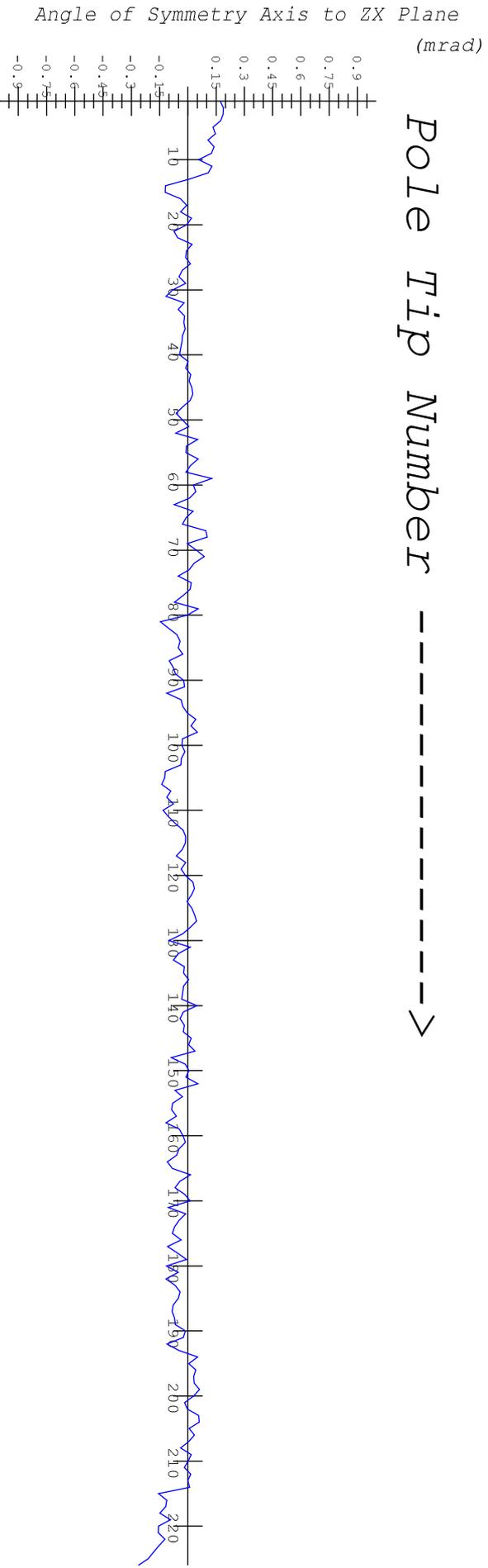


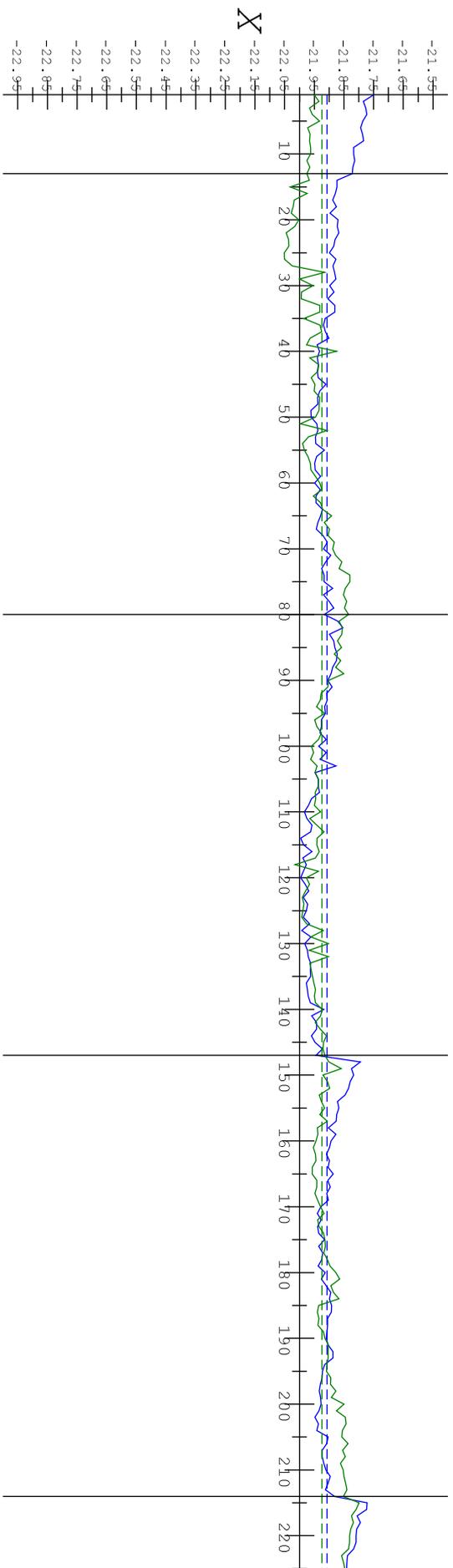
Pole Tip Number ----->



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

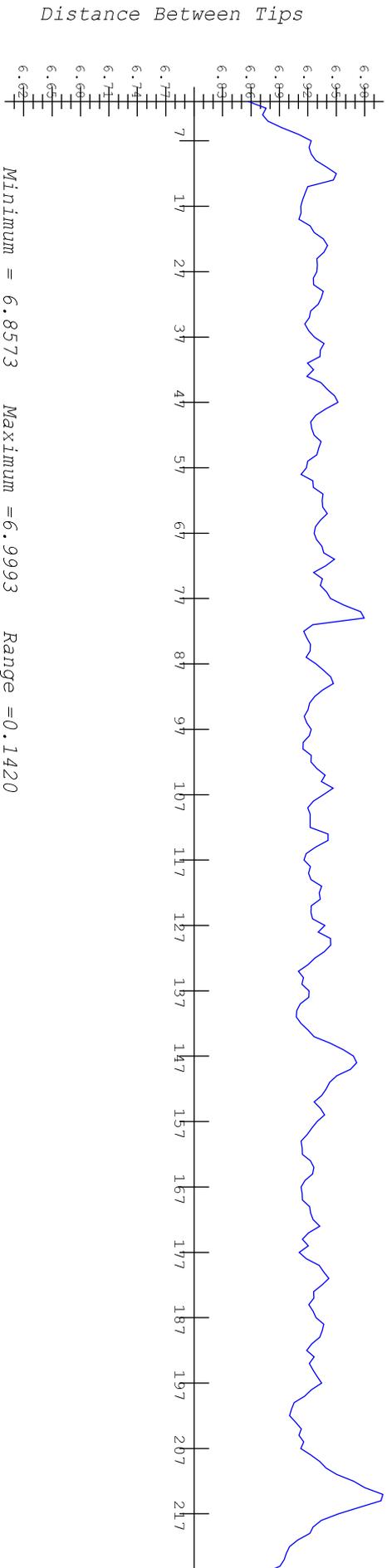
<p><b>SLAC</b>          LCLS-MMF          LEITZ CMM</p>	<p>Undulator Pole Tip Angles          Post Magnetic Alignment</p>	<p>DATE: 10-APR-2008          UNDULATOR # 39          DATASET # 0003          PROGRAM VERSION 2.7</p>
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# Pole Tip Number ----->

