

A light for your workplace that boosts your energy.



Everyone has a daily rhythm, which is largely controlled by natural daylight. With conventional artificial lighting this regular stimulation by light is missing and our body's release of hormones can become confused. EnergyByLight is not just artificial light, it is biodynamic. Biodynamic light recreates the colour temperature and brightness of natural daylight found throughout the course of a day, controlling the so-called circadian rhythm. Thus, ensuring a balanced day-night rhythm for humans. Even seasonal affective disorder (SAD) is counteracted with biodynamic light, providing us with the light we miss during the darker winter months. EnergyByLight reproduction of daylight makes us more productive, more energetic, better concentrated and improves our sleep, easily operate EnergyByLight with the corresponding App to set to the circadian rhythm that's right for you.¹ EnergyByLight combines perfect light distribution at the (home)desk and at the same time delivers biologically effective lighting. Aiding your concentration and allowing you to work more efficiently whether in the office or at home. Equipped with automatic daylight and presence sensor technology, glare reduction optics, the luminaire provides an even light distribution not only for the task area but also for the desk's surroundings.

EnergyByLight delivers sophisticated lighting through the use of colour temperature, brightness, and optimised location of light for every space.

Placing the human at the centre of everything – experience the difference, and let EnergyByLight positively influence your well-being, your productivity, your energy, your sleep, and your performance at work.



¹ The EBL-App is needed to set the circadian rhythm. Otherwise, a manual change of colour temperature and brightness is needed.

Info box: The circadian rhythm or day-night-rhythm

The circadian rhythm is the human’s biological rhythm. It comprises 24 hours roughly split between 16 hours wakefulness and 8 hours sleep and can therefore also be called the sleep-wake cycle. This rhythm is influenced directly by daylight. The release of the hormones cortisol and melatonin are controlled by the circadian rhythm. Cortisol secretion is at its highest in the morning making us more productive. While the hormone melatonin decreases steadily with increasing daylight brightness, so we feel fit and well-rested during the day and become more tired as daylight decreases helping us to sleep better at night.²

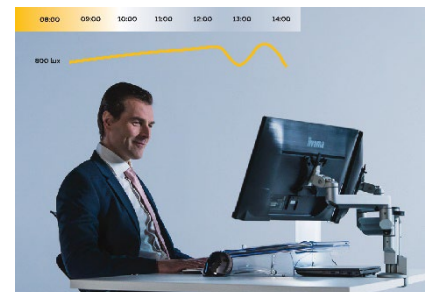
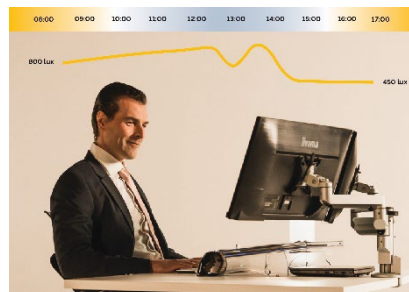
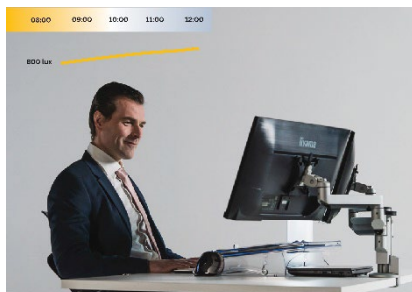


Light that feels good – biodynamic lighting. With EnergyByLight, you support your natural biorhythm in the best possible way. Following the circadian daylight rhythm, providing the cues the body uses to produce the different hormones that give us energy throughout the day and slowly prepare our bodies for sleep as daylight fades. EnergyByLight automatically changes the colour temperature and brightness of the light, aligning itself to the sun and directly with your daily rhythm. This process is critical for healthy living. Using a circadian-focused lighting product helps our body clock remain synchronised even when we are not often outside in natural daylight.



EnergyByLight can also help to counteract seasonal affective disorder (SAD) or winter depression. SAD is caused by too little daylight during the winter months. EnergyByLight can balance out this difference in the natural lighting level of summer and winter.

