
LIGHT FOR INDUSTRY
CATALOGUE

VALID AS OF JUNE 2018



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BY PRODUCT CATEGORIES

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ROOM LIGHTING

WORKPLACE LIGHTING

MACHINE LIGHTING

LIGHT FOR INDUSTRY
CATALOGUE

WALDMANN ENGINEER OF LIGHT

The global player from the Black Forest: Waldmann stands for innovative lighting expertise, intelligent designs and international experience.

Here, tradition, innovation and passion create a perfect combination. Waldmann develops sophisticated lighting solutions, which support people at work, allow for flexibility when taking into consideration varying room situations and help save

energy. This makes the owner-run company a technology leader in the divisions of industry, office, health & care as well as medical phototherapy.

Since its foundation in 1928, its headquarters are located in Villingen-Schwenningen – today Waldmann has sales and production sites in 11 nations and 1 000 staff.

For you, this means: direct consulting by light specialists on site and tailor-made solutions.





WALDMANN

LIGHT WITH VERY HIGH STANDARDS

Tradition & future-oriented solutions

For well over 60 years, Waldmann has been developing lighting concepts for a wide range of sectors and fields of application. Health, productivity, safety and energy savings are at the forefront. The current state of technology and many years of experience guarantee viable solutions.



Know-how & unique consulting

Waldmann takes its established application know-how to customers and partners: You can go to LIGHTLINER, a specially designed truck, to obtain comprehensive consulting and test all lighting solutions yourself. It's never been easier to find the right light!



Craftsmanship & individual concepts

Waldmann manufactures "Customized lighting": The task and the environment are the most important parameters for the right lighting concept. Industrial customers benefit from German craftsmanship, which keeps what it promises: Exclusive solutions based on a broad application know-how.



Quality & highest standards

Waldmann is distinguished by quality, reliability and engineering know-how – everything that is associated abroad with "Made in Germany". Quality awareness is the basis of our actions. This is also what the active environmental management (certified to DIN EN 14001) stands for.







WALDMANN'S TWIN-C PHILOSOPHY

LIGHT CONCEPTS WITH ADDED VALUE

How can you achieve optimum lighting, one of the most important value-adding factors in industry? Very simple: with the right philosophy. At Waldmann, this philosophy is called "TWIN-C". This stands for "Concepts" and "Components" and forms the centre of a 4-step plan for a light concept that increases, among other things, productivity and safety.

The four steps for achieving an intelligent light concept

1. Analysis
2. Elaboration of the concept ("Concept")
3. Selection and definition of the right products ("Components")
4. Implementation

Advantages of TWIN-C: more productivity and safety

Productivity – an increase of up to 40% possible

- Maximizing the workplace potential
- Individually adjustable light increases productivity
- Improved work performance
- Decrease of error and reject rates
- Increase in quality

Safety – fewer accidents by up to two thirds

- Well-lit workplaces reduce the risk of accidents
- Reduction of the number and seriousness of injuries
- Highly concentrated employees due to improved light situation
- Efficient light solutions instead of costly safety measures

WALDMANN'S TWIN-C PHILOSOPHY

INTELLIGENT LIGHTING

TWIN-C helps to fully exploit energy saving potentials – and to simultaneously increase comfort and illuminance. This is also an important topic in view of the demographic change since the light demand increases with advancing age. Every workplace poses special challenges to the light engineers: A modern light concept must meet individual requirements, including those of older employees, night and shift workers. This can be achieved by intelligent, workplace-related TWIN-C light solutions.

Advantages of TWIN-C: better health and more energy savings

Health – increased well-being

- Counteracting signs of ageing and deficiencies
- Staff needs are optimally taken into account
- Adapted to the requirements of older employees as well
- Long-term health-promoting for night and shift workers
- Fewer absences and increased motivation

Energy saving – in the double-figure percentage range

- Light for selective use
- Reduction in energy consumption in combination with increased illuminance
- High light efficiency at the workplace
- Increased comfort thanks to high-quality lighting concepts





IN AN ENTIRELY NEW LIGHT A PASSION FOR INNOVATION

Waldmann light engineers make high demands on their work: innovative and individual light concepts at the highest level. On the basis of their mechanical and electronic know-how, their broad experience and intense dialogue with the customer, they develop reliable and long-lived products. This guarantees true insights!

Room lighting – a sophisticated concept all the way through

Waldmann assists you with flexible system solutions for different room situations. Especially production and logistics halls require very sophisticated light solutions. Waldmann lighting concepts meet a wide range of lighting needs, guarantee high flexibility and help save energy.

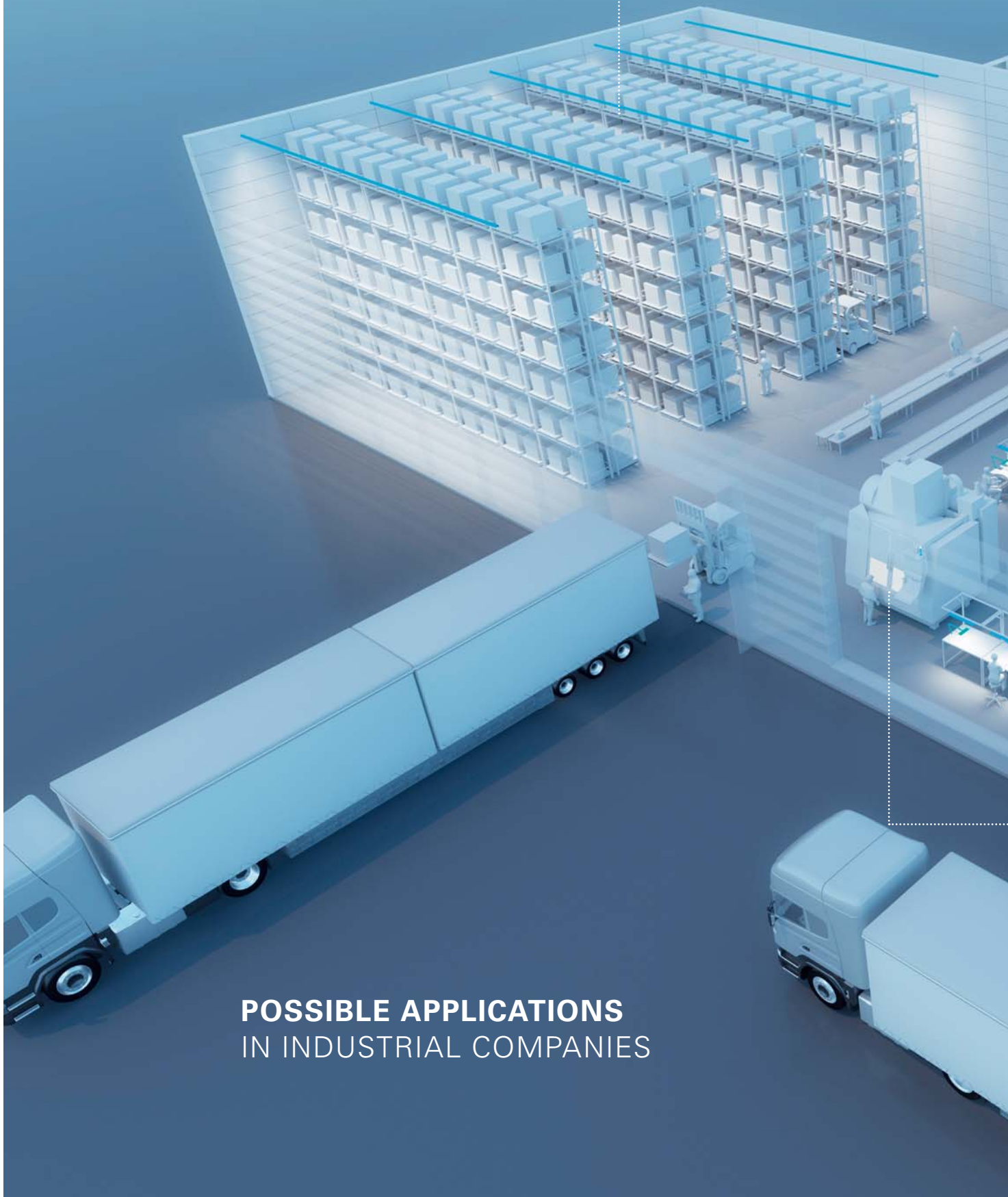
Workplace lighting – human beings come first

Waldmann's workplace lighting is guided by a simple principle: If the employee is well, this is good for the company. Even in a high-tech world, the human being is still at the centre of all work processes. Waldmann integrates his/her needs and requirements into optimum workplace lighting.

Machine lighting – light in extreme situations

For decades, Waldmann has been a strong partner in machine lighting matters. It presents product developers with particular challenges: The lights must withstand extreme temperatures and mechanical impacts. This is guaranteed by extensive vibration and shock tests and a 100 % tightness test.

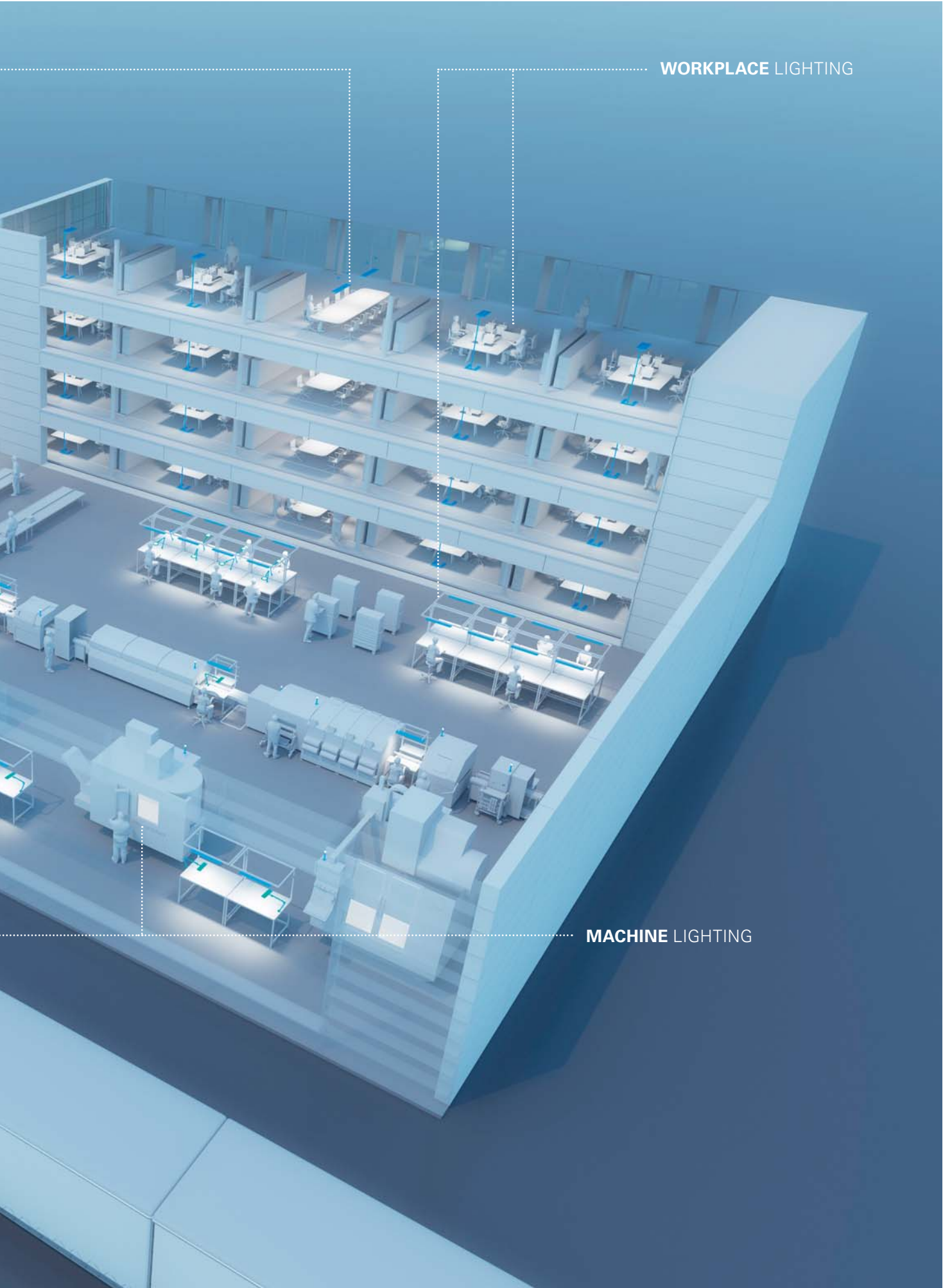
ROOM LIGHTING



POSSIBLE APPLICATIONS
IN INDUSTRIAL COMPANIES

WORKPLACE LIGHTING

MACHINE LIGHTING



ROOM LIGHTING



Production hall



WORKPLACE LIGHTING



Assembly workplace



Laboratory workplace



MACHINE LIGHTING







Machine tools



Track laying machines



| | | |
|---|---|---|
|  Logistics hall |  Office |  Meeting room |
|  |  |  |

| | | |
|---|--|--|
|  Electronics workplace |  Workshop workplace |  Inspection workplace |
|  |  |  |

| | |
|---|---|
|  Watchmaker workplace |  Office workplace |
|  |  |

| | | |
|---|--|---|
|  Textile machines |  Printing machines |  Packaging machines |
|  |  |  |

| | |
|---|--|
|  Woodworking machines |  Production facilities |
|  |  |

ROOM LIGHTING



Production hall

TAUREO
20ACANEO
24

Office

LAVIGO
30

Logistics hall

TAUREO
20ACANEO
24

Meeting room

LAVIGO
30



TAUREO FLEXIBLE LIGHTING WITH SYSTEM

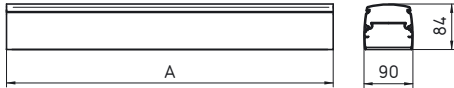




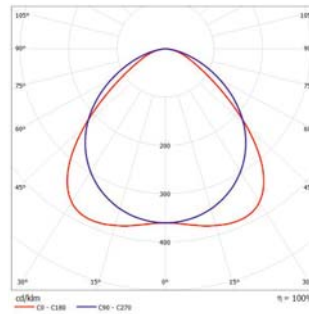
TAUREO emphasises the importance of Waldmann as quality brand for high-quality lighting solutions at the workplace: Via this new LED continuous-row system, the Engineer of Light addresses the hall lighting topic and supplements his concept of intelligent lighting solutions for industry by another convincing component.

As a modular system, TAUREO offers the suitable light in each case for different requirements, such as those found, for example, in productions halls, logistics halls, storage halls or cooling facilities. Thanks to its system character, TAUREO adapts itself also very easily to changed conditions.

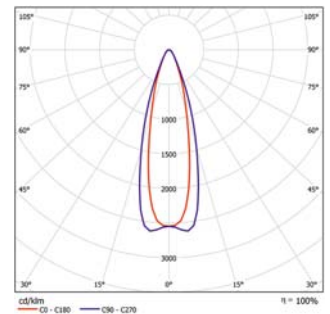
- Light modules with premium LEDs
- Variants of up to 4700 lumen
- Ambient temperature up to +55° C
- Energy saving of 50 % compared with conventional luminaires
- Maintenance-free: LED service life up to 60000 hours (L80B10) and more
- Continuous dimming and daylight and presence sensors as option
- Maximum flexibility through modular design
- Optimum thermal management with intelligent overheating protection
- Patented optics for precise light deflection and different beam characteristics
- Time- and cost-saving putting into operation through torsion-resistant and intelligent mounting profiles
- High-quality processing according to Waldmann quality standards
- 5-year system warranty
- 20-year spare part warranty



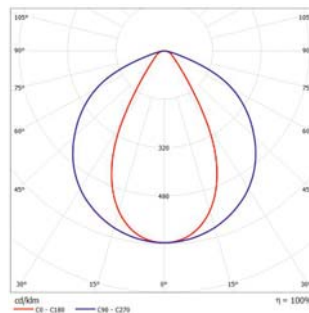
A = 600 mm, 1200 mm, 3000 mm or 4200 mm



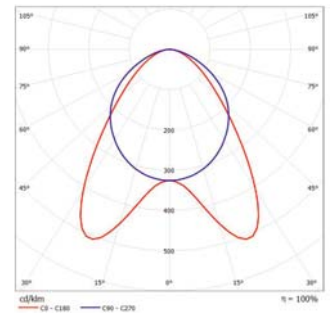
Wide-beam for hall heights of approx. 4 – 6 m, W optics



Extra narrow-beam for hall heights of approx. 10 – 18 m, xN optics



Narrow-beam for hall heights of approx. 6 – 10 m, N optics




Double asymmetric for storage halls, D optics

TAUREO at a glance





- Power consumption from 22 W, 28 W or 33 W (system power)
- Net luminous flux package 3300 lm, 4000 lm or 4700 lm
- Temperature of use: - 25° C to + 45° C (at 4700 lm)
 - 25° C to + 50° C (at 4000 lm)
 - 25° C to + 55° C (at 3300 lm)
- Residual light current 80% after 60000 operating hours (IES LM 80 & TM 21)
- Colour temperature neutral white 4000 K, 5000 K and daylight white 6500 K
- Internal optics for different beam characteristics (wide-beam, narrow-beam, extra narrow-beam, double asymmetric)
- Support profile made of robust aluminium
- 7-wire premounted conductor group in 2.5 mm²
- Continuously dimmable 1 – 10 V or DALI standard
- Completely protected and extruded light modules and operating devices
- Phase selection via simple DIP switch
- Degree of protection IP20/IP40/IP54 for overall system, protection class I
- Overvoltage resistance 4 kV
- DALI, daylight control and presence sensors available as option
- Emergency lighting as option can be integrated directly into the support profile
- Dimensions of the support profile: 4200 mm/3000 mm/1200 mm/600 mm x 90 mm x 84 mm
- Dimensions of the light module: 592 x 72 mm
- Weight per 4200 mm: 15.4 kg fully equipped, 9.1 kg without equipment





 Production hall

 Logistics hall

| LIGHT MODULE | Light current | Light colour | Power | Order no. |
|--|---------------|--------------|-------|--------------------------|
|  W optics | 4000 lm | 4000 K | 28 W | H10 000 059 - 006 211 82 |
| | 4000 lm | 5000 K | 28 W | H10 000 329 - 006 791 60 |
| | 4000 lm | 6500 K | 28 W | H10 000 289 - 006 462 49 |
| | 4700 lm | 4000 K | 33 W | H10 000 399 - 006 959 38 |
| | 4700 lm | 5000 K | 33 W | H10 000 409 - 006 959 41 |
| | 4700 lm | 6500 K | 33 W | H10 000 419 - 006 959 44 |
|  N optics | 4000 lm | 4000 K | 28 W | H10 000 049 - 006 211 74 |
| | 4000 lm | 5000 K | 28 W | H10 000 469 - 006 960 05 |
| | 4000 lm | 6500 K | 28 W | H10 000 279 - 006 462 46 |
| | 4700 lm | 4000 K | 33 W | H10 000 489 - 006 960 11 |
| | 4700 lm | 5000 K | 33 W | H10 000 499 - 006 960 14 |
| | 4700 lm | 6500 K | 33 W | H10 000 509 - 006 960 17 |
|  xN optics | 4000 lm | 4000 K | 28 W | H10 000 249 - 006 296 24 |
| | 4000 lm | 5000 K | 28 W | H10 000 559 - 006 960 32 |
| | 4000 lm | 6500 K | 28 W | H10 000 269 - 006 462 43 |
| | 4700 lm | 4000 K | 33 W | H10 000 579 - 006 960 38 |
| | 4700 lm | 5000 K | 33 W | H10 000 589 - 006 960 41 |
| | 4700 lm | 6500 K | 33 W | H10 000 599 - 006 960 44 |
|  D optics | 4000 lm | 4000 K | 28 W | H10 000 069 - 006 211 91 |
| | 4000 lm | 5000 K | 28 W | H10 000 649 - 006 960 60 |
| | 4000 lm | 6500 K | 28 W | H10 000 299 - 006 462 52 |
| | 4700 lm | 4000 K | 33 W | H10 000 669 - 006 960 67 |
| | 4700 lm | 5000 K | 33 W | H10 000 679 - 006 960 70 |
| | 4700 lm | 6500 K | 33 W | H10 000 689 - 006 960 74 |

Variants with a light current of 3300 lm upon request

| OPERATING DEVICE | Connected load | Special feature | Order no. |
|------------------|----------------|-------------------|--------------------------|
| | 220 – 240 V | dimnable 1 – 10 V | H11 000 119 - 006 803 39 |
| | 220 – 240 V | DALI | H11 000 129 - 006 803 43 |

| SUPPORT PROFILE | Length | Colour | Special feature | Order no. |
|-----------------|---------|---------------------|--------------------|--------------------------|
| | 4200 mm | colourless anodised | 7-pin, black cover | H12 000 119 - 006 714 31 |
| | 3000 mm | colourless anodised | 7-pin, black cover | H12 000 129 - 006 714 39 |
| | 1200 mm | colourless anodised | 7-pin, black cover | H12 000 139 - 006 714 42 |
| | 600 mm | colourless anodised | 7-pin, black cover | H12 000 149 - 006 714 45 |



LED

ACANEO STRONG LIGHTING PARTNER FOR ANY HEIGHT



ACANEO is the ideal solution for wide-area general lighting of buildings with high room heights: Efficient lighting in halls up to 30 metres in height. This increases the performance of staff and the quality of their work. ACANEO also provides an important contribution to a positive energy balance. Your company benefits from these factors: Social responsibility and commitment to the environment have a favourable effect on cost efficiency.

- Advanced LED technology with up to 60000 hours of service life (L80B10)
- Extremely robust die-cast aluminium housing
- Energy saving compared with conventional luminaires
- Time- and cost-saving mounting
- Thermal management with intelligent overheating protection
- Patented optics for precise light deflection
- High-quality processing according to Waldmann quality standards
- Maintenance-free
- 5-year system warranty
- Resistant to common coolants, oils and welding vapours
- Integrated, optional constant light output (CLO)

ACANEO

ROBUST. LONG SERVICE LIFE. EFFICIENT.



Light technology in a new dimension

ACANEO is the right solution for different room situations: Waldmann offers the luminous flux package that matches different room heights and illuminance levels. The optics was developed with a view to achieving minimum glare and maximum homogeneity in the focus, which we managed to do convincingly ($UGR < 22$). This increases occupational safety, while reducing the number of accidents.

Light for extreme conditions

ACANEO fulfils the high demands of logistics, production and storage halls: The high bay luminaire works reliably even in dusty, humid and oil-containing air. The light does not require visible cooling ribs: The risk of contamination, for example by oil particles, is clearly reduced!

(Degree of protection: IP65; impact resistance up to IK10)

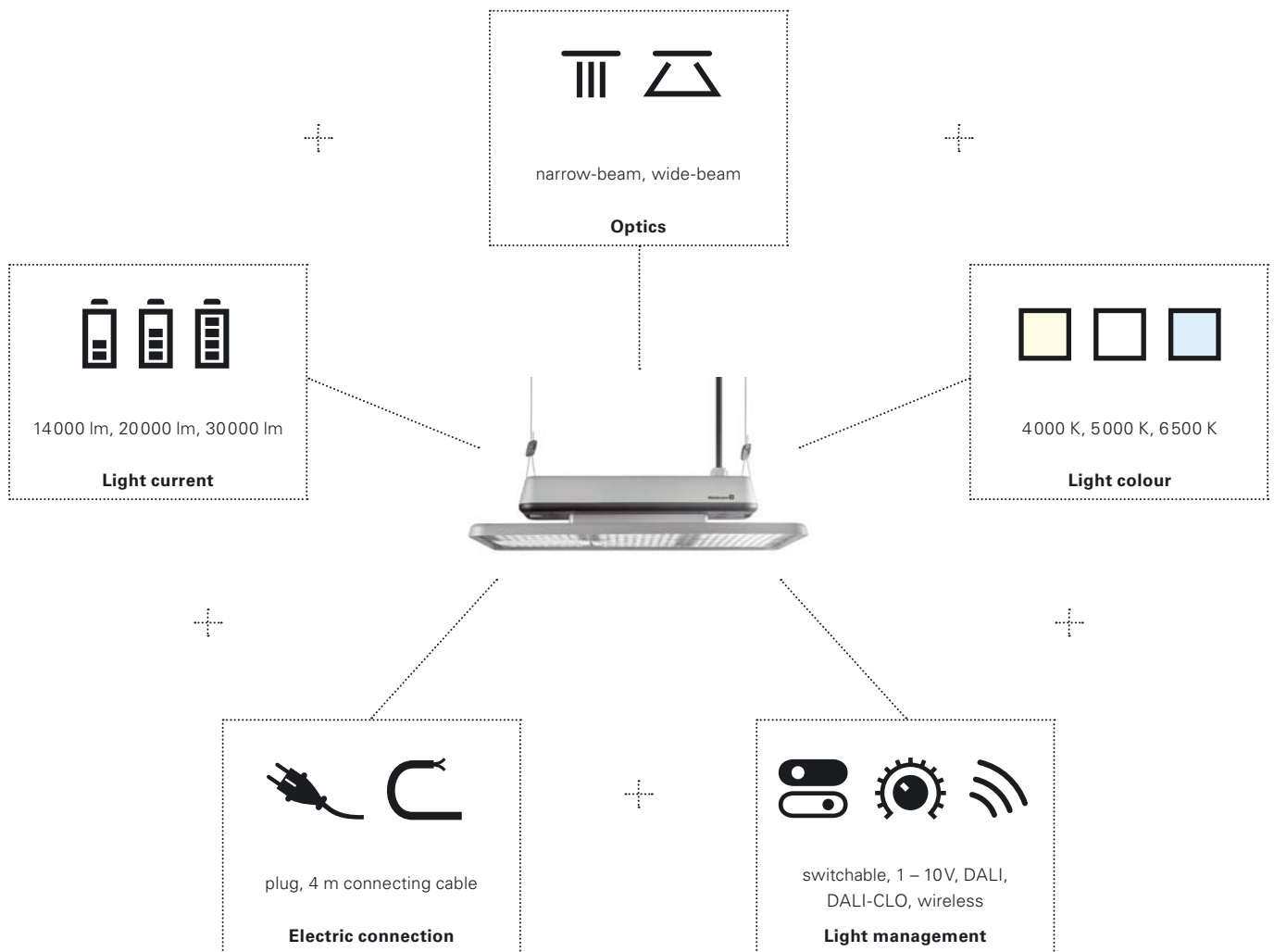
ACANEO is equipped with Constant Light Output (CLO), thus compensating the decrease in luminous flux over its entire service life. This service life of 60 000 hours remains stable even at more than 70°C – thanks to the intelligent housing concept, selective high-performance materials and thermal management. The illuminance fulfils the requirements of the standard, even when equipped with active overheating protection.

Simple mounting, high intelligence

Compared with conventional high bay luminaires, ACANEO provides its first cost savings already prior to being put into operation: Completely pre-mounted and equipped with mains lead, the two suspension points at the ceiling can be combined to a single-point suspension. This results in self-alignment and complete mounting of ACANEO within a few minutes. Even vibrations and air movements are no longer able to twist the luminaire.

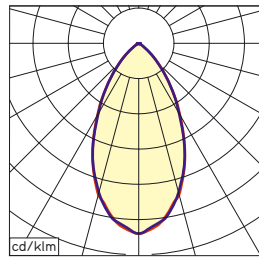
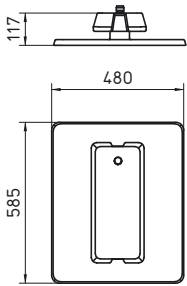
ACANEO MODULAR DESIGN SYSTEM

CUSTOMIZED LIGHTING – JUST CONFIGURE IT YOURSELF

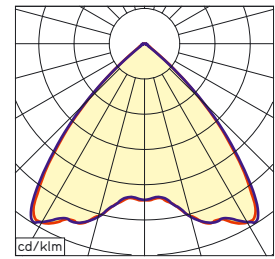


ACANEO stands for maximum flexibility: To allow you to tune the light to your room situation, the environment and the tasks to be carried out, Waldmann offers you the ACANEO configurator: Our product developers have designed ACANEO in such a way that a large number of components can be used in various combinations.

Variations in luminous flux, optics, light colour, technology and connecting cable combine to give a lighting solution tailored to your needs. In a nutshell: Our light does exactly what you want it to do!



N optics



W optics

ACANEO at a glance

- Net luminous flux package 30000 lm (replaces > 700 W-HQL)
- Power consumption 230 W
- Temperature of use: -30° C to +50° C
- Residual luminous flux 80% after 60000 operating hours (L80B10)
- Colour temperature neutral white 4000 K, daylight white 5000 K and 6500 K
- Internal individual optics/narrow-beam or wide-beam
- Robust die-cast aluminium housing
- Premounted connecting cable (4 m), (variant)
- Switchable or continuously dimmable 1 – 10 V or DALI standard
- Intelligent wireless light management system (variant)
- Degree of protection IP65; protection class I
- 5-year warranty
- Dimensions housing size: 585 mm x 480 mm x 117 mm
- Weight 10.8 kg

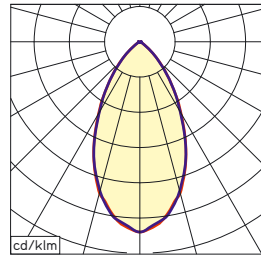
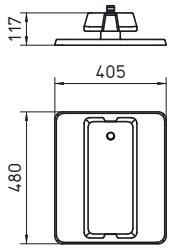
Production hall

Logistics hall

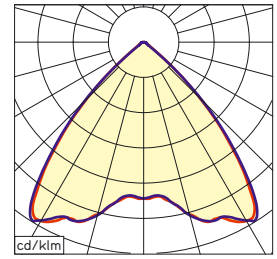
Luminous flux 30000 lm

Further variants on request

| Optics | Light colour | Technology | Model | Order no. with plug | Order no. with connection cable |
|-------------|--------------|------------|-----------------------|--------------------------|---------------------------------|
| narrow-beam | 4000 K | DALI | HIAL 30000/840/N/DALI | 113 533 000 - 007 329 88 | 113 533 000 - 007 336 97 |
| narrow-beam | 4000 K | switchable | HIAL 30000/840/N/EA | 113 535 000 - 007 340 99 | 113 535 000 - 007 341 26 |
| narrow-beam | 5000 K | DALI | HIAL 30000/850/N/DALI | 113 533 000 - 007 336 91 | 113 533 000 - 007 337 00 |
| narrow-beam | 5000 K | switchable | HIAL 30000/850/N/EA | 113 535 000 - 007 341 20 | 113 535 000 - 007 341 29 |
| wide-beam | 4000 K | DALI | HIAL 30000/840/W/DALI | 113 533 000 - 007 337 06 | 113 533 000 - 007 337 15 |
| wide-beam | 4000 K | switchable | HIAL 30000/840/W/EA | 113 535 000 - 007 341 36 | 113 535 000 - 007 341 51 |
| wide-beam | 5000 K | DALI | HIAL 30000/850/W/DALI | 113 533 000 - 007 337 09 | 113 533 000 - 007 337 18 |
| wide-beam | 5000 K | switchable | HIAL 30000/850/W/EA | 113 535 000 - 007 341 39 | 113 535 000 - 007 341 54 |



N optics







W optics



ACANEO at a glance

- Net luminous flux package 14 000 lm (replaces > 250 W-HQL)
- Net luminous flux package 20 000 lm (replaces > 400 W-HQL)
- Power consumption 100 W or 160 W
- Temperature of use: -30° C to +50° C (in combination with DALI up to +60° C)
- Residual luminous flux 80 % after 60 000 operating hours (L80B10)
- Colour temperature neutral white 4000 K, daylight white 5000 K and 6500 K
- Internal individual optics/narrow-beam or wide-beam
- Robust die-cast aluminium housing
- Premounted connecting cable (4 m), (variant)
- Switchable or continuously dimmable 1 – 10 V or DALI standard
- Intelligent wireless light management system (variant)
- Degree of protection IP65; protection class I
- 5-year warranty
- Dimensions housing size: 480 mm x 405 mm x 117 mm
- Weight 8.2 kg

|  Production hall | | | |  Logistics hall |
|---|---------------------|-------------------|-----------------------|--|
| Luminous flux 14 000 lm | | | | Further variants on request |
| Optics | Light colour | Technology | Model | Order no. with plug Order no. with connection cable |
| narrow-beam | 4 000 K | DALI | HIAL 14000/840/N/DALI | 113 547 000 - 007 370 34 |
| narrow-beam | 4 000 K | switchable | HIAL 14000/840/N/EA | 113 547 000 - 007 371 13 113 549 000 - 007 372 42 |
| narrow-beam | 5 000 K | DALI | HIAL 14000/850/N/DALI | 113 549 000 - 007 372 57 113 547 000 - 007 371 07 |
| narrow-beam | 5 000 K | switchable | HIAL 14000/850/N/EA | 113 547 000 - 007 371 16 113 549 000 - 007 372 51 |
| wide-beam | 4 000 K | DALI | HIAL 14000/840/W/DALI | 113 549 000 - 007 372 60 113 547 000 - 007 371 22 |
| wide-beam | 4 000 K | switchable | HIAL 14000/840/W/EA | 113 547 000 - 007 371 31 113 549 000 - 007 372 66 |
| wide-beam | 5 000 K | DALI | HIAL 14000/850/W/DALI | 113 549 000 - 007 372 75 113 547 000 - 007 371 25 |
| wide-beam | 5 000 K | switchable | HIAL 14000/850/W/EA | 113 547 000 - 007 371 34 113 549 000 - 007 372 69 |
| wide-beam | 5 000 K | switchable | HIAL 14000/850/W/EA | 113 549 000 - 007 372 78 |

|  Production hall | | | |  Logistics hall |
|---|---------------------|-------------------|-----------------------|--|
| Luminous flux 20 000 lm | | | | Further variants on request |
| Optics | Light colour | Technology | Model | Order no. with plug Order no. with connection cable |
| narrow-beam | 4 000 K | DALI | HIAL 20000/840/N/DALI | 113 536 000 - 007 341 76 |
| narrow-beam | 4 000 K | switchable | HIAL 20000/840/N/EA | 113 536 000 - 007 342 07 113 539 000 - 007 342 69 |
| narrow-beam | 5 000 K | DALI | HIAL 20000/850/N/DALI | 113 539 000 - 007 343 20 113 536 000 - 007 342 01 |
| narrow-beam | 5 000 K | switchable | HIAL 20000/850/N/EA | 113 536 000 - 007 342 10 113 539 000 - 007 343 14 |
| wide-beam | 4 000 K | DALI | HIAL 20000/840/W/DALI | 113 539 000 - 007 343 24 113 536 000 - 007 342 16 |
| wide-beam | 4 000 K | switchable | HIAL 20000/840/W/EA | 113 536 000 - 007 342 34 113 539 000 - 007 343 32 |
| wide-beam | 5 000 K | DALI | HIAL 20000/850/W/DALI | 113 539 000 - 007 343 41 113 536 000 - 007 342 28 |
| wide-beam | 5 000 K | switchable | HIAL 20000/850/W/EA | 113 536 000 - 007 342 37 113 539 000 - 007 343 35 |
| wide-beam | 5 000 K | switchable | HIAL 20000/850/W/EA | 113 539 000 - 007 343 44 |

Variants with a temperature resistance of 70° C, a colour temperature of 6500 K or with constant light output upon request.

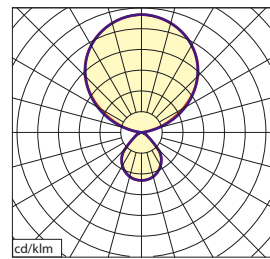
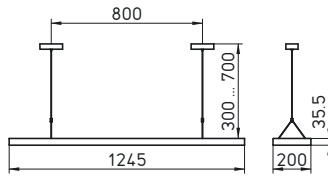


LAVIGO

SIMPLE ELEGANCE – HIGH BEAM POWER

LAVIGO impresses with its design based on the shape of a rectangle – and featuring slightly rounded-off borders as a particular detail. Visually, the suspended luminaire fits perfectly to different office concepts, interior design scenarios and furniture systems. Advanced technologies provide high efficiencies in combination with low current consumption. Moreover, the luminaire can be integrated into common building management systems.

- Closed luminaire body with cover
- Direct light component with edge light and light-guide technology for homogenous light exit
- Connection to DALI light management systems
- Easy mounting, operating devices integrated into the luminaire



LAVIGO at a glance

- Luminaire light output approx. 140 lm/W
- Light distribution (direct/indirect) approx. 20%/80%
- Luminance < 3000 cd/m²
- UGR < 10
- Colour rendering Ra > 80
- Glare-free thanks to conical prismatic screen
- Connected loads 220 – 240 V; 50/60 Hz
- Energy efficiency class A++
- Degree of protection IP 20
- Weight (net) 6.5 kg
- Mains connection approx. 1 m; with free stranded wires/cable ends

| Office | | Meeting room | | |
|-------------|-----------------------|----------------------|--------------------------|--------|
| Fitted with | Technology | Model | Order no. | |
| Power | Connected load | Light colour | white | silver |
| 9200 lm | DALI | DPP 900/840/D/G2 | 121 816 000 - 008 004 65 | |
| 65 W | 220 – 240 V, 50/60 Hz | neutral white 4000 K | 121 816 000 - 008 004 66 | |

WORKPLACE LIGHTING

|  Assembly workplace | | | |
|--|---|---|---|
|  |  |  |  |
| TANEO 34 | MINELA 38 | TEVISIO 40 | RING LED 44 |
|  |  |  |  |
| SNLQ 46 | TANEO 48 | TANEO 50 | TAMETO 52 |
|  |  |  |  |
| TAMETO 54 | TAMETO 56 | TAMETO 58 | ALE 60 |

|  Electronics workplace | | | |
|--|---|---|---|
|  |  |  |  |
| TANEO 34 | TEVISIO 40 | SNLQ 46 | TANEO 48 |
|  |  |  | |
| TANEO 50 | TAMETO 56 | TAMETO 58 | |



Workshop workplace



TANEO
34



MINELA
38



TEVISIO
40



RING LED
44



SNLQ
46



TAMETO
52



TAMETO
56



Laboratory workplace



TANEO
34



TEVISIO
40



SNLQ
46



TANEO
48



TANEO
50



TAMETO
52



TAMETO
56



Inspection workplace



TANEO
34



MINELA
38



TEVISIO
40



RING LED
44



SNLQ
46



TAMETO
52



TAMETO
56



ALE
60



Watchmaker workplace



TANEO
34



TEVISIO
40



SNLQ
46



Office workplace



TANEO
34



MINELA
38



LAVIGO
62



TANEO OPTIMUM VISIBILITY

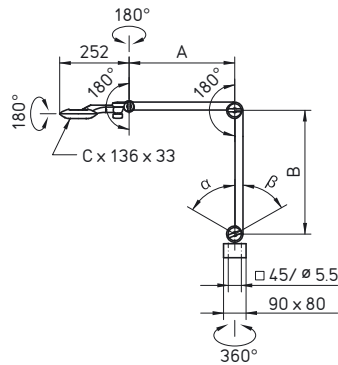




TANE0 is a true all-rounder. No matter for what workplace, no matter in what sector – wherever optimum visibility must be guaranteed, uncompromising lighting is essential.

With its light output suitable for nearly every application, high light quality and ergonomic handling, TANE0 provides optimum working conditions and offers incomparable flexibility regarding its adjustment to individual and activity-related requirements.

