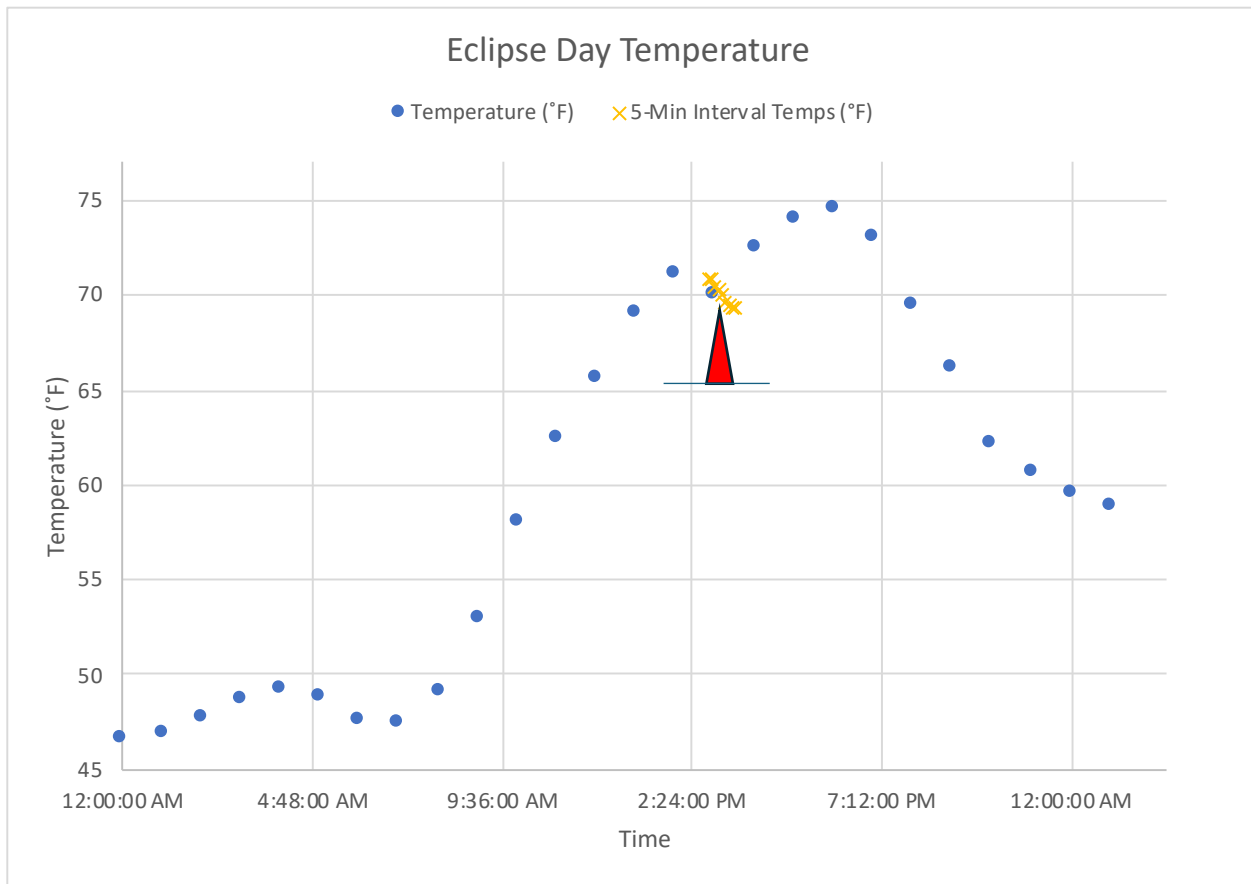


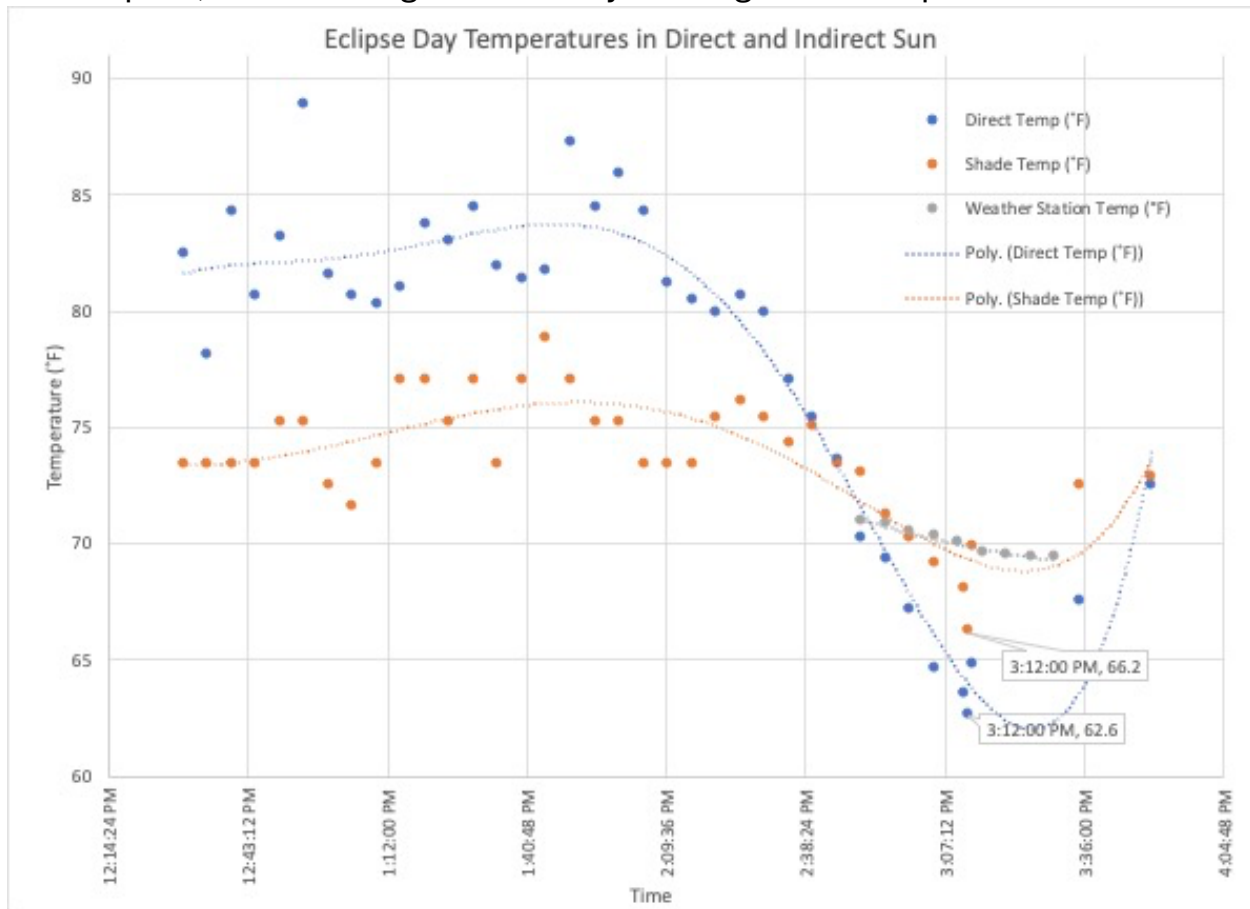
## Eclipse Day Temperature at the Doyt – April 8, 2024

A digital weather station mounted on the top of the East press box at BGSU's Doyt L. Perry football stadium recorded the following data, with circles showing hourly readings over a 24-hour period, and X's showing measurements made every 5 minutes during the eclipse, starting at 2:50 p.m. and ending at 3:30 p.m. Notice that the temperature continued to drop even after totality at 3:12 p.m. (arrow), because most of the Sun was still covered by the moon. However, the temperature recovered quickly between 3:30 and 4 p.m. as the Sun remerged. The moon's last contact with the Sun was around 4:30, allowing the temperature to peak at 75.6°F around 6 p.m.



--Graphs by Hannah Means (BS-Physics 2024), digital weather data from Matthew Keefe (Manager of Support Services, BGSU Department of Public Safety)

Also, during the eclipse, Dr. Xiaohong Tan from the Department of Chemistry and his team helped eclipse visitors take temperature readings with a digital lab thermometer at an activity table on the football field. They took temperatures both in the sunlight (including direct radiant energy from the Sun, **blue circles**) and in the shadow of the table (ambient air temperature only, **orange circles**). These points scatter a bit, maybe because individuals read the thermometer a bit differently. The dotted lines show best-fit curves to these data and allow the eye to see the trends better, including the dip starting around 2 p.m. when the moon first contacted the Sun, extending past totality at 3:12 p.m., and showing the recovery starting after 3:30 p.m.



The **grey circles** show the data from the BGSU weather station from the first graph. They match very well with the fitted trend of Dr. Tan’s indirect temperature measurement, providing confirmation that measuring temperature in the shade is the typical measure of ambient air temperature, while the blue curve may best represent the “feels like” temperature of people standing in the eclipsed Sun, many of whom described a noticeable cooling during the eclipse.