

LEDs form the basis for lighting solutions of the future and the number of their possible applications is constantly increasing. Gone are the days when they were solely suited for scenically illuminating building facades, bridges or memorials: LEDs are now the tool for modern lighting in both indoor and outdoor areas.

LEDs can be controlled with precision and ease. Combining LED lighting installations with intelligent lighting controls allows the creation of very different lighting moods that can change to suit the weather, the season or the time of day. And the energy consumption is just a fraction of that of conventional lighting technologies. But this is not the only area where these innovative, LED-based lighting systems make good sense economically and ecologically. With their improved lighting quality, they establish very good visual conditions and therefore ensure greater safety. They also create an excellent atmosphere, making our living space more attractive.

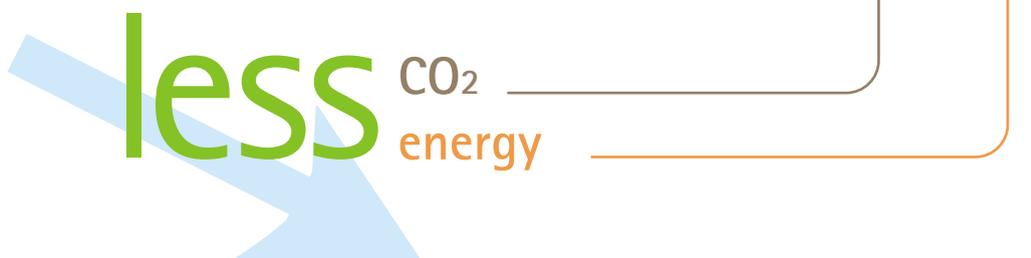
The efficiency of LEDs has greatly increased and, depending on the application, up to 100 lm/W can now be attained. This high efficiency has been achieved thanks to the highest production quality and the most advanced technologies. Like conventional light sources, LEDs gradually show a drop in light intensity with the passage of time. When they emit only 50% of their original light output, they are deemed to have reached the end of their service life. Under normal operating conditions this will be an impressive 50,000 hours, which is considerably more than other lamps. The aging process is greatly influenced by the operating temperature. This means that, in addition to the quality of the LEDs, thermal management is another important quality feature. LEDs are available in various colours of light and, depending on their type, have colour rendering properties ranging from good to excellent.





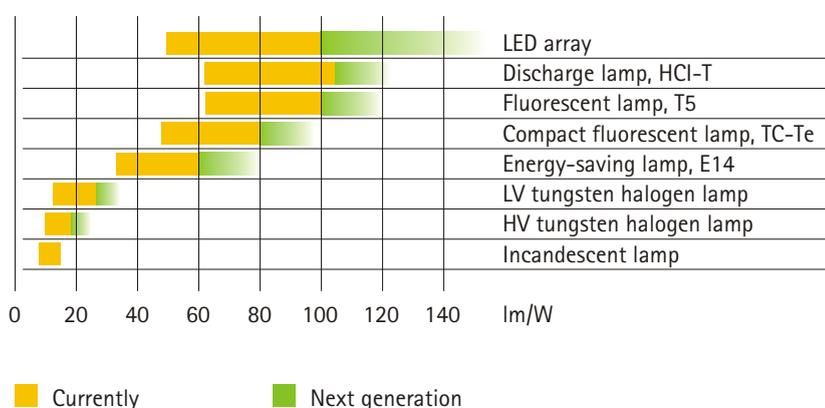
The first LED was launched onto the market by General Electric in 1962. The manufacture of blue LEDs and therefore the generation of white light has been possible since the 1990s. LED technology is playing an ever-increasing role in lighting technology. The LED (Light Emitting Diode) is today already one of the most energy efficient lamps and boasts excellent photometric properties. The LED is a semiconductor crystal that

emits light due to the flow of electric current. Only a few millimetres across, the small crystal is positioned on a reflector that directs the light with pin-point accuracy. The colour of light produced depends not only on the crystal material used, but also on the choice of phosphor coating. White light, for instance, is produced by combining a blue-emitting diode with a photo-luminescent material.



The manufacturers of LEDs are continuously increasing the LED's efficiency. A maximum attainable efficiency of 200 lumen/watt was previously assumed for white LEDs, yet even this value has now been exceeded. Press releases state that 208lm/W has now been reached (May 2011). Although this obviously relates to laboratory values of prototypes, it clearly indicates how the luminous efficacy of white LEDs is set to develop in the coming years.

Energy efficiency in comparison



When comparing LEDs with conventional lamps, it is not just the efficiency that is important. In addition to luminous flux, the crucial factors for the quality also include the colour of light and the colour rendition of LEDs. Thanks to our many years of experience, our technological advantage and our powerful partners, our luminaires score maximum points in all areas, ensuring the highest reliability and safety.

LED luminaires in comparison with luminaires with conventional lamps

Lighting technology	LED	LED	HCl-T	TC-TEL	QT12-ECO
Lamp power	26W	36W	35W	42W	50W
Luminous flux	1800lm	2750lm	3600lm	3200lm	1180lm
Luminous efficacy	75lm/W	76lm/W	102lm/W	76lm/W	24lm/W
Colour rendition ¹	83	82	83	80-89	100
Colour temperature	3000K	3000K	3000K	3000K	3000K
System power	28W	38W	42W	46W	53W
LOR ²	0.9	0.9	0.7	0.7	0.7
Illuminance ³	307lx	485lx	475lx	270lx	163lx
Power consumption ⁴	19.8W/m ²	18.0W/m ²	20W/m ²	32W/m ²	75W/m ²

1. Colour rendition = Ra index (CRI)
2. Light output ratio (LOR) = Luminous efficacy of the luminaire
3. Illuminance = Average illuminance on an area of 4m²
4. Power consumption = Electricity consumption per 100 lux on an area of 10m²



Colour rendition

The provision of natural colour rendition is an important task of good lighting and an important quality characteristic of light. Artificial light should ensure the truest colour rendition possible. This is measured using the colour rendition properties.

The Colour Rendering Index (CRI) is used for characterisation. The larger the colour rendering index, CRI or Ra value, the more natural the colours that are reproduced. A light source with Ra = 100 will optimally show all colours.



Sunlight RA = 100

With light sources that have a complete colour spectrum, the colours of illuminated objects will appear natural; all colours will be perfectly rendered.



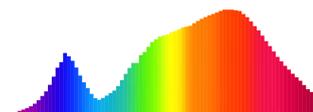
Halogen lamp RA = 90-100

When it comes to evaluating the colour rendition of artificial light, the halogen lamp performs the best.



LED RA = 80-95

The LEDs that we use have excellent colour rendition properties and a continuous spectrum.



T5 RA = 70-90

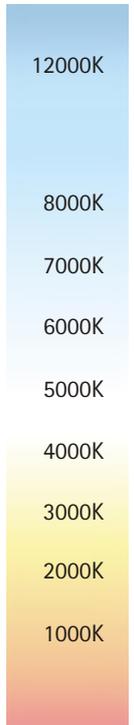
Fluorescent lamps have a discontinuous linear spectrum and, therefore, not all colours can be correctly rendered.





Colour temperature

The colour of light from a lamp is described by the colour temperature in kelvin (K). Sunlight does not have a constant colour temperature. Its colour changes depending on the latitude, time of day and time of year. By using different colour temperatures, it is possible to influence the ambiance and the feeling of wellbeing. This makes it possible, right from the design stage, to specify whether areas or objects are to have a warm or cool appearance, allowing rest areas and work areas to be defined in advance.