- Maintenance-free LED technology
- Performance levels that meet all requirements
- Continuous, flicker-free dimming
- Area light free of shadows and glare caused by reflection
- Good contrast viewing and very good colour recognition
- Optimum work results through application-oriented selection of screens
- Robust aluminium housing
- Closed design for protecting the user and the integrated technology
- Uniquely mobile and balanced arm with vast radius of action
- Also available in ESD design

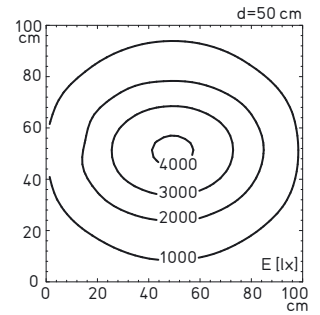


Design for watchmaker workplace:

$\alpha = 60^\circ$, $\beta = 0^\circ$

Any other designs:

$\alpha = 110^\circ$, $\beta = 20^\circ$



Illuminance based on the example
34 W with CDP screen

TANEO at a glance

- LED technology
- Colour temperature neutral white 4000 K or 5000 K
- Colour rendering $R_a > 85$ (CDP) or $R_a = 90$ (white opal screen)
- Glare-free thanks to conical prismatic screen (CDP) or white opal screen
- Housing made of colourless anodised aluminium or aluminium painted white or black and black plastic
- Screen made of PMMA (CDP) or PC (white opal screen)
- Spring-loaded arm with 3D head joint
- Membrane key integrated into the luminaire head for On/Off and dimming
- Degree of protection IP20; protection class II (plug-in power supply), protection class I (table power supply)
- Supplied with approx. 3 m connecting cable with plug-in power supply unit (14 W) or table power supply unit (24 and 34 W) with plug type CEE 7/7 (grounded plug)
- Various fasteners and additional magnifier (3.5 dioptres) as accessories



Assembly workplace



Workshop workplace

| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. |
|-------------------|---|---|--|---------------------------------------|
| LED 14 W | plug-in power supply 100 – 240 V, 50/60 Hz | A = 384 mm, B = 400 mm, C = 218 mm CDP screen, 4000 K, colourless anodised | 563 lx ¹ 1569 lx ¹ | STZL 12 R 112 576 000 - 005 441 67 |
| LED 14 W | plug-in power supply 100 – 240 V, 50/60 Hz | A = 384 mm, B = 400 mm, C = 218 mm CDP screen, 5000 K, colourless anodised | 563 lx ¹ 1569 lx ¹ | STZL 12 R 112 576 000 - 005 397 57 |
| LED 24 W | table power supply 100 – 240 V, 50/60 Hz | A = 384 mm, B = 400 mm, C = 398 mm CDP screen, 4000 K, colourless anodised | 1137 lx ¹ 3053 lx ¹ | STZL 24 R 113 572 000 - 007 401 66 |
| LED 24 W | table power supply 100 – 240 V, 50/60 Hz | A = 384 mm, B = 400 mm, C = 398 mm CDP screen, 5000 K, colourless anodised | 1137 lx ¹ 3053 lx ¹ | STZL 24 R 113 572 000 - 007 401 33 |
| LED 34 W | table power supply 100 – 240 V, 50/60 Hz | A = 384 mm, B = 400 mm, C = 577 mm CDP screen, 4000 K, colourless anodised | 1641 lx ¹ 4046 lx ¹ | STZL 36 R 113 573 000 - 007 412 02 |
| LED 34 W | table power supply 100 – 240 V, 50/60 Hz | A = 384 mm, B = 400 mm, C = 577 mm CDP screen, 5000 K, colourless anodised | 1641 lx ¹ 4046 lx ¹ | STZL 36 R 113 573 000 - 007 411 99 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 50 cm



Inspection workplace



Laboratory workplace


| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. |
|-------------------|---|--|--|---------------------------------------|
| LED 14 W | plug-in power supply 100 – 240 V, 50/60 Hz | A = 384 mm, B = 400 mm, C = 218 mm white opal screen, 4000 K, colourless anodised | 361 lx ¹ 816 lx ¹ | STZL 12 R 112 576 000 - 005 595 52 |
| LED 14 W | plug-in power supply 100 – 240 V, 50/60 Hz | A = 384 mm, B = 400 mm, C = 218 mm white opal screen, 5000 K, colourless anodised | 361 lx ¹ 816 lx ¹ | STZL 12 R 112 576 000 - 005 595 71 |
| LED 24 W | table power supply 100 – 240 V, 50/60 Hz | A = 384 mm, B = 400 mm, C = 398 mm white opal screen, 4000 K, colourless anodised | 725 lx ¹ 1578 lx ¹ | STZL 24 R 113 572 000 - 007 401 69 |
| LED 24 W | table power supply 100 – 240 V, 50/60 Hz | A = 384 mm, B = 400 mm, C = 398 mm white opal screen, 5000 K, colourless anodised | 725 lx ¹ 1578 lx ¹ | STZL 24 R 113 572 000 - 007 401 78 |
| LED 34 W | table power supply 100 – 240 V, 50/60 Hz | A = 384 mm, B = 400 mm, C = 577 mm white opal screen, 4000 K, colourless anodised | 1082 lx ¹ 2219 lx ¹ | STZL 36 R 113 573 000 - 007 412 05 |
| LED 34 W | table power supply 100 – 240 V, 50/60 Hz | A = 384 mm, B = 400 mm, C = 577 mm white opal screen, 5000 K, colourless anodised | 1082 lx ¹ 2219 lx ¹ | STZL 36 R 113 573 000 - 007 412 08 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 50 cm




TANEO in ESD design



 Electronics workplace


| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. |
|-------------------|---|---|--|--|
| LED 24 W | table power supply 100 – 240 V, 50/60 Hz | A = 384 mm, B = 400 mm, C = 398 mm CDP screen, 4000 K, painted black | 1 016 lx ¹ 2 671 lx ¹ | STZL 24 AR 113 583 000 - 007 449 89 |
| LED 24 W | table power supply 100 – 240 V, 50/60 Hz | A = 384 mm, B = 400 mm, C = 398 mm CDP screen, 5000 K, painted black | 1 016 lx ¹ 2 671 lx ¹ | STZL 24 AR 113 583 000 - 007 449 92 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 50 cm

 Watchmaker workplace

| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. |
|-------------------|---|--|--|---------------------------------------|
| LED 24 W | table power supply 100 – 240 V, 50/60 Hz | A = 244 mm, B = 450 mm, C = 398 mm white opal screen, 5000 K, colourless anodised | 725 lx ¹ 1 578 lx ¹ | STZL 24 R 113 578 000 - 007 435 80 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 50 cm

 Office workplace

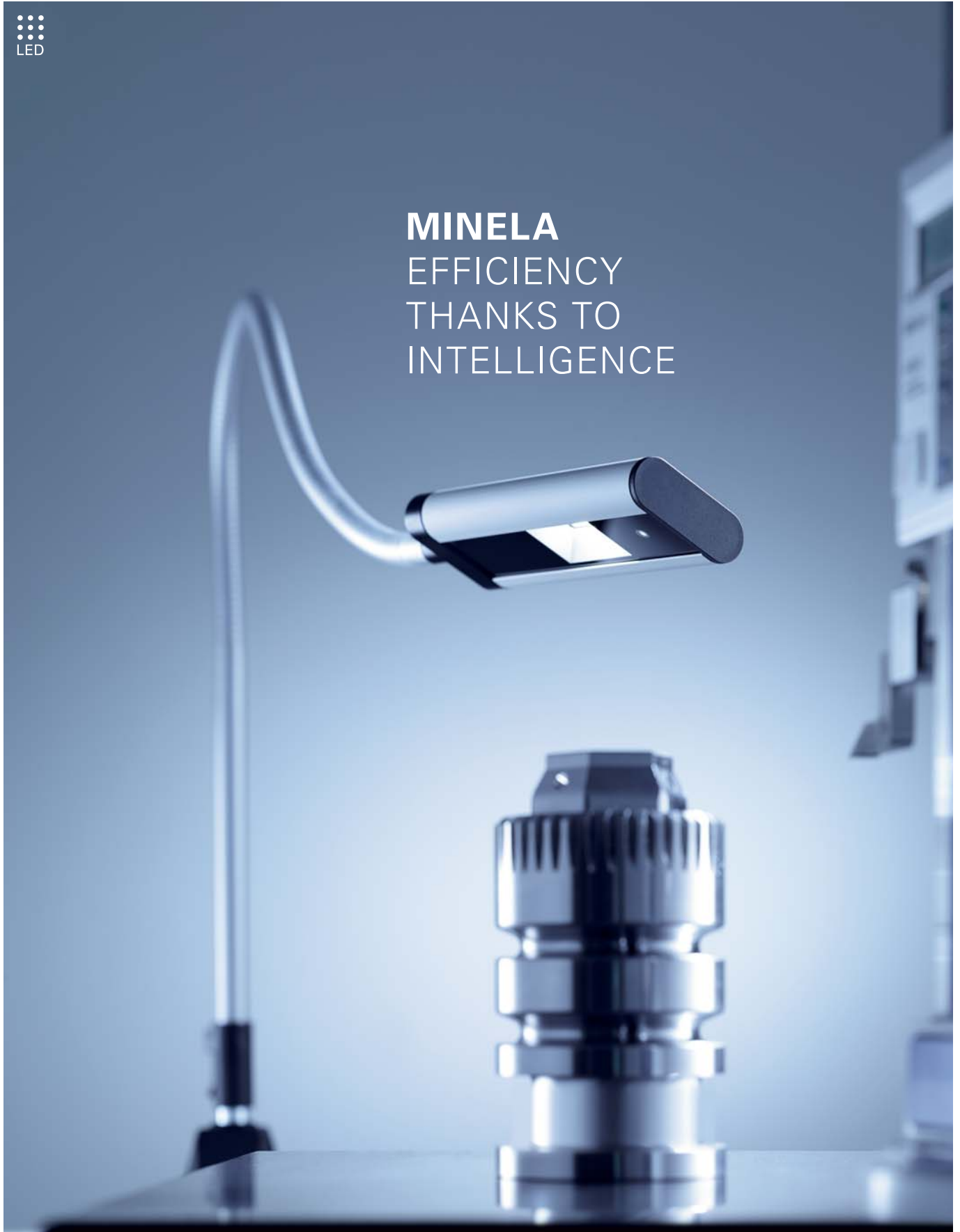
| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. |
|-------------------|---|---|--|---------------------------------------|
| LED 14 W | plug-in power supply 100 – 240 V, 50/60 Hz | A = 384 mm, B = 400 mm, C = 218 mm CDP screen, 4000 K, painted white | 563 lx ¹ 1 569 lx ¹ | STZL 12 R 112 576 000 - 005 760 91 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 50 cm

Also available as workplace-system luminaires

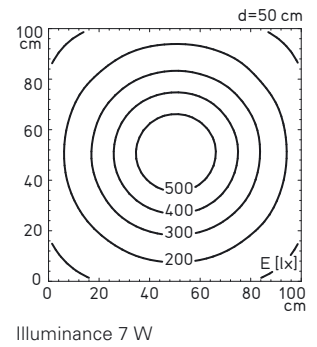
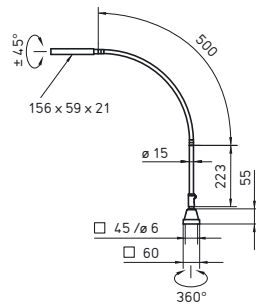
MINELA

EFFICIENCY THANKS TO INTELLIGENCE



MINELA combines light quality, energy efficiency and design standard at a high level. The LED luminaire also impresses with its cleverly designed thermal management, which provides a long service life and low heating of the luminaire head.

- Maintenance-free LED technology
- Continuous dimming
- Operation via touch keys
- Exactly adjustable flexible tube
- Small space required



MINELA at a glance

- LED technology
- Colour temperature neutral white 4000 K
- Colour rendering Ra > 80
- Light deflection by reflector
- Housing made of colourless anodised aluminium and black plastic
- PMMA screen
- Flexible metal tube for at least 20000 motions
- Illuminated touch key integrated into the luminaire head for On/Off and dimming
- Degree of protection IP20; protection class II
- Supplied with approx. 2.5 m connecting cable and plug-in power supply with plug type CEE 7/16 (Euro plug), BS 1363 and NEMA 1-15P
- Various fasteners as accessories

Assembly workplace

Inspection workplace

Workshop workplace

Office workplace

| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. |
|-------------------|---|----------------------------|--|-----------------------------------|
| LED 7 W | plug-in power supply 100 – 240 V, 50/60 Hz | – – | 268 lx ¹ 575 lx ¹ | SOL 1 112 929 000 - 005 953 21 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 50 cm

LED



TEVISIO
NO. 1 FOR
MOBILITY & VISUAL QUALITY

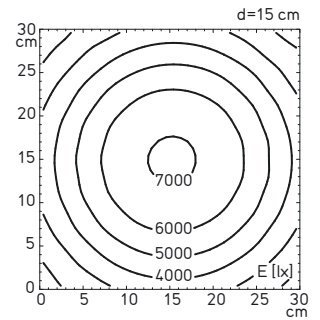
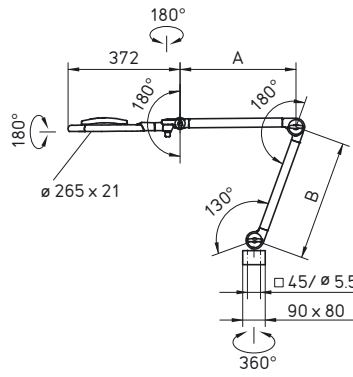


TEVISIO supports demanding viewing tasks with ergonomic perfection. Whether in the electronic, metal or watch sector, whether in assembly, workshop or inspection: TEVISIO is essential wherever demands on viewing are highest.

With its highly developed LED technology, innovative arm technology and a field of vision ideally matched to the distance to the eye, the TEVISIO magnifier luminaire offers optimum efficiency and ergonomics at the workplace.

- Maintenance-free LED technology
- For strong, large-area and uniform lighting
- Good contrast viewing and very good colour recognition
- Continuous dimming
- Variants with segment switching (visualizer function) for detecting very fine structures and errors
- Robust aluminium housing
- Closed design for protecting the user and the integrated technology
- Absolutely scratch-proof magnifying glass, optionally antireflective or with additional lens
- Large field of vision for distortion-free viewing
- Approximately double magnification
- Uniquely mobile and balanced arm with vast radius of action
- Also available in ESD design





Illuminance 14 W based on the example without ESD design

TEVISIO at a glance

- LED technology
- Colour temperature neutral white 4000 K
- Colour rendering Ra = 90
- Glare-free thanks to reflector
- Glass lens \varnothing 160 mm with 3.5 dioptres or 3.5 + 8 dioptres (glued-on additional lens)
- Housing made of colourless anodised aluminium or aluminium painted black and black plastic
- Screen made of satined polyamide
- Spring-loaded arm with 3D head joint
- Membrane key integrated into the luminaire head for On/Off and dimming and, if desired, visualizer function (segment switching)
- Degree of protection IP20; protection class II
- Supplied with approx. 3 m connecting cable and plug-in power supply with plug type CEE 7/7 (grounded plug), BS 1363 and NEMA 1-15P
- Various fasteners and additional magnifier (3.5 dioptres) as accessories

Assembly workplace

Workshop workplace

Laboratory workplace

Watchmaker workplace

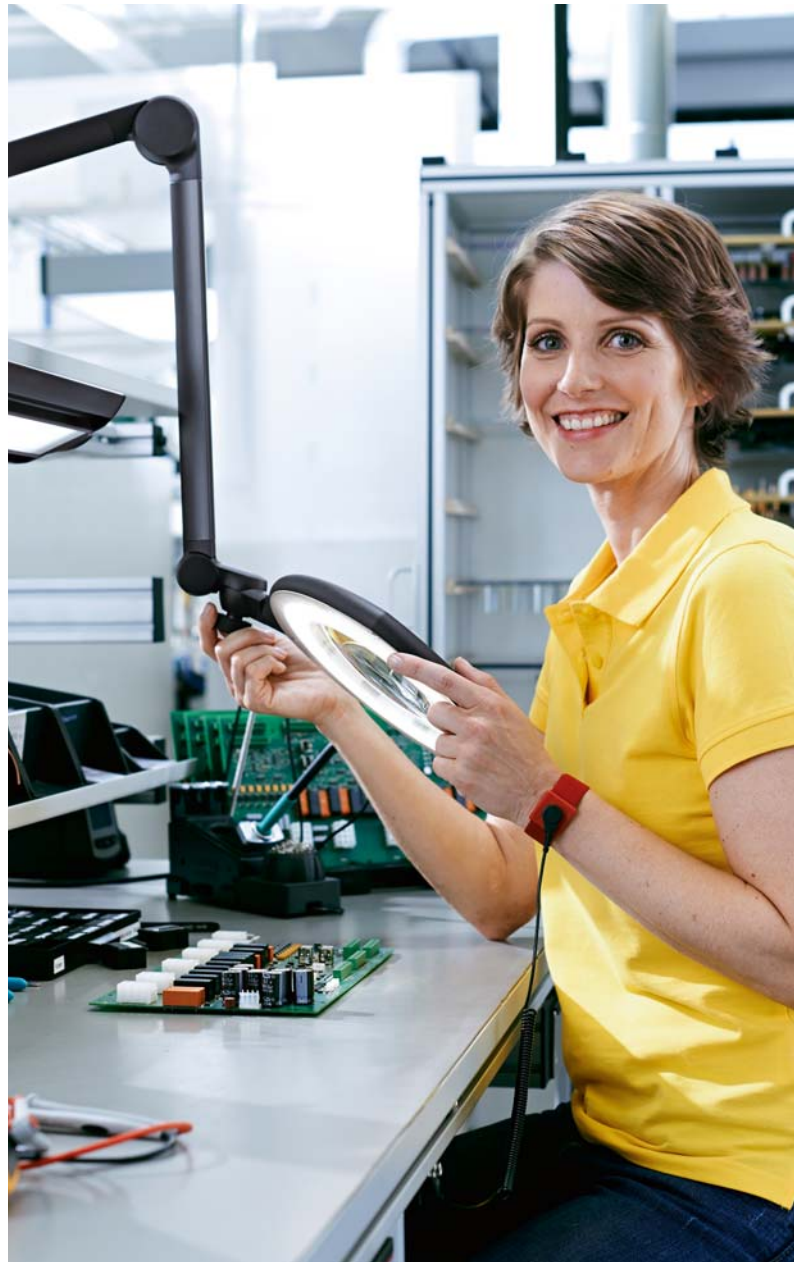
| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max} * | Model Order no. |
|-------------------|---|---|--|---------------------------------------|
| LED 14 W | plug-in power supply 100 – 240 V, 50/60 Hz | A = 484 mm, B = 500 mm – | 4 703 lx ¹ 7 105 lx ¹ | RLLQ 48 R 112 918 000 - 004 908 93 |
| LED 14 W | plug-in power supply 100 – 240 V, 50/60 Hz | A = 484 mm, B = 500 mm anti-glare lens | 4 703 lx ¹ 7 105 lx ¹ | RLLQ 48 R 112 918 000 - 005 472 74 |
| LED 14 W | plug-in power supply 100 – 240 V, 50/60 Hz | A = 484 mm, B = 500 mm additional lens 8 dpt | 4 703 lx ¹ 7 105 lx ¹ | RLLQ 48 R 112 918 001 - 004 991 54 |
| LED 14 W | plug-in power supply 100 – 240 V, 50/60 Hz | A = 384 mm, B = 400 mm – | 4 703 lx ¹ 7 105 lx ¹ | RLLQ 48 R 112 919 000 - 004 917 86 |
| LED 14 W | plug-in power supply 100 – 240 V, 50/60 Hz | A = 384 mm, B = 400 mm glare-free lens | 4 703 lx ¹ 7 105 lx ¹ | RLLQ 48 R 112 919 000 - 005 489 59 |
| LED 14 W | plug-in power supply 100 – 240 V, 50/60 Hz | A = 384 mm, B = 400 mm additional lens 8 dpt | 4 703 lx ¹ 7 105 lx ¹ | RLLQ 48 R 112 919 001 - 004 991 59 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 30 cm x 30 cm/measuring distance 15 cm


Inspection workplace

| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max} * | Model Order no. |
|-------------------|---|---|--|---|
| LED 14 W | plug-in power supply 100 – 240 V, 50/60 Hz | A = 484 mm, B = 500 mm visualizer | 4 703 lx ¹ 7 105 lx ¹ | RLLQ 48/2 R 112 918 002 - 005 090 20 |
| LED 14 W | plug-in power supply 100 – 240 V, 50/60 Hz | A = 484 mm, B = 500 mm glare-free lens, visualizer | 4 703 lx ¹ 7 105 lx ¹ | RLLQ 48/2 R 112 918 000 - 005 472 79 |
| LED 14 W | plug-in power supply 100 – 240 V, 50/60 Hz | A = 484 mm, B = 500 mm additional lens 8 dpt, visualizer | 4 703 lx ¹ 7 105 lx ¹ | RLLQ 48/2 R 112 918 003 - 005 090 17 |
| LED 14 W | plug-in power supply 100 – 240 V, 50/60 Hz | A = 384 mm, B = 400 mm visualizer | 4 703 lx ¹ 7 105 lx ¹ | RLLQ 48/2 R 112 919 002 - 004 991 64 |
| LED 14 W | plug-in power supply 100 – 240 V, 50/60 Hz | A = 384 mm, B = 400 mm glare-free lens, visualizer | 4 703 lx ¹ 7 105 lx ¹ | RLLQ 48/2 R 112 919 000 - 005 489 62 |
| LED 14 W | plug-in power supply 100 – 240 V, 50/60 Hz | A = 384 mm, B = 400 mm additional lens 8 dpt, visualizer | 4 703 lx ¹ 7 105 lx ¹ | RLLQ 48/2 R 112 919 003 - 004 991 70 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 30 cm x 30 cm/measuring distance 15 cm



TEVISIO in ESD design

 Electronics workplace

| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. |
|----------------------|---|--------------------------------------|--|--|
| LED 14 W | plug-in power supply 100 – 240 V, 50/60 Hz | A = 484 mm, B = 500 mm visualizer | 4986 lx ¹ 7503 lx ¹ | RLLQ 48/2 AR 113 015 000 - 005 616 75 |
| LED 14 W | plug-in power supply 100 – 240 V, 50/60 Hz | A = 384 mm, B = 400 mm visualizer | 4986 lx ¹ 7503 lx ¹ | RLLQ 48/2 AR 113 016 000 - 005 616 85 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 30 cm x 30 cm/measuring distance 15 cm

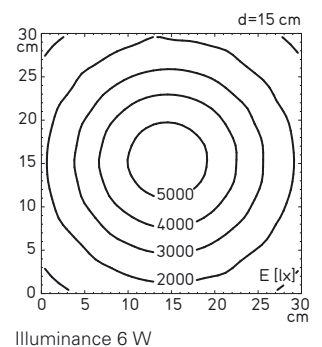
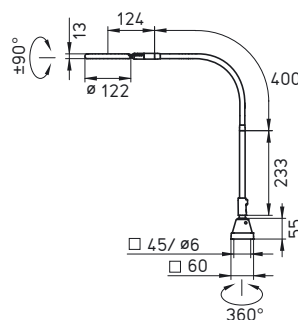


RING LED

EXACT LIGHT FOR EXACT WORK

RING LED is the solution for tasks involving miniature parts. When miniature parts need to be inspected or precisely processed at an industrial workplace, attention to detail is vital. RING LED has the perfect lens – and with its 63 LEDs also the optimum light to meet these requirements. Additional advantage: The luminaire also has an attractive appearance.




- Maintenance-free LED technology
- Low-distortion magnification right to the edge
- Hard-coated plastic lens
- Exactly adjustable flexible tube
- Low space requirements



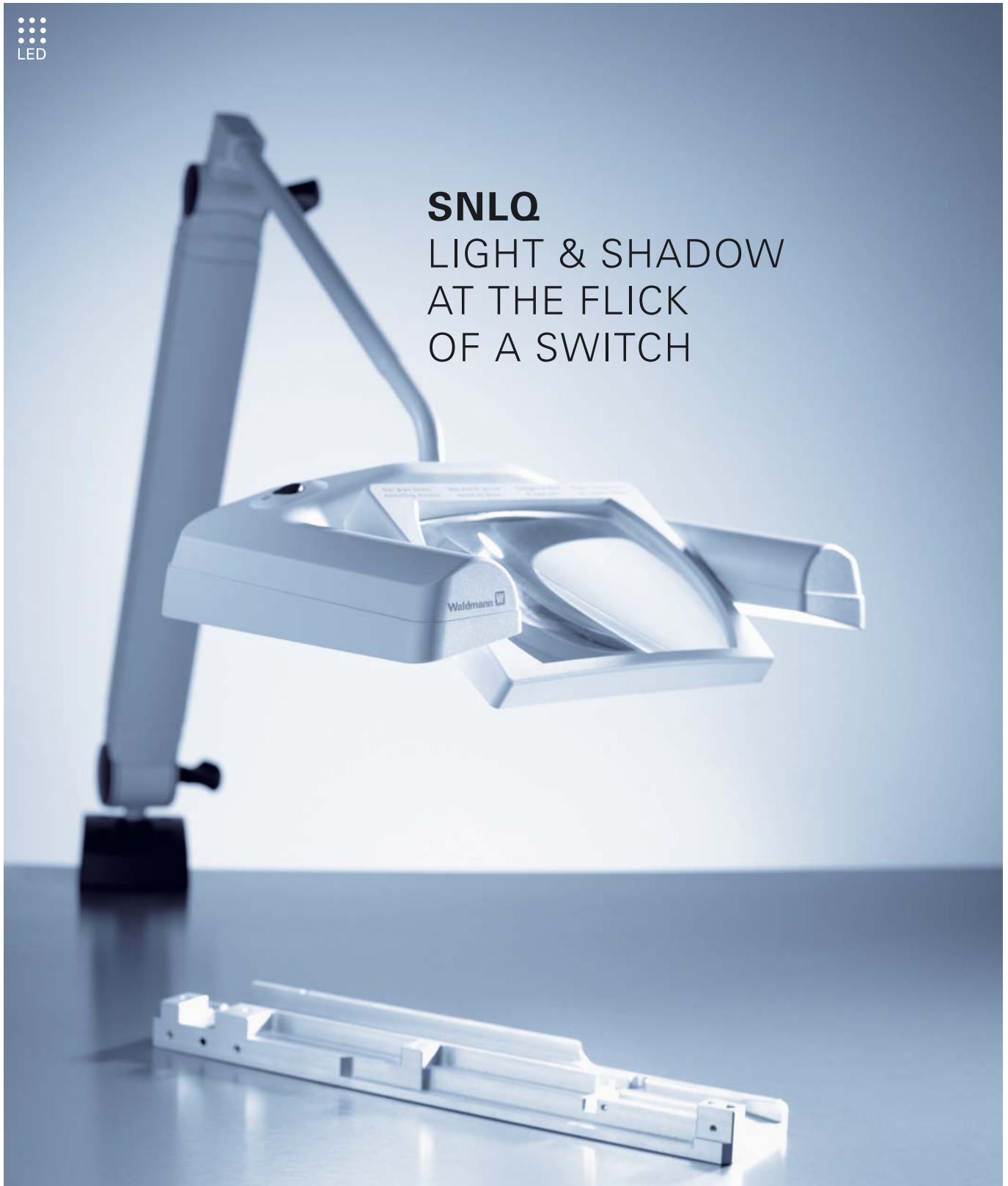


RING LED at a glance

- LED technology
- Colour temperature neutral white 4000 K
- Colour rendering Ra > 80
- Glare-free thanks to satined screen
- Hard-coated plastic lens ø 72 mm with 6 dioptries
- Housing made of colourless anodised aluminium and black plastic
- PMMA screen
- Flexible metal tube for at least 20000 motions
- Touch key integrated into luminaire head for On/Off and dimming
- Degree of protection IP20; protection class II
- Supplied with approx. 2 m connecting cable and plug-in power supply with plug type CEE 7/16 (Euro plug), BS 1363 and NEMA 1-15P
- Various fasteners as accessories

|  Assembly workplace | |  Workshop workplace | |  Inspection workplace | |
|--|-----------------------|--|--|--|--------------------------|
| Fitted with | Operating device | Dimensions | | E_m | Model |
| Power | Connected load | Special feature | | E_{max}^* | Order no. |
| LED | plug-in power supply | – | | 2871 lx ¹ | RLLQ 63 R |
| 6 W | 100 – 240 V, 50/60 Hz | – | | 5587 lx ¹ | 113 142 000 - 006 188 30 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 30 cm x 30 cm/measuring distance 15 cm

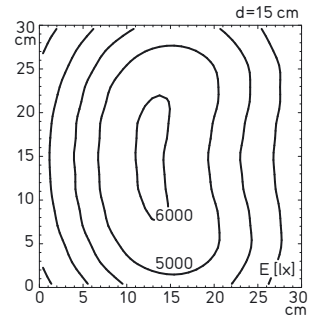
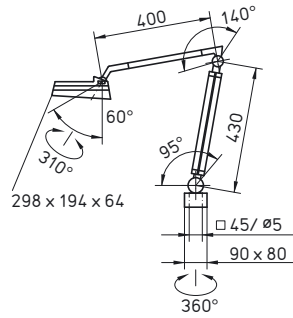


SNLO

LIGHT & SHADOW AT THE FLICK OF A SWITCH

SNLO brings literally "light and shadow": It allows you to use light incidence with significant shadow to recognise certain details. However, the SNLO also provides completely shadow-free light – for example for assembly and inspection tasks. This special magnifier luminaire changes its lighting character simply with the flick of a switch.

- Maintenance-free LED technology
- For strong, large-area and uniform lighting
- Very good colour recognition
- Segment switching for detecting very fine structures and errors
- Large field of vision for distortion-free viewing
- Absolutely scratch-proof magnifying glass
- Independent setting of luminaire head and magnifier
- Also available in ESD design



Illuminance 13 W based on the example without ESD design

SNLQ at a glance

- LED technology
- Colour temperature neutral white 4000 K
- Colour rendering Ra > 95
- Glare-free thanks to white opal screen
- Swivelling glass lens 175 x 105 mm with 3 dioptries
- Housing made of light-grey or black plastic
- PC screen
- Spring-loaded arm
- Switch in the luminaire head for On/Off and segment switching
- Degree of protection IP20; protection class I
- Supplied with approx. 3 m connecting cable and plug, type CEE 7/7 (grounded plug)
- Various fasteners and additional magnifier (4 dioptries) as accessories

| | | |
|----------------------|----------------------|----------------------|
| Assembly workplace | Workshop workplace | Watchmaker workplace |
| Inspection workplace | Laboratory workplace | |

| Fitted with Power | Operating device Connected load | Dimensions Special feature | E _m E _{max} * | Model Order no. |
|-------------------|---|----------------------------|--|---------------------------------------|
| LED 13 W | integrated transformer 100/120/220 – 240 V, 50/60 Hz | – – | 4299 lx ¹ 6093 lx ¹ | SNLQ 54/2 113 460 000 - 006 955 01 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 30 cm x 30 cm/measuring distance 15 cm



SNLQ in ESD design

| | | |
|-----------------------|--|--|
| Electronics workplace | | |
|-----------------------|--|--|

| Fitted with Power | Operating device Connected load | Dimensions Special feature | E _m E _{max} * | Model Order no. |
|-------------------|---|----------------------------|--|---|
| LED 13 W | integrated transformer 100/120/220 – 240 V, 50/60 Hz | – – | 3015 lx ¹ 4266 lx ¹ | SNLQ 54/2 A 113 459 000 - 006 955 07 |

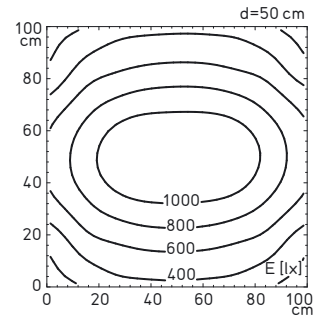
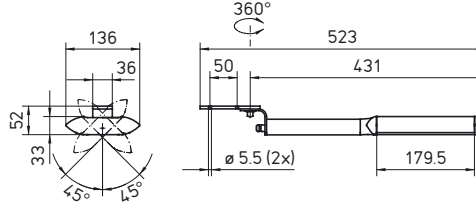
* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 30 cm x 30 cm/measuring distance 15 cm



TANEO COMFORTABLE SWIVELLING – FLEXIBLE LIGHTING

TANEO in the luminaire variant with pivoting arm can be moved horizontally thanks to its handy arm. This innovative connection allows, for example, lateral illumination and thus shadow-free work in any task position. To this end, ideally a pair of luminaires is used. Additional flexibility thanks to the rotating luminaire head. TANEO thus guarantees correct lighting at all times, even when different tasks have to be performed at the same workplace.

- Maintenance-free LED technology
- Continuous, flicker-free dimming
- Area light free of shadows and glare caused by reflection
- Good contrast viewing and very good colour recognition
- Optimum work results through application-oriented selection of screens
- Robust aluminium housing
- Also available in ESD design



Illuminance based on the example with two 14 W luminaires swivelled by 90° with CDP screen without ESD design (distance of the two luminaire heads approx. 90 cm)

TANEO at a glance

- LED technology
- Colour temperature neutral white 4000 K or 5000 K
- Colour rendering Ra > 85 (CDP) or Ra = 90 (white opal screen)
- Glare-free thanks to conical prismatic screen (CDP) or white opal screen
- Housing made of colourless anodised aluminium or aluminium painted black and black plastic
- Screen made of PMMA (CDP) or PC (white opal screen)
- Pivoting arm with rotatable head joint
- Membrane key integrated into the luminaire head for On/Off and dimming
- Degree of protection IP20; protection class II
- Supplied with approx. 4 m connecting cable and plug-in power supply with plug type CEE 7/16 (Euro plug)

| Assembly workplace | | Laboratory workplace | | | |
|--------------------|--|---|--|-----------------|--------------------------|
| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. | |
| LED 14 W | plug-in power supply 100 – 240 V, 50/60 Hz | 179.5 mm x 136 mm CDP screen, 4000 K | 563 lx ¹ 1569 lx ¹ | SARKL 12 R | 112 991 000 - 005 525 84 |
| LED 14 W | plug-in power supply 100 – 240 V, 50/60 Hz | 179.5 mm x 136 mm CDP screen, 5000 K | 563 lx ¹ 1569 lx ¹ | SARKL 12 R | 112 991 000 - 005 592 47 |
| LED 14 W | plug-in power supply 100 – 240 V, 50/60 Hz | 179.5 mm x 136 mm opal white screen, 4000 K | 361 lx ¹ 816 lx ¹ | SARKL 12 R | 112 991 000 - 005 592 50 |
| LED 14 W | plug-in power supply 100 – 240 V, 50/60 Hz | 179.5 mm x 136 mm opal white screen, 5000 K | 361 lx ¹ 816 lx ¹ | SARKL 12 R | 112 991 000 - 005 592 53 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 50 cm



TANEO in ESD design

| Electronics workplace | | | | | |
|-----------------------|--|--------------------------------------|--|-----------------|--------------------------|
| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. | |
| LED 14 W | plug-in power supply 100 – 240 V, 50/60 Hz | 179.5 mm x 136 mm CDP screen, 4000 K | 490 lx ¹ 1346 lx ¹ | SARKL 12 AR | 113 021 000 - 005 645 65 |
| LED 14 W | plug-in power supply 100 – 240 V, 50/60 Hz | 179.5 mm x 136 mm CDP screen, 5000 K | 490 lx ¹ 1346 lx ¹ | SARKL 12 AR | 113 021 000 - 005 645 68 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 50 cm

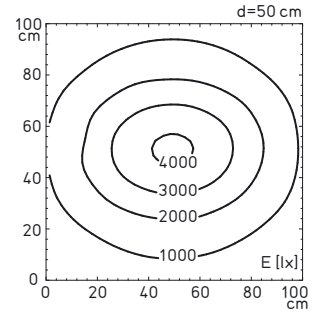
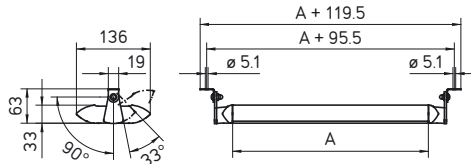
Also available as arm-mounted luminaires



TANEO SPACE-SAVING INTEGRATION – YET SURPRISINGLY VERSATILE

TANEO offers particularly space-saving and unobtrusive mounting options, for example under adjustable shelves. However, thanks to its rotating luminaire head, it is still flexible. Its dimmability means that it can be easily adjusted to individual requirements. At the same time, its high-quality light reduces eye strain when working.

- Maintenance-free LED technology
- Performance levels that meet all requirements
- Continuous, flicker-free dimming
- Area light free of shadows and glare caused by reflection
- Good contrast viewing and very good colour recognition
- Optimum work results through application-oriented selection of screens
- Robust aluminium housing
- Also available in ESD design



Illuminance based on the example 34 W with CDP screen

TANEO at a glance

- LED technology
- Colour temperature neutral white 4000 K or 5000 K
- Colour rendering Ra > 85 (CDP) or Ra = 90 (opal white screen)
- Glare-free thanks to conical prismatic screen (CDP) or white opal screen
- Housing made of colourless anodised aluminium or aluminium painted black and black plastic
- Screen made of PMMA (CDP) or PC (white opal screen)
- Fixed connection thanks to rotating head joint
- Membrane key integrated into the luminaire head for On/Off and dimming
- Degree of protection IP20; protection class I
- Supplied with approx. 6 m connecting cable and table power supply with plug type CEE 7/7 (grounded plug)

| Assembly workplace | | Laboratory workplace | | | |
|--------------------|--|---|---|------------------------------------|--|
| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. | |
| LED 24 W | table power supply 100 – 240 V, 50/60 Hz | A = 359.5 mm x 136 mm CDP screen, 4000 K | 1 137 lx ¹ 3053 lx ¹ | SARL 24 R 113 574 000 - 007 413 38 | |
| LED 24 W | table power supply 100 – 240 V, 50/60 Hz | A = 359.5 mm x 136 mm CDP screen, 5000 K | 1 137 lx ¹ 3053 lx ¹ | SARL 24 R 113 574 000 - 007 413 42 | |
| LED 24 W | table power supply 100 – 240 V, 50/60 Hz | A = 359.5 mm x 136 mm opal white screen, 4000 K | 725 lx ¹ 1578 lx ¹ | SARL 24 R 113 574 000 - 007 413 45 | |
| LED 24 W | table power supply 100 – 240 V, 50/60 Hz | A = 359.5 mm x 136 mm opal white screen, 5000 K | 725 lx ¹ 1578 lx ¹ | SARL 24 R 113 574 000 - 007 413 49 | |
| LED 34 W | table power supply 100 – 240 V, 50/60 Hz | A = 538.5 mm x 136 mm CDP screen, 4000 K | 1 641 lx ¹ 4046 lx ¹ | SARL 36 R 113 575 000 - 007 428 65 | |
| LED 34 W | table power supply 100 – 240 V, 50/60 Hz | A = 538.5 mm x 136 mm CDP screen, 5000 K | 1 641 lx ¹ 4046 lx ¹ | SARL 36 R 113 575 000 - 007 431 64 | |
| LED 34 W | table power supply 100 – 240 V, 50/60 Hz | A = 538.5 mm x 136 mm opal white screen, 4000 K | 1 082 lx ¹ 2 219 lx ¹ | SARL 36 R 113 575 000 - 007 432 60 | |
| LED 34 W | table power supply 100 – 240 V, 50/60 Hz | A = 538.5 mm x 136 mm opal white screen, 5000 K | 1 082 lx ¹ 2 219 lx ¹ | SARL 36 R 113 575 000 - 007 432 63 | |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 50 cm



TANEO in ESD design

| Electronics workplace | | | | | |
|-----------------------|--|--|---|-------------------------------------|--|
| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. | |
| LED 24 W | table power supply 100 – 240 V, 50/60 Hz | A = 359.5 mm x 136 mm CDP screen, 4000 K | 1 016 lx ¹ 2 671 lx ¹ | SARL 24 AR 113 577 000 - 007 435 09 | |
| LED 24 W | table power supply 100 – 240 V, 50/60 Hz | A = 359.5 mm x 136 mm CDP screen, 5000 K | 1 016 lx ¹ 2 671 lx ¹ | SARL 24 AR 113 577 000 - 007 435 12 | |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 50 cm

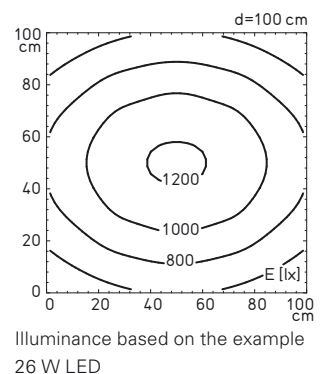
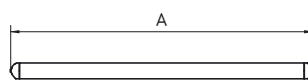
Also available as arm-mounted luminaires



TAMETO ERGONOMIC SYSTEMATIC LIGHTING

TAMETO is available with state-of-the-art T5 fluorescent lamp technology or the latest LED technology. It also offers a range of installation options.

