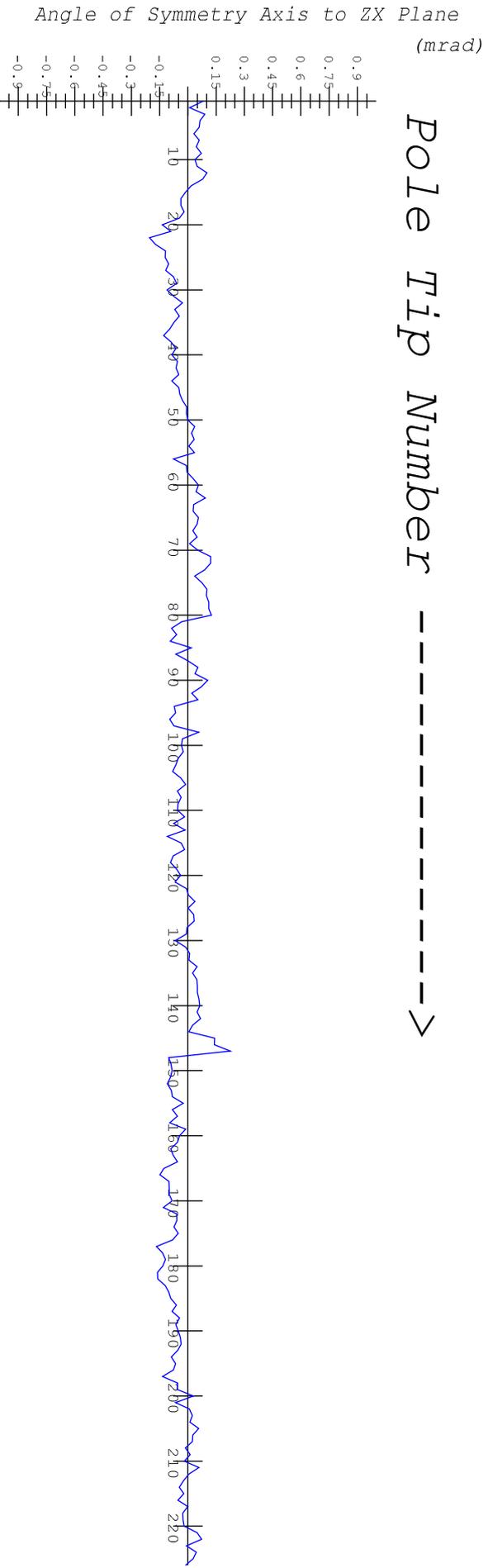


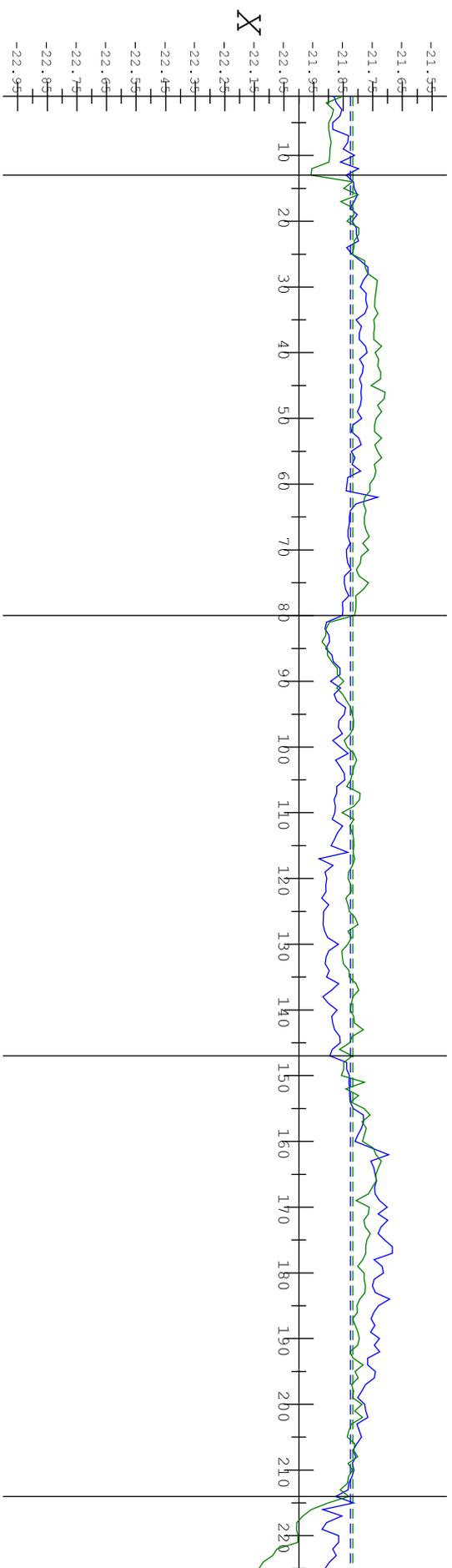
Pole Tip Number ----->



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>SLAC LCLS-MMF LEITZ CMM</p>	<p>Undulator Pole Tip Angles Post Magnetic Alignment</p>	<p>DATE: 23-OCT-2008 UNDULATOR # 13 DATASET # 0013 PROGRAM VERSION 2.7</p>
---	---	---

