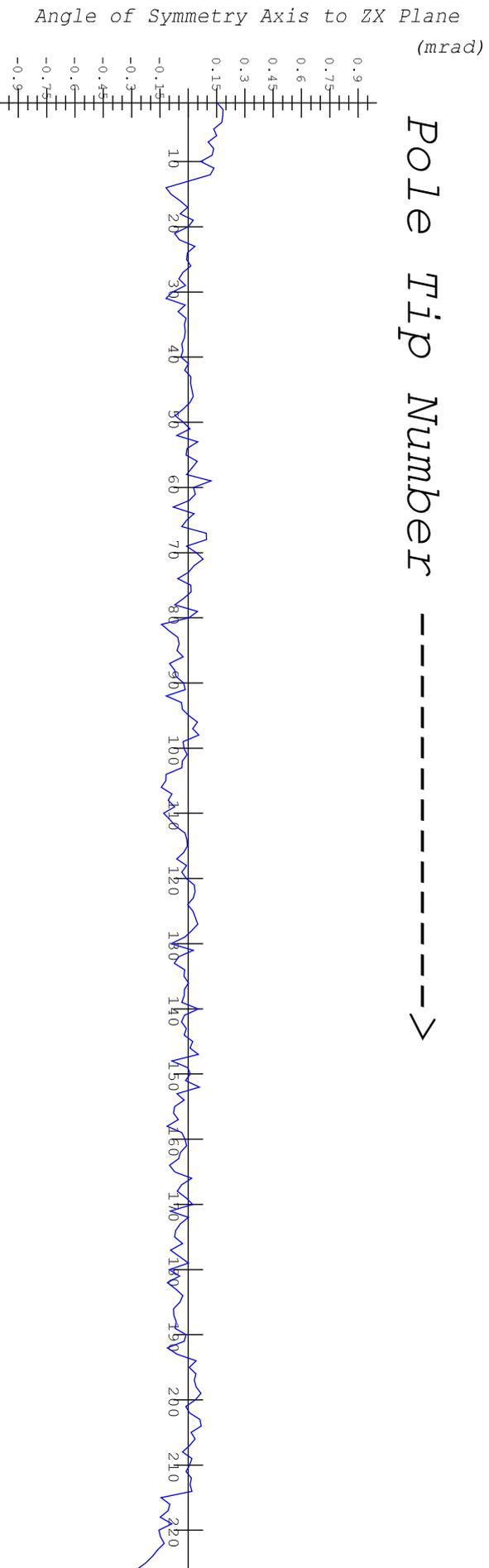


Pole Tip Number ----->



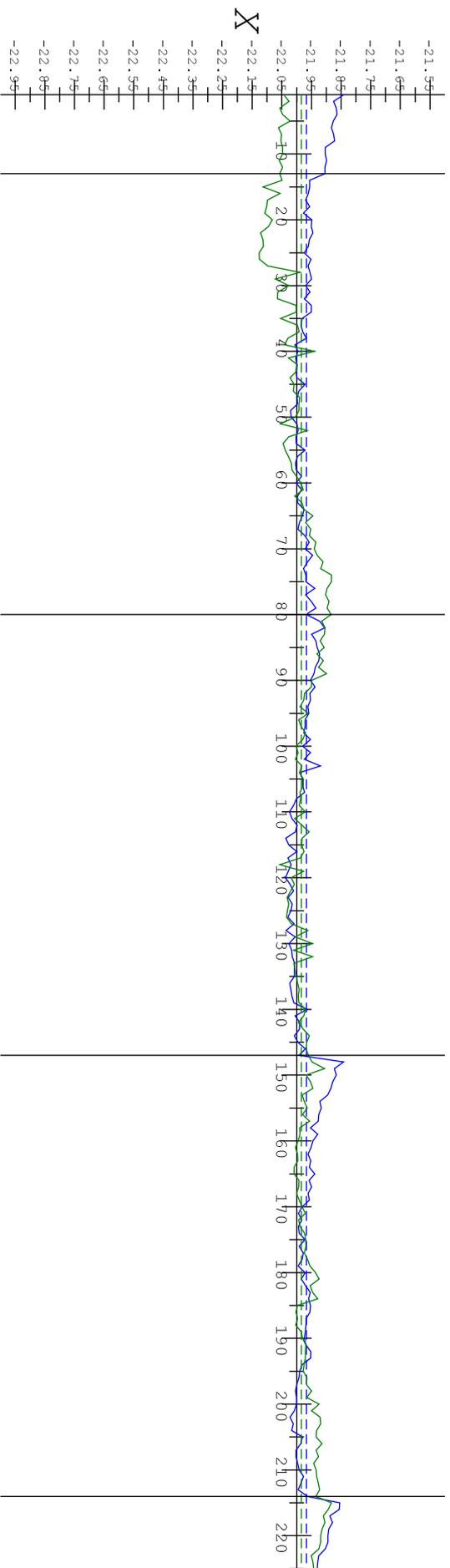
Symmetry Axis is the symmetry axis between the Upper and Lower Pole Tips  
 Included Angle is the angle between the Upper and Lower Pole Tips