- Available with maintenance-free LED technology or energy-efficient fluorescent lamp technology
- Extremely homogeneous, glare-free and flicker-free light
- Light exit with conical prismatic structure for perfect glare-free lighting
- Continuously dimmable (variants)
- Various lengths for different table widths and lighting needs
- Robust aluminium housing
- Closed construction protects the inside of the luminaire and keeps the work surface clean
- Integrated T-slots
- Available as externally operated luminaire or luminaires for electrical daisy chaining



TAMETO at a glance

- LED technology or fluorescent lamp technology
- Colour temperature neutral white 4000 K, additional neutral white 5000 K and daylight white 6500 K (SAHQ 44 R, 66 R, 88 R)
- Colour rendering $R_a > 80$
- Glare-free thanks to conical prismatic screen (CDP)
- Housing made of colourless anodised aluminium and black plastic
- PMMA screen
- Mounting by means of mounting angle brackets or T-slots (8 mm)
- Switch for On/Off or button for additional dimming
- Degree of protection IP20; protection class I

Supplied with

- Approx. 3 m connecting cable and plug type CEE 7/7 (grounded plug)
- Approx. 3 m connecting cable and plug WAGO WINSTA® MINI for externally operated variants
- Approx. 0.3 m connecting and plug/socket Wieland GST18i3 for variants with through-wiring

Accessories

- Luminaire bracket set for C-rails and luminaire brackets for rotatable mounting to extension arm
- Cable for connecting through-wired luminaires
- Operating unit and cable for connecting externally operated luminaires
- Distributor and connecting cable for central connection of several externally operated luminaires to one operating unit



| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. |
|-------------------|---------------------------------|---------------------------------------|----------------------|--------------------------|
| LED | integrated driver | A = 656 mm x 187 mm | 581 lx ¹ | SAHQ 44 |
| 18 W | 220 – 240 V, 50/60 Hz | 4000 K | 819 lx ¹ | 112 971 000 - 005 513 37 |
| LED | integrated driver | A = 656 mm x 187 mm | 581 lx ¹ | SAHQ 44 D |
| 18 W | 220 – 240 V, 50/60 Hz | 4000 K, through-wired | 819 lx ¹ | 112 971 000 - 005 555 76 |
| LED | integrated driver | A = 656 mm x 187 mm | 581 lx ¹ | SAHQ 44 R |
| 18 W | 220 – 240 V, 50/60 Hz | 4000 K, dimmable | 819 lx ¹ | 112 972 000 - 005 513 40 |
| LED | integrated driver | A = 656 mm x 187 mm | 581 lx ¹ | SAHQ 44 RD |
| 18 W | 220 – 240 V, 50/60 Hz | 4000 K, dimmable, through-wired | 819 lx ¹ | 112 972 000 - 005 555 80 |
| LED | integrated driver | A = 656 mm x 187 mm | 581 lx ¹ | SAHQ 44 R |
| 18 W | 220 – 240 V, 50/60 Hz | 4000 K, dimmable, externally operated | 819 lx ¹ | 113 129 000 - 006 150 52 |
| LED | integrated driver | A = 656 mm x 187 mm | 581 lx ¹ | SAHQ 44 R |
| 18 W | 220 – 240 V, 50/60 Hz | 5000 K, dimmable | 819 lx ¹ | 112 972 000 - 006 882 52 |
| LED | integrated driver | A = 656 mm x 187 mm | 581 lx ¹ | SAHQ 44 R |
| 18 W | 220 – 240 V, 50/60 Hz | 6500 K, dimmable | 819 lx ¹ | 112 972 000 - 006 882 56 |
| LED | integrated driver | A = 956 mm x 187 mm | 867 lx ¹ | SAHQ 66 |
| 26 W | 220 – 240 V, 50/60 Hz | 4000 K | 1210 lx ¹ | 112 975 000 - 005 513 49 |
| LED | integrated driver | A = 956 mm x 187 mm | 867 lx ¹ | SAHQ 66 D |
| 26 W | 220 – 240 V, 50/60 Hz | 4000 K, through-wired | 1210 lx ¹ | 112 975 000 - 005 556 28 |
| LED | integrated driver | A = 956 mm x 187 mm | 867 lx ¹ | SAHQ 66 R |
| 26 W | 220 – 240 V, 50/60 Hz | 4000 K, dimmable | 1210 lx ¹ | 112 976 000 - 005 513 52 |
| LED | integrated driver | A = 956 mm x 187 mm | 867 lx ¹ | SAHQ 66 RD |
| 26 W | 220 – 240 V, 50/60 Hz | 4000 K, dimmable, through-wired | 1210 lx ¹ | 112 976 000 - 005 556 31 |
| LED | integrated driver | A = 956 mm x 187 mm | 867 lx ¹ | SAHQ 66 R |
| 26 W | 220 – 240 V, 50/60 Hz | 4000 K, dimmable, externally operated | 1210 lx ¹ | 113 102 000 - 006 009 08 |
| LED | integrated driver | A = 956 mm x 187 mm | 867 lx ¹ | SAHQ 66 R |
| 26 W | 220 – 240 V, 50/60 Hz | 5000 K, dimmable | 1210 lx ¹ | 112 976 000 - 006 870 81 |
| LED | integrated driver | A = 956 mm x 187 mm | 867 lx ¹ | SAHQ 66 R |
| 26 W | 220 – 240 V, 50/60 Hz | 6500 K, dimmable | 1210 lx ¹ | 112 976 000 - 006 870 84 |
| LED | integrated driver | A = 1256 mm x 187 mm | 1071 lx ¹ | SAHQ 88 |
| 33 W | 220 – 240 V, 50/60 Hz | 4000 K | 1448 lx ¹ | 112 979 000 - 005 513 61 |
| LED | integrated driver | A = 1256 mm x 187 mm | 1071 lx ¹ | SAHQ 88 D |
| 33 W | 220 – 240 V, 50/60 Hz | 4000 K, through-wired | 1448 lx ¹ | 112 979 000 - 005 556 94 |
| LED | integrated driver | A = 1256 mm x 187 mm | 1071 lx ¹ | SAHQ 88 R |
| 33 W | 220 – 240 V, 50/60 Hz | 4000 K, dimmable | 1448 lx ¹ | 112 980 000 - 005 513 64 |
| LED | integrated driver | A = 1256 mm x 187 mm | 1071 lx ¹ | SAHQ 88 RD |
| 33 W | 220 – 240 V, 50/60 Hz | 4000 K, dimmable, through-wired | 1448 lx ¹ | 112 980 000 - 005 556 97 |
| LED | integrated driver | A = 1256 mm x 187 mm | 1071 lx ¹ | SAHQ 88 R |
| 33 W | 220 – 240 V, 50/60 Hz | 4000 K, dimmable, externally operated | 1448 lx ¹ | 113 141 000 - 006 150 59 |
| LED | integrated driver | A = 1256 mm x 187 mm | 1071 lx ¹ | SAHQ 88 R |
| 33 W | 220 – 240 V, 50/60 Hz | 5000 K, dimmable | 1448 lx ¹ | 112 980 000 - 006 870 95 |
| LED | integrated driver | A = 1256 mm x 187 mm | 1071 lx ¹ | SAHQ 88 R |
| 33 W | 220 – 240 V, 50/60 Hz | 6500 K, dimmable | 1448 lx ¹ | 112 980 000 - 006 871 00 |
| T5 | integrated electronic ballast | A = 656 mm x 187 mm | 499 lx ¹ | SAH 124 R |
| 1 x 24 W | 220 – 240 V, 50/60 Hz | 4000 K, dimmable | 685 lx ¹ | 112 970 000 - 005 558 14 |
| T5 | integrated electronic ballast | A = 656 mm x 187 mm | 499 lx ¹ | SAH 124 RD |
| 1 x 24 W | 220 – 240 V, 50/60 Hz | 4000 K, dimmable, through-wired | 685 lx ¹ | 112 970 000 - 005 558 20 |
| T5 | integrated electronic ballast | A = 956 mm x 187 mm | 915 lx ¹ | SAH 139 R |
| 1 x 39 W | 220 – 240 V, 50/60 Hz | 4000 K, dimmable | 1229 lx ¹ | 112 974 000 - 005 561 46 |
| T5 | integrated electronic ballast | A = 956 mm x 187 mm | 915 lx ¹ | SAH 139 RD |
| 1 x 39 W | 220 – 240 V, 50/60 Hz | 4000 K, dimmable, through-wired | 1229 lx ¹ | 112 974 000 - 005 561 52 |
| T5 | integrated electronic ballast | A = 1256 mm x 187 mm | 1270 lx ¹ | SAH 154 R |
| 1 x 54 W | 220 – 240 V, 50/60 Hz | 4000 K, dimmable | 1709 lx ¹ | 112 978 000 - 005 561 86 |
| T5 | integrated electronic ballast | A = 1256 mm x 187 mm | 1270 lx ¹ | SAH 154 RD |
| 1 x 54 W | 220 – 240 V, 50/60 Hz | 4000 K, dimmable, through-wired | 1709 lx ¹ | 112 978 000 - 005 561 92 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm

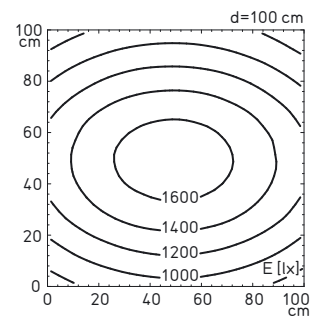
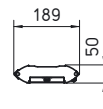
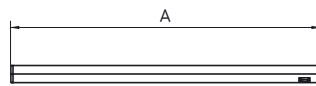


TAMETO FITS PRECISELY WHERE IT NEEDS TO



TAMETO is available in special variants in three lengths for dimensionally accurate integration of lighting between the extension arms. Through-wiring facilitates connection to daisy-chained workstations.

- Available with maintenance-free LED technology or energy-efficient fluorescent lamp technology
- Extremely homogeneous, glare-free and flicker-free light
- Light exit with conical prismatic structure for perfect glare-freeness
- Continuously dimmable (variants)
- Various lengths for different table widths and lighting needs
- Robust aluminium housing
- Closed construction protects the inside of the luminaire and keeps the work surface clean
- Integrated T-slots
- Luminaires for daisy chaining



Illuminance based on the example
1 x 54 W T5

TAMETO at a glance

- LED technology or fluorescent lamp technology
- Colour temperature neutral white 4000 K
- Colour rendering Ra > 80
- Glare-free thanks to conical prismatic screen (CDP)
- Housing made of colourless anodised aluminium and black plastic
- PMMA screen
- Mounting by means of mounting angle brackets or T-slots (8 mm)
- Switch for On/Off or button for additional dimming
- Degree of protection IP20; protection class I
- Supplied with Wieland GST18i3 connector/socket
- Cable for connecting several luminaires as accessory

Assembly workplace

| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. |
|----------------------|--|--|--|--|
| LED 18 W | integrated driver 220 – 240 V, 50/60 Hz | A = 599 mm x 189 mm through-wired | 581 lx ¹ 819 lx ¹ | SAHQ 44 D 113 034 000 - 005 776 11 |
| LED 18 W | integrated driver 220 – 240 V, 50/60 Hz | A = 599 mm x 189 mm dimmable, through-wired | 581 lx ¹ 819 lx ¹ | SAHQ 44 RD 113 035 000 - 005 776 14 |
| LED 26 W | integrated driver 220 – 240 V, 50/60 Hz | A = 899 mm x 189 mm through-wired | 867 lx ¹ 1 210 lx ¹ | SAHQ 66 D 113 036 000 - 005 776 17 |
| LED 26 W | integrated driver 220 – 240 V, 50/60 Hz | A = 899 mm x 189 mm dimmable, through-wired | 867 lx ¹ 1 210 lx ¹ | SAHQ 66 RD 113 037 000 - 005 776 20 |
| LED 33 W | integrated driver 220 – 240 V, 50/60 Hz | A = 1 199 mm x 189 mm through-wired | 1 071 lx ¹ 1 448 lx ¹ | SAHQ 88 D 113 038 000 - 005 776 23 |
| LED 33 W | integrated driver 220 – 240 V, 50/60 Hz | A = 1 199 mm x 189 mm dimmable, through-wired | 1 071 lx ¹ 1 448 lx ¹ | SAHQ 88 RD 113 039 000 - 005 776 26 |
| T5 1 x 24 W | integrated electronic ballast 220 – 240 V, 50/60 Hz | A = 599 mm x 189 mm dimmable, through-wired | 499 lx ¹ 685 lx ¹ | SAH 124 RD 113 030 000 - 005 775 99 |
| T5 1 x 39 W | integrated electronic ballast 220 – 240 V, 50/60 Hz | A = 899 mm x 189 mm dimmable, through-wired | 915 lx ¹ 1 229 lx ¹ | SAH 139 RD 113 031 000 - 005 776 02 |
| T5 1 x 54 W | integrated electronic ballast 220 – 240 V, 50/60 Hz | A = 1 199 mm x 189 mm dimmable, through-wired | 1 270 lx ¹ 1 709 lx ¹ | SAH 154 RD 113 033 000 - 005 776 08 |

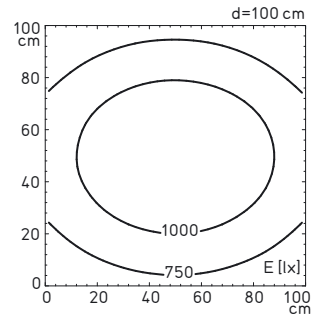
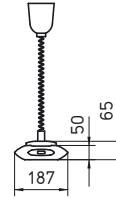
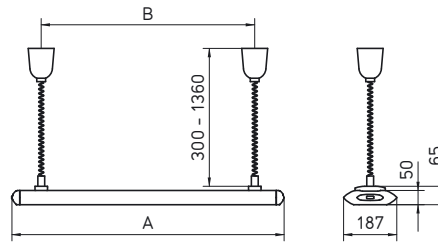
* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm



TAMETO THE RIGHT SETTING TO WORK ERGONOMICALLY

TAMETO with suspended mounting is the first choice when a continuously height-adjustable workplace-system luminaire is required. TAMETO is mounted on the top crossbeam of the system workplace by means of a counterweight pendant. Depending on individual lighting needs and the visual task, it can be set to the optimum height. Its handling is especially easy, and the variable-length spiral cable ensures a tidy appearance.

- Available with maintenance-free LED technology or energy-efficient fluorescent lamp technology
- Extremely homogeneous, glare-free and flicker-free light
- Light exit with conical prismatic structure for perfect glare-free lighting
- Continuously dimmable (variants)
- Two lengths for different table widths and lighting needs
- Robust aluminium housing
- Closed construction protects the inside of the luminaire and keeps the work surface clean
- Also available in ESD design



Illuminance based on the example 1 x 39 W T5 without ESD design

TAMETO at a glance

- LED technology or fluorescent lamp technology
- Colour temperature neutral white 4000 K
- Colour rendering Ra > 80
- Glare-free thanks to conical prismatic screen (CDP)
- Housing made of colourless anodised aluminium or aluminium painted black and black plastic
- PMMA screen
- Mounted by means of a counterweight pendant with an extension length of 0.3 – 1.36 m
- Switch for On/Off or button for additional dimming
- Degree of protection IP20; protection class I
- Supplied without connecting cable (connection in ceiling rose by means of a connection terminal)

- Assembly workplace
- Workshop workplace
- Inspection workplace
- Laboratory workplace

| Fitted with Power | Operating device Connected load | Dimensions Special feature | E _m E _{max} * | Model Order no. |
|-------------------|--|---|--|--|
| LED 26 W | integrated driver 220 – 240 V, 50/60 Hz | A = 956 mm x 187 mm, B = 750 mm | 867 lx ¹ 1210 lx ¹ | SAHZQ 66 112 983 000 - 005 513 73 |
| LED 26 W | integrated driver 220 – 240 V, 50/60 Hz | A = 956 mm x 187 mm, B = 750 mm dimmable | 867 lx ¹ 1210 lx ¹ | SAHZQ 66 R 112 984 000 - 005 513 77 |
| LED 33 W | integrated driver 220 – 240 V, 50/60 Hz | A = 1256 mm x 187 mm, B = 1050 mm | 1071 lx ¹ 1448 lx ¹ | SAHZQ 88 112 987 000 - 005 513 86 |
| LED 33 W | integrated driver 220 – 240 V, 50/60 Hz | A = 1256 mm x 187 mm, B = 1050 mm dimmable | 1071 lx ¹ 1448 lx ¹ | SAHZQ 88 R 112 988 000 - 005 513 89 |
| T5 1 x 39 W | integrated electronic ballast 220 – 240 V, 50/60 Hz | A = 956 mm x 187 mm, B = 750 mm dimmable | 915 lx ¹ 1229 lx ¹ | SAHZ 139 R 112 982 000 - 005 513 70 |
| T5 1 x 54 W | integrated electronic ballast 220 – 240 V, 50/60 Hz | A = 1256 mm x 187 mm, B = 1050 mm dimmable | 1270 lx ¹ 1709 lx ¹ | SAHZ 154 R 112 986 000 - 005 513 83 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm



TAMETO in ESD design

- Electronics workplace

| Fitted with Power | Operating device Connected load | Dimensions Special feature | E _m E _{max} * | Model Order no. |
|-------------------|--|---------------------------------|---|--|
| LED 26 W | integrated driver 220 – 240 V, 50/60 Hz | A = 956 mm x 187 mm, B = 750 mm | 762 lx ¹ 1054 lx ¹ | SAHZQ 66 A 113 026 000 - 005 746 37 |
| T5 1 x 39 W | integrated electronic ballast 220 – 240 V, 50/60 Hz | A = 956 mm x 187 mm, B = 750 mm | 814 lx ¹ 1084 lx ¹ | SAHZ 139 A 113 027 000 - 005 746 40 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm

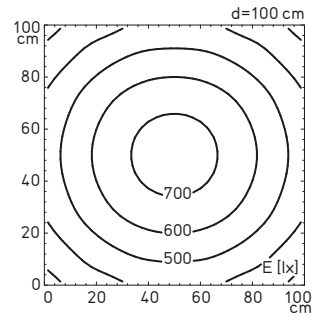
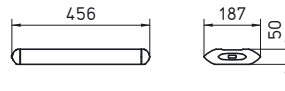


TAMETO

AN EXTRA HELPING OF LIGHT

TAMETO – this laterally mounted luminaire produces completely shadow-free lighting or an intended shadow effect, as desired. This can, for example, make fine surface irregularities visible. Of course, lateral luminaires are also suitable when more light is needed for certain visual tasks. TAMETO luminaires are mounted on the vertical pillars of the system workplace at the desired height and the desired beam angle using the supplied mounting angle brackets.


- Maintenance-free LED technology
- Extremely homogeneous, glare-free and flicker-free light
- Light exit with conical prismatic structure for perfect glare-free lighting
- Robust aluminium housing
- Closed construction protects the inside of the luminaire and keeps the work surface clean
- Also available in ESD design



Illuminance based on the example 18 W without ESD design

TAMETO at a glance

- LED technology
- Colour temperature neutral white 4000 K
- Colour rendering Ra > 80
- Glare-free thanks to conical prismatic screen (CDP)
- Housing made of colourless anodised aluminium or aluminium painted black and black plastic
- PMMA screen
- Mounting via mounting angle brackets
- Switch for On/Off
- Degree of protection IP20; protection class I
- Supplied with approx. 3 m connecting cable and plug, type CEE 7/7 (grounded plug)
- Additional angle bracket as an accessory for assembly on the rotating extension arm


 Assembly workplace

| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. |
|-------------------|--|----------------------------|--|--------------------------------------|
| LED 18 W | integrated driver 220 – 240 V, 50/60 Hz | 456 mm x 187 mm – | 532 lx ¹ 733 lx ¹ | SAHKQ 60 112 989 000 - 005 513 92 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm

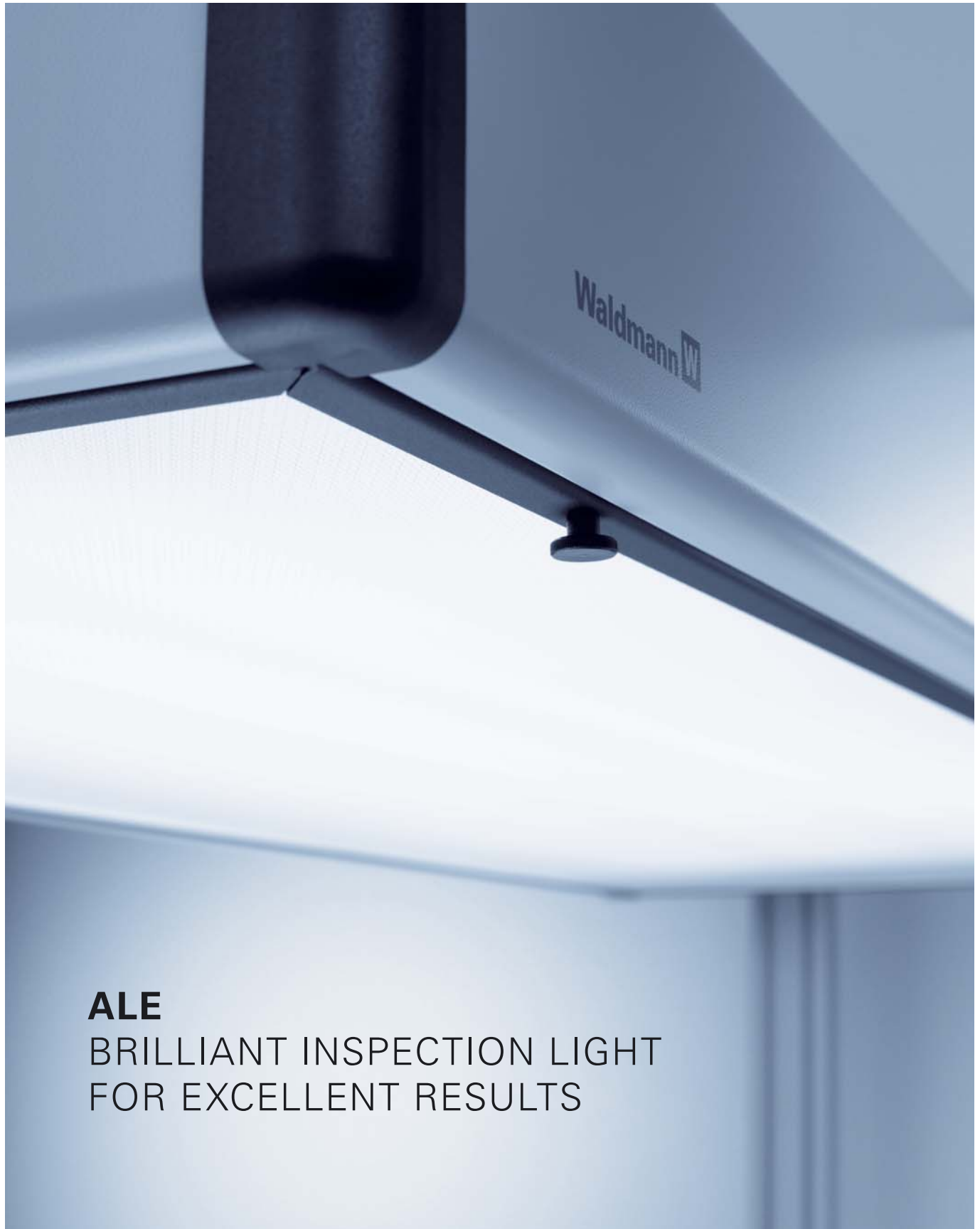


TAMETO in ESD design

 Electronics workplace

| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. |
|-------------------|--|----------------------------|--|--|
| LED 18 W | integrated driver 220 – 240 V, 50/60 Hz | 456 mm x 187 mm – | 477 lx ¹ 658 lx ¹ | SAHKQ 60 A 113 028 000 - 005 750 17 |

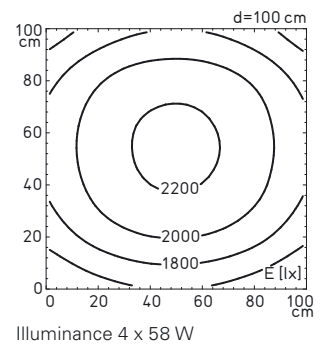
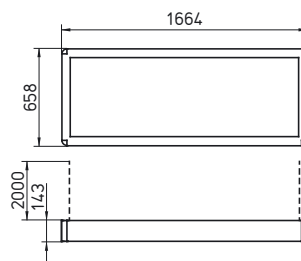
* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm



ALE BRILLIANT INSPECTION LIGHT FOR EXCELLENT RESULTS



ALE is the standardised inspection light for production and quality assurance, when premium colour fidelity and surface quality are key. ALE ensures that visual inspections can be carried out without undesirable metamerism effects or other disruptive influences.

- Energy-efficient fluorescent lamp technology
- Area light free of shadows and glare caused by reflection
- Optimum colour rendering in the daylight spectrum
- Light exit with conical prismatic structure for perfect glare-free lighting
- Error-free inspection of high-gloss surfaces



ALE at a glance

- Fluorescent lamp technology
- Colour temperature daylight white 5300 K
- Colour rendering Ra > 90
- Glare-free thanks to structured screen
- Housing made sheet steel painted grey
- PMMA screen
- Chain-mounted
- Integrated switch and operating hours counter
- Degree of protection IP20; protection class I
- Supplied with approx. 5 m connecting cable and free stranded wires

|  Assembly workplace | |  Inspection workplace | | | |
|--|-------------------------------|--|----------------------|--------------------------|--|
| Fitted with | Operating device | Dimensions | E_m | Model | |
| Power | Connected load | Special feature | E_{max}^* | Order no. | |
| T8 | integrated electronic ballast | – | 1941 lx ¹ | ALE 458 | |
| 4 x 58 W | 220 – 240 V, 50/60 Hz | – | 2248 lx ¹ | 101 442 000 - 000 890 47 | |

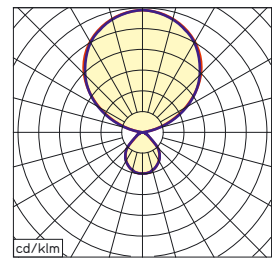
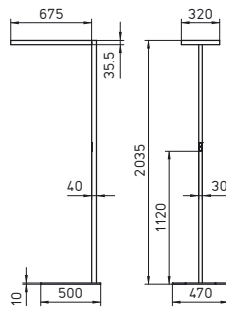
* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm

LAVIGO FOR THE FUTURE OF OFFICE LIGHTING




As free-standing luminaire, LAVIGO meets the requirements of modern office lighting. High-quality design and intelligent technology bring high light quality directly to the workplace. The direct and indirect components of light can be dimmed separately and allow individual tuning of the lighting quality.

- Optimised ratio of direct to indirect light for standard-compliant lighting
- Easy-to-reach, multifunctional operating element
- Closed luminaire body with cover
- Direct light component with edge light and light-guide technology for homogenous light exit









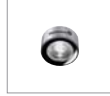























LAVIGO at a glance

- Luminaire light output approx. 121 lm/W
- Light distribution (direct/indirect) approx. 15%/85 %
- Luminance < 3000 cd/m²
- UGR < 10
- Colour rendering Ra > 80
- Glare-free thanks to conical prismatic screen
- Connected loads 220 – 240 V; 50/60 Hz
- Energy efficiency class A++
- Degree of protection IP 20
- Weight (net) approx. 19.7 kg
- Mains connection approx. 3 m lead with mains plug

|  Office workplace | | | | |
|--|------------------------------|--|--------------------------|--------------------------|
| Fitted with Power | Technology Connected load | Model Light colour | Order no. white | Order no. silver |
| 12000 lm approx. 96 W | PIR 220 – 240 V, 50/60 Hz | DPS 12000/840/R/G2 neutral white 4000 K | 121 785 000 - 007 418 57 | 121 785 000 - 007 418 60 |

MACHINE LIGHTING

|  Machine tools | | | |
|---|---|---|---|
|  |  |  |  |
| MACH LED PLUS 68 | MACH LED PLUS 70 | MACH LED PRO 74 | FLAT LED 76 |
|  |  |  |  |
| LUMATRIS 82 | FLAT TEC 86 | SPOT LED 88 | HEAD LED 90 |
|  |  |  |  |
| MACH LED PRO 94 | FLAT LED 96 | FLAT TEC 98 | SPOT LED 100 |
|  |  |  |  |
| RL 70 LE 108 | RL 70 E 112 | RL 70 H 116 | AWD 118 |
|  |  |  |  |
| ROCIA 120 | ROCIA 122 | ROCIA 124 | ABL 126 |
|  |  | | |
| ROCIA 128 | ABL 130 | | |

|  Printing machines | | | |
|---|---|---|---|
|  |  |  |  |
| SLIM LED 78 | ONE LED 92 | RL 25 LE 104 | RL 40 LE 106 |
|  |  | | |
| RL 70 E 112 | RL 70 H 116 | | |



Textile machines



MACH LED PLUS
68



MACH LED PLUS
70



MACH LED PRO
74



FLAT LED
76



SLIM LED
78



SPOT LED
88



HEAD LED
90



ONE LED
92



RL 25 LE
104



RL 40 LE
106



RL 70 LE
108



RL 70 E
112



RL 70 H
116



ROCIA
120



ROCIA
122



ROCIA
124



ROCIA
128



Woodworking machines



MACH LED PLUS
68



MACH LED PLUS
70



MACH LED PRO
74



FLAT LED
76



SLIM LED
78



SPOT LED
88



HEAD LED
90



MACH LED PRO
94



FLAT LED
96



SPOT LED
100



RL 25 LE
104



RL 40 LE
106



RL 70 LE
108



RL 70 E
112



RL 70 H
116



ROCIA
120



ROCIA
122



ROCIA
124



ROCIA
128



Packaging machines



MKEL
102



RL 25 LE
104



RL 40 LE
106



Track laying machines



RL 40 LE
106



RL 70 LE
110



Production facilities



MACH LED PLUS
68



MACH LED PLUS
70



MACH LED PRO
74



FLAT LED
76



SLIM LED
78



ONE LED
92



RL 25 LE
104



RL 40 LE
106



RL 70 LE
108



RL 70 E
112



RL 70 H
116



MACH LED PLUS is the quintessence of hundreds of thousands of Waldmann machine luminaires that are being used day by day in the entire world in rough environments: They have provided the specifications for the highly developed and robust MACH LED PLUS.

The efficient and maintenance-free LED technology, clever lighting technology and extremely robust housing in the attractive design make MACH LED PLUS the first choice for lighting engineering of machines and production facilities.

Different lengths and output levels enable standard-compliant lighting conditions for any lighting and room situation. Flexible adaptation options, M12 connectors and through-wiring (versions for electrical daisy chaining of several luminaires) ensure a fast and easy integration.

If required, all important components can be replaced. This makes MACH LED PLUS one of the most sustainable machine luminaires on the market.

MACH LED PLUS FOR THE ADDED PLUS OF POSSIBILITIES



For use in a wide range of areas, the MACH LED PLUS is available in two basic versions with a large number of variants.

In its extremely compact form, the MACH LED PLUS.forty, it combines the latest LED technology with the latest innovations from the area of housing technology. It can be integrated easily even if there is little space in the working area.

As MACH LED PLUS.seventy, it is compatible with classic tube luminaires in form, dimensions and connection options. This makes it the perfect solution for replacement of older luminaires. But it is also suitable for a wide-area illumination when carrying out initial equipping of machines.



MACH LED PLUS.forty

MASTER CLASS IN SLIM DESIGN

Thanks to many different kinds of lighting characteristics, MACH LED PLUS.forty supports a variety of visual tasks, even if sometimes space is limited.

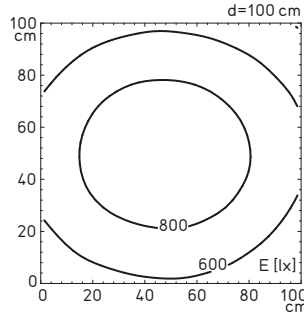
With an outer diameter of 40 mm and a minimum length of 190 mm, MACH LED PLUS.forty enables high illuminance even in the most restricted space. Its output density is very impressive: Just a single luminaire of the shortest version enables standard-compliant illumination of smaller working spaces.

The MACH LED PLUS.forty reflects state-of-the-art technology: the latest LED technology, specially developed optics system and the most modern housing concept by the Engineer of Light. MACH LED PLUS.forty: high-tech light for high-tech machines.

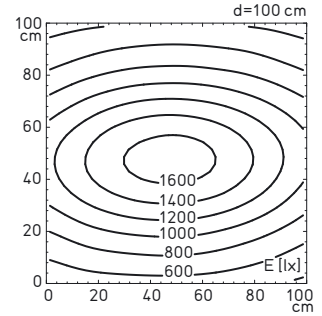
- Maintenance-free LED technology
- Ultra low-glare, homogeneous light with soft transitions
- With narrow- or wide-beam illumination characteristic, as desired
- Outer diameter of 40 mm for integration in case of restricted space
- Robust aluminium housing with solid safety glass screen
- Side parts made of high-performance plastic
- Potted M12 connector
- Viton® seal for high degree of protection
- Chemically resistant to many media such as oils or cooling lubricants
- Sensitive to shocks and vibrations
- Ideal for high mechanical and thermal stress
- Direct connection to machine voltage
- Variants with PWM interface for flashing and flicker-free dimming and digital input for cold switching
- Luminaires for daisy chaining



MACH LED PLUS.forty with through-wiring



Illuminance based on the example MLAL 57 S with 90° reflector



Illuminance based on the example MLAL 57 S with 40° optics

MACH LED PLUS.forty at a glance

- LED technology
- Colour temperature neutral white 5000 K
- Colour rendering Ra > 80
- Beam angle 40° (optics) or 90° (reflector)
- Housing made of colourless anodised aluminium and black side parts made of high-performance plastic
- 4 mm thick safety glass
- Mounted by means of various brackets from the accessories
- Maximum allowed ambient temperature $T_{a_{max}}$ 50° C
- LED service life (L70) > 60000 h
- Vibrations-resistant at 10 to 55 Hz (amplitude 0.35 mm), shock-proof up to 50 g
- Degree of protection IP67, protection class III
- Connection via M12 connector, A-coded
- Various brackets, M12 connection technology and operating device as accessories for connection to the mains voltage



Machine tools



Textile machines



Woodworking machines



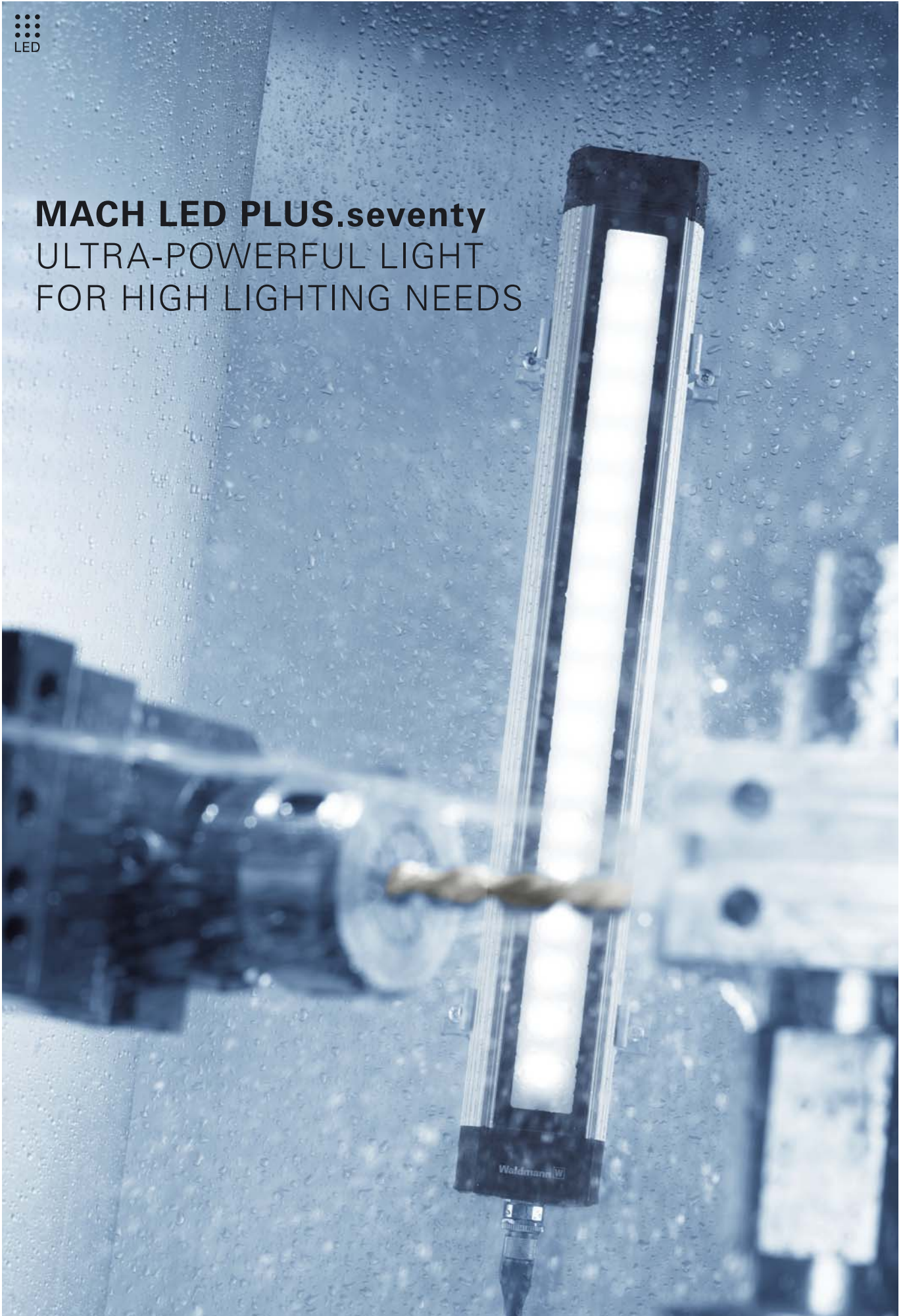
Production facilities

| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. |
|-------------------|---------------------------------|--------------------------------|-----------------------|--------------------------|
| LED | - | A = 190 mm x 40 mm | 156 lx ¹ | MLAL 12 S |
| 5.0 W | 20 – 28 VDC | 90° reflector | 216 lx ¹ | 113 161 000 - 006 625 75 |
| LED | - | A = 190 mm x 40 mm | 223 lx ¹ | MLAL 12 S |
| 5.0 W | 20 – 28 VDC | 40° optics | 393 lx ¹ | 113 161 000 - 006 600 33 |
| LED | - | A = 190 mm x 40 mm | 156 lx ¹ | MLAL 12 S |
| 5.0 W | 20 – 28 VDC | 90° reflector, light interface | 216 lx ¹ | 113 161 000 - 006 625 91 |
| LED | - | A = 190 mm x 40 mm | 156 lx ¹ | MLAL 12 SD |
| 5.0 W | 20 – 28 VDC | 90° reflector, through-wiring | 216 lx ¹ | 113 161 000 - 006 626 00 |
| LED | - | A = 365 mm x 40 mm | 348 lx ¹ | MLAL 27 S |
| 10.5 W | 20 – 28 VDC | 90° reflector | 477 lx ¹ | 113 162 000 - 006 626 85 |
| LED | - | A = 365 mm x 40 mm | 487 lx ¹ | MLAL 27 S |
| 10.5 W | 20 – 28 VDC | 40° optics | 846 lx ¹ | 113 162 000 - 006 606 81 |
| LED | - | A = 365 mm x 40 mm | 348 lx ¹ | MLAL 27 S |
| 10.5 W | 20 – 28 VDC | 90° reflector, light interface | 477 lx ¹ | 113 162 000 - 006 626 99 |
| LED | - | A = 365 mm x 40 mm | 348 lx ¹ | MLAL 27 SD |
| 10.5 W | 20 – 28 VDC | 90° reflector, through-wiring | 477 lx ¹ | 113 162 000 - 006 627 06 |
| LED | - | A = 540 mm x 40 mm | 541 lx ¹ | MLAL 42 S |
| 16.0 W | 20 – 28 VDC | 90° reflector | 732 lx ¹ | 113 163 000 - 006 627 17 |
| LED | - | A = 540 mm x 40 mm | 746 lx ¹ | MLAL 42 S |
| 16.0 W | 20 – 28 VDC | 40° optics | 1 270 lx ¹ | 113 163 000 - 006 606 84 |
| LED | - | A = 540 mm x 40 mm | 541 lx ¹ | MLAL 42 S |
| 16.0 W | 20 – 28 VDC | 90° reflector, light interface | 732 lx ¹ | 113 163 000 - 006 627 29 |
| LED | - | A = 540 mm x 40 mm | 541 lx ¹ | MLAL 42 SD |
| 16.0 W | 20 – 28 VDC | 90° reflector, through-wiring | 732 lx ¹ | 113 163 000 - 006 627 35 |
| LED | - | A = 715 mm x 40 mm | 718 lx ¹ | MLAL 57 S |
| 21.5 W | 20 – 28 VDC | 90° reflector | 957 lx ¹ | 113 164 000 - 006 628 06 |
| LED | - | A = 715 mm x 40 mm | 1 001 lx ¹ | MLAL 57 S |
| 21.5 W | 20 – 28 VDC | 40° optics | 1 692 lx ¹ | 113 164 000 - 006 606 87 |
| LED | - | A = 715 mm x 40 mm | 718 lx ¹ | MLAL 57 S |
| 21.5 W | 20 – 28 VDC | 90° reflector, light interface | 957 lx ¹ | 113 164 000 - 006 628 21 |
| LED | - | A = 715 mm x 40 mm | 718 lx ¹ | MLAL 57 SD |
| 21.5 W | 20 – 28 VDC | 90° reflector, through-wiring | 957 lx ¹ | 113 164 000 - 006 628 33 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm



MACH LED PLUS.seventy
ULTRA-POWERFUL LIGHT
FOR HIGH LIGHTING NEEDS



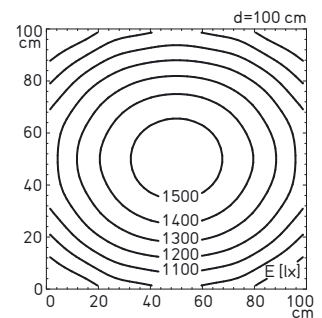
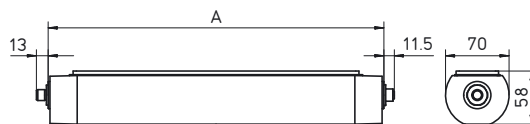
The MACH LED PLUS.seventy ensures a wide-area illumination both as a replacement for classic tube luminaires or for initial equipping of machines. With a diameter of 70 mm, long versions ranging from 370 mm to 1 070 mm and the connection option to 24 V or 100/120/220 – 240 V, the MACH LED PLUS.seventy is the optimum solution to convert machines and production facilities from classic tube luminaires to modern LED lighting technology. The versions fitted with Eco components are often sufficient to ensure comparable illumination.

