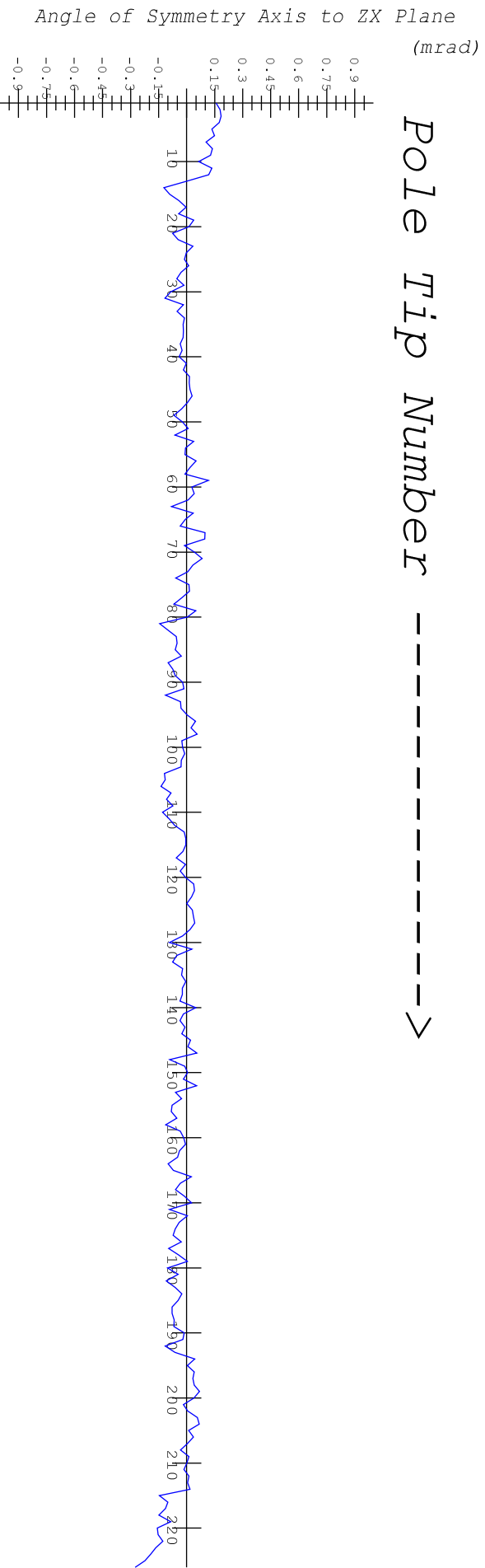


Pole Tip Number ----->



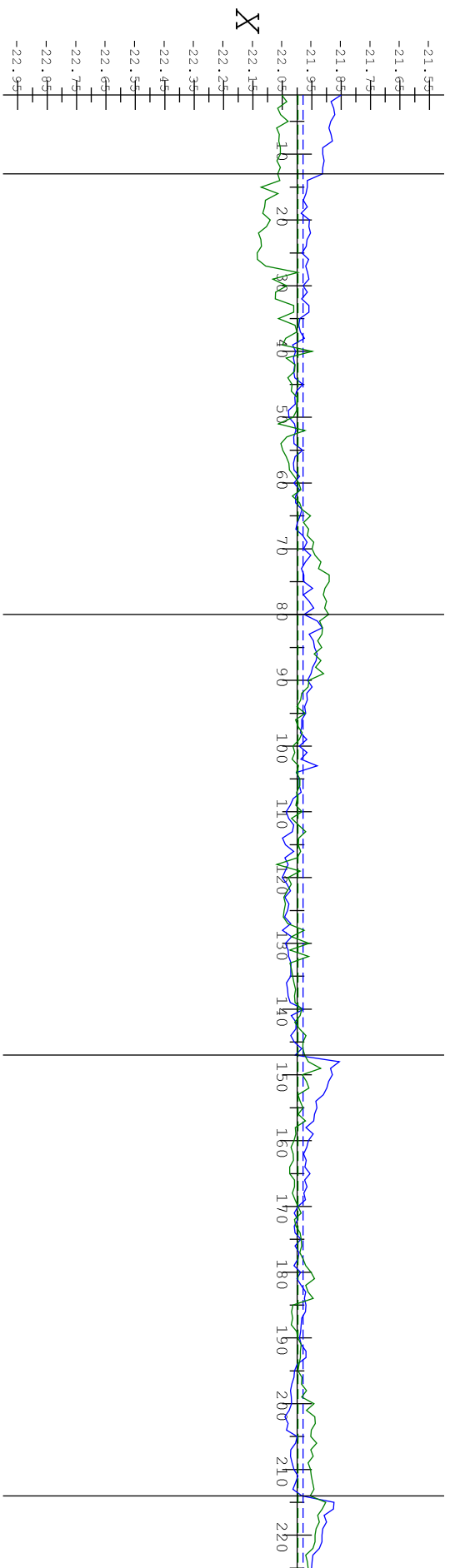
Symmetry Axis is the symmetry axis between the Upper and Lower Pole Tips
 Included Angle is the angle between the upper and lower Pole Tips

