changes with regard to despatch and packaging of goods require a separate agreement.
- 2. All prices include VAT at the rate applicable at the time of delivery. VAT will be added on to invoices at the applicable rate and will be shown separately. All other taxes, customs duty, charges or similar shall be borne by the buyer.
- 3. Until an order is confirmed by the supplier, prices quoted for special lamps or special constructions shall be regarded as approximate prices. A "special lamp" shall be defined as the constructional modification of an existing lamp type and the making of same according to in-house drawings or those of the buyer. Spare parts and spare colours for special lamps must be ordered separately by the buyer and will be invoiced by the supplier.
- 4. Unless otherwise agreed samples will only be delivered on the basis of an invoice with the value calculated in line with the price list. Samples may not be exchanged or returned. The cost of sample special lamps shall be calculated on the basis of time and effort expended and invoiced accordingly.

IV.) Retention of Title

1. Until payment has been received in full, the supplied goods shall, even after sale, remain the property of the supplier. The supplier's right to retention of title extends to products which have already been installed or have been sold on

- 2. Any right to payment arising out of the resale of the goods by the buyer shall be ceded to the supplier who expressly accepts this assignment.
- 3. Where goods of the supplier have already been installed, the value of the supplier's goods resulting from the sale of the product/project by the buyer shall be ceded by the buyer to the supplier at the moment such sale takes place. Proportional title to the proceeds of the re-sold goods shall be transferred to the supplier when the buyer receives payment. Unpaid goods from the supplier may be neither pledged nor assigned by way of collateral. All demands arising out of the commercial relationship shall be immediately due and payable at the moment payment ceases and/or if the buyer should seek for settlement in bankruptcy or a moratorium.

V.) Payment

- 1. The supplier's invoices are to be paid in full 14 days after the date shown on the invoice at latest. Part deliveries shall be invoiced separately. Where payment is received within 8 days from the date shown on the invoice, the supplier shall grant a cash discount of 2%. The date of payment shall be the date on which the money is available to the supplier. Where outstanding payments are owed from previous invoices, cash discounts shall not be given.
- 2. The buyer shall be deemed in each and every case, and without any reminder being necessary, to be in arrears when 14 days have elapsed from the date of the invoice. In the event of arrears, interest at the usual bank rates for overdrafts shall be charged. In the event of the buyer being in arrears, the supplier may immediately demand settlement, including settlement of all invoices which would normally be due and payable at a later date, any other agreements notwithstanding.
- 3. Payment may not be withheld or offset by the buyer against any counter claims he may make which have not been acknowledged by the supplier.
- 4. Irrespective of any individually agreed conditions of payment, the supplier shall be entitled to demand immediate settlement should the buyer find himself in circumstances which make it unlikely that he will meet the agreed conditions of payment. This shall apply where there are well-founded indications of a significant worsening of the buyer's financial position, in particular in the event of suspended payments, cheque or draft refusals or arrears, where it is clear from these that the supplier's claim to payment is endangered by the buyer's insufficient ability to pay. In these instances the supplier is further entitled to demand payment in instalments or to demand further security.

VI.) Delivery

- 1. The observance of delivery deadlines presupposes the punctual receipt of all specifications, documentation, licences and releases, in particular of plans and drawings, from the buyer as well as the buyer's observance of agreed conditions of payment and any other obligations. Where these obligations are not met punctually, any delivery deadlines shall be extended accordingly, unless the supplier cannot answer for any delay. Transactions with fixed delivery dates require express written confirmation from an authorised person.
- 2. The delivery dates stated by the supplier are approximate and depend on the receipt of punctual and orderly delivery by his own suppliers. The supplier shall be liable for the observance of a delivery deadline only where he has expressly given such an undertaking. Where these obligations are not punctually met, the delivery deadline shall be extended accordingly without making the supplier liable to pay compensation.



3. The transport risk shall be borne by the buyer, even where carriage free delivery has been agreed, once the goods have left the supplier's place of production. At the request of the buyer and at his expense, the goods may be insured by the supplier against loss caused by despatch, breakage, transport or fire.

VII.) Receipt and Fulfilment

- 1. Delivered goods must be accepted by the buyer even where they show minor defects such as do not interfere with the functioning of the product.
- 2. Part deliveries may be made.
- 3. The supplier's stated willingness to deliver the goods shall suffice as fulfilment of the delivery conditions.