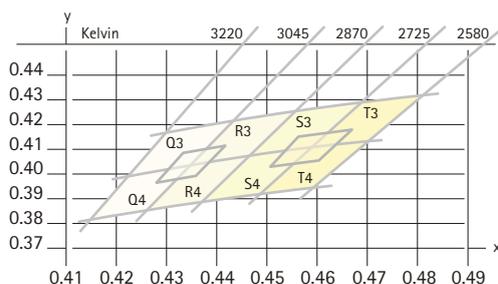
Light source Colour temperature

Cloudless sky	8000 - 12000K
Overcast sky	6500 - 7500K
Fluorescent tube	3000 - 8000K
Sunlight	5500 - 5800K
LED	2700 - 5600K
Discharge lamp	2000 - 6000K
Incandescent lamp	2200 - 3000K
Halogen lamp	3000K
Candle	1500K

Light colour order code

.xx0	Daylight white	(5600K)	
.xx1	Neutral white	(4000K)	
.xx2	Warm white	(3000K)	
.xx3	Comfort white	(2700K)	

Possible binnings for warm white LEDs



LED binnings

The LED arrays used are hi-tech products. The production process is complex and highly sensitive. Manufacturing differences caused by the smallest deviations in the parameters are unavoidable. To compensate for this, the LEDs are sorted and categorised according to their colour values and light output ratios. During the individual

testing, LEDs of the same category fall into the bins provided and are therefore called "binnings". The narrower the tolerances are set, the higher the quality of the multiple-LED arrays. Our additional, in-house inspection, selection and full documentation keeps any colour deviations down to a negligible minimum.



The trend in architectural lighting is increasingly moving towards LEDs. Hardly surprising, since this modern technology offers numerous advantages compared to all other previously developed lamps. LEDs have a very long service life and are energy-efficient and maintenance-free. A particular positive feature is that they can be regulated without problem. Intelligent controls based on BUS systems, combined with the use of LEDs, enable energy savings of up to 80% compared to lighting installations using conventional technology.

To enable this new technology to be used consistently throughout general lighting applications, we have developed a luminaire series that combines modern lighting engineering with the innovative LED technology. As a result, we proudly present a range of technically optimised professional luminaires with highly appealing aesthetics. Powerful and efficient, they are a real alternative to conventional recessed downlights. LED-specific aluminium reflectors featuring high glare control and efficiencies of over 90% are used with these luminaires.

With a choice of luminaires with luminous fluxes between 800 and 5,000 lumen, we are able to satisfy the requirements of the most varied lighting tasks. Exactly matched control gear drive the LEDs and monitor both the passive and active thermal management.

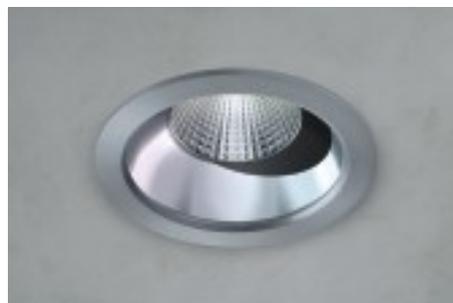
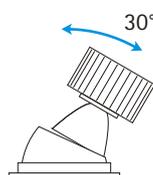




The development of high-quality products from the field of lighting engineering has been our core capability for many years. As an innovative product group, we now present our new LED luminaire series. We offer a highly varied range of hi-tech decorative LED luminaires for professional use. Our development work has placed particular attention on arriving at an optimised lighting technology. For instance, we combine specially designed aluminium reflectors with the latest generation of high-power LEDs. Featuring clean lines and understated design, these lighting tools perfectly augment the architecture.

LED downlights

This product group offers maximum versatility in highly varied projects. In addition to the various power ratings, the beam characteristics can also be specified: flood, medium and spot reflectors are available. Various surface finishes and mounting versions are offered, including trimless installation. The luminaire series is rounded off with decorative glass covers, including models to increase the IP protection rating. The luminaires are supplied complete with electronic control gear in dimmable or non-dimmable versions. 1-10V, DALI, Push and DMX interfaces are available.





Different covers for different applications

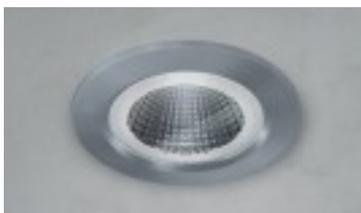
Diffusers produce a uniformly soft and absolute glare-free light. Clear glass covers are intended as discreet protection against dust, theft and vandalism. All glass inserts provide splash water protection. When installed in closed ceiling systems, luminaires with permanently glued-in glass covers attain protection mode IP 44 (from below).



Glass type 14



Glass type 18



Glass type 21

Reflector options

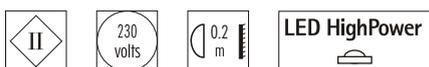
As standard, these luminaires are supplied with reflectors with 37° beam angles (= flood), but spot and medium are also available – simply add the required beam angle code (S, M or F) as a suffix to the article number when ordering.

► **Order suffix for reflector options:**

- S = Spot
- M = Medium
- F = Flood

Colour of light

The LEDs used are always sourced from the highest available binning. The highest currently possible efficiency is obtained in combination with our thermal management. Four colours of light are available: a warm hue at 3000K, a neutral white at 4000K, a hue similar to incandescent lamps at 2700K and a daylight white at 5600K. The colour rendition is always above CRI 82 and is therefore sufficient for use in all areas. CRI >92 is also available on request; whereby, approx. 90% of the luminous flux is attained here too.



								Version								
								LED neutral white	LED warm white	Spot reflector	Medium reflector	Flood reflector	Power supply	DALI power supply		
								Article No.	ECG	Lumens	Watts					
				1205.121	.-02	1380lm	20W	●		○	○	●	●	○		
				1205.122	.-02	1250lm	20W		●	○	○	●	●	○		
				1205.141	.-02	2000lm	28W	●		○	○	●	●	○		
				1205.142	.-02	1800lm	28W		●	○	○	●	●	○		
				1204.121	.-02	1380lm	20W	●		○	○	●	●	○		
				1204.122	.-02	1250lm	20W		●	○	○	●	●	○		
				1204.141	.-02	2000lm	28W	●		○	○	●	●	○		
				1204.142	.-02	1800lm	28W		●	○	○	●	●	○		
				1204.001	Glass type 14											
				1204.002	Glass type 18											
				1204.003	Glass type 21											

Technical changes reserved and errors excepted!



LED recessed downlights

Fitted with high-power LEDs. Cooling module made of aluminium. 2-part reflector system made of aluminium, polished silver finish and individually anodised. Luminaire housing made of aluminium and steel. 1-part cover ring. Power-coated surface in satin-matt white, in silver or with brushed and zaponised aluminium surface. Luminaire complete with mounting system and electronic control gear.

Reflector options

As standard, these luminaires are supplied with reflectors with 37° beam angles (= flood), but spot and medium are also available – simply add the required beam angle code (S, M or F) as a suffix to the article number when ordering.

► Order suffix for reflector options:

S = Spot
M = Medium
F = Flood



Glass type 14



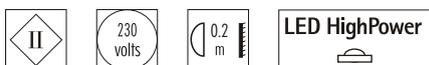
Glass type 18

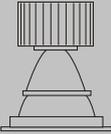
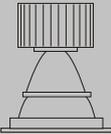
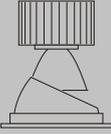
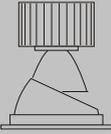


Glass type 21

Different covers for different applications

Diffusers produce a uniformly soft and absolute glare-free light. Clear glass covers are intended as discreet protection against dust, theft and vandalism. All glass inserts provide splash water protection. When installed in closed ceiling systems, luminaires with permanently glued-in glass covers attain protection mode IP 44 (from below).



							Version									
							LED neutral white	LED warm white	Spot reflector	Medium reflector	Flood reflector	Power supply	DALI power supply			
							Article No.	ECG	Lumens	Watts						
				1206.121	-.02	1380lm	20W	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
				1206.122	-.02	1250lm	20W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>						
				1206.141	-.02	2000lm	28W	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				1206.142	-.02	1800lm	28W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>						
				1207.121	-.02	1380lm	20W	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
				1207.122	-.02	1250lm	20W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>						
				1207.141	-.02	2000lm	28W	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				1207.142	-.02	1800lm	28W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>						
				1207.001	Glass type 14											
				1207.002	Glass type 18											
				1207.003	Glass type 21											
				1208.121	-.02	1380lm	20W	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
				1208.122	-.02	1250lm	20W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>						
				1208.141	-.02	2000lm	28W	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				1208.142	-.02	1800lm	28W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>						
				1209.121	-.02	1380lm	20W	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
				1209.122	-.02	1250lm	20W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>						
				1209.141	-.02	2000lm	28W	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
				1209.142	-.02	1800lm	28W	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>						
				1209.001	Glass type 14											
				1209.002	Glass type 18											
				1209.003	Glass type 21											

Technical changes reserved and errors excepted!



