Take care of your eyes
ML Filter Sunglasses – all about utility

More protection
We need to protect our eyes against the intense and harmful short-wave ultraviolet light. But the blue light is also harmful and a common cause of eye disease, according to recent research. The LED-light in computer screens, tablets and smartphones is a relatively new source of blue light, which we of course also should have proper protection from. The ML Filter Lens offers 100% UV protection as standard and absorbs blue light in varying degrees, depending on the filter model.

Increased comfort
The high level of comfort is clear proof of how the lenses perform. When the hazardous and harmful blue light has been filtered out, your eyes can truly relax. The ML Filter lens will enable you to sustain longer periods in bright light without squinting, thereby preventing facial tension or headaches.

Better vision: better safety
Another advantage is improved vision: by filtering out the hazardous light, the lens filter allow more of the ‘good’ light to pass through. This means that a filter lens transmits more total light compared to traditional sunglasses – without reduced comfort. More light equals more information for the brain to work with, with improved vision as a result, when compared to traditional sunglasses. ML Filter Lenses also enhances contrasts. High depth perception brings a higher level of sharpness to the visual experience.

We call it ‘high vision’.
The more you protect your eyes from harmful light, the better chances you have of a well-functioning vision further on in life.
Benefits with filter glasses

In our daily life we need proper protection against harmful light exposure, and not just when we’re spending time in the sun and working outdoors. Our eyes are constantly exposed to light from all directions. When the sharp, unpleasant light stops bothering your eyes, you will experience a new level comfort in your daily life.

The necessity of protection is even more crucial in very bright environments, like on snow, water, sand or at altitude. We are also exposed to harmful light in urban environments with reflected light from streets, pavements and buildings.

With our ML Filter Sunglasses, you will experience a sharper vision with surprisingly relaxed eyes.
Harmful indoor light

In recent years we have come to spend more and more time in front of various screens (computers, iPads, smartphones, video games, TV etc) with high amount of LED light. These screens emit a lot of potentially harmful blue light that causes premature ageing of the eyes. You can avoid this hazardous exposure by using a bright filter lens.

The blue light also disrupts the body’s own natural clock, since it prevents production of the sleep hormone melatonin. Exposure to blue light thus keeps us awake, even when we’re tired and desperately want to sleep. However, by using filter glasses while working at the computer before bedtime you can prevent poor sleep quality caused by blue light exposure.
Never leave home without sunglasses! Repeated exposure to harmful light wears out and damages the eyes. To enjoy the benefits of good vision throughout your life, give your eyes the best protection available against blue light and UV light – today!

Protect your eyes – They need to last a lifetime!

When we’re young we’re not very concerned about our vision, or why we should protect our eyes from harmful lights. But exposure can cause long-term damage. Frequent exposure to sunlight also makes us more likely to develop age-related macular degeneration (AMD) earlier in life. It’s a common condition among the elderly with a typical symptom being loss of central vision. Without central vision it’s hard to recognize faces, drive or even read.

Eye health awareness

In our daily lives, at work and in our leisure time, the eyes are more or less constantly exposed to harmful and unpleasant lights.
Instead of taking the vision for granted we should give our eyes the best possible chance of lasting a lifetime. The best way is to protect them from both hazardous UV rays as well as blue light. Eyelids and the skin around the eyes in particular, are also exposed to the risk of developing skin cancer.

Children’s eyes are five times more sensitive

Our eyes’ natural protection against harmful rays is not fully developed until our 20s and it starts to decrease after the age of 45. But since the eyes are five times more sensitive at a young age it’s of paramount importance for children to properly protect their eyes. Young people spend much time outdoors and by the age of 18 the eyes can already have been exposed to as much as 80% of the total UV light they’ll be exposed to during a lifetime.
"Sharpness increases when you avoid being dazzled, which makes me a safer driver."

Fredrik Nordlund, 49, works in sales and uses Multilens ML Night Cover when he drives at night.

