

# Concave Grating

## Rowland Circle Mounting

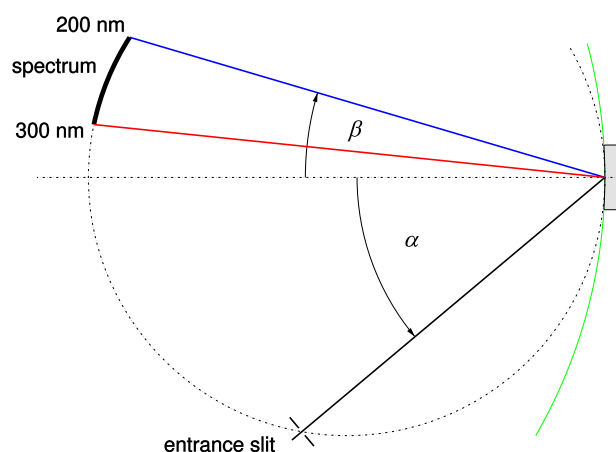


Order number 792055-0000-000

### Grating specification

Groove density	1800 ± 0.5 l/mm
Groove profile	Sinusoidal
Diffraction grating area	≥ Ø 44 mm
Reflective coating	Aluminum (unprotected)
Grating master type	Holographically recorded
Grating type	Epoxy replica (copy)
Storage and transport temperature	-40 °C ... +70 °C (non-condensing environment)

### Mounting specification (Schematic drawing)



By historic convention clockwise incident and diffraction angles are positive.

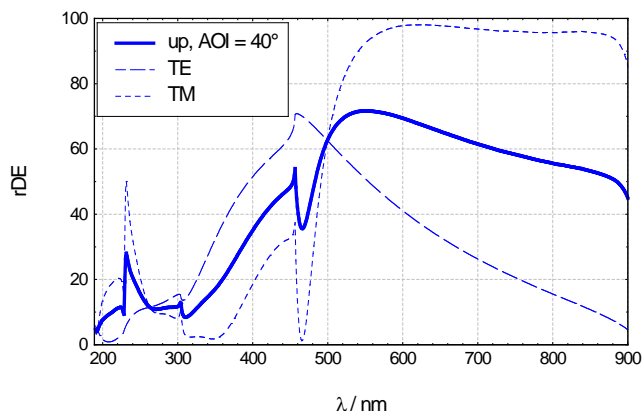
### Optical grating characteristics

Diffraction efficiency (unpolarized @ cAD = 32°)

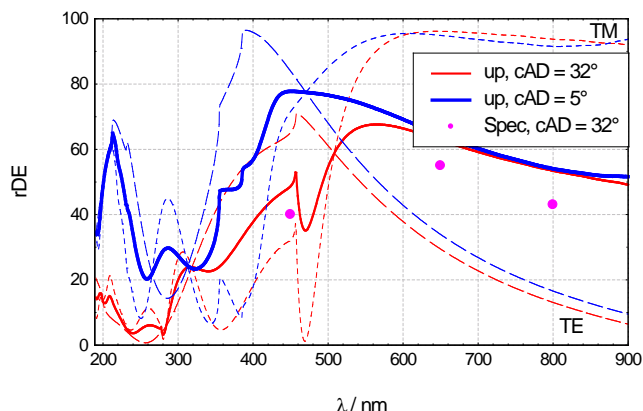
450 nm	≥ 40 %
650 nm	≥ 55 %
800 nm	≥ 43 %

### Typical relative diffraction efficiency (rDE) in first diffraction order

fixed angle of incidence (AOI, polychromator) mounting



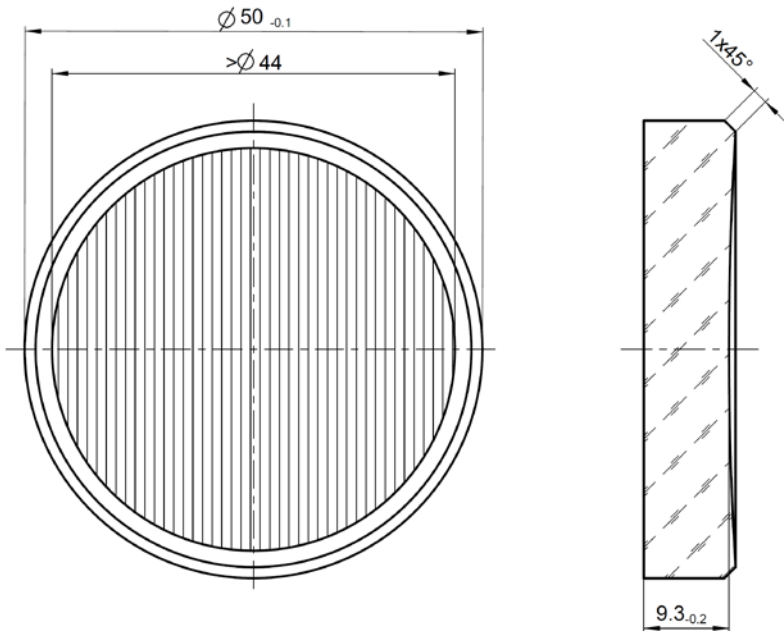
constant angle of deviation (cAD, monochromator) mounting



Typical efficiency curves based on rigorous electromagnetic modeling using measured AFM profiles. rDE refers to the ratio between diffracted power from the grating and reflected power from a mirror coated with the same material.

### Blank specification

Material	Zerodur (extremely low expansion glass ceramic)
Radius of curvature	398.83 mm
Protective bevel (left surface)	0.5 mm



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