

Pole Tip Number ----->

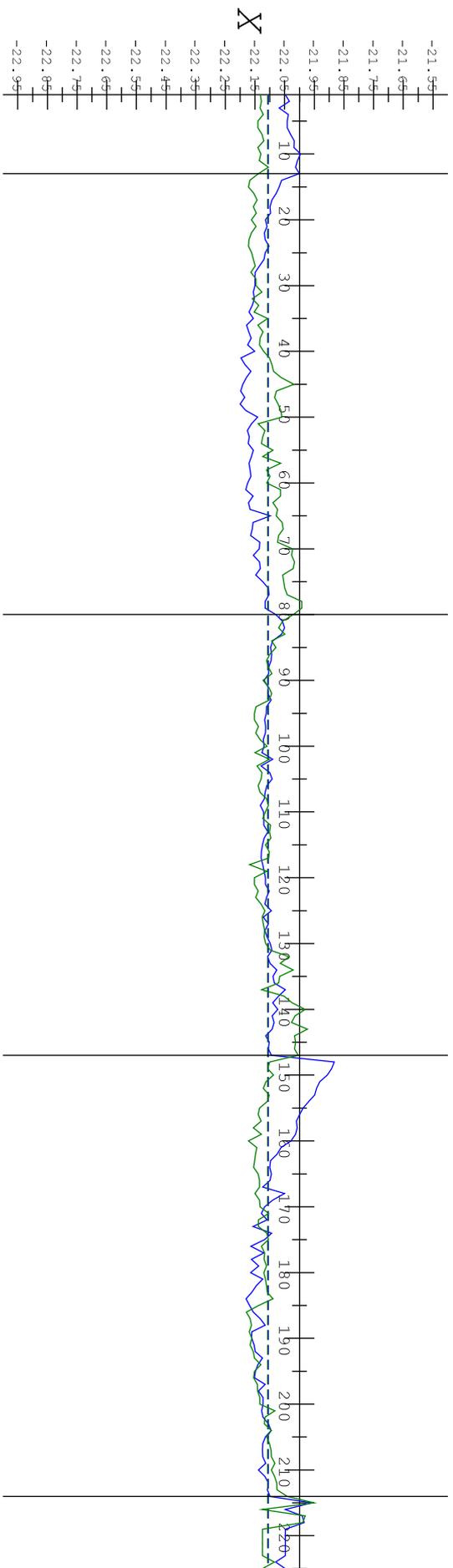
Symmetry Axis is the symmetry axis between the Upper and Lower Pole Tips  
 Included Angle is the angle between the Upper and Lower Pole Tips

