

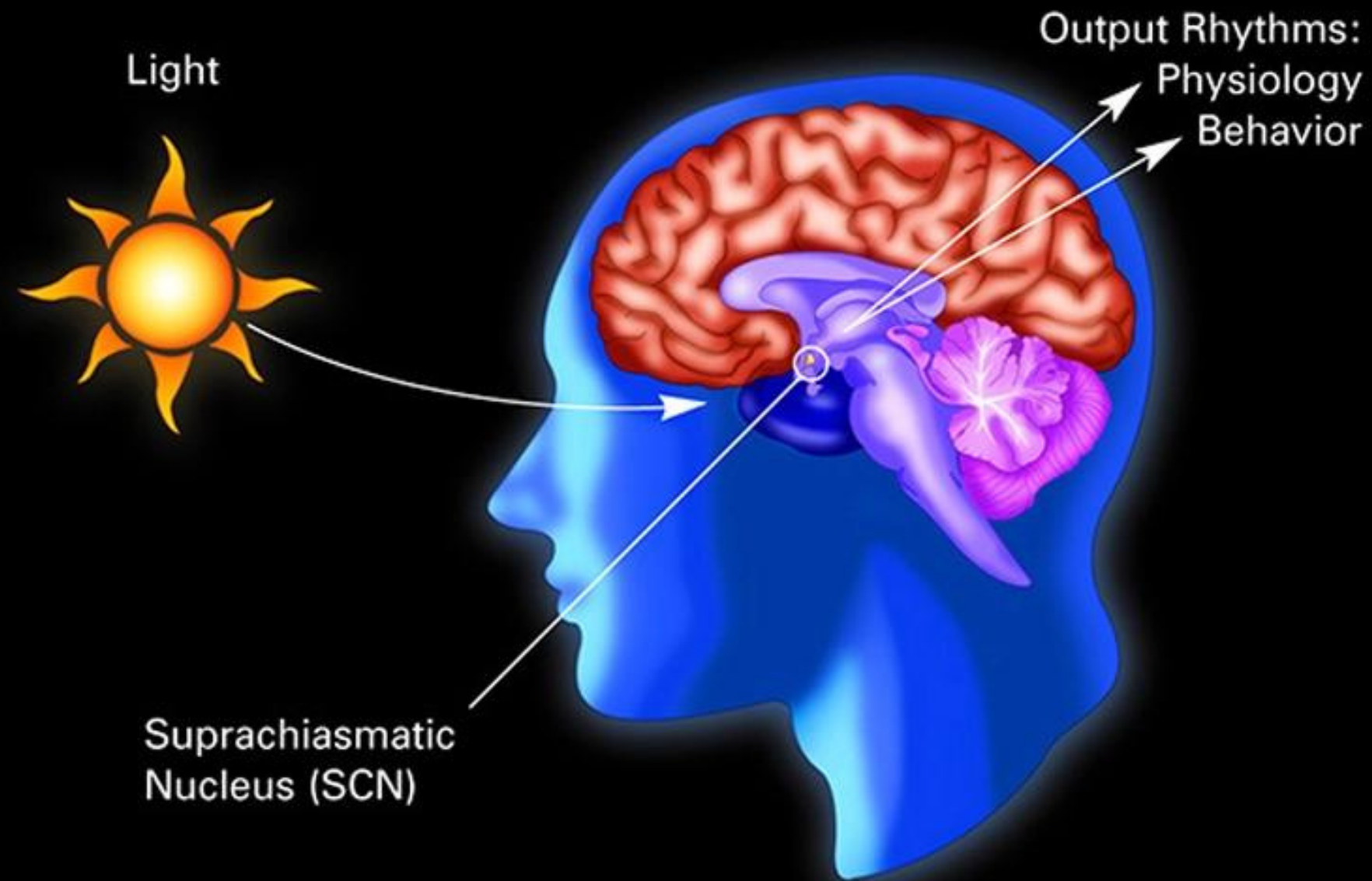


*bio*Enlightenment™

Science of Light

# Nutritional Light Technology™

— *only the sun offers better light*



Ignites Metabolism

Regulates Brain Chemistry

Synchronizes Circadian Rhythms

*That Control . . .*

- Appetite
- Energy
- Mood
- Sleep
- Libido
- *and so much more*

life

“A living cell requires energy not only for all its functions but also for the maintenance of its structure. Without energy, life would be extinguished instantaneously and the cellular fabric would collapse.  
*The source of this energy is the sun’s radiation.*”

– Albert Szent-Györgyi, Chemist – Nobel Laureate

# THE FUTURE OF MEDICINE HAS ARRIVED

## **LIGHT + HUMAN HEALTH**

CIRCADIAN, BIOLOGICAL + BEHAVIORAL

A partial list of subjects associated with the benefits of light.  
The research can be viewed at [SOLshine.org](http://SOLshine.org).

