

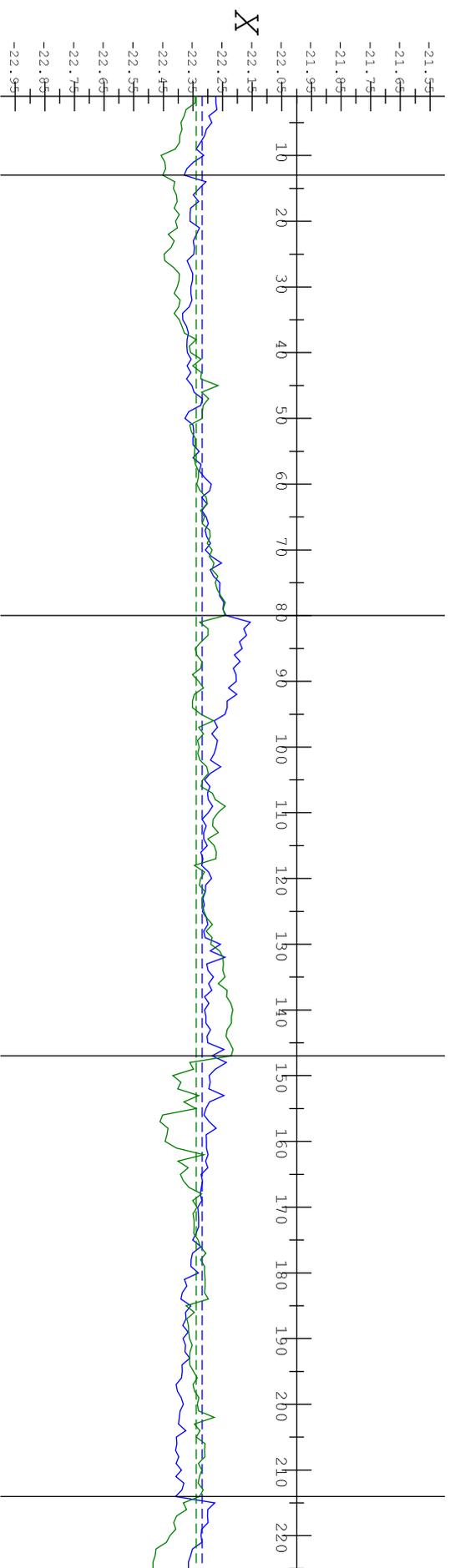
Symmetry Axis is the symmetry axis between the Upper and Lower Pole Tips
 Included Angle is the angle between the Upper and Lower Pole Tips

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Undulator Pole Tip Angles
 Post Magnetic Alignment

DATE: 16-JAN-2009
 UNDUULATOR # 31
 DATASET # 0004
 PROGRAM VERSION 2.7

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 = -22.339

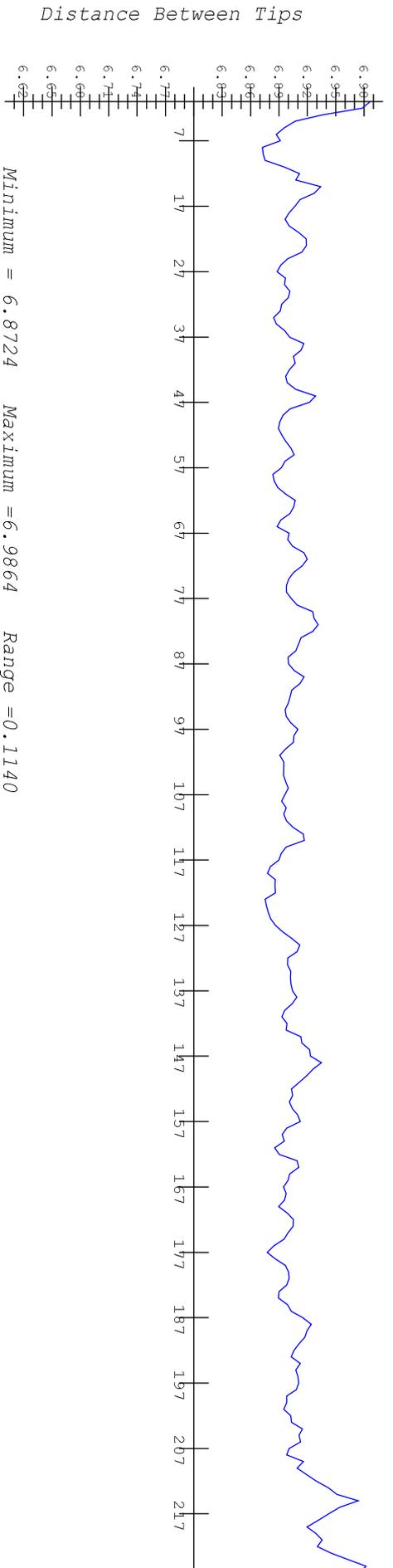
Blue Solid = Point on front face of Lower Pole Tip 10mm below Magnetic C/L