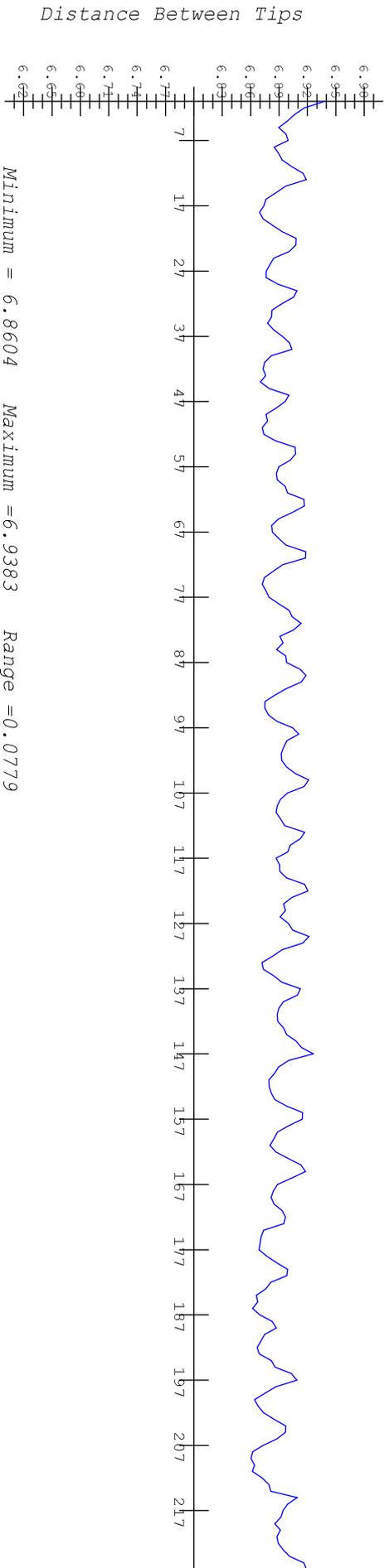
Pole Tip Number ----->



SLAC
 LCLS-MMF
 LEITZ CMM

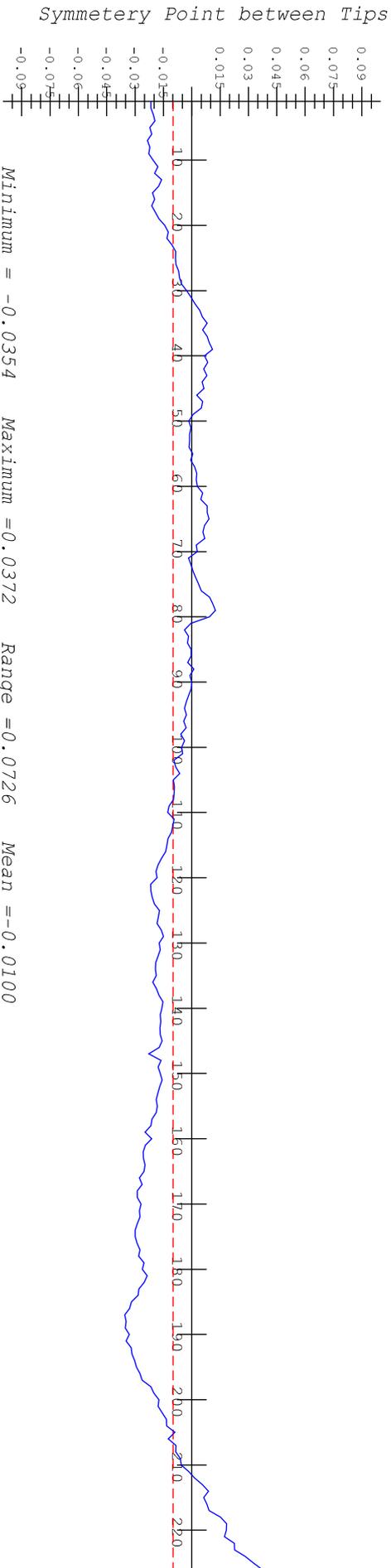
Undulator Pole Tip Location
 Post Magnetic Alignment