- Weight Loss
- Immunity
- Stress, Burnout & Fatigue
- Cognitive Function
- Scholastic Achievement
- Back Pain
- Alzheimer's & Related Dementia
- Decreased Sex Drive
- Parkinson's Sleep-Wake Cycle
- Cancer Survivors Sleep Quality
- Brain Fog & Electro-Smog
- Alcohol Addiction
- Bipolar Depression
- Macular Degeneration

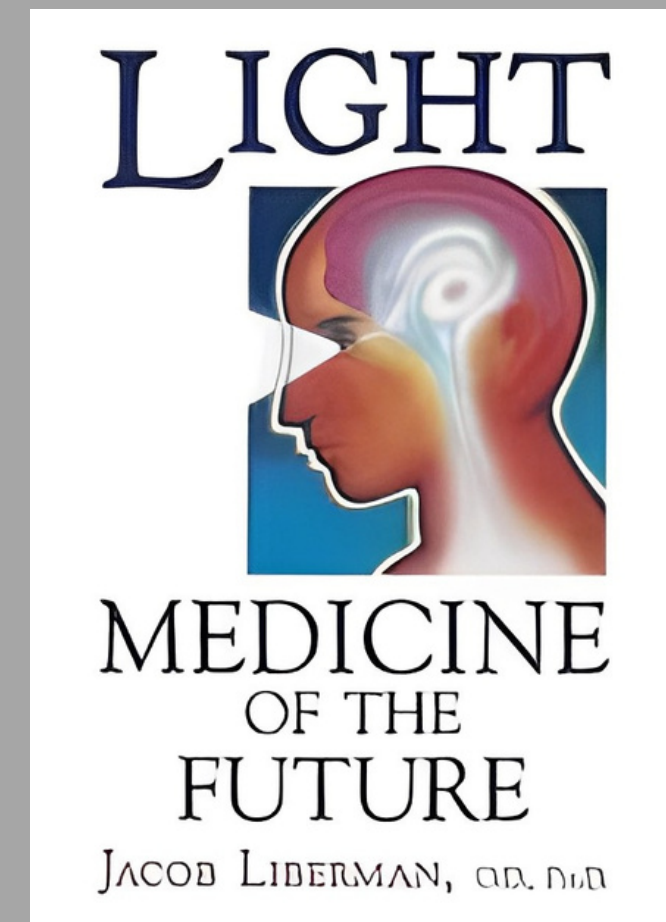
Continue reading to discover

**—THE MIRACLE OF LIGHT**

*"The power of light and color lies in a simple fact  
– light and life are inseparable.*

*Light is the energetic foundation of the experience we call life."*

– Dr. Jacob Liberman



# NATURAL LIGHT

## The Essence of Life on Earth

*“Light is nothing short of miraculous.  
Light makes our world luminous, dazzles our senses  
and quietly controls the chemical tides in our bodies.”*

— George C. Brainard, PH.D.

The Healing Light: Interface of Physics and Biology

**UNFORTUNATELY**  
**We've become indoor cave-dwellers.**



ON AVERAGE WE SPEND

**90%**

OF OUR TIME

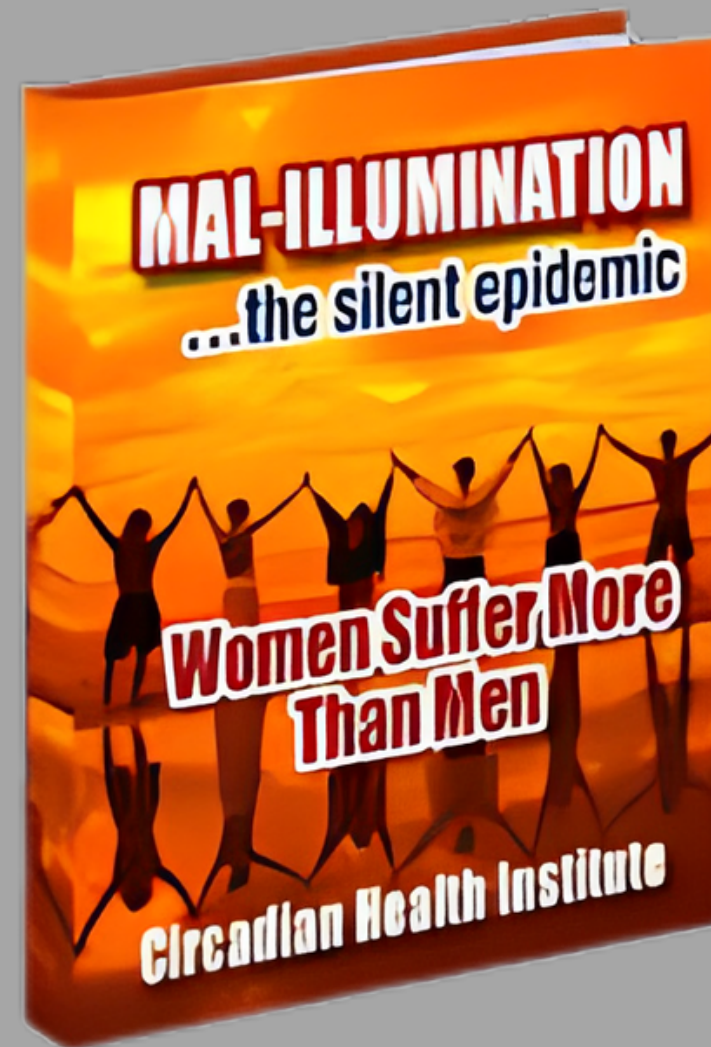
**INDOORS**

Not enough natural, *full-spectrum* light and  
too much indoor, *limited spectrum* light is called