Blue Dash = Mean value of all Lower Pole Tips 10mm below Magnetic C/L Mean value Lower Pole Tips = -22.319

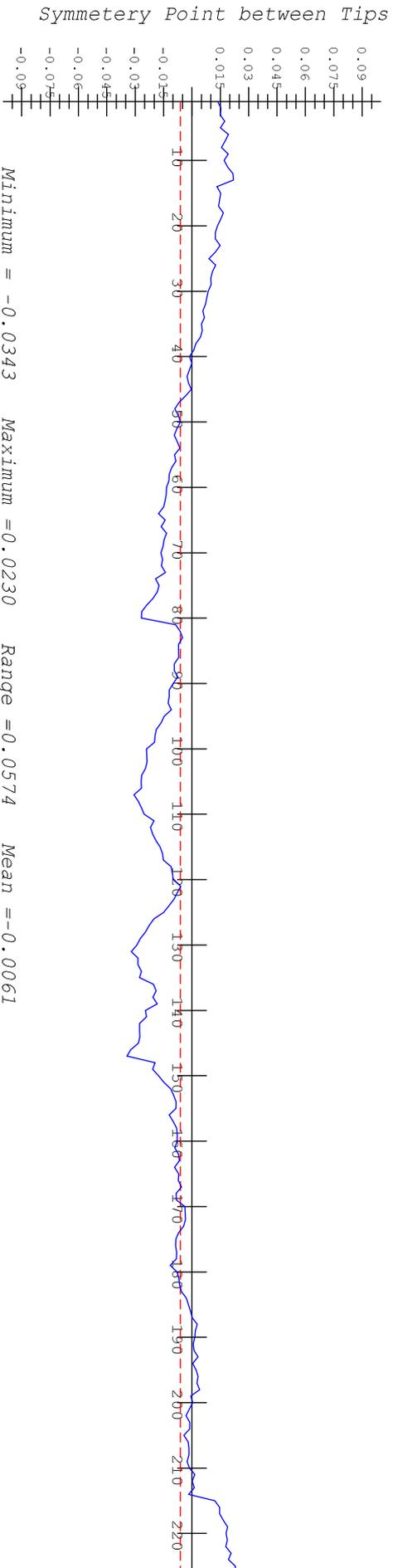
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Undulator Pole Tip Location
 Post Magnetic Alignment