Ceiling cut-out as the source of light

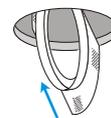
The design concept here uses a slender ring system with a shadow gap forming the transition to the reflector. Available with an easy-to-install ring covering the ceiling joint or as a plastered-in version for trimless mounting featuring a separate mounting module with a plaster-over edge. This allows sufficient ambient light from the smallest ceiling cut-outs. The exact luminaire detail and the relevant accessories are both optimally adapted to suit the on-site architectural situation.



Trimless LED downlights

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 dry-wall screws. Fitting to the ceiling system is performed on site. Luminaire housing for subsequent installation into finished ceiling.

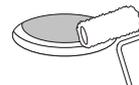
Inserting the mounting module



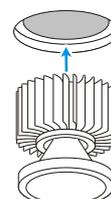
Securing and plastering



Painting



Installing the downlight



LED Downlight



LED recessed downlights

Fitted with high-power LEDs. Cooling module made of aluminium. 1-part reflector system made of aluminium, polished silver finish and individually anodised. Luminaire housing made of aluminium and steel. 1-part cover ring. Power-coated surface in satin-matt white, in silver or in custom colour as per RAL colour system. Luminaire complete with mounting system and electronic control gear.

Reflector options

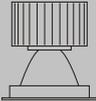
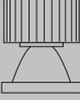
As standard, these luminaires are supplied with reflectors with 37° beam angles (= flood), but spot and medium are also available – simply add the required beam angle code (S, M or F) as a suffix to the article number when ordering.

► **Order suffix for reflector options:**

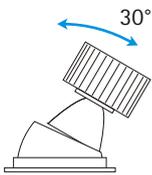
- S = Spot
- M = Medium
- F = Flood

Colour of light

The LEDs used are always sourced from the highest available binning. The highest currently possible efficiency is obtained in combination with our thermal management. Four colours of light are available: a warm hue at 3000K, a neutral white at 4000K, a hue similar to incandescent lamps at 2700K and a daylight white at 5600K. The colour rendition is always above CRI 82 and is therefore sufficient for use in all areas. CRI >92 is also available on request; whereby, approx. 90% of the luminous flux is attained here too.

							Version									
							LED neutral white	LED warm white	Spot reflector	Medium reflector	Flood reflector	Power supply	DALI power supply			
							Article No.	ECG	Lumens	Watts						
	   	1200.121	.-02	1380lm	20W	●		○	○	●	●	○				
		1200.122	.-02	1250lm	20W		●	○	○	●	●	○				
		1200.141	.-02	2000lm	28W	●		○	○	●	●	○				
		1200.142	.-02	1800lm	28W		●	○	○	●	●	○				
	 	1230.121	.-02	1380lm	20W	●		○	○	●	●	○				
		1230.122	.-02	1250lm	20W		●	○	○	●	●	○				
		1230.141	.-02	2000lm	28W	●		○	○	●	●	○				
		1230.142	.-02	1800lm	28W		●	○	○	●	●	○				
		1230.098	Plastering frame													

Technical changes reserved and errors excepted!



Colour of light

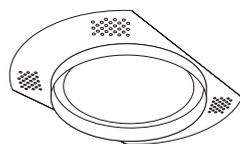
The LEDs used are always sourced from the highest available binning. The highest currently possible efficiency is obtained in combination with the optimised thermal management. Four colours of light are available: a warm hue at 3000K, a neutral white at 4000K, a hue similar to incandescent lamps at 2700K and a daylight white at 5600K.



Round trimless downlights

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 with joint forms the visible termination of the luminaire.



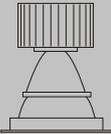
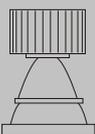
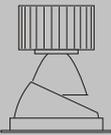
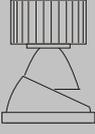
Reflector options

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							Article No.	ECG	Lumens	Watts				
	  	1202.121	-.02	1380lm	20W	●		○	○	●	●	○		
		1202.122	-.02	1250lm	20W		●	○	○	●	●	○		
		1202.141	-.02	2000lm	28W	●		○	○	●	●	○		
		1202.142	-.02	1800lm	28W		●	○	○	●	●	○		
	 	1231.121	-.02	1380lm	20W	●		○	○	●	●	○		
		1231.122	-.02	1250lm	20W		●	○	○	●	●	○		
		1231.141	-.02	2000lm	28W	●		○	○	●	●	○		
		1231.142	-.02	1800lm	28W		●	○	○	●	●	○		
		1231.098	Plastering frame											
Plastering frame absolutely necessary!														
	  	1203.121	-.02	1380lm	20W	●		○	○	●	●	○		
		1203.122	-.02	1250lm	20W		●	○	○	●	●	○		
		1203.141	-.02	2000lm	28W	●		○	○	●	●	○		
		1203.142	-.02	1800lm	28W		●	○	○	●	●	○		
	 	1232.121	-.02	1380lm	20W	●		○	○	●	●	○		
		1232.122	-.02	1250lm	20W		●	○	○	●	●	○		
		1232.141	-.02	2000lm	28W	●		○	○	●	●	○		
		1232.142	-.02	1800lm	28W		●	○	○	●	●	○		
		1232.098	Plastering frame											
Plastering frame absolutely necessary!														

Technical changes reserved and errors excepted!

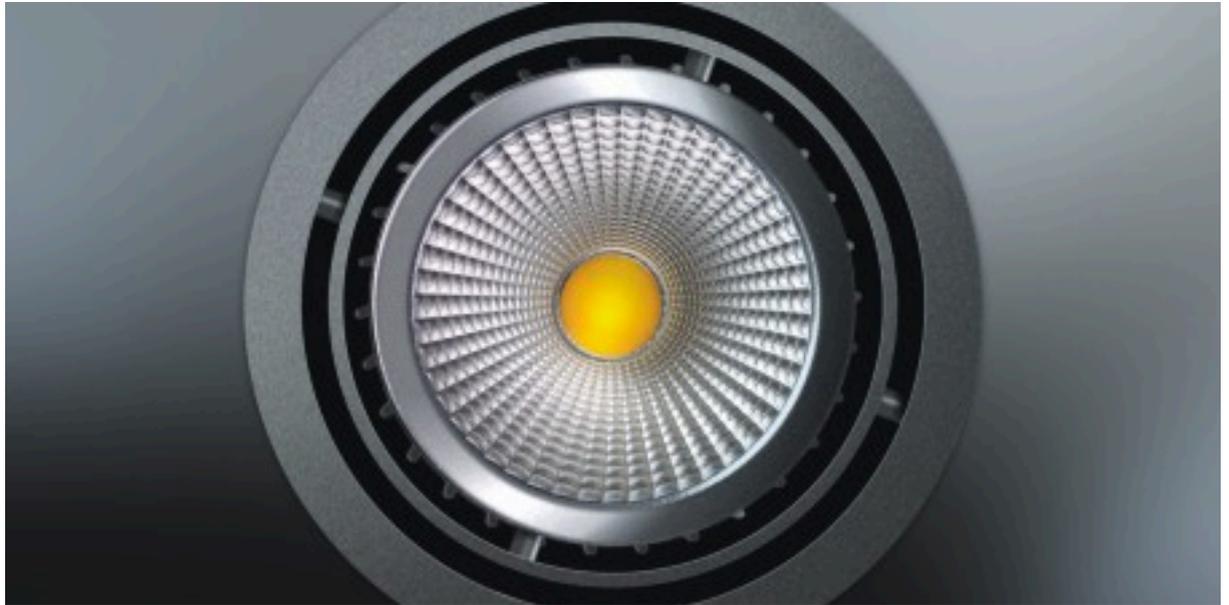
Cardanic LED downlights

Round recessed luminaire with light trap. Minimalistic recessed housing made of stainless steel with integrated light trap.

