

MIREL evolution









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MIREL evolution Design

Modernisation of the louvre luminaire



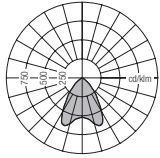


MIREL evolution lay-in luminaire, square

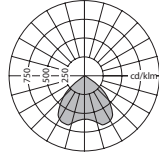
“MIREL evolution is the next generation of louvre luminaires. By giving the luminaire a distinct appearance, Zumtobel has mastered the challenge of integrating energy-efficient LED technology into a tried-and-tested stylistic idiom: the LED modules of MIREL evolution remain visible to the user. Its design being clear, unobtrusive and universally applicable, the luminaire comes with great potential for lighting quality and energy efficiency.”

MIREL evolution with visible LED lenses

First-class for offices and education



Standard Beam

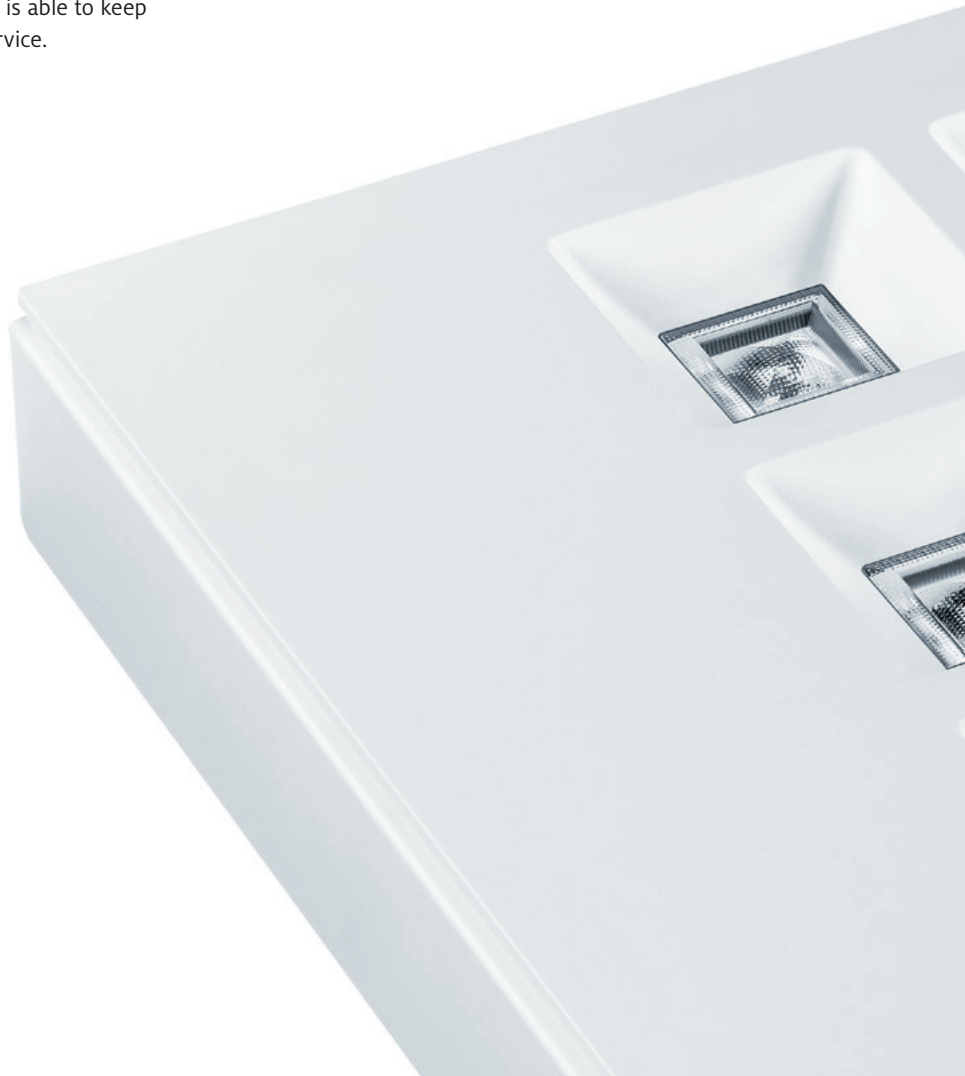
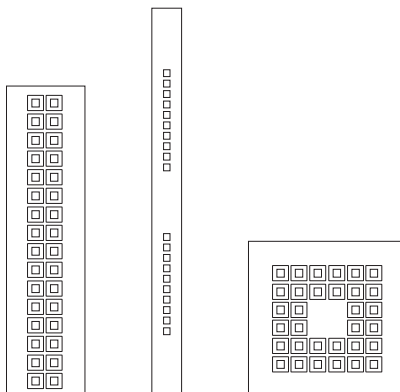


