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V 445 Cas IS AN ECLIPSING VARIABLE

The variable star V 445 Cas (=Wr 172) discovered by Weber (IBVS No 230,1967) was reported to be a cepheid variable probably with a short period. This variable star was observed photoelectrically with the 20 inch Cassegrain reflector of the Konkoly Observatory at the Pizskéstető Mountain Station. The stars BD +52°87 and BD +52°84 were used as comparator and check stars, respectively. According my tie-in observations made on a not quite uniform night, the magnitudes and colours of the comparison and check stars are as follow:

	V	B-V
BD +52°87	10. ^m 91	0. ^m 51
BD +52°84	10. ^m 53	1. ^m 41

My photoelectric observations transformed to the UBV international system are listed in the Table.

According to my observations the star is a β Lyrae type eclipsing binary with the following elements:

$$\text{Min I} = \text{J.D. } 2441921.3782 + 0.^d67352 \cdot E$$

The depth of the primary minimum is about 0.^m42 while that of secondary minimum is 0.^m19 in V light. The B-V colour does not vary noticeably during the eclipses, ie. both components are of about the same spectral type.

The light and colour curves are shown in the Figure.

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J.D.2441000+	V	B-V	J.D.2441000+	v	B-V
596.4330	11. ^m 06	0. ^m 23	917.4818	10. ^m 90	0. ^m 22
597.4360	11.26	.27;	.5151	10.90	.20
.5246	10.94	.21	.5679	10.95	.22
625.2692	10.95	.24	918.3567	11.08	.20
.3207	11.05	.21	.4749	10.93	.23
.3754	11.07	.21	.5067	10.91	.20
.4143	11.06	.21	921.3114	11.04	.26
629.2525	10.90	.22	.3453	11.21	.24
631.3696	11.02	.20	.3883	11.30	.22
634.3010	10.92	.19	.4223	11.13	.23
.3635	10.96	.22	.4629	11.00	.22
650.3304	11.02	.21	.4941	10.94	.21
.3804	10.96	.19	.5267	10.90	.22
.4325	10.90	.22	.5486	10.89	.22
651.2332	11.06	.21	.5815	10.91	.23
.3304	11.17	.25	944.2679	11.31	.20
.3908	10.98	.22	.2908	11.32	.21
662.2198	10.91	.23	.3144	11.19	.22
.2672	10.93	.20	.3380	11.07	.19
.3445	11.00	.20	.3658	11.00	.21
689.2130	10.92	.21	.3839	10.95	.21
.2512	10.96	.23	.4199	10.92	.22
917.3741	11.19	.21	949.2610	10.99	.22
.4151	11.01	.23	.2932	11.03	.23
.4378	10.97	.22	.3112	11.08	.19