Trimless frame or filigree frame for mounting the luminaires in sawn ceiling cut-outs. Powder-coated surface. The luminaire head is cradled on a cardan mounting and can be tilted to all sides.

The reflectors are made of aluminium, with a polished silver finish and are individually anodised. They are optionally available with different beam characteristics: flood, medium or as a narrow-beam spot. The luminaires are supplied complete with electronic control gear.





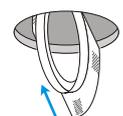
Ceiling cut-out as the source of light

The design concept here uses a slender ring system with a shadow gap forming the transition to the reflector. Available with an easy-to-install ring covering the ceiling joint or as a plastered-in version for trimless mounting featuring a separate mounting module with a plaster-over edge. This allows sufficient ambient light from the smallest ceiling cut-outs. The exact luminaire detail and the relevant accessories are both optimally adapted to suit the on-site architectural situation.

Trimless LED downlights

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 plaster-over edge



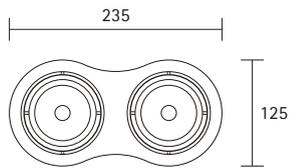
Securing and plastering





Recessed cardan

Minimalistic housing. Luminaire head with decorative returned reflector edge. The luminaire head is cradled on a cardan mounting and can be tilted to all sides. The reflectors are optionally available with three different beam characteristics: flood, medium or as a narrow-beam spot.



Round trimless downlights

Plastered-in installation using separate mounting frame. Optionally for flush installation or recessed installation. The narrow, all-round reflector edge forms the visible termination of the luminaire.



Reflector options

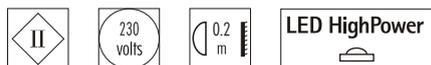
As standard, these luminaires are supplied with reflectors with 37° beam angles (= flood), but spot and medium are also available – simply add the required beam angle code (S, M or F) as a suffix to the article number when ordering.

► **Order suffix for reflector options:**

- S = Spot
- M = Medium
- F = Flood

Colour of light

The LEDs used are always sourced from the highest available binning. The highest currently possible efficiency is obtained in combination with our thermal management. Four colours of light are available: a warm hue at 3000K, a neutral white at 4000K, a hue similar to incandescent lamps at 2700K and a daylight white at 5600K. The colour rendition is always above CRI 82 and is therefore sufficient for use in all areas. CRI >92 is also available on request; whereby, approx. 90% of the luminous flux is attained here too.



				Article No. ECG		Lumens	Watts	Version							
								LED neutral white	LED warm white	Spot reflector	Medium reflector	Flood reflector	Power supply	DALI power supply	
	 2x CO 112mm	 RD 140mm RD 160mm	1225.211	-.02	1900lm	28W	●		○	○	○	○	●	○	
			1225.212	-.02	1700lm	28W		●		○	○	○	○	●	○
			1225.221	-.02	2750lm	40W	●		○	○	○	○	○	●	○
			1225.222	-.02	2500lm	40W		●		○	○	○	○	●	○
	 Diameter 125mm CO 112mm	 RD 140mm RD 160mm	1226.121	-.02	1380lm	20W	●			○	○	○	●	○	
			1226.122	-.02	1250lm	20W		●			○	○	○	●	○
			1226.141	-.02	2000lm	28W	●				○	○	○	●	○
			1226.142	-.02	1800lm	28W		●				○	○	●	○
 Plastering frame absolutely necessary!		 RD 140mm RD 160mm	1227.121	-.02	1380lm	20W	●			○	○	○	●	○	
			1227.122	-.02	1250lm	20W		●			○	○	○	●	○
			1227.141	-.02	2000lm	28W	●				○	○	○	●	○
			1227.142	-.02	1800lm	28W		●				○	○	●	○
			1227.098		Plastering frame										

Technical changes reserved and errors excepted!

LED Downlight

This luminaire was designed as an economical alternative to classic downlights. With its wide-beam, homogenous light distribution, it finds use wherever uniform ambient lighting is required. Using the fitted diffuser, an increased protection rating of IP43 is attained.

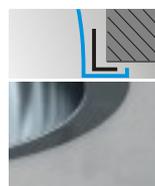
Reflector technology

A specially developed reflector system is used with this luminaire. This consists of the reflector and a removable cone incorporating a lens for glare control. As an alternative to the cone, a parabolic louvre with cross baffles is available. This makes the luminaire suitable for lighting work areas with computer workstations.



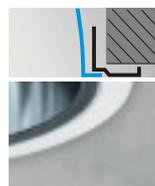


Downlight luminaire trim



Reflector rim

Concealed luminaire cover ring. It is covered by the reflector edge and therefore no longer visible. To order the reflector rim, please add "RR" as a suffix to the order code.

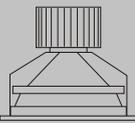


Standard

1-part, narrow luminaire cover ring. The reflector edge lies in a recess and is therefore flush with the surface.

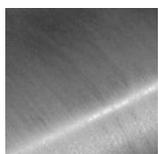





		Article No.	ECG	Lumens	Watts	Version								
	   	1210.121	.-02	1380lm	20W	●								
		1210.122	.-02	1250lm	20W		●							
		1210.141	.-02	2000lm	28W	●								
		1210.142	.-02	1800lm	28W		●							

LED spotlights

This product range is characterised by modern, straight-lined design combined with innovative technology. Universally usable as a surface-mounted, recessed or pendant luminaire. Housing made of aluminium with integrated cooling system. Electronically controlled temperature regulation and magnetically cradled "silent fans" form the basis for quality and longevity.

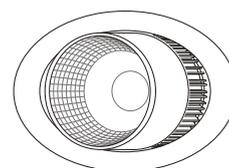


Scotched finish



Colour of light

The LEDs used are always sourced from the highest available binning. The highest currently possible efficiency is obtained in combination with our thermal management. Four colours of light are available: a warm hue at 3000K, a neutral white at 4000K, a hue similar to incandescent lamps at 2700K and a daylight white at 5600K. The colour rendition is always above CRI 82 and is therefore sufficient for use in all areas. CRI >92 is also available on request; whereby, approx. 90% of the luminous flux is attained here too.





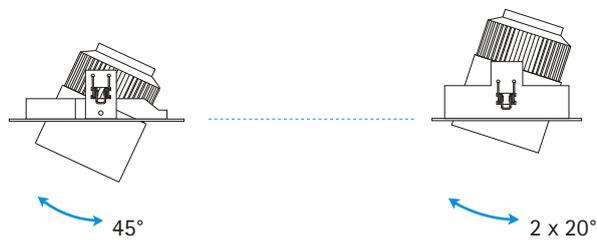
Spotlights

Universally usable luminaire system for general large-area lighting and for perfect, scenic presentation of goods. Features the latest generation LED chips for brilliant light. With 3-phase universal track adapter. Also available as a regulable version with DALI track adapter and DALI power supply.

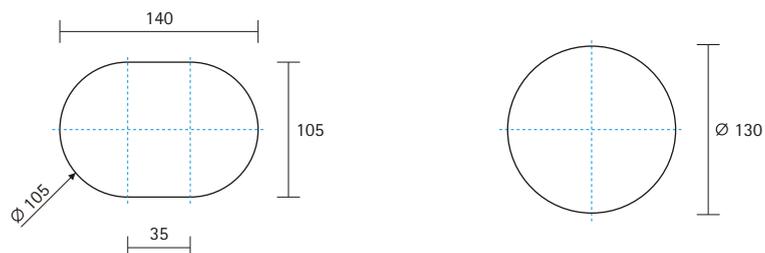


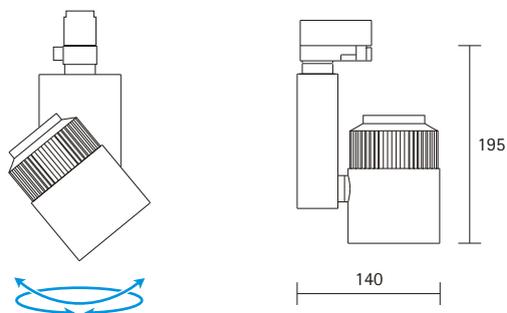
Recessed spotlights

Tiltable up to 45° or as a cardan version. Both versions are without any cut-off screening of the beam. No UV light, no thermal load. Also available as a trimless version.



