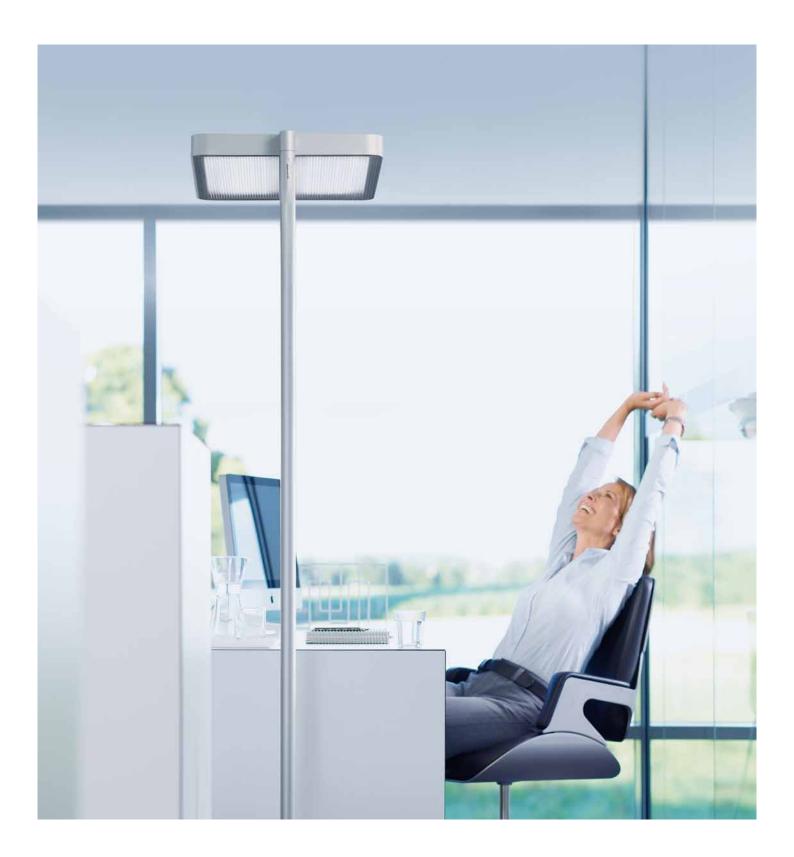


ATAROFREE-STANDING LUMINAIRES





WALDMANN LIGHTING CONCEPTS.

AS INDIVIDUAL AS THE PEOPLE WHO WORK WITH THEM.

Over the course of development from an industrial to a knowledge-based society, the significance of the office has grown. In Germany alone, over 50 % of all employees work at a desk, for a total of more than 61,000 hours – that is seven years out of a lifetime. The office environment has become an economic success factor, as have all the components that make it what it is: equipment, communications technology, acoustics and, last but not least, the lighting.

Waldmann meets these challenges with lighting concepts that are convincing in their holistic approach, sustainability and efficiency. This is how intelligent solutions for modern workplaces are created that take both the technical and emotional aspects of light planning into account: because indirect light radiates most naturally, making work more pleasant – and the user more creative and productive.

And because each of these users is an individual, Waldmann places great emphasis on the individuality of its products. In form, function, and technology. This is expressed in Waldmann's TWIN-C philosophy (C for Concepts + Components): the combination of cleverly designed lighting concepts and the appropriate components guarantees the right lighting for any place and any purpose – just as individual as the people who work with it. Waldmann solutions create an inspiring atmosphere, high lighting quality and lasting efficiency.



ATARO FREE-STANDING LUMINAIRES.

ONE DESIGN CONCEPT, THREE LIGHTING TECHNOLOGIES.

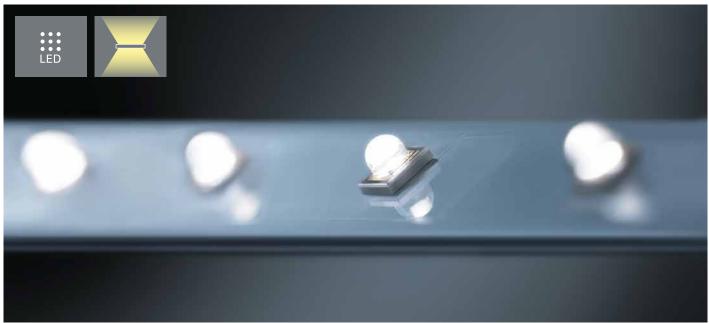
Looking at it objectively, ATARO is a series of free-standing luminaires that can be used in any modern office. But ATARO is also a range of possibilities. The opportunity to experience highest quality materials in top designs. The opportunity to enjoy intuitive operating convenience with the highest level of energy efficiency. And the opportunity to both optically and technically design a very individual ATARO free-standing luminaire.