**SLAC**  
 LCLS-MMF  
 LEITZ CMM

Undulator Pole Tip Angles  
 Post Magnetic Alignment

DATE: 09-NOV-2007  
 UNDUULATOR # 35  
 DATASET # 0001  
 PROGRAM VERSION 2.4

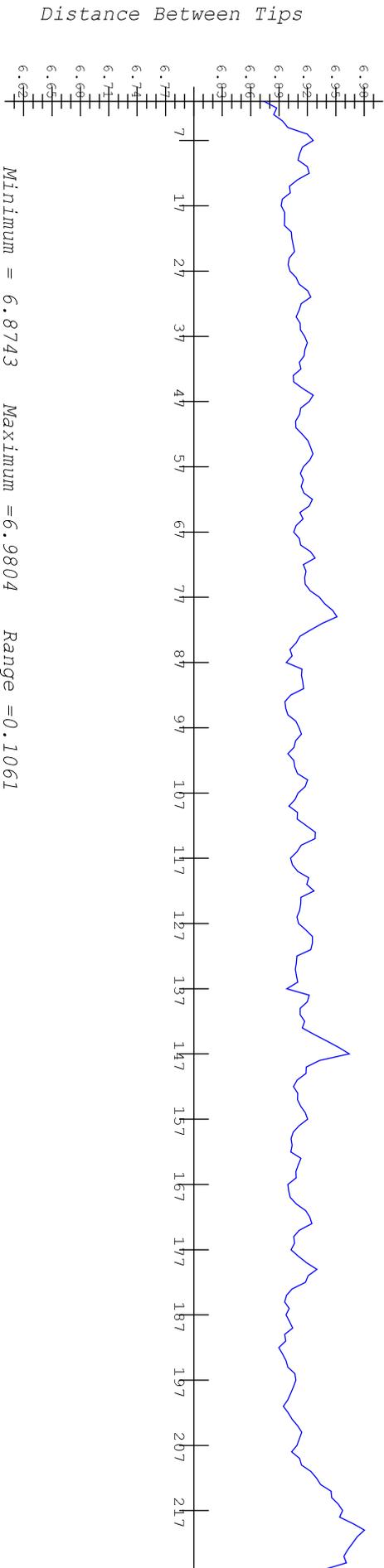
# Pole Tip Number ----->



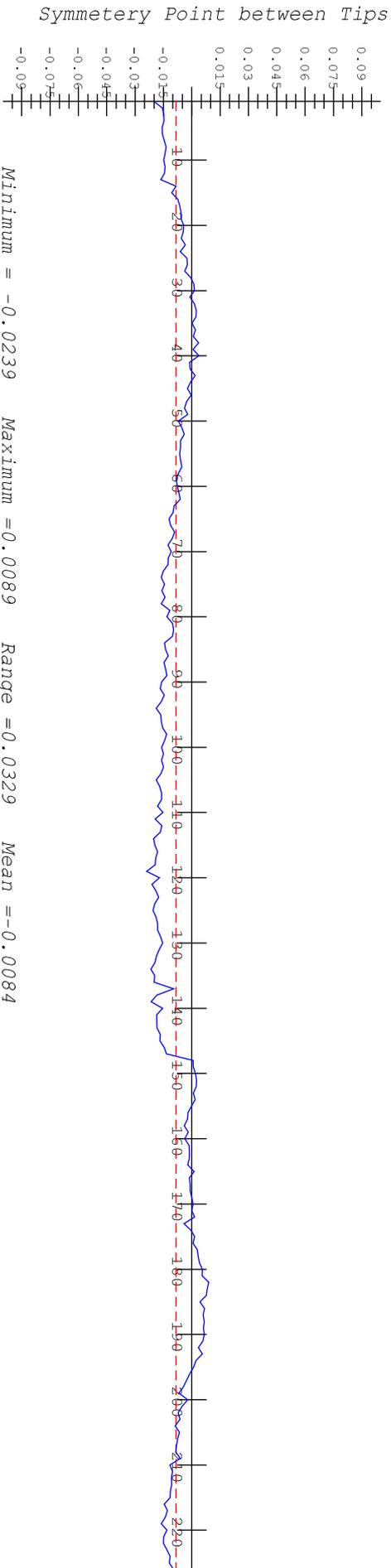
X values in mm

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 = -22.107  
 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 = -22.105

<p><b>SLAC</b>          LCLS-MMF          LEITZ CMM</p>	<p>Undulator Pole Tip Location          Post Magnetic Alignment</p>	<p>DATE: 09-NOV-2007          UNDUULATOR # 35          DATASET # 0001          PROGRAM VERSION 2.4</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

