Investigating Light Propagation Dynamics in Curved Fiber Optic Cables

Bowlin, Bethany (School: Alma High School)

The purpose of this project was to see how light propagation has an effect on fiber optic cables. The procedures that were used to make this experiment as safe as possible were using a single lined fiber optic cable, a light refraction meter, and a notebook and pencil to record the data collected. Each cable had a different dBm (decibels per milliwatt) because each cable was made up of very similar but mostly different components. The results showed that for each different baseline and the different amount of Nanometers was different for each size of loop. The reason the first 5 sizes of loops were not changing the DBM was because they were not showing significant bendage.

Awards Won: