

No. 92 EIGHT-COLOR NARROW-BAND PHOTOMETRY OF 985 BRIGHT STARS

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ABSTRACT

We give here eight-color photometry of 985 stars north of -20° declination. The medium-narrow filters are similar to those of Borgman, and our data should be capable of similar interpretations. We have derived an absolute calibration of our new photometry. The data given here should be regarded as defining the shorter-wavelength portion of a 13-color medium-narrow-band photometric system, extending from 3300 Å in the ultraviolet to 11,000 Å in the infrared.

1. Introduction

In recent years we have seen the introduction of many special-purpose narrow-band photometric systems. Among these are the uvby system of Strömgren and Perry (1962), the χ system of Neff and Travis (1967), and the $b_1 b_2 b_3 y$ system of Willstrop (1960). Borgman (1960, 1961) introduced a seven-color system that seems to offer most of the advantages of the other, more limited, systems. Some of the uses of this seven-color system have been discussed by Borgman (1963) and Borgman and Blaauw (1964).

We have decided to adopt essentially the system of Borgman, plus six additional similar filter bands in the red and infrared. The system plan, compared with that for the UBVRI system, is shown in Figure 1. The wavelengths of the maximum sensitivity and the half-intensity widths are indicated on the figure for the several filter bands.

This observing program was carried out with the financial assistance of the National Aeronautics and Space Administration, in connection with our proposed ultraviolet (1000 Å to 3000 Å) photometric and polarimetric measurements from an Orbiting Astronomical Observatory. We consider it essential

to obtain good photometric data on the bright stars with a system having characteristics compatible with that we would use from the satellite. When the entire observing program is completed, we will have stellar photometric data in approximately 20 medium-narrow bands ranging in wavelength from about 1200 Å to 11,000 Å.

As the first step in this program, we have observed the 985 stars brighter than visual magnitude 5.0, north of declination -20° , in the eight shorter-wavelength bands. This choice of filter bands was dictated by the fact that these eight can be fitted into the spectral response of the S-4 photosensitive surface of an RCA 1P21. These are the data published here. We are now beginning the observing program that will add the five red and infrared filters. The filters are identified throughout this paper by their approximate effective wavelengths, i.e., 33, 35, 37, 40, 45, 52, 58, and 63. Thus, the 33 filter has an approximate effective wavelength of 0.33μ , etc.

2. Instrumentation

Almost all of our eight-color observations were obtained with LPL's 21-in. photometric telescope; a few were obtained with the 28-in. The photometer,

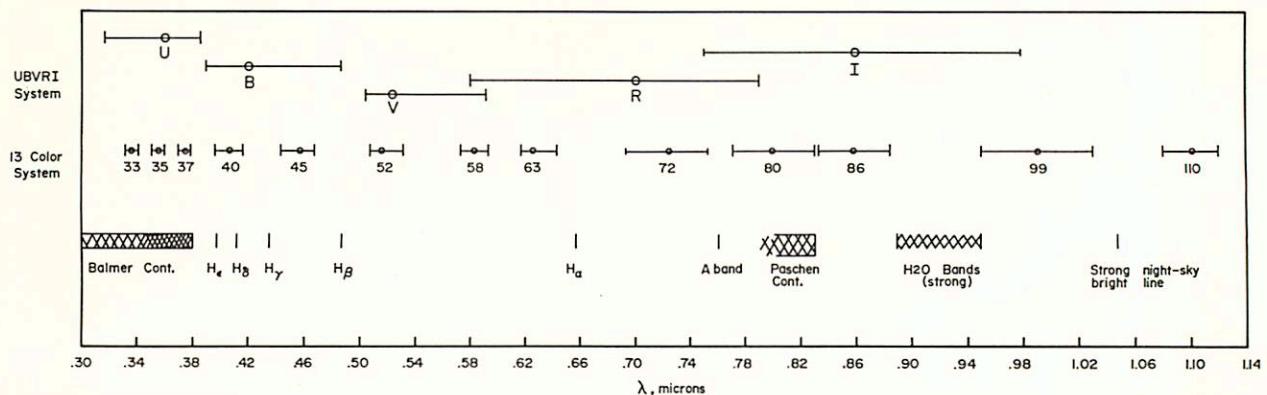


Fig. 1 The 13-color system compared with the UBVRI system and with certain stellar or atmospheric features.

the automated data-collection system, and the data-reduction procedures have been described earlier (Johnson and Mitchell 1962).

The filter-detector response functions are presented in tabular form in Table 1 and in graphical form in Figures 2–9; all data have been normalized to 100 percent at the filter-band peaks. Table 2 contains certain derived data for the eight filter bands; the effective wavelengths are listed in the second column, while the absolute calibration of our new photometry (to be discussed below) is given in the last two columns. We define the effective wavelength as

$$\lambda_0 = \int_0^\infty \lambda \phi(\lambda) d\lambda / \int_0^\infty \phi(\lambda) d\lambda, \quad (1)$$

where $\phi(\lambda)$ = the relative sensitivity of the measuring instrument, including the telescope. As Strömgren (1937), Wesselink (1950), and King (1952) have shown, instrumental magnitudes behave to a first-order approximation like monochromatic magnitudes at wavelength λ_0 . The term "monochromatic" is not used here in the strictest sense but refers to an averaged or smoothed energy distribution over the region of the filter bandpass. Because of the absorption lines and other features in stellar spectra, we do not expect the absolute calibration of filter-photometry to yield absolute energies that are identical to those obtained from high-resolution spectrophotometry; instead, the absolute fluxes obtained from the calibration derived here apply to rather thoroughly smoothed stellar spectral-energy distributions. The computed effective wavelengths were checked, as described by Johnson (1965), to see that the several values of λ_0 are as nearly independent of stellar temperature as possible. No modifi-

cations of the computed effective wavelengths were required.

3. Observations

The eight-color program included all stars north of -20° declination that are brighter than fifth visual magnitude on the Harvard system. A total of 985 stars were observed two or three times each (one star, BS 9066, was omitted from observation). The probable errors of the magnitudes and colors are listed in Table 3.

Table 6 summarizes our observational data for the 985 bright stars. The first column gives the number of the star in the *Catalogue of Bright Stars* (Hoffleit 1964), followed by the photometric data. The last two columns contain the number of observations used in the mean, and the spectral type of the star, which was copied from Johnson, *et al.* (1966).

The observations in Table 6 were corrected for red leaks in the three ultraviolet filters, 33, 35, and 37. For the most part, these corrections were small and, therefore, quite precise. For the reddest carbon stars, however, we were unable to obtain significant measures in the 33 filter; for these stars, the lower limit for the color 33–52 is given in parentheses, i.e., (12+).

A few stars were observed with a 35 filter whose effective wavelength is about 0.365μ (instead of 0.353μ). These data have been graphically transformed to the adopted 35 system and entered in brackets in Table 6. The transformation, unfortunately, is rather imprecise, and for these few stars the color 35–52 should be used with some reserve.

The individual observations are listed in Tables 7, 8, and 9. For convenience in data-processing, the observational data were listed in three tables; all of

TABLE 1
FILTER-DETECTOR RESPONSE FUNCTIONS
Percent of Peak Response

33		35		37		40		45		52		58		63	
$\lambda(\text{A})$	%	$\lambda(\text{A})$	%	$\lambda(\text{A})$	%	$\lambda(\text{A})$	%	$\lambda(\text{A})$	%	$\lambda(\text{A})$	%	$\lambda(\text{A})$	%	$\lambda(\text{A})$	%
3157	0.7	3060	0.1	3204	0.2	3187	0.2	4004	0.1	4704	0.4	5249	0.0	6024	0.1
3254	6.9	3204	2.2	3500	2.4	3404	1.1	4254	1.0	4904	3.2	5604	7.7	6077	4.4
3293	21.5	3404	8.8	3603	6.7	3602	2.7	4354	7.1	5004	15.0	5648	14.6	6111	17.5
3311	33.3	3461	19.0	3672	22.2	3749	5.3	4382	15.9	5028	20.4	5693	26.4	6142	31.5
3317	43.4	3490	28.8	3690	33.3	3805	7.7	4400	23.8	5048	30.0	5717	37.4	6157	43.3
3319	45.7	3504	38.9	3704	44.4	3904	20.5	4413	31.7	5062	39.5	5735	49.4	6170	52.5
3328	58.7	3515	48.6	3708	47.8	3935	33.9	4424	39.7	5077	48.8	5749	57.1	6180	61.2
3337	71.5	3522	59.2	3711	55.6	3956	45.2	4437	47.6	5082	55.5	5755	61.7	6194	69.6
3345	84.5	3533	69.5	3717	66.7	3964	49.7	4443	55.6	5086	58.0	5762	65.5	6201	79.6
3354	96.6	3538	79.7	3726	77.8	3974	56.5	4451	63.5	5095	65.1	5770	75.3	6208	87.5
3358	99.7	3547	89.7	3734	88.9	3988	67.8	4460	71.4	5107	76.1	5783	83.1	6211	89.2
3380	91.4	3565	100.0	3748	97.8	4003	79.1	4472	79.4	5117	84.9	5798	88.8	6223	90.6
3388	79.3	3576	90.5	3750	100.0	4024	90.4	4487	87.3	5130	92.8	5810	97.2	6230	96.3
3396	68.7	3584	80.5	3767	88.9	4070	100.0	4520	95.2	5160	99.8	5827	100.0	6245	98.7
3399	66.9	3586	70.4	3776	77.8	4113	90.4	4571	100.0	5177	99.2	5850	96.3	6252	99.7
3410	54.2	3599	61.0	3782	66.7	4131	79.1	4597	95.2	5226	96.3	5854	95.2	6267	96.7
3422	41.1	3610	51.2	3794	55.6	4146	67.8	4615	87.3	5248	91.7	5884	80.0	6288	96.2
3442	27.7	3612	40.7	3803	44.4	4159	56.5	4630	79.4	5269	81.1	5907	66.5	6310	90.0
3448	22.8	3626	30.8	3818	33.3	4170	45.2	4643	71.4	5284	70.9	5925	54.5	6349	81.5
3491	8.8	3642	21.0	3842	22.2	4185	33.9	4654	63.5	5292	62.5	5940	45.7	6355	77.0
3602	1.2	3704	6.0	3884	11.1	4203	22.6	4669	55.6	5302	54.3	5956	36.4	6443	47.6
3719	0.1	3830	0.1	3904	8.9	4236	11.3	4679	47.6	5316	46.0	5971	29.0	6601	21.2
				4082	0.0	4254	6.9	4694	39.7	5322	37.4	5981	23.4	6691	8.2
						4304	2.0	4708	31.7	5336	30.4	5986	21.8	6840	5.1
						4564	0.0	4730	23.8	5350	22.0	6001	16.6	6987	2.3
								4772	16.0	5375	13.8	6021	10.9	7134	0.8
								4876	7.9	5404	7.3	6048	6.4		
								4999	4.1	5523	1.0	6099	2.3		
								5309	1.6	5704	0.2	6104	1.9		
								5604	0.5			6229	0.2		

TABLE 2
ABSOLUTE CALIBRATION OF EIGHT-COLOR FILTERS
Flux Density (mag = 0.00)

FILTER BAND	λ_0	F_λ	F_λ
33	0.337 μ	$3.33 \times 10^{-12} \text{w/cm}^2\mu$	$1.13 \times 10^{-23} \text{w/m}^2\text{Hz}$
35	0.353 μ	$3.51 \times 10^{-12} \text{w/cm}^2\mu$	$1.46 \times 10^{-23} \text{w/m}^2\text{Hz}$
37	0.375 μ	$5.04 \times 10^{-12} \text{w/cm}^2\mu$	$2.36 \times 10^{-23} \text{w/m}^2\text{Hz}$
40	0.402 μ	$7.73 \times 10^{-12} \text{w/cm}^2\mu$	$4.17 \times 10^{-23} \text{w/m}^2\text{Hz}$
45	0.459 μ	$6.31 \times 10^{-12} \text{w/cm}^2\mu$	$4.43 \times 10^{-23} \text{w/m}^2\text{Hz}$
52	0.518 μ	$4.61 \times 10^{-12} \text{w/cm}^2\mu$	$4.13 \times 10^{-23} \text{w/m}^2\text{Hz}$
58	0.583 μ	$3.32 \times 10^{-12} \text{w/cm}^2\mu$	$3.76 \times 10^{-23} \text{w/m}^2\text{Hz}$
63	0.635 μ	$2.49 \times 10^{-12} \text{w/cm}^2\mu$	$3.35 \times 10^{-23} \text{w/m}^2\text{Hz}$

TABLE 3
PROBABLE ERROR OF A SINGLE OBSERVATION

52	33 - 52	35 - 52	37 - 52	40 - 52	45 - 52	52 - 58	52 - 63
± 0.017	± 0.014	± 0.012	± 0.011	± 0.011	± 0.009	± 0.011	± 0.013

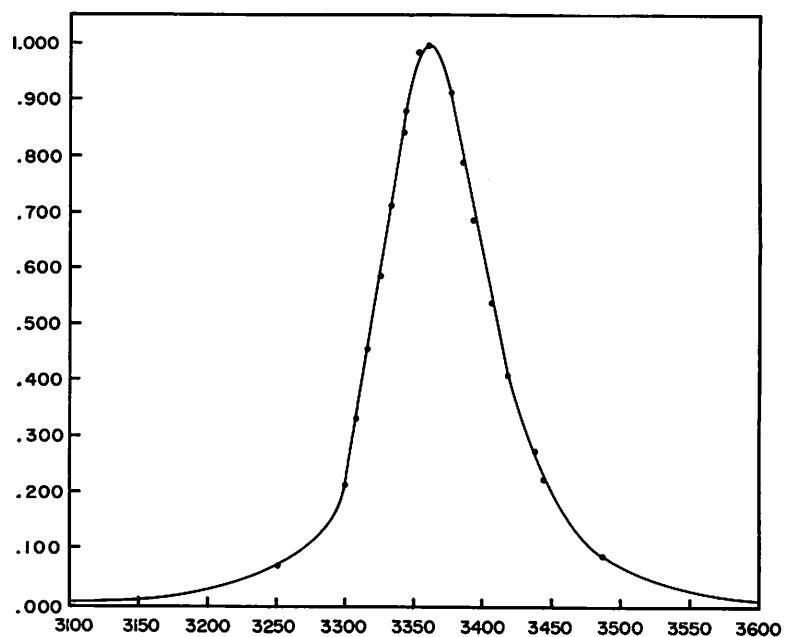


Fig. 2 Normalized response function for filter 33, as given in Table 1.

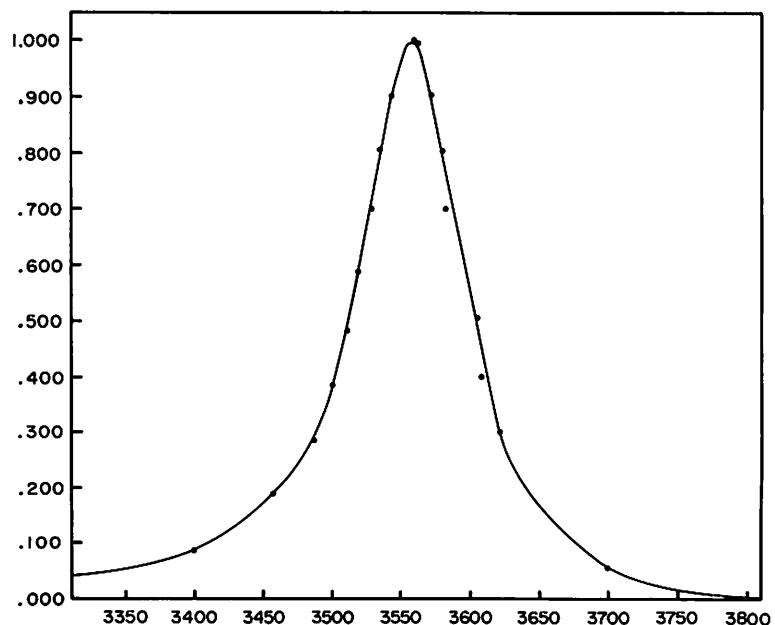


Fig. 3 Normalized response function for filter 35, as given in Table 1.

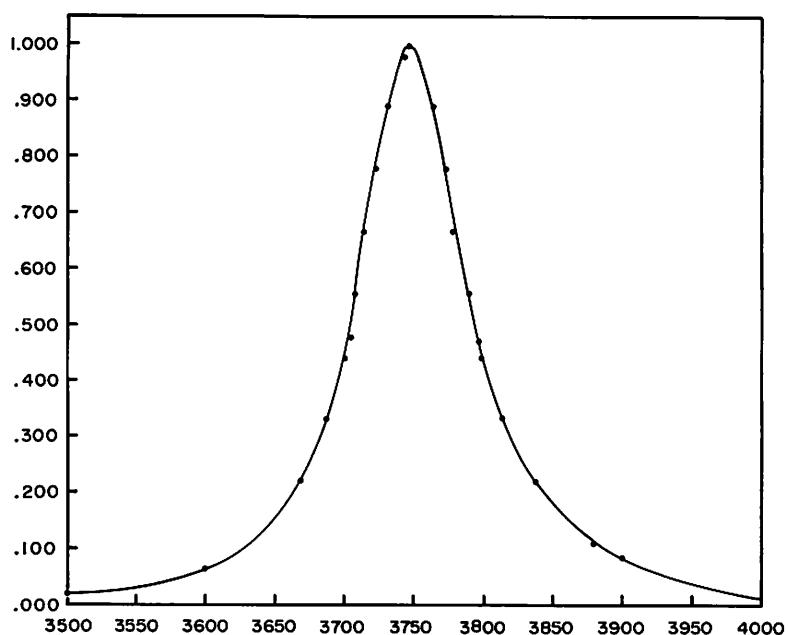


Fig. 4 Normalized response function for filter 37, as given in Table 1.

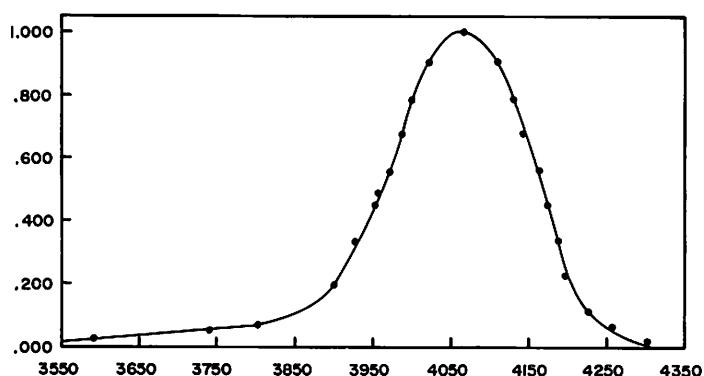


Fig. 5 Normalized response function for filter 40, as given in Table 1.

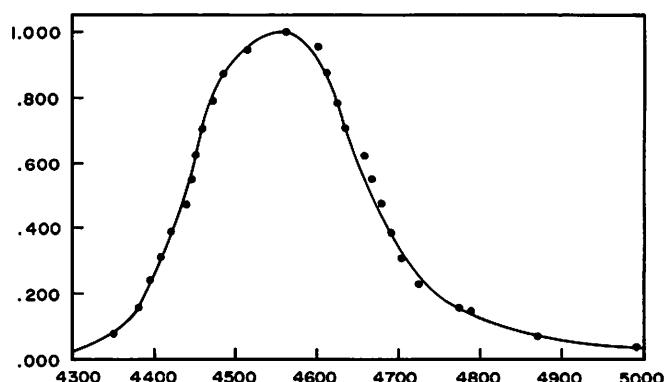


Fig. 6 Normalized response function for filter 45, as given in Table 1.

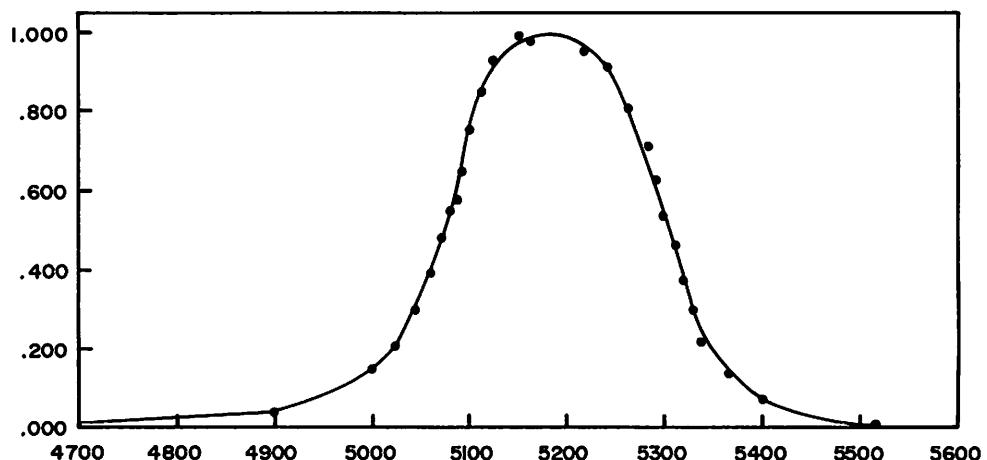


Fig. 7 Normalized response function for filter 52, as given in Table 1.

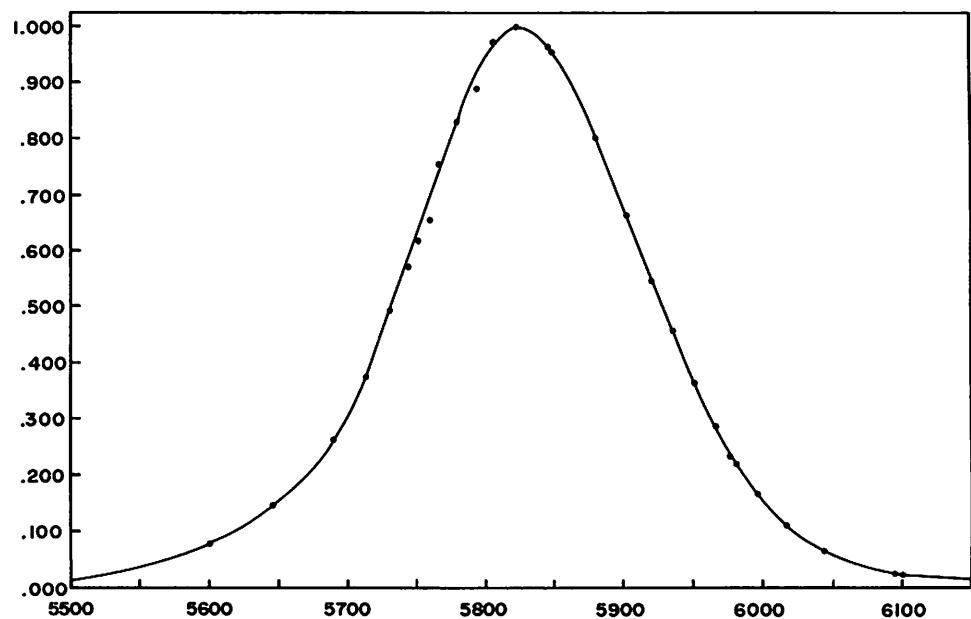


Fig. 8 Normalized response function for filter 58, as given in Table 1.

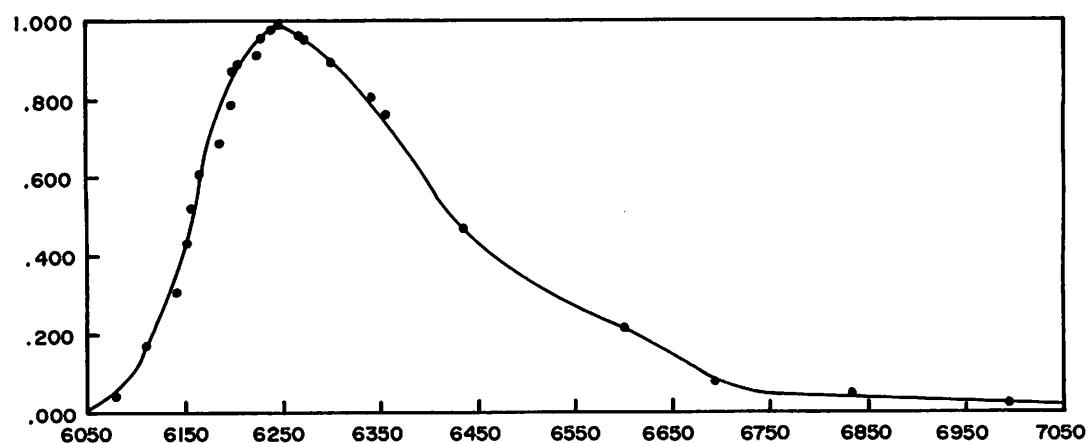


Fig. 9 Normalized response function for filter 63, as given in Table 1.

TABLE 4
CORRECTIONS INCORPORATED IN TABLE 6

		Right Ascension Correction Added to Mag 52 by B.S. Number									
From	To	1	1351	1701	1951	2251	2751	3751	4251	4501	4751
Correction		1350	1700	1950	2250	2750	3750	4250	4500	4750	7500
From		7501	7701	7801	7951	8101	8201	8301	8501	8701	
To		7700	7800	7950	8100	8200	8300	8500	8700	9100	
Correction		+0.007	+0.005	+0.003	+0.001	-0.001	-0.003	-0.005	-0.007	-0.009	

Red Leak Corrections to Ultraviolet Colors

$$(33 - 52) = (33 - 52)^* + \text{Antilog}_{10}[-3.830 + 0.5000(U - R)]$$

$$(35 - 52) = (35 - 52)^* + \text{Antilog}_{10}[-4.057 + 0.4202(U - R)]$$

$$(37 - 52) = (37 - 52)^* + \text{Antilog}_{10}[-5.287 + 0.4310(U - R)]$$

* The mean color is from Tables 7 and 8. Note that $(U - R)$ is computed from Table 2 of Johnson, *et al.* (1966).

the data taken during a single eight-color observation were, however, reduced simultaneously. Note that magnitude 40 is given in Table 7, while 52 is given in Table 8. The data in Tables 7, 8, and 9 have not been corrected for the red leaks of the ultraviolet filters, nor for a small right-ascension error, to be discussed in the next section. The corrections needed, which have been applied to the data in Table 6, are given in Table 4.

Not all of the numbers printed in Tables 7, 8, and 9 are actually satisfactory photometric data; in some cases meaningless numbers or zeros appear there. It is the function of the "weight" columns of these tables to indicate which values are actually meaningful; zero weight means that the numbers in the corresponding photometry columns should be ignored. The number in the last column (LS) of these tables refers to the reduction procedures: "3" indicates a least-squares adjustment of the extinction coefficients and the zero-points of the magnitudes and colors; "1" indicates the assumption of the mean extinction coefficients listed in Table 5. If the last two colors in Tables 7 and 8 are blank, this indicates that the wrong 35 filter was used. The untransformed data (called 33-36) are listed in Table 9.

The symbols in the "remarks" column of Table 6 indicate the following:

V . . . The star is variable according to our eight-color or UBVRI data;

D . . . Two or more stars were contained within the focal-plane diaphragm; the fainter stars may contribute 1 percent or more of the light;

* . . . An unexplained discordance appears among the individual observations (see Tables 7, 8, and 9). The data in Table 6 have been checked against UBV photometry.

4. Comparisons with Other Data

A reasonably satisfactory visual magnitude can be obtained from the eight-color photometry by the following equation:

$$v = (52) - 0.0059 - 0.5362(52 - 58), \quad (2)$$

where the lowercase "v" designates the transformed visual magnitude. The comparison of v with our Catalina V magnitudes (Johnson, *et al.* 1966) is shown in Figure 10. Only those stars for which $-0.1 < B-V < +0.2$ were plotted. Figure 10 also shows the comparison between our 52 and Borgman's L (designated L_B) magnitudes. Borgman's photometer is, of course, independent of ours, while the eight-color photometer is entirely independent of the UBVRI photometer. The comparisons of Figure 10 indicate that there are no declination-dependent errors in the magnitudes, either in our two independent photometric series or in Borgman's data.

TABLE 5
OBSERVED ATMOSPHERIC EXTINCTION AT THE
CATALINA OBSERVATORY
(Mean for 100 Nights)

FILTER No.	33	35	37	40	45	52	58	63
k	0.692	0.570	0.459	0.352	0.237	0.180	0.164	0.122

Since the V system was shown to be free of systematic errors in right ascension (Johnson, *et al.* 1966), we used V as a test for right-ascension errors in the magnitude 52. The comparison between v and V, as a function of Bright Star Catalogue number (and therefore of right ascension), is shown in Figure 11, again for stars with $-0.1 < B-V < +0.2$. The indicated corrections are listed in Table 4 and were applied to the data in Table 6.

In Figures 12–17, we show the relations between Borgman's system and ours. The scatter for 52–58 is rather larger than we might have expected from the repeatability of our data; probably, as Borgman comments, his 0.58μ data are less reliable than the others. Figure 17 shows that our magnitude 33 does not transform well to Borgman's R. On the whole, however, the agreement is good, but the difficulties in transforming between filters even as nearly the same as these are evident.

5. The Absolute Calibration

We have obtained our absolute calibration by comparing our data with published absolutely calibrated data. We have used four independent sources of relative-energy calibrations: First, Code's (1960, also Melbourne 1960) calibration was supplemented by transforming to Code's system the data of Bonsack and Stock (1957) and Bahner (1963). This supplement contributed primarily additional weight for the magnitudes 33, 35, 37, and 40. Second, Stebbins and Kron's (1964) absolutely calibrated six-color broad-band photometry was used with simple linear interpolation and extrapolation. Third, Willstrop's (1965) spectral scans from 4000 Å to 6500 Å contributed the best-defined values for 40, 45, 52, 58, and 63.

The fourth independent source, the Sun, required some judgment because of conflicting data; the differences are as much as 10 percent. A derivation of the colors of the Sun on our eight-color system can be made in two ways: First, by the assumption of Morgan's (Morgan and Hiltner 1965) standard G2V spectral class for the Sun; second, by interpolating among Stebbins and Kron's (1957) six-color observations of the Sun and similar stars. The absolute-energy ratios for the Sun may be taken from Allen's (1963) table and Labs and Neckel's (1967) data. From these data, the fourth independent relative-energy calibration was obtained.

Two additional sources that made significant contributions in the ultraviolet were used with low

weights: Bahner's (1963) lamp calibration of α Lyrae, and Glushneva's (1963) ultraviolet calibration.

Although the probable errors for the energies, relative to 52, are less than 2 percent for 40, 45, 58, and 63, our experience suggests an estimate of at least 3 percent for these magnitudes. We estimate probable errors of 5 percent for 35 and 37, and 10 percent for 33.

We have used three principal sources for the absolute calibration of the 52 filter: Two are the direct stellar observations by Willstrop (1960) and Code (1960); the third is based on the Sun. We adopt for the solar magnitude, $V = -26.71$ (Johnson 1965, Table 4, without Code and Willstrop). This magnitude was combined with the solar data of Allen (1963) and of Labs and Neckel (1967), and the calibration for the 52 magnitude was obtained through the use of Equation (2). In addition, the calibration by Glushneva (1963) was included with low weight. The final energy for zero magnitude at 52 has a formal probable error of 2 percent.

The absolute calibration is summarized in Table 2, tabulated for zero magnitude in each filter band.

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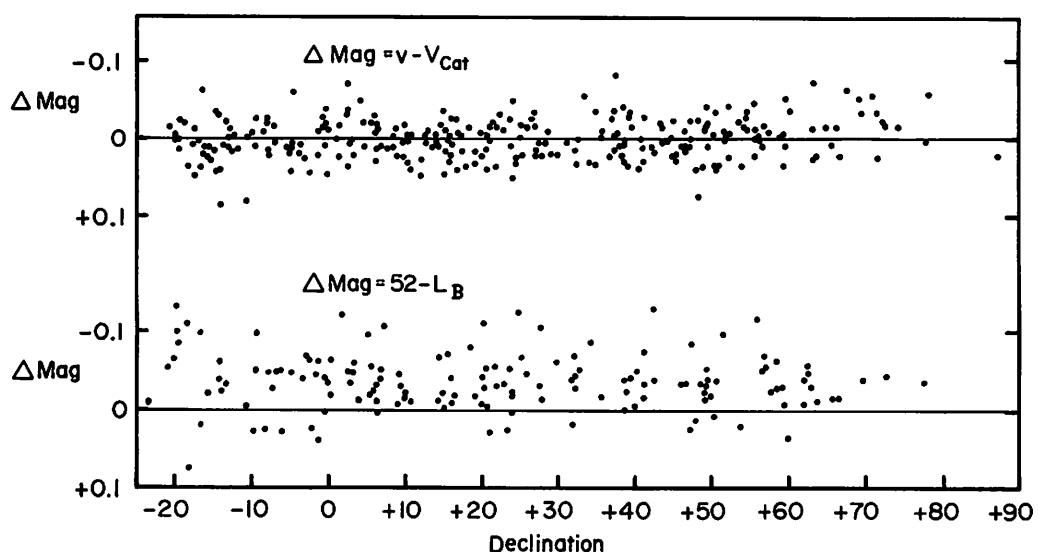


Fig. 10 A comparison of our narrow-band magnitudes with two other magnitude systems as a function of declination.

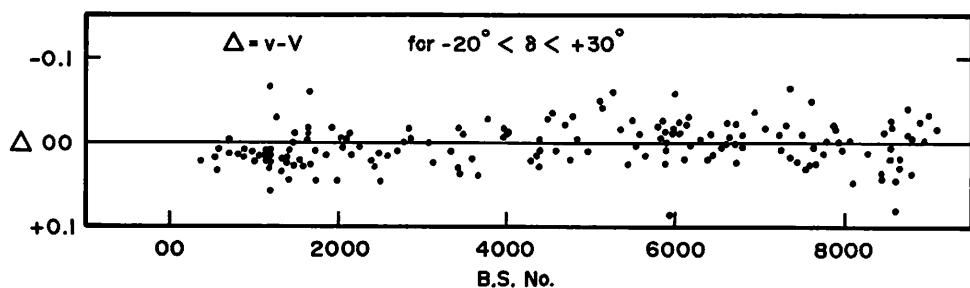


Fig. 11 Right-ascension correlation by B.S. number for our magnitude system in a restricted declination zone.

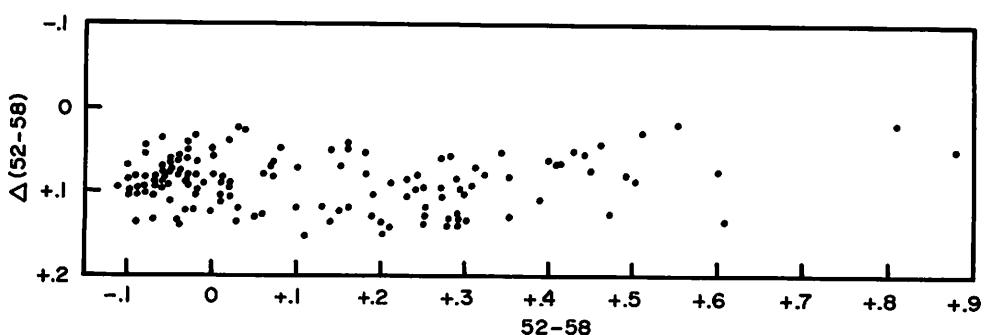


Fig. 12 Comparison of Borgman's ($L - K$) with our ($52 - 58$). The difference is in the sense $(L - K) - (52 - 58)$.

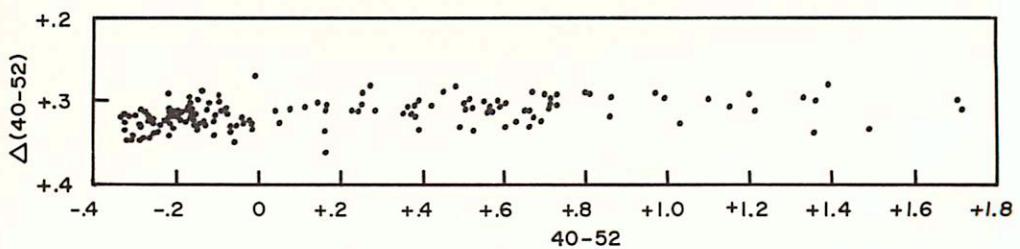


Fig. 13 Comparison of Borgman's (N-L) with our (40-52). The difference is in the sense (N-L) — (40-52).

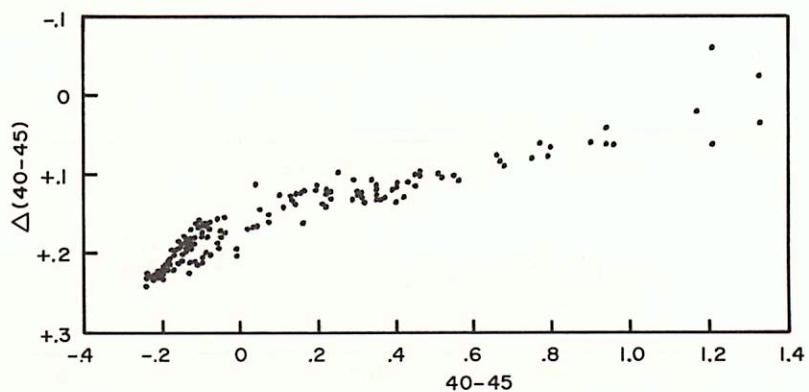


Fig. 14 Comparison of Borgman's (N-M) with our (40-45). The difference is in the sense (N-M) — (40-45).

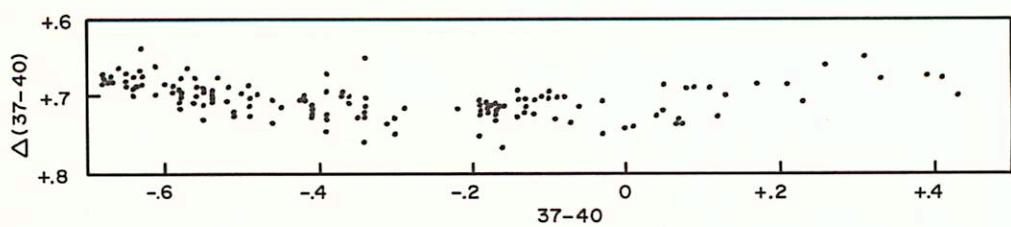


Fig. 15 Comparison of Borgman's (P-N) with our (37-40). The difference is in the sense (P-N) — (37-40).

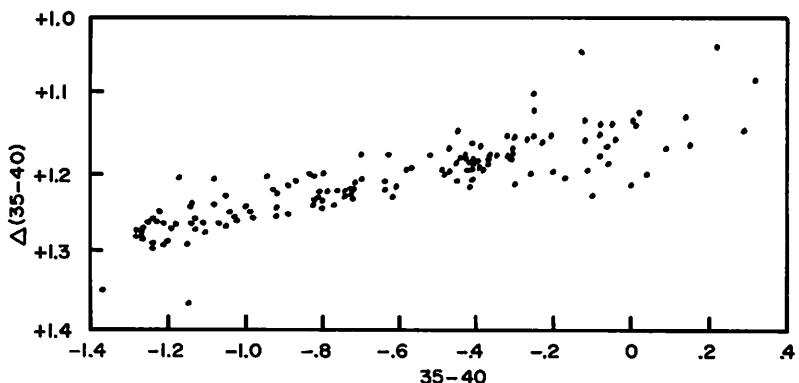


Fig. 16 Comparison of Borgman's (Q-N) with our (35-40). The difference is in the sense $(Q-N) - (35-40)$.

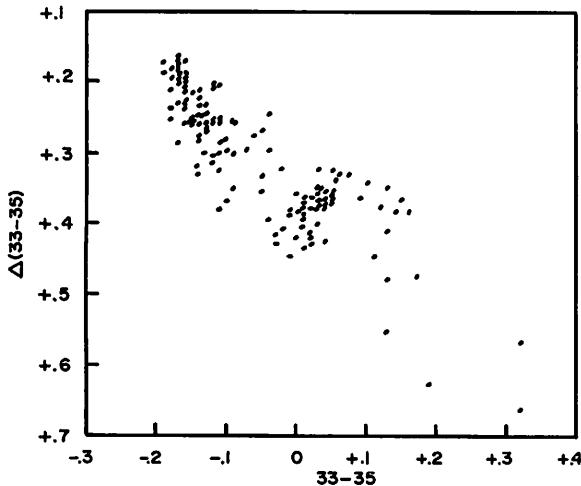


Fig. 17 Comparison of Borgman's (R-Q) with our (33-35). The difference is in the sense $(R-Q) - (33-35)$.

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TABLE 6 EIGHT-COLOR PHOTOMETRY OF BRIGHT STARS

B.S.	52	33-52	35-52	37-52	40-52	45-52	52-58	52-63	ND	SP. TYPE	B.S.	52	33-52	35-52	37-52	40-52	45-52	52-58	52-63	ND	SP. TYPE		
3	4.878	1.600	1.446	1.616	1.365	0.428	0.514	0.819	3	K1 III	483	5.106	0.345	0.299	0.575	0.714	0.269	0.312	0.507	4	G2 V		
15	2.366	-0.853	-0.756	-0.440	-0.165	-0.074	-0.023	-0.046	2	B9p (III)	489	4.107	2.745	2.417	2.51	0.480	0.466	0.549	1.089	2	K3 III		
21	2.366	0.292	0.255	0.304	0.378	0.146	0.181	0.310	8	F2 IV	493	5.461	0.480	0.446	1.160	1.018	0.314	0.448	0.707	3	K1 V		
27	5.119	0.692	0.585	0.372	0.431	0.190	0.233	0.375	2	F2 II	496	4.094	-1.431	-1.325	-0.738	-1.09	0.018	0.000	0.166	3	B1p (III+V)		
33	5.017	0.133	0.092	0.343	0.543	0.234	0.250	0.416	2	F6 V	509	3.726	0.382	0.496	0.818	0.854	0.309	0.379	0.624	2	68 Vp		
39	2.793	-1.502	-1.344	-0.853	-0.100	-0.068	-0.122	1.0	82	IV	510	4.492	1.426	1.301	1.416	1.254	0.414	0.444	0.717	2	G8 III		
45	5.197	3.453	2.976	2.982	2.319	0.668	0.743	1.257	29	M2 III	531	4.718	0.154	0.137	0.301	0.360	0.116	0.178	0.271	2	F2 IV		
48	V	4.893	3.683	3.200	3.184	2.500	0.748	0.777	1.299	3	(M1)	539	3.985	1.944	1.771	1.885	1.556	0.496	0.524	0.819	2	K2 III	
63	4.637	0.031	0.061	0.111	0.058	-0.003	0.068	0.044	2	A2 V	542	3.249	-1.046	-0.909	-0.846	-0.205	-0.029	-0.059	-0.066	0	B3 III		
68	4.551	0.045	0.083	0.161	0.079	0.015	0.036	0.041	2	A2 V	544	3.447	0.268	0.207	0.380	0.548	0.219	0.257	0.412	2	F6 IV		
74	3.854	2.232	2.046	2.111	1.704	0.510	0.568	0.898	3	K2 III	545	6.894	-0.313	-0.254	-0.106	-0.046	-0.061	0.012	0.005	2	89 V / A1p		
123	D	4.714	-0.633	-0.536	-0.335	-0.119	-0.052	-0.023	0	56	549	4.837	1.407	1.281	1.426	1.238	0.407	0.451	0.704	2	K0 III		
130	4.219	-0.117	-1.008	0.564	0.070	0.119	0.083	0.152	2	B1 Ia	553	2.709	0.137	0.123	0.231	0.161	0.019	0.012	0.092	2	A5 V		
153	3.684	-1.447	-1.268	-0.802	-0.267	-0.087	-0.061	-0.111	2	B5.5 IV	569	4.049	0.222	0.197	0.290	0.335	0.122	0.150	0.230	2	F2 IV		
154	4.367	-1.020	-0.886	-0.554	-0.178	-0.059	-0.023	-0.058	2	B5 V	575	4.517	0.134	0.133	0.230	0.205	0.033	0.071	0.118	2	A4 V		
163	4.559	1.102	0.910	1.081	1.079	0.409	0.406	0.667	2	G8 III	580	3.961	0.014	0.032	0.049	0.013	0.025	0.023	0.015	2	A1 V		
165	3.644	2.503	2.291	2.390	1.847	0.514	0.560	0.990	2	K3 III	589	4.993	-0.514	-0.51	-0.381	-0.116	-0.030	-0.012	0.012	2	88 V		
168	2.520	2.058	1.903	1.977	1.647	0.533	0.536	0.828	2	K0 I-II	595	6	3.840	-0.681	-0.32	-0.117	-0.038	-0.045	0.005	0.049	3	Am+Ap	
179	4.824	-1.059	-0.932	-0.582	-0.172	-0.050	-0.025	-0.030	2	B2 V	601	4/4	2.15	1.771	1.60	1.756	0.606	0.912	0.3	K3 III+A			
188	2.353	1.688	1.534	1.653	1.390	0.454	0.507	0.787	2	K1 III	617	2.314	1.991	1.780	1.941	1.578	0.583	0.552	0.813	2	K2 III		
193	4.585	-0.852	-0.744	-0.493	-0.100	-0.014	0.027	0.030	2	B2 V	618	5.805	0.461	0.334	0.245	0.587	0.339	0.340	0.582	2	A1 Ia		
194	5.037	1.532	1.424	1.577	1.337	0.438	0.488	0.782	3	K0 III	620	4.029	0.184	0.188	0.199	0.127	0.035	0.060	0.095	2	A4 V		
215	D	4.436	1.726	1.550	1.707	1.475	0.484	0.574	0.900	2	K1 V	622	3.070	0.123	0.123	0.214	0.166	0.039	0.074	0.119	2	K5 III	
219	V	3.586	0.233	0.178	0.232	0.178	0.466	0.657	0.252	0.288	0.508	60	648	6.159	3.349	2.943	2.976	2.312	0.536	0.757	1.267	2	MO III
224	4.867	3.175	2.794	2.884	2.232	0.601	0.773	1.216	2	K5 III	649	4.580	1.286	1.077	1.209	1.146	0.414	0.408	0.675	2	G8 II		
226	4.534	-1.021	-0.894	-0.552	-0.179	-0.057	-0.054	-0.075	3	B5 V	664	4.039	-0.070	-0.022	0.063	0.019	-0.021	0.022	0.006	2	A0 V		
244	4.930	0.313	0.283	0.502	0.648	0.258	0.264	0.453	2	F8 V	681	4.261	3.223	2.224	1.988	1.620	0.156	0.186	1.183	1	M4.5(Mg+Mg)		
248	5.180	3.336	2.913	2.971	2.329	0.651	0.796	1.251	3	F0 III	696	6.338	-0.749	-0.748	-0.680	-0.296	-0.244	-0.211	0.179	2	B2 Ia		
253	5.125	2.235	1.986	2.121	1.638	0.517	0.595	0.932	2	K2 III	700	4.870	-0.109	-0.052	-0.052	-0.052	-0.052	0.016	0.006	2	F5 IV-V		
264	V	2.269	-1.639	-1.533	-0.867	-0.163	-0.001	-0.001	3	BO IV:e	707	0	4.512	0.035	0.043	0.184	0.153	0.018	0.101	0.131	2	A5 p	
265	4.851	1.343	1.169	1.336	1.219	0.447	0.454	0.744	2	G8 III-IV	708	4.870	-0.109	-0.052	-0.052	-0.052	-0.052	-0.052	-0.052	2	B9 V		
269	3.910	0.187	0.197	0.213	0.153	0.032	0.057	0.118	2	A4 III	718	4.283	-0.278	-0.207	-0.101	-0.064	-0.038	-0.015	-0.015	2	B9 III		
271	4.617	1.391	1.205	1.340	1.218	0.413	0.426	0.714	2	G8 III-IV	724	4.829	0.168	0.168	0.151	0.335	0.054	0.126	0.288	2	F5 V		
285	4.526	2.296	2.123	2.222	1.759	0.520	0.580	0.901	2	K2 III	730	6.137	1.295	1.154	1.517	1.212	0.275	0.506	0.896	6	K3 III		
294	4.507	1.400	1.218	1.338	1.258	0.448	0.431	0.756	2	K0 III	779	4.058	-1.522	-1.360	-0.874	-0.317	-0.105	-0.074	-0.147	3	B2 IV		
334	3.757	2.080	1.908	2.026	1.610	0.476	0.572	0.891	2	K3 III	788	5.033	0.355	0.304	0.535	0.663	0.238	0.274	0.447	2	F9 V		
335	0	4.220	-0.630	-0.519	-0.103	-0.029	0.004	0.027	2	B7 V	799	4.156	0.135	0.179	0.161	0.261	0.214	0.245	0.422	2	F0 V		
337	3.509	3.471	2.984	3.046	2.367	0.662	0.766	1.275	2	M0 III	801	4.658	-1.141	-0.976	-0.589	-0.177	-0.058	-0.069	0.2	B3 V			
343	4.330	0.228	0.236	0.223	0.132	0.058	0.087	0.132	2	A7 V	804	0	3.505	0.038	0.061	0.111	0.006	0.051	0.051	0.081	2	A2 V	
351	4.889	1.573	1.433	1.561	1.370	0.471	0.476	0.747	2	G8 III	811	4.244	-0.807	-0.597	-0.601	-0.173	-0.064	-0.021	-0.046	2	B7 V		
352	4.783	1.798	1.676	1.797	1.476	0.469	0.534	0.838	2	K0 III-IV	813	4.331	0.206	0.197	0.171	0.346	0.118	0.178	0.279	2	F0 IV		
360	4.924	1.403	1.471	1.616	1.412	0.460	0.485	0.754	2	K0 III	818	4.567	0.157	0.165	0.402	0.559	0.222	0.251	0.403	2	K5 III		
383	4.776	0.128	0.162	0.094	0.032	0.008	0.039	0.052	2	A3 V	824	4.142	0.956	0.882	0.984	0.335	0.369	0.617	2	H4 III+4 V			
399	5.142	1.826	1.616	1.798	1.476	0.462	0.519	0.795	2	K0 III-IV	834	4.243	3.243	2.930	2.930	2.930	2.930	0.857	0.857	2	K1 III-IV		
402	3.920	1.715	1.574	1.704	1.416	0.458	0.518	0.827	2	K0 III	840	4.319	0.324	0.284	0.338	0.414	0.171	0.178	0.279	2	F2 III		
403	V	2.689	0.215	0.230	0.221	0.150	0.036	0.015	0.093	3	A5 V	843	4.981	3.358	2.915	3.003	2.322	0.656	0.785	1.246	2	K5 III	
417	4.936	0.107	0.094	0.030	0.026	0.014	0.024	0.075	2	F4 IV	854	4.142	0.956	0.882	0.984	0.335	0.369	0.617	2	H4 III+4 V			
424	V	2.119	0.867	0.726	0.555	0.712	0.260	0.309	0.475	3	F8 I b	874	4.160	1.814	1.642	1.803	1.667	0.517	0.830	1.246	2	K1 III-IV	
434	5.231	2.784	2.390	2.523	1.966	0.558	0.712	1.111	2	K4 III	875	5.195	0.108	0.132	0.147	0.105	0.018	0.067	0.067	26	A1 V		
437	3.848	1.433	1.301	1.408	1.266	0.433	0.433	0.718	2	G8 III	879	4.702	0.146	0.179	0.113	0.059	0.010	0.039	0.064	2	A2 V		
442	4.914	1.483	1.316	1.664	1.298	0.432	0.457	0.747	2	F8 V	882	4.512	2.270	2.030	2.174	1.510	0.593	0.94	2	K2 III			
446	3.926	0.226	0.189	0.112	0.098	0.229	0.210	0.432	4	F8 V	896	4.689	-0.838	-0.721	-0.449	-0.169	-0.065	-0.011	-0.039	2	B5 III		
458	4.225	0.226	0.189	0.112	0.098	0.023	0.015	0.041	2	88 IV	915	3.103	0.929	0.877	0.933	0.834	0.327	0.353	0.575	2	G8 IIIII+4 A3		

