April 8, 2024 Eclipse Observations From Evansville, Indiana

by Michael Borman

The following is a description of my observations of the April 8, 2024 eclipse:

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Observing location: 501 Sterchi Drive, Evansville, Indiana, 47711 (38 deg. 3 min. 40 sec. North latitude, 87 deg. 33 min. 24 sec. West longitude, 420' elevation). Observed from the wood deck in my back yard.

Eclipse Contact Times: C1 - 17:46:03 UTC, **C2** - 19:02:36 UTC, **MAX** - 19:04:15 UTC, **C3** - 19:05:54 UTC, **C4** - 20:20:35 UTC. Evansville is on Central Daylight Time, so the eclipse started at 12:46 PM CDT, and ended at 3:20 PM CDT.

Totality Duration: 3 minutes 19 seconds.

Weather conditions during eclipse: Clear. Heavy fog at sunrise fortunately lifted by noon.

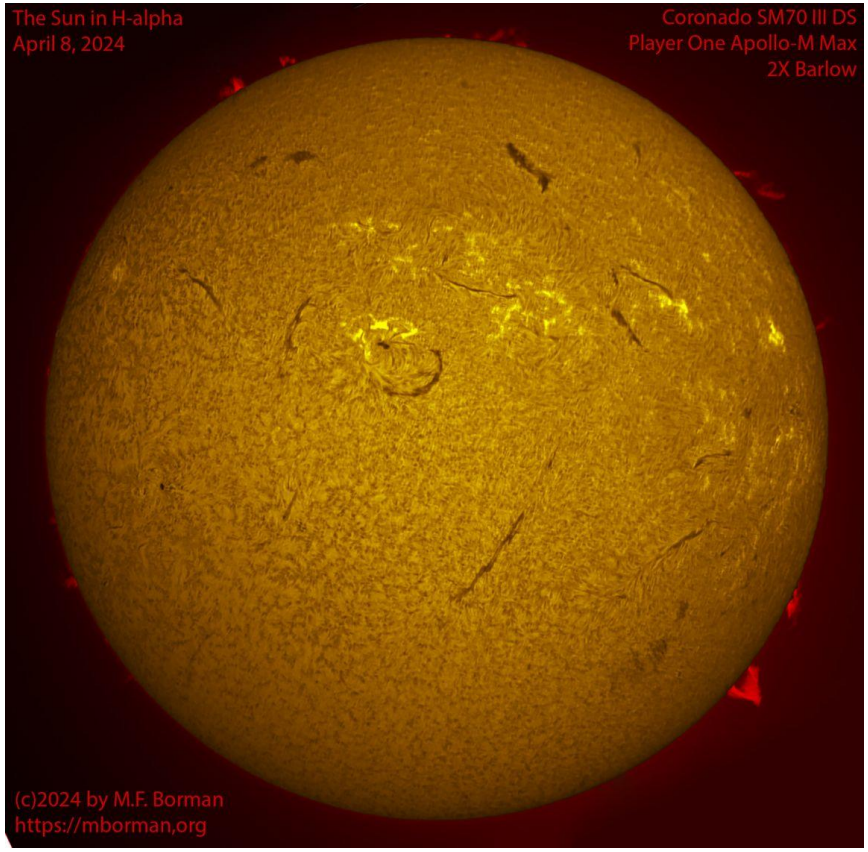
Temperature: between 72- and 77-degrees F. My weather station recorded a drop of approximately 5 degrees during the eclipse.

