

Spring 2022



**SHIELDED  
HEALING**



# **Human Optimized Lighting Guide**

**Artificial Light: The Visible EMF**

**NOTICE:** Products recommended in this handout have been tested and approved by Brian Hoyer and his team of Shielded Healing Pros for flicker, spectrum and dirty electricity. We retest and put all these products through testing quarterly to make sure they continue to meet our standards. The best way to guarantee an optimal lighting environment is to have these bulbs installed and hire a Shielded Healing Pro to test your home.

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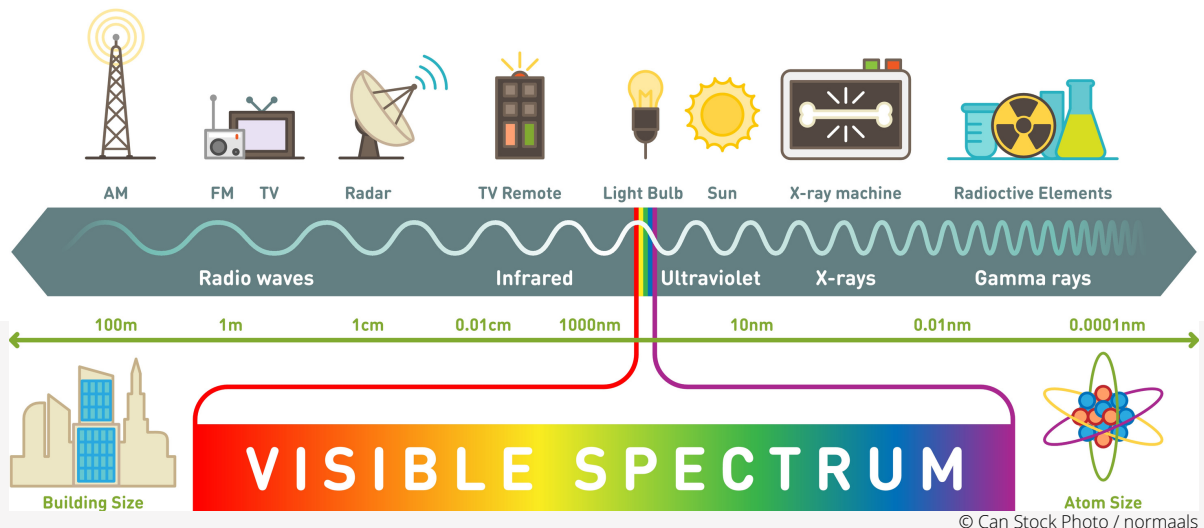
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# Health Considerations of Artificial Light

## Electromagnetic Spectrum



## Flicker

Natural sources of light do not pulse or flicker. Artificial light sources can generate imperceptible flicker. Studies show the human eye can detect flicker of up to 2,000 Hz (cycles per second). Light flicker is linked with long-term and short-term health effects such as eye strain and a decline in cognitive performance.

Artificial light sources from bulbs plugged into the electrical grid are running on 50 or 60Hz AC pulsed electrical frequencies. When a light source runs directly from these electrical frequencies, it will pulse at the same rate as that source of power. This means that the light will be flickering on and off on AC electricity at 120 times per second.

With imperceptible flicker, the eyes are constantly adjusting, but the brain doesn't process the information fast enough to produce an image of flickering that your eyes are exposed to. Imperceptible light flicker can cause eye strain that leads to headaches and ultimately to hormone disruption because of stress on the hypothalamus/pituitary glands. These glands depend on the eyes for signals from the light environment to regulate circadian biology, and the nervous system 'rest and digest' or fight or flight stress response.

This is why we recommend flicker free bulbs. We test EVERYTHING that we recommend and just because the marketing says it is flicker free does not mean that it is something that we endorse. There are different bulbs depending on time of day that help support your natural circadian rhythms. Read on to learn about recreating an ancestral light environment.