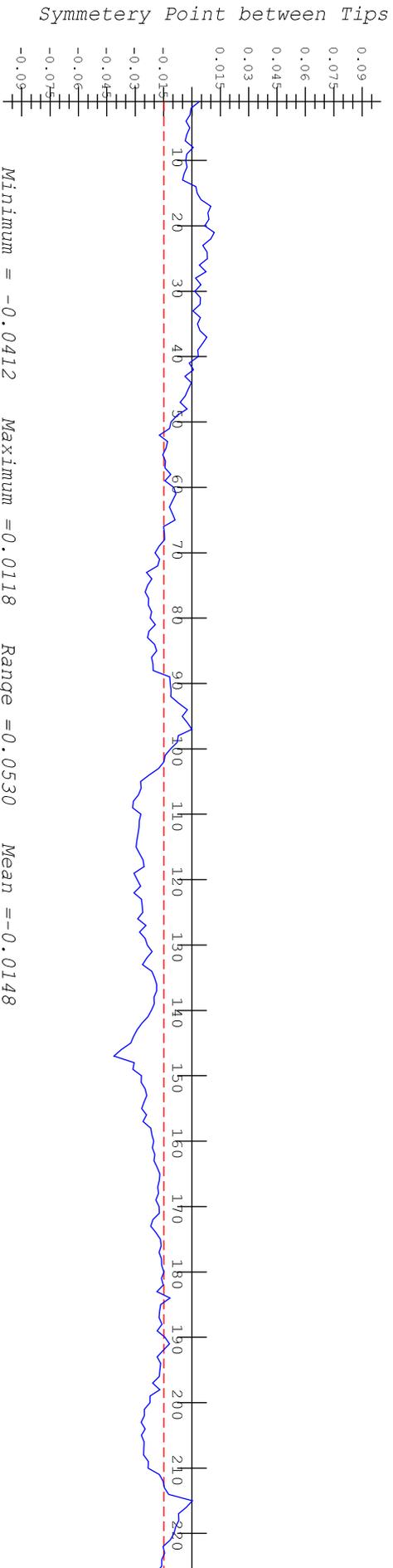


X values in mm  
 Green Solid = Point on front face of Upper Pole Tip 10mm above Magnetic C/L  
 Green Dash = Mean value of all Upper Pole Tips 10mm above Magnetic C/L Mean value Upper Pole Tips = -21.924  
 Blue Solid = Point on front face of Lower Pole Tip 10mm below Magnetic C/L  
 Blue Dash = Mean value of all Lower Pole Tips 10mm below Magnetic C/L Mean value Lower Pole Tips = -21.907

<p><b>SLAC</b>          LCLS-MMF          LEITZ CMM</p>	<p>Undulator Pole Tip Location          Post Magnetic Alignment</p>	<p>DATE: 10-APR-2008          UNDULATOR # 39          DATASET # 0003          PROGRAM VERSION 2.7</p>
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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

