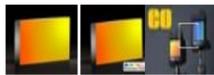
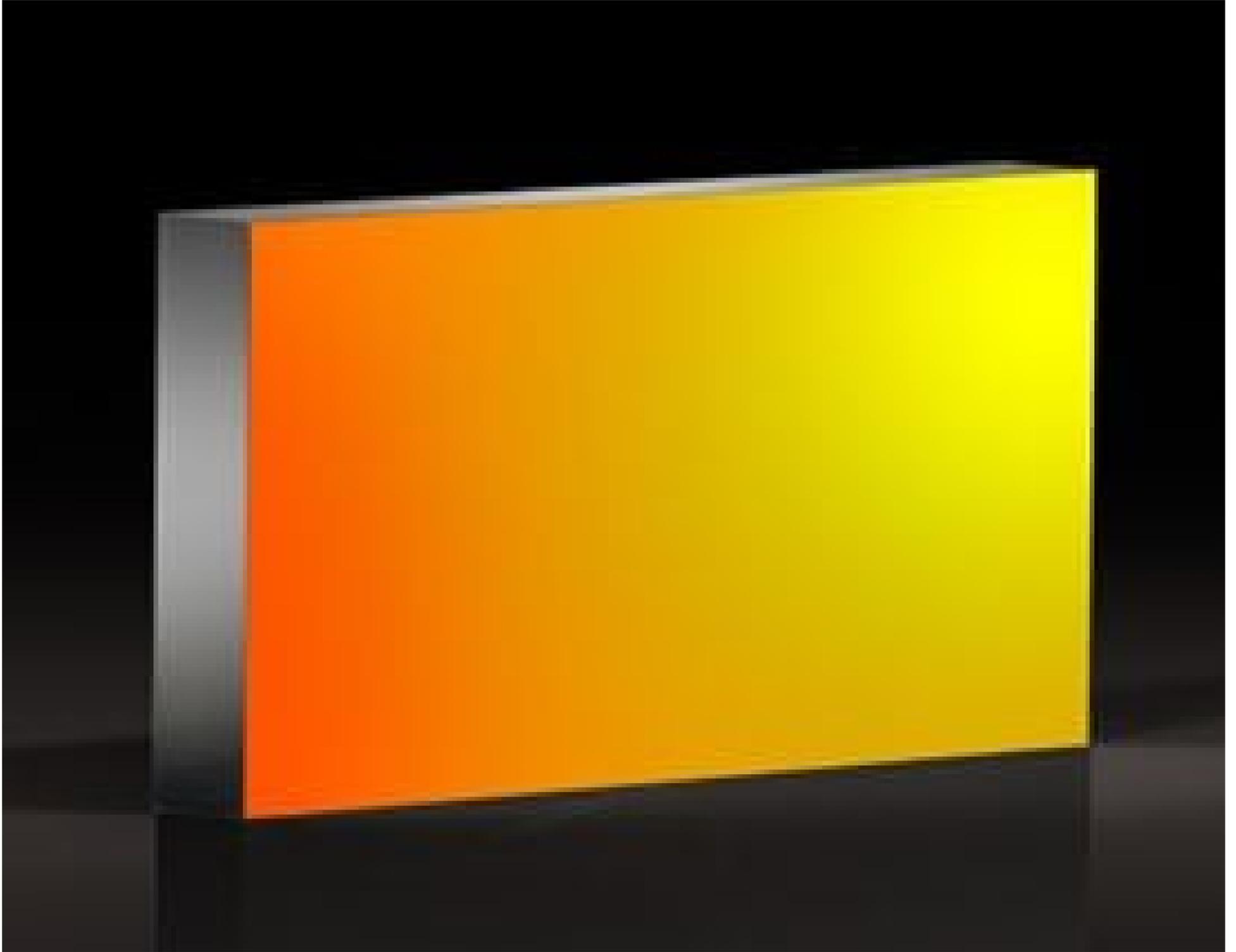


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# Richardson Gratings™ 79 Grooves, 25 x 50mm, 74° Blaze Angle, Echelle Grating

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Stock #15-743 [CONTACT US](#)

⊖ 1 ⊕ S\$441<sup>00</sup>

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Volume Pricing	
Qty 1-9	S\$441.00 each
Qty 10-24	S\$396.90 each
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## Product Downloads

### General

Type:  
Echelle Grating

Master Reference:  
402E

### Physical & Mechanical Properties

Dimensions (mm):

25.0 x 50.0 ±0.1

>90 **Clear Aperture (%)**

Ruled Grating **Construction:**

50.00 **Length (mm):**

6.00 ±0.5 **Thickness (mm):**

25.00 **Width (mm):**

±1 **Centering of Ruled Area on Substrate (mm):**

±0.15 **Alignment of Grooves to Edge (°):**

<0.05 **Groove Spacing Tolerance (%):**

## Optical Properties

79 **Groove Density (grooves/mm):**

All **Blaze Wavelength (nm):**

74 **Blaze Angle (°):**

Aluminium **Coating:**

Float Glass **Substrate:**

λ/4 **Reflected Wavefront, RMS:**

Unpolarized **Polarization:**

98 **Spectral Order (m):**

## Regulatory Compliance

[View](#) **Certificate of Conformance:**

### Need different specs or modifications?

Edmund Optics offers comprehensive custom manufacturing services for optical and imaging components tailored to your specific application requirements. Whether in the prototyping phase or preparing for full-scale production, we provide flexible solutions to meet your needs. Our experienced engineers are here to assist—from concept to completion.

Our capabilities include:

- Custom dimensions, materials, coatings, and more
- High-precision surface quality and flatness
- Tight tolerances and complex geometries
- Scalable production—from prototype to volume

Learn more about our [custom manufacturing capabilities](#) or submit an inquiry [here](#).

## Product Details

- Highest Resolving Power and Dispersion
- Low Groove Density for Use in Higher Orders
- Groove Spacing Tolerance <0.05%
- Custom Sizes Available

Richardson Gratings™ Echelle Reflective Diffraction Gratings feature superior resolving power and dispersion compared to other reflective diffraction gratings. These gratings are characterized by coarse groove spacings, relatively low groove densities and high blaze angles. They are suitable for use from near-UV wavelengths to the infrared (~20μm). Richardson Gratings™ Echelle Reflective Diffraction Gratings are ideal for applications such as compact high resolution spectrometers with high angular dispersion and throughput. Custom sizes are available on request.

**Note:** The surface of these gratings is very sensitive and should never be touched when handling the optic. If cleaning is required to remove dust particles, non-contact cleaning using clean compressed air is recommended.

## Special Handling

These optics require special handling to avoid damage and ensure long-term performance. Proper handling, cleaning, and storage are essential to maintain optical quality. Explore our [Optics Cleaning Resources](#) for step-by-step guides and best practices. For personalized assistance, [Email us](#) or [Chat](#) with our technical support team.



Component Handling Tools

