Waldmann

ENGINEER OF LIGHT.

LIGHT FOR INDUSTRY

CATALOGUE

VALID AS OF JULY 2016

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, care & health as well as medical photo-therapy.

Since its foundation in 1928, its headquarters are located in Villingen-Schwenningen – today Waldmann has sales and production sites in 12 nations and 900 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.


TWIN-C
MCi 16.1

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


TWIN-C

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

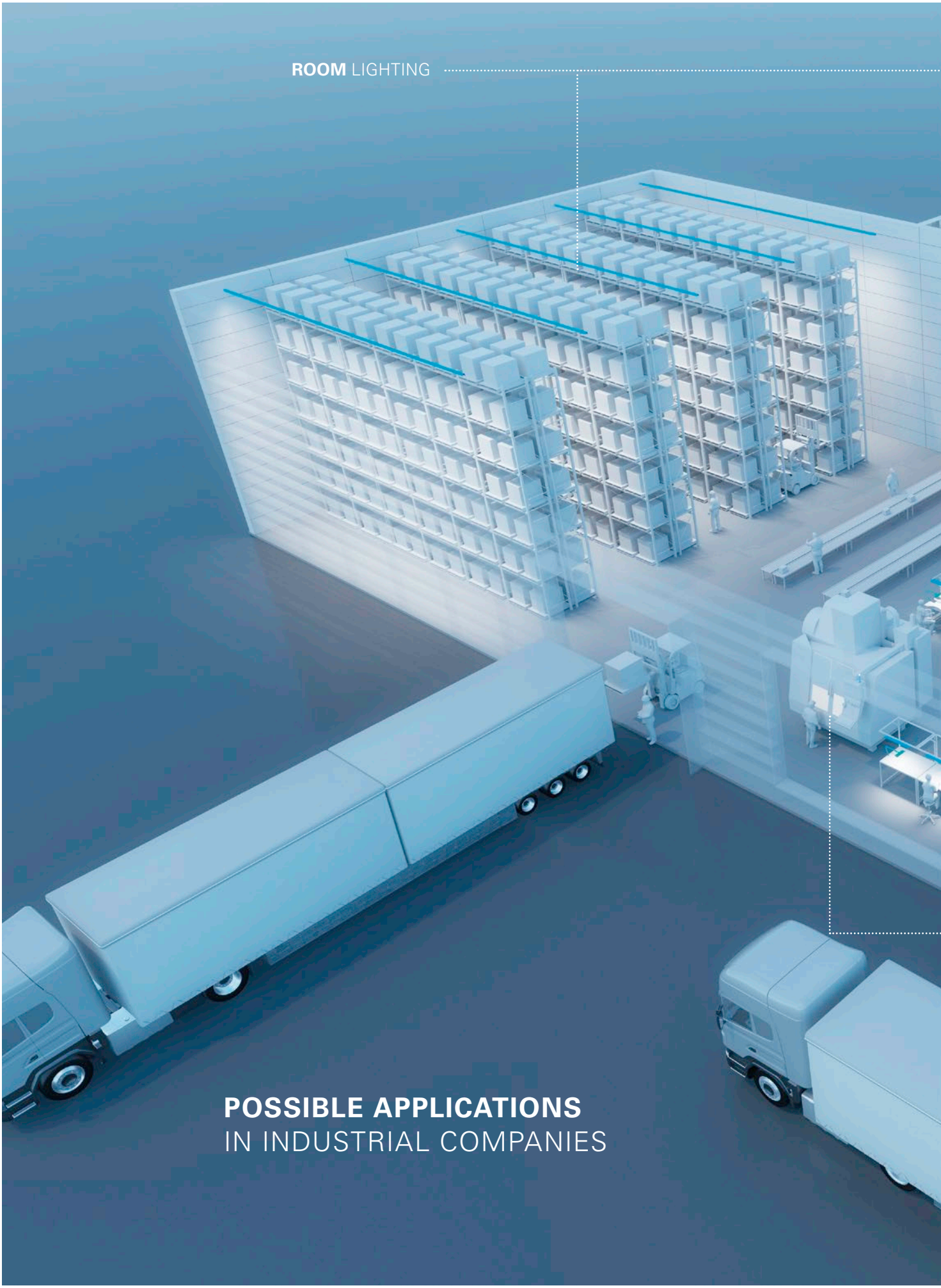
Waldmann assists you with flexible system solutions for different room situations. Especially production and logistics halls require very sophisticated light solutions. Waldmann lighting concepts meet a wide range of lighting needs, guarantee high flexibility and help save energy.

Workplace lighting – human beings come first

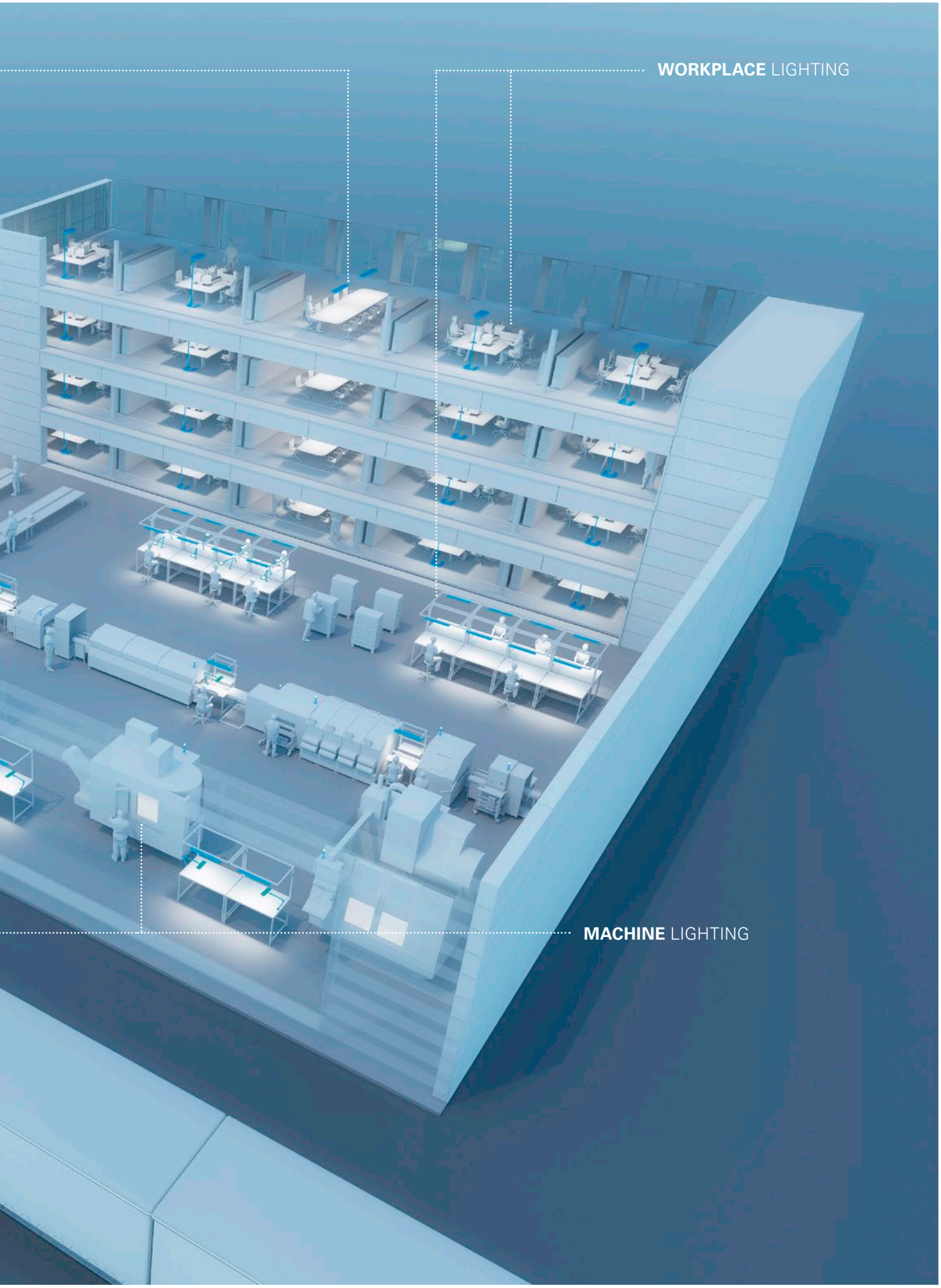
Waldmann's workplace lighting is guided by a simple principle: If the employee is well, this is good for the company. Even in a high-tech world, the human being is still at the centre of all work processes. Waldmann integrates his/her needs and requirements into optimum workplace lighting.

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.



POSSIBLE APPLICATIONS
IN INDUSTRIAL COMPANIES


WORKPLACE LIGHTING
MACHINE LIGHTING

ROOM LIGHTING

Production hall

WORKPLACE LIGHTING

Assembly workplace

Laboratory workplace

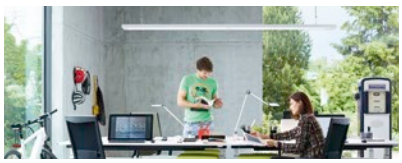
MACHINE LIGHTING

Machine tools

Track laying machines

Logistics hall

Office



Meeting room

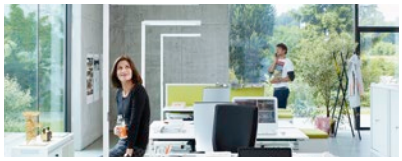
Electronics workplace

Workshop workplace

Inspection workplace

Watchmaker workplace

Office workplace



Textile machines

Printing machines

Packaging machines

Woodworking machines

Production facilities

ROOM LIGHTING

Production hall

TAUREO
20

ACANEO
24

Office

LAVIGO
30

Logistics hall

TAUREO
20

ACANEO
24

Meeting room

LAVIGO
30

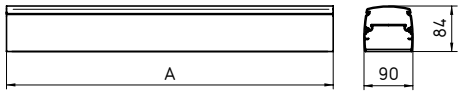
LED

TAUREO
FLEXIBLE LIGHTING WITH SYSTEM

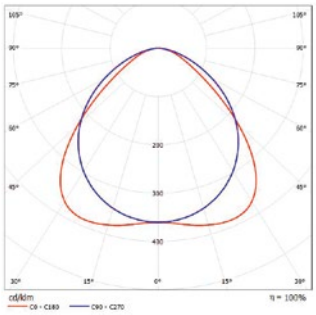
TAUREO emphasises the importance of Waldmann as quality brand for high-quality lighting solutions at the workplace: Via this new LED continuous-row system, the Engineer of Light addresses the hall lighting topic and supplements his concept of intelligent lighting solutions for industry by another convincing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

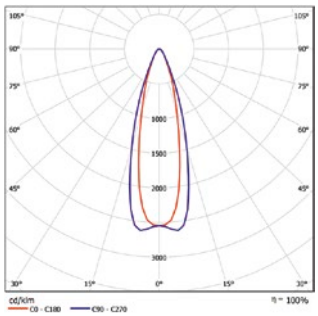
- Light modules with premium LEDs
- Variants of up to 4 700 lumen
- Ambient temperature up to + 55 ° C
- Energy saving of 50 % compared with conventional luminaires
- Maintenance-free: LED service life up to 60 000 hours (L80B10) and more
- Continuous dimming and daylight and presence sensors as option
- 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



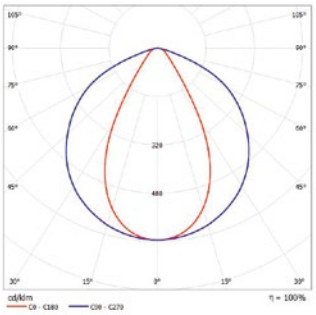
A = 600 mm, 1200 mm, 3000 mm or 4200 mm



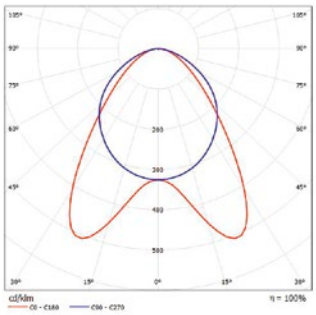
Wide-beam for hall heights of approx. 4–6 m, W optics



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



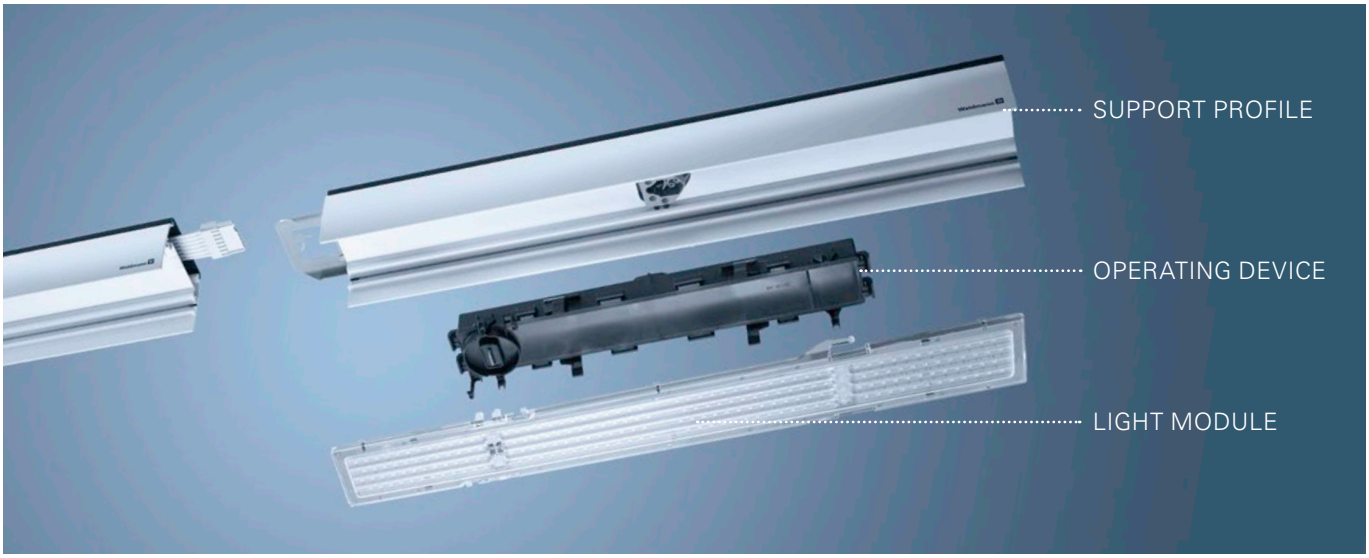
Narrow-beam for hall heights of approx. 6–10 m, N optics



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 3,300 lm, 4,000 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 mm^2
- 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	4000K	28 W	H10 000 059 - 006 211 82
	4000 lm	5000K	28 W	H10 000 329 - 006 791 60
	4000 lm	6500K	28 W	H10 000 289 - 006 462 49
	4700 lm	4000K	33 W	H10 000 399 - 006 959 38
	4700 lm	5000K	33 W	H10 000 409 - 006 959 41
	4700 lm	6500K	33 W	H10 000 419 - 006 959 44
 N optics	4000 lm	4000K	28 W	H10 000 049 - 006 211 74
	4000 lm	5000K	28 W	H10 000 469 - 006 960 05
	4000 lm	6500K	28 W	H10 000 279 - 006 462 46
	4700 lm	4000K	33 W	H10 000 489 - 006 960 11
	4700 lm	5000K	33 W	H10 000 499 - 006 960 14
	4700 lm	6500K	33 W	H10 000 509 - 006 960 17
 xN optics	4000 lm	4000K	28 W	H10 000 249 - 006 296 24
	4000 lm	5000K	28 W	H10 000 559 - 006 960 32
	4000 lm	6500K	28 W	H10 000 269 - 006 462 43
	4700 lm	4000K	33 W	H10 000 579 - 006 960 38
	4700 lm	5000K	33 W	H10 000 589 - 006 960 41
	4700 lm	6500K	33 W	H10 000 599 - 006 960 44
 D optics	4000 lm	4000K	28 W	H10 000 069 - 006 211 91
	4000 lm	5000K	28 W	H10 000 649 - 006 960 60
	4000 lm	6500K	28 W	H10 000 299 - 006 462 52
	4700 lm	4000K	33 W	H10 000 669 - 006 960 67
	4700 lm	5000K	33 W	H10 000 679 - 006 960 70
	4700 lm	6500K	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	dimmable 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

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 60 000 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 constant light output (CLO)

ACANEO
ROBUST. LONG SERVICE LIFE. EFFICIENT.

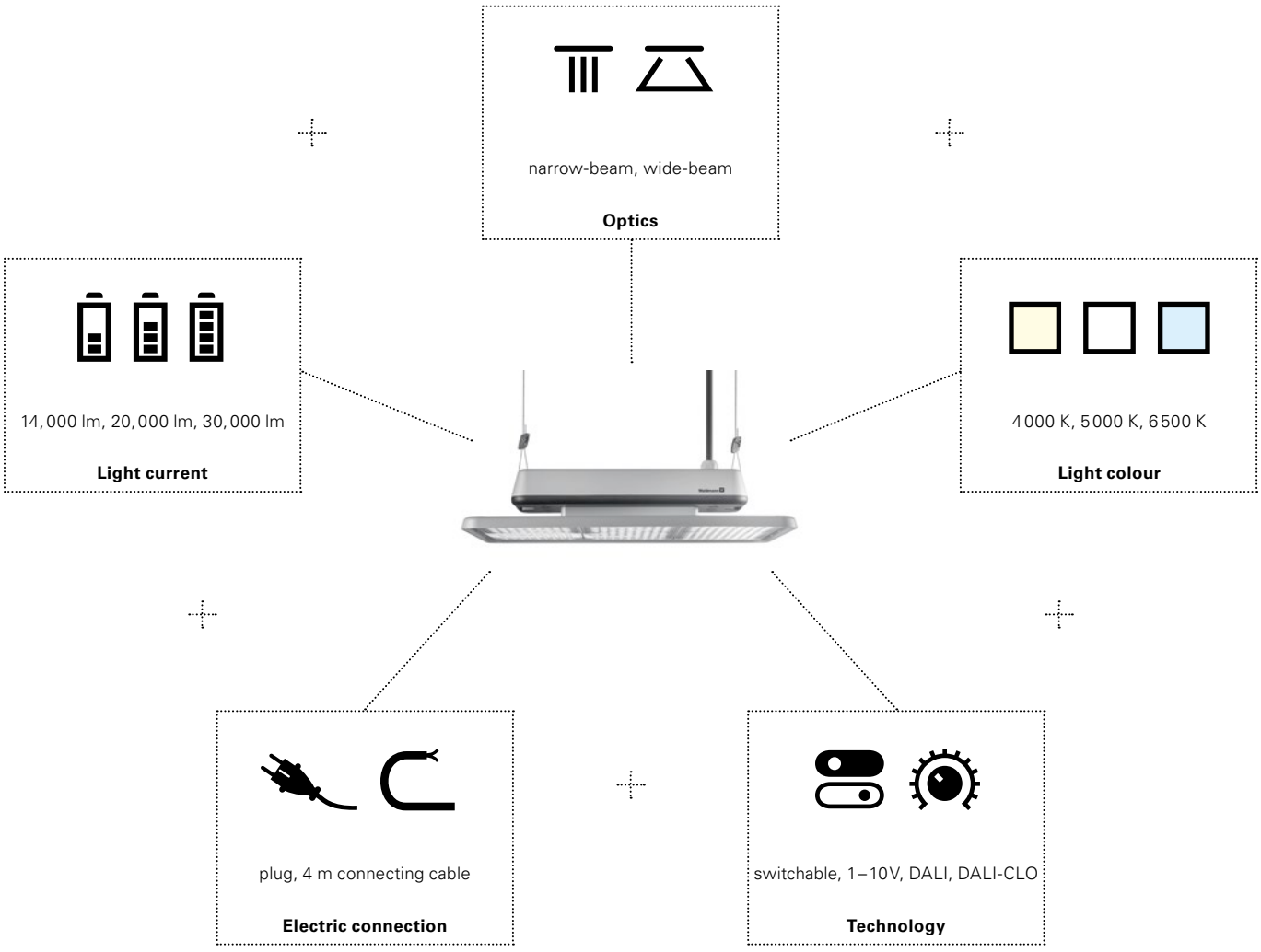
Light technology in a new dimension
ACANEO is the right solution for different room situations: Waldmann offers the luminous flux package that matches different room heights and illuminance levels. The optics was developed with a view to achieving minimum glare and maximum homogeneity in the focus, which we managed to do convincingly (UGR < 21). 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 60000 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.

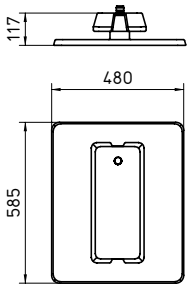
Simple mounting, high intelligence
Compared with conventional high bay luminaires, ACANEO provides its first cost savings already prior to being put into operation: Completely premounted and equipped with mains lead, the two suspension points at the ceiling can be combined to a single-point suspension. 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.

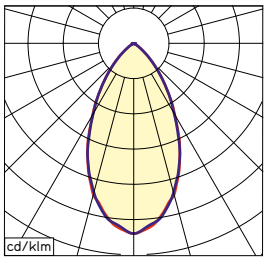
ACANEO MODULAR DESIGN SYSTEM
CUSTOMIZED LIGHTING – JUST CONFIGURE IT YOURSELF



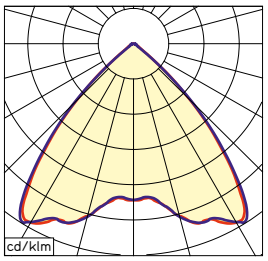
ACANEO stands for maximum flexibility: To allow you to tune the light to your room situation, the environment and the tasks to be carried out, Waldmann offers you the ACANEO configurator: Our product developers have designed ACANEO in such a way that a large number of components can be used in various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



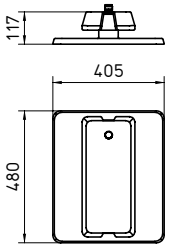
W optics

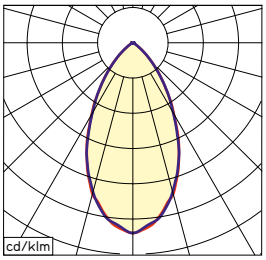
ACANEO at a glance

- 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
- Degree of protection IP65; protection class I
- Overvoltage resistance 4 kV
- 5-year warranty
- Dimensions housing size: 585 mm x 480 mm x 117 mm
- Weight 10.8 kg

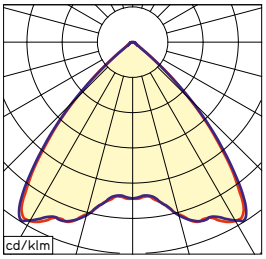
Production hall Logistics hall

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	113 206 000 - 006 823 93 113 233 000 - 006 824 79
narrow-beam	4000 K	switchable	HIAL 30000/840/N/EA	113 331 000 - 006 926 70 113 349 000 - 006 927 30
narrow-beam	5000 K	DALI	HIAL 30000/850/N/DALI	113 207 000 - 006 823 97 113 234 000 - 006 824 82
narrow-beam	5000 K	switchable	HIAL 30000/850/N/EA	113 332 000 - 006 926 73 113 350 000 - 006 927 33
wide-beam	4000 K	DALI	HIAL 30000/840/W/DALI	113 373 000 - 006 928 52 113 400 000 - 006 929 37
wide-beam	4000 K	switchable	HIAL 30000/840/W/EA	113 421 000 - 006 929 99 113 439 000 - 006 930 57
wide-beam	5000 K	DALI	HIAL 30000/850/W/DALI	113 374 000 - 006 928 55 113 401 000 - 006 929 40
wide-beam	5000 K	switchable	HIAL 30000/850/W/EA	113 422 000 - 006 930 02 113 440 000 - 006 930 60





N optics



W optics

ACANEO at a glance

- Net luminous flux package 14000 lm (replaces > 250 W-HQL)
- Net luminous flux package 20000 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 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
- Degree of protection IP65; protection class I
- Overvoltage resistance 4 kV
- 5-year warranty
- Dimensions housing size: 480 mm x 405 mm x 117 mm
- Weight 8.2 kg

Production hall Logistics hall

Luminous flux 14000 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 14000/840/N/DALI	113 188 000 - 006 822 60 113 215 000 - 006 824 22
narrow-beam	4000 K	switchable	HIAL 14000/840/N/EA	113 319 000 - 006 926 34 113 337 000 - 006 926 89
narrow-beam	5000 K	DALI	HIAL 14000/850/N/DALI	113 189 000 - 006 822 63 113 216 000 - 006 824 25
narrow-beam	5000 K	switchable	HIAL 14000/850/N/EA	113 320 000 - 006 926 37 113 338 000 - 006 926 92
wide-beam	4000 K	DALI	HIAL 14000/840/W/DALI	113 355 000 - 006 927 51 113 382 000 - 006 928 79
wide-beam	4000 K	switchable	HIAL 14000/840/W/EA	113 409 000 - 006 929 66 113 427 000 - 006 930 17
wide-beam	5000 K	DALI	HIAL 14000/850/W/DALI	113 356 000 - 006 927 54 113 383 000 - 006 928 82
wide-beam	5000 K	switchable	HIAL 14000/850/W/EA	113 410 000 - 006 929 69 113 428 000 - 006 930 20

Production hall Logistics hall

Luminous flux 20000 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 20000/840/N/DALI	113 197 000 - 006 822 88 113 224 000 - 006 824 52
narrow-beam	4000 K	switchable	HIAL 20000/840/N/EA	113 325 000 - 006 926 52 113 343 000 - 006 927 07
narrow-beam	5000 K	DALI	HIAL 20000/850/N/DALI	113 198 000 - 006 822 91 113 225 000 - 006 824 55
narrow-beam	5000 K	switchable	HIAL 20000/850/N/EA	113 326 000 - 006 926 55 113 344 000 - 006 927 10
wide-beam	4000 K	DALI	HIAL 20000/840/W/DALI	113 364 000 - 006 927 79 113 391 000 - 006 929 09
wide-beam	4000 K	switchable	HIAL 20000/840/W/EA	113 415 000 - 006 929 84 113 433 000 - 006 930 35
wide-beam	5000 K	DALI	HIAL 20000/850/W/DALI	113 365 000 - 006 927 82 113 392 000 - 006 929 12
wide-beam	5000 K	switchable	HIAL 20000/850/W/EA	113 416 000 - 006 929 87 113 434 000 - 006 930 38

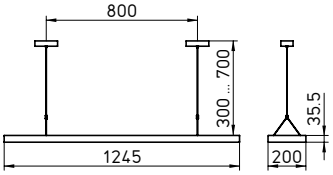
Variants with a temperature resistance of 70° C upon request

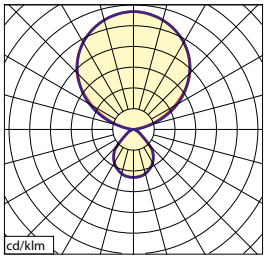
LED

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 with Light Forming Technology for uniform light distribution
- Connection to DALI light management systems
- Easy mounting, operating devices integrated into the luminaire





LAVIGO at a glance

- Luminaire light output approx. 114 lm/W
- Light distribution (direct/indirect) approx. 22 %/78 %
- Luminance < 2800 cd/m²
- UGR < 16
- 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 **Power**	**Technology** **Connected load**	**Model** **Light colour**	**Order no. white** **Order no. silver**
9200 lm 81 W	DALI 220 – 240 V, 50/60 Hz	DPP 288/D neutral white 4000 K	121 740 000 - 006 787 44 121 740 000 - 006 787 47

WORKPLACE LIGHTING

Assembly workplace


TANEO
34


SNE
38


MINELA
42


TEVISIO
44


RING LED
48


SNLQ
50


TANEO
52


TANEO
54


TAMETO
56


TAMETO
58


TAMETO
60


TAMETO
62


ALE
64


SINEO
66

Electronics workplace


TANEO
34


TEVISIO
44


SNLQ
50


TANEO
52


TANEO
54


TAMETO
60


TAMETO
62

Workshop workplace


TANEO
34


SNE
38


MINELA
42


TEVISIO
44


RING LED
48


SNLQ
50


TAMETO
56


TAMETO
60

Laboratory workplace


TANEO
34


SNE
38


TEVISIO
44


SNLQ
50


TANEO
52


TANEO
54


TAMETO
56


TAMETO
60

Inspection workplace


TANEO
34


SNE
38


MINELA
42


TEVISIO
44


RING LED
48


SNLQ
50


TAMETO
56


TAMETO
60


ALE
64

Watchmaker workplace


TANEO
34


SNE
38


TEVISIO
44

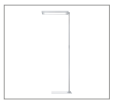

SNLQ
50

Office workplace


TANEO
34


AVENUE
40


MINELA
42

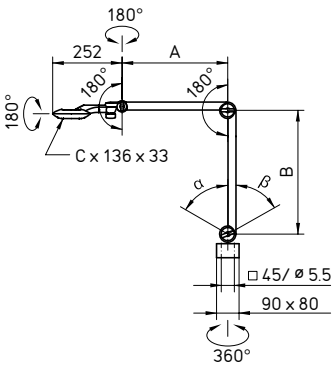

LAVIGO
68

LED

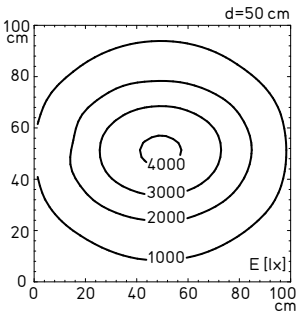
TANEO
OPTIMUM VISIBILITY

TANEO 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, TANEO 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:
α = 60°, β = 0°
Any other designs:
α = 110°, β = 20°