– The headlights have changed a lot in recent times. The new LED light is much tougher on the eye. When driving in the dark you are not prepared for all the different sources of light that pops up. Even the street lights are LEDs. In addition, many roads are not fully illuminated at night. Then it can be a good thing to see a little better, he says.

Not only does the ML Night Cover decrease the disturbing light, but the yellow filter also gives the feeling of receiving more light. Previously, Fredrik, against better judgment, used sunglasses to manage the difficult headlights of oncoming traffic. Since he started with the ML Night Cover he feels much safer as a driver.

– I no longer have to strain myself as much, which means I will not be as exhausted. Sharpness increases when you avoid being dazzled. I perceive other people and wildlife better, so clearly I feel safer. Filters overall are probably something we will use more and more.

– When I tried different Night Cover glasses with varying powers it turned out that that I become nearsighted in the dark. Therefore I have a slight minus power in my ML Night Cover.

To become nearsighted in darkness is relatively common. Therefore we offer our ML Night Covers in three different version for different levels of nearsightedness.
As a freelance writer and father of small children, Frederik Ölmqvist, 47, spends many evenings in front of the computer. He uses the filter glasses to protect his eyes from the blue LED of his computer screen, which prevents the production of melatonin, the sleep hormone that helps us sleep.

– It makes a very big difference in the quality of my sleep. Before I started using the filter glasses in the evening, just a couple of hours of work with the laptop before bedtime could be absolutely devastating for the quality of sleep. As soon as I closed my eyes and tried to fall asleep, a blue light was turned on inside my head. Then I would lay half the night, twisting and turning, without really getting into a deep sleep.

When using a computer indoors Fredrik now uses ML Night Cover over his regular reading glasses.
ML Filter improves everyday life and work

Computers, iPhones, iPads and TV
The intense blue LED light from computer screens is a relatively new source of light that the eyes are exposed to and causes them to age. Headaches, muscle tension and sleep problems are common side effects after several hours in front of a computer screen. We are also exposed to the harmful blue light when we use smartphones, tablets, computer games and TV. With ML Filter Glasses the blue light is substantially reduced. Suitable filter color is LLR filter.

Driving in daylight
When we drive in sunlight the eyes are exposed to bright light and disturbing glare from wet asphalt and other flat surfaces. When driving in daylight you should therefore use polarization in combination with an ML Filter. A good combination is ML Filter C1, alternatively ML Filter 450, and Pol 1.

Driving in the dark
If using filter lenses, you can reduce the problems with glare from headlight of oncoming cars. This is such a common problem, so we have developed a special type of filter glasses with unique filter tint for night driving. They are called ML Night Cover and you can read more about them on page 18.
Working indoors
Many working environments are very bright, with powerful strip lights and LED light, for example: warehouses, production facilities, receptions, stores etc. With a light filter: LLR, 400 or C1, it’s possible to relieve the eyes from the tiresome and harmful exposure of blue light.

Sun protection
It is obviously important to protect the eyes form intensive sunlight when you are skiing, sunbathing or spending time at the sea. Less obvious is to protect the eyes from sunlight in daily life or when working outdoors. Since you spend more time “in daily life” than in the slope or the beach, it is at least equally important to have correct protection for your eyes during these activities.

A good choice for these occasions is the ML Filter C1 and 500 combined with Pol 1. If you spend a lot of time in bright light environments, you should select the darker polarization, Pol 3. If you need to improve the contrast vision even more, you may use ML Filter 450.
Tailored visual experience

To find a pair of filter sunglasses that fits your needs you need to make five choices.

Step 1. Do you need correction?
Ask your optometrist/optician for filter glasses with prescription. All types of glasses are possible: Single vision, progressive or bi-focal lenses.

Step 2. Choice of Filter tint
You choose tint of filter lens depending on the activity and environment you will use the filter glasses in. The choice of filter tint improves the contrast vision and the comfort by reducing the amount of blue light that reach your eyes.

Step 3. Polarized and photochromic lenses
The polarization filter enhances vision and protection thanks to a powerful reduction of brightness of reflections from flat surfaces.

