

# The Catalina Surveys Data Release 1

Welcome to the first data release from the Catalina Surveys Team.

**Top News:** View ~12,000 RR Lyrae from the Catalina Surveys Data Release 1. CSDR2 coming soon!

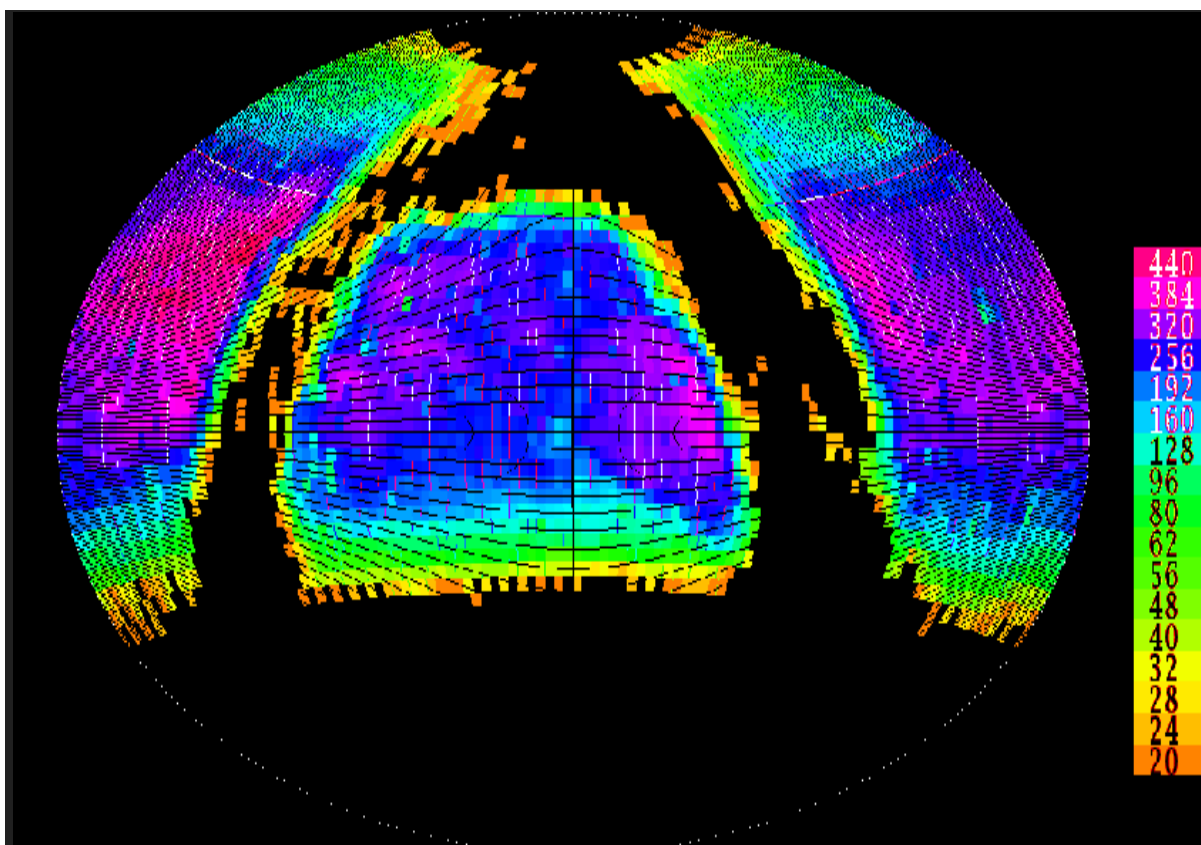
Here you will find the first public data release (CSDR1) from the *Catalina Surveys* that consists of all photometry from seven years of photometry taken with the CSS Schmidt telescope. This data release encompasses the photometry for **198 million objects** with V magnitudes between 12 and 20 from an area of **24,000** square degrees. The sky coverage and number of observation epochs at each location is as shown here: Updates: **2012-11-20: CSDR1 has been updated to include all photometry up to 2012-10-27.** **2012-03-28: The CSDR1 photometry now includes improved internal calibration corrections.** **2013-01-03: RR Lyrae from CSDR1.**

## Introduction

The *Catalina Surveys* consist of the Catalina Sky Survey (CSS) and the Catalina Real-time Transient Survey (CRTS).

The research of CSS involves searches for rapidly moving Near Earth Objects (NEOs) whereas that of CRTS involves the detection of stationary optical transients (OTs). Both surveys work collaboratively to extract the maximum scientific return from data from three telescopes operated by CSS. In this same collaborative spirit we are now providing an open-access archival data service.

