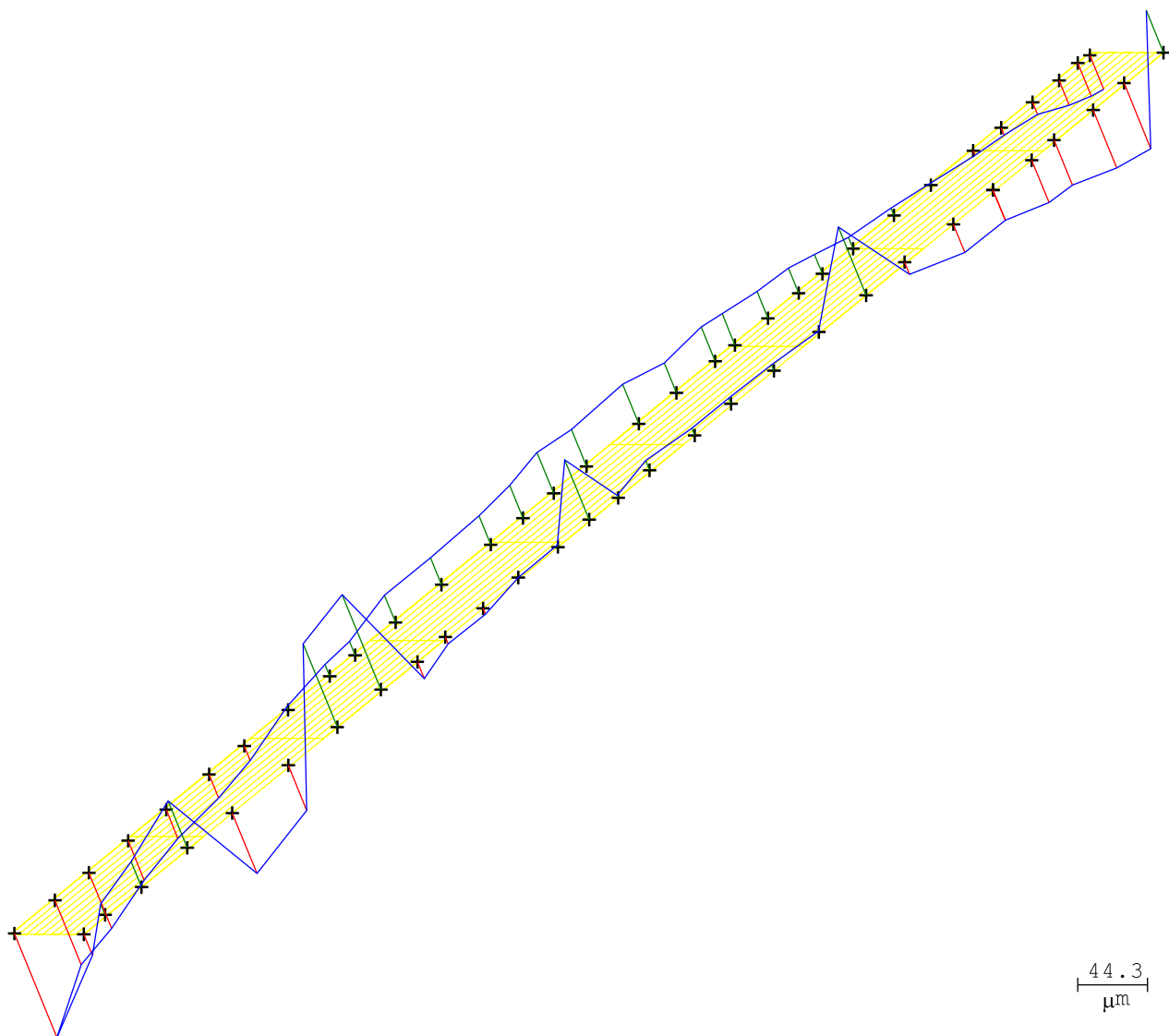




Actual points : \* \* \*

Neg. Deviation : ———

Pos. Deviation : ———

Notation : **UNDULATOR**

Producer :

Draw. No. :

Ser. No. : **21**

Part No. :

Department:

Element : **PLA\_B**

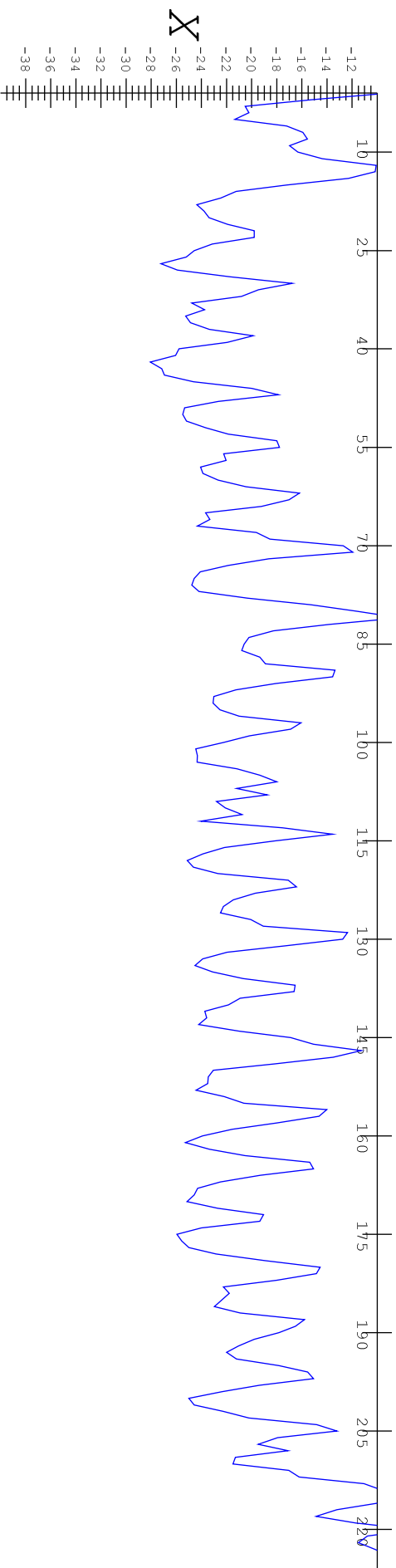
|                |        |               | X       | Y        | Z        | No.       |    |
|----------------|--------|---------------|---------|----------|----------|-----------|----|
| Form .....     | 0.1459 | Neg. Deviat.: | -0.0763 | 115.4712 | -92.4999 | -3381.629 | 31 |
| Error Magnif.: | 3000   | Pos. Deviat.: | 0.0697  | 115.6358 | 90.5005  | -2453.719 | 23 |
| No. of points: | 62     |               |         |          |          |           |    |