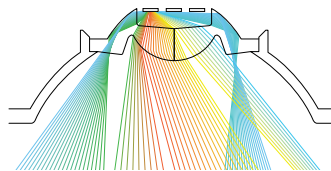
Wide Beam

Only 52 mm high, MIREL evolution is the flattest surface-mounted luminaire in the Zumtobel range. When it comes to luminaire efficiency, it is exemplary, too: up to 140 lumens per watt result in short payback periods. Light distribution is effected via the lenses at a rate of 95 per cent; only 5 per cent are accounted for by the reflections from the lighting chamber. The Wide Beam lens optic is the ideal choice for applications where high uniformity comes first. The range of lumen packages and module sizes correspond to those of conventional recessed luminaires. Accordingly, conventional luminaires can simply be replaced by exchanging them 1:1. Another benefit: MIREL evolution is available in many versions, for instance as an emergency luminaire with separate battery supply.

UV stabiliser

A special UV stabiliser protects the polycarbonate diffuser from turning yellow. Thus, MIREL evolution is able to keep its white colour all through its period of service.





Standard-compliant office lighting

The unique LED lenses combine directional light distribution with a brilliant look. The Standard Beam lens optic features a batwing light distribution to offer excellent glare control in line with EN 12464:2011 (UGR < 16 and L65 < 1500 cd/m²). Alternatively, the Wide Beam lens optic supports maximum uniformity with norm-compliant glare control (UGR < 19 and L65 < 3000 cd/m²).