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Undulator Pole Tip Angles
 Post Magnetic Alignment

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Pole Tip Number ----->

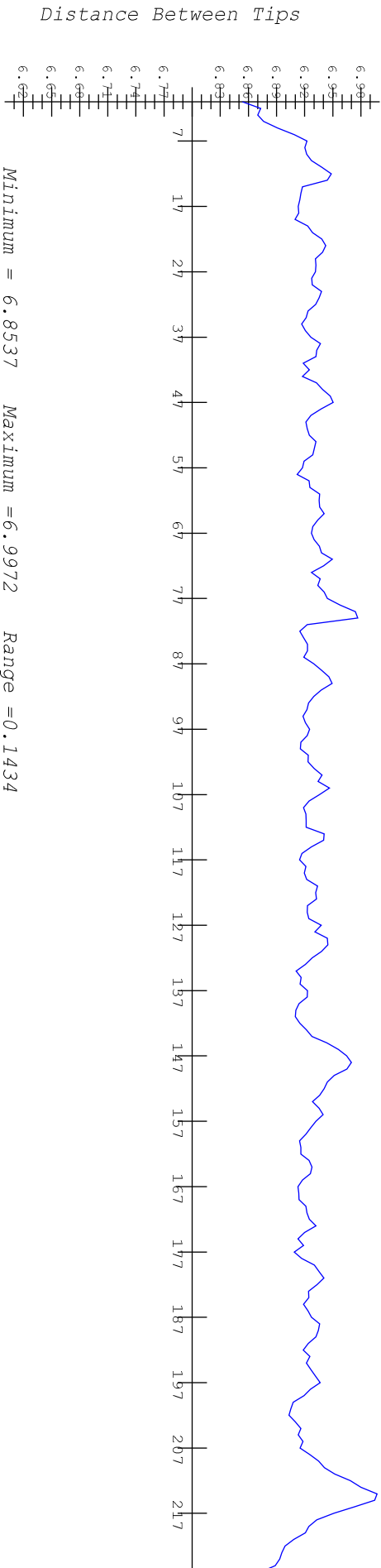


X values in mm
 Green Solid = Point on front face of Upper Pole Tip 10mm above Magnetic C/L
 Green Dash = Mean value of all Upper Pole Tips 10mm above Magnetic C/L Mean value Upper Pole Tips = -21.997
 Blue Solid = Point on front face of Lower Pole Tip 10mm below Magnetic C/L
 Blue Dash = Mean value of all Lower Pole Tips 10mm below Magnetic C/L Mean value Lower Pole Tips = -21.980