TABLE 6 EIGHT-COLOR PHOTOMETRY OF BRIGHT STARS

B+S*	52	33-52	35-52	37-52	40-52	45-52	52-58	52-63	NO	SP+TYPE	B+S*	52	33-52	35-52	37-52	40-52	45-52	52-58	52-63	NO	SP+TYPE	
921 V	3.739	3.738	3.060	2.896	2.269	0.903	0.565	1.277	2	M4 I1I _a	1239 V	3.752	-1.076	-0.948	-0.576	-0.168	-0.075	-0.035	-0.030	1	B3 V+A4 IV	
932 V	4.868	-0.010	0.036	0.104	0.051	0.001	0.028	0.022	3	A0 V	1251	3.875	-0.026	0.022	0.079	0.026	-0.018	0.011	0.017	3	A1 V	
936 V	2.158	-0.653	-0.564	-0.320	-0.111	-0.059	0.028	0.025	1	B8 V	1256	4.542	-2.00	1.769	1.642	1.465	0.452	0.539	0.013	2	K0 I1I	
937 V	4.184	0.383	0.335	0.574	0.706	0.263	0.291	0.491	12	G0 V	1261	4.321	-0.083	-0.035	-0.170	-0.073	-0.033	0.012	-0.006	2	B9 V	
941	4.052	1.483	1.379	1.525	1.287	0.401	0.484	0.766	2	K0 I1I	1273	4.083	-0.918	-0.821	-0.482	-0.077	-0.013	0.011	0.076	3	B3 V _p	
947	4.895	1.884	1.724	1.850	1.537	0.485	0.526	0.833	2	K0 I1I	1298	4.149	0.318	0.293	0.345	0.390	0.148	0.177	0.288	2	F2 II-III	
951	4.594	1.663	1.537	1.663	1.400	0.463	0.479	0.763	2	K2 I1I	1303	4.396	1.405	1.215	1.264	1.203	0.470	0.557	0.2	G0 I _b		
972	4.893	-0.069	-0.021	-0.005	-0.032	0.005	-0.007	0.005	2	A0 IIV	1306	4.922	1.340	1.264	1.363	1.232	0.466	0.479	0.768	2	G5 Ib+A2	
984	4.874	0.159	0.162	0.244	0.271	0.078	0.135	0.202	2	B7m	1311	0	5.024	1.067	0.957	1.055	1.015	0.375	0.632	2	(E)G5	
985	4.840	-1.270	-1.131	-0.698	-0.208	-0.059	-0.035	-0.070	2	B2 V _e	1318	0	5.166	2.095	1.913	2.035	1.623	0.488	0.561	0.902	2	K2 III+G2 V
991	5.200	2.786	2.523	2.615	2.089	0.685	0.714	1.073	2	K2 I1	1319	6.404	0.140	0.108	0.317	0.453	0.158	0.217	0.350	1	F3 V	
996	5.007	0.464	0.437	0.718	0.805	0.288	0.349	0.542	2	G5 V	1320	4.324	-0.956	-0.821	-0.494	-0.103	-0.025	-0.001	-0.001	1	B3 V	
999	4.905	3.222	2.862	2.929	2.321	0.689	0.800	1.236	2	K4 I1I	1324	4.622	0.042	0.090	0.050	0.050	0.014	0.048	0.457	2	(A)Z	
1002	4.990	0.028	0.077	0.161	0.087	0.010	0.026	0.031	2	A3 V	1325	4.644	0.834	0.734	0.074	0.988	0.316	0.445	0.689	2	K1 V	
1017	1.935	0.915	0.781	0.530	0.557	0.216	0.265	0.417	14	F5 I _b	1329	4.986	0.146	0.146	0.283	0.319	0.099	0.140	0.208	2	A _m	
1030	5.831	1.273	1.091	1.216	1.135	0.417	0.429	0.695	2	G8 I1I	1346	3.867	1.457	1.349	1.483	1.294	0.430	0.451	0.731	2	K0 I1I	
1034	5.042	-0.927	-0.807	-0.446	-0.131	-0.021	-0.054	0.28	2	B9 V	1350	5.655	0.228	0.189	0.292	0.341	0.106	0.146	0.246	2	B6 I _b	
1035 D	4.407	-0.034	-0.058	0.001	0.388	0.259	0.237	0.425	2	B9 I _a	1351	5.337	1.180	1.171	1.268	1.271	0.077	0.130	0.203	2	A9 V	
1038	3.759	-0.635	-0.535	-0.286	-0.104	-0.039	-0.001	-0.014	2	B8 V	1356	5.337	1.510	1.400	1.526	1.310	0.433	0.463	0.137	2	K1 I1I	
1040	4.727	0.223	0.157	0.144	0.498	0.323	0.317	0.540	3	A0 I _a	1373	3.996	0.027	0.027	0.207	0.260	0.174	0.200	0.140	2	A3 V	
1044	4.668	-1.001	-0.875	-0.523	-0.056	-0.035	-0.035	-0.042	2	B3 IV	1376	5.723	0.243	0.222	0.380	0.104	0.164	0.245	1	A _m		
1046 D	5.133	0.014	0.031	0.119	0.053	0.019	0.027	0.028	2	K3 I1I	1380	4.860	0.191	0.198	0.259	0.207	0.104	0.144	0.245	2	A7.5 V _n	
1052	4.727	2.754	2.395	2.540	1.997	0.570	0.690	1.076	2	K3 V	1385	6.088	0.176	0.156	0.328	0.207	0.165	0.197	0.325	1	F4 V _n	
1066	4.384	1.897	1.727	1.938	1.568	0.517	0.496	0.776	2	K0 I _b	1387	4.287	0.207	0.207	0.260	0.174	0.096	0.140	0.247	1	A7 V	
1070	4.712	-0.499	-0.400	-0.307	-0.125	-0.039	-0.029	-0.046	2	B8 V	1389	4.319	0.027	0.027	0.123	0.071	0.039	0.049	0.178	2	A8 V _n	
1084	3.966	0.980	0.929	1.270	1.099	0.314	0.487	0.753	41	K2 V	1392	4.383	0.334	0.285	0.275	0.294	0.103	0.170	0.264	2	AB V _n	
1087	3.233	-0.953	-0.864	-0.123	-0.054	0.020	0.018	0.054	2	K2 V	1394	4.564	0.282	0.243	0.227	0.276	0.096	0.153	0.239	2	AB V _n	
1101	4.422	0.310	0.269	0.495	0.667	0.277	0.254	0.444	3	F8 V	1396	4.917	1.497	1.288	1.403	1.280	0.450	0.456	0.726	2	G8 I1I	
1122	3.032	-0.916	-0.796	-0.558	-0.174	-0.065	-0.029	-0.038	3	B5 I1I	1408	5.965	0.180	0.161	0.313	0.386	0.131	0.159	0.274	1	F0 V	
1129	5.000	0.738	0.695	0.790	0.896	0.387	0.424	0.706	2	A1+G2 I1I	1409	3.780	1.624	1.498	1.614	1.386	0.444	0.475	0.142	2	K1 I1I	
1131	3.856	-1.126	-1.011	-0.539	-0.018	0.065	0.020	0.071	2	B1 I1I	1411	4.087	1.408	1.306	1.440	1.268	0.454	0.510	0.710	6	G9 I1I	
1135	3.888	0.653	0.561	0.422	0.480	0.188	0.214	0.378	3	F5 I1I	1412	3.473	0.233	0.222	0.236	0.207	0.029	0.085	0.167	7	A7 Ivn	
1136	3.763	1.185	1.133	1.370	1.159	0.357	0.455	0.741	2	K0 IV	1427	4.839	0.201	0.194	0.256	0.195	0.046	0.100	0.134	2	A6 Vn	
1138	5.423	0.131	0.144	0.170	0.120	0.002	0.052	0.067	2	A3 IV	1437	5.223	0.157	0.157	0.235	0.206	0.058	0.146	0.248	2	K3 I1I	
1140	5.486	-0.650	-0.546	-0.313	-0.075	-0.036	0.045	0.015	1	B7 I1I	1444	4.764	0.191	0.178	0.268	0.273	0.104	0.178	0.247	2	A8 Vn	
1142	3.708	-0.739	-0.631	-0.460	-0.158	-0.043	-0.022	-0.042	3	B6 I1I	1454	4.524	1.703	1.605	1.686	1.559	0.614	0.584	0.935	2	K4 I1I+A3 V	
1144	5.650	-0.679	-0.578	-0.335	-0.110	-0.014	-0.020	0.020	2	B8 V	1457	4.332	3.302	2.883	2.964	2.289	0.617	0.797	1.246	2	K5 I1I	
1145	4.308	-0.841	-0.735	-0.435	-0.172	-0.061	-0.043	-0.023	3	B6 IVn	1458	4.304	0.157	0.146	0.235	0.235	0.06	0.088	0.146	2	A m	
1162	4.867	3.574	3.069	3.140	2.432	0.691	0.778	1.277	2	A3 V	1463	4.901	-0.155	-0.153	-0.051	-0.051	-0.061	-0.084	0.084	2	B3 V	
1165	3.887	-0.696	-0.621	-0.429	-0.139	-0.029	-0.016	0.020	2	B7 I1I	1473	4.328	0.183	0.182	0.228	0.161	0.025	0.073	0.097	2	A6 Vn	
1172	5.444	-0.606	-0.516	-0.349	-0.211	-0.068	-0.024	0.006	2	B8 V	1479	4.720	0.200	0.203	0.256	0.192	0.039	0.078	0.099	2	A5 Vn	
1178	3.637	-0.643	-0.558	-0.427	-0.132	-0.037	-0.014	0.009	3	B8 I1I	1481	4.123	1.736	1.616	1.781	1.463	0.530	0.843	1.246	2	K2 I1I	
1180 V	5.006	-0.770	-0.670	-0.424	-0.121	-0.027	-0.016	0.003	3	B8 pec	1486	4.374	-0.009	0.024	0.000	0.024	0.019	0.022	0.046	2	A0 V	
1183	6.213	-0.441	-0.338	-0.211	-0.115	-0.077	-0.013	0.007	1	B9 V	1497	5.152	0.205	0.220	0.232	0.172	0.661	1.248	2	(E)A5		
1203 O	2.926	-1.077	-0.986	-0.531	-0.047	-0.104	-0.074	0.150	2	B1 I _b	1502	3.666	-1.406	-1.245	-0.793	-0.251	-0.052	-0.052	-0.082	2	B2 I1I	
1204	4.946	-0.378	-0.306	-0.219	-0.107	-0.034	-0.022	-0.030	2	B9 V	1506	4.423	0.359	0.308	0.269	0.283	0.091	0.138	0.216	2	A9 Ivn	
1211 V/2	4.648	-0.848	-0.774	-0.903	-0.813	-0.314	-0.573	-0.092	2	A1 V/G5 I1I	1507	4.703	-1.406	-1.249	-0.074	-0.079	-0.102	0.102	0.102	2	B2 I1I	
1220 D	2.876	-1.618	-1.463	-0.900	-0.264	-0.066	-0.023	0.007	2	B0.5 V	1508	4.497	-0.035	0.008	-0.024	-0.024	-0.003	0.003	0.003	2	A1 V	
1228	4.074	-1.395	-1.279	-0.717	-0.073	-0.029	-0.016	0.012	2	B7 I _b	1509	4.694	0.044	0.086	0.185	0.117	0.014	0.099	0.028	2	A0 V	
1231	3.382	2.925	3.009	2.340	0.645	0.812	1.250	2	H0 I1I	1511	3.096	3.072	2.760	2.831	2.250	0.665	0.721	1.125	2	K3 I1I		

TABLE 6 EIGHT-COLOR PHOTOMETRY OF BRIGHT STARS

B.S.	52	33-52	35-52	37-52	40-52	45-52	52-58	52-63	NO	SP-TYPE	B.S.	52	33-52	35-52	37-52	40-52	45-52	52-58	52-63	NO	SP-TYPE	
1580	4.404	2.027	1.813	1.962	1.601	0.506	0.550	0.877	2	K2 III	1903	V	1.693	-1.668	-1.507	-0.934	-0.255	-0.051	-0.051	2	60 I _a	
1592 D	4.956	-0.108	0.049	0.096	0.041	-0.010	0.009	0.010	2	A0 V	1907	V	1.628	-1.277	-1.092	-1.314	1.198	-0.248	0.461	0.758	2	G8 II _a -IV
1601	4.820	2.705	2.476	2.511	2.020	0.635	0.655	1.026	2	K2 II	1908	V	6.348	3.432	2.872	2.559	2.301	0.680	0.733	1.250	1	K4 II
1603	4.247	1.343	1.122	1.166	1.146	0.445	0.408	0.671	2	G0 Ib	1910	V	2.954	-1.288	-1.153	-0.811	-0.265	-0.062	-0.067	-0.018	2	B2 II _a :p
1605 V	3.136	1.100	0.848	0.389	0.526	0.307	0.483	0.483	2	F0 Iap	1931	D	3.721	-1.102	-1.159	-0.535	-0.291	-0.078	-0.058	-0.125	2	0.5 V
1611	4.855	0.391	0.349	0.288	0.300	0.113	0.138	0.228	2	F0 IV	1934	V	4.567	-1.263	-1.123	-0.999	-0.169	-0.016	-0.028	-0.008	2	B3 III _a
1612 V	4.132	1.030	1.065	1.316	1.410	0.567	0.704	1.121	3	K5 I _a +B	1937	V	4.818	0.152	0.162	0.223	0.171	0.047	0.042	0.098	2	44 IV
1617	4.793	-1.292	-1.136	-0.691	-0.233	-0.070	-0.012	-0.23	2	B2 V	1946	V	4.838	-1.135	-1.006	-0.049	-0.189	-0.040	-0.038	-0.063	2	B3 IV
1620	4.668	0.244	0.25	0.262	0.199	0.053	0.088	0.125	1	A7 V	1946/9	V	1.743	-1.136	-1.270	-0.913	-0.292	-0.013	-0.000	-0.092	2	0.5 I _b
1621	4.896	-0.330	-0.254	-0.134	-0.067	-0.025	-0.017	-0.036	2	B9 V	1963	V	5.210	1.972	1.118	1.898	1.565	0.498	0.514	0.889	2	K1 III _a
1637	5.046	0.099	0.094	0.265	0.374	0.150	0.153	0.280	2	F0 V	1995	V	4.759	1.376	1.214	1.392	1.242	0.433	0.438	0.706	2	G8 III _a
1638	4.676	-0.252	-0.217	-0.224	-0.140	-0.064	-0.030	-0.012	2	B9 V (S1)	1998	V	3.600	0.054	0.084	0.180	0.119	0.026	0.022	0.025	2	A3 V
1641	3.147	-1.215	-1.058	-0.648	-0.242	-0.091	-0.010	2	B3 V	2004	V	2.048	-1.557	-1.887	-0.851	-0.219	-0.043	-0.000	-0.068	2	80.5 I _a	
1657	5.095	-0.420	-0.336	-0.169	-0.648	-0.057	-0.005	-0.029	2	A3 III	2010	V	4.983	-0.360	-0.216	-0.141	-0.080	-0.041	-0.030	-0.055	2	89 IV
1666	2.839	0.214	0.191	0.026	0.164	0.045	0.043	0.110	2	A3 III	2011	V	5.008	3.547	3.049	3.084	2.415	0.700	0.761	1.278	2	(8M1)
1676	4.885	0.403	0.363	0.346	0.351	0.129	0.191	0.277	2	F2 IV	2012	V	4.261	1.920	1.765	1.998	1.550	0.490	0.510	0.835	2	K0 III
1679	4.441	-1.518	-1.359	-0.859	-0.559	-0.078	-0.082	-0.095	2	B2 IV	2018	V	6.103	0.903	3.370	3.256	2.554	0.841	0.768	1.375	2	M3 III _a
1689	4.875	0.138	0.160	0.265	0.249	0.070	0.088	0.147	2	B8 I _a	2029	V	4.984	0.068	0.108	0.228	0.053	0.010	0.018	0.22p	2	89.5 V
1696	4.421	-0.767	-0.663	-0.381	-0.128	-0.050	-0.043	-0.067	2	B8 V	2034	V	4.988	-0.046	0.005	0.052	0.032	0.010	0.007	0.025	2	89.5 V
1698 D	4.740	2.061	1.915	2.017	1.671	0.495	0.555	0.863	2	K3 III	2035	V	3.995	1.411	1.176	1.379	1.260	0.452	0.459	0.757	2	G8 III _a
1702	3.266	-0.731	-0.631	-0.411	-0.163	-0.062	-0.044	-0.060	2	B9 III _a (p)	2047	V	4.537	0.289	0.256	0.542	0.701	0.268	0.291	0.490	2	G0 V
1705 D	4.344	-0.669	-0.558	-0.411	-0.145	-0.044	-0.041	-0.047	2	B8 III	2061	V	1.043	4.038	3.458	3.212	2.684	1.010	0.715	1.404	2	H1-M2 I _a b
1708	4.242	0.967	0.860	0.993	1.007	0.357	0.382	0.615	2	G8 III _a :F	2077	V	3.666	1.054	1.055	1.519	1.339	0.444	0.471	0.758	2	K0 III
1713	4.171	-1.019	-0.925	-0.653	-0.108	0.023	0.012	0.035	4	B8 I _a	2084	V	4.004	-1.450	-1.29	-0.762	-0.150	0.012	0.021	0.21	2	B1 Ib
1726	4.696	2.886	2.00	2.156	1.767	0.527	0.642	0.994	2	K3 III	2085	V	3.815	0.138	0.125	0.779	0.378	0.165	0.148	0.252	2	F0 V
1729	3.569	-0.867	-0.737	-0.494	-0.163	-0.062	-0.044	-0.060	2	B9 V	2088	V	1.925	0.046	0.073	0.117	0.053	-0.010	0.007	-0.009	2	A2 V
1756	4.247	-1.741	-1.572	-0.977	-0.529	-0.094	-0.017	-0.165	2	B0-5 IV	2091	V	4.738	3.078	3.145	3.029	2.405	-0.908	0.615	1.320	2	H3.5 I _a
1765	4.686	-1.363	-1.203	-0.747	-0.228	-0.021	-0.022	-0.122	2	B2 I _a	2095	D	2.590	-0.364	-0.264	-0.212	-0.124	-0.073	0.500	0.626	2	89.5p V
1770 D	4.371	-1.471	-1.317	-0.789	-0.229	-0.059	-0.055	-0.084	3	B1 V	2113	V	4.853	2.253	1.913	2.057	1.653	0.170	0.126	0.313	2	K2 III _a
1779	4.188	-1.050	-0.906	-0.529	-0.189	-0.080	-0.080	-0.089	2	B5 IV	2124	D	4.158	0.191	0.203	0.244	0.211	0.059	0.077	0.134	3	A m
1781	5.654	-1.541	-1.372	-0.831	-0.272	-0.091	-0.096	-0.143	2	B2 V	2128	V	4.953	-1.077	-0.928	-0.565	-0.185	-0.042	-0.054	-0.054	2	B5 IV
1784	4.354	1.337	1.187	1.368	1.231	0.426	0.438	0.712	2	B8 III	2134	V	4.365	0.382	0.197	1.091	0.095	0.155	0.352	0.653	2	(I _{G5})
1788 DV	3.323	1.584	1.428	0.895	0.272	-0.071	-0.053	-0.083	3	B0-5 V	2135	V	4.754	-0.852	-0.795	-0.538	0.234	0.216	0.251	0.321	2	B2 I _a
1789	4.333	-1.552	-1.383	-0.877	-0.291	-0.086	-0.086	-0.124	2	B1 V ^e	2148	V	5.003	0.594	0.415	0.182	0.170	0.126	0.127	0.313	2	A2 D
1790	1.589	-1.511	-1.356	-0.882	-0.305	-0.101	-0.099	-0.149	2	B2 III	2155	V	4.681	0.014	0.063	0.114	0.060	0.016	0.016	0.004	2	A1 V
1791	5.650	-0.876	-0.768	-0.521	-0.176	-0.064	-0.062	-0.111	2	B7 III	2159	V	4.98	-1.169	-1.018	-0.561	-0.223	-0.081	-0.054	-0.054	2	B3 V
1810	4.838	-1.243	-1.200	-0.717	-0.221	-0.049	-0.073	-0.111	2	B3 V	2198	V	4.953	-1.051	-0.929	-0.548	-0.202	-0.067	0.067	0.251	2	B5 V
1811 D	4.542	-1.594	-1.410	-0.870	-0.280	-0.086	-0.086	-0.131	2	B2 IV	2204	V	4.754	-1.189	-1.041	-0.651	-0.233	-0.079	0.066	0.272	2	B3 V
1829	4.392	1.033	0.902	1.059	1.024	0.372	0.367	0.615	2	B5 III	2209	V	4.070	-0.010	0.027	0.072	0.011	-0.020	-0.005	0.006	2	A0 V
1839 D	4.188	-1.050	-0.906	-0.529	-0.189	-0.080	-0.080	-0.089	2	B5 IV	2216	V	3.735	2.735	2.375	2.254	0.766	0.169	0.147	0.247	3	M3 III _a
1843	4.788	-0.564	-0.507	-0.222	0.283	0.215	0.412	0.250	2	B5 I _b	2219	V	4.562	1.555	1.377	1.547	1.327	0.451	0.477	0.783	2	G8 III _a
1845 V	4.382	4.519	3.849	3.463	2.982	1.123	0.815	1.386	1	H2 I _b	2227	V	4.284	-2.541	-2.255	3.365	1.887	0.577	0.615	0.979	2	K3 III
1852 V	2.180	-1.748	-1.576	-0.576	-0.297	-0.081	-0.036	-0.137	2	B0 IV	2238	V	4.516	-0.036	0.003	0.087	0.033	-0.012	0.011	0.026	2	A2 V
1855	4.570	-1.801	-1.610	-1.010	-0.339	-0.099	-0.099	-0.164	2	B7 V	2240	V	6.318	-0.218	-0.277	-0.030	0.423	0.283	0.251	0.424	2	B2 I _a
1861	5.299	-1.567	-1.405	-0.856	-0.274	-0.084	-0.083	-0.149	2	B1 V	2244	V	5.001	-0.449	-0.370	-0.302	-0.122	-0.052	-0.017	0.027	2	B8 V
1865	2.645	0.801	0.665	0.189	0.209	0.074	0.130	0.225	2	F0 I _b	2280	V	3.320	3.673	3.101	3.038	2.390	0.819	0.664	1.256	2	M3 III _a
1868 V	5.126	-1.526	-1.369	-0.523	-0.261	-0.089	-0.016	2	B1 V	2284	V	4.955	-1.047	-0.929	-0.513	-0.313	-0.094	-0.086	-0.141	2	B1 I _a	
1876	4.379	-1.577	-1.407	-0.844	-0.219	-0.036	-0.046	-0.137	2	B0 IV	2288/9	V	4.339	0.216	0.184	0.257	0.265	0.094	0.114	0.167	2	A5 IV /dF ₄
1879/80	3.380	-1.685	-1.525	-0.934	-0.281	-0.078	-0.037	-0.104	2	B8/BD-5 V	2308 V	V	6.065	5.987	5.382	5.193	4.098	1.223	1.186	1.850	1	C6,2
1887	4.118	-1.72	-1.566	-0.975	-0.330	-0.097	-0.097	-0.178	2	B0.5 V	2343	V	4.165	-0.869	-0.749	-0.510	-0.173	-0.056	-0.026	-0.041	1	B7 IV
1892 D	4.555	-1.586	-1.419	-0.852	-0.268	-0.077	-0.015	-0.109	2	B2 III	2344	V	5.031	-1.331	-1.173	-0.713	-0.242	-0.067	-0.071	-0.109	2	B2 V
1892 E	4.616	-1.353	-1.212	-0.670	-0.032	0.074	0.044	0.056	2	(T ₁ P)	2356-8	V	3.719	-1.298	-1.164	-0.721	-0.227	-0.079	-0.065	-0.015	2	B3 Vp _e
1897																						

TABLE 6 EIGHT-COLOR PHOTOMETRY OF BRIGHT STARS

B+S*	52	33-52	35-52	37-52	40-52	45-52	52-58	52-63	NO	SP.-TYPE	B+S*	52	33-52	35-52	37-52	40-52	45-52	52-58	52-63	NO	SP.-TYPE			
2427	9.116	2.282	2.071	2.197	1.751	0.532	0.586	0.912	2	K3 II-III	3249	3.948	3.047	2.687	2.812	2.181	0.621	0.744	1.158	69	K4 IIII			
2429	4.235	1.718	1.633	1.790	1.434	0.433	0.516	0.808	2	K1 IV	3275	4.692	3.268	2.869	2.966	2.298	0.633	0.797	1.216	3	K5 IIII			
2443	4.718	1.945	1.772	1.900	1.581	0.508	0.524	0.843	2	K1 II-III	3314	3.908	-0.151	-0.079	0.029	-0.014	-0.033	-0.004	-0.013	4	A0 V			
2450	5.216	3.049	2.721	2.975	2.185	0.679	0.715	1.124	2	K3 IIII	3323	3.987	1.107	0.952	1.101	1.080	0.384	0.386	0.636	3	G5 IIII			
2456	0	6.640	-1.774	-1.588	-0.976	-0.317	-0.082	-0.085	-0.128	2	07	3403	4.931	2.063	1.847	1.997	1.626	0.416	0.578	0.907	3	K2 IIII		
2467	6.395	-1.490	-1.338	-0.760	-0.131	-0.000	0.021	0.030	1	(A2n)	3410	4.155	-0.061	0.01	0.043	-0.001	-0.003	0.006	0.029	3	A0 V			
2470	D	4.893	0.019	0.061	0.160	0.104	0.023	0.024	0.046	1	G8 Ia	3418	4.738	2.259	2.069	2.053	1.732	0.528	0.549	0.892	2	K2 IIII		
2473	D	2.615	2.375	2.401	2.018	0.666	0.620	0.948	1	G8 Ib	3429	4.631	2.306	2.079	2.111	0.430	0.378	0.460	0.825	2	K0 IIII			
2478	D	4.812	2.082	1.868	1.998	1.616	0.508	0.559	0.866	1	K1 IIII	3441	5.144	1.679	1.550	1.682	1.409	0.460	0.502	0.801	2	K1 IIII		
2484	D	3.541	0.231	0.202	0.366	0.498	0.200	0.203	0.383	1	F5 IV	3449	4.712	-0.043	-0.010	0.091	0.015	-0.020	0.020	0.020	2	A1 V		
2491	-1.422	-0.139	-0.088	0.044	-0.008	-0.045	-0.018	-0.034	2	A1 V	3454	4.277	-1.315	-1.161	-0.714	-0.246	-0.078	-0.069	-0.110	59	B3 V			
2506	D	4.745	1.901	1.739	1.845	1.539	0.496	0.507	0.807	2	K0 IIII	3459	4.844	1.066	0.963	1.066	1.042	0.388	0.439	0.633	2	G2 Ia		
2527	D	4.957	2.765	2.472	2.605	1.990	0.529	0.720	1.099	2	K4 IIII	3461	4.234	1.764	1.626	1.769	1.459	0.456	0.521	0.825	2	K0 IIII		
2540	D	3.675	0.244	0.243	0.243	0.117	0.026	0.064	0.110	2	A3 IIII	3475	4.289	1.179	1.344	1.458	1.299	0.442	0.441	0.746	2	G8 II		
2560	D	4.583	1.064	0.989	1.136	1.078	0.375	0.427	0.671	2	G5 IIII-IV	3482 D	3.573	0.764	0.693	0.843	0.812	0.278	0.365	0.587	2	GO II-IV+dF7		
2564	D	4.749	0.156	0.155	0.296	0.353	0.148	0.178	0.289	2	F0 V	3484	4.532	1.228	1.067	1.251	1.157	0.410	0.683	2	G8 II			
2571	D	4.779	-1.622	-1.434	-0.896	-0.301	-0.074	-0.088	-0.138	2	B1 V	3492	4.361	-0.036	-0.04	-0.008	-0.036	-0.021	0.001	0.003	3	A0 V		
2574	D	4.953	2.557	2.701	2.067	0.585	0.732	1.155	2	A2 V	3497	3.377	1.119	1.385	1.282	1.241	0.449	0.553	0.737	2	K7 II-III			
2585	D	4.941	0.011	0.057	0.077	0.028	0.020	0.017	0.022	2	(F2)	3509	3.228	0.114	0.130	0.252	0.248	0.059	0.102	0.173	2	A7 V		
2590	D	4.743	0.176	0.161	0.304	0.407	0.172	0.193	0.324	2	(F2)	3572	4.321	0.248	0.262	0.270	0.193	0.046	0.079	0.101	2	A m		
2596	D	4.319	-1.129	-0.991	-0.650	-0.125	0.001	-0.014	0.007	2	B3 II	3576	5.152	3.455	2.959	2.899	2.280	0.703	0.688	1.233	2	M3 IIII b		
2648	D	4.969	-1.561	-1.390	-0.879	-0.277	-0.073	-0.069	-0.091	2	B1 V	3579	4.113	0.170	0.166	0.183	0.195	0.422	0.403	0.493	2	F5 V		
2650	V	4.096	1.132	0.937	0.924	0.542	0.325	0.389	0.611	1	F7-G3 Ia	3594	3.606	-0.003	0.035	0.055	0.036	-0.021	0.021	0.034	3	(B9 n)		
2657	D	4.106	-0.854	-0.748	-0.504	-0.165	-0.053	-0.030	-0.051	2	B8 II	3612	4.802	1.578	1.409	1.514	1.383	0.486	0.456	0.745	3	G8 Ib-II		
2697	D	3.629	0.245	0.241	0.281	0.165	0.022	0.022	0.035	2	K2 IIII	3616 D	4.953	0.185	0.162	0.162	0.159	0.252	0.059	0.070	0.173	2	A2 V	
2701	D	5.164	1.505	1.331	1.521	1.321	0.430	0.475	0.757	2	K0 IIII	3619	4.507	0.242	0.244	0.243	0.236	0.362	0.104	0.136	0.194	2	M3 IIII b	
2714	D	4.181	0.059	0.077	0.053	0.041	0.043	0.047	0.052	2	A0 IV	3624	4.767	0.336	0.324	0.324	0.448	0.144	0.179	0.265	3	A7 m		
2751	D	5.029	0.218	0.211	0.094	0.077	0.013	0.047	0.094	2	A3 IIII-IV	3662	4.872	0.137	0.146	0.251	0.229	0.060	0.091	0.156	3	A5 V		
2763	D	3.604	0.155	0.153	0.198	0.127	0.011	0.033	0.066	2	A3 V	3665	3.912	-0.219	-0.236	-0.16	-0.074	-0.057	-0.018	-0.033	2	B9 Ib-1V		
2777	D	3.629	0.245	0.241	0.281	0.165	0.022	0.022	0.035	2	F0 IV	3690 D	4.358	0.132	0.114	0.114	0.163	0.091	0.000	0.030	0.075	2	A2 V	
2812	D	4.704	2.414	2.221	2.302	1.832	0.544	0.596	0.938	2	K2 IIII	3705	3.575	3.292	2.845	2.949	2.306	0.631	0.796	1.227	2	M0 IIII		
2818	D	4.614	-0.037	-0.003	0.011	-0.033	-0.021	-0.021	-0.010	2	A1 IV	3714	4.313	0.223	0.223	0.224	0.448	0.144	0.163	0.268	3	F0 IV		
2751	D	4.180	2.459	2.230	2.066	1.827	0.567	0.595	0.931	3	K2 IIII	3729	4.762	0.137	0.137	0.137	0.229	0.060	0.091	0.156	3	F6 V		
2821	D	4.050	1.560	1.414	1.565	1.334	0.428	0.465	0.771	2	A1 V+A m	3731	4.159	0.216	0.216	0.216	0.313	0.060	0.091	0.161	3	G4 IV		
2845	D	2.862	-0.554	-0.430	-0.301	-0.130	-0.053	-0.064	-0.064	3	B8 V	3733	4.735	0.323	0.323	0.323	0.466	0.161	0.221	0.319	3	K2 IIII		
2852	D	4.262	0.065	0.314	0.252	0.233	0.052	0.144	0.279	3	F3 IIII	3748	2.383	2.895	2.726	2.116	0.598	0.710	0.770	1.227	2	K4 IIII		
2812	D	4.952	-0.675	-0.575	-0.379	-0.110	-0.020	0.008	0.019	2	(BB)	3755	4.691	0.275	0.275	0.275	0.467	0.177	0.227	0.323	2	F6 IV		
2818	D	4.614	-0.037	-0.003	0.011	-0.043	-0.037	-0.021	-0.010	2	A1 IV	3760	4.981	1.313	1.168	1.313	1.214	0.419	0.409	0.463	2	G8 II		
2751	D	4.180	2.459	2.230	2.066	1.827	0.567	0.595	0.931	3	K0 IIII	3765	4.749	0.269	0.269	0.269	0.448	0.137	0.179	0.265	3	F0 IV		
2821	D	4.050	1.560	1.414	1.565	1.334	0.428	0.465	0.771	2	A1 V+A m	3770	4.714	0.150	0.150	0.150	0.220	0.060	0.091	0.161	3	F6 V		
2845	D	2.862	-0.554	-0.430	-0.301	-0.130	-0.053	-0.064	-0.064	3	B8 V	3773	4.735	0.323	0.323	0.323	0.466	0.161	0.221	0.319	3	K2 IIII		
2852	D	4.262	0.065	0.314	0.252	0.233	0.052	0.144	0.279	3	F3 IIII	3788	2.383	2.895	2.726	2.116	0.598	0.710	0.770	1.227	2	K4 IIII		
2943	D	4.461	0.186	0.164	0.353	0.492	0.196	0.202	0.341	3	F5 IV-V	3795	3.305	0.192	0.165	0.165	0.365	0.549	0.230	0.223	0.413	2	F6 IV	
2946	D	5.005	0.174	0.162	0.121	0.076	0.020	0.037	0.065	3	A3 IIII	3797	4.563	0.227	0.227	0.227	0.422	0.142	0.127	0.211	3	A3 IIII		
2970	D	4.180	1.609	1.486	1.616	1.381	0.461	0.567	0.740	3	K0 IIII	3799	4.506	0.103	0.103	0.103	0.183	0.083	0.014	-0.031	1	A2 V		
2973	D	4.509	1.771	1.611	1.752	1.516	0.474	0.578	0.899	2	K1 IIII	3800	4.763	1.221	1.106	1.254	1.170	0.408	0.417	0.690	4	G8 II		
2985	D	3.811	1.340	1.213	1.362	1.218	0.415	0.414	0.697	2	G8 IIII	3809	5.037	1.453	1.294	1.458	1.301	0.446	0.466	0.754	2	K0 IIII		
2990	D	1.386	1.550	1.421	1.562	1.330	0.432	0.471	0.765	16	K0 IIII	3815	5.601	0.763	0.753	0.753	1.015	0.967	0.319	0.408	2	G8 IV-V		
3003	D	3.033	2.638	2.757	2.102	0.573	0.741	1.171	2	K5 IIII	3824	4.580	2.268	2.414	2.414	2.141	0.462	0.530	0.624	2	F6 IV			
3067	D	5.002	0.150	0.182	0.198	0.123	0.030	0.046	0.076	2	A4 V	3834	4.503	0.227	0.227	0.227	0.384	0.137	0.122	0.211	3	A3 IIII		
3131	D	4.652	1.644	1.583	0.913	0.016	0.016	0.030	0.055	2	A3 V	3845	4.239	2.495	2.227	2.227	2.171	0.434	0.534	0.637	1	F2 IV		
3141	D	5.098	3.065	2.882	2.822	1.213	0.624	0.701	1.232	0.697	2	K4 IIII	3849	3.667	0.482	0.482	0.482	0.547	0.613	0.217	0.242	0.405	2	A5 V+F8 II
3145	D	4.728	2.305	2.035	2.172	1.754	0.535	0.616	0.970	3	K2 IIII	3873	3.189	1.031	0.356	0.35								

TABLE 6 EIGHT-COLOR PHOTOMETRY OF BRIGHT STARS

B+S+	52	33-52	35-52	37-52	40-52	45-52	52-58	52-63	NO	SP-TYPE	B+S-	52	33-52	37-52	40-52	45-52	52-58	52-63	NO	SP-TYPE		
3905	4.228	2.342	2.184	2.268	1.753	0.464	0.620	0.949	2	K2 IIII	4.514	4.920	1.400	1.284	1.429	1.284	0.431	0.415	0.698	2	G8 IIII	
3950	5.115	3.537	3.080	3.093	2.401	0.713	0.761	1.251	2	M2 IIII	4.517	4.415	3.356	2.794	2.439	2.242	0.668	0.698	1.151	2	M1 IIII	
3970	4.549	-0.510	-0.395	0.276	-0.128	-0.033	-0.064	-0.064	3	B9 V	4.518	3.999	2.075	1.841	1.984	1.614	0.514	0.551	0.895	2	K0 IIII	
3974	4.538	0.126	0.159	0.261	0.247	0.066	0.066	0.118	1	A7 V	4.527	4.010	0.613	0.563	0.689	0.628	0.230	0.263	0.469	3	G5 IIII-IV+A	
3975	3.550	-0.286	-0.270	-0.407	-0.097	-0.004	0.040	0.055	3	A0 I b	4.524	2.124	0.457	0.083	0.211	0.144	0.031	0.029	0.063	10	A3 V	
3980	4.761	2.981	2.637	2.748	2.126	0.586	0.751	1.150	3	K4 IIII	4.540	3.700	0.323	0.272	0.650	0.246	0.283	0.462	4	F8 V		
3981	4.476	-0.129	-0.061	0.100	-0.044	-0.008	-0.022	-0.057	3	A0 IIII	4.550	4.626	0.483	0.395	0.776	0.325	0.382	0.644	49	G8 Vp		
3982	3.381	-0.689	-0.585	-0.399	-0.160	-0.055	-0.043	-0.070	3	B7 V	4.556	2.412	-0.024	0.020	0.052	0.009	-0.019	-0.029	-0.028	2	A0 V	
3994	3.846	1.669	1.569	1.665	1.376	0.443	0.476	0.760	3	K0 IIII	4.559	4.709	0.256	0.261	0.224	0.130	0.060	0.039	0.079	2	A4 V	
4031	3.535	0.451	0.385	0.314	0.354	0.138	0.138	0.170	0.280	3	F0 IIII	4.608	4.347	1.275	1.131	1.339	1.271	0.443	0.436	0.712	3	G8 IIII
4033	3.442	0.019	0.083	0.107	0.042	-0.012	-0.004	0.013	2	A2 IV	4.660	3.339	0.082	0.111	0.182	0.109	0.010	0.029	0.058	3	A3 V	
4039	5.901	0.182	0.113	0.346	0.510	0.219	0.119	0.297	2	F0 F3	4.662	2.576	-0.662	-0.573	0.396	-0.160	-0.051	-0.032	0.388	3	B8 IIII	
4054	4.902	0.145	0.151	0.379	0.512	0.195	0.217	0.361	2	F6 IV	4.689	3.903	0.048	0.077	0.098	0.008	-0.014	-0.029	-0.045	3	A2 V	
4077/8	2.302	1.603	1.771	1.513	0.497	0.519	0.841	1	K0 IIII/G7 IIII	4.697	5.265	2.118	1.851	1.960	1.777	0.194	0.510	0.501	3	K1 IIII-IV		
4069	3.485	3.229	2.823	2.914	2.316	0.663	0.780	1.249	3	MO IIII	4.697	4.971	1.539	1.342	1.806	1.722	0.558	0.551	0.754	3	G8 IIII	
4072	4.971	-0.288	-0.231	-0.152	-0.066	-0.035	-0.008	-0.018	3	AdP	4.701	4.939	0.572	0.547	0.654	0.571	0.218	0.257	0.441	3	A5+G5 IIII	
4090	4.801	0.293	0.322	0.320	0.301	0.097	0.155	0.225	2	FO V	4.716	4.959	1.243	1.086	1.212	1.147	0.402	0.400	0.658	3	G7 IIII	
4092	5.994	3.288	2.866	2.915	2.240	0.614	0.762	1.220	2	K0 IIII	4.737	4.615	1.591	1.361	1.581	1.474	0.534	0.524	0.824	4	K1 IIII-IV	
4094	4.204	3.132	2.773	2.847	2.203	0.602	0.769	1.183	2	K4 IIII	4.757	2.954	-0.504	-0.811	-0.080	-0.059	-0.040	-0.028	-0.033	3	B9.5 V; n	
4100 D	4.401	1.226	1.139	1.309	1.186	0.407	0.436	0.702	2	G8 IIII-IV	4.775	4.379	0.089	0.095	0.301	0.031	0.427	0.173	0.183	0.288	3	F0 IV
4112	4.946	0.160	0.154	0.426	0.603	0.253	0.268	0.450	2	F8 V	4.785	4.408	0.253	0.226	0.517	0.661	0.265	0.280	0.479	5	G0 V	
4119	5.074	-0.924	-0.80	-0.14	-0.050	-0.169	-0.040	-0.051	2	B6 V	4.787	3.849	-1.038	-0.541	-0.56	-0.180	-0.046	-0.013	0.51	3	B5 IIII e	
4132	4.765	0.126	0.168	0.257	0.261	0.084	0.097	0.170	2	A7 IV	4.789	4.790	-0.073	-0.013	0.117	-0.017	-0.018	-0.005	-0.010	3	A0 IIII	
4133	3.812	-1.532	-1.366	-0.868	-0.222	-0.036	-0.066	-0.048	2	B1 I b	4.813	4.955	2.384	2.214	2.767	1.767	0.582	0.531	0.727	3	K2 IIII	
4163 V	5.626	1.124	0.960	1.960	5.311	1.477	1.229	1.870	1	C1,3	4.885/6	2.863	0.035	0.06	0.241	0.140	0.154	0.173	0.291	4	F0 V	
4166	4.864	1.107	0.949	1.040	1.039	0.371	0.518	0.865	2	G3 IIII :	4828	4.897	0.008	0.065	0.179	0.102	0.012	0.019	0.031	3	A1 V	
4232	3.432	2.274	2.050	2.187	1.727	0.530	0.583	0.941	2	F8 V	4845	6.080	0.132	0.092	0.121	0.615	0.224	0.261	0.444	2	G0 V	
4247	4.050	1.668	1.516	1.693	1.404	0.452	0.485	0.793	3	K0 IIII-IV	4846	5.579	1.121	11.460	9.70	6.798	1.908	1.013	1.680	1.680	3	C5.4
4248	4.693	0.160	0.117	0.048	0.034	-0.034	-0.064	-0.040	2	A1 V	4883 *	5.092	0.572	0.479	0.479	0.559	0.326	0.531	0.600	3	G0 IIII	
4259/60	4.348	0.042	0.04	1	0.004	0.002	-0.011	0.005	2	A1 V	4902	5.126	2.935	2.634	2.688	2.251	0.761	0.693	1.262	3	M3 IIII	
4287	4.358	1.801	1.655	1.783	1.470	0.458	0.515	0.814	2	K0 IIII	4905	1.790	-0.013	0.018	0.118	0.042	-0.049	0.008	0.002	3	A0p V	
4295	2.356	-0.068	-0.007	0.041	0.014	-0.027	-0.023	-0.027	2	A1 V	4910	3.741	3.772	2.915	2.555	2.229	0.337	0.127	0.165	1.207	3	M3 IIII
4299	5.166	2.474	3.026	3.089	2.404	0.679	0.777	1.252	3	K5 IIII	4914	5.679	-0.002	0.005	0.227	0.127	0.127	0.165	0.260	3	F0 V	
4300	4.443	0.011	0.014	0.016	0.018	0.001	0.001	0.001	2	A2 V	4915 *	3.195	-0.633	-0.620	-0.154	-0.165	-0.070	-0.050	1.895	1	B9.5p V	
4301	2.067	1.709	1.566	1.683	1.431	0.482	0.497	0.797	3	K0 IIII	4920	5.192	3.386	2.946	3.030	2.337	0.634	0.778	1.242	3	M1 IIII	
4310	4.679	0.220	0.205	0.316	0.389	0.148	0.178	0.415	4	F2 IIII-IV	4931 D	5.007	1.353	1.233	1.269	1.211	0.411	0.431	0.694	3	G9 IIII-III	
4325	3.311	1.993	1.815	1.958	1.579	0.489	0.541	0.861	3	K1 IIII	4932	3.079	3.741	3.153	2.915	2.596	2.229	0.599	0.776	1.212	3	K5 IIII
4337	2.610	0.164	0.177	0.223	0.155	0.028	0.058	0.087	3	A4 V	4946	5.224	3.193	2.812	2.696	2.596	2.229	0.599	0.776	1.212	3	A1 V
4359	4.350	0.008	0.005	0.030	0.019	-0.031	-0.009	0.001	2	A2 V	4963 D	4.016	-0.042	0.015	0.014	0.024	0.011	0.058	0.058	0.058	3	A1 V
4362	5.009	3.492	3.031	2.977	2.382	0.799	0.682	1.254	3	M3 IIII	4983	4.364	0.258	0.255	0.108	0.134	0.268	0.268	0.268	0.268	3	A5 V
4368	4.514	0.323	0.302	0.246	0.238	0.091	0.111	0.163	3	A7 IIII-IV	5017	4.787	0.406	0.393	0.375	0.114	0.181	0.243	3	F0 II-III IP		
4371	5.574	3.223	2.814	2.888	2.212	0.603	0.751	1.195	1	M0 IIII	5019	4.898	0.577	0.542	0.524	0.856	0.303	0.381	0.573	3	G6 V	
4374/5	3.899	0.224	0.180	0.448	0.664	0.264	0.273	0.479	2	G0 V	5035/5	2.071	-0.028	0.016	0.113	0.039	0.017	0.022	0.242	3	A2 V A2 V	
4392	5.198	1.523	1.374	1.495	1.321	0.448	0.438	0.708	3	G8 IIII	5105	4.937	-0.113	-0.104	0.016	0.044	0.008	0.067	0.125	3	B1 V	
4399 D	4.039	0.235	0.210	0.376	0.202	0.196	0.247	0.321	2	F2 IV	5107	3.379	0.077	0.103	0.214	0.133	0.041	0.058	0.090	3	A3 Vn	
4405 D	4.142	0.168	0.176	0.275	0.237	0.064	0.101	0.162	2	A2 V	5062	4.032	0.108	0.134	0.227	0.200	0.045	0.066	0.127	3	A5 V	
4434	4.270	3.536	3.040	3.104	2.417	0.680	0.795	1.279	3	M0 IIII	5110	5.067	0.255	0.212	0.335	0.428	0.182	0.187	0.355	3	F2 IV	
4456 D	5.913	-1.185	-0.033	-0.605	-0.213	-0.042	-0.004	-0.003	2	G8 IIII	5112	4.691	0.211	0.209	0.163	0.053	0.053	0.059	0.059	3	A4 V	
4468	4.660	-0.356	-0.268	-0.180	-0.101	-0.041	-0.041	-0.060	3	B9 V	5117 D	4.809	0.224	0.201	0.238	0.260	0.099	0.113	0.210	3	M2 IIII	
4471	4.556	1.444	1.282	1.447	1.287	0.433	0.456	0.759	3	G9 IIII	5154	5.056	3.541	3.066	3.031	2.435	0.767	1.264	3	M2 IIII		
4496	5.489	0.534	0.541	0.834	0.863	0.299	0.387	0.615	5	G8 V	5185	4.602	0.208	0.177	0.416	0.559	0.216	0.235	0.393	3	F7 V	