Photochromic lenses increases visual comfort by automatically getting darker when the light intensity gets higher.

Step 4. Anti-reflex treatment
Anti-reflex treatment reduces the amount of light reflecting on the lens surface. It provides extra protection against scratches and makes the lens less sensitive to oils, dirt and water.

Step 5. Choosing a frame
The choice of frame is decided by fit, comfort and function. We always recommend trying out the frame.
Besides finding a frame you like based on the design, appearance and look, you also need to focus on function. The frame should cover the eyes well and block unwanted light from the sides.
Some activities and situations require extra protection or an extra wide field of vision. Certain performance sports might require extra durability or extra light-weight functionality.
Step 1. Do you need correction?

Whether you need correction or not is tested by an optometrist. Regardless of the powers you need, you can always get them with ML Filter.

On top of that, there is also the possibility to get ML Filter by using a cover frame or a flip up with your existing glasses. Read more about choosing a frame on page 17.
Step 2. Choice of Filter tint

In this section you’ll find information about the different ML filter tints and in which situations they are useful. You will also find illustrations of the filter tints with and without polarization.

Even though we recommend certain filter for certain situations here, you should try filter combination you feel most comfortable with.

ML Filter 400
Even though 400 is a faint beige color, barely noticeable, it delivers a significant relaxing comfort and enhanced contrast compared to a colourless lens. It’s recommended to everyone, and in particular for persons who feel any kind of discomfort with light, for example in an office environment.

ML Filter LLR
Our filter solution LLR (LED Light Reduction) has a faint yellow filter color that cuts the peak of the blue part of the light from headlights and LED screens, but with a minimal reduction of the total light transmission. This makes it very suitable for night driving, and it’s a standard filter in our ready-made solution ML Night Cover. In an office environment the LLR filter is suited for persons who are more sensitive to bright light.
ML Filter C1
A bright yellow color that blocks all UV light and 80% of the blue light. This is a popular all-round filter with high functionality for many situations, also while moving between indoor and outdoor, brightness and shadow. Filter C1 enhances comfort and allows a normal color vision. In a work situation filter C1 will benefit persons with a high level of brightness sensitivity.

ML Filter 450
A lemon yellow colour that absorbs 100 % of both the UV light and the harmful blue light. This colour is very suitable for extremely bright environments: at high altitude, on snow and water, where also contrast vision is important.

ML Filter 500
A yellow-orange color that blocks 100% of the UV light and absorbs 95% of the blue light. This is a suitable all-round filter if you also stay in bright environments.

For more filter colors visit mlfilter.com
Step 3. Polarized and photochromic lenses

Polarization layer
While direct light oscillates in all directions, most part of the reflected light from water, snow or a shiny flat surface, oscillates in one direction. With a polarizing layer on a lens, the reflected light waves can be filtered out. Both Pol 1 and Pol 3 eliminates nearly all reflected light (99.8%). The difference between the two is that Pol 3 is darker than Pol 1, which means that the general level of brightness is lower with Pol 3 than with Pol 1.

Photochromic layer
It’s also possible to combine ML Filter with a photochromic lens (a glass that darkens in sunlight). This combination is very useful and provides a very comfortable level for everyday life, in bright and dark situations, as it controls both the blue light and general brightness.

Drivewear
The Drivewear lens is both photochromic and polarized. It means that it reduces glare from reflected light AND it darkens in sunlight. It combines the best from two worlds and if you really want to invest in your vision, this is the lens to choose.

Step 4. Anti-reflex treatment
SunCoat and Prima Sun reduce reflection on the inside of the lens.

Dark lenses in sunglasses and filter sunglasses makes reflexes visible on the inside on the lens, which can be disturbing. Therefore we always recommend anti reflex treatment on ML Filter sunglasses.
Step 5. Choosing a frame

The basics when selecting a frame is to choose a frame that you like and that is adapted for the situation you intend to use it in. If you want to have filter tint all the time or just in special situations also affects the type of frame you should choose. We offer three types of frames:

Cover frames
The simplest way to add a filter is to put a pair of cover frames with filter lenses on top of your regular glasses. Our Cover frames are available in different filter colors, with various polarization (without, Pol 1 and Pol 3) and in different models and sizes.