**SLAC**  
 LCLS-MMF  
 LEITZ CMM

Undulator Pole Tip Angles  
 Post Magnetic Alignment

DATE: 26-JUN-2008  
 UNDUULATOR # 39  
 DATASET # 0005  
 PROGRAM VERSION 2.7

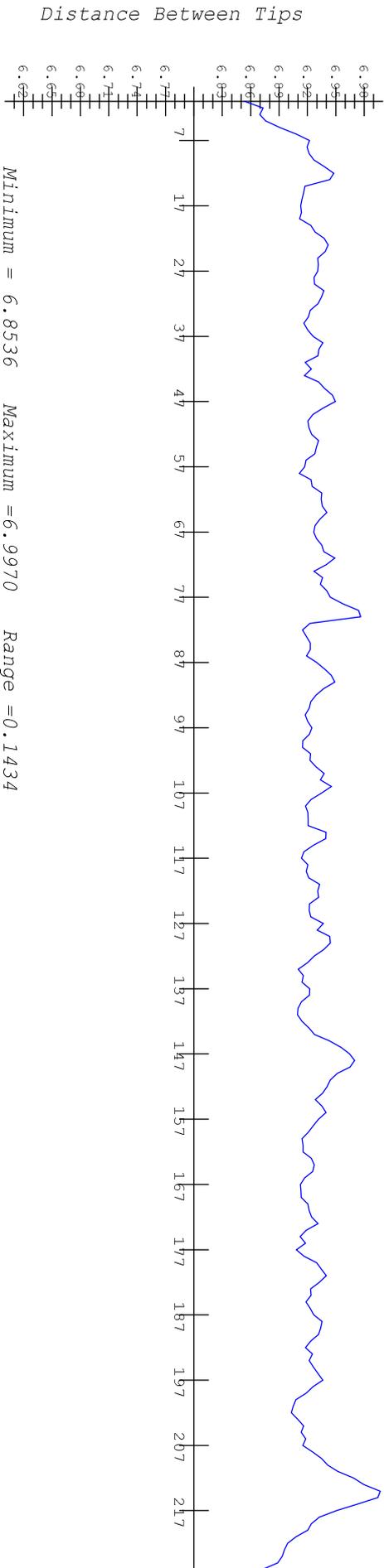
# Pole Tip Number ----->



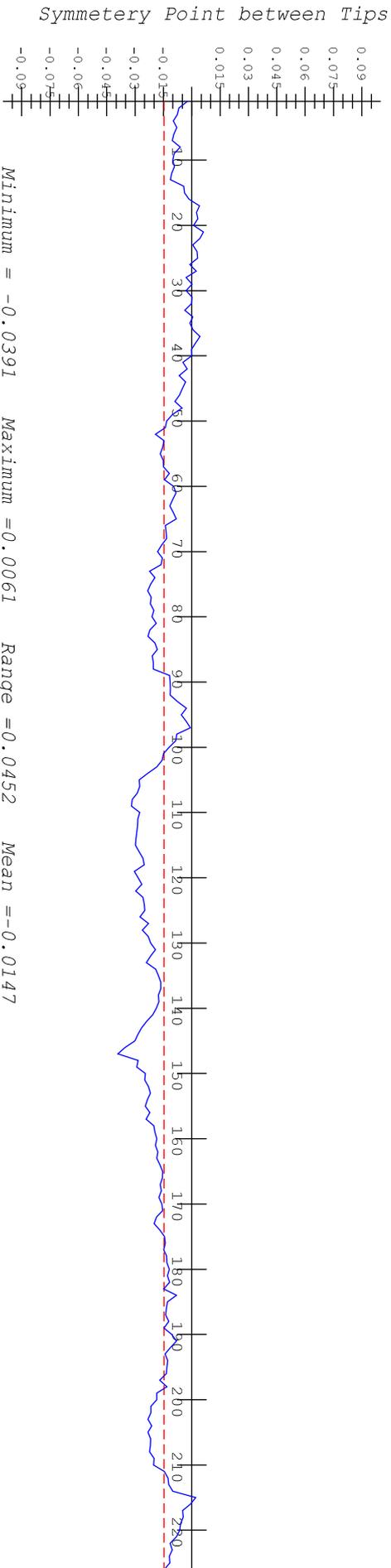
**SLAC**  
 LCLS-MMF  
 LEITZ CMM

Undulator Pole Tip Location  
 Post Magnetic Alignment

DATE: 26-JUN-2008  
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Pole Tip Number ----->