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 (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 I
- 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 7/16 (Euro connector)
- 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	plug-in power supply	A = 384 mm, B = 400 mm, C = 218 mm	563 lx[1]	STZL 12 R
14 W	100 – 240 V, 50/60 Hz	CDP screen, 4000 K, colourless anodised	1569 lx[1]	112 576 000 - 005 441 67
LED	plug-in power supply	A = 384 mm, B = 400 mm, C = 218 mm	563 lx[1]	STZL 12 R
14 W	100 – 240 V, 50/60 Hz	CDP screen, 5000 K, colourless anodised	1569 lx[1]	112 576 000 - 005 397 57
LED	table power supply	A = 384 mm, B = 400 mm, C = 398 mm	1137 lx[1]	STZL 24 R
24 W	100 – 240 V, 50/60 Hz	CDP screen, 4000 K, colourless anodised	3053 lx[1]	112 577 000 - 005 441 79
LED	table power supply	A = 384 mm, B = 400 mm, C = 398 mm	1137 lx[1]	STZL 24 R
24 W	100 – 240 V, 50/60 Hz	CDP screen, 5000 K, colourless anodised	3053 lx[1]	112 577 000 - 005 397 74
LED	table power supply	A = 384 mm, B = 400 mm, C = 577 mm	1641 lx[1]	STZL 36 R
34 W	100 – 240 V, 50/60 Hz	CDP screen, 4000 K, colourless anodised	4046 lx[1]	112 578 000 - 005 441 82
LED	table power supply	A = 384 mm, B = 400 mm, C = 577 mm	1641 lx[1]	STZL 36 R
34 W	100 – 240 V, 50/60 Hz	CDP screen, 5000 K, colourless anodised	4046 lx[1]	112 578 000 - 005 397 77

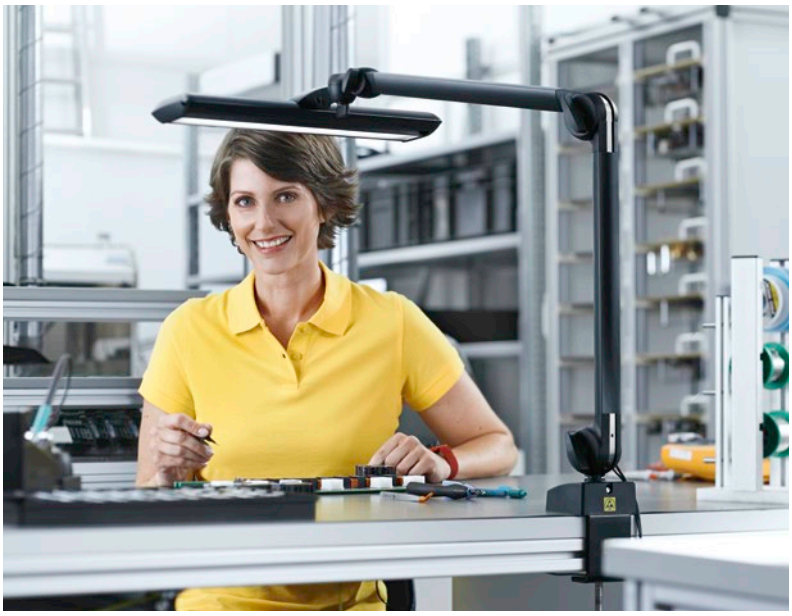
* E_m = medium illuminance; E_{max} = maximum illuminance; [1] measuring field 100 cm x 100 cm/measuring distance 50 cm

Inspection workplace Laboratory workplace

Fitted with Power	Operating device Connected load	Dimensions Special feature	E_m E_{max} *	Model Order no.
LED	plug-in power supply	A = 384 mm, B = 400 mm, C = 218 mm	361 lx[1]	STZL 12 R
14 W	100 – 240 V, 50/60 Hz	white opal screen, 4000 K, colourless anodised	816 lx[1]	112 576 000 - 005 595 52
LED	plug-in power supply	A = 384 mm, B = 400 mm, C = 218 mm	361 lx[1]	STZL 12 R
14 W	100 – 240 V, 50/60 Hz	white opal screen, 5000 K, colourless anodised	816 lx[1]	112 576 000 - 005 595 71
LED	table power supply	A = 384 mm, B = 400 mm, C = 398 mm	725 lx[1]	STZL 24 R
24 W	100 – 240 V, 50/60 Hz	white opal screen, 4000 K, colourless anodised	1578 lx[1]	112 577 000 - 005 595 74
LED	table power supply	A = 384 mm, B = 400 mm, C = 398 mm	725 lx[1]	STZL 24 R
24 W	100 – 240 V, 50/60 Hz	white opal screen, 5000 K, colourless anodised	1578 lx[1]	112 577 000 - 005 595 77
LED	table power supply	A = 384 mm, B = 400 mm, C = 577 mm	1082 lx[1]	STZL 36 R
34 W	100 – 240 V, 50/60 Hz	white opal screen, 4000 K, colourless anodised	2219 lx[1]	112 578 000 - 005 595 80
LED	table power supply	A = 384 mm, B = 400 mm, C = 577 mm	1082 lx[1]	STZL 36 R
34 W	100 – 240 V, 50/60 Hz	white opal screen, 5000 K, colourless anodised	2219 lx[1]	112 578 000 - 005 595 83

* 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	1016 lx[1] 2671 lx[1]	STZL 24 AR 113 020 000 - 005 645 43
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	1016 lx[1] 2671 lx[1]	STZL 24 AR 113 020 000 - 005 645 62

* 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] 1578 lx[1]	STZL 24 R 113 085 000 - 005 832 20

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

Office workplace

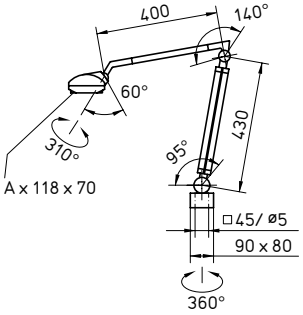
Fitted with Power	Operating device Connected load	Dimensions Special feature	E_m E_{max} *	Model Order no.
LED 14 W	plug-in power supply 100 – 240 V, 50/60 Hz	A = 384 mm, B = 400 mm, C = 218 mm CDP screen, 4000 K, painted white	563 lx[1] 1569 lx[1]	STZL 12 R 112 576 000 - 005 760 91

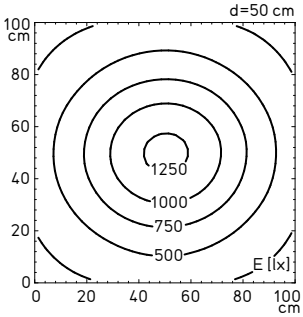
* E_m = medium illuminance; E_{max} = maximum illuminance; [1] measuring field 100 cm x 100 cm/measuring distance 50 cm

Also available as workplace-system luminaires

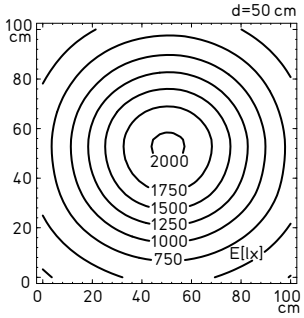
SNE comfortably improves efficiency. And "efficiency" is nowadays far more than just a buzzword, it is an essential target in industry and trade. With its state-of-the-art fluorescent lamp technology, it provides a high level of efficiency. Its cleverly designed arm also ensures a radius of action that easily directs the light to where you want to have it.

- Energy-efficient fluorescent lamp technology
- Ultra low-glare, homogeneous light with soft transitions
- Quick and precise positioning
- Ergonomically shaped T-screws for arm adjustment without tools
- Luminaire head that remains cool
- Optimum work results through application-oriented selection of screens





Illuminance based on the example
1 x 36 W with screen



Illuminance based on the example
1 x 36 W with parabolic louvre

SNE at a glance

- Fluorescent lamp technology
- Colour temperature neutral white 4000 K
- Colour rendering Ra > 80
- Glare-free thanks to aluminiumised parabolic louvre or white opal screen
- Housing made of light-grey plastic
- PC screen or ABS parabolic louvre
- Spring-loaded arm
- Switch in the luminaire head for On/Off
- Degree of protection IP20, protection class I
- Supplied with approx. 1.5 m connecting cable and plug, type CEE 7/7 (grounded plug)
- Various fasteners and additional magnifier (3 dioptres) as accessories

Inspection workplace | Laboratory workplace | Watchmaker workplace

Fitted with Power	Technology Connected load	Dimensions Special feature	E_m E_{max} *	Model Order no.
TC-L	integrated electronic ballast	A = 308 mm	281 lx[1]	SNE 118
1 x 18 W	220 – 240 V, 50/60 Hz	white opal screen	633 lx[1]	111 581 002 - 000 955 97
TC-L	integrated electronic ballast	A = 485 mm	597 lx[1]	SNE 136
1 x 36 W	220 – 240 V, 50/60 Hz	white opal screen	1268 lx[1]	111 591 002 - 000 955 95

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

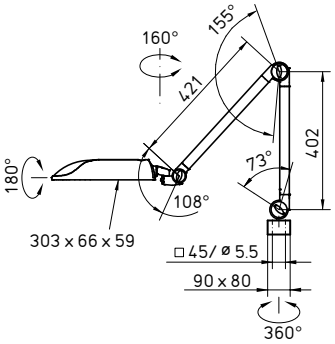
Assembly workplace | Workshop workplace

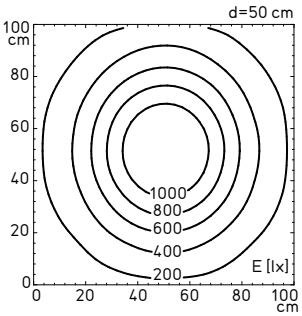
Fitted with Power	Technology Connected load	Dimensions Special feature	E_m E_{max} *	Model Order no.
TC-L	integrated electronic ballast	A = 308 mm	415 lx[1]	SNE 118
1 x 18 W	220 – 240 V, 50/60 Hz	parabolic louvre	946 lx[1]	111 581 000 - 000 589 89
TC-L	integrated electronic ballast	A = 485 mm	933 lx[1]	SNE 136
1 x 36 W	220 – 240 V, 50/60 Hz	parabolic louvre	2010 lx[1]	111 591 000 - 000 718 46

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

AVENUE is an optimal additional light source for supporting demanding activities at the workplace. There it provides extremely valuable services and improves visual comfort. Thanks to the moving arm, its LED light can be precisely adjusted and creates ergonomic work conditions.

- Maintenance-free LED technology
- Area light free of shadows and glare caused by reflection
- Light exit with conical prismatic structure for perfect glare-free lighting
- Closed design for protecting the user and the integrated technology
- Moving arm with 3D head joint





Illuminance 8 W

AVENUE at a glance

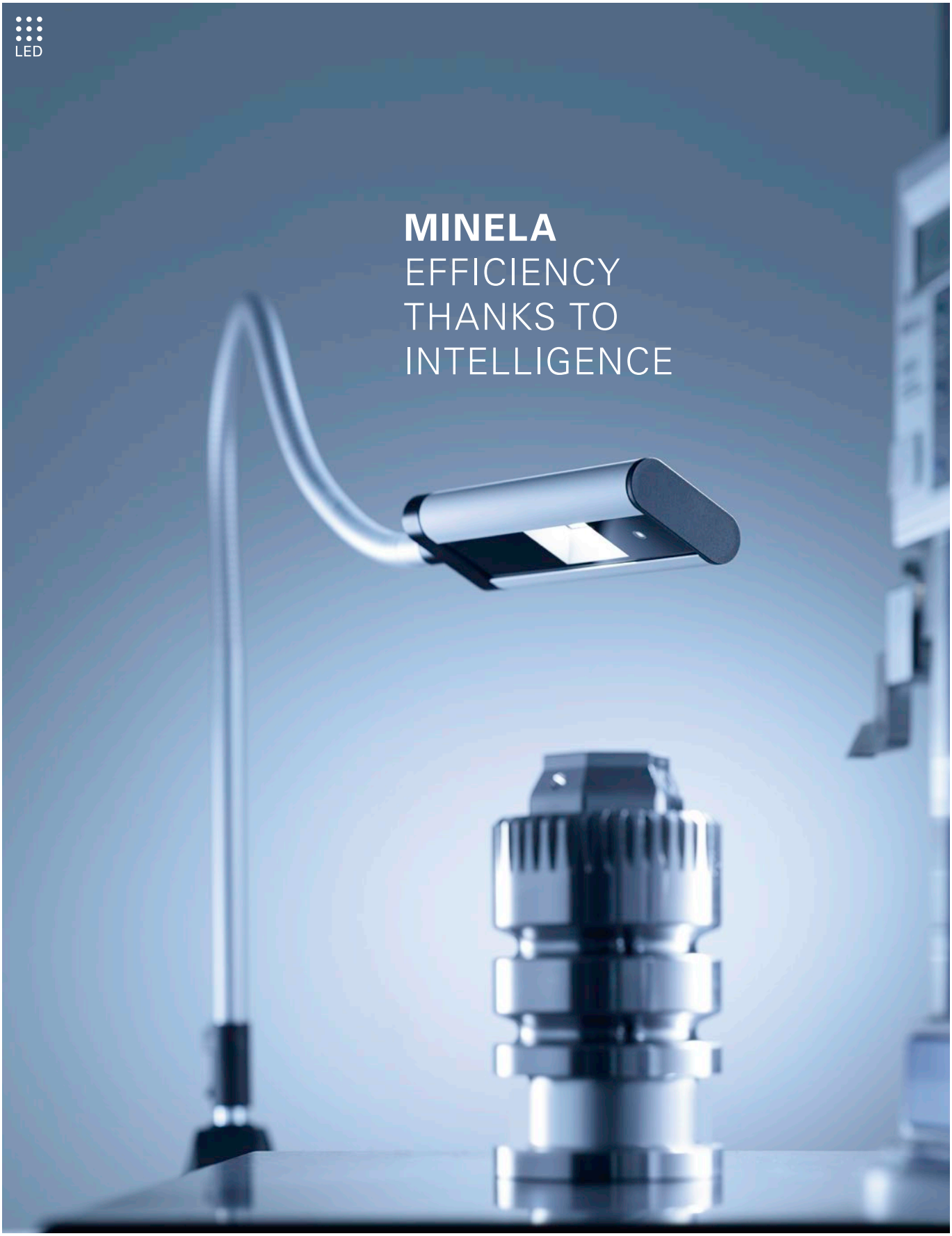
- LED technology
- Colour temperature neutral white 4000 K
- Colour rendering Ra > 80
- Glare-free thanks to conical prismatic screen (CDP)
- Housing made of colourless anodised aluminium or black and silver-grey plastic
- PMMA screen
- Spring-loaded arm with 3D head joint
- Switch in the luminaire head for On/Off
- Degree of protection IP20; protection class I
- Supplied with approx. 3 m connecting cable and plug-in power supply with plug type CEE 7/16 (Euro plug)
- Various fasteners as accessories

Office workplace

Fitted with Power	Operating device Connected load	Dimensions Special feature	E_m E_{max} *	Model Order no.
LED 8 W	plug-in power supply 100 – 240 V, 50/60 Hz	– –	457 lx[1] 1243 lx[1]	AVE 18 113 105 000 - 006 808 27

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

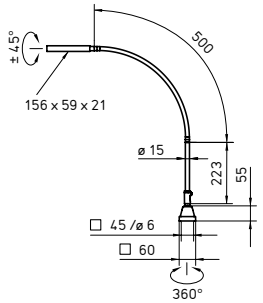
LED

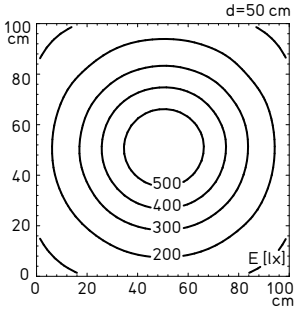


MINELA
EFFICIENCY THANKS TO INTELLIGENCE

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





Illuminance 7 W

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 I
- 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

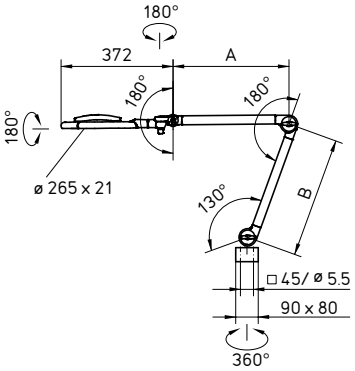
* E_m = medium illuminance; E_{max} = maximum illuminance; [1] measuring field 100 cm x 100 cm/measuring distance 50 cm

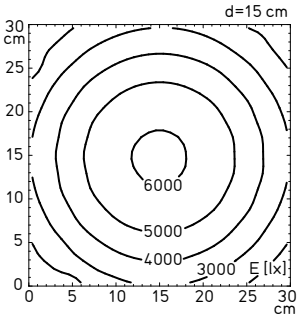
TEVISIO
NO. 1 FOR
MOBILITY & VISUAL QUALITY

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 ø 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 I
- Supplied with approx. 3 m connecting cable and plug-in power supply with plug type CEE 7/16 (Euro 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

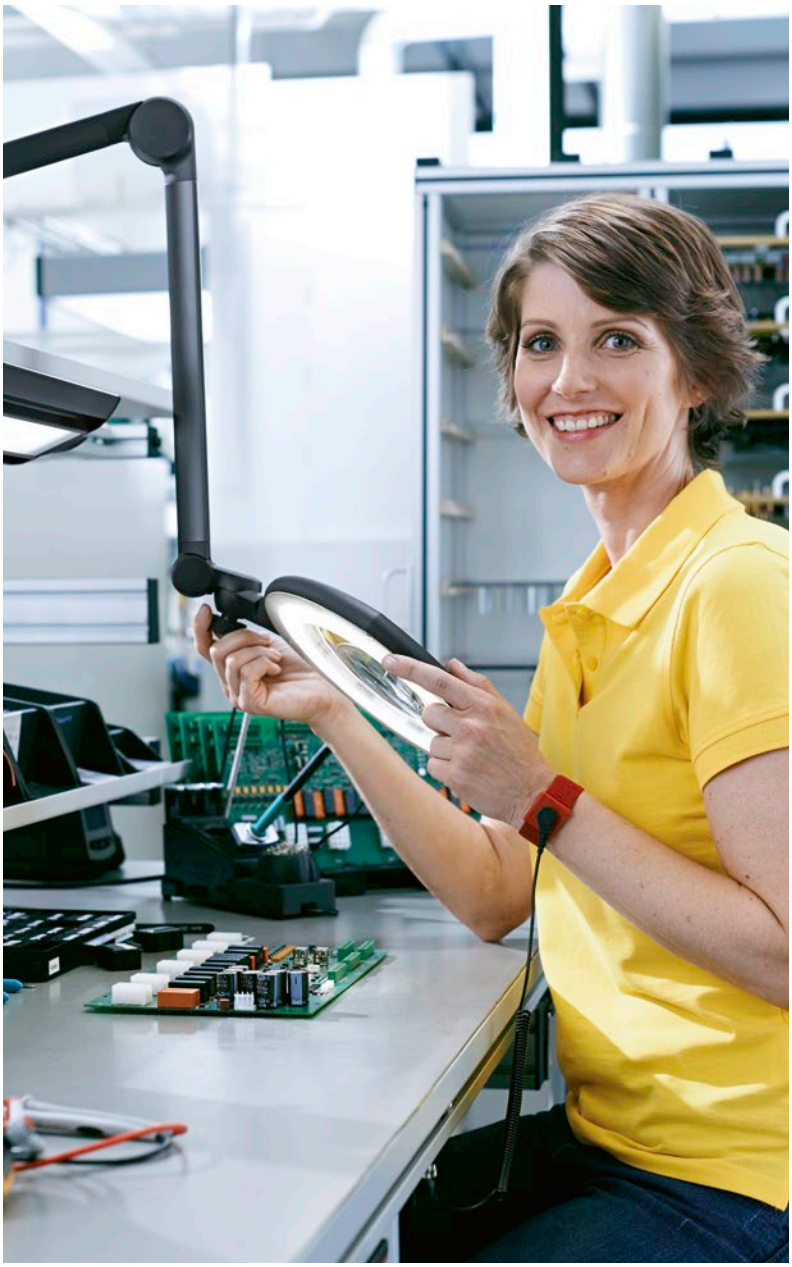
Fitted with Power	Operating device Connected load	Dimensions Special feature	E_m E_{max} *	Model Order no.
LED 14 W	plug-in power supply 100 – 240 V, 50/60 Hz	A = 484 mm, B = 500 mm –	4002 lx[1] 6141 lx[1]	RLLQ 48 R 112 918 000 - 004 908 93
LED 14 W	plug-in power supply 100 – 240 V, 50/60 Hz	A = 484 mm, B = 500 mm anti-glare lens	4002 lx[1] 6141 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	4002 lx[1] 6141 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 –	4002 lx[1] 6141 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	4002 lx[1] 6141 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	4002 lx[1] 6141 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	4002 lx[1] 6141 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	4002 lx[1] 6141 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	4002 lx[1] 6141 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	4002 lx[1] 6141 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	4002 lx[1] 6141 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	4002 lx[1] 6141 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	3089 lx[1] 4636 lx[1]	RLLQ 48/2 AR 113 015 000 - 005 61 675
LED 14 W	plug-in power supply 100 – 240 V, 50/60 Hz	A = 384 mm, B = 400 mm visualizer	3089 lx[1] 4636 lx[1]	RLLQ 48/2 AR 113 016 000 - 005 616 85

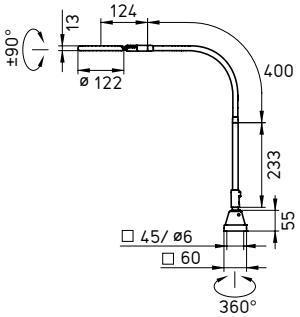
* E_m = medium illuminance; E_{max} = maximum illuminance; [1] measuring field 30 cm x 30 cm/measuring distance 15 cm

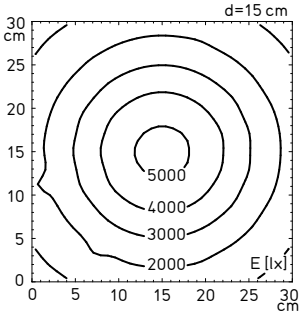
LED

RING LED
EXACT LIGHT FOR EXACT WORK

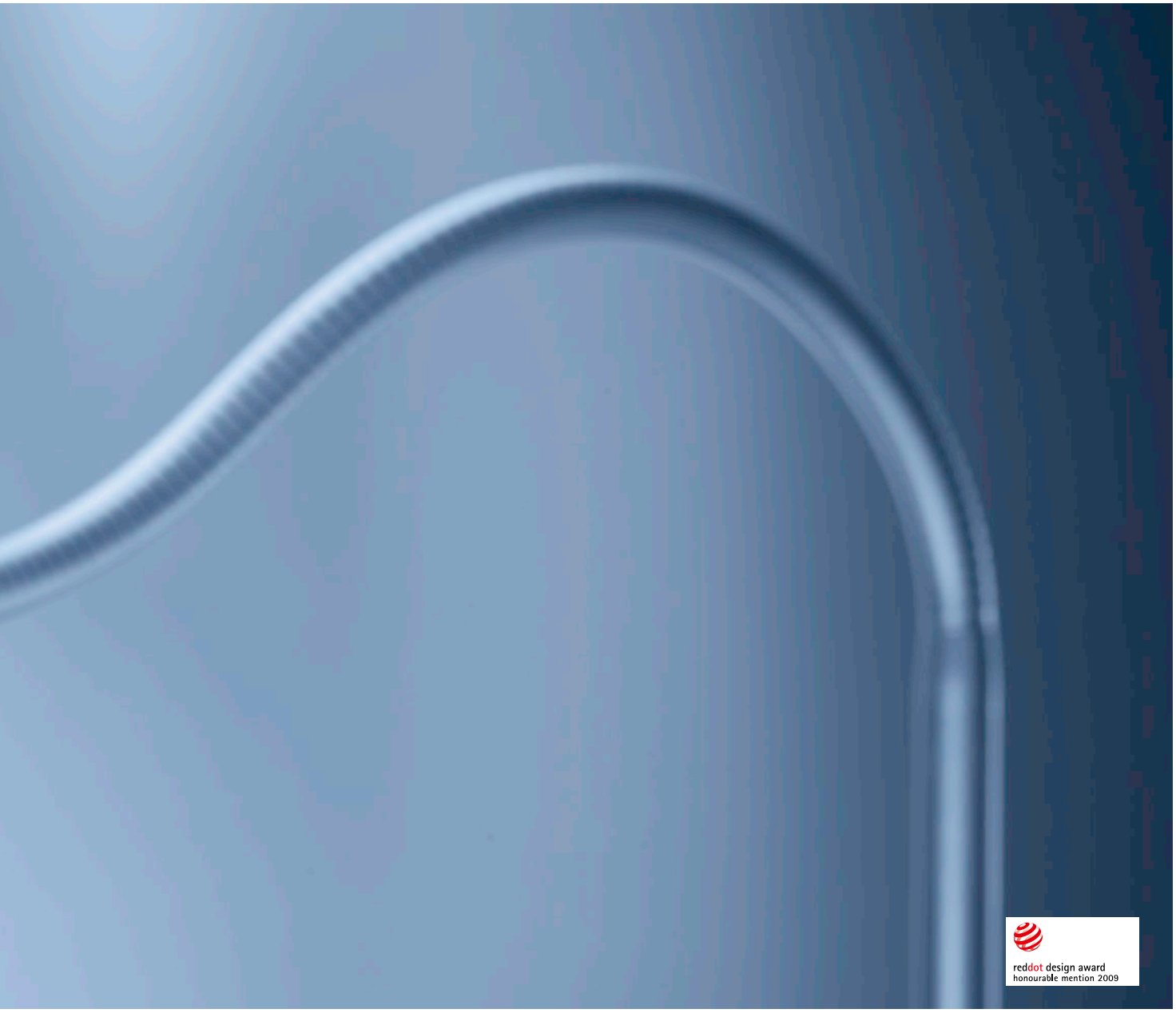
RING LED is the solution for tasks involving miniature parts. When miniature parts need to be inspected or precisely processed at an industrial workplace, attention to detail is vital. RING LED has the perfect lens – and with its 63 LEDs also the optimum light to meet these requirements. Additional advantage: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





Illuminance 6 W



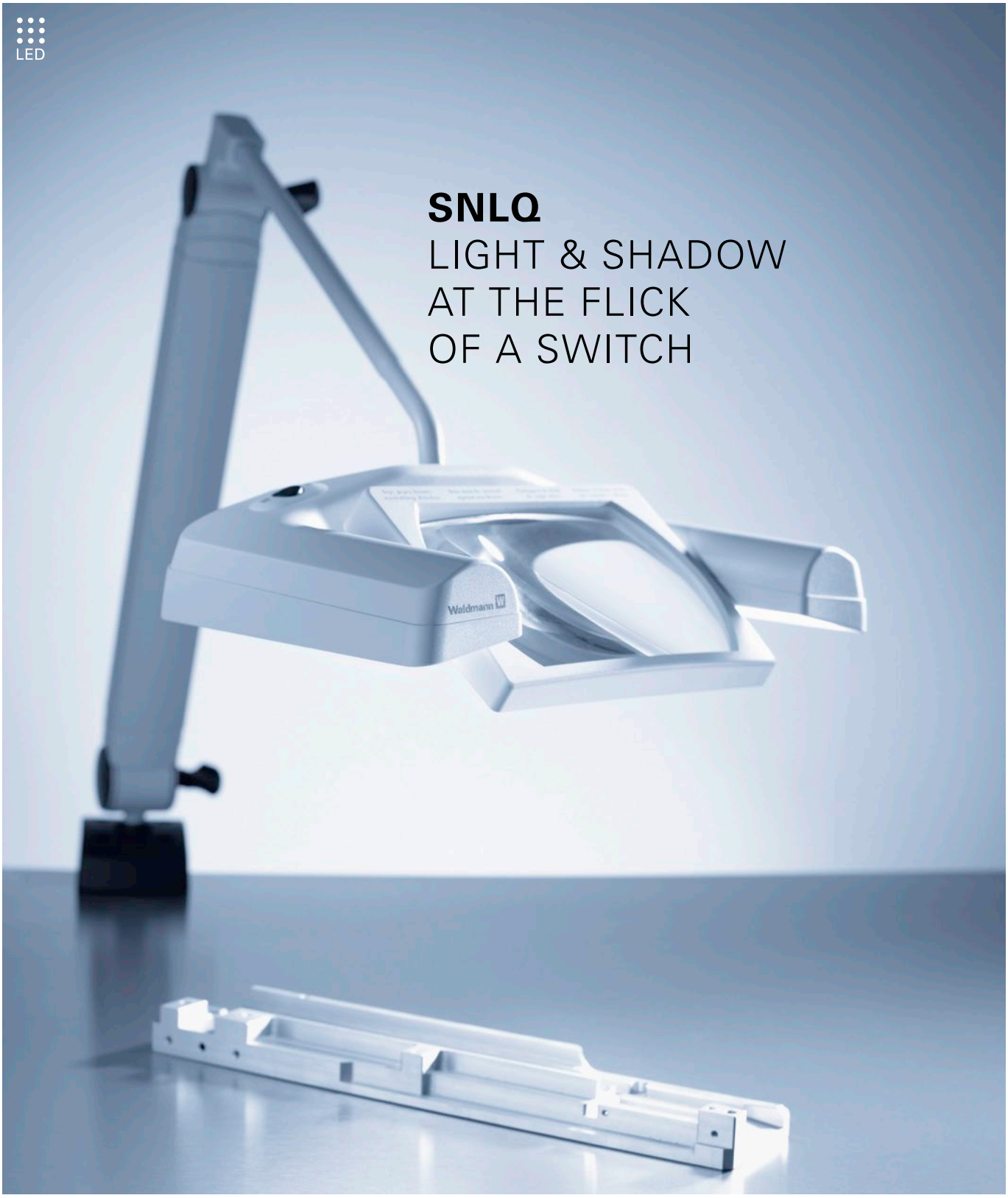
RING LED at a glance

- LED technology
- Colour temperature neutral white 4000 K
- Colour rendering Ra > 80
- Glare-free thanks to satined screen
- Hard-coated plastic lens ø72 mm with 6 dioptres
- 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
- Degree of protection IP20; protection class I
- 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

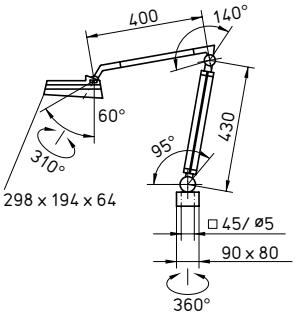
Fitted with **Power**	**Operating device** **Connected load**	**Dimensions** **Special feature**	**E_m** **E_{max} ***	**Model** **Order no.**
LED 6 W	plug-in power supply 100 – 240 V, 50/60 Hz	– –	2663 lx[1] 5282 lx[1]	RLLQ 63 113 142 000 - 006 188 24