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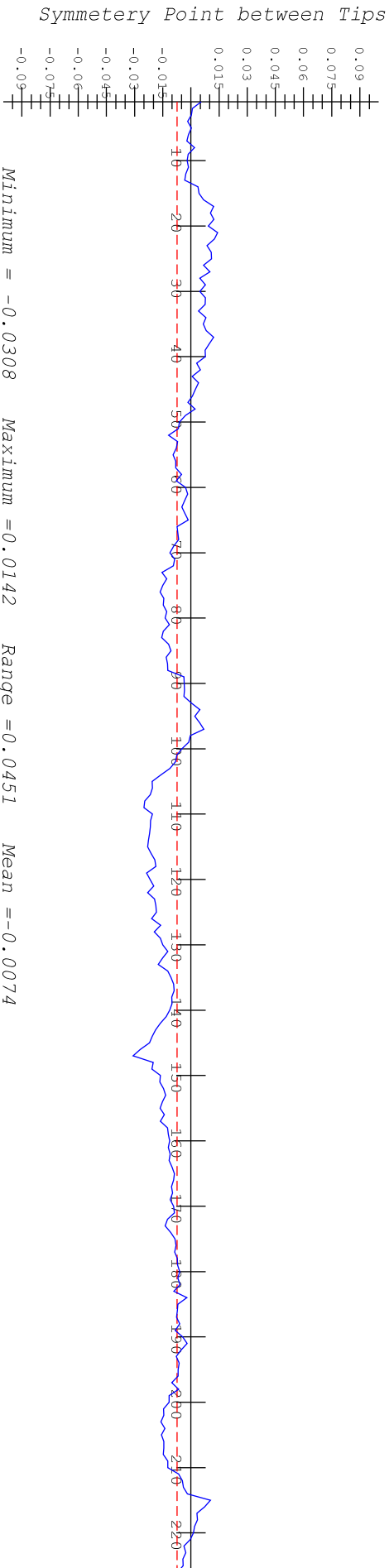
Undulator Pole Tip Location
 Post Magnetic Alignment

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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

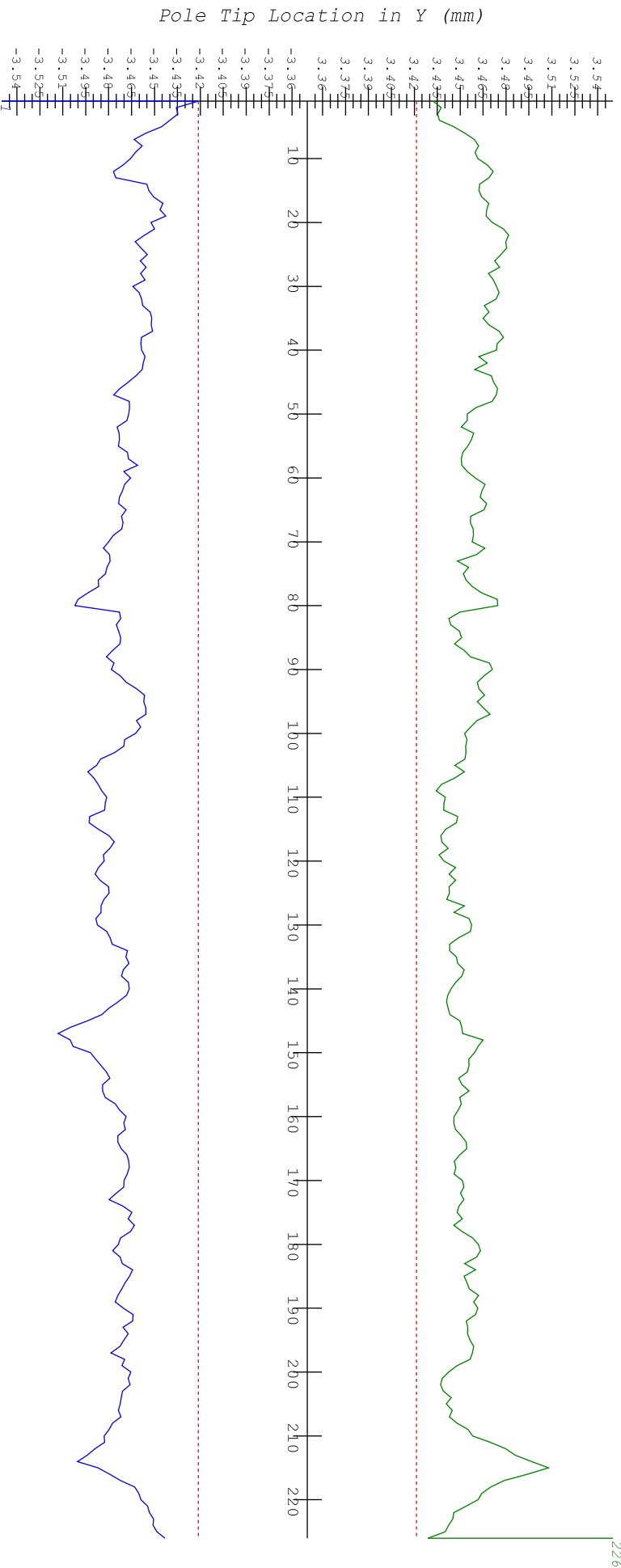
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Undulator Pole Tip Location
 Post Magnetic Alignment

