

Pole Tip Number ----->

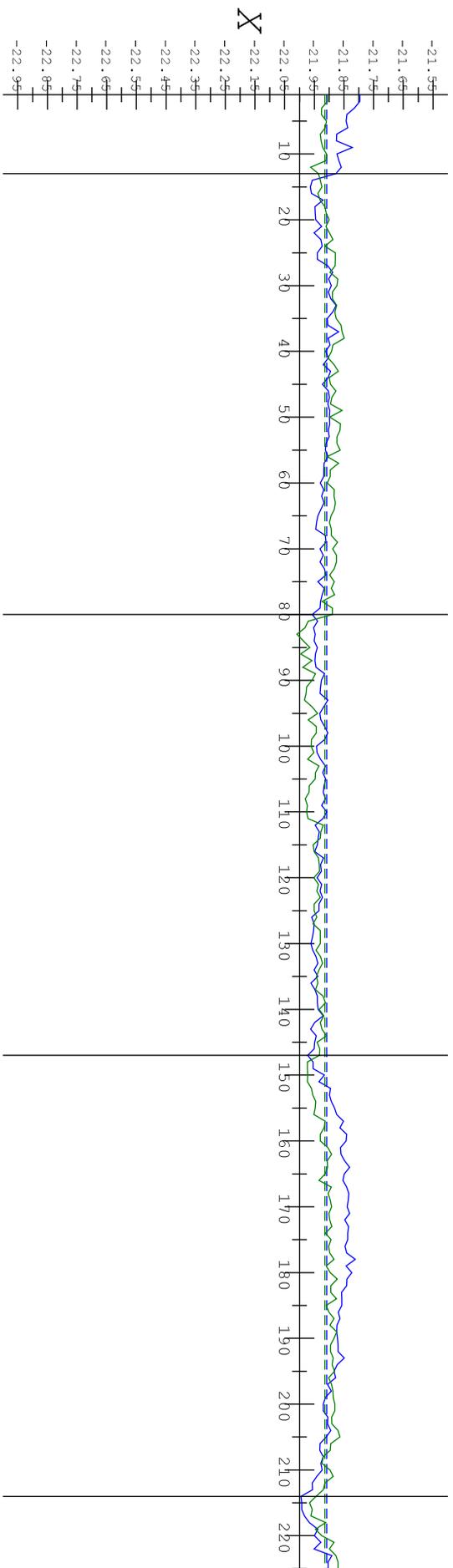
Symmetry Axis is the symmetry axis between the Upper and Lower Pole Tips
 Included Angle is the angle between the Upper and Lower Pole Tips