Symmetry Point is the symmetry point between the Upper and Lower Pole Tips were they intersect a YZ plane at the Magnetic C/L  
 Broken Red line is Mean Value of Symmetry Points  
 Distance Between Tips is the distance between the Upper and Lower Pole Tips were they intersect a YZ plane at the Magnetic C/L

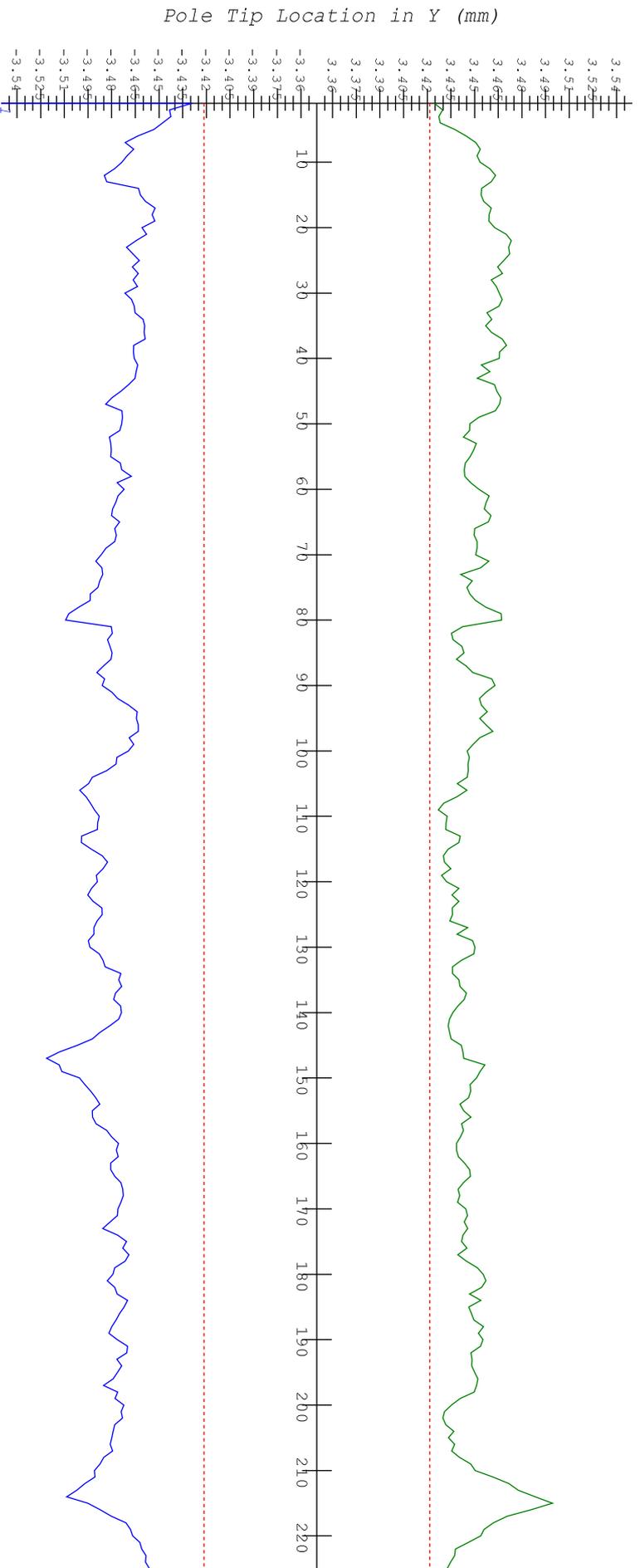
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Undulator Pole Tip Location  
 Post Magnetic Alignment

