

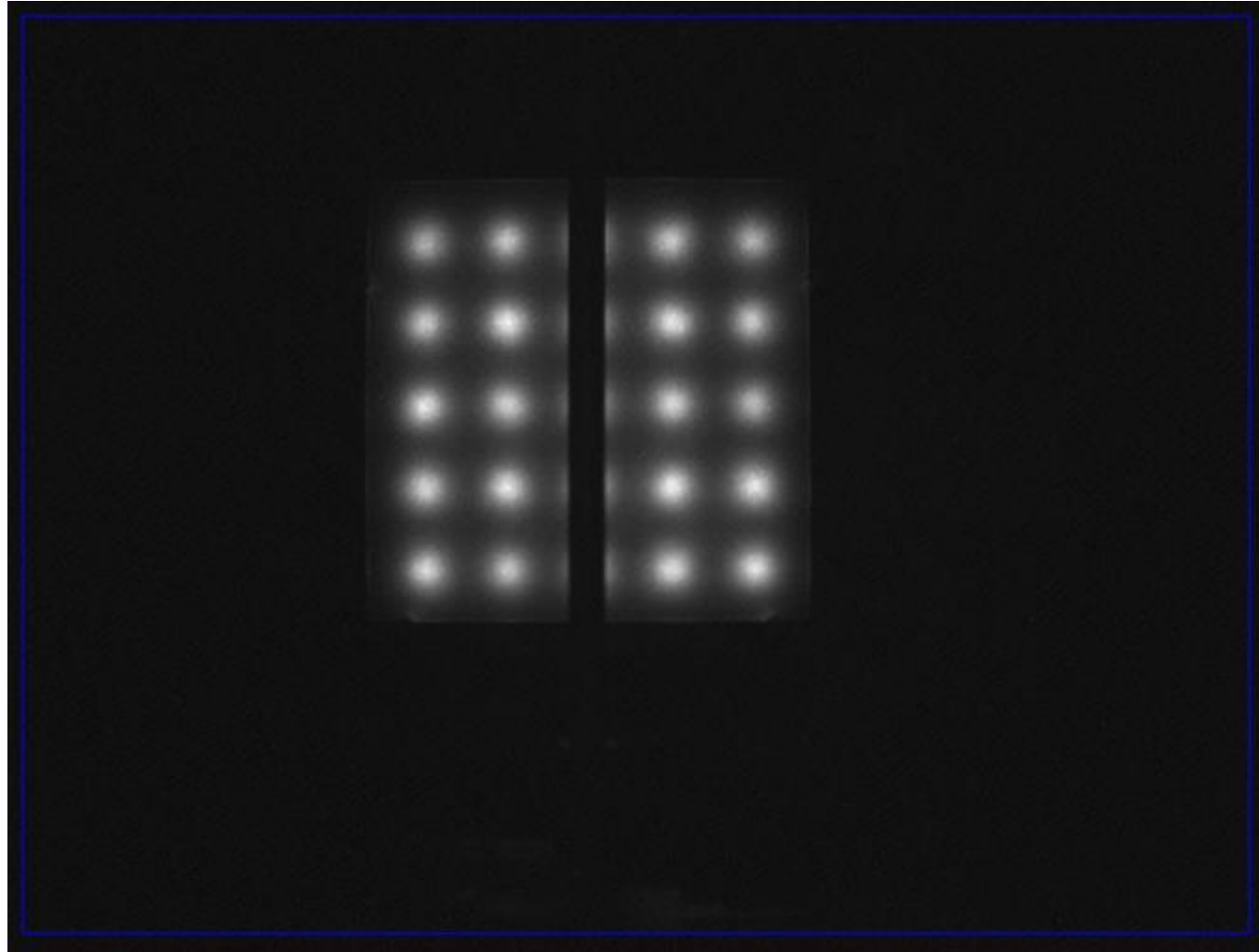
A304601A

Initial Studies

CPM1 2/7/23

Nathan Sayer

0.7 ms Exposure Time, Ground Glass 120grit



