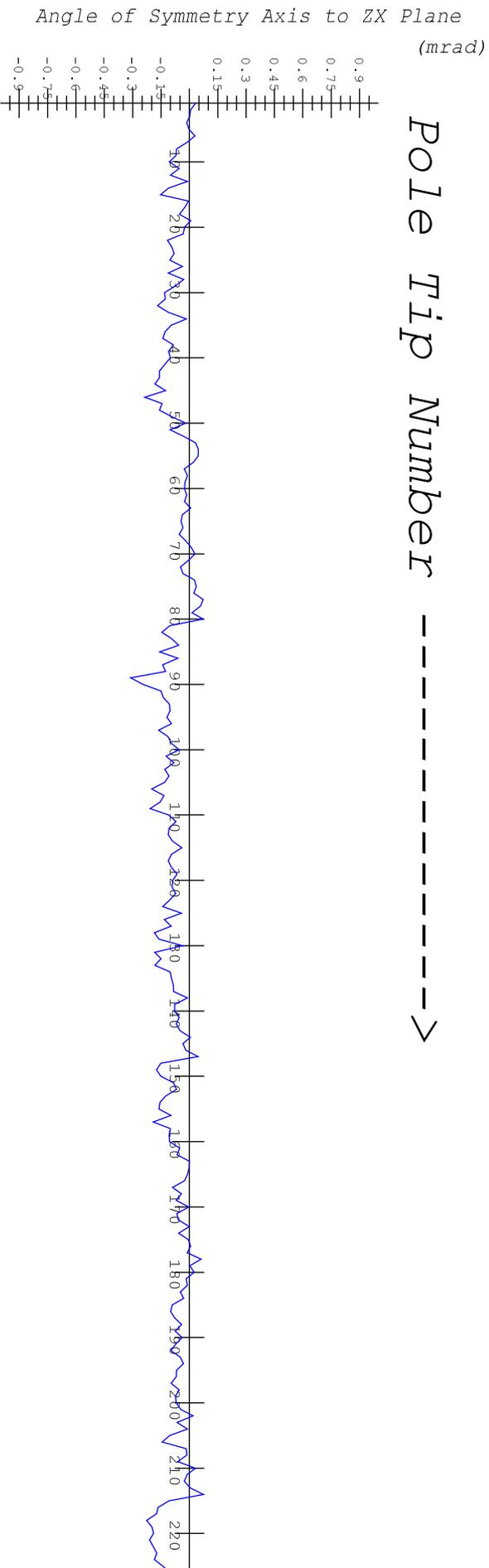


Pole Tip Number ----->



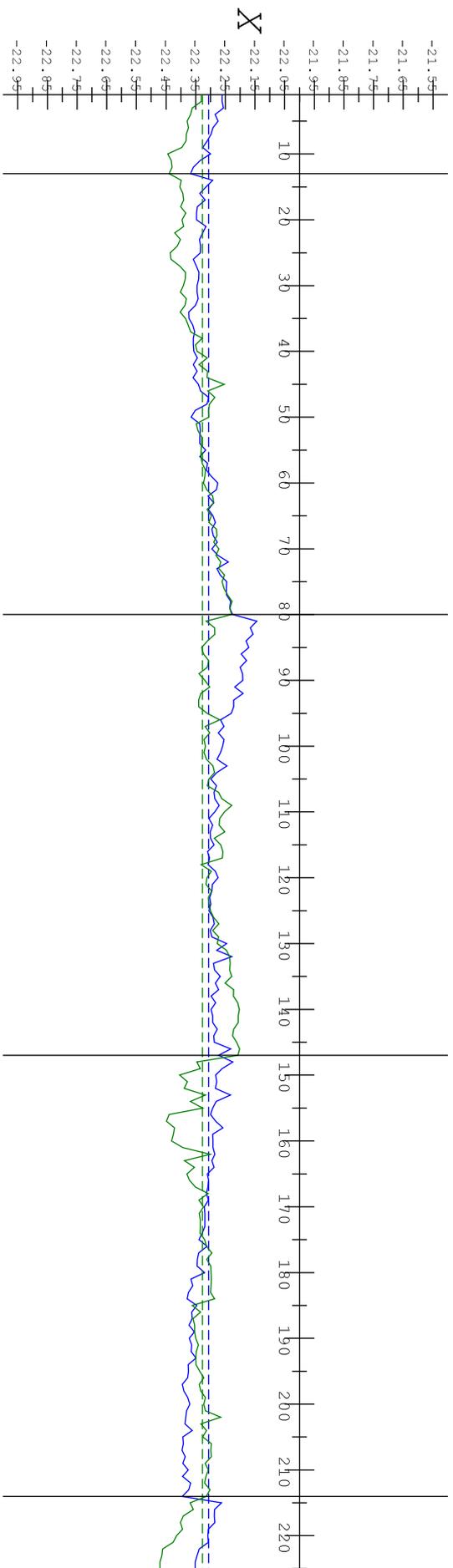
Symmetry Axis is the symmetry axis between the Upper and Lower Pole Tips  
 Included Angle is the angle between the Upper and Lower Pole Tips



