

[See all 37 Products in Family](#)

# Richardson Gratings™ 300 Grooves, 12.7 x 12.7mm, 3μm, Plane Ruled Reflection Grating

See More by [Richardson Gratings™](#)



Richardson Gratings™ High Precision Plane Ruled Reflective Diffraction Gratings



Stock **#15-772** **7 In Stock**

⊖ 1 ⊕ **S\$217<sup>00</sup>**

**ADD TO CART**

Volume Pricing	
Qty 1-9	<b>S\$217.00</b> each
Qty 10-24	<b>S\$195.30</b> each
Need More?	<a href="#">Request Quote</a>

Product Downloads

**General**

Reflective Diffraction Grating **Type:**

1156 **Master Reference:**

**Physical & Mechanical Properties**

12.7 x 12.7 ±0.1	<b>Dimensions (mm):</b>
>90	<b>Clear Aperture (%):</b>
Ruled Grating	<b>Construction:</b>
12.70	<b>Length (mm):</b>
6.00 ±0.5	<b>Thickness (mm):</b>
12.70	<b>Width (mm):</b>
±1	<b>Centering of Ruled Area on Substrate (mm):</b>
±0.15	<b>Alignment of Grooves to Edge (°):</b>
<0.05	<b>Groove Spacing Tolerance (%):</b>

## Optical Properties

300	<b>Groove Density (grooves/mm):</b>
1000 - 5000	<b>Wavelength Range (nm):</b>
3000 ±25	<b>Blaze Wavelength (nm):</b>
26.7	<b>Blaze Angle (°):</b>
72 (2nd order)	<b>Peak Efficiency, Typical (%):</b>
Aluminium	<b>Coating:</b>
Float Glass	<b>Substrate:</b> <input type="checkbox"/>
λ/4	<b>Reflected Wavefront, RMS:</b>
S and P	<b>Polarization:</b>
1	<b>Spectral Order (m):</b>

## Regulatory Compliance

<a href="#">View</a>	<b>Certificate of Conformance:</b>
----------------------	------------------------------------

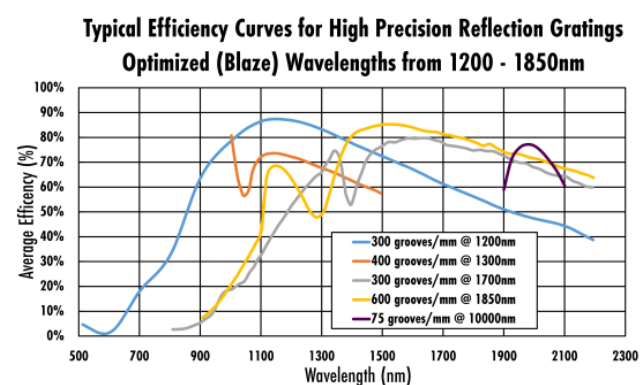
## Product Details

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

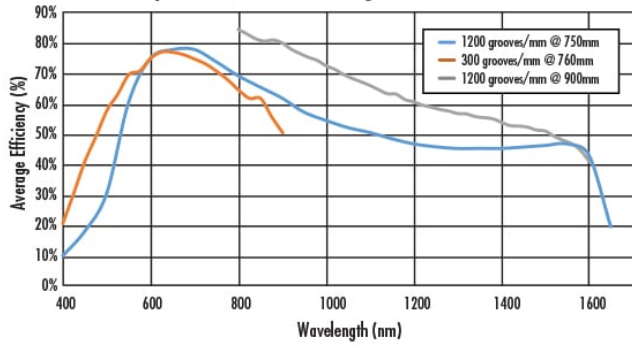
Richardson Gratings™ High Precision Plane Ruled Reflective Diffraction Gratings are designed for consistent, predictable performance. The gratings are manufactured from highly accurate masters to provide a high level of repeatability to simplify OEM system designs by reducing the need for tedious alignment 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.

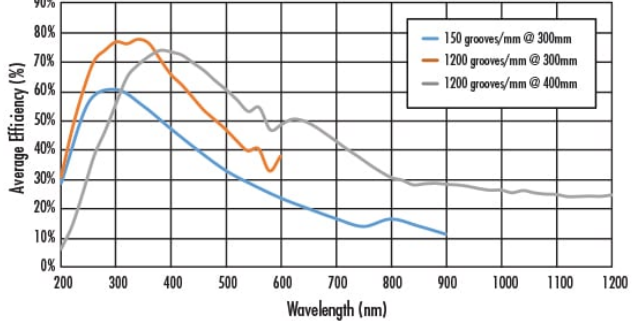
## Technical Information



Typical Efficiency Curves for High Precision Reflection Gratings  
Optimized (Blaze) Wavelengths from 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](#).