DATE: 23-OCT-2008
 UNDUULATOR # 13
 DATASET # 0013
 PROGRAM VERSION 2.7



in mm

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

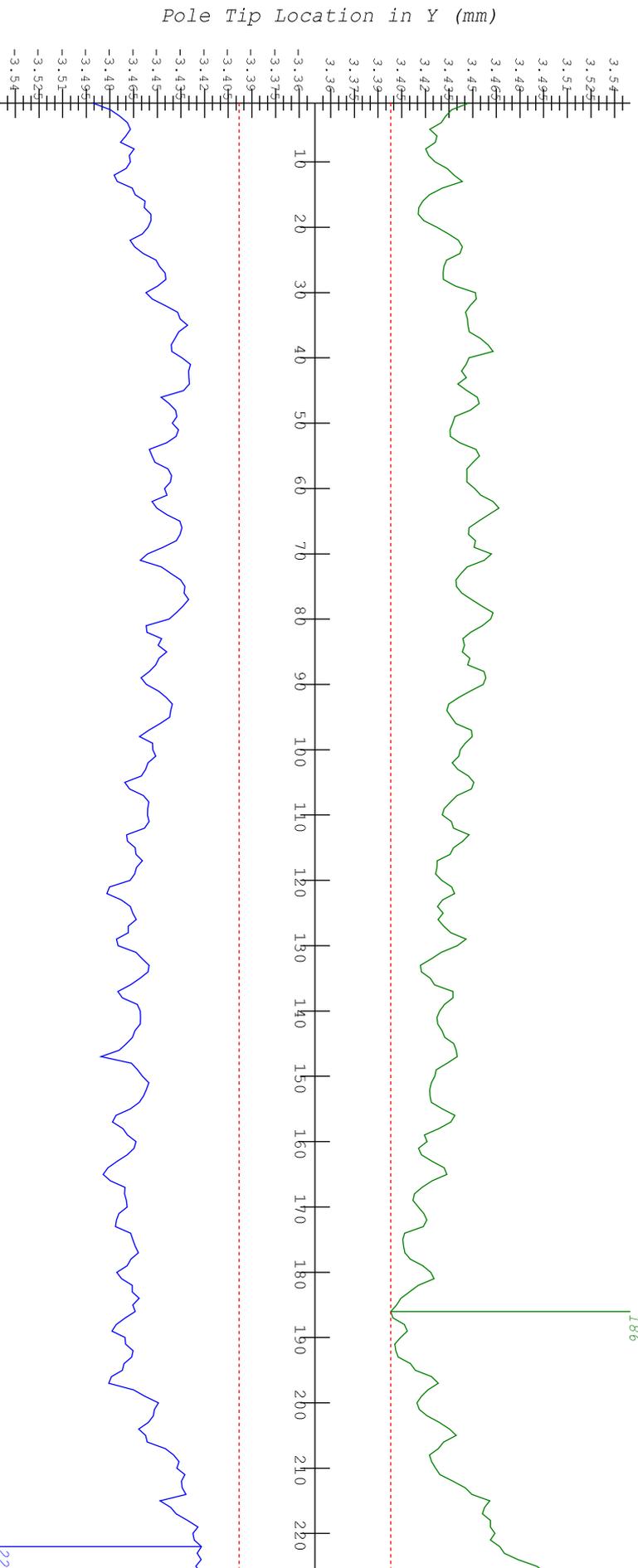
SLAC
 LCLS-MMF
 LEITZ CMM

Undulator Pole Tip Location
 Post Magnetic Alignment

DATE: 23-OCT-2008
 UNDUULATOR # 13
 DATASET # 0013
 PROGRAM VERSION 2.7

Maximum Chamber Gap = 6.7962

Minimum = 3.3981 Maximum = 3.4967 Range = 0.0986



Minimum = -3.4907 Maximum = -3.4220 Range = 0.0687