Undulator Pole Tip Angles  
 Post Magnetic Alignment

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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 = -22.327

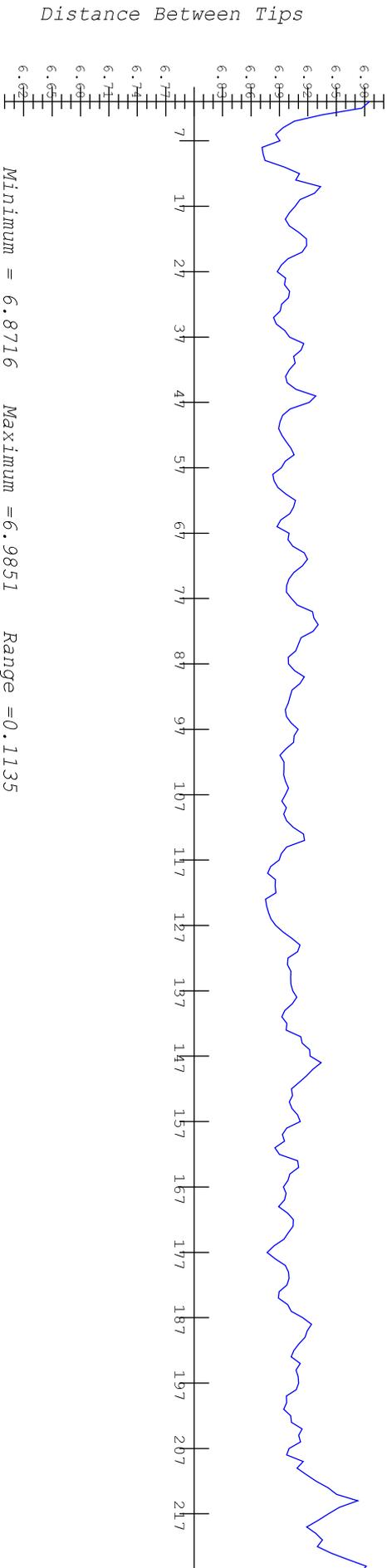
Blue Solid = Point on front face of Lower Pole Tip 10mm below Magnetic C/L

Blue Dash = Mean value of all Lower Pole Tips 10mm below Magnetic C/L Mean value Lower Pole Tips = -22.306