Thanks to their long versions and power fitting with twice the number of LEDs, the MACH LED PLUS.seventy is also particularly suitable for initial equipment, especially for larger machines that have higher lighting demands.

- Maintenance-free LED technology
- Ultra low-glare, homogeneous light with soft transitions
- Outer diameter of 70 mm for easy replacement of traditional tube luminaires
- Robust aluminium housing with solid safety glass screen
- Side parts made of high-performance plastic
- Potted M12 connector
- Viton® seal for high degree of protection
- Chemically resistant to many media such as oils or cooling lubricants
- Sensitive to shocks and vibrations
- Ideal for high mechanical and thermal stress
- Connection to machine or mains voltage
- Luminaires for daisy chaining



MACH LED PLUS.seventy with through-wiring



Illuminance based on the example MQAL 84 S

MACH LED PLUS.seventy at a glance

- LED technology
- Colour temperature neutral white 5000 K
- Colour rendering $R_a > 80$
- Glare-free with Light Forming Technology
- Housing made of colourless anodised aluminium and black side parts made of high-performance plastic
- 4 mm thick safety glass
- Mounted by means of various brackets from the accessories
- Maximum allowed ambient temperature $T_{a,max}$:
Eco: 50° C (24 V) or 45° C (100/120/220 – 240 V),
Power: 45° C (24 V) or 40° C (100/120/220 – 240 V)
- LED service life (L70) > 60 000 h
- Vibrations-resistant at 10 to 55 Hz (amplitude 0.35 mm), shock-proof up to 50 g
- Degree of protection IP67, protection class I (100/120/220 – 240 V) or protection class III (24 V)
- Connection via M12 plug connector, S-coded (100/120/220 – 240 V) or A-coded (24 V)
- Various brackets and M12 connection technology as accessories



Machine tools



Textile machines



Woodworking machines



Production facilities


| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max} * | Model Order no. |
|-------------------|------------------------------------|-------------------------------|-----------------------|--------------------------|
| LED | – | A = 370 mm x 70 mm | 184 lx ¹ | MQAL 12 S |
| 5.0 W | 18 – 30 VDC | Eco | 241 lx ¹ | 113 045 000 - 005 807 02 |
| LED | – | A = 370 mm x 70 mm | 184 lx ¹ | MQAL 12 SD |
| 5.0 W | 18 – 30 VDC | Eco, through-wired | 241 lx ¹ | 113 046 000 - 005 806 96 |
| LED | – | A = 370 mm x 70 mm | 399 lx ¹ | MQAL 24 S |
| 12.0 W | 18 – 30 VDC | Power | 523 lx ¹ | 113 047 000 - 005 806 93 |
| LED | – | A = 370 mm x 70 mm | 399 lx ¹ | MQAL 24 SD |
| 12.0 W | 18 – 30 VDC | Power, through-wired | 523 lx ¹ | 113 048 000 - 005 805 73 |
| LED | – | A = 510 mm x 70 mm | 273 lx ¹ | MQAL 18 S |
| 7.5 W | 18 – 30 VDC | Eco | 354 lx ¹ | 113 053 000 - 005 805 88 |
| LED | – | A = 510 mm x 70 mm | 273 lx ¹ | MQAL 18 SD |
| 7.5 W | 18 – 30 VDC | Eco, through-wired | 354 lx ¹ | 113 054 000 - 005 805 91 |
| LED | – | A = 510 mm x 70 mm | 591 lx ¹ | MQAL 36 S |
| 18.0 W | 18 – 30 VDC | Power | 768 lx ¹ | 113 055 000 - 005 805 94 |
| LED | – | A = 510 mm x 70 mm | 591 lx ¹ | MQAL 36 SD |
| 18.0 W | 18 – 30 VDC | Power, through-wired | 768 lx ¹ | 113 056 000 - 005 805 97 |
| LED | – | A = 565 mm x 70 mm | 273 lx ¹ | MQAL 18 S |
| 7.5 W | 18 – 30 VDC | Eco | 354 lx ¹ | 113 061 000 - 005 806 12 |
| LED | – | A = 565 mm x 70 mm | 273 lx ¹ | MQAL 18 SD |
| 7.5 W | 18 – 30 VDC | Eco, through-wired | 354 lx ¹ | 113 062 000 - 005 806 15 |
| LED | – | A = 565 mm x 70 mm | 591 lx ¹ | MQAL 36 S |
| 18.0 W | 18 – 30 VDC | Power | 768 lx ¹ | 113 063 000 - 005 806 18 |
| LED | – | A = 565 mm x 70 mm | 591 lx ¹ | MQAL 36 SD |
| 18.0 W | 18 – 30 VDC | Power, through-wired | 768 lx ¹ | 113 064 000 - 005 806 21 |
| LED | – | A = 650 mm x 70 mm | 364 lx ¹ | MQAL 24 S |
| 10.0 W | 18 – 30 VDC | Eco | 477 lx ¹ | 113 069 000 - 005 806 39 |
| LED | – | A = 650 mm x 70 mm | 364 lx ¹ | MQAL 24 SD |
| 10.0 W | 18 – 30 VDC | Eco, through-wired | 477 lx ¹ | 113 070 000 - 005 806 42 |
| LED | – | A = 650 mm x 70 mm | 780 lx ¹ | MQAL 48 S |
| 24.0 W | 18 – 30 VDC | Power | 1 009 lx ¹ | 113 071 000 - 005 806 45 |
| LED | – | A = 650 mm x 70 mm | 780 lx ¹ | MQAL 48 SD |
| 24.0 W | 18 – 30 VDC | Power, through-wired | 1 009 lx ¹ | 113 072 000 - 005 806 48 |
| LED | – | A = 790 mm x 70 mm | 444 lx ¹ | MQAL 30 S |
| 12.5 W | 18 – 30 VDC | Eco | 573 lx ¹ | 113 077 000 - 005 806 63 |
| LED | – | A = 790 mm x 70 mm | 444 lx ¹ | MQAL 30 SD |
| 12.5 W | 18 – 30 VDC | Eco, through-wired | 573 lx ¹ | 113 078 000 - 005 806 66 |
| LED | – | A = 790 mm x 70 mm | 938 lx ¹ | MQAL 60 S |
| 30.0 W | 18 – 30 VDC | Power | 1 204 lx ¹ | 113 124 000 - 006 118 55 |
| LED | – | A = 790 mm x 70 mm | 938 lx ¹ | MQAL 60 SD |
| 30.0 W | 18 – 30 VDC | Power, through-wired | 1 204 lx ¹ | 113 125 000 - 006 128 44 |
| LED | – | A = 1 070 mm x 70 mm | 597 lx ¹ | MQAL 42 S |
| 17.5 W | 18 – 30 VDC | Eco | 756 lx ¹ | 113 081 000 - 005 806 75 |
| LED | – | A = 1 070 mm x 70 mm | 597 lx ¹ | MQAL 42 SD |
| 17.5 W | 18 – 30 VDC | Eco, through-wired | 756 lx ¹ | 113 082 000 - 005 806 81 |
| LED | – | A = 1 070 mm x 70 mm | 1 229 lx ¹ | MQAL 84 S |
| 42.0 W | 18 – 30 VDC | Power | 1 546 lx ¹ | 113 126 000 - 006 129 73 |
| LED | – | A = 1 070 mm x 70 mm | 1 229 lx ¹ | MQAL 84 SD |
| 42.0 W | 18 – 30 VDC | Power, through-wired | 1 546 lx ¹ | 113 122 000 - 006 098 07 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm

 Machine tools

 Textile machines

 Woodworking machines

 Production facilities

| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max} * | Model Order no. |
|-------------------|---|--|--|--|
| LED 7.0 W | integrated transformer 100/120/220 – 240 V, 50/60 Hz | A = 370 mm x 70 mm Eco | 184 lx ¹ 241 lx ¹ | MQAL 12 N 113 049 000 - 005 805 76 |
| LED 7.0 W | integrated transformer 100/120/220 – 240 V, 50/60 Hz | A = 370 mm x 70 mm Eco, through-wired | 184 lx ¹ 241 lx ¹ | MQAL 12 ND 113 050 000 - 005 805 79 |
| LED 15.0 W | integrated transformer 100/120/220 – 240 V, 50/60 Hz | A = 370 mm x 70 mm Power | 399 lx ¹ 523 lx ¹ | MQAL 24 N 113 051 000 - 005 805 82 |
| LED 15.0 W | integrated transformer 100/120/220 – 240 V, 50/60 Hz | A = 370 mm x 70 mm Power, through-wired | 399 lx ¹ 523 lx ¹ | MQAL 24 ND 113 052 000 - 005 805 85 |
| LED 9.5 W | integrated transformer 100/120/220 – 240 V, 50/60 Hz | A = 510 mm x 70 mm Eco | 273 lx ¹ 354 lx ¹ | MQAL 18 N 113 057 000 - 005 806 00 |
| LED 9.5 W | integrated transformer 100/120/220 – 240 V, 50/60 Hz | A = 510 mm x 70 mm Eco, through-wired | 273 lx ¹ 354 lx ¹ | MQAL 18 ND 113 058 000 - 005 806 03 |
| LED 21.0 W | integrated transformer 100/120/220 – 240 V, 50/60 Hz | A = 510 mm x 70 mm Power | 591 lx ¹ 768 lx ¹ | MQAL 36 N 113 059 000 - 005 806 06 |
| LED 21.0 W | integrated transformer 100/120/220 – 240 V, 50/60 Hz | A = 510 mm x 70 mm Power, through-wired | 591 lx ¹ 768 lx ¹ | MQAL 36 ND 113 060 000 - 005 806 09 |
| LED 9.5 W | integrated transformer 100/120/220 – 240 V, 50/60 Hz | A = 565 mm x 70 mm Eco | 273 lx ¹ 354 lx ¹ | MQAL 18 N 113 065 000 - 005 806 24 |
| LED 9.5 W | integrated transformer 100/120/220 – 240 V, 50/60 Hz | A = 565 mm x 70 mm Eco, through-wired | 273 lx ¹ 354 lx ¹ | MQAL 18 ND 113 066 000 - 005 806 30 |
| LED 21.0 W | integrated transformer 100/120/220 – 240 V, 50/60 Hz | A = 565 mm x 70 mm Power | 591 lx ¹ 768 lx ¹ | MQAL 36 N 113 067 000 - 005 806 33 |
| LED 21.0 W | integrated transformer 100/120/220 – 240 V, 50/60 Hz | A = 565 mm x 70 mm Power, through-wired | 591 lx ¹ 768 lx ¹ | MQAL 36 ND 113 068 000 - 005 806 36 |
| LED 12.0 W | integrated transformer 100/120/220 – 240 V, 50/60 Hz | A = 650 mm x 70 mm Eco | 364 lx ¹ 477 lx ¹ | MQAL 24 N 113 073 000 - 005 806 51 |
| LED 12.0 W | integrated transformer 100/120/220 – 240 V, 50/60 Hz | A = 650 mm x 70 mm Eco, through-wired | 364 lx ¹ 477 lx ¹ | MQAL 24 ND 113 074 000 - 005 806 54 |
| LED 27.0 W | integrated transformer 100/120/220 – 240 V, 50/60 Hz | A = 650 mm x 70 mm Power | 780 lx ¹ 1 009 lx ¹ | MQAL 48 N 113 075 000 - 005 806 57 |
| LED 27.0 W | integrated transformer 100/120/220 – 240 V, 50/60 Hz | A = 650 mm x 70 mm Power, through-wired | 780 lx ¹ 1 009 lx ¹ | MQAL 48 ND 113 076 000 - 005 806 60 |
| LED 14.5 W | integrated transformer 100/120/220 – 240 V, 50/60 Hz | A = 790 mm x 70 mm Eco | 444 lx ¹ 573 lx ¹ | MQAL 30 N 113 079 000 - 005 806 69 |
| LED 14.5 W | integrated transformer 100/120/220 – 240 V, 50/60 Hz | A = 790 mm x 70 mm Eco, through-wired | 444 lx ¹ 573 lx ¹ | MQAL 30 ND 113 080 000 - 005 806 72 |
| LED 19.5 W | integrated transformer 100/120/220 – 240 V, 50/60 Hz | A = 1070 mm x 70 mm Eco | 597 lx ¹ 756 lx ¹ | MQAL 42 N 113 083 000 - 005 806 84 |
| LED 19.5 W | integrated transformer 100/120/220 – 240 V, 50/60 Hz | A = 1070 mm x 70 mm Eco, through-wired | 597 lx ¹ 756 lx ¹ | MQAL 42 ND 113 084 000 - 005 806 90 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm

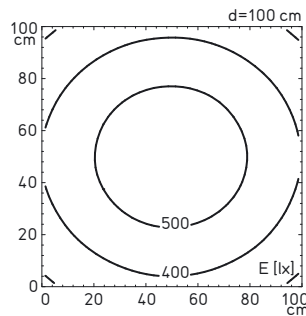
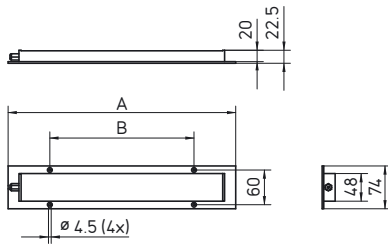
MACH LED PRO

SURPRISINGLY STRONG,
SURPRISINGLY FLAT

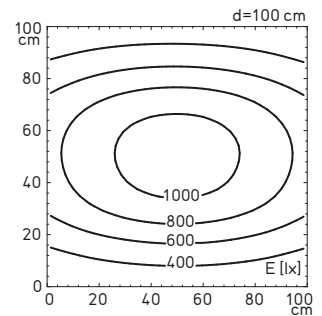
MACH LED PRO is an extremely flat machine luminaire family with several length variants. Waldmann has developed this optimum solution for situations with a lack of positioning options for lighting in machines and production facilities. MACH LED PRO is ideal for many lighting tasks – whether you require light dispersed over a large area or focused lighting.

- Maintenance-free LED technology
- Strong high-power LEDs for maximum light
- With narrow- or wide-beam illumination characteristic, as desired
- Robust aluminium housing with solid safety glass screen
- High degree of protection
- Chemically resistant to many media such as oils or cooling lubricants
- Ideal for high mechanical and thermal stress
- Direct connection to machine voltage





Illuminance base of the example
24 W without optics (95°)



Illuminance based on the example
24 W with 30° optics

MACH LED PRO at a glance

- LED technology
- Colour temperature neutral white 5000 K
- Colour rendering Ra > 80
- Beam angle 30° (optics) or 95° (without optics)
- Housing made of colourless anodised aluminium
- 4 mm thick safety glass
- Screw-mounted
- Maximum allowed ambient temperature $T_{a,max}$ 40° C
- LED service life (L70) > 50000 h
- Degree of protection IP67, protection class III
- Supplied with approx. 3 m connecting cable and free stranded wires
- Operating device as accessories for connection to the mains voltage



Machine tools



Textile machines



Woodworking machines



Production facilities

| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max} * | Model Order no. |
|-------------------|---------------------------------|--|--|-----------------------------------|
| LED 6 W | – 20 – 28 VDC | A = 220 mm x 74 mm, B = 125 mm (1x) – | 113 lx ¹ 147 lx ¹ | MUAL 1 S 112 571 022 - 000 821 86 |
| LED 6 W | – 20 – 28 VDC | A = 220 mm x 74 mm, B = 125 mm (1x) 30° optics | 200 lx ¹ 316 lx ¹ | MUAL 1 S 112 571 020 - 000 790 42 |
| LED 12 W | – 20 – 28 VDC | A = 395 mm x 74 mm, B = 250 mm (1x) – | 230 lx ¹ 296 lx ¹ | MUAL 2 S 112 571 026 - 000 825 11 |
| LED 12 W | – 20 – 28 VDC | A = 395 mm x 74 mm, B = 250 mm (1x) 30° optics | 368 lx ¹ 600 lx ¹ | MUAL 2 S 112 571 024 - 000 824 56 |
| LED 18 W | – 20 – 28 VDC | A = 570 mm x 74 mm, B = 200 mm (2x) – | 334 lx ¹ 425 lx ¹ | MUAL 3 S 112 571 032 - 000 828 20 |
| LED 18 W | – 20 – 28 VDC | A = 570 mm x 74 mm, B = 200 mm (2x) 30° optics | 564 lx ¹ 895 lx ¹ | MUAL 3 S 112 571 030 - 000 827 88 |
| LED 24 W | – 20 – 28 VDC | A = 745 mm x 74 mm, B = 250 mm (2x) – | 445 lx ¹ 564 lx ¹ | MUAL 4 S 112 571 036 - 000 828 46 |
| LED 24 W | – 20 – 28 VDC | A = 745 mm x 74 mm, B = 250 mm (2x) 30° optics | 685 lx ¹ 1091 lx ¹ | MUAL 4 S 112 571 034 - 000 828 44 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm

Also available as integrated machine luminaires

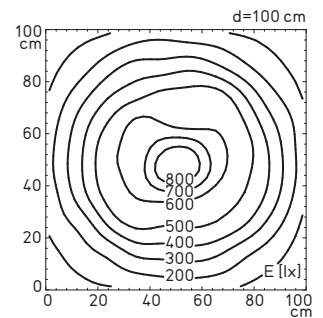
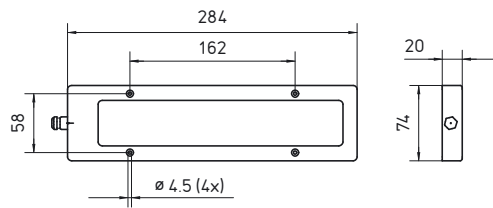


FLAT LED STROKE OF GENIUS IN A FLAT DESIGN



FLAT LED is a convincingly flat solution – for cases where it is not possible to integrate the luminaire into the machine wall. To avoid significantly changing the interference contour, even in compact workrooms, or in blind spots of production facilities, the luminaire compresses the maximum luminous power to the flattest possible space, using a combination of 6 high-power LEDs and Waldmann's special optics technology, which evenly disperses the beam over the entire area.

- Maintenance-free LED technology
- Strong high-power LEDs for maximum light
- Robust aluminium housing with solid safety glass screen
- High degree of protection
- Chemically resistant to many media such as oils or cooling lubricants
- Ideal for high mechanical and thermal stress
- Direct connection to machine voltage



Illuminance 13 W

FLAT LED at a glance

- LED technology
- Colour temperature daylight white 6500 K
- Colour rendering Ra > 65
- Beam angle 60°
- Housing made of black anodised aluminium
- 4 mm thick safety glass
- Screw-mounted
- Maximum allowed ambient temperature $T_{a_{max}}$ 40° C
- LED service life (L70) > 50000 h
- Degree of protection IP67 and IPX9K, protection class III
- Supplied with approx. 3 m connecting cable and free stranded wires
- Luminaire bracket as accessory to adjust the luminaire and operating unit for connection to the mains voltage



Machine tools



Textile machines




Woodworking machines



Production facilities

| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. |
|-------------------|---------------------------------|----------------------------|--|--------------------------------------|
| LED 13 W | – 10 – 40 VDC | 284 mm x 74 mm – | 347 lx ¹ 869 lx ¹ | MYAL 6 S 112 560 000 - 000 030 69 |

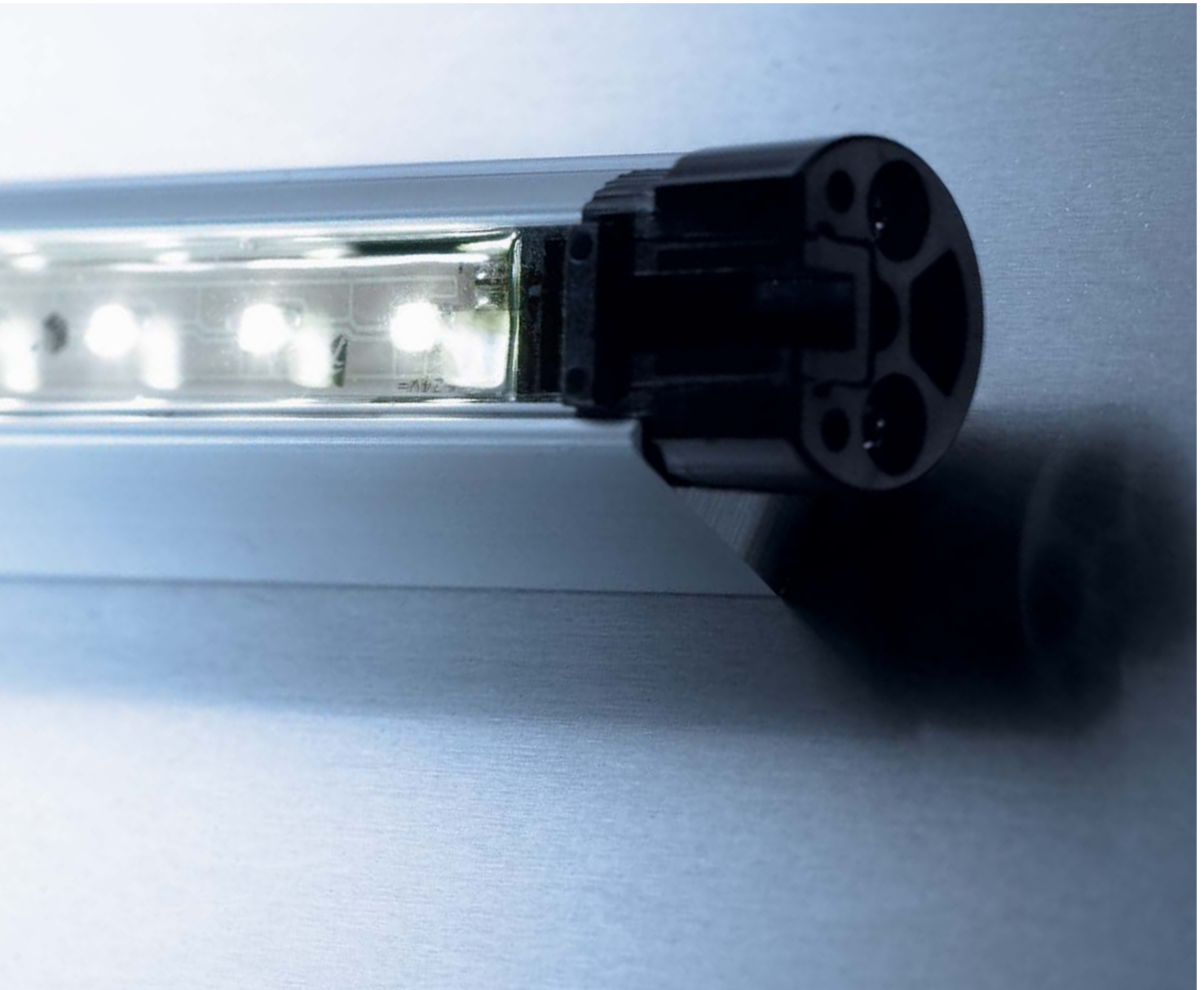
* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm
Also available as an integrated machine luminaire



SLIM LED STRONG PERFORMANCE – SLIM LINE

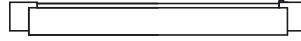
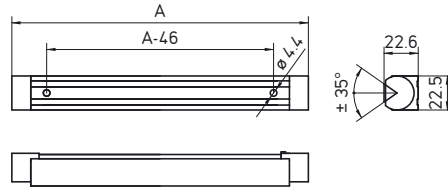
SLIM LED – its name speaks for itself: This luminaire is suitable wherever not enough space is available for strong lighting. Especially in the narrowest of installation situations, the slimline profile of the SLIM LED is a convincing solution. And in case the light doesn't have the ideal angle of incidence, the adjustable variant can help!

- Maintenance-free LED technology
- Ultra low-glare, homogeneous light with soft transitions
- Aluminium housing potted in epoxy resin
- Variants with additional clear or satined screen
- High degree of protection
- Direct connection to machine voltage

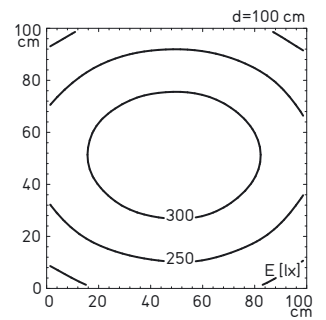
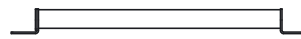
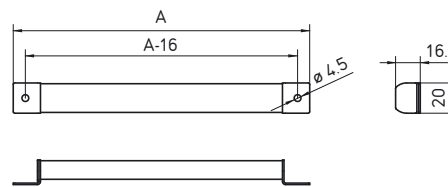




SLIM LED +/- 35° adjustable



SLIM LED with fixed lugs

Illuminance based on the example
28 W with clear screen

SLIM LED at a glance

- LED technology
- Colour temperature daylight white 5400 K
- Colour rendering $R_a > 70$
- Direct beam or glare-free thanks to satined additional screen
- Housing made of colourless anodised aluminium
- Potted in epoxy resin with additional screen (variants)
- Screw-mounted to fixed lugs or +/- 35° adjustable support profile
- LED service life (L70) > 50000 h
- Degree of protection IP67, protection class III
- Supplied with approx. 3 m connecting cable and free stranded wires
- Operating device as accessories for connection to the mains voltage





Printing machines



Textile machines



Woodworking machines



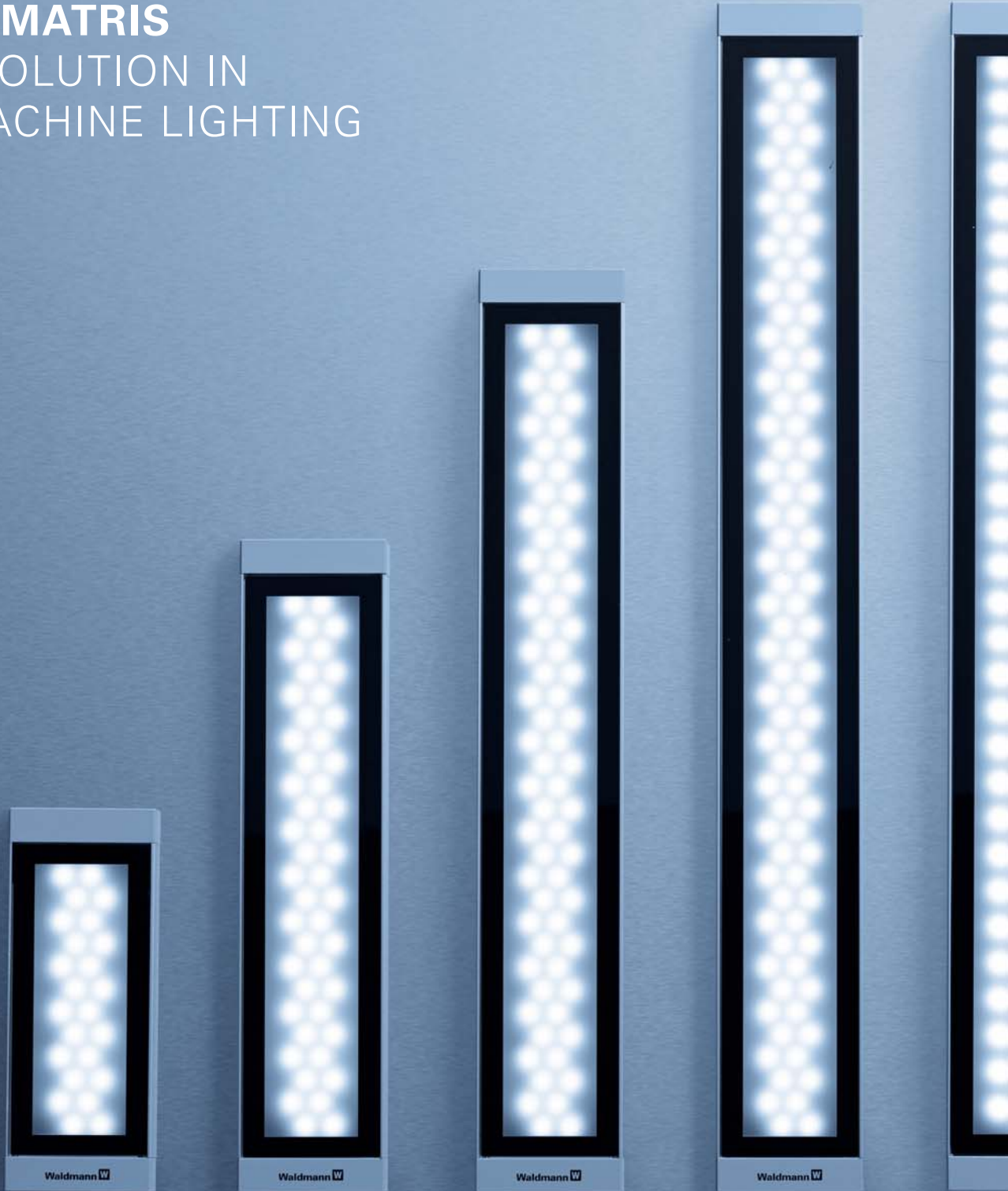
Production facilities

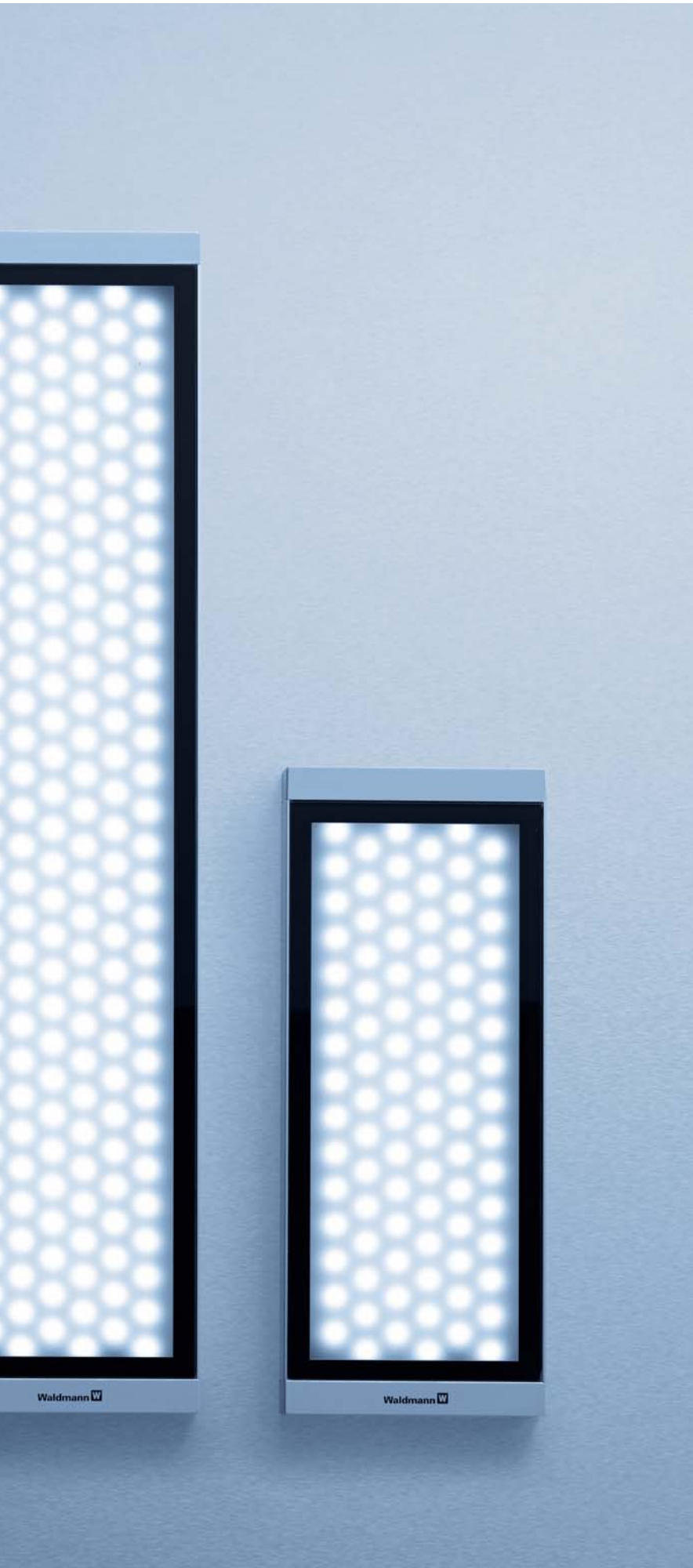
| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. |
|-------------------|------------------------------------|-------------------------------|----------------------|--------------------------|
| LED | – | A = 196 mm x 22.5 mm | 41 lx ¹ | LIQ 6 |
| 3.5 W | 22 – 29 VDC | clear screen, adjustable | 53 lx ¹ | 112 544 000 - 000 013 28 |
| LED | – | A = 196 mm x 22.5 mm | 40 lx ¹ | LIQ 6 |
| 3.5 W | 22 – 29 VDC | satined screen, adjustable | 53 lx ¹ | 112 544 005 - 000 111 00 |
| LED | – | A = 196 mm x 22.5 mm | 42 lx ¹ | LIQ 6 |
| 3.5 W | 22 – 29 VDC | adjustable | 55 lx ¹ | 112 544 010 - 000 111 01 |
| LED | – | A = 196 mm x 20 mm | 41 lx ¹ | LIQ 6 |
| 3.5 W | 22 – 29 VDC | clear screen | 53 lx ¹ | 112 545 000 - 000 013 51 |
| LED | – | A = 196 mm x 20 mm | 40 lx ¹ | LIQ 6 |
| 3.5 W | 22 – 29 VDC | satined screen | 53 lx ¹ | 112 545 005 - 000 111 20 |
| LED | – | A = 196 mm x 20 mm | 42 lx ¹ | LIQ 6 |
| 3.5 W | 22 – 29 VDC | – | 55 lx ¹ | 112 545 010 - 000 111 21 |
| LED | – | A = 336 mm x 22.5 mm | 79 lx ¹ | LIQ 12 |
| 7.0 W | 22 – 29 VDC | clear screen, adjustable | 104 lx ¹ | 112 544 001 - 000 110 81 |
| LED | – | A = 336 mm x 22.5 mm | 77 lx ¹ | LIQ 12 |
| 7.0 W | 22 – 29 VDC | satined screen, adjustable | 103 lx ¹ | 112 544 006 - 000 110 88 |
| LED | – | A = 336 mm x 22.5 mm | 83 lx ¹ | LIQ 12 |
| 7.0 W | 22 – 29 VDC | adjustable | 108 lx ¹ | 112 544 011 - 000 111 02 |
| LED | – | A = 336 mm x 20 mm | 79 lx ¹ | LIQ 12 |
| 7.0 W | 22 – 29 VDC | clear screen | 104 lx ¹ | 112 545 001 - 000 111 25 |
| LED | – | A = 336 mm x 20 mm | 77 lx ¹ | LIQ 12 |
| 7.0 W | 22 – 29 VDC | satined screen | 103 lx ¹ | 112 545 006 - 000 111 28 |
| LED | – | A = 336 mm x 20 mm | 83 lx ¹ | LIQ 12 |
| 7.0 W | 22 – 29 VDC | – | 108 lx ¹ | 112 545 011 - 000 111 29 |
| LED | – | A = 616 mm x 22.5 mm | 159 lx ¹ | LIQ 24 |
| 14.0 W | 22 – 29 VDC | clear screen, adjustable | 207 lx ¹ | 112 544 002 - 000 110 82 |
| LED | – | A = 616 mm x 22.5 mm | 155 lx ¹ | LIQ 24 |
| 14.0 W | 22 – 29 VDC | satined screen, adjustable | 205 lx ¹ | 112 544 007 - 000 110 85 |
| LED | – | A = 616 mm x 22.5 mm | 165 lx ¹ | LIQ 24 |
| 14.0 W | 22 – 29 VDC | adjustable | 211 lx ¹ | 112 544 012 - 000 111 03 |
| LED | – | A = 616 mm x 20 mm | 159 lx ¹ | LIQ 24 |
| 14.0 W | 22 – 29 VDC | clear screen | 207 lx ¹ | 112 545 002 - 000 111 30 |
| LED | – | A = 616 mm x 20 mm | 155 lx ¹ | LIQ 24 |
| 14.0 W | 22 – 29 VDC | satined screen | 205 lx ¹ | 112 545 007 - 000 111 31 |
| LED | – | A = 616 mm x 20 mm | 165 lx ¹ | LIQ 24 |
| 14.0 W | 22 – 29 VDC | – | 211 lx ¹ | 112 545 012 - 000 111 32 |
| LED | – | A = 896 mm x 22.5 mm | 220 lx ¹ | LIQ 36 |
| 21.0 W | 22 – 29 VDC | clear screen, adjustable | 278 lx ¹ | 112 544 003 - 000 110 83 |
| LED | – | A = 896 mm x 22.5 mm | 212 lx ¹ | LIQ 36 |
| 21.0 W | 22 – 29 VDC | satined screen, adjustable | 274 lx ¹ | 112 544 008 - 000 110 86 |
| LED | – | A = 896 mm x 22.5 mm | 229 lx ¹ | LIQ 36 |
| 21.0 W | 22 – 29 VDC | adjustable | 290 lx ¹ | 112 544 013 - 000 111 04 |
| LED | – | A = 896 mm x 20 mm | 220 lx ¹ | LIQ 36 |
| 21.0 W | 22 – 29 VDC | clear screen | 278 lx ¹ | 112 545 003 - 000 111 33 |
| LED | – | A = 896 mm x 20 mm | 212 lx ¹ | LIQ 36 |
| 21.0 W | 22 – 29 VDC | satined screen | 274 lx ¹ | 112 545 008 - 000 111 34 |
| LED | – | A = 896 mm x 20 mm | 229 lx ¹ | LIQ 36 |
| 21.0 W | 22 – 29 VDC | – | 290 lx ¹ | 112 545 013 - 000 111 35 |
| LED | – | A = 1 176 mm x 22.5 mm | 270 lx ¹ | LIQ 48 |
| 28.0 W | 22 – 29 VDC | clear screen, adjustable | 334 lx ¹ | 112 544 004 - 000 110 84 |
| LED | – | A = 1 176 mm x 22.5 mm | 261 lx ¹ | LIQ 48 |
| 28.0 W | 22 – 29 VDC | satined screen, adjustable | 328 lx ¹ | 112 544 009 - 000 110 87 |
| LED | – | A = 1 176 mm x 22.5 mm | 281 lx ¹ | LIQ 48 |
| 28.0 W | 22 – 29 VDC | adjustable | 365 lx ¹ | 112 544 014 - 000 111 05 |
| LED | – | A = 1 176 mm x 20 mm | 270 lx ¹ | LIQ 48 |
| 28.0 W | 22 – 29 VDC | clear screen | 334 lx ¹ | 112 545 004 - 000 111 36 |
| LED | – | A = 1 176 mm x 20 mm | 261 lx ¹ | LIQ 48 |
| 28.0 W | 22 – 29 VDC | satined screen | 328 lx ¹ | 112 545 009 - 000 111 37 |
| LED | – | A = 1 176 mm x 20 mm | 281 lx ¹ | LIQ 48 |
| 28.0 W | 22 – 29 VDC | – | 345 lx ¹ | 112 545 014 - 000 111 38 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm

LUMATRIS

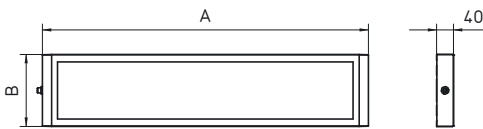
EVOLUTION IN
MACHINE LIGHTING



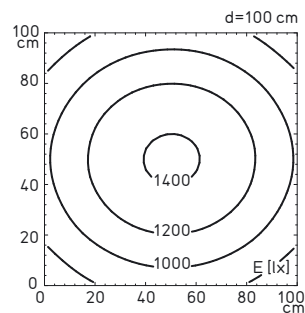


LUMATRIS brings the latest LED technology to medium- and large-sized machines. Waldmann knows that in mechanical engineering competitive ability equals the sum of innovative components and functions. LUMATRIS transforms the spot light characteristics of LEDs economically into an extremely homogeneous area light.