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: 23-OCT-2008
UNDULATOR # 13
DATASET # 0013
PROGRAM VERSION 2.7



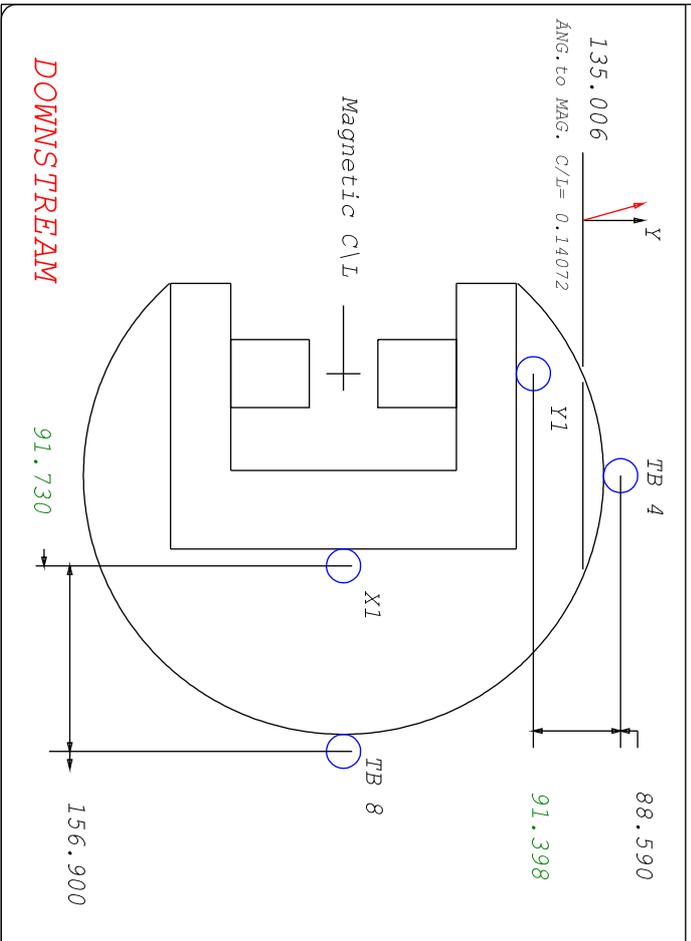
TOOLING BALL LOCATIONS

NUM.	X	Y	Z
1	0.2801	179.9755	-1558.289
2	0.4119	180.0076	-584.4501
3	0.3100	179.8938	591.3047
4	0.2740	179.98884	1562.0721
5	248.6076	0.0739	-1558.307
6	248.5608	-0.0313	-584.5956
7	248.5789	0.0421	591.3291
8	248.6305	-0.0676	1562.0826