# Recreating An Ancestral Environment



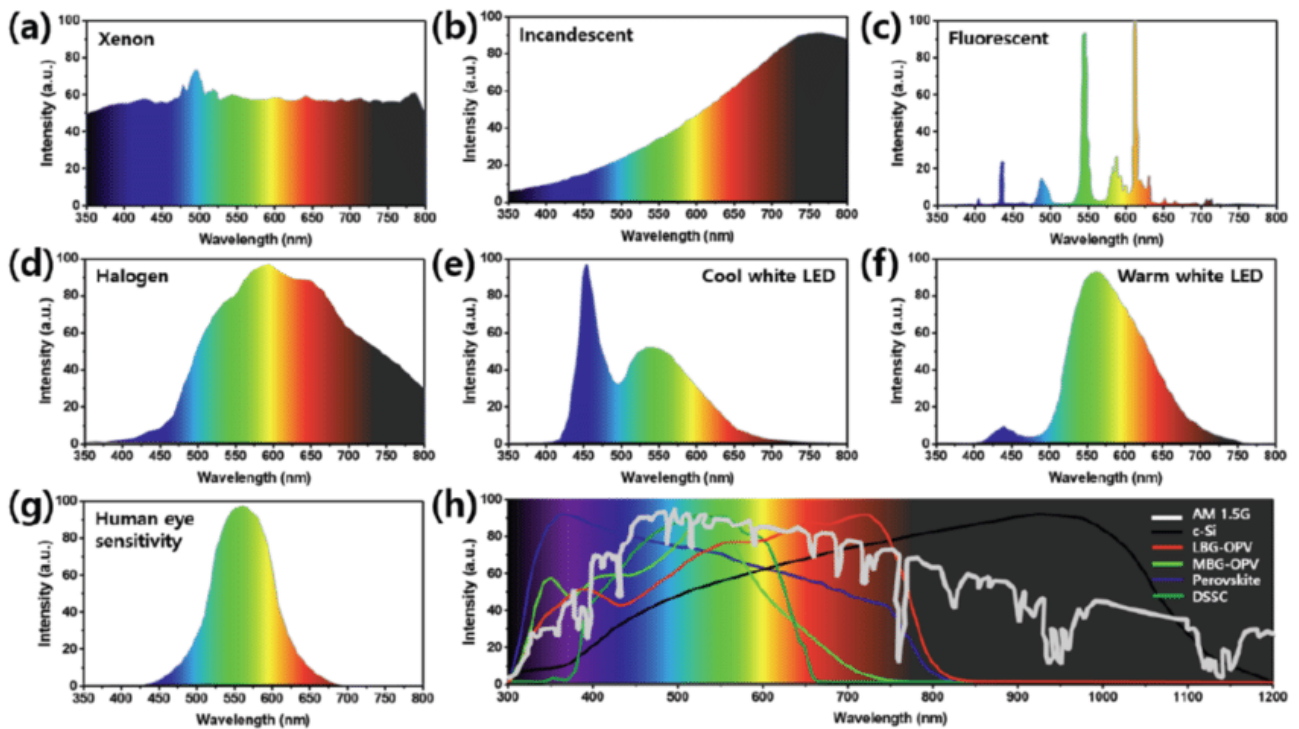
## Spectrum

The spectrum of natural sunlight changes throughout the day and also throughout the seasons. The human body uses these wavelengths to signal circadian clocks, for hormone production including Vitamin D, to feed and give oxygen to the cells through mitochondrial ATP production, cellular respiration, and even antioxidant production.