Because the right light at the work station means something different to everyone. For every planner and every user. For every time of day and work setting. And for every purpose and every budget. Different demands that can only be met with variable means: That is why Waldmann offers ATARO with three different lighting technologies – with fluorescent lamps, LED and hybrid technology – all in the very same design.

Pleasant, indirect light for the entire room, efficient illumination of certain zones, and with LED and hybrid models, even light direction: with ATARO, Waldmann expands the possibilities of ergonomic and economic lighting design to an extent that was unthinkable until now.





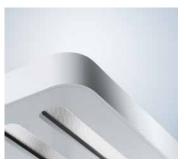




Unobtrusive forms for ambitious plans. ATARO's design is easy to describe: Only as much as necessary – the creed of all modern classics. The form really does strictly serve the function, offering the greatest possible flexibility: because thanks to its visual simplicity, ATARO remains compatible with the most diverse decors. The rounded corners of the luminaire head create a visual theme which is also shared by the flat standing base – a pleasant contrast to the straightness of the tubular section.

Superior in their simplistic design, ATARO luminaires can be easily integrated into almost any architecture and modern atmosphere. Before they notice the design, the observer often notices what ATARO provides: The best light in the office.







Same design, different technologies: Depending on the model, fluorescent lamps or LEDs are integrated into the distinctive curved aluminum frame of the ATARO.









What does light have to do with performance? There is a good reason that the fluorescent lamp has established itself as common office luminaire technology: Thanks to its high light efficiency when compared to incandescent lamps, it can save up to 85 % energy. ATARO fluorescent free-standing luminaires support economic planning with additional positive characteristics: durable materials, lasting design, good luminous power – and last but not least, light that is pleasant, glare-free and evenly distributed throughout the room. This creates a relaxed and highly efficient environment: because people perform better when they feel comfortable. And thanks to the minimal energy consumption, money is also saved.



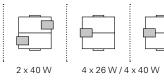


ATARO Fluorescent: optimum quantity of direct light downwards and indirect light upwards.













Possible positions, attached to the side.

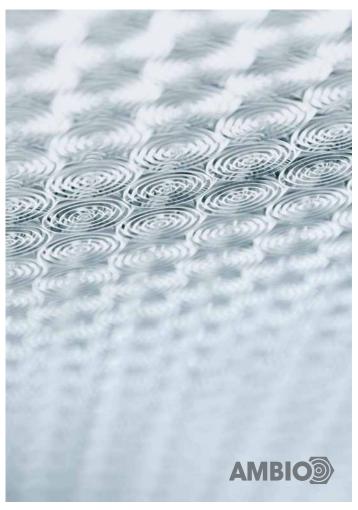






 4×26 W / 4×40 W

Possible positions, attached to the middle.





Intelligent technology and timeless aesthetics: ATARO Fluorescent combines both into a harmonious whole. Subtle material transitions between the luminaire head, joints, and tubular section ensure a unified, homogeneous appearance. The operating element convinces with ergonomics and convenience: positioned at an ideal height in the tubular section, it is easy to reach when sitting or standing. The functions are clearly designated and selfexplanatory. And because the maintenance of a luminaire is

a cost factor that should not be underestimated, ATARO Fluorescent makes it as simple as possible: all elements are easily accessible from below and for cleaning; the frame and prism disk can be removed simply by hand, without the need for tools. Defective illuminants can quickly be replaced with new ones. ATARO not only saves electricity, but also a lot of time.







ATARO Fluorescent at a glance:

- O Easy to reach, multifunctional operating element
- Head connection can be rotated to an angle of +/- 45°
 (1, 2)
- Removable frame and prism disk for easy changing of illuminant and simple cleaning (1, 2)
- Glare-free technology with light-amplifying AMBIO micro prisms
- Base plate section for optimum positioning at the work station (1, 2)
- O Luminaire head can be rotated by +/-90° (3)

ATARO Fluorescent surfaces:

Luminaire head	anodized aluminum	
Tubular section	white	silver metallic
Standing base	white	silver metallic







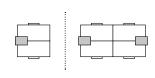
How does one create efficiency with vision? LED technology (LED = Light Emitting Diode) has experienced rapid development in the past – and has a great future in store. In the office luminaire sector, too: ATARO LED boasts functions that easily compare with fluorescent lamps. The direct light completely homogeneously illuminates a surface. A high luminous flux also qualifies ATARO LED to illuminate double work stations: less luminaires are required thanks to efficient lighting. The highly aesthetic appearance, convenient handling and flexible applications make ATARO LED a forward-looking alternative.











Possible positions, attached to the side.





ATARO LED is particularly energy-efficient and simultaneously offers maximum lighting quality. It makes the use of LED Light Engines in accordance with the Zhaga Standard a particularly future-proof lighting solution. In addition, ATARO LED is particularly cost-effective: because the combination of procurement costs and low energy consumption ensures savings in the medium term.