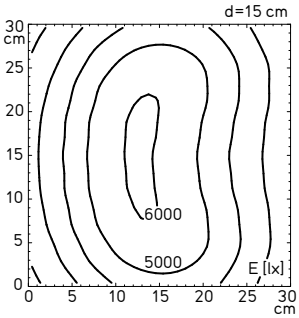
* E_m = medium illuminance; E_{max} = maximum illuminance; [1] measuring field 30 cm x 30 cm/measuring distance 15 cm



SNLQ brings literally "light and shadow": It allows you to use light incidence with significant shadow to recognise certain details. However, the SNLQ 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 dioptres
- 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 dioptres) 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

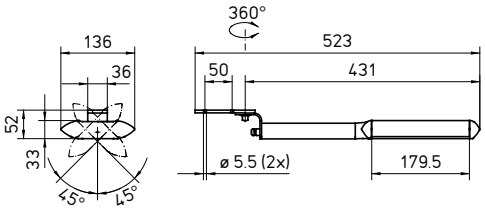
Fitted with Power	Operating device Connected load	Dimensions Special feature	E_m E_{max}*	Model Order no.
LED 13 W	integrated transformer 100/120/220 – 240 V, 50/60 Hz	– –	3363 lx[1] 4912 lx[1]	SNLQ 54/2 A 113 459 000 - 006 955 07

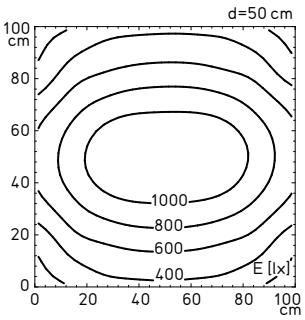
* E_m = medium illuminance; E_{max} = maximum illuminance; [1] measuring field 30 cm x 30 cm/measuring distance 15 cm

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 temperature 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 I
- 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

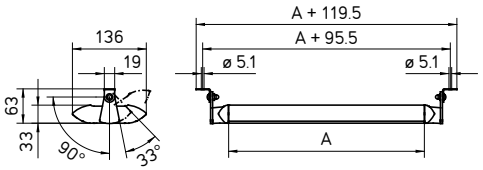
* E_m = medium illuminance; E_{max} = maximum illuminance; [1] measuring field 100 cm x 100 cm/measuring distance 50 cm

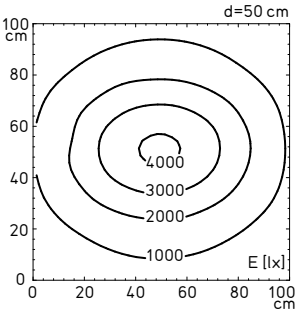
Also available as arm-mounted luminaires

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 7/16 (Euro plug)

Assembly workplace Laboratory workplace

Fitted with Power	Operating device Connected load	Dimensions Special feature	E_m E_{max}*	Model Order no.
LED 24 W	table power supply 100 – 240 V, 50/60 Hz	A = 359.5 mm x 136 mm CDP screen, 4000 K	1137 lx[1] 3053 lx[1]	SARL 24 R 112 992 000 - 005 525 87
LED 24 W	table power supply 100 – 240 V, 50/60 Hz	A = 359.5 mm x 136 mm CDP screen, 5000 K	1137 lx[1] 3053 lx[1]	SARL 24 R 112 992 000 - 005 593 08
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 112 992 000 - 005 593 11
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 112 992 000 - 005 593 15
LED 34 W	table power supply 100 – 240 V, 50/60 Hz	A = 538.5 mm x 136 mm CDP screen, 4000 K	1641 lx[1] 4046 lx[1]	SARL 36 R 112 993 000 - 005 525 93
LED 34 W	table power supply 100 – 240 V, 50/60 Hz	A = 538.5 mm x 136 mm CDP screen, 5000 K	1641 lx[1] 4046 lx[1]	SARL 36 R 112 993 000 - 005 593 18
LED 34 W	table power supply 100 – 240 V, 50/60 Hz	A = 538.5 mm x 136 mm opal white screen, 4000 K	1082 lx[1] 2219 lx[1]	SARL 36 R 112 993 000 - 005 593 21
LED 34 W	table power supply 100 – 240 V, 50/60 Hz	A = 538.5 mm x 136 mm opal white screen, 5000 K	1082 lx[1] 2219 lx[1]	SARL 36 R 112 993 000 - 005 594 45

* 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

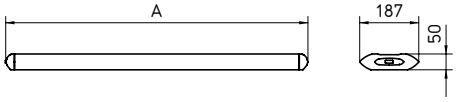
Fitted with Power	Operating device Connected load	Dimensions Special feature	E_m E_{max}*	Model Order no.
LED 24 W	table power supply 100 – 240 V, 50/60 Hz	A = 359.5 mm x 136 mm CDP screen, 4000 K	1016 lx[1] 2671 lx[1]	SARL 24 AR 113 022 000 - 005 645 71
LED 24 W	table power supply 100 – 240 V, 50/60 Hz	A = 359.5 mm x 136 mm CDP screen, 5000 K	1016 lx[1] 2671 lx[1]	SARL 24 AR 113 022 000 - 005 645 75

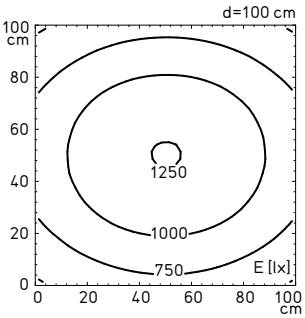
* E_m = medium illuminance; E_{max} = maximum illuminance; [1] measuring field 100 cm x 100 cm/measuring distance 50 cm

Also available as arm-mounted luminaires

TAMETO 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





Illuminance based on the example 26 W LED

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 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

- 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

Assembly workplace | Workshop workplace

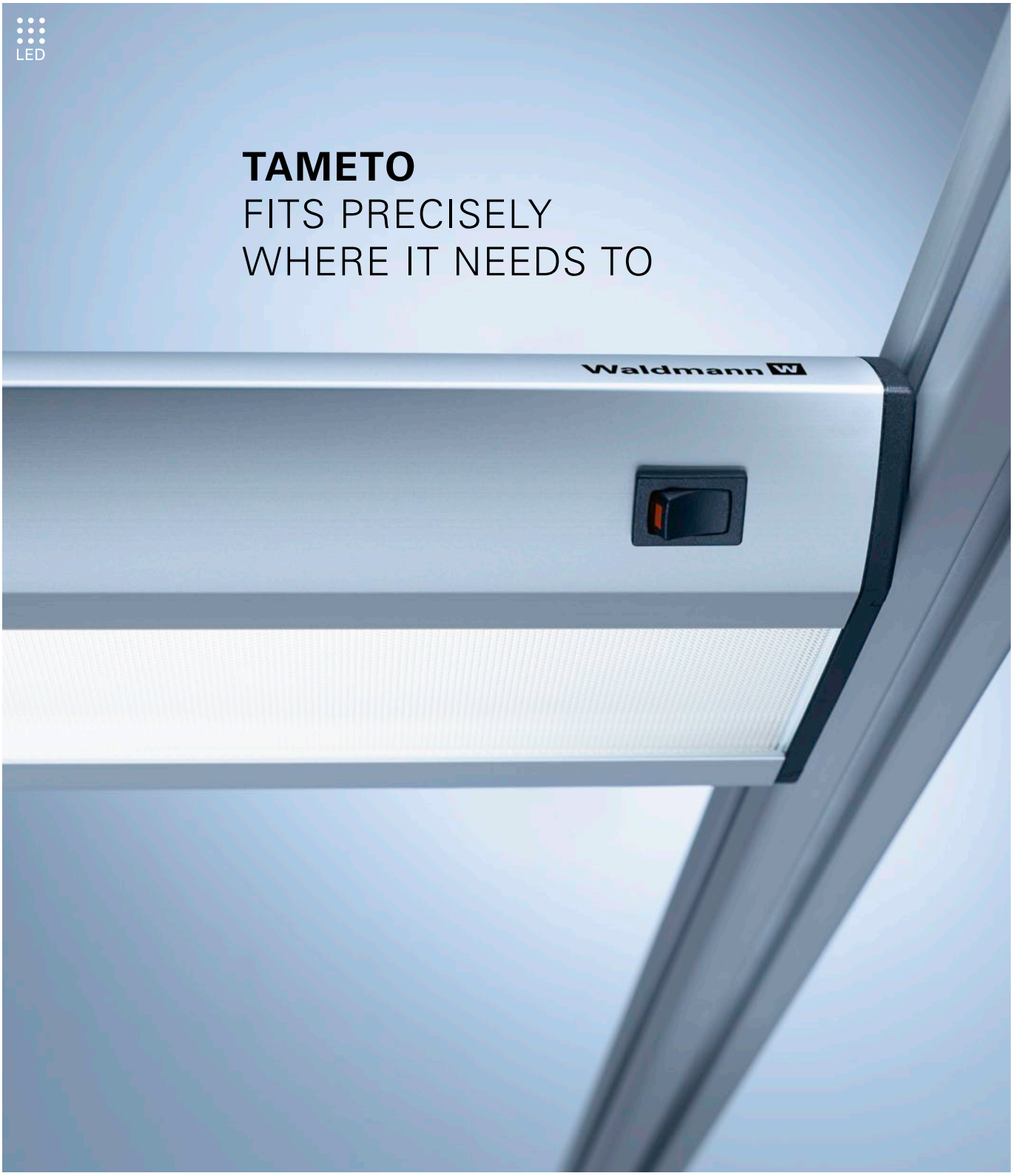
Inspection workplace | Laboratory workplace

Fitted with Power	Operating device Connected load	Dimensions Special feature	E_m E_{max}*	Model Order no.
LED	integrated driver	A = 656 mm x 187 mm	606 lx[1]	SAHQ 44
18 W	220 – 240 V, 50/60 Hz	4000 K	841 lx[1]	112 971 000 - 005 513 37
LED	integrated driver	A = 656 mm x 187 mm	606 lx[1]	SAHQ 44 D
18 W	220 – 240 V, 50/60 Hz	4000 K, through-wired	841 lx[1]	112 971 000 - 005 555 76
LED	integrated driver	A = 656 mm x 187 mm	606 lx[1]	SAHQ 44 R
18 W	220 – 240 V, 50/60 Hz	4000 K, dimmable	841 lx[1]	112 972 000 - 005 513 40
LED	integrated driver	A = 656 mm x 187 mm	606 lx[1]	SAHQ 44 RD
18 W	220 – 240 V, 50/60 Hz	4000 K, dimmable, through-wired	841 lx[1]	112 972 000 - 005 555 80
LED	integrated driver	A = 656 mm x 187 mm	606 lx[1]	SAHQ 44 R
18 W	220 – 240 V, 50/60 Hz	4000 K, dimmable, externally operated	841 lx[1]	113 129 000 - 006 150 52
LED	integrated driver	A = 656 mm x 187 mm	606 lx[1]	SAHQ 44 R
18 W	220 – 240 V, 50/60 Hz	5000 K, dimmable	841 lx[1]	112 972 000 - 006 882 52
LED	integrated driver	A = 656 mm x 187 mm	606 lx[1]	SAHQ 44 R
18 W	220 – 240 V, 50/60 Hz	6500 K, dimmable	841 lx[1]	112 972 000 - 006 882 56
LED	integrated driver	A = 956 mm x 187 mm	922 lx[1]	SAHQ 66
26 W	220 – 240 V, 50/60 Hz	4000 K	1254 lx[1]	112 975 000 - 005 513 49
LED	integrated driver	A = 956 mm x 187 mm	922 lx[1]	SAHQ 66 D
26 W	220 – 240 V, 50/60 Hz	4000 K, through-wired	1254 lx[1]	112 975 000 - 005 556 28
LED	integrated driver	A = 956 mm x 187 mm	922 lx[1]	SAHQ 66 R
26 W	220 – 240 V, 50/60 Hz	4000 K, dimmable	1254 lx[1]	112 976 000 - 005 513 52
LED	integrated driver	A = 956 mm x 187 mm	922 lx[1]	SAHQ 66 RD
26 W	220 – 240 V, 50/60 Hz	4000 K, dimmable, through-wired	1254 lx[1]	112 976 000 - 005 556 31
LED	integrated driver	A = 956 mm x 187 mm	922 lx[1]	SAHQ 66 R
26 W	220 – 240 V, 50/60 Hz	4000 K, dimmable, externally operated	1254 lx[1]	113 102 000 - 006 009 08
LED	integrated driver	A = 956 mm x 187 mm	922 lx[1]	SAHQ 66 R
26 W	220 – 240 V, 50/60 Hz	5000 K, dimmable	1254 lx[1]	112 976 000 - 006 870 81
LED	integrated driver	A = 956 mm x 187 mm	922 lx[1]	SAHQ 66 R
26 W	220 – 240 V, 50/60 Hz	6500 K, dimmable	1254 lx[1]	112 976 000 - 006 870 84
LED	integrated driver	A = 1256 mm x 187 mm	1139 lx[1]	SAHQ 88
33 W	220 – 240 V, 50/60 Hz	4000 K	1509 lx[1]	112 979 000 - 005 513 61
LED	integrated driver	A = 1256 mm x 187 mm	1139 lx[1]	SAHQ 88 D
33 W	220 – 240 V, 50/60 Hz	4000 K, through-wired	1509 lx[1]	112 979 000 - 005 556 94
LED	integrated driver	A = 1256 mm x 187 mm	1139 lx[1]	SAHQ 88 R
33 W	220 – 240 V, 50/60 Hz	4000 K, dimmable	1509 lx[1]	112 980 000 - 005 513 64
LED	integrated driver	A = 1256 mm x 187 mm	1139 lx[1]	SAHQ 88 RD
33 W	220 – 240 V, 50/60 Hz	4000 K, dimmable, through-wired	1509 lx[1]	112 980 000 - 005 556 97
LED	integrated driver	A = 1256 mm x 187 mm	1139 lx[1]	SAHQ 88 R
33 W	220 – 240 V, 50/60 Hz	4000 K, dimmable, externally operated	1509 lx[1]	113 141 000 - 006 150 59
LED	integrated driver	A = 1256 mm x 187 mm	1139 lx[1]	SAHQ 88 R
33 W	220 – 240 V, 50/60 Hz	5000 K, dimmable	1509 lx[1]	112 980 000 - 006 870 95
LED	integrated driver	A = 1256 mm x 187 mm	1139 lx[1]	SAHQ 88 R
33 W	220 – 240 V, 50/60 Hz	6500 K, dimmable	1509 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]	112 976 000 - 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

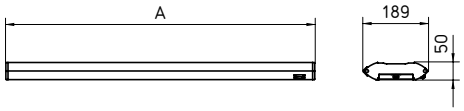
LED

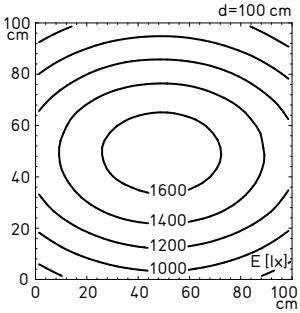
TAMETO
FITS PRECISELY WHERE IT NEEDS TO



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

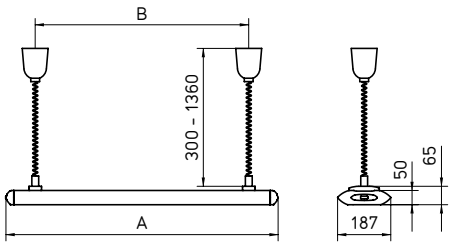
Assembly workplace

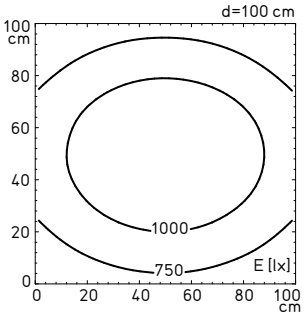
Fitted with **Power**	**Operating device** **Connected load**	**Dimensions** **Special feature**	**E_m** **E_{max}** *	**Model** **Order no.**
LED	integrated driver	A = 599 mm x 189 mm	606 lx[1]	SAHQ 44 D
18 W	220 – 240 V, 50/60 Hz	through-wired	841 lx[1]	113 034 000 - 005 776 11
LED	integrated driver	A = 599 mm x 189 mm	606 lx[1]	SAHQ 44 RD
18 W	220 – 240 V, 50/60 Hz	dimmable, through-wired	841 lx[1]	113 035 000 - 005 776 14
LED	integrated driver	A = 899 mm x 189 mm	922 lx[1]	SAHQ 66 D
26 W	220 – 240 V, 50/60 Hz	through-wired	1254 lx[1]	113 036 000 - 005 776 17
LED	integrated driver	A = 899 mm x 189 mm	922 lx[1]	SAHQ 66 RD
26 W	220 – 240 V, 50/60 Hz	dimmable, through-wired	1254 lx[1]	113 037 000 - 005 776 20
LED	integrated driver	A = 1199 mm x 189 mm	1139 lx[1]	SAHQ 88 D
33 W	220 – 240 V, 50/60 Hz	through-wired	1509 lx[1]	113 038 000 -005 776 23
LED	integrated driver	A = 1199 mm x 189 mm	1139 lx[1]	SAHQ 88 RD
33 W	220 – 240 V, 50/60 Hz	dimmable, through-wired	1509 lx[1]	113 039 000 - 005 776 26
T5	integrated electronic ballast	A = 599 mm x 189 mm	499 lx[1]	SAH 124 RD
1 x 24 W	220 – 240 V, 50/60 Hz	dimmable, through-wired	685 lx[1]	113 030 000 - 005 775 99
T5	integrated electronic ballast	A = 899 mm x 189 mm	915 lx[1]	SAH 139 RD
1 x 39 W	220 – 240 V, 50/60 Hz	dimmable, through-wired	1229 lx[1]	113 031 000 - 005 776 02
T5	integrated electronic ballast	A = 1199 mm x 189 mm	1270 lx[1]	SAH 154 RD
1 x 54 W	220 – 240 V, 50/60 Hz	dimmable, through-wired	1709 lx[1]	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 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	integrated driver	A = 956 mm x 187 mm, B = 750mm	922 lx[1]	SAHZQ 66
26 W	220 – 240 V, 50/60 Hz	–	1254 lx[1]	112 983 000 - 005 513 73
LED	integrated driver	A = 956 mm x 187 mm, B = 750mm	922 lx[1]	SAHZQ 66 R
26 W	220 – 240 V, 50/60 Hz	dimmable	1254 lx[1]	112 984 000 - 005 513 77
LED	integrated driver	A = 1256 mm x 187 mm, B = 1050 mm	1139 lx[1]	SAHZQ 88
33 W	220 – 240 V, 50/60 Hz	–	1509 lx[1]	112 987 000 - 005 513 86
LED	integrated driver	A = 1256 mm x 187 mm, B = 1050 mm	1139 lx[1]	SAHZQ 88 R
33 W	220 – 240 V, 50/60 Hz	dimmable	1509 lx[1]	112 988 000 - 005 513 89
T5	integrated electronic ballast	A = 956 mm x 187 mm, B = 750mm	915 lx[1]	SAHZ 139 R
1 x 39 W	220 – 240 V, 50/60 Hz	dimmable	1229 lx[1]	112 982 000 - 005 513 70
T5	integrated electronic ballast	A = 1256 mm x 187 mm, B = 1050 mm	1270 lx[1]	SAHZ 154 R
1 x 54 W	220 – 240 V, 50/60 Hz	dimmable	1709 lx[1]	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

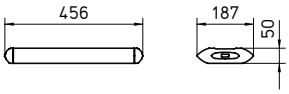
Electronics workplace

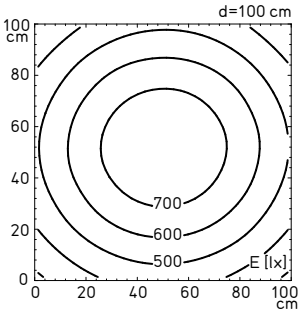
Fitted with Power	Operating device Connected load	Dimensions Special feature	E_m E_{max} *	Model Order no.
LED	integrated driver	A = 956 mm x 187 mm, B = 750mm	806 lx[1]	SAHZQ 66 A
26 W	220 – 240 V, 50/60 Hz	–	1092 lx[1]	113 026 000 - 005 746 37
T5	integrated electronic ballast	A = 956 mm x 187 mm, B = 750mm	814 lx[1]	SAHZ 139 A
1 x 39 W	220 – 240 V, 50/60 Hz	–	1084 lx[1]	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 – 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 –	572 lx[1] 778 lx[1]	SAHKQ 60 112 989 000 - 005 513 92

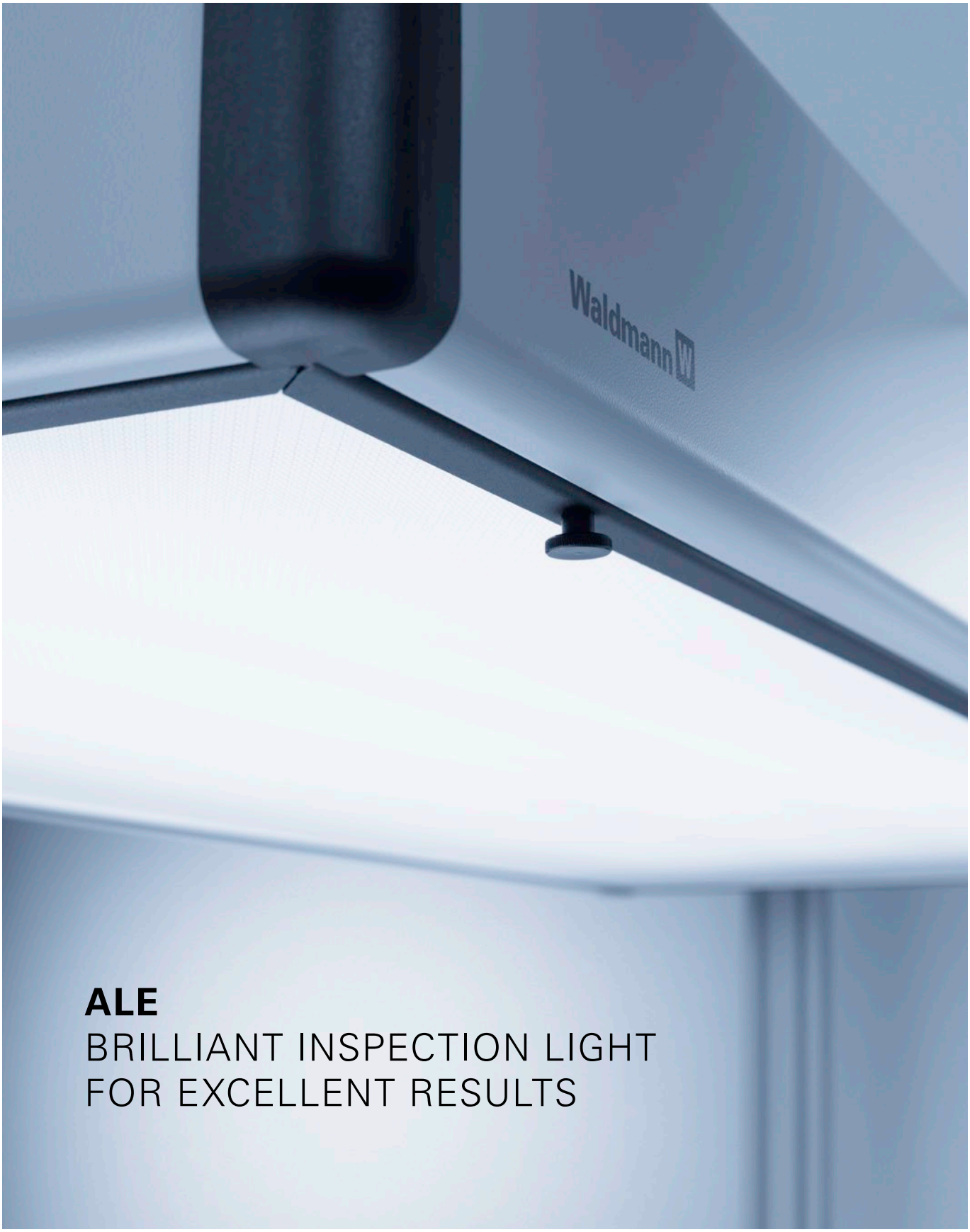
* E_m = medium illuminance; E_{max} = maximum illuminance; [1] measuring field 100 cm x 100 cm/measuring distance 100 cm

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 –	496 lx[1] 675 lx[1]	SAHKQ 60 A 113 028 000 - 005 750 17

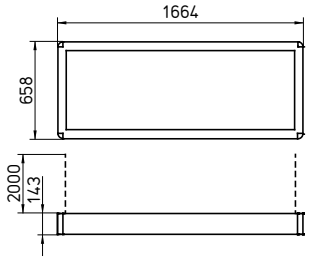
* E_m = medium illuminance; E_{max} = maximum illuminance; [1] measuring field 100 cm x 100 cm/measuring distance 100 cm

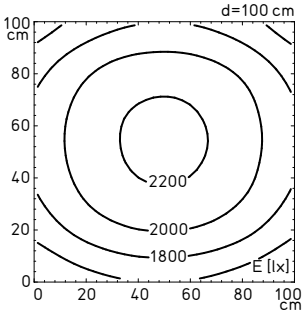


ALE
BRILLIANT INSPECTION LIGHT FOR EXCELLENT RESULTS

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 metameric 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





Illuminance 4 x 58 W

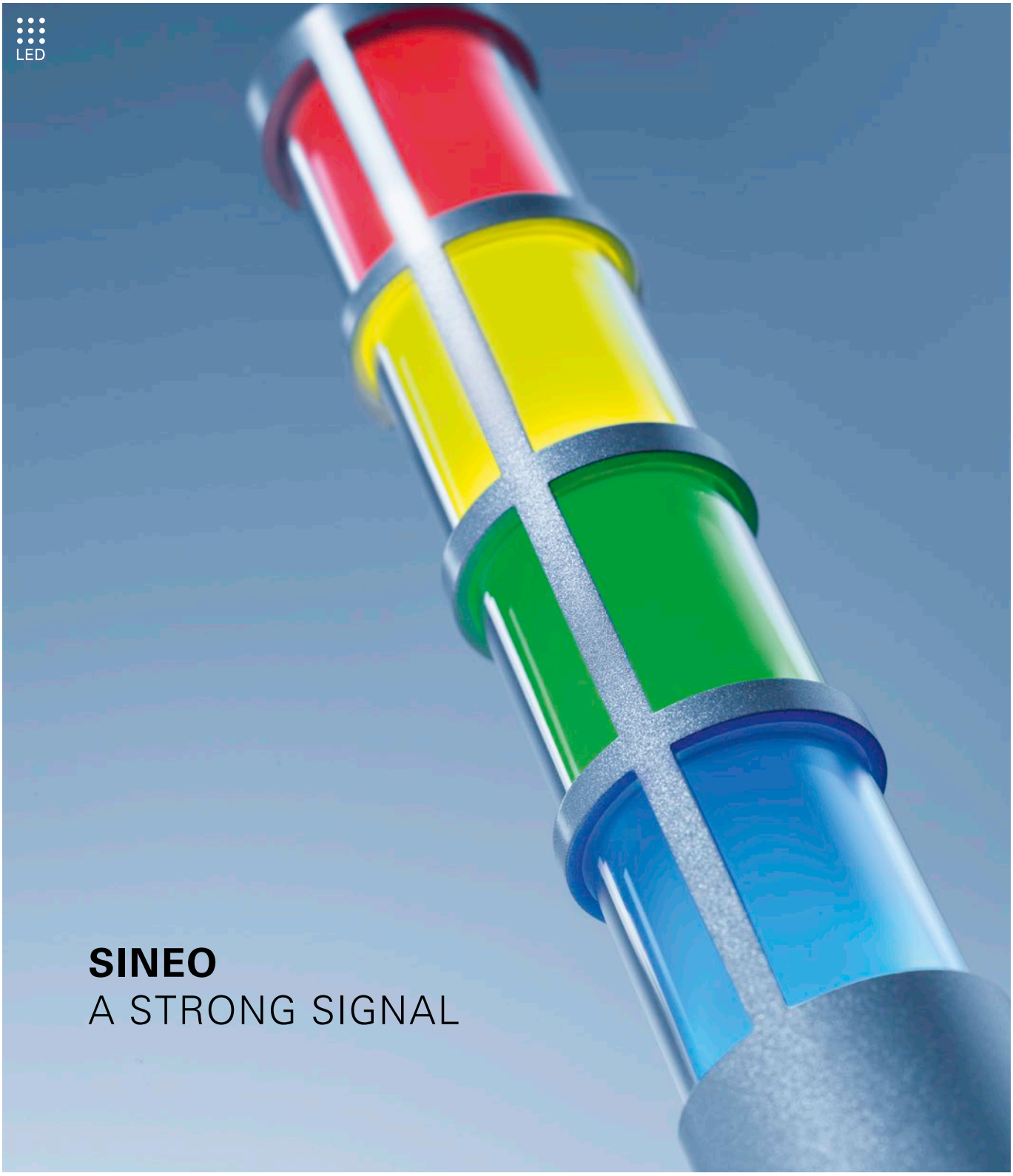
ALE at a glance

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

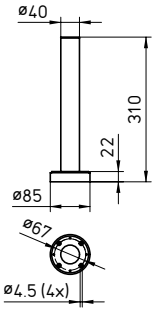
* E_m = medium illuminance; E_{max} = maximum illuminance; [1] measuring field 100 cm x 100 cm/measuring distance 100 cm



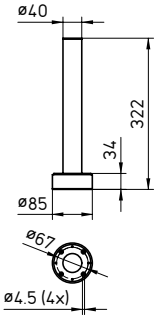
SINEO
A STRONG SIGNAL

SINEO Due to the slim, almost transparent light design, the signals appear to float. To this end, each individual signal level is lit with particular homogeneity and intensity thanks to the light guide technology. A low pedestal height emphasises the elegant design. Thus, there is nothing to prevent innovative signalling on manual or semi-automated workplace and on Kanban systems.