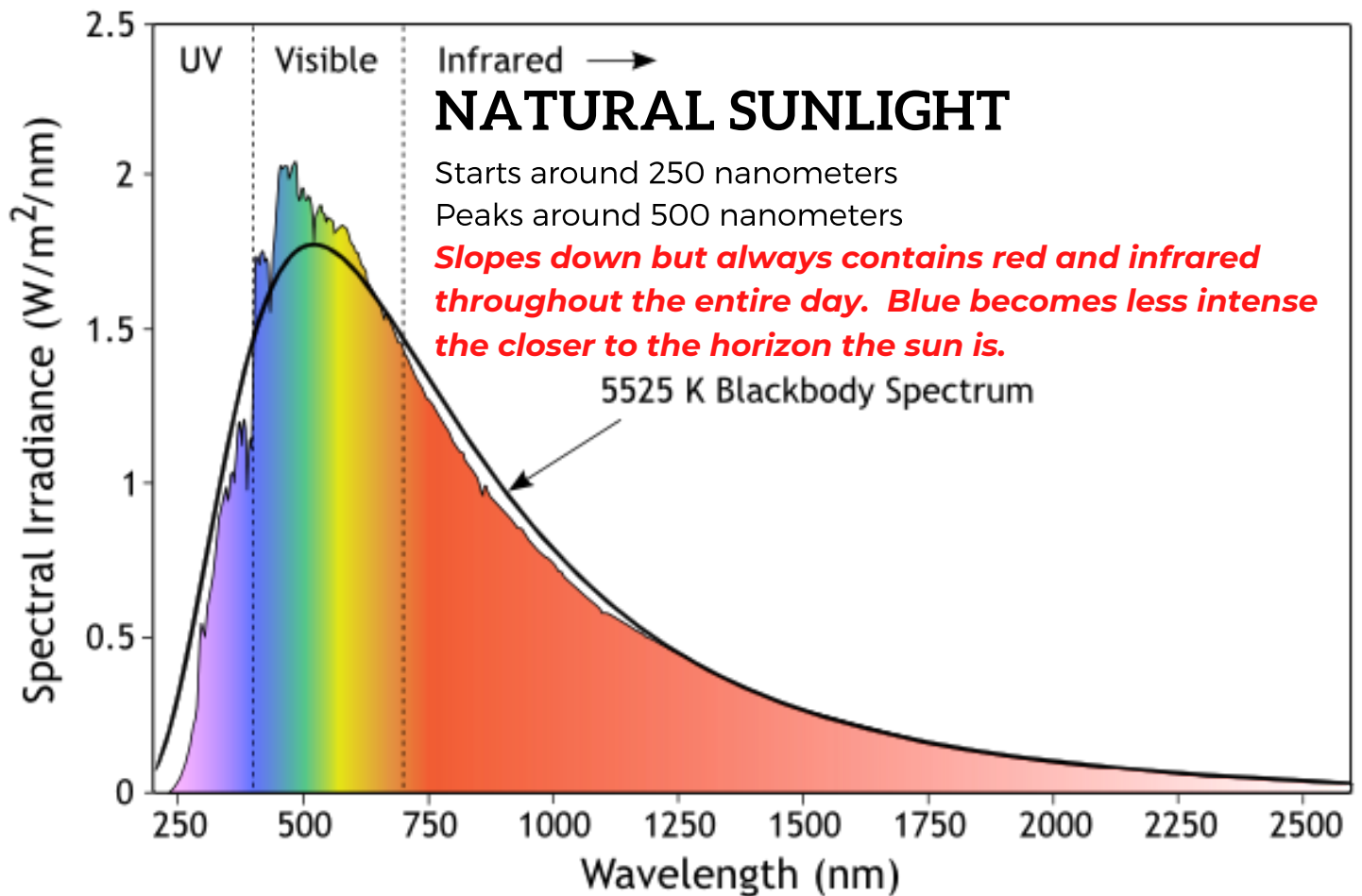
The natural spectrum during the day contains large amounts of visible light (52-55%) and near infrared light (~43%) as well as trace amounts of UVA and UVB radiation (3-5%).

In order to recreate the ancestral lighting environment in your indoors, we recommend a combination of incandescent and LED bulbs. LED bulbs contain more blue, green, and yellow wavelengths but are missing deeper red and infrared wavelengths. Incandescent and halogen bulbs have less intensity in the blue, green, and yellow spectrums and more in the orange, red, and infrared. Our recommendations on the following pages provide options for daytime, twilight, and night time lighting to mimic the changes in spectrum found in nature.