The luminaire concept of ATARO LED thus fully represents a modern work station lighting. Intelligent lighting management regulates the illuminance dependent on presence and daylight and provides maximum convenience at the workplace. In addition, each employee can adjust their light source based on individual and task-related needs. This not only supports ergonomics, but also well-being at the work station.



ATARO LED at a glance:

- O LED for the lighting of workrooms
- Easy to reach, multifunctional operating element
- $\,^{\circ}$ Head connection can be rotated to an angle of +/- 45°
- O Closed luminaire head with cover
- Glare-free technology with light-amplifying AMBIO micro prisms, incl. Light Forming Technology
- Future-proof thanks to LED Light Engines in accordance with the Zhaga Standard
- LED service life 50,000 h (L70/B50)
- Base plate section for optimum positioning at the work station

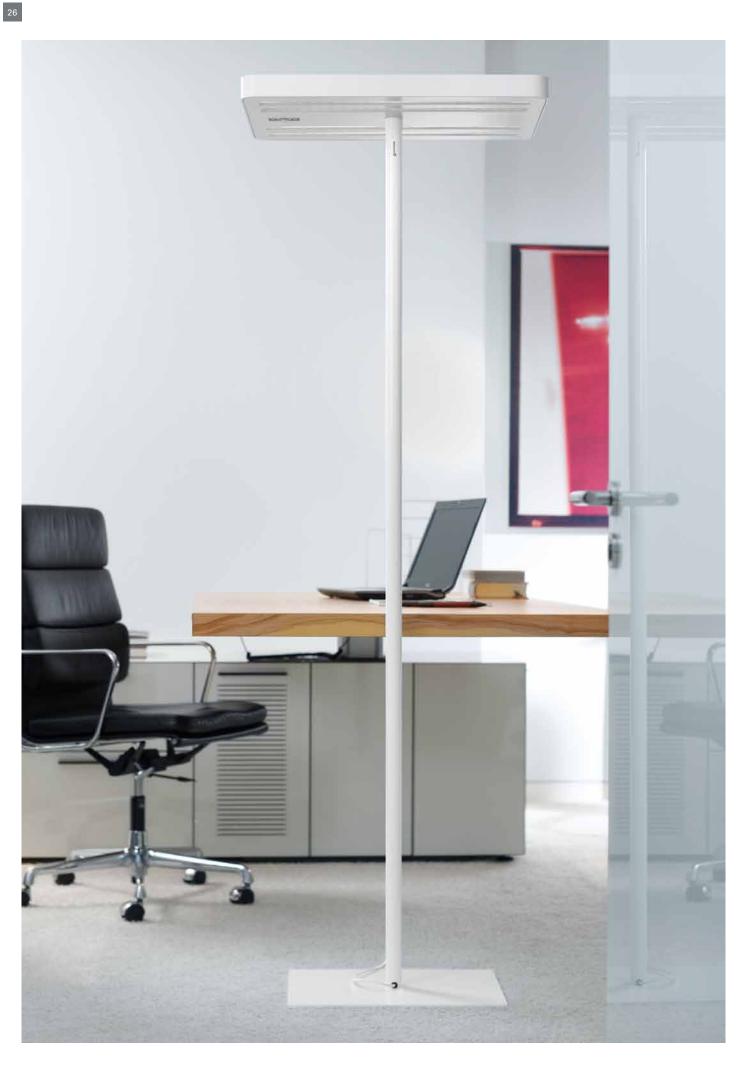
ATARO LED surfaces:

Luminaire head	anodized aluminum	
rabarar bootion.	white	silver metallic
Standing base	white	silver metallic







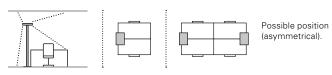


How can functionality be combined with atmosphere? Fluorescent and LED – both technologies offer undisputed advantages. With ATARO HYBRID, Waldmann combined them into one luminaire. Because ATARO HYBRID takes advantage of the positive features of both lighting technologies and combines them in one convincing overall system. The combination of room and task lighting takes all energetic, individual, and atmospheric needs into account. Asymmetrical light control opens up completely new possibilities for positioning the luminaire at work stations. And this all with the elegant ATARO design. With a successful combination of aesthetics, functionality, and ergonomics, ATARO HYBRID sets new standards in terms of workplace lighting.

















The efficiency of fluorescent and the possibilities of LED: ATARO HYBRID offers the "best of both worlds" in the highly aesthetic ATARO design. Thanks to the combination of PMMA prismatic screens and the collimators specially developed by Waldmann, the beam of LED light can be perfectly directed – for optimum light in the right place. Waldmann's intelligent thermal

light in the right place.