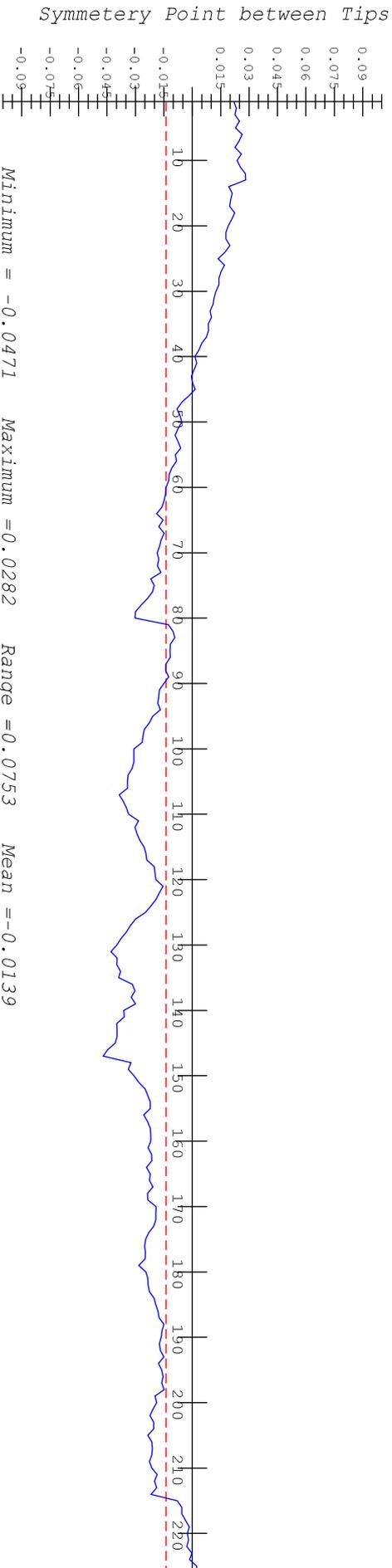


## Undulator Pole Tip Location Post Magnetic Alignment

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in mm  
 Pole Tip Number ----->



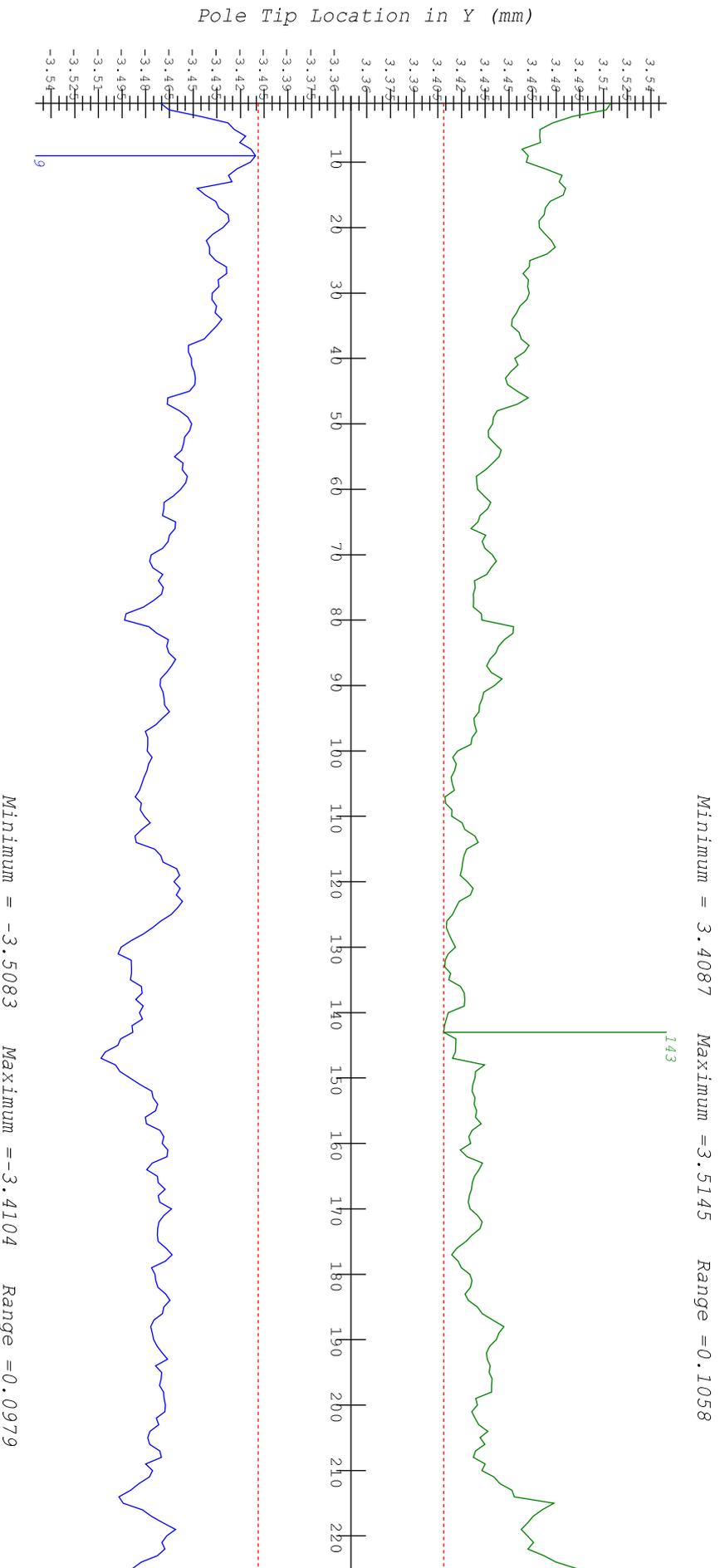
Symmetry Point is the symmetry point between the Upper and Lower Pole Tips were they intersect a YZ plane at the Magnetic C/L  
 Broken Red line is Mean Value of Symmetry Points  
 Distance Between Tips is the distance between the Upper and Lower Pole Tips were they intersect a YZ plane at the Magnetic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