**Mal-illumination**

# Mal-illumination

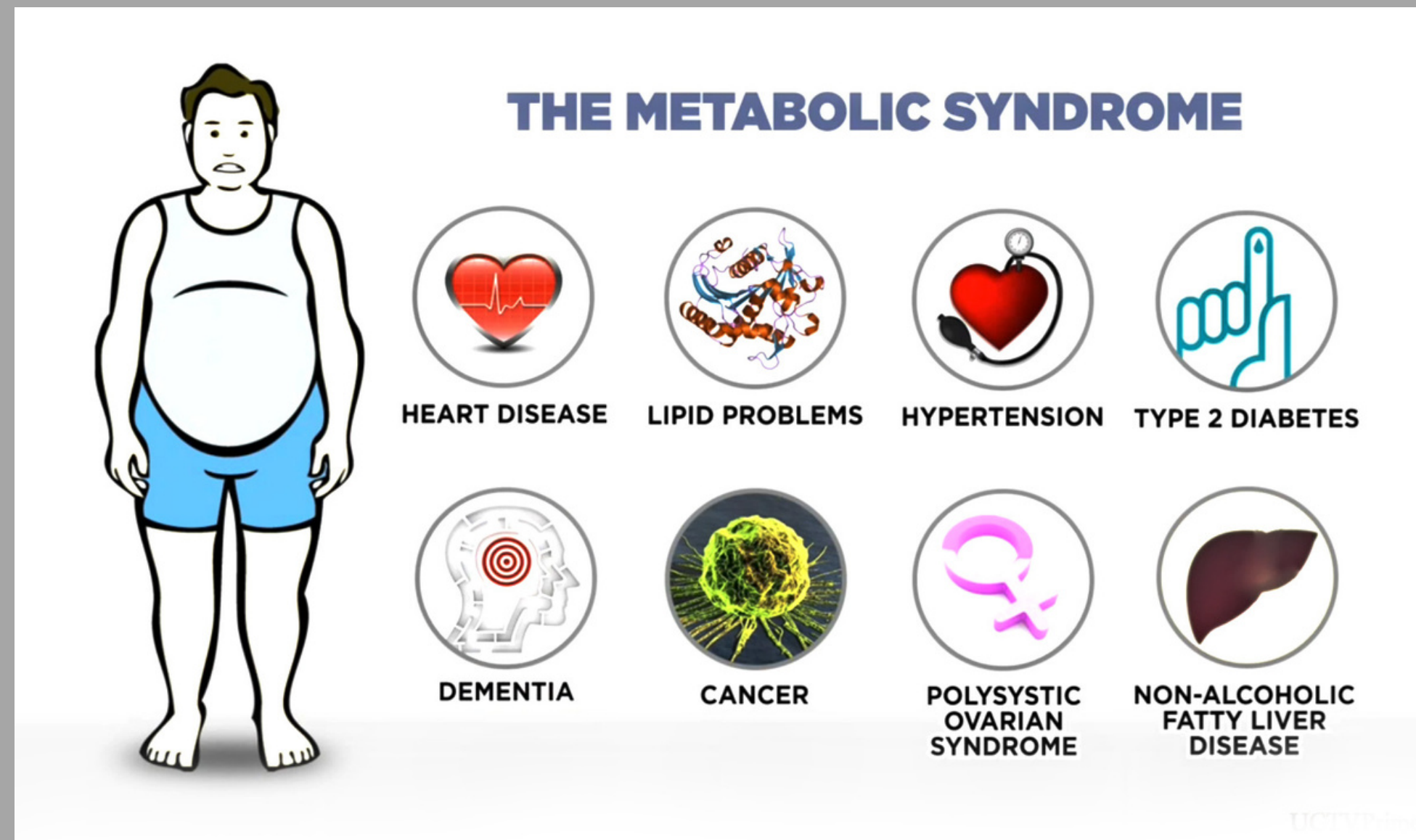
*funny word . . .* **Serious Health Issue**

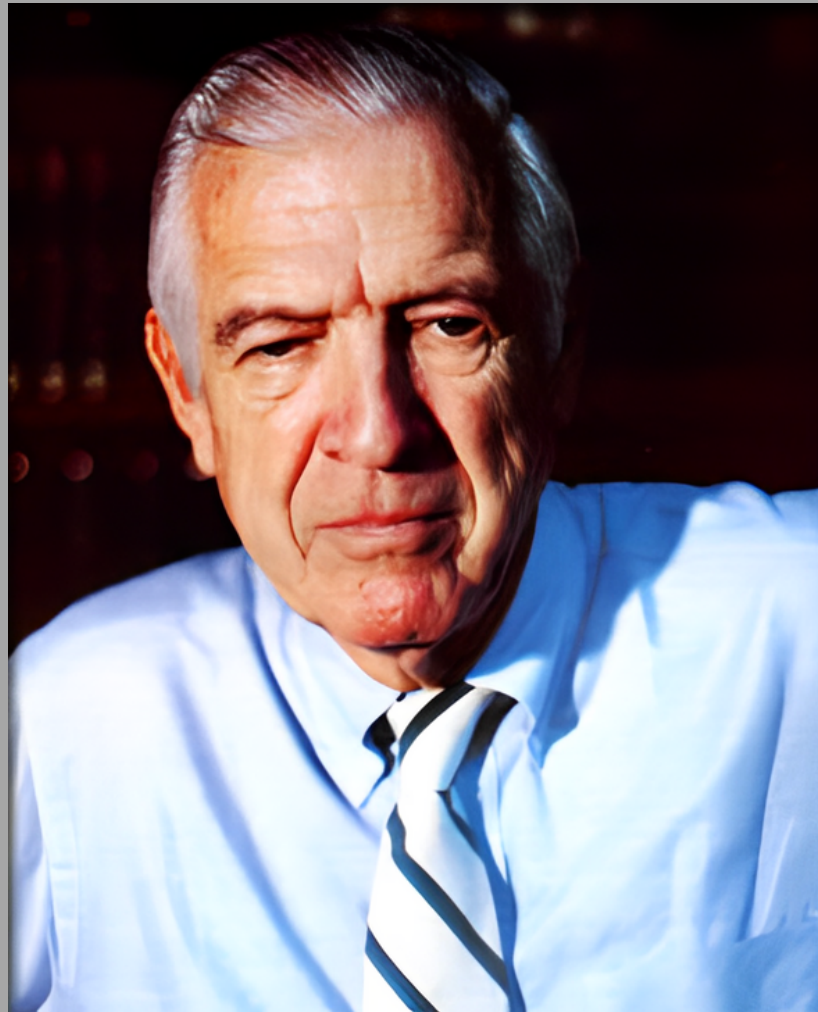




# Mal-illumination Leads to Metabolic Disruption

*... and that's just for starters!*





*“Mal-illumination is to light  
as malnutrition is to food.”*

— Dr. John Ott  
HEALTH AND LIGHT  
3,000,000+ copies sold

OVER 3 MILLION COPIES SOLD!

