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BVRI PHOTOMETRY OF THE ECLIPSING BINARY QX Cas

During a program to observe Classical Cepheids, we included the eclipsing binary QX Cas since it was located in the same field as the Cepheids CE Cas and CF Cas.

The differential observations were transformed to the Johnson BVRI system through use of standards given by Moffett and Barnes (1979a,b). Nightly extinction determinations from stars given by Barnes and Moffett (1979) were used to define mean seasonal extinction coefficients which were used in the final data reduction. More details on the reduction procedures are given by Moffett and Barnes (1979a).

The variable was measured differentially with respect to the two comparison stars whose adopted values are given in Table I.

Table I  
Adopted Comparison Star Values

SAO	V	(B-V)	(V-R)	(R-I)
20968	8.037	1.107	0.839	0.526
20972	9.948	0.658	0.676	0.488

The data for QX Cas are given in Table II where the phases were calculated using the values:  $P = 6.00471$  days, Epoch = 2435755.0 as given in the General Catalogue of Variable Stars.

Table II

## BVRI Photometry of QX Cas

Phase	HJD- 2440000	V	(B-V)	(V-R)	(R-I)
.001	4215.6400	10.275	0.305	0.319	0.230
.060	4984.5988	10.161	0.309	0.339	0.204
.089	4912.7195	10.228	0.300	0.338	0.200
.121	4822.8416	10.159	0.318	0.326	0.189
.163	4222.6207	10.203	0.307	0.320	0.221
.174	4216.6821	10.173	0.300	0.322	0.167
.247	4913.6639	10.190	0.278	0.323	0.205
.266	4913.7773	10.190	0.276	0.335	0.193
.282	4913.8784	10.176	0.309	0.299	0.212
.328	4223.6130	10.200	0.316	0.317	0.213
.334	4217.6420	10.216	0.296	0.318	0.226
.387	4139.8985	10.218	0.321	0.304	0.248
.389	5010.5964	10.203	0.293	0.329	0.209
.407	4986.6857	10.163	0.326	0.320	0.184
.408	4914.6310	10.216	0.302	0.326	0.212
.417	4914.6880	10.219	0.303	0.341	0.223
.418	4908.6895	10.201	0.294	0.329	0.224
.462	4554.6741	10.181	0.284	0.322	0.228
.509	4218.6927	10.207	0.300	0.317	0.226
.556	5011.5975	10.184	0.309	0.325	0.247
.556	4140.9158	10.130	0.333	0.334	0.169
.577	4105.0090	10.143	0.272	0.335	0.170
.591	4909.7267	10.211	0.300	0.324	0.186
.630	4555.6845	10.221	0.286	0.335	0.199
.889	4142.9140	10.154	0.325	0.332	0.178
.904	4941.6326	10.202	0.317	0.329	0.171
.941	4821.7571	10.185	0.319	0.326	0.210
.945	4911.8499	10.212	0.285	0.338	0.184
.956	4821.8496	10.251	0.296	0.337	0.215
.975	4821.9646	10.316	0.305	0.335	0.218

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## References:

- Barnes, T.G., and Moffett, T.J. 1979, Pub. A.S.P., 91, 289.  
Moffett, T.J., and Barnes, T.G. 1979a, Pub. A.S.P., 91, 180.  
Moffett, T.J., and Barnes, T.G. 1979b, A.J., 84, 627.