

How to determine eclipse start and end time

1. First search your City and State on this website: <https://www.timeanddate.com/eclipse/>

The screenshot shows the website [timeanddate.com/eclipse/](https://www.timeanddate.com/eclipse/). At the top, there are advertisements for Best Buy and Samsung. Below the ads is a navigation menu with links: Home, World Clock, Time Zones, Calendar, Weather, Sun & Moon, Timers, Calculators, Apps & API, and Free Fun. The main heading is "Find Solar & Lunar Eclipses in Your City" with the subtitle "Eclipse times, paths, phase animations, maps, and much more...". A search bar is present with the placeholder text "Search for city or place...". A red arrow points to the search bar, and a white box with the text "Search your City here" is positioned below it. Below the search bar, the text "Will you be able to see the next eclipse?" is followed by a countdown timer: "95 DAYS 20 HRS 57 MINS 1 SEC". The main content area features two eclipse events: "April 30, 2022 Partial Solar Eclipse" and "May 15-16, 2022 Total Lunar Eclipse". Each event includes a small globe icon, a description of visibility, and a link to "Path Map | 3D Path Globe | Eclipse Information". On the right side, there is an advertisement for "SNACK a little" featuring bags of On the Border Baked and Simply Cheetos.

2. The eclipse starts from “Partial Eclipse begins (Earth’s Umbra)” and ends at “Partial Eclipse ends (Earth’s Umbra)”

॥ श्री हरि ॥

અગ્રાસ ચંદ્રગ્રહણ

સંવત - ૨૦૭૪, મહાસુદ-૧૫, તારીખ ૩૧/૦૧/૨૦૧૮ના રોજ ચંદ્રગ્રહણ થશે. જે સંપૂર્ણ ભારતમાં દેખાશે તેથી પાળવાનું છે. ગ્રહણનો વેધ સવારે ૮.૧૫ કલાકે શરૂ થાય છે. ત્યાર બાદ જમવું નહિ. અને બપોરે ૨.૧૫ કલાક બાદ પાણી પીવું નહીં.

ગ્રહણ સ્પર્શ : સાંજે ૫.૧૭ કલાકે
ગ્રહણ મધ્ય : સાંજે ૬.૫૯ કલાકે
ગ્રહણ મોક્ષ : રાત્રે ૮.૪૫ કલાકે ફેર સુચના

ગ્રહણ મોક્ષ બાદ વસ્ત્રે સહિત સ્નાન કરી દાન દક્ષિણા કરીને જમવું.

શ્રી સ્વામિનારાયણ ગુરૂકુળ, કલ્યાણ

Photo #1

timeanddate.com

The animation shows what the eclipse approximately looks like in Ahmedabad. Stages and times of the eclipse are outlined below. All times are local time (IST) for Ahmedabad.

| Time | Phase | Altitude |
|------------------------|----------------------|---|
| 4:21 pm Wed, Jan 31 | Not directly visible | Penumbral Eclipse begins Below horizon |
| 5:18 pm Wed, Jan 31 | Not directly visible | Partial Eclipse begins (Earth's Umbra) Below horizon |
| 6:21 pm Wed, Jan 31 | Not directly visible | Total Eclipse begins Below horizon |
| 6:22 pm Wed, Jan 31 | Not directly visible | Moonrise Below horizon |
| 6:59 pm Wed, Jan 31 | | Maximum Eclipse Moon is closest to the center of the shadow. Moon close to horizon, so make sure you have free sight to East-northeast. |
| 7:37 pm Wed, Jan 31 | | Total Eclipse ends Total moon eclipse ends. |
| 8:41 pm Wed, Jan 31 | | Partial Eclipse ends (Earth's Umbra) Partial moon eclipse ends. |
| 9:38 pm | | |

Photo #2

3. The above photos show the lunar eclipse that occurred in Ahmedabad, India on January 31, 2018.
4. Based on the photo #1, eclipse start time (*grahan sparsh* time is 5:17PM IST) and on photo #2, eclipse start time (Partial Eclipse begins at 5:18PM IST).
5. Similarly, based on photo #1, eclipse end time (*graham moksha* time is 8:45PM IST) and on photo #2, eclipse end time (Partial Eclipse ends at 8:41PM IST).
6. Based on the above information/comparison, if there is an eclipse which is “Penumbral Eclipse” only, we do not need to observe that eclipse.