MIREL evolution lens optic

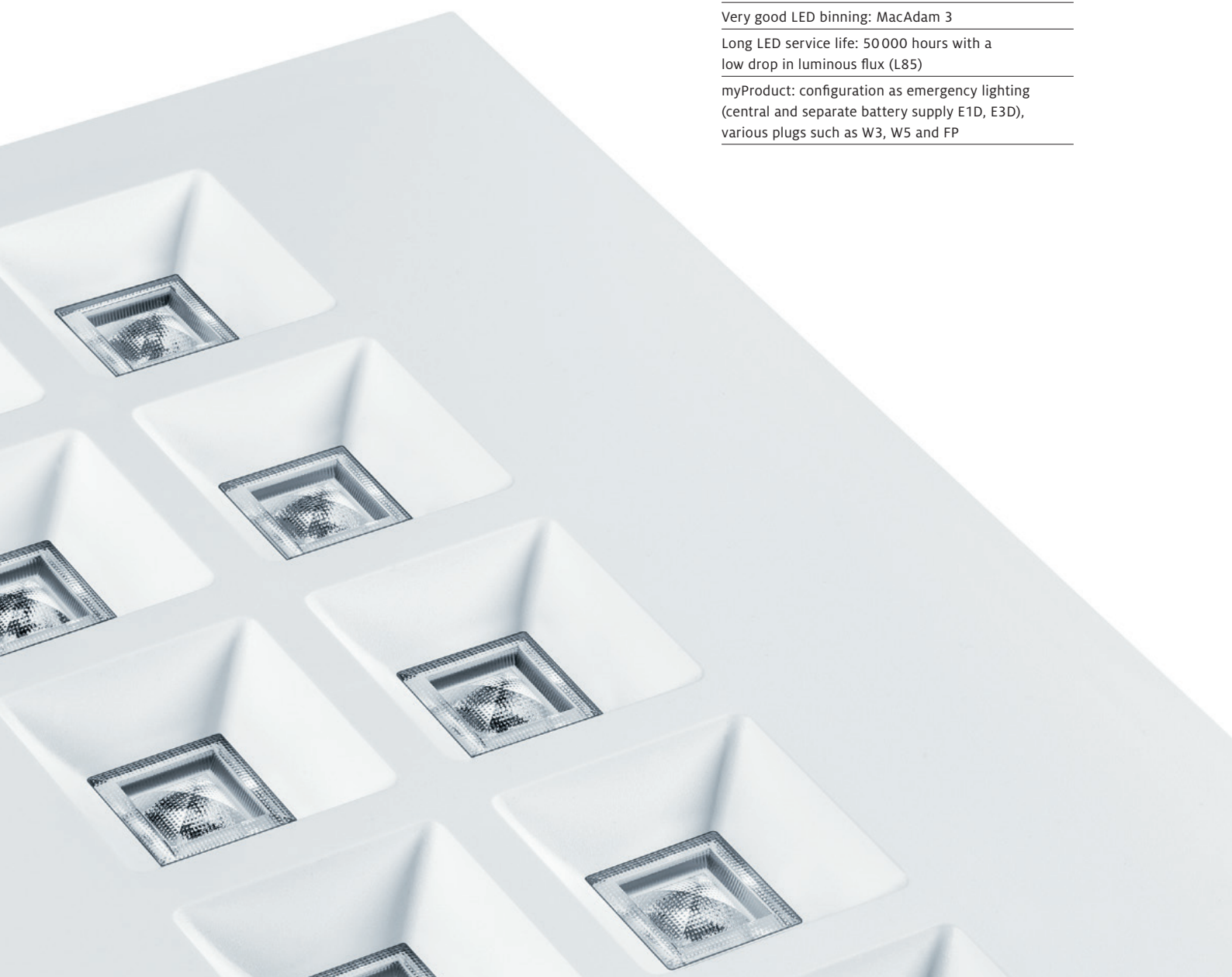
Luminaire efficiency: up to 140 lm/W

Higher protection: IP40

Very good LED binning: MacAdam 3

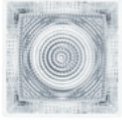
Long LED service life: 50 000 hours with a low drop in luminous flux (L85)

myProduct: configuration as emergency lighting (central and separate battery supply E1D, E3D), various plugs such as W3, W5 and FP



MIREL evolution wide beam

For even greater uniformity

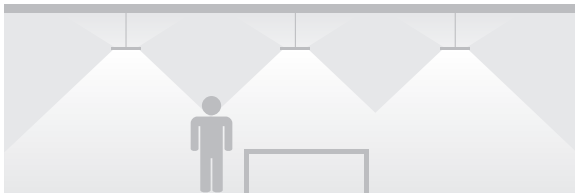


Wide Beam



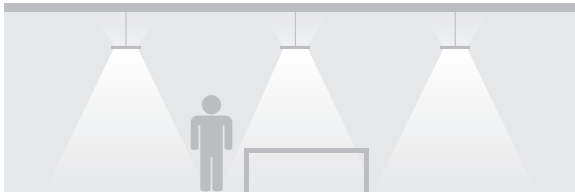
Standard Beam

MIREL evolution wide beam is the ideal lighting tool when special demands are placed on the level of uniformity. This lens optic with a wide distribution is particularly recommended for pendant luminaires, as the lower mounting heights associated with suspended fittings usually make it harder to achieve good homogeneity.



Wide Beam lens optic

A wide light distribution makes it easy to achieve the highest level of uniformity ($g > 0.7$) – even in peripheral areas.



Standard Beam lens optic

The MIREL evolution standard beam version puts the focus on high efficiency and excellent glare control.



MIREL evolution pendant luminaire with Wide Beam lens optic

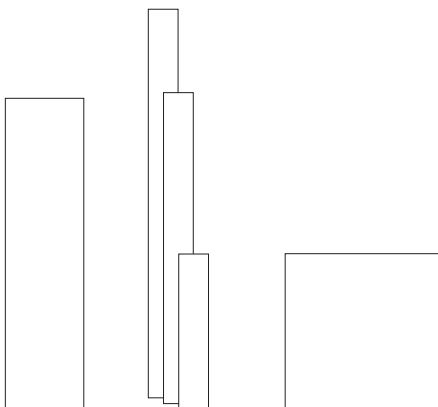


MIREL evolution pendant luminaire
Task luminaire with direct/indirect light distribution

Installed as a suspended individual luminaire or as a continuous-row system with through wiring, the MIREL evolution pendant luminaire looks even more sophisticated. Lighting quality in conformity with workstation requirements is ensured thanks to a direct light component of 60 per cent with good glare control and bathing light distribution. The ceiling, and by reflection also the entire room, is uniformly brightened up by the indirect light component of 40 per cent. In addition, MIREL evolution is available with an integrated presence detector and daylight sensor to support the responsible use of light.

