

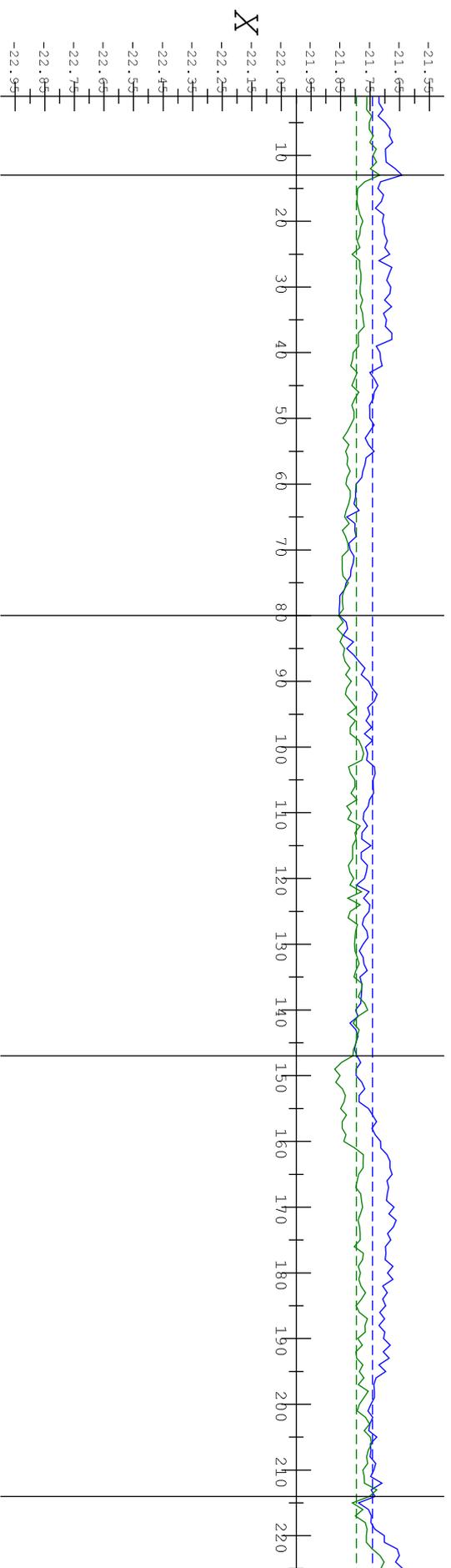
Symmetry Axis is the symmetry axis between the Upper and Lower Pole Tips  
 Included Angle is the angle between the Upper and Lower Pole Tips



Undulator Pole Tip Angles  
 Post Magnetic Alignment

DATE: 23-JUL-2009  
 UNDUULATOR # 27  
 DATASET # 0001  
 PROGRAM VERSION 2.9

# 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 = -21.796

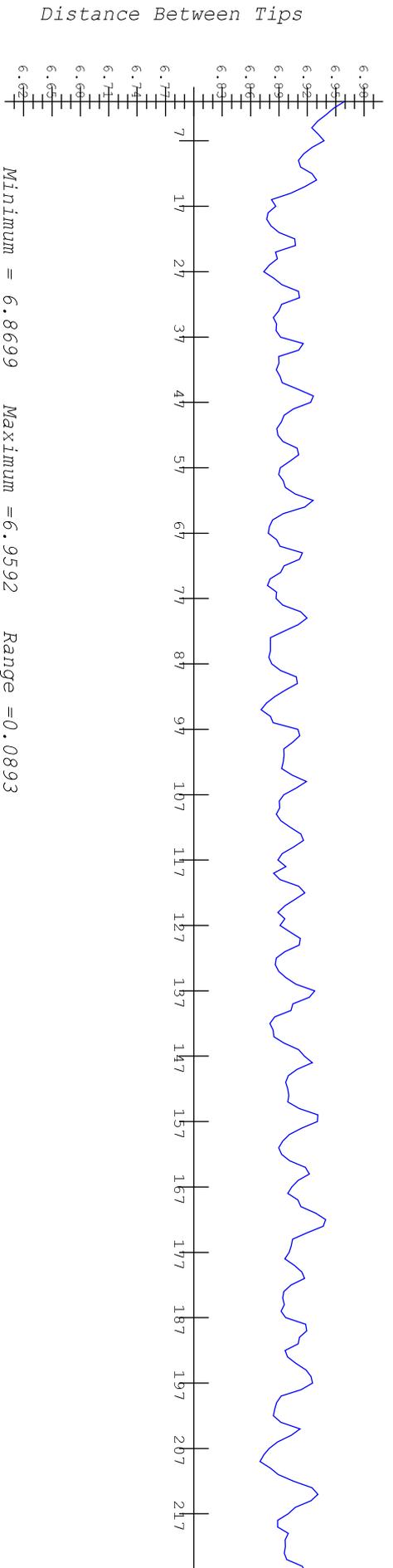
Blue Solid = Point on front face of Lower Pole Tip 10mm below Magnetic C/L