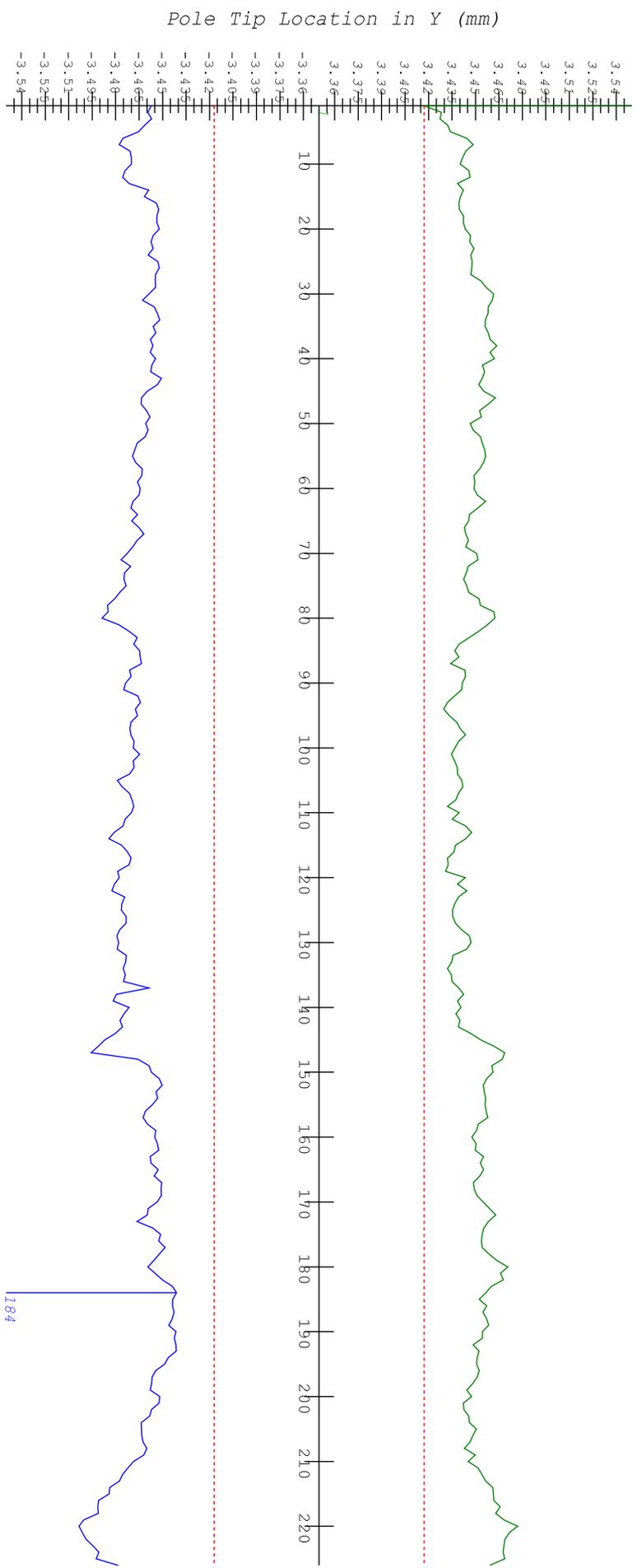
**SLAC**  
 LCLS-MMF  
 LEITZ CMM

Undulator Pole Tip Location  
 Post Magnetic Alignment

DATE: 09-NOV-2007  
 UNDUULATOR # 35  
 DATASET # 0001  
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Maximum Chamber Gap = 6.8343

Minimum = 3.4171    Maximum = 3.4770    Range = 0.0598



Minimum = -3.5034    Maximum = -3.4412    Range = 0.0622

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: 09-NOV-2007  
UNDULATOR # 35  
DATASET # 0001  
PROGRAM VERSION 2.4



