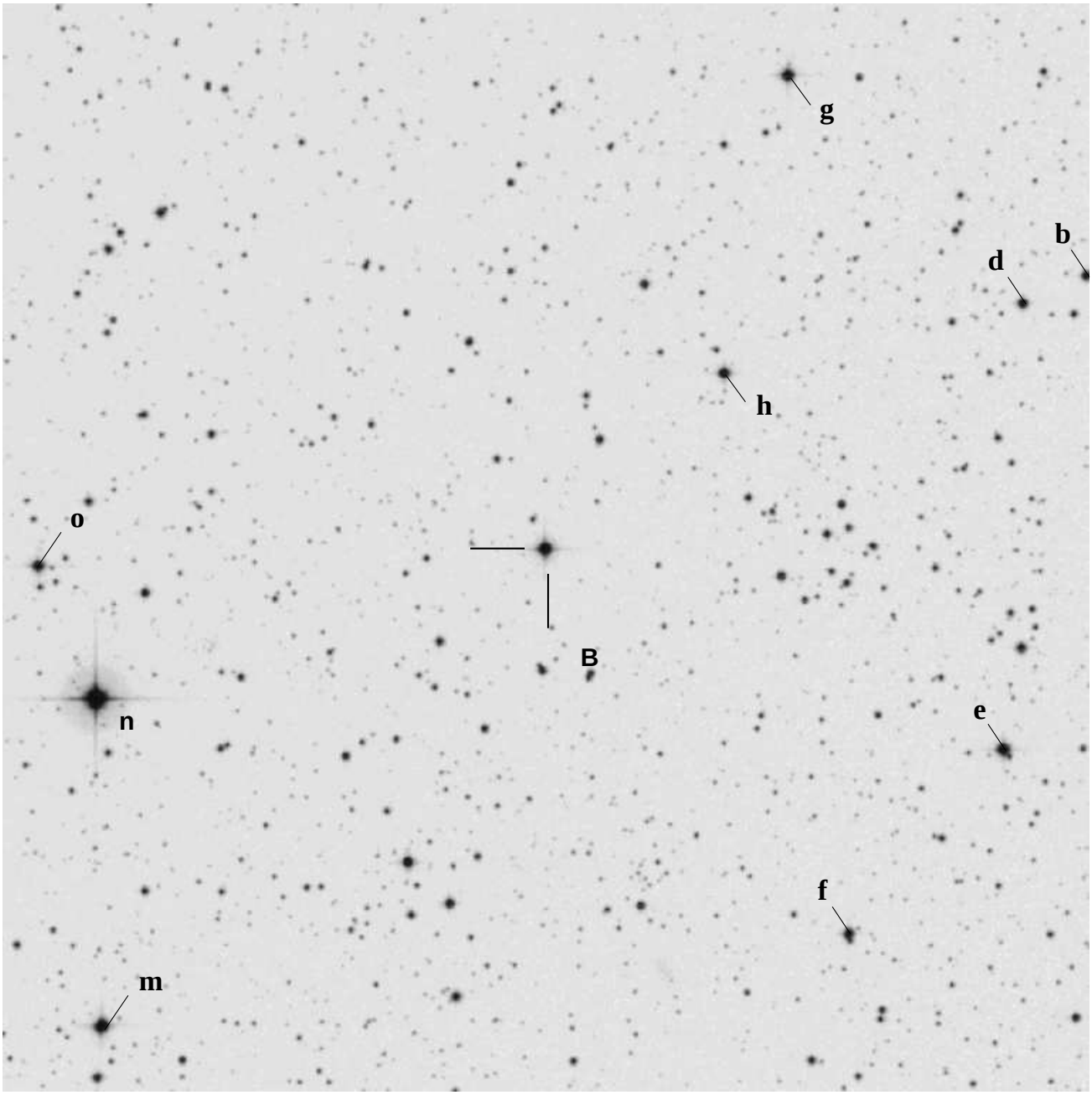
# LPH034, AUID 000-BCZ-082
# (AAVSO 0434+41; J0440.9+4431, BSD 24 - 491)




J0440.9+4431: $04^h40^m59^s.32$ $+44°31'49''.3$s (J2000) V=10.78, B-V=0.61
15m (1/4°) sq field — North up. In Perseus near Capella, Uranometria 65.
Position from: SIMBAD

Comp and Check stars with relatively neutral B-V (from SRO data)

| Star | RA | Dec | B | V | R | I | |
|---|---|---|---|---|---|---|---|
| a | 04 40 06.850 | 44 23 51.558 | 12.232 | 11.681 | 11.353 | 10.969 | Revision |
| b | 04 40 17.294 | 44 35 31.816 | 13.261 | 12.754 | 12.469 | 12.109 | [2009-09-07] |
| d | 04 40 22.229 | 44 35 09.305 | 13.197 | 12.568 | 12.166 | 11.671 | |

Notes on data reduction: For standard differential photometry use a as the comparison star if possible (plotted on page 2). For ensemble photometry all of the above stars may be used. If inhomogeneous ensemble photometry is used, set the zeropoint with the comp star a (if possible).