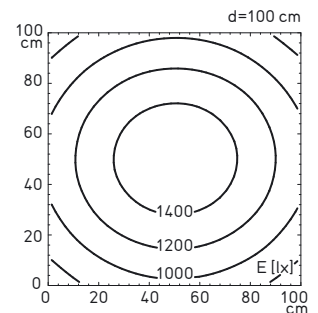
- Maintenance-free LED technology
- Particularly resource-saving variants with Eco mode
- Wide-beam light characteristics
- Variants with Light Forming Technology for optimum light deflection and glare-free lighting
- Robust aluminium housing with solid safety glass screen
- Die-cast side parts
- High degree of protection
- Chemically resistant to many media such as oils or cooling lubricants
- Ideal for high mechanical and thermal stress
- Direct connection to machine voltage
- Lateral or rear connection by means of M12 plug connector



Note: For the precise assembly dimensions, please request a detailed drawing.



Illuminance based on the example
50 W without Light Forming Technology



Illuminance based on the example
50 W with Light Forming Technology

LUMATRIS at a glance

- LED technology
- Colour temperature daylight white 5800 K
- Colour rendering $R_a > 80$
- Glare-free thanks to diffuser or Light Forming Technology
- Housing made of colourless anodised aluminium and die-cast side parts painted in silver
- 4 mm thick safety glass
- Screw-mounted or mounted by means of various fasteners from the range of accessories
- Maximum allowed ambient temperature $T_{a_{max}}$:
Luminaire width 170 mm: 60° C
Luminaire width 95 mm: 55° C
- LED service life (L70) > 50000 h
- Degree of protection IP68-1m and IPX9K, protection class III
- Connection via M12 connector, A-coded
- Various fasteners, M12 connection technology and operating devices as accessories for connection to the mains voltage

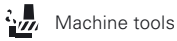


Light Forming Technology



Diffuser

Optionally, the luminaire is equipped with Light Forming Technology instead of the diffuser (see overview of variants). In addition to optimum glare-free lighting and increased efficiency, this results in a more narrow-beam characteristic, allowing different tasks to be solved.



| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. |
|-------------------|---------------------------------|---|-----------------------|--------------------------|
| LED | – | A = 246 mm x B = 95 mm | 163 lx ¹ | MSAL 24 S |
| 8 W | 22 – 26 VDC | rear connection, Light Forming Technology | 220 lx ¹ | 113 094 000 - 005 967 88 |
| LED | – | A = 246 mm x B = 95 mm | 163 lx ¹ | MSAL 24 S |
| 8 W | 22 – 26 VDC | side connection, Light Forming Technology | 220 lx ¹ | 113 094 000 - 005 967 22 |
| LED | – | A = 246 mm x B = 95 mm | 153 lx ¹ | MSAL 24 S |
| 8 W | 22 – 26 VDC | side connection | 205 lx ¹ | 113 094 000 - 005 967 91 |
| LED | – | A = 246 mm x B = 95 mm | 153 lx ¹ | MSAL 24 S |
| 8 W | 22 – 26 VDC | rear connection | 205 lx ¹ | 113 094 000 - 005 967 94 |
| LED | – | A = 420 mm x B = 95 mm | 341 lx ¹ | MSAL 48 S |
| 16 W | 22 – 26 VDC | rear connection, Light Forming Technology | 454 lx ¹ | 113 095 000 - 005 968 03 |
| LED | – | A = 420 mm x B = 95 mm | 341 lx ¹ | MSAL 48 S |
| 16 W | 22 – 26 VDC | side connection, Light Forming Technology | 454 lx ¹ | 113 095 000 - 005 967 61 |
| LED | – | A = 420 mm x B = 95 mm | 319 lx ¹ | MSAL 48 S |
| 16 W | 22 – 26 VDC | side connection | 423 lx ¹ | 113 095 000 - 005 968 06 |
| LED | – | A = 420 mm x B = 95 mm | 319 lx ¹ | MSAL 48 S |
| 16 W | 22 – 26 VDC | rear connection | 423 lx ¹ | 113 095 000 - 005 968 09 |
| LED | – | A = 596 mm x B = 95 mm | 507 lx ¹ | MSAL 72 S |
| 24 W | 22 – 26 VDC | rear connection, Light Forming Technology | 671 lx ¹ | 113 096 000 - 005 968 57 |
| LED | – | A = 596 mm x B = 95 mm | 507 lx ¹ | MSAL 72 S |
| 24 W | 22 – 26 VDC | side connection, Light Forming Technology | 671 lx ¹ | 113 096 000 - 005 967 64 |
| LED | – | A = 596 mm x B = 95 mm | 463 lx ¹ | MSAL 72 S |
| 24 W | 22 – 26 VDC | side connection | 607 lx ¹ | 113 096 000 - 005 968 62 |
| LED | – | A = 596 mm x B = 95 mm | 463 lx ¹ | MSAL 72 S |
| 24 W | 22 – 26 VDC | rear connection | 607 lx ¹ | 113 096 000 - 005 968 70 |
| LED | – | A = 770 mm x B = 95 mm | 662 lx ¹ | MSAL 96 S |
| 32 W | 22 – 26 VDC | rear connection, Light Forming Technology | 862 lx ¹ | 113 097 000 - 005 968 74 |
| LED | – | A = 770 mm x B = 95 mm | 662 lx ¹ | MSAL 96 S |
| 32 W | 22 – 26 VDC | side connection, Light Forming Technology | 862 lx ¹ | 113 097 000 - 005 967 67 |
| LED | – | A = 770 mm x B = 95 mm | 616 lx ¹ | MSAL 96 S |
| 32 W | 22 – 26 VDC | side connection | 796 lx ¹ | 113 097 000 - 005 968 77 |
| LED | – | A = 770 mm x B = 95 mm | 616 lx ¹ | MSAL 96 S |
| 32 W | 22 – 26 VDC | rear connection | 796 lx ¹ | 113 097 000 - 005 968 80 |
| LED | – | A = 420 mm x B = 170 mm | 603 lx ¹ | MSAL 90 S |
| 25 W | 22 – 26 VDC | rear connection, Light Forming, Eco mode | 806 lx ¹ | 112 573 000 - 004 994 89 |
| LED | – | A = 420 mm x B = 170 mm | 603 lx ¹ | MSAL 90 S |
| 25 W | 22 – 26 VDC | side connection, Light Forming, Eco mode | 806 lx ¹ | 112 573 001 - 005 142 71 |
| LED | – | A = 420 mm x B = 170 mm | 572 lx ¹ | MSAL 90 S |
| 25 W | 22 – 26 VDC | side connection, Eco mode | 763 lx ¹ | 112 573 000 - 006 086 66 |
| LED | – | A = 420 mm x B = 170 mm | 572 lx ¹ | MSAL 90 S |
| 25 W | 22 – 26 VDC | side connection, Eco mode | 763 lx ¹ | 112 573 000 - 006 086 73 |
| LED | – | A = 770 mm x B = 170 mm | 1 175 lx ¹ | MSAL 180 S |
| 50 W | 22 – 26 VDC | rear connection, Light Forming, Eco mode | 1 530 lx ¹ | 112 574 000 - 004 994 93 |
| LED | – | A = 770 mm x B = 170 mm | 1 175 lx ¹ | MSAL 180 S |
| 50 W | 22 – 26 VDC | side connection, Light Forming, Eco mode | 1 530 lx ¹ | 112 574 001 - 005 111 40 |
| LED | – | A = 770 mm x B = 170 mm | 1 092 lx ¹ | MSAL 180 S |
| 50 W | 22 – 26 VDC | side connection, Eco mode | 1 417 lx ¹ | 112 574 000 - 006 086 80 |
| LED | – | A = 770 mm x B = 170 mm | 1 092 lx ¹ | MSAL 180 S |
| 50 W | 22 – 26 VDC | side connection, Eco mode | 1 417 lx ¹ | 112 574 000 - 006 086 77 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm

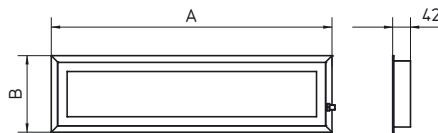


FLAT TEC

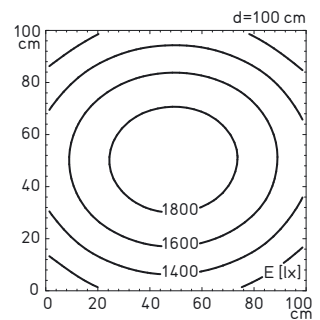
THE ULTIMATE IN LIGHTING AND HOUSING TECHNOLOGY

FLAT TEC is a small efficiency miracle. No light without energy. With this in mind, FLAT TEC skillfully uses as little energy as possible to generate the maximum amount of light. It does so with a housing shape that is so flat that it doesn't even appear obtrusive when positioned as a surface-mounted luminaire in the centre of activity.

- Energy-efficient fluorescent lamp technology
- For strong, large-area and uniform lighting
- Wide-beam light characteristics
- Light exit with conical prismatic structure for perfect glare-free lighting
- Robust aluminium housing with solid safety glass screen
- High degree of protection
- Chemically resistant to many media such as oils and cooling lubricants
- Connection to machine or mains voltage
- M12 plug connector




Note: For the precise assembly dimensions, please request a detailed drawing.



Illuminance based on the example 2 x 54 W

FLAT TEC at a glance

- Fluorescent lamp technology
- Colour temperature daylight white 6500 K
- Colour rendering Ra > 80
- Glare-free thanks to conical prismatic screen
- Housing made of colourless anodised aluminium
- 3 mm thick safety glass
- Screw-mounted
- Degree of protection IP68-1m and IPX9K, protection class I
- Connection via M12 connector, A-coded
- M12 connection technology as accessory

 Machine tools

| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. |
|----------------------|--|--------------------------------|--|---------------------------------------|
| T5 3 x 24 W | integrated electronic ballast 220 – 240 V, 50/60 Hz | A = 660 mm x B = 300 mm – | 1 000 lx ¹ 1 274 lx ¹ | MZA 324 N 112 999 000 - 005 555 19 |
| T5 2 x 24 W | integrated electronic ballast 100 – 250 V, 50/60 Hz | A = 660 mm x B = 220 mm – | 669 lx ¹ 863 lx ¹ | MZA 224 N 113 002 000 - 005 555 48 |
| T5 2 x 39 W | integrated electronic ballast 100 – 250 V, 50/60 Hz | A = 960 mm x B = 220 mm – | 1 096 lx ¹ 1 395 lx ¹ | MZA 239 N 113 004 000 - 005 555 61 |
| T5 2 x 54 W | integrated electronic ballast 100 – 250 V, 50/60 Hz | A = 1 260 mm x B = 220 mm – | 1 546 lx ¹ 1 921 lx ¹ | MZA 254 N 113 013 000 - 005 556 85 |
| T5 1 x 24 W | integrated electronic ballast 24 VDC | A = 660 mm x B = 180 mm – | 363 lx ¹ 466 lx ¹ | MZA 124 S 112 995 000 - 005 554 69 |
| T5 1 x 39 W | integrated electronic ballast 24 VDC | A = 960 mm x B = 180 mm – | 601 lx ¹ 766 lx ¹ | MZA 139 S 112 996 000 - 005 554 84 |

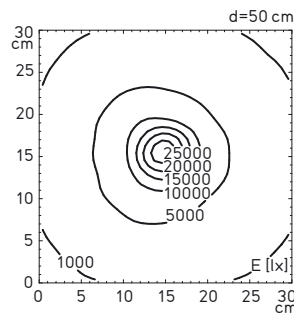
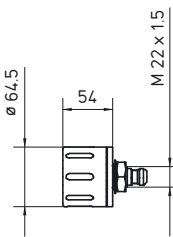
* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm
Also available as integrated machine luminaires



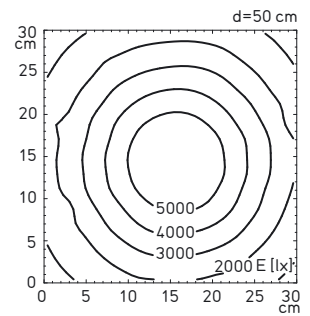
SPOT LED POWER LIGHT IN MINI FORMAT

SPOT LED is a surprisingly compact luminaire with a lot of power: The round, robust aluminium housing of the SPOT LED combines three 3 LEDs, which allow either spot or area lighting, depending on the particular variant. And they're absolutely flicker-free. This means that it is not just the design of the integrated LED spotlight that is a feast for the eyes.

- Maintenance-free LED technology
- Strong high-power LEDs for maximum light
- With narrow- or wide-beam illumination characteristic, as desired
- Robust aluminium housing with solid safety glass screen
- High degree of protection
- Chemically resistant to many media such as oils or cooling lubricants
- Direct connection to machine voltage



Illuminance with 10° optics



Illuminance with 40° optics

SPOT LED at a glance

- LED technology
- Colour temperature daylight white 5700 K
- Colour rendering Ra > 70
- Beam angle 10° or 40°
- Housing made of black anodised aluminium
- 3 mm thick safety glass
- Screw-mounted
- LED service life (L70) > 50000 h
- Degree of protection IP67, protection class III
- Supplied with approx. 3 m connecting cable and free stranded wires
- Operating device as accessories for connection to the mains voltage

| Machine tools | | Woodworking machines | | Textile machines | |
|---------------|-------------------------|----------------------|-----------------|-----------------------|--------------------------|
| Fitted with | Operating device | Dimensions | Dimensions | E_m | Model |
| Power | Connected load | Special feature | Special feature | E_{max} * | Order no. |
| LED | - | ø 64.5 mm | ø 64.5 mm | 4086 lx ¹ | M CAYL 3 S |
| 6 W | 16 – 30 VAC/16 – 40 VDC | 10° optics | 10° optics | 27500 lx ¹ | 112 461 001 - 000 830 05 |
| LED | - | ø 64.5 mm | ø 64.5 mm | 3000 lx ¹ | M CAYL 3 S |
| 6 W | 16 – 30 VAC/16 – 40 VDC | 40° optics | 40° optics | 5958 lx ¹ | 112 461 003 - 000 878 71 |

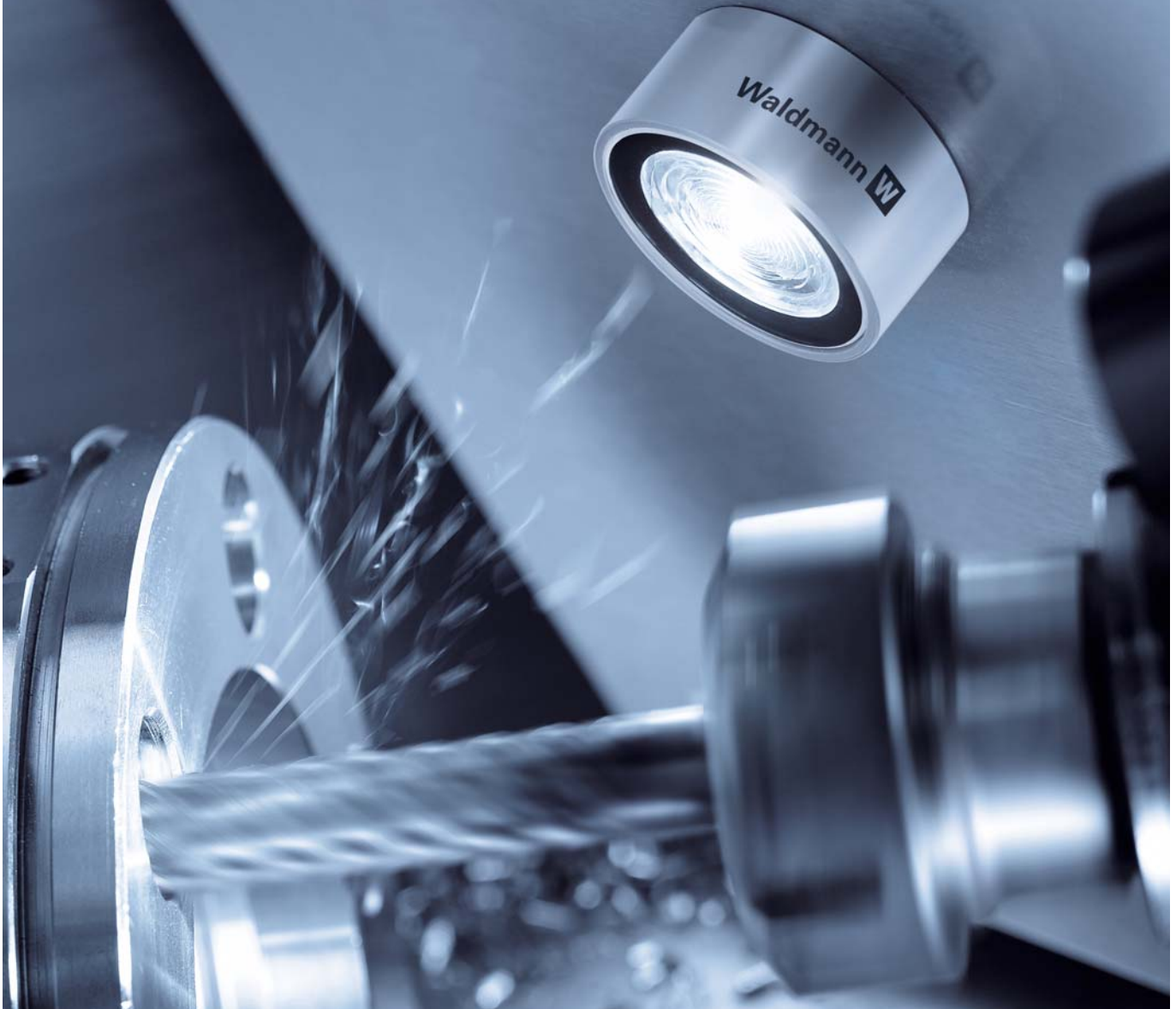
* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 30 cm x 30 cm/measuring distance 50 cm

Also available as integrated machine luminaires



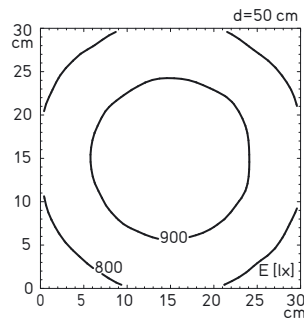
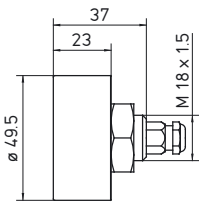
HEAD LED

SMALL LIGHT WITH HIGH POWER

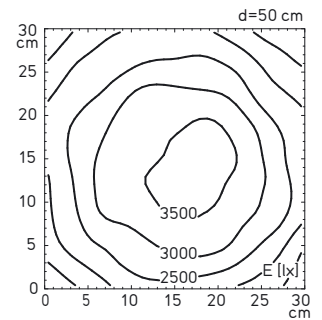


HEAD LED brightens the heart of any machine: the working area. It deserves a special spotlight: Waldmann's smallest light ever. Thanks to its compact dimensions, HEAD LED always fits into the tool area and generates a powerful focused LED spotlight thanks to Waldmann's cleverly devised optics.

- Maintenance-free LED technology
- Strong high-power LED for maximum light
- With narrow- or wide-beam illumination characteristic, as desired
- Robust aluminium housing with solid safety glass screen
- High degree of protection
- Chemically resistant to many media such as oils or cooling lubricants
- Direct connection to machine voltage
- M12 plug connector



Illuminance without optics (100°)



Illuminance with 70° optics

HEAD LED at a glance

- LED technology
- Colour temperature daylight white 5600 K
- Colour rendering Ra > 70
- Beam angle 70° or 100° (without optics)
- Housing made of colourless anodised aluminium
- 4 mm thick safety glass
- Screw-mounted
- LED service life (L70) > 50000 h
- Degree of protection IP67, protection class III
- Supplied with approx. 0.2 m connecting cable and M12 plug connector, A-coded
- M12 connection technology and operating devices as accessories for connection to the mains voltage

| Machine tools | | Woodworking machines | | Textile machines | |
|---------------|------------------|----------------------|-----------------|----------------------|--------------------------|
| Fitted with | Operating device | Dimensions | Dimensions | E_m | Model |
| Power | Connected load | Special feature | Special feature | E_{max}^* | Order no. |
| LED | - | ∅ 49.5 mm | - | 862 lx ¹ | MAYL 4 S |
| 11 W | 16 – 32 VDC | - | - | 964 lx ¹ | 113 155 000 - 006 464 85 |
| LED | - | ∅ 49.5 mm | 70° optics | 2658 lx ¹ | MAYL 4 S |
| 11 W | 16 – 32 VDC | 70° optics | 70° optics | 3755 lx ¹ | 113 155 000 - 006 696 09 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 30 cm x 30 cm/measuring distance 50 cm
 For cooling purposes, the luminaire must be attached to a metal surface (see instructions for use).



ONE LED COOL HEAD DESPITE FULL POWER

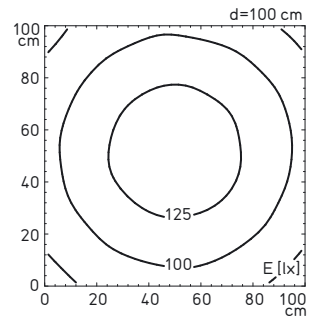
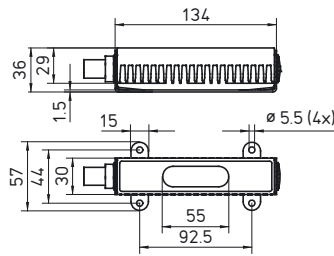
Where most lights often fail, ONE LED shows its true capabilities: restricted space and high temperatures – in some machines, you are faced with both of these problems. Thanks to its minimalist, but very robust construction, ONE LED even withstands very high temperatures, although its high-power LED displays an enormous lighting power.

- Maintenance-free LED technology
- Strong high-power LED for maximum light
- Robust die-cast housing with solid safety glass or plastic screen
- High degree of protection
- Ideal for high thermal stress
- Quick and precise positioning
- Direct connection to machine voltage
- Connection via M12 plug connector or quick connector
- Luminaires for daisy chaining





ONE LED without through-wiring



Illuminance 6 W

ONE LED at a glance

- LED technology
- Colour temperature neutral white 5000 K
- Colour rendering Ra > 80
- Direct beam
- Aluminium housing
- 4 mm thick safety glass or acrylic screen
- Screw-mounted to the +/- 90° adjustable support plate
- Maximum allowed ambient temperature $T_{a_{max}}$ 50° C
- LED service life (L70) > 50000 h
- Degree of protection IP54 (acrylic screen) or IP67 (safety glass), protection class III
- Connection via quick connector or M12 plug connector, A-coded
- M12 connection technology and operating devices as accessories for connection to the mains voltage

| Printing machines | | Textile machines | | | |
|-------------------|---------------------------------|--|--|---------------------------------------|--|
| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. | |
| LED 6 W | - 20 – 28 VDC | 162.5 mm x 57 mm PMMA screen, quick connector | 108 lx ¹ 141 lx ¹ | MVAL 1 S 112 887 027 - 000 760 50 | |
| LED 6 W | - 20 – 28 VDC | 162.5 mm x 57 mm PMMA screen, quick connector, through-wired | 108 lx ¹ 141 lx ¹ | MVAL 1 SD 112 887 007 - 000 760 13 | |
| LED 6 W | - 20 – 28 VDC | 162.5 mm x 57 mm PMMA screen, M12 plug connector | 108 lx ¹ 141 lx ¹ | MVAL 1 S 112 887 040 - 000 941 16 | |
| LED 6 W | - 20 – 28 VDC | 162.5 mm x 57 mm PMMA screen, M12 plug connector, through-wired | 108 lx ¹ 141 lx ¹ | MVAL 1 SD 112 887 000 - 006 849 59 | |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm

| Production facilities | | Textile machines | | | |
|-----------------------|---------------------------------|---|--|---------------------------------------|--|
| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. | |
| LED 6 W | - 20 – 28 VDC | 162.5 mm x 57 mm glass screen, quick connector | 108 lx ¹ 141 lx ¹ | MVAL 1 S 112 887 037 - 000 760 65 | |
| LED 6 W | - 20 – 28 VDC | 162.5 mm x 57 mm glass screen, quick connector, through-wired | 108 lx ¹ 141 lx ¹ | MVAL 1 SD 112 887 017 - 000 760 30 | |
| LED 6 W | - 20 – 28 VDC | 162.5 mm x 57 mm glass screen, M12 plug connector | 108 lx ¹ 141 lx ¹ | MVAL 1 S 112 887 050 - 000 941 17 | |
| LED 6 W | - 20 – 28 VDC | 162.5 mm x 57 mm glass screen, M12 plug connector, through-wired | 108 lx ¹ 141 lx ¹ | MVAL 1 SD 112 887 043 - 004 692 58 | |

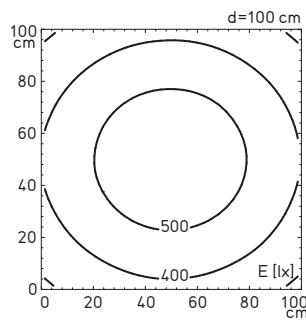
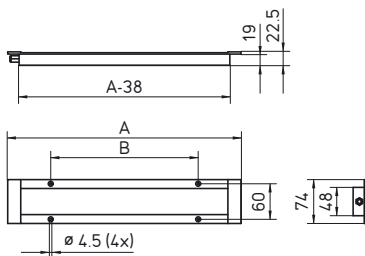
* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm



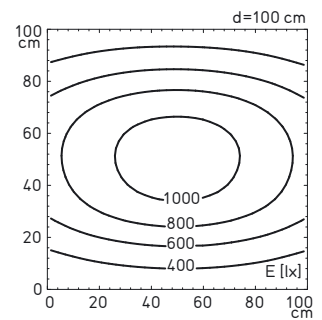
MACH LED PRO
 INCREDIBLY VARIABLE,
 CAN BE
 UNOBTUSIVELY
 INTEGRATED

The MACH LED PRO model series embodies absolute variability in terms of area lighting. Even though the machine design requirements tend to be individual, they are not necessarily tailored to the luminaire. This is taken into account in the MACH LED PRO by designs of different lengths with 1, 2, 3 or 4 LEDs and two beam angles of 30° and 95°. This means that the luminaire practically disappears inside the machine wall thanks to the unique construction principle.

- Maintenance-free LED technology
- Strong high-power LEDs for maximum light
- With narrow- or wide-beam illumination characteristic, as desired
- Robust aluminium housing with solid safety glass screen
- High degree of protection
- Chemically resistant to many media such as oils or cooling lubricants
- Ideal for high mechanical and thermal stress
- Nearly flush-mounted installation
- Prevents accumulation of chips
- Direct connection to machine voltage



Illuminance based on the example 24 W without optics (95°)



Illuminance based on the example 24 W with 30° optics

MACH LED PRO at a glance

- LED technology
- Colour temperature neutral white 5000 K
- Colour rendering Ra > 80
- Beam angle 30° (optics) or 95° (without optics)
- Housing made of colourless anodised aluminium
- 4 mm thick safety glass
- Mounted in recess with screws
- Maximum allowed ambient temperature $T_{a_{max}}$ 40° C
- LED service life (L70) > 50000 h
- Degree of protection IP67, protection class III
- Supplied with approx. 3 m connecting cable and free stranded wires
- Operating device as accessories for connection to the mains voltage



Machine tools



Woodworking machines

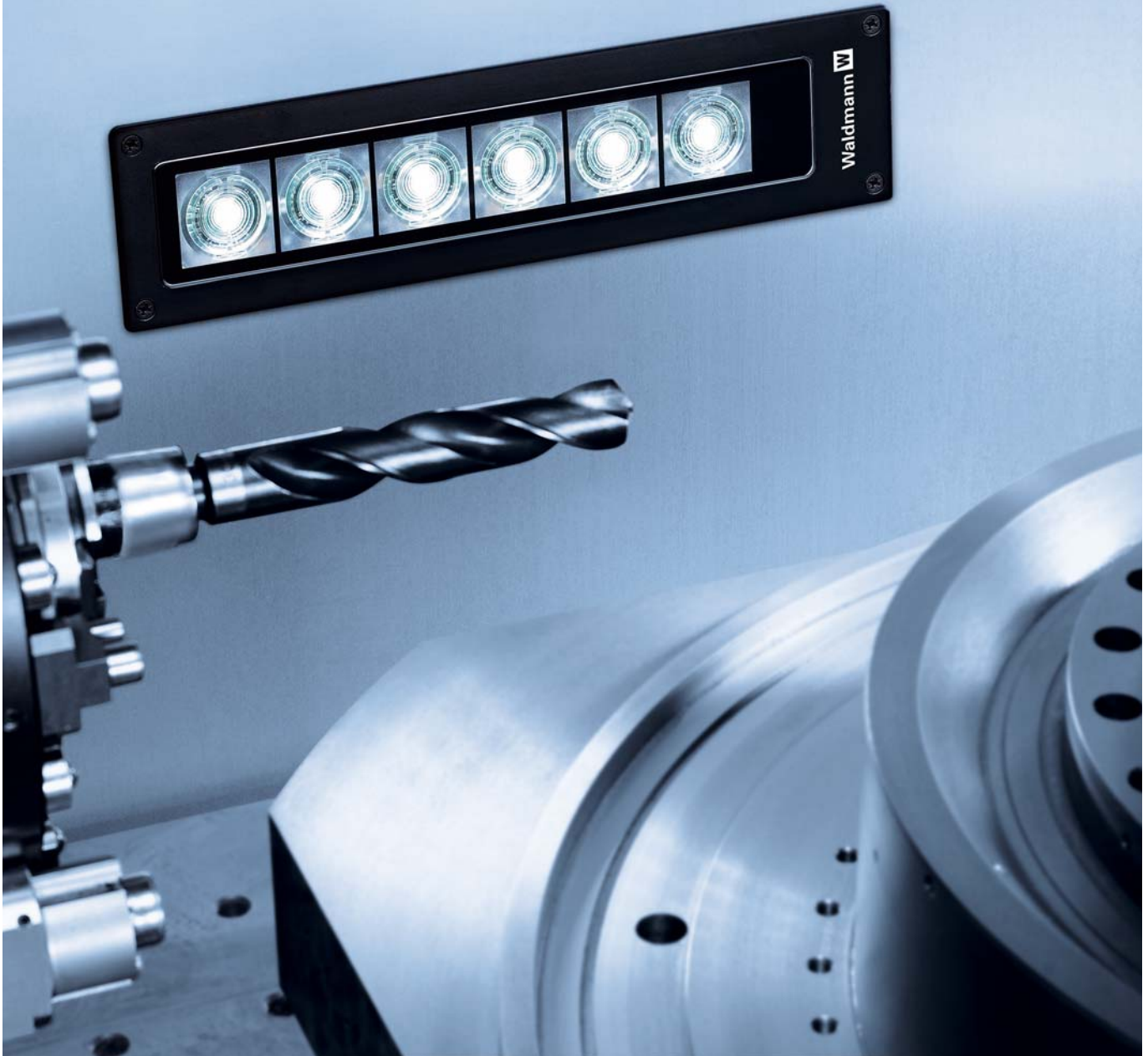
| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. |
|-------------------|---------------------------------|-------------------------------------|-----------------------|--------------------------|
| LED | - | A = 220 mm x 74 mm, B = 125 mm (1x) | 113 lx ¹ | MUEL 1 S |
| 6 W | 20 – 28 VDC | - | 147 lx ¹ | 112 571 002 - 000 852 16 |
| LED | - | A = 220 mm x 74 mm, B = 125 mm (1x) | 200 lx ¹ | MUEL 1 S |
| 6 W | 20 – 28 VDC | 30° optics | 316 lx ¹ | 112 571 000 - 000 845 79 |
| LED | - | A = 395 mm x 74 mm, B = 250 mm (1x) | 230 lx ¹ | MUEL 2 S |
| 12 W | 20 – 28 VDC | - | 296 lx ¹ | 112 571 006 - 000 852 24 |
| LED | - | A = 395 mm x 74 mm, B = 250 mm (1x) | 368 lx ¹ | MUEL 2 S |
| 12 W | 20 – 28 VDC | 30° optics | 600 lx ¹ | 112 571 004 - 000 852 20 |
| LED | - | A = 570 mm x 74 mm, B = 200 mm (2x) | 334 lx ¹ | MUEL 3 S |
| 18 W | 20 – 28 VDC | - | 425 lx ¹ | 112 571 012 - 000 852 28 |
| LED | - | A = 570 mm x 74 mm, B = 200 mm (2x) | 564 lx ¹ | MUEL 3 S |
| 18 W | 20 – 28 VDC | 30° optics | 895 lx ¹ | 112 571 010 - 000 852 27 |
| LED | - | A = 745 mm x 74 mm, B = 250 mm (2x) | 445 lx ¹ | MUEL 4 S |
| 24 W | 20 – 28 VDC | - | 564 lx ¹ | 112 571 016 - 000 852 76 |
| LED | - | A = 745 mm x 74 mm, B = 250 mm (2x) | 685 lx ¹ | MUEL 4 S |
| 24 W | 20 – 28 VDC | 30° optics | 1 091 lx ¹ | 112 571 014 - 000 852 75 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm
 Also available as surface-mounted luminaires



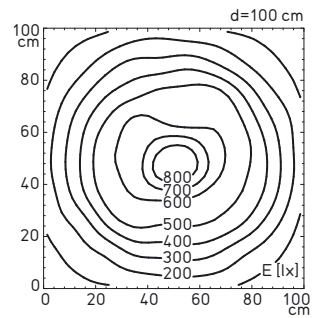
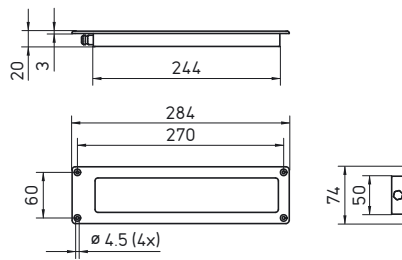
FLAT LED

LED TECHNOLOGY INGENIOUSLY INTEGRATED



FLAT LED is highly suitable for integration into the increasingly more compact machines, because this integrated machine luminaire is particularly small and powerful. Its 6 LEDs provide optimum area light in spite of its compressed construction and low integration depth.

- Maintenance-free LED technology
- Strong high-power LEDs for maximum light
- Robust aluminium housing with safety glass screen
- High degree of protection
- Chemically resistant to many media such as oils or cooling lubricants
- Ideal for high mechanical and thermal stress
- Nearly flush-mounted installation
- Prevents accumulation of chips
- Direct connection to machine voltage



Illuminance 13 W

FLAT LED at a glance

- LED technology
- Colour temperature daylight white 6500 K
- Colour rendering Ra > 65
- Beam angle 60°
- Housing made of black anodised aluminium
- 4 mm thick safety glass
- Mounted in recess with screws
- Maximum allowed ambient temperature $T_{a_{max}}$ 40° C
- LED service life (L70) > 50000 h
- Degree of protection IP67 and IPX9K, protection class III
- Supplied with approx. 3 m connecting cable and free stranded wires
- Operating device as accessories for connection to the mains voltage

Machine tools

Woodworking machines

| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. |
|-------------------|---------------------------------|----------------------------|--|--------------------------------------|
| LED 13 W | – 10 – 40 VDC | 284 mm x 74 mm – | 347 lx ¹ 869 lx ¹ | MYEL 6 S 112 560 001 - 000 031 66 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm
Also available as a surface-mounted luminaire

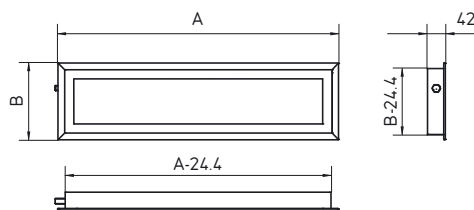
FLAT TEC

INTEGRATED MAXIMUM PERFORMANCE

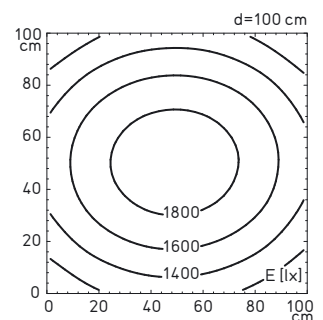


FLAT TEC generates the right illuminance not only for large-sized machines and plants. It also impressively demonstrates how much light you can generate with a minimum amount of energy. That's precisely what counts: ideally, a luminaire should take up as little space as possible and offer high efficiency.