TABLE 6 EIGHT-COLOR PHOTOMETRY OF BRIGHT STARS

B+S.	52	33-52	35-52	37-52	40-52	45-52	52-58	52-63	NO	SP. TYPE	B-S.	52	33-52	35-52	37-52	40-52	45-52	52-58	52-63	NO	SP. TYPE	
5191	1.828	-1.195	-1.042	-0.612	-0.218	-0.075	-0.090	-0.138	3	B3 V	5778	4.143	-0.961	-0.848	-0.514	-0.180	-0.050	-0.050	-0.050	2	B7 nn	
5200	4.458	3.240	2.834	2.920	2.256	0.598	0.774	1.206	3	K5 III	5780	5.139	-0.483	-0.743	-0.530	-0.135	-0.055	-0.058	-0.053	2	B7 IV:	
5219	5.133	3.714	3.160	3.110	2.449	0.798	0.687	1.259	3	K5 III	5787	4.139	-1.454	-1.278	-1.479	1.305	-0.446	-0.460	-0.760	2	G8 III-IV	
5226	4.939	3.529	2.979	2.936	2.295	0.770	0.637	1.231	3	(M3)	5788/9	3.839	0.228	0.224	0.224	0.288	0.088	0.126	0.199	2	F0 IV	
5235	2.806	0.475	(0.46)	0.615	0.705	0.249	0.292	0.480	9	GO IV	5793 V	2.222	-0.134	-0.068	-0.020	-0.039	-0.037	-0.069	-0.022	3	A0 V	
5264	4.232	0.249	0.226	0.193	0.105	0.041	0.043	0.097	3	A3 III	5838	5.185	3.325	2.923	2.987	2.308	0.637	0.791	1.277	2	K5 III	
5291	3.650	-0.182	-0.128	-0.130	-0.090	-0.042	-0.013	-0.011	3	AO III	5842 D	4.545	0.024	0.070	0.146	0.062	-0.003	0.025	0.031	2	A1 V	
5299	5.526	3.588	2.873	2.669	2.039	0.592	0.499	1.260	3	M4-5 III	5849 D	3.839	-0.107	-0.054	-0.001	-0.023	0.017	0.098	0.020	2	A0 IV	
5304	4.907	0.278	0.238	0.441	0.615	0.259	0.243	0.425	3	F8 IV	5854	2.929	2.136	1.995	2.094	1.641	-0.478	0.563	0.867	7	K2 III	
5313	5.004	-0.821	-0.404	-0.162	-0.071	-0.031	-0.054	5	B9 p (S1)	5859	5.579	-0.018	0.035	0.076	0.019	-0.009	0.039	0.030	2	A0 V		
5315	4.355	2.568	2.258	2.411	1.888	0.560	0.610	1.033	3	K3 III	5867	5.695	1.118	1.149	1.139	0.086	0.001	0.035	0.053	3	A2 IV	
5328/9	4.433	0.195	0.239	0.194	0.076	0.110	0.173	F2 V/AT 1V			5868	4.550	0.349	0.300	0.574	0.688	0.269	0.290	0.494	3	G0 V	
5338	4.194	0.245	0.208	0.429	0.590	0.254	0.244	0.407	3	F7 III-IV	5879	4.520	3.461	2.995	3.052	2.591	0.679	0.792	1.277	4	H1 III	
5340	4.802	0.121	0.140	0.227	0.229	0.073	0.073	0.153	3	K7 V	5881	3.560	-0.259	-0.186	-0.094	-0.054	-0.030	-0.010	-0.005	2	A0 V	
5350	4.181	0.030	0.080	0.173	0.113	0.018	0.006	0.038	3	A0p	5882	3.759	0.128	0.132	0.254	0.197	0.019	0.072	0.111	2	A m	
5351	4.181	0.030	0.080	0.173	0.113	0.018	0.006	0.038	3	Abm	5889	5.166	3.236	2.053	2.054	2.210	0.621	0.781	1.212	2	K5 III	
5359	4.541	0.150	0.159	0.236	0.161	0.033	0.052	0.078	3	K0 III	5901	5.009	1.560	1.398	1.576	1.257	0.413	0.598	1.274	2	B3 V	
5361	5.046	1.664	1.518	1.674	1.414	0.453	0.478	0.771	3	K3 III	5902	5.041	-0.992	-0.861	-0.339	-0.072	-0.025	0.021	0.064	2	G5 III-IV	
5370	5.162	2.294	2.133	2.240	1.731	0.488	0.607	0.935	3	(G3)	5903	4.267	0.154	0.150	0.065	0.033	0.019	-0.007	0.023	3	A3 V	
5384	6.391	0.315	0.273	0.589	0.734	0.291	0.296	0.499	2		5904	4.366	1.558	1.381	1.555	1.335	0.458	0.495	0.781	2	K0 III-IV	
5404	4.165	0.189	0.156	0.407	0.574	0.229	0.249	0.412	3	F7 V	5908	5.914	0.117	0.108	0.160	0.442	0.633	0.212	0.471	2	F9 V	
5409	4.927	0.571	0.507	0.888	0.710	0.810	0.319	0.334	3	G2 III	5915 D	5.942	-0.881	-0.774	-0.380	-0.044	-0.004	0.007	0.031	2	B5 V:	
5429	3.927	2.467	2.245	2.368	1.824	0.533	0.641	1.002	3	K3 III	5917	4.974	-0.380	-0.312	-0.209	-0.089	-0.017	-0.017	0.040	2	A0 III-III p	
5430	4.612	2.887	2.580	2.704	2.087	0.594	0.705	1.099	3	K4 III	5917	4.846	0.057	0.092	0.172	0.090	0.001	-0.001	0.002	1	B p	
5435	3.098	0.243	0.255	0.283	0.228	0.073	0.078	0.139	3	A7 III	5941 *	4.945	-0.468	-0.311	-0.458	-0.117	0.001	-0.001	0.002	1	B p	
5447	4.568	-0.032	-0.021	-0.211	0.385	0.169	0.164	0.331	3	F2 V	5947	4.457	2.243	2.005	2.150	1.712	0.520	0.588	0.935	31	K3 III	
5475/6	4.538	-0.594	-0.501	-0.277	-0.076	-0.052	-0.024	-0.048	3	B9 III p/A m	5958 V	10.340	2.122	1.725	1.339	1.902	0.808	0.526	1.244	1	Pec (Nova)	
5477/8	3.801	0.033	0.088	0.139	0.070	0.000	0.000	0.032	2	A2 III	5960	5.047	0.156	0.159	0.271	0.311	0.109	0.129	0.209	2	F0 IV	
5487	3.958	0.092	0.080	0.127	0.100	0.023	0.008	0.010	3	A0 V	5961	4.974	-0.408	-0.312	-0.209	-0.172	0.036	0.047	0.100	2	A0 III-III p	
5490 V	5.171	3.581	3.079	3.062	2.455	0.785	0.722	1.276	6	(M3)	5972	4.846	0.057	0.092	0.172	0.090	0.004	0.030	0.064	2	A3 V	
5502	4.822	1.405	1.279	1.422	1.210	0.430	0.440	0.710	3	K0 III	5977/8	4.226	0.220	0.209	0.209	0.367	0.527	0.214	0.221	0.346	2	F5 IV
5511	3.722	-0.101	-0.050	-0.233	0.433	0.224	0.473	0.743	3	K0 III-III+A	5982	4.712	-0.611	-0.512	-0.611	-0.150	-0.047	-0.047	-0.051	2	B9 p	
5531	2.793	0.170	0.170	0.243	0.185	0.041	0.063	0.092	2	A3 V	5984/5	2.522	-1.377	-1.220	-0.712	-0.141	-0.005	-0.030	-0.023	2	80-5 V+82 V	
5544 D	4.746	0.588	0.547	0.877	0.908	0.295	0.409	0.665	3	G8 V	5986	4.130	0.324	0.281	0.477	0.606	0.237	0.253	0.424	2	FB IV-V	
5563	2.478	3.014	2.654	2.794	2.158	0.603	1.138	1.273	3	K4 III	5997	4.495	1.110	0.948	1.088	1.057	0.390	0.380	0.625	2	(EG2)	
5570	4.569	0.163	0.151	0.270	0.350	0.137	0.159	0.273	3	FO IV	6018	4.971	1.545	1.421	1.583	1.336	0.420	0.490	0.721	2	K0 III	
5586 V	4.960	-0.210	-0.155	-0.085	-0.023	-0.005	0.021	0.044	3	(A0)	6023	4.248	-0.491	-0.414	-0.246	-0.095	-0.041	-0.020	-0.024	2	B9 p	
5589 V	4.940	3.814	2.934	2.766	2.151	0.928	0.514	1.277	2	K4 III	6027 D	4.902	-1.047	-0.912	-0.579	-0.207	-0.047	-0.036	-0.100	2	B2 IV-V	
5600	5.220	3.109	2.784	2.887	2.226	0.606	0.716	1.198	2	K4 III	6031	4.957	0.096	0.128	0.195	0.097	0.007	0.052	0.068	2	A2 V	
5601	4.588	1.425	1.441	1.609	1.389	0.469	0.480	0.778	2	K0 III	6056	3.141	3.425	2.970	3.031	2.355	0.670	0.773	1.231	2	M1 III	
5602	3.724	1.418	1.280	1.367	1.246	0.431	0.424	0.703	2	G8 III	6075	3.462	1.422	1.267	1.422	1.432	0.447	0.447	0.721	2	G9 III	
5616	4.820	2.341	2.091	2.214	1.795	0.536	0.605	0.965	2	K2 III	6092	4.294	-0.175	-0.163	-0.163	-0.163	0.170	0.170	0.158	2	B2 V e	
5634	5.011	0.084	0.083	0.320	0.499	0.204	0.214	0.409	2	K2 III	6118 V	4.587	-0.105	-0.093	-0.163	-0.163	0.170	0.170	0.158	2	A m	
5652	4.563	-0.684	-0.578	-0.578	-0.124	-0.050	-0.050	-0.001	-0.019	2	B9 IV (S1)	6129	4.671	0.115	0.126	0.126	0.126	0.126	0.092	0.129	2	A9 III
5681	3.724	1.355	1.191	1.374	1.224	0.443	0.429	0.715	2	G8 III	6103	5.084	1.502	1.383	1.497	1.281	0.413	0.459	0.722	2	K0 III	
5685	2.605	-0.643	-0.543	-0.425	-0.054	-0.054	-0.054	-0.054	2	B8 III	6104	4.728	1.517	1.387	1.564	1.337	0.442	0.476	0.759	2	K0 III	
5733	4.390	0.187	0.170	0.293	0.351	0.155	0.261	0.278	2	F0 IV	6117	4.625	-0.101	-0.068	-0.101	-0.031	-0.044	-0.030	-0.047	2	A1 p	
5735	3.064	0.333	0.333	0.313	-0.024	0.028	0.042	0.090	3	A3 II-II	6118 V	4.587	-0.105	-0.093	-0.163	-0.163	0.170	0.170	0.158	2	B2 V e	
5744	3.612	2.117	1.948	2.042	1.619	0.478	0.585	0.900	2	K2 III	6129	4.671	0.115	0.126	0.126	0.126	0.126	0.092	0.129	2	A m	
5747	3.737	0.215	0.204	0.345	0.360	0.095	0.136	0.196	2	F0 III p	6132	2.947	1.311	1.311	1.303	1.172	0.407	0.415	0.693	3	G8 III	
5763	5.084	2.854	2.950	2.352	0.634	0.787	1.238	1	K5 III	6146 V	5.085	3.648	2.640	2.558	1.638	1.134	0.491	1.509	4	M6 III		
5764	5.504	-1.319	-1.139	-0.649	-0.205	-0.050	-0.050	-0.085	2	B2 V n	6147	4.465	1.346	1.235	1.359	1.209	0.442	0.470	0.707	2	G8 III	
5774 D	5.023	0.241	0.241	0.151	0.205	0.047	0.047	0.071	2	(A2 n)	6148	4.195	1.314	1.195	1.214	1.214	0.442	0.472	0.707	2	G8 III	
5777 D	4.863	1.543	1.392	1.559	1.333	0.424	0.424	0.465	2	K1 IV	6149 D	3.820	-0.044	-0.001	0.031	-0.012	0.018	0.018	0.029	2	A1 V	

TABLE 6 EIGHT-COLOR PHOTOMETRY OF BRIGHT STARS

B-S*	52	33-52	35-52	37-52	40-52	45-52	52-58	52-63	NO	SP-TYPE	B-S*	52	33-52	35-52	37-52	40-52	45-52	52-58	52-63	NO	SP-TYPE	
6159	5.251	3.142	2.739	2.847	2.177	0.589	0.769	1.202	3	K4 IIII	6170	4.861	1.427	1.310	1.447	1.271	1.446	0.424	0.691	2	G8 III-IV	
6161	4.983	-0.221	-0.155	-0.161	-0.088	-0.046	-0.012	-0.027	3	B9 IV	6171	3.781	0.113	0.135	0.120	0.151	0.018	0.067	0.108	2	A4 V	
6168	4.222	-0.135	-0.090	-0.120	-0.043	-0.013	-0.001	-0.022	2	B9 V	6172	3.820	-0.084	-0.112	-0.112	-0.044	-0.014	-0.023	-0.018	2	B2 V	
6175	2.586	-1.321	-1.199	-0.658	-0.058	-0.043	-0.020	-0.068	0.095	V	6177	4.352	-0.389	-1.216	-0.771	-0.244	-0.070	-0.105	-0.118	2	K0 III-IV	
6212 D	2.940	0.415	0.427	0.668	0.763	0.264	0.334	0.533	4	GO IV	6178	4.392	0.015	0.052	0.074	0.013	-0.015	0.016	0.004	2	A1 V	
6220	3.724	1.194	1.074	1.260	1.153	0.403	0.409	0.690	2	G7 III-IV	6186	5.054	1.253	1.099	1.272	1.182	1.413	0.397	0.657	2	G8 IIII	
6223	4.996	0.088	0.076	0.077	0.260	0.415	0.554	0.211	0.234	V	6187	5.956	3.460	3.027	3.395	2.092	0.797	1.279	2	H0 IIII		
6254	4.876	0.040	0.042	0.297	0.254	0.159	0.105	0.053	0.081	2	F5 IV-V	6188	3.469	1.248	1.101	1.324	1.201	0.400	0.455	0.740	3	K0 III-IV
6281	4.373	-0.638	-0.534	-0.330	-0.147	-0.050	-0.054	-0.057	2	B6 IV	6189	4.352	1.287	1.227	1.393	1.127	0.442	0.544	0.698	2	K0 IIII	
6299	3.493	2.027	1.891	2.008	1.590	0.473	0.555	0.870	6	K2 IIII	6190	4.146	2.039	1.855	2.014	1.598	0.487	0.582	0.908	2	K2 IIII	
6315	5.016	1.022	0.077	0.355	0.171	0.417	0.473	0.248	0.421	2	F6 V	6191	5.138	1.899	1.790	1.874	1.645	0.426	0.467	1.074	2	K2 IIII
6322 V	4.412	1.145	1.007	1.171	1.137	0.417	0.405	0.674	2	G5 IIII	6192	4.236	0.640	-0.557	-0.299	-0.111	-0.060	-0.028	-0.024	4	G0 IIII+A6 V	
6324	3.937	-0.286	-0.203	-0.073	-0.042	-0.035	-0.005	0.006	-0.004	2	B9.5 V	6193	4.011	0.035	0.074	0.157	0.093	0.019	0.036	0.065	2	A0 V
6337	5.357	3.515	3.018	3.008	2.347	0.717	0.723	1.270	3	H3 IIII	6194	4.924	1.017	0.853	0.705	0.747	0.284	0.303	0.461	4	G0 IIII+A6 V	
6355	4.939	0.114	0.141	0.236	0.155	0.026	0.058	0.098	2	A3 IV	6195	3.690	0.095	0.061	0.138	0.553	0.238	0.243	0.441	2	F7 V	
6378 D	2.465	0.108	0.147	0.167	0.073	0.028	0.033	0.049	2	A2.5 V	6196	4.708	0.190	0.182	0.095	0.046	0.012	0.045	0.074	2	A3 V	
6396	3.118	-0.776	-0.668	-0.481	-0.178	-0.073	-0.030	-0.038	2	B6 IIII	6197	5.112	2.081	1.792	1.970	1.598	0.507	0.553	0.908	2	K2 IIII	
640677V	3.382	2.513	2.115	1.998	1.550	0.964	0.475	1.386	1	H5 III-5 GS IIII	6198	4.210	2.585	2.333	2.457	1.897	0.538	0.677	1.037	2	K3 IIII	
6410	3.164	0.075	0.087	0.136	0.081	0.012	0.059	0.081	2	A3 IV	6199	4.924	1.017	0.853	0.705	0.747	0.303	0.303	0.461	2	F7 Ia	
6415 D	5.035	1.969	1.823	2.945	1.568	0.473	0.568	0.870	2	K2 IIII	6200	5.147	2.142	0.022	0.015	0.015	-0.022	-0.020	-0.023	4	A0 V	
6418	3.538	2.894	2.587	2.669	2.092	0.602	0.701	1.088	2	K3 IIII	6201	4.800	0.353	0.326	0.367	0.430	0.149	0.184	0.296	2	F3 IIII-IV	
6431 V	4.988	-1.217	-1.012	-0.545	-0.212	-0.068	-0.085	-0.102	1	B3 IIII	6202	4.404	0.276	0.276	0.290	0.237	0.048	0.096	0.166	3	A3 V	
6436	4.599	-0.042	0.024	0.024	0.065	0.028	-0.014	0.023	2	A2 V	6203	4.301	0.172	0.172	0.130	0.154	0.220	0.212	0.372	2	P6 V	
6446	4.347	0.010	0.013	0.024	0.024	0.024	0.028	-0.004	0.013	2	A1 V	6204	4.477	1.646	1.517	1.582	1.425	0.523	0.518	0.828	2	G5 II
6484/5	4.177	-0.081	-0.051	-0.079	-0.054	-0.028	0.005	0.016	2	A05 /AO IV	6205	5.147	2.142	0.022	0.015	0.015	-0.022	-0.020	-0.023	4	K3 IIII	
6493	4.600	0.121	0.100	0.298	0.421	0.192	0.179	0.315	2	F3 V	6206	5.797	3.295	2.775	2.598	2.094	0.760	0.717	1.150	1	G0 II- ^a -K0 P1 b	
6498	4.723	2.906	2.638	2.684	2.110	0.685	0.716	1.125	2	K3 IIII	6207	4.404	0.276	0.276	0.290	0.237	0.048	0.096	0.166	3	A3 V	
6526	4.776	2.894	2.584	2.667	2.095	0.594	0.703	1.098	2	K4 IIII	6208	4.301	0.172	0.172	0.130	0.154	0.220	0.212	0.372	2	P6 V	
6536	3.028	1.329	1.164	1.230	0.930	0.300	0.312	0.091	0.144	2	F0 IV	6209	4.477	1.646	1.517	1.582	1.425	0.523	0.518	0.828	2	G5 II
6554	4.964	0.125	0.133	0.261	0.290	0.103	0.115	0.207	2	A m	6210	5.133	2.142	0.010	0.958	1.068	0.369	0.392	0.663	2	G4 IIII+A6 V	
6555	4.945	0.189	0.196	0.324	0.355	0.117	0.120	0.222	2	A m	6211	5.132	2.142	1.185	1.065	1.223	1.149	0.410	0.691	2	G8 IIII	
6556	2.128	0.204	0.203	0.241	0.190	0.048	0.072	0.118	2	K3 IIII	6212	5.130	2.142	1.185	1.065	1.223	1.149	0.410	0.691	2	G8 IIII	
6561	3.604	0.264	0.251	0.300	0.300	0.117	0.120	0.222	2	F0 IV	6213	4.672	0.131	0.131	0.167	0.179	0.220	0.212	0.372	2	P6 V	
6567	4.655	-0.233	-0.193	-0.134	-0.078	0.050	0.075	0.150	2	B8 V	6214	5.390	3.588	2.980	0.058	0.015	0.044	0.009	-0.015	0.044	1.350	
6629	3.749	-0.013	0.033	0.109	0.047	-0.010	-0.002	0.002	63	A0 V	6215	4.312	1.860	1.703	1.814	1.462	0.450	0.503	0.822	2	K2 IIII	
6636 D	4.692	0.121	0.125	0.321	0.469	0.185	0.233	0.378	2	A2 V	6216	5.241	-0.056	(-0.07)	-0.234	-0.076	-0.017	-0.033	-0.025	6	B9 IIII	
6659	5.564	0.105	0.113	0.104	0.305	0.389	0.206	0.218	0.366	2	F5 V	6217	5.101	2.004	1.814	1.948	1.582	0.533	0.867	1.200	2	K0 IIII
6663	3.058	2.114	1.981	2.082	1.627	0.477	0.564	0.707	2	K2 IIII	6218	5.227	2.693	2.618	2.136	1.479	0.475	0.517	0.842	2	K1 IIII	
6662	3.610	0.745	0.704	0.936	0.904	0.306	0.353	0.578	2	G5 IV	6219	4.294	1.820	1.672	1.818	1.429	0.477	0.517	0.842	2	G9 IIII	
6669	3.552	1.615	1.485	1.596	1.342	0.434	0.448	0.733	2	G9 IIII	6220	4.318	-0.522	-0.419	-0.256	-0.122	-0.048	-0.050	-0.059	3	B8 V	
6703	3.943	1.336	1.224	1.363	1.211	0.408	0.436	0.712	2	B3 V	6221	4.385	-0.378	-0.150	-0.012	-0.682	-0.224	-0.224	-0.444	2	B2 IV	
6705	2.661	3.201	2.816	2.923	2.257	0.616	0.769	1.206	2	K5 IIII	6222	4.663	-0.202	-0.544	-0.852	-0.544	-0.020	-0.004	0.306	2	K3 IIII	
6707 *	4.518	0.414	0.425	0.326	0.397	0.167	0.197	0.356	2	F2 II	6223	4.773	2.467	2.274	2.352	1.815	0.499	0.620	0.955	2	B6 IIII	
6710	4.718	0.135	0.100	0.291	0.428	0.172	0.199	0.341	2	F3 V	6224	5.167	-0.964	-0.475	-0.188	-0.071	-0.050	-0.084	0.2	B6 IIII		
6712	4.586	-1.268	-1.176	-0.634	-0.100	-0.002	0.025	0.116	2	B2 V	6225	4.141	1.283	1.411	1.248	0.423	0.429	0.713	2	A2 IV		
6713	4.949	2.222	2.037	2.110	1.740	0.568	0.561	0.890	2	K0 II-111	6226	4.971	-0.223	-0.635	-0.190	-0.037	-0.037	-0.066	2	B3 IV		
6714	3.999	-0.935	-0.836	-0.526	-0.040	0.022	0.042	0.082	2	B5 Ib	6227	4.429	1.049	1.429	1.345	1.049	0.251	0.301	0.474	2	F2 Ib	
6723	4.418	-0.036	0.023	0.023	0.016	-0.001	0.039	0.058	2	A1 V	6228	4.605	1.202	1.402	1.348	1.049	0.251	0.301	0.474	2	F2 Ib	
6752 0	4.265	0.914	0.875	1.180	1.071	0.326	0.469	0.741	3	K0 V	6229	4.862	3.245	2.795	2.836	2.200	0.609	0.740	1.204	2	M0+ IIII	

TABLE 6 EIGHT-COLOR PHOTOMETRY OF BRIGHT STARS

B.S.	52	33-52	35-52	37-52	40-52	45-52	52-58	52-63	NO	SP.-TYPE	8-S.	52	33-52	35-52	37-52	40-52	45-52	52-58	52-63	NO	SP.-TYPE
8279	4.838	-0.632	-0.588	-0.248	0.245	0.205	0.160	0.281	2	B2 I _b	8684	3.727	1.313	1.175	1.339	1.212	0.423	0.423	0.677	2	G8 III
8288	4.923	1.210	1.016	1.420	1.420	0.393	0.675	2	G8 I _b	8694	3.736	1.379	1.535	1.658	1.407	0.454	0.497	0.770	2	K1 III	
8297 V	6.708	(12+)	7.314	6.706	4.948	1.396	1.260	1.964	1	C6, ₃	8698	4.139	3.04	2.884	2.877	2.363	0.751	0.766	1.276	2	H2 III
8301	4.687	-1.059	-0.976	-0.621	-0.166	-0.044	-0.020	-0.291	2	B3 V	8702	5.057	2.226	2.087	2.224	1.755	0.518	0.607	0.968	2	K3 III
8308	2.793	3.029	2.693	2.325	2.240	0.712	0.729	1.113	2	K2 I _b	8709	3.280	0.152	0.167	0.145	0.075	0.003	0.035	0.037	2	A3 V
8309/10	4.510	0.096	0.066	0.315	0.525	0.199	0.230	0.395	2	F6 V	8717	4.890	-0.069	-0.005	0.010	-0.006	-0.020	0.008	-0.011	2	A1 V
8313	4.555	1.850	1.671	1.760	1.549	0.518	0.508	0.807	2	G5 I _b	8729	5.611	0.327	0.488	0.737	0.738	0.280	0.323	0.533	2	G4 V
8315 V	4.221	0.124	0.095	0.268	0.437	0.186	0.265	0.368	2	F5 I _a	8748	5.041	2.944	2.619	2.737	2.095	0.707	0.710	1.103	2	K4 III
8316 V	4.634	4.396	4.396	4.001	3.331	1.328	1.028	1.835	2	H2 I _a	8752 V	5.938	2.654	2.324	2.217	2.005	0.785	0.799	1.213	1	G0 I _a
8317	4.802	1.946	1.802	1.915	1.540	0.463	0.517	0.817	3	K0 III	8762	3.636	-0.955	-0.828	-0.603	-0.177	-0.045	-0.017	-0.038	1	B6 p
8322 V	2.948	0.182	0.193	0.320	0.361	0.139	0.159	0.265	2	A6 m	8773	4.504	-0.901	-0.791	-0.473	-0.160	-0.049	-0.034	-0.067	2	B5 V _e
8327	6.003	-0.793	-0.744	-0.281	0.276	0.206	0.161	0.280	2	O9 I _a	8775 V	2.048	3.831	3.222	3.229	2.474	0.823	0.829	1.284	2	M2 II-III
8334	4.634	0.734	0.564	0.229	0.485	0.316	0.268	0.463	2	A2 I _a	8780	4.893	1.551	1.514	1.653	1.400	0.461	0.492	0.796	2	K0 III
8335	6.223	-1.195	-1.067	-0.586	-0.178	-0.07	-0.031	-0.053	2	B3 I _a	8781	2.501	-0.091	-0.043	-0.087	-0.032	-0.022	-0.009	-0.030	3	69.5 III
8383 V	5.418	1.102	1.012	1.586	2.007	0.918	0.857	1.560	1	H2p I _{a+b}	8795	4.972	3.390	2.964	3.006	2.342	0.642	0.783	1.264	2	M2 III
8402	4.718	-0.768	-0.652	-0.470	-0.154	-0.056	-0.011	2	B8 V	8796	5.088	2.135	1.920	2.054	1.825	0.604	0.623	1.002	2	K0 Ibp	
8413	5.269	3.031	2.720	2.806	2.138	0.757	1.155	2	K4 III	8797	4.820	-1.357	-1.212	-0.983	-0.114	-0.044	-0.001	2	B0.5 IV		
8414	3.178	1.516	1.311	1.338	1.281	0.458	0.441	0.696	2	G2 I _b	8808 D	6.271	-0.980	-0.850	-0.550	-0.066	0.005	0.004	0.013	2	B3 V
8417 0	4.331	0.224	0.222	0.362	0.435	0.159	0.165	0.277	2	B8 V	8819 D	4.597	0.943	0.933	0.935	0.935	0.395	0.434	0.624	3	C2 III
8418	4.258	-0.624	-0.511	-0.267	-0.097	-0.159	-0.054	-0.056	2	K1 b	8830	4.956	0.142	0.127	0.250	0.342	0.128	0.144	0.241	1	F0 V
8430	3.857	0.106	0.101	0.345	0.507	0.204	0.210	0.355	3	F5 V	8832	5.071	1.369	1.289	1.624	1.282	0.295	0.609	0.916	63	K3 V
8450	3.545	0.095	0.114	0.176	0.107	0.018	0.016	0.024	2	A2 V	8834	4.342	3.442	2.905	2.947	2.302	0.664	0.756	1.249	2	H2 III
8454	4.383	0.560	0.467	0.445	0.592	0.238	0.224	0.374	2	F5 II-III	8841	4.513	1.823	1.694	1.821	1.466	0.535	0.825	1.023	2	K0 III
8465	3.740	3.026	2.737	2.762	2.273	0.745	0.722	1.120	2	K1 b	8852	3.912	1.278	1.059	1.229	1.167	0.419	0.48	0.698	2	G7 III
8468	5.025	1.308	1.162	1.216	1.184	0.411	0.412	0.687	2	G8 III	8858	4.395	-1.029	-0.888	-0.576	-0.198	-0.059	-0.059	-0.086	2	B5 V
8469	5.136	-0.985	-0.899	-0.432	0.155	0.168	0.137	0.238	2	O6 I	8860	5.230	3.667	3.163	3.143	2.467	0.762	0.734	1.298	3	(EM2)
8485	4.852	-2.555	-2.336	-0.482	0.940	0.602	0.696	0.075	2	K3 III	8867 0	4.947	1.030	0.921	1.110	1.058	0.401	0.401	0.664	2	K0 III
8494	4.242	0.195	0.185	0.268	0.330	0.129	0.120	0.218	2	F0 IV	8880	4.005	0.162	0.164	0.197	0.111	0.052	0.074	0.122	2	A5 IV
8498	4.477	2.893	2.605	2.615	2.120	0.632	0.692	1.054	2	K3 III	8892	4.196	1.148	1.568	1.431	0.473	0.504	0.835	1.023	2	K0 III
8499	4.001	1.103	1.370	1.510	1.299	0.416	0.436	0.727	2	G8 III-IV	8905	4.556	0.442	0.368	0.679	0.177	0.247	0.294	0.487	2	F8 IV
8518	3.858	-0.254	-0.193	-0.111	-0.080	-0.051	-0.002	-0.029	2	B9 III	8906	4.817	3.095	2.765	2.847	2.217	0.613	0.764	1.194	2	K5 III
8520	5.005	-1.338	-1.191	-0.742	-0.226	-0.060	-0.059	-0.080	2	B2 V	8911	4.967	-0.143	-0.134	-0.134	0.061	0.039	0.061	0.060	2	A2p IV
8522	4.827	-0.338	-0.269	-0.228	-0.188	-0.027	-0.018	-0.036	2	B8 III	8916	4.553	1.183	1.642	1.453	1.460	0.522	0.522	0.826	2	K1 I _b
8558/9	3.769	0.212	0.163	0.314	0.474	0.190	0.206	0.361	2	F2 IV	8923	4.767	1.126	1.311	1.368	1.268	0.450	0.450	0.720	2	G8 III
8571 V	4.316	1.267	1.073	1.063	1.046	0.376	0.401	0.616	2	G9 III	8926 V	4.870	-1.143	-0.591	-0.501	-0.181	-0.051	-0.051	-0.051	2	B3 V
8572 D	4.804	2.140	2.097	2.076	2.022	0.830	0.814	1.343	2	H0 lab+b	8982	4.980	1.105	0.921	1.008	0.356	0.379	0.614	2	G0 I _b	
8573	4.881	-0.156	-0.072	-0.023	-0.025	0.065	0.060	0.130	2	A0 IV	8984	4.546	0.148	0.158	0.243	0.226	0.060	0.07	0.153	2	A7 V
8579	4.058	1.687	1.483	1.678	1.001	0.455	0.514	0.830	2	B2 IV	8988	4.455	-0.330	-0.376	-0.377	-0.045	-0.020	-0.028	-0.055	2	F7 V
8585	3.749	-0.102	-0.056	-0.005	-0.021	-0.026	-0.012	-0.030	2	A2 V	8997 0	5.133	1.300	1.172	1.330	0.410	0.438	0.706	2	K0 III	
8597	4.025	-0.522	-0.419	-0.282	-0.121	-0.060	-0.048	-0.053	2	B8 V	9045 Y	4.810	2.237	1.792	1.575	1.409	0.618	0.583	0.853	2	G0 I _b
8613	4.666	0.262	0.250	0.274	0.274	0.106	0.103	0.186	2	A7 IV	9064	5.023	3.123	2.753	2.764	2.024	0.691	1.260	2	M3 III	
8622	4.845	-1.736	-1.562	-0.291	-0.070	-0.075	-0.114	99	09 V	9071 0	4.893	-1.322	-1.81	-0.93	-0.146	-0.059	-0.007	-0.025	2	B1 V	
8632	4.814	2.467	2.184	2.317	1.837	0.556	0.635	0.995	2	K3 III	9072	4.133	0.244	0.195	0.315	0.443	0.177	0.224	0.365	2	F4 IV
8634	3.409	-0.534	-0.440	-0.318	-0.153	-0.064	-0.046	-0.041	2	B8 V	9089	4.804	3.423	3.045	2.965	2.332	0.820	0.851	1.241	2	N3 III
8641	4.805	-0.067	-0.037	-0.010	-0.018	-0.021	-0.000	-0.024	2	A1 V	9098	4.522	-0.207	-0.139	-0.157	-0.057	-0.007	-0.027	-0.021	3	B9 IV

TABLE 6 EIGHT-COLOR PHOTOMETRY OF BRIGHT STARS

B-S.	52	33-52	35-52	37-52	40-52	45-52	52-58	52-63	N0	SP. TYPE	8-S.	52	33-52	35-52	37-52	40-52	45-52	52-58	52-63	NO	SP. TYPE		
7417	3.398	1.199	1.222	1.443	1.378	0.491	0.603	0.937	2	K3 II+8:	7834	4.097	0.742	0.624	0.450	0.486	0.182	0.196	0.341	2	F5 II		
7420	3.826	0.206	0.218	0.220	0.165	0.055	0.055	0.129	2	A5 V	7844	4.910	-0.91	-0.958	-0.620	-0.169	-0.036	-0.015	-0.019	2	B2 V		
7426	4.739	-0.126	0.971	-0.628	0.224	-0.067	-0.066	-0.064	2	B3 IV	7847	6.476	-1.78	-1.555	-1.195	-0.494	-0.561	-0.891	2	F5 Iab			
7429	4.778	2.059	1.927	2.072	1.604	0.447	0.605	0.945	2	K3 III	7850	4.248	0.291	0.288	0.254	0.068	0.071	0.134	0.134	2	A ^m		
7437	5.016	-0.760	-0.662	-0.445	-0.169	-0.055	-0.005	2	B7 V	7852	0.016	-0.908	-0.769	-0.500	-0.190	-0.068	-0.048	-0.066	2	B6 III			
7446	4.987	-1.369	-1.228	-0.715	-0.100	0.040	0.046	0.067	2	B0.5 III	7866	5.058	1.547	1.624	1.941	1.967	0.774	0.801	1.279	2	K2 I b+8		
7447	4.388	-0.805	-0.691	-0.434	-0.144	-0.040	-0.005	0.008	2	B5 III	7871	4.655	0.152	0.185	0.210	0.145	0.023	0.029	0.041	2	A3 V		
7462	4.895	0.710	0.664	1.019	0.967	0.303	0.403	0.670	2	K0 V	7882	0	3.727	0.324	0.288	0.412	0.538	0.206	0.216	0.354	2	F5 IV	
7469	4.587	0.070	0.069	0.278	0.446	0.181	0.190	0.334	2	F4 V	7884	4.522	1.365	1.801	-0.259	-0.174	-0.084	-0.053	-0.040	2	89.5 V		
7478	4.929	1.448	1.345	1.440	1.275	0.411	0.456	0.744	2	G8 IIII-IV	7891	4.801	-0.11	-0.069	-0.158	-0.341	0.037	0.079	0.054	2	A7 p		
7479	4.579	0.963	0.806	0.928	0.970	0.351	0.353	0.611	2	G0 II	7906	3.763	-0.415	-0.319	-0.228	-0.093	-0.049	-0.024	-0.040	2	89 V		
7488	4.660	1.676	1.567	1.620	1.407	0.475	0.466	0.766	2	G8 II	7924	1.308	-0.069	-0.158	-0.341	-0.079	-0.054	-0.106	0.106	2	A2 Ia		
7503	6.114	0.442	0.401	0.677	0.756	0.283	0.328	0.555	2	G2 V	7928	1.238	1.375	1.234	0.419	0.410	0.302	0.104	0.161	2	C7 p		
7504	6.395	0.465	0.415	0.710	0.770	0.283	0.332	0.547	2	G5 V	7939	5.020	2.113	1.895	2.031	1.615	0.501	0.561	0.888	2	K2 III		
7525	3.125	3.007	2.694	2.793	2.210	0.664	0.730	1.127	2	K3 II	7942	4.447	1.665	1.507	1.660	1.412	0.450	0.474	0.773	2	K0 III		
7526	2.892	-0.188	-0.100	-0.102	-0.059	-0.017	-0.014	-0.005	2	G9.5 III	7947	4.078	0.968	0.893	1.019	1.025	0.343	0.432	0.690	2	F8 IV-V/k2 IV		
7536	4.210	1.994	1.918	1.993	1.741	0.708	0.650	1.202	2	H2 II+A0 V	7949	2.702	1.569	1.413	1.344	1.442	0.472	0.770	0.702	2	K0 III		
7546	0	5.068	0.993	0.130	0.448	0.098	0.024	0.083	2	A3 V	7950	3.790	0.022	0.071	0.012	0.014	0.027	0.005	0.012	2	A1 V		
7557	0	5.798	0.161	0.611	0.240	0.057	0.075	0.111	0.170	3	A7 IV, V	7951	4.866	3.660	3.128	3.064	2.407	0.792	0.690	1.281	2	M3 III	
7564	V	6.128	3.127	2.248	1.633	0.631	1.243	0.556	1	H5 (S7.1, 1)	7955	4.637	0.353	0.312	0.545	0.643	0.244	0.263	0.429	2	F8 IV-V		
7565	4.959	-1.184	-1.025	-0.524	-0.240	-0.077	-0.087	-0.087	2	B3 V	7957	3.642	1.189	1.056	1.291	1.163	0.393	0.439	0.706	2	K0 IV		
7570	V	4.209	1.446	1.246	1.242	1.180	0.665	0.421	0.660	1	F6 I b	7963	0	4.76	-0.774	-0.159	-0.055	-0.159	-0.059	-0.069	2	B5 V	
7574	6.280	-1.414	-1.275	-0.717	-0.071	0.055	0.047	0.098	2	O8 I	7977	4.932	-0.473	-0.439	-0.439	-0.341	-0.244	-0.218	0.375	2	B3 Ia		
7582	0	4.077	1.104	0.960	1.153	0.998	0.409	0.410	0.702	2	G8 II	7980	4.837	0.281	0.279	0.333	0.410	0.147	0.174	0.257	2	A9 m	
7589	5.652	-1.528	-1.369	-0.199	-0.168	0.003	-0.012	0.017	2	O9.5 III	7995	4.153	1.011	0.897	1.069	1.047	0.373	0.373	0.613	2	G8 III		
7592	4.543	-0.274	-0.225	-0.170	-0.060	-0.036	0.014	-0.018	2	B9.5 III	8001	4.764	-1.041	-0.905	-0.542	-0.180	-0.056	-0.047	-0.090	2	B5 V		
7595	4.774	1.666	1.496	1.643	1.370	0.446	0.446	0.868	2	K0 III	8020	3.707	0.594	0.517	0.422	0.493	0.293	0.225	0.425	2	B8 Ia		
7602	3.954	0.923	0.831	1.07	1.027	0.343	0.427	0.713	2	G8 IV	8028	3.970	0.018	0.018	0.014	0.013	0.006	0.001	0.033	2	A9 V		
7613	4.949	-0.905	-0.781	-0.518	-0.159	-0.039	-0.036	-0.030	2	B6 III	8047	V	4.594	-1.338	-1.318	-0.731	-0.094	0.025	0.008	0.093	1	B1 IV; e	
7615	4.156	1.387	1.452	1.599	1.342	0.436	0.547	0.641	2	K0 III	8060	4.887	0.130	0.146	0.235	0.181	0.046	0.093	0.116	2	A3 m?		
7619	0	4.999	0.164	0.884	0.205	0.160	0.050	0.088	0.151	2	A3 IV	8075	4.114	-0.091	-0.042	-0.041	-0.001	-0.020	-0.002	0.005	2	A0 V	
7635	3.980	3.315	2.938	3.006	2.338	0.632	0.817	0.215	2	K5 III	8076	4.134	0.306	2.782	2.808	2.334	0.795	1.224	1.224	2	K5 I b		
7653	4.738	0.317	0.285	0.261	0.204	0.048	0.103	0.170	2	K5 II	8085	5.497	1.662	1.491	1.902	1.488	0.218	0.811	1.170	2	K5 V		
7678	5.728	-0.403	-0.383	-0.383	-0.074	0.089	0.334	0.284	0.502	2	B1.5 Ia+	8089	4.959	1.754	1.754	1.754	1.754	0.879	1.325	2	K7 V		
7685	4.664	2.607	2.366	2.504	1.505	1.505	1.505	0.584	0.674	2	K3 III	8093	4.958	3.218	2.886	2.924	2.358	0.696	1.325	2	K4 II-11a		
7708	5.000	-1.334	-1.190	-0.760	-0.268	-0.102	-0.025	-0.046	2	B3 V	8093	4.727	1.336	1.210	1.380	1.227	0.416	0.420	0.700	2	G8 III		
7710	3.182	-0.275	-0.246	-0.189	-0.169	-0.033	-0.028	-0.046	2	B9.5 III	8097	4.788	1.164	1.184	1.322	1.336	0.492	0.522	0.624	2	F0 p		
7724	4.981	0.033	0.057	0.173	0.196	0.025	0.024	0.042	2	A2 V	8114	3.446	1.436	1.351	1.482	1.337	0.453	0.636	0.636	2	G8 II		
7730	4.487	0.359	0.338	0.173	0.094	0.025	0.013	0.042	2	A3 III	8123	0	4.596	1.58	1.338	1.389	0.562	0.235	0.426	2	F7 V		
7735	V	4.153	1.009	1.087	1.414	1.370	0.495	0.502	0.803	2	K2 II+83 V	8130	0	3.841	0.212	0.185	0.344	0.465	0.206	0.187	0.323	2	F0 IV
7736	5.009	0.058	0.083	0.167	0.156	0.061	0.076	0.161	2	A2 III	8131	4.019	0.616	0.589	0.691	0.609	0.217	0.247	0.448	2	G0 II-11+5 V		
7739	4.793	-1.226	-1.115	-0.849	-0.221	-0.060	-0.072	-0.096	2	B3 V	8132	4.223	1.421	1.367	1.457	1.391	0.374	0.420	0.707	2	B9 IIb		
7740	4.355	0.159	0.163	0.163	0.128	0.038	0.068	0.121	2	A3 IV, V	8146	4.373	-1.367	-1.235	-0.998	-0.175	-0.039	-0.028	0.18	2	B2 V		
7744	4.864	2.011	1.867	2.012	1.718	0.523	0.661	1.038	2	K3 III	8162	2.500	0.228	0.224	0.274	0.087	0.099	0.169	0.3 A7 IV				
7747	4.498	1.625	1.437	1.494	1.370	0.495	0.502	0.803	2	G3 IIb	8167	4.489	1.162	1.031	1.206	1.122	0.413	0.676	0.68	2	G8 II		
7750	0	4.386	-0.225	-0.166	-0.066	-0.021	-0.019	-0.022	2	B9 III	8173	4.348	1.052	1.052	1.083	1.052	0.471	0.519	0.821	2	K1 III		
7751	V	4.445	1.956	1.900	1.913	1.972	0.692	0.787	1.258	2	K3 IIb-III+8	8175	4.950	3.417	2.988	3.200	2.355	0.668	0.782	1.255	2	M1 III	
7754	3.821	1.305	1.198	1.340	1.199	0.403	0.449	0.731	2	G9 III	8223	4.309	1.248	1.248	1.041	1.041	0.374	0.393	0.624	2	G8 V		
7763	V	4.955	0.159	0.691	-0.652	0.198	0.260	0.288	0.517	2	B1 V	8226	5.723	3.661	2.744	2.229	1.92	0.164	0.523	1.84 V			
7766	2.391	1.221	1.005	0.844	0.311	0.303	0.517	0.517	2	K3 III	8228	4.748	0.436	0.436	0.236	0.164	0.058	0.058	0.139	2	A7 V		
7767	D	4.843	0.173	0.165	0.426	0.105	0.544	0.018	0.085	2	F2 IV	8227	3.763	0.408	0.396	0.409	0.110	0.151	0.151	0.235	2	F0 II-11p	