- Maintenance-free LED technology
- Adjustable colours and fluorescent images through RGB LEDs
- Three or four signal levels
- Intense light colours thanks to innovative light guide technology
- Variants with IO link communication system
- Versions with acoustic signal generator
- Robust plastic housing
- Prevents accumulation of dirt
- Customising by means of design case



SINEO without acoustic signal generator



SINEO with acoustic signal generator

SINEO at a glance

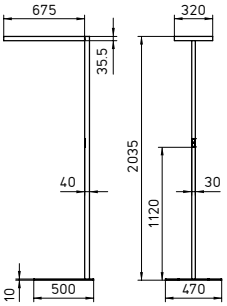
- LED technology
- RGB LEDs
- Light deflection by light guide technology
- Luminaire body made of PC
- Screw-mounted
- IO link (variants) with EVS (electronic visibility improvement)
- Degree of protection IP65, protection class III
- Supplied with approx. 0.4 m connecting cable and M12 plug connector, A-coded (lateral cable outlet)
- M12 connection technology and design cases as accessories

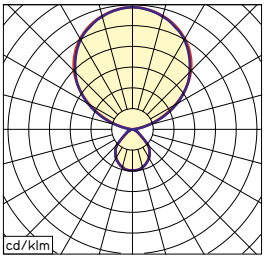
Assembly workplace

Signal levels Power	Fluorescent image Connected load	Special feature	Model Order no.
3 7.5 W	continuous/blinking light 22 – 26 VDC	–	MNAFL 24 S H20 011 000 - 006 233 97
4 9.0 W	continuous/blinking light 22 – 26 VDC	–	MNAFL 32 S H20 013 000 - 006 234 04
4 9.0 W	continuous/blinking/flash light, EVS 22 – 26 VDC	IO link	MNAFL 32 S H20 015 000 - 006 234 10
3 8.5 W	continuous/blinking light 22 – 26 VDC	with acoustic signal	MNAFL 24 S H20 012 000 - 006 234 01
4 10.0 W	continuous/blinking light 22 – 26 VDC	with acoustic signal	MNAFL 32 S H20 014 000 - 006 234 07
4 10.0 W	continuous/blinking/flash light, EVS 22 – 26 VDC	IO link, with acoustic signal	MNAFL 32 S H20 016 000 - 006 234 13

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





LAVIGO at a glance

- Luminaire light output approx. 115 lm/W
- Light distribution (direct/indirect) approx. 20 %/80 %
- Luminance < 2500 cd/m²
- UGR < 16
- 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. 18.4 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
8600 lm approx. 75 W	PULSE PIR 220 – 240 V, 50/60 Hz	DPS 288/R neutral white 4000 K	121 710 000 - 006 307 41 121 710 000 - 006 357 51

MACHINE LIGHTING

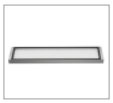
Machine tools


MACH LED PLUS
74


MACH LED PLUS
76


MACH LED PRO
80


FLAT LED
82


LUMATRIS
88


FLAT TEC
92


SPOT LED
94


HEAD LED
96


MACH LED PRO
100


FLAT LED
102


FLAT TEC
104


SPOT LED
106


RL 70 LE
114


RL 70 E
118


RL 70 H
122


AWD
124


ROCIA
126


ROCIA
128


ROCIA
130


ABL
132


ROCIA
134


ABL
136


SINEO
138

Printing machines


SLIM LED
84


ONE LED
98


RL 25 LE
110


RL 40 LE
112


RL 70 E
118


RL 70 H
122


SINEO
138

Textile machines


MACH LED PLUS
74


MACH LED PLUS
76


MACH LED PRO
80


FLAT LED
82


SLIM LED
84


SPOT LED
94


HEAD LED
96


ONE LED
98


RL 25 LE
110


RL 40 LE
112


RL 70 LE
114


RL 70 E
118


RL 70 H
122


ROCIA
126


ROCIA
128


ROCIA
130


ROCIA
134


SINEO
138

Woodworking machines


MACH LED PLUS
74


MACH LED PLUS
76


MACH LED PRO
80


FLAT LED
82


SLIM LED
84


SPOT LED
94


HEAD LED
96


MACH LED PRO
100


FLAT LED
102


SPOT LED
106


RL 25 LE
110


RL 40 LE
112


RL 70 LE
114


RL 70 E
118


RL 70 H
122


ROCIA
126


ROCIA
128


ROCIA
130


ROCIA
134


SINEO
138

Packaging machines


MKEL
108


RL 25 LE
110

RL 40 LE
112

SINEO
138

Track laying machines

RL 40 LE
112

RL 70 LE
116

Production facilities

MACH LED PLUS
74

MACH LED PLUS
76

MACH LED PRO
80

FLAT LED
82

SLIM LED
84

ONE LED
98

RL 25 LE
110

RL 40 LE
112

RL 70 LE
114

RL 70 E
118

RL 70 H
122

SINEO
138

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.

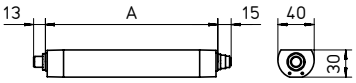
Thanks to many different kinds of lighting characteristics, MACH LED PLUS.forty supports a variety of visual tasks, even if sometimes space is limited.

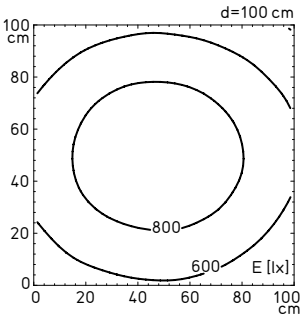
With an outer diameter of 40 mm and a minimum length of 190 mm, MACH LED PLUS.forty enables high illuminance even in the most restricted space. Its output density is very impressive: Just a single luminaire of the shortest version enables standard-compliant illumination of smaller working spaces.

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.

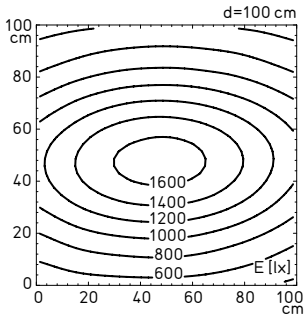
- Maintenance-free LED technology
- Ultra low-glare, homogeneous light with soft transitions
- With narrow- or wide-beam illumination characteristic, as desired
- Outer diameter of 40 mm for integration in case of restricted space
- Robust aluminium housing with solid safety glass screen
- Side parts 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
- Luminaires for daisy chaining

MACH LED PLUS.forty with through-wiring





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



Illuminance based on the example of 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 Ta_{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

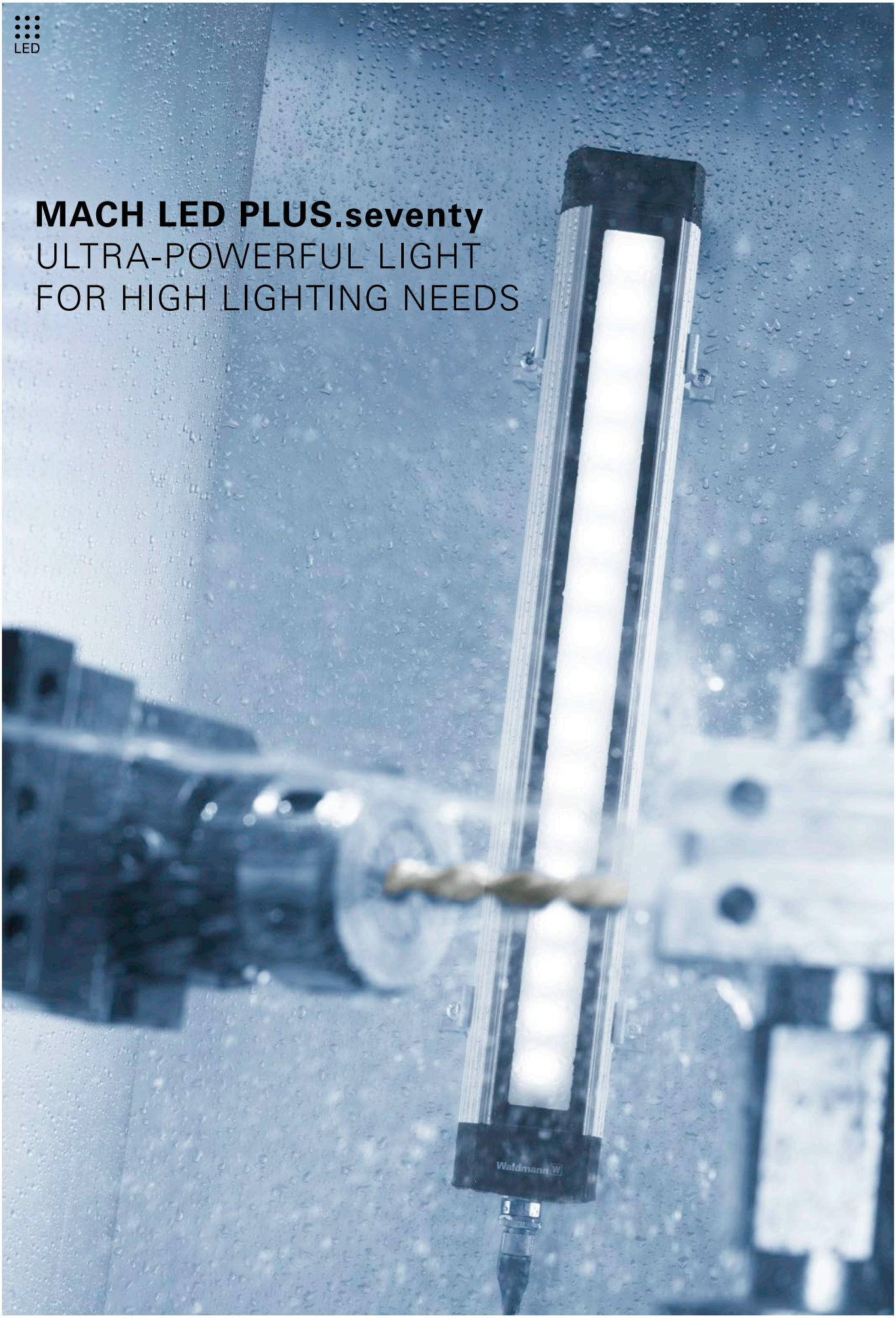
Machine tools
Textile machines
Woodworking machines
Production facilities

Fitted with Power	Operating device Connected load	Dimensions Special feature	E_m E_{max}*	Model Order no.
LED 5.0 W	– 20 – 28 VDC	A = 190 mm x 40 mm 90° reflector	156 lx[1] 216 lx[1]	MLAL 12 S 113 161 000 - 006 625 75
LED 5.0 W	– 20 – 28 VDC	A = 190 mm x 40 mm 40° optics	223 lx[1] 393 lx[1]	MLAL 12 S 113 161 000 - 006 600 33
LED 5.0 W	– 20 – 28 VDC	A = 190 mm x 40 mm 90° reflector, through-wiring	156 lx[1] 216 lx[1]	MLAL 12 SD 113 161 000 - 006 626 00
LED 10.5 W	– 20 – 28 VDC	A = 365 mm x 40 mm 90° reflector	348 lx[1] 477 lx[1]	MLAL 27 S 113 162 000 - 006 626 85
LED 10.5 W	– 20 – 28 VDC	A = 365 mm x 40 mm 40° optics	487 lx[1] 846 lx[1]	MLAL 27 S 113 162 000 - 006 606 81
LED 10.5 W	– 20 – 28 VDC	A = 365 mm x 40 mm 90° reflector, through-wiring	348 lx[1] 477 lx[1]	MLAL 27 SD 113 162 000 - 006 627 06
LED 16.0 W	– 20 – 28 VDC	A = 540 mm x 40 mm 90° reflector	541 lx[1] 732 lx[1]	MLAL 42 S 113 163 000 - 006 627 17
LED 16.0 W	– 20 – 28 VDC	A = 540 mm x 40 mm 40° optics	746 lx[1] 1270 lx[1]	MLAL 42 S 113 163 000 - 006 606 84
LED 16.0 W	– 20 – 28 VDC	A = 540 mm x 40 mm 90° reflector, through-wiring	541 lx[1] 732 lx[1]	MLAL 42 SD 113 163 000 - 006 627 35
LED 21.5 W	– 20 – 28 VDC	A = 715 mm x 40 mm 90° reflector	718 lx[1] 957 lx[1]	MLAL 57 S 113 164 000 - 006 628 06
LED 21.5 W	– 20 – 28 VDC	A = 715 mm x 40 mm 40° optics	1001 lx[1] 1692 lx[1]	MLAL 57 S 113 164 000 - 006 606 87
LED 21.5 W	– 20 – 28 VDC	A = 715 mm x 40 mm 90° reflector, through-wiring	718 lx[1] 957 lx[1]	MLAL 57 SD 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

LED

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

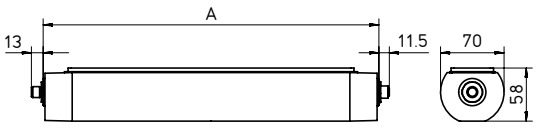


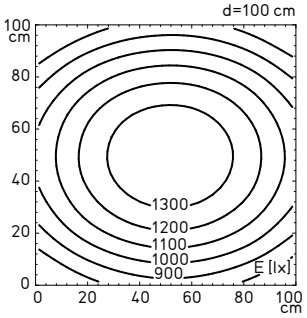
The MACH LED PLUS.seventy ensures a wide-area illumination both as a replacement for classic tube luminaires or for initial equipping of machines. With a diameter of 70 mm, long versions ranging from 370 mm to 1 070 mm and the connection option to 24 V or 100/120/220 – 240 V, the MACH LED PLUS.seventy 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 of MQAL 84 S

MACH LED PLUS.seventy at a glance

- LED technology
- Colour temperature neutral white 5000 K
- Colour rendering Ra > 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 Ta_{max}:
  Eco: 50° C (24V) 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) > 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 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
7 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
7 W	18 – 30 VDC	Eco, through-wired	241 lx[1]	113 046 000 - 005 806 96
LED	–	A = 370 mm x 70 mm	340 lx[1]	MQAL 24 S
12 W	18 – 30 VDC	Power	443 lx[1]	113 047 000 - 005 806 93
LED	–	A = 370 mm x 70 mm	340 lx[1]	MQAL 24 SD
12 W	18 – 30 VDC	Power, through-wired	443 lx[1]	113 048 000 - 005 805 73
LED	–	A = 510 mm x 70 mm	273 lx[1]	MQAL 18 S
10 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
10 W	18 – 30 VDC	Eco, through-wired	354 lx[1]	113 054 000 - 005 805 91
LED	–	A = 510 mm x 70 mm	506 lx[1]	MQAL 36 S
18 W	18 – 30 VDC	Power	662 lx[1]	113 055 000 - 005 805 94
LED	–	A = 510 mm x 70 mm	506 lx[1]	MQAL 36 SD
18 W	18 – 30 VDC	Power, through-wired	662 lx[1]	113 056 000 - 005 805 97
LED	–	A = 565 mm x 70 mm	273 lx[1]	MQAL 18 S
10 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
10 W	18 – 30 VDC	Eco, through-wired	354 lx[1]	113 062 000 - 005 806 15
LED	–	A = 565 mm x 70 mm	506 lx[1]	MQAL 36 S
18 W	18 – 30 VDC	Power	662 lx[1]	113 063 000 - 005 806 18
LED	–	A = 565 mm x 70 mm	506 lx[1]	MQAL 36 SD
18 W	18 – 30 VDC	Power, through-wired	662 lx[1]	113 064 000 - 005 806 21
LED	–	A = 650 mm x 70 mm	364 lx[1]	MQAL 24 S
13 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
13 W	18 – 30 VDC	Eco, through-wired	477 lx[1]	113 070 000 - 005 806 42
LED	–	A = 650 mm x 70 mm	657 lx[1]	MQAL 48 S
24 W	18 – 30 VDC	Power	856 lx[1]	113 071 000 - 005 806 45
LED	–	A = 650 mm x 70 mm	657 lx[1]	MQAL 48 SD
24 W	18 – 30 VDC	Power, through-wired	856 lx[1]	113 072 000 - 005 806 48
LED	–	A = 790 mm x 70 mm	444 lx[1]	MQAL 30 S
16 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
16 W	18 – 30 VDC	Eco, through-wired	573 lx[1]	113 078 000 - 005 806 66
LED	–	A = 790 mm x 70 mm	814 lx[1]	MQAL 60 S
30 W	18 – 30 VDC	Power	1056 lx[1]	113 124 000 - 006 118 55
LED	–	A = 790 mm x 70 mm	814 lx[1]	MQAL 60 SD
30 W	18 – 30 VDC	Power, through-wired	1 056 lx[1]	113 125 000 - 006 128 44
LED	–	A = 1 070 mm x 70 mm	597 lx[1]	MQAL 42 S
22 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
22 W	18 – 30 VDC	Eco, through-wired	756 lx[1]	113 082 000 - 005 806 81
LED	–	A = 1 070 mm x 70 mm	1 089 lx[1]	MQAL 84 S
42 W	18 – 30 VDC	Power	1 391 lx[1]	113 126 000 - 006 129 73
LED	–	A = 1 070 mm x 70 mm	1 089 lx[1]	MQAL 84 SD
42 W	18 – 30 VDC	Power, through-wired	1 391 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

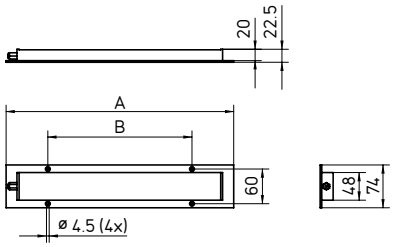
Machine tools
Textile machines
Woodworking machines
Production facilities

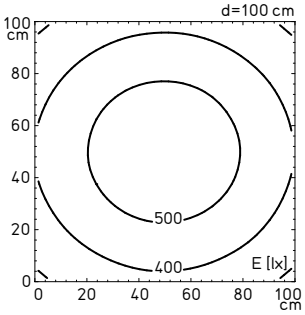
Fitted with Power	Operating device Connected load	Dimensions Special feature	E_m E_{max} *	Model Order no.
LED	integrated transformer	A = 370 mm x 70 mm	184 lx[1]	MQAL 12 N
9 W	100/120/220 – 240 V, 50/60 Hz	Eco	241 lx[1]	113 049 000 - 005 805 76
LED	integrated transformer	A = 370 mm x 70 mm	184 lx[1]	MQAL 12 ND
9 W	100/120/220 – 240 V, 50/60 Hz	Eco, through-wired	241 lx[1]	113 050 000 - 005 805 79
LED	integrated transformer	A = 370 mm x 70 mm	340 lx[1]	MQAL 24 N
15 W	100/120/220 – 240 V, 50/60 Hz	Power	443 lx[1]	113 051 000 - 005 805 82
LED	integrated transformer	A = 370 mm x 70 mm	340 lx[1]	MQAL 24 ND
15 W	100/120/220 – 240 V, 50/60 Hz	Power, through-wired	443 lx[1]	113 052 000 - 005 805 85
LED	integrated transformer	A = 510 mm x 70 mm	273 lx[1]	MQAL 18 N
12 W	100/120/220 – 240 V, 50/60 Hz	Eco	354 lx[1]	113 057 000 - 005 806 00
LED	integrated transformer	A = 510 mm x 70 mm	273 lx[1]	MQAL 18 ND
12 W	100/120/220 – 240 V, 50/60 Hz	Eco, through-wired	354 lx[1]	113 058 000 - 005 806 03
LED	integrated transformer	A = 510 mm x 70 mm	506 lx[1]	MQAL 36 N
21 W	100/120/220 – 240 V, 50/60 Hz	Power	662 lx[1]	113 059 000 - 005 806 06
LED	integrated transformer	A = 510 mm x 70 mm	506 lx[1]	MQAL 36 ND
21 W	100/120/220 – 240 V, 50/60 Hz	Power, through-wired	662 lx[1]	113 060 000 - 005 806 09
LED	integrated transformer	A = 565 mm x 70 mm	273 lx[1]	MQAL 18 N
12 W	100/120/220 – 240 V, 50/60 Hz	Eco	354 lx[1]	113 065 000 - 005 806 24
LED	integrated transformer	A = 565 mm x 70 mm	273 lx[1]	MQAL 18 ND
12 W	100/120/220 – 240 V, 50/60 Hz	Eco, through-wired	354 lx[1]	113 066 000 - 005 806 30
LED	integrated transformer	A = 565 mm x 70 mm	506 lx[1]	MQAL 36 N
21 W	100/120/220 – 240 V, 50/60 Hz	Power	662 lx[1]	113 067 000 - 005 806 33
LED	integrated transformer	A = 565 mm x 70 mm	506 lx[1]	MQAL 36 ND
21 W	100/120/220 – 240 V, 50/60 Hz	Power, through-wired	662 lx[1]	113 068 000 - 005 806 36
LED	integrated transformer	A = 650 mm x 70 mm	364 lx[1]	MQAL 24 N
15 W	100/120/220 – 240 V, 50/60 Hz	Eco	477 lx[1]	113 073 000 - 005 806 51
LED	integrated transformer	A = 650 mm x 70 mm	364 lx[1]	MQAL 24 ND
15 W	100/120/220 – 240 V, 50/60 Hz	Eco, through-wired	477 lx[1]	113 074 000 - 005 806 54
LED	integrated transformer	A = 650 mm x 70 mm	657 lx[1]	MQAL 48 N
27 W	100/120/220 – 240 V, 50/60 Hz	Power	856 lx[1]	113 075 000 - 005 806 57
LED	integrated transformer	A = 650 mm x 70 mm	657 lx[1]	MQAL 48 ND
27 W	100/120/220 – 240 V, 50/60 Hz	Power, through-wired	856 lx[1]	113 076 000 - 005 806 60
LED	integrated transformer	A = 790 mm x 70 mm	444 lx[1]	MQAL 30 N
20 W	100/120/220 – 240 V, 50/60 Hz	Eco	573 lx[1]	113 079 000 - 005 806 69
LED	integrated transformer	A = 790 mm x 70 mm	444 lx[1]	MQAL 30 ND
20 W	100/120/220 – 240 V, 50/60 Hz	Eco, through-wired	573 lx[1]	113 080 000 - 005 806 72
LED	integrated transformer	A = 1070 mm x 70 mm	597 lx[1]	MQAL 42 N
26 W	100/120/220 – 240 V, 50/60 Hz	Eco	756 lx[1]	113 083 000 - 005 806 84
LED	integrated transformer	A = 1070 mm x 70 mm	597 lx[1]	MQAL 42 ND
26 W	100/120/220 – 240 V, 50/60 Hz	Eco, through-wired	756 lx[1]	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

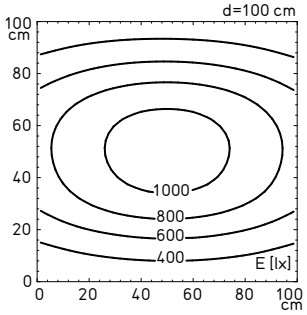
MACH LED PRO is an extremely flat machine luminaire family with several length variants. Waldmann has developed this optimum solution for situations with a lack of positioning options for lighting in machines and production facilities. MACH LED PRO is ideal for many lighting tasks – whether you require 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 of 24 W without optics (95°)



Illuminance based on the example of 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 Ta_{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	–	A = 220 mm x 74 mm, B = 125 mm (1x)	113 lx[1]	MUAL 1 S
6 W	20 – 28 VDC	–	147 lx[1]	112 571 022 - 000 821 86
LED	–	A = 220 mm x 74 mm, B = 125 mm (1x)	200 lx[1]	MUAL 1 S
6 W	20 – 28 VDC	30° optics	316 lx[1]	112 571 020 - 000 790 42
LED	–	A = 395 mm x 74 mm, B = 250 mm (1x)	230 lx[1]	MUAL 2 S
12 W	20 – 28 VDC	–	296 lx[1]	112 571 026 - 000 825 11
LED	–	A = 395 mm x 74 mm, B = 250 mm (1x)	368 lx[1]	MUAL 2 S
12 W	20 – 28 VDC	30° optics	600 lx[1]	112 571 024 - 000 824 56
LED	–	A = 570 mm x 74 mm, B = 200 mm (2x)	334 lx[1]	MUAL 3 S
18 W	20 – 28 VDC	–	425 lx[1]	112 571 032 - 000 828 20
LED	–	A = 570 mm x 74 mm, B = 200 mm (2x)	564 lx[1]	MUAL 3 S
18 W	20 – 28 VDC	30° optics	895 lx[1]	112 571 030 - 000 827 88
LED	–	A = 745 mm x 74 mm, B = 250 mm (2x)	445 lx[1]	MUAL 4 S
24 W	20 – 28 VDC	–	564 lx[1]	112 571 036 - 000 828 46
LED	–	A = 745 mm x 74 mm, B = 250 mm (2x)	685 lx[1]	MUAL 4 S
24 W	20 – 28 VDC	30° optics	1091 lx[1]	112 571 034 - 000 828 44

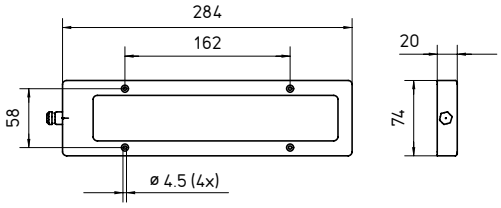
* E_m = medium illuminance; E_{max} = maximum illuminance; [1] measuring field 100 cm x 100 cm/measuring distance 100 cm
Also available as integrated machine luminaires

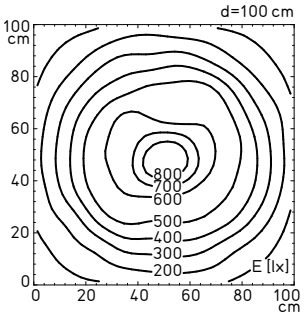
LED

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 Ta_{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

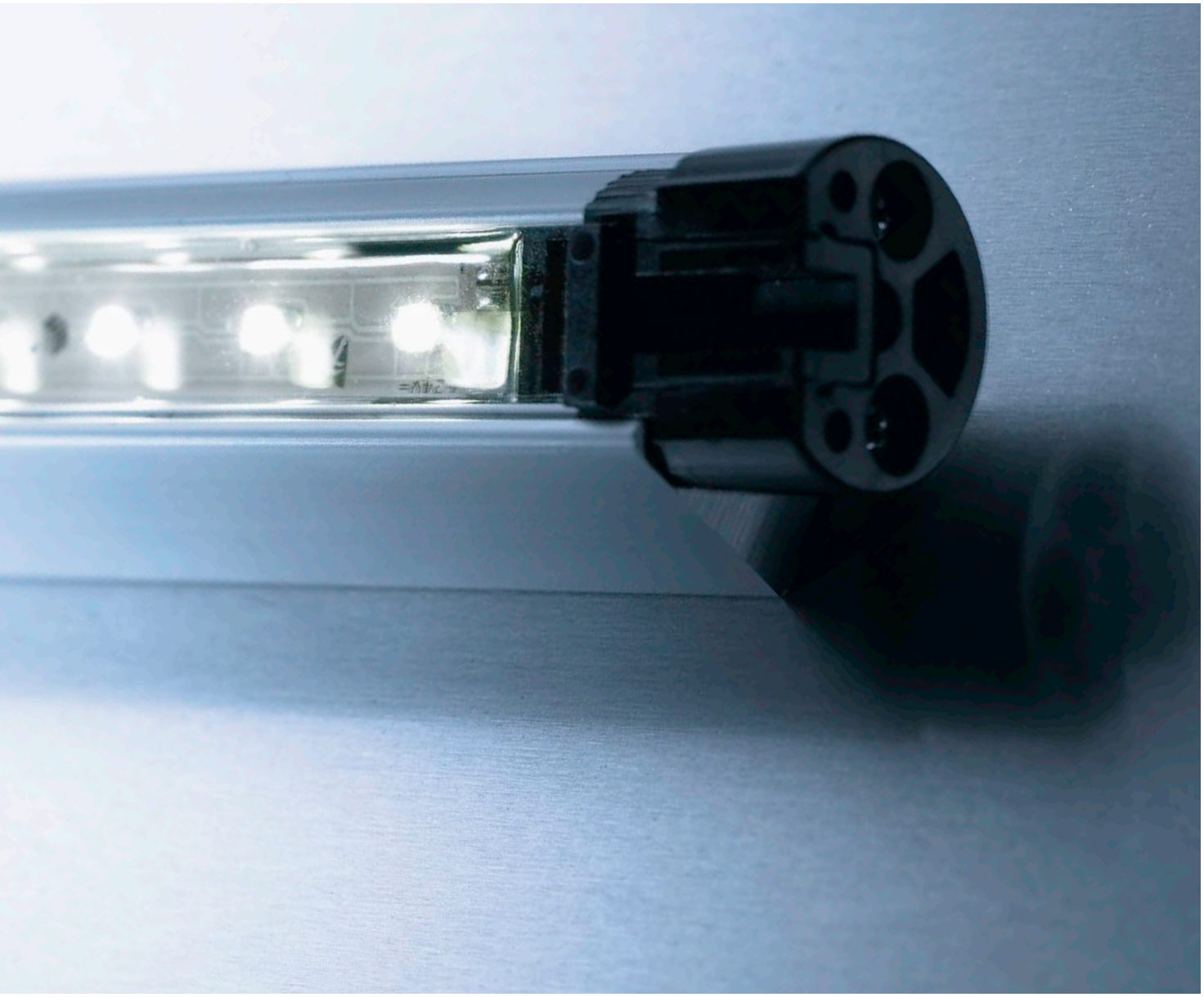
* E_m = medium illuminance; E_{max} = maximum illuminance; [1] measuring field 100 cm x 100 cm/measuring distance 100 cm
Also available as an integrated machine luminaire

LED

SLIM LED
STRONG PERFORMANCE – SLIM LINE

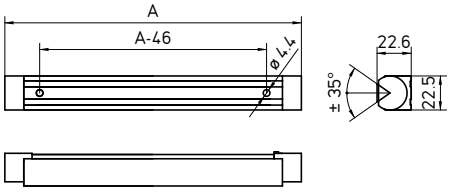
SLIM LED – its name speaks for itself: This luminaire is suitable wherever not enough space is available for strong lighting. Especially in the narrowest of installation situations, the slimline profile of the SLIM LED is a convincing solution. And in case the light doesn't have the ideal angle of incidence,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

