NEO**CHROMES /**
UNDERSTANDING **HIGH TEMPERATURE PERFORMANCE**

TEMPERATURE AND ITS **EFFECT ON PHOTOCHROMIC TECHNOLOGY**

Any photochromic lens is affected by temperature. In cold temperatures, photochromic lenses darken more and take longer to fade back. In warmer temperatures, the lenses don't darken as much and fade back more quickly. This is a characteristic of the state of balance in a photochromic system.

The performance of Neochromes lenses also adjusts to the ambient temperature, with faster fade-back times in warm conditions.

COLD ❄
CLIMATE

\+ Darker
− Clearing time

WARM ☼
CLIMATE

− Darker
\+ Clearing time

PERFORMANCE/

Mild Heat Performance

High Heat Performance

Performance for Neochromes in 1.50 Plastic, Gray, measured at 555nm at 23°C/74°F and 35°C/95°F.

NEOCHROMES®
Embrace the light

NEO**CHROMES /**
UNDERSTANDING **HIGH TEMPERATURE PERFORMANCE**

REFRACTION INDEX OF MATERIALS/

With photochromic lenses, it is quite normal to experience some performance variation depending on the refractive index.

The Neochromes range of lenses offers nearly identical functionality in all materials; however, at very high temperatures, some small differences may be noted.

HIGH HEAT PERFORMANCE – MATERIAL COMPARISON AT 35°C/95°F, GRAY COLOR

Plastic 1.50	Polycarbonate 1.59	Hi-Index 1.60	Hi-Index 1.67
			
27% Activated LumT	**29%** Activated LumT	**25%** Activated LumT	**24%** Activated LumT

Performance measured at 555nm at 35°C/95°F.
LumT: The percentage of light that passes through the lens when it is activated.

RECOMMENDATION /

In high temperatures, place the lenses in direct sunlight for around 10-15 seconds before wear to ensure maximum activation of the photochromic dyes.

For hot climates, we recommend **Neochromes Dark**, an extra-dark photochromic lens that achieves 22% LumT at 35°C/95°F with an almost identical fadeback speed to Neochromes.

NEOCHROMES®
Embrace the light