HD Grating Orientation

The diffraction efficiency will be highest if the angle of incidence into the Bragg planes is equal to the angle of diffraction out of the Bragg planes. This condition of matching angles relative to the Bragg planes is called the Bragg or Littrow condition. If the incident light is directed onto the grating at an angle off from the Bragg angle then 1st order diffraction efficiency will be reduced considerably and most of the light will pass into the zero order without being diffracted.

HD gratings have limited orientations relative to the Bragg angle because of the internal multiplexed grating structure. The external geometry is symmetric when the grating is oriented correctly. If you have any questions regarding this information please contact us at +1 435-752-4301.

POSSIBLE ORIENTATION MARKINGS

For proper results HD gratings must be used in the proper orientation. Each HD grating is marked on the top edge with a line and another line that indicates the orientation of the working geometry of the grating. The rays may be reversed in direction as long as the angles are still the same.