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Maximum Chamber Gap = 6.8428

Minimum = 3.4290 Maximum = 3.5077 Range = 0.0788



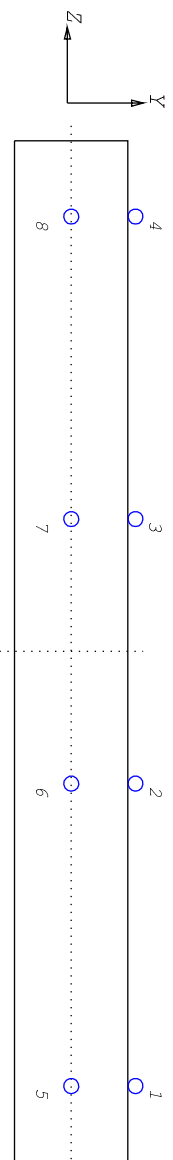
Pole Tip Number ----->

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)

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Undulator Pole Tip Location
Post Magnetic Alignment

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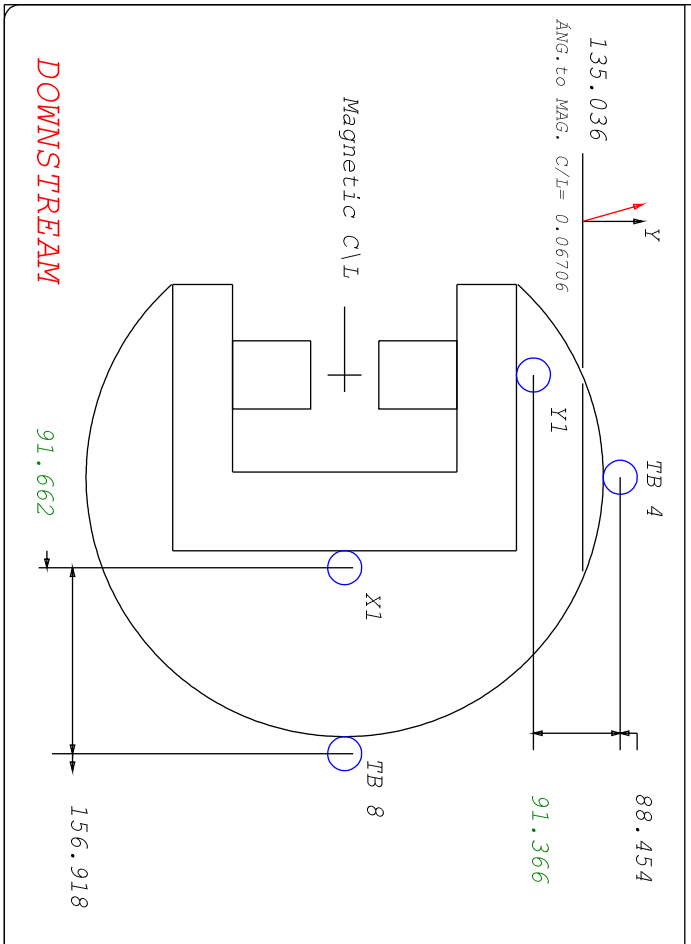
TOOLING BALL LOCATIONS

NUM.	X	Y	Z
1	0.1871	179.7269	-1558.549
2	0.3504	179.8004	-584.8666
3	0.4064	179.7729	591.1053
4	0.4182	179.8198	1561.9985
5	248.5823	0.1722	1558.485
6	248.6010	0.0717	-584.8701
7	248.6561	0.0844	591.1998
8	248.5802	0.1098	1561.9815