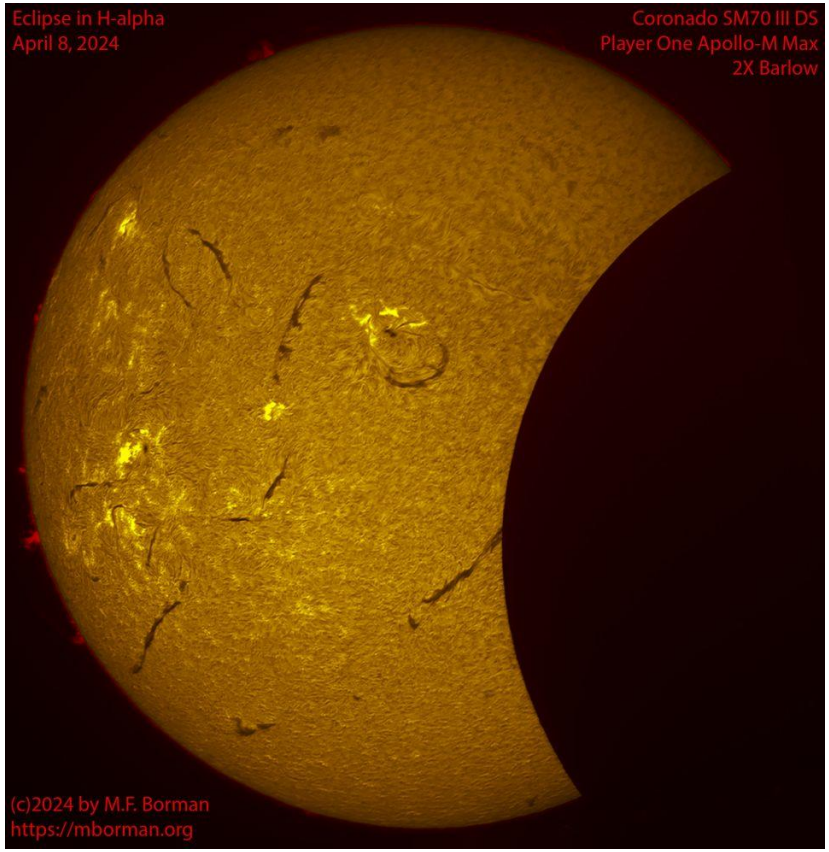
Equipment used:
Visual observations during the partial phases were made with my Canon 15x50 image stabilized binoculars and 1000 Oaks SolarLite ND=5 filters. Observed totality with the same binoculars without the filters.

Photography

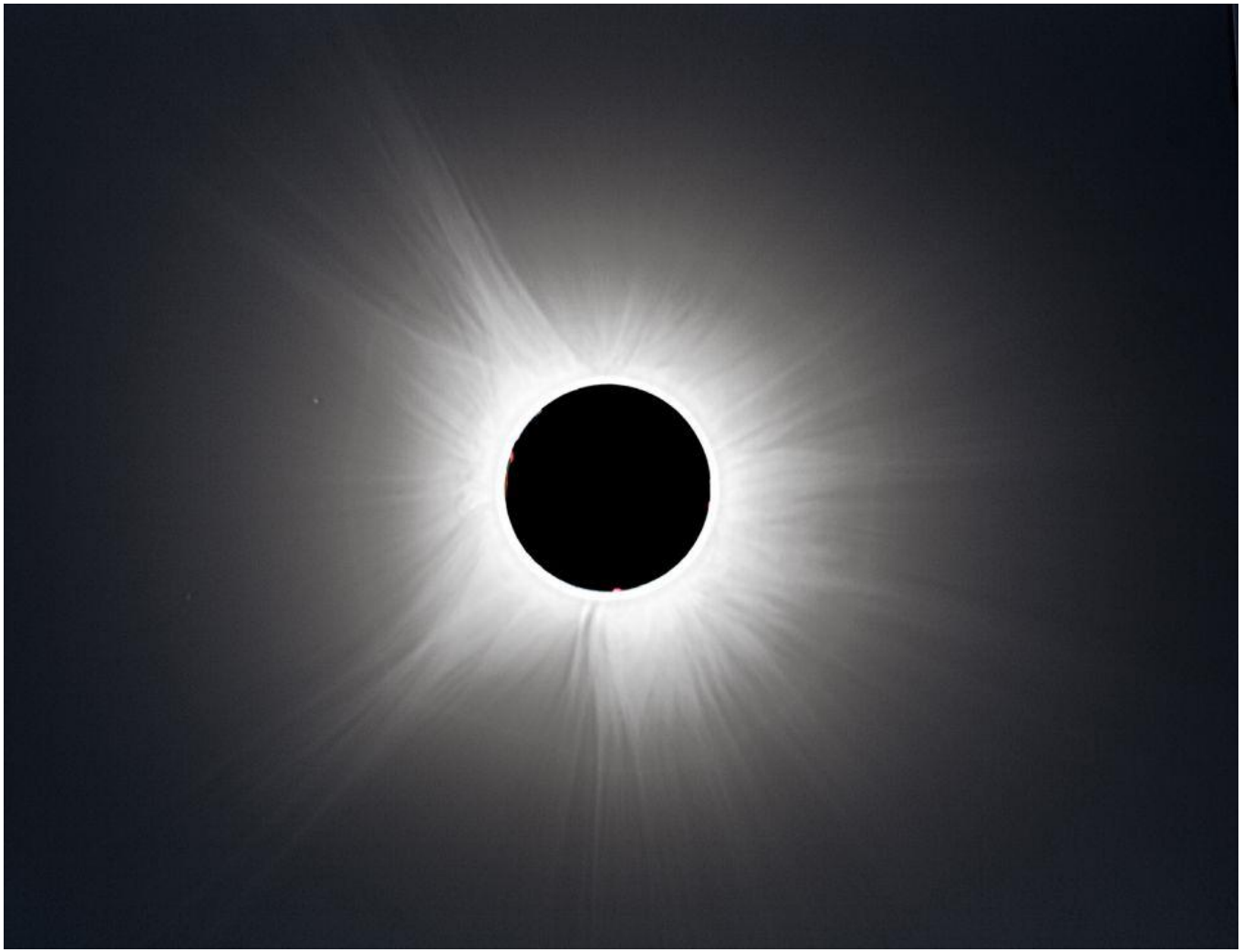
White light during partial phases: ZWO Seestar S50 Smart Telescope with included ZWO solar filter. Individual frames captured to a IPad Mini tablet.