Ceiling cut-outs



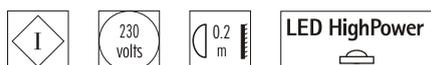


Track-mounted spotlights

Elegant spotlight in filigree design.
Energy-saving thanks to the use of the latest LED technology.
Integrated, actively controlled fan.
The luminaire features rotation and tilt. With track adapter.

Reflector technology

1-part reflector system. Reflector made of 99.98-grade aluminium, polished and individually anodised. Surface finish is smooth, mirror-finish silver. Recessed special glass for optimised mixing of the light.



		Article No.	ECG	Lumens	Watts	Version							
						LED neutral white	LED warm white	Spot reflector	Medium reflector	Flood reflector	Power supply	DALI power supply	
	CO Ø= 130mm		ET 130mm	1150.161	-.02	2750lm	38W	●	○	○	○	○	
	OD Ø= 150mm			1150.162	-.02	2750lm	38W	○	●	○	○	○	○
				1150.171	-.02	3750lm	59W	○	○	●	○	○	○
				1150.172	-.02	3750lm	59W	○	○	○	●	○	○
	CO=140x105mm		RD 100mm	1152.161	-.02	2750lm	38W	○	○	○	○	○	
	OD=170x123mm			1152.162	-.02	2750lm	38W	○	○	○	○	○	○
				1152.171	-.02	3750lm	59W	○	○	○	○	○	○
				1152.172	-.02	3750lm	59W	○	○	○	○	○	○
	W=140mm		H 195mm	1155.161	-.02	2750lm	38W	○	○	○	○	○	
				1155.162	-.02	2750lm	38W	○	○	○	○	○	○
				1155.171	-.02	3750lm	59W	○	○	○	○	○	○
				1155.172	-.02	3750lm	59W	○	○	○	○	○	○



Cardanic LED downlights

Recessed-mounted housing made of sheet-steel, with slender frame for installation in sawn ceiling cut-outs. Powder-coated surface. Equipped with high-power LED arrays. With aluminium reflector, silver, polished and individually anodized, optionally available with different beam characteristics. The luminaires are supplied complete with electronic control gear.

Identifying ceiling cut-outs as the light source

The precise luminaire detail and the necessary accessories are optimised and adapted to suit each on-site architectural situation. This ensures that the architectural idea can also be implemented without any technological problems.

Trimless LED downlights

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.



Cooling

When developing LED luminaires, special attention has to be given to their thermal management. The long service life, keeping the luminous flux as constant as possible, is only attainable if the LEDs have sufficient cooling. Our systems are optimised and ensure reliability and quality.



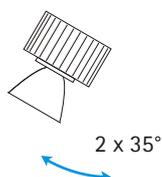
Recessed spotlight, rigid

Installing the square cardan

Tiltable to all sides. Beam characteristics options: flood, medium or spot. With separate electronic control gear unit.

1- and 2-flame luminaires.

With closed recessed-mounted housing. As a light trap, the housing is powder coated black. The electrical connection to the separate control gear units is pre-wired.



Reflector options

As standard, these luminaires are supplied with reflectors with 37° beam angles (= flood), but spot and medium are also available – simply add the required beam angle code (S, M or F) as a suffix to the article number when ordering.

► **Order suffix for reflector options:**

- S = Spot
- M = Medium
- F = Flood



							Version							
							LED neutral white	LED warm white	Spot reflector	Medium reflector	Flood reflector	Power supply	DALI power supply	
							Article No.	ECG	Lumens	Watts				
	CO=220x112mm OD=235x125mm	 	1220.211	-.02	1900lm	28W	●		○	○	●	●	○	
			1220.212	-.02	1700lm	28W		●	○	○	●	●	○	
			1220.221	-.02	2750lm	40W	●		○	○	●	●	○	
			1220.222	-.02	2500lm	40W		●	○	○	●	●	○	
	CO=112x112mm OD=125x125mm	 	1220.121	-.02	1380lm	20W	●		○	○	●	●	○	
			1220.122	-.02	1250lm	20W		●	○	○	●	●	○	
			1220.141	-.02	2000lm	28W	●		○	○	●	●	○	
			1220.142	-.02	1800lm	28W		●	○	○	●	●	○	
	Plastering frame absolutely necessary!	 	1221.121	-.02	1380lm	20W	●		○	○	●	●	○	
			1221.122	-.02	1250lm	20W		●	○	○	●	●	○	
			1221.141	-.02	2000lm	28W	●		○	○	●	●	○	
			1221.142	-.02	1800lm	28W		●	○	○	●	●	○	
			1221.098	Plastering frame										
	CO=112x112mm OD=125x125mm		1218.161	-.02	2750 lm	38 W	●		○	○	●	●	○	
			1218.162	-.02	2750 lm	38 W		●	○	○	●	●	○	
			1218.171	-.02	3750 lm	59 W	●		○	○	●	●	○	
			1218.172	-.02	3750 lm	59 W		●	○	○	●	●	○	
	Plastering frame absolutely necessary!		1219.161	-.02	2750 lm	38 W	●		○	○	●	●	○	
			1219.162	-.02	2750 lm	38 W		●	○	○	●	●	○	
			1219.171	-.02	3750 lm	59 W	●		○	○	●	●	○	
			1219.172	-.02	3750 lm	59 W		●	○	○	●	●	○	
			1219.098	Plastering frame										

Technical changes reserved and errors excepted!



NV-Q

Designed for recessed installation in walls and ceilings, this luminaire features a light source which itself is deeply recessed in the luminaire. Efficient and powerful, these products are a real alternative to low-voltage downlights. The luminous flux of up to 2000 lumen, the ease of control and the service life of up to 50,000 hours present decisive arguments for the use of these LED luminaires. The aluminium reflectors supplied with these luminaires were specially developed for the LEDs used; they provide high glare control and light output ratios of over 90%. Exactly matched control gear drive the LEDs and monitor the thermal management.



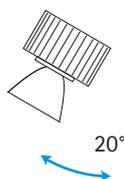
Classic

As a special variation, we also offer these luminaires in the Classic version. This is characterised by a light source that is deeply recessed in the luminaire and the resultant, highly screened beam. In the stand-by mode, the actual light source is barely visible. When in operation, however, it comes to the fore as an aesthetic element. To order this variation, please add "CV", for Classic Version, as a suffix to the article number.



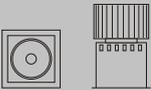
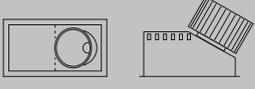
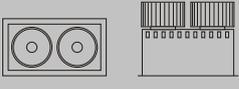
Square LED downlights

Recessed-mounted housing made of sheet-steel, with slender frame for installation in sawn ceiling cut-outs. Powder-coated surface. Equipped with high-power LEDs. With aluminium reflector, silver, polished and individually anodized, optionally available with different beam characteristics. The luminaires are supplied complete with electronic control gear.