Original Henden sequence data for J0440.9+4431 from the 0.35m telescope at Sonoita Research Observatory (SRO) for stars brighter than 13th magnitude:

| ID | RA(J2000) | raerr | DEC(J2000) | decerr | nobs | V | B-V | U-B | V-R | R-I | V-I | | | Errors | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| a | 70.028543 | 0.064 | 44.397655 | 0.042 | 4 | 11.681 | 0.551 | 99.999 | 0.328 | 0.379 | 0.712 | 0.005 | 0.039 | 9.999 | 0.017 | 0.017 | 0.009 |
| b | 70.072058 | 0.059 | 44.592171 | 0.025 | 4 | 12.754 | 0.507 | 99.999 | 0.285 | 0.354 | 0.645 | 0.008 | 0.032 | 9.999 | 0.007 | 0.014 | 0.013 |
| c | 70.084101 | 0.045 | 44.384804 | 0.055 | 4 | 12.820 | 0.825 | 99.999 | 0.508 | 0.518 | 1.029 | 0.000 | 0.034 | 9.999 | 0.021 | 0.025 | 0.010 |
| d | 70.092621 | 0.064 | 44.585918 | 0.024 | 4 | 12.568 | 0.629 | 99.999 | 0.402 | 0.486 | 0.897 | 0.009 | 0.038 | 9.999 | 0.015 | 0.004 | 0.010 |
| e | 70.100049 | 0.055 | 44.483596 | 0.036 | 4 | 11.929 | 1.714 | 99.999 | 0.953 | 0.959 | 1.919 | 0.014 | 0.025 | 9.999 | 0.016 | 0.027 | 0.020 |
| f | 70.150302 | 0.034 | 44.441402 | 0.035 | 4 | 12.653 | 1.026 | 99.999 | 0.606 | 0.641 | 1.253 | 0.012 | 0.029 | 9.999 | 0.014 | 0.015 | 0.010 |
| g | 70.167872 | 0.066 | 44.638584 | 0.030 | 4 | 12.230 | 1.907 | 99.999 | 1.083 | 1.069 | 2.158 | 0.013 | 0.021 | 9.999 | 0.009 | 0.027 | 0.025 |
| h | 70.188966 | 0.042 | 44.570413 | 0.020 | 4 | 12.323 | 1.067 | 99.999 | 0.631 | 0.622 | 1.257 | 0.014 | 0.031 | 9.999 | 0.010 | 0.022 | 0.020 |
| i=obj | 70.247217 | 0.045 | 44.530357 | 0.008 | 4 | 10.695 | 0.674 | 99.999 | 0.456 | 0.487 | 0.949 | 0.014 | 0.041 | 9.999 | 0.018 | 0.035 | 0.042 |
| j | 70.282242 | 0.034 | 44.361997 | 0.045 | 4 | 11.128 | 1.275 | 99.999 | 0.752 | 0.792 | 1.552 | 0.000 | 0.037 | 9.999 | 0.025 | 0.025 | 0.016 |
| k | 70.303116 | 0.124 | 44.682177 | 0.076 | 4 | 10.297 | 2.411 | 99.999 | 1.463 | 0.951 | 2.381 | 0.010 | 0.011 | 9.999 | 0.081 | 0.045 | 0.118 |
| l | 70.326259 | 0.067 | 44.676616 | 0.038 | 4 | 12.847 | 0.932 | 99.999 | 0.703 | 0.722 | 1.431 | 0.026 | 0.028 | 9.999 | 0.009 | 0.023 | 0.021 |
| m | 70.390872 | 0.021 | 44.421437 | 0.038 | 4 | 11.301 | 1.233 | 99.999 | 0.753 | 0.799 | 1.561 | 0.014 | 0.027 | 9.999 | 0.013 | 0.023 | 0.014 |
| n=A | 70.392324 | 0.122 | 44.496585 | 0.036 | 4 | 8.863 | 0.177 | 99.999 | 0.310 | 0.215 | 0.456 | 0.174 | 0.090 | 9.999 | 0.063 | -9.999 | 0.026 |
| o | 70.410614 | 0.040 | 44.527068 | 0.026 | 4 | 12.353 | 1.427 | 99.999 | 0.856 | 0.884 | 1.748 | 0.008 | 0.043 | 9.999 | 0.022 | 0.022 | 0.019 |

Note: V-I is used to determine I, not R-I.

**ARCHIVAL REFERENCE DATA: Do not** use the data below for photometry. It is here for archival reference only to tie in old data with new data.

Reference star data from SIMBAD

| Ref Star | ID | RA | Dec | B | V |
|---|---|---|---|---|---|
| A=n | HD 29580 | 04 41 34.14 | +44 29 47.8 | 8.80 | 8.49 |
| B (Var) | OU Per | 04 40 55.9 | +44 30 06 | 15.00 | |