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PHOTOMETRIC OBSERVATIONS OF ZETA AURIGAE DURING THE 1987-1988 ECLIPSE

Photoelectric UBV observations of the long period eclipsing binary Zeta Aurigae were carried out from November 1987 to January 1988 with a 40 cm reflector at the Department of Astronomy, Kyoto University. The comparison star is Lambda Aurigae (G0V) whose magnitude and color indices are, V=4.71, B-V=0.67, and U-B=0.10, respectively. Twenty-two standard stars were used for reduction of the data and the reduction was done in usual manners.

The resulting differential magnitudes in the Johnson system are listed in Table I in the sense of Zeta Aurigae minus Lambda Aurigae.

Table I. Magnitudes of Zeta Aurigae minus Lambda Aurigae

Date	JD*	ΔV	ΔB	ΔU	n*
Nov. 11	2447111.075	-0.895	-0.303	-0.142	3
Nov. 19	2447119.279	-0.670	0.354	2.106	3
Nov. 20	2447120.094	-0.700	0.365	1.953	3
Nov. 25	2447125.099	-0.802	0.158	1.661	2
Dec. 1	2447131.075	-0.751	0.346	2.035	2
Dec. 7	2447136.999	-0.768	0.336	2.019	2
Dec. 14	2447143.984	-0.743	0.275	2.085	2
Dec. 23	2447153.002	-0.765	0.314	2.058	3
Dec. 24	2447154.119	-0.750	0.342	2.069	5
Dec. 25	2447155.123	-0.862	0.005	1.485	7
Dec. 26	2447156.134	-0.913	-0.229	0.178	7
Dec. 27	2447157.069	-0.898	-0.287	0.073	6
Dec. 28	2447158.132	-0.932	-0.251	0.043	8
Jan. 20	2447180.977	-0.926	-0.246	-0.001	3

* JD is Julian Day at mid-time of observations, and n is number of observations.

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