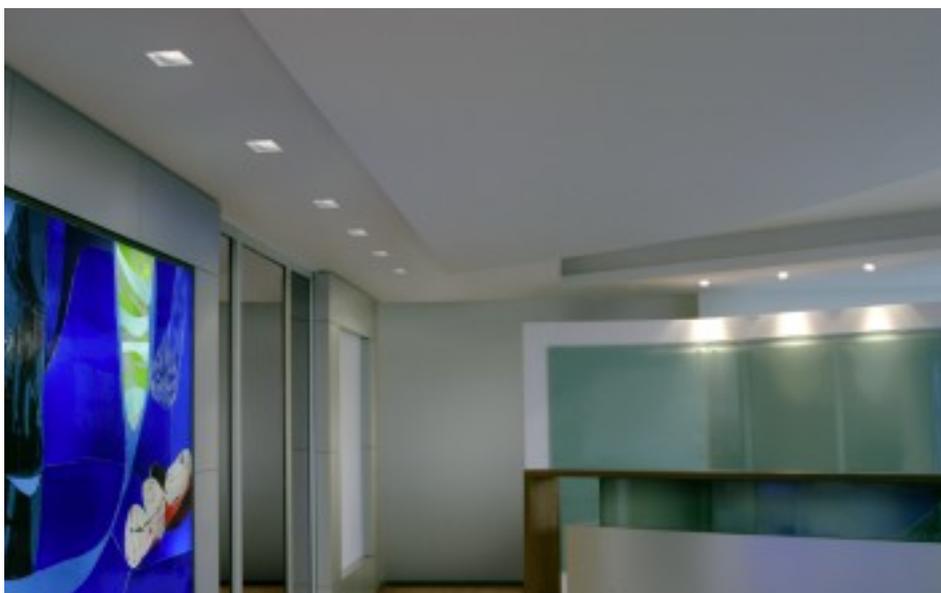

								Version						
				Article No.	ECG	Lumens	Watts	LED neutral white	LED warm white	Spot reflector	Medium reflector	Flood reflector	Power supply	DALI power supply
	CO= 86x 86mm OD=100x100mm	 	1095.121	.-02	1380lm	20W	●		○	●	○		●	○
			1095.122	.-02	1250lm	20W		●	○	●	○		●	○
			1095.141	.-02	2000lm	28W	●		○	●	○		●	○
			1095.142	.-02	1800lm	28W		●	○	●	○		●	○
	CO= 86x165mm OD=100x180mm	 	1096.121	.-02	1380lm	20W	●		○	●	○		●	○
			1096.122	.-02	1250lm	20W		●	○	●	○		●	○
			1096.141	.-02	2000lm	28W	●		○	●	○		●	○
			1096.142	.-02	1800lm	28W		●	○	●	○		●	○
	CO= 86x165mm OD=100x180mm	 	1095.211	.-02	1900lm	28W	●		○	●	○		●	○
			1095.212	.-02	1700lm	28W		●	○	●	○		●	○
			1095.221	.-02	2750lm	40W	●		○	●	○		●	○
			1095.222	.-02	2500lm	40W		●	○	●	○		●	○

Technical changes reserved and errors excepted!



NV-Q

Rectangular-cone luminaire with LEDs. The LEDs used are always sourced from the highest available binning. A higher CRI and the clear, brilliant colour make this a convincing choice. Various colours of light are available: a warm hue at 3000K and a neutral white at 4000K cover architectural applications, while a particularly warm hue, similar to incandescent lamps at 2700K, is also available on request.





Square LED downlights

Recessed-mounted housing made of sheet-steel, with slender frame for installation in sawn ceiling cut-outs. Powder-coated surface. Equipped with high-power LEDs. With aluminium reflector, silver, polished and individually anodized, optionally available with different beam characteristics. The diffuser glass used in the reflector cone prevents a direct view of the LED and produces a soft, pleasant-looking beam. The luminaires are supplied complete with electronic control gear.



								Version							
				Article No.	ECG	Lumens	Watts	LED neutral white	LED warm white	Spot reflector	Medium reflector	Flood reflector	Power supply	DALI power supply	
	CO= 86x 86mm OD=100x100mm		1097.121	.-02	1380lm	20W	●						●	○	
			1097.122	.-02	1250lm	20W		●						●	○
			1097.141	.-02	2000lm	28W	●							●	○
			1097.142	.-02	1800lm	28W		●						●	○
	CO= 86x165mm OD=100x180mm		1097.211	.-02	1900lm	28W	●						●	○	
			1097.212	.-02	1700lm	28W		●						●	○
			1097.221	.-02	2750lm	40W	●							●	○
			1097.222	.-02	2500lm	40W		●						●	○
	CO= 86x165mm OD=100x180mm		1098.121	.-02	1380lm	20W	●						●	○	
			1098.122	.-02	1250lm	20W		●						●	○
			1098.141	.-02	2000lm	28W	●							●	○
			1098.142	.-02	1800lm	28W		●						●	○

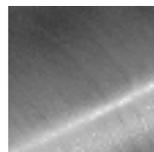
Technical changes reserved and errors excepted!

LED TRIPLE



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 high-quality 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.

LED TRIPLE



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



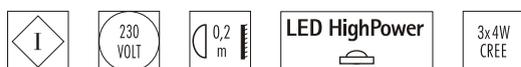
Warm white

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° Spot
- M = 20° Medium
- F = 40° Flood
- W = 90° Wide flood



				Version											
				Neutral white LED	Warm white LED	15° Spot	20° Medium	40° Flood	90° Wide flood	Scotched aluminium					
Article No.	ECG	Lamp version													
		Ring Size 110mm	BIH 70mm	CCO 85mm	1101.351	-.02	CREE	350mA 4,2W	●	○	○	○	○	○	●
					1101.352	-.02	CREE	350mA 4,2W	●	○	○	○	○	○	●
					1101.701	-.02	CREE	700mA 8,7W	●	○	○	○	○	○	●
					1101.702	-.02	CREE	700mA 8,7W	●	○	○	○	○	○	●
		Ring Size 110mm	BIH 70mm	CCO 85mm	1103.351	-.02	CREE	350mA 4,2W	●	○	○	○	○	○	●
					1103.352	-.02	CREE	350mA 4,2W	●	○	○	○	○	○	●
					1103.701	-.02	CREE	700mA 8,7W	●	○	○	○	○	○	●
					1103.702	-.02	CREE	700mA 8,7W	●	○	○	○	○	○	●
		Ring Size 120mm	BIH 70mm	CCO 100mm	1105.351	-.02	CREE	350mA 4,2W	●	○	○	○	○	○	●
					1105.352	-.02	CREE	350mA 4,2W	●	○	○	○	○	○	●
					1105.701	-.02	CREE	700mA 8,7W	●	○	○	○	○	○	●
					1105.702	-.02	CREE	700mA 8,7W	●	○	○	○	○	○	●



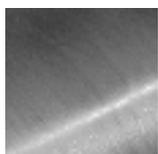
TUBE

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.



Neutral white



Warm white

Lens Options

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.

► Order Suffix for lens:

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



		Article No.		ECG	Lamp version		Version						
							Neutral white LED	Warm white LED	15° Spot	20° Medium	40° Flood	IP44	Scotched aluminium
	Ø= 70mm H= 90mm	1140.351	-.02	CREE	350mA	4,2W	●		●	○	○		●
		1140.352	-.02	CREE	350mA	4,2W		●	●	○	○		●
		1140.701	-.02	CREE	700mA	8,7W	●		●	○	○		●
		1140.702	-.02	CREE	700mA	8,7W		●	●	○	○		●
	Ø= 70mm H= 138mm D = 110mm	1145.351	-.02	CREE	350mA	8,4W	●		●	○	○		●
		1145.352	-.02	CREE	350mA	8,4W		●	●	○	○		●
		1146.351	-.02	CREE	350mA	8,4W	●		●	○	○	●	●
		1146.352	-.02	CREE	350mA	8,4W		●	●	○	○	●	●



Powerful wall-mounted luminaires

Uplight equipped with LED array. With a luminous flux of between 1800 and 2700 lumen and a service life of 50,000 hours, these luminaires are the pioneers for a new generation of innovative architectural luminaires. These uplights make a convincing choice not only due to their high efficiency and the related energy saving compared with normal light sources, but also due to their impressive lighting technology with an exceptionally uniform light distribution. 120° beam angle. They are photometrically optimised using mirror-finish reflectors and are covered with a highly diffuse cover glass.

Exactly matched control gear units drive the LEDs and monitor both the passive and the active thermal management. These luminaires are also available as a controllable version. Interface options are DALI, Push and 1-10V. They can be integrated into existing building technology without problem. Additional options are also available such as versions suitable for emergency lighting, also with individual battery. Motion sensors and brightness sensors can be integrated.



