

On behalf of Vision Expo, we sincerely thank you for being with us this year.

Vision Expo Has Gone Green!

We have eliminated all paper session evaluation forms. Please be sure to complete your electronic session evaluations online when you login to request your CE Letter for each course you attended! Your feedback is important to us as our Education Planning Committee considers content and speakers for future meetings to provide you with the best education possible.



Jackie O'Keefe is on The Speakers Bureau for Transitions Optical



"All relevant relationships have been mitigated."



THE POWER OF POLARIZED LENSES

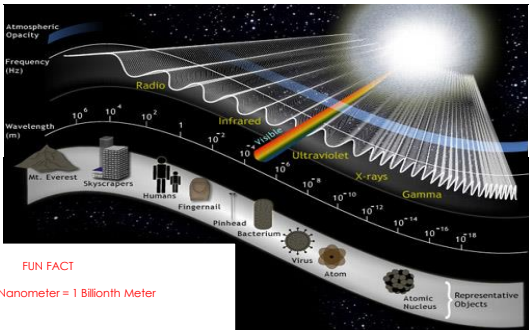


Technical Level 1
Jackie O'Keefe, LDO

100 years AGO

1923
Willson
60 Cents
1939 1st Polarized





Visible light

ROYGBIV



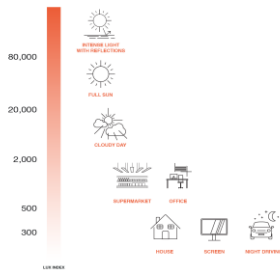
3 Laws of light

Reflects
Refracts
Absorbed



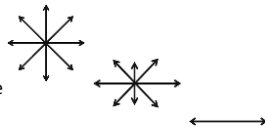
Light intensity

Do The Math
1 to 80,000+



Polarized light waves

Unpolarized Light
Partially Polarized Light
Plane Polarized = Single Plane



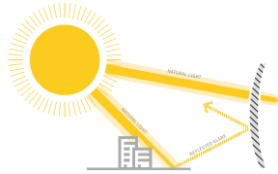
Brewster's Angle

Prof. David Brewster
An Exact Formula
Specific Angle of Light
Plane Polarized
Light Suppression/Skimming



Plane polarized light

Light Incident
PM & AM
Dusk Dawn
Glare Affects



Glare defined



- "Reflective light creates polarized light on flat surfaces causing poor visual accommodation and aggravated eyestrain in the human eye.

Distracting Glare

Caused by reflections from the lens surface
Causes eye fatigue



Discomforting Glare

Caused by everyday bright light
Can occur even when cloudy
Causes squinting and eye fatigue



Disabling Glare

Caused by excessive intense light
Blocks vision

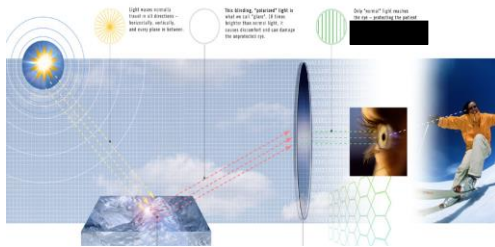


Blinding Glare

Caused by light reflected off smooth shiny surfaces
Blocks vision



GLARE in our world



Disabling & blinding



Reflected off the road surface



Glare coming directly from sun and sky. Scattered light. All light reflected from horizontal surfaces



From the windshield trim, wiper hardware and steering wheel hardware



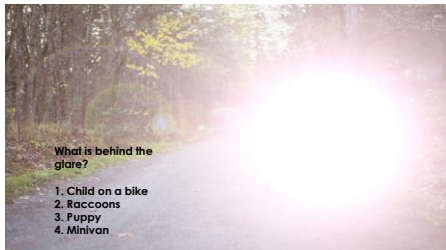
Reflection from mirror hardware and glare light directly from the sun/sky

Have you experienced true glare?