Waldmann's intelligent thermal management is also used here to keep the LED diodes at the optimum temperature to take

full energetic advantage of their illuminance. At the same time, the indirect light from the fluorescent lamps creates a pleasant atmosphere with a highly efficient energy value. Both the direct and indirect light are dimmable.





ATARO HYBRID at a glance:

- O pleasant room lighting thanks to T5 LS lamp technology
- high-power LED with special lenses to illuminate large working areas with glare-free, stimulating light
- O Asymmetrical beam, light in the right place
- O Can be integrated into varied workplace concepts
- O Dimmable direct and indirect light
- Intuitive operation

ATARO HYBRID surfaces:

Luminaire head	signal white, matt	silver metallic
Tubular section	signal white, glossy	silver metallic
Standing base	signal white, matt	silver metallic

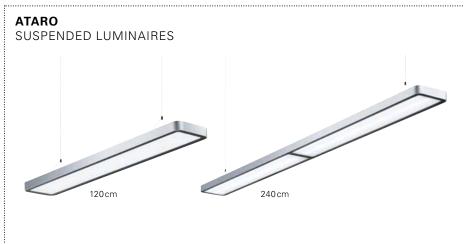


ATARO has many good qualities – included within several forms. Because ATARO is not binable with each other, the only available as a free-standing luminaire, but also as a wall-mounted, mounted or suspended luminaire - all variants of fluorescent technology. It is easy to see their common bond at the very first glance: the characteristic aluminum frame, the softly rounded

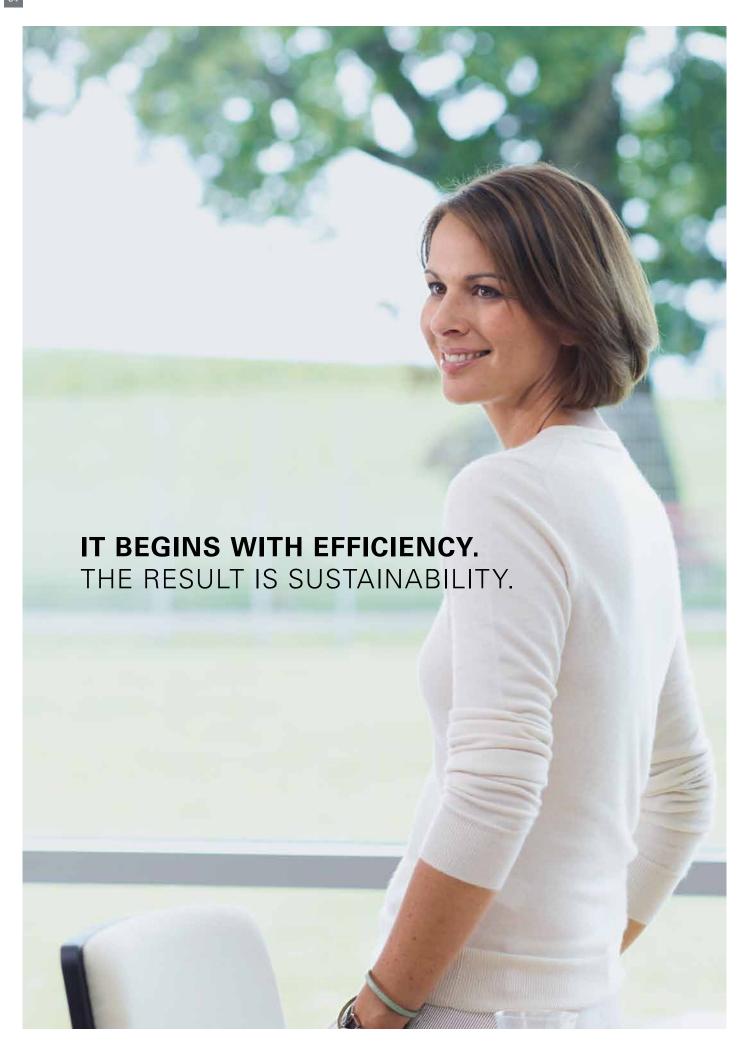
corners, the timelessly sophisticated forms. Perfectly com-ATARO family of luminaires is a completely universally designed lighting concept.

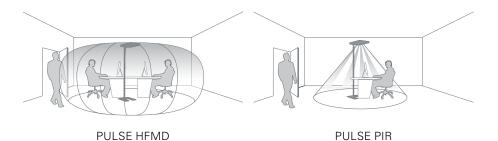












Intelligent lighting management. Already efficient in their operation, Waldmann free-standing luminaires can save even more energy if they are combined with a lighting management system: the PULSE HFMD (High Frequency Motion Detector) developed by Waldmann detects even the tiniest movements within a defined field. Accordingly, the luminaire switches on when someone enters the room and automatically switches off again when they leave. A sensitive sensor system regulates the amount of lighting from the luminaires based on the level of daylight. This can reduce energy consumption of individual luminaires by up to 50 % when compared to the installed output. In addition to this highly sensitive presence detecting technology, Waldmann free-standing luminaires can also optionally be equipped with passive infrared motion sensors (PULSE PIR).