**MESSTECHNIK WETZLAR**

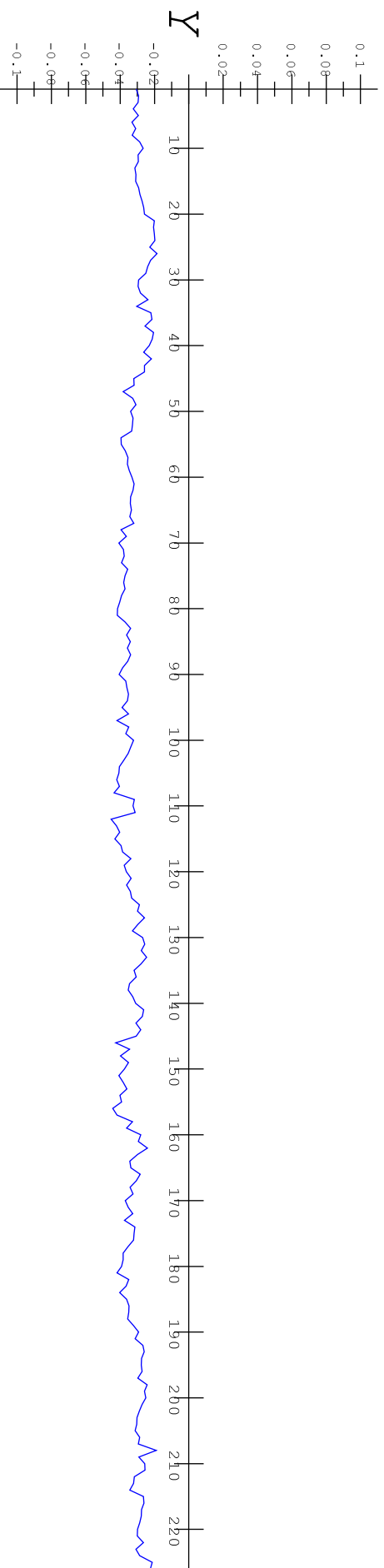


***FLATNESS***  
***ISO 1101***

Inspector :Quindos  
Date .....:07-NOV-2007  
Time .....:10:13:24

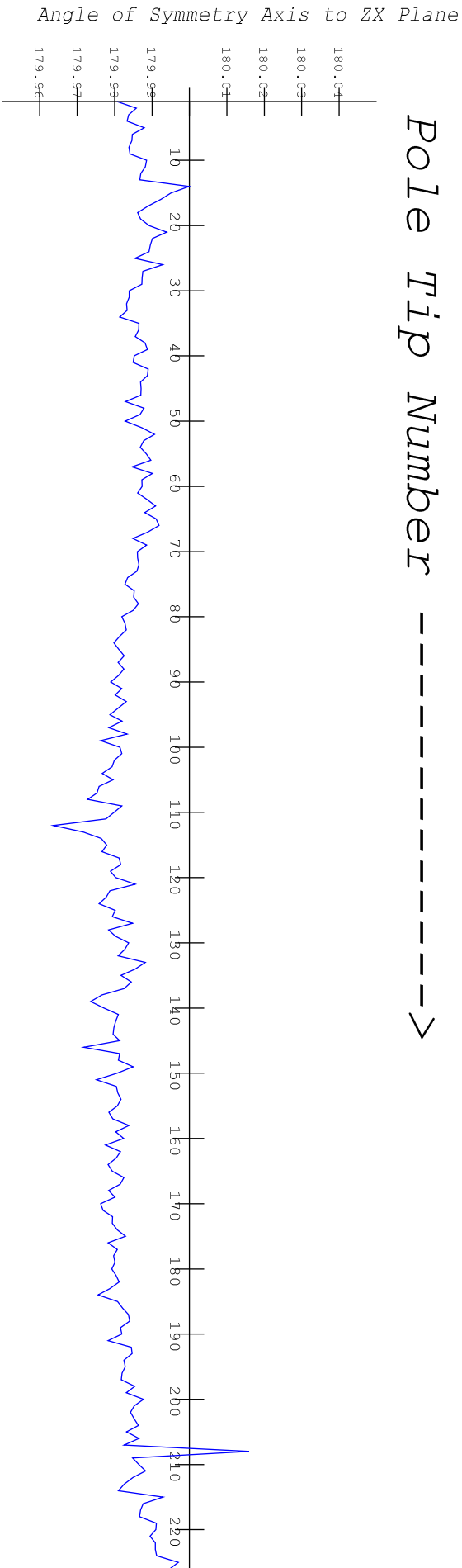
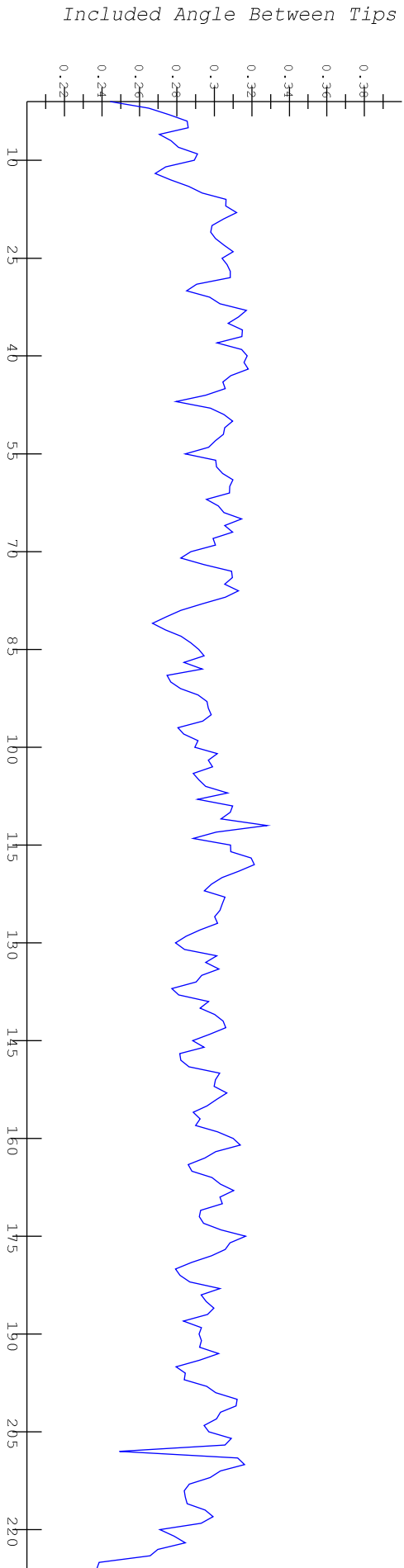