Blue Dash = Mean value of all Lower Pole Tips 10mm below Magnetic C/L Mean value Lower Pole Tips = -21.742



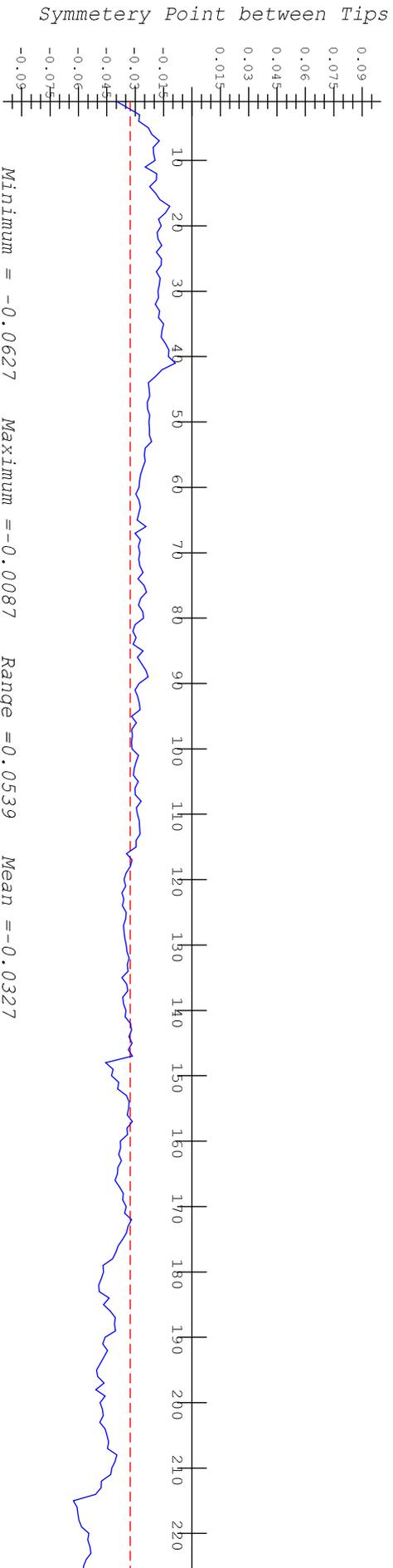
Undulator Pole Tip Location  
Post Magnetic Alignment