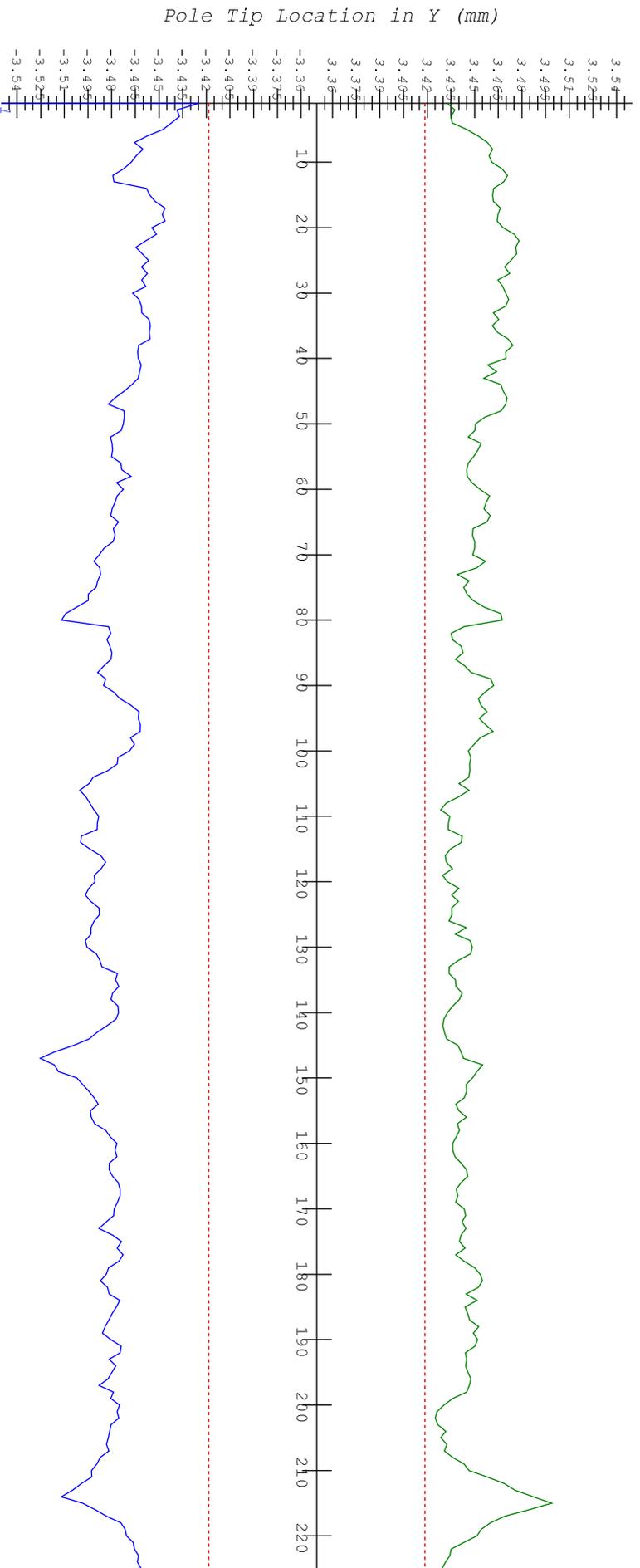
**SLAC**  
 LCLS-MMF  
 LEITZ CMM

Undulator Pole Tip Location  
 Post Magnetic Alignment

DATE: 10-APR-2008  
 UNDUULATOR # 39  
 DATASET # 0003  
 PROGRAM VERSION 2.7

Maximum Chamber Gap = 6.8369

Minimum = 3.4185    Maximum = 3.4988    Range = 0.0803



