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HIP 46358

HIP 46358

A light for our story



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A story among the stars

Celestial Library edition



*Every light holds a story. These pages
follow its journey, from the heart of the
star to the sky we share.*

The sky, page by page

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CONTENTS

A story beneath the stars

One light among many	4
The colour of its fire	5
The journey ending here	6
A landscape for imagination	7
Listening to a giant star	8
A life opening out	9
Measuring with two glances	10
Nothing stands still	11
The night of finding it	12
Somewhere to return	13

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HIP 46358

One light among many

Some nights begin when we stop hurrying. The day withdraws, our eyes learn the darkness and, little by little, the stars appear. Among them is HIP 46358. Pausing to look lets a point of light become a place we can find again.

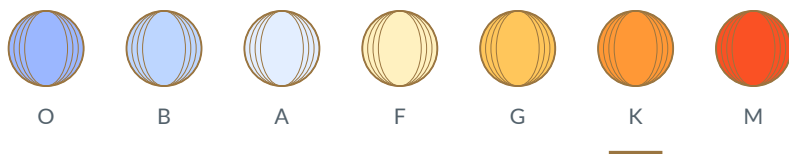
The star continues beyond our calendars. Its light meets us here for a few hours of darkness, while an astronomical record offers another way to approach it: a name, a measurement, a note preserved for later readers. Vast distances can still invite close attention.

The colour of its fire

The light of HIP 46358 has a character of its own. The K family keeps the colour of an ember seen at the end of an evening. Its surfaces are cooler than the Sun's, though still extraordinarily hot. That amber tint suggests a gathered light, a warmth that seems to ask us to stay a little longer.

To the unaided eye, a stellar colour can be little more than a whisper. The atmosphere makes it tremble and our eyes receive it in their own way. Beyond that point we can imagine a living surface of hot matter: the visible beauty of processes working on a scale far greater than ours.

SEVEN FAMILIES OF LIGHT



Light keeps the colours of its origin.

The journey ending here

The light of HIP 46358 crosses approximately 201.0 light-years to reach us. The brightness we receive has therefore spent about 201.0 years on its way. Distance becomes time: looking at this star means meeting light that began travelling before this moment. When it set out, the Sun and its planets already shared a history billions of years old. On their scale, this journey is barely a breath.

Its light has crossed the time of several generations. We can imagine hands writing letters, lit windows and voices that now live only in other voices. Through all that passing on, the brightness kept travelling; tonight it reaches us.



A landscape for imagination

HIP 46358 lies in the region of the Keel. The Keel evokes the part of a ship that supports the voyage. Though it may not be what we see first, it holds the course and lets everything else dare to leave.

Figures in the sky are a human way of approaching immensity. In our gaze they join lights that may lie at very different distances. Imagination stretches the thread; the stars provide the brightness. A single landscape can therefore keep old images while receiving a story that begins tonight.



Its light, among other lights of the constellation.

Listening to a giant star

HIP 46358, also catalogued as HD 82350, entered a new chapter through TESS: its light was measured every two minutes and examined for subtle oscillations. Zhou and colleagues included its TESS identifier, TIC 304178155, in a 2025 study of 687 red giants. For this star, their tables report 28 fitted mode measurements. From those rhythms they derived a large frequency separation of 6.94 microhertz and a gravity-mode period spacing of 64.93 seconds. Both evolutionary indicators in their table assign code zero, which the catalogue guide defines as the red giant branch. The result shows how tiny changes in starlight can disclose clues about a distant star's interior.

There is tenderness in the patience of that listening. A distant light becomes a rhythm, and a rhythm becomes something we can return to. Beneath the star, we may think of the days that resemble one another without ever repeating: each carries its own small variation, yet together they make the long, recognisable music of a shared life.

A life opening out

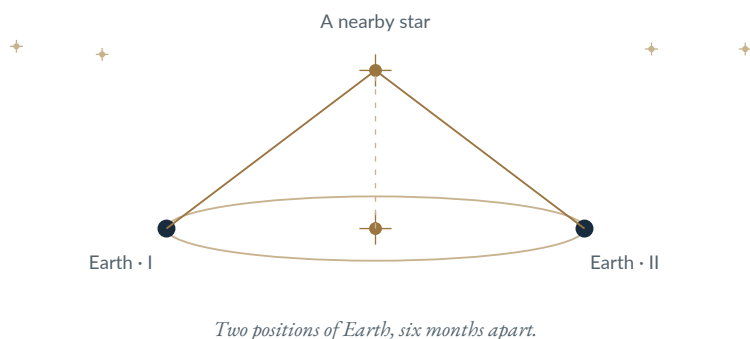
The word giant speaks of a star that has moved beyond the appearance of its first long stage. Its envelope has expanded and the interior has changed the way it supports itself. We can imagine a life opening its rooms, a light taking up more space while writing a different chapter of its story.