DATE: 23-JUL-2009  
UNDULATOR # 27  
DATASET # 0001  
PROGRAM VERSION 2.9



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

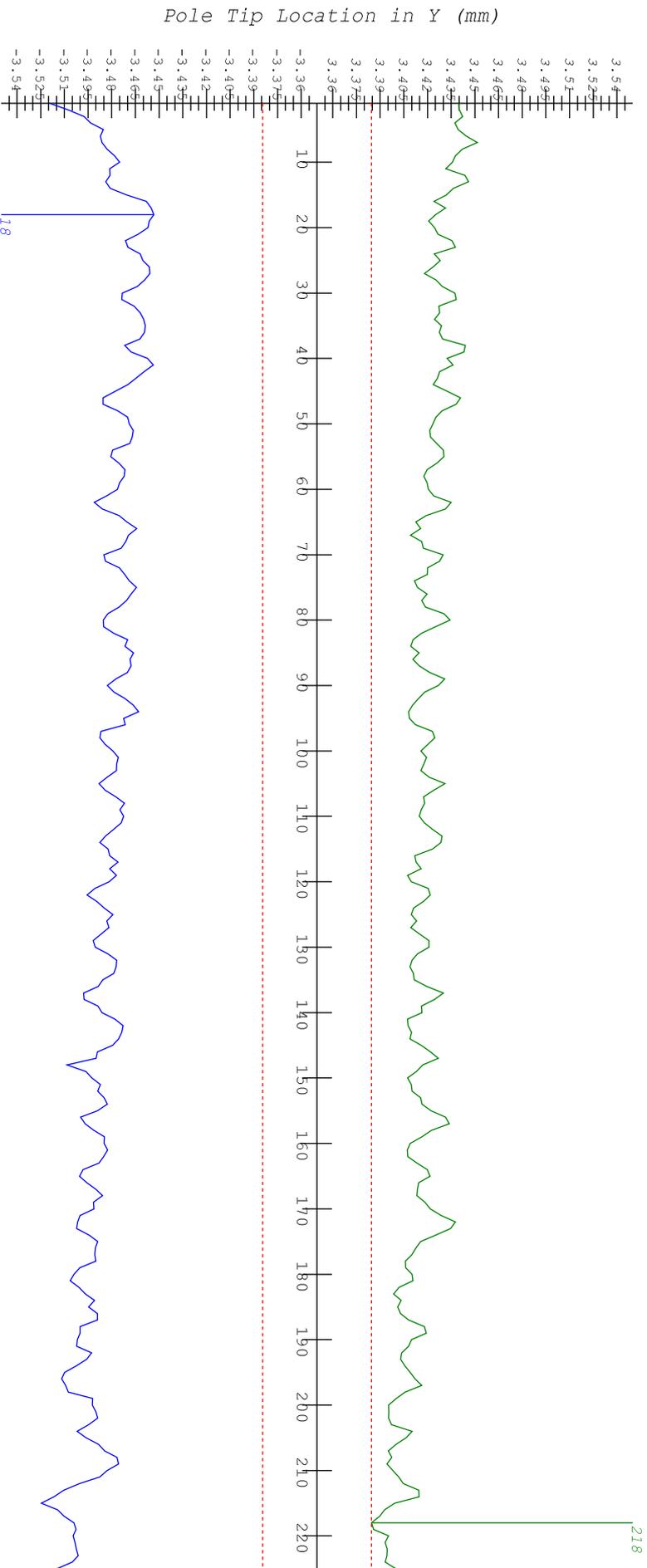


Undulator Pole Tip Location  
 Post Magnetic Alignment

DATE: 23-JUL-2009  
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Maximum Chamber Gap = 6.7690

Minimum = 3.3845    Maximum = 3.4516    Range = 0.0671



Minimum = -3.5246    Maximum = -3.4533    Range = 0.0713

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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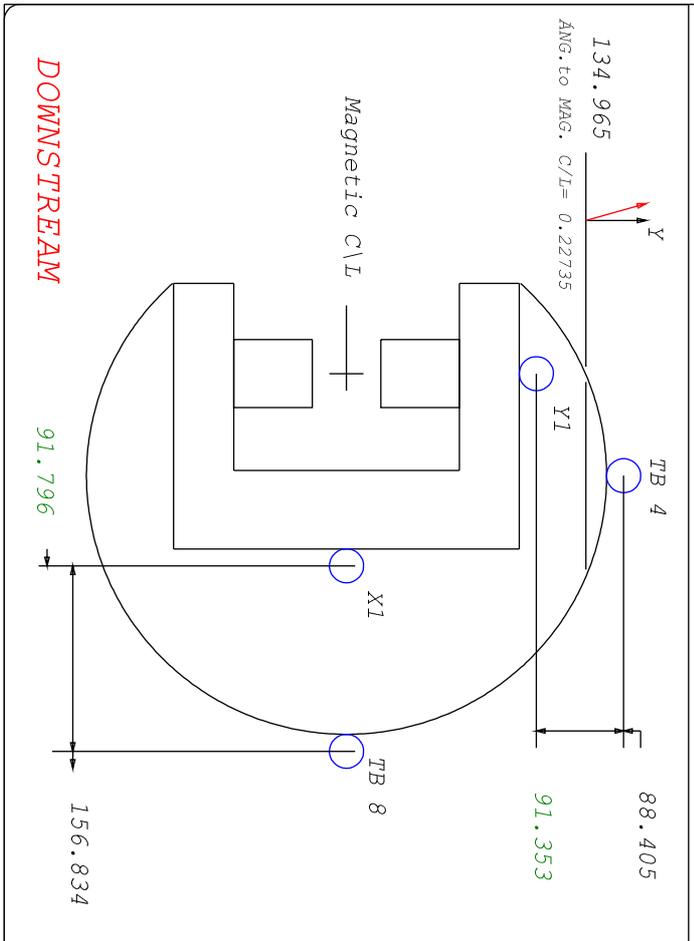
TOOLING BALL LOCATIONS