Lighting refurbishment

Easy installation in various ceilings



In a few simple steps, MIREL evolution can be installed in various ceiling types: in modular ceilings with exposed carrier system, the luminaire is simply inserted; in case of concealed carriers or sawn ceiling cut-outs, a mounting kit facilitates installation. Owing to designs and lumen packages that meet the proven standards for recessed luminaires, MIREL evolution is perfectly suited for lighting refurbishment projects.



Smart lighting control via Bluetooth

A large part of the luminaire range is offered with optional basicDIM radio technology for wireless control. Communication with the luminaires is achieved using an app for mobile devices. This means that even existing lighting solutions can be modernised quickly, as lighting control does not require any additional wiring.

**MIREL evolution slim**

This luminaire catches the eye with its slender form and reduced number of lenses, combining very high light levels with good glare control ($UGR < 19$). MIREL evolution slim is offered in a range of widths and lengths, while both its dimensions and the associated lumen packages correspond to those of conventional T16 lamps. This enables lighting refurbishment projects to be carried out with minimum effort and inconvenience. The 70-mm-high luminaire can be simply inserted into a module ceiling without the need for rewiring and then levelled accordingly. In line with the vast majority of modular ceilings, MIREL evolution slim is made using powder-coated metal, ensuring a perfect match in terms of both material and colour.

MIREL evolution mini

Quadratic downlight



The quadratic downlight consistently continues the family idea in the smallest space. With an edge length of 230 mm and the low profile, MIREL evolution mini also looks extremely attractive as a surface-mounted downlight. The small model satisfies high requirements on quality and consumption with a luminaire efficiency of 120 lm/W, the batwing light distribution and glare control of $UGR < 19$ and $L65 < 3000 \text{ cd/m}^2$ conforming to EN 12464:2011. Everything is also possible in the area of emergency lighting: Every MIREL evolution mini standard luminaire can be integrated into an emergency lighting system with a central battery; the power supply using an individual battery is provided as an option in the myMIREL Online Configurator.



Surface-mounted luminaire

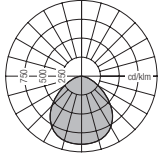
**Recessed luminaire
with spring clip**

**Recessed luminaire
with magnet**

Sizes	230 x 230 x 63 mm	170 x 170 x 38 mm	150 x 150 x 38 mm
Colour temperatures	3000 K 4000 K	3000 K 4000 K	3000 K 4000 K
Lumen packages	1200 lm	1200 lm	1200 lm
Housing colours	black or white	black or white	black or white

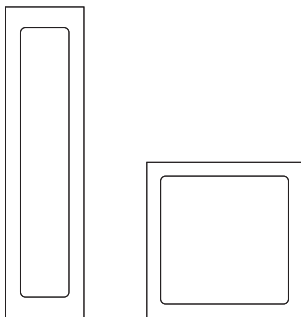
MIREL evolution with LRO optic

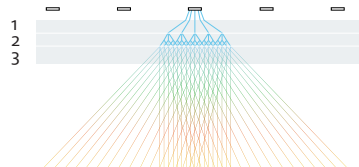
Ideal for offices and education



The combination of a standardised, high glare suppression, even with large lumen packages ($UGR < 19$ and $L65 < 3000 \text{ cd/m}^2$), and high efficiency make MIREL evolution LRO the ideal luminaire for offices and educational institutions.

The innovative, 3-layer LRO optic gives it a uniform appearance to satisfy the wish for brilliant and at the same time homogeneous light. Cleaning is also made easy thanks to the smooth surface that makes it difficult for dirt and dust to stick to the surface.





Brilliant office lighting

A diffuser layer (1) initially disperses the LED light points perfectly. The light beams are then distributed evenly by two crossed lenticular films (2). A transparent cover (3) fully protects the inside of the luminaire against foreign bodies.

