CLC One Component Broadband Circular Polarizers

KEY BENEFITS

- Very broad polarizing operating range
- Single component polarizer with high transmission
- Transmissive outside of operating band
- Better temperature and power handling
- Larger format available
- Customizable center wavelength and bandwidth

PERFORMANCE SPECIFICATIONS

Property	Specification
Polarizing Material	Cholesteric Liquid Crystal Polymer Film
Retarder Material	None
Substrate Material*	B-270
Substrate Reflectance (optional, per surface)	0.5%
Surface flatness S-D	80-50
Right Handed Circular Polarization Transmission	>90% in Band
Left Handed Circular Polarization Transmission	<1.5% over total Band <0.5% at Center Wavelength
Contrast Ratio	>60 in Band (>180 at Center Wavelength)
Temperature Range*	-20°C to 75°C

* Choice of substrates available upon request; operating temperature range can be large than specified depending on use.

WAVELENGTH SPECIFICATIONS

	Center Wavelength	Operating Range*
Visible	550	440-640
Infra-red	Customizable	Customizable

*Operating Range refers to the wavelength range at the bottom of the LH polarization curve demonstrated on the right. Full Width Half Maximum Bandwidth for each product is larger than the operating range listed above.

Custom center and bandwidths polarizers are available per customer specification.

SIZE SPECIFICATIONS

Property	Specification
Standard Size	2X2"
Clear Aperture	>90%
Thickness	2 mm

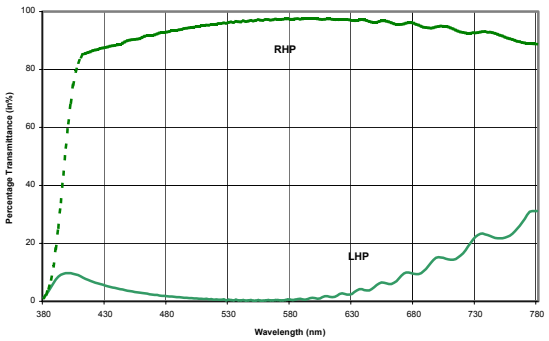
Custom formats of our CLC Circular Polarizers are available. Call for a quote.

Broadband Polarizer Performance

CHELIX can design circular polarizers with broadband (100-700+nm) formats. This ability enables fine-tuning polarization performance to your specific requirements.

Figure 2 demonstrates performance of a broadband reflective polarizer in the visible. In this example the broadband polarizer is tuned to peak performance at 550 nm, and we have broadened (~300 nm) the reflection band by our proprietary process.

Figure 2: Broadband 550nm CLC Polarizer Transmittance



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