NUM.	X	Y	Z
1	0.4116	179.7735	-1558.405
2	0.2225	179.7413	-584.6746
3	0.2682	179.6963	591.3163
4	0.2225	179.7578	1562.1620
5	248.7356	-0.0425	1558.122
6	248.5728	0.0915	-584.5979
7	248.5260	0.0532	591.3839
8	248.6297	-0.0479	1562.2425

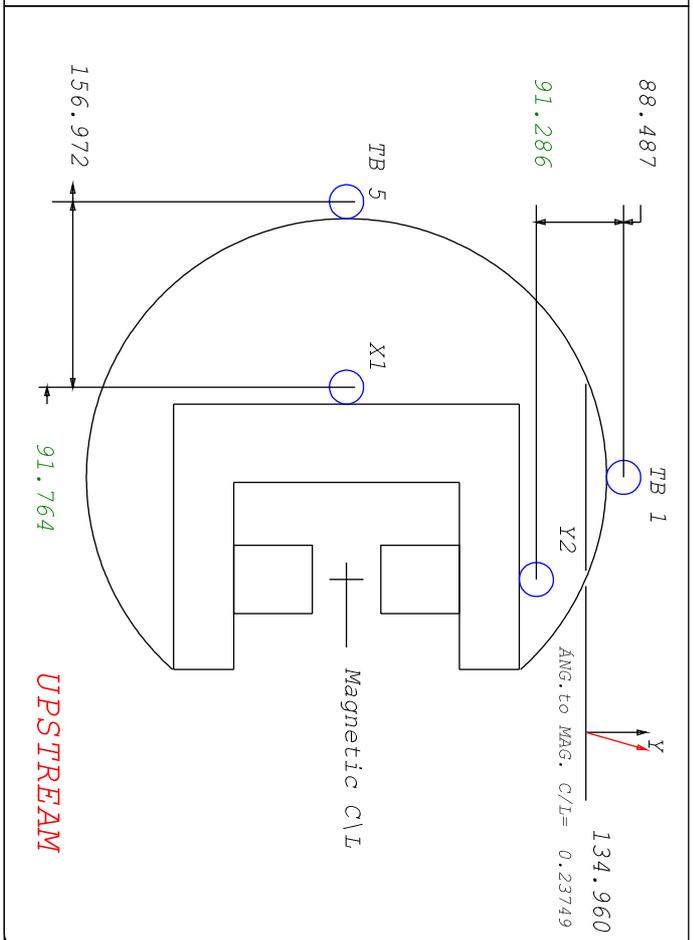
	C/L Offset	Length
Top Magnetic Structure	-0.010	3380.989
Bottom Magnetic Structure	0.010	3381.046
Strongback	0.396	3399.820