This biodynamic lighting can be life-changing for everybody who do not receive enough daylight or are affected by SAD. Using EnergyByLight throughout the day will improve your sleep during the night. You will feel more comfortable and productive than ever during the working day and wintertime with EnergyByLight.



Info box: What is Lux?

- Lux is a standardised unit of measurement of light level intensity.
- Sunlight provides between many thousands of Lux to only a few hundred depending on the weather conditions and time of day.³

	Typical Lux
Overcast Daylight	1000
Sunset & Sunrise	400

What is the Lux level in the Office?

The typically artificial lighting level in offices is around 500-600 Lux but can also be lower depending on the age of the installation (e.g., lamps depreciation and cleanliness of the optics)⁴.

² Cf. Zirkadianer Rhythmus: Finde deinen Tagesrhythmus. 20.10.2021 (<https://www.powerful-me.de/besser-leben/zirkadianer-rhythmus/>).

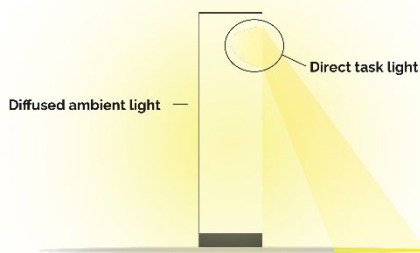
³ Cf. Green Business Light. 20.10.2021 (<https://greenbusinesslight.com/resources/lighting-lux-lumens-watts/>).

⁴ Cf. Steven Edwards, lightingconsult, 19.10.2021.

Info box: Lighting in the office & home office

Characteristics of good lighting according to regulations

1. To guarantee the right viewing environment while working with a computer screen, the lighting conditions need to be without distracting reflections, high contrast, glare and the right brightness levels. Adjusting to poor lighting conditions often result in eye strain, headaches and fatigue.
2. The minimum amount of light should be 500 Lux, with the ability to change the light intensity up to 1000 Lux being desirable with Individuals given the possibility to adjust the lighting level in the task area according to their specific needs.
3. Lighting must be matched to the respective work task, e.g., those who have to read paper documents need more light in the reading area, where 750 Lux is required.
4. A certain amount of daylight is desirable, due to its importance for health and well-being. As natural light changes during the day it is considered a 'trigger' for our biological rhythm.
5. As the colour and intensity of daylight effects people. Changing light colour and brightness mimicking the sun would be ideal, light with a higher blue component similar to natural daylight during the day and a warmer reddish colour at dawn and dusk are perceived as more natural.
6. A mixture of diffuse and direct lighting as well as individually adjustable task area lighting is ergonomically recommended. Individual workplace lighting better enables the employee to adjust the light to his or her own needs and the respective work task.⁵



Perfect light distribution.

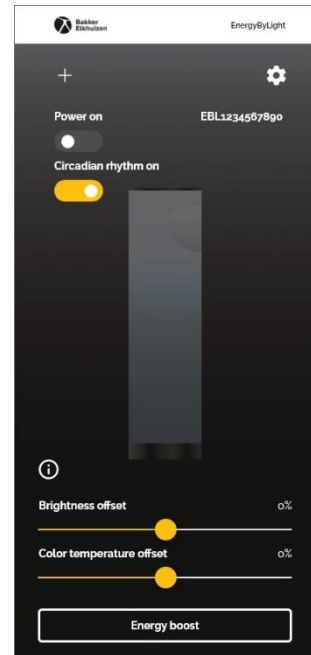
EnergyByLight combines direct lighting for the task area and at the same time indirect lighting for the surroundings. In this way EnergyByLight delivers sufficient light in the right direction, both horizontally and vertically for successful workspace illumination. The built-in opening in EnergyByLight is specifically designed for good task lighting and illuminates the user's desk perfectly in the horizontal direction. In addition, a diffuse proportion also illuminates the surroundings in the vertical

direction. This results in fewer reflections around the task area and a more comfortable work environment for the eyes. The day-night rhythm is optimally supported by the vertical incidence of light on the eyes, because of this amount of light, the suppression of melatonin is optimised, and you remain more active. The clever use of special nano optic diffuser films also ensures the surface brightness of EnergyByLight stays within the required limits, eliminating any contrast issues associated with standard task lights. EnergyByLight vertical illumination is also perfect for video calls, as the face is more evenly lit, and undesirable shadows are eliminated. Manually changing colour temperature, creates an optimal healthy colour appearance on the face.