TABLE 7 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 40

B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS	B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS
3	6.239	0.941	0.244			11100	1.27	38641.8624	1	188	3.750	0.934	0.272	0.132	0.174	11111	1.58	39031.8059	3
3	6.279	0.932	0.224	0.071	0.129	11111	1.33	39013.8833	1	188	3.756	0.938	0.255	0.154	0.151	11111	1.57	39060.7331	3
3	6.241	0.929	0.284	0.088	0.174	11111	1.30	39051.7665	3	193	4.492	-0.091	-0.385	-0.639	-0.091	11111	1.04	39042.7885	3
15	1.885	-0.103	-0.271	-0.583	-0.105	11111	1.00	39016.8335	3	193	4.495	-0.082	-0.401	-0.650	-0.126	11111	1.04	39060.7524	3
15	1.925	-0.076	-0.280	-0.599	-0.088	11111	1.02	39051.7758	3	194	0.000	0.896	0.225	0.060	0.179	01111	1.37	39031.8148	3
21	2.736	0.216	-0.053			11100	1.16	38702.6345	3	194	6.385	0.900	0.248	0.098	0.154	11111	1.37	39042.7780	3
21	2.736	0.249	-0.069			11100	1.12	38702.6810	3	194	6.420	0.908	0.247	0.109	0.145	11111	1.37	39060.7424	3
21	2.770	0.225	-0.059			11100	1.15	38702.7514	3	194	6.347	0.890	0.238	0.078	0.144	11111	1.42	39372.8437	3
21	2.742	0.218	-0.065			11100	1.15	38704.6385	3	215	5.924	0.988	0.240	0.084	0.177	11111	1.01	39042.8003	3
21	2.723	0.232	-0.057			11100	1.14	38704.7302	3	215	5.919	0.994	0.225	0.064	0.170	11111	1.01	39061.7332	3
21	2.764	0.247	-0.128			11100	1.13	38708.7120	3	219	4.286	0.419	-0.198	-0.466	0.052	11111	1.11	39045.7587	3
21	2.784	0.239	-0.073	-0.108	0.021	11111	1.27	39448.7669	1	219	4.266	0.404	-0.188	-0.468	0.048	11111	1.11	39061.7431	3
21	2.803	0.251	-0.084	-0.137	0.053	11111	1.24	39457.7323	1	219	4.267	0.405	-0.191	-0.484	0.081	11111	1.12	39372.8532	3
27	5.537	0.227	-0.045	0.169	0.104	11111	1.03	39016.8436	3	219	4.192	0.390	-0.189	-0.500	0.040	11111	1.10	39408.7924	3
27	5.580	0.244	-0.073	0.139	0.110	11111	1.03	39053.7312	3	224	7.122	1.628	0.655	0.550	0.379	11111	1.11	39045.7674	3
33	5.551	0.289	-0.188	-0.444	0.034	11111	1.51	39016.8539	3	224	7.095	1.634	0.648	0.560	0.340	11111	1.12	39076.6688	3
33	5.585	0.328	-0.211	-0.458	0.048	11111	1.50	39053.7407	3	226	4.376	-0.119	-0.372	-0.714	-0.130	11111	1.01	39045.7775	3
39	2.474	-0.211	-0.544			11100	1.28	38689.6272	1	226	4.339	-0.122	-0.374	-0.733	-0.126	11111	1.02	39076.6807	3
39	2.472	-0.216	-0.543			11100	1.10	38702.6437	3	226	4.379	-0.126	-0.342	-0.705	-0.119	11111	1.03	39365.8731	1
39	2.478	-0.206	-0.549			11100	1.05	38702.6896	3	244	5.608	0.387	-0.140	-0.348	0.038	11111	1.14	39045.7872	3
39	2.493	-0.209	-0.535			11100	1.09	38702.7424	3	244	5.567	0.391	-0.152	-0.382	0.021	11111	1.14	39076.7028	3
39	2.478	-0.240	-0.530			11100	1.76	38702.8588	3	248	7.521	1.694	0.599			11100	1.23	38752.6245	3
39	2.486	-0.189	-0.559			11100	1.06	38704.6656	3	248	7.533	1.679	0.666	0.585	0.456	11111	1.22	39365.8862	1
39	2.503	-0.207	-0.544			11100	1.09	38704.7388	3	248	7.505	1.666	0.657	0.567	0.377	11111	1.24	39406.8364	1
39	2.464	-0.242	-0.542			11100	1.42	38704.8201	3	253	6.830	1.183	0.415	0.288	0.234	11111	1.12	39050.7649	3
39	2.521	-0.181	-0.541	-1.038	-0.151	11111	1.08	39440.7209	1	253	6.834	1.176	0.430	0.283	0.253	11111	1.12	39365.8969	1
39	2.574	-0.185	-0.552	-1.029	-0.166	11111	1.25	39448.7540	1	264	2.109	-0.168	-0.683	-1.325	-0.124	11111	1.13	39050.7865	3
45	7.512	1.663	0.649			11100	1.03	38641.8459	1	264	2.133	-0.159	-0.723	-1.407	-0.126	11111	1.14	39372.8635	3
45	7.552	1.648	0.680	0.684	0.445	11111	2.52	38890.9757	3	264	2.107	-0.164	-0.706	-1.377	-0.097	11111	1.13	39407.6037	1
45	7.566	1.675	0.661	0.649	0.460	11111	2.25	38921.9012	3	265	6.078	0.191	0.124	-0.057	0.174	11111	1.12	39050.7761	3
45	7.549	1.658	0.655	0.651	0.466	11111	1.02	39019.8235	3	265	6.080	0.800	0.110	-0.044	0.171	11111	1.12	39365.9070	1
45	7.549	1.659	0.653	0.649	0.460	11111	1.03	39025.8386	3	269	4.087	0.124	0.071	0.035	-0.012	11111	1.01	39050.7970	3
45	7.535	1.646	0.680	0.652	0.445	11111	1.03	39026.8013	3	269	4.063	0.116	0.050	0.053	-0.007	11111	1.01	39372.8843	3
45	7.573	1.656	0.665	0.643	0.493	11111	1.03	39028.8181	3	271	5.856	0.811	0.148			11100	1.05	38752.6377	3
45	7.565	1.667	0.675	0.643	0.457	11111	1.03	39029.7924	3	271	5.837	0.803	0.130	-0.014	0.145	11111	1.01	39372.8946	3
45	7.515	1.642	0.662	0.631	0.449	11111	2.16	39042.9595	3	285	6.304	1.230	0.463	0.362	0.167	11111	1.68	39054.7651	3
45	7.521	1.652	0.678	0.659	0.441	11111	1.03	39044.7814	3	294	5.785	0.801	0.124	-0.029	0.165	11111	1.11	39013.8972	1
45	7.506	1.653	0.678	0.667	0.452	11111	1.02	39050.7408	3	294	5.767	0.810	0.116	-0.053	0.196	11111	1.10	39054.7539	3
45	7.501	1.654	0.671	0.658	0.437	11111	1.02	39051.7452	3	334	5.377	1.122	0.410	0.295	0.156	11111	1.36	39054.7753	3
45	7.547	1.656	0.673	0.660	0.464	11111	1.03	39053.7612	3	334	5.374	1.147	0.422	0.297	0.181	11111	1.36	39410.7930	3
45	7.476	1.633	0.672	0.651	0.464	11111	1.03	39091.8585	1	335	4.140	-0.082	-0.294	-0.415	-0.105	11111	1.03	39018.8773	3
45	7.491	1.655	0.666	0.640	0.385	11111	2.48	39140.7046	3	335	4.174	-0.066	-0.300	-0.417	-0.118	11111	1.04	39054.7850	3
45	7.504	1.639	0.684	0.634	0.443	11111	2.27	39280.9174	3	337	4.866	1.704	0.683	0.589	0.464	11111	1.01	39018.8890	3
45	7.496	1.628	0.657	0.635	0.446	11111	1.16	39298.9789	1	337	4.905	1.707	0.673	0.626	0.456	11111	1.00	39055.7729	3
45	7.507	1.649	0.659	0.645	0.468	11111	1.09	39304.9882	1	343	4.608	0.157	0.054	0.032	-0.025	11111	1.09	39019.8397	3
45	7.535	1.645	0.654	0.654	0.465	11111	1.03	39359.8754	1	343	4.635	0.171	0.048	-0.004	0.008	11111	1.08	39056.7619	3
45	7.543	1.635	0.647	0.653	0.451	11111	1.03	39451.6632	1	351	6.254	0.889	0.186	0.059	0.126	11111	1.03	39019.8500	3
45	7.555	1.653	0.649	0.621	0.437	11111	1.03	39473.5979	1	351	6.303	0.909	0.196	0.065	0.150	11111	1.02	39056.7730	3
45	7.486	1.647	0.673	0.665	0.430	11111	1.05	39474.6260	1	352	6.242	0.998	0.311	0.199	0.095	11111	1.00	39019.8626	3
45	7.537	1.696	0.680	0.651	0.431	11111	1.04	39478.5812	3	352	6.294	1.016	0.335	0.199	0.143	11111	1.00	39056.7823	3
45	7.528	1.680	0.674	0.655	0.441	11111	1.14	39488.6264	3	360	6.337	0.955	0.196	0.051	0.130	11111	1.01	39026.8546	3
48	7.507	1.802	0.708	0.724	0.501	11111	1.61	39019.8352	3	360	6.354	0.949	0.192	0.065	0.130	11111	1.01	39057.7600	3
48	7.340	1.733	0.667	0.650	0.472	11111	1.61	39053.7513	3	383	4.818	0.033	0.057	0.121	-0.021	11111	1.01	39026.8643	3
48	7.378	1.739	0.687	0.717	0.421	11111	1.67	39406.8089	1	383	4.856	0.043	0.067	0.139	-0.047	11111	1.00	39057.7736	3
63	4.684	0.053	0.056	0.016	-0.044	11111	1.02	39016.8674	3	390	6.599	1.014	0.327	0.206	0.143	11111	1.03	39026.8722	3
63	4.724	0.068	0.062	-0.009	-0.016	11111	1.01	39055.7209	3	390	6.656	1.014	0.316	0.192	0.150	11111	1.03	39057.7828	3
68	4.615	0.064	0.075	-0.001	-0.055	11111	1.01	39019.8469	3	399	6.419	0.967	0.298	0.145	0.113	11111	1.23	39028.8598	3
68	4.644	0.085	0.070	-0.010	-0.021	11111	1.00	39055.7312	3	399	6.454	0.981	0.279	0.145	0.117	11111	1.23	39060.7635	3
74	0.000	1.176	0.415	0.397															

TABLE 7 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 40

B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS	B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS
442	6.227	0.848	0.172	0.028	0.160	11111	1.12	39025.8760	3	617	3.939	1.099	0.370	0.208	0.199	11111	1.03	39147.5899	3
442	6.215	0.865	0.159	0.006	0.170	11111	1.13	39076.7556	3	617	3.916	1.114	0.343	0.171	0.210	11111	2.43	39147.7665	3
458	4.853	0.357	-0.185		11100	1.04	38641.8720	1	617	3.889	1.114	0.366	0.192	0.221	11111	1.02	39148.5745	3	
458	4.820	0.375	-0.236		11100	1.03	38708.7760	3	617	3.812	1.106	0.366	0.199	0.203	01111	1.06	39150.6028	3	
458	4.870	0.378	-0.146	-0.393	0.041	11111	1.03	39359.9215	1	617	3.907	1.100	0.355	0.198	0.201	11111	1.02	39151.5706	3
458	4.787	0.373	-0.178	-0.424	0.034	11111	1.02	39408.8043	3	617	3.882	1.092	0.366	0.193	0.226	11111	1.04	39365.9176	1
464	5.712	1.310	0.260		11000	1.07	38708.7868	3	617	3.882	1.090	0.340	0.173	0.198	11111	1.02	39372.9269	3	
464	5.816	1.335	0.482	0.376	0.172	11111	1.04	39359.9442	1	617	3.887	1.102	0.375	0.221	0.190	11111	1.02	39376.9043	3
464	5.744	1.289	0.519	0.429	0.193	11111	1.04	39410.8060	3	617	3.878	1.093	0.363	0.191	0.218	11111	1.02	39377.9016	1
477	4.821	-0.105	-0.318	-0.478	-0.093	11111	1.01	39205.8869	3	617	3.917	1.099	0.361	0.207	0.205	11111	1.02	39410.8633	3
477	4.838	-0.105	-0.319	-0.492	-0.109	11111	1.01	39359.9565	1	617	3.876	1.086	0.364	0.180	0.229	11111	1.02	39411.8542	1
483	5.826	0.407	-0.131		11100	1.04	38641.8838	1	617	3.899	1.090	0.366	0.197	0.215	11111	1.07	39444.8052	1	
483	5.833	0.452	-0.127	-0.397	0.064	11111	1.02	39044.8069	3	617	3.915	1.080	0.374	0.209	0.200	11111	1.06	39448.7851	1
483	5.893	0.488	-0.164	-0.434	0.042	11111	1.02	39359.9665	1	617	3.907	1.090	0.371	0.212	0.200	11111	1.01	39457.7156	1
483	5.754	0.435	-0.133	-0.414	0.031	11111	1.02	39408.8213	3	617	3.879	1.093	0.375	0.204	0.213	11111	1.02	39461.7159	1
489	6.816	1.417	0.567	0.458	0.336	11111	1.14	39045.8467	3	617	3.886	1.092	0.355	0.188	0.222	11111	1.17	39469.7707	1
489	6.764	1.412	0.589	0.442	0.300	11111	1.17	39375.8693	1	617	3.904	1.089	0.360	0.193	0.202	11111	1.15	39470.7635	1
493	6.531	0.717	0.117	-0.170	0.029	11111	1.05	39045.8561	3	617	3.881	1.075	0.393	0.223	0.217	11111	1.05	39472.7171	1
493	6.423	0.679	0.171	-0.171	0.035	11111	1.04	39375.8814	1	617	3.891	1.093	0.357	0.207	0.201	11111	1.07	39473.7223	1
493	6.514	0.716	0.137	-0.179	0.037	11111	1.02	39410.8197	3	617	3.908	1.096	0.346	0.181	0.200	11111	1.01	39482.6399	3
496	4.035	-0.107	-0.631	-1.212	-0.112	11111	1.05	39044.8243	3	617	3.878	1.107	0.352	0.190	0.171	11111	1.03	39487.5940	3
496	3.967	-0.142	-0.620	-1.228	-0.076	11111	1.06	39375.8933	1	617	3.898	1.085	0.371	0.207	0.212	11111	1.04	39499.6367	1
496	3.980	-0.132	-0.635	-1.208	-0.131	11111	1.05	39410.8320	3	617	3.883	1.080	0.373	0.199	0.203	11111	1.06	39500.6470	1
509	4.568	0.544	-0.055	-0.374	0.089	11111	1.51	39044.8356	3	617	3.895	1.093	0.368	0.206	0.196	11111	1.01	39501.5780	1
509	4.612	0.546	-0.017	-0.343	0.081	11111	1.51	39375.9105	1	617	3.909	1.106	0.365	0.200	0.211	11111	1.01	39502.5965	1
510	5.775	0.837	0.156	0.052	0.118	11111	1.13	39045.8669	3	617	3.876	1.000	0.013	0.000	0.210	00001	1.01	39505.5701	1
510	5.735	0.843	0.169	0.038	0.133	11111	1.20	39376.8445	3	617	3.903	1.101	0.357	0.207	0.196	11111	1.01	39506.5687	1
531	5.106	0.231	-0.086	-0.244	0.026	11111	1.39	39051.7873	3	617	3.883	1.077	0.357	0.198	0.222	11111	1.01	39508.5644	1
531	5.109	0.239	-0.072	-0.242	0.007	11111	1.51	39376.8541	3	617	3.903	1.092	0.374	0.194	0.203	11111	1.01	39509.5746	1
539	5.529	1.048	0.337	0.228	0.171	11111	1.37	39051.7963	3	618	6.401	0.247	-0.333	-0.241	0.121	11111	1.11	39016.9195	3
539	5.531	1.051	0.361	0.238	0.169	11111	1.46	39376.8652	3	618	6.403	0.250	-0.352	-0.266	0.133	11111	1.11	39044.8503	3
542	3.150	-0.133	-0.401	-0.710	-0.136	11111	1.17	39051.8065	3	620	4.957	0.094	0.081	0.068	-0.006	11111	1.01	39016.9302	3
542	3.160	-0.138	-0.410	-0.695	-0.141	11111	1.19	39376.8791	3	620	4.976	0.113	0.064	0.055	-0.002	11111	1.01	39044.8622	3
544	4.122	0.338	-0.182	-0.364	0.069	11111	1.01	39052.7805	3	622	3.250	0.135	0.042			11100	1.00	38751.6469	3
544	4.089	0.322	-0.154	-0.319	0.054	11111	1.01	39376.8948	3	622	3.242	0.120	0.055	0.060	-0.003	11111	1.01	39044.8719	3
545	3.870	0.034	-0.064	-0.225	-0.057	11111	1.03	39052.7906	3	648	8.443	1.660	0.655	0.610	0.354	11111	1.06	39016.9473	3
545	3.844	-0.002	-0.056	-0.190	-0.061	11111	1.03	39410.8470	3	648	8.517	1.690	0.671	0.633	0.406	11111	1.05	39051.8422	3
549	6.087	0.830	0.177	0.038	0.125	11111	1.15	39052.8090	3	649	5.736	0.733	0.069	-0.060	0.183	11111	1.10	39018.9314	3
549	6.078	0.833	0.199	0.045	0.125	11111	1.15	39411.8179	1	649	5.735	0.732	0.057	-0.080	0.234	11111	1.11	39051.8522	3
553	2.888	0.132	0.073	-0.052	0.032	11111	1.02	39052.8000	3	664	4.072	0.043	0.050	-0.044	-0.056	11111	1.01	39018.9410	3
553	2.869	0.151	0.068	-0.025	-0.004	11111	1.02	39411.8288	1	664	4.063	0.035	0.038	-0.038	-0.039	11111	1.01	39057.8402	3
569	5.197	0.213	-0.042	-0.136	0.020	11111	1.03	39053.7714	3	681	6.794	-0.127	0.544			11100	1.26	38752.6822	3
569	5.186	0.213	-0.048	-0.139	0.029	11111	1.02	39411.8409	1	681	6.036	0.231	0.506			11100	1.24	38764.6352	1
575	4.754	0.139	0.031	-0.085	-0.011	11111	1.28	39053.7814	3	681	5.513	0.445	0.334			11100	1.33	38786.8156	1
575	4.708	0.164	0.019	-0.058	0.013	11111	1.28	39451.7362	1	681	5.526	0.413	0.350			11100	1.26	38789.5821	1
580	4.001	0.049	0.034	0.019	-0.018	11111	1.30	39053.7906	3	681	5.576	0.528	0.324			11100	1.33	38791.6029	1
580	3.966	0.027	0.037	0.019	-0.018	11111	1.30	39431.7606	1	681	7.420	-0.025	0.379	0.832	0.543	11111	1.56	39084.8079	1
590	4.904	-0.098	-0.264	-0.352	-0.065	11111	1.08	39053.8010	3	681	4.890	0.564	0.265	0.597	0.979	11111	1.24	39139.6078	3
590	4.870	-0.074	-0.266	-0.318	-0.060	11111	1.08	39451.7116	1	681	5.021	0.522	0.153	0.456	0.975	11111	1.26	39151.5918	3
595	3.836	-0.008	-0.047			11100	1.22	38786.5968	1	681	10.815	-0.348	-0.229	-0.578	0.056	11111	1.23	39359.9865	1
595	3.799	0.017	-0.095			11100	1.26	38708.0224	3	681	10.320	-0.465	-0.138	-0.522	0.160	11111	1.24	39372.9137	3
603	3.966	0.999	0.239			11100	1.09	38708.8332	3	681	10.443	-0.426	-0.061	-0.369	0.120	11111	1.23	39375.9480	1
603	3.993	1.060	0.192			11100	1.07	38764.6678	1	696	6.577	0.034	-0.552	-0.931	-0.064	11111	1.12	39019.8751	3
617	3.940	1.115	0.333			11100	1.22	38641.8360	1	696	6.606	0.033	-0.533	-0.917	-0.074	11111	1.11	39057.8499	3
617	3.906	1.086	0.366			11100	1.01	38641.9496	1	699	0.000	0.013	0.000	0.000	0.336	00001	1.06	39019.8845	3
617	3.930	1.118	0.309			11100	1.02	38751.6205	3	699	7.456	1.634	0.681	0.574	0.344	11111	1.07	39025.8056	3
617	3.858	1.087	0.389			11100	1.07	38752.5797	3	699	7.450	1.657	0.688	0.559	0.352	11111	1.05	39138.5890	3
617	3.922	1.103	0.339			11100	1.07	38764.6101	1	707	4.697	0.135	0.026	-0.116	-0.001	11111	1.22	39025.8890	3
617	3.																		

TABLE 7 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 40

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B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS	B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS
718	4.213	-0.042	-0.024	-0.140	-0.069	11111	1.10	39135.6171	1	875	5.310	0.095	0.027	0.026	-0.042	11111	2.25	39056.6878	3
718	4.203	-0.024	-0.044	-0.154	-0.058	11111	1.10	39138.5768	3	875	5.322	0.099	0.037	0.012	-0.019	11111	2.40	39057.6790	3
718	4.220	-0.038	-0.010	-0.126	-0.095	11111	2.44	39138.7822	3	875	5.333	0.089	0.065	0.026	-0.026	11111	2.20	39060.6794	3
718	4.222	-0.029	-0.040	-0.154	-0.058	11111	1.10	39139.5927	3	875	5.295	0.082	0.051	0.028	-0.004	11111	2.32	39061.6710	3
718	4.228	-0.033	-0.036	-0.139	-0.069	11111	2.85	39139.7917	3	875	5.251	0.056	0.058	0.073	-0.017	11111	1.24	39091.7465	1
718	4.219	-0.016	-0.040	-0.148	-0.078	11111	1.10	39140.5811	3	875	5.326	0.095	0.031	0.023	-0.026	11111	1.24	39360.0088	1
718	4.239	-0.024	-0.037	-0.153	-0.075	11111	1.11	39147.6032	3	875	5.278	0.081	0.028	0.028	0.027	11111	2.05	39372.8323	3
718	4.225	-0.026	-0.049	-0.144	-0.060	11111	2.42	39147.7568	3	875	5.356	0.104	0.026	0.001	-0.020	11111	1.24	39372.9837	3
718	4.213	-0.026	-0.024	-0.134	-0.083	11111	1.15	39148.6211	3	875	5.293	0.089	0.043	0.047	-0.027	11111	1.29	39376.0102	1
718	4.232	-0.041	-0.021	-0.112	-0.083	11111	2.30	39148.7494	3	875	5.271	0.061	0.050	0.024	-0.035	11111	1.26	39377.9885	1
718	4.133	-0.012	-0.033	-0.160	-0.090	01111	1.14	39150.6123	3	875	5.307	0.089	0.045	0.006	-0.015	11111	1.24	39406.8865	1
718	4.229	-0.025	-0.033	-0.139	-0.070	11111	1.10	39151.5799	3	875	5.289	0.081	0.040	0.011	-0.011	11111	2.12	39409.7277	3
718	4.229	-0.034	-0.030	-0.115	-0.092	11111	1.17	39359.9336	1	875	5.304	0.088	0.036	0.019	-0.024	11111	1.26	39409.8434	3
718	4.285	-0.016	-0.058	-0.129	-0.059	11111	1.40	39365.8625	1	875	5.332	0.092	0.000	0.034	-0.030	11011	2.28	39410.7171	3
718	4.270	-0.034	-0.006	-0.137	-0.053	11111	1.10	39375.9346	1	875	5.355	0.090	0.024	-0.005	-0.003	11111	1.24	39410.8754	3
718	4.213	-0.025	-0.056	-0.160	-0.062	11111	1.10	39377.9214	1	875	5.311	0.081	0.030	0.004	-0.025	11111	1.27	39431.8510	1
718	4.226	-0.025	-0.049	-0.145	-0.074	11111	1.12	39407.8300	1	875	0.000	0.013	0.000	0.019	-0.033	00011	1.48	39433.8982	0
718	4.158	-0.043	-0.060	-0.170	-0.079	11111	1.10	39408.8493	3	875	5.331	0.092	0.041	0.033	-0.026	11111	1.35	39434.8691	1
718	4.207	-0.030	-0.034	-0.145	-0.056	11111	1.10	39443.7772	1	875	5.276	0.088	0.052	0.058	-0.044	11111	1.32	39487.6068	3
718	4.240	-0.018	-0.040	-0.139	-0.078	11111	1.10	39444.7582	1	879	4.797	0.051	0.049	0.116	-0.023	11111	1.01	39402.8923	3
718	4.232	-0.018	-0.045	-0.154	-0.063	11111	1.10	39457.7029	1	879	4.740	0.047	0.059	0.125	-0.044	11111	1.14	39173.6197	3
718	4.231	-0.033	-0.041	-0.138	-0.063	11111	1.10	39459.7277	1	882	7.010	1.220	0.449	0.295	0.250	11111	1.01	39402.9040	3
718	4.250	-0.020	-0.053	-0.152	-0.067	11111	1.24	39461.7942	1	882	6.955	1.204	0.456	0.317	0.218	11111	1.07	39174.5911	3
718	4.258	-0.003	-0.067	-0.165	-0.080	11111	1.11	39472.6542	1	882	6.013	1.384	0.633	0.783	0.652	11111	1.01	39018.9553	3
718	4.222	-0.023	-0.043	-0.150	-0.077	11111	1.11	39476.6975	1	921	6.023	1.348	0.620	0.771	0.609	11111	1.01	39054.8674	3
718	4.241	-0.015	-0.051	-0.151	-0.085	11111	1.10	39479.6615	1	921	6.013	1.384	0.633	0.783	0.652	11111	1.01	39018.9553	3
718	4.232	-0.038	-0.044	-0.150	-0.070	11111	1.18	39487.7980	3	921	6.023	1.348	0.620	0.771	0.609	11111	1.01	39054.8674	3
718	4.227	-0.005	-0.060	-0.166	-0.063	11111	1.13	39499.6484	1	921	6.013	1.384	0.633	0.783	0.652	11111	1.01	39173.6293	3
718	4.230	-0.017	-0.048	-0.155	-0.051	11111	1.16	39500.6634	1	921	6.013	1.384	0.633	0.783	0.652	11111	1.01	39173.6293	3
718	4.217	-0.034	-0.024	-0.139	-0.049	11111	1.10	39501.5937	1	911	5.378	1.705	0.512	11100	1.22	38786.6459	1		
718	4.230	-0.034	-0.039	-0.142	-0.074	11111	1.10	39502.6138	1	911	5.416	1.714	0.613	0.603	0.428	11111	1.14	39054.8483	3
718	4.215	-0.024	-0.041	-0.149	-0.076	11111	1.10	39504.5765	1	915	3.931	0.489	0.116	0.059	0.058	11111	1.07	39016.9546	3
718	4.229	-0.024	-0.040	-0.147	-0.057	11111	1.10	39505.5819	1	915	3.963	0.527	0.083	0.026	0.044	11111	1.07	39054.8582	3
718	4.240	-0.023	-0.040	-0.150	-0.065	11111	1.10	39506.5788	1	921	6.013	1.384	0.633	0.783	0.652	11111	1.01	39054.8674	3
718	4.213	-0.032	-0.034	-0.136	-0.072	11111	1.10	39507.5992	1	921	6.023	1.348	0.620	0.771	0.609	11111	1.01	39054.8674	3
718	4.215	-0.032	-0.018	-0.125	-0.093	11111	1.10	39508.5824	1	921	6.013	1.384	0.633	0.783	0.652	11111	1.01	39018.9553	3
718	4.220	-0.031	-0.037	-0.138	-0.066	11111	1.10	39509.5979	1	921	6.023	1.348	0.620	0.771	0.609	11111	1.01	39054.8674	3
740	5.357	0.283	-0.178	-0.364	0.025	11111	1.49	39025.9200	3	932	4.914	0.044	0.063	-0.009	-0.045	11111	1.34	39016.9664	3
740	5.327	0.274	-0.160	-0.341	0.009	11111	1.50	39076.7899	3	932	4.936	0.063	0.038	-0.018	-0.058	11111	1.35	39054.8776	3
753	7.354	0.962	0.271			11100	1.18	38789.6163	1	932	4.936	0.044	0.058	-0.017	-0.036	11111	1.34	39139.6447	3
753	7.352	0.935	0.325			11100	1.19	38791.6127	1	936	1.979	-0.098	-0.250			11100	1.06	38708.8633	3
753	7.333	0.923	0.343	-0.065	0.164	11111	2.31	39031.7179	3	936	2.077	-0.044	-0.235	-0.485	-0.118	11111	1.03	39054.8878	3
753	7.381	0.941	0.312	-0.071	0.148	11111	1.91	39035.6776	3	936	2.039	-0.060	-0.236	-0.483	-0.090	11111	1.02	3906.9086	1
753	7.379	0.928	0.310	-0.055	0.130	11111	1.11	39359.9985	1	936	2.098	-0.054	-0.242	-0.466	-0.119	11111	1.03	39456.8150	1
753	7.346	0.931	0.292	-0.054	0.130	11111	1.15	39440.8202	1	936	3.050	-0.011	-0.208	-0.427	-0.063	11111	1.11	39456.6674	1
779	3.716	-0.234	-0.581			11100	1.27	38708.8429	3	936	3.190	-0.019	-0.206	-0.416	-0.059	11111	1.07	39456.6855	1
779	3.758	-0.205	-0.546			11100	1.22	38791.5932	1	936	2.375	-0.073	-0.210	-0.446	-0.107	11111	1.05	39459.6949	1
779	3.771	-0.203	-0.544	-1.043	-0.162	11111	1.24	39407.8179	1	936	2.295	-0.081	-0.213	-0.449	-0.111	11111	1.02	39459.7143	1
788	5.678	0.418	-0.167			11100	1.07	38708.8525	3	936	2.081	-0.077	-0.215	-0.448	-0.094	11111	1.16	39459.8470	1
788	5.733	0.438	-0.092	-0.359	0.051	11111	1.01	39138.5993	3	936	2.057	-0.052	-0.209	-0.453	-0.089	11111	1.05	39468.7759	1
799	4.628	0.361	-0.198	-0.433	0.022	11111	1.05	39026.9020	3	941	5.335	0.882	0.254	0.102	0.100	11111	1.02	39018.9630	3
799	4.811	0.332	-0.166	-0.419	0.021	11111	1.04	39138.6101	3	941	5.363	0.891	0.222	0.080	0.105	11111	1.02	39055.8550	3
801	4.489	-0.113	-0.429	-0.799	-0.129	11111	1.00	39026.9113	3	947	6.439	1.036	0.324	0.183	0.152	11111	1.01	39018.9737	3
801	4.492	-0.125	-0.394	-0.798	-0.201	11111	1.01	39138.6193	3	947	6.444	1.068	0.302	0.187	0.164	11111	1.01	39055.8649	3
804	3.626	0.102	0.058	-0.040	-0.030	11111	1.15	39026.9211	3	951	5.984	0.920	0.271	0.136	0.136	11111	1.03	39025.9491	3
804	3.623	0.110	0.057	-0.059	-0.016	11111	1.15	39139.6218	3	951	6.023	0.954	0.254	0.135	0.113	11111	1.03	39055.8748	3
811	4.101	-0.097	-0.282	-0.517	-0.117	11111	1.46	39028.8953	3	952	4.850	-0.007	0.027	0.001	-0.035	11111	1.02	39026.9314	3
811	4.059	-0.121	-0.292	-0.531	-0.103	11111													

TABLE 7 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 40

B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS	B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS
1017	2.515	0.351	-0.028	0.222	0.119	11111	1.09	39409.9497	3	1135	4.414	0.312	-0.054			11100	1.02	38705.8312	3
1017	2.543	0.347	-0.048	0.211	0.122	11111	1.05	39448.8009	1	1135	4.385	0.288	-0.050	0.085	0.088	11111	1.09	39176.6232	3
1017	2.505	0.343	-0.031	0.225	0.132	11111	1.21	39456.6542	1	1135	4.331	0.281	-0.069	0.078	0.095	11111	1.06	39372.9492	3
1017	2.509	0.337	-0.029	0.223	0.134	11111	1.10	39456.6984	1	1136	4.934	0.790	0.229	-0.006	0.036	11111	1.39	39050.8535	3
1017	2.469	0.318	-0.020	0.236	0.139	11111	1.08	39459.7045	1	1136	4.926	0.809	0.192	-0.049	0.066	11111	1.42	39176.5927	3
1017	2.523	0.335	-0.018	0.240	0.142	11111	1.13	39459.8375	1	1138	5.562	0.113	0.065	0.037	-0.011	11111	1.28	39050.8649	3
1017	2.506	0.347	-0.021	0.230	0.136	11111	1.08	39468.7873	1	1138	5.542	0.121	0.035	0.010	-0.016	11111	1.29	39372.9630	3
1017	2.491	0.346	-0.054	0.211	0.139	11111	1.18	39473.6160	1	1140	5.421	-0.038	-0.238	-0.471	-0.104	11111	1.04	39482.7483	3
1030	5.011	0.748	0.073	-0.061	0.179	11111	1.12	39028.9757	3	1142	3.571	-0.107	-0.298	-0.464	-0.106	11111	1.01	39042.9284	3
1030	4.941	0.691	0.088	-0.030	0.182	11111	1.09	39091.7598	1	1142	3.540	-0.144	-0.293	-0.465	-0.096	11111	1.03	39375.9641	1
1034	4.945	-0.105	-0.341	-0.664	-0.115	11111	1.04	39029.9372	3	1142	3.569	-0.093	-0.316	-0.491	-0.122	11111	1.01	39482.7137	3
1034	4.897	-0.113	-0.332	-0.689	-0.126	11111	1.05	39135.6306	1	1144	5.559	-0.093	-0.218	-0.463	-0.099	11111	1.02	39042.9386	3
1035	4.796	0.122	-0.383	-0.425	0.016	11111	1.13	39029.9483	3	1144	5.540	-0.099	-0.232	-0.473	-0.103	11111	1.02	39375.9735	1
1035	4.813	0.135	-0.392	-0.467	0.032	11111	1.13	39135.6437	1	1145	4.158	-0.110	-0.310	-0.574	-0.090	11111	1.03	39042.9763	3
1038	3.723	-0.046	-0.181	-0.422	-0.111	11111	1.11	39029.9687	3	1145	4.103	-0.133	-0.263	-0.535	-0.115	11011	1.02	39375.9816	1
1038	3.606	-0.081	-0.183	-0.439	-0.089	11111	1.08	39091.7695	1	1145	4.178	-0.090	0.000	-0.580	-0.113	11011	1.09	39482.7764	3
1040	5.216	0.191	-0.362	-0.329	0.069	11111	1.12	39044.8943	3	1148	4.685	0.019	0.013	0.160	-0.008	11111	1.29	39050.8752	3
1040	5.323	0.181	-0.329	-0.331	0.062	11111	1.12	39135.6552	1	1148	4.701	0.027	-0.028	0.116	-0.030	11111	1.30	39372.9730	3
1040	5.163	0.155	-0.371	-0.362	0.066	11111	1.11	39408.8968	3	1149	3.797	-0.103	-0.313	-0.475	-0.083	11111	1.01	39050.8859	3
1044	4.524	-0.116	-0.372	-0.722	-0.124	11111	1.05	39044.8835	3	1149	3.718	-0.123	-0.267	-0.490	-0.068	11111	1.01	39375.9902	1
1044	4.519	-0.126	-0.363	-0.717	-0.128	11111	1.05	39139.6554	3	1151	5.724	-0.055	-0.130	-0.301	-0.095	11111	1.01	39050.8958	3
1046	5.191	0.068	0.058	-0.012	-0.011	11111	1.09	39045.8808	3	1151	5.706	-0.038	-0.156	-0.342	-0.079	11111	1.07	39377.9333	1
1046	5.198	0.074	0.074	-0.031	-0.023	11111	1.09	39139.6648	3	1155	7.691	1.771	0.668	0.770	0.449	11111	1.20	39050.9193	3
1052	6.739	1.428	0.544	0.400	0.321	11111	1.04	39045.8898	3	1155	7.604	1.772	0.681	0.797	0.421	11111	1.24	39372.9398	3
1052	6.728	1.428	0.541	0.388	0.378	11111	1.05	39139.6745	3	1156	4.144	-0.030	-0.367	-0.549	-0.089	11111	1.02	39051.8669	3
1066	5.972	1.084	0.274			11100	1.08	38705.7986	3	1156	4.090	-0.065	-0.354	-0.574	-0.096	11111	1.06	39377.9422	1
1066	5.949	1.025	0.267	0.158	0.157	11111	1.06	39147.6177	3	1156	4.107	-0.071	-0.349	-0.555	-0.110	11111	1.04	39409.8676	3
1070	4.611	-0.088	-0.186	-0.267	-0.103	11111	1.26	39045.9025	3	1162	7.319	1.753	0.714			11100	1.44	38751.7439	3
1070	4.608	-0.086	-0.178	-0.284	-0.094	11111	1.27	39147.6278	3	1162	7.295	1.728	0.699	0.626	0.470	11111	1.01	39176.6030	3
1084	5.060	0.801	0.178			11100	2.04	38702.7081	3	1165	2.758	-0.134	-0.255			11100	1.05	38751.7602	3
1084	5.065	0.810	0.134			11100	1.36	38702.8139	3	1165	2.726	-0.106	-0.331	-0.423	-0.084	11111	1.04	39377.9510	1
1084	5.077	0.785	0.158			11100	1.41	38702.6823	3	1165	2.747	-0.096	-0.323	-0.396	-0.103	11111	1.03	39409.8784	3
1084	5.068	0.779	0.161			11100	1.71	38702.9360	3	1165	2.712	-0.131	-0.318	-0.372	-0.093	11111	1.01	39488.6827	3
1084	5.015	0.781	0.142			11100	2.44	38704.6824	3	1165	2.732	-0.104	-0.330	-0.386	-0.092	11111	1.04	39488.7331	3
1084	5.073	0.788	0.154			11100	1.53	38704.7559	3	1172	5.371	-0.071	-0.241	-0.397	-0.091	11111	1.01	39051.8795	3
1084	5.089	0.799	0.150			11100	1.35	38704.8361	3	1172	5.329	-0.076	-0.232	-0.417	1.438	11111	1.02	39377.9609	3
1084	5.060	0.781	0.169			11100	1.49	38704.8965	3	1172	5.313	-0.101	-0.225	-0.387	-0.088	11111	1.02	39488.6689	3
1084	5.054	0.793	0.158			11100	1.72	38704.9312	3	1178	3.548	-0.088	-0.301	-0.403	-0.069	11111	1.01	39051.8900	3
1084	5.071	0.789	0.175			11100	1.52	38705.7548	3	1178	3.483	-0.099	-0.296	-0.447	-0.075	11111	1.02	39377.9073	1
1084	5.061	0.787	0.210			11100	2.25	38705.9667	3	1178	3.511	-0.097	-0.289	-0.429	-0.113	11111	1.08	39487.6616	3
1084	5.095	0.795	0.172	-0.175	0.049	11111	1.37	39017.0064	3	1180	4.903	-0.097	-0.300	-0.555	-0.081	11111	1.03	39052.8575	3
1084	5.079	0.784	0.170	-0.181	0.065	11111	1.36	39018.9947	3	1180	4.886	-0.086	-0.312	-0.572	-0.078	11111	1.02	39377.9377	1
1084	5.068	0.774	0.185	-0.163	0.037	11111	1.35	39025.9328	3	1180	4.896	-0.092	-0.302	-0.542	-0.116	11111	1.02	39409.8902	3
1084	5.120	0.793	0.172	-0.171	0.046	11111	1.35	39028.9267	3	1180	0.000	-0.102	-0.297	-0.525	-0.125	01111	1.04	39487.6525	3
1084	5.084	0.792	0.191	-0.154	0.073	11111	2.88	39042.7429	3	1183	6.107	-0.038	-0.096	-0.223	-0.103	11111	1.37	39487.8322	3
1084	5.046	0.770	0.193	-0.154	0.036	11111	1.38	39018.9923	3	1203	2.999	-0.058	-0.568	-1.036	-0.066	11111	1.01	39052.8877	3
1084	5.091	0.791	0.178	-0.184	0.088	11111	2.10	39054.7407	3	1203	2.967	-0.056	-0.587	-1.030	-0.115	11111	1.00	39409.9012	3
1084	5.083	0.778	0.158	-0.178	0.049	11111	2.66	39056.7106	3	1204	4.878	-0.063	-0.105	-0.186	-0.063	11111	1.16	39052.8791	3
1084	5.097	0.796	0.173	-0.189	0.051	11111	2.33	39057.7205	3	1204	4.817	-0.083	-0.120	-0.212	-0.081	11111	1.16	39408.9081	3
1084	5.108	0.789	0.175	-0.148	0.056	11111	2.16	39060.7207	3	1211	5.461	0.491	0.091	-0.049	0.084	11111	1.23	39052.8890	3
1084	5.098	0.787	0.162	-0.190	0.047	11111	1.41	39175.5885	3	1211	5.481	0.509	0.088	-0.028	0.061	11111	1.26	39457.7493	1
1084	5.151	0.777	0.193	-0.146	0.012	11111	1.35	39091.7797	1	1220	2.631	-0.192	-0.642	-1.206	-0.146	11111	1.04	39052.8395	3
1084	5.044	0.757	0.177	-0.177	0.044	11111	2.32	39172.6925	3	1220	2.610	-0.205	-0.630	-1.193	-0.163	11111	1.03	39411.8680	1
1084	5.048	0.770	0.165	-0.187	0.053	11111	1.43	39173.6003	3	1228	4.021	-0.104	-0.652	-1.212	-0.109	11111	1.03	39053.8489	3
1084	5.067	0.785	0.169	-0.181	0.042	11111	2.44	39173.6948	3	1228	3.995	-0.102	-0.636	-1.201	-0.122	11111	1.01	39411.8815	1
1084	5.092	0.793	0.168	-0.173	0.106	11111	1.37	39376.0189	1	1231	5.769	1.707	0.672	0.575	0.444	11111	1.48	39053.8583	3
1084	5.058	0.766	0.176	-0.143	0.039	11111	1.35	39377.9982	1	1231	5.691	1.683	0.664	0.577	0.430	11111	1.48	39440.7985	1
1084	5.065	0.782	0.177</																

TABLE 7 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 40

B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS	B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS
1306	6.173	0.757	0.120	0.020	0.076	11111	1.15	39019.8972	3	1473	4.477	0.137	0.063	0.018	-0.005	11111	1.07	39053.8974	3
1306	6.155	0.775	0.141	0.040	0.072	11111	1.01	39148.6334	3	1473	4.519	0.137	0.072	0.024	0.007	11111	1.08	39457.7885	1
1311	6.070	0.641	0.008			11100	1.12	38751.7728	3	1479	4.924	0.150	0.051	0.001	-0.009	11111	1.05	39053.9103	3
1311	6.033	0.647	0.065	-0.062	0.110	11111	1.09	39148.6627	3	1479	4.915	0.156	0.076	0.020	0.002	11111	1.04	39472.7718	1
1318	6.837	1.132	0.437	0.328	0.181	11111	1.64	39019.9080	3	1481	5.608	1.005	0.314	0.132	0.116	11111	1.46	39053.9304	3
1318	6.767	1.137	0.391	0.254	0.176	11111	1.36	39148.6518	3	1481	5.580	1.002	0.323	0.170	0.121	11111	1.48	39499.6748	1
1319	6.866	0.295	-0.136	-0.345	0.032	11111	1.05	39509.6606	1	1496	7.064	1.551	0.623	0.686	0.439	11111	1.63	39054.9095	3
1320	4.205	-0.082	-0.399			11100	1.15	38751.7828	3	1496	7.031	1.550	0.633	0.662	0.493	11111	1.63	39499.6876	1
1320	4.107	-0.072	-0.383	-0.718	-0.135	01111	1.09	39150.6271	3	1497	4.090	-0.102	-0.361	-0.773	-0.137	11111	1.01	39055.9228	3
1324	4.689	0.030	0.024	0.037	-0.036	11111	1.05	39025.9888	3	1497	4.137	-0.102	-0.353	-0.762	-0.133	11111	1.02	39479.7664	1
1324	4.615	0.039	0.049	0.044	-0.066	01111	1.05	39150.6379	3	1520	3.791	-0.125	-0.417	-0.754	-0.129	11111	1.24	39055.9323	3
1324	4.671	0.040	0.016	0.038	-0.042	11111	1.05	39409.9269	3	1520	3.820	-0.127	-0.410	-0.734	-0.132	11111	1.23	39500.6923	1
1325	5.654	0.663	0.096	-0.254	0.117	11111	1.33	39026.0096	3	1542	4.263	-0.105	-0.651	-1.169	-0.125	11111	1.22	39056.8809	3
1325	5.537	0.677	0.083	-0.260	0.084	01111	1.32	39150.6574	3	1542	4.315	-0.117	-0.629	-1.188	-0.142	11111	1.20	39459.8135	1
1325	5.622	0.674	0.078	-0.252	0.099	11111	1.32	39431.8881	1	1543	3.822	0.309	-0.186	-0.426	0.023	11111	1.12	39056.8911	3
1329	5.360	0.238	-0.036	-0.170	0.013	11111	1.02	39026.9887	3	1543	3.834	0.317	-0.177	-0.421	0.012	11111	1.14	39461.7706	1
1329	5.267	0.202	0.000	-0.177	-0.014	11011	1.02	39408.9325	3	1544	4.375	0.027	-0.015	0.008	-0.042	11111	1.10	39056.9010	3
1346	5.216	0.880	0.182	0.062	0.093	11111	1.05	39026.9976	3	1544	4.401	0.001	0.003	0.028	-0.025	11111	1.09	39459.8025	1
1346	5.124	0.848	0.196	0.047	0.119	11111	1.05	39408.9483	3	1547	5.383	0.186	0.020	-0.059	0.009	11111	1.03	39057.9235	3
1350	4.816	-0.082	-0.358	-0.690	-0.109	11101	1.03	39028.9876	3	1547	5.448	0.184	0.013	-0.069	0.026	11111	1.03	39479.7519	1
1350	4.779	-0.090	-0.348	-0.677	-0.140	11111	1.03	39409.9384	3	1547	5.434	0.178	0.019	-0.047	0.009	11111	1.04	39459.7318	1
1351	6.024	0.233	-0.059	-0.117	0.068	11111	1.05	39502.6815	1	1552	3.381	-0.177	-0.530	-0.993	-0.158	11111	1.13	39057.9325	3
1351	5.982	0.239	-0.038	-0.190	0.007	11111	1.13	39506.6047	1	1552	3.465	-0.158	-0.555	-0.995	-0.165	11111	1.14	39461.7832	1
1356	5.623	0.188	-0.006	-0.107	0.009	11111	1.03	39411.9068	1	1560	4.698	0.194	-0.014	0.012	0.051	11111	1.28	39057.9418	3
1356	5.602	0.199	0.000	-0.092	0.009	11111	1.09	39506.6172	1	1560	4.730	0.189	-0.013	0.039	0.052	11111	1.29	39500.6798	1
1373	5.358	0.890	0.216	0.108	0.103	11111	1.04	39028.9966	3	1567	3.466	-0.176	-0.541	-0.987	-0.177	11111	1.41	39059.8155	3
1373	5.267	0.863	0.000	0.070	0.114	11011	1.04	39408.9601	3	1567	3.456	-0.175	-0.552	-0.999	-0.151	11111	1.32	39473.7007	1
1376	6.110	0.276	-0.030	-0.158	0.021	11111	1.06	39506.6319	1	1568	4.505	-0.010	-0.014	0.030	-0.049	11111	1.17	39059.8261	3
1380	5.092	0.155	0.056	0.007	-0.019	11111	1.05	39029.0044	3	1568	4.455	-0.033	-0.017	0.038	-0.037	11111	1.07	39459.8259	1
1380	5.052	0.150	0.048	-0.025	0.004	11111	1.04	39411.8950	1	1570	4.842	0.090	0.078	-0.020	-0.056	11111	1.21	39059.8372	3
1385	6.525	0.265	-0.101	-0.273	0.020	11111	1.04	39507.6669	1	1570	4.796	0.115	0.058	-0.041	-0.029	11111	1.13	39472.7370	1
1387	4.511	0.156	0.063	0.045	-0.005	11111	1.02	39029.9796	3	1577	5.417	1.588	0.592	0.507	0.302	11111	1.07	39059.8469	3
1387	4.423	0.129	0.070	0.022	0.004	11111	1.02	39411.9221	1	1577	5.283	1.584	0.568	0.500	0.288	11111	1.23	39474.6627	1
1389	4.388	0.077	0.054	-0.014	-0.029	11111	1.04	39029.9966	3	1580	6.038	1.088	0.369	0.208	0.209	11111	1.13	39059.8560	3
1389	4.408	0.084	0.050	-0.025	-0.021	11111	1.05	39431.9087	1	1580	5.991	1.104	0.354	0.212	0.212	11111	1.12	39457.7698	1
1392	4.702	0.203	-0.018	0.002	0.048	11111	1.02	39029.9879	3	1592	5.051	0.045	0.062	-0.091	-0.055	11111	1.04	39059.8659	3
1392	4.665	0.181	-0.019	-0.020	0.049	11111	1.01	39411.9338	1	1592	4.947	0.059	0.047	-0.089	-0.063	11111	1.28	39474.6502	1
1394	4.828	0.172	0.007	-0.026	0.043	11111	1.05	39044.9194	3	1601	6.842	1.392	0.457			11100	1.23	38705.9386	3
1394	4.864	0.188	-0.004	-0.040	0.036	11111	1.05	39411.9464	1	1601	6.053	1.383	0.523	0.452	0.218	11111	1.17	39500.7191	1
1396	6.167	0.827	0.123	-0.003	0.176	11111	1.05	39044.9478	3	1603	5.435	0.695	0.032	-0.018	0.202	11111	1.13	39059.9169	3
1396	6.263	0.834	0.000	0.018	0.240	11011	1.05	39448.8428	1	1603	5.359	0.709	0.005	-0.034	0.242	11111	1.32	39473.6588	1
1408	6.359	0.256	-0.073	-0.225	0.019	11111	1.06	39506.6449	1	1605	3.632	0.200	-0.155			11100	1.02	38702.8908	3
1409	5.209	0.960	0.223			11100	1.04	38705.8970	3	1605	3.633	0.200	-0.140			11100	1.03	38704.8595	3
1409	5.138	0.931	0.234	0.111	0.124	11111	1.07	39431.9298	1	1605	3.726	0.249	-0.135			11100	1.04	38751.7232	3
1411	5.393	0.889	0.193			11100	1.08	38705.9095	3	1605	3.684	0.244	-0.118			11100	1.03	38752.7340	3
1411	5.357	0.866	0.105			11100	1.06	38752.7685	3	1605	3.662	0.210	-0.124			11100	1.03	38789.6306	1
1411	5.404	0.862	0.082			11100	1.07	38786.6846	1	1605	3.741	0.235	-0.113			11100	1.02	38791.6453	1
1411	5.362	0.831	0.175	0.027	0.108	11111	1.07	39502.6440	1	1605	3.653	0.220	-0.124	0.355	0.237	11111	1.03	39172.6317	3
1411	5.313	0.801	0.212	0.069	0.064	11111	1.17	39506.5908	1	1605	3.616	0.202	-0.160	0.289	0.268	11111	1.05	39406.9212	1
1411	5.340	0.856	0.177	0.017	0.129	11111	1.07	39509.6266	1	1611	5.175	0.173	0.006	0.056	0.043	11111	1.42	39059.9280	3
1412	3.711	0.186	0.027			11100	1.08	38752.7779	3	1611	5.150	0.200	-0.029	0.043	0.042	11111	1.41	39468.8033	1
1412	3.685	0.162	0.013			11100	1.09	38786.6943	1	1612	5.605	0.855	-0.090	-0.339	-0.068	11111	1.02	39059.9386	3
1412	3.670	0.160	0.042	0.019	0.013	11111	1.19	39504.5919	1	1612	5.518	0.838	-0.070	-0.349	-0.056	11111	1.02	39172.6415	3
1412	3.652	0.183	0.023	-0.001	0.023	11111	1.17	39505.5961	1	1612	5.525	0.837	-0.125	-0.371	-0.049	11111	1.03	39406.9341	1
1412	3.687	0.187	0.024	0.020	-0.013	11111	1.10	39507.6166	1	1617	4.584	-0.169	-0.448	-0.896	-0.157	11111	1.32	39059.9490	3
1412	3.676	0.185	0.030	0.021	0.016	11111	1.13	39508.0009	1	1617	4.551	-0.155	-0.467	-0.910	-0.155	11111	1.30	39500.7053	1
1412	3.711	0.169	0.043	0.017	0.015	11111	1.12	39509.7304	1	1620	4.869	0.148	0.034			11100	1.03	38752.7921	3
1427	5.012	0.143	0.069	-0.001</td															