VIII.) Guarantee and Liability

- 1. Immediately on receipt of any delivery, the buyer shall inspect the shipment thoroughly and fully. Defects or malfunctions noted on inspection must be reported in writing within 8 days. Where a defect which was not visible immediately becomes apparent later, the buyer must notify the supplier of this without delay in writing.
- 2. The guarantee is for 12 months from the transfer of risk and applies to guaranteed properties and the flawlessness of the goods with regard to material and processing, in accordance with the latest state of technology. The only guarantee for any illuminants delivered shall be the guarantee of the respective illuminant manufacturer. Illuminants may not be exchanged or replaced.
- 3. The guarantee only applies if a defect appears despite proper and correct installation, operation, care, maintenance and normal use in keeping with any existing operation instructions and where the defect is not due to natural wear and tear, the corrosion of individual parts, improper repairs or alterations. The guarantee shall not apply in the event of minor discrepancies with regard to colour, dimensions and/or other external properties.
- 4. Where justified and properly reported complaints have been made, the supplier undertakes to either remove the defect or to exchange the faulty part within a suitable period of time, whichsoever he deems fit. The supplier shall not bear the cost of installation.
- 5. The buyer does not have the right to cancel the contract or to reduce the agreed price unless the supplier refuses to remove the defect or replace the goods or has not responded to a justified complaint within a suitable period of at least 4 weeks. The contract may only be cancelled if the buyer cannot be expected to accept the goods at a reduced price.
- 6. Claims, irrespective of their legal basis, will be entertained only in the case of §§11, No. 7 AGBG (gross negligence), 11, No. 8(b) AGBG (default and impracticality, caused by our gross negligence), 11, No. 9 AGBG (buyer's loss of interest in the event of partial default and partial impracticality, but only where these are caused by the gross negligence of the supplier) and for grossly negligent claims with regard to the properties of the products. Moreover claims will be entertained which relate to so-called direct and/or consequential loss, where this was foreseeable by the supplier at the time the contract was concluded and he was aware of such at the time of giving any undertakings.

IX.) Place of Delivery and Jurisdiction

- 1. The place of delivery for all deliveries and payments including return deliveries shall be Dortmund.
- 2. The sole jurisdiction for all disputes arising directly or indirectly out of the contract shall be the place in which the supplier has his head office.
- 3. German law shall apply in relation to this contract, to the exclusion of the UN Convention on Contracts for the International Sale of Goods.

X.) Miscellaneous

- 1. The supplier reserves his right to use quotations, drawings and other documentation (hereinafter referred to as "documentation") as the owner and originator thereof. This documentation may only be transmitted to third parties with the prior approval of the supplier and, if no order is placed with the supplier, must be returned on demand without delay. Sentences 1 and 2 apply equally to the buyer's documentation: this may however be made available to third parties whom the supplier has rightfully commissioned to carry out deliveries.
- 2. Where one of the provisions of these Terms and Conditions or a provision in some other agreement is or shall become invalid, this does not affect the validity of the remaining provisions or agreements.

Seeger

Technische Leuchten e.K. Edition: November 2006

Contact

Address

Management:

SEEGER

Technische Leuchten e. K. Schwerter Straße 324 44287 Dortmund Germany

Works:

SEEGER

Technische Leuchten e. K. Ringofenstraße 43 44287 Dortmund Germany

Phone/Fax

Management:

Phone: +49 231 487040 Fax: +49 231 485603

Sales office:

Phone: +49 231 441092 Fax: +49 231 441076

Internet

www.seeger-licht.de

eMail

info@seeger-licht.de

vertrieb@seeger-licht.de export@seeger-licht.de projekte@seeger-licht.de konstruktion@seeger-licht.de



General Information

All previous catalogues and the statements made therein are null and void with the publication of this issue. We reserve the right to make technical and formal changes to the listed products. The catalogue may contain errors. The lighting data, technical specifications and dimensions and the representational images and drawings shown in this catalogue are unbinding. All stated measurements are approximate and, unless otherwise stated, are given in millimetres. Unless otherwise stated, illuminants do not form part of the shipment. All brand names are the property of their rightful owners and serve only for descriptive purposes.

SEEGER

Technische Leuchten e. K. Schwerter Straße 324 44287 Dortmund Germany

Phone: +49 231 441092 Fax: +49 231 441076 eMail: info@seeger-licht.de http:// www.seeger-licht.de