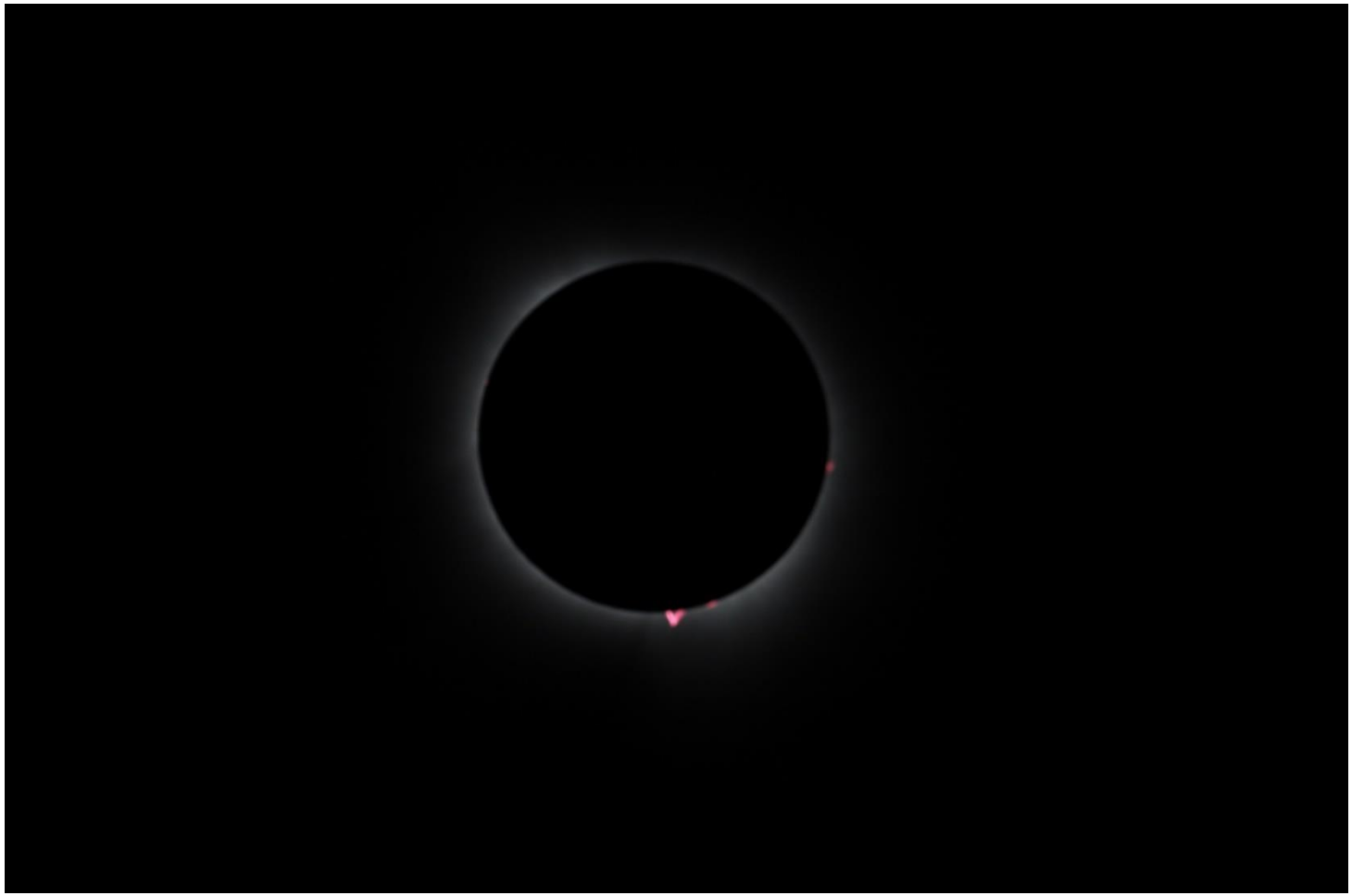
H-alpha images of Sun before eclipse and during partial phases: Coronado Solarmax 70 III Double Stacked, with Player One Apollo-M Max camera, and 2X Barlow. Approximately 800 frames captured for disk detail, and 800 frames captured for prominences. Frames stacked and wavelet sharpened in Registax. Disk image and prominence image combined in Photoshop and false color added.

