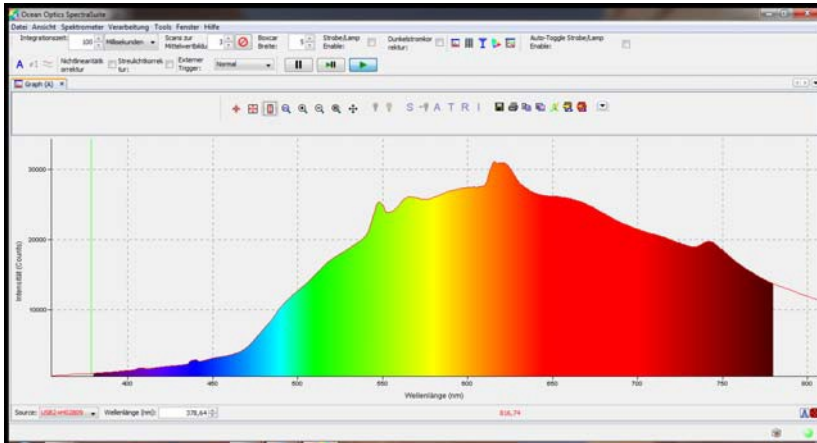


The spectral composition of different light sources

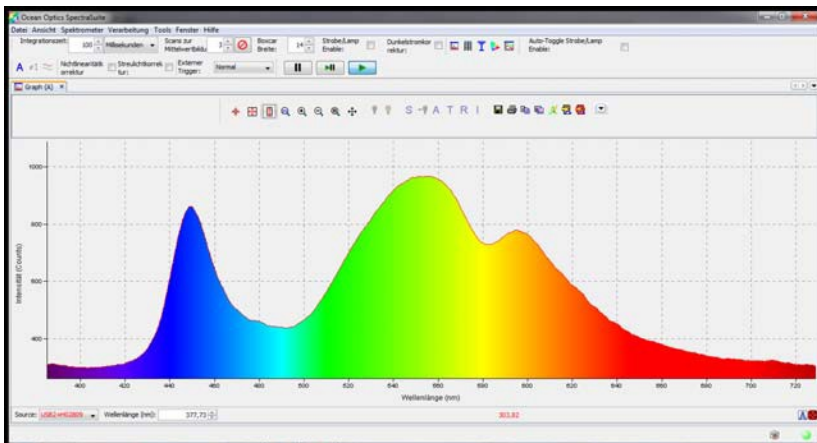
Spectrometer USB2000+ Ocean Optics
© Reinhard Gerl

60 watt halogen bulb



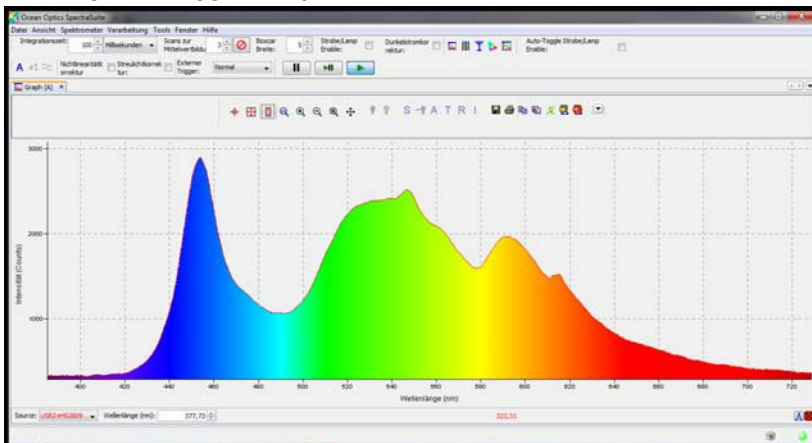
Incandescent light with a harmonious and complete spectral curve. Typical low blue content and a high amount of red. This is an optimum light for the evening hours. Just as the sun sends a warm reddish light in the evening, light from an incandescent lamp is very similar. Optimal agreement with the human natural circadian rhythm. Hormone-neutral.