MIREL evolution LRO optic

Luminaire efficiency: up to 112 lm/W

Higher protection: IP40

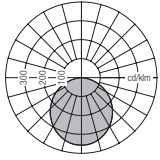
Very good LED binning: MacAdam 3

Long LED service life: 50 000 hours with a low drop in luminous flux (L80)

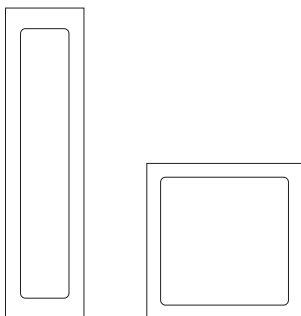
myProduct: configuration as emergency lighting (central and separate battery supply E1D, E3D), various plugs such as W3, W5 and FP

MIREL evolution with opal cover

Consistent design from the office into the corridor



Following up on the character of the lens luminaire, the opal variant of MIREL evolution continues the family concept. Square luminaires and linear luminaires position themselves as attractive lighting solutions for corridors and side rooms through quality and price. Additionally, MIREL opal luminaires with small lumen packages are ideally suited for offices and educational facilities. At glare control of $UGR < 19$ and luminance levels of $L65 < 3000 \text{ cd/m}^2$, the luminaires provide standard-compliant glare limitation. Luminaire efficiency of 135 lm/W is a convincing argument for all applications. Thanks to the great variety of versions available, MIREL evolution may also be used as an emergency luminaire with separate battery supply, for instance.





3Dprotect® reflector with multiple functions

The innovative 3Dprotect® reflector serves as an insulating element of the LED modules, increasing the light output ratio at the same time.

MIREL evolution opal optic

Luminaire efficiency: up to 135 lm/W

Higher protection: IP40

Very good LED binning: MacAdam 3

Long LED service life: 50 000 hours with a low drop in luminous flux (L80)

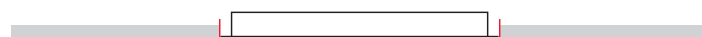
myProduct: configuration as emergency lighting (central and separate battery supply E1D, E3D), various plugs such as W3, W5 and FP

MIREL evolution mounting

Surface -mounted, recessed mounted or simply inlaid

Lay-in luminaires

For ceiling modules with visible support system



Linear luminaire
with lens optics



Slim luminaire
with lens optic



Quadratic luminaire
with lens optics



Linear luminaire
with LRO optic



Square luminaire
with LRO optic



Linear luminaire
with opal optics



Quadratic luminaire
with opal optics

Height-adjustable recessed luminaire

For ceiling modules with concealed support system or for sawn ceiling openings



Accessories: Recessed housing
for luminaire with lens optics



Linear luminaire
with lens optics



Slim luminaire
with lens optic



Quadratic luminaire
with lens optics



Linear luminaire
with LRO optic



Square luminaire
with LRO optic



Linear luminaire
with opal optics



Quadratic luminaire
with opal optics

Surface-mounted luminaire

Powder-coated luminaire housing with 52 mm visible height



Accessories:
Surface-mounted housing



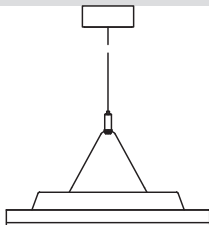
Linear luminaire with lens optics



Quadratic luminaire with lens optics

Pendant luminaire

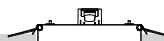
As individual luminaire or continuous-row



Pendant luminaire with lens optics

Downlights

MIREL evolution mini



Surface-mounted downlight



Recessed luminaire with spring clip



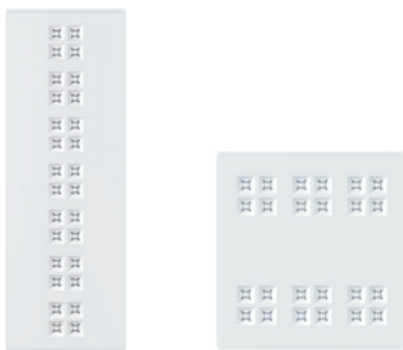
Recessed luminaire with magnets

MIREL evolution modular

Fully customised recessed modules

Due to the variety of design options, C-strip grid and T-beam ceilings in public buildings, offices or shopping malls are still highly popular. MIREL evolution is a custom-fit refurbishment solution that provides ideal prerequisites for keeping the costs required for refurbishment of the lighting system as low as possible for the customer. The modular platform for MIREL lens luminaires includes both square versions and linear luminaires for flush mounting. Another benefit: individually designed versions of the custom-fit recessed luminaires can also be installed in closed ceilings. MIREL evolution modular thus extends the variety of application options for the MIREL luminaire range, providing high-quality lighting solutions in a uniform design.