Pole Tip Number ----->



Offsets of Pole Tip Symmetry Point from Nominal Undulator center line  
Pole Tip Symmetry Point is the point where the symmetry axis between tips is bisected by the 6.8mm cross section

|                                            |                                                                 |                                                |
|--------------------------------------------|-----------------------------------------------------------------|------------------------------------------------|
| <div>SLAC<br/>LCLS-MMF<br/>LEITZ CMM</div> | <div>Undulator Pole Tip Offsets<br/>Measured unrestrained</div> | <div>DATE: 07-NOV-2007<br/>UNDULATOR #21</div> |
|--------------------------------------------|-----------------------------------------------------------------|------------------------------------------------|



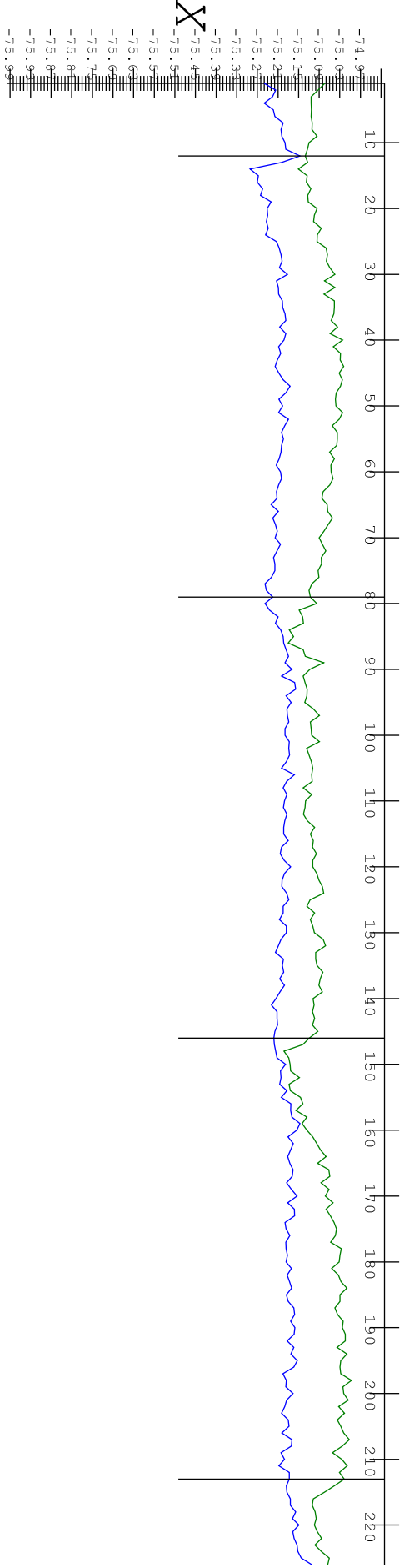
Symmetry Axis is the symmetry axis between the Upper and Lower Pole Tips  
Included Angle is the angle between the Upper and Lower Pole Tips