SLAC
 LCLS-MMF
 LEITZ CMM

Undulator Pole Tip Angles
 Post Magnetic Alignment

DATE: 29-AUG-2008
 UNDUULATOR # 23
 DATASET # 0001
 PROGRAM VERSION 2.7

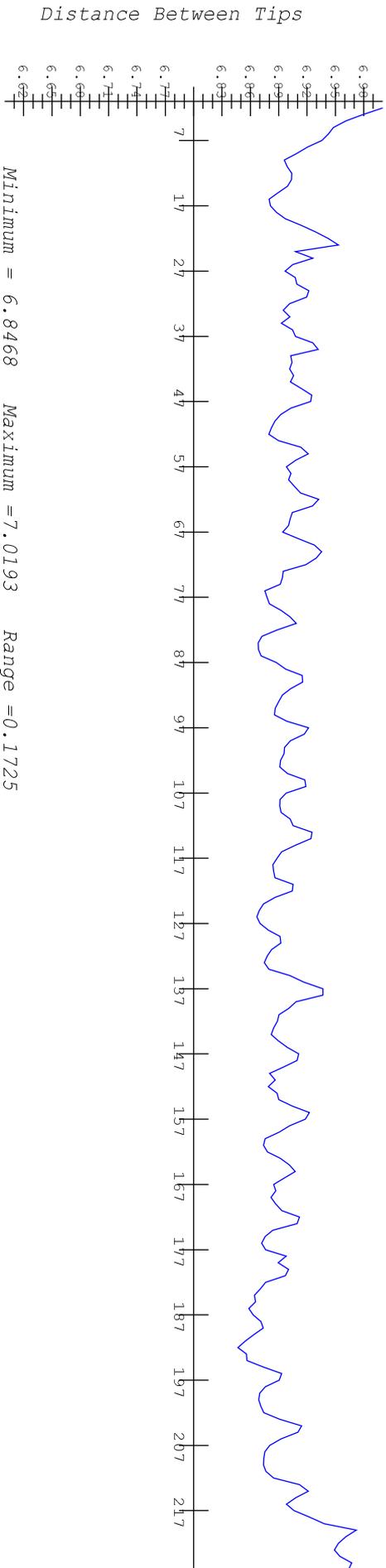
Pole Tip Number ----->



SLAC
 LCLS-MMF
 LEITZ CMM

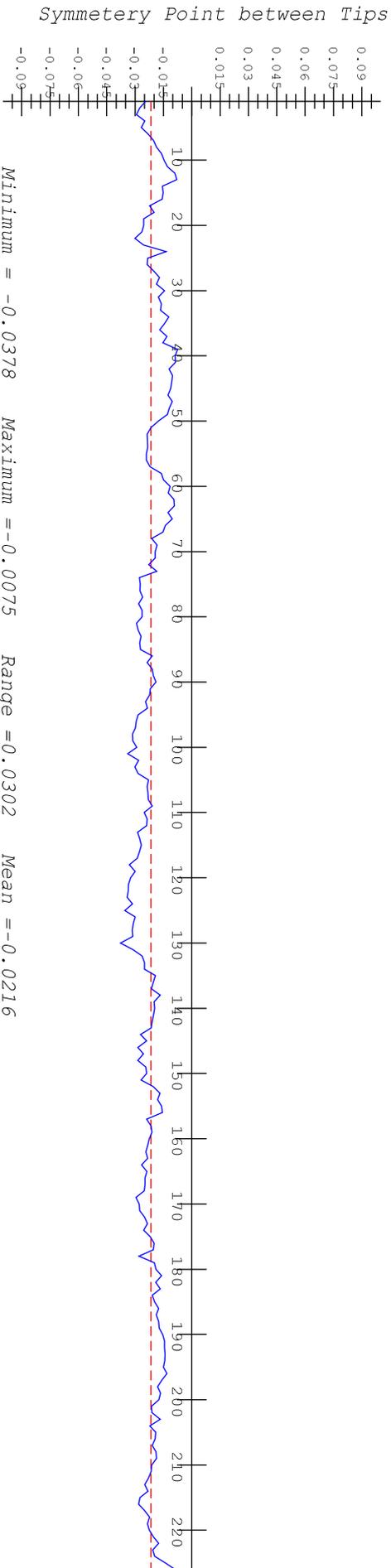
Undulator Pole Tip Location
 Post Magnetic Alignment

