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GSC 4004_1211: A NEW VARIABLE
IN THE FIELD OF V360 CASSIOPEIAE

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| Name of the object: |
| :--- |
| GSC 4004_1211 |


| Equatorial coordinates: | Equinox: |
| :--- | :--- |
| R.A. $=23^{\mathrm{h}} 34^{\mathrm{m}} 17^{\mathrm{s}}$ DEC. $=+55^{\circ} 53^{\prime} 58^{\prime \prime}$ | 2000.0 |

## Observatory and telescope:

Private Observatory in Lennestadt, 0.32-m Ritchey-Chretien telescope; Esteve Duran Observatory, $0.6-\mathrm{m}$ Cassegrain telescope

| Detector: | CCD |
| :--- | :--- |


| Filter(s): | $V$ |
| :--- | :--- |

Comparison star(s): GSC 4008_809

| Check star(s): | GSC 4004_1159, GSC 4004_1259 |
| :--- | :--- |


| Transformed to a standard system: | No |
| :--- | :--- |


| Availability of the data: |
| :--- |
| Through IBVS Web-site as 4701-t1.txt |

Type of variability: DSCT:

## Remarks:

The variability of GSC 4004_1211 was found while being used as comparison star for V360 Cas. CCD observations show that this object has light variations with an amplitude in the $V$ band close to 0.1 magnitude and a period of $0.129701 \pm 0.000002$ days. The shape of the light curve indicates that this variable is not an ellipsoidal nor eclipsing binary system. Although the period has remained stable for almost a year, from 31 October 1997 to 7 October 1998, the light curve shows instabilities from cycle to cycle similar to those of a Delta Sct star. To derive more information about GSC 4004_1211, its average $B-V$ color index was estimated using the TYCHO star GSC 4004_0715. Photometric data showed that $B-V=0.61 \pm 0.07$. This value is redder than the typical one for a Delta Sct variable, but GSC 4004_1211 is near the Galactic plane and it might be affected by interstellar extinction. Figure 1 shows the light curve of GSC 4004_1211 folded according to the given period. To construct Figure 1 and due to light curve instabilities, the zero epoch was arbitrarily fixed.

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Figure 1.