DATE: 16-JAN-2009
 UNDULATOR # 31
 DATASET # 0004
 PROGRAM VERSION 2.7



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

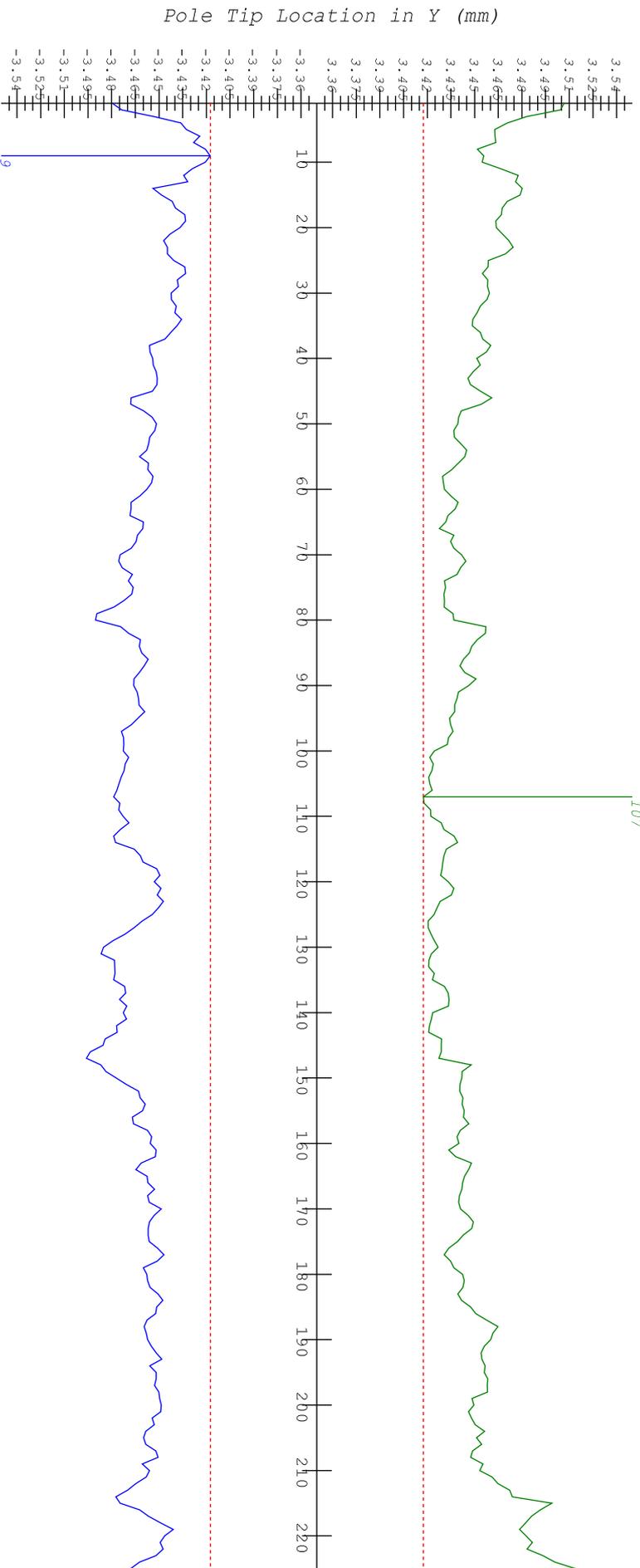
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Undulator Pole Tip Location
 Post Magnetic Alignment

DATE: 16-JAN-2009
 UNDUULATOR # 31
 DATASET # 0004
 PROGRAM VERSION 2.7

Maximum Chamber Gap = 6.8350

Minimum = 3.4175 Maximum = 3.5141 Range = 0.0966



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

DATE: 16-JAN-2009
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DATASET # 0004
PROGRAM VERSION 2.7