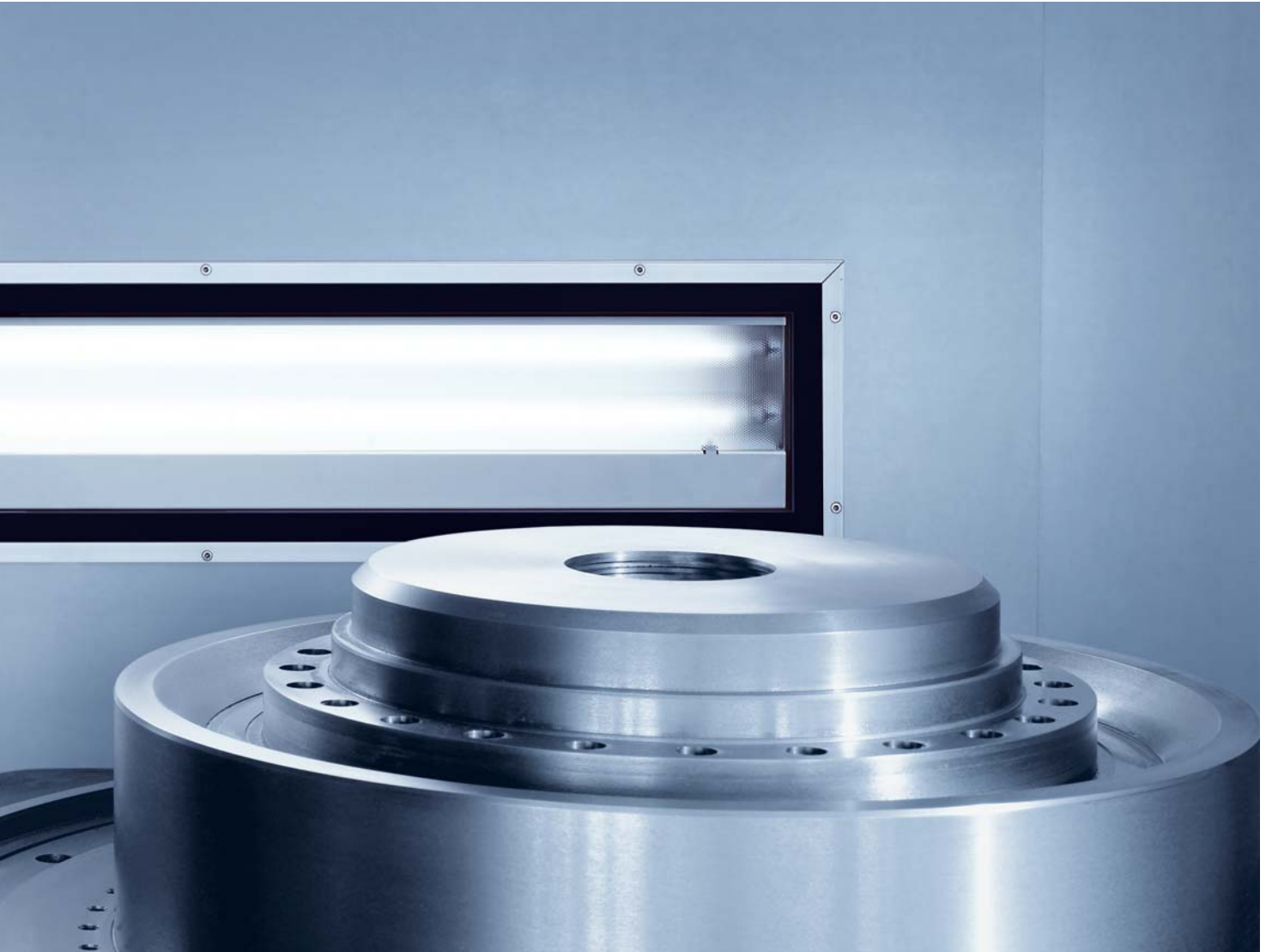
- Energy-efficient fluorescent lamp technology
- For strong, large-area and uniform lighting
- Wide-beam light characteristics
- Light exit with conical prismatic structure for perfect glare-free lighting
- Robust aluminium housing with solid safety glass screen
- High degree of protection
- Chemically resistant to many media such as oils or cooling lubricants
- Nearly flush-mounted installation
- Prevents accumulation of chips
- Connection to machine or mains voltage
- M12 plug connector



Note: For the precise assembly dimensions, please request a detailed drawing.



Illuminance based on the example 2 x 54 W



FLAT TEC at a glance

- Fluorescent lamp technology
- Colour temperature daylight white 6500 K
- Colour rendering Ra > 80
- Glare-free thanks to conical prismatic screen
- Housing made of colourless anodised aluminium
- 3 mm thick safety glass
- Mounted in recess with screws
- Degree of protection IP68-1m and IPX9K, protection class I
- Connection via M12 connector, A-coded
- M12 connection technology as accessory



Machine tools

| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max} * | Model Order no. |
|----------------------|------------------------------------|-------------------------------|-----------------------|--------------------------|
| T5 | integrated electronic ballast | A = 660 mm x B = 300 mm | 1 000 lx ¹ | MZE 324 N |
| 3 x 24 W | 220 – 240 V, 50/60 Hz | – | 1 274 lx ¹ | 112 999 000 - 005 555 16 |
| T5 | integrated electronic ballast | A = 660 mm x B = 220 mm | 669 lx ¹ | MZE 224 N |
| 2 x 24 W | 100 – 250 V, 50/60 Hz | – | 863 lx ¹ | 113 002 000 - 005 555 45 |
| T5 | integrated electronic ballast | A = 960 mm x B = 220 mm | 1 096 lx ¹ | MZE 239 N |
| 2 x 39 W | 100 – 250 V, 50/60 Hz | – | 1 395 lx ¹ | 113 004 000 - 005 555 67 |
| T5 | integrated electronic ballast | A = 1 260 mm x B = 220 mm | 1 546 lx ¹ | MZE 254 N |
| 2 x 54 W | 100 – 250 V, 50/60 Hz | – | 1 921 lx ¹ | 113 013 000 - 005 556 82 |
| T5 | integrated electronic ballast | A = 660 mm x B = 180 mm | 363 lx ¹ | MZE 124 S |
| 1 x 24 W | 24 VDC | – | 466 lx ¹ | 112 995 000 - 005 554 56 |
| T5 | integrated electronic ballast | A = 960 mm x B = 180 mm | 601 lx ¹ | MZE 139 S |
| 1 x 39 W | 24 VDC | – | 766 lx ¹ | 112 966 000 - 005 554 81 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm

Also available as surface-mounted luminaires

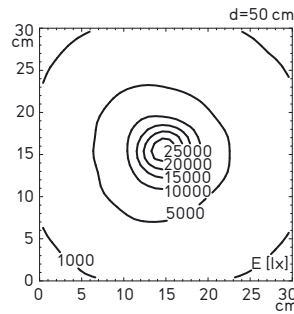
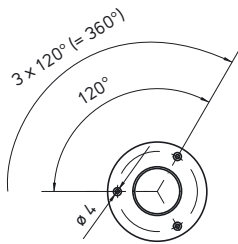
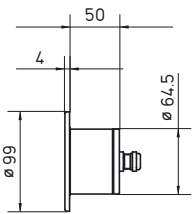


SPOT LED

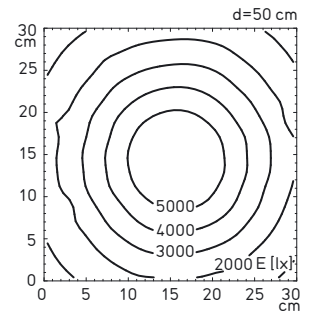
HIGHLY CONCENTRATED IN A MINIMUM OF SPACE

The SPOT LED for permanent integration into the machine combines 3 LEDs in such a compact housing that you could hardly imagine a smaller luminaire.

- Maintenance-free LED technology
- Strong high-power LEDs for maximum light
- With narrow- or wide-beam illumination characteristic, as desired
- Robust aluminium housing with solid safety glass screen
- High degree of protection
- Chemically resistant to many media such as oils or cooling lubricants
- Nearly flush-mounted installation
- Prevents accumulation of chips
- Direct connection to machine voltage



Illuminance with 10° optics



Illuminance with 40° optics

SPOT LED at a glance

- LED technology
- Colour temperature daylight white 5700 K
- Colour rendering Ra > 70
- Beam angle 10° or 40°
- Housing made of black anodised aluminium
- 3 mm thick safety glass
- Mounted in recess with screws
- LED service life (L70) > 50000 h
- Degree of protection IP67, protection class III
- Supplied with approx. 3 m connecting cable and free stranded wires
- Operating device as accessories for connection to the mains voltage

Machine tools

Woodworking machines

| Fitted with Power | Operating device Connected load | Dimensions Special feature | E _m E _{max} * | Model Order no. |
|-------------------|---------------------------------|----------------------------|---|---------------------------------------|
| LED 6 W | – 16 – 30 VAC/16 – 40 VDC | ø 99 mm 10° optics | 4086 lx ¹ 27500 lx ¹ | MCEYL 3 S 112 460 001 - 000 829 95 |
| LED 6 W | – 16 – 30 VAC/16 – 40 VDC | ø 99 mm 40° optics | 3000 lx ¹ 5958 lx ¹ | MCEYL 3 S 112 460 003 - 000 878 91 |

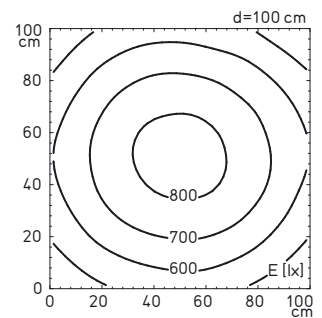
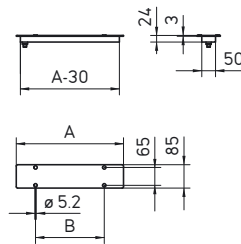
* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 30 cm x 30 cm/measuring distance 50 cm
Also available as surface-mounted luminaires



MKEL LED CLEVERLY PACKAGED

MKEL meets the particularly high requirements of the food-stuff industry. The LED integrated machine luminaire is used in packaging machines where it prevents accumulation of dirt and is distinguished by its resistance to agents for sterilising packages or the machine.

- Maintenance-free LED technology
- Robust aluminium housing with plastic screen
- Self-adhesive seal
- High degree of protection
- Chemically resistant to many media such as cleaning and sterilising agents
- Ideal for high thermal stress
- Nearly flush-mounted installation
- Prevents accumulation of dirt
- Direct connection to machine voltage
- M12 plug connector



Illuminance based on the example
21.5 W

MKEL at a glance

- LED technology
- Colour temperature neutral white 5000 K
- Colour rendering $R_a > 80$
- Glare-free thanks to satined screen
- Aluminium housing
- PC screen
- Installation in recess by means of self-adhesive seal and additional fastening screws
- Maximum allowed ambient temperature $T_{a_{max}} 60^\circ \text{C}$
- LED service life (L_{70}) > 25000 h
- Degree of protection IP67, protection class III
- Connection via M12 connector, A-coded
- M12 connection technology and operating devices as accessories for connection to the mains voltage

Packaging machines

| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m * E_{max} | Model Order no. |
|-------------------|---------------------------------|----------------------------|--|---------------------------------------|
| LED 5.0 W | – 20 – 28 VDC | 215 mm x 85 mm – | 148 lx ¹ 195 lx ¹ | MKEL 12 S 113 170 000 - 006 807 62 |
| LED 10.5 W | – 20 – 28 VDC | 390 mm x 85 mm – | 326 lx ¹ 428 lx ¹ | MKEL 27 S 113 170 000 - 006 807 65 |
| LED 16.0 W | – 20 – 28 VDC | 535 mm x 85 mm – | 507 lx ¹ 658 lx ¹ | MKEL 42 S 113 170 000 - 006 500 48 |
| LED 21.5 W | – 20 – 28 VDC | 710 mm x 85 mm – | 654 lx ¹ 840 lx ¹ | MKEL 57 S 113 170 000 - 006 501 05 |

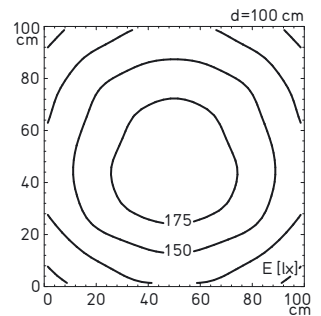
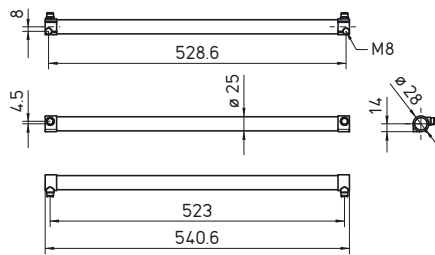
* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm



RL 25 LE
COMPACT
ALL-ROUND TALENT

When used in machines and plants, RL 25 LE provides optimum light conditions and fully exploits its advantages: a small diameter in combination with low weight ensures that the most compact of all tube luminaires finds space in any angle.

- Maintenance-free LED technology
- Optimum glare-free lighting thanks to integrated glare protection edge
- Plastic housing
- High degree of protection
- Ideal for high thermal stress
- Direct connection to machine voltage
- Potted M12 connector
- Through-wiring for electrical daisy-chaining of several luminaires



Illuminance 6 W

RL 25 LE at a glance

- LED technology
- Colour temperature daylight white 6000 K
- Colour rendering Ra > 85
- Direct beam with glare protection edge on one side
- PVC housing
- Screw-mounted
- Maximum allowed ambient temperature $T_{a_{max}}$ 40° C
- LED service life (L70) > 50000 h
- Degree of protection IP65, protection class III
- Connection via M12 connector, A-coded
- M12 connection technology and operating devices as accessories for connection to the mains voltage

| Printing machines | Packaging machines | Production facilities | | |
|----------------------|---------------------------------|----------------------------|--|---|
| Woodworking machines | Textile machines | | | |
| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. |
| LED 6 W | – 20 – 28 VDC | 541 mm x 25 mm – | 148 lx ¹ 193 lx ¹ | RL25LE-24 D 112 957 000 - 005 316 85 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm



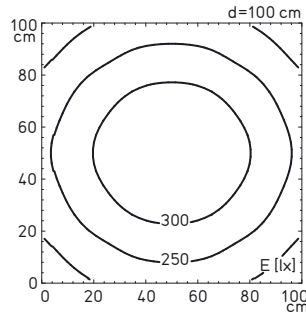
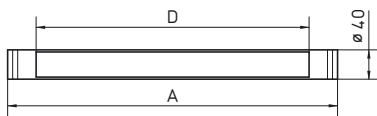
RL 40 LE ROBUST COMPETENCE

RL 40 LE as slim LED tube luminaire is highly suitable for many machines and production facilities or their periphery. Even in the most demanding application, this bright and robust luminaire presents itself with competence, such as when used on track laying machines.

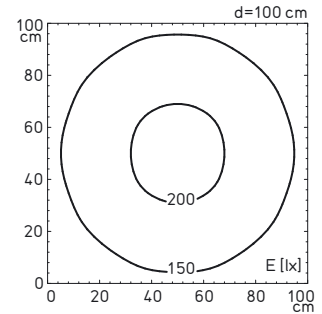
- Maintenance-free LED technology
- Housing made of impact-resistant plastic
- Outer diameter of 40 mm for integration in case of restricted space
- High degree of protection
- Ideal for high mechanical and thermal stress
- Direct connection to machine voltage
- Connection via quick connector
- Luminaires for daisy chaining



RL 40 LE with through-wiring



Illuminance based on the example
10 W with transparent luminaire tube



Illuminance based on the example
10 W with white opal luminaire tube

RL 40 LE at a glance

- LED technology
- Colour temperature daylight white 5700 K
- Colour rendering Ra > 80
- Direct beam or glare-free thanks to white opal housing
- Housing made of PC
- Mounted by means of various brackets from the accessories
- Maximum allowed ambient temperature $T_{a_{max}}$ 40° C
- LED service life (L70) > 50000 h
- Degree of protection IP67, protection class III
- Connection via quick connector
- Various brackets and operating device as accessories for connection to the mains voltage

| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. |
|-------------------|---------------------------------|---|--|---|
| LED 5 W | - 16 – 32 VDC | A = 368 mm, D = 307 mm transparent tube | 140 lx ¹ 184 lx ¹ | RL40LE-12 113 446 000 - 006 941 80 |
| LED 5 W | - 16 – 32 VDC | A = 368 mm, D = 307 mm transparent tube, through-wired | 140 lx ¹ 184 lx ¹ | RL40LE-12 D 113 017 000 - 006 941 74 |
| LED 10 W | - 16 – 32 VDC | A = 652 mm, D = 591 mm transparent tube | 266 lx ¹ 345 lx ¹ | RL40LE-24 113 447 000 - 006 941 95 |
| LED 10 W | - 16 – 32 VDC | A = 652 mm, D = 591 mm transparent tube, through-wired | 266 lx ¹ 345 lx ¹ | RL40LE-24 D 113 019 000 - 006 941 89 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm

| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. |
|-------------------|---------------------------------|--|--|---|
| LED 5 W | - 16 – 32 VDC | A = 368 mm, D = 307 mm white opal screen | 85 lx ¹ 112 lx ¹ | RL40LE-12 113 446 000 - 006 941 77 |
| LED 5 W | - 16 – 32 VDC | A = 368 mm, D = 307 mm white opal screen, through-wired | 85 lx ¹ 112 lx ¹ | RL40LE-12 D 113 017 000 - 006 941 71 |
| LED 10 W | - 16 – 32 VDC | A = 652 mm, D = 591 mm white opal screen | 163 lx ¹ 211 lx ¹ | RL40LE-24 113 447 000 - 006 941 92 |
| LED 10 W | - 16 – 32 VDC | A = 652 mm, D = 591 mm white opal screen, through-wired | 163 lx ¹ 211 lx ¹ | RL40LE-24 D 113 019 000 - 006 941 83 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm

- Printing machines
- Woodworking machines

- Packaging machines
- Textile machines

- Production facilities

- Track laying machines

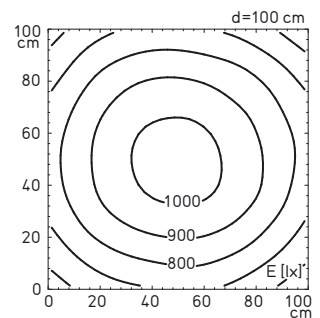
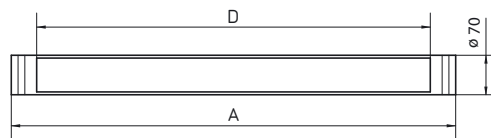


RL 70 LE THE MODERN CLASSIC WITH LED TECHNOLOGY

RL 70 LE as 70-mm tube luminaire is the traditional model of machine lights. The construction proven for decades promises maximum reliability not only in terms of the housing technology – the LED equipment allows permanent operation without lamp replacement. Moreover, an optimum length range allows a simple 1:1 replacement of conventional Waldmann tube luminaires.

- Maintenance-free LED technology
- Ultra low-glare, homogeneous light with soft transitions




- Light Forming Technology for optimum light deflection and glare-free lighting
- Outer diameter of 70 mm for easy replacement of traditional tube luminaires
- High degree of protection
- Different tube materials for use in accordance with the application
- Ideal for high mechanical and thermal stress
- Direct connection to machine voltage






Illuminance based on the example
50 W

RL 70 LE at a glance


- LED technology
- Colour temperature neutral white 5000 K
- Colour rendering Ra > 80
- Glare-free with Light Forming Technology
- Luminaire body made of borosilicate glass, acrylic or PC
- Mounted by means of various brackets from the accessories
- LED service life (L70) > 50000 h
- Maximum allowed ambient temperature $T_{a,max}$ 40° C
- Degree of protection IP67, protection class III
- Connection via cable gland
- Various brackets and operating device as accessories for connection to the mains voltage

|  Textile machines | |  Woodworking machines | |  Production facilities | |
|--|---------------------------------|--|--|---|--|
| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. | |
| LED 12.5 W | – 22 – 26 VDC | A = 370 mm, D = 316 mm borosilicate glass | 242 lx ¹ 317 lx ¹ | RL70LE-24 N 113 279 000 - 006 413 86 | |
| LED 19.0 W | – 22 – 26 VDC | A = 510 mm, D = 456 mm borosilicate glass | 355 lx ¹ 462 lx ¹ | RL70LE-36 N 113 280 000 - 006 413 89 | |
| LED 25.0 W | – 22 – 26 VDC | A = 650 mm, D = 596 mm borosilicate glass | 505 lx ¹ 646 lx ¹ | RL70LE-48 N 113 281 000 - 006 413 92 | |
| LED 31.5 W | – 22 – 26 VDC | A = 790 mm, D = 736 mm borosilicate glass | 624 lx ¹ 795 lx ¹ | RL70LE-60 N 113 282 000 - 006 413 95 | |
| LED 44.0 W | – 22 – 26 VDC | A = 1 070 mm, D = 1 016 mm borosilicate glass | 837 lx ¹ 1 042 lx ¹ | RL70LE-84 N 113 283 000 - 006 413 98 | |
| LED 50.0 W | – 22 – 26 VDC | A = 1 210 mm, D = 1 156 mm borosilicate glass | 968 lx ¹ 1 190 lx ¹ | RL70LE-96 N 113 284 000 - 006 414 01 | |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm

|  Textile machines | |  Printing machines | |  Production facilities | |
|--|---------------------------------|---|--|---|--|
| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. | |
| LED 12.5 W | – 22 – 26 VDC | A = 370 mm, D = 316 mm acrylic | 242 lx ¹ 317 lx ¹ | RL70LE-24 N 113 279 000 - 007 120 20 | |
| LED 12.5 W | – 22 – 26 VDC | A = 370 mm, D = 316 mm acrylic; through-wired | 242 lx ¹ 317 lx ¹ | RL70LE-24 DN 113 513 000 - 007 221 05 | |
| LED 19.0 W | – 22 – 26 VDC | A = 510 mm, D = 456 mm acrylic | 355 lx ¹ 462 lx ¹ | RL70LE-36 N 113 280 000 - 007 120 23 | |
| LED 19.0 W | – 22 – 26 VDC | A = 510 mm, D = 456 mm acrylic; through-wired | 355 lx ¹ 462 lx ¹ | RL70LE-36 DN 113 514 000 - 007 221 08 | |
| LED 25.0 W | – 22 – 26 VDC | A = 650 mm, D = 596 mm acrylic | 505 lx ¹ 646 lx ¹ | RL70LE-48 N 113 281 000 - 007 120 26 | |
| LED 25.0 W | – 22 – 26 VDC | A = 650 mm, D = 596 mm acrylic; through-wired | 505 lx ¹ 646 lx ¹ | RL70LE-48 DN 113 515 000 - 007 221 11 | |
| LED 31.5 W | – 22 – 26 VDC | A = 790 mm, D = 736 mm acrylic | 624 lx ¹ 795 lx ¹ | RL70LE-60 N 113 282 000 - 007 120 29 | |
| LED 31.5 W | – 22 – 26 VDC | A = 790 mm, D = 736 mm acrylic; through-wired | 624 lx ¹ 795 lx ¹ | RL70LE-60 DN 113 516 000 - 007 221 14 | |
| LED 44.0 W | – 22 – 26 VDC | A = 1 070 mm, D = 1 016 mm acrylic | 837 lx ¹ 1 042 lx ¹ | RL70LE-84 N 113 283 000 - 007 120 32 | |
| LED 44.0 W | – 22 – 26 VDC | A = 1 070 mm, D = 1 016 mm acrylic; through-wired | 837 lx ¹ 1 042 lx ¹ | RL70LE-84 DN 113 517 000 - 007 221 17 | |
| LED 50.0 W | – 22 – 26 VDC | A = 1 210 mm, D = 1 156 mm acrylic | 968 lx ¹ 1 190 lx ¹ | RL70LE-96 N 113 284 000 - 007 120 36 | |
| LED 50.0 W | – 22 – 26 VDC | A = 1 210 mm, D = 1 156 mm acrylic; through-wired | 968 lx ¹ 1 190 lx ¹ | RL70LE-96 DN 113 518 000 - 007 221 21 | |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm

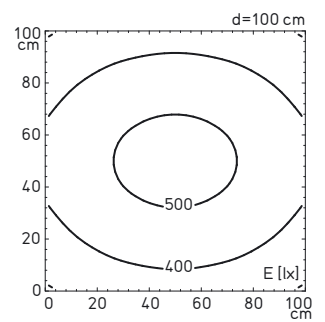
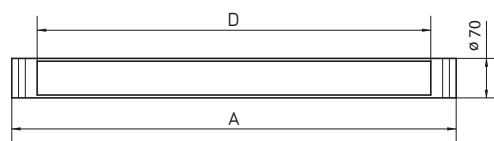
|  Packaging machines | | | | | |
|--|---------------------------------|----------------------------------|--|---|--|
| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. | |
| LED 12.5 W | – 22 – 26 VDC | A = 370 mm, D = 316 mm PC | 242 lx ¹ 317 lx ¹ | RL70LE-24 N 113 279 000 - 007 105 05 | |
| LED 19.0 W | – 22 – 26 VDC | A = 510 mm, D = 456 mm PC | 355 lx ¹ 462 lx ¹ | RL70LE-36 N 113 280 000 - 007 105 08 | |
| LED 25.0 W | – 22 – 26 VDC | A = 650 mm, D = 596 mm PC | 505 lx ¹ 646 lx ¹ | RL70LE-48 N 113 281 000 - 007 105 11 | |
| LED 31.5 W | – 22 – 26 VDC | A = 790 mm, D = 736 mm PC | 624 lx ¹ 795 lx ¹ | RL70LE-60 N 113 282 000 - 007 105 14 | |
| LED 44.0 W | – 22 – 26 VDC | A = 1 070 mm, D = 1 016 mm PC | 837 lx ¹ 1 042 lx ¹ | RL70LE-84 N 113 283 000 - 007 105 17 | |
| LED 50.0 W | – 22 – 26 VDC | A = 1 210 mm, D = 1 156 mm PC | 968 lx ¹ 1 190 lx ¹ | RL70LE-96 N 113 284 000 - 007 105 21 | |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm

LED



RL 70 LE with through-wiring



Illuminance based on the example 30 W

RL 70 LE STRONG UNDER EXTREME CONDITIONS

RL 70 LE with impact-resistant polycarbonate tube is predestined for rough and demanding application environments, for example on track laying machines. State-of-the-art LED technology in a white opal luminaire tube ensures reduced glare and uniform light distribution. The through-wired designs allow the light to be scaled further in length: for optimum vision all around!

- Maintenance-free LED technology
- Housing made of impact-resistant plastic
- High degree of protection
- Ideal for high mechanical and thermal stress
- Direct connection to machine voltage
- Connection via quick connector
- Luminaires for daisy chaining

RL 70 LE at a glance

- LED technology
- Colour temperature daylight white 5700 K
- Colour rendering Ra > 80
- Glare-free thanks to white opal housing
- Housing made of PC
- Mounted by means of various brackets from the accessories
- LED service life (L70) > 50000 h
- Maximum allowed ambient temperature $T_{a,max}$ 40° C
- Degree of protection IP67, protection class III
- Connection via quick connector
- Various brackets and operating device as accessories for connection to the mains voltage

Track laying machines

| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. |
|-------------------|---------------------------------|---|--|--|
| LED 10 W | – 16 – 32 VDC | A = 935 mm, D = 824 mm – | 160 lx ¹ 202 lx ¹ | RL70LE-36 113 448 000 - 006 946 22 |
| LED 10 W | – 16 – 32 VDC | A = 935 mm, D = 824 mm through-wired | 160 lx ¹ 202 lx ¹ | RL70LE-36 D 113 179 000 - 006 946 19 |
| LED 30 W | – 16 – 32 VDC | A = 1362 mm, D = 1251 mm – | 431 lx ¹ 525 lx ¹ | RL70LE-108 113 449 000 - 006 946 40 |
| LED 30 W | – 16 – 32 VDC | A = 1362 mm, D = 1251 mm through-wired | 431 lx ¹ 525 lx ¹ | RL70LE-108 D 113 180 000 - 006 946 37 |

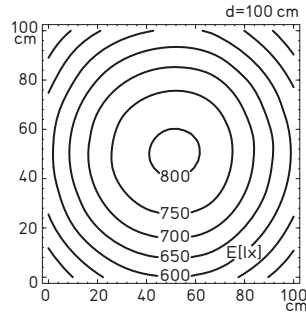
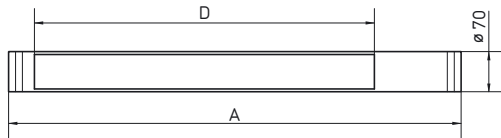
* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm



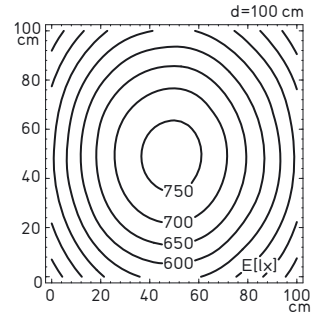
RL 70 E ESTABLISHED TOP PERFORMANCE

RL 70 E is the established solution for maximum wide-range lighting of the inside of the machine – even if glare-free viewing is required. This tube luminaire does not require an external ballast unit nor is it afraid of the toughest conditions of use.

- Energy-efficient fluorescent lamp technology
- Ultra low-glare, homogeneous light with soft transitions
- Variants with parabolic louvre for ideal glare-free viewing
- Integrated electronic ballast unit
- Different tube materials for use in accordance with the application
- Bayonet connection for easy lamp replacement
- High degree of protection
- Connection to machine or mains voltage



Illuminance based on the example
2 x 39 W without parabolic louvre



Illuminance based on the example
2 x 39 W with parabolic louvre

RL 70 E at a glance

- Fluorescent lamp technology
- Colour temperature neutral white 4000 K
- Colour rendering Ra > 80 (TC-L and T5 fluorescent lamps) or Ra > 60 (T8 fluorescent lamp)
- Direct illumination or glare-free thanks to aluminized parabolic louvre
- Luminaire body made of acrylic or borosilicate glass
- Mounted by means of various brackets from the accessories
- Degree of protection IP67, protection class I
- Connection via cable gland
- Various brackets as accessories

Printing machines

Textile machines

Woodworking machines

Production facilities


| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. |
|-------------------|--|---|--|--|
| T8 1 x 18 W | integrated electronic ballast 230 – 240 V, 50/60 Hz | A = 916 mm, D = 597 mm acrylic | 207 lx ¹ 262 lx ¹ | RL70E-118 111 841 000 - 000 679 40 |
| T8 1 x 18 W | integrated electronic ballast 230 – 240 V, 50/60 Hz | A = 916 mm, D = 597 mm acrylic; parabolic louvre | 172 lx ¹ 222 lx ¹ | RL70E-118 111 841 010 - 000 688 91 |
| T8 1 x 36 W | integrated electronic ballast 230 – 240 V, 50/60 Hz | A = 1 724 mm, D = 1 200 mm acrylic | 410 lx ¹ 490 lx ¹ | RL70E-136 111 821 000 - 000 661 92 |
| T8 1 x 36 W | integrated electronic ballast 230 – 240 V, 50/60 Hz | A = 1 724 mm, D = 1 200 mm acrylic; parabolic louvre | 348 lx ¹ 420 lx ¹ | RL70E-136 111 821 010 - 000 695 45 |
| T8 1 x 58 W | integrated electronic ballast 230 – 240 V, 50/60 Hz | A = 2 027 mm, D = 1 548 mm acrylic | 497 lx ¹ 693 lx ¹ | RL70E-158 111 911 000 - 000 651 95 |
| T8 1 x 58 W | integrated electronic ballast 230 – 240 V, 50/60 Hz | A = 2 027 mm, D = 1 548 mm acrylic; parabolic louvre | 425 lx ¹ 620 lx ¹ | RL70E-158 111 911 010 - 000 695 46 |
| TC-L 1 x 18 W | integrated electronic ballast 100/120/230 V, 50/60 Hz | A = 486 mm, D = 198 mm acrylic | 160 lx ¹ 205 lx ¹ | RL70CE-118 111 371 000 - 000 570 24 |
| TC-L 1 x 18 W | integrated electronic ballast 100/120/230 V, 50/60 Hz | A = 486 mm, D = 198 mm acrylic; parabolic louvre | 154 lx ¹ 211 lx ¹ | RL70CE-118 111 371 010 - 000 570 23 |
| TC-L 1 x 24 W | integrated electronic ballast 100/120/230 V, 50/60 Hz | A = 572 mm, D = 293 mm acrylic | 259 lx ¹ 333 lx ¹ | RL70CE-124 111 381 002 - 000 570 29 |
| TC-L 1 x 24 W | integrated electronic ballast 100/120/230 V, 50/60 Hz | A = 572 mm, D = 293 mm acrylic; parabolic louvre | 220 lx ¹ 313 lx ¹ | RL70CE-124 111 381 004 - 000 570 28 |
| TC-L 1 x 36 W | integrated electronic ballast 220 – 240 V, 50/60 Hz | A = 827 mm, D = 363 mm acrylic | 337 lx ¹ 437 lx ¹ | RL70CE-136 112 009 000 - 000 661 19 |
| TC-L 1 x 36 W | integrated electronic ballast 220 – 240 V, 50/60 Hz | A = 827 mm, D = 363 mm acrylic; parabolic louvre | 327 lx ¹ 450 lx ¹ | RL70CE-136 112 009 010 - 000 661 17 |
| T5 2 x 39 W | integrated electronic ballast 220 – 240 V, 50/60 Hz | A = 1 472 mm, D = 829 mm acrylic | 641 lx ¹ 805 lx ¹ | RL70E-329 112 501 000 - 000 975 72 |
| T5 2 x 39 W | integrated electronic ballast 220 – 240 V, 50/60 Hz | A = 1 472 mm, D = 829 mm acrylic; parabolic louvre | 577 lx ¹ 765 lx ¹ | RL70E-239 112 501 010 - 000 975 74 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm

 Printing machines

 Textile machines

 Woodworking machines

 Production facilities


| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max} * | Model Order no. |
|----------------------|---|---|--|--|
| TC-L 1 x 18 W | integrated electronic ballast 24 VDC | A = 524 mm, D = 212 mm acrylic | 159 lx ¹ 205 lx ¹ | RL70CE-118 112 370 000 - 000 841 57 |
| TC-L 1 x 18 W | integrated electronic ballast 24 VDC | A = 524 mm, D = 212 mm acrylic; parabolic louvre | 152 lx ¹ 208 lx ¹ | RL70CE-118 112 370 010 - 000 841 68 |
| T8 1 x 18 W | integrated electronic ballast 24 VDC | A = 919 mm, D = 597 mm acrylic | 207 lx ¹ 262 lx ¹ | RL70E-118 111 690 000 - 000 634 06 |
| T8 1 x 18 W | integrated electronic ballast 24 VDC | A = 919 mm, D = 597 mm acrylic; parabolic louvre | 172 lx ¹ 222 lx ¹ | RL70E-118 111 690 010 - 000 674 71 |
| TC-L 1 x 24 W | integrated electronic ballast 24 VDC | A = 639 mm, D = 317 mm acrylic | 259 lx ¹ 333 lx ¹ | RL70CE-124 111 440 000 - 000 571 73 |
| TC-L 1 x 24 W | integrated electronic ballast 24 VDC | A = 639 mm, D = 317 mm acrylic; parabolic louvre | 220 lx ¹ 313 lx ¹ | RL70CE-124 111 440 010 - 000 571 74 |
| TC-L 1 x 36 W | integrated electronic ballast 24 VDC | A = 747 mm, D = 364 mm acrylic | 337 lx ¹ 437 lx ¹ | RL70CE-136 111 450 000 - 000 640 46 |
| TC-L 1 x 36 W | integrated electronic ballast 24 VDC | A = 747 mm, D = 364 mm acrylic; parabolic louvre | 327 lx ¹ 450 lx ¹ | RL70CE-136 111 450 010 - 000 644 22 |
| T8 1 x 36 W | integrated electronic ballast 24 VDC | A = 1532 mm, D = 1210 mm acrylic | 410 lx ¹ 490 lx ¹ | RL70E-136 111 730 000 - 000 599 87 |
| T8 1 x 36 W | integrated electronic ballast 24 VDC | A = 1532 mm, D = 1210 mm acrylic; parabolic louvre | 348 lx ¹ 420 lx ¹ | RL70E-136 111 730 010 - 000 599 90 |
| T8 1 x 58 W | integrated electronic ballast 24 VDC | A = 1850 mm, D = 1541 mm acrylic | 497 lx ¹ 693 lx ¹ | RL70E-158 112 170 000 - 000 867 80 |
| T8 1 x 58 W | integrated electronic ballast 24 VDC | A = 1850 mm, D = 1541 mm acrylic; parabolic louvre | 425 lx ¹ 620 lx ¹ | RL70E-158 112 170 010 - 000 887 53 |
| TC-L 1 x 18 W | integrated electronic ballast 24 VAC, 50/60 Hz | A = 524 mm, D = 212 mm acrylic | 159 lx ¹ 205 lx ¹ | RL70CE-118 112 369 000 - 000 841 94 |
| TC-L 1 x 18 W | integrated electronic ballast 24 VAC, 50/60 Hz | A = 524 mm, D = 212 mm acrylic; parabolic louvre | 152 lx ¹ 208 lx ¹ | RL70CE-118 112 369 010 - 000 841 95 |
| T8 1 x 18 W | integrated electronic ballast 24 VAC, 50/60 Hz | A = 919 mm, D = 597 mm acrylic | 207 lx ¹ 262 lx ¹ | RL70CE-118 111 650 000 - 000 630 29 |
| T8 1 x 18 W | integrated electronic ballast 24 VAC, 50/60 Hz | A = 919 mm, D = 597 mm acrylic; parabolic louvre | 172 lx ¹ 222 lx ¹ | RL70CE-118 111 650 010 - 000 815 94 |
| TC-L 1 x 24 W | integrated electronic ballast 24 VAC, 50/60 Hz | A = 639 mm, D = 317 mm acrylic | 259 lx ¹ 333 lx ¹ | RL70CE-124 111 410 000 - 000 571 56 |
| TC-L 1 x 24 W | integrated electronic ballast 24 VAC, 50/60 Hz | A = 639 mm, D = 317 mm acrylic; parabolic louvre | 220 lx ¹ 313 lx ¹ | RL70CE-124 111 410 010 - 000 571 57 |
| TC-L 1 x 36 W | integrated electronic ballast 24 VAC, 50/60 Hz | A = 747 mm, D = 364 mm Acrylic | 337 lx ¹ 437 lx ¹ | RL70CE-136 111 420 000 - 000 571 61 |
| TC-L 1 x 36 W | integrated electronic ballast 24 VAC, 50/60 Hz | A = 747 mm, D = 364 mm acrylic; parabolic louvre | 327 lx ¹ 450 lx ¹ | RL70CE-136 111 420 010 - 000 571 62 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm

 Machine tools

 Textile machines

 Woodworking machines

 Production facilities

| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max} * | Model Order no. |
|----------------------|--|--|--|---------------------------------------|
| T8 1 x 18 W | integrated electronic ballast 230 – 240 V, 50/60 Hz | A = 916 mm, D = 597 mm borosilicate glass | 207 lx ¹ 262 lx ¹ | RL70E-118 111 841 001 - 000 687 31 |
| T8 1 x 18 W | integrated electronic ballast 230 – 240 V, 50/60 Hz | A = 916 mm, D = 597 mm borosilicate glass; parabolic louvre | 172 lx ¹ 222 lx ¹ | RL70E-118 111 841 011 - 000 868 78 |
| T8 1 x 36 W | integrated electronic ballast 230 – 240 V, 50/60 Hz | A = 1724 mm, D = 1200 mm borosilicate glass | 410 lx ¹ 490 lx ¹ | RL70E-136 111 821 001 - 000 632 28 |
| T8 1 x 36 W | integrated electronic ballast 230 – 240 V, 50/60 Hz | A = 1724 mm, D = 1200 mm borosilicate glass; parabolic louvre | 348 lx ¹ 420 lx ¹ | RL70E-136 111 821 011 - 000 851 07 |
| T8 1 x 58 W | integrated electronic ballast 230 – 240 V, 50/60 Hz | A = 2027 mm, D = 1548 mm borosilicate glass | 497 lx ¹ 693 lx ¹ | RL70E-158 111 911 001 - 000 651 94 |
| T8 1 x 58 W | integrated electronic ballast 230 – 240 V, 50/60 Hz | A = 2027 mm, D = 1548 mm borosilicate glass; parabolic louvre | 425 lx ¹ 620 lx ¹ | RL70E-158 111 911 011 - 000 651 96 |

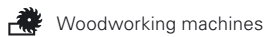
* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm