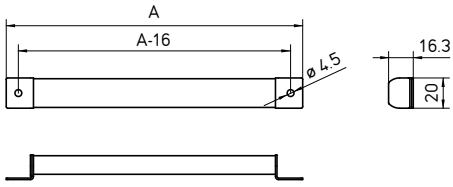



+/- 35°

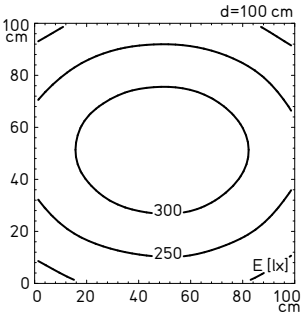

LINEARlight POWER
OSRAM
24V



SLIM LED +/- 35° adjustable



SLIM LED with fixed lugs



Illuminance based on the example of 28 W with clear screen

SLIM LED at a glance

- LED technology
- Colour temperature daylight white 5400 K
- Colour rendering Ra > 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
- Maximum allowed ambient temperature Ta_{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

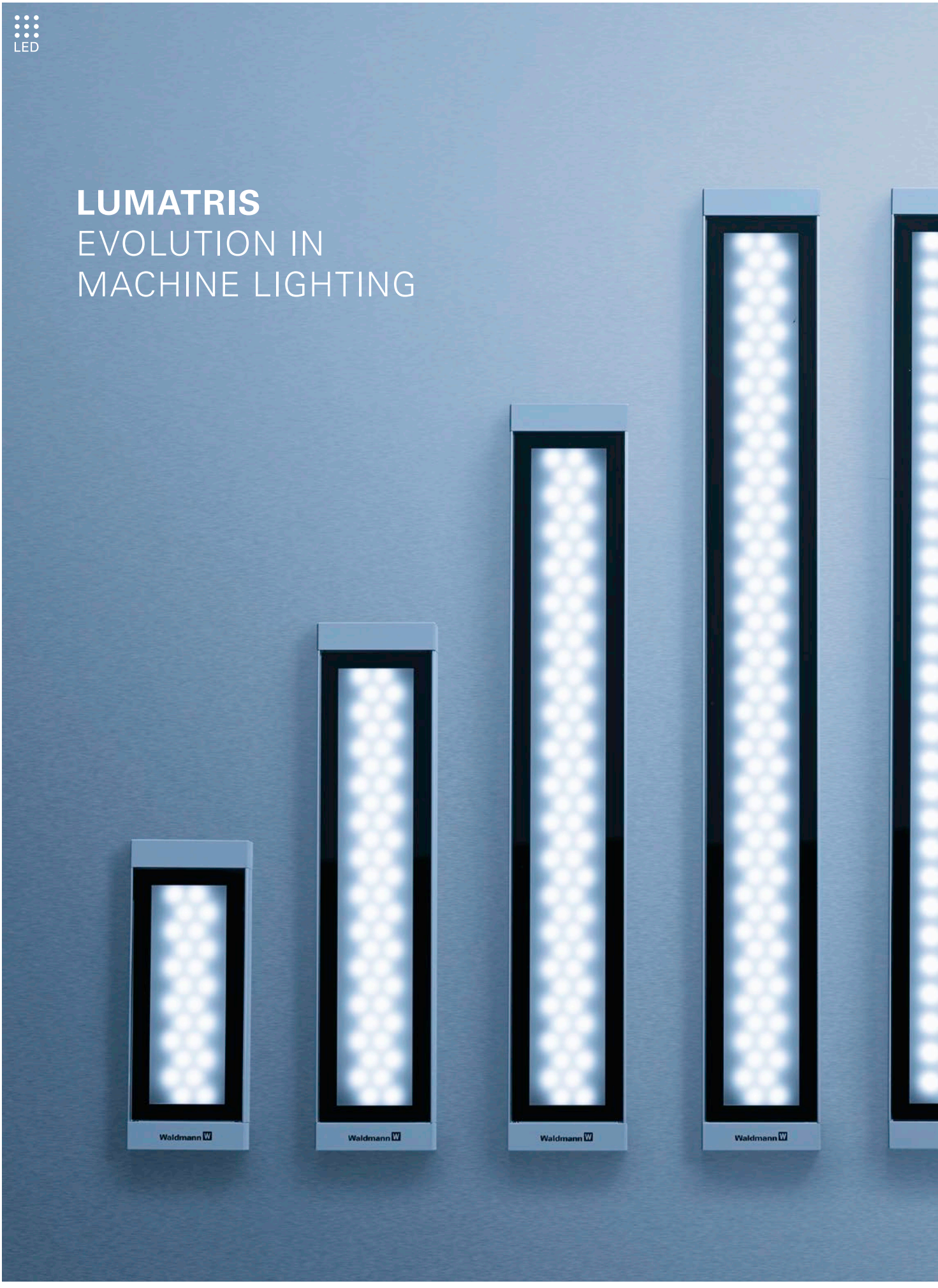
Printing machines
Textile machines
Woodworking machines
Production facilities

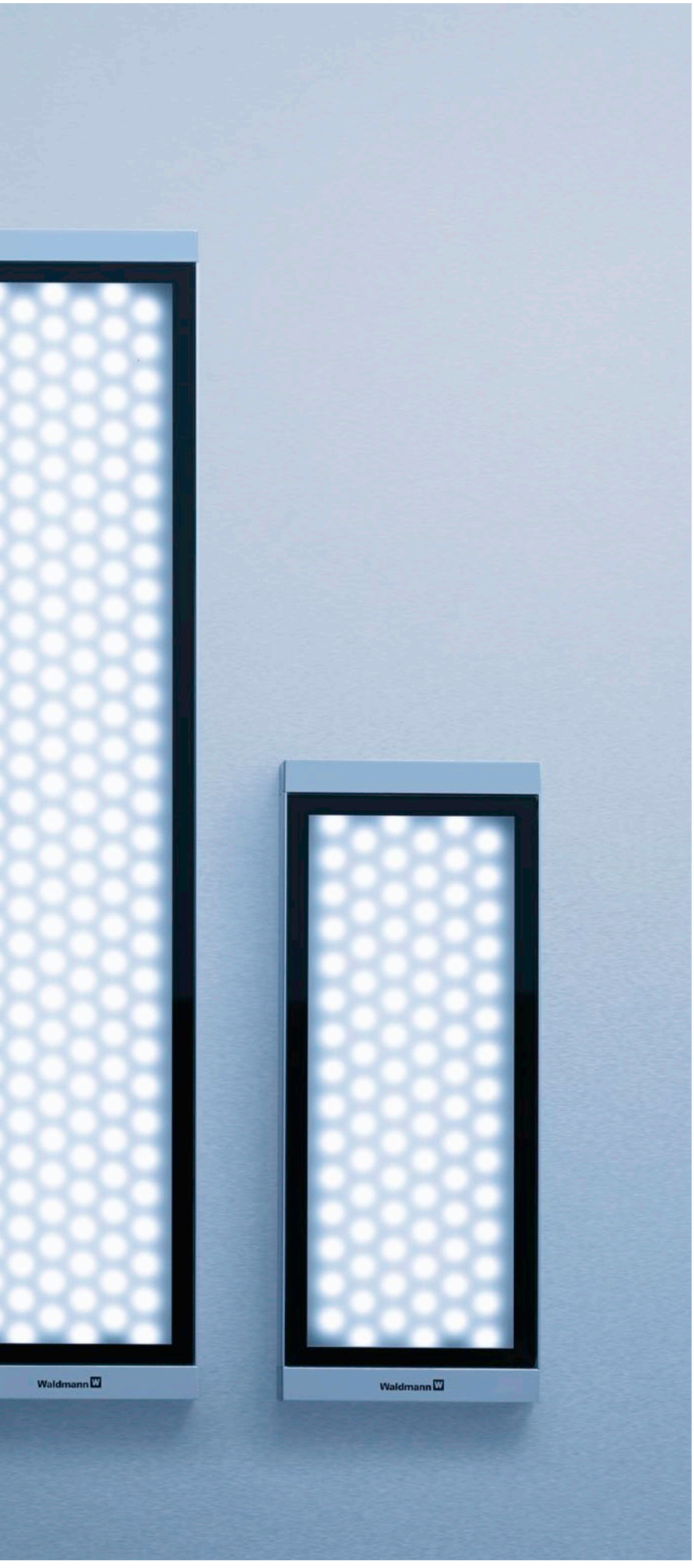
Fitted with Power	Operating device Connected load	Dimensions Special feature	E_m E_{max}*	Model Order no.
LED	–	A = 196 mm x 22.5 mm	41 lx[1]	LIQ 6
3.5 W	22 – 29 VDC	clear screen, adjustable	53 lx[1]	112 544 000 - 000 013 28
LED	–	A = 196 mm x 22.5 mm	40 lx[1]	LIQ 6
3.5 W	22 – 29 VDC	satined screen, 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

LED

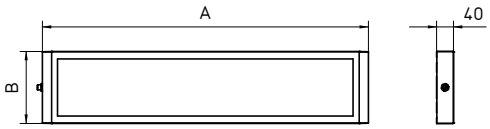
LUMATRIS
EVOLUTION IN MACHINE LIGHTING



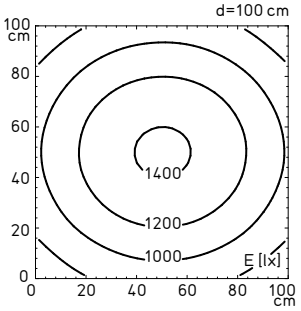


LUMATRIS brings the latest LED technology to medium- and large-sized machines. Waldmann knows that in mechanical engineering competitive ability equals the sum of innovative components and functions. LUMATRIS transforms the spot light characteristics of LEDs economically into an extremely homogeneous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

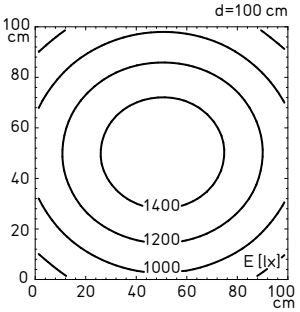
- Maintenance-free LED technology
- Particularly resource-saving variants with Eco mode
- Wide-beam light characteristics
- Variants with Light Forming Technology for optimum light deflection and glare-free lighting
- Robust aluminium housing with solid safety glass screen
- Die-cast side parts
- High 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 of 50 W without Light Forming Technology



Illuminance based on the example of 50 W with Light Forming Technology

LUMATRIS at a glance

- LED technology
- Colour temperature daylight white 5800 K
- Colour rendering Ra > 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 Ta_{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.

Machine tools

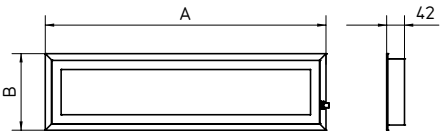
Fitted with Power	Operating device Connected load	Dimensions Special feature	E_m E_{max} *	Model Order no.
LED	–	A = 246 mm x B = 95 mm	163 lx[1]	MSAL 24 S
8 W	22 – 26 VDC	rear connection, Light Forming Technology	220 lx[1]	113 094 000 - 005 967 88
LED	–	A = 246 mm x B = 95 mm	163 lx[1]	MSAL 24 S
8 W	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

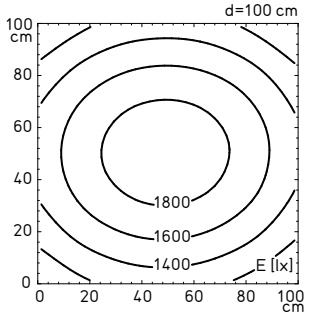
FLAT TEC
THE ULTIMATE IN LIGHTING AND HOUSING TECHNOLOGY

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 of 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

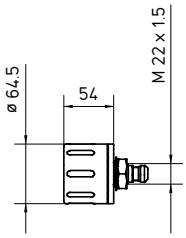
Fitted with Power	Operating device Connected load	Dimensions Special feature	E_m E_{max}*	Model Order no.
T5 3 x 24 W	integrated electronic ballast 220 – 240 V, 50/60 Hz	A = 660 mm x B = 300 mm –	1000 lx[1] 1274 lx[1]	MZA 324 N 112 999 000 - 005 555 19
T5 2 x 24 W	integrated electronic ballast 100 – 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 –	1096 lx[1] 1395 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 = 1260 mm x B = 220 mm –	1546 lx[1] 1921 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

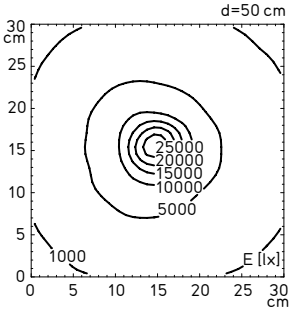
* E_m = medium illuminance; E_{max} = maximum illuminance; [1] measuring field 100 cm x 100 cm/measuring distance 100 cm
Also available as integrated machine luminaires

SPOT LED
POWER LIGHT IN MINI FORMAT

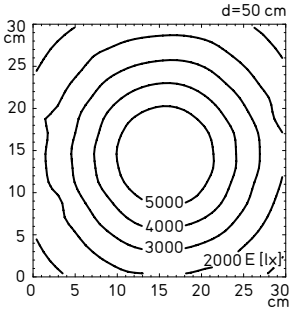
SPOT LED is a surprisingly compact luminaire with a lot of power: The round, robust aluminium housing of the SPOT LED combines three 3 LEDs, which allow either spot or area lighting, depending on the particular variant. And they're absolutely flicker-free. This means that it is not just the design of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

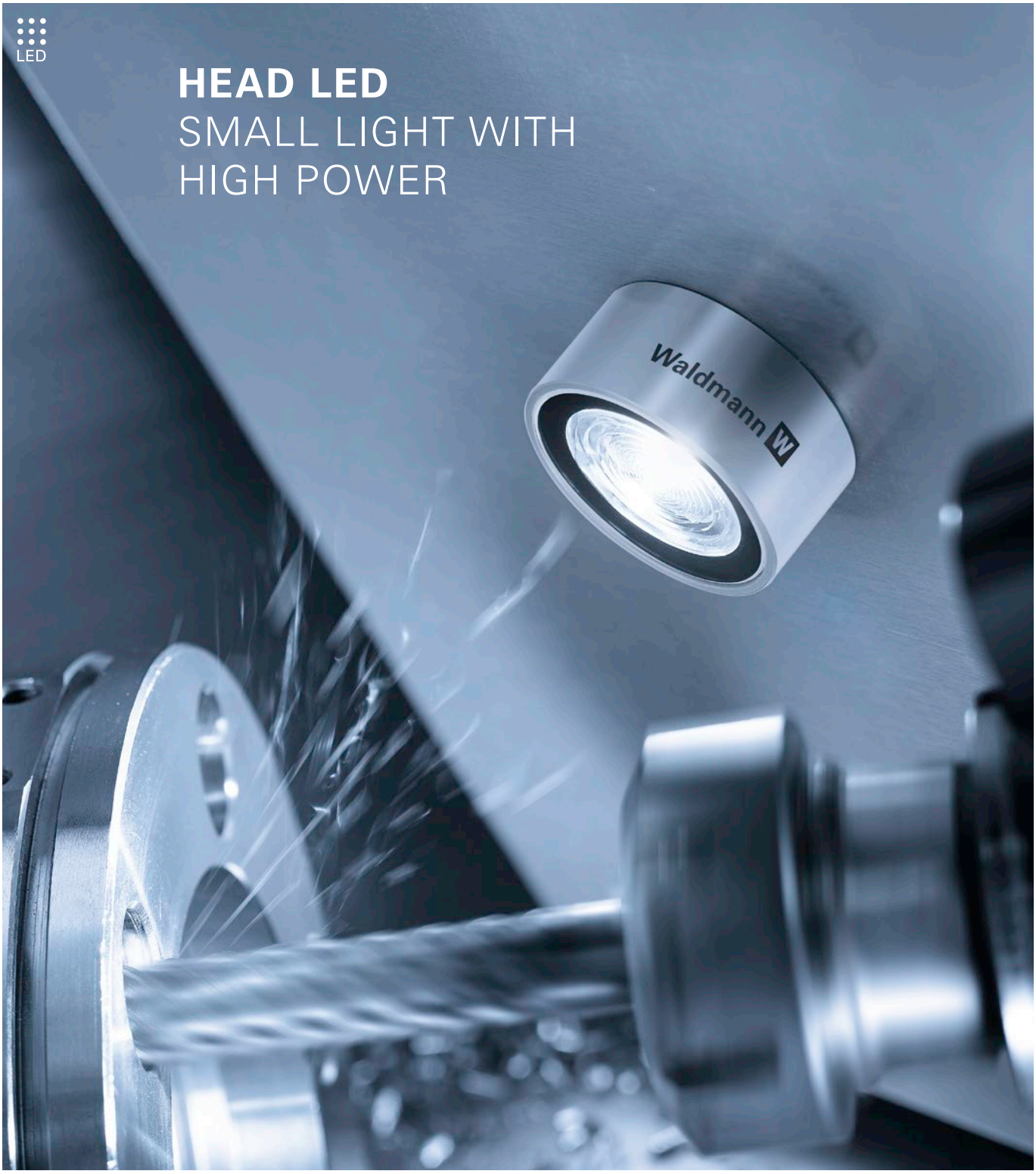
Machine tools | Woodworking machines | Textile machines

Fitted with Power	Operating device Connected load	Dimensions Special feature	E_m E_{max} *	Model Order no.
LED	–	ø 64.5 mm	4086 lx[1]	MCAYL 3 S
6 W	16 – 30 VAC/16 – 40 VDC	10° optics	27500 lx[1]	112 461 001 - 000 830 05
LED	–	ø 64.5 mm	3000 lx[1]	MCAYL 3 S
6 W	16 – 30 VAC/16 – 40 VDC	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

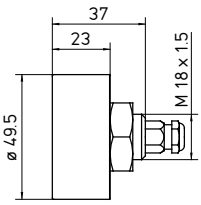
LED

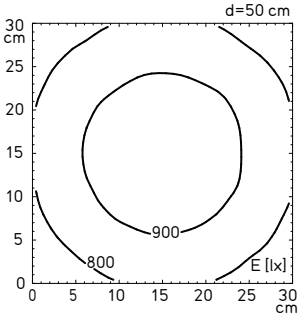
HEAD LED
SMALL LIGHT WITH HIGH POWER



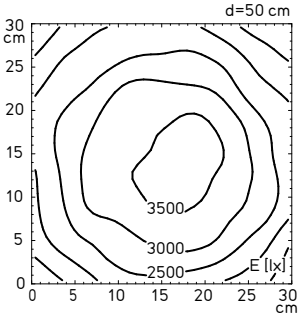
HEAD LED brightens the heart of any machine: the working area. It deserves a special spotlight: Waldmann's smallest light ever. Thanks to its compact dimensions, HEAD LED always fits into the tool area and generates a powerful focused LED spotlight thanks to Waldmann's cleverly devised optics.

- 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 Power	Operating device Connected load	Dimensions Special feature	E_m E_{max} *	Model Order no.
LED	–	ø 49.5 mm	862 lx[1]	MCAYL 4 S
11 W	16 – 32 VDC	–	964 lx[1]	113 155 000 - 006 464 85
LED	–	ø 49.5 mm	2658 lx[1]	MCAYL 4 S
11 W	16 – 32 VDC	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).

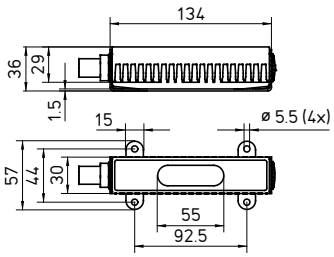
LED

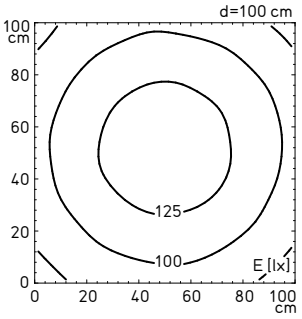
ONE LED
COOL HEAD DESPITE FULL POWER

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 display 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 Ta_{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	–	162.5 mm x 57 mm	108 lx[1]	MVAL 1 S
6 W	20 – 28 VDC	PMMA screen, quick connector	141 lx[1]	112 887 027 - 000 760 50
LED	–	162.5 mm x 57 mm	108 lx[1]	MVAL 1 SD
6 W	20 – 28 VDC	PMMA screen, quick connector, through-wired	141 lx[1]	112 887 007 - 000 760 13
LED	–	162.5 mm x 57 mm	108 lx[1]	MVAL 1 S
6 W	20 – 28 VDC	PMMA screen, M12 plug connector	141 lx[1]	112 887 040 - 000 941 16
LED	–	162.5 mm x 57 mm	108 lx[1]	MVAL 1 SD
6 W	20 – 28 VDC	PMMA screen, M12 plug connector, through-wired	141 lx[1]	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

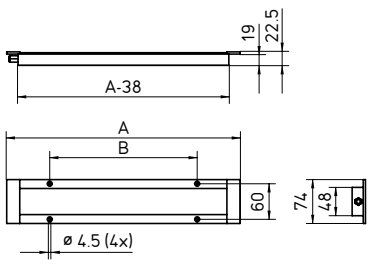
Fitted with Power	Operating device Connected load	Dimensions Special feature	E_m E_{max} *	Model Order no.
LED	–	162.5 mm x 57 mm	108 lx[1]	MVAL 1 S
6 W	20 – 28 VDC	glass screen, quick connector	141 lx[1]	112 887 037 - 000 760 65
LED	–	162.5 mm x 57 mm	108 lx[1]	MVAL 1 SD
6 W	20 – 28 VDC	glass screen,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

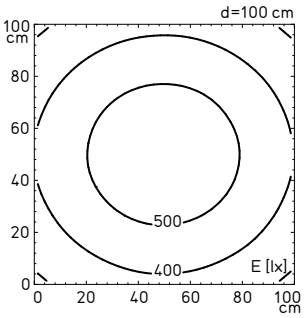
* E_m = medium illuminance; E_{max} = maximum illuminance; [1] measuring field 100 cm x 100 cm/measuring distance 100 cm

MACH LED PRO
INCREDIBLY VARIABLE, CAN BE UNOBTRUSIVELY INTEGRATED

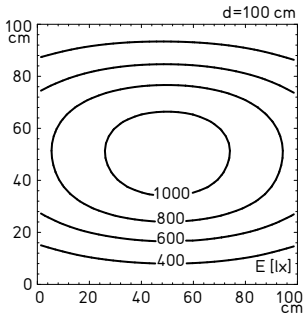
The MACH LED PRO model series embodies absolute variability in terms of area lighting. Even though the machine design requirements tend to be individual, they are not necessarily tailored to the luminaire. This is taken into account in the MACH LED PRO by designs of different lengths with 1, 2, 3 or 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 of 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 Ta_{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

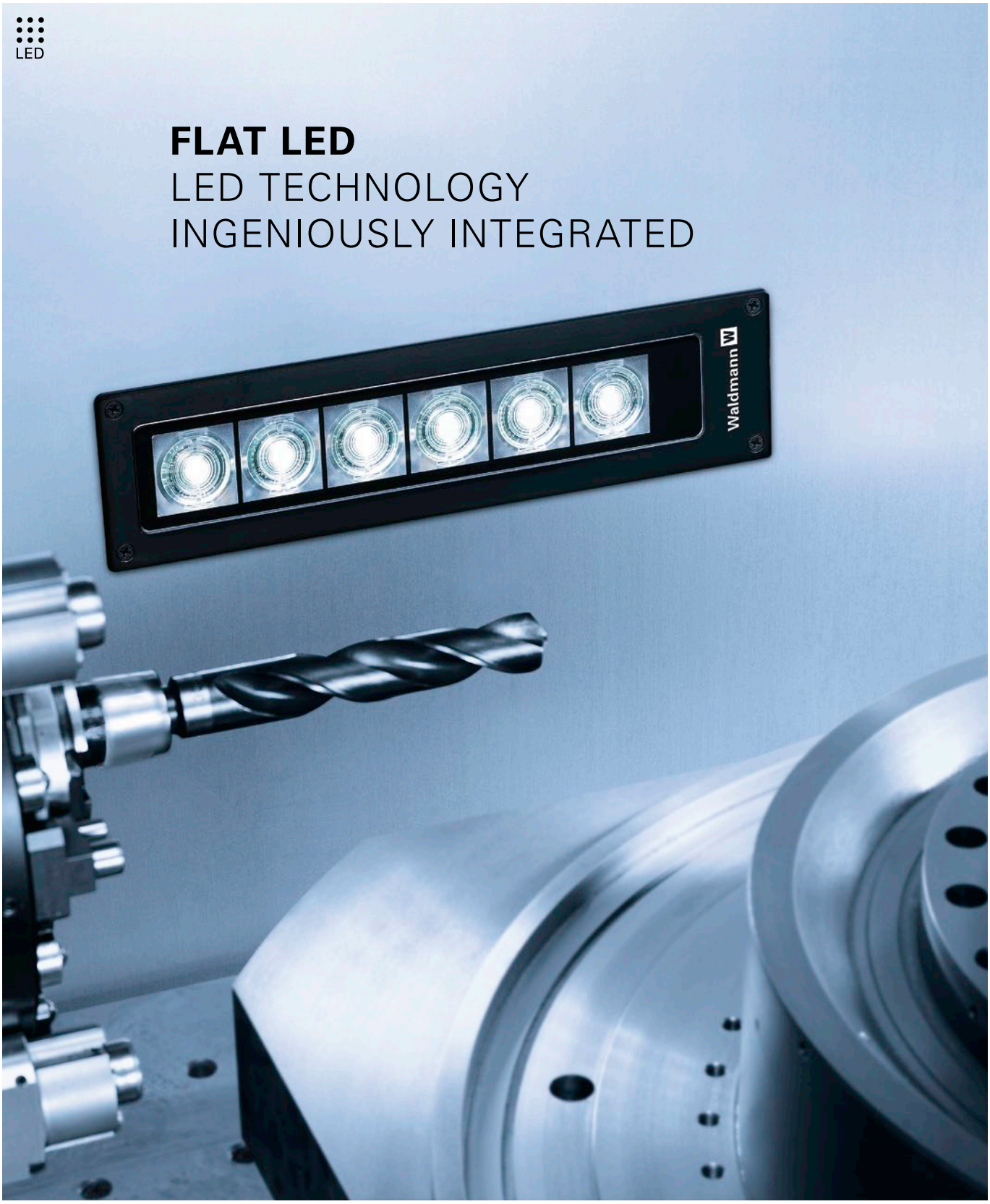
Machine tools Woodworking machines

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 m (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	1091 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

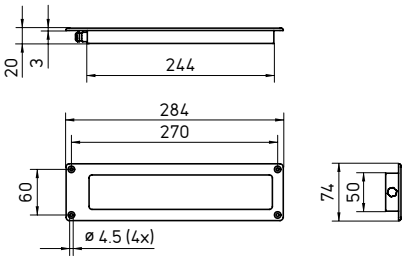
LED

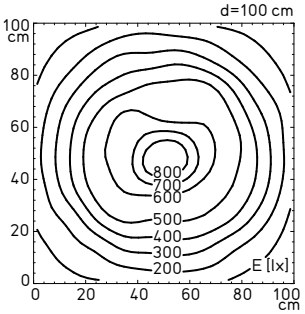
FLAT LED
LED TECHNOLOGY INGENIOUSLY INTEGRATED



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

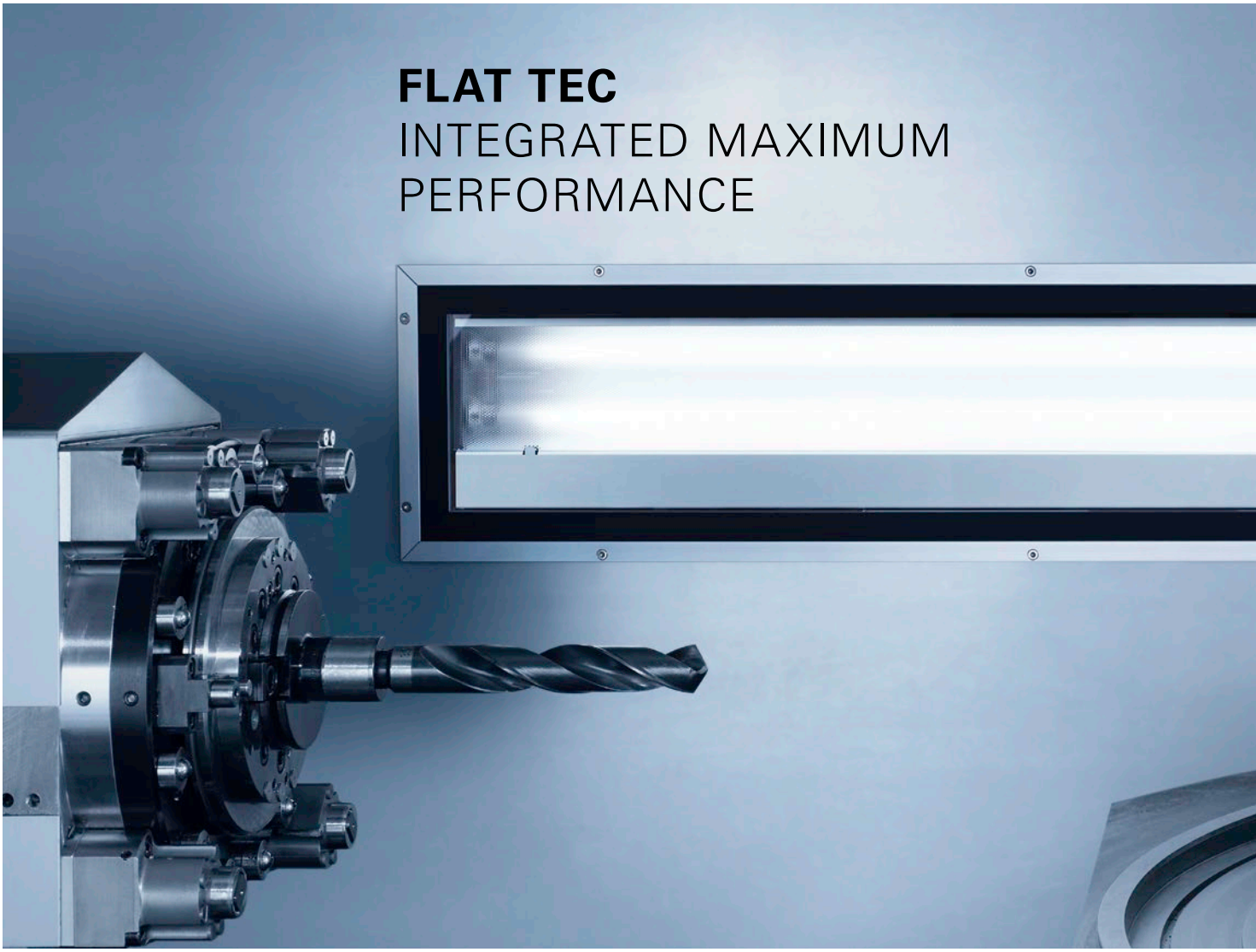
FLAT LED at a glance

- 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 Ta_{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

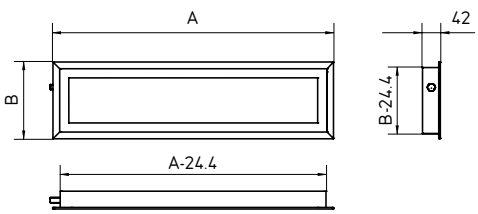
* E_m = medium illuminance; E_{max} = maximum illuminance; [1] measuring field 100 cm x 100 cm/measuring distance 100 cm
Also available as a surface-mounted luminaire



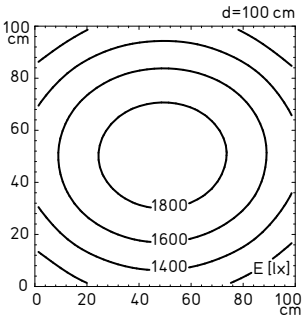
FLAT TEC
INTEGRATED MAXIMUM PERFORMANCE

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.