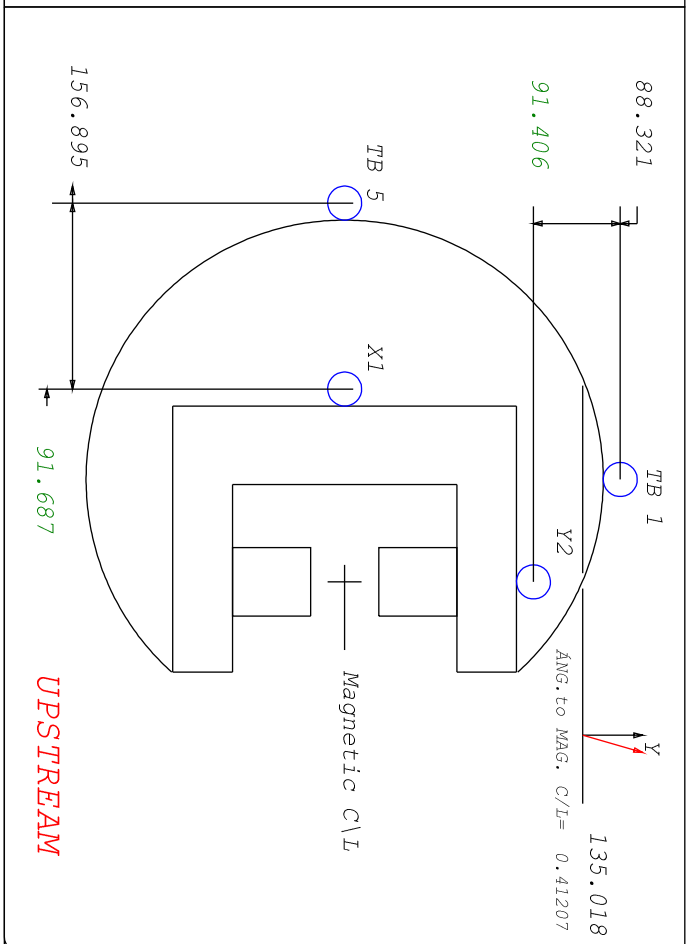
	C/L Offset	Length
Top Magnetic Structure	-0.001	3381.233
Bottom Magnetic Structure	0.001	3381.358
Strongback	0.147	3400.001