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)

**SLAC**  
LCLS-MMF  
LEITZ CMM

Undulator Pole Tip Location  
Post Magnetic Alignment

DATE: 10-APR-2008  
UNDULATOR # 39  
DATASET # 0003  
PROGRAM VERSION 2.7



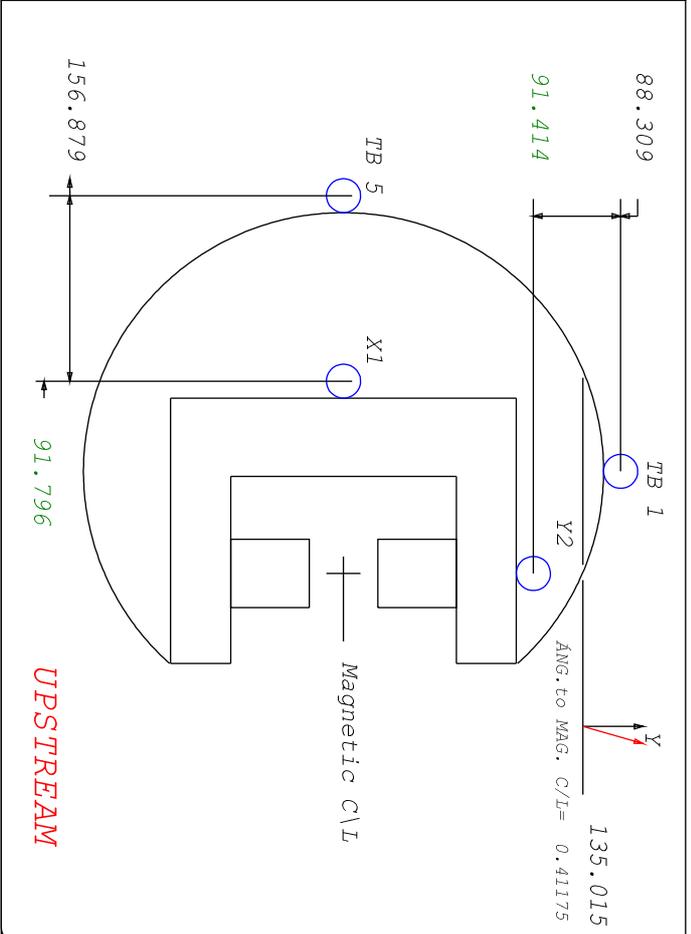
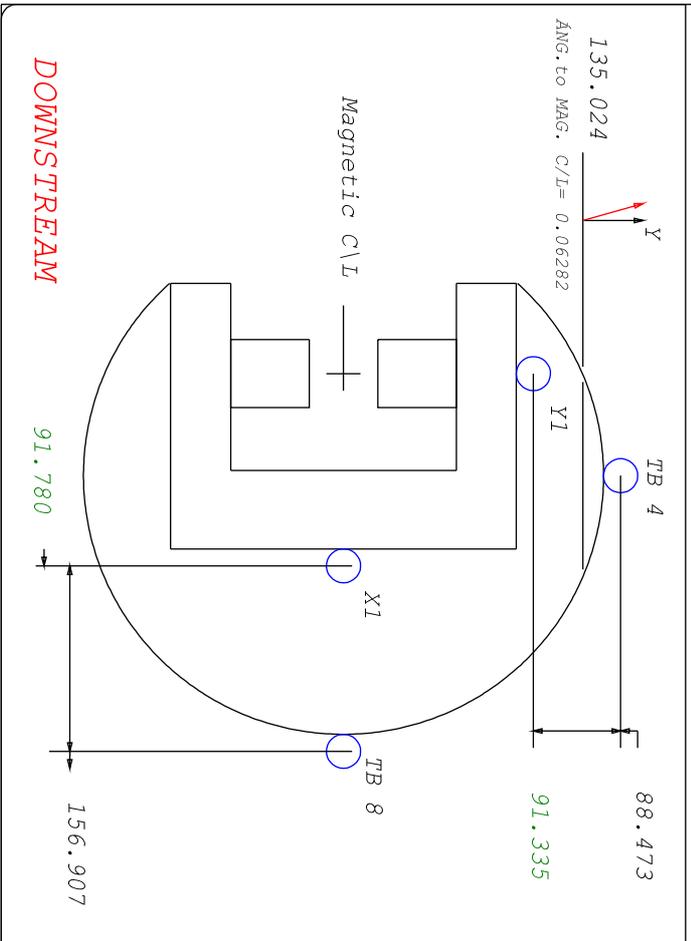
TOOLING BALL LOCATIONS