Dimensions in mm

Angles in mrad



DOWNSTREAM

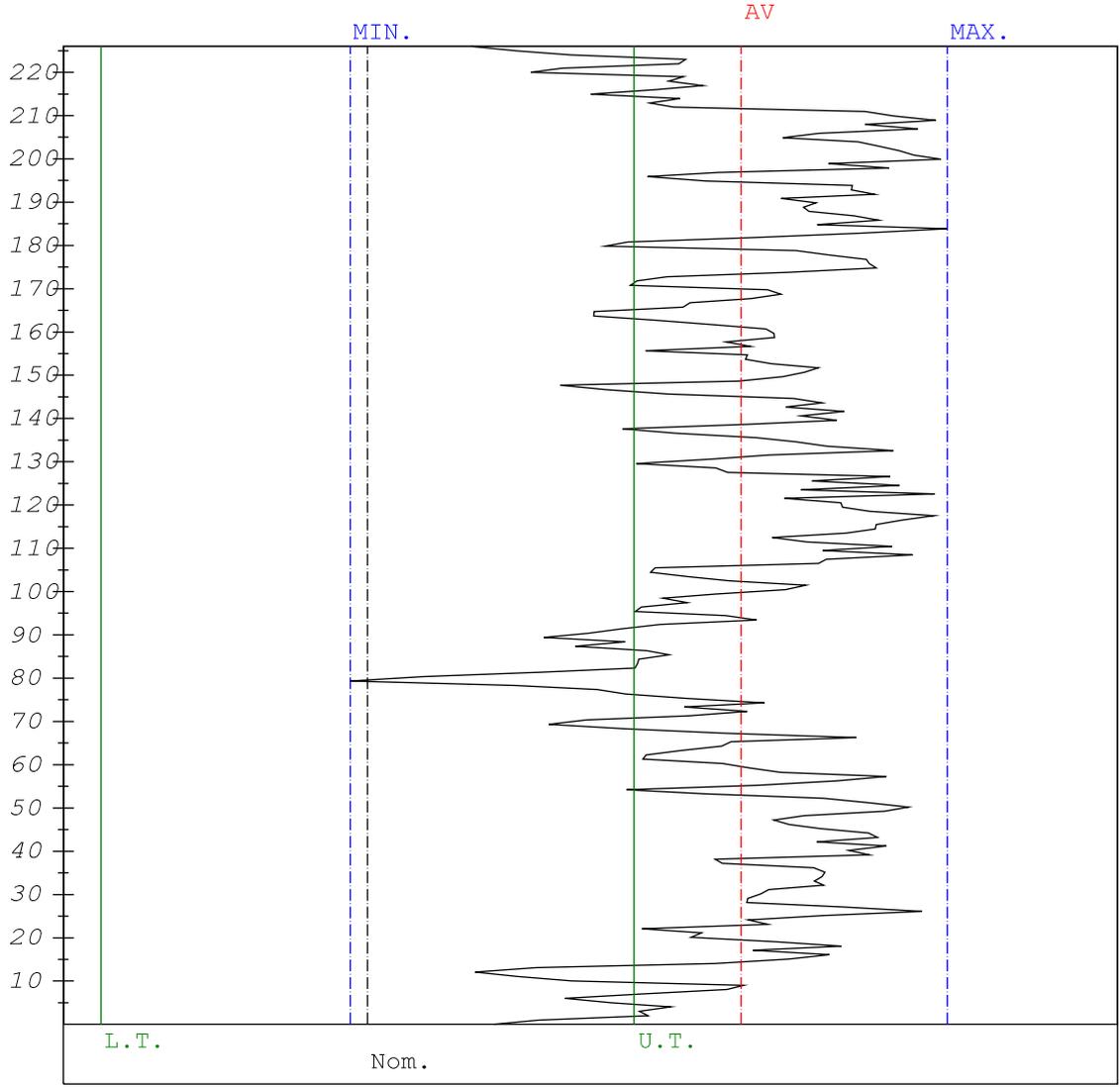
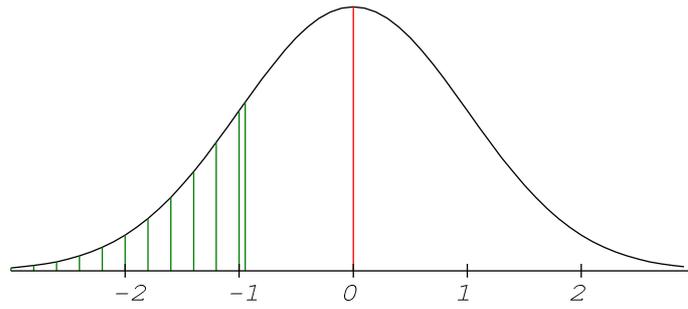


UPSTREAM



Undulator Dimensional Fiducialization  
Post Magnetic Alignment

DATE: 23-JUL-2009  
UNDULATOR # 27  
DATASET # 0001  
PROGRAM VERSION 2.9



Nominal : 4.5000	Averag : 5.2003	Cent.-Dev. : 0.7003
Up. Tol. : 0.5	Maximum : 5.5874	U.Tol.Ex. > : 82.8 %
Low.Tol. : -0.5	Minimum : 4.4674	L.Tol.Ex. < : 0.0 %
Spl.Size : 226	Stand.-Dev.: 0.2118	In Tolerance: 17.2 %
Outlier : 0	Distribution : NOR	Dimension : mrad



Statistical Evaluation  
 Pole Tip Gap Angle  
 Post Magnetic Alignment

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 UNDULATOR # 27  
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 PROGRAM VERSION 2.9