## Data Available in CSDR1



An Aitoff projection of the sky region covered by this release in equatorial coordinates (centered at RA=0h). The colour key gives the number of epochs at each location.

## Data Access

## Photometry

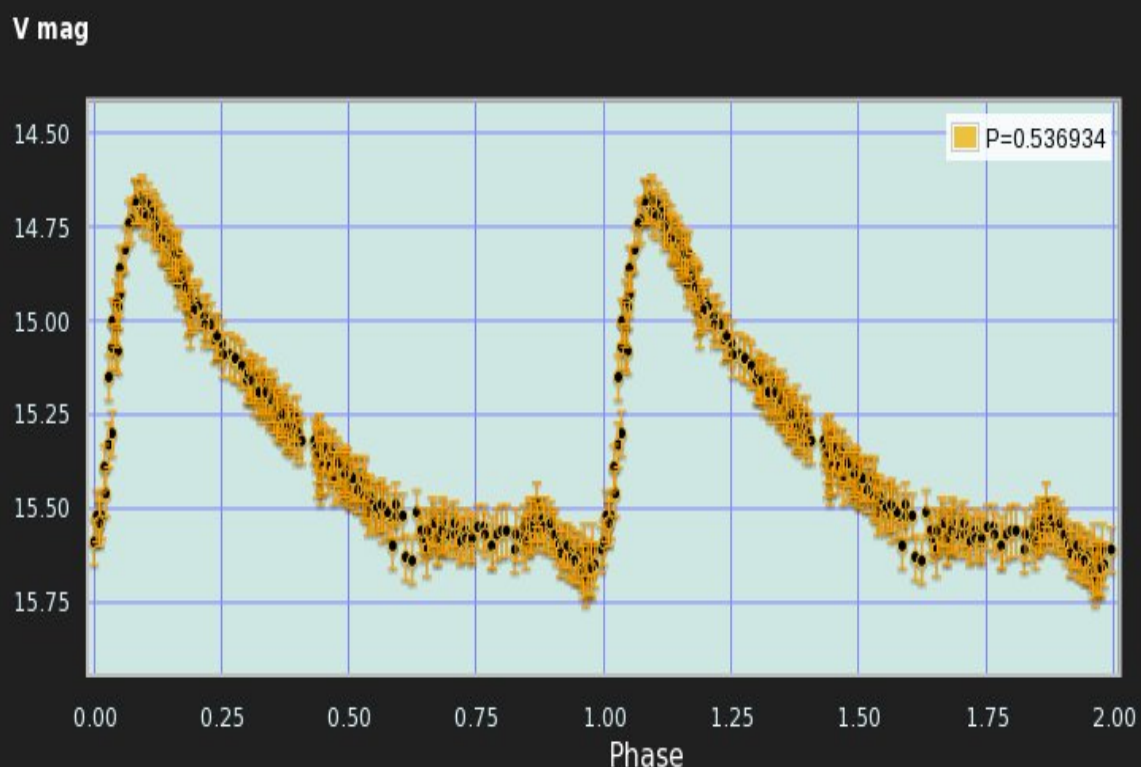
Access by Coordinates or Name	Access by Catalina ID
Single Region Search <a href="#">Service</a> .	Extract/plot CS <a href="#">photometry</a> .
Multiple Object Search <a href="#">Service</a> .	Search for a <a href="#">period</a> .
Get photometry for a known <a href="#">object</a> .	

**Note:** Catalina photometry release covers objects with  $12 < V < 20$ , in the range  $-30^\circ < \text{Dec} < 65^\circ$  and  $|b| > \sim 15^\circ$  (see [FAQ](#)).

Further [details](#)

**Example Lightcurve:** The phase folded lightcurve known variable star [2MASS J22484889+0106422](#), clearly identified by Catalina

Survey data as an RR Lyrae with a period of  $\sim 0.537$  days.



Links to more examples of Catalina Surveys [lightcurves](#) and [GCVS](#) variables.

## Images

[Access by Coordinates](#)

[Check Image Coverage.](#)

Catalina images will be available in a future data release.

[Additional details](#)

## Database

Organization of the data base follows this [DB Schemata](#).

## FAQ

What you should understand about the [data](#).

### Disclaimer, Conditions and Limitations

This data is supplied with the intent of maximizing scientific utility. Although we have attempted to verify the integrity of the data, users should be cautious with interpretation of measurements (as outlined in the FAQ). Wherever possible and appropriate, discoveries made using this data should cite the Catalina Surveys ID given by the services.

This data is not being supplied by a data center. Therefore, we must limit queries by single users so that all users can benefit. Users wishing to run scripts with very large number of queries, or produce external services linking to the data, must contact us before doing so.