DATE: 29-AUG-2008
 UNDUULATOR # 23
 DATASET # 0001
 PROGRAM VERSION 2.7



in mm

Pole Tip Number ----->



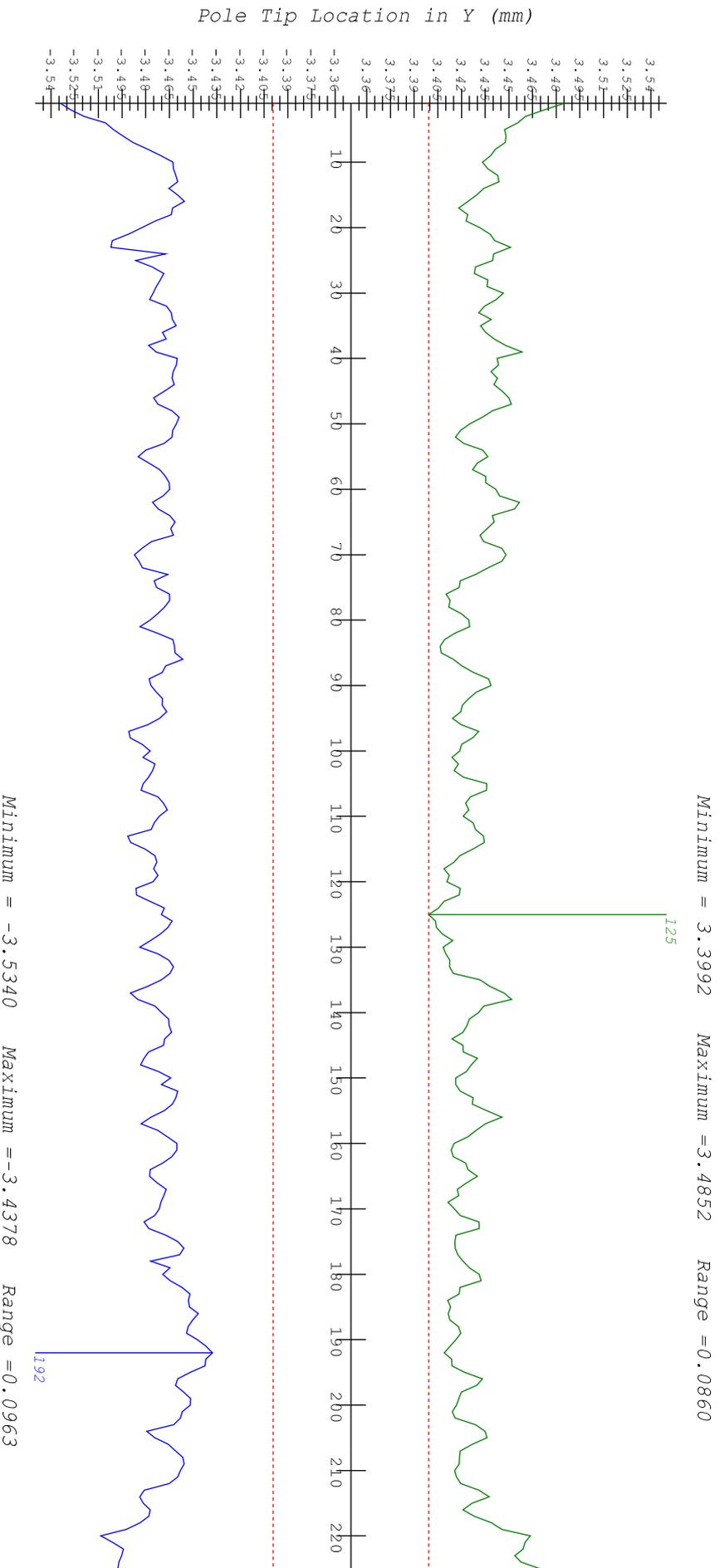
Symmetry Point is the symmetry point between the Upper and Lower Pole Tips were they intersect a YZ plane at the Magnetic C/L
 Broken Red line is Mean Value of Symmetry Points
 Distance Between Tips is the distance between the Upper and Lower Pole Tips were they intersect a YZ plane at the Magnetic C/L

SLAC
 LCLS-MMF
 LEITZ CMM

Undulator Pole Tip Location
 Post Magnetic Alignment

DATE: 29-AUG-2008
 UNDUULATOR # 23
 DATASET # 0001
 PROGRAM VERSION 2.7

Maximum Chamber Gap = 6.7985



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: 29-AUG-2008
UNDULATOR # 23
DATASET # 0001
PROGRAM VERSION 2.7