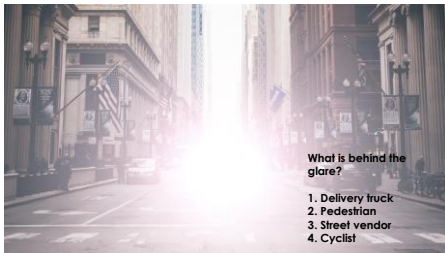
Anyone?
The Struggle Is Real





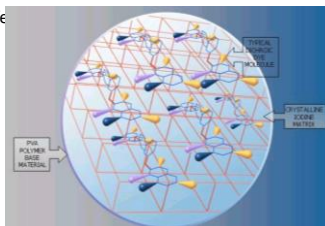






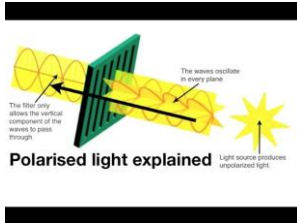
How are Polarized lenses made?

It Starts With the Delicate Wafer
 PVA Heated x 5
 Iodine Crystal Bath
 Crystals Form Parallel Chains
 Premium Dichroic Dyes
 CAB Sandwich = Filter
 Raw Material, Substrate, Salt
 Cast,/Embedded Laminate
 .8mm.

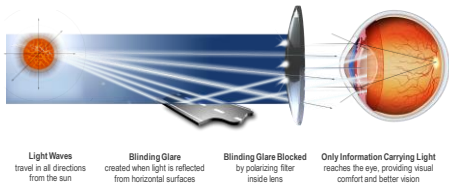


How do they work?

Vertical Blind Example
Filter Aligned 90° From
Horizontal Polarized Light
Photographers
Trolley Cars



How do they work?

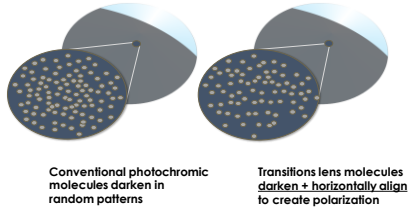


What about variable polarization?

It Starts With The Matrix
Millions of Molecular Dichroic Dyes
Agile Photochromic Dyes
Molecular Chemical Bond Breaks
Cast, Laminate, Trans bonded



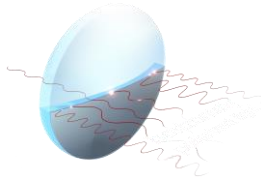
Dichroic dyes



29

Polarized performance

Polarized Effectiveness
High Performance
Scale of 1-100
Polarized A=93%
Polarized B=95%
Polarized C=99%
Tinting Has No Affect
AR Has No Affect



What about color?

Fashion
Low Performance
Effectiveness
Fashion=50% at best



Who Is the polarized patient?

Elderly, Kids, Surgical
Everyone
Listen To Them
Let Them Play



"I hear and I forget...

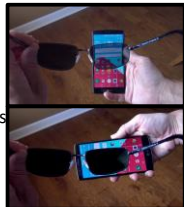
I see and I remember...

I do and I understand"

Benjamin Franklin

GETTING THE MESSAGE THROUGH

Hands On
Educate/Demonstrate
Reduction Of Glare
Manufacturers' Demo Devices
Flip Lorgnettes
Cross Polarization



Getting the message through

Patients Need To Visualize
Visual POP
Sunwear Mixed In
Wear By Example



What do they want?

Sharper Vision
Wider Field of View
Vivid Colors



Why would they object?

I can buy at drugstore
Check Lens Quality
Backside AR?
Non Rx
CAB Product
Too expensive/Managed Care
Poor Experience



Why would they object?

- I prefer clip-ons
 - Backside Reflections
 - Making Contact
 - Adds Weight
- I prefer fit-overs
- I wear VTL



Offer solutions

- Polarized Sunwear
- Whatever It Takes