TABLE 7 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 40

B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS	B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS
1679	4.005	-0.171	-0.612	-1.112	-0.143	11111	1.33	39051.9486	3	1855	4.247	-0.242	-0.673	-1.273	-0.182	11111	1.30	39027.0208	3
1679	3.971	-0.191	-0.586	-1.086	-0.176	11111	1.45	39173.6765	3	1855	4.283	-0.202	-0.656	-1.261	-0.171	11111	2.20	39028.8824	3
1689	5.157	0.188	0.005	-0.097	-0.007	11111	1.01	39051.9589	3	1855	4.276	-0.231	-0.671	-1.266	-0.179	11111	1.30	39029.0127	3
1689	5.103	0.170	0.028	-0.081	-0.037	11111	1.07	39173.6852	3	1855	4.255	-0.246	-0.646	-1.227	-0.181	11111	2.17	39029.8814	3
1696	4.329	-0.058	-0.285	-0.562	-0.100	11111	1.41	39051.9695	3	1855	4.229	-0.243	-0.681	-1.275	-0.191	11111	1.32	39043.0159	3
1696	4.270	-0.098	-0.220	-0.507	-0.109	11111	1.45	39174.6528	3	1855	4.210	-0.248	-0.668	-1.255	-0.203	11111	1.35	39045.0238	3
1698	6.444	1.187	0.324	0.219	0.129	11111	1.17	39051.9803	3	1855	4.257	-0.222	-0.684	-1.269	-0.209	11111	2.49	39045.0236	3
1698	6.391	1.166	0.368	0.265	0.155	11111	1.20	39174.6623	3	1855	4.219	-0.238	-0.671	-1.274	-0.208	11111	2.22	39050.8214	3
1702	3.105	-0.099	-0.257	-0.480	-0.104	11111	1.51	39052.9505	3	1855	4.241	-0.230	-0.684	-1.272	-0.219	11111	1.31	39052.9779	3
1702	3.113	-0.102	-0.239	-0.454	-0.095	11111	1.64	39174.6712	3	1855	4.238	-0.238	-0.687	-1.282	-0.210	11111	1.32	39053.9816	3
1705	4.203	-0.092	-0.275	-0.426	-0.112	11111	1.42	39052.9417	3	1855	4.204	-0.255	-0.667	-1.276	-0.169	11111	4.0	39057.0063	3
1705	4.204	-0.111	-0.256	-0.399	-0.109	11111	1.58	39174.6805	3	1855	4.230	-0.244	-0.684	-1.275	-0.190	11111	1.30	39084.8684	1
1708	1.256	0.633	-0.007	-0.133	-0.094	11111	1.04	39019.0153	3	1855	4.229	-0.233	-0.677	-1.266	-0.204	11111	1.32	39135.7062	1
1708	1.250	0.668	-0.022	-0.165	-0.122	11111	1.12	39174.6998	3	1855	4.257	-0.246	-0.668	-1.271	-0.188	11111	3.0	39139.7091	3
1713	0.065	-0.140	-0.524			11100	1.44	38751.7091	3	1855	4.317	-0.241	-0.686	-1.298	-0.173	01111	2.29	39150.8392	3
1713	0.052	-0.113	-0.552			11100	1.32	38752.7569	3	1855	4.230	-0.242	-0.663	-1.269	-0.186	11111	1.32	39151.7165	3
1713	0.096	-0.155	-0.534			11100	1.34	38764.7124	1	1855	4.198	-0.233	-0.666	-1.254	-0.204	11111	2.34	39151.8385	3
1713	0.062	-0.109	-0.570	-0.817	-0.094	11111	1.32	39406.9618	1	1855	4.264	-0.224	-0.690	-1.295	-0.182	11111	1.31	39154.6635	3
1726	6.675	1.251	0.372			11100	1.01	38751.8007	3	1855	4.229	-0.233	-0.677	-1.266	-0.188	11111	1.30	39171.6908	1
1726	6.661	1.233	0.406			11100	1.02	38752.8045	3	1855	4.211	-0.247	-0.663	-1.269	-0.181	11111	2.23	39172.7760	3
1729	5.599	0.476	-0.131			11100	1.03	38751.8145	3	1855	4.214	-0.234	-0.658	-1.269	-0.182	11111	1.31	39173.6090	3
1729	5.586	0.456	-0.109	-0.366	0.052	11111	1.03	39175.6571	3	1855	4.235	-0.245	-0.652	-1.265	-0.187	11111	2.23	39173.7735	3
1729	5.601	0.456	-0.130	-0.368	0.027	11111	1.01	39409.9731	3	1855	4.206	-0.254	-0.648	-1.260	-0.190	11111	1.32	39174.6023	3
1735	3.410	-0.111	-0.315	-0.559	-0.126	11111	1.29	39052.9602	3	1855	4.229	-0.236	-0.677	-1.283	-0.189	11111	1.30	39176.6313	3
1735	3.400	-0.095	-0.334	-0.575	-0.135	11111	1.32	39175.6478	3	1855	4.273	-0.247	-0.651	-1.252	-0.192	11111	2.21	39176.7644	3
1756	3.937	-0.222	-0.655	-1.244	-0.173	11111	1.44	39052.9692	3	1855	4.220	-0.238	-0.667	-1.262	-0.196	11111	1.30	39178.6096	1
1756	3.910	-0.249	-0.641	-1.242	-0.164	11111	1.45	39175.6390	3	1855	4.194	-0.256	-0.660	-1.268	-0.177	11111	1.30	39184.5921	1
1765	4.454	-0.171	-0.525	-0.981	-0.164	11111	1.18	39053.9433	3	1855	4.267	-0.238	-0.644	-1.250	-0.187	11111	1.39	39179.6182	3
1765	4.474	-0.153	-0.512	-0.968	-0.155	11111	1.24	39175.6880	3	1855	4.270	-0.249	-0.639	-1.253	-0.208	11111	1.35	39199.6015	3
1770	4.765	-0.165	-0.547			11100	1.20	38705.9748	3	1855	4.200	-0.250	-0.627	-1.255	-0.195	11111	1.39	39202.6046	3
1770	4.715	-0.181	-0.559	-1.076	-0.161	11111	1.14	39053.9521	3	1855	4.245	-0.231	-0.662	-1.283	-0.192	11111	2.21	39176.7644	3
1770	4.764	-0.155	-0.573	-1.101	-0.147	11111	1.21	39501.6688	1	1855	4.266	-0.229	-0.667	-1.258	-0.202	11111	2.38	39409.8312	3
1781	5.386	-0.190	-0.566	-1.098	-0.167	11111	1.18	39053.9616	3	1855	4.269	-0.243	-0.676	-1.267	-0.197	11111	1.31	39194.9610	3
1781	5.307	-0.172	-0.552	-1.103	-0.172	11111	1.27	39175.6874	3	1855	4.261	-0.247	-0.673	-1.266	-0.201	11111	1.31	39174.6022	3
1784	5.591	0.806	0.127	-0.053	0.152	11111	1.32	39053.9713	3	1855	4.238	-0.230	-0.682	-1.293	-0.194	11111	2.34	39175.7229	3
1784	5.589	0.803	0.148	-0.036	0.146	11111	1.46	39501.6559	1	1855	4.188	-0.239	-0.677	-1.283	-0.189	11111	1.30	39176.6313	3
1788	3.018	-0.209	-0.652			11100	1.22	38708.9013	3	1855	4.273	-0.247	-0.651	-1.252	-0.192	11111	2.21	39176.7644	3
1788	3.075	-0.192	-0.618			11100	1.28	38708.7300	1	1855	4.220	-0.238	-0.667	-1.258	-0.202	11111	2.38	39408.8373	3
1788	3.073	-0.199	-0.600	-1.156	-0.156	11111	1.22	39408.9730	3	1855	4.264	-0.229	-0.667	-1.258	-0.177	11111	1.30	39409.9610	3
1789	4.620	-0.201	-0.592	-1.095	-0.183	11111	1.16	39054.9375	3	1855	4.261	-0.247	-0.673	-1.266	-0.177	11111	1.31	39174.5958	1
1789	4.677	-0.208	-0.580	-1.089	-0.155	11111	1.21	39501.6807	1	1855	0.000	0.013	0.000	0.000	0.000	0.000	0.000	39433.9716	0
1790	1.249	-0.209	-0.598			11100	1.13	38708.9258	3	1855	4.232	-0.245	-0.666	-1.261	-0.187	11111	1.30	39440.8934	1
1790	1.331	-0.193	-0.556	-1.051	-0.155	11111	1.14	39501.6926	1	1855	4.235	-0.236	-0.669	-1.264	-0.192	11111	1.49	39441.8182	1
1791	1.495	-0.127	-0.345	-0.592	-0.108	11111	1.01	39440.9085	1	1855	4.206	-0.247	-0.666	-1.265	-0.189	11111	1.31	39442.8726	1
1810	4.576	-0.193	-0.495			11100	1.10	38708.9682	3	1855	4.229	-0.247	-0.668	-1.271	-0.197	11111	1.31	39442.8726	1
1810	4.663	-0.150	-0.497	-0.979	-0.143	11111	1.02	39499.7449	1	1855	4.223	-0.240	-0.665	-1.277	-0.187	11111	1.30	39504.7257	1
1811	4.250	-0.191	-0.599	-1.134	-0.186	11111	1.15	39054.9492	3	1855	4.232	-0.243	-0.667	-1.272	-0.206	11111	1.34	39505.6840	1
1811	4.287	-0.196	-0.580	-1.125	-0.181	11111	1.16	39501.7042	1	1855	4.216	-0.233	-0.665	-1.301	-0.195	11111	1.93	39482.6595	1
1829	4.030	0.653	-0.024	-0.177	0.171	11111	1.67	39054.9599	3	1855	4.237	-0.233	-0.669	-1.272	-0.178	11111	2.31	39487.6219	3
1829	4.013	0.652	-0.006	-0.169	0.192	11111	1.71	39476.7659	1	1855	4.245	-0.231	-0.681	-1.289	-0.199	11111	1.34	39487.7402	3
1839	4.007	-0.095	-0.352	-0.732	-0.141	11111	1.12	39054.9702	3	1855	4.228	-0.234	-0.686	-1.281	-0.203	11111	1.30	39488.7754	3
1839	4.002	-0.124	-0.327	-0.701	-0.147	11111	1.20	39504.6603	1	1855	4.229	-0.233	-0.685	-1.261	-0.189	11111	1.32	39496.9499	1
1843	5.047	0.055	-0.496	-0.785	-0.037	11111	1.00	39055.9448	3	1855	0.000	0.013	0.000	0.000	0.000	0.000	0.000	39500.7490	1
1843	5.111	0.083	-0.516	-0.796	-0.059	11111	1.20	39474.6942	1	1855	4.237	-0.243	-0.665	-1.277	-0.187	11111	1.30	39504.6857	1
1845	7.969	1.859	0.679	0.837	0.547	11111	1.03	39055.9566	3	1855	2.852	0.136	0.000	0.072	0.147	11111	1.56	39056.9461	3
1845	7.842	1.855	0.690	0.889	0.426	11111	1.04	39499.7572	1	1855	2.065	0.131	0.042	0.439	0.125	11111	1.69	39476.7451	1
1852	1.864	-0.212	-0.679	-1.282	-0.165	11111	1.18	39055.9659	3	1868	5.043	-0.179	-0.551	-1.105	-0.151	11111	1.20	39056.9565</td	

TABLE 7 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 40

B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS	B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS
1901	5.650	0.186	-0.017	0.021	0.023	11111	1.45	39060.8596	3	2135	4.925	0.023	-0.589	-1.036	-0.052	11111	1.03	39052.9995	3
1901	5.618	0.190	-0.013	0.020	0.044	11111	1.32	39506.6706	1	2135	4.904	0.012	-0.575	-1.022	-0.062	11111	1.03	39184.6314	1
1903	1.462	-0.204	-0.670	-1.249	-0.166	11111	1.46	39061.8419	3	2148	5.183	0.055	0.011	0.221	0.154	11111	1.56	39054.0117	3
1903	1.427	-0.204	-0.667	-1.255	-0.156	11111	1.24	39506.6829	1	2148	5.175	0.036	0.014	0.259	0.160	11111	1.53	39184.6411	1
1907	5.526	0.767	0.121	-0.105	0.191	11111	1.25	39061.8517	3	2148	5.180	0.036	0.012	0.254	0.222	11111	1.54	39506.7665	1
1907	5.536	0.774	0.111	-0.109	0.177	11111	1.09	39507.7057	1	2155	4.745	0.046	0.055	-0.006	-0.055	11111	1.53	39054.0206	3
1908	8.667	1.627	0.628	0.515	0.564	11111	1.20	39061.8619	3	2155	4.743	0.043	0.053	0.011	-0.043	11111	1.50	39184.6510	1
1908	8.705	1.616	0.684	0.606	0.506	11111	1.09	39499.7725	1	2159	4.168	-0.141	-0.357	-0.763	-0.143	11111	1.06	39055.0049	3
1910	2.717	-0.192	-0.546	-0.881	-0.141	11111	1.07	39061.8835	3	2159	4.187	-0.145	-0.416	-0.827	-0.159	11111	1.06	39351.7812	1
1910	2.673	-0.214	-0.546	-0.895	-0.130	11111	1.03	39440.9307	1	2198	4.726	-0.148	-0.347	-0.711	-0.112	11111	1.06	39055.0138	3
1931	3.625	-0.220	-0.645	-1.216	-0.198	11111	1.24	39061.9100	3	2198	4.783	-0.119	-0.384	-0.743	-0.133	11111	1.06	39501.7926	1
1931	3.445	-0.207	-0.644	-1.239	-0.168	11111	1.23	39506.7083	1	2199	4.204	-0.150	-0.419	-0.815	-0.135	11111	1.05	39056.9787	3
1934	4.397	-0.167	-0.526	-0.950	-0.141	11111	1.14	39061.9196	3	2199	4.247	-0.158	-0.417	-0.801	-0.162	11111	1.10	39501.8078	1
1934	4.408	-0.138	-0.534	-0.957	-0.139	11111	1.14	39506.7199	1	2209	4.772	0.022	0.027	-0.029	-0.037	11111	1.26	39058.0100	3
1937	4.979	0.112	0.067	-0.008	-0.007	11111	1.30	39061.9294	3	2209	4.771	0.056	0.031	-0.049	-0.049	11111	1.44	39277.6494	3
1937	5.011	0.136	0.037	-0.010	-0.013	11111	1.32	39506.6960	1	2216	5.813	1.466	0.497	0.469	0.375	11111	1.02	39056.9887	3
1946	4.643	-0.156	-0.404	-0.812	-0.136	11111	1.04	39061.9393	3	2216	0.000	1.488	0.496	0.475	0.338	01111	1.02	39433.9356	0
1946	4.664	-0.124	-0.435	-0.823	-0.122	11111	1.04	39473.8297	1	2216	5.900	1.511	0.000	0.000	0.000	11000	1.02	39476.0371	1
1948	1.433	-0.221	-0.672	-1.269	-0.173	11111	1.21	39061.9487	3	2216	5.867	1.489	0.499	0.472	0.349	11111	1.03	39506.7785	1
1948	1.479	-0.217	-0.690	-1.287	-0.159	11111	1.21	39506.7315	1	2219	5.868	0.872	0.228	0.050	0.189	11111	1.01	39056.9973	3
1963	6.770	1.062	0.335	0.157	0.242	11111	1.18	39084.9028	1	2219	0.000	0.013	0.000	0.049	0.174	00011	1.00	39433.9508	0
1963	6.787	1.071	0.331	0.145	0.260	11111	1.17	39506.7424	1	2219	5.912	0.873	0.211	0.048	0.165	11111	1.03	39506.7902	1
1995	6.020	0.813	0.153	-0.039	0.166	11111	1.01	39135.7313	1	2227	6.175	1.320	0.461	0.350	0.279	11111	1.29	39057.9904	3
1995	5.986	0.806	0.146	-0.018	0.156	11111	1.18	39479.6957	1	2227	6.192	1.294	0.496	0.380	0.278	11111	1.32	39473.8742	1
1998	3.672	0.110	0.061	-0.020	-0.031	11111	1.47	39135.7416	1	2238	4.597	0.051	0.057	-0.035	-0.037	11111	1.12	39135.7843	1
1998	3.774	0.121	0.062	-0.049	-0.030	11111	1.47	39474.8185	1	2238	4.506	0.039	0.051	-0.024	-0.042	11111	1.15	39506.0036	1
2004	0.000	0.013	0.000	0.000	-0.175	00001	1.35	39135.7512	1	2240	6.804	0.144	-0.458	-0.707	0.002	11111	1.01	39139.7592	3
2004	1.859	-0.187	-0.632	-1.168	-0.163	11111	1.60	39376.0010	1	2240	6.805	0.135	-0.448	-0.694	-0.004	11111	1.03	39500.8024	1
2010	4.787	-0.044	-0.054	-0.195	-0.082	11111	1.07	39135.7608	1	2244	4.862	-0.169	-0.180	-0.250	-0.068	11111	1.46	39057.9988	3
2010	4.825	-0.034	-0.068	-0.196	-0.086	11111	1.07	39501.7579	1	2244	4.901	-0.070	-0.181	-0.247	-0.090	11111	1.45	39507.7623	1
2011	7.639	1.717	0.665	0.633	0.434	11111	1.02	39138.7070	3	2286	5.701	1.564	0.649	0.682	0.565	11111	1.02	39139.7704	3
2011	7.615	1.715	0.671	0.614	0.494	11111	1.01	39468.8471	1	2286	0.000	1.566	0.632	0.702	0.515	01111	1.02	39433.9714	0
2012	5.822	1.065	0.335	0.191	0.158	11111	1.01	39138.7166	3	2286	5.721	1.578	0.661	0.712	0.519	11111	1.05	39500.8144	1
2012	5.808	1.055	0.361	0.236	0.145	11111	1.02	39468.8601	1	2294	1.656	-0.216	-0.612	-1.147	-0.177	11111	1.59	39139.7809	3
2018	9.195	1.715	0.682	0.735	0.482	11111	1.00	39138.7304	3	2294	0.000	0.013	0.000	-0.174	0.0001	11111	1.62	39433.9897	0
2018	9.324	1.711	0.720	0.867	0.477	11111	1.00	39507.7201	1	2294	1.631	-0.210	-0.621	-1.170	-0.184	11111	1.64	39507.7934	1
2029	5.065	0.044	0.078	0.060	-0.055	11111	1.09	39138.7402	3	2298	4.601	0.162	0.011	1.1100	1.14	38787.7462	1		
2029	5.073	0.062	0.051	0.029	-0.025	11111	1.09	39476.8177	1	2298	4.609	0.178	-0.029	-0.081	0.032	11111	1.20	39507.8059	1
2034	4.570	-0.020	0.021	0.035	-0.057	11111	1.01	39138.7503	3	2308	11.064	2.876	1.085	1.137	-0.253	11111	1.09	39147.6899	3
2034	4.571	-0.001	-0.007	0.039	-0.045	11111	1.00	39507.7347	1	2308	11.242	2.935	1.346	1.176	-0.157	11111	1.10	39501.8212	1
2035	5.256	0.795	0.123	-0.091	0.239	11111	1.69	39138.7598	3	2343	4.001	-0.111	-0.338	-0.577	-0.115	11111	1.05	39147.7009	3
2035	5.261	0.822	0.115	-0.078	0.226	11111	1.71	39476.7828	1	2343	3.993	-0.105	-0.335	-0.566	-0.133	11111	1.08	39500.8289	1
2047	5.219	0.423	-0.135	-0.425	0.015	11111	1.07	39140.6811	3	2344	4.787	-0.176	-0.466	-0.929	-0.152	11111	1.27	39147.7118	3
2047	5.262	0.444	-0.182	-0.465	0.051	11111	1.02	39473.8143	1	2344	4.794	-0.174	-0.476	-0.933	-0.164	11111	1.38	39507.0201	1
2061	3.670	1.795	1.110			11100	1.25	38786.7867	1	2356	3.498	-0.142	-0.491	-0.931	-0.136	11111	1.30	39147.7228	3
2061	3.522	0.543	0.546			11100	1.17	38787.7580	1	2356	3.488	-0.155	-0.497	-0.944	-0.131	11111	1.34	39473.8891	1
2061	3.451	1.696	0.629			11100	1.17	38789.6615	1	2385	4.520	-0.038	-0.312	-0.137	-0.016	11111	1.10	39147.7345	3
2061	3.540	1.730	0.573			11100	1.11	38791.6713	1	2385	4.507	-0.067	-0.302	-0.118	0.002	11111	1.20	39501.8399	1
2061	3.720	1.602	0.563	0.728	0.518	11111	1.19	39171.7142	1	2392	7.979	0.998	0.129	-0.074	0.039	11111	1.38	39147.7463	3
2061	3.730	1.673	0.587	0.755	0.511	11111	1.12	39406.9757	1	2392	8.037	1.004	0.117	-0.102	0.062	11111	1.58	39507.0323	1
2077	5.321	0.884	0.253	0.074	0.138	11111	1.10	39140.6918	3	2421	1.964	0.021	0.051	0.098	-0.049	11111	1.06	39147.7767	3
2077	5.293	0.907	0.227	0.055	0.157	11111	1.17	39479.7196	1	2421	1.969	0.032	0.034	0.081	-0.039	11111	1.04	39154.7249	3
2084	4.683	-0.142	-0.604			11100	1.05	38705.9791	3	2427	6.875	1.221	0.437	0.316	0.205	11111	1.10	39148.6650	3
2084	4.631	-0.175	-0.619			11100	1.04	38789.6551	1	2427	6.860	1.216	0.456	0.320	0.206	11111	1.11	39507.8604	1
2085	4.171	0.229	-0.109	-0.278	0.017	11111	1.47	39140.7153	3	2429	5.667	0.998	0.347	0.194	0.081	11111	1.07	39148.6966	3
2085	4.220	0.238	-0.090	-0.229	0.010	11111	1.46	39474.8060	1	2429	5.674	1.005	0.365	0.202	0.084	11111	1.07	39508.7078	1
2088	1.977	0.050	0.076	0.031	-0.044	11111	1.03	39140.7292	3	2443	6.303	1.079	0.312	0.179</					

TABLE 7 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 40

B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS	B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS
2484	3.900	0.310	-0.125	-0.292	0.018	01111	1.07	39150.7149	3	2852	4.604	0.210	-0.108	-0.299	-0.011	11111	1.00	39178.7124	1
2484	4.027	0.286	-0.139	-0.301	0.041	11111	1.08	39440.9805	1	2852	4.608	0.196	-0.095	-0.278	-0.005	11111	1.01	39184.7085	1
2491	-1.441	0.029	0.047	-0.092	-0.056	11111	1.52	39053.0085	3	2852	4.652	0.209	-0.105	-0.273	0.002	11111	1.01	39206.5981	3
2491	-1.415	0.046	0.057	-0.068	-0.045	11111	1.52	39154.7352	3	2852	4.617	0.206	-0.120	-0.323	0.020	11111	2.30	39206.8360	3
2506	6.288	1.048	0.292	0.194	0.181	11111	1.16	39151.7626	3	2852	4.602	0.199	-0.111	-0.297	0.007	11111	1.00	39207.6004	1
2506	6.283	1.038	0.321	0.202	0.138	11111	1.24	39504.8345	1	2852	4.648	0.198	-0.120	-0.289	0.007	11111	1.08	39227.6361	3
2527	6.933	1.443	0.619	0.455	0.335	11111	1.49	39151.6438	3	2852	4.694	0.207	-0.123	-0.294	0.008	11111	1.06	39229.6181	3
2527	6.964	1.478	0.612	0.501	0.229	11111	1.44	39506.8413	1	2852	4.639	0.212	-0.143	-0.315	0.028	11111	1.38	39470.0441	1
2540	3.805	0.087	0.075	0.130	0.001	11111	1.08	39151.6727	3	2852	4.663	0.249	-0.148	-0.339	0.011	11111	1.12	39471.9814	1
2540	3.779	0.095	0.034	0.121	0.002	11111	1.12	39506.8602	1	2852	4.618	0.203	-0.150	-0.325	0.001	11111	1.02	39474.8471	1
2560	5.662	0.683	0.064	-0.100	0.080	11111	1.21	39151.6538	3	2852	4.580	0.207	-0.131	-0.328	0.031	11111	1.85	39482.6728	3
2560	5.663	0.722	0.057	-0.081	0.068	11111	1.14	39506.8273	1	2852	4.646	0.220	-0.149	-0.330	0.010	11111	1.10	39487.7700	3
2564	5.101	0.205	-0.054	-0.185	-0.012	11111	1.13	39151.6845	3	2852	4.628	0.219	-0.123	-0.303	0.009	11111	1.00	39499.8032	1
2564	5.105	0.205	-0.060	-0.211	0.015	11111	1.15	39504.8466	1	2852	4.631	0.223	-0.127	-0.292	0.004	11111	1.01	39500.8405	1
2571	4.450	-0.237	-0.585	-1.120	-0.195	11111	1.66	39151.7259	3	2852	4.657	0.228	-0.135	-0.307	0.015	11111	1.04	39504.8582	1
2571	4.508	-0.218	-0.604	-1.146	-0.181	11111	1.66	39508.7476	1	2852	4.642	0.222	-0.131	-0.307	0.007	11111	1.06	39507.8569	1
2574	6.529	1.478	0.619	0.476	0.374	11111	1.40	39151.7531	3	2852	4.641	0.235	-0.148	-0.332	0.030	11111	1.00	39508.7912	1
2574	6.557	1.488	0.649	0.494	0.387	11111	1.40	39473.8589	1	2854	6.746	1.461	0.416			11100	1.13	38751.9112	3
2585	4.963	-0.049	0.064	0.051	-0.039	11111	1.12	39151.6633	3	2854	6.742	1.472	0.464			11100	1.13	38789.8044	1
2585	4.939	0.007	0.071	0.046	-0.053	11111	1.04	39172.7227	3	2854	6.732	1.420	0.556	0.382	0.268	11111	1.10	39202.6475	3
2590	5.131	0.238	-0.107	-0.237	-0.002	11111	1.65	39151.7345	3	2864	6.697	1.263	0.403			11100	1.09	38752.8957	3
2590	5.171	0.235	-0.100	-0.255	0.031	11111	1.64	39508.7614	1	2864	6.691	1.259	0.467	0.353	0.194	11100	1.11	39175.7532	3
2596	4.258	-0.125	-0.522	-0.860	-0.132	11111	1.53	39151.7434	3	2864	6.672	1.262	0.453	0.446	0.250	11111	1.07	39206.6254	3
2596	4.251	-0.126	-0.528	-0.872	-0.145	11111	1.54	39508.7792	1	2891	1.618	0.054	0.026			11100	1.69	38702.8237	3
2648	4.675	-0.193	-0.620	-1.130	-0.172	11111	1.24	39052.0261	3	2891	1.650	0.047	0.039			11100	1.17	38702.8992	3
2648	4.713	-0.213	-0.588	-1.101	-0.171	11111	1.24	39061.9979	3	2891	1.653	0.044	0.046			11100	2.38	38704.7779	3
2650	5.762	0.837	0.054			11100	1.02	38786.7475	1	2891	1.628	0.036	0.049			11100	1.29	38704.8679	3
2650	4.865	0.570	-0.022			11100	1.04	38789.7809	1	2891	1.629	0.052	0.030			11100	1.43	38705.8427	3
2650	4.787	0.605	-0.104			11100	1.04	38791.7027	1	2891	1.664	0.076	0.029			11100	1.00	38706.0095	3
2650	5.096	0.629	0.005			11100	1.05	38839.6468	3	2891	1.605	0.038	0.057			11100	1.64	38708.8112	3
2650	5.040	0.617	-0.018	-0.005	0.195	11111	1.03	39154.7687	3	2891	1.623	0.036	0.029			11100	1.08	38866.6275	1
2650	4.939	0.635	-0.003	-0.002	0.216	11111	1.05	39178.7216	1	2891	1.629	0.052	0.035	-0.083	-0.040	11111	1.01	39479.9043	1
2657	3.943	-0.115	-0.332	-0.587	-0.104	11111	1.49	39053.0194	3	2905	6.803	1.686	0.647	0.577	0.382	11111	1.00	39058.0283	3
2657	3.942	-0.108	-0.347	-0.579	-0.109	11111	1.54	39174.7265	3	2905	6.802	1.699	0.658	0.574	0.375	11111	1.01	39184.6622	3
2697	6.572	1.298	0.454			11100	1.02	38752.8846	3	2930	5.446	0.280	-0.110	-0.223	0.079	11111	1.00	39058.0366	3
2697	6.501	1.281	0.486	0.386	0.246	11111	1.04	39174.7534	3	2930	5.467	0.291	-0.115	-0.210	0.038	11111	1.01	39184.6722	1
2701	6.500	0.889	0.184	0.004	0.164	11111	1.25	39054.0312	3	2930	5.476	0.286	-0.120	-0.234	0.068	11111	1.00	39207.6226	1
2701	6.471	0.892	0.189	0.015	0.181	11111	1.29	39174.7353	3	2943	0.907	0.283	-0.139	-0.328	0.021	11111	1.16	39059.9895	3
2714	4.145	-0.001	-0.001	0.122	-0.005	11111	1.18	39055.0230	3	2943	0.952	0.286	-0.134	-0.308	0.029	11111	1.13	39154.7574	3
2714	4.138	0.007	-0.024	0.114	-0.032	11111	1.23	39174.7438	3	2943	0.965	0.288	-0.115	-0.318	0.015	11111	1.13	39202.6597	3
2751	5.114	0.055	0.018	0.139	0.000	11111	1.05	39056.0177	3	2946	5.136	0.063	0.035	0.092	-0.021	11111	1.13	39060.0000	3
2751	5.095	0.072	0.016	0.129	0.014	11111	1.10	39174.7636	3	2946	5.048	0.064	0.062	0.091	0.022	11111	1.12	39184.6832	1
2763	3.715	0.115	0.068	0.030	-0.031	11111	1.04	39056.0275	3	2946	5.055	0.057	0.037	0.074	0.036	11111	1.12	39207.6330	1
2763	3.746	0.116	0.075	0.023	-0.005	11111	1.04	39175.7051	3	2970	5.571	0.907	0.242	0.110	0.111	11111	1.39	39060.9858	3
2777	3.962	0.215	-0.079			11100	1.02	38786.7596	1	2970	5.562	0.928	0.225	0.098	0.147	11111	1.34	39184.6988	1
2777	3.991	0.213	-0.081			11100	1.03	38787.7752	1	2970	5.564	0.923	0.239	0.105	0.106	11111	1.35	39207.6435	1
2777	4.028	0.244	-0.092			11100	1.02	38791.7354	1	2973	6.040	1.034	0.266			11100	1.00	38786.7737	1
2812	4.815	-0.107	-0.267	-0.462	-0.087	11111	1.60	39057.0160	3	2973	6.007	1.050	0.205			11100	1.00	38791.7596	1
2812	4.868	-0.073	-0.272	-0.469	-0.113	11111	1.62	39175.7233	3	2985	5.032	0.801	0.150	-0.007	0.119	11111	1.14	39060.9417	3
2818	4.556	-0.015	0.045	0.032	-0.018	11111	1.05	39057.0252	3	2985	5.023	0.805	0.139	-0.006	0.133	11111	1.01	39154.7786	3
2818	4.606	-0.007	0.042	0.028	-0.051	11111	1.06	39175.7328	3	2990	2.702	0.892	0.238			11100	1.73	38702.8320	3
2821	5.372	0.906	0.224	0.076	0.151	11111	1.00	39058.0198	3	2990	2.733	0.895	0.241			11100	1.18	38702.9068	3
2821	5.393	0.906	0.239	0.082	0.136	11111	1.03	39175.7421	3	2990	2.716	0.891	0.223			11100	0.95	38702.9527	3
2845	2.707	-0.096	-0.202			11100	1.11	38751.8879	3	2990	2.758	0.910	0.259			11100	2.49	38704.7868	3
2845	2.732	-0.064	-0.165			11100	1.12	38789.7939	1	2990	2.716	0.894	0.232			11100	3.30	38704.8763	3
2845	2.754	-0.071	-0.146	-0.300	-0.124	11111	1.10	39202.6383	3	2990	2.702	0.879	0.227			11100	1.14	38704.9129	3
2852	4.635	0.221	-0.107			11100	1.89	38751.6712	3	2990	2.719	0.899	0.229			11100	1.00	38704.9480	3
2852	4.599	0.224	-0.116			11100	1.02	38752.6659	3	2990	2.754	0.908	0.200			11100	1.05	38837.7690	1
2852	4.598	0.213	-0.128			111													

TABLE 7 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 40

B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS	B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS
3145	6.511	1.250	0.373		11100	1.17	38752.9110	3		3323	4.748	0.708	0.018	-0.130	0.164	11111	1.14	39135.8667	1
3145	6.457	1.201	0.446	0.275	0.254	11111	1.16	39171.7279	1	3323	4.631	0.697	0.008	-0.125	0.142	11111	1.14	39173.7345	3
3145	6.475	1.211	0.434	0.281	0.274	11111	1.15	39206.6491	3	3323	4.620	0.686	0.034	-0.133	0.156	11111	1.14	39207.6763	1
3173	4.858	0.032	0.059	0.027	-0.064	11111	1.09	39084.9260	1	3403	6.617	1.140	0.376	0.208	0.229	11111	1.18	39135.8812	1
3173	4.873	0.050	0.045	-0.001	-0.023	11111	1.06	39171.7398	1	3403	6.533	1.141	0.361	0.219	0.201	11111	1.18	39173.7449	3
3173	4.840	0.022	0.053	0.053	-0.012	11111	1.06	39206.6609	3	3403	6.520	1.141	0.376	0.231	0.206	11111	1.18	39207.6866	1
3188	5.841	0.801	0.067	0.024	0.176	11111	1.27	39084.9367	1	3410	4.217	-0.002	0.073			11100	1.12	38786.8228	1
3188	5.830	0.800	0.094	0.018	0.175	11111	1.23	39172.7343	3	3410	4.127	-0.005	0.039			11100	1.12	38787.8208	1
3188	5.852	0.810	0.049	-0.008	0.190	11111	1.24	39206.6714	3	3410	4.117	0.012	0.019			11100	1.12	38791.7925	1
3192	4.187	-0.135	-0.393	-0.714	-0.179	11111	1.02	39084.9628	1	3418	6.456	1.194	0.435	0.332	0.180	11111	1.16	39135.8938	1
3192	4.149	-0.158	-0.373	-0.730	-0.140	11111	1.00	39172.7439	3	3418	6.483	1.216	0.407	0.337	0.189	11111	1.14	39173.7547	3
3192	4.194	-0.152	-0.391	-0.744	-0.121	11111	1.05	39206.6810	3	3429	6.584	0.182	0.086	0.068	0.027	11111	1.02	39482.9159	3
3211	6.204	0.834	0.164	0.026	0.092	11111	1.42	39084.9736	1	3441	6.552	0.942	0.277	0.152	0.121	11111	1.51	39140.8800	3
3211	6.192	0.835	0.176	0.027	0.094	11111	1.42	39172.7537	3	3441	6.552	0.956	0.269	0.129	0.130	11111	1.50	39173.7644	3
3211	6.209	0.846	0.154	0.014	0.087	11111	1.42	39207.6540	1	3449	4.719	0.022	0.087	-0.010	-0.033	11111	1.02	39140.8419	3
3249	6.129	1.571	0.626		11100	1.10	38751.9261	3	3449	4.732	0.049	0.065	-0.040	-0.034	11111	1.04	39176.7183	3	
3249	6.148	1.583	0.609		11100	1.12	38752.9330	3	3454	4.023	-0.188	-0.450			11100	1.15	38751.9374	3	
3249	6.222	1.572	0.607		11100	1.09	38786.8110	1	3454	4.022	-0.187	-0.463			11100	1.18	38752.9556	3	
3249	6.134	1.566	0.571		11100	1.09	38787.8080	1	3454	4.088	-0.178	-0.520			11100	1.14	38789.8182	1	
3249	6.146	1.577	0.608		11100	1.09	38791.7730	1	3454	3.997	-0.209	-0.457			11100	1.16	38871.7827	1	
3249	6.123	1.567	0.603		11100	1.16	38839.7171	3	3454	4.010	-0.173	-0.467	-0.936	-0.152	11111	1.17	38874.6189	3	
3249	6.123	1.578	0.638	0.506	0.343	11111	1.28	38872.6610	3	3454	4.008	-0.174	-0.462	-0.926	-0.161	11111	1.28	38875.6549	1
3249	6.083	1.567	0.632	0.489	0.340	11111	1.19	38874.6333	3	3454	3.994	-0.176	-0.461	-0.926	-0.137	11111	1.33	38877.6593	3
3249	6.108	1.554	0.630	0.503	0.337	11111	1.23	38875.6402	1	3454	4.029	-0.170	-0.457	-0.905	-0.170	11111	1.34	38878.6584	1
3249	6.096	1.563	0.618	0.493	0.358	11111	1.27	38877.6450	3	3454	4.035	-0.179	-0.457	-0.909	-0.161	11111	2.58	38884.7234	3
3249	6.129	1.570	0.622	0.493	0.341	11111	1.26	38878.6408	1	3454	4.024	-0.163	-0.492	-0.922	-0.169	11111	2.68	38889.7236	3
3249	6.152	1.556	0.632	0.492	0.331	11111	2.49	38887.7149	3	3454	4.034	-0.161	-0.479	-0.916	-0.156	11111	3.02	38890.7291	3
3249	6.145	1.557	0.637	0.508	0.339	11111	2.38	38888.7085	3	3454	4.070	-0.154	-0.473	-0.926	-0.148	11111	2.22	39025.9984	3
3249	6.116	1.545	0.642	0.497	0.338	11111	2.50	38889.7097	3	3454	4.040	-0.160	-0.470	-0.910	-0.152	11111	2.45	39044.9374	3
3249	6.123	1.564	0.626	0.473	0.329	11111	2.92	38890.7188	3	3454	4.092	-0.142	-0.477	-0.919	-0.162	11111	2.45	39051.9182	3
3249	6.150	1.588	0.629	0.507	0.354	11111	2.48	39016.9841	3	3454	4.031	-0.164	-0.477	-0.910	-0.161	11111	2.28	39052.9222	3
3249	6.108	1.540	0.633	0.479	0.338	11111	2.42	39025.9614	3	3454	4.029	-0.155	-0.465	-0.887	-0.178	11111	2.27	39053.9198	3
3249	6.134	1.564	0.650	0.513	0.313	11111	2.14	39028.9649	3	3454	4.041	-0.158	-0.461	-0.895	-0.169	11111	2.14	39054.9233	3
3249	6.265	1.592	0.691	0.541	0.306	11111	2.22	39029.9586	3	3454	4.029	-0.160	-0.468	-0.910	-0.166	11111	2.34	39055.9114	3
3249	6.133	1.558	0.642	0.489	0.333	11111	2.47	39044.9078	3	3454	4.014	-0.167	-0.478	-0.887	-0.148	11111	2.16	39057.9139	3
3249	6.133	1.561	0.623	0.477	0.316	11111	2.16	39051.9010	3	3454	4.056	-0.161	-0.470	-0.914	-0.154	11111	2.22	39059.9054	3
3249	6.114	1.548	0.613	0.496	0.319	11111	2.16	39052.9690	3	3454	3.985	-0.167	-0.474	-0.917	-0.157	11111	1.18	39060.9328	3
3249	6.126	1.553	0.622	0.502	0.321	11111	2.04	39054.9886	3	3454	4.026	-0.168	-0.472	-0.902	-0.196	11111	2.10	39060.9082	3
3249	6.125	1.546	0.618	0.464	0.361	11111	2.02	39055.8973	3	3454	4.049	-0.168	-0.477	-0.929	-0.157	11111	1.18	39061.8995	3
3249	6.129	1.542	0.650	0.515	0.314	11111	2.10	39057.8873	3	3454	4.011	-0.195	-0.442	-0.888	-0.165	11111	2.23	39061.8332	3
3249	6.119	1.557	0.635	0.496	0.333	11111	2.23	39059.8760	3	3454	4.021	-0.156	-0.476	-0.915	-0.167	11111	1.37	39135.9596	1
3249	6.089	1.574	0.617	0.485	0.339	11111	1.11	39060.0236	3	3454	4.047	-0.147	-0.494	-0.921	-0.136	11111	2.24	39138.6888	3
3249	6.102	1.566	0.630	0.467	0.362	11111	2.21	39060.8740	3	3454	4.049	-0.153	-0.473	-0.922	-0.165	11111	1.20	39138.9064	3
3249	6.161	1.547	0.629	0.495	0.363	11111	1.11	39061.0181	3	3454	4.055	-0.157	-0.489	-0.931	-0.156	11111	1.16	39140.8816	3
3249	6.141	1.584	0.626	0.492	0.302	11111	2.15	39061.8739	3	3454	4.014	-0.169	-0.461	-0.915	-0.153	11111	1.19	39147.8787	3
3249	6.119	1.540	0.639	0.307	0.337	11111	1.10	39062.0244	3	3454	4.051	-0.168	-0.464	-0.918	-0.157	11111	1.20	39148.8808	3
3249	6.115	1.563	0.623	0.498	0.346	11111	1.09	39135.8396	1	3454	4.029	-0.171	-0.445	-0.905	-0.151	11111	1.14	39171.7633	1
3249	6.123	1.569	0.614	0.481	0.387	11111	2.40	39138.6538	3	3454	4.028	-0.170	-0.459	-0.903	-0.163	11111	1.18	39178.7915	1
3249	6.115	1.543	0.635	0.494	0.366	11111	1.16	39138.8976	3	3454	4.017	-0.154	-0.480	-0.922	-0.143	11111	1.15	39197.7169	3
3249	6.131	1.547	0.644	0.502	0.348	11111	1.12	39140.8732	3	3454	4.046	-0.163	-0.470	-0.931	-0.145	11111	3.11	39197.8906	3
3249	6.113	1.569	0.608	0.492	0.349	11111	1.15	39147.8701	3	3454	4.031	-0.168	-0.457	-0.918	-0.157	11111	1.14	39199.6954	3
3249	6.129	1.551	0.611	0.488	0.374	11111	1.16	39148.8696	3	3454	4.035	-0.171	-0.472	-0.930	-0.144	11111	2.50	39199.8689	3
3249	6.133	1.564	0.606	0.482	0.346	11111	1.09	39178.7820	1	3454	4.007	-0.159	-0.486	-0.936	-0.160	11111	1.15	39206.6951	3
3249	6.137	1.564	0.621	0.491	0.360	11111	1.14	39207.6108	1	3454	4.055	-0.150	-0.470	-0.905	-0.153	11111	1.19	39207.7134	1
3249	6.167	1.576	0.675	0.521	0.299	11111	1.10	39197.7071	3	3454	4.012	-0.166	-0.475	-0.929	-0.148	11111	1.18	39238.6262	1
3249	6.107	1.552	0.637	0.500	0.316	11111	3.07	39197.8813	3	3454	4.052	-0.172	-0.440	-0.883	-0.149	11111	1.26	39240.6489	3
3249	6.133	1.559	0.636	0.507	0.330	11111	1.09	39199.6863	3	3454	4.024	-0.164	-0.477	-0.920	-0.143	11111	4.63	39243.7861	3
3249	6.131	1.572	0.629	0.502</td															