# HEALTH AND LIGHT



The Extraordinary Study That Shows  
How Light Affects Your Health  
And Emotional Well-Being

by **John N. Ott**

## LIGHT

### The Most Overlooked Nutrient

*“We have finally learned that light is a nutrient much like food, and like food, the wrong kind can make us ill and the right kind helps keep us well.”*

— Dr. John Ott

HEALTH AND LIGHT

3,000,000+ copies sold

# The Indoor Epidemic

**Are you suffering from  
mal-illumination?**



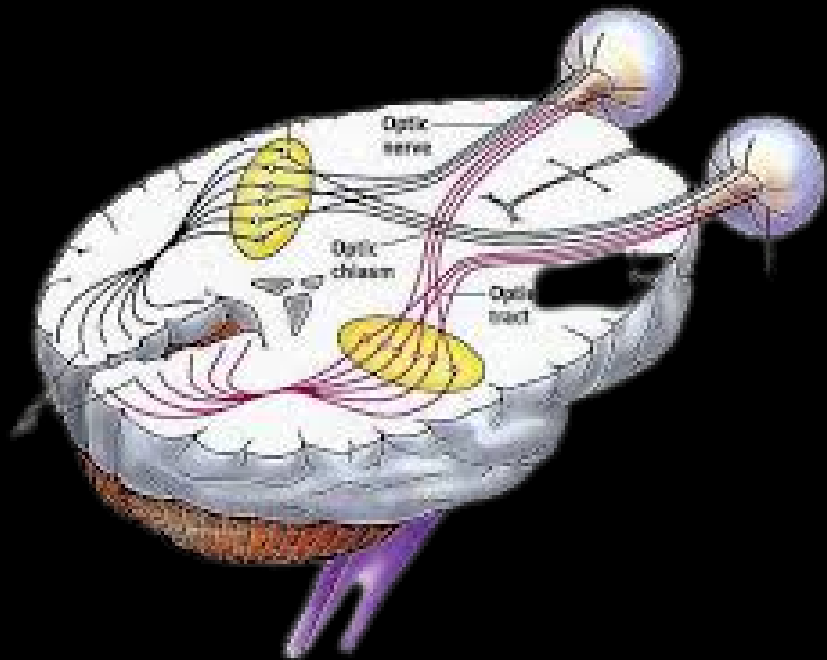
98% of Sunlight Energy  
Enters the Body Thru the Eyes



# The Eyes are an External Part of the Brain



Pathways of light in the brain.



light living cells exert influence on  
"BLOOD" photobiomodulation

– biochemical reactions that occur in living cells in response to light –



All of the blood in the body  
circulates thru the eyes approximately every two hours  
and is absorbed by the blood cells producing an amazing cascade of events.

## Light Maximizes Absorption

Food and supplements require a “full-spectrum” of light to be fully metabolized.

Without natural light – nutrients are partially wasted and less effective.



– Don't Take Your Vitamins in the Dark





## Light Controls Sleep ... Come into Rhythm Naturally

50 to 70 Million Americans  
Suffer Chronic Sleep Disorders

- Bright daylight signals the brain to wake up.
- Disappearing evening light is the time to wind down.

The bigger the contrast between night and day  
– *the better you sleep.*

## Light Increases Vitality

Vitality is defined as the lively energetic force that animates and perpetuates living beings & organisms.



### **Journal of Environmental Psychology**

Daytime light exposure and feelings of vitality:  
Results of a field study during regular weekdays

The amount of light experienced was significantly related to vitality.



Better Absorption, Sleep & Increased Vitality  
*with*  
"Light Hygiene"

Light and dark cycles that agree with a natural solar timing pattern could be referred to as good light-hygiene.