Undulator Pole Tip Location  
 Post Magnetic Alignment

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Maximum Chamber Gap = 6.8175



### 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)



## Undulator Pole Tip Location Post Magnetic Alignment

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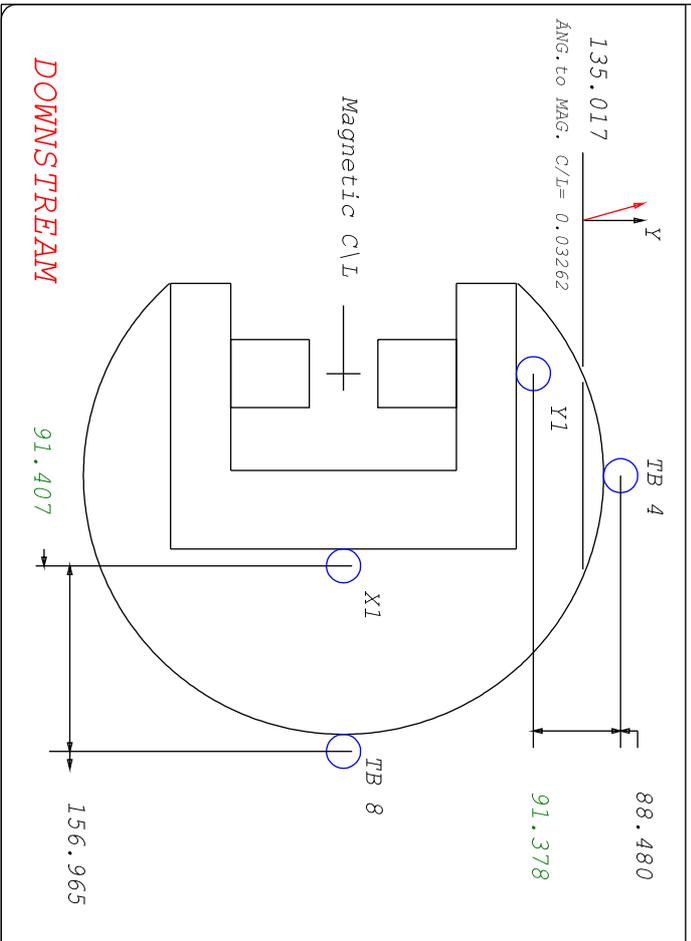
TOOLING BALL LOCATIONS