Kim, Soyeon & Jahandar, Muhammad & Jeong, Jaehoon & Lim, Dong. (2019). Recent Progress in Solar Cell Technology for Low-Light Indoor Applications. Current Alternative Energy. 03. 10.2174/1570180816666190112141857. t



# Daytime Light Combining

**Disclaimer:** Proper light combining in any space is best done with a Shielded Healing Pro to optimize your results. Each building or home has very different lighting requirements based on where windows are, what side of the building the windows are on, the angle of the light fixtures and lamps in the space, and even the colors of walls and furniture.

## Incandescent and halogen bulbs (heat based)

Incandescent OR halogen lights create light by using heat. **These lights should be placed strategically targeting places where people sit or stand for longer periods of time.** Remember the sun provides near infrared spectrum all day long. Near infrared frequencies stimulate your mitochondria to produce energy (ATP) and also stimulates subcellular melatonin production in every cell in the body where light can penetrate. Modern windows are designed to block out infrared frequencies from the sun so unless that window is open you are not receiving those healing near infrared wavelengths.

Incandescent or halogen light is not needed in areas where you do not spend a lot of time. These bulbs put off a lot of heat and use a lot of energy. You can save on energy use and still have an optimal lighting environment by combining heat based illumination with human centric flicker free LED lighting.

## Daytime LEDs

We recommend that at least half the lighting in your house be healthy Daytime LEDs like we recommend in areas where you spend a lot of time during the day. Blue light from white LEDs is only detrimental at the wrong time of day. When combined with heat based lighting (as we recommend) the harshest blues are reduced. Blue light is needed in the morning and early afternoon to set your clock for later in the day. If you are blocking blue light all the time then you will develop similar issues as people who have too much blue light.



**Put heat based lighting over the dinner table, in a desk lamp, or fixtures hanging in the middle of the room.**

**At least 25% of your daytime lighting should be incandescent or halogen. Up to 75% of your lighting can be healthy LEDs.**

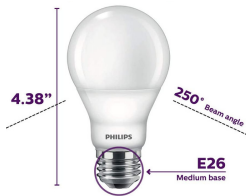
## Philips Eye Comfort LEDs

Philips Eye comfort light bulbs in 60 watt equivalent are virtually flicker free. Other wattages with the same marketing are NOT flicker free so be sure to **choose 60 watts** whether it is vintage style LED, soft white frosted LED, or candelabra 60 watt. Sold at Home Depot, Walmart, and Amazon.



### 2700K Soft White

60-Watt Equivalent A19 Dimmable with Warm Glow Dimming Effect Energy Saving LED Light Bulb Soft White  
<https://thd.co/3Cas8bx>



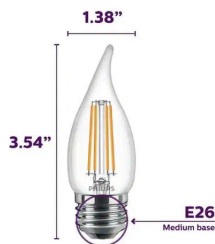
### 5000K Frosted Glass

60-Watt Equivalent A19 Dimmable Energy Saving LED Light Bulb in Frosted Glass Daylight  
<https://thd.co/3upWTr2>



### 2700K Candleabra

60W Equivalent Soft White BA11 Candleabra Dimmable LED Decorative Light Bulb  
<https://bit.ly/35P5JEj>



### 5000K Candleabra

60-Watt Equivalent B11 Dimmable Edison LED Candle Light Bulb Glass Bent Tip Candleabra Base Daylight  
<https://thd.co/3hxLrlp>



### 2700K Clear Glass

60-Watt Equivalent A19 Dimmable with Warm Glow Dimming Effect Clear Glass LED Light Bulb Soft White  
<https://thd.co/3tpHlkT>

# DAYTIME BULBS LEDs 2700K-5000K

## Incandescent and Halogen Bulbs

Generally most brands of incandescent and halogen bulbs available are going to be similar in quality so long as the wattage is correct. We have listed some favorite brands below but any brand will do if you have these wattages:

**Incandescent = 100 watts or higher**

**Halogen = 50 watts or higher**

For those extremely sensitive to flicker we recommend 75 watts for halogen and 125 watts incandescent.