To approach HIP 46358, we can let that scale widen our imagination. A stellar age is unlike a birthday: it speaks of changing matter, of energy finding a way out, of a balance sustained and transformed. Tonight's light is one page of that time, and we happen to be here to receive it.

Measuring with two glances

To begin measuring a stellar distance, Earth offers us a movement. We observe from one side of its orbit and look again about six months later from the other. A nearby star seems to shift slightly against more distant ones. That small change of perspective is called parallax.

We can feel the principle by looking at a finger with one eye and then the other. What fits between two glances at home requires our planet's journey in the sky. There is something beautiful in that patience: to learn how far a light is from us, we first learned to look from somewhere else.



Nothing stands still

Although it seems still, HIP 46358 belongs to a moving sky. Stars travel through the galaxy and our own home moves with the Sun. The distances are so great that many of these changes need years of observation to become visible. The serenity we see is really keeping a journey.

We can imagine every night as a meeting between travellers. We arrive with one more day of memories; the star arrives with its light and its path. The meeting seems to repeat, yet it is never quite the same. Perhaps that is why looking again can be such a simple way to celebrate shared time.

The night of finding it

We can begin simply: look into a starry sky and let our eyes grow used to darkness. Choose a place and time, then find where to look. Recognising the constellation first turns a distant map into a familiar landscape. If a telescope joins the evening, a wide field is a gentle beginning. A 114 mm Newtonian with a 500 mm focal length gives 20× with a 25 mm eyepiece. The star remains a point of light; the instrument gathers more of its brightness. The best moment may be leaving the eyepiece and saying: there it is.

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Somewhere to return

Now we can approach it with memories of our own. The star's recorded history and the story of an evening beneath the sky can sit together: one belongs to the archive, the other to the time we spent looking.

There will be clear nights and others when clouds keep the sky. Not every night will allow observing, but each can bring back the pleasure of learning a familiar patch of darkness. Sometimes a name is enough to return to a place, a season or a quiet hour. When the light appears again, we have one more reason to pause and look.

The traces of this story

ESA Hipparcos / VizieR

https://vizier.cds.unistra.fr/viz-bin/VizieR-5?-source=I/239/hip_main&HIP=46358

NASA · Our Sun

<https://science.nasa.gov/sun/facts/>

IAU · Constellations and their names

<https://iauarchive.eso.org/public/themes/constellations/>

Celestron · Choosing eyepieces

<https://www.celestron.com/blogs/knowledgebase/how-to-determine-which-eyepieces-to-use-with-your-telescope>

CDS VizieR J/ApJS/279/37/table2 · TIC 304178155 parameters and evolutionary codes

<https://vizier.cds.unistra.fr/viz-bin/asu-tsv?-source=J/ApJS/279/37/table2&TIC=304178155>

SIMBAD / CDS · HD 82350, HIP 46358 and TIC 304178155 cross-identifications

<https://simbad.cds.unistra.fr/simbad/sim-id?Ident=HD+82350>

Original ISDORA prose and illustrations. Images are artistic evocations or diagrams, not to scale. Distances are approximate. Constellation figures include contemporary literary readings.

To keep discovering

NASA · The lives of stars

<https://science.nasa.gov/universe/stars/>

NASA · What is a light-year?

<https://science.nasa.gov/exoplanets/what-is-a-light-year/>

ESA · Measuring stellar distances by parallax

https://www.esa.int/ESA_Multimedia/Images/2013/06/Measuring_stellar_distances_by_parallax

Zhou et al. (2025) · ApJS 279, 37 · article and catalogue guide

<https://vizier.cds.unistra.fr/viz-bin/cat/J/ApJS/279/37>

CDS VizieR J/ApJS/279/37/table1 · TIC 304178155 fitted modes

<https://vizier.cds.unistra.fr/viz-bin/asu-tsv?-source=J/ApJS/279/37/table1&TIC=304178155>

CDS VizieR TIC-8.2 · sub-arcsecond positional cross-match

<https://vizier.cds.unistra.fr/viz-bin/asu-tsv?-source=IV/39/tic82&-c=141.77628651%20-71.60189510&-c.rs=5&-out=TIC,RAJ2000,DEJ2000>



May there always be a night
to look again.



HIP 46358

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A STORY OF LIGHT