

March 4 2021

① Setup laser to power meter 1:10

$$V_{\text{no laser}} = 281.2 \text{ mV}$$

Laser saturates, added polarizer #1 at 45°

$$\text{New } V_{\text{no laser}} = 278.9 \text{ mV} \quad 1:24$$

② plotted in origin, $z = 21.9 \text{ cm}$ 1:40

③ 80-70 rule

$$V_{\text{max}} = 339.8$$

$$V_{\text{max}} - V_{\text{min}} = 60.9 \text{ mV}$$

$$V_{\text{min}} + 0.3(60.9) = 297.17$$

$$V_{\text{min}} + 0.7(60.9) = 321.53$$

using Step 2 ^{position} data:

$$\begin{array}{r} 321.5 \text{ mV} \\ 297.1 \text{ mV} \\ \hline \end{array}$$

$$\begin{array}{r} 18.404 \text{ mm} \\ 18.190 \text{ mm} \\ \hline \end{array}$$

$$W = 0.409 \text{ mm}$$

$$52.07 \text{ cm}$$

2:08

$$\begin{array}{r} 321.5 \text{ mV} \\ 297.1 \text{ mV} \\ \hline \end{array}$$

$$\begin{array}{r} 17.454 \text{ mm} \\ 17.187 \text{ mm} \\ \hline \end{array}$$

$$W = 0.510 \text{ mm}$$

$$\begin{array}{r} 85.09 \text{ cm} \\ 321.5 \text{ mV} \\ 297.1 \text{ mV} \\ \hline \end{array}$$

$$\begin{array}{r} 30.852 \text{ mm} \\ 30.517 \text{ mm} \\ \hline \end{array}$$

$$W = 0.640 \text{ mm}$$

$$\begin{array}{r} 133.35 \text{ cm} \\ 321.5 \\ 297.1 \\ \hline \end{array}$$

$$\begin{array}{r} 28.200 \text{ mm} \\ 27.534 \text{ mm} \\ \hline \end{array}$$

$$W = 1.272 \text{ mm}$$

181.61 cm

321.5	21.664
297.1	20.952

$$w = 1.360$$

232.41 cm

321.5	20.684
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297.1	19.734
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$$w' = 1.809$$

9.5

~~217.17 cm~~~~321.5 27.842~~~~297 26.534~~~~2.249~~

270.51

321	21.250
297	20.093

$$2.209$$

13.5

318.77

321	20.208
297	18.987

$$2.332$$