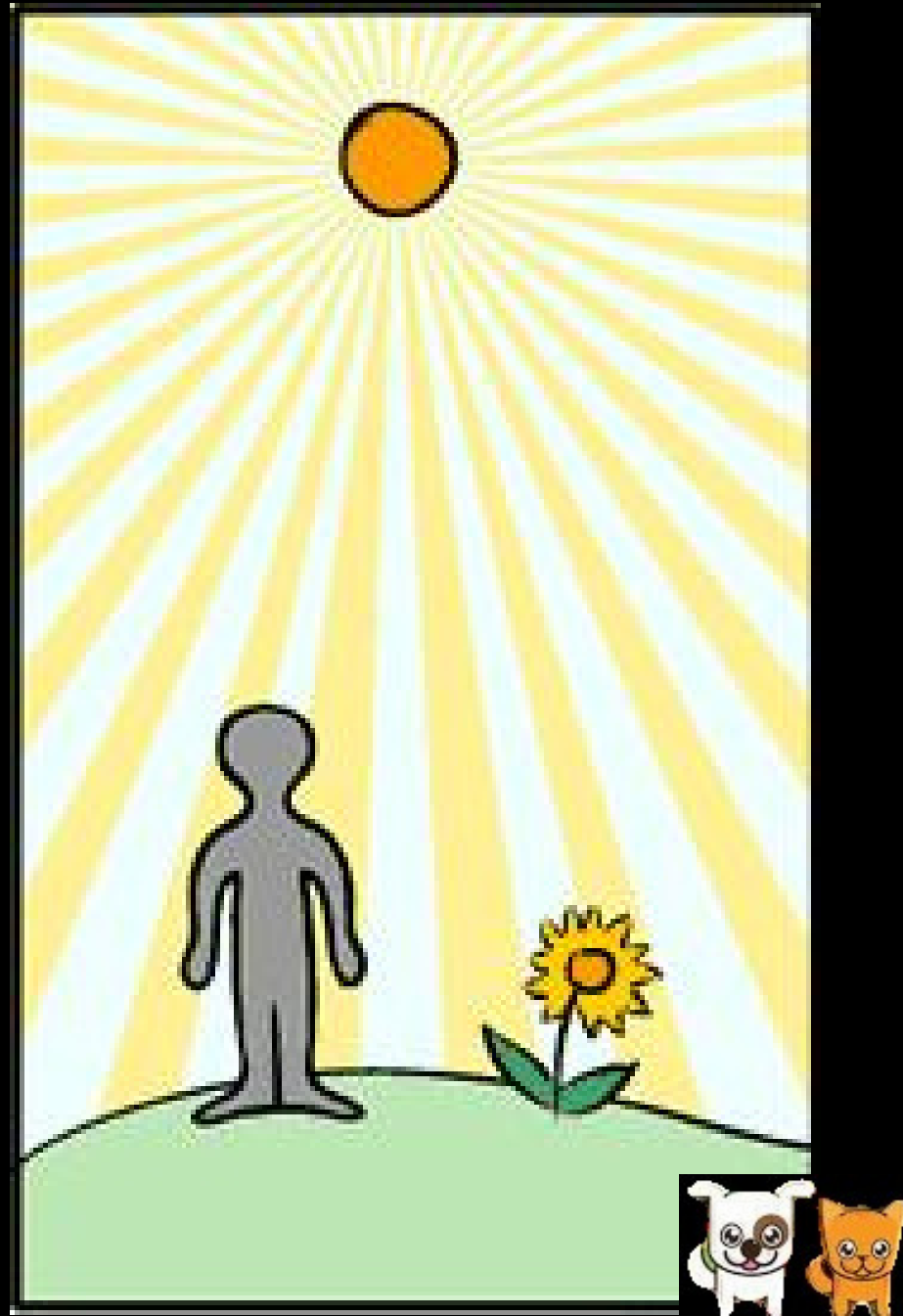
*Ideally*

everyone could regulate light hygiene with daily exposure to sunlight, managing the time spent inside and outside to naturally enhance energy, immunity and reduce the risk of disease.



*Sadly*

most health regimens have overlooked the need for *daily* light hygiene required to nourish brain chemistry, regulate circadian rhythms and – *ignite metabolism.*



# Metabolism is Akin to Photosynthesis

The Conversion of Light Energy into Chemical Energy

Natural Light Nourishes  
People, Pets & Plants



*“We can now say emphatically that the function of our entire metabolism is dependent on light.”*

— Dr. Fritz Albert Popp  
International Institute of Biophysics



Humans require  
a balanced "spectral" diet  
to ignite metabolism & enhance health.





Light is Life

*“We are all light deficient and this deficiency may be the source of our physical and emotional problems.”— Dr. John Ott*

DON'T BE IN THE DARK ABOUT YOUR HEALTH



Experience the indoor solution for mal-illumination.

**SOLshine Photo Nutrition™**

*... light activated nutrition*



Science of Light (SOL) is a 501(c)(3) nonprofit organization.

### SOL's Mission

- Raise awareness of the vital need for daily “light hygiene” to reduce the risk of mal-illumination.

### SOL's Mandate

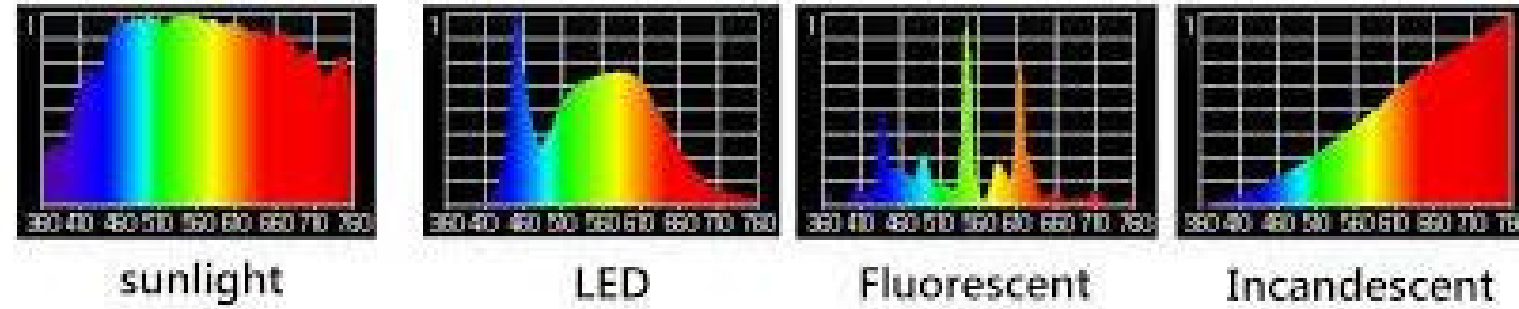
- Freely share our many years of research focused on the biological effects of light for human health & behavior.
- Provide the technology that reduces the risk of mal-illumination.