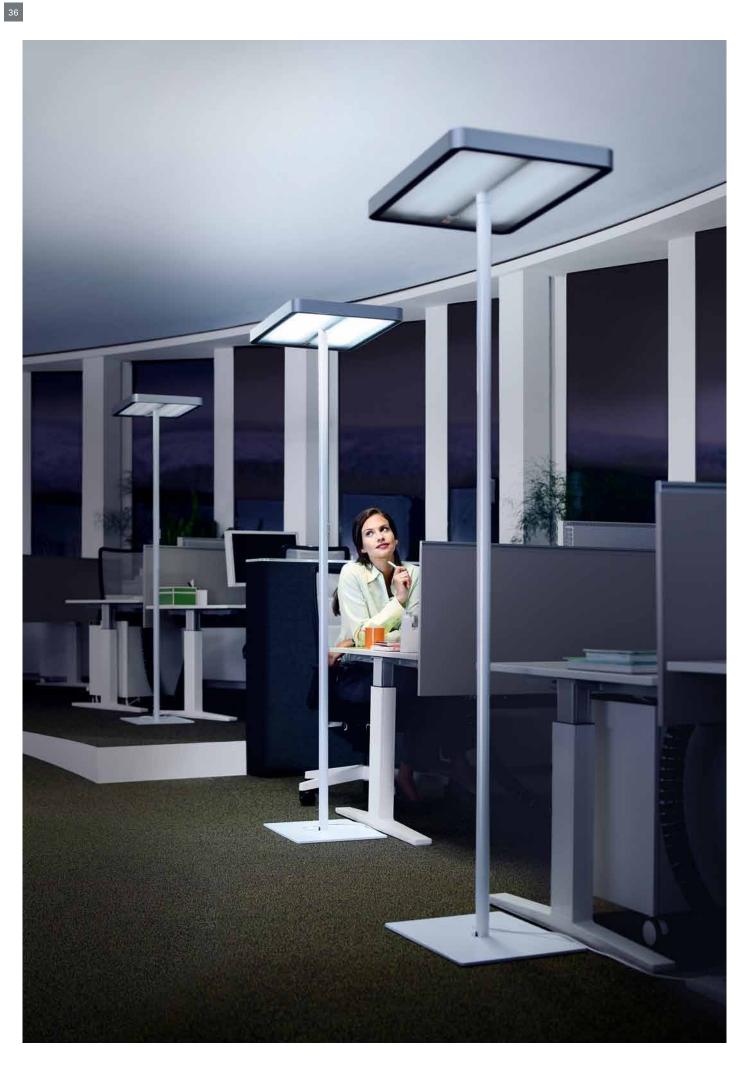
Reduced operation time increases the service life of fluorescent lamps and extends the maintenance interval. Additional energy-saving potential can also be achieved by using universal KNX or LON system components or the EnOcean wireless model PULSE TALK for the presence information to other facilities (shade, heating, ventilation and air conditioning). This makes it possible for ATARO PULSE HFMD and PULSE PIR to exchange information with other systems and become part of an intelligent building. Additional modules or special designs are not required.







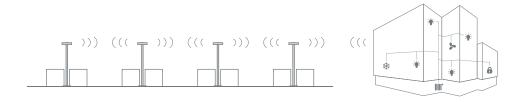






PULSE TALK.

COMBINES SECURITY AND WELL-BEING.



Twilight, bad weather, the winter months – situations that can cause "islands of light" in conjunction with work station-oriented lighting: you sit alone in the office and, except for your own desk, the rest of the room is dark. With PULSE TALK from Waldmann, this phenomenon becomes a thing of the past: the state-of-the-art wireless module enables luminaires in a group to communicate with each other and react to the presence or absence of people. A lighting scenario with no unpleasant darkness and no disturbing light islands is the result.

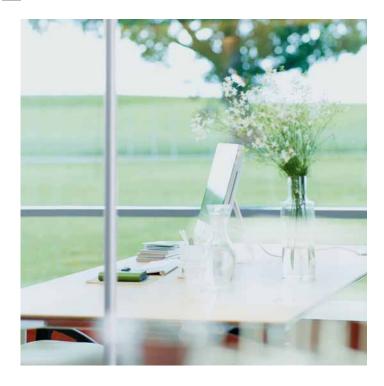
PULSE TALK consists of only one compact component – simple to install, program, and operate: With only a few simple steps, the wireless module can be put into operation. Because it is wireless, the communication between luminaires does not require any technical building installation. PULSE TALK is compatible with EnOcean wireless technology: Thus, other facilities that are based on this, such as heat, air conditioning or ventilation, can be controlled using the luminaire's presence detection system. Dimmable and sensor controlled Waldmann free-standing and desk-mounted luminaires can be delivered with the module, but can also be retrofitted with it at any time.