NUM.	X	Y	Z
1	-0.0166	179.8592	-1558.275
2	0.1657	179.7754	-584.7534
3	0.2170	179.7296	591.3297
4	0.2357	179.8579	1562.1883
5	248.2824	0.0469	-1558.361
6	248.3539	0.0608	-584.7493
7	248.4056	0.0151	591.3691
8	248.3720	0.0374	1562.1966

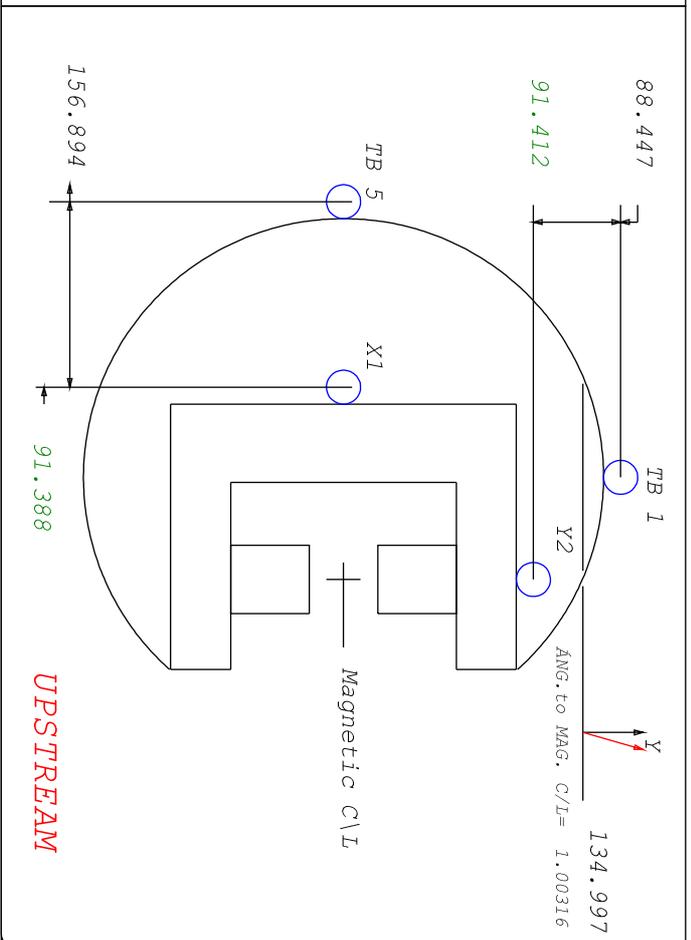
	C/L Offset	Length
Top Magnetic Structure	-0.023	3381.126
Bottom Magnetic Structure	0.023	3381.073
Strongback	0.298	3399.985