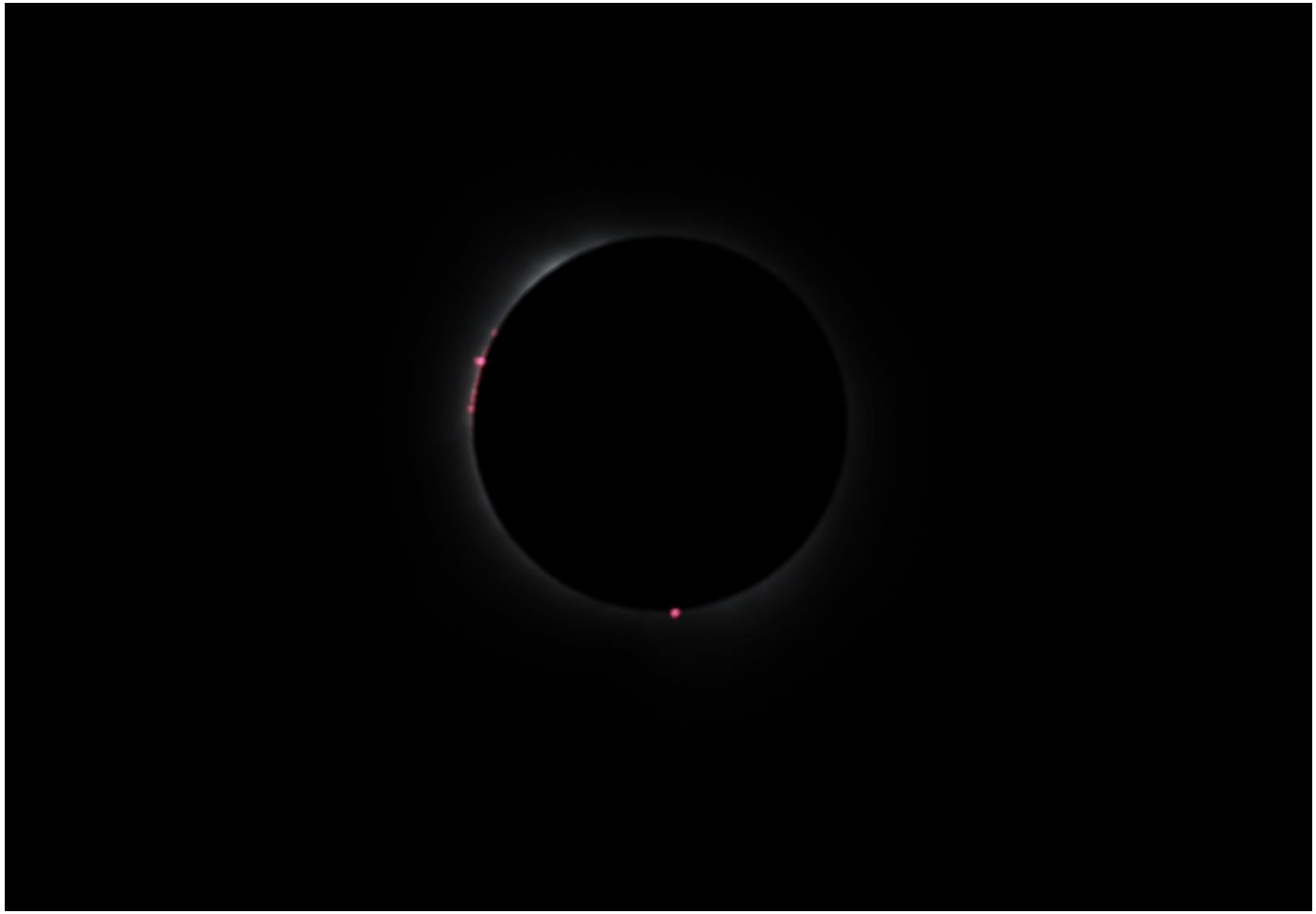




Corona images taken during Totality: Astro-Tech F/5 92mm refractor and Canon Rp mirrorless camera. Used my laptop running Astrophotography Tool software to take a series of exposures from 1/2000 sec. to 4 sec. at ISO 100 during totality. Several of these exposures were combined in Photoshop to make a high dynamic range image of the corona during totality.

