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# Richardson Gratings™ 1200 Grooves, 12.5 x 12.5mm, 750nm, Plane Ruled Reflection Grating

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Richardson Gratings™ High Precision Plane Ruled Reflective Diffraction Gratings



Stock **#37-126** **4 In Stock**

⊖ 1 ⊕ A\$248<sup>00</sup>

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Volume Pricing	
Qty 1-9	A\$248.00 each
Qty 10-24	A\$223.20 each
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Product Downloads

**General**

Reflective Diffraction Grating

Type:

2917

Master Reference:

## Physical & Mechanical Properties

12.5 x 12.5 ±0.1 **Dimensions (mm):**

>90 **Clear Aperture (%):**

Ruled Grating **Construction:**

12.50 **Length (mm):**

6.00 ±0.5 **Thickness (mm):**

12.50 **Width (mm):**

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

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

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

## Optical Properties

1200 **Groove Density (grooves/mm):**

450 - 1500 **Wavelength Range (nm):**

750 ±25 **Blaze Wavelength (nm):**

26.7 **Blaze Angle (°):**

91 **Peak Efficiency, Typical (%):**

Aluminium **Coating:**

Float Glass **Substrate:**

λ/4 **Reflected Wavefront, RMS:**

S and P **Polarization:**

1 **Spectral Order (m):**

## Regulatory Compliance

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

## Product Details

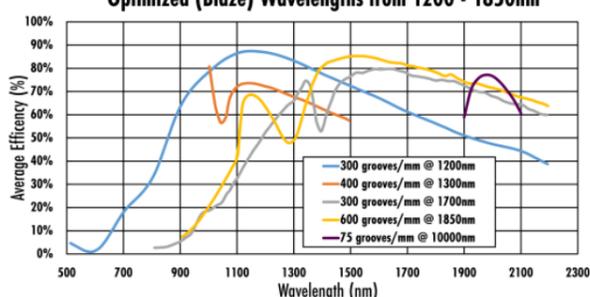
- Excellent Efficiency at Blaze Wavelength and Blaze Angle
- Superior Dimensional Tolerances
- Ideally Suited for Spectroscopic Applications
- Custom Sizes Available

Richardson Gratings™ High Precision Plane Ruled Reflective Diffraction Gratings are designed for consistent, predictable performance. The gratings are manufactured from highly accurate masters to provide a high level of repeatability to simplify OEM system designs by reducing the need for tedious alignment adjustments. With λ/4 reflected wavefronts and up to 90% diffraction efficiency, these gratings are specified to meet the needs of the most demanding applications such as high-resolution spectroscopy. Richardson Gratings™ High Precision Plane Ruled Reflective Diffraction Gratings feature bare aluminum coatings, allowing for options that range from 250 to 10,000nm with excellent peak efficiencies. Custom sizes available on request.

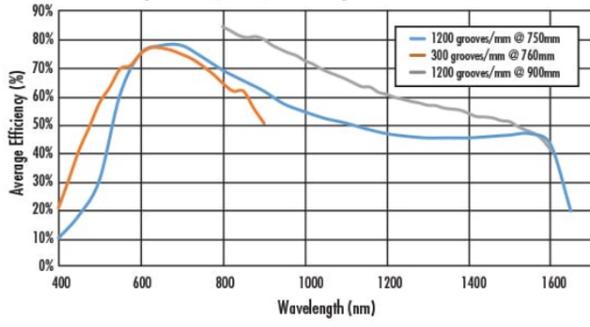
**Note:** The surface of these gratings is very sensitive and should never be touched when handling the optic. If cleaning is required to remove dust particles, non-contact cleaning using clean compressed air is recommended.

## Technical Information

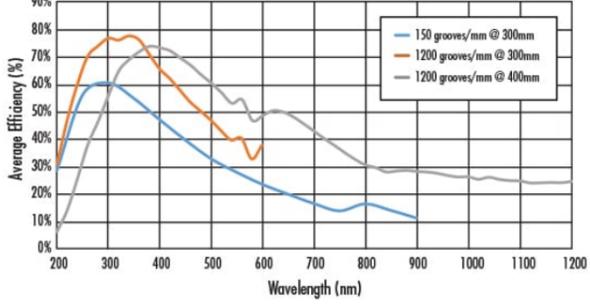
Typical Efficiency Curves for High Precision Reflection Gratings  
Optimized (Blaze) Wavelengths from 1200 - 1850nm



Typical Efficiency Curves for High Precision Reflection Gratings  
Optimized (Blaze) Wavelengths from 750 - 900nm



Typical Efficiency Curves for High Precision Reflection Gratings  
Optimized (Blaze) Wavelengths from 300 - 400nm



## 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

## Custom

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](#).