With cleverly thought out technology and simple handling, PULSE TALK ensures a feeling of security, a pleasant working atmosphere and enhanced ability to perform.





The compact wireless module is child's play to install, program and operate. All PULSE TALK settings can be changed or expanded at any time, e.g. for organizational changes in the office world.



Sustainable building. An efficient treatment of our resources and responsible planning and construction are becoming increasingly important for our future. Waldmann makes an important contribution to this by constantly further developing its lighting concepts. The entire service life cycle and every phase of each solution are taken into account, from development to disposal.

Always with the goal of using an integrative approach to maintain the balance of energy efficiency and lighting comfort.

Furthermore, Waldmann is actively involved in the development of sustainability standards for buildings and the products designed for them - awarded the sustainability medal of the German Sustainable Building Council (DGNB). Numerous reference projects are proof of the high lighting quality and energy efficiency of Waldmann solutions. Building a sustainable future is a challenge in which we will happily and competently support you.

Welcome to the Green Office.

"Office Efficiency" - that means reducing costs and increasing productivity. A survey by the Fraunhofer-Institut IAO shows that the ecological design of office work will soon become highly significant. Light plays an important role here: It consumes energy, enhances the user's performance and considerably influences flexible room design - and use in the building. "Green" lighting offers tremendous possibilities to protect resources and save energy. It directly affects the lifecycle costs and thus the attractiveness of the property.

Thinking ahead.

Sustainability arises when a product is judged on its entire service life. The economic potential can be most clearly observed in the operating costs. Innovative lighting concepts from Waldmann require 44 % less energy this is shown by the result of a 12-month monitoring by the Hochschule Rosenheim (University of Applied Sciences) and ThyssenKrupp Real Estate GmbH in Essen. Further potential also lies in the higher level of investment security thanks to value maintenance and in socially sustainable factors: increased comfort, individual adjustment and flexibility for the users.





Certified sustainability.

Sustainability does not happen by chance, but from high quality in all disciplines: luminaires from Waldmann are environmentally friendly and resource-friendly, are energy efficient, and offer users optimum lighting quality. Designed to offer a long product life, high system guarantees are granted on carefully selected components and materials. Luminaires awarded the "efficient light" certificate are particularly energyoptimized Waldmann products with a very high lighting quality.

Service – all inclusive.

Waldmann's all-inclusive service offers you the whole range of support for your project.

The aim is an optimally customized solution for each customer – with complete service packages or individual services according to a modular principle. The project work features careful planning and requirement-oriented implementation. Reliable all-inclusive service that creates scope, Enabling you to concentrate entirely on your competencies – the development of sustainable and high-quality buildings and workplaces.

Waldmann supports you with:

- Direct and personal support
- Concept consulting
- Lighting planning
- Profitability analysis
- Samples
- O Individual financing
- Project management
- Assembly
- Connection to light and building management systems (DALI, LON, KNX)
- E-check, first test in accordance with BGV A3 (the German Regulation for the Prevention of Industrial Accidents, Electrical Systems and Equipment)
- O Cleaning and maintenance

Further information:

Consultation Hotline:

