The purpose of this research project is to compare three prefabricated, carbon fiber ankle foot orthoses (CAFOs) to a custom-fabricated thermoplastic PLS AFO on adult subjects with unilateral foot drop. There is no research to date comparing CAFOs to PLS AFOs. Using the GAITRite system, subjects’ temporal gait parameters were collected while ambulating with each orthosis and while wearing no orthosis. To gather additional information a mEFAP test and a subject questionnaire were also conducted. Due to a small sample size, it was found that the tested orthoses did not have a significant effect on the tested gait parameters or the mEFAP scores.