

Partial Solar Eclipse, March 29, 2025

With clear skies overhead at home, I went to my low horizon site on Marter Ave in Mt Laurel, NJ. I arrived and set up my 88 mm spotting scope by 6:30 am EDT. While most of the sky was clear, there were pesky low clouds along the eastern horizon. Regardless, I stayed and waited for sunrise at 6:48 am, and then the eclipsed Sun after that.

As a bonus, while I waited, I looked at the thin crescent Venus (2.4% illuminated) with the spotting scope at 25 to 60x. On the way there, I saw Venus with unaided eyes through the car's windshield at 6:23 am, so it's back to the bright beacon we normally expect. In the past week after inferior conjunction, it has gone from a difficult object in bright twilight to this morning's bright display. I was able to see it with unaided eyes as late as 6:45 am in bright twilight.

Anyway, a bright orange glow rose up from the solar direction (below, and a little left of Venus) at the time of sunrise, and then at 6:55 am, I got my first peek of the brilliant upper limb of the Sun with unaided eyes + eclipse glasses. It was at 79 arc minutes altitude (Sun's 63 arc min altitude + 16 arc min semi-diameter). Then I put my 88 mm spotting scope on it at 25x, equipped with a Daystar white light solar filter in front of the objective. The Sun was just a small arc above the cloud line.

At 6:56 am, I saw the upper cusp of the lunar silhouette on the left side of the rising solar disc, and by 6:57 am, the entire lunar silhouette was visible. The whole Sun was visible by 6:58 am. I looked with unaided eyes + filter at 6:59 am and could just make out the small arc of the silhouetted moon. At 7:01 am, using 40x, I noticed a sunspot near the lunar silhouette (evidently AR 4046). At 7:03 am using 60x, I could no longer see any lunar silhouette and the Sun looked like a complete disc. The eclipse was predicted to end at 7:03:38 am (USNO).