**Before purchasing be sure that your light fixture can handle the higher wattage.**

### Chromolux Clear

For bright, daytime bulbs, we recommend the use of incandescent bulbs. One of the best brands is the Chromalux **CLEAR (not frosted)** incandescent bulbs that are 100 Watts or more IF your fixtures can handle that much. It's good to have at least a few 150 watters in each room combined with LEDs. Higher wattage means less flicker with these bulbs and more full spectrum healing wavelengths.



**3750K A21 / 100W or 150W Chromalux®**  
Full Spectrum Incandescent Bulb

<https://bit.ly/33imyGw>

### Halogen Bulbs

Halogen bulbs run hotter on the inside and can be less wattage and still low flicker. They also have a higher spectrum in blue and green than incandescent filament bulbs and for this reason are great to use as early morning to early afternoon daytime bulbs.

# DAYTIME BULBS

## Incandescent 2700K-5000K



# Twilight Transition Lighting

**Reminder:** Proper light combining in any space is best done with a Shielded Healing Pro to optimize your results.

## What is Twilight?

Twilight is the time when the sun starts going down and it starts to get dark outside. It doesn't necessarily mean that you will be going to bed soon depending on the season and your latitude on the planet.

Remember we are trying to imitate the light environment outside so it's important to note each day when the sun will set. Make a habit of going outside and watching the sunset but before going out turn off your daylight bulbs in the house so when you return you be able to switch on your twilight lighting.

## Incandescent Vintage Edison Bulbs

Like the daytime bulbs **these lights should be placed strategically targeting places where people sit or stand for longer periods of time** BUT you don't need a lot of them unless you need brighter lighting for entertaining or to keep someone in the house happy who may not be excited about orange and red night bulbs we will recommend in the next section.

Twilight lighting should be a WARMER color and also much less bright than daytime lighting. For this reason you don't need as many of these bulbs because the sun is no longer out and you need to help signal your body that this has happened even though you are indoors. 1-3 bulb fixtures are plenty for twilight bulbs.

## Twilight LED Bulbs

These bulbs have very little blue light but still provide adequate visible light during this time of day. It will save energy to use these if you simply want the ambience in an area to look the same and don't need near infrared spectrum. Just remember not to overdo it. Twilight needs to be low intensity lighting even though the spectrum is warmer.



Twilight bulbs can be your source of near infrared installed in daytime fixtures OR used in common areas leading up to bedtime.

***With twilight at least 75% of your lighting should be incandescent. Up to 25% of your lighting can be twilight LEDs.***

## Vintage Edison Bulbs

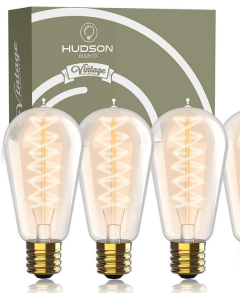
These class of healthy bulbs have a thin filament that burns hotter and has low flicker and full spectrum while also providing a warmer kelvin with lower blue light output. Great for sunset, twilight, or even nighttime areas in transient space such as hallways that need better lighting for safety without having the extreme blue spectrum



### Brightown ST64 Incandescent

**2100K** Brightown Edison Light Bulbs Vintage 60 Watt Incandescent Light Bulb E26 E27 Base Dimmable Decorative Antique Filament Lamp Bulbs Amber Warm

<https://amzn.to/3sARaNG>



### Hudson Edison Incandescent

**2100K** Vintage Incandescent Edison Light Bulbs: 60 Watt, Warm White Lightbulbs - E26 Base - Dimmable Antique Filament

<https://amzn.to/35iHJdb>



### Jslinter Edison Incandescent

**2200K** Warm White Old Fashioned Incandescent Light, Jslinter 60 Watt Dimmable ST58 Antique Vintage Style Light, Clear Glass e26 Base

