



Guide to Luminette®



Light therapy glasses

Winter blues

Lack of Energy

Sleep Disorders

Jet Lag

Shiftwork



4 years of research for an innovative device

Luminette materialized in 2006, after 4 years of research at the University of Liège (Belgium). Resulting from a desire to create a device which would provide relief from winter blues, sleep inconsistencies and jet lag, it's the result of a collaboration between two worlds: sleep medicine and optical physics. Manufactured in Belgium, we are proud that Luminette is a 100% Belgian product! It has been used by more than 70,000 users since its creation.

A team of inventors



Robert Poirrier

Neurologist and the Director of the sleep laboratory of the University Hospital of Liege



Yvon Renotte

Physicist and former director of the optics laboratory at the University of Liege



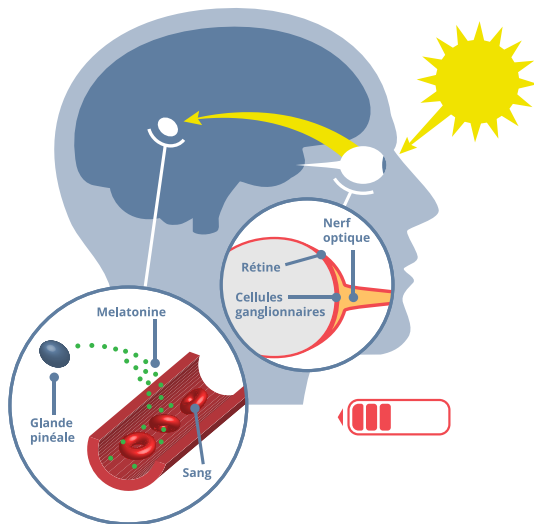
Vincent Moreau

PhD and optical physics specialist

*Proudly made
in Belgium*



Light therapy and melatonin



Effect of light

At sunrise, light activates the ganglion cells present in the retina. These cells send information to the pineal gland, which then cuts off the production of melatonin.



Sleep and melatonin



During night, the ganglion cells recognize that light has been reduced and they send this information to the pineal gland. This then triggers an increase in the rate of melatonin in the blood, which prepares the body for sleep.



Lack of light



In autumn and winter, when the level of light outside is reduced, the ganglion cells do not always detect that the day has dawned.

The rate of melatonin in the blood therefore remains high. This phenomenon creates an unusual tiredness during the day and a prolonged drop in mood (often called the "winter blues").



Light therapy

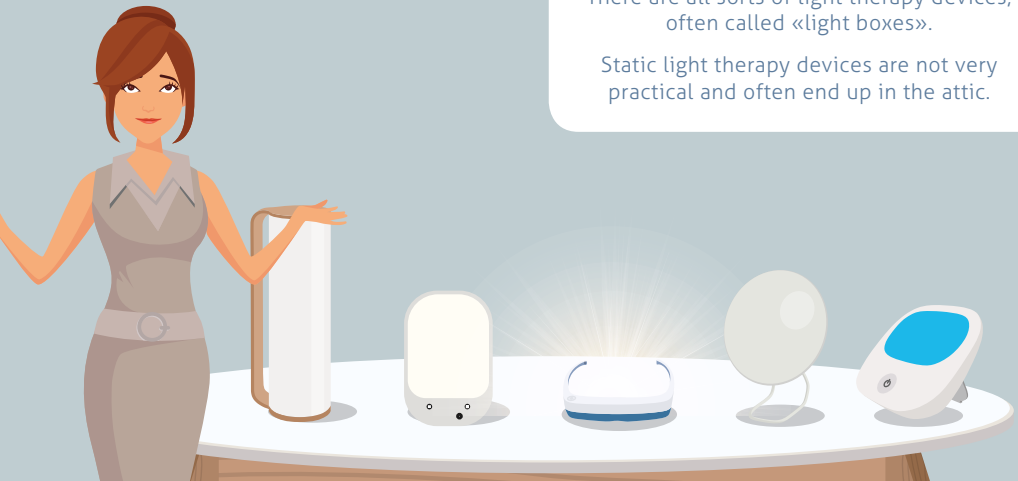


Submitting eyes to a special light devoid of infrared and ultraviolet, for 30 minutes in the morning, compensates for this lack of outdoor sunlight, and therefore cuts off the production of melatonin.

The benefits of Luminette®

There are all sorts of light therapy devices, often called «light boxes».

Static light therapy devices are not very practical and often end up in the attic.



This is why **we have created Luminette**, a light therapy device which can be worn like a pair of glasses. While the light-therapy session is in progress, users are able to continue with their usual activities such as:

- Eating breakfast
- Reading a book
- Brushing their teeth
- And more...

→ As a result, their mood is improved!



A patented system for optimal comfort

An innovative optical component releases light into the eye from top to bottom (just like the sun), but without dazzling or disturbing eyesight.

Luminette emits a blue-enriched white light, peaking at 468nm. Indeed, it has been proved that this wavelength is the best for activating the body's energizing response to light.