Yet, only four easy steps are required to configure a luminaire: after having specified the exact dimensions and the type of installation, the type of lighting technology is selected in a second step – the arrangement of LED clusters can be as easily adjusted as the lighting quality. Material and colours can be configured as precisely as the large number of special extras which are optionally available, ranging from air supply and extraction through to presence detectors, loudspeakers and emergency lighting with ONLITE RESCLITE.



	Linear luminaire	Square luminaire
Length	1100 – 1800 mm	580 – 625 mm
Width	184 – 625 mm	580 – 625 mm
Number	1 to 7 LED clusters	4 or 6 LED clusters

Ceiling types:

C-strip grid ceilings

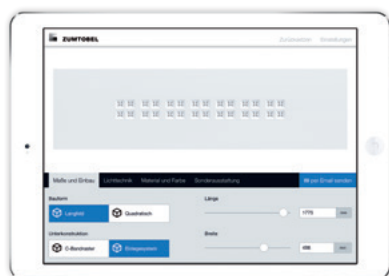
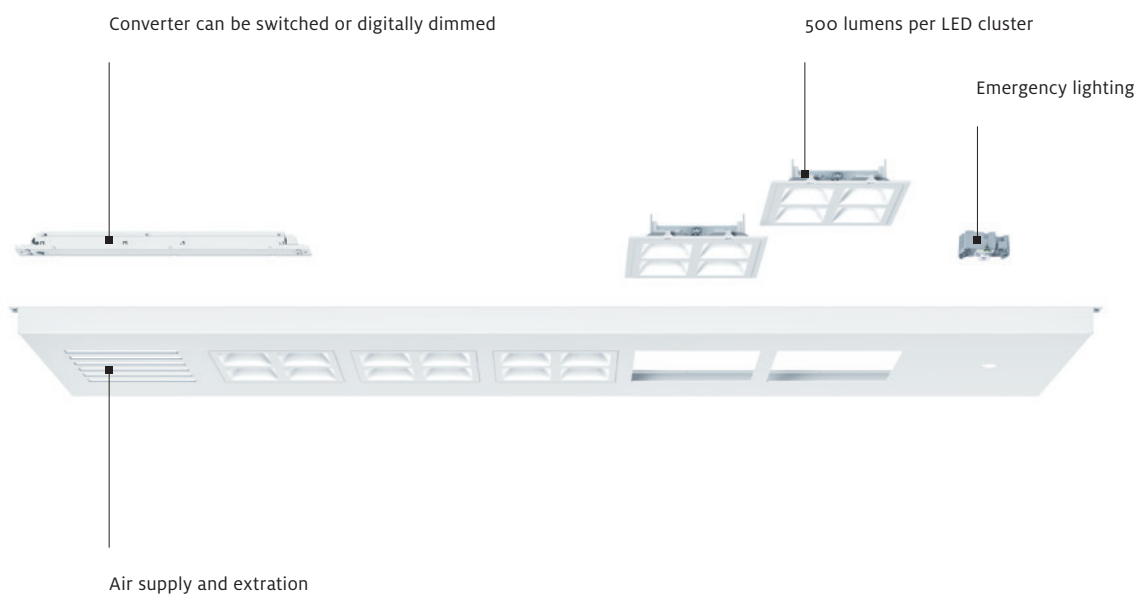


visible T-beam ceilings



inlay strip grid





Configurator

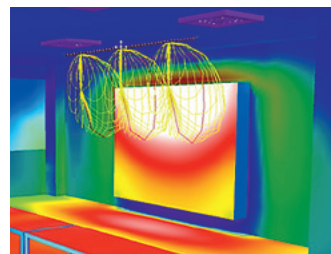
The MIREL evolution modular luminaires are customised by Zumtobel staff members according to the customers' requests directly on site. The Configurator guides the user through all selection steps and immediately displays the luminaire's individually configured design in a luminaire preview. The configuration data can be saved in a PDF document by pressing a button and be sent via e-mail to the customer.