Tel: +49 7720 601-100 Fax: +49 7720 601-290 info@waldmann.com

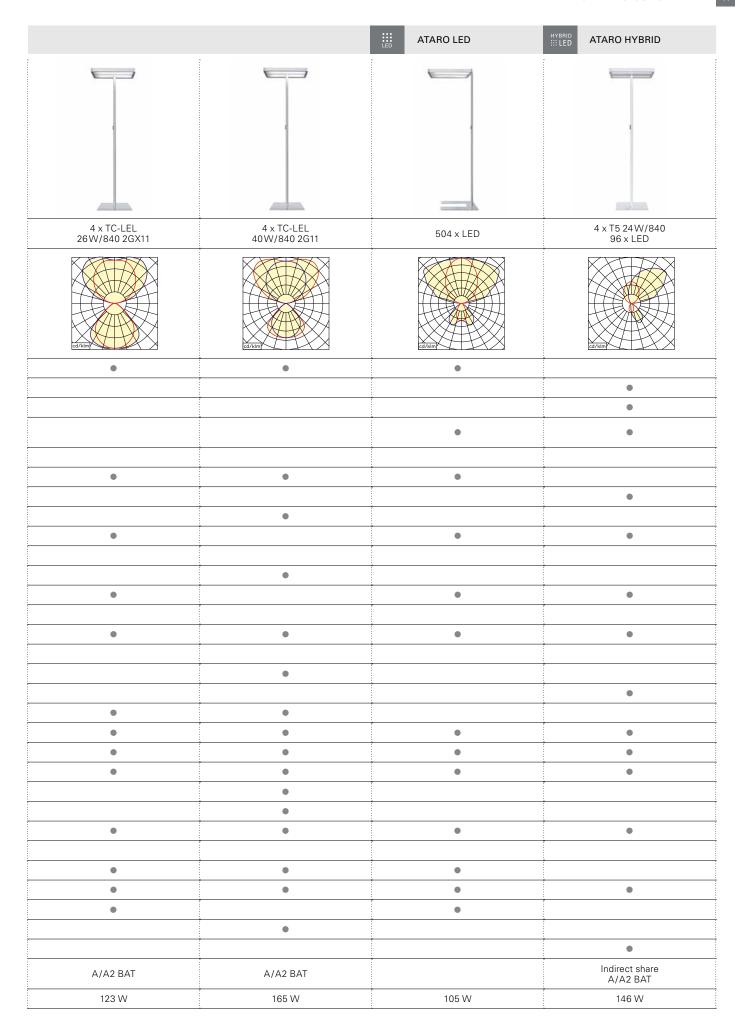




	() ATARO		
	2×TC-LEL	4 x TC-LEL	4 x TC-LEL
LAMP TYPE	40W/840 2G11	26W/840 2GX11	40W/ 840 2G11
LIGHT DISTRIBUTION	Ed/kim	carkim	cdr/stm
Direct share greater than 20 %	•	•	•
Direct share less than 20 %			
Asymmetrical			
Direct/indirect light individually adjustable for dimmable variants			
GLARE-FREE			
AMBIO micro prisms	•	•	•
CDP micro prisms			
UGR < 16 (LiTG reference room 4H/8H)	•		•
UGR < 19 (LiTG reference room 4H/8H)		•	
Luminance ≤ 1000 cd/m² ¹			
Luminance ≤ 1500 cd/m² ²	•		•
Luminance ≤ 3000 cd/m² ³		•	
POSITION OPERATING ELEMENT			
In the tube	•	•	•
LIGHT MANAGEMENT			
DALI			•
Wireless			
PULSE switchable	•	•	•
PULSE dimmable	•	•	•
PULSE PIR	•	•	•
PULSE HFMD	•	•	•
PULSE KNX			•
PULSE LON			•
PULSE TALK ⁴	•	•	•
ENERGY EFFICIENCY			
Minergie module, luminaires	•	•	•
Efficient light	•	•	•
Luminaire light efficiency>65 lm/W		•	
Luminaire light efficiency>60 lm/W	•		•
Luminaire light efficiency > 55 lm/W			
Energy efficiency class EEI lamp/ballast	A/A2BAT	A/A2 BAT	A/A2 BAT
Power consumption (typical)	83 W	123 W	165 W

 $^{^{\}rm I}$ EN12464-1:2011 monitor with negative polarity, higher requirements e.g. color proofing $^{\rm I}$ EN12464-1:2011 monitor with negative polarity, higher requirements e.g. CAD

 $^{^3}$ EN12464-1:2011 monitor with positive polarity, normal requirements e.g. Office applications 4 Compatibility is dependent on the built-in luminaire control



ANNOTATIONS

AMBIO:

AMBIO is a glare-free technology developed by Waldmann that is precisely customized for fields of application in architecture and used exclusively in Waldmann products.

BAT:

Best Available Technology

IFF:

Illuminance Efficiency Factor = Illuminance E_m at a measuring distance of 50 cm [lx]/consumption [W]

CDP:

Conical De-glaring Prism

DALI:

Digital Addressable Lighting Interface, interface for lighting direction in accordance with IEC 62386.

Waldmann is a member of the DALI consortium

EnOcean Alliance:

The EnOcean Alliance supports innovative automation solutions with battery-free wireless technology for sustainable building projects in order to make buildings more energy efficient, flexible, and cost-effective. Waldmann is a participating member of the EnOcean Alliance.

KNX:

The Konnex-Bus (KNX) is a standard in accordance with EN 50090 and ISO/IEC 14543 for a fieldbus that is primarily used in building automation. Originated in Europe.

Luminance:

Over 65° beam angle in accordance with EN12464-1:2011:

- ≤ 1000 cd/m² monitor with negative polarity, higher requirements e.g. color proofing
- ≤ 1500 cd/m² monitor with negative polarity, higher requirements e.g. CAD
- ≤ 3000 cd/m² monitor with positive polarity, normal requirements e.g. Office applications

LON:

Local Operating Network (LON) is a standard for a fieldbus in accordance with DIN EN 14908 that is primarily used in building automation. Originated in USA.