<https://amzn.to/3IGDhmH>



### Ascher Vintage LED

**2300K** LED Edison Bulbs 60 Watt Equivalent, Eye Protection Led Bulb with 95+ CRI, Amber Warm, ST58 Antique LED Filament Bulbs, **Non-Dimmable**, E26 Medium Base

<https://amzn.to/3gr8Vbg>

# TWILIGHT BULBS

2100K-2600K

# Night Lighting

**Reminder:** Proper light combining in any space is best done with a Shielded Healing Pro to optimize your results.

## No BLUE LIGHT!

**The sun has set!** At night for 2-3 hours before your bedtime you want to restrict all forms of blue light. Don't have a bedtime? You should set one and be consistent. The body thrives on consistent circadian rhythms including sleep and wake cycles.

## Incandescent at night?


The only incandescent light recommended at night is one 250 watt incandescent bulb with a red stained glass filter on it. This is what the SaunaSpace Zero EME Photon Light is. This provides flicker free blue filtered light that is strikingly similar to the spectrum of fire or candles at night. It's like a bonfire spectrum in your home.

This light doesn't have to be aimed at you unless you are cold or are using it for targeted near infrared therapy on a part of the body. For night lighting you can aim this fixture up toward the ceiling and it will bathe the entire room in near infrared light. Remember that even a red light can be bright and as it gets closer to bed time it's even good to start turning off bright red lights or at least aim them away from your eyes.

## Night LED Bulbs

**LED lights are a narrow band of light about 20 nanometers wide.** Yellow LEDs are void of blue light but still have some green, which also can halt melatonin production at night.

Orange is a favorite because it blocks out all the blue and most of the green. Red blocks out all blue and all green but is difficult for many people to get used to this type of light right away.



Evenings before bed should be as little light as possible. One or two red or orange lamps per room should be adequate!

***Night lighting before bed should be void of blue light and also low intensity, meaning less light.***

## Colored LED Light Bulbs

Night lighting for lamps or fixtures. LED Flicker free red, orange and yellow bulbs.



### Sunlite 40471

LED A19 Colored Light Bulb, 3 Watts (25w Equivalent), E26 Medium Base, Non-Dimmable, UL Listed

<https://amzn.to/3MeYjLs>



### Sunlite 40470

LED A19 Colored Light Bulb, 3 Watts (25w Equivalent), E26 Medium Base, Non-Dimmable, UL Listed

<https://amzn.to/3MeYjLs>



### Sunlite 40472

LED A19 Colored Light Bulb, 3 Watts (25w Equivalent), E26 Medium Base, Non-Dimmable, UL Listed