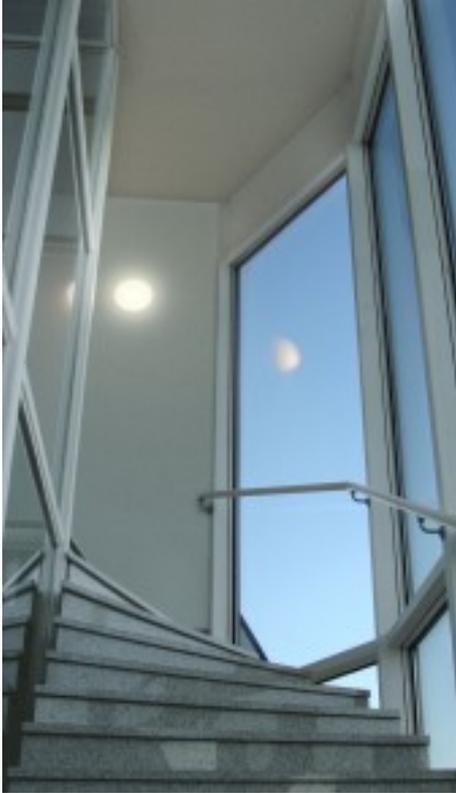
SOLAR

Luminaire housing made of crisp-edged drawn aluminium profile. Surface powder-coated in matt white or custom colour as per RAL colour system. Complete with LED array and integrated, passive cooling system. Mirror-finish aluminium reflectors with reflection-intensifying coating. Luminaire with real glass cover. The electronic control gear units are integrated.



		Article No.	ECG	Lumens	Watts	Version						
						LED neutral white	LED warm white	Spot reflector	Medium reflector	Flood reflector	Power supply	DALI power supply
	H= 45mm	9353.141	.-02	1950lm	28W	●				●	●	○
	W=400mm	9353.142	.-02	1800lm	28W		●			●	●	○
	D=120mm	9353.221	.-02	2750lm	40W	●				●	●	○
		9353.222	.-02	2500lm	40W		●			●	●	○
	H= 45mm	9354.141	.-02	1950lm	28W	●				●	●	○
	W=120mm	9354.142	.-02	1800lm	28W		●			●	●	○
	D=400mm	9354.221	.-02	2750lm	40W	●				●	●	○
		9354.222	.-02	2500lm	40W		●			●	●	○

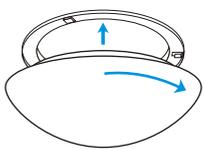
Technical changes reserved and errors excepted!



VIENA

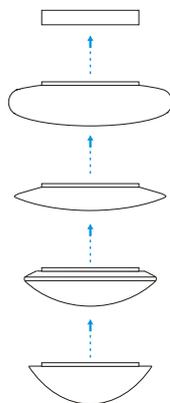
Classic surface-mounted wall/ceiling luminaire with innovative LED technology - long life and energy-saving with a 40,000-hour service life and up to over 100lm/W. These luminaires are particularly suitable for general lighting applications with long operating times. Also ideal for use in stairways, where there is increased switching frequency, since the full luminous flux of the LEDs is immediately available upon switching. Colours of light available: warm hue at 3000K and neutral white at 4000K.

Thanks to the innovative lighting technology integrated in this classic luminaire, this already good product has been enormously improved. Not only has the efficiency been greatly increased, but the photometric properties have also been optimised. Due to the use of wide-beam LEDs, this luminaire produces an absolutely glare-free and uniform light. The luminaire unit is 2-way switchable. A controllable version is available on request. Emergency lighting possible. Please enquire separately.



LED luminaire fixture

Opal glass



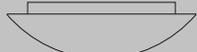
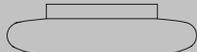
Light technology

Uniform, glare-free light produced through the satin-matt, opalized glass cover. With 3-point bayonet fixing for simple and tool-free luminaire maintenance. The milky flashed glass/opal glass is 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.





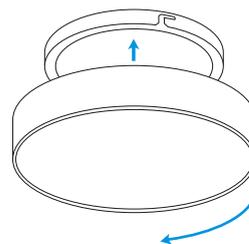



						Version						
		Article No.	ECG	Lumens	Watts	LED neutral white	LED warm white			2 x individual ECG	White	Made to RAL
	Ø=400mm	5940.141	.-02	2400lm	26W	●				●	●	○
	H=105mm	5940.142	.-02	2000lm	26W		●			●	●	○
	Ø=400mm	5950.141	.-02	2400lm	26W	●				●	●	○
	H=145mm	5950.142	.-02	2000lm	26W		●			●	●	○
	Ø=400mm	5980.141	.-02	2400lm	26W	●				●	●	○
	H=130mm	5980.142	.-02	2000lm	26W		●			●	●	○



UNIK

This round lighting panel is particularly suitable for uniform ambient lighting of hallways and stairways. Since a high-quality diffuser is used, the resultant freedom of glare means this luminaire can be mounted at eye-level without problem, even in stairway areas. The indirect component of light lends the UNIK a floating character.

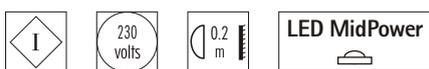




Surface-mounted luminaire

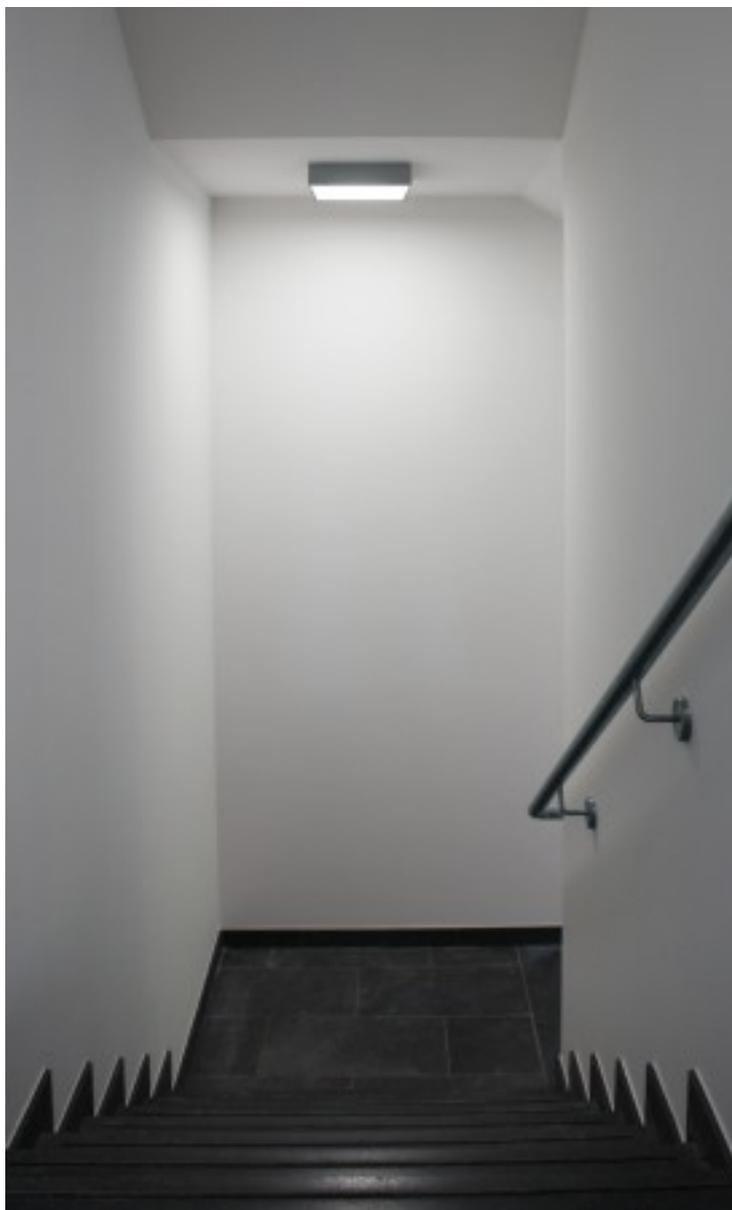
Equipped with electronic luminaire insert featuring innovative LED technology. The LED unit saves energy (90lm/W) and is highly suitable for applications with long operating times thanks to its service life of 40,000 hours at 70% of its luminous flux. The luminaires are available in two colours of light: warm white at 3000K and neutral white at 4000K. On request, the luminaires are also available in 2-way switchable versions.