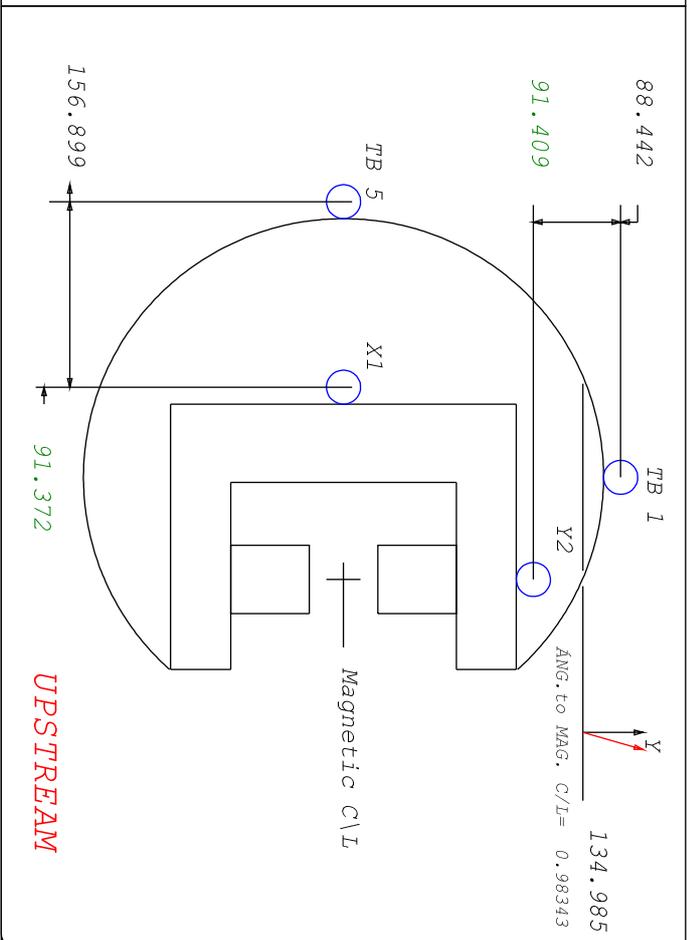
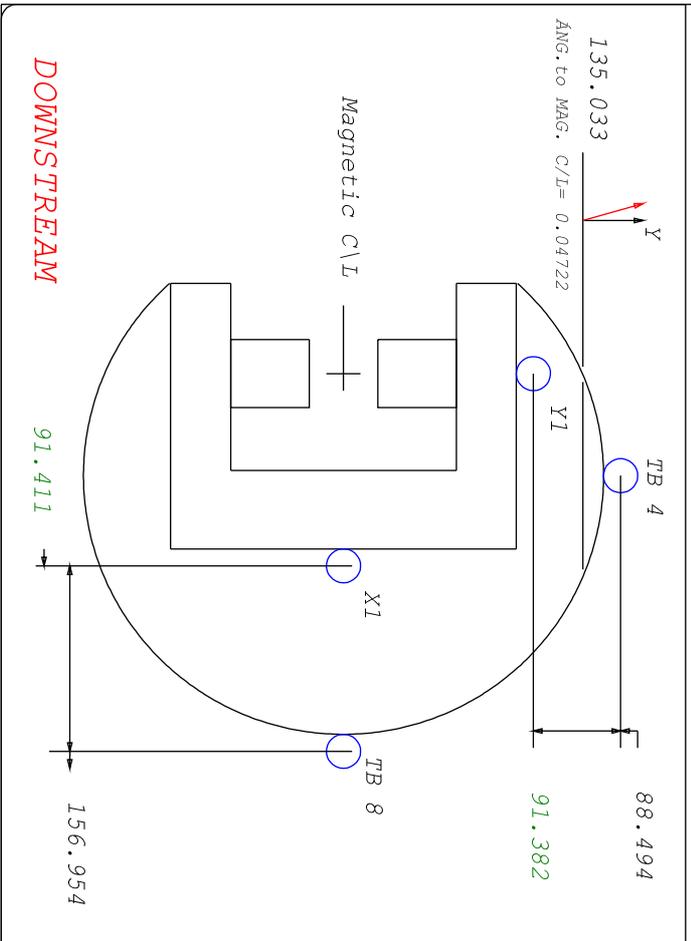
TOOLING BALL LOCATIONS

NUM.	X	Y	Z
1	-0.0190	179.8508	-1558.279
2	0.1571	179.7776	-584.7567
3	0.2088	179.7413	591.3284
4	0.2302	179.8756	1562.1892
5	248.2713	0.0324	-1558.363
6	248.3435	0.0556	-584.7495
7	248.3970	0.0190	591.3673
8	248.3647	0.0494	1562.1975

	C/L Offset	Length
Top Magnetic Structure	-0.023	3381.133
Bottom Magnetic Structure	0.023	3381.079
Strongback	0.296	3399.994