Flip-up
Flip-up is a very convenient alternative if you’re looking for a solution that allows you to have the option of a filter wherever you go. It’s easy to attach to your regular glasses. The Flip-up solution is available with or without, and with all types of ML Filter, polarization filter etc.

Ordinary frames and sun frames
If you don’t need correction, we have a waste vast collection of readymade glasses with different filter lenses. Combining filter lenses with a frame of another brand is no problem at all. If you need correction glasses, the most convenient solution is to get a pair of ML Filter glasses with individual powers. Just contact an optometrist / optician and they will help you.
Four Filter solutions for comfort

Computer glasses
With an LLR filter (LED Light Reduction) it’s easy to reduce the strenuous blue light in LED screens, which also affects the diurnal circadian rhythm. Also ML Filter 400 and C1 are suitable for computer work.

For some indoor situations with much reflecting light, filter glasses with a polarization filter could be the best option. If you need filter glasses for work with a computer, your optometrist/optician will help you find the proper corrective lens for your needs.

ML Filter Glasses for night driving
The glare from meeting headlights whilst driving at night can be very tiresome with decreased visual capacity as a result. ML Night cover is designed to reduce these problems. It has the following features:

- ML Filter LLR (LED Light Reduction) cuts the peaks of the blue LED light from the headlights.
- Optical compensation for nearsightedness in darkness, i.e. better visual acuity.
- To avoid annoying reflection, it comes with anti-reflex treatment.
- Available in cover frames and flip-ups and can therefore easily be used with your normal glasses.
**ML Filter Sun Guard**

Designed with enhanced protection in mind for very bright outdoor situations. Besides an adjustable bridge and extra large lenses for improved protection around the eyes, Sun Guard has an interior ‘roof’ on top of the frame which blocks off light transmission from above. Detachable side panels on the temples is another light-blocking feature. Sun Guard is available in two different sizes, and in black or brown colors. The standard version of Sun Guard comes with plano lens and ML Filter, but of course it’s possible to order Sun Guard with correction.

**AMD Comfort**

AMD Comfort is a special optical solution for persons with AMD (Age-related Macular Degeneration – it gives improved visual acuity, improved depth of field, enhanced contrast, better comfort and full UV protection. Also persons with other visual problems that can occur after glaucoma or diabetes for example, can get an improved eye sight with AMD Comfort.

The main characteristics of the lens are:

- Comfort filter for best possible protection against UV light and reduction of harmful and unpleasant blue light. This also enables a pleasurable comfort in bright daylight and increased contrast perception.
- Magnifying effect with apparent visual improvement. AMD-I magnifies 3% and AMD-II 6%.
- Anti-reflex treatment is standard, resulting in improved light transmission and enhanced visual quality.
- For optimal optical functionality AMD Comfort always comes with individual correction.

Visit mlfilter.com for the complete and updated range.
It all started in a garage

Multilens is a world-unique specialist company within the optical sector. We tailor optical solutions for every need. From the beginning, our only goal has been to focus on the eyes, vision and visual function.

Multilens was set up in 1983 by Lars Hellström, who after 30 years in the optical business decided to focus on the most exciting challenge: developing special optic solutions that could solve difficult optical problems. Together with opticians, optometrists, eye care practitioners and eye doctors he created innovative special optics. Within a short space of time the whole Hellström family was committed and Multilens have since become leaders in low vision optics, helping thousands to enjoy a better visual experience.

We see an increased general awareness of eye health. Filter glasses can also be very beneficial to people with good vision.

They give your eyes the best protection against harmful light and the level of comfort is higher, meaning you never have to squint or suffer from sunlight-induced headaches. Another benefit is improved contrast vision.

We call it ‘High Vision’.

Try it for yourself!

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