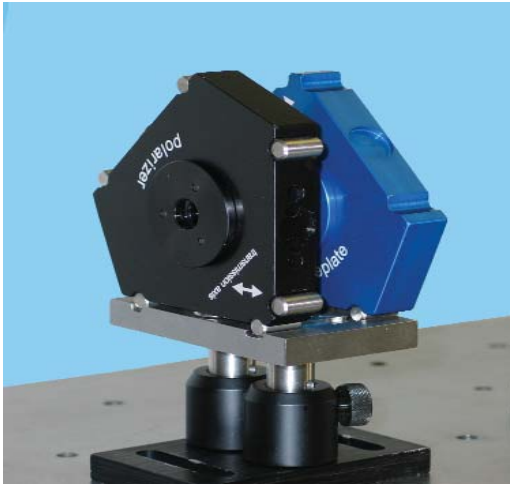


# EIGEN STATE GENERATOR SET



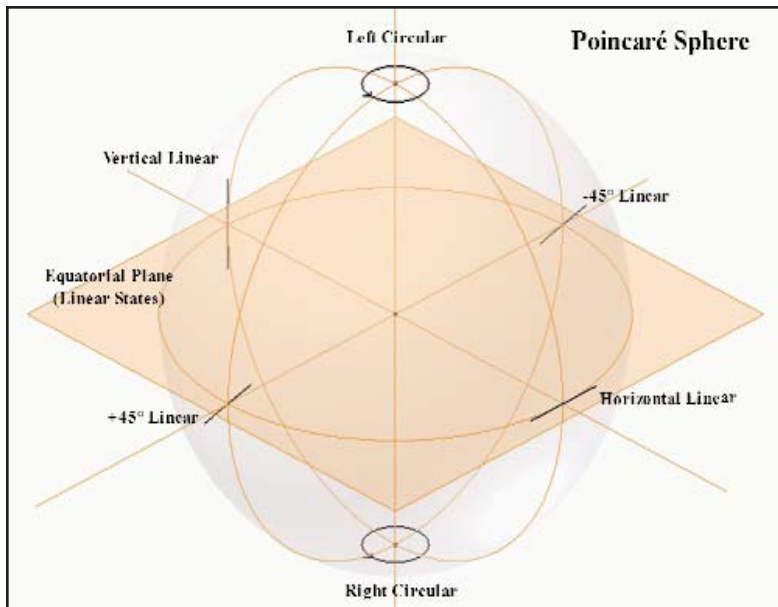
**Meadowlark Optics' Eigen State Generator Set** is a tool which produces 6 polarization eigen states: linear polarized light at angles of  $0^\circ$ ,  $90^\circ$ ,  $+45^\circ$ ,  $-45^\circ$  as well as circular right-handed and circular left-handed polarized light. These states are created by using a precision dichroic linear polarizer in a black housing and a precision quarter waveplate in a blue housing. The housings are CNC machined so that the accuracy of the angles is better than 1 arc minute. Pins on the housings mate to a v-groove and a flat groove in a quasi-kinematic fashion, while magnets provide holding force.

This scheme facilitates precise, simple, and fast indexing of the polarization eigen states. Large arrows on the housing indicate the transmission axis of the polarizer and the fast axis of the waveplates for ease of use. Available in standard wavelengths from 450 - 1700 nm.

Catalog part #: ESGS-  $\lambda$

## Applications:

- Polarization Control
- Polarization Analysis
- Ellipsometry
- Calibration Accessory for the LCPM-3000



Calibration Sequence	Stokes Vector	SOP Description	Polarizer Orientation	Waveplate Orientation
Step 1	$(1, 1, 0, 0)$	Horizontal		Removed
Step 2	$(1, -1, 0, 0)$	Vertical		Removed
Step 3	$(1, 0, 1, 0)$	$+45^\circ$		Removed
Step 4	$(1, 0, -1, 0)$	$-45^\circ$		Removed
Step 5	$(1, 0, 0, 1)$	Right Circular		
Step 6	$(1, 0, 0, -1)$	Left Circular		

**Meadowlark Optics**  
 5964 Iris Pkwy., PO Box 1000  
 Frederick, CO 80530  
 P:303.833.4333 F:303.833.4335  
[www.meadowlark.com](http://www.meadowlark.com)  
[sales@meadowlark.com](mailto:sales@meadowlark.com)