Sunshine Outdoors  
SOLshine Indoors

*Light Activated Nutrition*

# Not All Light is Created Equal



## LED

- Too much "blue light"
- Unbalanced: no near infrared light

## Fluorescent

- Emits low level x-ray radiation
- Emits radio frequency radiation
- Unnatural visible spectrum spikes
- Unbalanced: no near infrared light

## Incandescent

- Energy inefficient



Sunshine Outdoors  
SOLshine Indoors

*Light Activated Nutrition*

# Blue Light

*High Energy Visible Light (HEV)*

## **Good:**

- Helps maintain circadian rhythm
- Boosts energy, alertness and elevates mood

## **Bad:**

- HEV can damage light-sensitive cells in the retina
- No natural HEV defense without near infrared light

## **Ugly:**

- Cell damage resembles macular degeneration
- Can lead to permanent vision loss

**Sunlight includes abundant near infrared & red light  
required to counterbalance HEV blue light.**



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SOLshine Indoors

*Light Activated Nutrition*

## Near Infrared Light

### *Essential Invisible Light*

*"One third of the energy your body consumes comes from the food you eat. The vast majority of the energy your body needs to maintain systemic equilibrium comes from environmental infrared light exposure."*

– Dr. Alexander Wunsch, MD, PhD  
Photobiology Expert

- NIR helps**
- Reduce the risk of retinal-inflammation
  - Activate cellular repair & regeneration
  - Produce ATP (cell fuel)
  - Produce melatonin
  - Prepare for sleep at night
  - Counter blue light from electronic screens



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SOLshine Indoors

*Light Activated Nutrition*

## CAUTION

**Don't be Fooled!**

**Follow the Science**

**Not All "Full-Spectrum" Lights are Created Equal**

*“LED light exposure that is not balanced with full (spectrum) sunlight loaded with the red parts of the spectrum is always damaging to your biology.”*

— Dr. Alexander Wunsch, MD, PhD  
Photobiology Expert



- Near infrared light is necessary to mitigate retinal inflammation.
- *Common* LEDs, fluorescent and SAD lights lack near infrared light.
- Many of these lights also have insufficient visible red light.



# Nutritional Light Technology™

## Uncommon Full-Spectrum Light

*"We have finally learned that light is a nutrient much like food, and like food, the wrong kind can make us ill and the right kind can help keep us well." – Dr. John Ott*

**Common full-spectrum lights & SAD lights are *NOT* truly full-spectrum!**

*state-of-the-art*

**SOLshine Photo Nutrition™**

***– Intrinsically Improves the Integrity of Full-Spectrum Light***

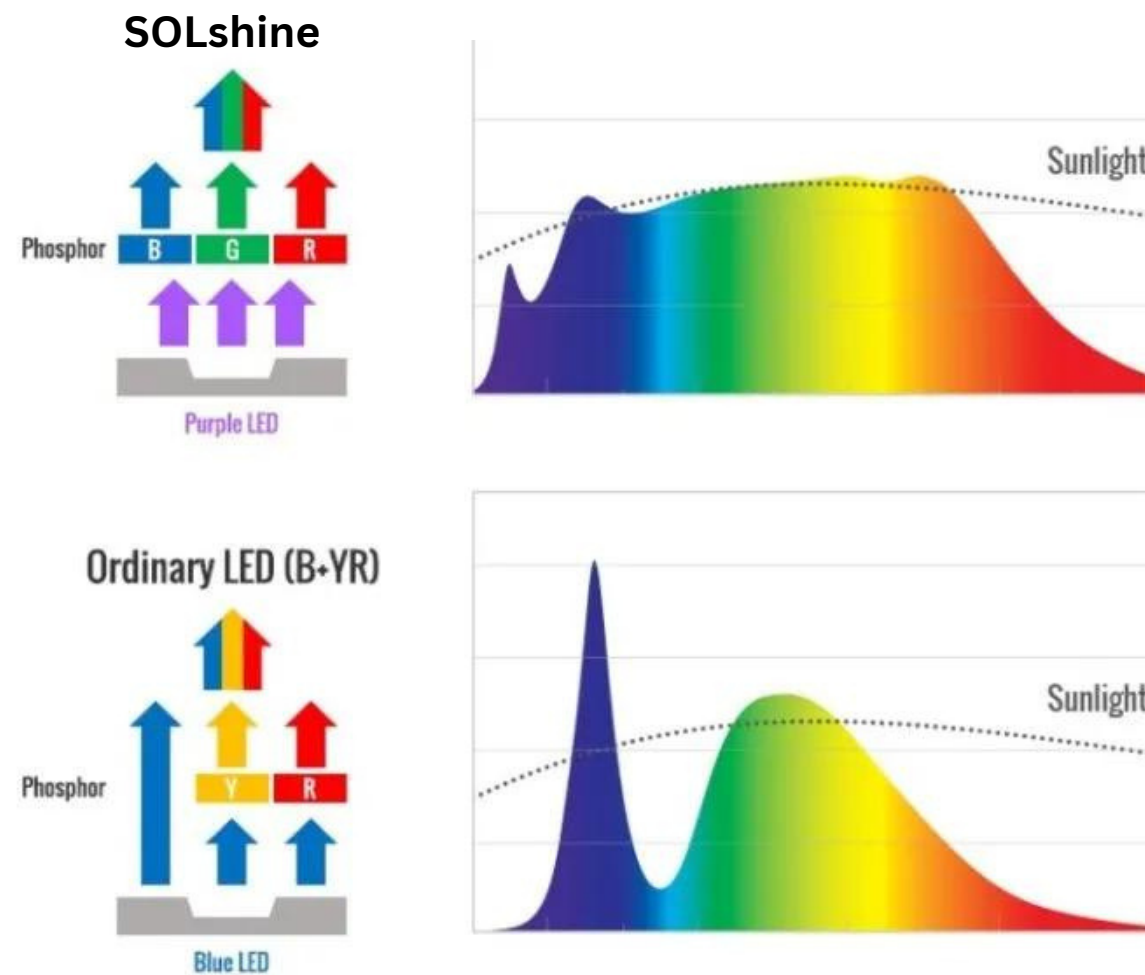
- SOLshine is the *fullest-spectrum*, "balanced" light source.
- SOLshine balances the spectrum by adding near infrared light (NIR).
- SOLshine increases R9 red to 97 CRI (color rendering index).
- SOLshine adds an R15 CRI metric for enhanced color perception.