Dimensions in mm

Angles in mrad



DOWNSTREAM

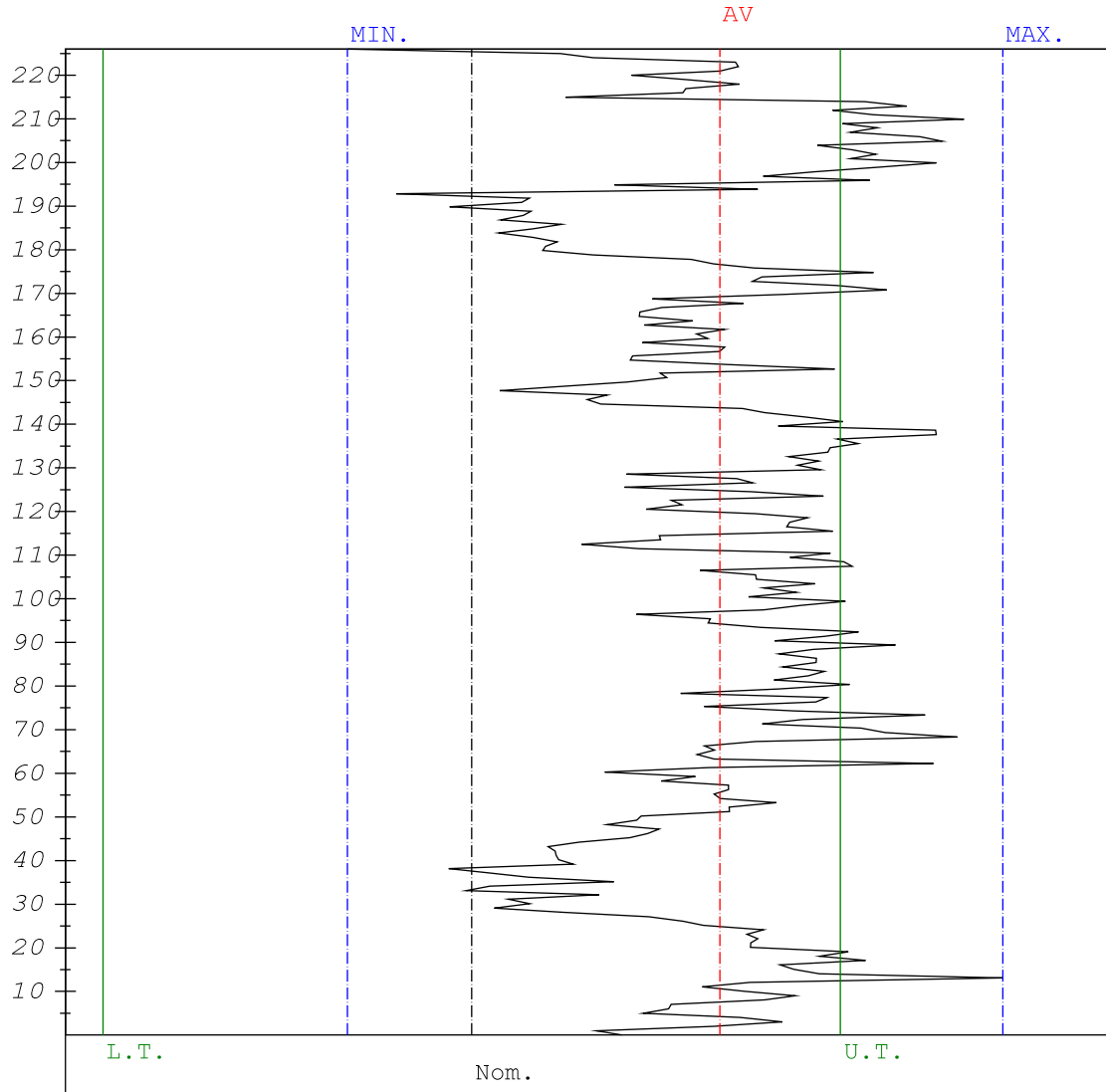
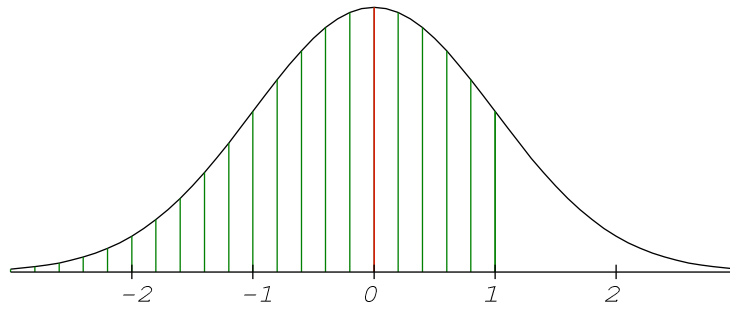


UPSTREAM

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Undulator Dimensional Fiducialization
Post Magnetic Alignment

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Nominal : 4.5000	Averag : 4.8363	Cent.-Dev. : 0.3363
Up. Tol. : 0.5	Maximum : 5.2202	U.Tol.Ex. > : 15.8 %
Low.Tol. : -0.5	Minimum : 4.3314	L.Tol.Ex. < : 0.0 %
Spl.Size : 226	Stand.-Dev.: 0.1635	In Tolerance: 84.2 %
Outlier : 0	Distribution : NOR	Dimension : mrad

<p>SLAC LCLS-MMF LEITZ CMM</p>	<p>Statistical Evaluation Pole Tip Gap Angle Post Magnetic Alignment</p>	<p>DATE: 20-JAN-2009 UNDULATOR # 39 DATASET # 0006 PROGRAM VERSION 2.7</p>
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