TABLE 7 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 40

B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS	B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS
3547	4.712	0.868	0.206	0.075	0.135	11111	1.19	39148.7811	3	3849	4.853	-0.123	-0.348	-0.715	-0.145	11111	1.48	39151.8904	3
3547	4.682	0.875	0.208	0.052	0.129	11111	1.13	39178.7324	1	3849	4.870	-0.113	-0.382	-0.741	-0.163	11111	1.54	39197.7843	3
3569	3.502	0.189	0.009	-0.113	-0.012	11111	1.07	39148.7914	3	3852	4.297	0.400	-0.078	-0.176	0.047	11111	1.11	39151.8995	3
3569	3.450	0.190	-0.001	-0.122	-0.020	11111	1.04	39178.7420	1	3852	4.258	0.391	-0.054	-0.158	0.026	11111	1.09	39199.7049	3
3572	4.542	0.157	0.066	0.063	-0.015	11111	1.10	39148.8009	3	3873	4.205	0.659	-0.044	-0.161	0.188	11111	1.09	39154.7898	3
3572	4.487	0.139	0.087	0.075	-0.013	11111	1.07	39178.7508	1	3873	4.183	0.649	-0.011	-0.146	0.163	11111	1.01	39178.8033	1
3576	7.468	1.585	0.612	0.670	0.491	11111	1.23	39148.8187	3	3881	5.979	0.473	-0.111	-0.358	0.064	11111	1.07	39154.8002	3
3576	7.392	1.568	0.625	0.669	0.439	11111	1.23	39178.7601	1	3881	5.953	0.455	-0.091	-0.344	0.041	11111	1.04	39199.7143	3
3579	4.618	0.305	-0.109	-0.322	0.007	11111	1.02	39148.8290	3	3888	4.198	0.204	-0.071	-0.113	0.052	11111	1.15	39154.8094	3
3579	4.597	0.316	-0.115	-0.336	0.002	11111	1.02	39178.7696	1	3888	4.111	0.176	-0.030	-0.072	0.020	11111	1.12	39199.7243	3
3594	3.547	-0.028	0.006			11100	1.04	38839.6699	3	3894	4.642	0.033	0.060	0.095	-0.031	11111	1.10	39154.8192	3
3594	3.608	-0.003	-0.013	0.067	-0.038	11111	1.04	39171.7749	1	3894	4.614	0.029	0.101	0.088	-0.038	11111	1.08	39199.7341	3
3594	3.547	-0.021	-0.045	0.077	-0.036	11111	1.04	39206.7066	3	3903	5.534	0.795	0.115	-0.017	0.127	11111	1.47	39154.8551	3
3612	6.187	0.889	-0.280			11000	1.01	39752.9448	3	3903	5.572	0.802	0.130	-0.023	0.111	11111	1.47	39199.7494	3
3612	6.220	0.901	0.139	0.012	0.153	11111	1.01	39171.7867	1	3905	5.971	1.263	0.502	0.431	0.152	11111	1.01	39154.8647	3
3612	6.143	0.903	0.123	0.038	0.181	11111	1.02	39206.7166	3	3905	5.982	1.315	0.528	0.425	0.152	11111	1.01	39199.7591	3
3616	5.525	0.374	-0.156	-0.405	0.034	11111	1.22	39139.8613	3	3950	7.513	1.691	0.721	0.709	0.432	11111	1.10	39154.8739	3
3616	5.509	0.331	-0.129	-0.367	-0.002	11111	1.22	39171.7995	1	3950	7.509	1.685	0.660	0.629	0.413	11111	1.11	39199.7684	3
3616	5.478	0.347	-0.173	-0.398	0.036	11111	1.23	39206.7275	3	3970	4.391	-0.112	-0.165			11100	1.42	38869.6480	1
3619	4.902	0.257	-0.009			11100	1.06	38839.6794	3	3970	4.440	-0.091	-0.140	-0.262	-0.112	11111	1.42	39138.9175	3
3619	4.885	0.248	0.010	-0.118	-0.006	11100	1.06	39172.7875	3	3970	4.425	-0.085	-0.140	-0.273	-0.119	11111	1.42	39206.7380	3
3624	5.224	0.304	-0.021	-0.099	-0.005	11111	1.17	39139.8714	3	3974	4.797	0.182	-0.024			11100	1.00	38752.9785	3
3624	5.166	0.294	-0.025	-0.140	0.024	11111	1.17	39172.7986	3	3974	4.838	0.194	0.030			11100	1.00	38791.8553	1
3624	5.252	0.316	-0.033	-0.132	0.017	11111	1.18	39229.6545	3	3974	4.711	0.172	-0.037	-0.088	-0.033	11111	1.01	39206.7474	3
3662	5.095	0.163	0.028			11100	1.08	38839.6915	3	3975	3.444	-0.099	-0.319			11100	1.04	38786.8882	1
3662	5.089	0.170	0.005	-0.080	-0.012	11111	1.08	39173.7855	3	3975	3.473	-0.117	-0.283			11100	1.07	38791.9091	1
3662	5.113	0.174	0.033	-0.087	-0.005	11111	1.09	39229.6687	3	3975	3.433	-0.065	-0.327	-0.173	-0.016	11111	1.04	39227.6824	3
3665	3.854	-0.019	-0.020	-0.155	-0.075	11111	1.15	39139.8827	3	3980	6.892	1.539	0.628			11100	1.08	38839.7296	3
3665	3.820	-0.011	-0.044	-0.170	-0.092	11111	1.16	39173.7946	3	3980	6.900	1.530	0.598			11100	1.08	38869.6644	1
3690	3.975	0.099	0.051	-0.023	-0.024	11111	1.01	39139.8922	3	3980	6.860	1.549	0.639	0.505	0.329	11111	1.10	39227.7013	3
3690	3.922	0.084	0.025	-0.029	-0.042	11111	1.01	39173.8040	3	3981	4.442	-0.037	-0.052			11100	1.19	38752.9909	3
3705	5.895	1.667	0.650	0.533	0.419	11111	1.01	39139.9013	3	3981	4.426	-0.034	-0.065			11100	1.21	38789.8402	1
3705	5.867	1.683	0.634	0.529	0.422	11111	1.00	39174.7864	3	3981	4.425	-0.034	-0.051	-0.017	-0.068	11111	1.18	39238.6432	1
3706	6.200	0.791	0.110	-0.037	0.132	11111	1.43	39139.9150	3	3982	1.180	-0.131	-0.205			11100	1.07	38839.7402	3
3706	6.190	0.800	0.095	-0.057	0.155	11111	1.40	39174.7960	3	3982	1.244	-0.084	-0.248	-0.422	-0.100	11111	1.07	39138.9279	3
3709	6.249	0.781	0.132	-0.027	0.112	01111	1.50	39150.7810	3	3982	1.228	-0.100	-0.263	-0.428	-0.107	11111	1.07	39238.6524	1
3709	6.205	0.802	0.108	-0.034	0.145	11111	1.35	39174.8054	3	3994	5.176	0.938	0.255			11100	1.43	38869.6816	1
3731	6.573	1.230	0.450	0.282	0.249	01111	1.06	39150.7939	3	3994	5.213	0.923	0.294	0.162	0.115	11111	1.41	39138.9367	3
3731	6.461	1.239	0.456	0.315	0.151	11111	1.02	39174.8143	3	3994	5.269	0.938	0.317	0.212	0.091	11111	1.42	39240.6603	3
3748	4.546	1.510	0.613	0.463	0.306	01111	1.40	39150.8061	3	4031	3.864	0.204	-0.029			11100	1.01	38839.7494	3
3748	4.501	1.525	0.608	0.472	0.278	11111	1.34	39175.7640	3	4031	3.904	0.223	-0.061	0.019	0.060	11111	1.02	39240.6713	3
3751	6.815	1.534	0.565	0.458	0.338	01111	1.53	39150.8192	3	4033	3.460	0.048	0.064	0.041	-0.004	11111	1.01	38871.6529	1
3751	6.854	1.571	0.570	0.491	0.301	11111	1.53	39175.7849	3	4033	3.502	0.059	0.066	0.041	-0.004	11111	1.03	39139.9512	3
3751	6.847	1.553	0.559	0.491	0.257	11111	1.53	39202.7321	3	4039	6.478	0.382	-0.239	-0.425	0.117	11111	1.16	39254.6980	1
3757	4.202	0.245	-0.087	-0.165	0.056	01111	1.17	39150.8294	3	4039	6.459	0.323	-0.208	-0.487	0.025	11111	1.06	39258.6508	3
3757	4.152	0.257	-0.081	-0.173	0.047	01111	1.16	39175.7964	3	4054	5.414	0.305	-0.128			11100	1.04	38839.7712	3
3757	4.116	0.239	-0.053	-0.145	0.036	01111	1.17	39202.7472	3	4054	5.406	0.328	-0.139	-0.361	-0.006	11111	1.05	39139.9608	3
3759	5.201	0.283	-0.136	-0.368	0.006	11111	1.39	39151.7942	3	4057	3.810	1.003	0.246			11100	1.03	38839.7586	3
3759	5.260	0.317	-0.163	-0.405	0.026	11111	1.33	39175.8061	3	4057	3.798	1.015	0.255	0.086	0.236	11111	1.06	39139.9694	3
3771	5.704	0.581	-0.028	-0.261	0.121	11111	1.31	39151.7846	3	4057	3.828	1.028	0.273	0.090	0.222	11111	1.03	39202.7591	3
3771	5.663	0.601	-0.023	-0.255	0.126	11111	1.26	39176.7962	3	4069	5.812	1.660	0.610			11100	1.01	38866.6636	1
3771	5.691	0.607	-0.013	-0.254	0.118	11111	1.31	39246.6686	1	4069	5.787	1.624	0.583	0.506	0.365	11111	1.01	39140.9207	3
3773	7.057	1.673	0.674	0.586	0.372	11111	1.07	39151.8623	3	4069	5.804	1.672	0.598	0.489	0.394	11111	1.02	39202.7688	3
3773	7.063	1.696	0.687	0.587	0.408	11111	1.02	39176.8065	3	4072	4.906	-0.057	-0.095			11100	1.20	38866.6862	1
3775	3.918	0.327	-0.183	-0.389	0.045	11111	1.06	39151.8623	3	4072	4.919	-0.027	-0.078	-0.157	-0.066	11111	1.20	39140.9307	3
3775	3.784	0.312	-0.186	-0.379	0.009	11111	1.06	39197.7280	3	4072	4.884	-0.010	0.000	-0.172	-0.047	11011	1.20	39202.7791	3
3787	4.736	0.073	-0.022			11100	1.20	38751.9485	3	4090	5.067	0.206	0.010			11100	1.00	38871.6659	1
3787	4.674	0.054	0.060			11100	1.21	38789.8280	1	4090	5.130	0.200	0.0						

TABLE 7 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 40

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B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS	B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS
4163	11.184	3.867	0.000	0.000	0.000	11000	1.43	38874.6720	3	4456	5.700	-0.139	-0.388	-0.825	-0.145	11111	1.05	38878.7150	1
4163	10.957	3.850	2.264	2.310	-1.385	11111	1.45	39173.8642	3	4456	5.694	-0.142	-0.388	-0.808	-0.158	11111	1.04	38887.6608	3
4163	10.935	3.834	2.511	1.889	-0.691	11111	1.73	39175.9237	3	4456	5.702	-0.128	-0.390	-0.830	-0.138	11111	1.05	38888.6394	3
4166	5.890	0.656	0.006	-0.086	0.165	11111	1.01	38877.6753	3	4456	5.662	-0.148	-0.385	-0.825	-0.148	11111	1.05	38889.6286	3
4166	5.911	0.682	-0.005	-0.097	0.149	11111	1.01	39173.8737	3	4456	5.688	-0.144	-0.395	-0.814	-0.148	11111	1.05	38890.6261	3
4232	5.171	1.217	0.455	0.307	0.232	11111	1.53	38877.6890	3	4456	5.710	-0.125	-0.374	-0.816	-0.138	11111	1.04	38894.6331	3
4232	5.140	1.200	0.465	0.335	0.204	11111	1.58	39173.8929	3	4456	5.699	-0.136	-0.392	-0.831	-0.143	11111	1.04	38896.6407	3
4247	5.441	0.948	0.291	0.118	0.138	11111	1.02	38877.7025	3	4456	5.663	-0.138	-0.386	-0.828	-0.151	11111	1.04	38898.6312	3
4247	5.489	0.860	0.283	0.107	0.161	11111	1.00	39175.6483	3	4456	5.685	-0.129	-0.393	-0.842	-0.135	11111	1.08	38916.6364	3
4247	5.454	0.947	0.294	0.114	0.143	11111	1.07	39270.6548	3	4456	5.700	-0.137	-0.387	-0.812	-0.149	11111	1.36	38933.6610	3
4248	4.621	-0.020	0.013	-0.069	-0.062	11111	1.04	38887.6731	3	4456	5.692	-0.139	-0.399	-0.821	-0.147	11111	3.08	38933.7552	3
4248	4.633	-0.038	0.018	-0.038	-0.064	11111	1.02	39175.8574	3	4456	6.051	-0.144	-0.377	-0.801	-0.181	01111	1.04	39135.9757	1
4259	4.341	0.015	-0.016			11100	1.02	38787.8837	1	4456	5.708	-0.131	-0.371	-0.804	-0.160	11111	1.05	39138.9975	3
4259	4.349	0.010	0.020			11100	1.02	38791.9304	1	4456	5.700	-0.126	-0.389	-0.802	-0.175	11111	1.08	39139.9254	3
4287	5.814	0.999	0.314	0.196	0.132	11111	1.66	38887.6858	3	4456	5.739	-0.121	-0.431	-0.833	-0.158	01111	1.93	39150.7675	3
4287	5.832	1.025	0.313	0.172	0.153	11111	1.58	39175.8662	3	4456	5.790	-0.134	-0.400	-0.810	-0.151	01111	1.04	39150.9409	3
4295	2.339	0.001	0.066	0.004	-0.060	11000	1.13	38887.6985	3	4456	5.701	-0.132	-0.386	-0.814	-0.150	11111	1.05	39172.8519	3
4295	2.340	0.025	0.044	0.009	-0.061	11111	1.12	39175.9005	3	4456	5.690	-0.137	-0.390	-0.825	-0.140	11111	1.05	39184.8282	1
4299	7.591	1.716	0.660	0.618	0.416	11111	1.44	38887.7203	3	4456	5.670	-0.151	-0.382	-0.815	-0.146	11111	1.04	39201.8154	1
4299	7.569	1.747	0.708	0.615	0.411	11111	1.31	39175.9109	3	4456	5.723	-0.126	-0.397	-0.829	-0.150	11111	1.04	39202.8000	3
4299	7.537	1.711	0.683	0.633	0.397	11111	1.37	39270.6677	3	4456	5.665	-0.130	-0.403	-0.822	-0.152	11111	1.13	39227.6604	3
4300	4.511	0.065	0.111	0.010	-0.056	11111	1.02	38872.6800	3	4456	5.685	-0.134	-0.410	-0.827	-0.148	11111	2.28	39227.9262	3
4300	4.841	0.073	0.086	-0.022	-0.034	01111	1.03	39135.9868	1	4456	5.683	-0.140	-0.398	-0.821	-0.152	11111	1.04	39240.7028	3
4300	4.526	0.099	0.068	-0.049	-0.051	11111	1.02	39202.7884	3	4456	5.667	-0.149	-0.418	-0.852	-0.149	11111	2.76	39240.9066	3
4301	3.499	0.951	0.268	0.168	0.147	11111	1.15	38887.6941	3	4456	5.688	-0.133	-0.390	-0.808	-0.165	11111	1.04	39243.6758	3
4301	3.524	0.931	0.240	0.119	0.132	11111	1.15	39138.9672	3	4456	5.723	-0.126	-0.400	-0.825	-0.111	11111	1.07	39246.7260	1
4301	3.453	0.962	0.247	0.116	0.140	11111	1.15	39206.7760	3	4456	5.672	-0.161	-0.406	-0.821	-0.157	11111	1.04	39247.6956	1
4310	4.986	0.224	-0.075			11100	1.11	38786.9049	1	4456	5.689	-0.143	-0.375	-0.835	-0.157	11111	1.04	39249.6848	1
4310	5.092	0.241	-0.093			11100	1.11	38787.9000	1	4456	5.677	-0.141	-0.404	-0.818	-0.152	11111	1.04	39251.6843	1
4310	5.113	0.255	-0.079			11100	1.13	38791.9412	1	4456	5.706	-0.081	-0.414	-0.857	-0.181	11111	1.15	39254.7381	1
4310	5.062	0.243	-0.046	-0.184	0.015	11111	1.11	39206.7854	3	4456	5.687	-0.137	-0.387	-0.813	-0.148	11111	1.04	39257.6362	3
4335	4.899	1.084	0.381	0.248	0.170	11111	1.03	38887.7089	3	4456	5.708	-0.123	-0.402	-0.838	-0.155	11111	2.91	39257.8639	3
4335	4.913	1.092	0.373	0.227	0.173	11111	1.03	39138.9782	3	4456	5.672	-0.126	-0.394	-0.818	-0.160	11111	1.04	39258.6324	3
4335	4.842	1.096	0.384	0.226	0.183	11111	1.03	39206.7958	3	4456	5.689	-0.139	-0.402	-0.826	-0.145	11111	3.36	39258.8704	3
4357	2.770	0.121	0.084	0.037	-0.019	11111	1.06	38887.7370	3	4456	5.691	-0.143	-0.399	-0.823	-0.154	11111	1.04	39270.6281	3
4357	2.773	0.136	0.053	0.004	0.005	11111	1.03	39138.9875	3	4456	5.702	-0.130	-0.398	-0.816	-0.166	11111	1.04	39272.6506	3
4357	2.734	0.124	0.067	0.024	-0.025	11111	1.02	39227.7265	3	4456	5.683	-0.143	-0.383	-0.816	-0.149	11111	1.05	39274.6280	3
4359	3.346	0.009	0.065	0.078	-0.041	11111	1.11	38887.7492	3	4456	5.683	-0.140	-0.392	-0.814	-0.154	11111	1.06	39278.6299	1
4359	3.317	0.010	0.038	0.066	-0.027	11111	1.04	39147.9323	3	4456	5.662	-0.136	-0.394	-0.814	-0.152	11111	1.08	39280.6372	3
4359	3.314	0.016	0.045	0.049	-0.044	11111	1.05	39227.7368	3	4456	5.711	-0.116	-0.419	-0.821	-0.133	11111	2.39	39280.7855	3
4362	7.429	1.626	0.615	0.658	0.470	11111	1.11	38887.7675	3	4456	5.652	-0.151	-0.390	-0.817	-0.154	11111	1.06	39286.6269	1
4362	7.345	1.552	0.587	0.652	0.415	11111	1.01	39147.9459	3	4456	5.632	-0.126	-0.394	-0.818	-0.160	11111	2.35	39268.8170	3
4362	7.387	1.575	0.582	0.603	0.384	11111	1.02	39227.7468	3	4456	5.687	-0.134	-0.412	-0.822	-0.155	11111	1.04	39269.6243	3
4368	4.777	0.159	-0.020			11100	1.32	38789.8635	1	4456	5.699	-0.142	-0.398	-0.809	-0.179	11111	2.25	39269.8103	3
4368	4.711	0.146	0.009	0.052	0.007	11111	1.23	39148.9386	3	4456	6.051	-0.143	-0.399	-0.809	-0.179	11111	2.08	39482.8506	3
4368	4.757	0.138	0.033	0.075	0.036	11111	1.23	39240.6839	3	4456	5.742	-0.134	-0.402	-0.820	-0.143	11111	1.05	39508.9932	1
4371	7.782	1.606	0.664	0.589	0.388	11111	1.16	38887.6855	3	4456	5.654	-0.154	-0.364	-0.817	-0.166	11111	1.35	38889.6517	3
4371	7.675	1.612	0.687	0.599	0.386	01111	1.16	39150.9129	3	4456	5.654	-0.145	-0.383	-0.816	-0.149	11111	1.36	39174.8571	3
4374	4.566	0.406	-0.175	-0.492	0.032	11111	1.00	38887.6700	1	4456	5.713	0.1561	0.582	0.116	1.12	38866.7525	1		
4374	4.672	0.396	-0.174	-0.476	0.056	01111	1.00	39150.9226	3	4456	5.658	0.1583	0.613	0.545	0.542	11111	1.12	39174.9025	3
4377	5.842	1.399	0.499	0.378	0.277	11111	1.00	38875.6821	1	4456	5.584	1.109	0.366	0.228	0.218	11111	1.04	38889.6797	3
4377	5.936	1.395	0.492	0.368	0.309	01111	1.00	39150.9318	3	4456	5.627	1.092	0.374	0.223	0.243	11111	1.04	39154.9559	3
4380	4.903	0.106	0.078	-0.066	-0.044	11111	1.01	38875.6953	1	4456	5.257	0.387	0.058	-0.030	0.029	11111	1.03	38889.6919	3
4380	4.984	0.108	0.054	-0.066	-0.045	11111	1.01	39151.9121	3	4456	5.235	0.406	0.069	-0.092	0.078	11111	1.03	39174.9113	3
4382	5.357	1.003	0.273	0.133	0.207	11111	1.47	38888.6633	3	4456	5.302	0.402	0.057	-0.074	0.044	11111	1.02	39178.6824	1
4382	5.337	0.971	0.281	0.131	0.237	11111	1.47	39151.9240	3	4456	5.296	0.108	0.064			11100	1.11	38786.8940	1
4386	3.905	-0.071	-0.035			11100	1.12	38786.9159	1	4456	5.270	0.101	0.083			11100	1.17	3878	

TABLE 7 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 40

B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS	B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS
4550	7.492	0.553	-0.093	-0.469	0.114	11111	1.01	38894.6651	3	4789	4.777	0.007	0.026	-0.002	-0.056	11111	1.03	38890.6706	3
4550	7.509	0.556	-0.092	-0.470	0.083	11111	1.00	38896.6535	3	4789	4.749	-0.026	0.050	0.025	-0.069	11111	1.02	39150.9962	3
4550	7.481	0.549	-0.107	-0.485	0.083	11111	1.01	38898.6429	3	4789	4.766	0.022	0.026	-0.012	-0.054	11111	1.02	39201.8561	1
4550	7.498	0.548	-0.098	-0.460	0.082	11111	1.04	38916.6500	3	4813	6.731	1.262	0.497	0.432	0.154	11111	1.32	38890.6807	3
4550	7.492	0.548	-0.108	-0.488	0.089	11111	1.24	38933.6748	3	4813	6.687	1.258	0.498	0.444	0.182	11111	1.31	39154.9822	3
4550	7.492	0.555	-0.075	-0.477	0.072	11111	2.12	38933.7667	3	4813	6.723	1.246	0.529	0.455	0.159	11111	1.32	39227.7574	3
4550	7.398	0.542	-0.060	-0.450	0.083	01111	2.32	39150.7304	3	4825	3.273	0.276	-0.204			11100	1.23	38786.9517	1
4550	7.574	0.539	-0.111	-0.480	0.129	01111	1.01	39150.9516	3	4825	3.212	0.259	-0.166			11100	1.21	38787.9691	1
4550	7.490	0.551	-0.105	-0.498	0.114	11111	1.02	39172.8625	3	4825	3.237	0.234	-0.130			11100	1.21	38789.9993	1
4550	7.520	0.559	-0.107	-0.485	0.103	11111	1.05	39173.9725	3	4825	3.338	0.255	-0.176			11100	1.20	38791.9721	1
4550	7.571	0.559	-0.105	-0.508	0.121	11111	1.15	39174.9897	3	4828	4.977	0.088	0.082	-0.037	-0.054	11111	1.08	38890.6911	3
4550	7.485	0.553	-0.081	-0.483	0.116	11111	1.03	39175.9336	3	4828	4.990	0.076	0.093	-0.024	-0.061	11111	1.08	39172.9240	3
4550	7.519	0.540	-0.103	-0.473	0.079	11111	1.08	39176.9592	3	4828	5.004	0.107	0.055	-0.049	-0.057	11111	1.08	39227.7673	3
4550	7.519	0.556	-0.113	-0.506	0.106	11111	1.01	39178.8919	1	4845	6.669	0.402	-0.164	-0.516	0.035	11111	1.01	39254.7095	1
4550	7.500	0.540	-0.083	-0.482	0.103	11111	1.01	39184.8371	1	4845	6.702	0.380	-0.225	-0.530	0.045	11111	1.03	39258.6602	3
4550	7.469	0.544	-0.102	-0.487	0.101	11111	1.01	39201.8522	1	4846	12.258	4.886	0.000	0.000	0.000	11000	1.03	38890.7053	3
4550	7.512	0.553	-0.100	-0.473	0.088	11111	1.01	39202.8190	3	4846	12.864	4.889	0.000	1.603	-2.399	11011	1.03	39172.9407	3
4550	7.495	0.562	-0.119	-0.499	0.094	11111	1.02	39227.7149	3	4846	12.805	4.831	0.000	0.733	-0.948	11011	1.03	39176.9104	3
4550	7.468	0.536	-0.093	-0.468	0.095	11111	2.27	39227.9690	3	4846	12.263	4.810	3.465	1.253	-1.303	11111	1.03	39249.7411	1
4550	7.487	0.550	-0.110	-0.484	0.078	11111	1.00	39240.7133	3	4846	12.369	4.891	2.911	1.278	-1.123	11111	1.04	39270.6919	3
4550	7.488	0.543	-0.103	-0.495	0.087	11111	1.01	39243.6850	3	4883	5.855	0.466	-0.135	-0.296	0.066	11111	1.02	38890.7433	3
4550	7.467	0.547	-0.108	-0.493	0.062	11111	1.01	39247.7082	1	4883	5.879	0.392	0.124	-0.309	0.083	11111	1.01	39172.9525	3
4550	7.493	0.564	-0.115	-0.509	0.101	11111	1.08	39249.7601	1	4883	5.915	0.496	-0.146	-0.345	0.120	11111	1.00	39178.9256	1
4550	7.451	0.546	-0.083	-0.453	0.013	11111	1.12	39251.7708	1	4902	7.371	1.460	0.417	0.363	0.273	11111	1.39	38890.7533	3
4550	7.493	0.559	-0.116	-0.489	0.068	11111	1.01	39257.6452	3	4902	7.389	1.523	0.454	0.396	0.270	11111	1.35	39173.9152	3
4550	7.490	0.526	-0.070	-0.473	0.097	11111	2.20	39257.6836	3	4902	7.347	1.487	0.437	0.367	0.285	11111	1.35	39229.7615	3
4550	7.466	0.547	-0.099	-0.472	0.100	11111	1.01	39258.6408	3	4905	1.735	-0.001	0.024	0.072	-0.042	11111	1.13	38890.7652	3
4550	7.490	0.551	-0.071	-0.481	0.095	11111	2.69	39258.9010	3	4905	1.727	0.015	-0.008	0.061	-0.037	11111	1.09	39173.9247	3
4550	7.500	0.560	-0.105	-0.485	0.070	11111	1.00	39268.6371	3	4905	1.752	0.005	0.002	0.048	-0.013	11111	1.09	39229.7971	3
4550	7.500	0.564	-0.106	-0.502	0.104	11111	2.31	39268.8589	3	4914	6.025	0.218	-0.089	-0.302	-0.025	11111	1.01	38890.6783	3
4550	7.496	0.549	-0.109	-0.482	0.089	11111	1.00	39269.6433	3	4914	6.010	0.225	-0.131	-0.361	0.012	11111	1.01	39174.9433	3
4550	7.480	0.540	-0.078	-0.476	0.061	11111	2.15	39269.8484	3	4915	2.791	-0.047	-0.201	-0.420	-0.079	11111	1.01	38894.6921	3
4550	7.495	0.558	-0.101	-0.487	0.071	11111	1.01	39270.6402	3	4915	3.032	0.011	-0.266	-0.479	-0.061	11111	1.02	39174.9612	3
4550	7.495	0.547	-0.098	-0.476	0.083	11111	1.03	39272.6640	3	4920	7.538	1.723	0.698	0.594	0.453	11111	1.03	38894.7038	3
4550	7.480	0.537	-0.086	-0.471	0.084	11111	1.01	39274.6375	3	4920	7.496	1.694	0.680	0.597	0.384	11111	1.07	39174.9792	3
4550	7.471	0.543	-0.078	-0.460	0.078	11111	1.04	39278.6603	1	4920	7.526	1.695	0.699	0.605	0.391	11111	1.03	39227.7906	3
4550	7.473	0.546	-0.097	-0.483	0.102	11111	1.03	39280.6646	3	4931	5.449	0.272	-0.127	-0.292	0.008	11111	1.10	38894.7163	3
4550	7.499	0.541	-0.089	-0.458	0.074	11111	2.14	39280.8177	3	4931	5.411	0.238	-0.096	-0.285	-0.002	11111	1.10	39154.9938	3
4550	7.463	0.534	-0.085	-0.471	0.082	11111	1.03	39281.6414	3	4931	5.411	0.251	-0.086	-0.287	0.019	11111	1.10	39184.9111	1
4550	7.531	0.559	-0.094	-0.470	0.088	11111	1.65	39482.8649	3	4932	4.265	0.792	0.155			11100	1.08	38839.8682	3
4550	7.539	0.561	-0.108	-0.493	0.101	11111	1.04	39509.0249	1	4932	4.297	0.816	0.146	0.012	0.131	11111	1.07	38896.7004	3
4554	2.430	0.025	0.060	0.026	-0.045	11111	1.13	38888.7400	3	4932	4.280	0.794	0.174	0.029	0.107	11111	1.07	39199.8806	3
4554	2.398	0.032	0.026	-0.003	-0.044	11111	1.08	39174.9204	3	4934	5.988	0.186	-0.183	-0.397	0.100	11111	1.01	39240.7362	3
4589	4.850	0.062	0.105			11100	1.11	38789.8663	1	4935	2.791	-0.047	-0.201	-0.420	-0.079	11111	1.01	38894.6921	3
4589	4.815	0.078	0.084	0.131	-0.005	11111	1.11	39154.9657	3	4935	3.032	0.011	-0.266	-0.479	-0.061	11111	1.02	39174.9612	3
4608	5.584	0.832	0.056			11100	1.09	38865.7372	1	4935	2.930	-0.062	-0.265	-0.544	0.071	11111	1.01	39240.7568	3
4608	5.628	0.828	0.075	-0.144	0.146	11111	1.09	38896.6755	3	4936	7.538	1.723	0.698	0.594	0.453	11111	1.03	38894.7038	3
4608	5.621	0.824	0.073	-0.138	0.141	11111	1.09	39184.8798	1	4936	7.496	1.694	0.680	0.597	0.384	11111	1.07	39174.9792	3
4660	3.413	0.092	0.077			11100	1.10	38865.7473	1	4936	7.526	1.695	0.699	0.605	0.391	11111	1.03	39227.7906	3
4660	3.483	0.099	0.078	0.007	-0.047	11111	1.11	38869.6880	3	4937	5.449	0.272	-0.127	-0.292	0.008	11111	1.10	38894.7163	3
4660	3.426	0.105	0.065	-0.003	-0.011	11111	1.10	39184.8898	1	4937	5.411	0.238	-0.096	-0.285	-0.002	11111	1.10	39154.9938	3
4662	2.387	-0.118	-0.251			11100	1.57	38869.7160	1	4937	5.411	0.251	-0.086	-0.287	0.019	11111	1.10	39154.9938	3
4662	2.372	-0.113	-0.219	-0.402	-0.081	11111	1.52	38898.6556	3	4937	5.400	0.279	0.149	0.041	-0.031	11111	1.07	39199.8806	3
4662	2.466	-0.100	-0.239	-0.424	-0.097	11111	1.55	39199.0248	3	4938	5.039	0.406	-0.186			11100	1.00	38869.7757	1
4689	3.894	0.024	0.099			11100	1.20	38786.9394	1	4938	5.029	0.387	-0.104	-0.384	0.001	11111	1.00	39151.0067	3
4689	3.893	0.010	0.093			11100	1.20	38787.9358	1	4938	5.014	0.396	-0.128	-0.405	0.003	11111	1.00	39201.8660	1
4689	3.936	0.051	0.085			11100	1.19	38789.9855	1	4938	5.000	0.403	-0.133	-0.443	0.006	11111	1.01	39251.7570	1
4695</td																			

TABLE 7 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 40

B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS	B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS
5095	7.527	1.738	0.646			11100	1.28	38869.8052	1	5351	4.321	0.090	0.074	-0.029	-0.049	11111	1.05	38874.8487	3
5095	7.494	1.678	0.667	0.661	0.437	11111	1.28	39175.9444	3	5351	4.316	0.122	0.053	-0.040	-0.056	11111	1.03	38924.6845	3
5095	7.619	1.684	0.665	0.689	0.467	11111	1.29	39202.9068	3	5351	4.220	0.075	0.053	-0.029	-0.046	11111	1.03	39206.9006	3
5105	4.915	0.022	0.032			11100	1.17	38786.9866	1	5359	4.727	0.146	0.078	0.020	-0.019	11111	1.43	38887.7812	3
5105	4.950	0.037	0.030			11100	1.17	38787.9795	1	5359	4.677	0.122	0.098	-0.004	-0.006	11111	1.44	38925.6520	3
5105	4.941	0.075	0.045	-0.112	-0.009	11111	1.14	39206.8561	3	5359	4.675	0.117	0.049	-0.021	-0.001	11111	1.43	39206.9113	3
5107	3.412	0.088	0.076			11100	1.19	38786.9975	1	5361	6.469	0.958	0.275	0.114	0.135	11111	1.01	38887.7934	3
5107	3.587	0.088	0.133			11100	1.20	38787.9887	1	5361	6.463	0.960	0.269	0.112	0.127	11111	1.01	38924.6951	3
5107	3.513	0.098	0.034	-0.030	-0.026	11111	1.18	39206.8726	3	5361	6.421	0.967	0.237	0.082	0.170	11111	1.01	39206.9129	3
5110	5.496	0.250	-0.084	-0.204	0.032	11111	1.00	38887.7441	3	5370	6.880	1.245	0.514	0.395	0.140	11111	1.04	38925.6624	3
5110	5.502	0.239	-0.077	-0.209	0.046	11111	1.00	39175.9631	3	5370	6.881	1.249	0.506	0.410	0.143	11111	1.04	39227.8503	3
5110	5.462	0.249	-0.118	-0.234	0.051	11111	1.00	39206.8816	3	5370	6.890	1.244	0.511	0.416	0.137	11111	1.05	39227.7034	3
5112	4.819	0.086	0.027			11100	1.05	38870.8035	1	5384	7.111	0.433	-0.129	-0.450	0.034	11111	1.17	39258.7569	3
5112	4.863	0.117	0.072	0.055	0.000	11111	1.04	39175.9540	3	5384	7.123	0.454	-0.162	-0.474	0.050	11111	1.30	39269.6631	3
5112	4.853	0.127	0.073	0.036	0.005	11111	1.05	39268.6807	3	5404	4.734	0.342	-0.178	-0.428	0.050	11111	1.06	38888.7796	3
5127	5.082	0.155	-0.028			11100	1.00	38871.8032	1	5404	4.714	0.350	-0.154	-0.404	0.016	11111	1.06	38925.6728	3
5127	5.045	0.175	-0.007	-0.044	0.021	11111	1.00	39175.9726	3	5404	4.742	0.345	-0.169	-0.422	0.032	11111	1.06	39227.8606	3
5127	5.055	0.154	-0.030	-0.075	0.025	11111	1.01	39206.8905	3	5409	5.795	0.497	-0.098	-0.317	0.071	11111	1.21	38888.7910	3
5154	7.528	1.721	0.665	0.620	0.498	11111	1.08	38887.7558	3	5409	5.732	0.479	-0.086	-0.290	0.067	11111	1.21	38925.6856	3
5154	7.462	1.670	0.658	0.615	0.404	11111	1.09	39175.9887	3	5409	5.702	0.497	-0.117	-0.303	0.050	11111	1.23	39227.8798	3
5154	7.460	1.678	0.673	0.626	0.418	11111	1.08	39268.6931	3	5429	5.764	1.292	0.527			11100	1.00	38839.9019	3
5185	5.144	0.345	-0.145	-0.379	0.019	11111	1.03	38888.7549	3	5429	5.740	1.290	0.553	0.443	0.192	11111	1.00	38926.6661	3
5185	5.150	0.332	-0.133	-0.371	0.030	11111	1.05	39175.9973	3	5429	5.723	1.289	0.553	0.392	0.237	11111	1.00	39240.8291	3
5185	5.163	0.355	-0.150	-0.395	0.045	11111	1.04	39268.7040	3	5430	6.672	1.477	0.614	0.480	0.298	11111	1.39	38888.8290	3
5191	1.604	-0.141	-0.395	-0.829	-0.162	11111	1.05	38888.7665	3	5430	6.694	1.497	0.609	0.497	0.282	11111	1.38	38926.6546	3
5191	1.594	-0.156	-0.400	-0.831	-0.136	11111	1.05	39155.0326	3	5430	6.706	1.506	0.628	0.487	0.303	11111	1.38	39257.7551	3
5191	1.606	-0.133	-0.388	-0.811	-0.160	11111	1.06	39269.6775	3	5435	3.343	0.165	0.043			11100	1.01	38839.9115	3
5200	6.696	1.658	0.652	0.561	0.376	11111	1.05	38889.7394	3	5435	3.326	0.151	0.065	0.030	-0.024	11111	1.01	38926.6785	3
5200	6.725	1.661	0.671	0.578	0.396	11111	1.07	39176.0054	3	5435	3.284	0.148	0.056	0.024	0.001	11111	1.01	39268.7396	3
5200	6.696	1.656	0.660	0.573	0.380	11111	1.05	39269.6868	3	5447	4.963	0.213	-0.181			11100	1.00	38839.9201	3
5219	7.542	1.684	0.651	0.694	0.495	11111	1.00	38889.7509	3	5447	4.940	0.243	-0.173	-0.396	-0.022	11111	1.00	38928.6726	3
5219	7.608	1.630	0.691	0.715	0.502	11111	1.03	39176.0141	3	5447	4.929	0.194	-0.167	-0.415	0.001	11111	1.00	39240.8385	3
5219	7.569	1.638	0.638	0.685	0.535	11111	1.00	39269.6966	3	5447	4.404	-0.038	-0.223			11100	1.04	38870.8316	1
5226	7.254	1.528	0.608	0.659	0.513	11111	1.19	38889.7623	3	5475	4.485	-0.020	-0.191	-0.428	-0.090	11111	1.04	38928.6826	3
5226	7.191	1.531	0.681	0.719	0.496	11111	1.21	39176.0239	3	5475	4.470	-0.016	-0.190	-0.422	-0.097	11111	1.04	39268.7503	3
5226	7.228	1.515	0.637	0.638	0.527	11111	1.19	39258.7140	3	5477	3.870	0.059	0.066			11100	1.06	38869.8388	1
5235	3.486	0.470	-0.095			11100	1.10	38786.9748	1	5477	3.853	0.080	0.072	0.018	-0.055	11111	1.06	38928.6931	3
5235	3.513	0.479	-0.064			11100	1.17	38787.9468	1	5487	4.358	0.228	-0.153			11100	1.36	38788.0114	1
5235	3.512	0.454	-0.077			11100	1.30	38789.9140	1	5487	4.386	0.250	-0.148	-0.343	0.012	11111	1.28	38929.6557	3
5235	3.525	0.466	-0.088			11100	1.06	38791.9816	1	5490	7.653	1.706	0.607			11100	1.01	38865.8508	1
5235	3.504	0.447	-0.090			11100	1.05	38865.7877	1	5490	7.575	1.626	0.575	0.589	0.440	11111	1.01	38926.6675	3
5235	3.509	0.448	-0.093			11100	1.11	38865.8884	1	5490	7.645	1.671	0.661	0.693	0.505	11111	1.02	39172.9856	3
5235	3.474	0.454	-0.097			11100	1.27	38869.7008	1	5490	7.612	1.676	0.621	0.467	0.411	11111	1.01	39197.9240	3
5235	3.509	0.436	-0.111			11100	1.03	38869.8198	1	5490	7.598	1.658	0.587	0.589	0.471	11111	1.01	39279.7147	3
5235	3.487	0.445	-0.095			11100	1.06	38871.7615	1	5490	0.000	0.013	0.642	0.654	0.470	0.0111	1.01	39296.6657	3
5264	4.270	0.033	0.141			11100	1.19	38787.0096	1	5502	6.084	0.847	0.147			11100	1.04	38865.8591	1
5264	4.353	0.079	0.062			11100	1.20	38787.9996	1	5502	6.128	0.825	0.164	0.022	0.106	11111	1.04	39173.0046	3
5264	4.362	0.078	0.061	0.121	0.023	11111	1.16	39269.7272	3	5502	6.038	0.848	0.146	-0.006	0.143	11111	1.04	39171.9341	3
5291	3.554	-0.034	-0.050			11100	1.19	38865.7964	1	5505	3.816	0.780	0.183			11100	1.01	38865.8684	1
5291	3.525	-0.059	-0.035	-0.043	-0.056	11111	1.18	38921.6886	3	5505	3.850	0.805	0.181	0.076	0.039	11111	1.01	39172.9946	3
5291	3.572	-0.050	-0.034	-0.032	-0.052	11111	1.18	39199.9191	3	5505	3.838	0.784	0.174	0.070	0.062	11111	1.01	39176.9900	3
5299	7.592	1.213	0.542			11100	1.03	38865.8062	1	5511	3.686	-0.004	-0.011			11100	1.16	38871.8376	1
5299	7.599	1.169	0.619	0.823	0.681	11111	1.02	38922.6829	1	5511	3.745	0.004	-0.001	-0.032	-0.049	11111	1.16	39173.0130	3
5299	7.585	1.129	0.622	0.754	0.609	11111	1.02	39199.9294	3	5511	3.684	0.019	-0.032	-0.051	-0.052	11111	1.16	39197.9442	3
5304	5.502	0.338	-0.200			11100	1.01	38870.8198	1	5531	2.974	0.146	0.075	-0.017	0.003	11111	1.51	38889.7784	3
5304	5.486	0.351	-0.166	-0.380	0.039	11111	1.01	38922.6939	1	5531	2.966	0.143	0.042	-0.013	-0.002	11111	1.50	39173.0215	3
5304	5.551	0.377	-0.155	-0.373	0.041	11111	1.01	39199.9389	3	5544	5.631	0.607	-0.017	-0.359	0.050	11111	1.04	38889.8221	3
5313	4.846	-0.077	-0.242			11100	1.15	38871.8200	1	5544	5.664	0.621	-0.043	-0.361	0.036	11111	1.03	39173.9946	3
5313	4.787	-0.111	-0.283</																