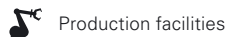
Machine tools



Textile machines



Woodworking machines



Production facilities

| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max} * | Model Order no. |
|----------------------|--|--|--|--|
| TC-L 1 x 18 W | integrated electronic ballast 100/120/230 V, 50/60 Hz | A = 486 mm, D = 198 mm borosilicate glass | 160 lx ¹ 205 lx ¹ | RL70CE-118 111 371 001 - 000 570 26 |
| TC-L 1 x 18 W | integrated electronic ballast 100/120/230 V, 50/60 Hz | A = 486 mm, D = 198 mm borosilicate glass; parabolic louvre | 154 lx ¹ 211 lx ¹ | RL70CE-118 111 371 011 - 000 570 25 |
| TC-L 1 x 24 W | integrated electronic ballast 100/120/230 V, 50/60 Hz | A = 572 mm, D = 293 mm borosilicate glass | 259 lx ¹ 333 lx ¹ | RL70CE-124 111 381 003 - 000 570 31 |
| TC-L 1 x 24 W | integrated electronic ballast 100/120/230 V, 50/60 Hz | A = 572 mm, D = 293 mm borosilicate glass; parabolic louvre | 220 lx ¹ 313 lx ¹ | RL70CE-124 111 381 005 - 000 570 30 |
| TC-L 1 x 36 W | integrated electronic ballast 220 – 240 V, 50/60 Hz | A = 827 mm, D = 363 mm borosilicate glass | 337 lx ¹ 437 lx ¹ | RL70CE-136 112 009 001 - 000 661 18 |
| TC-L 1 x 36 W | integrated electronic ballast 220 – 240 V, 50/60 Hz | A = 827 mm, D = 363 mm borosilicate glass; parabolic louvre | 327 lx ¹ 450 lx ¹ | RL70CE-136 112 009 011 - 000 661 16 |
| T5 2 x 39 W | integrated electronic ballast 220 – 240 V, 50/60 Hz | A = 1 475 mm, D = 829 mm borosilicate glass | 641 lx ¹ 805 lx ¹ | RL70E-239 112 501 001 - 000 975 73 |
| T5 2 x 39 W | integrated electronic ballast 220 – 240 V, 50/60 Hz | A = 1 475 mm, D = 829 mm borosilicate glass; parabolic louvre | 577 lx ¹ 765 lx ¹ | RL70E-239 112 501 011 - 000 975 75 |
| T5 2 x 54 W | integrated electronic ballast 220 – 240 V, 50/60 Hz | A = 1 744 mm, D = 1 048 mm borosilicate glass | 923 lx ¹ 1 427 lx ¹ | RL70E-254 112 180 001 - 000 863 00 |
| T5 2 x 54 W | integrated electronic ballast 220 – 240 V, 50/60 Hz | A = 1 744 mm, D = 1 048 mm borosilicate glass; parabolic louvre | 698 lx ¹ 1 185 lx ¹ | RL70E-254 112 180 011 - 000 863 01 |
| TC-L 1 x 40 W | integrated electronic ballast 110 – 230 V, 50/60 Hz | A = 1 040 mm, D = 530 mm borosilicate glass | 442 lx ¹ 563 lx ¹ | RL70CE-140 112 331 003 - 000 307 81** |
| TC-L 1 x 40 W | integrated electronic ballast 110 – 230 V, 50/60 Hz | A = 1 040 mm, D = 530 mm borosilicate glass; parabolic louvre | 400 lx ¹ 552 lx ¹ | RL70CE-140 112 331 005 - 000 307 75** |
| TC-L 1 x 18 W | integrated electronic ballast 24 VDC | A = 524 mm, D = 212 mm borosilicate glass | 159 lx ¹ 205 lx ¹ | RL70CE-118 112 370 001 - 000 841 61 |
| TC-L 1 x 18 W | integrated electronic ballast 24 VDC | A = 524 mm, D = 212 mm borosilicate glass; parabolic louvre | 152 lx ¹ 208 lx ¹ | RL70CE-118 112 370 011 - 000 841 69 |
| T8 1 x 18 W | integrated electronic ballast 24 VDC | A = 919 mm, D = 597 mm borosilicate glass | 207 lx ¹ 262 lx ¹ | RL70E-118 111 690 001 - 000 634 08 |
| T8 1 x 18 W | integrated electronic ballast 24 VDC | A = 919 mm, D = 597 mm borosilicate glass; parabolic louvre | 172 lx ¹ 222 lx ¹ | RL70E-118 111 690 011 - 000 634 07 |
| TC-L 1 x 24 W | integrated electronic ballast 24 VDC | A = 639 mm, D = 317 mm borosilicate glass | 259 lx ¹ 333 lx ¹ | RL70CE-124 111 440 001 - 000 571 75 |
| TC-L 1 x 24 W | integrated electronic ballast 24 VDC | A = 639 mm, D = 317 mm borosilicate glass; parabolic louvre | 220 lx ¹ 313 lx ¹ | RL70CE-124 111 440 011 - 000 571 76 |
| TC-L 1 x 36 W | integrated electronic ballast 24 VDC | A = 747 mm, D = 364 mm borosilicate glass | 337 lx ¹ 437 lx ¹ | RL70CE-136 111 450 001 - 000 571 77 |
| TC-L 1 x 36 W | integrated electronic ballast 24 VDC | A = 747 mm, D = 364 mm borosilicate glass; parabolic louvre | 271 lx ¹ 352 lx ¹ | RL70CE-136 111 450 011 - 000 571 78 |
| T8 1 x 36 W | integrated electronic ballast 24 VDC | A = 1 532 mm, D = 1 210 mm borosilicate glass | 410 lx ¹ 490 lx ¹ | RL70E-136 111 730 001 - 000 599 91 |
| T8 1 x 36 W | integrated electronic ballast 24 VDC | A = 1 532 mm, D = 1 210 mm borosilicate glass; parabolic louvre | 348 lx ¹ 420 lx ¹ | RL70E-136 111 730 011 - 000 599 88 |
| T8 1 x 58 W | integrated electronic ballast 24 VDC | A = 1 850 mm, D = 1 541 mm borosilicate glass | 497 lx ¹ 693 lx ¹ | RL70E-158 112 170 001 - 000 855 33 |
| T8 1 x 58 W | integrated electronic ballast 24 VDC | A = 1 850 mm, D = 1 541 mm borosilicate glass; parabolic louvre | 425 lx ¹ 620 lx ¹ | RL70E-158 112 170 011 - 000 865 01 |
| TC-L 1 x 18 W | integrated electronic ballast 24 VAC, 50/60 Hz | A = 524 mm, D = 212 mm borosilicate glass | 159 lx ¹ 205 lx ¹ | RL70CE-118 112 369 001 - 000 842 04 |
| TC-L 1 x 18 W | integrated electronic ballast 24 VAC, 50/60 Hz | A = 524 mm, D = 212 mm borosilicate glass; parabolic louvre | 152 lx ¹ 208 lx ¹ | RL70CE-118 112 369 011 - 000 841 97 |
| T8 1 x 18 W | integrated electronic ballast 24 VAC, 50/60 Hz | A = 919 mm, D = 597 mm borosilicate glass | 207 lx ¹ 262 lx ¹ | RL70E-118 111 650 001 - 000 630 30 |
| T8 1 x 18 W | integrated electronic ballast 24 VAC, 50/60 Hz | A = 919 mm, D = 597 mm borosilicate glass; parabolic louvre | 172 lx ¹ 222 lx ¹ | RL70E-118 111 650 011 - 000 630 31 |
| TC-L 1 x 24 W | integrated electronic ballast 24 VAC, 50/60 Hz | A = 639 mm, D = 317 mm borosilicate glass | 259 lx ¹ 333 lx ¹ | RL70CE-124 111 410 001 - 000 571 58 |
| TC-L 1 x 24 W | integrated electronic ballast 24 VAC, 50/60 Hz | A = 639 mm, D = 317 mm borosilicate glass; parabolic louvre | 220 lx ¹ 313 lx ¹ | RL70CE-124 111 410 011 - 000 571 59 |
| TC-L 1 x 36 W | integrated electronic ballast 24 VAC, 50/60 Hz | A = 747 mm, D = 364 mm borosilicate glass | 337 lx ¹ 437 lx ¹ | RL70CE-136 111 420 001 - 000 571 64 |
| TC-L 1 x 36 W | integrated electronic ballast 24 VAC, 50/60 Hz | A = 747 mm, D = 364 mm borosilicate glass; parabolic louvre | 327 lx ¹ 450 lx ¹ | RL70CE-136 111 420 011 - 000 571 67 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm

** Design with cETLus approval

RL 70 H

ILLUMINATES ALONG ITS ENTIRE LENGTH



The RL 70 H intelligently combines the advantages of an integrated electronic ballast luminaire with the advantages of separate ballast unit. It practically illuminates the entire tube length without requiring any further components.

- Energy-efficient fluorescent lamp technology
- Light exit over almost the entire luminaire length
- Ultra low-glare, homogeneous light with soft transitions
- Variants with parabolic louvre for ideal glare-free viewing
- Integrated electronic ballast unit
- Bayonet connection for easy lamp replacement
- High degree of protection
- Chemically resistant to many media such as oils or cooling lubricants
- Connection to machine or mains voltage

 Printing machines

 Textile machines

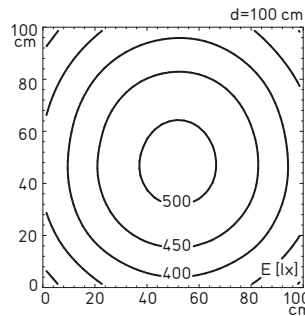
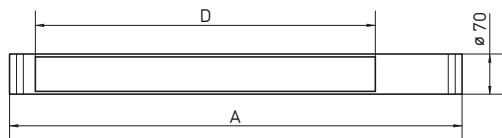
 Woodworking machines

 Production facilities

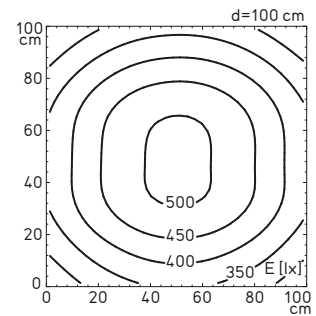
| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. |
|-------------------|--|--|--|--|
| TC-L 1 x 36 W | integrated electronic ballast 230 – 240 V, 50/60 Hz | A = 585 mm, D = 395 mm acrylic | 280 lx ¹ 354 lx ¹ | RL70CE-136 H 112 472 000 - 000 908 25 |
| TC-L 1 x 36 W | integrated electronic ballast 230 – 240 V, 50/60 Hz | A = 585 mm, D = 395 mm acrylic; parabolic louvre | 271 lx ¹ 352 lx ¹ | RL70CE-136 H 112 472 010 - 000 878 15 |
| TC-L 2 x 36 W | integrated electronic ballast 230 – 240 V, 50/60 Hz | A = 1065 mm, D = 790 mm acrylic | 421 lx ¹ 515 lx ¹ | RL70CE-236 H 112 449 000 - 000 813 04 |
| TC-L 2 x 36 W | integrated electronic ballast 230 – 240 V, 50/60 Hz | A = 1065 mm, D = 790 mm acrylic; parabolic louvre | 409 lx ¹ 510 lx ¹ | RL70CE-236 H 112 449 010 - 000 828 68 |
| TC-L 1 x 36 W | integrated electronic ballast 110/230 V, 50/60 Hz | A = 585 mm, D = 395 mm acrylic | 280 lx ¹ 354 lx ¹ | RL70CE-136 H 619 063 007 - 000 831 50** |
| TC-L 1 x 36 W | integrated electronic ballast 110/230 V, 50/60 Hz | A = 585 mm, D = 395 mm acrylic; parabolic louvre | 256 lx ¹ 350 lx ¹ | RL70CE-136 H 619 063 017 - 000 831 49** |
| TC-L 1 x 24 W | integrated electronic ballast 100 – 250 V, 50/60 Hz | A = 495 mm, D = 311 mm acrylic | 242 lx ¹ 305 lx ¹ | RL70CE-124 H 112 911 000 - 004 887 10 |
| TC-L 1 x 24 W | integrated electronic ballast 100 – 250 V, 50/60 Hz | A = 495 mm, D = 311 mm acrylic; parabolic louvre | 207 lx ¹ 281 lx ¹ | RL70CE-124 H 112 911 010 - 004 888 15 |
| TC-L 1 x 24 W | integrated electronic ballast 24 VAC/DC | A = 475 mm, D = 331 mm acrylic | 204 lx ¹ 259 lx ¹ | RL70CE-124 H 112 470 004 - 000 929 98 |
| TC-L 1 x 24 W | integrated electronic ballast 24 VAC/DC | A = 475 mm, D = 331 mm acrylic; parabolic louvre | 196 lx ¹ 257 lx ¹ | RL70CE-124 H 112 470 006 - 000 930 00 |
| TC-L 1 x 36 W | integrated electronic ballast 24 VAC/DC | A = 585 mm, D = 395 mm acrylic | 258 lx ¹ 322 lx ¹ | RL70CE-136 H 112 411 000 - 000 939 95 |
| TC-L 1 x 36 W | integrated electronic ballast 24 VAC/DC | A = 585 mm, D = 395 mm acrylic; parabolic louvre | 271 lx ¹ 352 lx ¹ | RL70CE-136 H 112 411 010 - 000 939 96 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm

** Design with cETLus approval



Illuminance based on the example
2 x 36 W without parabolic louvre
(112 449 001 - 000 813 05)



Illuminance based on the example
2 x 36 W with parabolic louvre
(112 449 011 - 000 813 32)


RL 70 H at a glance

- Fluorescent lamp technology
- Colour temperature neutral white 4000 K
- Colour rendering Ra > 80
- Direct illumination or glare-free thanks to aluminiumized parabolic louvre
- Luminaire body made of acrylic or borosilicate glass
- Mounted by means of various brackets from the accessories
- Degree of protection IP67, protection class I
- Connection via cable gland
- Various brackets as accessories

 Machine tools

 Textile machines

 Woodworking machines

 Production facilities

| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. |
|----------------------|--|--|--|--|
| TC-L 1 x 36 W | integrated electronic ballast 230 – 240 V, 50/60 Hz | A = 585 mm, D = 395 mm borosilicate glass | 280 lx ¹ 354 lx ¹ | RL70CE-136 H 112 472 001 - 000 908 24 |
| TC-L 1 x 36 W | integrated electronic ballast 230 – 240 V, 50/60 Hz | A = 585 mm, D = 395 mm borosilicate glass; parabolic louvre | 271 lx ¹ 352 lx ¹ | RL70CE-136 H 112 472 011 - 000 908 03 |
| TC-L 2 x 36 W | integrated electronic ballast 230 – 240 V, 50/60 Hz | A = 1 065 mm, D = 790 mm borosilicate glass | 421 lx ¹ 515 lx ¹ | RL70CE-236 H 112 449 001 - 000 813 05 |
| TC-L 2 x 36 W | integrated electronic ballast 230 – 240 V, 50/60 Hz | A = 1 065 mm, D = 790 mm borosilicate glass; parabolic louvre | 409 lx ¹ 510 lx ¹ | RL70CE-236 H 112 449 011 - 000 813 32 |
| TC-L 1 x 36 W | integrated electronic ballast 110/230 V, 50/60 Hz | A = 585 mm, D = 395 mm borosilicate glass | 280 lx ¹ 354 lx ¹ | RL70CE-136 H 619 063 001 - 000 109 61** |
| TC-L 1 x 36 W | integrated electronic ballast 110/230 V, 50/60 Hz | A = 585 mm, D = 395 mm borosilicate glass; parabolic louvre | 256 lx ¹ 350 lx ¹ | RL70CE-136 H 619 063 011 - 000 059 22** |
| TC-L 1 x 24 W | integrated electronic ballast 100 – 250 V, 50/60 Hz | A = 495 mm, D = 311 mm borosilicate glass | 242 lx ¹ 305 lx ¹ | RL70CE-124 H 112 911 001 - 004 887 13 |
| TC-L 1 x 24 W | integrated electronic ballast 100 – 250 V, 50/60 Hz | A = 495 mm, D = 311 mm borosilicate glass; parabolic louvre | 207 lx ¹ 281 lx ¹ | RL70CE-124 H 112 911 011 - 004 888 18 |
| TC-L 1 x 24 W | integrated electronic ballast 24 VAC/DC | A = 475 mm, D = 331 mm borosilicate glass | 204 lx ¹ 259 lx ¹ | RL70CE-124 H 112 470 005 - 000 929 99 |
| TC-L 1 x 24 W | integrated electronic ballast 24 VAC/DC | A = 475 mm, D = 331 mm borosilicate glass; parabolic louvre | 196 lx ¹ 257 lx ¹ | RL70CE-124 H 112 470 007 - 000 930 01 |
| TC-L 1 x 36 W | integrated electronic ballast 24 VAC/DC | A = 585 mm, D = 395 mm borosilicate glass | 258 lx ¹ 322 lx ¹ | RL70CE-136 H 112 411 001 - 000 940 03 |
| TC-L 1 x 36 W | integrated electronic ballast 24 VAC/DC | A = 585 mm, D = 395 mm borosilicate glass; parabolic louvre | 271 lx ¹ 352 lx ¹ | RL70CE-136 H 112 411 011 - 000 940 04 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm

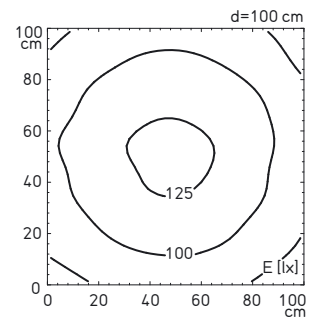
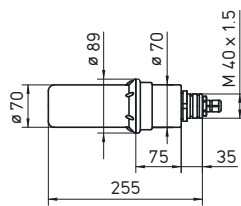
** Design with cETLus approval



AWD A STRONG LIGHT IN TOUGH CONDITIONS

AWD is the ideal tube luminaire for lighting up tight spaces: its dimensions are short and compact, which doesn't prevent it from being a powerful, energy-efficient luminaire.


- Maintenance-free LED technology
- High degree of protection
- Chemically resistant to many media such as oils or cooling lubricants
- Resistant even when a lot of chips are flying around
- Direct connection to machine voltage



Illuminance 5.5 W

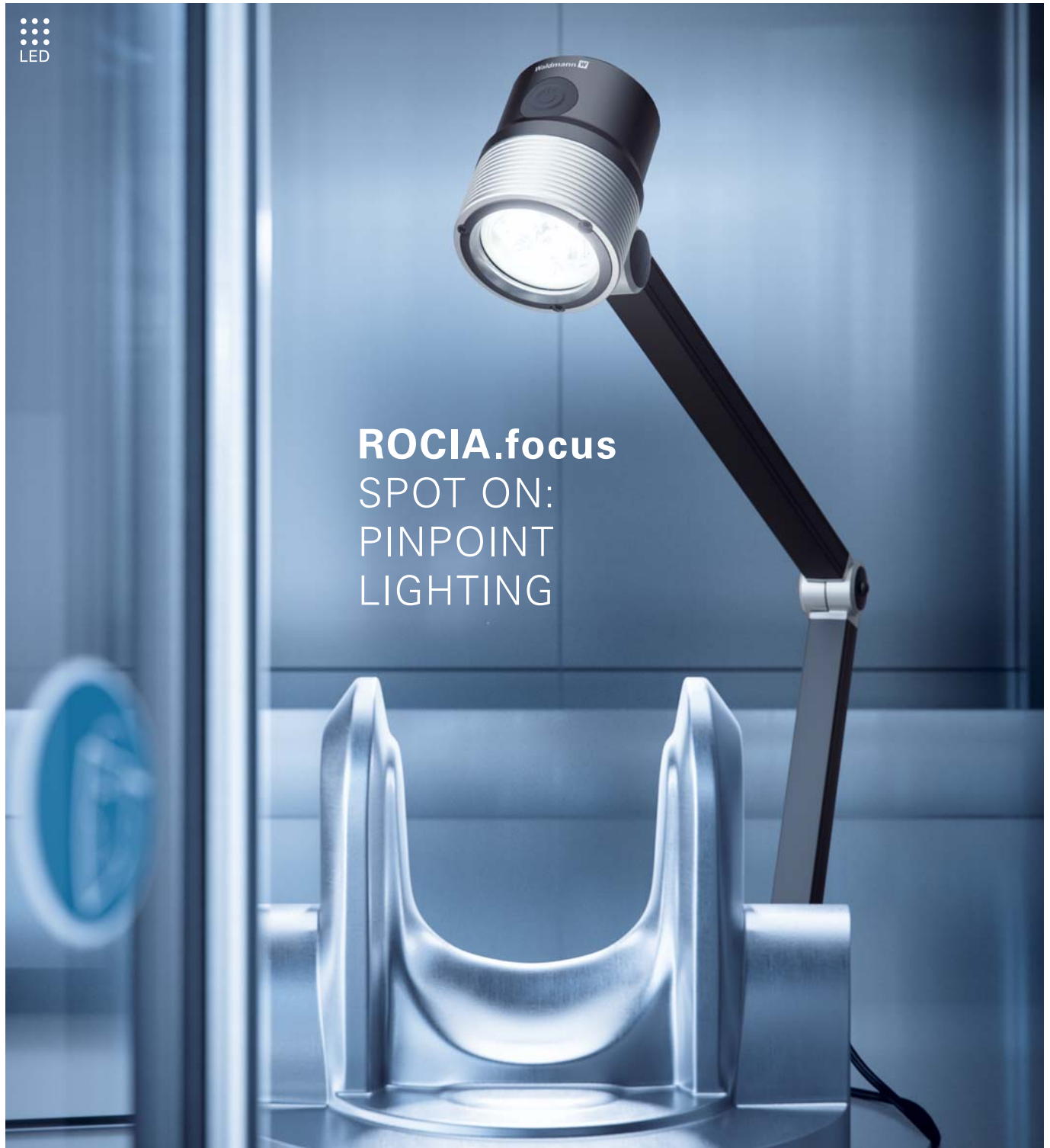
AWD at a glance

- LED technology
- Colour temperature neutral white 4000 K
- Colour rendering Ra > 80
- Direct illumination
- Luminaire body made of borosilicate glass
- Mounted by means of screw connection or bracket from the accessories
- Degree of protection IP67, protection class III
- Connection via cable gland
- Bracket as accessory

 Machine tools

| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. |
|----------------------|------------------------------------|--|--|------------------------------------|
| LED 5.5 W | – 24 VDC | ø 70 mm borosilicate glass; reflector | 102 lx ¹ 132 lx ¹ | AWDL 1 112 950 000 - 005 215 46 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 100 cm

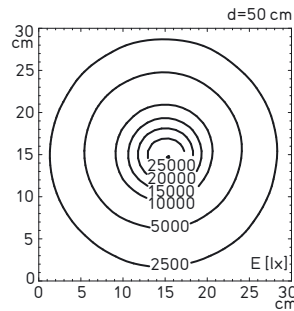
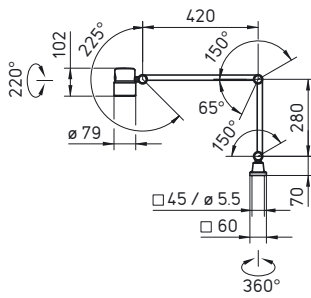


ROCIA.focus

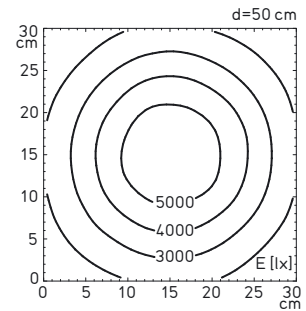
SPOT ON: PINPOINT LIGHTING

The ROCIA.focus impresses with unique resistance. Even in the roughest industrial environments, the luminaire preserves its stability and ensures precise and focused lighting. Its exactly adjustable arm, optics with different beam angles and a flicker-free dimming allow an optimum control of the state-of-the-art high-power LEDs.

- Maintenance-free LED technology
- Strong high-power LEDs for maximum light
- With narrow- or wide-beam illumination characteristic, as desired
- Continuous, flicker-free dimming (switchable)
- Robust aluminium housing with solid safety glass screen
- Viton® seal for high degree of protection
- Chemically resistant to many media such as oils or cooling lubricants
- Exactly adjustable arm
- Connection to machine or mains voltage



Illuminance with 10° optics



Illuminance with 40° optics

RO CIA.focus at a glance

- LED technology
- Colour temperature neutral white 5000 K
- Colour rendering Ra > 80
- Beam angle 10° or 40°
- Housing made of black and colourless anodised aluminium
- 3 mm thick safety glass
- Partially spring-loaded arm
- Maximum allowed ambient temperature $T_{a_{max}}$ 40° C (without transformer)
- LED service life (L70) > 60000 h
- Button integrated into the luminaire head for On/Off and dimming
- Degree of protection IP67 (without transformer) or IP65 (with transformer), protection class I (with transformer) or protection class III (without transformer)
- Supplied with approx. 3 m connecting cable and shock-proof plug, type CEE 7/7 (with transformer) or free strand ends (without transformer)
- Various fasteners as accessories

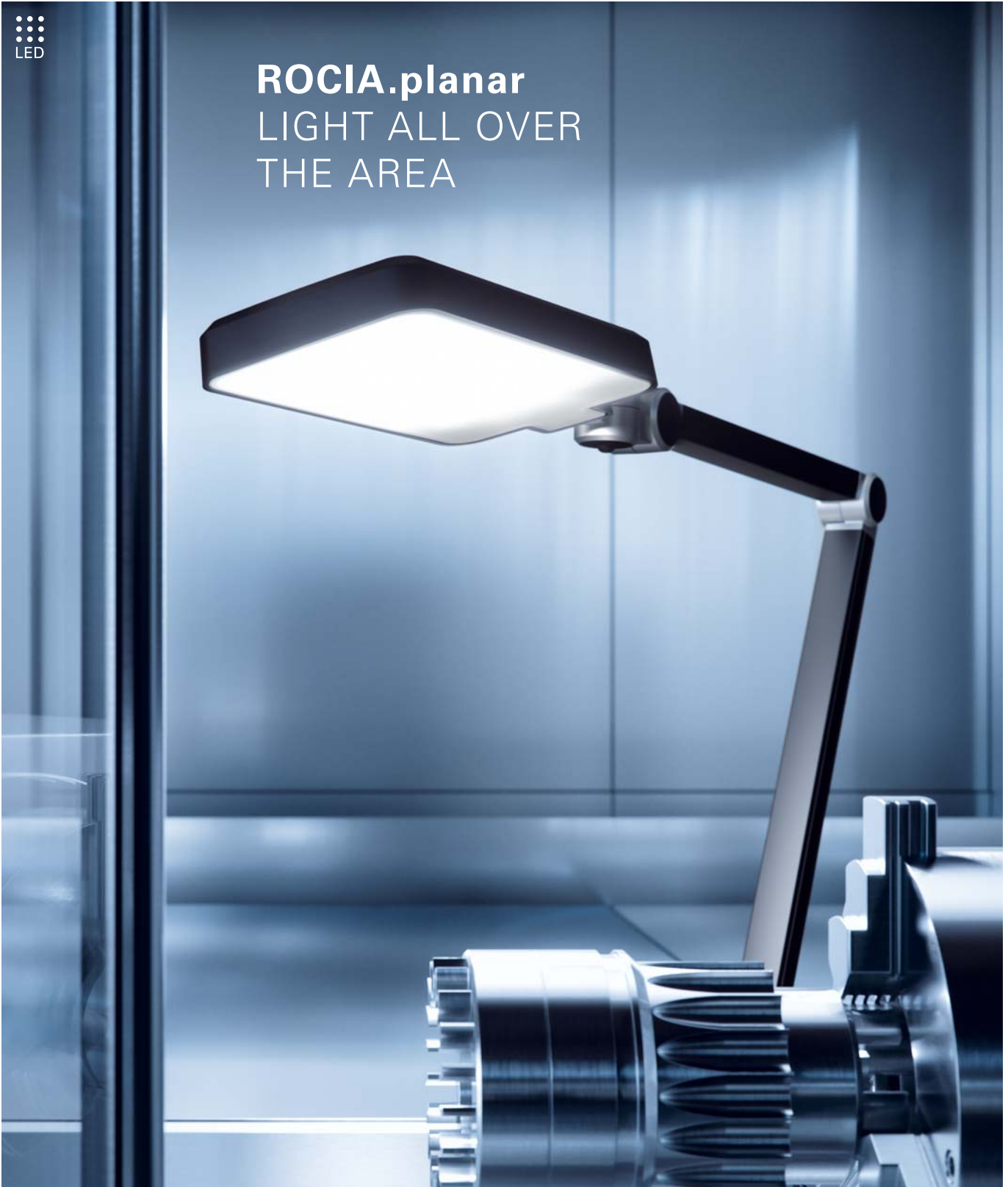
| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. |
|-------------------|---------------------------------|----------------------------|-----------------------|--------------------------|
| LED | integrated transformer | – | 5088 lx ¹ | RFD 600/850/D |
| 9 W | 100 – 240 V, 50/60 Hz | 10° optics, dimmable | 30053 lx ¹ | 113 181 000 - 006 791 31 |
| LED | integrated transformer | – | 3255 lx ¹ | RFD 600/850/D |
| 9 W | 100 – 240 V, 50/60 Hz | 40° optics, dimmable | 5600 lx ¹ | 113 181 000 - 006 801 67 |
| LED | – | – | 5088 lx ¹ | RFD 600/850/DS |
| 8 W | 12 – 28 VAC, 12 – 40 VDC | 10° optics, dimmable | 30053 lx ¹ | 113 182 000 - 006 801 10 |
| LED | – | – | 3255 lx ¹ | RFD 600/850/DS |
| 8 W | 12 – 28 VAC, 12 – 40 VDC | 40° optics, dimmable | 5600 lx ¹ | 113 182 000 - 006 802 08 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 30 cm x 30 cm/measuring distance 50 cm
 Also available as a flexible-tube and pivoting-head luminaires



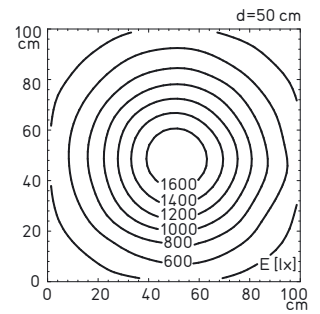
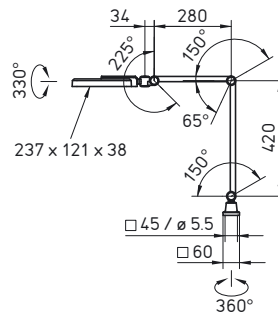
ROCIA.planar

LIGHT ALL OVER THE AREA



ROCIA.planar is a robust and simultaneously high-precision spotlight whose technical details, in particular the full-metal design, guarantee a high security of investment. Its 3D head joint, high illuminance and outstanding light quality guarantee exact adjustability and set standards in terms of ergonomics.

- Maintenance-free LED technology
- For strong, large-area and uniform lighting
- Robust aluminium housing
- High degree of protection
- Chemically resistant to many media such as oils or cooling lubricants
- Exactly adjustable arm with 3D head joint
- Connection to mains voltage

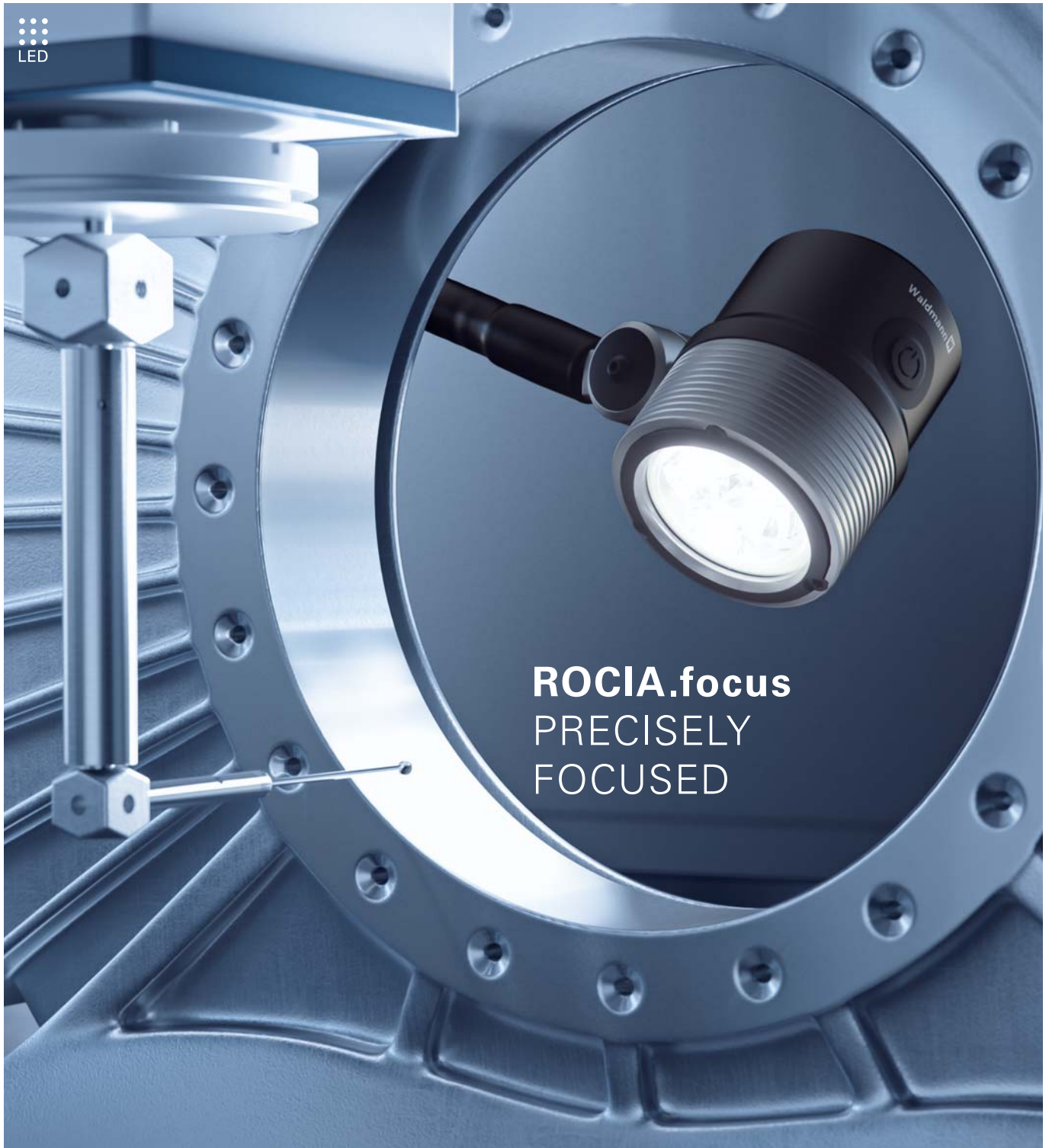


RO CIA.planar at a glance

- LED technology
- Colour temperature neutral white 5000 K
- Colour rendering Ra > 80
- Glare-free thanks to white opal screen
- Housing made of aluminium painted black
- Polycarbonate plastic screen
- Partially spring-loaded arm
- LED service life (L70) > 50000 h
- Switch in the luminaire head for On/Off
- Degree of protection IP65, protection class I
- Supplied with approx. 3 m connecting cable and plug, type CEE 7/7 (grounded plug)
- Various fasteners as accessories

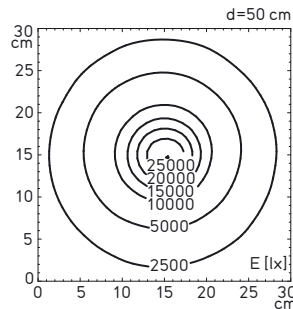
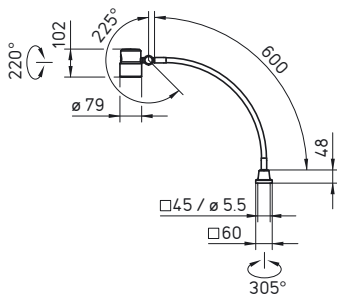
| Machine tools | | Woodworking machines | | Textile machines | |
|---------------|------------------------|----------------------|-----------------------|--------------------------|--|
| Fitted with | Operating device | Dimensions | E_m | Model | |
| Power | Connected load | Special feature | E_{max}^* | Order no. | |
| LED | integrated transformer | – | 916 lx ¹ | RPD 1700/850 | |
| 18 W | 100 – 240 V, 50/60 Hz | – | 2 154 lx ¹ | 113 458 000 - 006 689 76 | |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 100 cm x 100 cm/measuring distance 50 cm

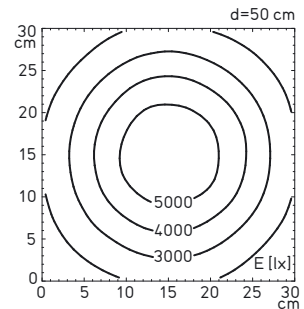


RO CIA.focus in the flexible-tube luminaire design offers a lot of freedom when setting the light that fits perfectly. Its flexible tube with additional head joint makes it mobile and focuses the light directly and quickly – always exactly where it is needed. Even where space is limited, the lighting can be aligned exactly thanks to its flexible tube.

- Maintenance-free LED technology
- Strong high-power LEDs for maximum light
- With narrow- or wide-beam illumination characteristic, as desired
- Continuous, flicker-free dimming (switchable)
- Robust aluminium housing with solid safety glass screen
- Viton® seal for high degree of protection
- Chemically resistant to many media such as oils or cooling lubricants
- Exactly adjustable flexible tube
- Connection to machine or mains voltage



Illuminance with 10° optics



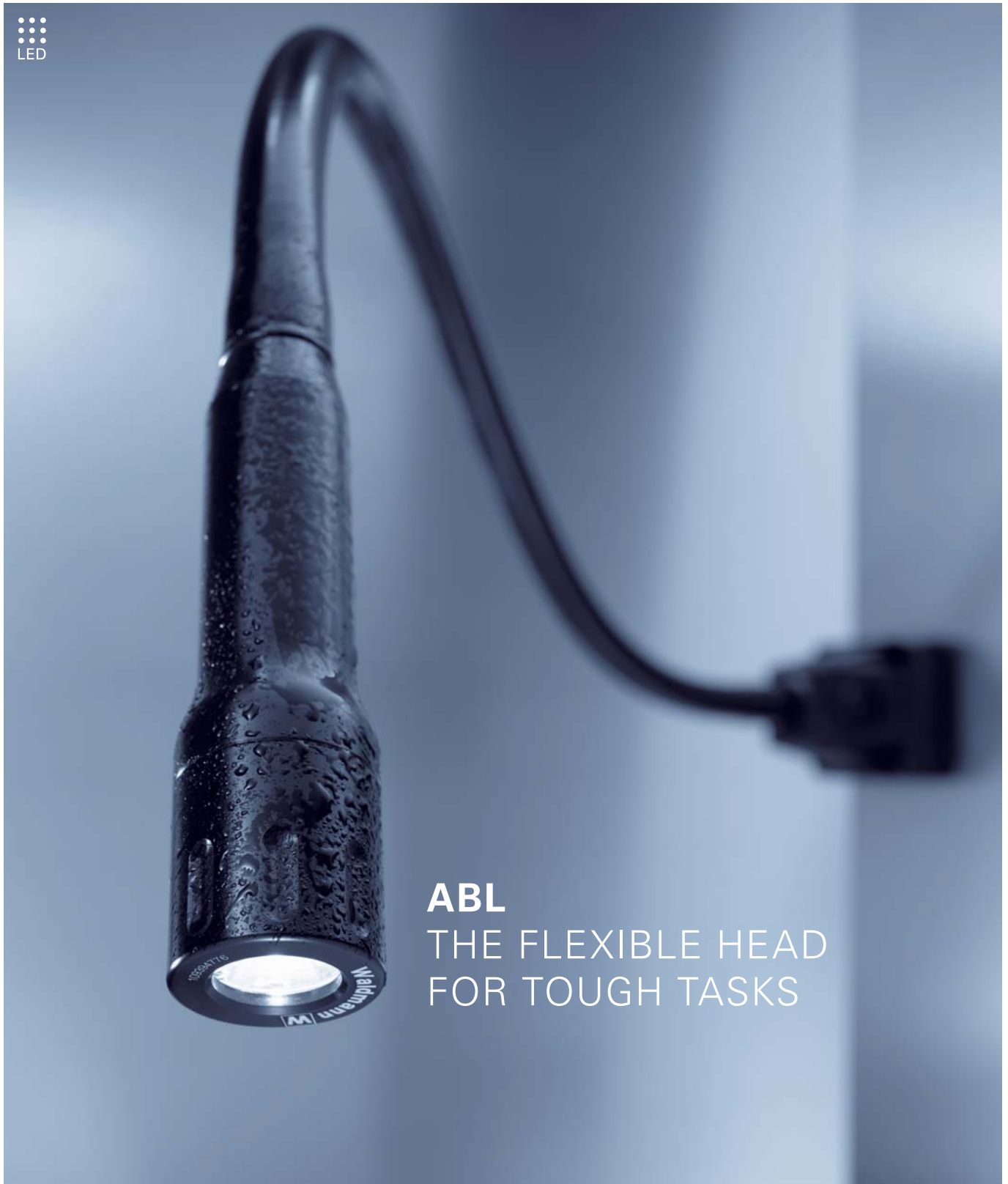
Illuminance with 40° optics

RO CIA.focus at a glance

- LED technology
- Colour temperature neutral white 5000 K
- Colour rendering Ra > 80
- Beam angle 10° or 40°
- Housing made of black and colourless anodised aluminium
- 3 mm thick safety glass
- Flexible metal tube for at least 20000 motions
- Maximum allowed ambient temperature $T_{a_{max}}$ 40° C (without transformer)
- LED service life (L70) > 60000 h
- Button integrated into the luminaire head for On/Off and dimming
- Degree of protection IP67 (without transformer) or IP65 (with transformer), protection class I (with transformer) or protection class III (without transformer)
- Supplied with approx. 3 m connecting cable and shock-proof plug, type CEE 7/7 (with transformer) or free strand ends (without transformer)
- Various fasteners as accessories

| Fitted with Power | Operating device Connected load | Dimensions Special feature | E_m E_{max}^* | Model Order no. |
|-------------------|---------------------------------|----------------------------|-----------------------|--------------------------|
| LED | integrated transformer | – | 5088 lx ¹ | RFF 600/850/D |
| 9 W | 100 – 240 V, 50/60 Hz | 10° optics, dimmable | 30053 lx ¹ | 113 183 000 - 006 689 96 |
| LED | integrated transformer | – | 3255 lx ¹ | RFF 600/850/D |
| 9 W | 100 – 240 V, 50/60 Hz | 40° optics, dimmable | 5600 lx ¹ | 113 183 000 - 006 802 51 |
| LED | – | – | 5088 lx ¹ | RFF 600/850/DS |
| 8 W | 12 – 28 VAC, 12 – 40 VDC | 10° optics, dimmable | 30053 lx ¹ | 113 184 000 - 006 802 72 |
| LED | – | – | 3255 lx ¹ | RFF 600/850/DS |
| 8 W | 12 – 28 VAC, 12 – 40 VDC | 40° optics, dimmable | 5600 lx ¹ | 113 184 000 - 006 802 85 |

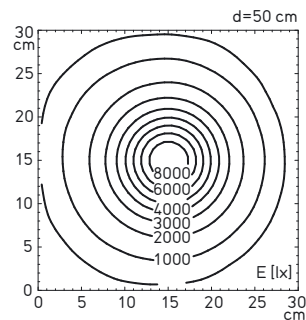
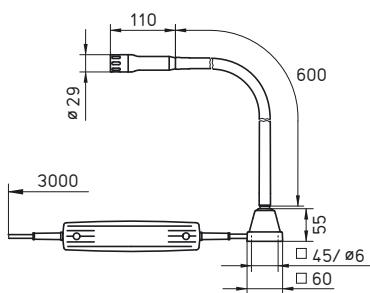
* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 30 cm x 30 cm/measuring distance 50 cm
 Also available as arm-mounted and pivoting-head luminaires



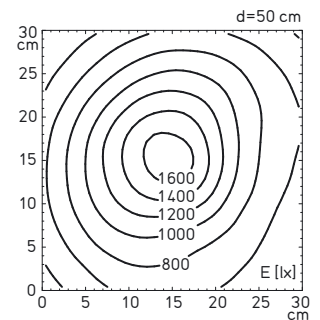
ABL THE FLEXIBLE HEAD FOR TOUGH TASKS

With its minimalist design, the ABL is as small and handy as a mini flashlight that can be fixed in any position. The fact that it is extremely tough in spite of its delicate appearance makes it a highly versatile luminaire.

