



## Delivery Note

**For the attention of:**

**Number:** 5735

**Date:** 11<sup>th</sup> January 2010

David Shwa  
Hebrew University of Jerusalem  
Supply Department  
Campus Edmund Safra  
Givat Ram  
Jerusalem 91904  
Israel

### **Details:**

2 off 10mm clear aperture solid fused silica etalons.  
FSR 10.3GHz. Fe >30 at 780nm, over 10mm aperture

Ref: Your Purchase Order No: HUJ 79/3086/4015

Country of Origin: GB

Sent by: *S.A. Thompson* Date: *11/1/10*  
Miss Susan A. Thompson

[www.slsoptics.com](http://www.slsoptics.com)

**MASTER  
JOB SHEET**

**OPTICS STOCK  
COATING ENGINEERING**

Internal Order Number: **90515**  
Customer: **The Hebrew University of Jerusalem**  
Drawing No:  
Qty Ordered: **2** Qty Outstanding: **2** ✓  
Description: **10mm CA Solid FS Etalons. FSR 10.3GHz. Fe >30 at 780nm, over 10mm aperture** ✓

Date: **10 November 2009**  
Cust Order No: **HUJ 79/3086/4015**  
Wk Due: **52**

Cust Supplied: **No** Quote No: **09/429**

**OPTICS**

Substrate Material: **Fused Silica** Quantity to Manufacture: **2** ✓  
Diameter: **15.0mm**  
Thickness: **10.0+/-0.015mm** Length: Width:  
Wedge/Parallelism: **Parallel to L/75 at 633nm**  
Front Surface Figure: **L/75** Rear Surface Figure: **L/75**

**SLS Optics Ltd**  
Solid F.S. Etalon  
FSR 10.3GHz.  
Fe >30 @ 780nm  
Over 10mm aperture

**SEALED PACKAGE**  
Open Only in Clean  
Room Conditions

Notes:

**COATING**

Side 1: **92%R+/-3%R at 600nm-860nm / 0deg**  
Apt: **>10mm** Design 1: Run No 1: Tested: **All over**  
Side 2: **92%R+/-3%R at 600nm-860nm / 0deg**  
Apt: **>10mm** Design 2: Run No 2: Tested: **All over**

Notes:

Coating Type: **Soft** ✓

**Care!**  
**Soft Etalon**  
**Coatings**

**ENGINEERING**

Cells Required: **Yes** Jigging Required: **No**

Notes: **30mm dia x 18mm Al cell** ✓

**PACKING**

Quantity Packed: **2** Quantity Rejected: **—** Quantity Stocked: **—**

**ASSOCIATED DOCUMENTATION**

**Coating Curves & Test Data** ✓  
**See PO for shipping instructions, &**  
**Declaration instructions** ✓

NCR Yes  No   
Notes:

Completed / Shipped on **8 / 1 / 2010**

Signed **[Signature]**

<b>Wavelength nm</b>	<b>780</b>
Refractive index of Fused Silica	1.453671
<b>Etalon thickness mm</b>	<b>10.000</b>
FSR nm	0.021
FSR cm-1	0.344
<b>FSR GHz</b>	<b>10.312</b>
Clear aperture diameter mm	15
<b>Effective aperture diameter mm</b>	<b>10</b>
Sphericity error over clear aperture 632.8nm/?	75
Sphericity error over clear aperture wavelength nm/?	92.45
Sphericity error over effective aperture wavelength nm/?	208.00
Parallelism error over clear aperture 632.8nm/?	75
Parallelism error over clear aperture wavelength nm/?	92.45
Parallelism error over effective aperture wavelength nm/?	138.67
Surface roughness (rms) nm	0.4
<b>Full beam divergence mr</b>	<b>1</b>
Half-angle mr	0.5
Cone solid angle omega sr	7.85E-07
<b>Reflector coating %</b>	<b>92</b>
Reflector coating loss %	0.2
AR coating loss %	0
Reflectivity finesse Fr	37.67
Sphericity finesse, over effective aperture Fs	104.00
Parallelism finesse, over effective aperture Fp	80.06
Roughness finesse Frms	414.89
Defect finesse, over effective aperture Fd	62.71
Divergence finesse, over effective aperture Fdiv	214.63
<b>Tilt angle deg (in air)</b>	<b>0.000001</b>
Tilt angle r (in air)	1.75E-08
Tilt finesse, over effective aperture Ftilt	28647890
<b>Effective finesse Fe</b>	<b>31.93</b>
Effective reflectivity Re	90.63
Etalon coatings peak T, over effective aperture %	80.61
<b>Etalon peak T, over effective aperture %</b>	<b>80.61</b>
Contrast	414.21
Peak T insertion loss dB	-0.94
Tpeak / Tvalley dB	2.62

Customer controlled.