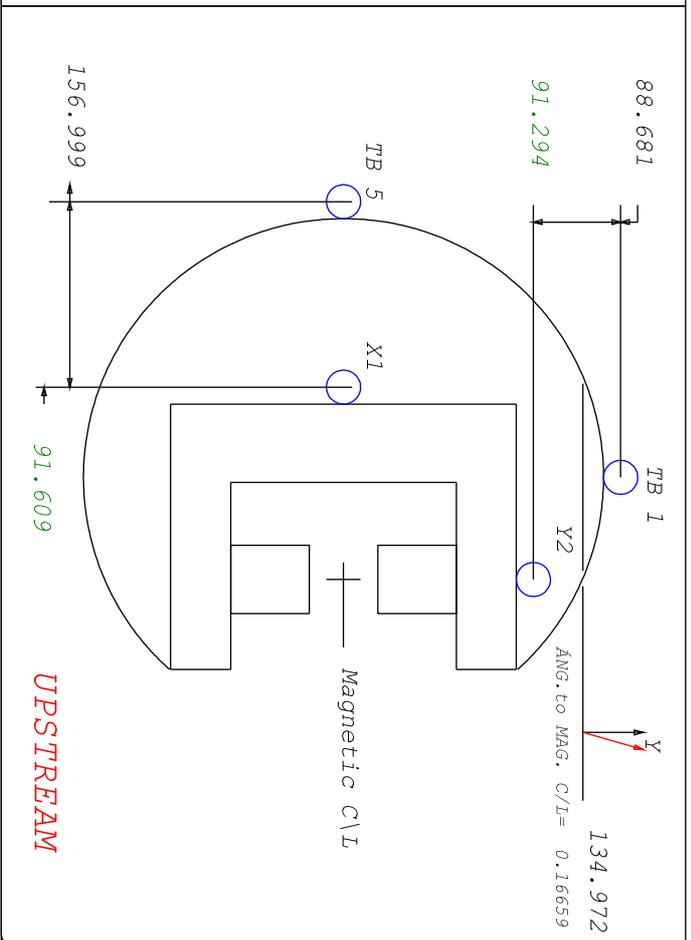
Top Magnetic Structure C/L Offset Length 3381.046
 Bottom Magnetic Structure 0.096 3381.269
 Strongback 0.251 3399.771