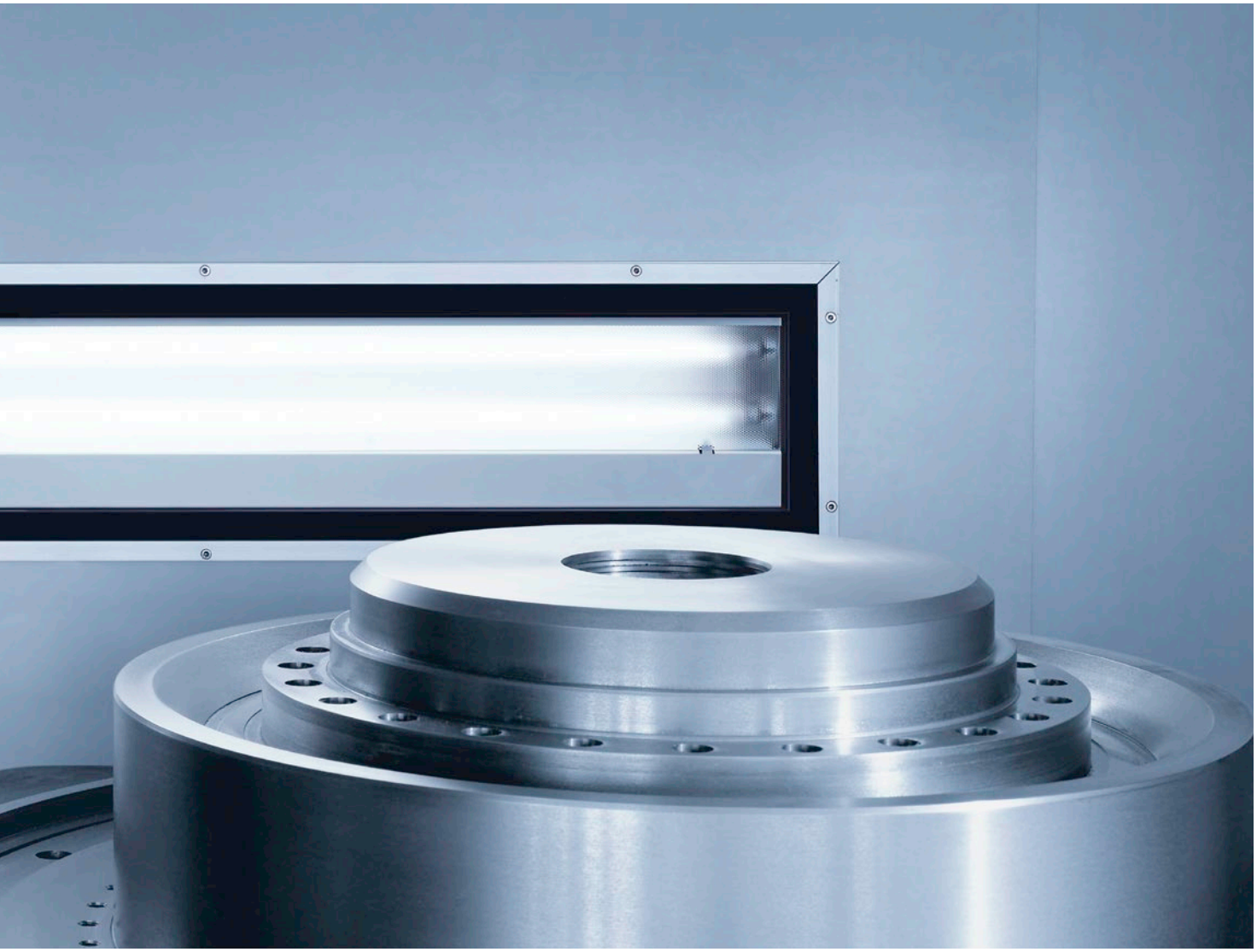
- Energy-efficient fluorescent lamp technology
- For strong, large-area and uniform lighting
- Wide-beam light characteristics
- Light exit with conical prismatic structure for perfect glare-free lighting
- Robust aluminium housing with solid safety glass screen
- High degree of protection
- Chemically 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 3 x 24 W	integrated electronic ballast 220 – 240 V, 50/60 Hz	A = 660 mm x B = 300 mm –	1000 lx[1] 1274 lx[1]	MZE 324 N 112 999 000 - 005 555 16
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]	MZE 224 N 113 002 000 - 005 555 45
T5 2 x 39 W	integrated electronic ballast 100 – 250 V, 50/60 Hz	A = 960 mm x B = 220 mm –	1096 lx[1] 1395 lx[1]	MZE 239 N 113 004 000 - 005 555 67
T5 2 x 54 W	integrated electronic ballast 100 – 250 V, 50/60 Hz	A = 1260 mm x B = 220 mm –	1546 lx[1] 1921 lx[1]	MZE 254 N 113 013 000 - 005 556 82
T5 1 x 24 W	integrated electronic ballast 24 VDC	A = 660 mm x B = 180 mm –	363 lx[1] 466 lx[1]	MZE 124 S 112 995 000 - 005 554 56
T5 1 x 39 W	integrated electronic ballast 24 VDC	A = 960 mm x B = 180 mm –	601 lx[1] 766 lx[1]	MZE 139 S 112 966 000 - 005 554 81

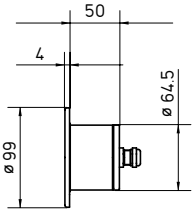
* E_m = medium illuminance; E_{max} = maximum illuminance; [1] measuring field 100 cm x 100 cm/measuring distance 100 cm
Also available as surface-mounted luminaires

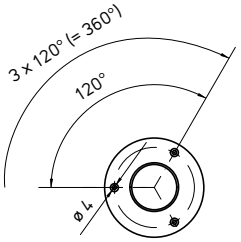
LED

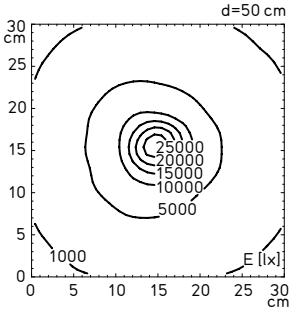
SPOT LED
HIGHLY CONCENTRATED IN A MINIMUM OF SPACE

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.

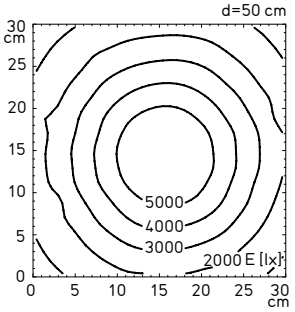
- Maintenance-free LED technology
- Strong high-power LEDs for maximum light
- With narrow- or wide-beam illumination characteristic, as desired
- Robust aluminium housing with solid safety glass screen
- High degree of protection
- Chemically resistant to many media such as oils or cooling lubricants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

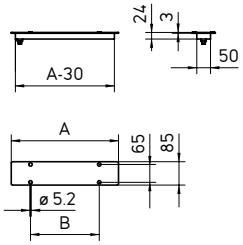
Machine tools Woodworking machines

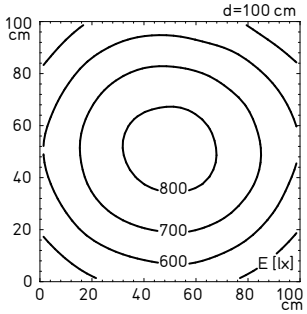
Fitted with Power	Operating device Connected load	Dimensions Special feature	E_m E_{max} *	Model Order no.
LED	–	ø 99 mm	4086 lx[1]	MCEYL 3 S
6 W	16 – 30 VAC/16 – 40 VDC	10° optics	27500 lx[1]	112 460 001 - 000 829 95
LED	–	ø 99 mm	3000 lx[1]	MCEYL 3 S
6 W	16 – 30 VAC/16 – 40 VDC	40° optics	5958 lx[1]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

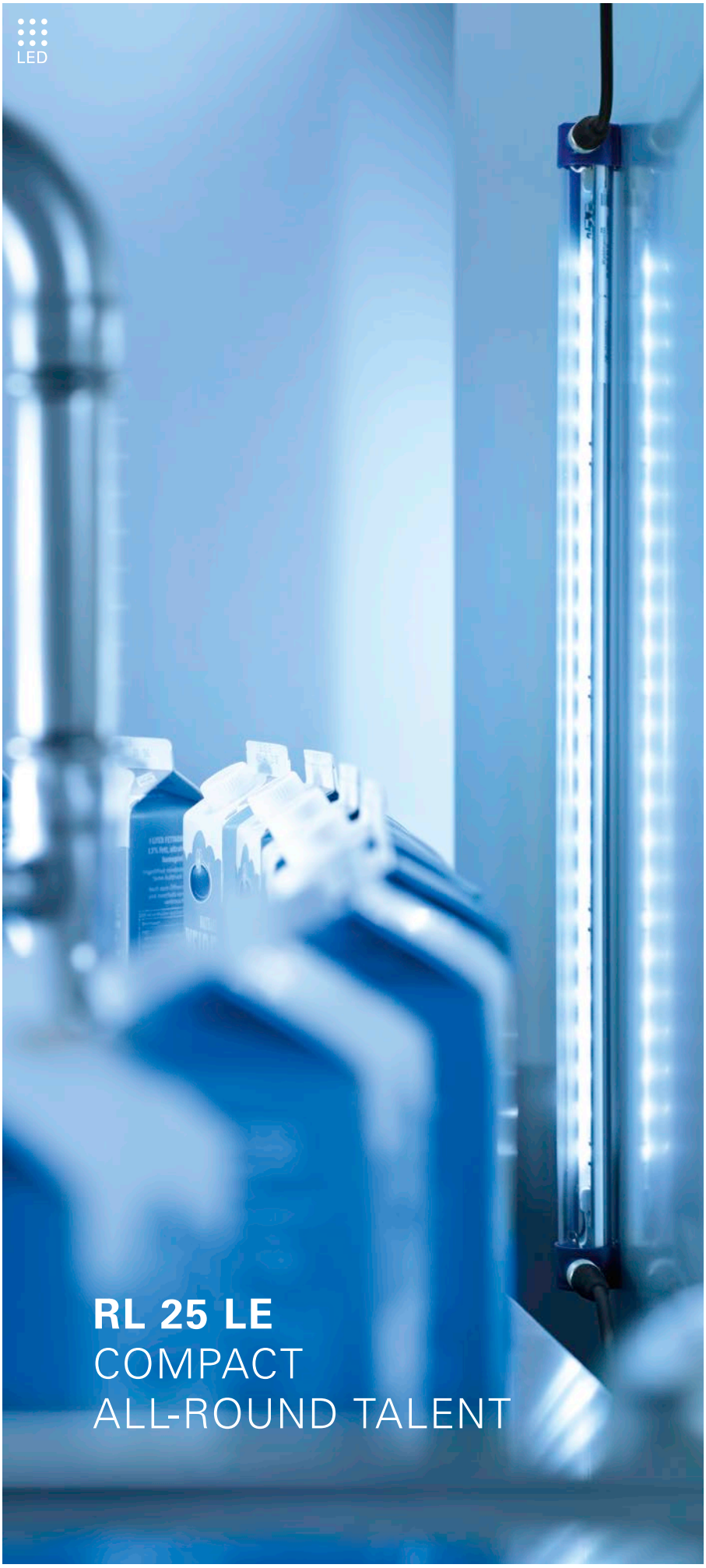
MKEL at a glance

- LED technology
- Colour temperature neutral white 5000 K
- Colour rendering Ra > 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 Ta_{max} 60° C
- LED service life (L70) > 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

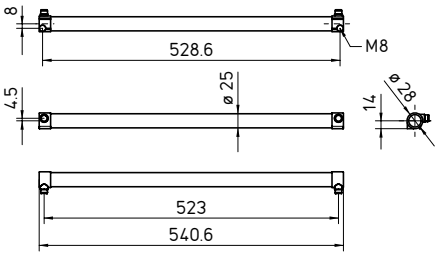
Fitted with Power	Operating device Connected load	Dimensions Special feature	E_m E_{max} *	Model Order no.
LED	–	215 mm x 85 mm	148 lx[1]	MKEL 12 S
5.0 W	20 – 28 VDC	–	195 lx[1]	113 170 000 - 006 807 62
LED	–	390 mm x 85 mm	326 lx[1]	MKEL 27 S
10.5 W	20 – 28 VDC	–	428 lx[1]	113 170 000 - 006 807 65
LED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

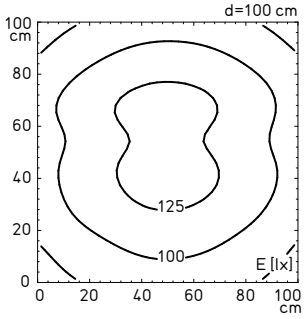
* E_m = medium illuminance; E_{max} = maximum illuminance; [1] measuring field 100 cm x 100 cm/measuring distance 100 cm



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 Ta_{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

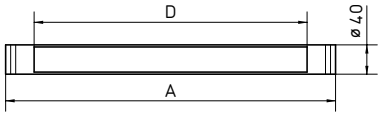
Fitted with Power	Operating device Connected load	Dimensions Special feature	E_m E_{max} *	Model Order no.
LED 6 W	– 20 – 28 VDC	541 mm x 25 mm –	105 lx[1] 133 lx[1]	RL25LE-24 D 112 957 000 - 005 316 85

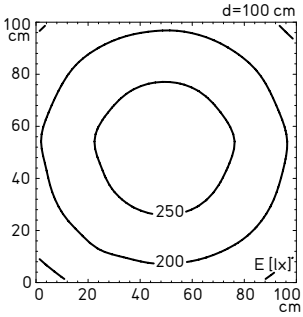
* E_m = medium illuminance; E_{max} = maximum illuminance; [1] measuring field 100 cm x 100 cm/measuring distance 100 cm

RL 40 LE 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.

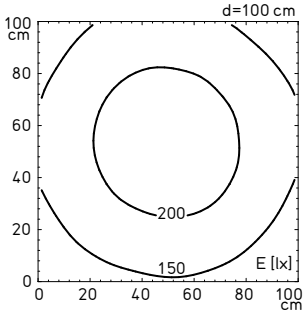
- Maintenance-free LED technology
- Housing made of impact-resistant plastic
- Outer diameter of 40 mm for integration in case of restricted space
- High degree of protection
- Ideal for high mechanical and thermal stress
- Direct connection to machine voltage
- Connection via quick connector
- Luminaires 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 luminaire body
- Luminaire body made of PC
- Mounted by means of various brackets from the accessories
- Maximum allowed ambient temperature Ta_{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

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	–	A = 368 mm, D = 307 mm	113 lx[1]	RL40LE-12
5 W	16 – 32 VDC	transparent tube	147 lx[1]	113 446 000 - 006 941 80
LED	–	A = 368 mm, D = 307 mm	113 lx[1]	RL40LE-12 D
5 W	16 – 32 VDC	transparent tube, through-wired	147 lx[1]	113 017 000 - 006 941 74
LED	–	A = 652 mm, D = 591 mm	218 lx[1]	RL40LE-24
10 W	16 – 32 VDC	transparent tube	280 lx[1]	113 447 000 - 006 941 95
LED	–	A = 652 mm, D = 591 mm	218 lx[1]	RL40LE-24 D
10 W	16 – 32 VDC	transparent tube, through-wired	280 lx[1]	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

Track laying machines

Fitted with Power	Operating device Connected load	Dimensions Special feature	E_m E_{max} *	Model Order no.
LED	–	A = 368 mm, D = 307 mm	90 lx[1]	RL40LE-12
5 W	16 – 32 VDC	white opal screen	119 lx[1]	113 446 000 - 006 941 77
LED	–	A = 368 mm, D = 307 mm	90 lx[1]	RL40LE-12 D
5 W	16 – 32 VDC	white opal screen, through-wired	119 lx[1]	113 017 000 - 006 941 71
LED	–	A = 652 mm, D = 591 mm	178 lx[1]	RL40LE-24
10 W	16 – 32 VDC	white opal screen	230 lx[1]	113 447 000 - 006 941 92
LED	–	A = 652 mm, D = 591 mm	178 lx[1]	RL40LE-24 D
10 W	16 – 32 VDC	white opal screen, through-wired	230 lx[1]	113 019 000 - 006 941 83

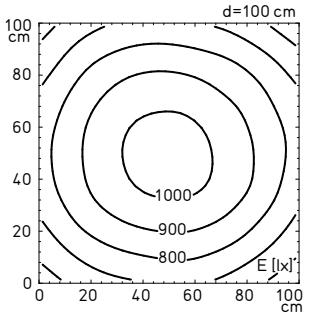
* E_m = medium illuminance; E_{max} = maximum illuminance; [1] measuring field 100 cm x 100 cm/measuring distance 100 cm

LED

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
- Chemically resistant to many media such as oils or cooling lubricants
- 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
- Mounted by means of various brackets from the accessories
- LED service life (L70) > 50000 h
- Maximum allowed ambient temperature Ta_{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

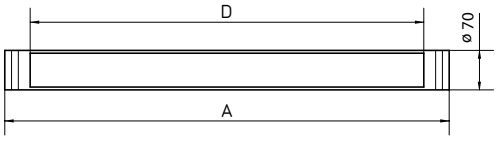
Machine tools
Textile machines
Woodworking machines
Production facilities

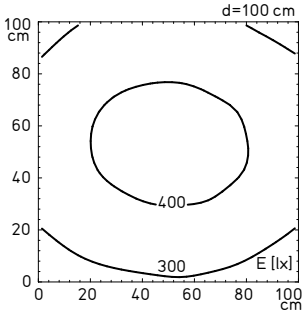
Fitted with Power	Operating device Connected load	Dimensions Special feature	E_m E_{max}*	Model Order no.
LED	–	A = 370 mm, D = 316 mm	242 lx[1]	RL70LE-24 N
12.5 W	22 – 26 VDC	–	317 lx[1]	113 279 000 - 006 413 86
LED	–	A = 510 mm, D = 456 mm	355 lx[1]	RL70LE-36 N
19.0 W	22 – 26 VDC	–	462 lx[1]	113 280 000 - 006 413 89
LED	–	A = 650 mm, D = 596 mm	505 lx[1]	RL70LE-48 N
25.0 W	22 – 26 VDC	–	646 lx[1]	113 281 000 - 006 413 92
LED	–	A = 790 mm, D = 736 mm	624 lx[1]	RL70LE-60 N
31.5 W	22 – 26 VDC	–	795 lx[1]	113 282 000 - 006 413 95
LED	–	A = 1070 mm, D = 1016 mm	837 lx[1]	RL70LE-84 N
44.0 W	22 – 26 VDC	–	1042 lx[1]	113 283 000 - 006 413 98
LED	–	A = 1210 mm, D = 1156 mm	968 lx[1]	RL70LE-96 N
50.0 W	22 – 26 VDC	–	1190 lx[1]	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

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 lenght: 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

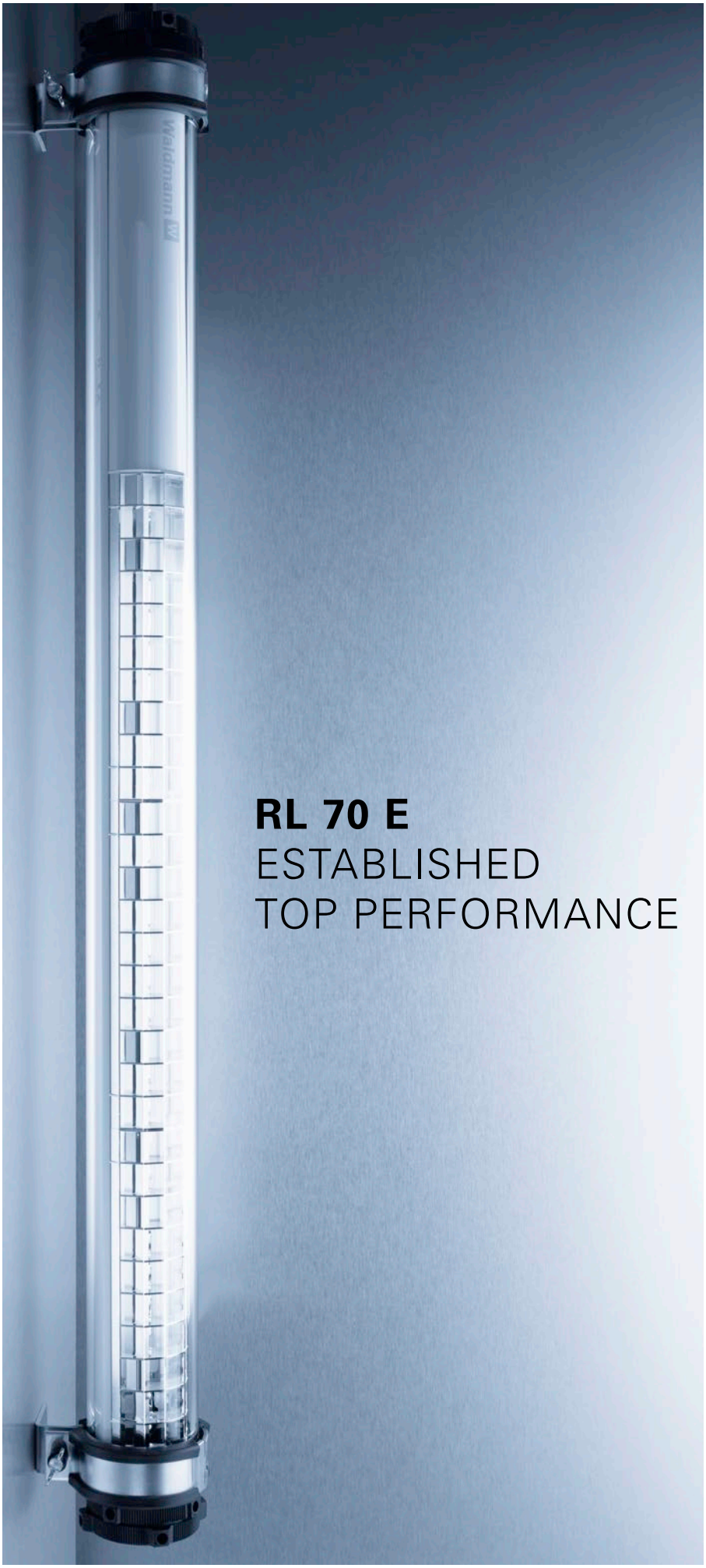
RL 70 LE at a glance

- LED technology
- Colour temperature daylight white 5700 K
- Colour rendering Ra > 80
- Glare-free thanks to white opal luminaire body
- Luminaire body made of PC
- Mounted by means of various brackets from the accessories
- LED service life (L70) > 50000 h
- Maximum allowed ambient temperature Ta_{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 –	195 lx[1] 245 lx[1]	RL70LE-36 113 448 000 - 006 946 22
LED 10 W	– 16 – 32 VDC	A = 935 mm, D = 824 mm through-wired	195 lx[1] 245 lx[1]	RL70LE-36 D 113 179 000 - 006 946 19
LED 30 W	– 16 – 32 VDC	A = 1362 mm, D = 1251 mm –	361 lx[1] 437 lx[1]	RL70LE-108 113 449 000 - 006 946 40
LED 30 W	– 16 – 32 VDC	A = 1362 mm, D = 1251 mm through-wired	361 lx[1] 437 lx[1]	RL70LE-108 D 113 180 000 - 006 946 37

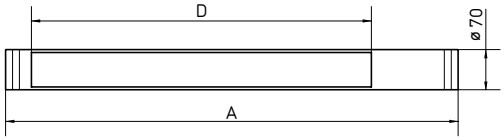
* E_m = medium illuminance; E_{max} = maximum illuminance; [1] measuring field 100 cm x 100 cm/measuring distance 100 cm

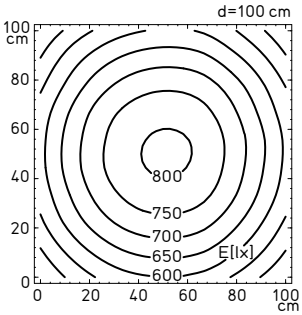


RL 70 E
ESTABLISHED TOP PERFORMANCE

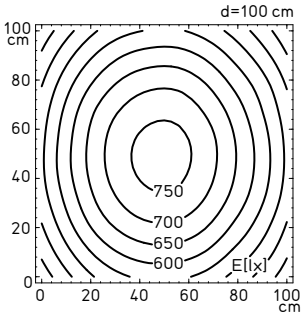
RL 70 E is the established solution for maximum wide-range lighting of the inside of the machine – even if glare-free viewing is required. This tube luminaire does not require an external ballast unit nor is it afraid of the toughest conditions of use.