Dimensions in mm

Angles in mrad



DOWNSTREAM

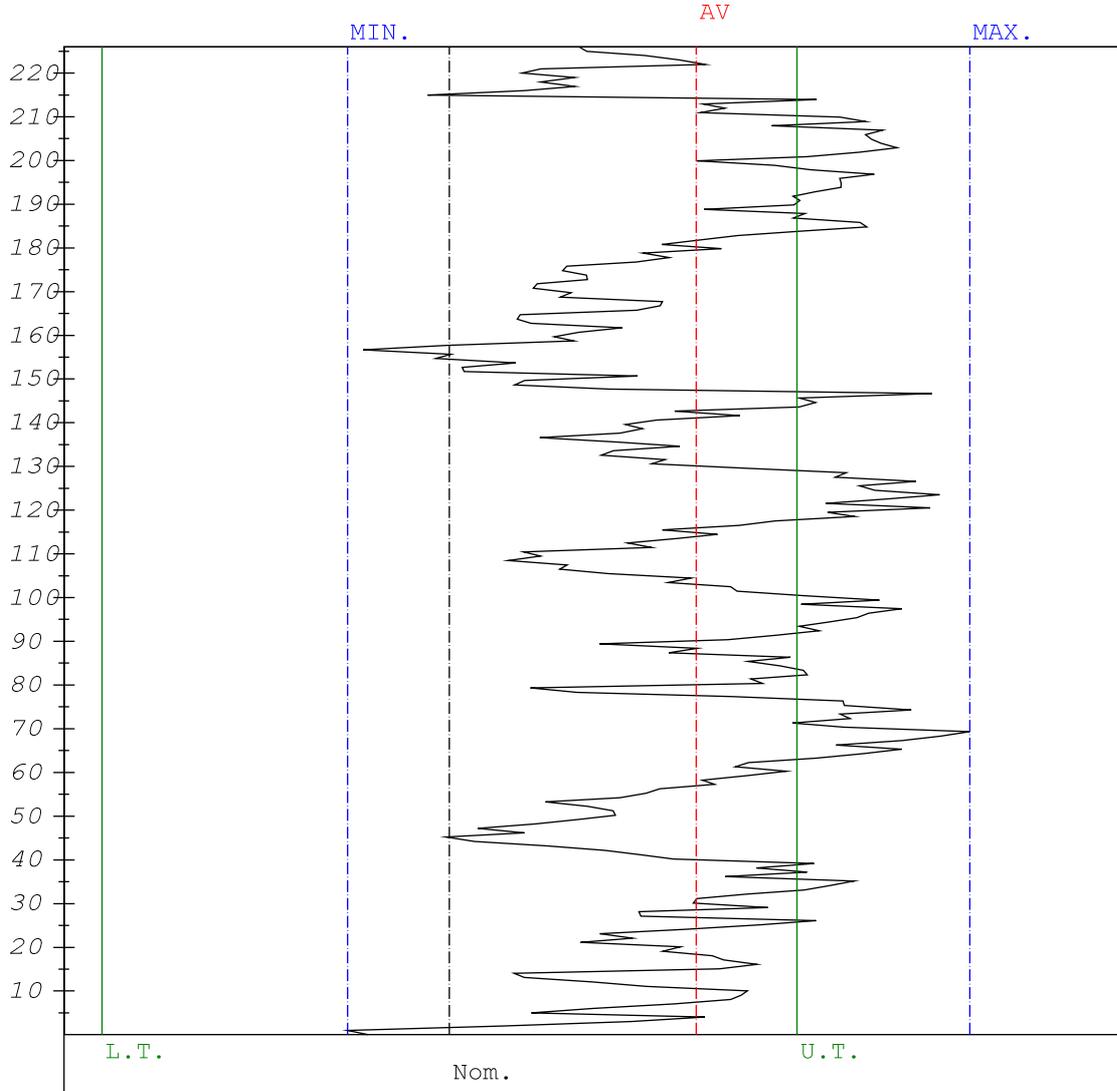
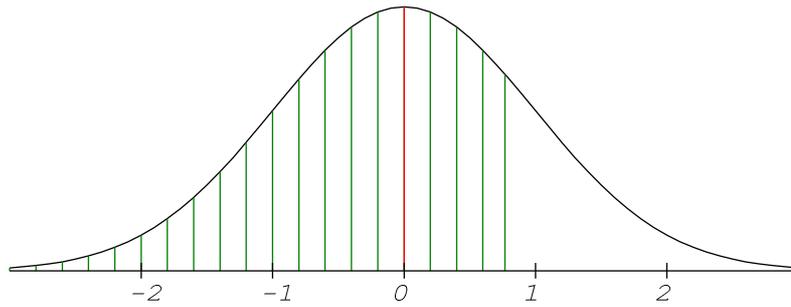


UPSTREAM



Undulator Dimensional Fiducialization  
Post Magnetic Alignment

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Nominal : 4.5000	Averag : 4.8549	Cent.-Dev. : 0.3549
Up. Tol. : 0.5	Maximum : 5.2491	U.Tol.Ex. > : 22.2 %
Low.Tol. : -0.5	Minimum : 4.3535	L.Tol.Ex. < : 0.0 %
Spl.Size : 226	Stand.-Dev.: 0.1892	In Tolerance: 77.8 %
Outlier : 0	Distribution : NOR	Dimension : mrad



Statistical Evaluation  
Pole Tip Gap Angle  
Post Magnetic Alignment

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