# SOLshine Photo Nutrition™

– *only the sun offers better light*

## Leading-Edge ‘Purple’ LED Technology



## Common Blue LED Technology



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# SOLshine Photo Nutrition™

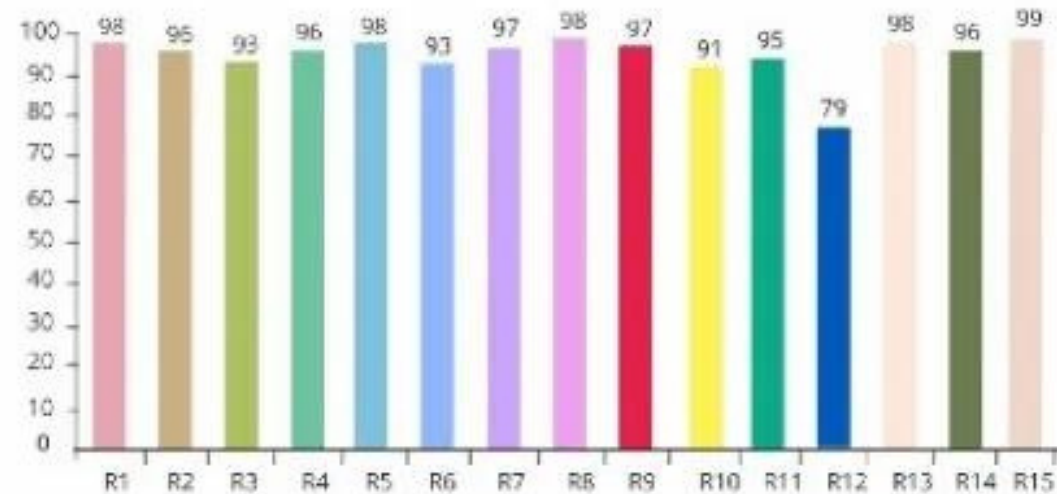
*– only the sun offers better light*

Color rendering index (CRI) indicates how naturally the colors of objects appear.

- 98 CRI (on a scale 100)
- 97 CRI R9 red
- 99 CRI R15 (skin tone)

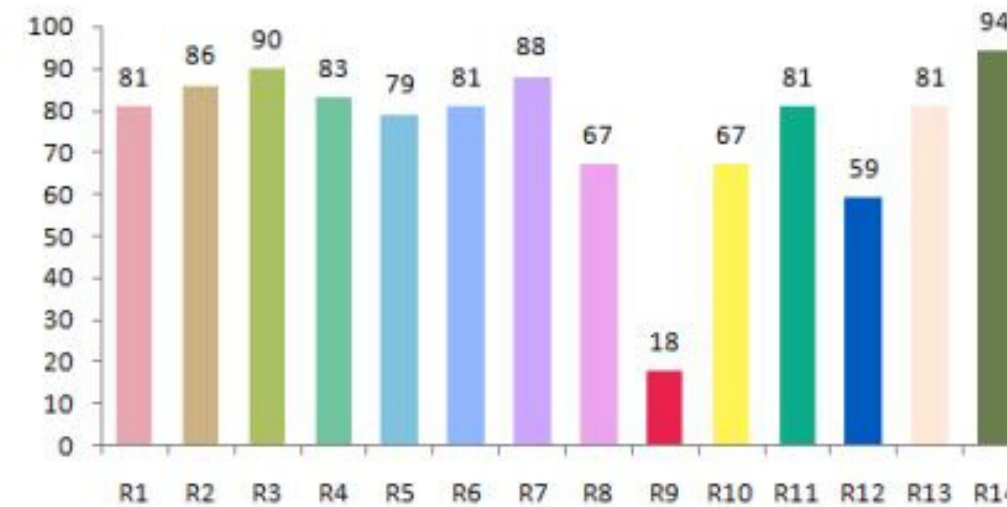
R9 is a very important metric. Many light sources will be lacking in red content. This fact will be hidden due to the averaging out of CRI calculations which do not include R9.