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Maximum Chamber Gap = 6.8430

Minimum = 3.4215    Maximum = 3.4993    Range = 0.0778



Minimum = -3.5213    Maximum = -3.4291    Range = 0.0922

Pole Tip Number ----->

Green = The position of the Upper Pole Tips at Magnetic C\L  
Blue = The position of the Lower Pole Tips at Magnetic C\L  
Max. Chamber Gap = The maximum width vacuum chamber that will fit centered on the Magnetic C\L (2\*Min. Dev. from C\L)

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Undulator Pole Tip Location  
Post Magnetic Alignment

DATE: 26-JUN-2008  
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PROGRAM VERSION 2.7



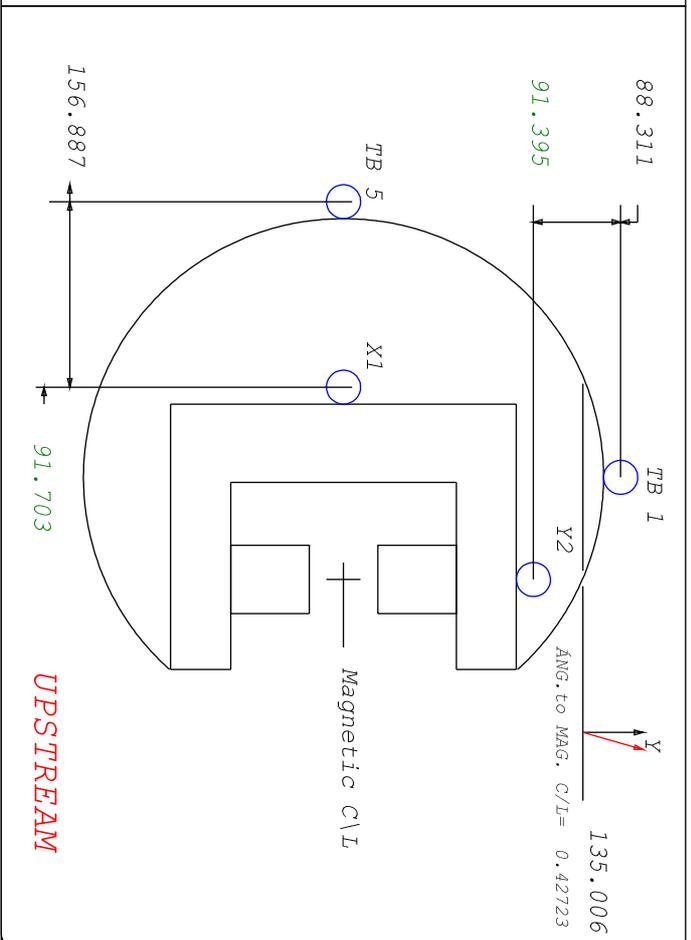
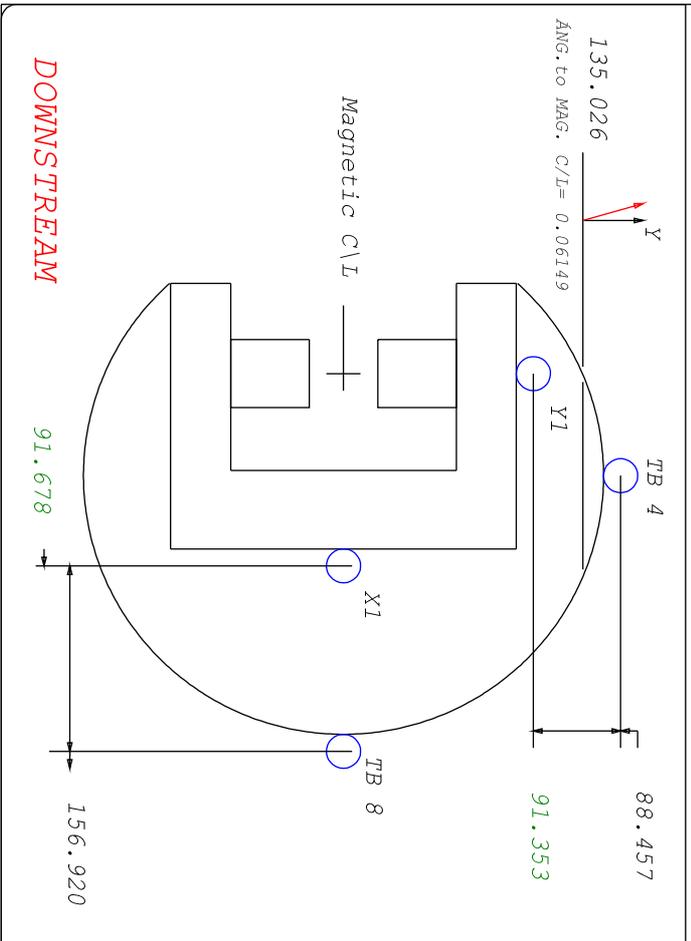
TOOLING BALL LOCATIONS

