

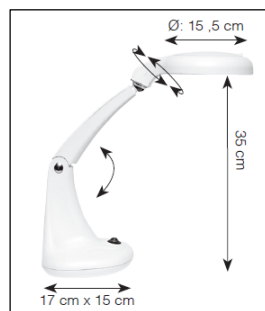
MINI ZOOM LED



- **Precision:** ideal for all precision work (watchmaking, microelectronics, dermatology, dental prosthesis, manicure, leisure activities). Equipped with a Ø 9,5cm lens of 3 diopters (x1,75), without deformation on the sides and an over-lens of 12 diopters (x7) for optimal magnification.
- **Flexibility:** its malleable swivel arm and swiveling head in all directions facilitate the orientation of the light beam.
- **Modern and practical design:** this ultra-handly technical lamp will be very useful for precision tasks such as sewing, jewelry making, and watchmaking.
- **Optimal and bright lighting:** The LED lighting of this lamp provides glare-free, uniform light that does not hurt your eyes.
- **Practical:** sold with its dust cover.
- **Available in two colors:** black or white

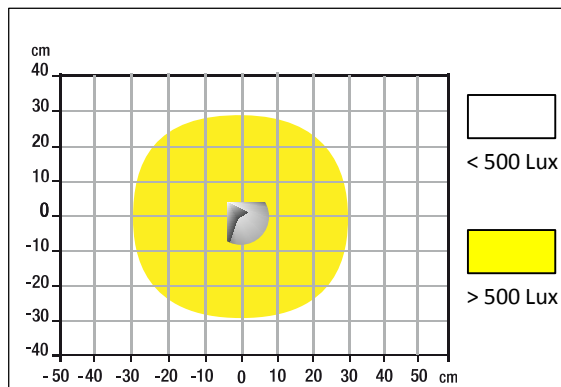
- **Rated power:** this luminaire contains integrated LED lamps with a power of 5,9 W which can not be replaced
- **Lifetime *** of LEDs: 50,000 hours
- **Illumination** of 1890 Lux at 35 cm
- **Color temperature:** 6700 K
- **Weighted energy consumption:** 4,9 kWh / 1000 h
- **Luminous efficiency **** of LEDs: 130 lm / W
- **Energy efficiency:** class A / A + / A ++ (spectrum A ++ to E)
- **CRI:** 82
- **2 years warranty**
- **Maximum height:** 35 cm / **minimum height:** 25 cm
- **Materials:** base, arm and head made of ABS plastic / equipped with a glass lens

* Average consumption: 1000 h / year
** Light emission of the lighting source

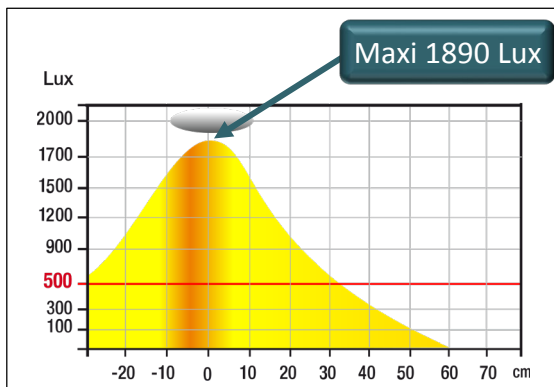


Technical features

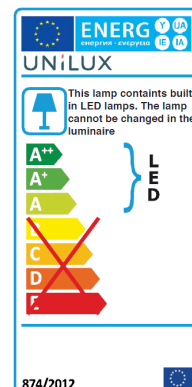
Measurement of Lux on the worktop in 35 cm top view:



Measurement of Lux on the worktop in 35 cm top view:



Energy class:



SAP no.	Colours	Energy consumption kWh/1000 h	Lux at 35 cm	Lm/W	Colour T°	CRI	Source's lifetime	Warranty	Net weight	EAN code
400108074	White	4,9	1890	130	6700 K	82	50000h	2 ans	1,35 kg	3595560027699
400110245	Black	4,9	1890	130	6700 K	82	50000h	2 ans	1,35 kg	3595560028115

UNILUX'S ADVICES

1- Why using a desk lamp ?

We spend about 8 hours a day at our place of work. Occupational medicine **recommends lighting of at least 450 lux**. The European standard NF EN 12464-1 * **goes up to 500 lux** for screen work or reading. You should know that an office equipped with fluorescent ceiling lights usually receives **200 and 300 Lux** for those in LED!

The consequences of constant and insufficient artificial interior lighting:

- **Decreased visual comfort**
- **Headache**
- **Badly lapping the general concentration**
- **Decrease in productivity**
- **Disturbances of the circadian cycle**
- **Sleep and mood disorders**

* Standard NF EN 12 464-1 (European standard): Requirement for lighting indoor workplaces

2- Some figures



300 Lux

Only on the desk fitted with ceiling lights



34% of offices

Reach the level of 500 Lux prescribed by Occupational Medicine



29 % of employees

Report suffering from eyestrain *

* Source: <http://www.recrutons.fr/ergonomie-du-poste-de-travail.html>

3- The LED's Benefits



High quality and efficient lighting



Longer life



Energy saving



Eco-responsible purchase



Safe for the health

4- Some definitions

Illuminance (Lux)

corresponds to a quantity of light received by a surface. So:

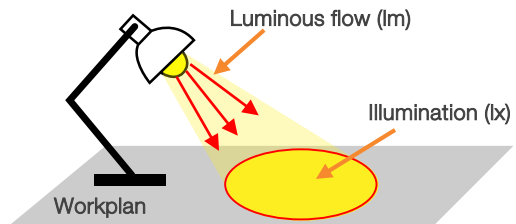
- Φ : Luminous flux in lumen
- S: surface per m²

$$E = \frac{\Phi}{S}$$

Recommended lighting according to DIN EN 12464-1 * for the office

- 300 Lux : deposit, copy, traffic areas
- 500 Lux : writing, reading, data processing
- 500 Lux : at the reception and at the counter
- 750 Lux : technical drawing

* DIN EN 12464-1 (DIN 5035-1): European standard that determines the lighting requirements of workstations in enclosed areas, which meet the requirements of comfort and visual performance. DIN EN 12464-1 has replaced DIN 5035-1



Luminous flux (lm)

is defined by the sum of all the radiations emitted by the lamp. It is measured in Lumen, "lm" for short. It is defined from the energy flux (expressed in watts) more often termed radiated power.

The latter is a flow of radiated energy:

$$\Phi = \frac{Q}{t}$$

where Q is the radiated energy, expressed in joules (J) and t in seconds (s)

Luminous efficiency (lm/W)

corresponds to the luminous efficiency of the lamp. This value is established by the ratio between the luminous flux and the power consumed. It is measured in "lm / W". The higher the luminous efficiency, the higher the amount of light relative to the power consumed. This data is fundamental for the preservation of the environment since it allows us to reduce energy consumption for the same amount of light emitted.

Color temperature (Kelvin)

is defined by the color emitted by the light source. Variation in color temperature is an essential function of the desk lamp in addition to the variation of the intensity, as it allows to customize the lighting and to adapt the appropriate color temperature to the different activities (computer work, concentration, reading, relaxation, rest, ...). This variation in color temperature is measured in "Kelvin", "K" for short.