<https://amzn.to/3MeYjLs>



### Lumi Sleep

**1000K** bulbs by BluBlox in Red or Yellow

<https://bit.ly/3vT4ILE>

# NIGHT BULBS 1000K-2000K

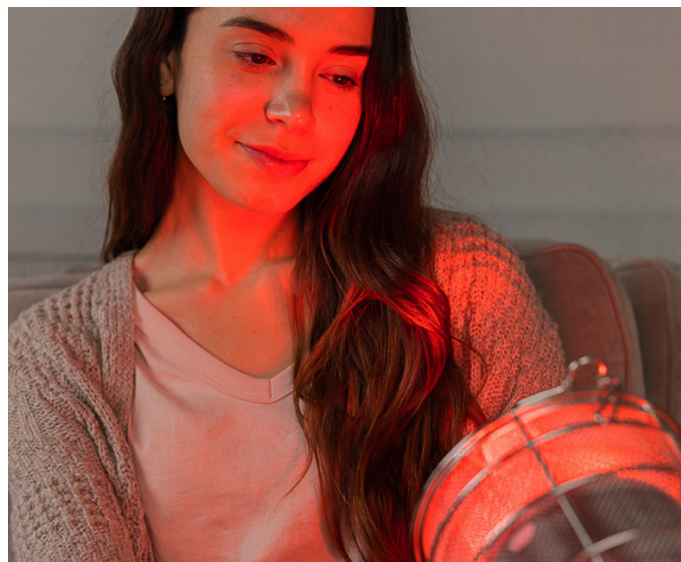
# Near Infrared Light



## The Zero EMF Photon Light

This Zero EMF Photon Light helps reduce flicker stress from computer or TV screens and fluorescent or LED home lighting. It also adds in the missing infrared light and bathes the entire room in healing infrared energy making the inside of our homes match more closely with the infrared we are bathed in outside in the sun. Now shipping with SaunaSpace's upgraded Thermalight Bulbs for targeted red light therapy. They have 2-3 times the irradiance of normal 250 watt bulbs and more heat too. Can also be used for targeted infrared therapy.

<https://bit.ly/3whudzI> (coupon 'EPFIXphoton' for 10% off)





# Other Lighting



4000K  
6500K

## Fluorescent tube replacement

The Centric Daylight T8 Bulb from Waveform Lighting is specifically made to switch our fluorescent bulbs directly without having to rewire light fixtures. It's an easy and quick way to swap out for healthy lighting for fixtures with 4ft long fluorescent tube lights. 95 CRI. Flicker Free. We recommend 4000 or 5000K for daytime use. 6500K should only be used for a short time at solar noon if purchased.

<https://bit.ly/3HBVG2P>



3500K-4000K

## LED tube replacement

The Energy Focus 500D series tubes are an affordable flicker free LED. If replacing fluorescent bulbs you will need an electrician to remove the

transformer and directly wire your fixture before these bulbs will work. If replacing an LED tube then it will swap out seamlessly.

<https://www.energyfocus.com/product/500d/>



## Hooga Non-Blue Light emitting rechargeable desk lamp

Great rechargeable reading lamp for the bedside that is void of blue light so it will not disrupt circulating pineal gland melatonin production. Use the code **"EMFGUY10"** to save 10% when you check out.

<https://hoogahealth.com/discount/EMFGUY10>



95 CRI

3200K  
5600K  
6500K

## Under Cabinet Lighting

### FilmGrade™ WHITE LED Strip Lights

When installing under cabinet lighting in a remodel or new build these are a great option. Flicker free and the fullest LED spectrum possible.

<https://bit.ly/3LgXock>



# SHIELDED HEALING



Services provided by Shielded Healing include in person Home EMF Assessments, Office Assessments, and Residential or Commercial New Construction/Remodel Consultations. We also test RVs, Tiny Homes, Custom Vans and any place else you call home! Our goal is to be the first and last EMF assessment you will ever need.

## Contact Us



[shieldedhealing.com](https://shieldedhealing.com)



[info@shieldedhealing.com](mailto:info@shieldedhealing.com)

# Electro-Pollution Fix

## EMF Protection Course



### *A Collaboration between*



**Brian Hoyer, FNTF**  
Founder of Shielded Healing  
EMF Mitigation Specialist

*and*



**Nick Pineault- "The EMF Guy"**  
Advocate for Safe Technologies

Nick Pineault and Brian Hoyer teamed up to create the ultimate Electro-Pollution Fix -- a simple, step-by-step EMF Protection course which will teach you simply the best way to get started if you want to clean up your home from all this toxic EMF pollution and help your entire family thrive.

**Save \$100 with coupon code 'LAUNCH'. Offer expires July 8th, 2022!**

**Learn more at [electropollutionfix.com/launch](https://electropollutionfix.com/launch)**

#### **Here's what a past member of Electro-Pollution Fix said about the course:**

*"I loved this course and learning more about how I can better protect my family from this invisible 'pollution' that is surrounding us. The quick fixes offered in the course allowed me to feel like I was already making an impact on my families health without investing a ton of money. I'm grateful for this knowledge."*

*— Mandi V., Littleton, USA*