Dimensions in mm

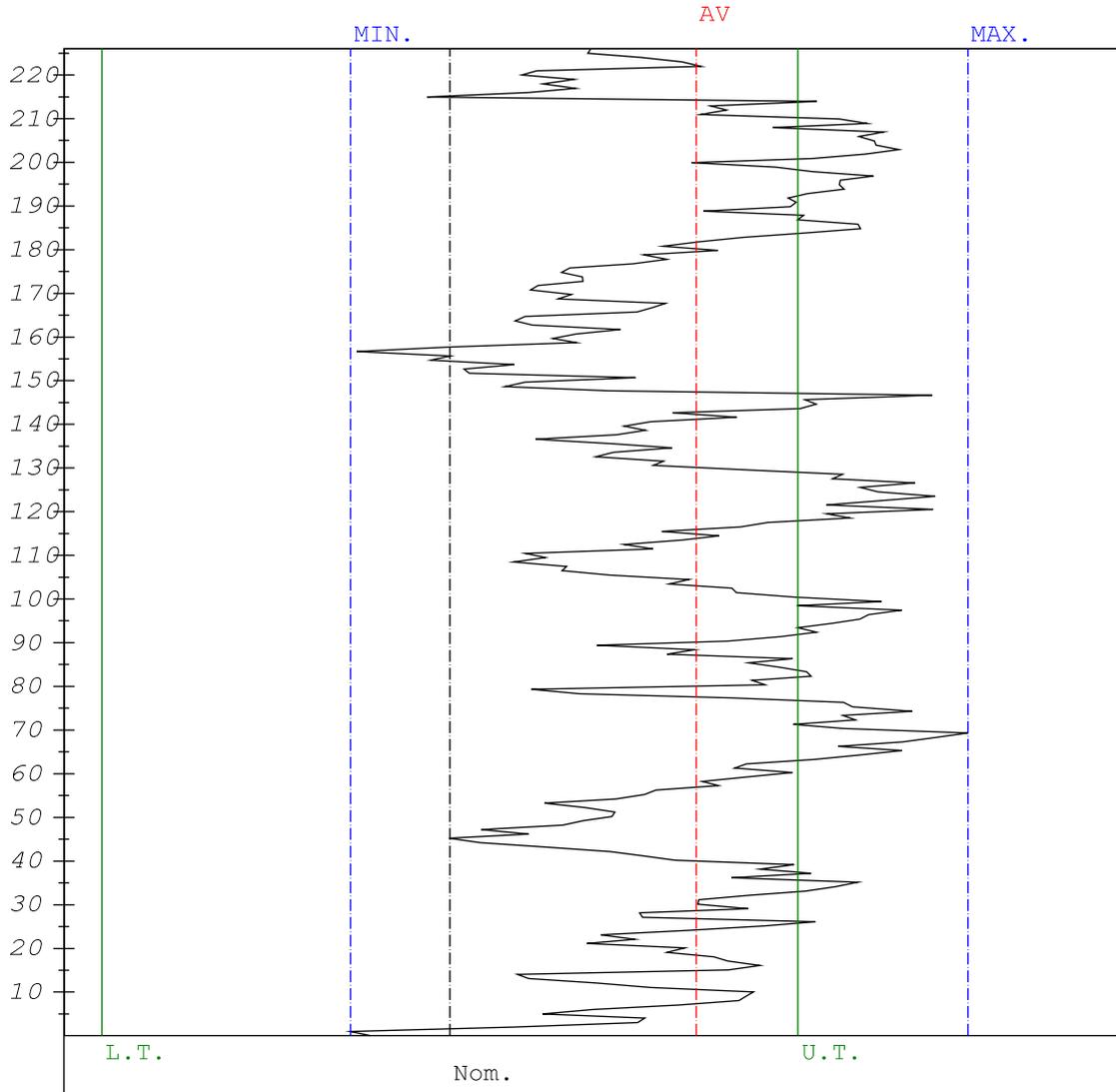
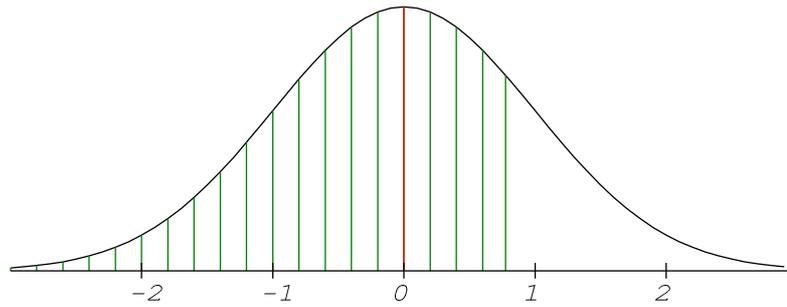
Angles in mrad



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Undulator Dimensional Fiducialization
Post Magnetic Alignment

DATE: 16-JAN-2009
UNDULATOR # 31
DATASET # 0004
PROGRAM VERSION 2.7



Nominal : 4.5000	Averag : 4.854	Cent.-Dev. : 0.354
Up. Tol. : 0.5	Maximum : 5.2445	U.Tol.Ex. > : 21.9 %
Low.Tol. : -0.5	Minimum : 4.3571	L.Tol.Ex. < : 0.0 %
Spl.Size : 226	Stand.-Dev.: 0.1883	In Tolerance: 78.1 %
Outlier : 0	Distribution : NOR	Dimension : mrad

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Statistical Evaluation
Pole Tip Gap Angle
Post Magnetic Alignment

DATE:16-JAN-2009

UNDULATOR # 31
DATASET # 0004

PROGRAM VERSION 2.7