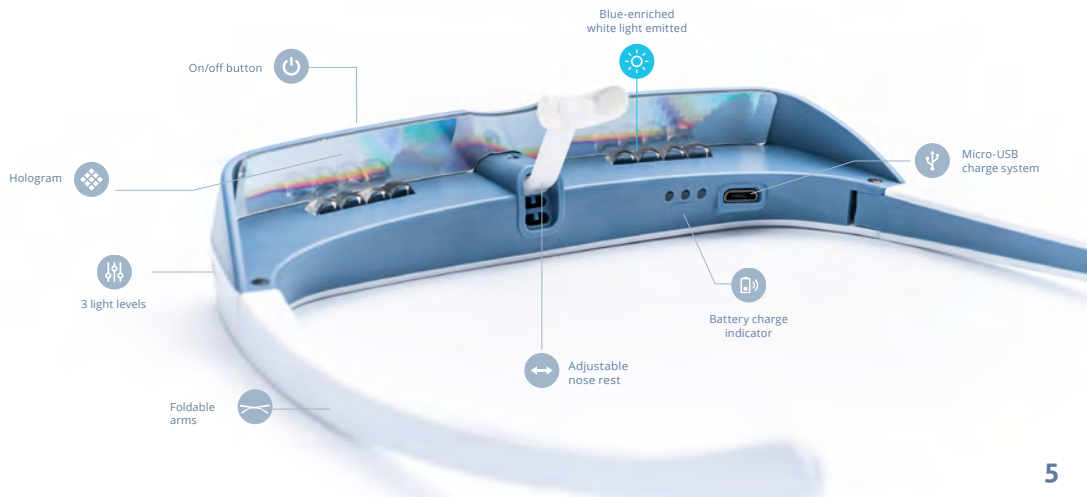
An independent study has shown that Luminette gets the same results as a light therapy lamp of 10,000 lux.

Good to know



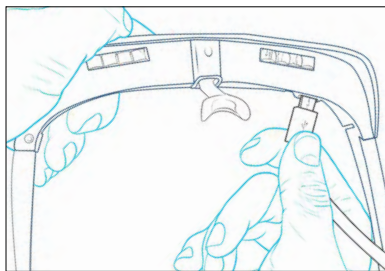
Luminette can be used with glasses or contact lenses.

It does not dazzle or disturb eyesight.



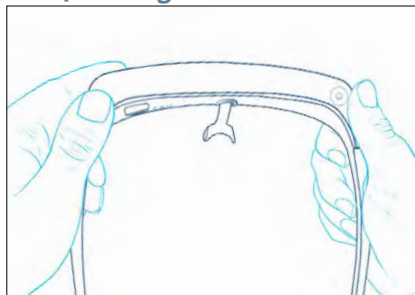
Instructions for using Luminette®

1) Charging the device



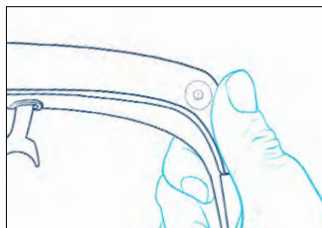
For 5 hours before first use

2) Turning on Luminette



Briefly press
the on/off button

3) Intensity selection



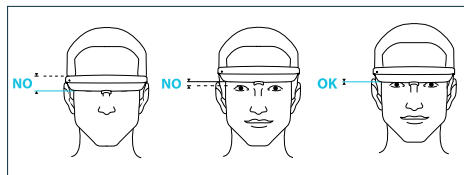
By using the on/off button, you adjust
the intensity to the level which suits you

500 lux = 45 min session

1000 lux = 30 min

1500 lux = 20 min

4) Positioning of Luminette



Use a mirror and check if the light is
properly reaching your eyes.

5) End of session

Luminette blinks three times at the end of the session.

Hold down the on/off button to switch it off

Luminette®

is a certified and tested device



- ✓ Inspected every year by an independent inspection organization (SGS)
- ✓ No risk to the eyes according to standard IEC 62471
- ✓ Devoid of UV and infrared

Contraindications and possible side-effects

Usage precautions:

In the case of eye problems (glaucoma, retinitis or retinopathy, muscular degeneration), seek the advice of a specialist.

Possible side effects associated with the Luminette are infrequent and temporary:

- Headaches
- Eye tiredness
- Nausea

Our advice

Avoid exceeding the recommended daily usage duration

Avoid carrying out your session in a dark room

In the case of side effects, reduce the light intensity or exposure duration

If the problems persist, stop usage for a few days before trying again

WINTER BLUES

Winter blues is linked to oversensitivity to a reduction in light during autumn and winter. It affects between 5 and 10% of the population and mostly affects women.

Since 2005, light therapy has been recognized by the American Association of Psychiatry as the most effective therapeutic method to treat winter blues.



: At wake up



: From October to March



: Effects felt
after 5-10 days

Studies on winter blues and light therapy

Lewy AJ & al. Am J Psych, 1982

Meesters Y & al. BMC Psychiatry, 2011



LACK OF ENERGY AND COGNITIVE PERFORMANCE

Loss of focus, lethargy, longer decision-making, whether at work, school, or athletic performance, these cognitive issues affect practically everyone, and they may have a negative impact if they happen frequently.