NUM.	X	Y	Z
1	0.2790	179.7230	-1558.554
2	0.4107	179.7929	-584.8690
3	0.4713	179.7618	591.1096
4	0.5256	179.8085	1562.0074
5	248.6753	0.1688	-1558.480
6	248.6628	0.0631	-584.8679
7	248.7213	0.0765	591.1982
8	248.6874	0.0928	1561.9750

	C/L Offset	Length
Top Magnetic Structure	-0.001	3381.251
Bottom Magnetic Structure	0.001	3381.381
Strongback	0.148	3400.009

Dimensions in mm

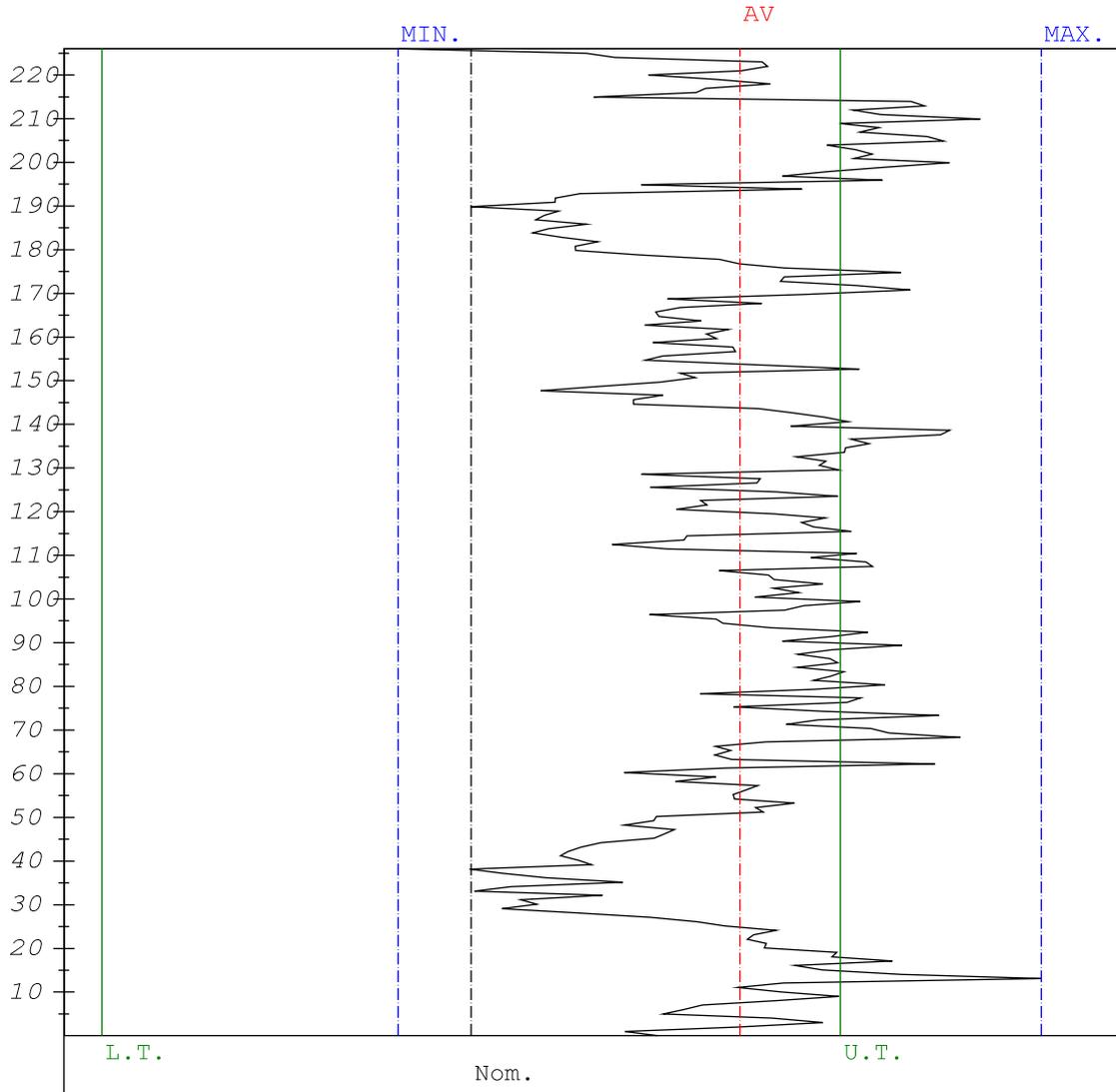
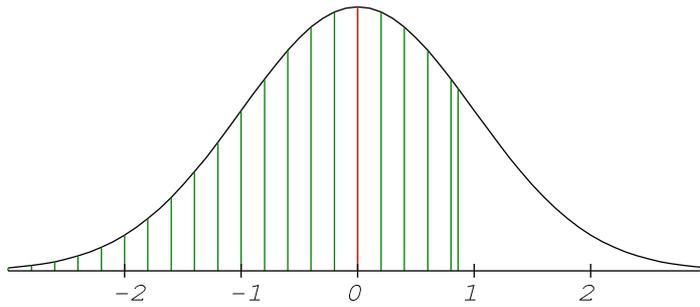
Angles in mrad



**SLAC**  
LCLS-MMF  
LEITZ CMM

Undulator Dimensional Fiducialization  
Post Magnetic Alignment

DATE: 10-APR-2008  
UNDULATOR # 39  
DATASET # 0003  
PROGRAM VERSION 2.7



Nominal : 4.5000	Averag : 4.8643	Cent.-Dev. : 0.3643
Up. Tol. : 0.5	Maximum : 5.2723	U.Tol.Ex. > : 19.5 %
Low.Tol. : -0.5	Minimum : 4.4015	L.Tol.Ex. < : 0.0 %
Spl.Size : 226	Stand.-Dev.: 0.1577	In Tolerance: 80.5 %
Outlier : 0	Distribution : NOR	Dimension : mrad

**SLAC**  
LCLS-MMF  
LEITZ CMM

Statistical Evaluation  
Pole Tip Gap Angle  
Post Magnetic Alignment

DATE:10-APR-2008  
UNDULATOR # 39  
DATASET # 0003  
PROGRAM VERSION 2.7