

Many companies see lighting as the most important aspect of a work bench system – as the results of an ergonomics study conducted by item show (see QR code). This mirrors the opinion of many experts, who have found that good lighting is essential for maintaining and improving concentration, making it an important tool for avoiding errors and boosting productivity.

**CUSTOM LIGHTING LEVELS**

Lighting levels should be tailored to both the process and the worker. The unit of measurement used for the level of lighting (illuminance) is the lux (lx).

Activity	Lighting level (lx)
Basic assembly work	200
Medium-precision assembly work	300
Intricate assembly work	500
High-precision assembly work	750 - 1000
Precision and micro mechanics	1000 - 2000

**EVEN, GLARE-FREE LIGHTING**

Optimising the directionality of lighting and using parabolic reflector grids or microprism lenses ensures even lighting without direct glare. It is advisable to keep shadows to a minimum.

**LIGHTING SPECIFIC AREAS**

Specific areas can be illuminated using dimmable, easily adjustable spotlights. This means you can achieve up to 20,000 lux in the work area.

**BE MINDFUL OF REFLECTIONS**

Indirect glare, e.g. from reflective surfaces or workpieces, should also be avoided.

**CORRELATION BETWEEN LIGHT AND PERFORMANCE** [Source: LightingDeluxe]

## 4 ADVANTAGES OF OPTIMUM LIGHTING

**SAFETY**

Adequate, glare-free lighting significantly increases safety. It reduces the number of accidents considerably.

**HEALTH**

Good lighting helps relieve eye strain, preventing fatigue, headaches and eye diseases.

**PRODUCTIVITY**

Optimum lighting promotes concentration, meaning it can boost employee productivity and wellbeing.

**QUALITY**

Good lighting can also improve product quality. It makes details easier to see and enhances colour perception.

## CRITERIA FOR LIGHTING SOLUTIONS AT THE INDUSTRIAL WORK BENCH

FACTOR	RECOMMENDATION	REASON
Luminous intensity	≥ 1000 lux	Improves visibility of details, reduces eye strain and minimises potential errors or accidents. Helps increase employee concentration, productivity and wellbeing.
Operation	Via remote control	Increases flexibility, saves time and improves performance and wellbeing.
Glare	Parabolic reflector grid	Ensures even light distribution and minimises reflections. Also increases light output, which saves energy.
Even lighting	Diffusor panel	Optimises light distribution and reduces glare by gently diffusing the light.
Adjustability	Integrated joints	Ensure the lighting can be perfectly adapted to individual requirements and tasks. Can further reduce glare effects and improve illumination.
Installation	Modular plug and play	Allows for quick and easy installation and replacement, saves time, and simplifies adjustments and maintenance.
Frequency	> 60 Hz	A lighting frequency of over 60 Hz ensures flicker-free light output, reducing fatigue and eye strain and promoting concentration and wellbeing.
Colour temperature	4000° Kelvin	Neutral white light (4000° Kelvin) promotes precise colour reproduction and good detail visibility. This colour temperature also promotes wellbeing and concentration.
Colour reproduction	CRI ≥ 0.93	A high colour rendering index (CRI) is required for the precise representation of colours and details. This also helps minimise errors and accidents and boosts employee efficiency.
Energy efficiency	A++	An energy efficiency class of at least A++ makes for a cost-effective and eco-friendly lighting solution with high light output.
Service life	> 50,000 hours	The longer the service life of the lighting solution used, the lower the costs for maintenance, breakdowns and replacements.

### PRODUCTS IN THE SHOP

Diverse products for perfectly customised lighting solutions  
[Lighting](#)