**SOLshine LED CRI Values**



**Yes  
R15**

**Standard White LED CRI Values**



**No  
R15**



Sunshine Outdoors  
SOLshine Indoors

*Light Activated Nutrition*

# SOLshine Photo Nutrition™

*– only the sun offers better light*

**It's so simple!**  
**Light Activated Nutrition**



MORE ENERGY



IMPROVED MOOD



BETTER SLEEP



ENHANCED ABSORPTION



OPTIMUM METABOLISM



Sunshine Outdoors  
SOLshine Indoors

*Light Activated Nutrition*

# Unlike Any Other Therapeutic Light

**SOL PhotoVites™**

***Uncommon Full-Spectrum Light (FSL)***



**14,840 lux @ 2'**

## **Timed 15 Minute Modes**

- **Mode 1: FSL & NIR**
- **Mode 2: NIR (near infrared)**
- **Session: 30 Minutes**

## **Specifications**

- **12V DC**
- **No Flicker**
- **8.85" x 4.92" x 1.24"**

**2 Year Warranty**

**60 Day Money Back**

**Free Shipping**



Sunshine Outdoors  
SOLshine Indoors

*Light Activated Nutrition*

## SAD "Clip-On" or General Lighting

**SOL bioBulb™**

***Uncommon Full-Spectrum Light***

**PAR38 LED (non-dimmable)**

Medium E26 / E27 base

- 10 watts
- 600 lumens
- Width: 4.75"
- Height: 4.75"
- Weight: 8.9 oz

**2 Year Warranty**

**60 Day Money Back**

**Free Shipping**



**10,940 lux @ 2'**



**Includes 5' cord & switch**



Sunshine Outdoors  
SOLshine Indoors

*Light Activated Nutrition*

# All-Day Nutritional Light

## SOL Telescope™

### *Uncommon Full-Spectrum Light*

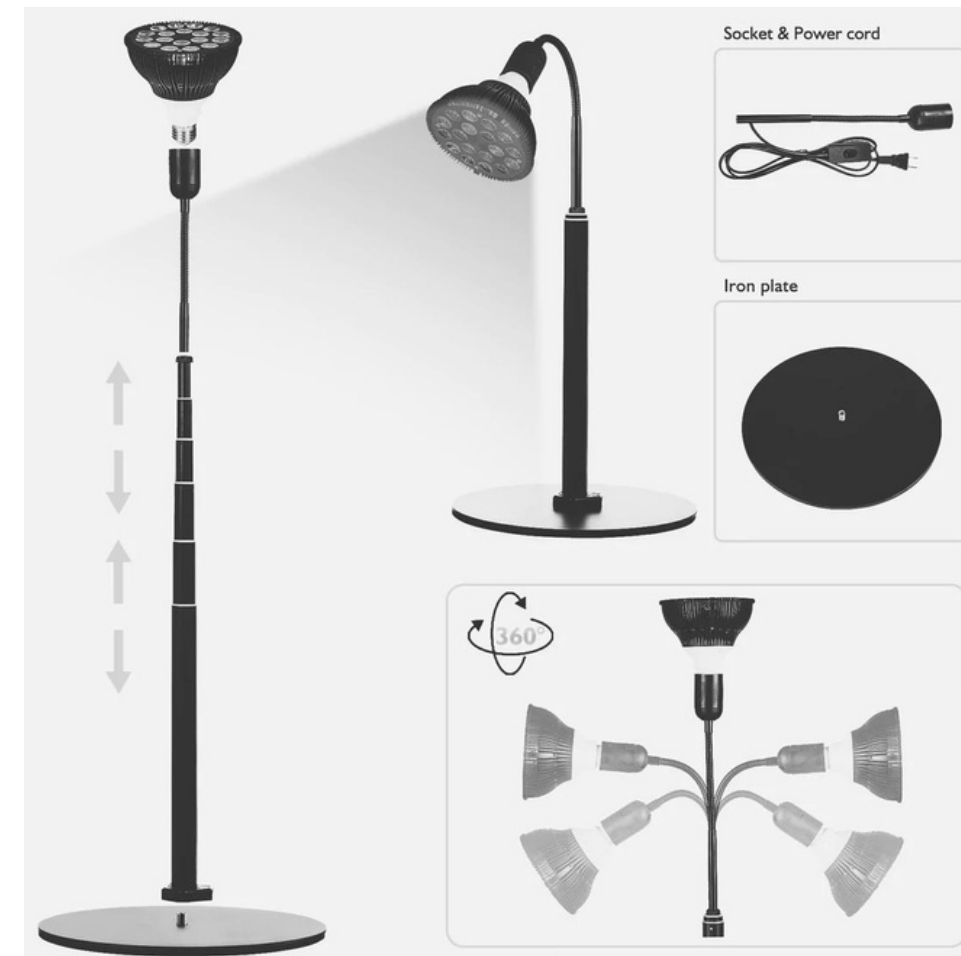


**10,940 lux @ 2'**

**Telescoping Floor Light  
Adjustable Gooseneck  
w/SOL bioBulb**

- **Height: 63.8"**
- **Weight: 5 lb.**
- **Base Diameter: 10"**
- **Power Cord: 98.4"**

**2 Year Warranty  
60 Day Money Back  
Free Shipping**





Sunshine Outdoors  
SOLshine Indoors

*Light Activated Nutrition*

# SOLshine Photo Nutrition™

*– only the sun offers better light*

- 5700 K (kelvin temperature)
- 98 CRI (color rendering index)
- Broad band near Infrared (NIR)
- Trace ultra violet (UV)



**SOL bioBulb™**  
**10,940 lux @ 2'**



**SOL PhotoVites™**  
**14,840 lux @ 2'**



**SOL Telescope™**  
**10,940 lux @ 2'**



**NOW THAT YOU'RE ENLIGHTENED**  
Please help our nonprofit raise awareness of Mal-illumination  
*... the indoor epidemic.*

Become a SOL Enlightened Advocate by simply sharing this presentation.

 **ENLIGHTEN SOMEONE YOU LOVE** 

When Ordering

Use 10% Discount Code: **I'm in** at Check-Out



**60 Day Money Back**  
**Free Shipping**

[www.SOLshine.org](http://www.SOLshine.org)