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## 12.7mm Dia., 45°, 725 - 1000nm Ultrafast Chirped Mirror

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Stock #12-420 **16 In Stock**

⊖ 1 ⊕ C\$639<sup>00</sup>

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Volume Pricing	
Qty 1-3	C\$639.80 each
Qty 4-7	C\$560.00 each
Qty 8+	C\$495.60 each
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### Product Downloads

#### General

Laser Mirror **Type:**

**Typical Applications:**  
Pulse Compression @45° of Ti:sapphire Ultrafast Lasers

CM68 **Model Number:**

## Physical & Mechanical Properties

Wedge Angle (arcmin):

<10

Clear Aperture (%):

80

Back Surface:  
Commercial Polish

Diameter (mm):  
12.70 +0.00/-0.10

Thickness (mm):  
6.35 ±0.2

## Optical Properties

Reflection at DWL (%):  
99.8

Coating Specification:  
R<sub>avg</sub> >99.8% @ 725 - 1000nm (P-Polarization)

GDD Specification:  
-70fs<sup>2</sup> @ 725 - 1000nm (P-Polarization)

Wavelength Range (nm):  
725 - 1000

Irregularity (P-V) @ 632.8nm:  
λ/10

Coating Type:  
Dielectric

Coating:  
Ultrafast Chirped (725-1000nm)

Design Wavelength DWL (nm):  
800

Angle of Incidence (°):  
45

Substrate:   
[Fused Silica](#) (Corning 7980)

Damage Threshold, By Design:   
0.2 J/cm<sup>2</sup> @ 800nm, 50fs, 1kHz, 100µm Beam Diameter

## Regulatory Compliance

RoHS 2015:  
[Compliant](#)

Certificate of Conformance:  
[View](#)

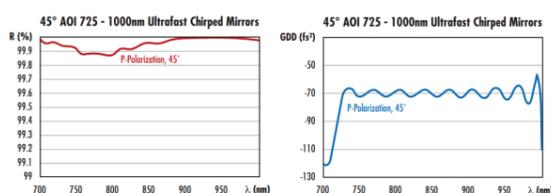
Reach 235:  
[Compliant](#)

## Product Details

- High Reflectivity and Negative Group Delay Dispersion (GDD)
- Ideal for Dispersion Compensation and Beam Compression @ 45° AOI
- Designs for Femtosecond Lasers, Including Ti:sapphire

UltraFast Innovations (UFI) 45° AOI Ultrafast Chirped Mirrors are designed with a 45° angle of incidence for compression or dispersion compensation of ultrafast beams during beam transport. These ultrafast mirrors have a multilayer magnetron sputtered coating optimized to provide a negative group delay dispersion (GDD) and high reflectivity from 725 to 1000nm. They also feature laser grade substrates with high surface quality to minimize light scatter and low irregularity, allowing for reflected ultrafast pulses to maintain their optical power and intensity. UFI 45° AOI Ultrafast Chirped Mirrors are ideal for pulse compression and dispersion compensation of ultrafast pulses from femtosecond lasers, such as Ti:sapphire, during beam transport. Please contact us if your application requires an Ultrafast Chirped Mirror with a custom angle, size, or design wavelength.

## Technical Information



## 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](#).

## Compatible Mounts

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