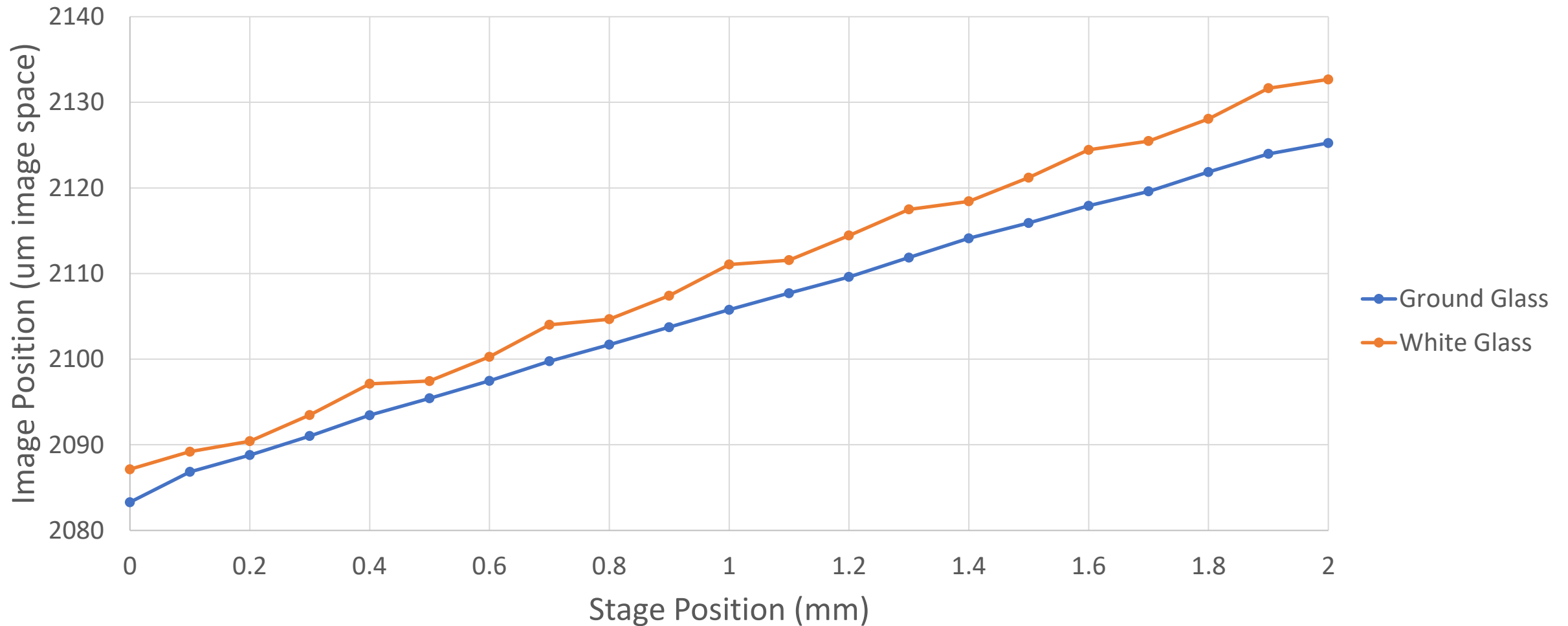
For all experiments done in this presentation, distance from LEDs to diffuser= 50mm

