

# 90° Reflective Phase Retarder (NRPR) Coating for NIR, 1.03μm, 1.064μm, 1.07μm

COATING DATA SHEET

### Application

High reflective 90° NRPR is a coating for silicon and copper substrates.

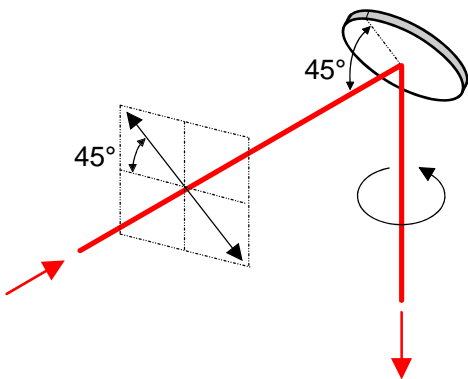
Introducing a quarter-wave 90° NRPR into the beam delivery path eliminates kerf variations by converting linear polarization to circular polarization. Circular polarization consists of equal amounts of S-polarization and P-polarization for any orientation of the beam. Therefore all axes encounter the same composition of polarization, and material is removed uniformly regardless of cut direction.

The NRPR must be used where a linearly polarized beam is oriented such that the plane of polarization is 45° to the plane of incidence and strikes the NRPR at 45° to the normal. The reflected beam is circularly polarized.

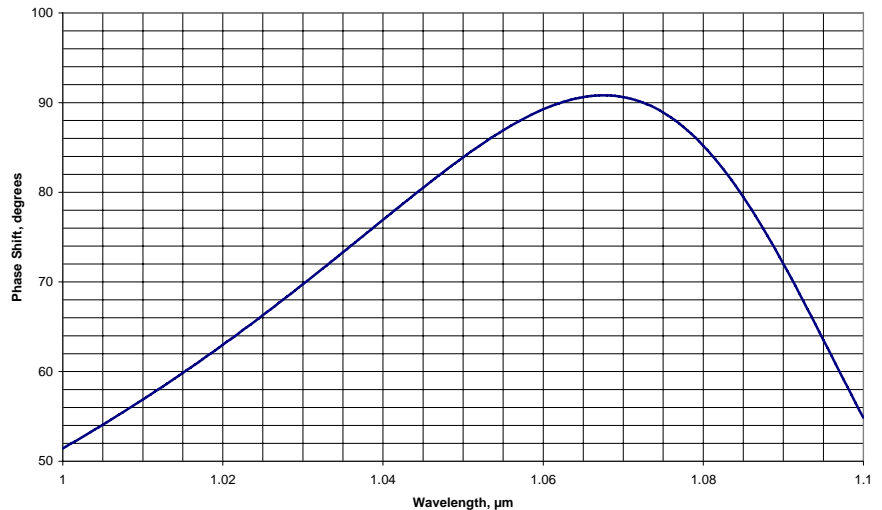
### Spectral Performance

R >= 98.0% at 45° AOI

Phase Shift 90° ± 3.0°



1/4 NRPR for 1.064μm  
Phase shift Vs. Wavelength



1/4 NRPR for 1.064μm  
Phase shift Vs. AOI