TABLE 7 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 40

B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS	B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS
5602	4.993	0.835	0.101			11100	1.01	38839.9391	3	5733	4.732	0.225	-0.064	-0.187	0.010	11111	1.01	38875.8349	1
5602	4.930	0.796	0.140	0.033	0.137	11111	1.01	38925.6978	3	5733	4.732	0.223	-0.052	-0.176	0.024	11111	1.00	38928.7145	3
5616	6.564	1.235	0.436			11100	1.00	38871.8557	1	5735	3.082	0.011	-0.061			11100	1.30	38869.8564	1
5616	6.608	1.241	0.441	0.313	0.245	11111	1.00	38924.7057	3	5735	3.095	0.005	-0.036	0.294	0.008	11111	1.30	38928.7050	3
5634	5.482	0.290	-0.183			11100	1.01	38871.8692	1	5735	3.072	0.003	-0.059	0.276	0.032	11111	1.30	39257.7847	3
5634	5.522	0.299	-0.175	-0.416	0.001	11111	1.02	38925.7341	3	5744	5.228	1.142	0.397			11100	1.12	38869.8726	1
5652	4.438	-0.069	-0.237	-0.474	-0.078	11111	1.65	38874.8735	3	5744	5.214	1.136	0.449	0.327	0.165	11111	1.13	38929.6788	3
5652	4.424	-0.078	-0.214	-0.434	-0.093	11111	1.63	38926.6961	3	5747	4.085	0.259	0.007	-0.158	0.017	11111	1.00	38875.8475	1
5681	4.914	0.772	0.136	-0.031	0.173	11111	1.02	38874.8867	3	5747	4.090	0.272	0.002	-0.153	0.005	11111	1.01	38929.6891	3
5681	4.965	0.789	0.163	-0.037	0.154	11111	1.00	38926.7066	3	5763	7.822	1.658	0.597	0.493	0.445	11111	1.03	38894.7684	3
5685	2.260	-0.129	-0.256			11100	1.52	38878.0194	1	5764	5.301	-0.152	-0.487	-0.950	-0.171	11111	1.53	38875.8659	1
5685	2.393	-0.139	-0.266			11100	1.50	38788.0207	1	5764	5.278	-0.158	-0.480	-0.917	-0.189	11111	1.56	39184.9838	1
5685	2.479	-0.087	-0.254			11100	1.53	38790.0088	1	5774	5.099	0.070	0.066	0.140	0.016	11111	1.01	39185.0053	1
5685	2.435	-0.115	-0.255			11100	2.41	38839.8016	3	5777	6.180	0.912	0.257	0.061	0.157	11111	1.38	38894.7808	3
5685	2.442	-0.117	-0.240			11100	1.34	38839.9591	3	5777	6.194	0.907	0.274	0.055	0.141	11111	1.36	38929.6994	3
5685	2.490	-0.096	-0.268	-0.367	-0.105	11111	2.13	38872.7249	3	5778	3.959	-0.136	-0.319			11100	1.00	38839.9492	3
5685	2.390	-0.113	-0.285	-0.422	-0.099	11111	1.37	38872.8903	3	5778	3.945	-0.126	-0.349	-0.668	-0.113	11111	1.00	39185.0144	1
5685	2.467	-0.110	-0.254	-0.391	-0.096	11111	1.41	38874.8055	3	5780	4.973	-0.100	-0.278	-0.604	-0.128	11111	1.34	38894.8283	3
5685	2.461	-0.095	-0.259	-0.382	-0.098	11111	1.36	38875.8206	1	5780	5.016	-0.060	-0.313	-0.612	-0.152	11111	1.34	39185.0232	1
5685	2.432	-0.107	-0.266	-0.385	-0.084	11111	2.04	38877.7168	3	5787	5.415	0.859	0.161	-0.040	0.176	11111	1.47	38896.8148	3
5685	2.476	-0.099	-0.270	-0.392	-0.089	11111	1.41	38887.7696	3	5787	5.455	0.858	0.187	-0.017	0.172	11111	1.47	39199.9666	3
5685	2.440	-0.109	-0.250	-0.392	-0.089	11111	2.23	38887.9569	3	5788	4.090	0.196	-0.009	-0.065	0.011	11111	1.00	38896.8280	3
5685	2.417	-0.115	-0.271	-0.388	-0.097	11111	1.34	38888.8148	3	5788	4.142	0.204	0.008	-0.063	-0.002	11111	1.08	39199.9773	3
5685	2.431	-0.112	-0.249	-0.387	-0.088	11111	1.34	38889.8100	3	5793	2.164	-0.012	0.024	-0.031	-0.056	11111	1.02	38896.8400	3
5685	2.442	-0.113	-0.273	-0.385	-0.088	11111	1.34	38890.8202	3	5793	2.191	0.003	0.010	-0.044	-0.055	11111	1.01	39199.9862	3
5685	2.401	-0.122	-0.262	-0.377	-0.093	11111	1.35	38894.8173	3	5793	2.165	0.003	0.024	-0.013	-0.088	11111	1.01	39241.8669	3
5685	2.388	-0.115	-0.283	-0.402	-0.123	11111	2.04	38898.9165	3	5838	7.509	1.676	0.694	0.596	0.404	11111	1.82	38898.7392	3
5685	2.425	-0.101	-0.249	-0.393	-0.073	11111	1.35	38916.7175	3	5838	7.463	1.667	0.663	0.614	0.348	11111	1.62	39206.9535	3
5685	2.459	-0.101	-0.284	-0.379	-0.109	11111	2.33	38916.8827	3	5842	4.623	0.078	0.077	0.013	-0.042	11111	1.08	38898.7495	3
5685	2.412	-0.101	-0.266	-0.407	-0.103	11111	1.34	38917.7234	3	5842	4.573	0.053	0.090	0.004	-0.049	11111	1.03	39201.9511	1
5685	2.449	-0.091	-0.291	-0.416	-0.092	11111	2.39	38917.8828	3	5849	3.834	0.018	0.038	-0.024	-0.055	11111	1.04	38898.7600	3
5685	2.410	-0.122	-0.262	-0.377	-0.093	11111	1.35	38918.7156	3	5849	3.826	0.030	0.017	-0.084	-0.052	11111	1.01	39201.9601	1
5685	2.397	-0.111	-0.252	-0.393	-0.103	11111	1.60	38925.6275	3	5854	4.533	1.166	0.422			11100	1.39	38971.9934	1
5685	2.432	-0.117	-0.285	-0.386	-0.100	11111	1.34	38925.7142	3	5854	4.567	1.166	0.436			11100	2.29	38839.7922	3
5685	2.445	-0.109	-0.247	-0.368	-0.095	11111	2.08	38925.8456	3	5854	4.606	1.183	0.407			11100	1.01	38839.9680	3
5685	2.408	-0.107	-0.252	-0.367	-0.124	11111	1.55	38926.6322	3	5854	4.566	1.164	0.448	0.355	0.131	11111	2.14	38874.7033	3
5685	2.430	-0.112	-0.267	-0.369	-0.102	11111	1.34	38923.7197	1	5854	4.561	1.158	0.457	0.370	0.126	11111	1.11	38875.8780	1
5685	2.419	-0.090	-0.257	-0.384	-0.096	11111	1.47	38924.6526	3	5854	4.565	1.172	0.439	0.348	0.139	11111	1.11	38878.8317	3
5685	2.435	-0.104	-0.263	-0.376	-0.097	11111	1.34	38924.7156	3	5854	4.565	1.170	0.435	0.359	0.122	11111	1.12	38889.8489	3
5685	2.445	-0.108	-0.263	-0.383	-0.097	11111	2.50	38928.8571	3	5854	4.545	1.151	0.456	0.356	0.128	11111	1.14	38890.8797	3
5685	2.416	-0.119	-0.266	-0.371	-0.096	11111	1.48	38922.6561	1	5854	4.555	1.157	0.454	0.342	0.131	11111	2.12	38898.9753	3
5685	2.454	-0.100	-0.268	-0.390	-0.090	11111	1.46	38923.6570	1	5854	4.572	1.154	0.448	0.357	0.127	11111	1.31	38916.7912	3
5685	2.430	-0.112	-0.267	-0.369	-0.102	11111	1.34	38923.7197	1	5854	4.579	1.161	0.462	0.345	0.151	11111	2.31	38916.9345	3
5685	2.419	-0.090	-0.272	-0.390	-0.071	11111	2.21	38919.9892	3	5854	4.547	1.169	0.457	0.351	0.133	11111	1.11	38875.8734	3
5685	2.447	-0.122	-0.244	-0.373	-0.102	11111	1.34	38926.8582	3	5854	4.585	1.147	0.454	0.352	0.136	11111	2.25	38917.9293	3
5685	2.444	-0.108	-0.268	-0.376	-0.099	11111	2.39	38926.8494	3	5854	4.565	1.162	0.446	0.349	0.132	11111	1.11	38918.7422	3
5685	2.438	-0.087	-0.274	-0.380	-0.120	11111	1.58	39139.0458	3	5854	4.554	1.162	0.452	0.354	0.133	11111	1.29	38919.6630	1
5685	2.470	-0.087	-0.274	-0.380	-0.120	11111	1.58	39140.9753	3	5854	4.552	1.162	0.458	0.352	0.129	11111	1.11	38921.7426	3
5685	2.450	-0.090	-0.272	-0.390	-0.071	11111	1.21	39139.0403	3	5854	4.519	1.148	0.450	0.362	0.138	11111	2.21	38922.6667	1
5685	2.479	-0.098	-0.304	-0.393	-0.094	11111	2.44	39140.9757	3	5854	4.547	1.169	0.457	0.351	0.133	11111	1.23	38917.7334	3
5685	2.435	-0.109	-0.247	-0.347	-0.118	11111	2.17	39147.9694	3	5854	4.585	1.147	0.454	0.352	0.136	11111	2.25	38917.9293	3
5685	2.425	-0.097	-0.271	-0.392	-0.082	11111	2.34	39148.9584	3	5854	4.578	1.166	0.446	0.346	0.134	11111	1.11	38918.7422	3
5685	2.431	-0.113	-0.242	-0.372	-0.123	11111	1.41	39151.0490	3	5854	4.518	1.150	0.433	0.354	0.140	11111	2.49	38924.9195	3
5685	2.457	-0.102	-0.274	-0.392	-0.105	11111	1.41	39154.9440	3	5854	4.506	1.157	0.457	0.353	0.151	11111	1.31	38925.6403	3
5685	2.403	-0.109	-0.257	-0.371	-0.112	11111	1.37	39155.0523	3	5854	4.519	1.149	0.450	0.362	0.136	11111	2.21	38922.6672	1
5685	2.452	-0.102	-0.271	-0.381	-0.114	11111	1.34	39173.0030	3	5854	4.556	1.155	0.465	0.366	0.134	11111	2.21	38922.6666	1
5685	2.445	-0.087	-0.292	-0.391	-0.104	11111	2.03	39173.9034	3	5854	4.558	1.164	0.448	0.335	0.131	11111	1.11	38923.7295	1
5685	2.446	-0.10																	

TABLE 7 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 40

B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS	B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS
5854	4.502	1.188	0.446	0.309	0.166	11111	1.12	39231.8697	1	5947	6.152	1.169	0.437	0.286	0.239	11111	1.02	39258.8612	3
5854	4.532	1.162	0.453	0.359	0.118	11111	1.13	39241.8364	3	5947	6.163	1.192	0.443	0.286	0.241	11111	1.00	39270.7971	3
5854	4.567	1.140	0.470	0.389	0.109	11111	1.12	39246.8747	1	5947	6.138	1.167	0.449	0.297	0.248	11111	1.01	39272.8038	3
5854	4.565	1.154	0.463	0.354	0.141	11111	1.23	39246.9268	1	5947	6.140	1.189	0.434	0.281	0.233	11111	1.01	39279.7895	3
5854	4.557	1.162	0.455	0.356	0.143	11111	1.16	39270.7385	3	5947	6.134	1.183	0.440	0.290	0.262	11111	1.02	39298.7495	1
5854	4.568	1.157	0.449	0.347	0.134	11111	2.21	39270.9610	3	5947	6.139	1.179	0.433	0.271	0.237	11111	1.01	39307.7725	1
5854	4.554	1.169	0.453	0.356	0.143	11111	1.18	39272.7268	3	5947	6.183	1.206	0.411	0.261	0.247	11111	1.01	39318.6889	1
5854	4.567	1.160	0.458	0.347	0.134	11111	2.18	39272.9545	3	5958	10.357	1.570	0.657	0.520	0.313	11111	1.01	38916.7805	3
5854	4.598	1.185	0.437	0.340	0.132	11111	1.12	39274.7573	3	5958	10.289	1.561	0.570	0.510	0.063	11111	1.02	39197.9707	3
5854	4.594	1.173	0.447	0.336	0.161	11111	1.21	39279.6975	3	5958	12.598	1.167	0.437	0.165	0.459	11111	1.01	39240.8718	3
5854	4.562	1.184	0.449	0.336	0.131	11111	2.24	39279.9377	3	5958	12.233	1.094	0.037	-0.183	0.385	11111	1.01	39296.7201	3
5854	4.594	1.184	0.431	0.340	0.138	11111	1.12	39280.7434	3	5960	5.307	0.210	-0.046	-0.154	-0.004	11111	1.08	38916.7538	3
5854	4.577	1.162	0.461	0.364	0.149	11111	1.11	39281.7563	3	5960	5.390	0.193	-0.034	-0.150	-0.001	11111	1.08	39231.9000	1
5854	4.561	1.157	0.444	0.337	0.130	11111	2.26	39281.9333	3	5971	4.849	-0.047	-0.142			11100	1.00	38870.8970	1
5854	4.546	1.180	0.461	0.356	0.146	11111	1.16	39295.6732	1	5971	4.902	-0.058	-0.098	-0.223	-0.096	11111	1.00	39231.9109	1
5854	4.551	1.166	0.454	0.354	0.144	11111	1.19	39296.6585	3	5972	4.958	0.090	0.067			11100	1.02	38869.9079	1
5854	4.560	1.162	0.452	0.356	0.166	11111	1.14	39297.6759	3	5972	4.897	0.080	0.097	0.002	-0.035	11111	1.02	38923.7403	1
5854	4.574	1.176	0.452	0.355	0.128	11111	1.16	39298.6777	1	5977	4.737	0.315	-0.170			11100	1.38	38871.8864	1
5854	4.558	1.162	0.460	0.346	0.157	11111	1.19	39300.6678	3	5977	4.751	0.310	-0.150	-0.318	0.011	11111	1.39	38923.7723	1
5854	4.566	1.167	0.453	0.351	0.124	11111	2.21	39300.8792	3	5982	4.575	-0.112	-0.198	-0.360	-0.090	11111	1.03	38874.9008	3
5854	4.562	1.169	0.459	0.352	0.143	11111	1.12	39307.6672	1	5982	4.531	-0.094	-0.220	-0.399	-0.073	11111	1.03	38923.7601	1
5854	4.554	1.169	0.445	0.332	0.148	11111	1.12	39313.6576	1	5984	2.379	-0.128	-0.578	-1.081	-0.160	11111	1.63	38875.8913	1
5854	4.576	1.160	0.456	0.368	0.129	11111	1.30	39313.7607	1	5984	2.366	-0.144	-0.563	-1.078	-0.154	11111	1.63	38924.7363	3
5868	5.287	0.428	-0.106	-0.371	0.043	11111	1.11	38898.7927	3	5986	4.746	0.373	-0.134	-0.343	0.046	11111	1.12	38875.9087	1
5868	5.210	0.439	-0.139	-0.424	0.053	11111	1.10	39206.9729	3	5986	4.710	0.365	-0.124	-0.307	0.041	11111	1.11	38923.7502	1
5868	5.190	0.390	-0.115	-0.373	0.045	11111	1.10	39251.8478	1	5993	3.834	-0.125	-0.547	-1.061	-0.142	11111	1.66	38887.8454	3
5868	5.229	0.419	-0.096	-0.385	0.053	11111	1.11	39252.8517	1	5993	3.865	-0.108	-0.557	-1.087	-0.137	11111	1.66	38924.7471	3
5879	6.935	1.734	0.664	0.599	0.445	11111	1.04	38898.8342	3	5997	5.542	0.666	0.022	0.127	0.175	11111	1.67	38887.8569	3
5879	6.895	1.689	0.666	0.602	0.430	11111	1.03	39197.9977	3	5997	5.542	0.665	0.039	-0.092	0.150	11111	1.67	38924.7571	1
5879	6.889	1.715	0.634	0.587	0.426	11111	1.04	39241.8475	3	6018	6.282	0.915	0.226			11100	1.00	38870.9095	1
5879	6.888	1.712	0.674	0.593	0.449	11111	1.04	39296.6970	3	6018	6.316	0.914	0.268	0.084	0.122	11111	1.01	38924.7678	3
5881	3.495	-0.029	-0.024	-0.131	-0.075	11111	1.26	38898.8486	3	6023	4.144	-0.051	-0.163	-0.314	-0.072	11111	1.38	38877.7311	3
5881	3.499	-0.018	-0.056	-0.133	-0.072	11111	1.24	39227.8910	3	6023	4.145	-0.057	-0.142	-0.322	-0.081	11111	1.02	38925.7475	3
5889	5.787	0.606	-0.038	-0.263	0.114	11111	1.01	38915.7449	3	6027	3.980	-0.060	-0.466	-0.903	-0.106	11111	1.63	38887.8736	3
5889	5.763	0.615	-0.042	-0.267	0.132	11111	1.01	39201.9801	1	6027	4.001	-0.053	-0.452	-0.929	-0.116	11111	1.62	38925.7586	3
5892	3.943	0.181	0.073	-0.067	-0.001	11111	1.13	38915.7568	3	6031	5.033	0.085	0.094	0.033	-0.019	11111	1.36	38888.8437	3
5892	3.949	0.173	0.042	-0.064	-0.008	11111	1.13	39227.9161	3	6031	5.057	0.095	0.102	0.030	-0.044	11111	1.36	38925.7688	3
5899	7.477	1.689	0.668	0.559	0.366	11111	1.02	38915.7681	3	6056	5.493	1.695	0.661	0.579	0.432	11111	1.24	38888.8554	3
5899	7.372	1.607	0.698	0.591	0.354	11111	1.03	39228.8787	1	6056	5.482	1.673	0.689	0.632	0.420	11111	1.25	38925.7794	3
5901	6.321	0.904	0.241			11100	1.00	38870.8842	1	6075	4.692	0.827	0.162	-0.004	0.158	11111	1.25	38888.8668	3
5901	6.328	0.917	0.261	0.072	0.160	11111	1.00	39228.8934	1	6075	4.733	0.830	0.162	0.016	0.145	11111	1.26	38926.7392	3
5902	4.979	-0.047	-0.374	-0.803	-0.116	11111	1.65	38915.7830	3	6092	3.655	-0.149	-0.323			11100	1.03	38839.9855	3
5902	4.938	-0.049	-0.360	-0.775	-0.147	11111	1.72	39229.8841	3	6092	3.687	-0.127	-0.351			11100	1.04	38865.8980	1
5903	4.323	0.027	0.046	0.128	0.011	11111	1.49	38916.6649	3	6092	3.676	-0.132	-0.341	-0.710	-0.132	11111	1.16	38873.0002	3
5903	4.236	0.011	0.013	0.105	0.007	11111	1.43	39228.9044	1	6092	3.666	-0.123	-0.340	-0.698	-0.140	11111	1.04	38898.8572	3
5903	4.317	0.004	0.037	0.119	-0.007	11111	1.43	39257.7937	3	6092	3.689	-0.117	-0.352	-0.694	-0.134	11111	1.07	38915.7316	3
5908	5.714	0.888	0.230	0.047	0.186	11111	1.82	38916.6814	3	6092	3.677	-0.151	-0.356	-0.699	-0.141	11111	1.03	38921.9903	3
5908	5.673	0.868	0.211	0.043	0.165	11111	1.56	39229.8750	3	6092	3.633	-0.141	-0.344	-0.696	-0.140	11111	1.03	38928.7358	3
5914	5.365	0.368	-0.206	-0.461	0.042	11111	1.08	38916.6923	3	6092	3.700	-0.124	-0.345	-0.701	-0.131	11111	1.04	38929.7202	3
5914	5.320	0.355	-0.177	-0.484	0.054	11111	1.02	39228.9160	1	6092	3.654	-0.132	-0.349	-0.698	-0.142	11111	2.42	39016.7529	3
5915	5.899	-0.040	-0.323	-0.713	-0.095	11111	1.76	38916.7059	3	6092	3.658	-0.151	-0.350	-0.696	-0.149	11111	2.19	39018.7357	3
5915	5.879	-0.041	-0.349	-0.746	-0.119	11111	1.63	39229.8870	3	6092	3.691	-0.128	-0.342	-0.704	-0.158	11111	2.18	39026.7129	3
5933	4.474	0.327	-0.203	-0.441	0.017	11111	1.07	38916.7274	3	6092	3.686	-0.137	-0.367	-0.718	-0.162	11111	2.14	39028.7053	3
5933	4.478	0.301	-0.173	-0.421	0.038	11111	1.04	39229.9081	3	6092	3.692	-0.120	-0.352	-0.710	-0.129	11111	1.05	39177.0309	3
5941	4.728	-0.160	-0.259	0.196	-0.062	11111	1.48	38916.7409	3	6092	3.655	-0.145	-0.358	-0.702	-0.137	11111	1.14	39184.9583	1
5941	4.817	-0.119	-0.341	0.194	-0.157	11111	1.47	39231.8855	1	6092	3.697	-0.118	-0.363	-0.713	-0.108	11111	1.98	39187.9756	3
5947	6.181	1.183	0.421			11100	1.00	38839.9767	3	6092	3.689	-0.147	-0.368	-0.716	-				

TABLE 7 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 40

B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS	B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS
6117	4.570	0.005	0.026	-0.046	-0.020	11111	1.06	38889.8857	3	6418	5.618	1.483	0.556			11100	1.01	38865.9439	1
6117	4.600	0.021	0.014	-0.028	-0.046	11111	1.06	38928.7687	3	6418	5.618	1.491	0.590	0.482	0.310	11111	1.01	39228.9913	1
6118	4.755	-0.011	-0.559	-1.143	-0.056	11111	1.59	38890.8457	3	6418	5.626	1.496	0.585	0.500	0.279	11111	1.06	39270.7874	3
6118	4.728	-0.004	-0.549	-1.149	-0.028	11111	1.59	38929.7323	3	6431	4.829	-0.194	-0.446			11100	1.01	38869.9252	1
6129	4.863	0.151	0.047	-0.075	-0.023	11111	1.32	38890.8569	3	6431	4.723	-0.199	-0.483	-0.962	-0.175	11111	1.01	39231.9803	1
6129	4.888	0.168	0.040	-0.100	0.001	11111	1.32	38929.7419	3	6431	4.747	-0.144	-0.433	-0.860	-0.145	11111	1.01	39296.7544	3
6132	4.108	0.775	0.125	-0.044	0.166	11111	1.41	38877.7441	3	6431	5.089	-0.143	-0.424	-0.826	-0.143	11111	1.04	39298.7254	1
6132	4.111	0.760	0.135	-0.015	0.166	11111	1.15	38929.7537	3	6436	4.589	0.046	0.025			11100	1.00	38870.9488	1
6132	4.112	0.761	0.131	-0.034	0.168	11111	1.15	39257.8739	3	6436	4.647	0.037	0.049	-0.004	-0.066	11111	1.01	39241.9484	3
6146	6.938	0.346	0.600			11100	1.01	38865.9266	1	6446	4.347	0.024	0.073	0.060	-0.059	11111	1.43	38890.8811	3
6146	6.865	0.410	0.644	1.097	0.984	11111	1.02	38929.7653	3	6446	4.552	0.142	0.028	0.071	-0.106	11111	1.87	39014.6610	1
6146	6.705	0.496	0.602	1.009	0.935	11111	1.02	39241.8775	3	6446	4.372	0.024	0.062	0.046	-0.067	11111	1.44	39241.9587	3
6146	6.750	0.539	0.636	0.979	0.969	11111	1.05	39295.6988	1	6484	4.114	-0.027	-0.013	0.009	-0.036	11111	1.34	38877.7921	3
6146	6.701	0.485	0.631	0.996	0.933	11111	1.03	39297.7128	3	6484	4.113	-0.026	-0.034	-0.002	-0.026	11111	1.00	39258.8911	3
6146	6.699	0.494	0.609	0.969	1.011	11111	1.03	39300.7074	3	6493	4.998	0.225	-0.131	-0.312	0.014	11111	1.26	38890.8932	3
6147	5.649	0.790	0.139	0.023	0.119	11111	1.52	38894.8416	3	6493	5.025	0.233	-0.136	-0.330	0.029	11111	1.27	39258.9117	3
6147	5.679	0.805	0.161	0.027	0.101	11111	1.52	39200.0054	3	6498	6.873	1.479	0.506	0.452	0.252	11111	1.15	38890.9251	3
6148	4.214	0.800	0.110	-0.030	0.122	11111	1.42	38877.7579	3	6498	6.894	1.492	0.521	0.475	0.257	11111	1.15	39258.9212	3
6148	4.188	0.779	0.139	-0.012	0.115	11111	1.02	39201.9900	1	6526	6.864	1.486	0.608	0.499	0.295	11111	1.01	38872.9572	3
6149	3.829	0.043	0.041	-0.030	-0.046	11111	1.16	38894.8538	3	6526	6.899	1.517	0.595	0.466	0.292	11111	1.20	39268.7628	3
6149	3.856	0.042	0.053	-0.035	-0.039	11111	1.16	39227.9372	3	6536	4.261	0.793	0.015	-0.066	0.155	11111	1.29	38877.8068	3
6159	7.400	1.588	0.657	0.535	0.389	11111	1.07	38872.9091	3	6536	4.238	0.767	0.039	-0.067	0.173	11111	1.18	39268.7732	3
6159	7.425	1.582	0.704	0.575	0.384	11111	1.07	39227.9465	3	6554	5.251	0.177	-0.024	-0.145	-0.021	11111	1.23	38877.8298	3
6159	7.430	1.593	0.650	0.554	0.376	11111	1.07	39241.9027	3	6554	5.240	0.196	-0.034	-0.168	0.004	11111	1.17	39268.7843	3
6161	4.861	-0.046	-0.065	-0.077	-0.053	11111	1.25	38894.8669	3	6555	5.284	0.235	-0.027	-0.147	-0.015	11111	1.19	38877.8448	3
6161	4.877	-0.025	-0.079	-0.069	-0.074	11111	1.24	39201.9941	1	6555	5.299	0.242	-0.035	-0.171	0.001	11111	1.15	39268.7945	3
6161	4.859	-0.055	-0.074	-0.054	-0.070	11101	1.24	39241.9135	3	6556	2.304	0.132	0.063	0.034	-0.019	11111	1.00	38894.8958	3
6168	4.179	-0.022	-0.075	-0.031	-0.058	11111	1.04	38917.7452	3	6556	2.315	0.154	0.039	-0.009	0.023	11111	1.15	39268.8051	3
6175	2.536	-0.092	-0.595	-1.155	-0.127	11111	1.40	38917.7567	3	6561	3.888	0.214	-0.018	-0.066	0.005	11111	1.49	38894.9076	3
6175	2.505	-0.109	-0.604	-1.127	-0.117	11111	1.37	39227.9586	3	6561	3.926	0.228	-0.007	-0.055	0.022	11111	1.49	39268.8694	3
6212	3.688	0.524	-0.149			11100	1.00	38870.9225	1	6567	4.719	0.011	-0.225	-0.273	-0.069	11111	1.33	38894.9209	3
6212	3.690	0.475	-0.065	-0.313	0.061	11111	1.00	39228.9267	1	6567	4.741	0.006	-0.211	-0.280	-0.051	11111	1.32	39269.8583	3
6212	3.692	0.501	-0.091	-0.375	0.047	11111	1.00	39251.8861	1	6581	4.351	0.075	0.089	0.038	-0.012	11111	1.42	38898.8923	3
6212	3.707	0.491	-0.075	-0.321	0.035	11111	1.03	39252.9257	1	6581	4.354	0.074	0.093	0.100	-0.061	11111	1.42	39269.8684	3
6220	4.852	0.754	0.093	-0.089	0.126	11111	1.01	38872.9225	3	6588	3.555	-0.165	-0.430	-0.839	-0.171	11111	1.03	38898.8801	3
6220	4.882	0.747	0.121	-0.072	0.113	11111	1.01	39231.9431	1	6588	3.515	-0.169	-0.452	-0.847	-0.146	11111	1.18	39269.7669	3
6237	5.352	0.232	-0.166	-0.324	0.012	11111	1.11	38917.7698	3	6596	5.378	0.292	-0.162	-0.394	0.001	11111	1.24	38898.8696	3
6237	5.440	0.228	-0.132	-0.340	0.010	11111	1.10	39231.9531	1	6596	5.371	0.286	-0.149	-0.389	0.018	11111	1.24	39257.9181	3
6243	5.293	0.338	-0.147	-0.315	0.048	11111	1.38	38917.7800	3	6603	4.690	1.136	0.447			11100	2.28	38839.8785	3
6243	5.357	0.346	-0.130	-0.285	0.037	11111	1.42	39238.8823	1	6603	4.705	1.152	0.435	0.349	0.128	11111	1.18	38875.0042	3
6254	4.955	0.099	0.054	-0.050	-0.034	11111	1.03	38917.7907	3	6603	4.686	1.155	0.449	0.355	0.133	11111	1.33	38875.9195	1
6254	4.985	0.127	0.054	-0.077	-0.009	11111	1.04	39238.8890	1	6603	4.699	1.156	0.453	0.352	0.121	11111	2.33	38877.7728	3
6281	4.236	-0.091	-0.177	-0.387	-0.109	11111	1.10	38918.7681	3	6603	4.694	1.151	0.444	0.351	0.128	11111	1.42	38877.9892	3
6281	4.199	-0.103	-0.190	-0.387	-0.100	11111	1.10	39240.8874	3	6603	4.675	1.147	0.445	0.351	0.134	11111	1.24	38887.9893	3
6299	5.110	1.129	0.399	0.284	0.137	11111	1.10	38918.7774	3	6603	4.686	1.151	0.441	0.347	0.121	11111	1.22	38889.9780	3
6299	5.048	1.089	0.423	0.301	0.140	11111	1.10	39240.8970	3	6603	4.669	1.142	0.476	0.363	0.121	11111	2.09	38894.7373	3
6299	5.051	1.120	0.419	0.310	0.123	11111	1.11	39241.8876	3	6603	4.688	1.150	0.454	0.344	0.131	11111	1.15	38894.9322	3
6299	5.077	1.128	0.427	0.308	0.126	11111	1.10	39296.7422	3	6603	4.677	1.142	0.469	0.370	0.106	11111	2.41	38896.7181	3
6299	5.097	1.132	0.425	0.297	0.127	11111	1.13	39298.7145	1	6603	4.663	1.142	0.433	0.354	0.121	11111	1.17	38896.8522	3
6299	5.063	1.104	0.415	0.291	0.147	11111	1.12	39300.7194	3	6603	4.666	1.130	0.458	0.367	0.112	11111	1.16	38896.9322	3
6315	5.586	0.327	-0.197	-0.464	0.019	11111	1.19	38918.7899	3	6603	4.702	1.155	0.451	0.350	0.142	11111	1.14	38898.9052	3
6315	5.527	0.312	-0.195	-0.484	0.030	11111	1.19	39240.9183	3	6603	4.697	1.163	0.454	0.367	0.132	11111	1.13	38921.8165	3
6322	5.536	0.721	0.041	-0.118	0.145	11111	1.55	38918.7566	3	6603	4.707	1.165	0.438	0.348	0.114	11111	1.14	38922.8471	1
6322	5.545	0.719	0.027	-0.143	0.129	11111	1.55	39240.9413	3	6603	4.671	1.171	0.432	0.331	0.132	11111	1.14	39014.6185	3
6324	3.920	0.001	-0.022	-0.148	-0.091	11111	1.00	38918.8034	3	6603	4.651	1.157	0.451	0.351	0.132	11111	1.25	39014.6916	3
6324	3.852	-0.015	-0.040	-0.175	-0.070	11111	1.01	39240.9516	3	6603	4.672	1.169	0.438	0.331	0.126	11111	2.15	39024.7118	3
6337	7.730	1.608	0.632	0.634	0.467	11111	1.05	38874.9345	3	6603	4.662	1.156	0						

TABLE 7 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 40

B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS	B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS
6603	4.658	1.142	0.459	0.359	0.128	11111	2.34	39257.7324	3	6695	6.110	1.325	0.448	0.406	0.188	11111	1.28	38919.7100	1
6603	4.686	1.153	0.461	0.348	0.140	11111	1.25	39257.9792	3	6695	6.131	1.347	0.437	0.382	0.215	11111	1.03	39270.8332	3
6603	4.655	1.139	0.457	0.369	0.113	11111	2.36	39258.7286	3	6698	4.879	0.900	0.252	0.138	0.138	11111	1.35	38921.8474	3
6603	4.707	1.158	0.463	0.340	0.132	11111	1.28	39258.9841	3	6698	4.890	0.915	0.256	0.147	0.117	11111	1.39	39270.8438	3
6603	4.681	1.153	0.480	0.362	0.104	11111	2.04	39268.7159	3	6703	5.142	0.799	0.143	0.023	0.095	11111	1.00	38872.9693	3
6603	4.689	1.146	0.434	0.333	0.145	11111	1.26	39268.9501	3	6703	5.145	0.806	0.161	0.001	0.126	11111	1.00	39270.8769	3
6603	4.692	1.171	0.441	0.322	0.155	11111	2.16	39269.7071	3	6705	4.900	1.040	0.658	0.543	0.357	11111	1.34	38919.6993	1
6603	4.682	1.150	0.459	0.359	0.120	11111	1.15	39269.9002	3	6705	4.918	1.043	0.673	0.559	0.369	11111	1.06	39270.8866	3
6603	4.665	1.152	0.458	0.348	0.130	11111	2.01	39274.7015	3	6710	5.133	0.255	-0.138	-0.328	0.035	11111	1.25	38921.8593	3
6603	4.697	1.170	0.446	0.343	0.121	11111	1.13	39278.8416	1	6710	5.142	0.257	-0.135	-0.328	0.036	11111	1.33	39280.7966	3
6603	4.699	1.152	0.445	0.349	0.135	11111	1.19	39298.8476	1	6712	4.485	-0.106	-0.540	-1.073	-0.128	11111	1.21	38921.7804	3
6603	4.653	1.140	0.441	0.324	0.113	11111	1.13	39306.7611	1	6712	4.490	-0.090	-0.527	-1.079	-0.115	11111	1.30	39272.7929	3
6603	4.655	1.150	0.467	0.346	0.145	11111	1.20	39313.6968	1	6713	6.679	1.172	0.375	0.313	0.190	11111	1.13	38921.7675	3
6603	4.662	1.145	0.473	0.364	0.126	11111	1.20	39318.7967	1	6713	6.682	1.172	0.365	0.276	0.189	11111	1.22	39272.7826	3
6603	4.676	1.143	0.472	0.372	0.122	11111	1.13	39327.6010	3	6714	3.951	-0.094	-0.488	-0.800	-0.103	11111	1.20	38921.7923	3
6603	4.668	1.153	0.460	0.362	0.117	11111	2.16	39372.7595	3	6714	3.951	-0.084	-0.484	-0.791	-0.095	11111	1.21	39280.8060	3
6603	4.755	1.168	0.480	0.393	0.157	11111	1.14	39373.6050	1	6723	4.479	0.015	0.015	0.022	-0.049	11111	1.17	38921.8371	3
6603	4.691	1.145	0.454	0.346	0.141	11111	1.14	39376.5968	3	6723	4.494	0.022	-0.001	-0.008	-0.050	11111	1.17	39280.8661	3
6603	4.664	1.146	0.474	0.366	0.112	11111	2.10	39376.7454	3	6752	0.000	0.013	0.128	-0.186	0.055	00111	1.15	38875.9711	1
6603	4.674	1.162	0.444	0.351	0.123	11111	1.14	39377.5975	1	6752	5.333	0.752	0.100	-0.184	0.026	11111	1.31	38877.8829	3
6603	4.655	1.159	0.438	0.334	0.129	11111	1.31	39407.5827	1	6752	5.325	0.742	0.112	-0.192	0.041	11111	1.15	38929.8205	3
6603	4.718	1.154	0.453	0.372	0.154	11111	1.32	39408.5827	3	6752	5.322	0.740	0.094	-0.223	0.027	11111	1.15	39240.9771	3
6603	4.646	1.137	0.446	0.375	0.125	11111	1.30	39410.5725	3	6770	6.125	0.831	0.168	0.030	0.130	11111	1.17	38877.9006	3
6623	4.507	0.593	0.044	-0.195	0.038	11111	1.23	38919.7216	1	6770	6.120	0.819	0.183	0.045	0.103	11111	1.09	38929.0301	3
6623	4.503	0.601	0.021	-0.205	0.041	11111	1.16	39269.7791	3	6771	3.918	0.124	0.073	-0.011	-0.021	11111	1.13	38877.9157	3
6629	3.802	0.059	0.063			11100	2.23	38839.8874	3	6771	3.926	0.142	0.066	-0.020	-0.023	11111	1.09	38929.8385	3
6629	3.810	0.062	0.084	-0.006	-0.067	11111	1.17	38877.9774	3	6779	3.795	-0.033	-0.058	0.039	-0.070	11111	1.00	38877.9508	3
6629	3.770	0.062	0.073	-0.020	-0.035	11111	1.29	38887.9977	3	6779	3.729	-0.028	-0.081	0.026	-0.078	11111	1.35	39019.7129	3
6629	3.782	0.046	0.090	-0.008	-0.047	11111	1.26	38888.9864	3	6787	4.084	-0.183	-0.526	-0.969	-0.165	11111	1.02	38877.9640	3
6629	3.810	0.054	0.069	-0.024	-0.040	11111	1.27	38889.9888	3	6787	4.113	-0.180	-0.528	-0.976	-0.182	11111	1.02	39231.9944	1
6629	3.787	0.069	0.049	-0.014	-0.053	11111	1.15	38890.9144	3	6789	4.412	0.040	0.053	0.042	-0.040	11111	1.71	38921.8727	3
6629	3.797	0.074	0.036	-0.028	-0.032	11111	1.98	38894.7502	3	6789	4.380	0.018	0.069	0.036	-0.033	11111	1.71	39257.8963	3
6629	3.780	0.047	0.064	-0.019	-0.070	11111	1.19	38894.9424	3	6866	6.224	0.763	0.087	-0.077	0.152	11111	1.16	38887.9208	3
6629	0.000	0.070	0.041	-0.041	-0.015	01111	2.10	38896.7378	3	6866	6.232	0.776	0.092	-0.090	0.154	11111	1.14	39241.9702	3
6629	3.795	0.065	0.080	-0.027	-0.049	11111	1.15	38896.8848	3	6868	7.709	1.171	0.656	0.598	0.402	11111	1.02	38887.9316	3
6629	3.800	0.056	0.063	-0.002	-0.040	01111	2.28	38898.7240	3	6868	7.777	1.175	0.667	0.666	0.399	11111	1.02	39241.9805	3
6629	3.824	0.061	0.067	-0.021	-0.044	11111	1.15	38921.8270	3	6869	4.644	0.783	0.134			11100	2.31	38704.6064	3
6629	3.821	0.064	0.058	-0.026	-0.038	11111	1.17	38922.8561	1	6869	4.643	0.785	0.150			11100	2.95	38865.8274	1
6629	3.784	0.038	0.083	-0.003	-0.049	11111	1.22	39014.6306	1	6869	4.678	0.817	0.105			11100	1.30	38865.9524	1
6629	3.782	0.059	0.063	-0.026	-0.032	11111	1.30	39016.6494	3	6872	6.253	1.143	0.404	0.295	0.149	11111	1.00	38887.9428	3
6629	3.790	0.079	0.047	-0.015	-0.067	11111	1.26	39018.6316	3	6872	6.265	1.154	0.388	0.300	0.150	11111	1.00	39241.9901	3
6629	3.741	0.058	0.062	-0.020	-0.049	11111	1.69	39019.6889	3	6884	6.071	0.792	0.163	0.010	0.136	11111	1.34	38888.9276	3
6629	3.783	0.045	0.072	-0.002	-0.043	11111	1.32	39029.6175	3	6884	6.114	0.814	0.169	-0.010	0.134	11111	1.34	39257.9489	3
6629	3.735	0.056	0.013	-0.058	-0.036	11111	2.40	39029.7082	3	6895	5.717	1.104	0.427	0.259	0.177	11111	1.02	38888.9391	3
6629	3.784	0.061	0.066	-0.025	-0.035	11111	2.92	39045.6799	3	6895	5.755	1.119	0.405	0.251	0.183	11111	1.03	39257.9605	3
6629	3.790	0.068	0.045	-0.016	-0.061	11111	1.47	39046.5972	1	6896	6.740	0.105	0.252	0.155	0.108	11111	1.66	38888.9515	3
6629	3.773	0.064	0.073	-0.023	-0.029	11111	1.16	39228.0098	3	6896	6.808	0.121	0.205	0.130	0.099	11111	1.67	39268.6842	3
6629	3.821	0.067	0.052	-0.023	-0.041	11111	1.16	39229.0094	1	6918	5.862	0.304	0.079	-0.014	-0.006	11111	1.19	38889.9325	3
6629	3.795	0.069	0.071	-0.007	-0.053	11111	2.29	39240.7874	3	6918	5.871	0.307	0.070	-0.010	-0.013	11111	1.19	39268.8951	3
6629	3.779	0.064	0.051	-0.043	-0.093	11111	3.15	39305.9466	3	6918	5.843	0.305	0.085	0.026	-0.020	11111	1.26	39298.7689	1
6629	3.804	0.072	0.036	-0.019	-0.049	11111	2.28	39172.9734	3	6918	5.835	0.318	0.082	0.019	-0.015	11111	1.18	39376.6183	3
6629	3.779	0.052	0.071	0.012	-0.047	11111	1.21	39241.0047	3	6920	4.120	-0.052	-0.175	-0.452	-0.082	11111	1.29	38889.9519	3
6629	3.809	0.055	0.066	-0.027	-0.027	11111	1.22	39242.0077	3	6920	4.113	-0.051	-0.200	-0.440	-0.083	11111	1.28	39258.9325	3
6629	3.812	0.045	0.040	-0.036	-0.023	11111	1.79	39251.7856	1	6923	5.086	0.667	0.081	0.000	-0.043	11111	1.12	38888.9653	3
6629	3.805	0.142	-0.025	-0.128	-0.065	11111	1.25	39251.8602	1	6923	5.104	0.682	0.047	-0.038	-0.034	11111	1.12	39268.9056	3
6629	3.740	-0.007	0.061	0.003	-0.056	11111	1.16	39251.9475	1	6927	4.246	0.324	-0.232	-0.505	0.039	11111	1.31	38890.9373	3
6629	3.761	0.050	0.070	-0.007	-0.013	11111	1.21	39252.9756	3	6927</									

TABLE 7 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 40

B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS	B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS
7020	5.168	0.264	-0.062	-0.089	0.017	11111	1.34	38896.9193	3	7372	4.827	-0.126	-0.462	-0.900	-0.129	11111	1.01	38898.9421	3
7020	5.275	0.298	-0.064	-0.120	0.038	11111	1.37	39269.8799	3	7372	4.730	-0.146	-0.428	-0.877	-0.160	11111	1.02	39027.6455	3
7056	4.654	0.197	0.031			11100	1.03	38869.9721	1	7377	3.802	0.205	-0.082	-0.199	0.019	11111	1.15	38898.9535	3
7056	4.613	0.174	0.073	0.047	-0.003	11111	1.01	39269.8906	3	7377	3.732	0.219	-0.090	-0.222	0.003	11111	1.15	39028.6149	3
7056	4.628	0.193	0.055	0.023	0.008	11111	1.08	39300.7574	3	7387	5.448	0.322	0.058	0.593	0.199	11111	1.18	38898.9632	3
7061	4.809	0.309	-0.174	-0.402	0.047	11111	1.05	38916.8558	3	7387	5.383	0.302	0.054	0.606	0.192	11111	1.19	39028.6246	3
7061	4.815	0.304	-0.159	-0.378	0.038	11111	1.02	39269.9194	3	7405	7.088	1.602	0.645	0.610	0.429	11111	1.01	38917.8958	3
7063	5.895	0.919	0.146	0.067	0.117	11111	1.28	38916.8558	3	7405	7.019	1.578	0.627	0.566	0.431	11111	1.02	39028.6347	3
7063	5.893	0.886	0.179	0.114	0.137	11111	1.28	39270.8990	3	7417	4.784	0.891	0.084	-0.138	-0.028	11111	1.00	38917.9072	3
7064	6.803	1.166	0.411	0.275	0.190	11111	1.01	38916.8697	3	7417	4.750	0.883	0.046	-0.176	-0.021	11111	1.00	38927.9706	3
7064	6.782	1.154	0.444	0.288	0.212	11111	1.01	39270.9100	3	7420	4.008	0.117	0.033	0.053	-0.018	11111	1.06	38917.9182	3
7066	7.220	1.069	0.339	0.455	0.277	11111	1.34	38917.8321	3	7420	3.957	0.103	0.037	0.053	-0.006	11111	1.06	39269.9409	3
7066	7.882	1.334	0.504	0.676	0.507	11111	1.31	39272.8721	3	7426	4.503	-0.167	-0.395	-0.744	-0.150	11111	1.00	38924.8973	3
7066	8.120	0.932	0.379	0.589	0.502	11111	1.35	39298.7861	1	7426	4.512	-0.147	-0.412	-0.754	-0.156	11111	1.00	39269.9518	3
7066	6.908	0.848	0.000	0.531	0.424	11011	1.27	39376.6294	3	7429	6.370	1.152	0.452	0.326	0.159	11111	1.11	38924.9079	3
7069	4.554	0.178	0.068	-0.070	-0.031	11111	1.06	38917.8429	3	7429	6.379	1.163	0.484	0.316	0.175	11111	1.11	39269.9620	3
7069	4.548	0.152	0.051	-0.081	-0.023	11111	1.04	39272.8838	3	7437	4.834	-0.121	-0.267	-0.483	-0.123	11111	1.11	38925.8232	3
7106	3.330	-0.085	-0.466	-0.742	-0.086	11111	1.01	38917.8555	3	7437	4.841	-0.109	-0.284	-0.503	-0.074	11111	1.03	39270.9316	3
7106	3.312	-0.089	-0.493	-0.811	-0.078	11111	1.00	39240.9878	3	7446	4.876	-0.153	-0.607	-1.115	-0.157	11111	1.40	38925.8352	3
7106	3.328	-0.092	-0.470	-0.750	-0.099	11111	1.20	39297.7313	3	7446	4.880	-0.127	-0.623	-1.140	-0.126	11111	1.30	39270.9423	3
7106	3.508	-0.065	-0.476	-0.779	-0.060	11111	1.12	39300.7465	3	7447	4.202	-0.096	-0.289	-0.537	-0.128	11111	1.24	38925.8568	3
7106	3.421	-0.078	-0.477	-0.792	-0.059	11111	1.07	39407.6103	1	7447	4.210	-0.111	-0.291	-0.556	-0.100	11111	1.20	39270.9513	3
7106	3.362	-0.075	-0.495	-0.782	-0.101	11111	1.06	39408.6044	3	7462	5.853	0.664	0.055	-0.309	0.052	11111	1.26	38925.8686	3
7125	6.634	1.105	0.310	0.155	0.276	11111	1.13	38918.8574	3	7462	5.854	0.664	0.050	-0.299	0.040	11111	1.25	39250.9760	3
7125	6.509	1.054	0.266	0.107	0.240	11111	1.12	39272.8973	3	7469	5.027	0.253	-0.162	-0.364	-0.010	11111	1.05	38925.8842	3
7133	5.752	0.587	0.121	0.018	0.033	11111	1.02	38918.8698	3	7469	5.000	0.277	-0.167	-0.388	0.031	11111	1.05	39018.6547	3
7133	5.733	0.585	0.102	-0.015	0.072	11111	1.02	39272.9079	3	7469	5.046	0.263	-0.174	-0.380	-0.018	11111	1.05	39272.9420	3
7137	6.250	0.743	0.067	-0.073	0.112	11111	1.05	38922.8693	1	7478	6.219	0.869	0.202	0.070	0.098	11111	1.00	38925.8950	3
7137	6.297	0.750	0.081	-0.098	0.127	11111	1.06	39272.9294	3	7478	6.171	0.859	0.209	0.068	0.106	11111	1.07	39278.8627	1
7139	6.694	1.357	0.533	0.659	0.484	11111	1.00	38922.8811	1	7479	5.565	0.626	-0.037	-0.156	0.147	11111	1.04	38925.9178	3
7139	6.686	1.246	0.481	0.545	0.494	11111	1.03	39279.8500	3	7479	5.515	0.612	-0.047	-0.172	0.166	11111	1.09	39278.8730	1
7141	4.848	0.157	0.024	-0.028	-0.006	11111	1.16	38922.9051	1	7488	6.066	0.931	0.212	0.142	0.110	11111	1.05	38925.9273	3
7141	4.840	0.138	0.054	-0.026	-0.040	11111	1.17	39279.8596	3	7488	6.009	0.933	0.215	0.135	0.144	11111	1.07	39278.8846	1
7157	6.369	0.833	0.630	0.922	0.818	11111	1.02	38922.8920	1	7503	6.930	0.491	-0.091	-0.354	0.044	11111	1.07	38925.9392	3
7157	6.333	0.855	0.616	0.857	0.771	11111	1.02	39280.8769	3	7503	6.910	0.448	-0.094	-0.367	0.000	11111	1.09	39252.9479	1
7157	6.270	0.866	0.631	0.900	0.751	11111	1.18	39297.7419	3	7503	6.882	0.476	-0.061	-0.350	0.060	11111	1.09	39279.8694	3
7176	5.764	1.023	0.362	0.245	0.165	11111	1.05	38924.8614	3	7503	6.848	0.463	-0.068	-0.350	0.059	11111	1.08	39407.6266	1
7176	5.769	1.002	0.343	0.236	0.144	11111	1.05	39280.8862	3	7504	7.193	0.506	-0.060	-0.348	0.025	11111	1.08	38925.9490	3
7178	3.150	-0.052	-0.165			11100	2.27	38865.8166	1	7504	7.143	0.470	0.009	-0.382	0.078	11111	1.20	39252.9383	1
7178	3.175	-0.059	-0.156			11100	1.07	38865.9616	1	7504	7.168	0.495	-0.076	-0.351	0.045	11111	1.08	39279.8782	3
7178	3.188	-0.065	-0.147			11100	1.27	38869.8946	1	7504	7.143	0.474	-0.054	-0.350	0.058	11111	1.21	39281.7969	3
7178	3.163	-0.063	-0.151			11100	1.02	38869.9888	1	7504	7.142	0.486	-0.071	-0.346	0.045	11111	1.09	39407.6376	1
7178	3.054	-0.083	-0.161			11100	1.10	38870.9363	1	7525	5.362	1.570	0.605	0.490	0.287	11111	1.16	38926.8363	3
7178	3.142	-0.060	-0.170			11100	1.02	38870.9782	1	7525	5.296	1.522	0.561	0.469	0.308	11111	1.12	39279.8877	3
7178	3.118	-0.063	-0.160			11100	1.13	38871.9253	1	7528	2.822	-0.061	-0.012	-0.010	-0.104	11111	1.06	38926.8463	3
7180	6.675	1.079	0.370	0.242	0.190	11111	1.29	38924.8509	3	7528	2.811	-0.042	-0.053	-0.052	-0.072	11111	1.04	39279.8974	3
7180	6.674	1.083	0.363	0.218	0.184	11111	1.28	39254.9499	3	7536	5.942	1.040	0.275	0.178	0.060	11111	1.05	38926.8689	3
7193	5.750	1.006	0.334	0.166	0.177	11111	1.28	38924.8853	3	7536	5.950	1.029	0.227	0.170	0.074	11111	1.11	39281.8617	3
7193	5.779	1.003	0.329	0.177	0.154	11111	1.27	39280.8896	3	7546	5.186	0.087	0.050	0.037	-0.054	11111	1.04	38926.8793	3
7235	2.991	0.022	0.042	-0.001	-0.049	11111	1.06	38887.9690	3	7546	5.130	0.059	0.049	0.026	-0.019	11111	1.09	39281.8707	3
7235	2.967	0.027	0.026	0.014	-0.101	11111	1.26	39019.7155	3	7557	1.019	0.180	-0.018			11100	1.39	38871.9405	1
7236	3.275	-0.089	-0.136	-0.318	-0.097	11111	1.26	38887.9790	3	7557	1.038	0.168	-0.014	-0.091	-0.020	11111	1.30	39019.7427	3
7236	3.318	-0.042	-0.139	-0.259	-0.087	11111	1.69	39019.7292	3	7557	1.079	0.193	-0.019	-0.100	0.017	11111	1.10	39377.6517	1
7236	3.277	-0.080	-0.129	-0.305	-0.120	11111	1.26	39269.9297	3	7565	4.730	-0.162	-0.370	-0.796	-0.154	11111	1.02	38926.9225	3
7298	4.154	-0.156	-0.446	-0.788	-0.131	11111	1.01	38888.9751	3	7565	4.692	-0.166	-0.401	-0.772	-0.164	11111	1.18	39297.7892	3
7298	4.152	-0.166	-0.472	-0.787	-0.146	11111	1.17	39024.7138	3	7570	5.145	0.673	-0.003			11100	1.42	38871.9573	1
7306	4.611	-0.115	-0.357	-0.674	-0.135	11111	1.02	38894.9544	3	7570	5.771	0.774	0.095	0.079	0.189	11111	1.27		

