

# Quote for the Mirrors Fabrication



**GlassMountainOptics**

March 22, 2005

To: Temple University  
Attn: Alexander Lukhanin

Thank you for your most recent inquiry. Based upon the specifications indicated in your request, Glass Mountain Optics would like to offer the following quotation:

Qty	Description	Unit Price	Total	Delivery
5	15.75" x 15.75" x 0.38" spherical collimating mirror. Radius of Curvature 29.53". AlMgF <sub>2</sub> coating with best possible reflectance at 160 nm and 80%+ at 250-400 nm. Best commercial surface accuracy.	\$1,980.00	\$9,900.00	4-6 weeks

Terms: Net 30 from date of shipment  
F.O.B.: Austin, TX

Please feel free to contact our office if you have any questions or require additional information.

Sincerely,

Karen Stone  
Marketing – Glass Mountain Optics  
stone@glassmountain.com

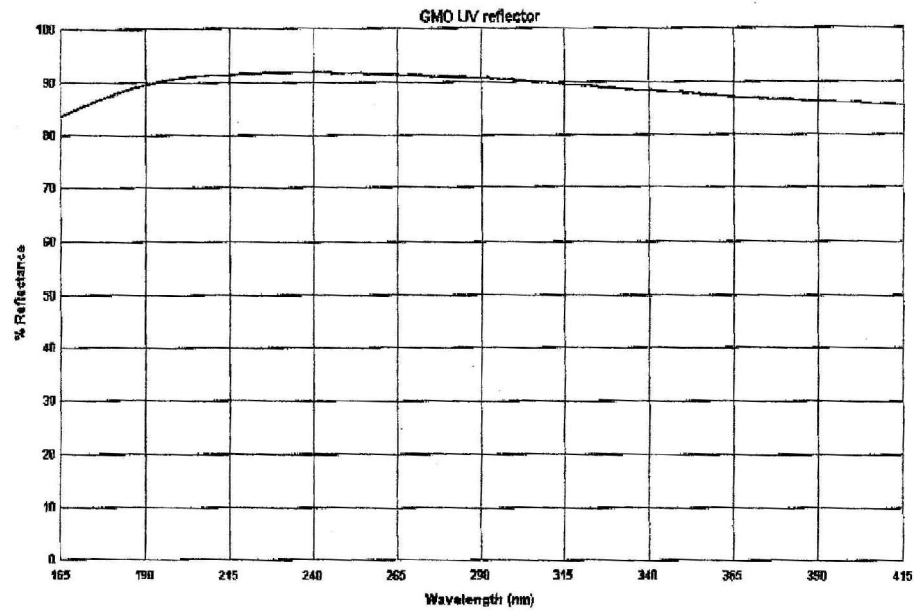
- CERN was contacted. They are swamped with LHC projects to deliver our mirrors within a year
- **GlassMountainOptics** was suggested by CERN. They did the HERA-B mirrors and the result was very good according to the CERN people.

- claim >80 reflectivity at 165 nm

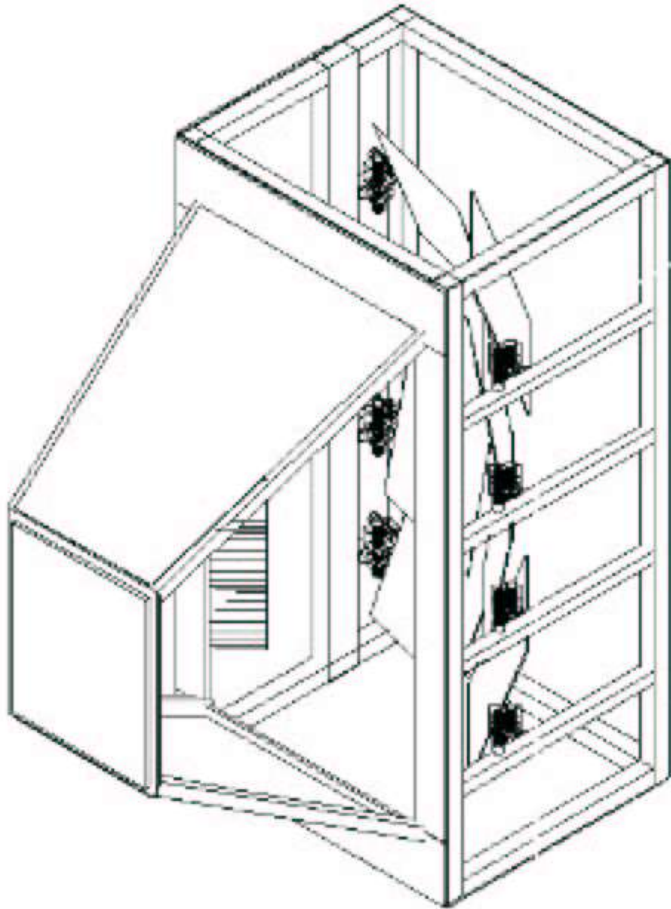
- In case of problems a firm in France was mentioned: **SESO** in France at Aix en Provence:

<http://www.seso.com/>

# Reflectivity curve



# Schematic of the Tank and Mirror mounts



- 8 mirrors focusing rays on 3" quartz PMTs located on single side
  - get PMTs away from target BG
  - concentrate shielding
- 3" quartz PMTs
  - optimize short-wavelength sensitivity
  - smaller photo-cathode area, limit BG rate from non-photon interactions with PMT
  - can still focus >90% of rays using spherical mirrors
- "near side" mirror ordered for testing
- may move to parabolic or bi-radius mirror to improve "far side" focus (ray

# Mirror Mount

Translation and rotation in two orthogonal directions