MIREL evolution wall washer

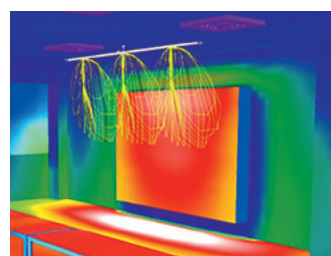
Asymmetric distribution wall washer



The MIREL evolution wall washer provides a high-quality solution where the even illumination of vertical surfaces is required. The great flexibility is based on different mounting options and lamp dimensions that fit exactly in the ceiling openings of the MIREL T16 wall washer. For lighting renovation, the change to modern LED lighting is therefore possible without construction measures. General and blackboard lighting in classrooms can now be completely achieved with contemporary LED technology.



T16
Brightness (E_{av}): 606 lx
Uniformity (u_0): 0.577



LED
Brightness (E_{av}): 537 lx
Uniformity (u_0): 0.780

MIREL evolution wall washer

Product overview



	Recessed luminaire (1:1 T16 replacement)	Surface-mounted luminaire
Sizes	598 x 114 x 85 mm (M600L) 1198 x 114 x 85 mm (M600L12) 623 x 114 x 85 mm (M625L) 1248 x 114 x 85 mm (M625L12)	1203 x 130 x 61 mm (L1200)
Colour temperatures	4000 K	4000 K
Lumen packages	2200 lm 4400 lm	4400 lm
Housing colours	white	white

Best efficiency

With a luminaire efficiency of up to 140 lm/W, MIREL evolution is one of the most efficient luminaire families in its class. Not forgetting a lamp life of 50 000 hours and a luminous flux reduction to only 90 percent (L85). Hence, this further development of a louvre luminaire on LED basis is perfect for lighting renovations – loosely based on the credo: Better light at less cost.

Outstanding lighting effect

Optics with visible lenses or a closed cover provide the right light for every application area. Very good to excellent glare control, always complying with standards, the ba ing light distribution of the lens luminaire and good lighting quality ensure a high visual comfort and a pleasant room atmosphere.

Excellent glare control

Luminaires with lens optics ensure workplace lighting in accordance with the standard EN 12464:2011 with UGR < 16 and L65 < 1500 cd/m². Luminaires with a wide-angle lens optic and luminaires with an opal optic and lower luminous flux deliver UGR < 19 and L65 < 3000 cd/m² to ensure glare control that meets the relevant standards. The Wide Beam version also offers greater uniformity.

Flexible design

The flexible installation ranges from lay-in luminaires and height-adjustable recessed luminaires to surface-mounted and pendant luminaires. This opens up a wide range of designs in combination with different shapes.

Timeless design

MIREL evolution will impress you with its timeless look that offers the possibility of realising projects with different application areas in a consistent design.



MIREL evolution

Recessed, surface-mounted and pendant LED luminaire

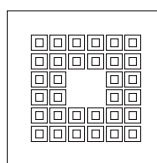
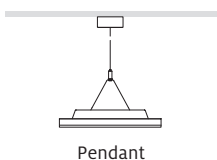
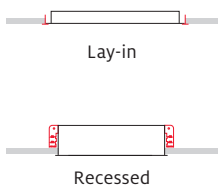
Overview

Installation

Housing colours

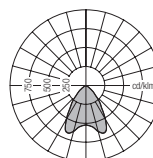
Shapes

Optics

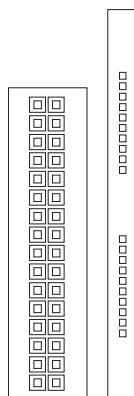
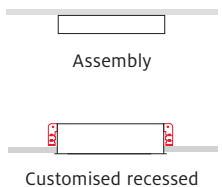


Square

■ □

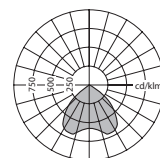


Standard Beam lens optic

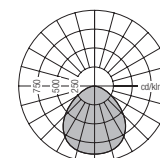


Linear Slim

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Wide Beam lens optic

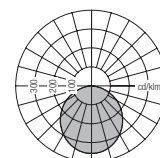


LRO optic



Mini

■ □



Opal optic

T H E L I G H T

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