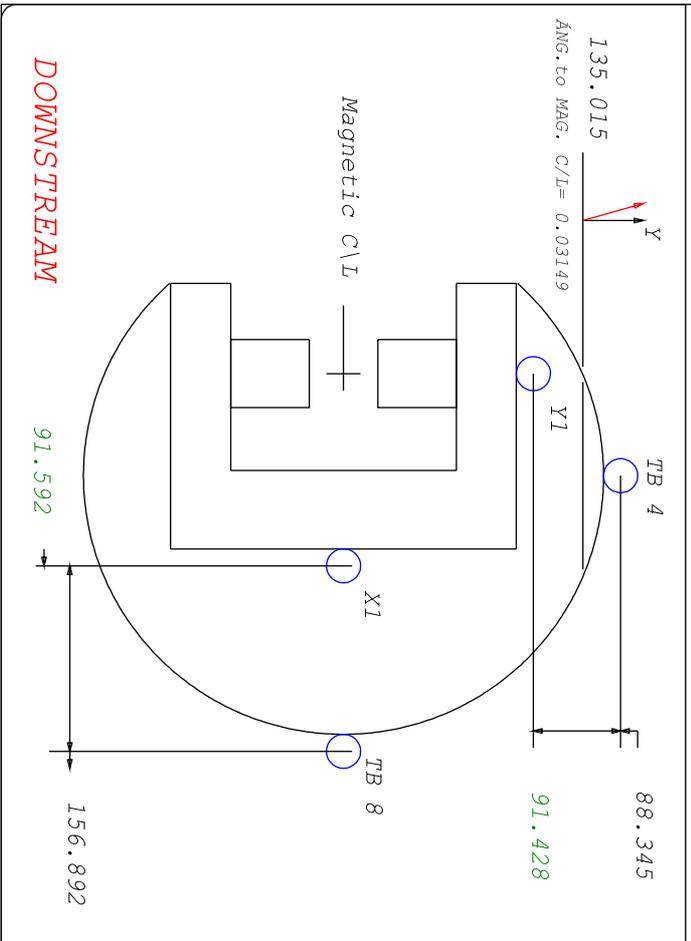
TOOLING BALL LOCATIONS

NUM.	X	Y	Z
1	0.1362	179.7462	-1558.328
2	0.2287	179.6873	-584.7741
3	0.3577	179.7014	591.3363
4	0.2805	179.7727	1562.1373
5	248.4175	0.1039	1558.321
6	248.5737	0.1090	-584.6934
7	248.6003	0.0781	591.3133
8	248.4838	-0.0258	1562.1605

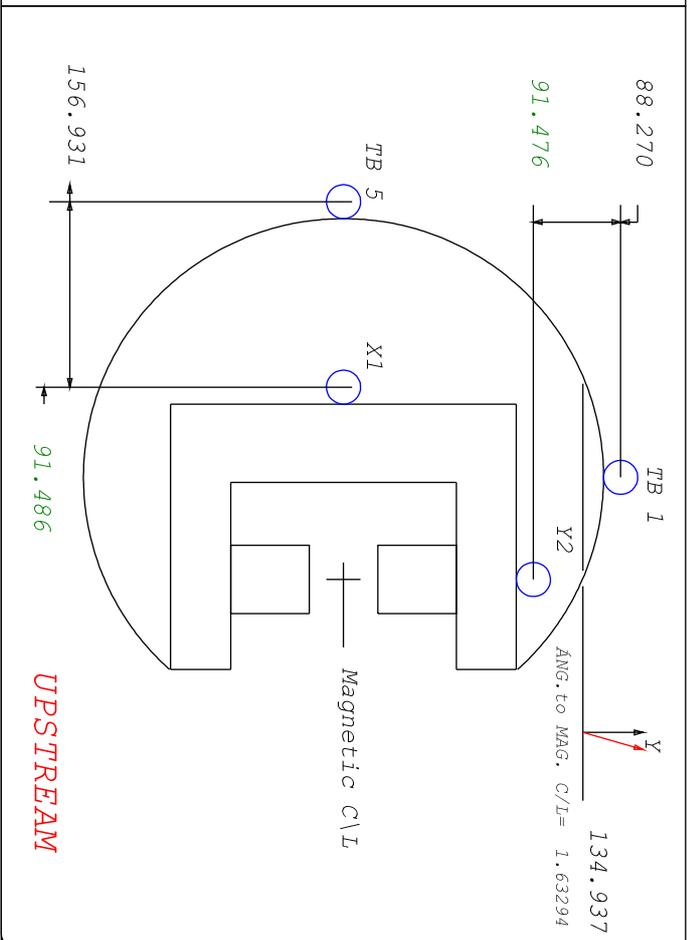
	C/L Offset	Length
Top Magnetic Structure	0.093	3381.315
Bottom Magnetic Structure	-0.093	3381.271
Strongback	0.281	3399.973