- 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 of 2 x 39 W without parabolic louvre



Illuminance based on the example of 2 x 39 W

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 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

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	integrated electronic ballast	A = 916 mm, D = 597 mm	207 lx[1]	RL70E-118
1 x 18 W	230 – 240 V, 50/60 Hz	acrylic	262 lx[1]	111 841 000 - 000 679 40
T8	integrated electronic ballast	A = 916 mm, D = 597 mm	172 lx[1]	RL70E-118
1 x 18 W	230 – 240 V, 50/60 Hz	acrylic; parabolic louvre	222 lx[1]	111 841 010 - 000 688 91
T8	integrated electronic ballast	A = 1724 mm, D = 1200 mm	410 lx[1]	RL70E-136
1 x 36 W	230 – 240 V, 50/60 Hz	acrylic	490 lx[1]	111 821 000 - 000 661 92
T8	integrated electronic ballast	A = 1724 mm, D = 1200 mm	348 lx[1]	RL70E-136
1 x 36 W	230 – 240 V, 50/60 Hz	acrylic; parabolic louvre	420 lx[1]	111 821 010 - 000 695 45
T8	integrated electronic ballast	A = 2027 mm, D = 1548 mm	497 lx[1]	RL70E-158
1 x 58 W	230 – 240 V, 50/60 Hz	acrylic	693 lx[1]	111 911 000 - 000651 95
T8	integrated electronic ballast	A = 2027 mm, D = 1548 mm	425 lx[1]	RL70E-158
1 x 58 W	230 – 240 V, 50/60 Hz	acrylic; parabolic louvre	620 lx[1]	111 911 010 000 - 695 46
TC-L	integrated electronic ballast	A = 486 mm, D = 198 mm	160 lx[1]	RL70CE-118
1 x 18 W	100/120/230 V, 50/60 Hz	acrylic	205 lx[1]	111 371 000 - 000 570 24
TC-L	integrated electronic ballast	A = 486 mm, D = 198 mm	154 lx[1]	RL70CE-118
1 x 18 W	100/120/230 V, 50/60 Hz	acrylic; parabolic louvre	211 lx[1]	111 371 010 - 000 570 23
TC-L	integrated electronic ballast	A = 572 mm, D = 293 mm	259 lx[1]	RL70CE-124
1 x 24 W	100/120/230 V, 50/60 Hz	acrylic	333 lx[1]	111 381 002 - 000 570 29
TC-L	integrated electronic ballast	A = 572 mm, D = 293 mm	220 lx[1]	RL70CE-124
1 x 24 W	100/120/230 V, 50/60 Hz	acrylic; parabolic louvre	313 lx[1]	111 381 004 - 000 570 28
TC-L	integrated electronic ballast	A = 827 mm, D = 363 mm	337 lx[1]	RL70CE-136
1 x 36 W	220 – 240 V, 50/60 Hz	acrylic	437 lx[1]	112 009 000 - 000 661 19
TC-L	integrated electronic ballast	A = 827 mm, D = 363 mm	327 lx[1]	RL70CE-136
1 x 36 W	220 – 240 V, 50/60 Hz	acrylic; parabolic louvre	450 lx[1]	112 009 010 - 000 661 17
T5	integrated electronic ballast	A = 1472 mm, D = 829 mm	641 lx[1]	RL70E-329
2 x 39 W	220 – 240 V, 50/60 Hz	acrylic	805 lx[1]	112 501 000 - 000 975 72
T5	integrated electronic ballast	A = 1472 mm, D = 829 mm	577 lx[1]	RL70E-239
2 x 39 W	220 – 240 V, 50/60 Hz	acrylic; parabolic louvre	765 lx[1]	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	integrated electronic ballast	A = 524 mm, D = 212 mm	159 lx[1]	RL70CE-118
1 x 18 W	24 VDC	acrylic	205 lx[1]	112 370 000 - 000 841 57
TC-L	integrated electronic ballast	A = 524 mm, D = 212 mm	152 lx[1]	RL70CE-118
1 x 18 W	24 VDC	acrylic; parabolic louvre	208 lx[1]	112 370 010 - 000 841 68
T8	integrated electronic ballast	A = 919 mm, D =597 mm	207 lx[1]	RL70E-118
1 x 18 W	24 VDC	acrylic	262 lx[1]	111 690 000 - 000 634 06
T8	integrated electronic ballast	A = 919 mm, D =597 mm	172 lx[1]	RL70E-118
1 x 18 W	24 VDC	acrylic; parabolic louvre	222 lx[1]	111 690 010 - 000 674 71
TC-L	integrated electronic ballast	A = 639 mm, D = 317 mm	259 lx[1]	RL70CE-124
1 x 24 W	24 VDC	acrylic	333 lx[1]	111 440 000 - 000 571 73
TC-L	integrated electronic ballast	A = 639 mm, D = 317 mm	220 lx[1]	RL70CE-124
1 x 24 W	24 VDC	acrylic; parabolic louvre	313 lx[1]	111 440 010 - 000 571 74
TC-L	integrated electronic ballast	A = 747 mm, D = 364 mm	337 lx[1]	RL70CE-136
1 x 36 W	24 VDC	acrylic	437 lx[1]	111 450 000 - 000 640 46
TC-L	integrated electronic ballast	A = 747 mm, D = 364 mm	327 lx[1]	RL70CE-136
1 x 36 W	24 VDC	acrylic; parabolic louvre	450 lx[1]	111 450 010 - 000 644 22
T8	integrated electronic ballast	A = 1532 mm, D = 1210 mm	410 lx[1]	RL70E-136
1 x 36 W	24 VDC	acrylic	490 lx[1]	111 730 000 - 000 599 87
T8	integrated electronic ballast	A = 1532 mm, D = 1210 mm	348 lx[1]	RL70E-136
1 x 36 W	24 VDC	acrylic; parabolic louvre	420 lx[1]	111 730 010 - 000 599 90
T8	integrated electronic ballast	A = 1850 mm, D = 1541 mm	497 lx[1]	RL70E-158
1 x 58 W	24 VDC	acrylic	693 lx[1]	112 170 000 - 000 867 80
T8	integrated electronic ballast	A = 1850 mm, D = 1541 mm	425 lx[1]	RL70E-158
1 x 58 W	24 VDC	acrylic; parabolic louvre	620 lx[1]	112 170 010 - 000 887 53
TC-L	integrated electronic ballast	A = 524 mm, D = 212 mm	159 lx[1]	RL70CE-118
1 x 18 W	24 VAC, 50/60 Hz	acrylic	205 lx[1]	112 369 000 - 000 841 94
TC-L	integrated electronic ballast	A = 524 mm, D = 212 mm	152 lx[1]	RL70CE-118
1 x 18 W	24 VAC, 50/60 Hz	acrylic; parabolic louvre	208 lx[1]	112 369 010 - 000 841 95
T8	integrated electronic ballast	A = 919 mm, D =597 mm	207 lx[1]	RL70CE-118
1 x 18 W	24 VAC, 50/60 Hz	acrylic	262 lx[1]	111 650 000 - 000 630 29
T8	integrated electronic ballast	A = 919 mm, D =597 mm	172 lx[1]	RL70CE-118
1 x 18 W	24 VAC, 50/60 Hz	acrylic; parabolic louvre	222 lx[1]	111 650 010 - 000 815 94
TC-L	integrated electronic ballast	A = 639 mm, D = 317 mm	259 lx[1]	RL70CE-124
1 x 24 W	24 VAC, 50/60 Hz	acrylic	333 lx[1]	111 410 000 - 000 571 56
TC-L	integrated electronic ballast	A = 639 mm, D = 317 mm	220 lx[1]	RL70CE-124
1 x 24 W	24 VAC, 50/60 Hz	acrylic; parabolic louvre	313 lx[1]	111 410 010 - 000 571 57
TC-L	integrated electronic ballast	A = 747 mm, D = 364 mm	337 lx[1]	RL70CE-136
1 x 36 W	24 VAC, 50/60 Hz	Acrylic	437 lx[1]	111 420 000 - 000 571 61
TC-L	integrated electronic ballast	A = 747 mm, D = 364 mm	327 lx[1]	RL70CE-136
1 x 36 W	24 VAC, 50/60 Hz	acrylic; parabolic louvre	450 lx[1]	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	integrated electronic ballast	A = 916 mm, D = 597 mm	207 lx[1]	RL70E-118
1 x 18 W	230 – 240 V, 50/60 Hz	borosilicate glass	262 lx[1]	111 841 001 - 000 687 31
T8	integrated electronic ballast	A = 916 mm, D = 597 mm	172 lx[1]	RL70E-118
1 x 18 W	230 – 240 V, 50/60 Hz	borosilicate glass; parabolic louvre	222 lx[1]	111 841 011 - 000 868 78
T8	integrated electronic ballast	A = 1724 mm, D = 1200 mm	410 lx[1]	RL70E-136
1 x 36 W	230 – 240 V, 50/60 Hz	borosilicate glass	490 lx[1]	111 821 001 - 000 632 28
T8	integrated electronic ballast	A = 1724 mm, D = 1200 mm	348 lx[1]	RL70E-136
1 x 36 W	230 – 240 V, 50/60 Hz	borosilicate glass; parabolic louvre	420 lx[1]	111 821 011 - 000 851 07
T8	integrated electronic ballast	A = 2027 mm, D = 1548 mm	497 lx[1]	RL70E-158
1 x 58 W	230 – 240 V, 50/60 Hz	borosilicate glass	693 lx[1]	111 911 001 - 000 651 94
T8	integrated electronic ballast	A = 2027 mm, D = 1548 mm	425 lx[1]	RL70E-158
1 x 58 W	230 – 240 V, 50/60 Hz	borosilicate glass; parabolic louvre	620 lx[1]	111 911 011 - 000 651 96

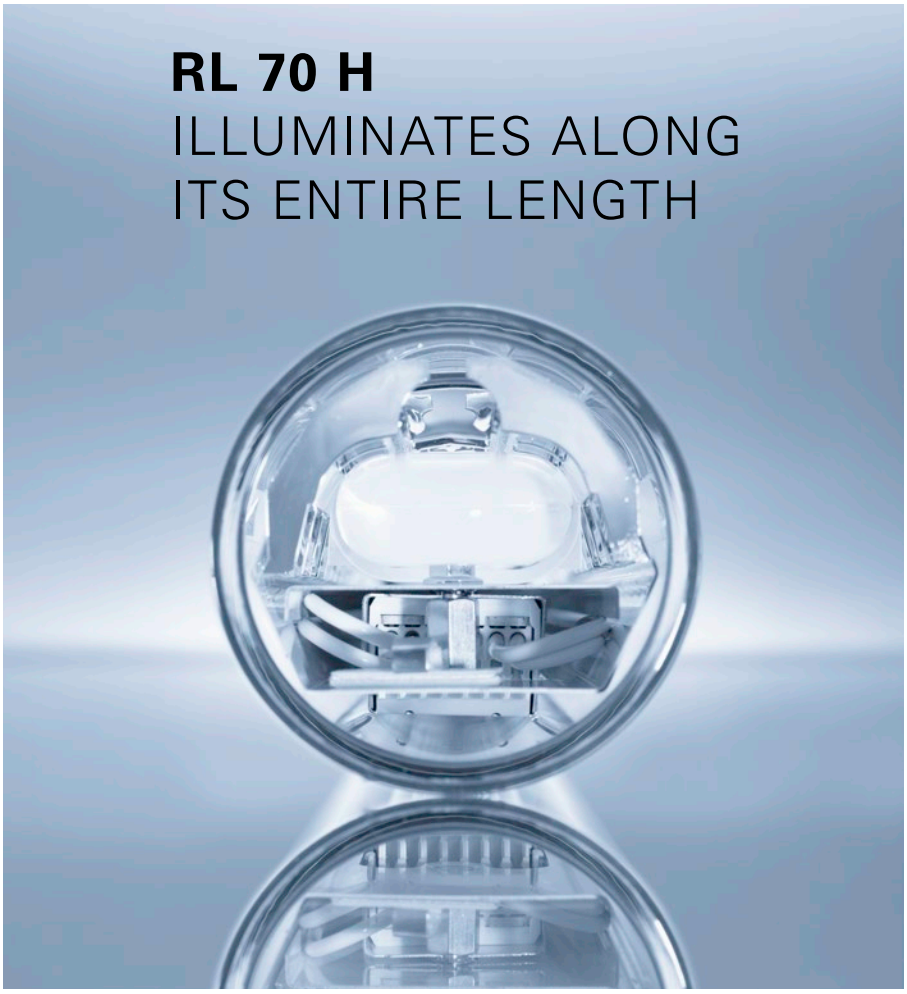
* E_m = medium illuminance; E_{max} = maximum illuminance; [1] measuring field 100 cm x 100 cm/measuring distance 100 cm

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	integrated electronic ballast	A = 486 mm, D = 198 mm	160 lx[1]	RL70CE-118
1 x 18 W	100/120/230 V, 50/60 Hz	borosilicate glass	205 lx[1]	111 371 001 - 000 570 26
TC-L	integrated electronic ballast	A = 486 mm, D = 198 mm	154 lx[1]	RL70CE-118
1 x 18 W	100/120/230 V, 50/60 Hz	borosilicate glass; parabolic louvre	211 lx[1]	111 371 011 - 000 570 25
TC-L	integrated electronic ballast	A = 572 mm, D = 293 mm	259 lx[1]	RL70CE-124
1 x 24 W	100/120/230 V, 50/60 Hz	borosilicate glass	333 lx[1]	111 381 003 - 000 570 31
TC-L	integrated electronic ballast	A = 572 mm, D = 293 mm	220 lx[1]	RL70CE-124
1 x 24 W	100/120/230 V, 50/60 Hz	borosilicate glass; parabolic louvre	313 lx[1]	111 381 005 - 000 570 30
TC-L	integrated electronic ballast	A = 827 mm, D = 363 mm	337 lx[1]	RL70CE-136
1 x 36 W	220 – 240 V, 50/60 Hz	borosilicate glass	437 lx[1]	112 009 001 - 000 661 18
TC-L	integrated electronic ballast	A = 827 mm, D = 363 mm	327 lx[1]	RL70CE-136
1 x 36 W	220 – 240 V, 50/60 Hz	borosilicate glass; parabolic louvre	450 lx[1]	112 009 011 - 000 661 16
T5	integrated electronic ballast	A = 1 475 mm, D = 829 mm	641 lx[1]	RL70E-239
2 x 39 W	220 – 240 V, 50/60 Hz	borosilicate glass	805 lx[1]	112 501 001 - 000 975 73
T5	integrated electronic ballast	A = 1 475 mm, D = 829 mm	577 lx[1]	RL70E-239
2 x 39 W	220 – 240 V, 50/60 Hz	borosilicate glass; parabolic louvre	765 lx[1]	112 501 011 - 000 975 75
T5	integrated electronic ballast	A = 1 744 mm, D = 1 048 mm	923 lx[1]	RL70E-254
2 x 54 W	220 – 240 V, 50/60 Hz	borosilicate glass	1 427 lx[1]	112 180 001 - 000 863 00
T5	integrated electronic ballast	A = 1 744 mm, D = 1 048 mm	698 lx[1]	RL70E-254
2 x 54 W	220 – 240 V, 50/60 Hz	borosilicate glass; parabolic louvre	1 1185 lx[1]	112 180 011 - 000 863 01
TC-L	integrated electronic ballast	A = 1 040 mm, D = 530 mm	442 lx[1]	RL70CE-140
1 x 40 W	110 – 230 V, 50/60 Hz	borosilicate glass	563 lx[1]	112 331 003 - 000 307 81**
TC-L	integrated electronic ballast	A = 1 040 mm, D = 530 mm	400 lx[1]	RL70CE-140
1 x 40 W	110 – 230 V, 50/60 Hz	borosilicate glass; parabolic louvre	552 lx[1]	112 331 005 - 000 307 75**
TC-L	integrated electronic ballast	A = 524 mm, D = 212 mm	159 lx[1]	RL70CE-118
1 x 18 W	24 VDC	borosilicate glass	205 lx[1]	112 370 001 - 000 841 61
TC-L	integrated electronic ballast	A = 524 mm, D = 212 mm	152 lx[1]	RL70CE-118
1 x 18 W	24 VDC	borosilicate glass; parabolic louvre	208 lx[1]	112 370 011 - 000 841 69
T8	integrated electronic ballast	A = 919 mm, D = 597 mm	207 lx[1]	RL70E-118
1 x 18 W	24 VDC	borosilicate glass	262 lx[1]	111 690 001 - 000 634 08
T8	integrated electronic ballast	A = 919 mm, D = 597 mm	172 lx[1]	RL70E-118
1 x 18 W	24 VDC	borosilicate glass; parabolic louvre	222 lx[1]	111 690 011 - 000 634 07
TC-L	integrated electronic ballast	A = 639 mm, D = 317 mm	259 lx[1]	RL70CE-124
1 x 24 W	24 VDC	borosilicate glass	333 lx[1]	111 440 001 - 000 571 75
TC-L	integrated electronic ballast	A = 639 mm, D = 317 mm	220 lx[1]	RL70CE-124
1 x 24 W	24 VDC	borosilicate glass; parabolic louvre	313 lx[1]	111 440 011 - 000 571 76
TC-L	integrated electronic ballast	A = 747 mm, D = 364 mm	337 lx[1]	RL70CE-136
1 x 36 W	24 VDC	borosilicate glass	437 lx[1]	111 450 001 - 000 571 77
TC-L	integrated electronic ballast	A = 747 mm, D = 364 mm	271 lx[1]	RL70CE-136
1 x 36 W	24 VDC	borosilicate glass; parabolic louvre	352 lx[1]	111 450 011 - 000 571 78
T8	integrated electronic ballast	A = 1 532 mm, D = 1 210 mm	410 lx[1]	RL70E-136
1 x 36 W	24 VDC	borosilicate glass	490 lx[1]	111 730 001 - 000 599 91
T8	integrated electronic ballast	A = 1 532 mm, D = 1 210 mm	348 lx[1]	RL70E-136
1 x 36 W	24 VDC	borosilicate glass; parabolic louvre	420 lx[1]	111 730 011 - 00 599 88
T8	integrated electronic ballast	A = 1 850 mm, D = 1 541 mm	497 lx[1]	RL70E-158
1 x 58 W	24 VDC	borosilicate glass	693 lx[1]	112 170 001 - 000 855 33
T8	integrated electronic ballast	A = 1 850 mm, D = 1 541 mm	425 lx[1]	RL70E-158
1 x 58 W	24 VDC	borosilicate glass; parabolic louvre	620 lx[1]	112 170 011 - 000 865 01
TC-L	integrated electronic ballast	A = 524 mm, D = 212 mm	159 lx[1]	RL70CE-118
1 x 18 W	24 VAC, 50/60 Hz	borosilicate glass	205 lx[1]	112 369 001 - 000 842 04
TC-L	integrated electronic ballast	A = 524 mm, D = 212 mm	152 lx[1]	RL70CE-118
1 x 18 W	24 VAC, 50/60 Hz	borosilicate glass; parabolic louvre	208 lx[1]	112 369 011 - 000 841 97
T8	integrated electronic ballast	A = 919 mm, D = 597 mm	207 lx[1]	RL70E-118
1 x 18 W	24 VAC, 50/60 Hz	borosilicate glass	262 lx[1]	111 650 001 - 000 630 30
T8	integrated electronic ballast	A = 919 mm, D = 597 mm	172 lx[1]	RL70E-118
1 x 18 W	24 VAC, 50/60 Hz	borosilicate glass; parabolic louvre	222 lx[1]	111 650 011 - 000 630 31
TC-L	integrated electronic ballast	A = 639 mm, D = 317 mm	259 lx[1]	RL70CE-124
1 x 24 W	24 VAC, 50/60 Hz	borosilicate glass	333 lx[1]	111 410 001 - 000 571 58
TC-L	integrated electronic ballast	A = 639 mm, D = 317 mm	220 lx[1]	RL70CE-124
1 x 24 W	24 VAC, 50/60 Hz	borosilicate glass; parabolic louvre	313 lx[1]	111 410 011 - 000 571 59
TC-L	integrated electronic ballast	A = 747 mm, D = 364 mm	337 lx[1]	RL70CE-136
1 x 36 W	24 VAC, 50/60 Hz	borosilicate glass	437 lx[1]	111 420 001 - 000 571 64
TC-L	integrated electronic ballast	A = 747 mm, D = 364 mm	327 lx[1]	RL70CE-136
1 x 36 W	24 VAC, 50/60 Hz	borosilicate glass; parabolic louvre	450 lx[1]	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

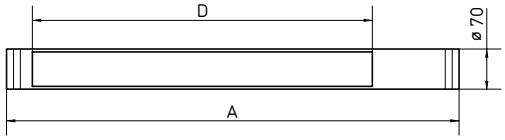
The RL 70 H intelligently combines the advantages of an integrated electronic ballast luminaire with the advantages of separate ballast unit. It practically illuminates the entire tube length without requiring any further components.

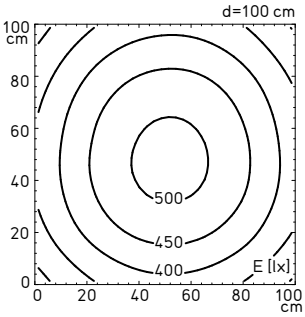
- Energy-efficient fluorescent lamp technology
- Light exit over almost the entire luminaire length
- Ultra low-glare, homogeneous light with soft transitions
- Variants with parabolic louvre for ideal glare-free viewing
- Integrated electronic ballast unit
- Bayonet connection for easy lamp replacement
- 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

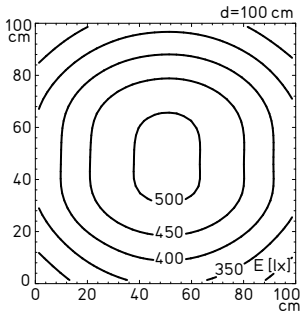
Fitted with Power	Operating device Connected load	Dimensions Special feature	E_m E_{max} *	Model Order no.
TC-L 1 x 36 W	integrated electronic ballast 230 – 240 V, 50/60 Hz	A = 585 mm, D = 395 mm acrylic	280 lx[1] 354 lx[1]	RL70CE-136 H 112 472 000 - 000 908 25
TC-L 1 x 36 W	integrated electronic ballast 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 of 2 x 36 W without parabolic louvre (112 449 001 - 000 813 05)



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

RL 70 H at a glance

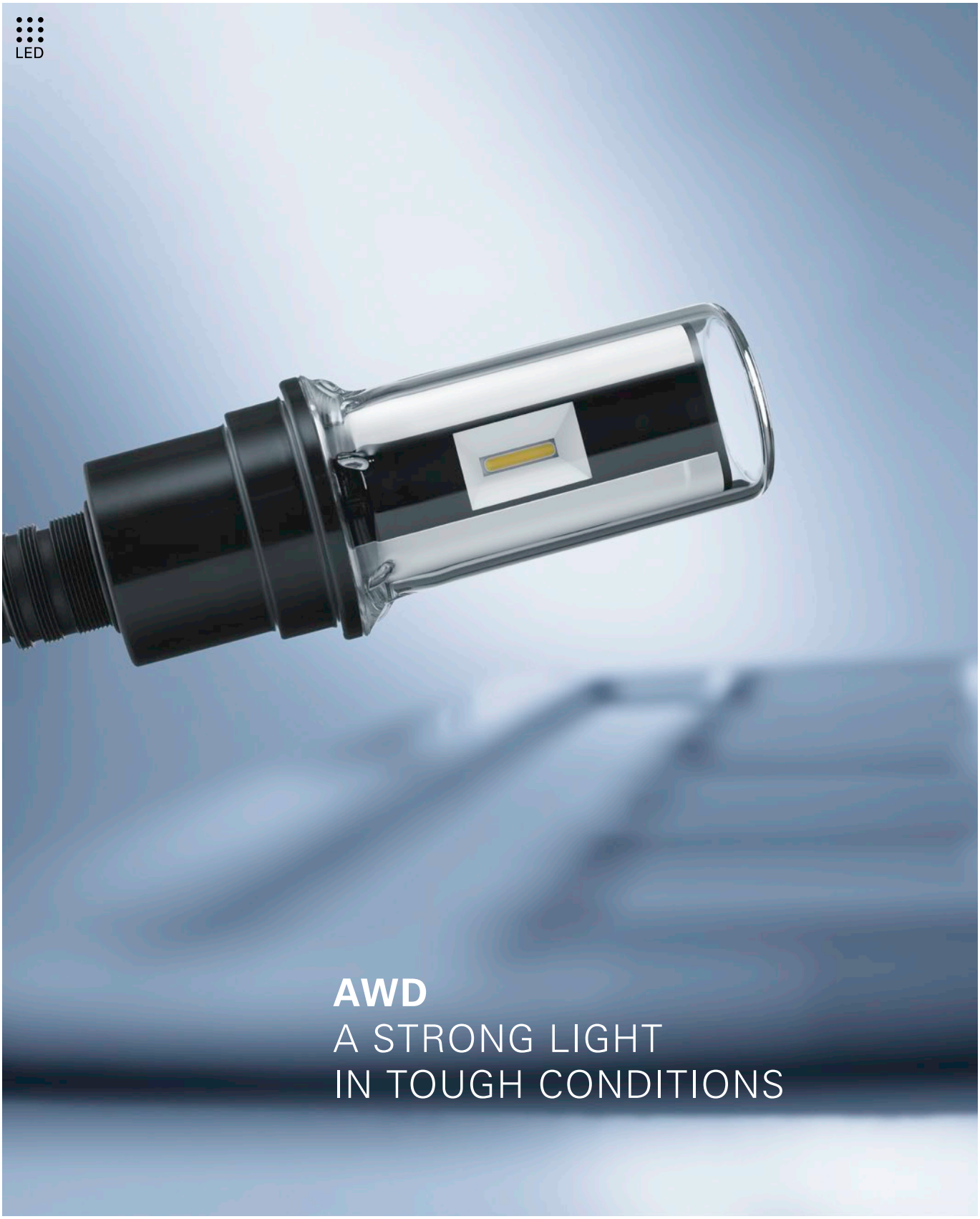
- Fluorescent lamp technology
- Colour temperature neutral white 4000 K
- Colour rendering Ra > 80
- Direct illumination or glare-free thanks to aluminiumized parabolic louvre
- Luminaire body made of acrylic or borosilicate glass
- Mounted by means of various brackets from the accessories
- Degree of 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 = 1065 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 = 1065 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

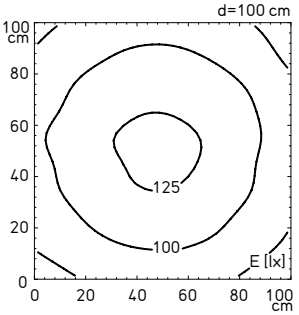
** Design with cETLus approval



AWD 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.

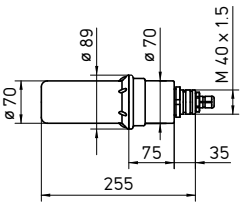
- Available with maintenance-free LED technology or energy-efficient fluorescent lamp technology
- High degree of protection
- Chemically resistant to many media such as oils or cooling lubricants
- Resistant even when a lot of chips are flying around
- Direct connection to machine voltage

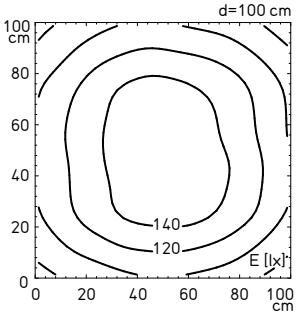
AWDL 1



Illuminance AWDL 1

AWDCE 118 with parabolic louvre





Illuminance AWDCE with reflector

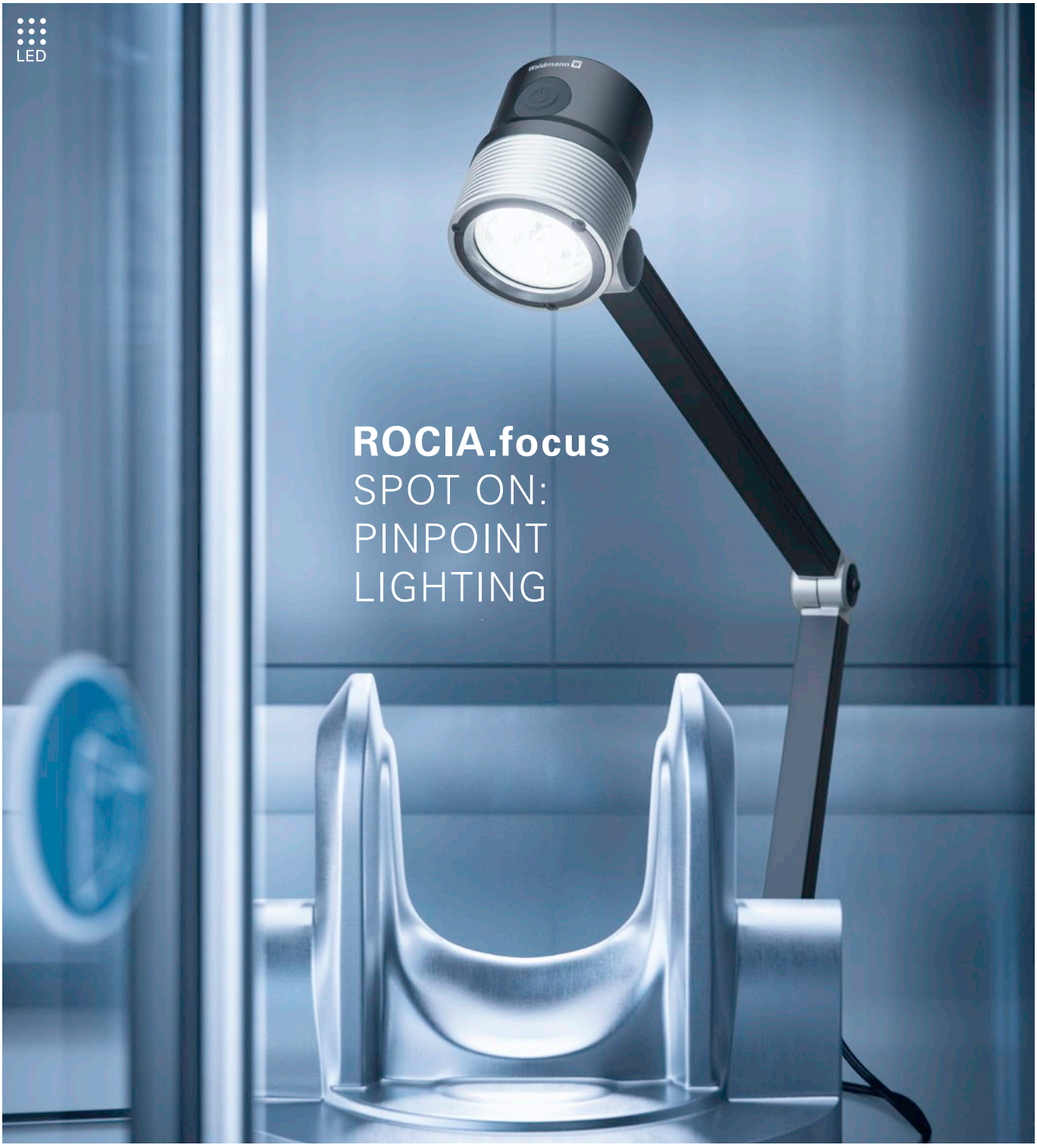
AWD at a glance

- LED technology or 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 borosilicate glass
- Mounted by means of screw connection or bracket from the accessories
- Degree of protection IP67, protection class II (AWDCE) or protection class III (AWDL 1)
- Connection via cable gland
- Bracket as accessory

Machine tools

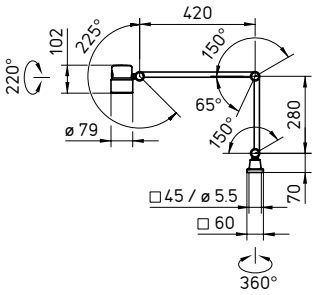
Fitted with Power	Operating device Connected load	Dimensions Special feature	E_m E_{max} *	Model Order no.
LED	–	ø 70 mm	102 lx[1]	AWDL 1
5.5 W	24 VDC	borosilicate glass; reflector	132 lx[1]	112 950 000 - 005 215 46
TC-DEL	integrated electronic ballast	ø 70 mm	122 lx[1]	AWDCE 118
18.0 W	24 VDC	borosilicate glass; reflector	158 lx[1]	112 153 001 - 000 836 32
TC-DEL	integrated electronic ballast	ø 70 mm	108 lx[1]	AWDCE 118
18.0 W	24 VDC	borosilicate glass; parabolic louvre	140 lx[1]	112 153 011 - 000 836 33

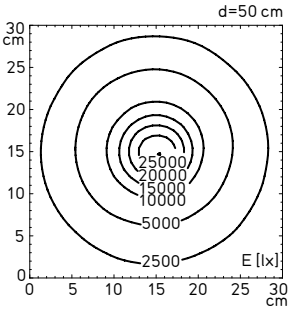
* E_m = medium illuminance; E_{max} = maximum illuminance; [1] measuring field 100 cm x 100 cm/measuring distance 100 cm



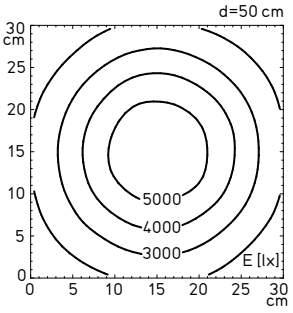
The ROCIA.focus impresses with unique resistance. Even in the roughest industrial environments, the luminaire preserves its stability and ensures precise and focused lighting. Its exactly adjustable arm, optics with different beam angles and a flicker-free dimming allow an optimum control of the state-of-the-art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

ROCIA.focus compact

- 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 Ta_{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, 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

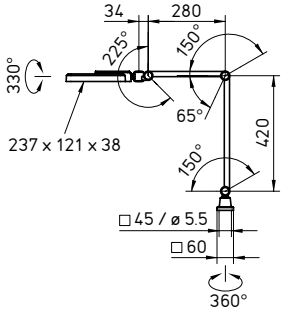
Machine tools | Woodworking machines | Textile machines

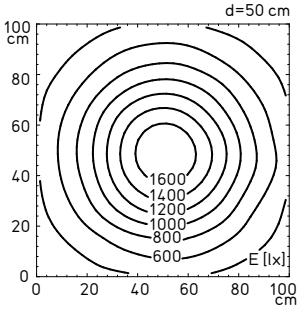
Fitted with Power	Operating device Connected load	Dimensions Special feature	E_m E_{max}*	Model Order no.
LED	integrated transformer	–	5088 lx[1]	RFD 600/850/D
9.5 W	100 – 240 V, 50/60 Hz	10° optics, dimmable	30053 lx[1]	113 181 000 - 006 791 31
LED	integrated transformer	–	3255 lx[1]	RFD 600/850/D
9.5 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
8.5 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
8.5 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 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