Notebook Display LED



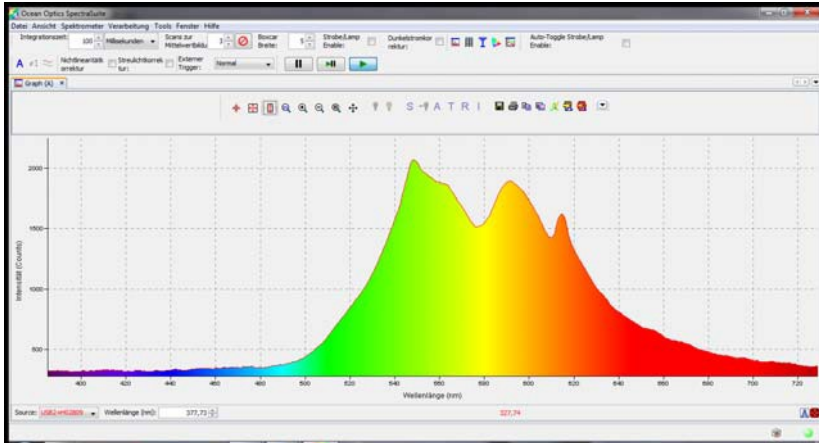
White LED light with a very high proportion in the blue spectral range. There is very little red there, which however is more of an orange than a true red which goes from about 630 nanometers against zero. This means that such a light from LED has virtually no light radiation over a very wide range of 630 to 780 nanometers! The blue component dominates largely. Blue light is known for eye damaging effects and interfere with the hormonal (melatonin)

Smartphone (Iphone) LED



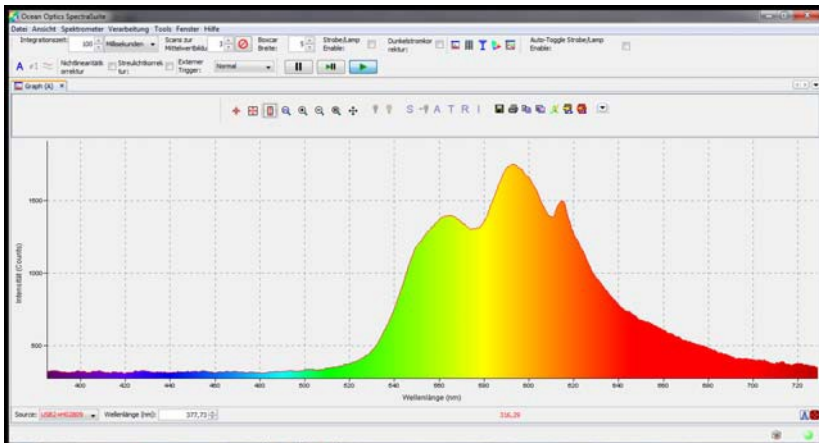
Even smart phones emit intense blue!

LED-Display + PRiSMA® bluelightprotect LiTE filter



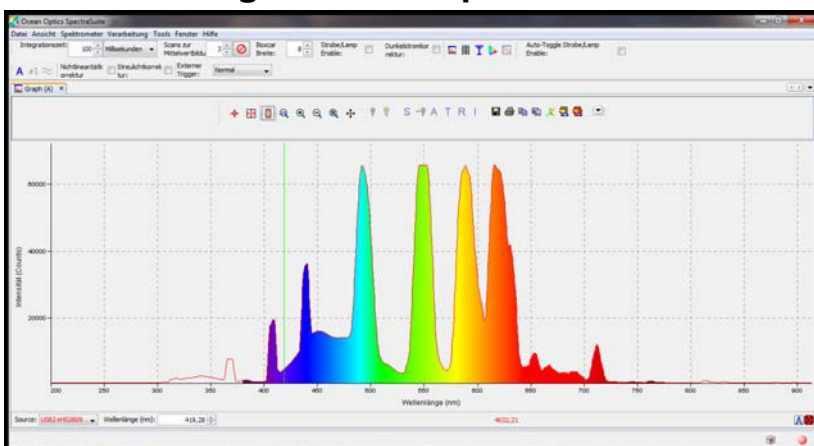
The PRiSMA® bluelightprotect LiTE filter largely reduces the blue components.