⁵ Cf. DIN EN ISO 9241-6:1999: Ergonomische Anforderungen für Bürotätigkeiten mit Bildschirmgeräten (neu: Ergonomie der Mensch-System-Interaktion), Teil 6: Leitsätze für die Arbeitsumgebung & Beleuchtung im Büro. 20.10.2021 (<https://www.ergo-online.de/>).

Set your circadian rhythm with the EnergyByLight-App.

You can easily set the circadian rhythm with the help of the EnergyByLight-App. Download the App via the QR code on the base of the luminaire and connect your smartphone, set your location and the EBL automatically follows the circadian rhythm for your region⁶. EnergyByLight simply adapts to the daylight and automatically controls the colour temperature and brightness. Even in wintertime helping to counteract the detrimental effects of this dark season. Whether in winter or in summer, EnergyByLight will deliver the right light at the right time for you, regulating your sleep pattern and positively affecting your mood and well-being. Each of us has specific needs, either you need more or less light than others. With the help of the App, you can also change the colour temperature and brightness in the offset function, adding or reducing up to 20 % from the recommended circadian-light-profile to best suit you. If you switch the circadian-light-profile off, you can manually adjust the colour temperature and brightness through the full range (it is recommended to use the circadian-light-profile).



Another great feature of the app is you can set the time of your lunch break. As soon as the break is over and you start your work again, EnergyByLight gives you an 'Energy boost'. Then the colour temperature and brightness are adapted to a cool bright white light boost making you will feel more awake and energetic. The good thing is, that you can always press the 'Energy boost'-Button in the App. In the event your lunch break takes longer, just press the button on your return. Or if you need more energy for a complex task in the afternoon, press the 'Energy boost'-Button and EnergyByLight adapts the light, and you feel more awake. Additionally, the App has a great advantage, that you can set an absence time. If the light doesn't detect any movement, it switches off automatically. With the so-called 'Absence detection'-function, you can set a defined time after which the light switches off after not detecting any movement.



In addition to the app, direct manual brightness and colour control is also possible via the touch surface. In this mode it is possible to use the full range of colour and brightness the lamp offers. You decide whether the light is oriented to your location, or whether you make individual adjustments that better suit to your daily rhythm. Either way, you are guaranteed to feel more active and fit.

⁶ Allow your device once to use its current location to determine the correct time zone.

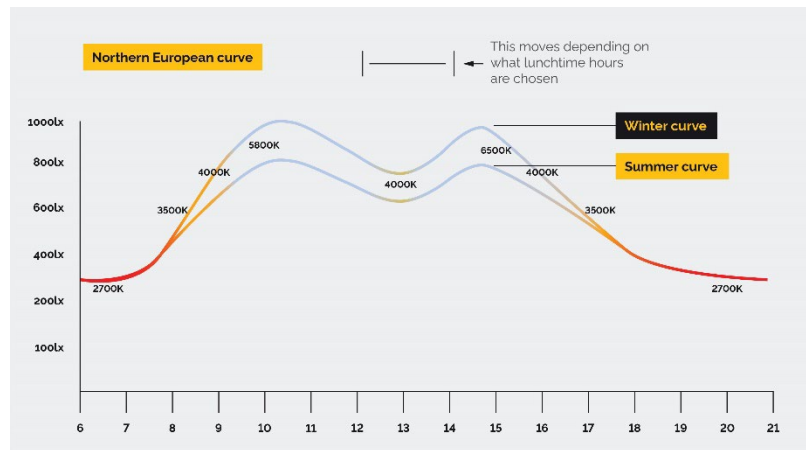
Performance boost.