1.4 ms Exposure Time, White Glass



Linear, 100um Movements

Image Position vs. Real Position of Post

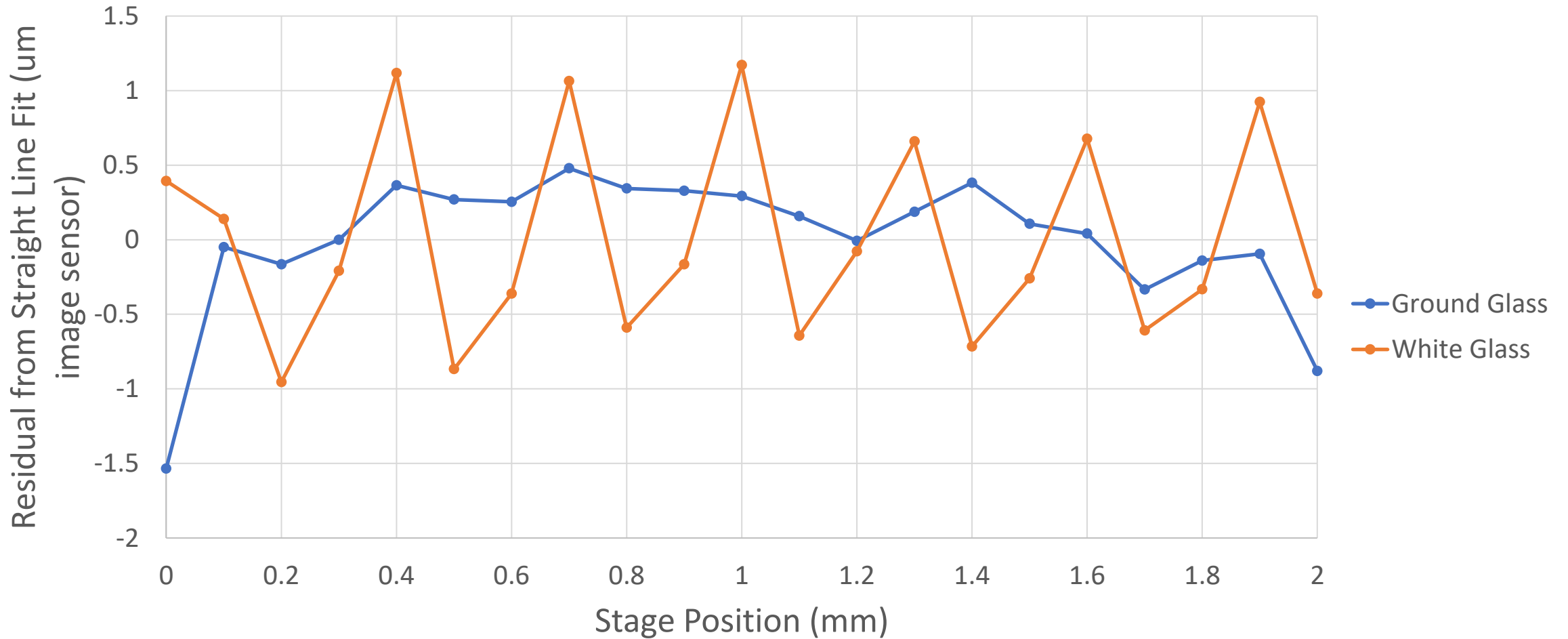


Magnification of Image

- 1 mm of movement on the stage corresponds to 24 μm of movement on the image sensor
 - Magnifies the image by about 41.5 times