LED-Display + PRiSMA® bluelightprotect PRO filter



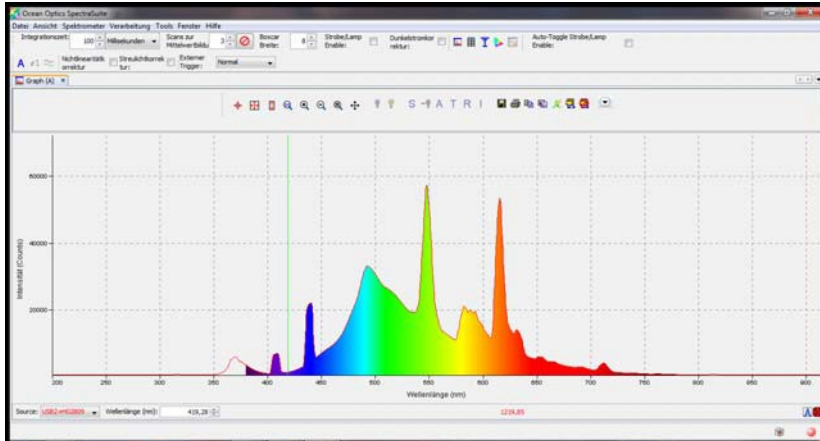
The PRiSMA® bluelightprotect PRO filter guarantees optimum protection from blue-light radiation. It filters the excessive blue-light components out reliably.

Fluorescent light - Luxline plus 58W 840



Conventional fluorescent lamp with discontinuous spectrum. Again, the red area is almost completely absent.

So-called full-spectrum light TRUE LITE II, 5500 K 97 CRI, 58W



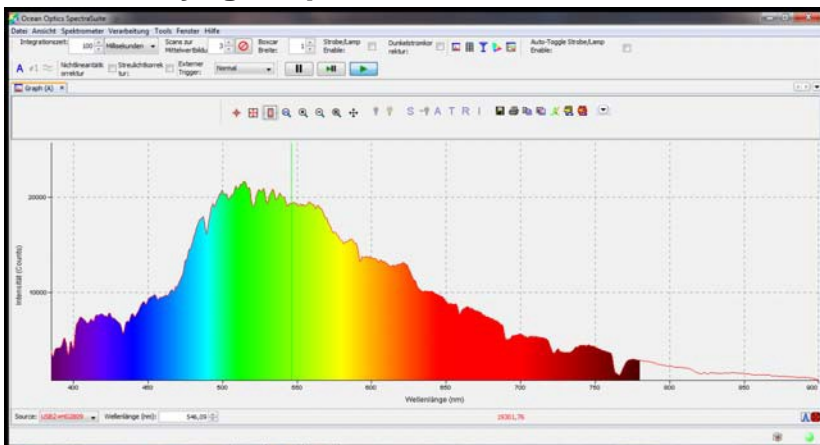
high energy peaks and the red component practically does not exist, this light is advertised as FULL SPECTRUM LIGHT!

Today lamps are offered, from which is said that they emit light, which is almost equal to the sun light. Interestingly, they are not in any way such as you would expect.

According to the manufacturer it states:
„The homogeneous spectrum of our True-Light full spectrum bulb is nearly identical to that of the midday daylight”

Although the spectrum we measured is completely disharmonious and contains

Natural daylight spectrum in the afternoon at about 3 pm, cloudy, (December)



Blue and red components in a balanced ratio.