Customer controlled (Example 0°).

# SLS

OPTICS

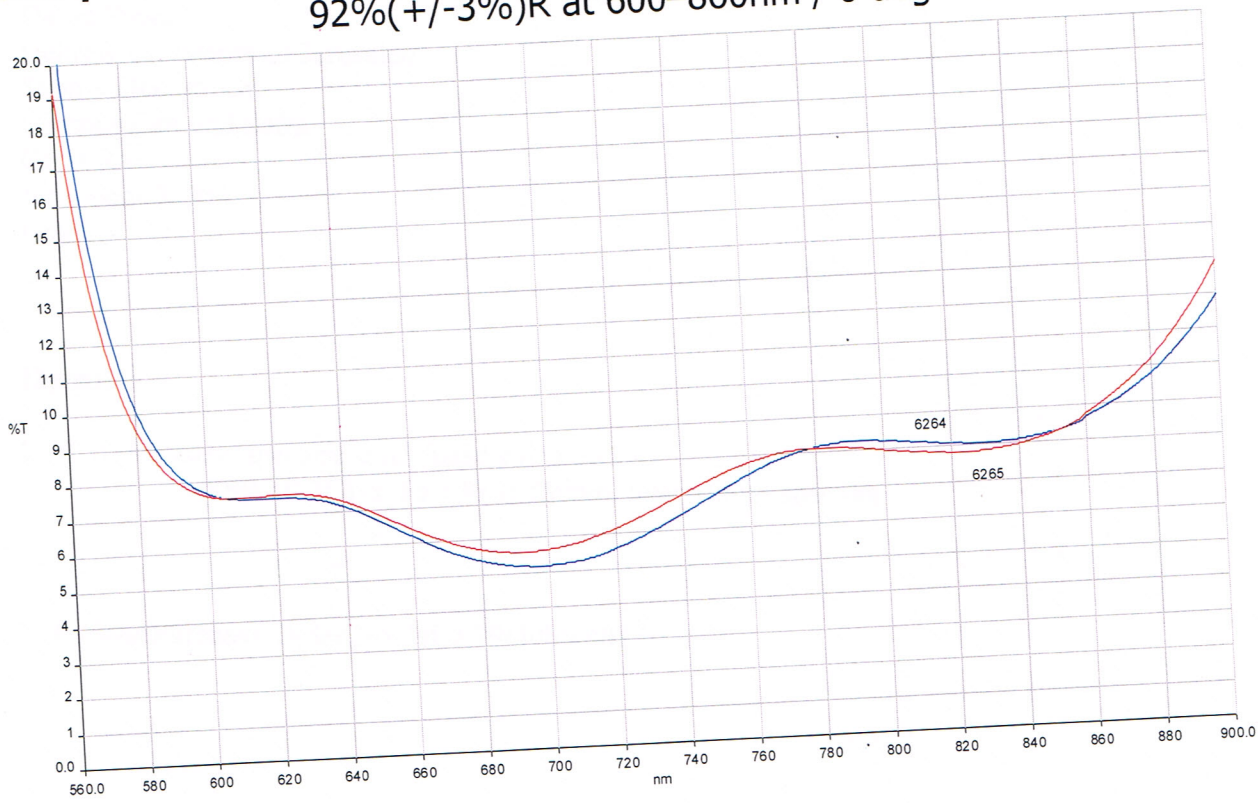
**Customer:** The Hebrew University of Jerusalem

**Order No:** HUJ 79/3086/4015

**Serial No:** 6264 + 6265

**Description:** 2 off Solid fused silica etalons  
92% (+/-3%)R at 600-860nm / 0 deg on both sides

SLS Optics Ltd  
Solid F.S. Etalon  
FSR 10.3GHz.  
Fe >30 @ 780nm  
Over 10mm aperture



Tested: RHCOWELL

Checked: J.B.

**Soft coating**  
Care should be taken as any physical contact is likely to cause damage to this coating.

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