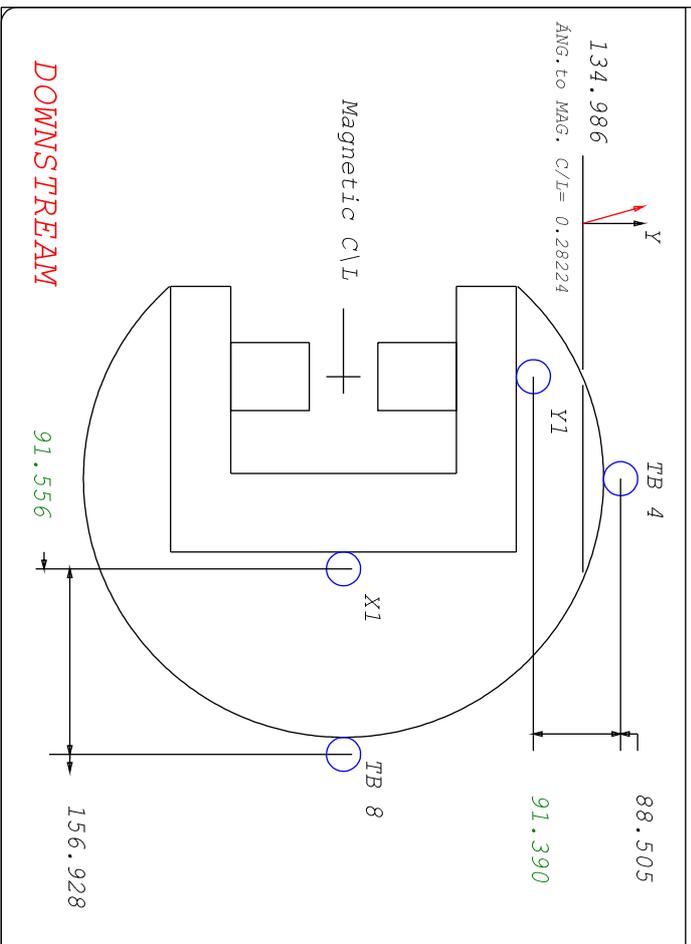
TOOLING BALL LOCATIONS

| NUM. | X | Y | Z |
|------|----------|----------|-----------|
| 1 | 0.2612 | 179.7531 | -1558.025 |
| 2 | 0.2345 | 179.8284 | -584.4172 |
| 3 | 0.2439 | 179.8111 | 591.5169 |
| 4 | 0.3435 | 179.8954 | 1562.4027 |
| 5 | 248.4988 | -0.0138 | -1558.079 |
| 6 | 248.4233 | 0.0390 | -584.4816 |
| 7 | 248.3958 | -0.0462 | 591.5815 |
| 8 | 248.4844 | -0.0410 | 1562.4535 |

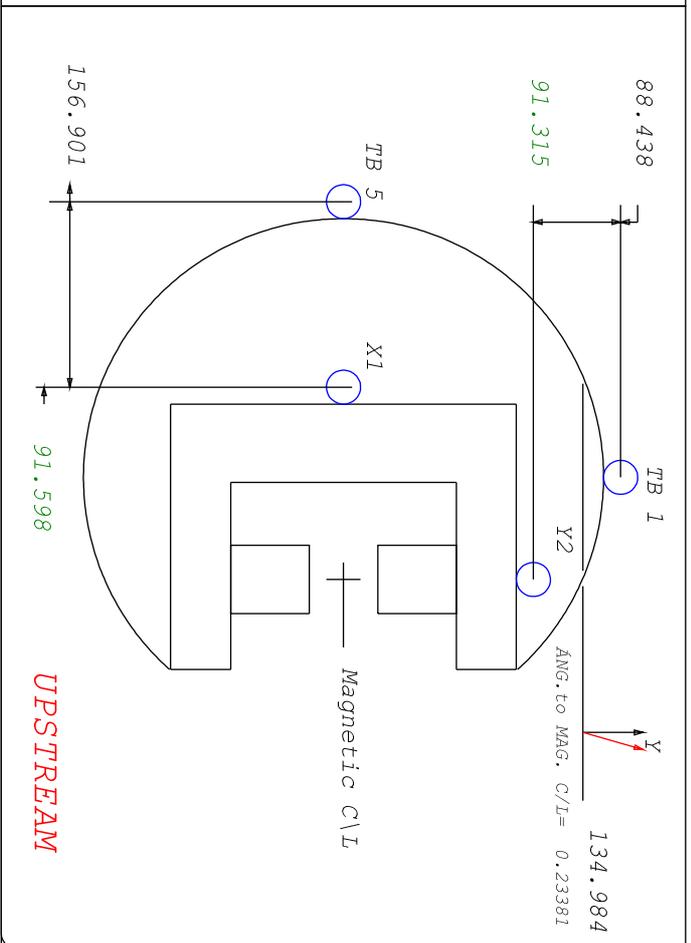
| | C/L Offset | Length |
|---------------------------|------------|----------|
| Top Magnetic Structure | -0.054 | 3381.122 |
| Bottom Magnetic Structure | 0.054 | 3381.006 |
| Strongback | 0.411 | 3399.891 |