PULSE:

Waldmann light management system with PULSE control. All PULSE-based systems have the following functions in common: intelligent operating element, automatic storage of the last switching and dimming states, external switching (switched on socket)!

PULSE PIR:

Passive Infrared System with motion sensor and daylight control

PULSE HFMD:

High frequency sensor system with presence and daylight control

PULSE KNX:

Communicative luminaire with integrated KNX component, including PULSE PIR or PULSE HFMD sensor system

PULSE LON:

Communicative luminaire with integrated LON nodes, including PULSE PIR or PULSE HFMD sensor system

PULSE TALK:

Retrofittable wireless module for communication between luminaires

UGR:

Unified Glare Rating, limiting values for the assessment of reflective glare according to LiTG publication 20:2003

"No glare"	
	< 16 e.g. CAD
"Glare between nonexistent and noticeable"	
	< 19 e.g. office
"Glare noticeable"	
•••••••••••••••••••••••••••••••••••••••	< 22 e.g. corridor, archives
"Glare between noticeable and disturbing"	
	< 25 e.g. warehouse, machine hall
"Glare disturbing"	
"Glare between disturbing and intolerable"	
"Glare intolerable (unacceptable)"	

Zhaga:

Zhaga is a consortium of industrial enterprises with the goal of standardizing the interfaces of LED light modules.

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This catalog can only provide a non-binding rough depiction of our products. The technical data were correct at the time of print. For further information and a detailed consultation, please contact our lighting consultants. Subject to errors, changes to the range and product adjustments for the purpose of technical progress. We accept no liability for printing errors.

LED modules and lighting units can differ in regard to luminous fluxes and color temperature (binning).



GERMANY

Telephone +49 7720 601-100 Fax +49 7720 601-290

www.waldmann.com sales.germany@waldmann.com

FRANCE

Waldmann Eclairage S.A.S. Zone Industrielle Rue de l'Embranchement 67116 REICHSTETT FRANCE

Telephone +33 3 88 20 95 88 Fax +33 3 88 20 95 68 www.waldmann.com info-fr@waldmann.com

ITALY

Waldmann Illuminotecnica S.r.l. Via della Pace, 18 A 20098 SAN GIULIANO MILANESE (MI) Telephone +39 02 98 24 90 24 Fax +39 02 98 24 63 78 www.waldmann.com info-it@waldmann.com

THE NETHERLANDS

Waldmann B.V. Lingewei 19 4004 LK TIEL THE NETHERLANDS Telephone +31 344 631019 Fax +31 344 627856 www.waldmann.com info-nl@waldmann.com

AUSTRIA

Waldmann Lichttechnik Ges.m.b.H. Gewerbepark Wagram 7 4061 PASCHING/LINZ AUSTRIA Telephone +43 7229 67400 Fax +43 7229 67444 www.waldmann.com info-at@waldmann.com

SWEDEN

Waldmann Ljusteknik AB Skebokvarnsvägen 370 124 50 BANDHAGEN SWEDEN Telephone +46 8 990 350 Fax +46 8 991 609 www.waldmann.com info-se@waldmann.com

SWITZERLAND

Waldmann Lichttechnik GmbH Benkenstrasse 57 5024 KÜTTIGEN SWITZERLAND Telephone +41 62 839 1212 Fax +41 62 839 1299 www.waldmann.com info-ch@waldmann.com

UNITED KINGDOM

Waldmann Lighting Ltd. Holme Well Road Middleton LEEDS LS 10 4TQ WEST YORKSHIRE UNITED KINGDOM Telephone +44 113 2775662 Fax +44 113 2775775 www.waldmann.com enquiries@waldmannlighting.co.uk

Waldmann Lighting Company 9, W. Century Drive WHEELING, ILLINOIS 60090 Telephone +1 847 520 1060 Fax +1 847 520 1730 www.waldmannlighting.com waldmann@waldmannlighting.com

CHINA

Waldmann Lighting Shanghai Pte. Ltd. Part A, No. Five Normative Workshop 199 Changjian Road, Baoshan SHANGHAI, P.R.C. 200949 CHINA Telephone +86 21 5169 1799 Fax +86 21 3385 0032 www.waldmann.com

SINGAPORE

info@waldmann.com.cn

Waldmann Lighting Singapore Pte. Ltd. 168, Jalan Bukit Merah, #04-09B, Connection One, Tower 3 SINGAPORE 150168 SINGAPORE Telephone +65 6275 8300 Fax +65 6275 8377 www.waldmann.com sales-sg@waldmann.com

Waldmann Lighting Pvt. Ltd. Udyog Vihar Phase-VI, Sector-37 GURGAON-122001, Haryana Telephone +91 124 412 1600 Fax +91 124 412 1611 www.waldmann.com sales-in@waldmann.com