- Maintenance-free LED technology
- Strong high-power LED for maximum light
- With narrow- or wide-beam illumination characteristic, as desired
- Robust aluminium housing with solid safety glass screen
- High degree of protection
- Chemically resistant to many media such as oils or cooling lubricants
- Exactly adjustable flexible tube



Illuminance with 6° optics at 700 mA



Illuminance with 25° optics at 700 mA

ABL at a glance

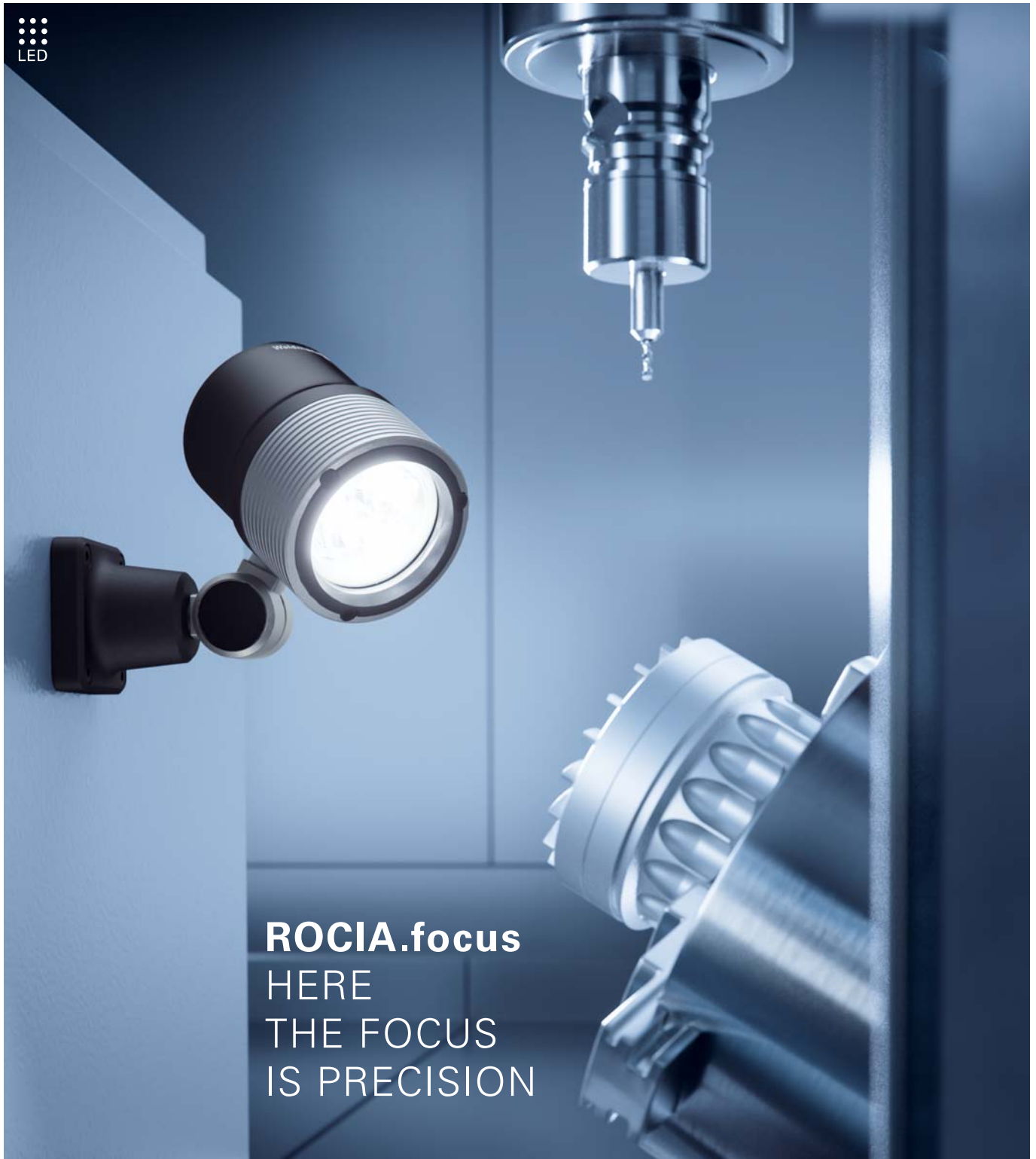
- LED technology
- Colour temperature daylight white 6000 K
- Colour rendering Ra > 75
- Beam angle 6° or 25°
- Housing made of black anodised aluminium
- 2 mm thick safety glass
- Flexible metal tube for at least 20000 motions
- LED service life (L70) > 50000 h
- Degree of protection IP67 (without transformer) or IP20 (with transformer, luminaire head IP67), protection class III (without transformer) or protection class II (with transformer)
- Supplied with approx. 3 m connecting cable and free stranded wires or integrated power supply with plug type CEE 7/16 (Euro plug)
- Various fasteners and operating devices as accessories



Machine tools

| Fitted with Power | Operating device Connected load | Connection Special feature | E _m E _{max} [*] | Model Order no. |
|-------------------|---|--|---|-------------------------------------|
| LED 3 W | – depending on the operating device | constant current source with 350 or 700 mA 6° optics | 1 742 lx ¹ 9 176 lx ¹ | ABLTL 1 112 423 000 - 000 715 50 |
| LED 3 W | – depending on the operating device | constant current source with 350 or 700 mA 25° optics | 871 lx ¹ 1 718 lx ¹ | ABLTL 1 112 423 001 - 000 715 49 |
| LED 3 W | transformer in sep. housing 95 – 240 V, 50/60 Hz | – 6° optics | 1 742 lx ¹ 9 176 lx ¹ | ABLTL 1 112 426 000 - 000 740 02 |
| LED 3 W | transformer in sep. housing 95 – 240 V, 50/60 Hz | – 25° optics | 871 lx ¹ 1 718 lx ¹ | ABLTL 1 112 426 001 - 000 741 55 |

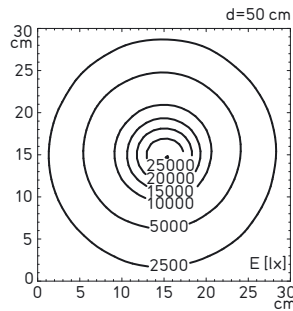
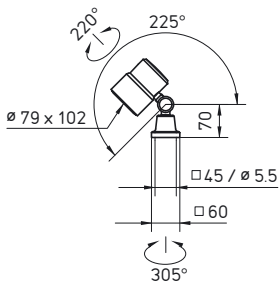
^{*} E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 30 cm x 30 cm/measuring distance 50 cm
Also available as pivoting-head luminaires



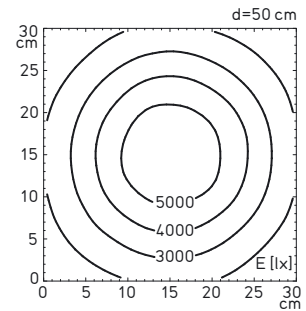
ROCIA.focus HERE THE FOCUS IS PRECISION

The pivoting-head luminaire ROCIA.focus offers maximum flexibility. The mobility of its pivoting head allows the light beam to be directed precisely to where it is needed. The extremely precise lighting allows focused and concentrated work – also thanks to different beam angles.

- Maintenance-free LED technology
- Strong high-power LEDs for maximum light
- With narrow- or wide-beam illumination characteristic, as desired
- Robust aluminium housing with solid safety glass screen
- Viton® seal for high degree of protection
- Chemically resistant to many media such as oils or cooling lubricants
- Exactly adjustable pivoting head
- Direct connection to machine voltage



Illuminance with 10° optics



Illuminance with 40° optics

ROCIA.focus at a glance

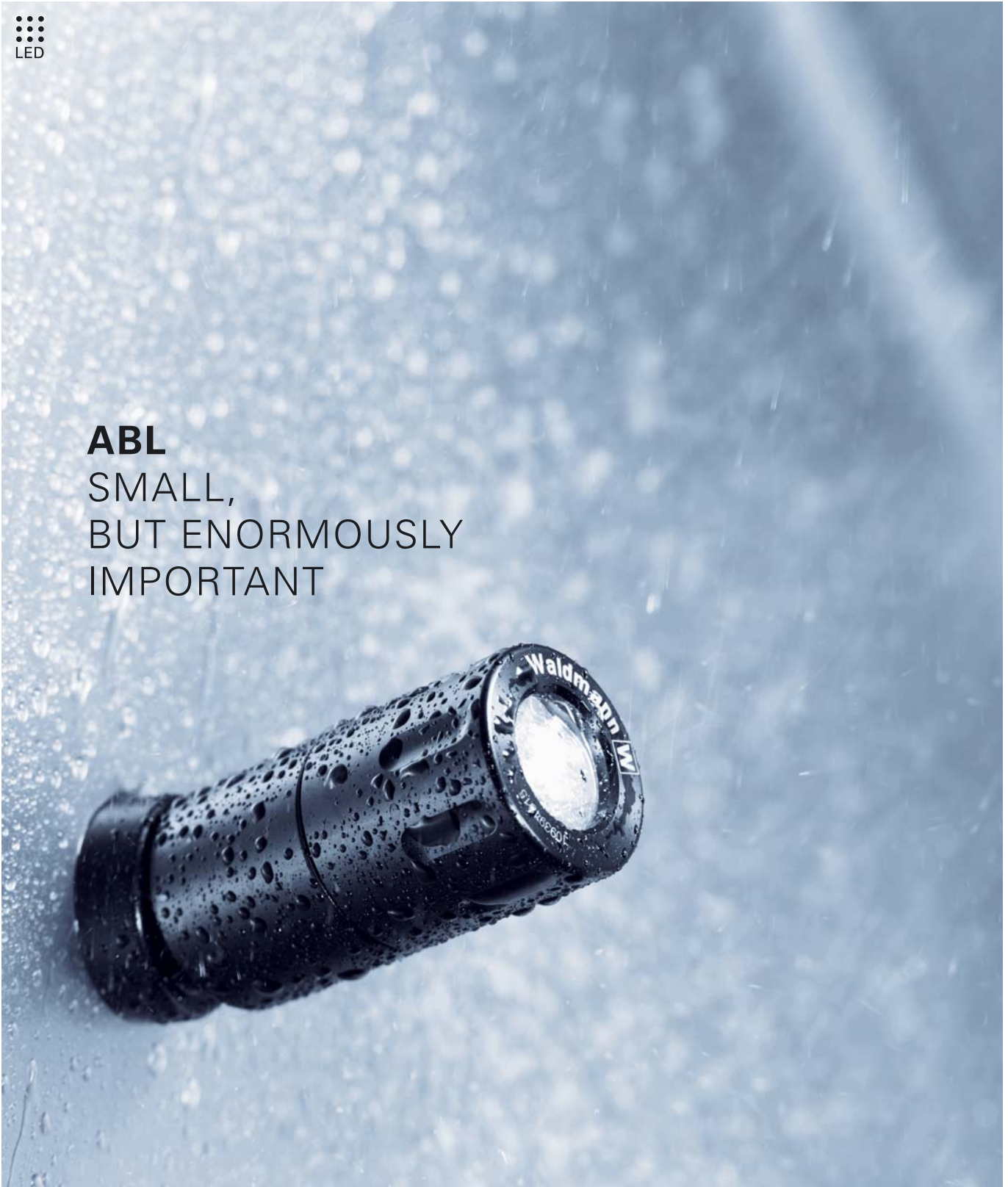
- LED technology
- Colour temperature neutral white 5000 K
- Colour rendering Ra > 80
- Beam angle 10° or 40°
- Housing made of black and colourless anodised aluminium
- 3 mm thick safety glass
- Maximum allowed ambient temperature $T_{a,max}$ 40° C
- Head joint for individual settings
- LED service life (L70) > 60000 h
- Degree of protection IP67, protection class III
- Supplied with approx. 3 m connecting cable and free stranded wires
- Various fasteners as accessories

| Machine tools | | Woodworking machines | | Textile machines | |
|---------------|--------------------------|----------------------|--|-----------------------|--------------------------|
| Fitted with | Operating device | Dimensions | | E_m | Model |
| Power | Connected load | Special feature | | E_{max}^* | Order no. |
| LED | – | – | | 5088 lx ¹ | RFJ 600/850/S |
| 8.5 W | 12 – 28 VAC, 12 – 40 VDC | 10° optics | | 30053 lx ¹ | 113 185 000 - 006 686 13 |
| LED | – | – | | 3255 lx ¹ | RFJ 600/850/S |
| 8.5 W | 12 – 28 VAC, 12 – 40 VDC | 40° optics | | 5600 lx ¹ | 113 185 000 - 006 802 93 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 30 cm x 30 cm/measuring distance 50 cm
 Also available as arm-mounted and pivoting-head luminaires

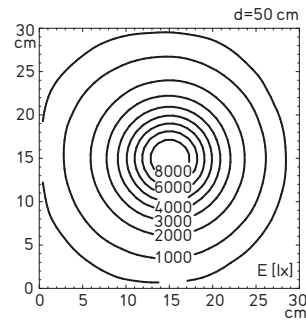
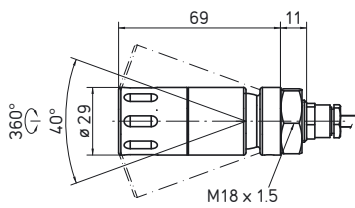


ABL SMALL, BUT ENORMOUSLY IMPORTANT

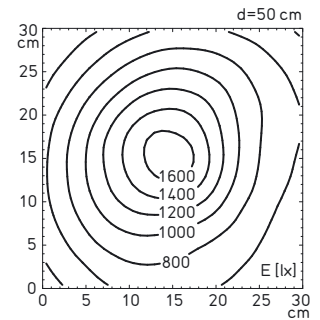


This may sound contradictory: The ABL is so small because it performs an essential task. With its compact dimensions and its integrated ball joint, it directs light to places where it seems almost impossible, but where it is urgently needed.

- Maintenance-free LED technology
- Strong high-power LED for maximum light
- With narrow- or wide-beam illumination characteristic, as desired
- Robust aluminium housing with solid safety glass screen
- High degree of protection
- Chemically resistant to many media such as oils or cooling lubricants
- Integrated ball joint



Illuminance with 6° optics at 700 mA



Illuminance with 25° optics at 700 mA

ABL at a glance

- LED technology
- Colour temperature daylight white 6000 K
- Colour rendering Ra > 75
- Beam angle 6° or 25°
- Housing made of black anodised aluminium
- 2 mm thick safety glass
- Ball joint for individual settings
- LED service life (L70) > 50000 h
- Degree of protection IP67, protection class III
- Supplied with approx. 1.5 m connecting cable and free stranded wires
- Various operating devices as accessories

Machine tools

| Fitted with Power | Operating device Connected load | Connection Special feature | E_m E_{max} * | Model Order no. |
|-------------------|--|--|--|------------------------------------|
| LED 3 W | – depending on the operating device | constant current source with 350 or 700 mA 6° optics | 1 742 lx ¹ 9 176 lx ¹ | ABLL 1 112 353 000 - 000 412 01 |
| LED 3 W | – depending on the operating device | constant current source with 350 or 700 mA 25° optics | 871 lx ¹ 1 718 lx ¹ | ABLL 1 112 353 001 - 000 419 41 |

* E_m = medium illuminance; E_{max} = maximum illuminance; ¹ measuring field 30 cm x 30 cm/measuring distance 50 cm
Also available as flexible-tube luminaires



ACCESSORIES

Fasteners

Connection technology

Operating devices for LED luminaires

Control and sensors

Magnifiers

Protective covers

FASTENERS



Table clamp for all magnifier, arm-mounted and flexible-tube luminaires

| Colour | Special feature | Order no. |
|--------|-----------------------|--------------------------|
| black | 0 – 45 mm | 190 008 019 - 000 149 23 |
| black | 0 – 65 mm | 190 007 019 - 000 149 04 |
| black | 65 – 135 mm | 190 033 019 - 000 149 50 |
| black | 95 – 165 mm | 190 035 019 - 000 149 56 |
| black | 0 – 65 mm, ESD design | 190 007 059 - 000 580 94 |



Wall angle bracket for MINELA, RING LED, RO CIA arm-mounted luminaires, RO CIA flexible-tube luminaires and ABLTL

| Colour | Special feature | Order no. |
|--------|-----------------|--------------------------|
| black | – | 300 213 018 - 000 251 78 |
| white | – | 300 213 038 - 000 702 91 |



Wall bracket for Taneo, TEVISIO and SNLQ

| Colour | Special feature | Order no. |
|--------|-----------------|--------------------------|
| black | – | 226 108 019 - 006 107 54 |



Wall bracket for MINELA, SNLQ and RING LED

| Colour | Special feature | Order no. |
|--------|-----------------|--------------------------|
| black | – | D13 148 000 - 000 754 04 |



Magnetic base for RO CIA pivoting-head luminaires

| Colour | Special feature | Order no. |
|--------|-----------------|--------------------------|
| black | – | 190 057 019 - 000 150 56 |



190 037



190 036

Table base for MINELA and RING LED

| Colour | Special feature | Order no. |
|------------|-----------------|--------------------------|
| light grey | – | 190 037 159 - 000 149 93 |
| black | – | 190 036 039 - 000 149 59 |
| light grey | – | 190 036 119 - 000 653 99 |



Additional angle bracket as an accessory for TAMETO for rotatable mounting of the side luminaire to the extension arm

| Colour | Special feature | Order no. |
|--------|-----------------|--------------------------|
| black | adjustable | 408 001 917 - 005 612 05 |



Luminaire bracket for TAMETO for rotatable mounting to the extension arm¹

| Colour | Special feature | Order no. |
|--------|-----------------|--------------------------|
| black | adjustable | 408 001 899 - 006 301 99 |



Luminaire bracket set for TAMETO for C-rails (pair)

| Colour | Special feature | Order no. |
|--------|-----------------|--------------------------|
| black | adjustable | 408 001 586 - 005 780 88 |



Mounting frame for LUMATRIS

| Colour | Special feature | Order no. |
|-------------|---------------------------------|--------------------------|
| silver-grey | for luminaire size 246 x 95 mm | 408 001 016 - 005 956 19 |
| silver-grey | for luminaire size 420 x 95 mm | 408 001 017 - 005 956 13 |
| silver-grey | for luminaire size 596 x 95 mm | 408 001 018 - 005 956 10 |
| silver-grey | for luminaire size 770 x 95 mm | 408 001 019 - 005 956 16 |
| silver-grey | for luminaire size 420 x 170 mm | 408 001 037 - 005 181 21 |
| silver-grey | for luminaire size 770 x 170 mm | 408 001 034 - 005 142 65 |



Luminaire bracket set for LUMATRIS

| Colour | Special feature | Order no. |
|-------------|----------------------------|--------------------------|
| silver-grey | for luminaire width 95 mm | 408 001 015 - 005 955 87 |
| silver-grey | for luminaire width 170 mm | 408 001 035 - 005 142 68 |



Pivoting head for LUMATRIS

| Colour | Special feature | Order no. |
|-------------|-----------------|--------------------------|
| silver-grey | adjustable | 408 001 033 - 005 142 62 |

¹ At least two brackets per luminaire required.



Luminaire bracket for FLAT LED surface-mounted luminaire

| Colour | Special feature | Order no. |
|--------|-----------------|--------------------------|
| – | adjustable | 203 081 019 - 000 194 78 |



Luminaire bracket set for MACH LED PLUS.forty

| Colour | Special feature | Order no. |
|--------|-------------------|--------------------------|
| – | adjustable +/-90° | 408 001 403 - 006 716 26 |



Luminaire bracket for MACH LED PLUS.forty¹

| Colour | Special feature | Order no. |
|--------|-------------------|--------------------------|
| – | adjustable +/-20° | 408 001 402 - 006 716 23 |



Luminaire bracket set for MACH LED PLUS.seventy

| Colour | Special feature | Order no. |
|--------|-------------------|--------------------------|
| – | adjustable +/-65° | 408 001 876 - 005 820 65 |



Luminaire bracket for MACH LED PLUS.seventy¹

| Colour | Special feature | Order no. |
|--------|-------------------|--------------------------|
| – | adjustable +/-30° | 408 001 878 - 005 855 35 |



Luminaire bracket set for RL 40

| Colour | Special feature | Order no. |
|--------|-----------------|--------------------------|
| – | – | 408 001 952 - 004 593 89 |

¹ At least two brackets per luminaire required.



Luminaire bracket for RL 40¹

| Colour | Special feature | Order no. |
|--------|-----------------|--------------------------|
| – | – | 306 266 022 - 000 859 12 |



Luminaire bracket for RL 40¹

| Colour | Special feature | Order no. |
|--------|-----------------|--------------------------|
| – | – | 190 174 019 - 000 920 88 |



Luminaire bracket for MACH LED PLUS.seventy and RL 70¹

| Colour | Special feature | Order no. |
|--------|---------------------|--------------------------|
| – | with rubber profile | SK1 021 719 - 000 854 99 |



Luminaire bracket for MACH LED PLUS.seventy and RL 70¹

| Colour | Special feature | Order no. |
|--------|---------------------|--------------------------|
| – | with rubber profile | SK0 995 719 - 000 856 52 |



Luminaire bracket for MACH LED PLUS.seventy and RL 70¹

| Colour | Special feature | Order no. |
|--------|---------------------|--------------------------|
| – | with rubber profile | 190 015 719 - 000 854 98 |



Luminaire bracket for RL 70¹

| Colour | Special feature | Order no. |
|--------|-----------------|--------------------------|
| – | – | 190 027 019 - 000 573 37 |

¹ At least two brackets per luminaire required.



Luminaire bracket for AWD

| Colour | Special feature | Order no. |
|--------|-----------------|--------------------------|
| Black | – | 191 092 019 - 000 867 27 |



Luminaire bracket for TAUREO for fastening to the luminaire

| Colour | Special feature | Order no. |
|--------|-------------------------------------|--------------------------|
| – | wire for cable mounting | H13 001 010 - 006 003 89 |
| – | stainless steel for direct mounting | H13 001 020 - 006 003 98 |
| – | stainless steel for cable mounting | H13 001 030 - 006 003 95 |



Wire rope for TAUREO and ACANEO

| Colour | Special feature | Order no. |
|--------|---|--------------------------|
| – | 3000 mm, hook for trapezoidal metal ceiling | H13 003 010 - 006 043 34 |
| – | 3000 mm, M8 thread for trapezoidal hanger | H13 003 020 - 006 043 37 |
| – | 3000 mm, snap link for eyebolts (ceiling) | H13 003 030 - 006 043 40 |
| – | 3000 mm, hook for screw fixing (ceiling) | H13 003 040 - 006 043 43 |



Wire rope holder for TAUREO and ACANEO

| Colour | Special feature | Order no. |
|--------|---|--------------------------|
| – | for cable diameter 1.5 mm/2.0 mm/2.5 mm | H13 004 010 - 006 043 54 |



Trapezoidal hanger for TAUREO and ACANEO for fastening to the trapezoidal sheet metal ceiling

| Colour | Special feature | Order no. |
|--------|-----------------|--------------------------|
| – | with M8 thread | H13 004 020 - 006 057 52 |



Luminaire bracket for ceiling mounting for ACANEO

| Colour | Special feature | Order no. |
|--------|-----------------|--------------------------|
| – | fixed | 337 818 010 - 006 951 71 |
| – | adjustable | 337 818 020 - 006 951 74 |



Luminare bracket for wall mounting for ACANEO

| Colour | Special feature | Order no. |
|--------|-----------------|--------------------------|
| – | – | 337 763 010 - 006 825 09 |



1-point suspension (ceiling mounting) for ACANEO

| Colour | Special feature | Order no. |
|--------|------------------------------|--------------------------|
| – | wire ropes will be required. | 337 765 040 - 006 952 79 |



1-point suspension set (ceiling mounting) for ACANEO

| Colour | Special feature | Order no. |
|--------|--|--------------------------|
| – | 1 x 1-point suspension, 2 wire rope holder, 2 wire ropes with hooks | 226 234 019 - 007 011 56 |

CONNECTION TECHNOLOGY



Connection cable for TAMETO for connecting through-wired luminaires

| Description | Connector type | Order no. |
|-------------|---|--------------------------|
| 3 m lead | CEE 7/7 (grounded plug) – Wieland GST18i3 | 226 030 019 - 005 679 77 |



Connecting cable for TAMETO for connecting through-wired luminaires (only required for luminaires of dimensions = xx99 mm)

| Description | Connector type | Order no. |
|-------------|-----------------------------------|--------------------------|
| 0.3 m lead | Wieland GST18i3 – Wieland GST18i3 | 330 691 010 - 005 773 61 |
| 3.0 m lead | Wieland GST18i3 – Wieland GST18i3 | 330 691 020 - 006 304 38 |



Connection technology for operating a TAMETO luminaire from 1 external operating unit*

| Description | Connector type | Order no. |
|--|---|--------------------------|
| connection cable 3 m | CEE 7/7 (grounded plug) – Wieland GST18i3 | 226 030 019 - 005 679 77 |
| operating unit for switching and dimming | Wieland GST18i3 – WAGO WINSTA® MINI | 226 080 039 - 006 912 02 |



Connection technology for operating a maximum of 6 TAMETO luminaires centrally from 1 external operating unit*

| Description | Connector type | Order no. |
|--|---|--------------------------|
| connection cable 3 m | CEE 7/7 (grounded plug) – Wieland GST18i3 | 226 030 019 - 005 679 77 |
| operating unit for switching and dimming | Wieland GST18i3 – WAGO WINSTA® MINI | 226 080 039 - 006 912 02 |
| connecting cable for T-distributor 1 m | WAGO WINSTA® MINI – WAGO WINSTA® MINI | 337 782 010 - 006 847 37 |
| T-distributor | WAGO WINSTA® MINI – WAGO WINSTA® MINI | 337 783 010 - 006 865 23 |



Grounding cable for TANEО workplace-system luminaires (ESD)

| Description | Connector type | Order no. |
|-------------|------------------------------|--------------------------|
| 1.5 m lead | push button 10 mm /eyelet M5 | 408 001 866 - 005 874 70 |
| 3.0 m lead | push button 10 mm /eyelet M5 | 408 001 867 - 005 874 73 |



Connection socket for HEAD LED

| Description | Connector type | Order no. |
|--|---------------------------------------|--------------------------|
| cable passage 3 – 6.5 mm, wires $\leq 0.75 \text{ mm}^2$ | M12 socket: straight; 3-pole; A-coded | 330 603 020 - 000 029 47 |



Connection socket for FLAT TEC

| Description | Connector type | Order no. |
|---|---------------------------------------|--------------------------|
| cable passage 4 – 8 mm, wires $\leq 1.0 \text{ mm}^2$ | M12 socket: straight; 4-pole; A-coded | 330 634 010 - 000 039 70 |



Connection socket for LUMATRIS (> 48 W)

| Description | Connector type | Order no. |
|---|---------------------------------------|--------------------------|
| cable passage 6 – 8 mm, wires $\leq 1.5 \text{ mm}^2$ | M12 socket: straight; 5-pole; A-coded | 336 882 010 - 005 975 41 |

* only required for luminaires with external operability



Connection socket for LUMATRIS (< 48 W), MACH LED PLUS (24 V without TW*), HEAD LED, ONE LED (without TW*), MKEL and RL 25 LE

| Description | Connector type | Order no. |
|--|---------------------------------------|--------------------------|
| cable passage 4 – 8 mm, wires $\leq 0.75 \text{ mm}^2$ | M12 socket: straight; 5-pole; A-coded | 336 615 019 - 005 220 18 |



Connection socket for MACH LED PLUS (24 V with TW*), ONE LED (TW*) and RL 25 LE

| Description | Connector type | Order no. |
|---|---------------------------------------|--------------------------|
| cable passage 6 – 8 mm, wires $\leq 1.5 \text{ mm}^2$ | M12 socket: straight; 4-pole; A-coded | 336 883 010 - 005 975 30 |



Connection socket for MACH LED PLUS (100/120/220 – 240 V)

| Description | Connector type | Order no. |
|--|---------------------------------------|--------------------------|
| cable passage 6 – 8 mm, wires $\leq 1.5 \text{ mm}^2$ | M12 socket: straight; 4-pole; S-coded | 336 885 010 - 005 975 38 |
| cable passage 8 – 10 mm, wires $\leq 1.5 \text{ mm}^2$ | M12 socket: straight; 4-pole; S-coded | 336 885 020 - 006 346 14 |



Connecting plug for MACH LED PLUS (24 V with TW*) and ONE LED (TW*)

| Description | Connector type | Order no. |
|---|-------------------------------------|--------------------------|
| cable passage 6 – 8 mm, wires $\leq 1.5 \text{ mm}^2$ | M12 plug: straight; 4-pole; A-coded | 336 884 010 - 005 975 20 |



Connecting plug for MACH LED PLUS (100/120/220 – 240 V with TW*)

| Description | Connector type | Order no. |
|--|-------------------------------------|--------------------------|
| cable passage 6 – 8 mm, wires $\leq 1.5 \text{ mm}^2$ | M12 plug: straight; 4-pole; S-coded | 336 886 010 - 005 975 35 |
| cable passage 8 – 10 mm, wires $\leq 1.5 \text{ mm}^2$ | M12 plug: straight; 4-pole; S-coded | 336 886 020 - 006 345 96 |



Protective cap for MACH LED PLUS (TW*) and ONE LED (TW*)

| Description | Connector type | Order no. |
|--------------|----------------|--------------------------|
| 10 units for | M12 socket | 408 001 404 - 006 796 34 |

* TW: Through-wired (for daisy-chaining several luminaires)



Connection cable for LUMATRIS (> 48 W)

| Description | Connector type | Order no. |
|-----------------------------------|---------------------------------------|--------------------------|
| 3 m lead, 5 x 1.0 mm ² | M12 socket: straight; 5-pole; A-coded | 336 890 010 - 005 980 58 |
| 7 m lead, 5 x 1.0 mm ² | M12 socket: straight; 5-pole; A-coded | 336 890 020 - 005 980 63 |



Connection cable for LUMATRIS (< 48 W), MACH LED PLUS (24 V without TW*), HEAD LED, ONE LED (without TW*), MKEL and RL 25 LE

| Description | Connector type | Order no. |
|-----------------------------------|---------------------------------------|--------------------------|
| 3 m lead, 5 x 0.5 mm ² | M12 socket: straight; 5-pole; A-coded | 336 703 010 - 005 821 09 |
| 7 m lead, 5 x 0.5 mm ² | M12 socket: straight; 5-pole; A-coded | 336 703 020 - 005 433 41 |



Connection cable for MACH LED PLUS (24 V with TW*), ONE LED (TW*) and RL 25 LE

| Description | Connector type | Order no. |
|-----------------------------------|---------------------------------------|--------------------------|
| 3 m lead, 3 x 1.5 mm ² | M12 socket: straight; 4-pole; A-coded | 336 889 010 - 005 979 07 |
| 7 m lead, 3 x 1.5 mm ² | M12 socket: straight; 4-pole; A-coded | 336 889 020 - 005 979 35 |



Connection cable for MACH LED PLUS (100/120/220 – 240 V)

| Description | Connector type | Order no. |
|-----------------------------------|---------------------------------------|--------------------------|
| 3 m lead, 3 x 1.5 mm ² | M12 socket: straight; 4-pole; S-coded | 336 891 010 - 005 979 43 |
| 7 m lead, 3 x 1.5 mm ² | M12 socket: straight; 4-pole; S-coded | 336 891 020 - 005 979 48 |

* TW: Through-wired (for daisy-chaining several luminaires)

OPERATING DEVICES FOR LED LUMINAIRES



Operating device for ABLL1/ABLTL 1 (max. 3 units in series)

| Power | Connection | Special feature | Order no. |
|-------|--|-------------------|--------------------------|
| 33 W | 220 – 240 V, 50/60 Hz; 350/700 mA constant current | clip for hat rail | 209 585 039 - 000 040 06 |



Operating device for ABLL1/ABLTL 1 (max. 3 units in series)

| Power | Connection | Special feature | Order no. |
|-------|---|-------------------|--------------------------|
| 10 W | 95 – 240 V, 50/60 Hz; 700 mA constant current | clip for hat rail | 209 585 019 - 000 452 02 |



Operating device for ABLL1/ABLTL 1 (max. 5 units in series)

| Power | Connection | Special feature | Order no. |
|-------|--|-------------------|--------------------------|
| 14 W | 24 VAC/DC, 50/60 Hz; 700 mA constant current | clip for hat rail | 209 582 019 - 000 487 93 |



Operating device for machine luminaires with 24 VDC connection voltage

| Power | Connection | Special feature | Order no. |
|-------|--|-------------------|--------------------------|
| 30 W | 100 – 240 V, 50/60 Hz; 24 VDC constant voltage | clip for hat rail | 309 537 010 - 006 704 53 |



Operating device for machine luminaires with 24 VDC connection voltage

| Power | Connection | Special feature | Order no. |
|-------|--|-----------------|--------------------------|
| 100 W | 100 – 240 V, 50/60 Hz; 24 VDC constant voltage | – | 309 538 010 - 006 704 56 |



Operating device for machine luminaires with 24 VDC connection voltage

| Power | Connection | Special feature | Order no. |
|-------|--|-----------------|--------------------------|
| 75 W | 220 – 240 V, 50/60 Hz; 24 VDC constant voltage | IP64 | 309 425 010 - 000 884 34 |

CONTROL AND SENSORS



Universal adapter box for TAUREO; 220 – 240 V, 50/60 Hz

| Activation | Special feature | Order no. |
|------------|-----------------------------------|--------------------------|
| – | for daylight and presence sensors | H13 007 010 - 006 251 32 |



Sensors for TAUREO; 220 – 240 V, 50/60 Hz

| Activation | Special feature | Order no. |
|------------|--|--------------------------|
| 1 – 10 V | working height 8 m, presence sensor incl. daylight sensor in adapter box | H13 007 020 - 006 251 35 |
| 1 – 10 V | working height 8 m, light sensor in adapter box | H13 007 030 - 006 251 39 |
| DALI | daylight sensor in adapter box/only for use with NCR | 226 903 019 - 006 693 00 |
| DALI | working height 10 m, presence sensor incl. daylight sensor in adapter box/only for use with NCR | 337 140 010 - 007 474 95 |



Sensors for ACANEO; 220 – 240 V, 50/60 Hz

| Activation | Special Feature | Order No. |
|------------|--|--------------------------|
| DALI | daylight sensor/only for use with NCR | 337 656 010 - 006 622 13 |
| DALI | working height 10 m, presence sensor incl. daylight sensor /for use with NCR only * | 337 139 010 - 007 472 36 |
| | * adapter for surface mounting of presence detectors | 337 821 010 - 006 953 61 |



Netcomposer Control (NCR) for TAUREO and ACANEO for digital activation

| Activation | Special feature | Order no. |
|--|---|--------------------------|
| 2 x 64 DALI operating devices for 1 NCR | netcomposer, clip for hat rail | 336 673 010 - 005 336 03 |
| | power supply for Netcomposer, clip for hat rail | 336 391 010 - 004 857 30 |



Signal converter for TAUREO and ACANEO for implementation of controls in DALI

| Activation | Special feature | Order no. |
|----------------|-------------------|--------------------------|
| 4-channel DALI | wall base | 336 388 010 - 004 856 96 |
| 8-channel DALI | clip for hat rail | 336 386 010 - 004 856 70 |

MAGNIFIERS



Additional magnifier for TEVISIO

| Dimensions | Dioptres | Special feature | Order no. |
|-----------------|----------|-----------------|--------------------------|
| ø 132 mm (lens) | 3.5 | plastic lens | 190 208 019 - 005 759 24 |



Additional magnifier for SNLQ

| Dimensions | Dioptres | Special feature | Order no. |
|--------------------|----------|------------------------|--------------------------|
| 50 x 100 mm (lens) | 4 | glass lens | 190 080 019 - 000 151 20 |
| 50 x 100 mm (lens) | 4 | glass lens, ESD design | 190 080 049 - 000 612 80 |



Magnifier for TANEO

| Dimensions | Dioptres | Special feature | Order no. |
|-----------------|----------|-----------------|--------------------------|
| ø 132 mm (lens) | 3.5 | plastic lens | 190 207 019 - 005 759 00 |

PROTECTIVE COVERS



Protective cap set for MACH LED PLUS.seventy; not suitable for use with luminaire bracket set 408 001 876 - 005 820 65

| Dimensions | Colour | Order no. |
|------------|---------------------|--------------------------|
| – | colourless anodised | 408 001 875 - 005 820 72 |



End caps for TAUREO

| Dimensions | Colour | Order no. |
|------------|---------------------------------------|--------------------------|
| – | colourless anodised | H13 000 027 - 006 638 45 |
| – | colourless anodised, grey cable gland | H13 000 017 - 006 638 27 |



Module cover for TAUREO

| Dimensions | Colour | Order no. |
|------------|--------|--------------------------|
| 600 mm | grey | H13 002 010 - 006 004 14 |
| 1200 mm | grey | H13 002 020 - 006 004 18 |



Sealing clamp for TAUREO in IP54 applications

| Dimensions | Colour | Order no. |
|------------|--------|--------------------------|
| – | black | H13 010 010 - 006 526 65 |



Safety glass for ACANEO in IK10 applications

| Dimensions | Colour | Order no. |
|--------------|-------------|--------------------------|
| 585 x 480 mm | transparent | 337 764 020 - 006 951 62 |
| 480 x 405 mm | transparent | 337 764 010 - 006 825 12 |

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