Many studies have shown that light therapy helps to improve cognitive performance significantly. One study* in particular showed that using Luminette is as effective as a nap in fighting fatigue after lunch.

Light therapy is, therefore, an excellent natural solution for anyone in good health who wants to be in better shape and have better performance throughout the day.



: At wake up
or after lunch



: All year long



: Effects felt
after 5-10 days

Studies on cognitive performance and light therapy

**Hichem Slama & al. Plus One, 2015
C. Martyn Beaven & al. Plus One, 2013*



ADVANCED SLEEP PHASE

The advanced sleep phase disorder is characterized by drowsiness at the start of the evening and is often connected with waking up in the middle of the night.

Light therapy is recognized by the American Association of Psychiatry as the recommended treatment for this type of sleep disorder. Combined with an adapted lifestyle, it allows the person to rediscover a normal sleep pattern within 2 to 3 weeks.

It is recommended to carry out a light therapy session at the beginning of the evening about 2 hours before going to bed at one's usual time.



: At the start of the evening



: During 1 month



: Effects felt
after 5-10 days

Studies on sleep patterns and light therapy

Jeanne F. Duffy & al. Sleep Med Clin, 2009
Tina M. Burke & al. Jr Sleep, 2013



DELAYED SLEEP PHASE

The delayed sleep phase disorder is characterized by insomnia at the start of the night and is often linked to difficulty waking up. Although some persons have a morning chronotype and others an evening one, the causes of a delayed sleep phase are actually linked to the person's lifestyle and/or sleep patterns.

It is recommended to carry out a light-therapy session in the morning, at the usual wake-up time. At the beginning of the treatment, it may be difficult to wake up at the right time, but after a few sessions, waking up naturally will become easier.



: At wake up



: During 1 month



: Effects felt
after 5-10 days

Studies on sleep patterns and light therapy

Jeanne F. Duffy & al. Sleep Med Clin, 2009

Tina M. Burke & al. Jr Sleep, 2013



JET LAG

When traveling east, avoid sunlight in the morning (by wearing glasses which filter blue rays) and wear Luminette around 12 noon. In the following days, move the light therapy session forward by 2 hours each day (day 2 at 10 a.m., day 3 at 8 a.m.).

When travelling West, stay awake when the sun is rising and wear Luminette® at the start of the afternoon. Go to sleep as soon as the sun sets.



: It depends on the trip



: During the trip



: Effects felt after the first day

Studies on jet lag and light therapy

Auger RR. Cleve Clin J Med 2011
Paul MA1 & al. Chronobiol Int 2009



WORKING AT NIGHT

Some advice regarding light (and avoiding it) may help workers to adapt their body rhythms to the shift pattern.

Given the inhibiting role of melatonin, a light therapy session carried out the evening before work allows the worker to adapt her/his wake/sleep cycles to the shift times.

A light-therapy session before a night shift and another during the shift will increase a worker's alertness, as it prevents melatonin secretion. It also prolongs day sleep, on average, by 45 minutes.



: At the night work shift



: During 1 month



: Effects felt immediately

Studies on shift work and light therapy

Yoon IY & al. Sleep 2002

R Smith & al. Nat Sci Sleep 2012

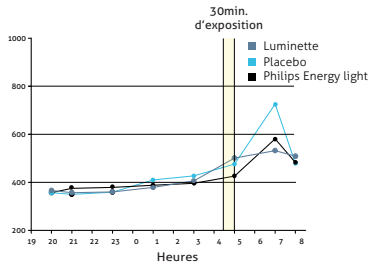


Clinically controlled results

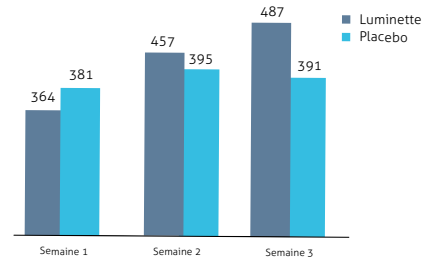
Several studies have been carried out with Luminette:

- Comparison of effects on cognitive performance between Luminette and the Philips Energy Light Lamp. (Viola A. & al. *Sleep Research Sup*, 2014) ⁽¹⁾
- Effectiveness of Luminette on the delayed sleep phase syndrome in adolescents. (Langevin R.H & al. *Medecine du sommeil*, 2014) ⁽²⁾
- Comparison of the effectiveness of a nap and a light therapy session for improving cognitive performance after lunch. (Slama H. & al. *Plus One*, 2015)
- Effectiveness of Luminette on the secretion of melatonin. (Schmidt C. & al. *PsyCh Journal*, 2018)
- Effectiveness of Luminette on adolescents mood. (Inken Kirschbaum-Lesch & al. *Hogrefe*, 2018)

PVT reaction time (ms) ⁽¹⁾



Duration of sleep (min) ⁽²⁾



Your interactive assistant

Make the most of using Luminette®!



MyLuminette is a free chronotherapeutic application. It offers programs based on algorithms that reset the biological clock.

Developed by Roland Pec, these programs include all of the known chronobiological tools: exposure to light, avoiding light, taking melatonin, sleep



Roland Pec
Psychologist and
chronotherapist