After you have set the circadian rhythm via the App according to your location, EnergyByLight starts in the morning hours, with a warm colour and light intensity of 500 Lux, and as the morning progresses changes to a cool white colour around 650-700 Lux. With the maximum light intensity during the morning hours before lunchtime reaching 800-850 Lux.

Depending on the lunchtime hours you have set in the App, EnergyByLight will automatically give a cool white light spike after lunch.

This cool spike helps to counteract the dip we experience after eating lunch. The so-called 'Energy boost' will help to keep your performance at a higher level.

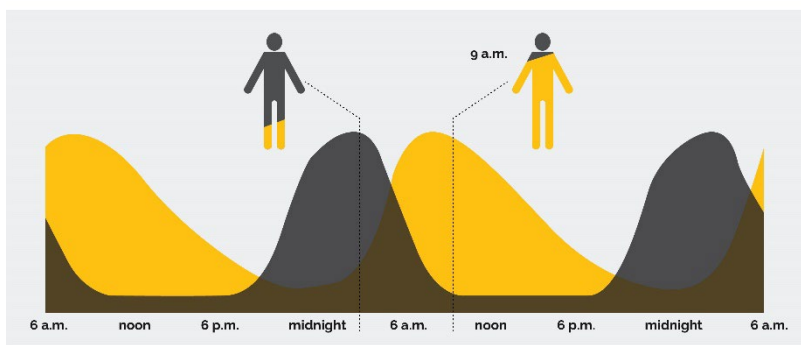
Gradually towards the afternoon, the light intensity will change to 450 Lux with a warmer reddish-white light colour, mimicking the naturally changing aspect of daylight. EnergyByLight automatically balances out the difference in the natural lighting level of summer and winter. The lack of natural sunlight in the winter is counteracted with a higher peak of brightness in the winter curve. The biodynamically adapted light of EnergyByLight follows the circadian rhythm, so that our body clocks remain synchronised. Giving us the opportunity, to work healthier and happier during the day!



lx: light level intensity
K: colour temperature

Influence of daylight on the human body

cortisol level melatonin level



More energy for "night owls" and "early birds".

EnergyByLight delivers a natural mimicking daylight sequence, therefore the body produces the right hormones at the right time to maintain our natural circadian rhythm. This makes you more alert and productive. But also, at the end of the working day, EnergyByLight gives off the appropriate light intensity and colour, helping you to fall asleep at night. Releasing your energy at the right moment when you need it the most and promoting a great night's rest to recharge

your batteries and start your day afresh.

No matter if you're a "night owl" and you start your working day later in the morning and work late into the evening, or an "early bird" and start your working day early in the morning. With the EnergyByLight you can shift the circadian rhythm forward or backward accordingly. The EnergyByLight still follows the circadian rhythm, just shifted to your working hours. This means you can start your day perfectly and your natural circadian rhythm is maintained throughout your working day for creating the optimal energy curve.

Design.

Space-saving, inconspicuous design. EnergyByLight fits perfectly into any (home)working environment. Placed on the opposite side of your mouse hand next to the screen, with its direct task light window facing parallel to your keyboard and/or documentholder, providing task lighting on your desk and your surroundings. EnergyByLight can also completely replace the ceiling lighting and serve as the only light source on any (home)desk. EnergyByLight is original Dutch Design and quality Made in Holland, to the highest quality standards.

Practical.

EnergyByLight promises low energy consumption and a long-life cycle of approximately 50,000 hours. It has integrated dual functions to guarantee energy efficiency either at home or at the office. On the one hand, EnergyByLight monitors and adapts to the ambient brightness. On the other hand, it has an absence sensor and if there is no movement detected, switches the light off. The low energy consumption of EnergyByLight, not only reduces costs, but also makes it more sustainable and efficient. And by using it you can positively influence your well-being, mood, productivity, concentration, and sleep.