NUM.	X	Y	Z
1	0.2103	179.7057	-1558.556
2	0.3560	179.7916	-584.8683
3	0.4155	179.7641	591.1066
4	0.4344	179.8103	1562.0019
5	248.5896	0.1625	-1558.488
6	248.6113	0.0630	-584.8728
7	248.6701	0.0809	591.2019
8	248.5983	0.0986	1561.9848

	C/L Offset	Length
Top Magnetic Structure	0.000	3381.246
Bottom Magnetic Structure	0.000	3381.372
Strongback	0.149	3400.010

Dimensions in mm

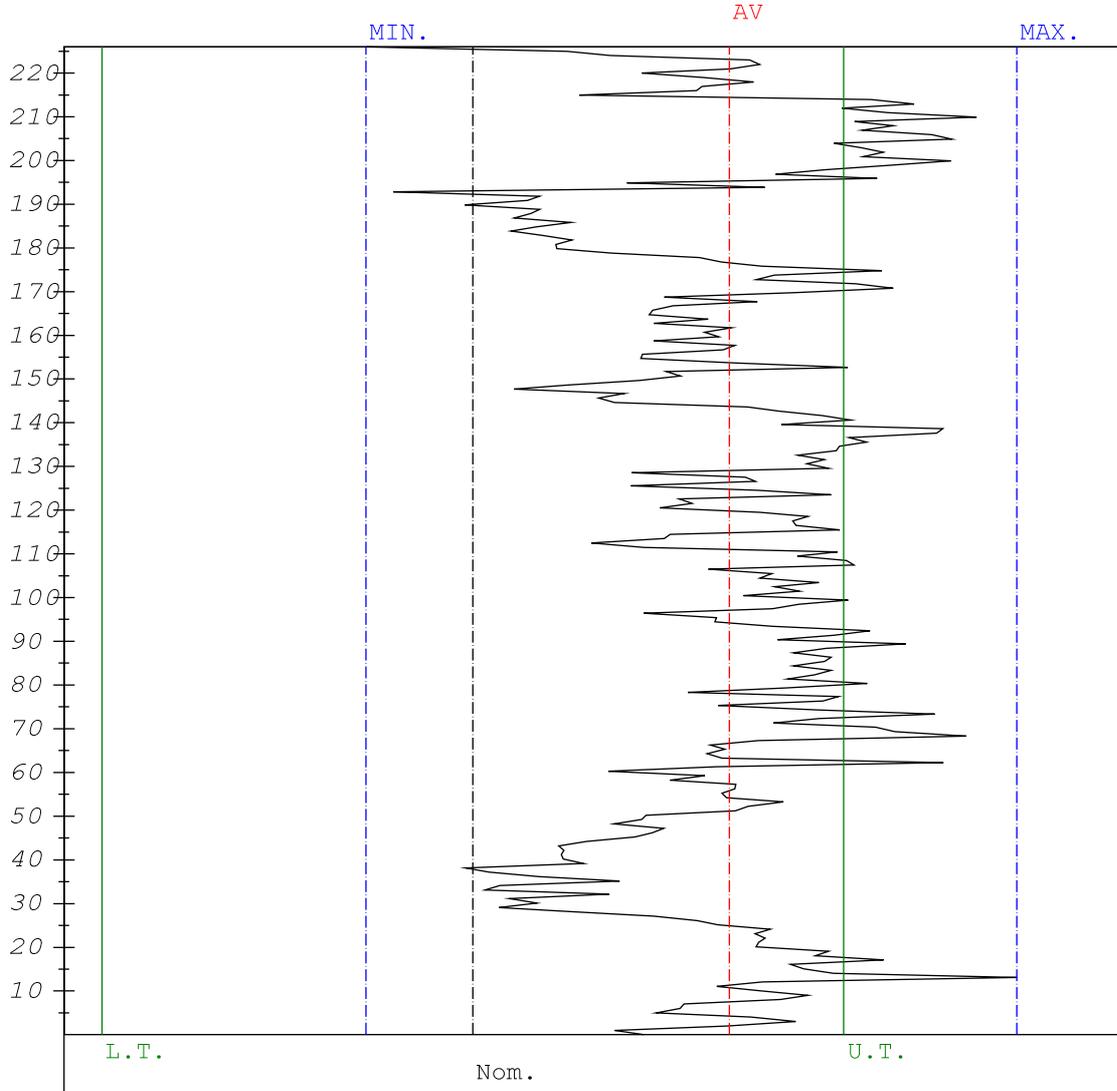
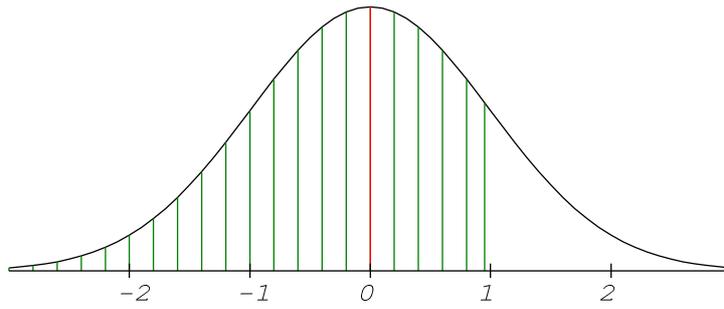
Angles in mrad



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Undulator Fiducialization  
Post Magnetic Alignment

DATE: 26-JUN-2008  
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PROGRAM VERSION 2.7



Nominal : 4.5000	Averag : 4.8457	Cent.-Dev. : 0.3457
Up. Tol. : 0.5	Maximum : 5.2333	U.Tol.Ex. > : 17.1 %
Low.Tol. : -0.5	Minimum : 4.3559	L.Tol.Ex. < : 0.0 %
Spl.Size : 226	Stand.-Dev.: 0.1623	In Tolerance: 82.9 %
Outlier : 0	Distribution : NOR	Dimension : mrad

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LEITZ CMM

Statistical Evaluation  
Pole Tip Gap Angle  
Post Magnetic Alignment

DATE: 26-JUN-2008

UNDULATOR # 39  
DATASET # 0005  
PROGRAM VERSION 2.7