Dimensions in mm

Angles in mrad



DOWNSTREAM

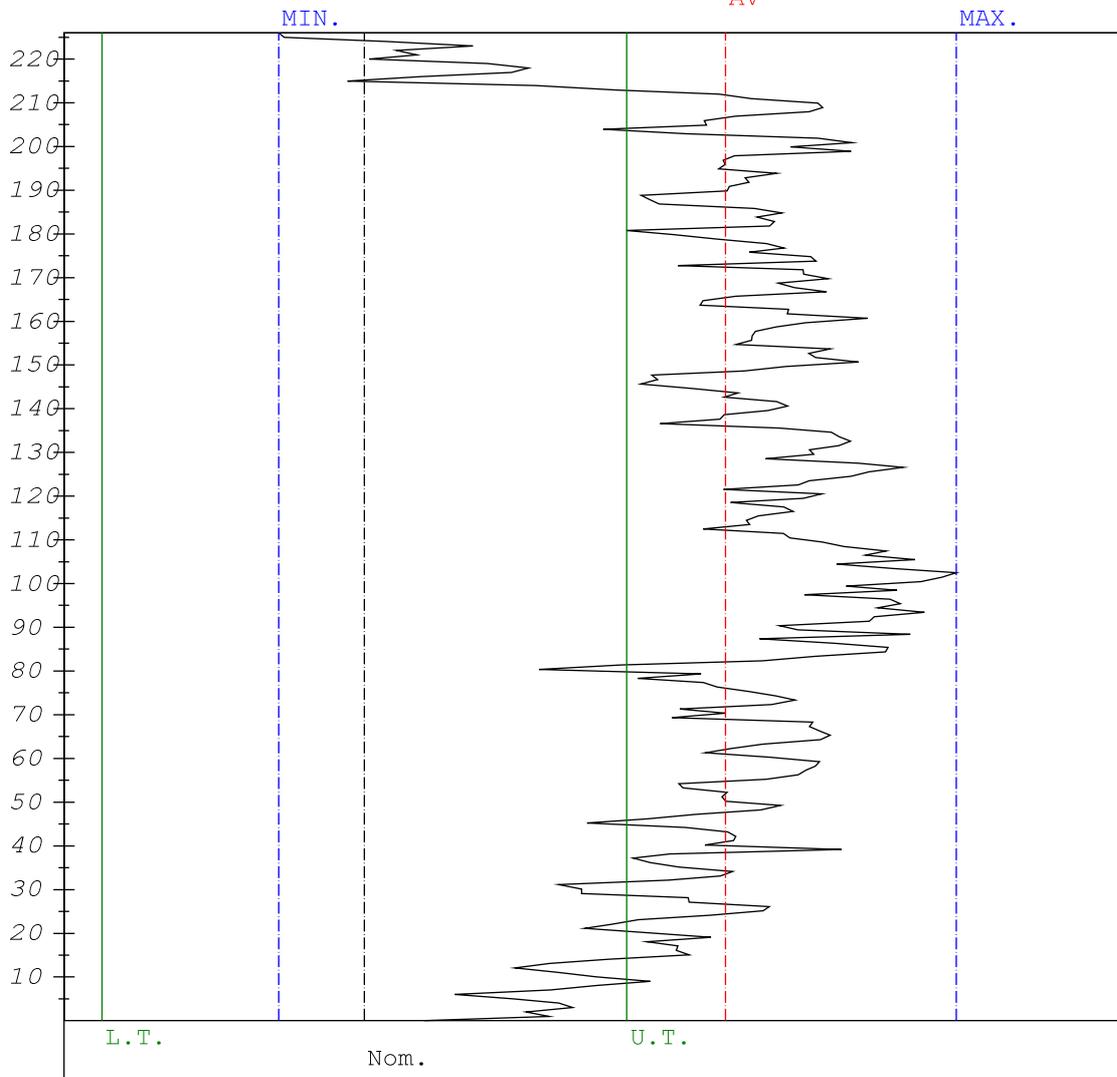
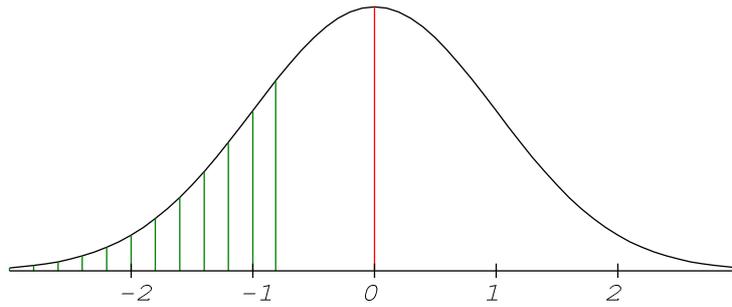


UPSTREAM

SLAC
 LCLS-MMF
 LEITZ CMM

Undulator Dimensional Fiducialization
 Post Magnetic Alignment

DATE: 23-OCT-2008
 UNDULATOR # 13
 DATASET # 0013
 PROGRAM VERSION 2.7



Nominal : 4.5000	Averag : 5.1878	Cent.-Dev. : 0.6878
Up. Tol. : 0.5	Maximum : 5.6277	U.Tol.Ex. > : 79.1 %
Low.Tol. : -0.5	Minimum : 4.3367	L.Tol.Ex. < : 0.0 %
Spl.Size : 226	Stand.-Dev.: 0.2318	In Tolerance: 20.9 %
Outlier : 0	Distribution : NOR	Dimension : mrad

SLAC
LCLS-MMF
LEITZ CMM

Statistical Evaluation
Pole Tip Gap Angle
Post Magnetic Alignment

DATE: 23-OCT-2008

UNDULATOR # 13
DATASET # 0013

PROGRAM VERSION 2.7