**SLAC**  
LCLS-MMF  
LEITZ CMM

Undulator Pole Tip Angles  
Measured unrestrained

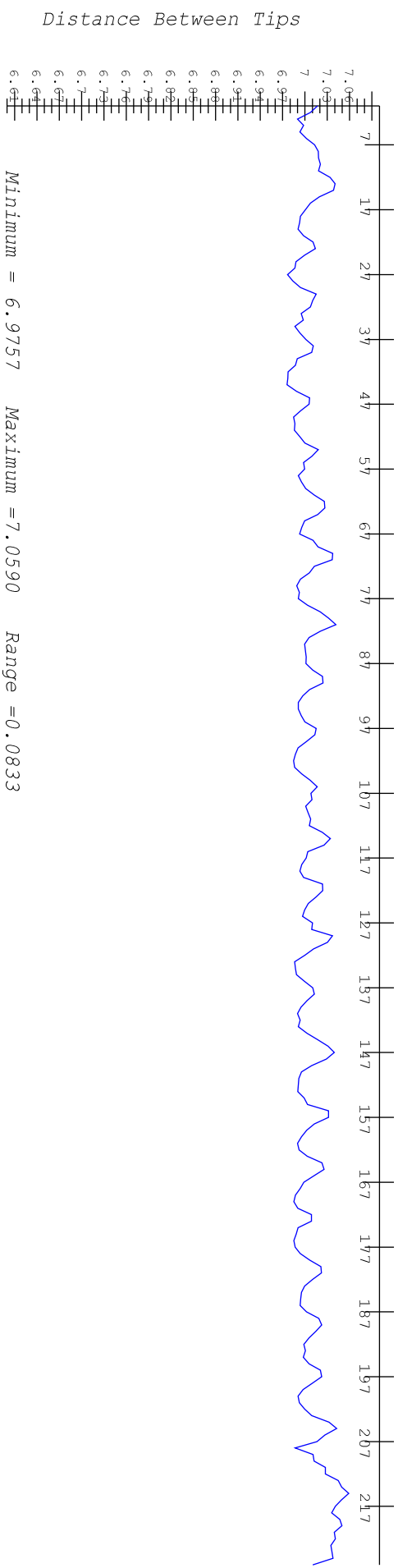
DATE: 07-NOV-2007  
UNDULATOR #21

Pole Tip Number ----->

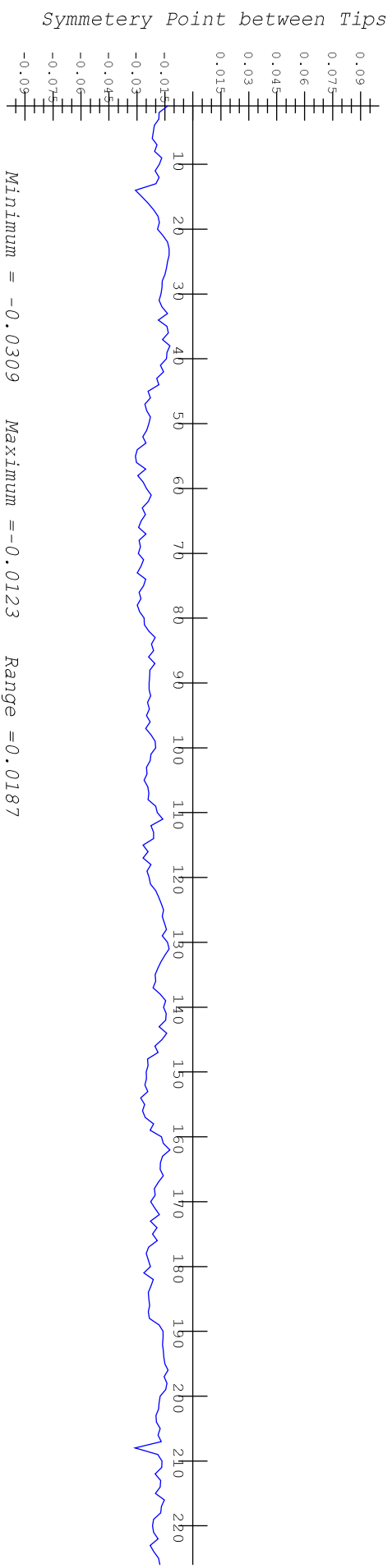


Green = Point on front face of Upper Pole Tip 10mm above Nominal C/L  
Blue = Point on front face of Lower Pole Tip 10mm below Nominal C/L

|                                                          |                                                                         |                                                       |
|----------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------|
| <div>SLAC</div> <div>LCLS-MMF</div> <div>LEITZ CMM</div> | <div>Undulator Pole Tip Location</div> <div>Measured unrestrained</div> | <div>DATE: 07-NOV-2007</div> <div>UNDULATOR #21</div> |
|----------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------|