The luminaire is covered by a satin-matt acrylic diffuser that greatly disperses the light. The separate installation housing makes this luminaire very easy to install. The visible housing is removable without tools.



		Article No.	ECG	Lumens	Watts	Version						
	Ø=430mm	4153.141	.-02	2400lm	26W	LED neutral white	LED warm white	Opal diffuser	Prismatic diffuser	Direct/indirect	White	Made to RAL
	H = 105mm	4153.142	.-02	2000lm	26W							

Technical changes reserved and errors excepted!



TABLA

The straight-lined luminaire housing characterises the design of this surface-mounted luminaire. It is built from crisp-edged aluminium profile section and covered by a satin-matt acrylic diffuser that greatly disperses the light. The separate installation housing makes this luminaire very easy to install. The visible housing is removable without tools.

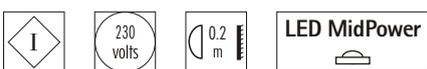


Surface-mounted luminaires

Equipped with electronic luminaire insert featuring innovative LED technology. The LED unit saves energy (90lm/W) and is highly suitable for applications with long operating times thanks to its service life of 40,000 hours at 70% of its luminous flux. The luminaires are available in two colours of light: warm white at 3000K and neutral white at 4000K. On request, the luminaires are also available in 2-way switchable versions.



Top part of housing is removable without tools.

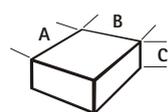


	Article No.	ECG	Lumens	Watts
--	-------------	-----	--------	-------

A= 340mm	8130.141	.-02	2400lm	26W
B= 340mm	8130.142	.-02	2000lm	26W
C= 70mm				



Version							
LED neutral white	LED warm white	Opal diffuser	Prismatic diffuser	Direct/indirect	White	Made to RAL	
●	●	●	○	○	●	○	
	●	●	○	○	●	○	



Technical changes reserved and errors excepted!

TUBE 90 Pendant

TUBE 90 Pendant

Design-orientated pendant luminaires with state-of-the-art lighting technology. Equipped with the latest generation of high-power LED arrays, their brilliant colour rendition, high efficiency and longevity make them a convincing choice. Regulable without problem, they can be used in areas that were previously the sole preserve of tungsten halogen lamps. Exactly matched electronic control gear units drive the LEDs and monitor the active thermal management. The housing is made of aluminium with brushed and zaponised surface. Optionally available with power-coated finish.

The reflectors are made of aluminium, with a polished silver finish and are individually anodised. Ready-to-connect, prewired with a 2-metre, transparent supply cable and fitted with a wire-rope suspension with rapid-connector system. Complete with a decorative ceiling shroud in the same finish as the luminaire.





Colour of light

The LEDs used are always sourced from the highest available binning. The highest currently possible efficiency is obtained in combination with our optimised thermal management. A choice of three colours of light is available: a warm hue at 3000K, a neutral white at 4000K and a hue similar to incandescent lamps at 2700K. The colour rendition is always above CRI 82 and is therefore sufficient for use in all areas.

Reflector technology

1-part reflector system. Reflector made of 99.98-grade aluminium, polished and individually anodised. Surface finish is smooth, mirror-finish silver. Recessed special glass for optimised mixing of the light.

Reflector options

As standard, these luminaires are supplied with reflectors with 30° beam angles (= medium), but spot and flood are also available – simply add the required beam angle code (S, M or F) as a suffix to the article number when ordering.



		Article No.	ECG	Lumens	Watts	LED neutral white	LED warm white	Spot reflector	Medium reflector	Flood reflector	Made to RAL	Titanium silver
	Ø= 90mm	1157.161	.-02	2750lm	38W	●		○	●	○	○	●
	H=270mm	1157.162	.-02	2750lm	38W		●	○	●	○	○	●
		1157.171	.-02	3750lm	59W	●		○	●	○	○	●
		1157.172	.-02	3750lm	59W		●	○	●	○	○	●

Version											
LED neutral white	LED warm white	Spot reflector	Medium reflector	Flood reflector	Made to RAL	Titanium silver					

Technical changes reserved and errors excepted!



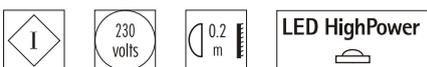
LED FACTORY

The look is defined as: "industrial". This powerful pendant luminaire has held its place in modern architecture. To comply with building requirements, it is available in different light intensities. Acrylic and aluminium reflectors are available.

Colour of light

The LEDs used are always sourced from the highest available binning. The highest currently possible efficiency is obtained in combination with the active thermal management. A choice of three colours of light is available: a warm hue at 3000K, white with 4100K and comfort white at 2700K.





						Version					
		Article No.	ECG	Lumens	Watts	LED neutral white	LED warm white	Acrylic refractor	Made to RAL	Titanium silver	
	Diameter 320mm H 400mm	1260.161	.-02	2750lm	38W	●		●	○	●	
		1260.162	.-02	2750lm	38W		●	●	○	●	
		1260.171	.-02	3750lm	59W	●		●	○	●	
		1260.172	.-02	3750lm	59W		●	●	○	●	
	Diameter 410mm H 520mm	1261.161	.-02	2750lm	38W	●		●	○	●	
		1261.162	.-02	2750lm	38W		●	●	○	●	
		1261.171	.-02	3750lm	59W	●		●	○	●	
		1261.172	.-02	3750lm	59W		●	●	○	●	

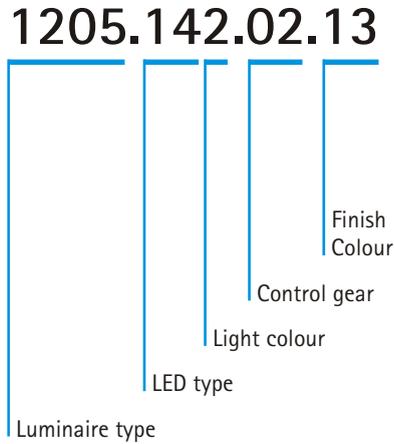
Technical changes reserved and errors excepted!

Key to Article Numbers

The article numbers always consist of the luminaire type, lamp and surface finish or colour. Using the colour code and control gear order code, both listed below, you can then read the entire article number.

► To order the changeable frame/ring system, please add the suffix "CF" or "CR" to the order code.

For more information on our changeable frame/ring system, please refer to the main catalogue, pages 86 and 138.



Light colour order code

.xx0	Daylight white	(5600K)
.xx1	Neutral white	(4000K)
.xx2	Warm white	(3000K)
.xx3	Comfort white	(2700K)

Colour key

.-10	Brass
.-11	Chrome
.-12	Matt chrome
.-13	Aluminium, scotched & zaponised
.-14	Anodized aluminium
.-18	Stainless steel, brushed
.-20	Made to RAL
.-23	Silver C3
.-25	Titanium silver
.-26	To RAL 9006
.-27	To RAL 9007
.-30	Matt black
.-31	White
.-32	Matt white
.-67	Titanium ceiling frame + housing/light trap black

Control gear order code

.00	Without control gear
.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
.06	Emergency light, E14
.07	Single battery, 1 hour
.08	Single battery, 3 hour
.09	Mains/battery switch
.10	Dimmable ECG, DALI
.11	2 x dimmable ECG, DALI

► All luminaires are available in custom colours to RAL colour system.

Main catalogue



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General information

All previous catalogues and the details given in them are rendered invalid by the appearance of this edition. For the duration of the validity of this catalogue, we expressly reserve the right to make technical and design changes to the products listed, and expressly indicate that errors are excepted. The photometric data, technical descriptions and dimensions given in this catalogue as well as the illustrations and drawings shown are non-binding. Unless otherwise stated, all dimensions given are approximate dimensions in millimetres. Unless otherwise stated, lamps are not included; exceptions are LED modules. All brand names are the property of their legal owners and are given for descriptive purposes only.

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