Dimensions in mm

Angles in mrad



DOWNSTREAM

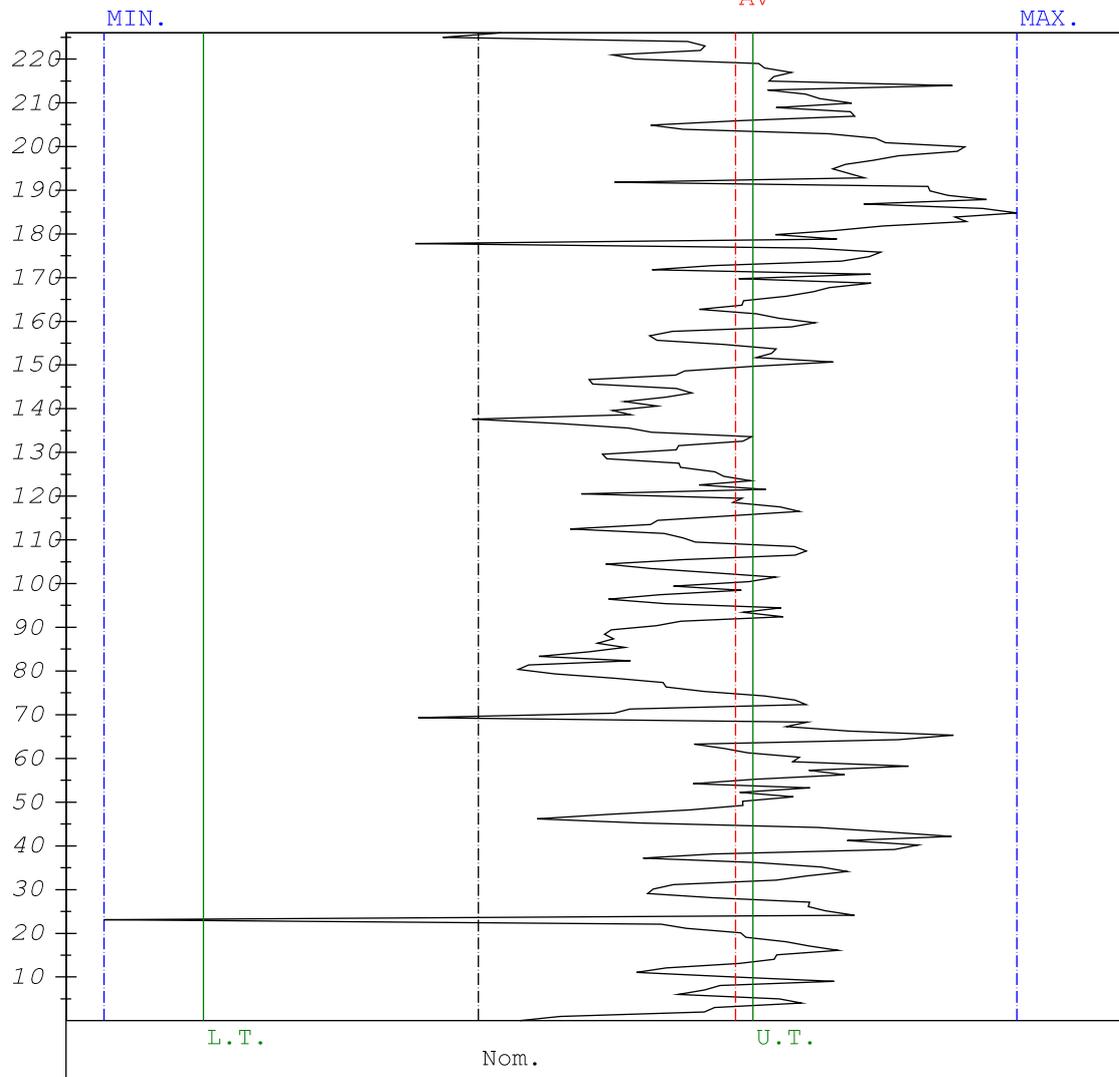
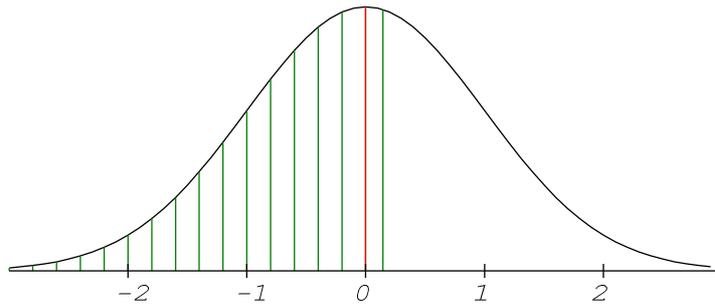


UPSTREAM

SLAC
LCLS-MMF
LEITZ CMM

Undulator Dimensional Fiducialization
Post Magnetic Alignment

DATE: 29-AUG-2008
UNDULATOR # 23
DATASET # 0001
PROGRAM VERSION 2.7



| | | |
|------------------|---------------------|----------------------|
| Nominal : 4.5000 | Averag : 4.9686 | Cent.-Dev. : 0.4686 |
| Up. Tol. : 0.5 | Maximum : 5.4802 | U.Tol.Ex. > : 44.2 % |
| Low.Tol. : -0.5 | Minimum : 3.8186 | L.Tol.Ex. < : 0.0 % |
| Spl.Size : 226 | Stand.-Dev.: 0.2164 | In Tolerance: 55.8 % |
| Outlier : 0 | Distribution : NOR | Dimension : mrad |

SLAC
LCLS-MMF
LEITZ CMM

Statistical Evaluation
Pole Tip Gap Angle
Post Magnetic Alignment

DATE: 29-AUG-2008

UNDULATOR # 23
DATASET # 0001
PROGRAM VERSION 2.7