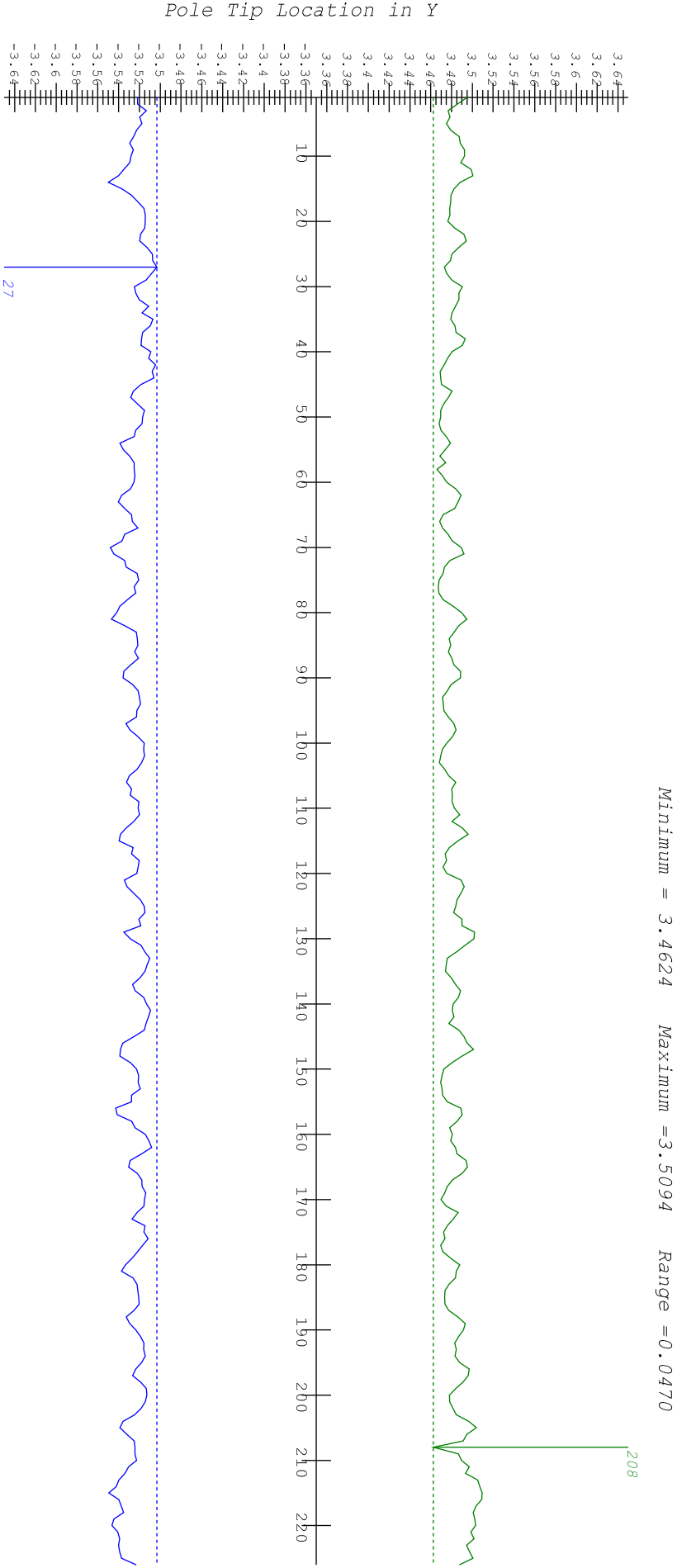
Pole Tip Number ----->



Symmetry Point is the symmetry point between the Upper and Lower Pole Tips were they intersect a plane 53mm from Datum -B-  
Distance Between Tips is the distance between the Upper and Lower Pole Tips were they intersect a plane 53mm from Datum -B-

|                                            |                                                                  |                                                |
|--------------------------------------------|------------------------------------------------------------------|------------------------------------------------|
| <div>SLAC<br/>LCLS-MMF<br/>LEITZ CMM</div> | <div>Undulator Pole Tip Location<br/>Measured unrestrained</div> | <div>DATE: 07-NOV-2007<br/>UNDULATOR #21</div> |
|--------------------------------------------|------------------------------------------------------------------|------------------------------------------------|

MINIMUM GAP = 6.9657



Pole Tip Number ----->

Green = The position of the Upper Pole Tips at 53mm from Datum -B-  
Blue = The position of the Lower Pole Tips at 53mm from Datum -B-  
Min. Gap = The minimum gap between pole tips 53mm from Datum -B-

**SLAC**  
LCLS-MMF  
LEITZ CMM

Undulator Pole Tip Location  
Measured unrestrained

DATE: 07-NOV-2007  
UNDULATOR #21