

Richardson Gratings™ 75 Grooves, 12.7 x 12.7mm, 10μm, Plane Ruled Reflection Grating

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Richardson Gratings™ High Precision Plane Ruled Reflective Diffraction Gratings



Stock **#15-769** 3-4 DAYS

-

1

+

€134⁰⁰

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Qty 1+
€134,00

Volume Pricing
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 Prices shown are exclusive of VAT/local taxes

Product Downloads



SPECIFICATIONS

General

Type:

Reflective Diffraction Grating	
1104	Master Reference:
Physical & Mechanical Properties	
12.7 x 12.7 ±0.1	Dimensions (mm):
>90	Clear Aperture (%):
Ruled Grating	Construction:
12.70	Length (mm):
6.00 ±0.5	Thickness (mm):
12.70	Width (mm):
±1	Centering of Ruled Area on Substrate (mm):
±0.15	Alignment of Grooves to Edge (°):
<0.05	Groove Spacing Tolerance (%):
Optical Properties	
75	Groove Density (grooves/mm):
7000 - 16000	Wavelength Range (nm):
10000 ±25	Blaze Wavelength (nm):
22	Blaze Angle (°):
77 (5th order)	Peak Efficiency, Typical (%):
Aluminium	Coating:
Float Glass	Substrate: ☐
λ/4	Reflected Wavefront, RMS:
Unpolarized	Polarization:
1	Spectral Order (m):
Regulatory Compliance	
Compliant	RoHS:
View	Certificate of Conformance:

PRODUCT DETAILS

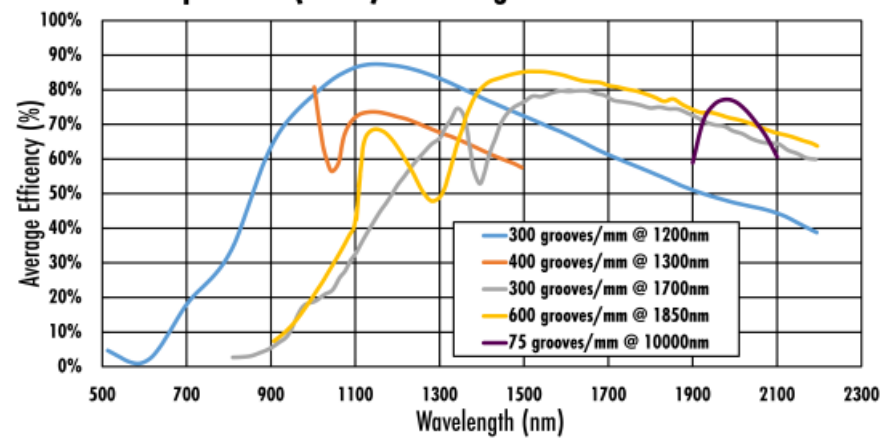
- Excellent Efficiency at Blaze Wavelength and Blaze Angle
- Superior Dimensional Tolerances
- Ideally Suited for Spectroscopic Applications
- Custom Sizes Available

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.

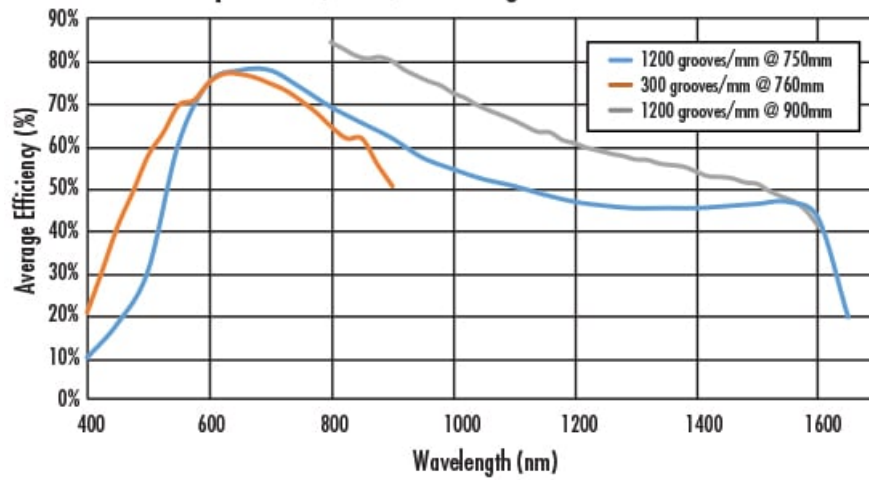
Note: The surface of these gratings is very sensitive and should never be touched when handling the optic. If cleaning is required to remove dust particles, non-contact cleaning using clean compressed air is recommended.

TECHNICAL INFORMATION

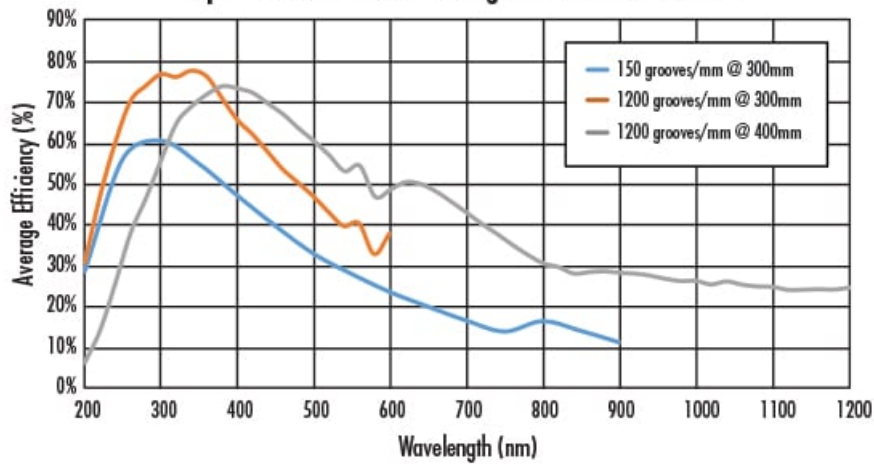
Typical Efficiency Curves for High Precision Reflection Gratings Optimized (Blaze) Wavelengths from 1200 - 1850nm



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



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](#).