Dimensions in mm

Angles in mrad



DOWNSTREAM

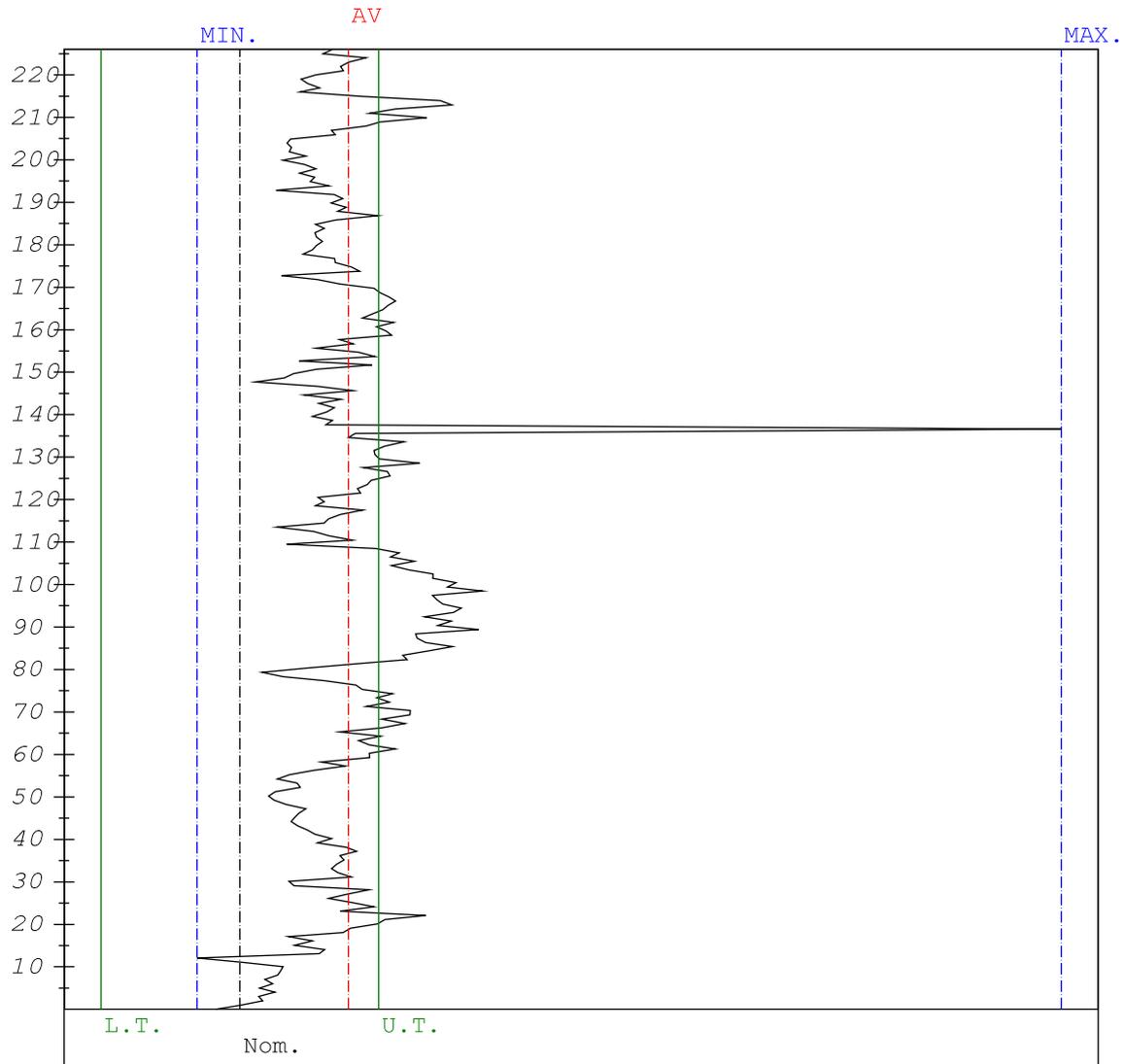
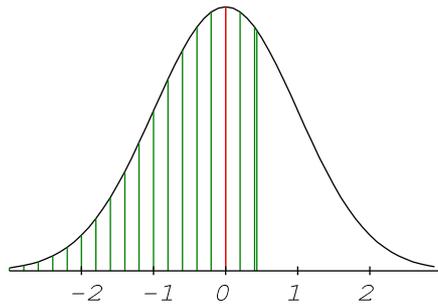


UPSTREAM

**SLAC**  
LCLS-MMF  
LEITZ CMM

Undulator Dimensional Fiducialization  
Post Magnetic Alignment

DATE: 09-NOV-2007  
UNDULATOR # 35  
DATASET # 0001  
PROGRAM VERSION 2.4



Nominal : 4.5000	Averag : 4.8915	Cent.-Dev. : 0.3915
Up. Tol. : 0.5	Maximum : 7.4587	U.Tol.Ex. > : 33.4 %
Low.Tol. : -0.5	Minimum : 4.3467	L.Tol.Ex. < : 0.0 %
Spl.Size : 226	Stand.-Dev.: 0.2522	In Tolerance: 66.6 %
Outlier : 0	Distribution : NOR	Dimension : mrad

<p><b>SLAC</b> LCLS-MMF LEITZ CMM</p>	<p>Statistical Evaluation Pole Tip Gap Angle Post Magnetic Alignment</p>	<p>DATE:09-NOV-2007 UNDULATOR # 35 DATASET # 0001 PROGRAM VERSION 2.4</p>
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