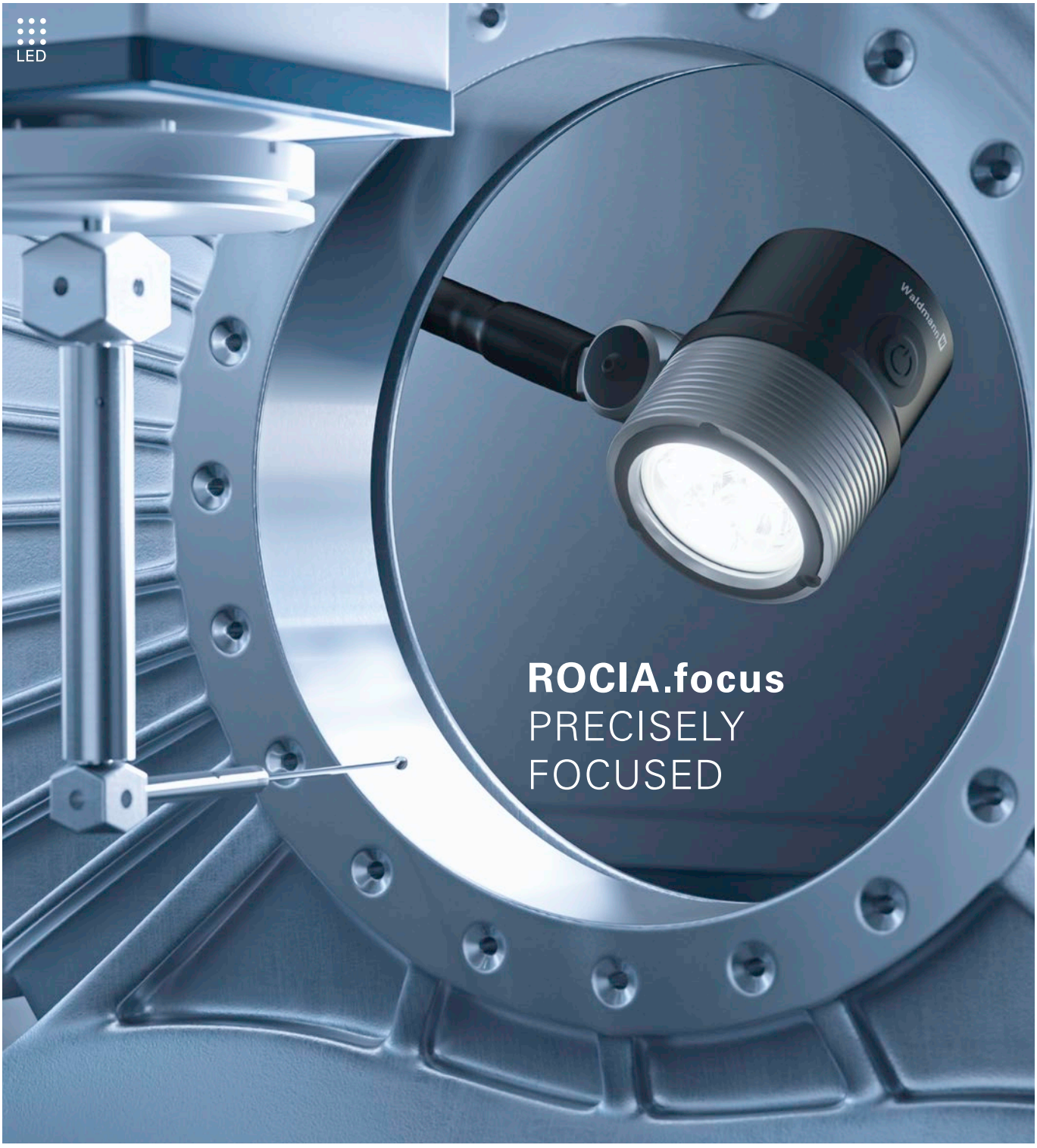
ROCIA.planar at a glance

- 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 IP67, 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

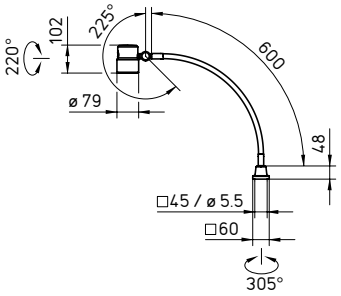
Fitted with Power	Operating device Connected load	Dimensions Special feature	E_m E_{max}*	Model Order no.
LED 18 W	integrated transformer 100 – 240 V, 50/60 Hz	– –	783 lx[1] 1752 lx[1]	RPD 1700/850 113 458 000 - 006 689 76

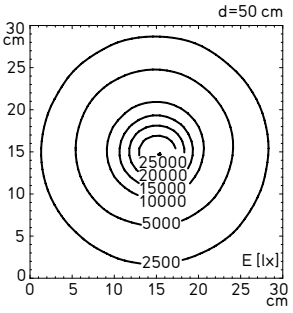
* E_m = medium illuminance; E_{max} = maximum illuminance; [1] measuring field 100 cm x 100 cm/measuring distance 50 cm



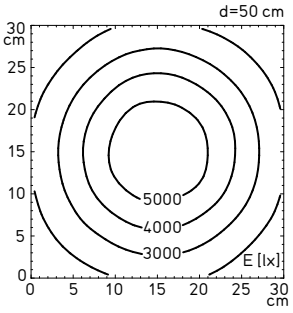
ROCIA.focus in the flexible-tube luminaire design offers a lot of freedom when setting the light that fits perfectly. Its flexible tube with additional head joint makes it mobile and focuses the light directly and quickly – always exactly where it is needed. Even where space is limited, the lighting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

ROCIA.focus compact

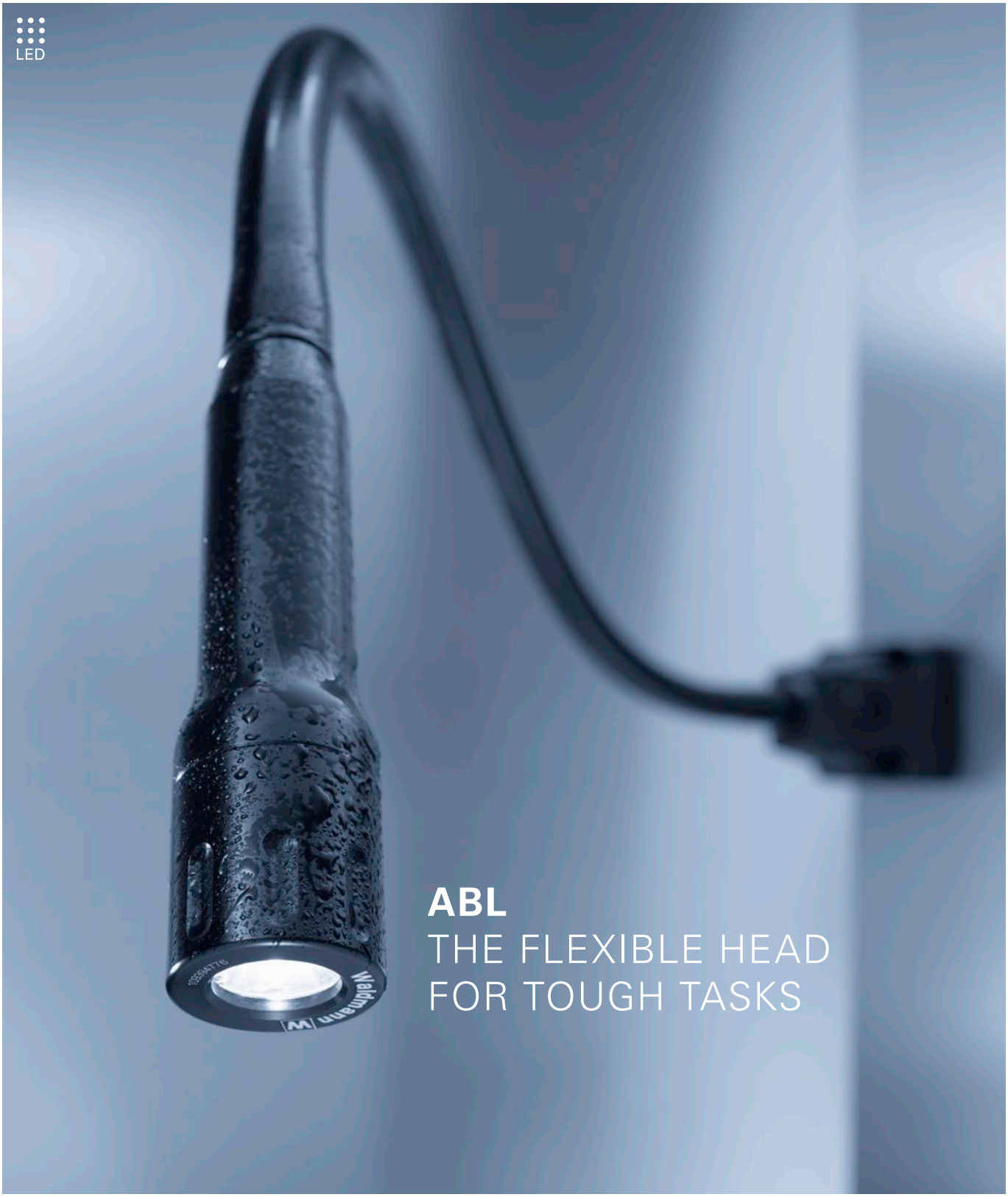
- LED technology
- Colour temperature neutral white 5000 K
- Colour rendering Ra > 80
- Beam angle 10° or 40°
- Housing made of black and colourless anodised aluminium
- 3 mm thick safety glass
- Flexible metal tube for at least 20000 motions
- Maximum allowed ambient temperature Ta_{max} 40 °C (without transformer)
- LED service life (L70) > 60000 h
- Button integrated into the luminaire head for On/Off and dimming
- Degree of protection IP67, 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

Machine tools | Woodworking machines | Textile machines

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
9.5 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
9.5 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
8.5 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
8.5 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

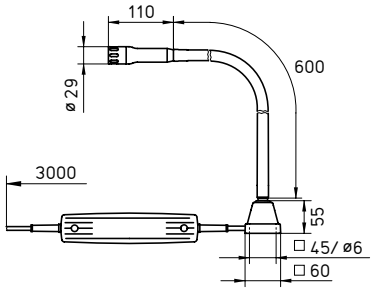
LED

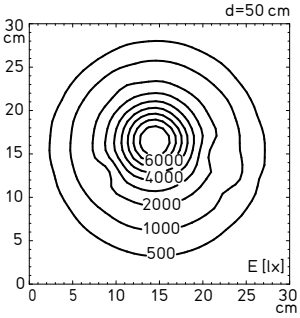


ABL
THE FLEXIBLE HEAD FOR TOUGH TASKS

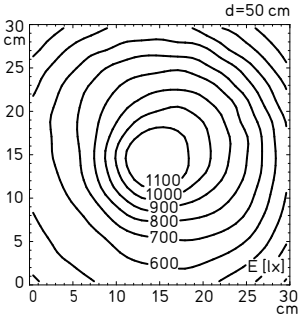
With its minimalist design, the ABL is as small and handy as a mini flashlight that can be fixed in any position. The fact that it is extremely tough in spite of its delicate appearance makes it a highly versatile luminaire.

- 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



Illuminance with 25° optics

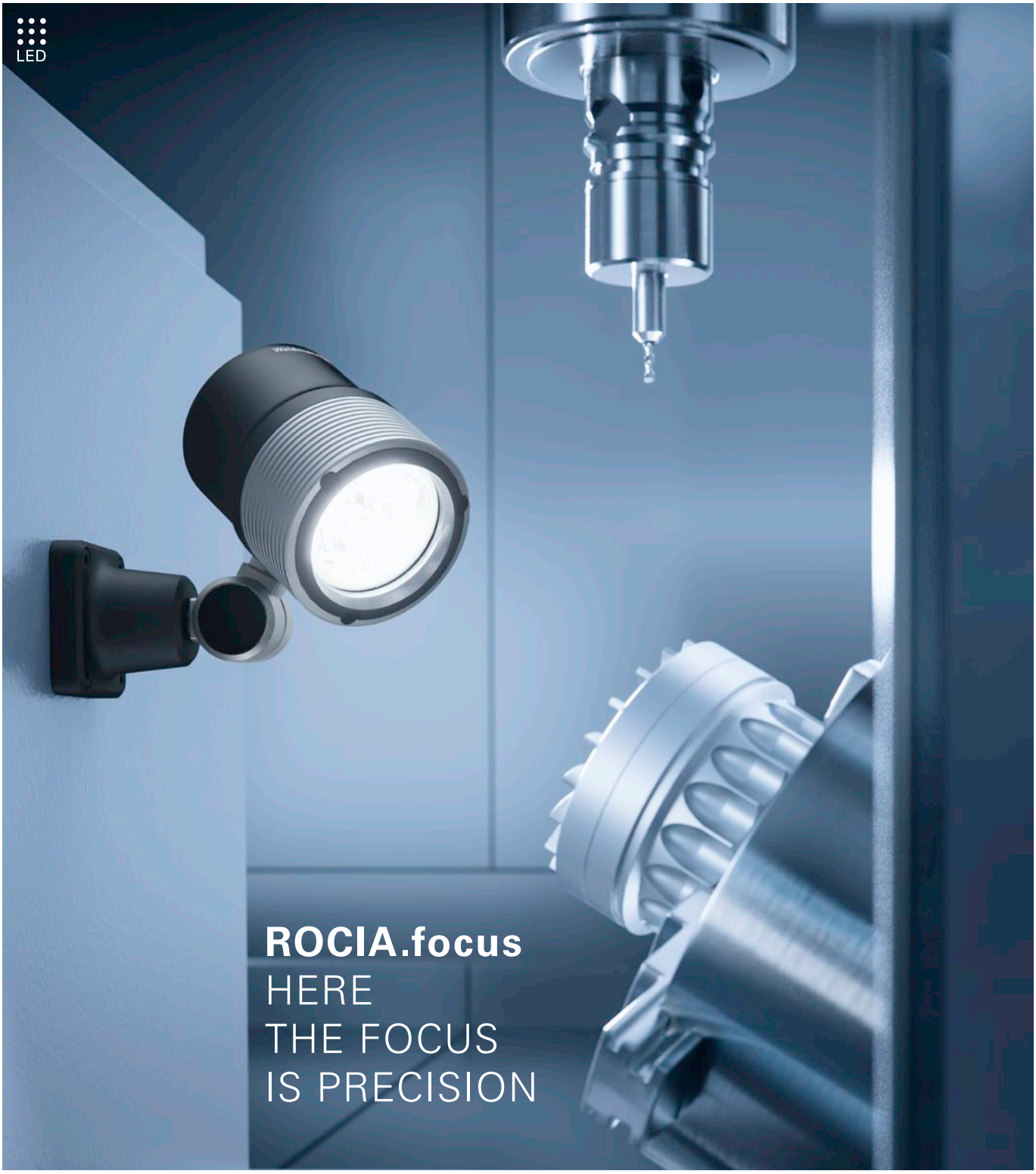
ABL at a glance

- 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

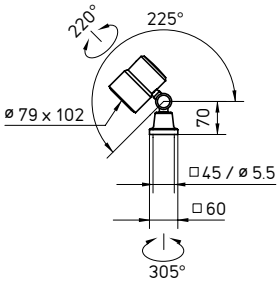
Fitted with Power	Operating device Connected load	Connection Special feature	E_m E_{max} *	Model Order no.
LED	–	constant current source with 350 or 700 mA	1219 lx[1]	ABLTL 1
3 W	depending on the operating device	6° optics	8966 lx[1]	112 423 000 - 000 715 50
LED	–	constant current source with 350 or 700 mA	691 lx[1]	ABLTL 1
3 W	depending on the operating device	25° optics	1260 lx[1]	112 423 001 - 000 715 49
LED	transformer in sep. housing	–	1219 lx[1]	ABLTLE 1
3 W	95 – 240 V, 50/60 Hz	6° optics	8966 lx[1]	112 426 000 - 000 740 02
LED	transformer in sep. housing	–	691 lx[1]	ABLTLE 1
3 W	95 – 240 V, 50/60 Hz	25° optics	1260 lx[1]	112 426 001 - 000 741 55

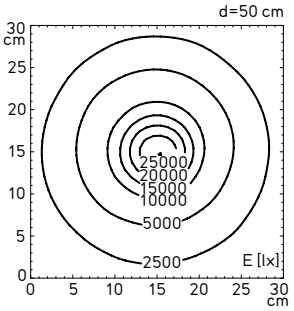
* E_m = medium illuminance; E_{max} = maximum illuminance; [1] measuring field 30 cm x 30 cm/measuring distance 50 cm
Also available as pivoting-head luminaires



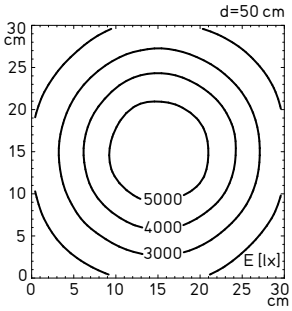
The pivoting-head luminaire ROCIA.focus offers maximum flexibility. The mobility of its pivoting head allows the light beam to be directed precisely to where it is needed. The extremely precise lighting allows focused and concentrated work – also thanks to different beam angles.

- 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

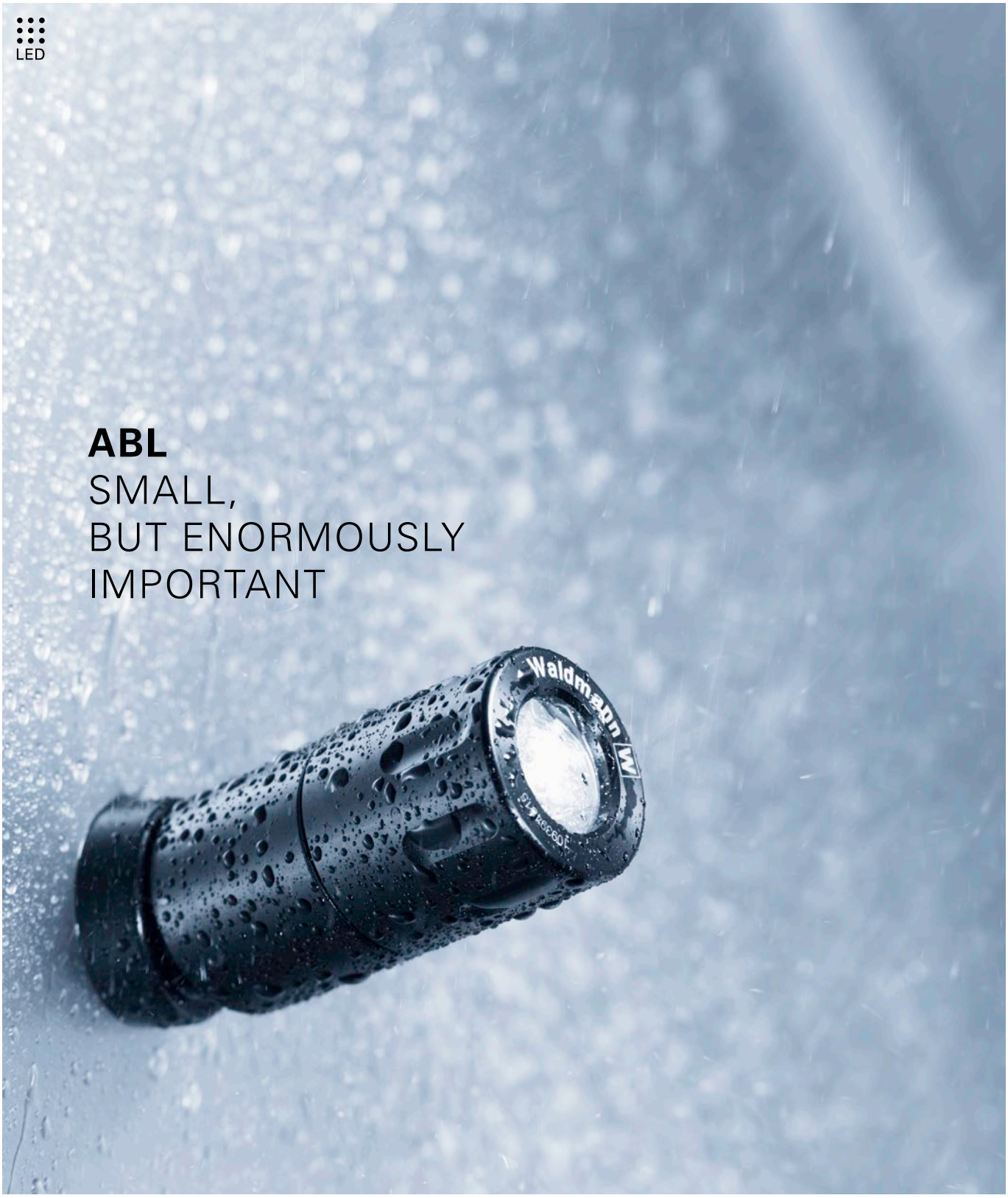
ROCIA.focus compact

- 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 Ta_{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

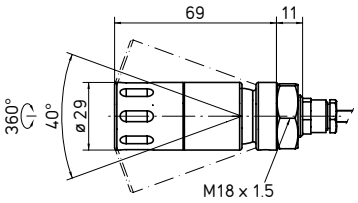
Fitted with Power	Operating device Connected load	Dimensions Special feature	E_m E_{max} *	Model Order no.
LED 8.5 W	– 12 – 28 VAC, 12 – 40 VDC	– 10° optics	5088 lx[1] 30053 lx[1]	RFJ 600/850/S 113 185 000 - 006 686 13
LED 8.5 W	– 12 – 28 VAC, 12 – 40 VDC	– 40° optics	3255 lx[1] 5600 lx[1]	RFJ 600/850/S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

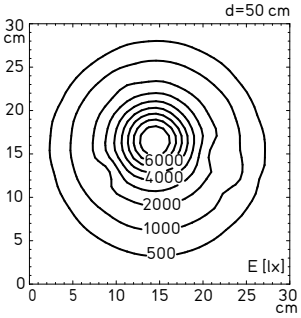
* E_m = medium illuminance; E_{max} = maximum illuminance; [1] measuring field 30 cm x 30 cm/measuring distance 50 cm
Also available as arm-mounted and pivoting-head luminaires



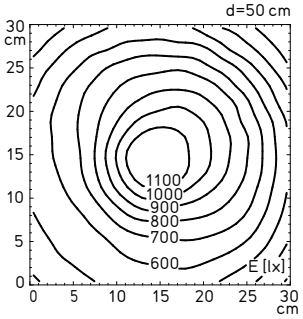
This may sound contradictory: The ABL is so small because it performs an essential task. With its compact dimensions and its integrated ball joint, it directs light to places where it seems almost impossible, but where it is urgently needed.

- 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



Illuminance with 25° optics

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

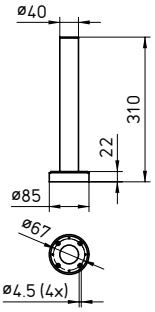
Fitted with Power	Operating device Connected load	Connection Special feature	E_m E_{max} *	Model Order no.
LED	–	constant current source with 350 or 700 mA	1219 lx[1]	ABLL 1
3 W	depending on the operating device	6° optics	8966 lx[1]	112 353 000 - 000 412 01
LED	–	constant current source with 350 or 700 mA	691 lx[1]	ABLL 1
3 W	depending on the operating device	25° optics	1260 lx[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

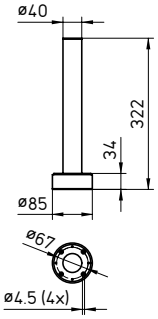
For decades, Waldmann has been successfully developing machine lights for the most demanding environmental conditions. Customers appreciate the reliability and quality of the products. The signal light SINEO is Waldmann's next milestone that will revolutionise signal technology.

Its unique functionality is as brilliant as its elegant design. Particularly homogeneously and intensely illuminated signal levels show much more than other signal lights can. Individually definable colours indicate states, sequences or any other measurable events on machines and plants.

- Maintenance-free LED technology
- Adjustable colours and fluorescent images through RGB LEDs
- Three or four signal levels
- Intense light colours thanks to innovative light guide technology
- Variants with IO link communication system
- Versions with acoustic signal generator
- Robust plastic housing
- Prevents accumulation of dirt
- Direct connection to machine voltage
- Customising by means of design case



SINEO without acoustic signal generator



SINEO with acoustic signal generator

SINEO at a glance

- LED technology
- RGB LEDs
- Light deflection by light guide technology
- Luminaire body made of PC
- Screw-mounted
- IO link (variants) with EVS (electronic visibility improvement)
- Maximum allowed ambient temperature Ta_{max} 50 ° C
- Degree of protection IP65, protection class III
- Supplied with approx. 0.4 m connecting cable and M12 plug connector, A-coded (cable outlet at the bottom)
- M12 connection technology and design cases as accessories

Machine tools | Woodworking machines | Textile machines
Printing machines | Packaging machines | Production facilities

Signal levels Power	Fluorescent image Connected load	Special feature	Model Order no.
3 7.5 W	continuous/blinking light 22 – 26 VDC	–	MNAFL 24 S H20 001 000 - 006 175 98
4 9.0 W	continuous/blinking light 22 – 26 VDC	–	MNAFL 32 S H20 003 000 - 006 176 17
4 9.0 W	continuous/blinking/flash light, EVS 22 – 26 VDC	IO link	MNAFL 32 S H20 005 000 - 006 176 24
3 8.5 W	continuous/blinking light 22 – 26 VDC	with acoustic signal	MNAFL 24 S H20 002 000 - 006 176 01
4 10.0 W	continuous/blinking light 22 – 26 VDC	with acoustic signal	MNAFL 32 S H20 004 000 - 006 176 21
4 10.0 W	continuous/blinking/flash light, EVS 22 – 26 VDC	IO link, with acoustic signal	MNAFL 32 S H20 006 000 - 006 176 27

ACCESSORIES

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, ROCIA arm-mounted luminaires, ROCIA 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, SNE, AVENUE, TEVISIO and SNLQ

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

Wall bracket for SNE, AVENUE, MINELA, SNLQ and RING LED

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

Magnetic base for ROCIA 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 arm[1]

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.forty[1]

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.seventy[1]

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 40[1]

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

Luminaire bracket for RL 40[1]

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

Luminaire bracket for MACH LED PLUS.seventy and RL 70[1]

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

Luminaire bracket for MACH LED PLUS.seventy and RL 70[1]

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

Luminaire bracket for MACH LED PLUS.seventy and RL 70[1]

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

Luminaire bracket for RL 70[1]

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 95
–	stainless steel for cable mounting	H13 001 030 - 006 003 98

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 003 040 - 006 043 43
–	3000 mm, hook for screw fixing (ceiling)	H13 003 030 - 006 043 40

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

Luminare 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


Connection technology for operating a TAMETO luminaire from an external operating unit

Description	Connector type	Order no.
connecting 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.
connecting 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 1m	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 TANEO 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 ≤ 0.75 mm²	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 ≤ 1.0 mm²	M12 socket: straight; 4-pole; A-coded	330 634 010 - 000 039 70

Connection socket for LUMATRIS (> 48W)

Description	Connector type	Order no.
cable passage 6 - 8 mm, wires ≤ 1.5 mm²	M12 socket: straight; 5-pole; A-coded	336 882 010 - 005 975 41

Connection socket for LUMATRIS (< 48W), 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 ≤ 0.75 mm²	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 ≤ 1.5 mm²	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 ≤ 1.5 mm²	M12 socket: straight; 4-pole; S-coded	336 885 010 - 005 975 38
cable passage 8 - 10 mm, wires ≤ 1.5 mm²	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 ≤ 1.5 mm²	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 ≤ 1.5 mm²	M12 plug: straight; 4-pole; S-coded	336 886 010 - 005 975 35
cable passage 8 - 10 mm, wires ≤ 1.5 mm²	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 mm²	M12 socket: straight; 5-pole; A-coded	336 890 010 - 005 980 58
7 m lead, 5 x 1.0 mm²	M12 socket: straight; 5-pole; A-coded	336 890 020 - 005 980 63

Connection cable for LUMATRIS (< 48W), 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 mm²	M12 socket: straight; 5-pole; A-coded	336 703 010 - 005 821 09
7 m lead, 5 x 0.5 mm²	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 mm²	M12 socket: straight; 4-pole; A-coded	336 889 010 - 005 979 07
7 m lead, 3 x 1.5 mm²	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 mm²	M12 socket: straight; 4-pole; S-coded	336 891 010 - 005 979 43
7 m lead, 3 x 1.5 mm²	M12 socket: straight; 4-pole; S-coded	336 891 020 - 005 979 48

Connection cable for SINEO

Description	Connector type	Order no.
3 m lead, 12 x 0.14 mm²	M12 socket: straight; 12-pole; A-coded	337 602 010 - 006 514 70
7 m lead, 12 x 0.14 mm²	M12 socket: straight; 12-pole; A-coded	337 602 020 - 006 514 74

Connection cable for SINEO (IO link)

Description	Connector type	Order no.
3 m lead, 4 x 0.34 mm²	M12 socket/plug: straight; 4-pole; A-coded	337 601 010 - 006 514 63
7 m lead, 4 x 0.34 mm²	M12 socket/plug: straight; 4-pole; A-coded	337 601 020 - 006 514 66

* 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 10 m, presence sensor incl. daylight sensor in adapter box	H13 007 060 - 006 294 64
1 – 10 V	working height 8 m, light sensor in adapter box	H13 007 030 - 006 251 39
DALI	in adapter box/only for use with control	226 903 019 - 006 693 00

Netcomposer control (ncr) for TAUREO and ACANEO for digital activation

Activation	Special feature	Order no.
2 x 64 DALI operating devices	netcomposer, clip for hat rail	336 673 010 - 005 336 03
for 1 NCR	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

Magnifier for SNE

Dimensions	Dioptres	Special feature	Order no.
105 x 175 mm (lens)	3	glass lens	190 182 019 - 000 787 02

PROTECTIVE COVERS

Design case for SINEO

Dimensions	Colour	Order no.
–	silver	226 145 019 - 006 268 92
–	black	226 145 019 - 006 288 86
–	white	226 145 019 - 006 288 83

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 cap set 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
1 200 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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