TABLE 4

$uvby-\beta$ PHOTOELECTRIC PHOTOMETRY OF THE OPEN CLUSTER NGC 6830

ID	V	$(b-y)$	m_1	c_1	β	SpTyp		sptp
						Phe	Spc	
5	9.849	0.266	0.013	0.554	2.721	B6V	B7 V	B5 III
7	11.176	0.353	0.007	0.822	2.689	B8V	A0 V	B7 III
8	11.540	0.373	−0.018	0.716	2.616	B7V	B7 IV	
49	10.956	0.456	0.103	0.875	2.751	AV5		
4	12.623	0.600	−0.100	0.471	2.685	B3V		
2258	13.003	0.546	0.086	0.484	2.721	F9V		
2257	12.166	0.390	−0.008	0.584	2.706	B7V		
26	12.309	0.564	0.160	0.255	2.661	G1V		
164	12.240	0.460	0.093	0.819	2.766	A8V		
25	12.465	0.333	0.012	0.661	2.718	B8V		
24	11.644	0.391	−0.034	0.612	2.635	B5V	B6 V	B6 IV
2	10.625	0.329	−0.017	0.606	2.603	B5V		
3	12.888	1.620	0.383	0.256	2.569	K G		
39	11.192	0.386	−0.051	0.681	2.668	B8I	B5 IV	
2275	11.909	1.160	0.306	−0.047	2.576	B7V		
13	12.787	0.767	0.134	0.380	2.605	K0V		
14	11.995	0.348	0.017	0.532	2.714	B6V	B6 V	B6 IV
15	12.659	0.407	−0.035	0.646	2.681	B6V		
16	12.456	0.408	0.108	0.807	2.794	K		

(later than G) were not considered in the analysis since no reddening determination calibration has yet been developed for MS stars. In order to determine the spectral type of each star, the location of the stars in the $[m_1]-[c_1]$ diagram was employed as a primary criteron. In Tables 3 and 4 the photometrically determined spectral class has been indicated. The determined spectral types compiled in the literature are also presented.

The reddening determination was obtained from the spectral types through Strömgren photometry. The application of the calibrations developed for each spectral type (Shobbrook 1984 for O and early A types and Nissen 1988 for late A and F stars) were considered. No determination of reddening was calculated for G and later spectral types. The results of applying such calibrations are shown in Tables 5 and 6 for NGC 6811 and NGC 6830, respectively. In Table 5, the following columns are presented: Column 1 the ID (WEBDA) for each star; Column 2, the reddening $E(b-y)$; Columns 3 to 5, the unreddened indexes $(b-y)_0$, m_0, and c_0; Column 6 the Hβ value; Columns 7 and 8 V_0, and the absolute magnitude, respectively. Columns 9 and 10 show the distance modulus and the distance in parsecs. The metallicity is presented in Column 11 and, finally, Column 12 lists the membership to the cluster, denoted by M (member) or NM (non-member). The membership was determined from the distance modulus or distance histograms. A Gaussian fit with a bin size of one was done to the bars in the histogram to all the stars and the obtained fit is presented, along with the uncertainties in each figure. Membership then was established from the above mentioned fit. Stars within a standard deviation value from the mean were considered to be members. Those with standard deviation values slightly larger than one sigma are considered to be stars with marginal membership. In the table, those stars that are considered to be members of the cluster are denoted by an 'm'. Marginal membership is indicated by a semi-colon, 'm:', those that were non-members are denoted by 'nm'. Table 6 is analogous. Probable members are denoted by a semicolon.