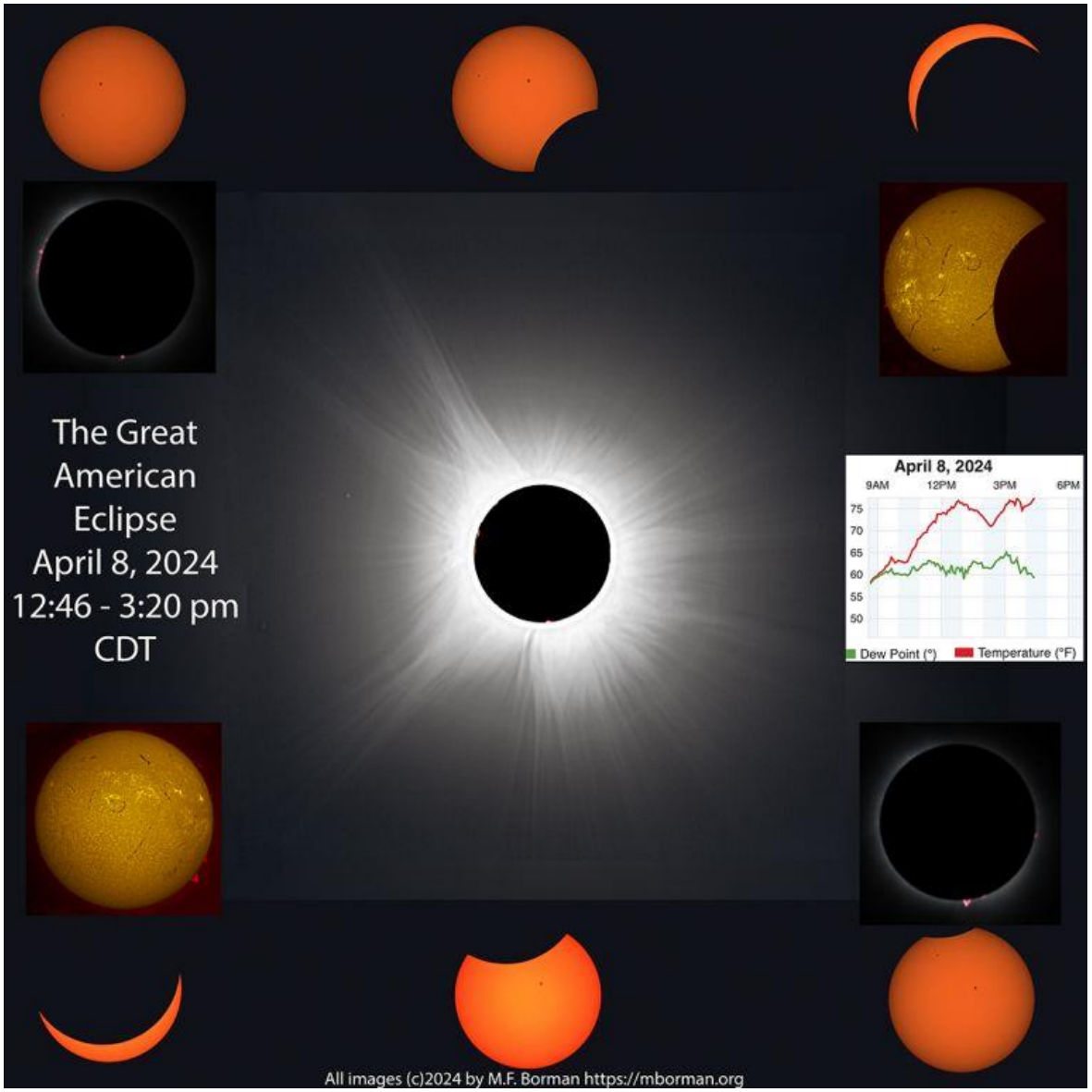






360 degree images taken during totality: Used a Ricoh Theta X 360 degree camera during totality to capture a series of exposures during totality to capture what the sky looked like during totality. Jupiter can be seen to the upper left of the eclipsed Sun, and Venus to the lower right. The edges of the Moon's shadow can be seen to pass overhead in a 360 degree timelapse made from these images. The timelapse has been posted to Facebook here: 360 degree Timelapse taken during totality on April 8th with my Ricoh Theta X camera. | By MikeFacebook


Jupiter
Venus


The Great
American
Eclipse
April 8, 2024
12:46 - 3:20 pm
CDT
April 8, 2024
9AM
12PM
3PM
6PM
75
70
65
60
55
50
Dew Point (°)
Temperature (°F)
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