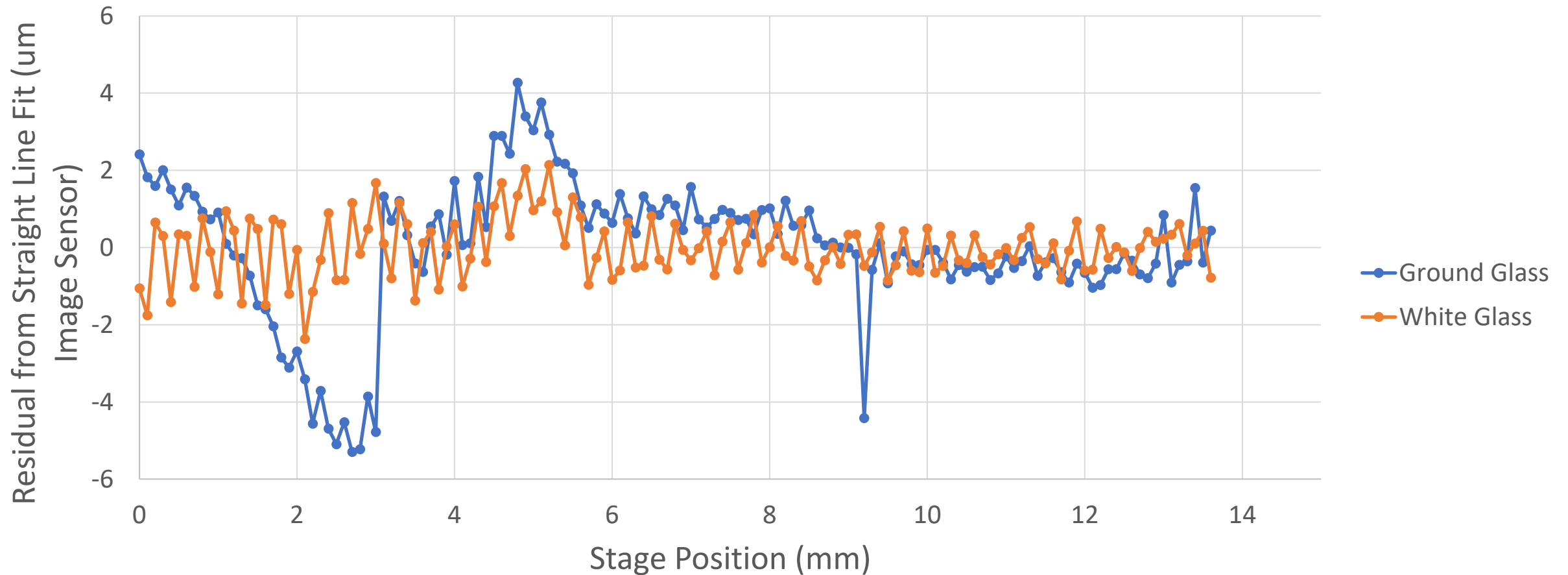
Residuals

Residuals from Straight Line vs. Real Position



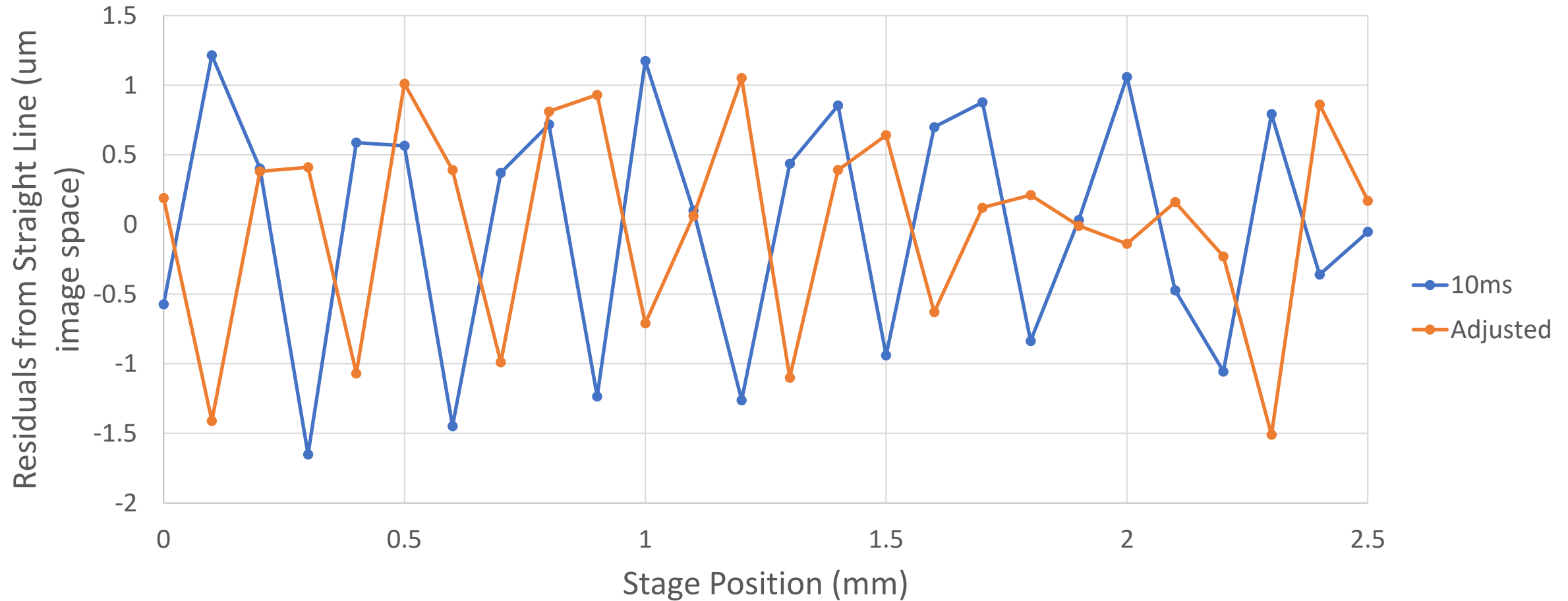
Longer Movement, Across an LED

Residuals from Straight Line vs. Real Position



10ms vs. 2.8ms Exposure Time

Residuals from Straight Line, White Glass



Resolution

Standard Deviation of Position vs. Exposure Time (White Glass)