TABLE 7 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 40

B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS	B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS
7602	4.956	0.679	0.084	-0.187	0.082	11111	1.20	38928.8364	3	7871	4.780	0.103	0.074	0.062	-0.006	11111	1.05	39025.6542	3
7602	4.990	0.688	0.075	-0.208	0.103	11111	1.24	39300.8058	3	7871	4.893	0.149	0.052	0.010	-0.071	11111	1.48	39318.7251	1
7613	4.784	-0.118	-0.358	-0.611	-0.137	11111	1.04	38928.8464	3	7882	4.215	0.305	-0.137	-0.289	0.050	11111	1.05	39025.6640	3
7613	4.779	-0.122	-0.361	-0.634	-0.110	11111	1.20	39300.7684	3	7882	4.321	0.367	-0.112	-0.202	0.023	11111	1.40	39318.7368	1
7615	5.500	0.911	0.243	0.104	0.124	11111	1.02	38928.8683	3	7884	5.736	0.794	0.124	-0.006	0.150	11111	1.20	39025.6747	3
7615	5.480	0.900	0.272	0.114	0.143	11111	1.11	39300.7963	3	7884	5.771	0.840	0.161	0.013	0.098	11111	1.43	39318.7699	1
7619	5.084	0.091	0.047	0.016	-0.006	11111	1.07	38928.8782	3	7891	4.729	-0.014	-0.037	-0.125	-0.081	11111	1.02	39026.6604	3
7619	5.221	0.128	0.043	0.033	-0.034	11111	1.09	39304.9187	1	7891	4.763	-0.013	-0.023	-0.116	-0.091	11111	1.27	39318.7486	1
7635	6.287	1.686	0.648	0.589	0.349	11111	1.03	38928.8886	3	7906	3.654	-0.052	-0.134	-0.221	-0.098	11111	1.04	39026.6696	3
7635	6.336	1.726	0.687	0.596	0.356	11111	1.08	39304.9289	1	7906	3.682	-0.033	-0.137	-0.233	-0.093	11111	1.26	39318.7599	1
7653	4.933	0.147	0.052	0.065	0.033	11111	1.00	38928.8979	3	7924	4.312	-0.047	-0.386			11100	1.08	38641.7838	1
7653	4.937	0.165	0.063	0.099	0.030	11111	1.08	39304.9417	1	7924	4.307	-0.085				11000	1.50	38751.5675	3
7678	6.217	0.149	-0.477	-0.870	-0.029	11111	1.02	38916.8980	3	7924	4.309	-0.040	-0.355			11100	1.39	38752.5681	3
7678	6.206	0.161	-0.493	-0.873	-0.012	11111	1.00	39016.6793	3	7924	4.316	-0.066	-0.373			11100	1.88	38784.5908	1
7685	6.781	1.365	0.529	0.449	0.240	11111	1.23	38916.9096	3	7924	4.333	-0.028	-0.402	-0.190	0.055	11111	1.03	39026.6910	3
7685	6.750	1.358	0.552	0.459	0.225	11111	1.23	39016.6671	3	7924	4.396	-0.040	-0.377	-0.185	0.071	11111	1.03	39058.5904	3
7708	4.755	-0.165	-0.493	-0.936	-0.143	11111	1.01	38916.9212	3	7924	4.367	-0.044	-0.371	-0.199	0.065	11111	1.15	39406.7182	1
7708	4.700	-0.166	-0.491	-0.908	-0.146	11111	1.01	39016.6694	3	7928	4.731	0.191	-0.026	-0.092	0.020	11111	1.05	39027.6566	3
7710	3.064	-0.065	-0.084			11100	1.47	38870.9641	1	7928	4.795	-0.207	-0.053	-0.099	0.002	11111	1.08	39359.7964	1
7710	3.096	-0.064	-0.064	-0.150	-0.029	11111	1.19	39016.6993	3	7939	6.775	1.114	0.424	0.285	0.203	11111	1.01	39027.6682	3
7724	5.092	0.097	0.093	-0.022	-0.038	11111	1.05	38917.9423	3	7939	6.858	1.114	0.407	0.271	0.227	11111	1.14	39359.8422	1
7724	5.054	0.083	0.061	-0.056	-0.010	11111	1.05	39268.9706	3	7942	5.889	0.972	0.242	0.117	0.126	11111	1.00	39029.6668	3
7730	4.990	0.062	0.048	0.271	0.006	11111	1.03	38917.9526	3	7942	5.823	0.952	0.254	0.070	0.186	11111	1.02	39365.7719	1
7730	4.962	0.076	0.006	0.217	0.037	11111	1.05	39046.6255	1	7947	5.093	0.672	0.064	-0.130	0.057	11111	1.05	39029.6431	3
7735	5.696	0.944	-0.092	-0.427	-0.081	11111	1.04	38917.9644	3	7947	5.108	0.693	0.043	-0.135	0.094	11111	1.08	39365.7817	1
7735	5.611	0.900	-0.090	-0.411	-0.080	11111	1.03	39269.9733	3	7949	4.066	0.894	0.214			11100	1.08	38641.7932	1
7736	5.165	0.083	0.016	-0.050	-0.043	11111	1.01	38921.9172	3	7949	4.016	0.900	0.231	0.078	0.144	11111	1.01	39029.6324	3
7736	5.156	0.106	0.007	-0.096	-0.008	11111	1.00	39270.9712	3	7949	4.052	0.914	0.217	0.058	0.164	11111	1.04	39365.7910	1
7739	4.572	-0.173	-0.453	-0.879	-0.165	11111	1.01	38921.9290	3	7950	3.710	-0.004	0.032	0.083	-0.044	11111	1.35	39029.6535	3
7739	4.562	-0.150	-0.463	-0.909	-0.157	11111	1.01	39272.9661	3	7950	3.839	0.030	0.020	0.088	-0.054	11111	1.45	39372.6623	3
7740	4.515	0.088	0.033	0.045	-0.003	11111	1.10	38921.9424	3	7951	7.238	1.628	0.664	0.716	0.487	11111	1.26	39029.6636	3
7740	4.440	0.091	0.037	0.025	-0.005	11111	1.12	39279.9080	3	7951	7.309	1.603	0.647	0.701	0.500	11111	1.33	39372.6721	3
7744	6.588	1.206	0.282	0.157	0.120	11111	1.00	38924.9306	3	7955	5.281	0.405	-0.099	-0.315	0.052	11111	1.10	39028.6590	3
7744	6.565	1.184	0.307	0.137	0.159	11111	1.02	39279.9176	3	7955	5.258	0.392	-0.139	-0.349	0.028	11111	1.21	39372.6218	3
7747	5.876	0.899	0.122	0.054	0.194	11111	1.42	38924.9422	3	7957	4.808	0.776	0.137	-0.097	0.124	11111	1.15	39028.6710	3
7747	5.852	0.849	0.135	0.078	0.178	11111	1.44	39279.9276	3	7957	4.802	0.764	0.130	-0.119	0.141	11111	1.23	39372.6314	3
7750	4.314	-0.053	-0.052	-0.071	-0.070	11111	1.42	38928.9248	3	7963	4.295	-0.112	-0.328	-0.607	-0.137	11111	1.01	39029.6738	3
7750	4.317	-0.036	-0.125	-0.130	-0.049	11111	1.42	39046.6097	1	7963	4.342	-0.096	-0.365	-0.623	-0.117	11111	1.07	39372.6516	3
7751	6.441	1.284	0.145	-0.070	0.068	11111	1.05	38924.9632	3	7977	5.232	0.091	-0.490	-0.774	-0.048	11111	1.04	39029.6846	3
7751	6.384	1.276	0.137	-0.080	0.029	11111	1.04	39280.9282	3	7977	5.320	0.099	-0.499	-0.787	-0.020	11111	1.11	39372.6413	3
7754	5.010	0.803	0.136	-0.005	0.115	11111	1.44	38924.9515	3	7990	5.200	0.253	-0.062	-0.161	-0.010	11111	1.34	39042.6319	3
7754	5.020	0.789	0.145	0.000	0.098	11111	1.42	39280.9386	3	7995	5.803	0.677	0.014	-0.154	0.096	11111	1.01	39042.6220	3
7763	5.286	0.097	-0.551	-0.999	-0.045	11111	1.01	38928.9387	3	8001	4.593	-0.123	-0.387	-0.761	-0.148	11111	1.02	39042.6425	3
7763	5.308	0.077	-0.540	-0.999	-0.033	11111	1.00	39280.9477	3	8001	4.574	-0.124	-0.337	-0.687	-0.124	11111	1.06	39373.6694	1
7767	5.907	-0.056	-0.569	-1.086	-0.091	11111	1.03	38928.9500	3	8020	6.263	0.161	-0.465	-0.626	0.018	11111	1.03	39045.6225	3
7767	5.913	-0.079	-0.555	-1.069	-0.115	11111	1.01	39280.9566	3	8020	6.230	0.159	-0.459	-0.638	0.039	11111	1.09	39373.6599	1
7773	4.681	-0.038	-0.017	-0.111	-0.072	11111	1.50	38929.8862	3	8028	3.972	0.004	-0.062	0.073	-0.030	11111	1.01	39045.6320	3
7773	4.679	-0.033	-0.030	-0.100	-0.056	11111	1.54	39281.8916	3	8028	3.941	-0.018	-0.059	0.061	-0.043	11111	1.04	39373.6789	1
7776	4.184	0.551	-0.015	-0.200	-0.024	11111	1.52	38929.8783	3	8047	4.499	-0.119	-0.637	-1.224	-0.120	11111	1.04	39045.6417	3
7776	4.187	0.541	-0.058	-0.237	-0.014	11111	1.56	39281.9003	3	8047	4.648	-0.146	-0.590	-1.156	-0.147	11111	1.11	39373.6502	1
7796	3.228	0.520	-0.008	0.169	0.193	11111	1.02	38929.8887	3	8060	5.080	0.119	0.054	-0.024	0.005	11111	1.67	38916.9501	3
7796	3.228	0.539	-0.029	0.165	0.226	11111	1.26	39046.7382	1	8060	5.052	0.148	0.054	-0.045	0.026	11111	1.66	39016.7281	3
7796	3.230	0.538	-0.040	0.150	0.227	11111	1.01	39406.6223	3	8075	4.141	0.023	0.034	-0.053	-0.040	11111	1.55	38921.9606	3
7806	6.713	1.365	0.558	0.405	0.249	11111	1.00	38929.8892	3	8075	4.086	0.019	0.047	-0.033	-0.059	11111	1.56	39056.6136	3
7806	6.717	1.372	0.552	0.404	0.264	11111	1.00	39298.8887	1	8079	6.470	1.595	0.435	0.401	0.251	11111	1.02	38916.9620	3
7822	5.266	0.246	-0.132	-0.284	0.014	11111	1.57	39018.7672	3	8079	6.465	1.604	0.511	0.479	0.261	11111	1.03	39016.7413	3
7822	5.264	0.249	-0.099	-0.239	0.002	11111	1.57	39298.9137	1	8085	7.177	1.210	0.425</td						

TABLE 7 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 40

B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS	B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS
8115	4.879	0.918	0.159	0.038	0.159	11111	1.04	39372.6850	3	8334	4.959	0.167	-0.236	0.078	0.163	11111	1.14	39053.6343	3
8115	4.767	0.879	0.160	0.022	0.087	11111	1.20	39406.7551	1	8334	4.891	0.172	-0.257	0.080	0.178	11111	1.16	39376.7044	3
8115	4.789	0.896	0.155	-0.008	0.082	11111	1.00	39408.6334	3	8335	4.050	-0.140	-0.509	-0.902	-0.124	11111	1.05	39053.6547	3
8123	5.167	0.325	-0.163	-0.418	0.012	11111	1.08	38929.9507	3	8335	4.051	-0.122	-0.508	-0.877	-0.133	11111	1.05	39376.7274	3
8123	5.150	0.331	-0.186	-0.433	0.031	11111	1.48	39058.9181	3	8383	7.493	1.093	0.693	-0.931	0.052	11111	1.17	39053.6643	3
8130	4.284	0.258	-0.116	-0.276	0.007	11111	1.01	38929.9599	3	8383	7.430	1.089	-0.421	-0.939	0.022	11111	1.17	39376.7361	3
8130	4.330	0.259	-0.126	-0.284	0.048	11111	1.02	39059.6272	3	8383	7.627	1.187	-0.288	-0.829	0.053	11111	1.23	39407.7541	1
8131	4.639	0.401	0.073	-0.024	0.018	11111	1.13	39018.7231	3	8402	4.559	-0.108	-0.306	-0.501	-0.120	11111	1.22	39016.7651	3
8131	4.621	0.382	0.091	-0.016	0.037	11111	1.13	39060.6055	3	8402	4.579	-0.108	-0.326	-0.494	-0.112	11111	1.22	39056.6522	3
8143	4.275	-0.039	-0.430	-0.496	-0.063	11111	1.05	39019.7606	3	8413	7.381	1.567	0.686	0.561	0.348	11111	1.15	39016.7773	3
8143	4.511	0.006	-0.340	-0.386	-0.005	11111	1.01	39060.6160	3	8413	7.441	1.594	0.651	0.590	0.245	11111	1.14	39056.6620	3
8146	4.207	-0.148	-0.526	-1.040	-0.145	11111	1.04	39019.7602	3	8414	4.463	0.849	0.018			11100	1.18	38705.6151	3
8146	4.193	-0.135	-0.521	-1.079	-0.120	11111	1.00	39061.6069	3	8414	4.485	0.822	0.076	0.019	0.204	11111	1.21	39056.6784	3
8162	2.769	0.187	0.002	-0.048	-0.003	11111	1.21	39019.7705	3	8417	4.767	0.287	-0.091	-0.219	-0.004	11111	1.20	39016.7885	3
8162	2.766	0.193	0.003	-0.069	0.009	11111	1.16	39061.6185	3	8417	4.775	0.265	-0.056	-0.207	0.007	11111	1.18	39057.6394	3
8162	2.789	0.179	0.018	-0.033	0.006	11111	1.18	39377.6766	1	8418	4.139	-0.059	-0.163			11100	1.49	38705.6338	3
8167	5.621	0.731	0.048	-0.098	0.127	11111	1.54	39025.7032	3	8418	4.192	-0.048	-0.177	-0.414	-0.113	11111	1.46	39057.6574	3
8167	5.603	0.713	0.122	-0.086	0.133	11111	1.63	39279.9486	3	8430	4.353	0.314	-0.171			11100	1.01	38705.5964	3
8173	5.835	1.019	0.337	0.220	0.140	11111	1.03	39025.7136	3	8430	4.365	0.282	-0.147	-0.413	0.000	11111	1.01	39375.7743	1
8173	5.846	1.023	0.366	0.202	0.151	11111	1.05	39279.9580	3	8430	4.391	0.318	-0.167	-0.399	0.010	11111	1.01	39468.5854	1
8225	7.296	1.693	0.649	0.609	0.402	11111	1.02	39025.7239	3	8450	3.636	0.097	0.086			11100	1.15	38705.6460	3
8225	7.321	1.680	0.680	0.659	0.380	11111	1.02	39279.9855	3	8450	3.677	0.086	0.053	0.007	-0.019	11111	1.13	39057.6683	3
8232	4.165	0.690	0.000	-0.012	0.196	11111	1.27	39028.6948	3	8454	4.896	0.313	-0.099	-0.086	0.083	11111	1.01	39018.7711	3
8232	4.147	0.683	-0.001	-0.029	0.217	11111	1.32	39281.9563	3	8454	4.986	0.314	-0.096	-0.085	0.104	11111	1.01	39059.6606	3
8238	2.880	-0.197	-0.608	-1.135	-0.182	11111	1.27	39026.7023	3	8465	5.976	1.520	0.492	0.460	0.265	11111	1.12	39018.7855	3
8238	2.868	-0.218	-0.610	-1.144	-0.184	11111	1.32	39281.9218	3	8465	6.061	1.537	0.487	0.456	0.280	11111	1.10	39060.6341	3
8252	5.344	0.745	0.072	-0.086	0.103	11111	1.03	39028.7151	3	8468	6.220	0.776	0.097	0.014	0.155	11111	1.32	39024.7841	3
8252	5.305	0.718	0.085	-0.123	0.147	11111	1.06	39281.9465	3	8468	6.210	0.770	0.088	-0.060	0.135	11111	1.30	39060.6448	3
8255	6.606	1.013	0.315	0.206	0.132	11111	1.01	39031.6721	3	8469	5.253	-0.030	-0.582	-1.026	-0.092	11111	1.14	39024.7764	3
8255	6.584	0.999	0.334	0.192	0.130	11111	1.10	39300.8695	3	8469	5.338	0.003	-0.591	-1.082	-0.080	11111	1.13	39060.6549	3
8260	4.415	-0.187	-0.487	-0.679	-0.110	11111	1.63	39031.6950	3	8485	6.765	1.313	0.463	0.418	0.141	11111	1.05	39024.7885	3
8260	4.334	-0.196	-0.518	-0.745	-0.124	11111	1.73	39300.9011	3	8485	6.829	1.362	0.473	0.367	0.199	11111	1.01	39061.6386	3
8262	7.517	0.597	0.546	0.949	0.872	11111	1.03	39031.6846	3	8494	6.547	0.201	-0.039	-0.136	0.015	11111	1.10	39026.7248	3
8262	7.683	0.510	0.563	0.955	0.831	11111	1.07	39306.8733	1	8494	6.607	0.201	-0.046	-0.155	0.005	11111	1.10	39061.6492	3
8262	7.516	0.647	0.613	0.981	0.927	11111	1.03	39410.6366	3	8498	6.584	1.490	0.553	0.476	0.237	11111	1.00	39026.7355	3
8264	4.933	0.143	0.045	0.025	0.003	11111	1.31	39042.6530	3	8498	6.620	1.486	0.557	0.484	0.257	11111	1.01	39061.6592	3
8264	5.000	0.171	0.032	0.018	0.017	11111	1.39	39306.8853	1	8499	5.709	0.891	0.200	0.072	0.117	11111	1.32	39026.7458	3
8278	4.166	0.287	0.002	-0.016	0.005	11111	1.54	39042.6781	3	8499	5.697	0.872	0.223	0.067	0.147	11111	1.63	39300.9158	3
8278	4.000	0.331	-0.017	-0.004	-0.005	01111	1.59	39306.8956	1	8518	3.794	-0.020	-0.031	-0.102	-0.062	11111	1.21	39028.7278	3
8278	4.149	0.280	-0.014	-0.018	0.034	11111	1.53	39407.6554	1	8518	3.774	-0.039	-0.031	-0.125	-0.059	11111	1.28	39300.9284	3
8279	5.076	0.044	-0.498	-0.854	-0.057	11111	1.15	39042.6640	3	8520	4.826	-0.156	-0.506	-0.947	-0.167	11111	1.07	39028.7381	3
8279	5.099	0.036	-0.487	-0.812	-0.031	11111	1.18	39372.6898	3	8520	4.746	-0.175	-0.525	-0.982	-0.128	11111	1.07	39304.9634	1
8288	6.041	0.706	0.070	-0.098	0.195	11111	1.60	39045.6529	3	8522	4.796	-0.036	-0.179	-0.190	-0.073	11111	1.01	39028.7466	3
8288	6.047	0.716	0.071	-0.113	0.191	11111	1.66	39372.7203	3	8522	4.819	0.018	-0.223	-0.295	-0.065	11111	1.00	39375.7859	1
8297	12.406	4.075	1.589	2.791	-2.893	11111	1.02	39042.6952	3	8523	4.355	-0.105	-0.341	-0.640	-0.152	11111	1.03	39029.7195	3
8297	11.663	3.552	1.682	1.366	-0.463	11111	1.01	39372.7368	3	8523	4.412	-0.101	-0.357	-0.648	-0.116	11111	1.03	39376.7697	3
8297	12.155	3.775	1.831	1.352	0.000	11111	1.01	39407.6790	1	8538	5.964	0.875	0.186	-0.006	0.182	11111	1.06	39029.7294	3
8301	4.542	-0.124	-0.458	-0.813	-0.132	11111	1.06	39045.6629	3	8538	5.995	0.880	0.192	0.035	0.174	11111	1.06	39376.7803	3
8301	4.515	-0.119	-0.451	-0.808	-0.113	11111	1.06	39372.7488	3	8539	4.553	-0.125	-0.668	-1.271	-0.131	11111	1.17	39031.7278	3
8308	5.035	1.521	0.464	0.421	0.331	11111	1.08	39051.6341	3	8539	4.504	-0.130	-0.643	-1.245	-0.118	11111	1.17	39376.7907	3
8308	5.043	1.535	0.507	0.475	0.310	11111	1.09	39372.7796	3	8541	4.644	-0.044	-0.396	-0.440	-0.045	11111	1.05	39031.7379	3
8309	5.129	0.297	-0.192	-0.424	0.038	11111	1.01	39052.6112	3	8541	4.681	-0.028	-0.404	-0.452	-0.037	11111	1.13	39377.6926	1
8309	5.073	0.356	-0.228	-0.493	0.022	11111	1.01	39375.7304	1	8551	6.426	0.927	0.280	0.074	0.175	11111	1.14	39031.7474	3
8313	6.162	1.028	0.130	0.188	11111	1.04	39052.6201	3	8551	6.000	0.013	0.000	0.000	0.173	00001	1.16	39377.7301	1	
8313	6.057	1.035	0.233	0.113	0.165	11111	1.04	39375.7414	1	8551	6.503	0.969	0.274	0.088	0.199	11111	1.16	39408.6434	3
8315	4.719	0.280	-0.156	-0.330	0.034	11111	1.01	39052.6292	3	8558	4.254	0.284	-0.154	-0.321	0.065	11111	1.20	39042.7193	3
8315	4.607	0.221	-0.142	-0.353	0.023	11111	1.01	39375.7618	1	8558	4.24								

TABLE 7 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 40

B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS	B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS
8613	4.964	0.153	0.019	-0.002	0.017	11111	1.06	39051.6776	3	8622	4.561	-0.213	-0.679	-1.289	-0.161	11111	1.06	39411.7533	1
8613	4.929	0.183	-0.019	-0.046	0.007	11111	1.06	39408.7137	3	8622	4.559	-0.225	-0.672	-1.268	-0.175	11111	1.08	39412.6155	1
8622	4.520	-0.239	-0.665			11100	1.02	38702.5996	3	8622	4.558	-0.213	-0.666	-1.263	-0.186	11111	1.01	39431.6489	1
8622	4.521	-0.232	-0.678			11100	1.01	38702.6539	3	8622	4.583	-0.170	-0.633	-1.284	-0.195	11111	1.02	39432.5976	1
8622	4.531	-0.239	-0.666			11100	1.11	38702.7189	3	8622	4.569	-0.200	-0.671	-1.274	-0.191	11111	1.02	39440.6483	1
8622	4.535	-0.216	-0.663			11100	1.06	38704.6913	3	8622	4.557	-0.222	-0.666	-1.261	-0.178	11111	1.01	39441.6187	1
8622	4.543	-0.232	-0.656			11100	1.04	38705.6726	3	8622	4.557	-0.214	-0.673	-1.273	-0.189	11111	1.04	39443.5551	1
8622	4.516	-0.239	-0.666	-1.276	-0.169	11111	2.26	38872.9417	3	8622	4.561	-0.205	-0.662	0.000	0.000	11100	1.17	39451.6857	1
8622	4.551	-0.228	-0.670	-1.263	-0.177	11111	2.71	38874.9181	3	8622	4.558	-0.192	-0.700	-1.298	-0.188	11111	1.01	39459.5466	1
8622	4.542	-0.236	-0.672	-1.263	-0.184	11111	2.06	38877.9384	3	8622	4.570	-0.227	-0.668	-1.262	-0.184	11111	1.03	39461.5996	1
8622	4.549	-0.224	-0.693	-1.248	-0.185	11111	2.49	38887.8907	3	8622	4.575	-0.241	-0.680	-1.273	-0.170	11111	1.01	39468.6584	1
8622	4.555	-0.218	-0.684	-1.277	-0.181	11111	2.68	38888.8811	3	8622	4.538	-0.224	-0.684	-1.269	-0.197	11111	1.46	39468.6969	1
8622	4.571	-0.221	-0.667	-1.262	-0.160	11111	2.16	38889.9003	3	8622	4.577	-0.217	-0.680	-1.264	-0.190	11111	1.05	39473.5794	1
8622	4.552	-0.223	-0.670	-1.268	-0.164	11111	2.03	38890.9047	3	8622	4.548	-0.200	-0.685	-1.284	-0.181	11111	1.11	39474.6034	1
8622	4.548	-0.228	-0.676	-1.282	-0.175	11111	1.22	38894.9861	3	8622	4.578	-0.221	-0.684	-1.273	-0.184	11111	1.65	39501.6284	1
8622	4.541	-0.214	-0.670	-1.269	-0.160	11111	1.18	38896.9910	3	8632	6.692	1.290	0.479	0.359	0.275	11111	1.02	39501.6880	3
8622	4.576	-0.235	-0.668	-1.277	-0.159	11111	1.18	38898.9863	3	8632	6.622	1.273	0.481	0.329	0.280	11111	1.03	39408.7268	3
8622	4.559	-0.206	-0.683	-1.253	-0.193	11111	2.81	38915.8033	3	8634	3.248	-0.107	-0.138			11100	1.15	38705.6867	3
8622	4.537	-0.230	-0.660	-1.249	-0.187	11111	2.22	38916.0233	3	8634	3.279	-0.066	-0.190	-0.267	-0.114	11111	1.08	39409.6966	3
8622	4.568	-0.219	-0.676	-1.283	-0.183	11111	1.08	38916.9722	3	8641	4.801	0.000	0.013	-0.015	-0.019	11111	1.00	39052.6711	3
8622	4.547	-0.226	-0.667	-1.225	-0.180	11111	2.66	38917.8026	3	8641	4.788	0.006	0.003	-0.002	-0.060	11111	1.00	39409.7116	3
8622	4.585	-0.220	-0.666	-1.249	-0.186	11111	1.07	38917.9760	3	8649	6.990	1.371	0.567	0.426	0.290	11111	1.60	39052.6880	3
8622	4.554	-0.235	-0.673	-1.261	-0.170	11111	2.28	38918.8151	3	8649	6.993	1.408	0.566	0.426	0.306	11111	1.62	39410.6757	3
8622	4.607	-0.230	-0.670	-1.266	-0.177	11111	1.05	38921.9743	3	8650	4.210	0.702	0.075	-0.044	0.114	11111	1.03	39054.6270	3
8622	4.542	-0.224	-0.657	-1.266	-0.177	11111	1.19	38922.9192	1	8650	4.199	0.681	0.089	-0.039	0.126	11111	1.00	39411.6960	1
8622	4.569	-0.224	-0.672	-1.255	-0.175	11111	2.45	38924.7911	3	8665	4.873	0.330	-0.207	-0.431	0.037	11111	1.09	39054.6369	3
8622	4.558	-0.224	-0.670	-1.269	-0.170	11111	1.04	38924.9770	3	8665	4.858	0.317	-0.191	-0.419	0.033	11111	1.07	39411.7070	1
8622	4.530	-0.245	-0.684	-1.258	-0.174	11111	2.41	38925.7901	3	8667	5.652	0.972	0.215	0.124	0.141	11111	1.02	39054.6664	3
8622	4.588	-0.210	-0.667	-1.277	-0.169	11111	1.06	38925.9587	3	8667	5.625	0.970	0.240	0.121	0.144	11111	1.02	39411.7181	1
8622	4.546	-0.222	-0.673	-1.263	-0.167	11111	2.43	38926.7867	3	8679	6.792	1.703	0.645	0.577	0.397	11111	1.46	39054.6571	3
8622	4.560	-0.233	-0.646	-1.252	-0.187	11111	1.03	38926.9804	3	8679	6.787	1.696	0.678	0.604	0.396	11111	1.45	39410.6882	3
8622	4.543	-0.229	-0.672	-1.249	-0.189	11111	2.41	38928.7819	3	8684	4.976	0.806	0.102			11100	1.01	38689.6854	1
8622	4.569	-0.204	-0.685	-1.278	-0.178	11111	1.02	38928.9822	3	8684	4.911	0.783	0.152	-0.038	0.137	11111	1.03	39411.7298	1
8622	4.571	-0.230	-0.667	-1.258	-0.172	11111	2.46	38929.7771	3	8694	5.163	0.948	0.270	0.127	0.139	11111	1.20	39054.6687	3
8622	4.557	-0.241	-0.683	-1.285	-0.166	11111	1.02	38929.9778	3	8694	5.132	0.957	0.273	0.127	0.144	11111	1.22	39411.7420	1
8622	4.572	-0.198	-0.661	-1.283	-0.181	11111	1.03	39013.8182	1	8694	6.537	1.609	0.499	0.448	0.356	11111	1.31	39054.6787	3
8622	4.567	-0.224	-0.682	-1.286	-0.169	11111	1.02	39018.7964	3	8698	6.482	1.617	0.528	0.456	0.346	11111	1.43	39431.7090	1
8622	4.573	-0.228	-0.688	-1.274	-0.193	11111	1.05	39019.8216	3	8702	6.869	1.254	0.460	0.326	0.232	11111	1.58	39054.7203	3
8622	4.555	-0.221	-0.698	-1.289	-0.168	11111	1.03	39024.7960	3	8702	6.775	1.221	0.478	0.332	0.234	11111	1.57	39459.5671	1
8622	4.562	-0.221	-0.661	-1.251	-0.191	11111	1.04	39028.7882	3	8709	3.361	0.063	0.066	0.084	-0.025	11111	1.54	39054.7084	3
8622	4.571	-0.221	-0.667	-1.251	-0.191	11111	1.04	39028.7882	3	8709	3.367	0.081	0.074	0.099	-0.005	11111	1.50	39410.7017	3
8622	4.553	-0.225	-0.659	-1.241	-0.189	11111	1.03	39051.5983	3	8717	4.924	0.017	0.017	-0.014	-0.081	11111	1.15	39054.7308	3
8622	4.554	-0.221	-0.674	-1.279	-0.173	11111	1.06	39054.6053	3	8717	4.864	0.011	0.016	0.016	-0.047	11111	1.11	39432.6695	1
8622	4.572	-0.223	-0.681	-1.274	-0.167	11111	1.24	39055.6449	3	8729	6.438	0.525	-0.058	-0.312	0.038	11111	1.02	39055.6821	3
8622	4.564	-0.223	-0.688	-1.274	-0.172	11111	1.08	39056.5918	3	8729	6.415	0.510	-0.042	-0.306	0.035	11111	1.04	39431.6845	1
8622	4.562	-0.217	-0.684	-1.274	-0.185	11111	1.09	39057.5833	3	8729	6.404	0.501	-0.084	-0.312	0.033	11111	1.02	39432.6456	1
8622	4.551	-0.238	-0.670	-1.259	-0.182	11111	1.13	39058.5666	3	8748	7.198	1.551	0.635	0.511	0.292	11111	1.61	39055.6787	3
8622	4.443	-0.214	-0.659	-1.261	-0.172	11111	1.08	39060.5814	3	8748	7.095	1.497	0.648	0.526	0.331	11111	1.61	39459.5801	1
8622	4.573	-0.204	-0.676	-1.291	-0.154	11111	1.08	39061.5853	3	8752	7.412	1.220	0.211	0.315	0.319	11111	1.10	39055.6929	3
8622	4.566	-0.233	-0.681	-1.272	-0.163	11111	1.01	39076.6279	3	8752	7.308	1.296	0.263	0.286	0.342	11111	1.14	39411.7678	1
8622	4.560	-0.225	-0.673	-1.269	-0.173	11111	2.17	39076.8278	3	8773	4.341	-0.102	-0.291			11100	1.40	38752.6131	3
8622	4.548	-0.229	-0.659	-1.254	-0.150	11111	2.43	39140.6652	3	8773	4.364	-0.116	-0.331	-0.631	-0.110	11111	1.15	39053.7103	3
8622	4.560	-0.223	-0.673	-1.267	-0.178	11111	2.40	39241.9250	3	8775	5.329	1.635	0.678	0.749	0.563	11111	1.00	39019.7907	3
8622	4.555	-0.218	-0.674	-1.290	-0.149	11111	1.16	39268.9801	3	8775	5.335	1.668	0.673	0.722	0.572	11111	1.02	39053.7199	3
8622	4.546	-0.222	-0.651	-1.258	-0.183	11111	1.14	39269.9835	3	8762	3.467	-0.132	-0.426	-0.651	-0.127	11111	1.05	39408.7636	3
8622	4.562	-0.216	-0.679	-1.258	-0.170	11111	2.21	39270.8545	3	8762	3.507	-0.113	-0.401	-0.635	-0.116	11111	1.04	39461.6142	1
8622	4.554	-0.233	-0.658	-1.258	-0.167	11111	1.14	39270.9802	3	8795	7.294	1.700	0.667	0.620	0.37				

TABLE 7 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 40

B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS	B.S.	40	40-45	37-40	35-40	33-35	WTS	AM	J.D.	LS
8830	4.958	0.220	-0.094	-0.217	0.024	11111	1.05	39076.6541	3	8860	7.683	1.702	0.668	0.660	0.476	11111	1.05	39025.7955	3
8830	4.924	0.212	-0.090	-0.212	0.005	11111	1.07	39409.7656	3	8860	7.727	1.713	0.671	0.706	0.453	11111	1.04	39028.7685	3
8832	7.129	0.985	0.359	0.006	0.086	11111	2.10	38887.9072	3	8860	7.708	1.703	0.687	0.685	0.461	11111	1.10	39298.9559	1
8832	7.153	1.006	0.334	-0.007	0.094	11111	2.20	38888.8969	3	8872	6.037	0.695	0.054	-0.127	0.105	11111	1.23	39028.7787	3
8832	7.173	1.006	0.358	0.010	0.079	11111	1.97	38889.9132	3	8872	5.988	0.672	0.049	-0.150	0.114	11111	1.29	39300.9408	3
8832	7.158	0.952	0.360	-0.026	0.115	11111	1.99	38915.8400	3	8880	4.830	0.138	0.045			11100	1.07	38705.7109	3
8832	7.135	0.982	0.335	-0.008	0.082	11111	2.02	38916.8345	3	8880	4.742	0.107	0.009	-0.007	-0.002	11111	1.01	39373.8292	1
8832	7.142	0.983	0.364	-0.012	0.080	11111	2.21	38917.8171	3	8892	5.664	0.988	0.255	0.086	0.216	11111	1.68	39029.7411	3
8832	7.165	0.971	0.328	0.018	0.097	11111	1.17	38917.9864	3	8892	5.650	0.968	0.239	0.101	0.183	11111	1.67	39373.8497	1
8832	7.168	1.001	0.338	-0.007	0.075	11111	2.05	38918.8267	3	8905	5.282	0.415	-0.129	-0.288	0.075	11111	1.01	39029.7627	3
8832	7.166	0.991	0.348	-0.007	0.086	11111	1.28	38922.9318	1	8905	5.206	0.411	-0.165	-0.334	0.072	11111	1.02	39373.8388	1
8832	7.176	0.977	0.342	0.019	0.042	11111	2.02	38924.8135	3	8906	6.969	1.598	0.632	0.509	0.346	11111	1.68	39029.7527	3
8832	7.142	0.965	0.338	-0.005	0.085	11111	1.14	38924.9860	3	8906	7.119	1.610	0.628	0.576	0.278	11111	1.70	39375.8468	1
8832	7.151	1.014	0.347	-0.015	0.083	11111	2.14	38925.8008	3	8911	5.017	0.065	0.012	-0.148	-0.029	11111	1.17	39031.7676	3
8832	7.198	0.990	0.342	0.005	0.063	11111	1.16	38925.9688	3	8911	5.020	0.097	-0.026	-0.203	0.011	11111	1.20	39375.8570	1
8832	7.132	0.982	0.367	0.014	0.054	11111	2.11	38926.8004	3	8916	5.998	0.981	0.320	0.203	0.133	11111	1.12	39031.7765	3
8832	7.154	0.982	0.242	-0.054	0.152	11111	1.13	38926.9890	3	8916	6.034	1.006	0.309	0.172	0.143	11111	1.12	39377.8284	1
8832	7.162	0.982	0.333	0.006	0.050	11111	2.10	38928.7953	3	8923	6.005	0.806	0.171	0.033	0.117	11111	1.07	39031.7858	3
8832	7.182	0.996	0.329	-0.016	0.103	11111	1.14	38928.9731	3	8923	6.032	0.837	0.155	0.016	0.122	11111	1.07	39377.8391	1
8832	7.150	0.972	0.333	-0.011	0.091	11111	2.14	38929.7893	3	8926	4.720	-0.127	-0.408	-0.805	-0.145	11111	1.12	39042.7552	3
8832	7.163	0.988	0.326	0.001	0.078	11111	1.15	38929.9694	3	8926	4.678	-0.132	-0.431	-0.814	-0.158	11111	1.11	39410.7428	3
8832	7.145	0.938	0.371	0.046	0.086	11111	1.13	39013.8570	1	8961	5.214	0.808	0.139	-0.064	0.185	11111	1.04	39042.7652	3
8832	7.161	0.993	0.328	-0.011	0.096	11111	1.11	39016.8212	3	8961	5.264	0.818	0.125	-0.063	0.186	11111	1.05	39409.7770	3
8832	7.158	0.979	0.358	0.016	0.080	11111	1.11	39018.8270	3	8965	4.194	-0.083	-0.258	-0.352	-0.091	11111	1.02	39045.7279	3
8832	7.163	0.993	0.343	0.000	0.084	11111	1.21	39031.6581	3	8965	4.158	-0.084	-0.235	-0.353	-0.089	11111	1.03	39468.6062	1
8832	7.132	0.973	0.333	0.010	0.066	11111	1.33	39035.6080	1	8966	4.794	0.342	-0.181			11100	1.21	38702.6102	3
8832	7.188	0.988	0.347	-0.001	0.089	11111	1.10	39035.7302	1	8966	4.810	0.347	-0.190			11100	1.12	38702.6678	3
8832	7.153	0.989	0.325	0.005	0.059	11111	1.26	39042.6090	3	8966	4.816	0.357	-0.196			11100	1.19	38702.7312	3
8832	7.192	1.008	0.325	-0.011	0.101	11111	1.23	39045.6111	3	8966	4.796	0.322	-0.164			11100	2.19	38702.8440	3
8832	0.000	0.013	0.349	0.006	0.065	0.011	1.13	39050.6487	3	8966	4.825	0.360	-0.209			11100	1.16	38704.6293	3
8832	7.150	0.983	0.354	0.024	0.088	11111	1.19	39051.6100	3	8966	4.822	0.367	-0.189			11100	1.14	38704.7014	3
8832	7.134	0.984	0.358	0.026	0.073	11111	1.16	39053.6231	3	8966	4.791	0.339	-0.211			11100	1.74	38704.8113	3
8832	7.156	0.988	0.346	0.017	0.061	11111	1.17	39054.6160	3	8966	4.850	0.341	-0.175	-0.393	0.037	11111	1.12	39045.7366	3
8832	7.182	0.995	0.359	0.004	0.093	11111	1.11	39055.6579	3	8966	4.836	0.363	-0.174	-0.422	0.042	11111	1.16	39468.6185	1
8832	7.157	0.991	0.344	0.007	0.069	11111	1.18	39056.6017	3	8974	4.881	0.962	0.320	0.156	0.113	11111	1.41	39045.7462	3
8832	7.159	0.982	0.345	-0.007	0.089	11111	2.04	39056.9221	3	8974	4.820	0.947	0.333	0.140	0.114	11111	1.44	39459.6670	1
8832	7.185	0.993	0.346	0.005	0.078	11111	1.19	39057.5932	3	8976	4.034	-0.055	-0.114	-0.293	-0.084	11111	1.02	39050.7078	3
8832	7.167	1.000	0.344	0.009	0.078	11111	1.23	39058.7779	3	8976	4.021	-0.060	-0.087	-0.250	-0.099	11111	1.18	39468.6855	1
8832	7.097	1.000	0.343	0.010	0.081	11111	1.18	39060.5924	3	8982	5.992	0.651	-0.018	-0.082	0.183	11111	1.57	39050.7273	3
8832	7.142	1.002	0.321	-0.012	0.094	11111	1.17	39061.5956	3	8982	6.002	0.649	-0.017	-0.095	0.186	11111	1.71	39468.6358	1
8832	7.169	0.987	0.359	0.012	0.050	11111	1.10	39076.6620	3	8984	4.783	0.163	0.012	-0.065	-0.014	11111	1.17	39051.7103	3
8832	7.160	0.982	0.342	0.002	0.086	11111	2.11	39241.9371	3	8984	4.780	0.171	0.023	-0.071	-0.006	11111	1.40	39468.6729	1
8832	7.146	0.972	0.354	0.029	0.065	11111	2.00	39240.7666	3	8988	4.416	-0.046	-0.021	-0.185	-0.117	11111	1.47	39051.7206	3
8832	7.174	1.019	0.333	0.005	0.069	11111	2.04	39272.8579	3	8988	4.423	0.000	-0.044	-0.198	-0.069	11111	1.65	39468.6474	1
8832	7.170	0.990	0.341	0.011	0.075	11111	1.22	39279.9756	3	8997	6.356	0.800	0.128	-0.041	0.123	11111	1.00	39051.7335	3
8832	7.154	0.993	0.347	0.008	0.074	11111	2.24	39281.8186	3	8997	6.335	0.785	0.126	-0.023	0.132	11111	1.01	39432.7049	1
8832	7.176	0.995	0.334	-0.020	0.094	11111	1.20	39281.9746	3	9045	6.262	0.870	0.185	0.404	0.459	11111	1.11	39052.7000	3
8832	7.146	0.980	0.351	0.018	0.064	11111	2.25	39296.7771	3	9045	6.193	0.709	0.146	0.357	0.421	11111	1.16	39459.6824	1
8832	7.224	1.004	0.348	0.014	0.059	11111	1.10	39377.8064	1	9064	7.314	1.505	0.485	0.463	0.351	11111	1.01	39052.7097	3
8832	7.188	0.996	0.349	0.034	0.071	11111	1.13	39406.7845	1	9064	7.279	1.499	0.486	0.499	0.336	11111	1.03	39432.7225	1
8832	7.183	0.980	0.375	0.032	0.069	11111	1.10	39407.7413	1	9071	4.759	-0.132	-0.545	-1.039	-0.136	11111	1.09	39052.7334	3
8832	7.116	0.976	0.333	-0.008	0.049	11111	1.11	39408.7487	3	9071	4.755	-0.142	-0.550	-1.031	-0.146	11111	1.09	39461.6276	1
8832	7.172	0.985	0.360	0.019	0.103	11111	1.11	39409.7536	3	9072	4.581	0.258	-0.107	-0.236	0.053	11111	1.11	39052.7438	3
8832	7.170	0.996	0.356	0.023	0.070	11111	1.15	39411.7798	1	9072	4.590	0.274	-0.149	-0.261	0.044	11111	1.12	39440.6925	1
8832	7.150	0.997	0.350	0.022	0.063	11111	1.10	39431.6647	1	9089	7.174	1.503	0.656	0.745	0.543	11111	1.29	39052.7536	3
8832	7.155	0.954	0.319	0.013	0.067	11111	1.11	39432.6223	1	9089	7.114	1.523	0.605	0.654	0.539	11111	1.41	39468.6598	1
8832	7.171	0.982	0.335	0.004	0.068	11111	1.11	39440.6677	1	9089	4.489	-0.068	-0.122	-0.070	-0.073</				

TABLE 8 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 52

B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS	B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS
3	4.882	0.792	0.510	0.417	1.355	11111	1.27	38641.8624	1	193	4.584	0.028	0.011	-0.001	-0.092	11111	1.04	39042.7885	3
3	4.892	0.876	0.529	0.443	1.386	11111	1.33	39013.8833	1	193	4.603	0.032	0.042	-0.027	-0.109	11111	1.04	39060.7524	3
3	4.886	0.792	0.502	0.426	1.355	11111	1.30	39051.7665	3	194	0.000	0.000	0.000	0.433	1.330	00011	1.37	39031.8148	3
15	2.061	-0.043	-0.017	-0.073	-0.177	11111	1.00	39016.8335	3	194	5.048	0.792	0.489	0.438	1.336	11111	1.37	39042.7780	3
15	2.077	-0.050	-0.029	-0.076	-0.152	11111	1.02	39051.7758	3	194	5.075	0.784	0.500	0.437	1.345	11111	1.37	39060.7424	3
21	2.368	0.299	0.167	0.155	0.367	11111	1.16	38702.6345	3	194	5.013	0.769	0.476	0.446	1.336	11111	1.42	39372.8437	3
21	2.350	0.308	0.190	0.141	0.386	11111	1.12	38702.6610	3	215	4.465	0.919	0.583	0.470	1.458	11111	1.01	39042.8003	3
21	2.392	0.318	0.188	0.156	0.378	11111	1.15	38702.7514	3	215	4.426	0.881	0.566	0.499	1.492	11111	1.01	39061.7332	3
21	2.373	0.317	0.163	0.153	0.368	11111	1.15	38704.6385	3	219	3.606	0.509	0.285	0.260	0.679	11111	1.11	39045.7587	3
21	2.361	0.325	0.184	0.132	0.361	11111	1.14	38704.7302	3	219	3.624	0.538	0.317	0.238	0.642	11111	1.11	39061.7471	3
21	2.381	0.313	0.193	0.141	0.383	11111	1.13	38708.7120	3	219	3.600	0.489	0.259	0.260	0.665	11111	1.12	39372.8532	3
21	2.302	0.302	0.180	0.143	0.382	11111	1.27	39448.7669	1	219	3.551	0.496	0.289	0.251	0.642	11111	1.10	39408.7924	3
21	2.400	0.299	0.183	0.151	0.402	11111	1.24	39457.7323	1	224	4.884	1.217	0.765	0.610	2.238	11111	1.11	39045.7674	3
27	5.116	0.363	0.215	0.194	0.421	11111	1.03	39016.8436	3	224	4.868	1.215	0.781	0.592	2.226	11111	1.12	39076.6688	3
27	5.139	0.387	0.251	0.197	0.441	11111	1.03	39053.7312	3	226	4.550	-0.089	-0.058	-0.056	-0.175	11111	1.01	39045.7775	3
33	5.023	0.414	0.246	0.239	0.529	11111	1.51	39016.8539	3	226	4.520	-0.078	-0.051	-0.060	-0.182	11111	1.02	39076.6807	3
33	5.028	0.418	0.252	0.229	0.557	11111	1.50	39053.7407	3	226	4.558	-0.057	-0.052	-0.054	-0.180	11111	1.03	39365.8731	1
39	2.796	-0.113	-0.074	-0.099	-0.322	11111	1.28	38689.6272	1	244	4.955	0.442	0.261	0.265	0.652	11111	1.14	39045.7872	3
39	2.788	-0.130	-0.071	-0.096	-0.316	11111	1.10	38702.6437	3	244	4.923	0.463	0.266	0.251	0.643	11111	1.14	39076.7028	3
39	2.790	-0.117	-0.075	-0.102	-0.312	11111	1.05	38702.6896	3	248	5.168	1.223	0.760	0.662	2.352	11111	1.23	38752.6245	3
39	2.809	-0.110	-0.069	-0.104	-0.317	11111	1.09	38702.7424	3	248	5.211	1.276	0.829	0.643	2.321	11111	1.22	39365.8862	1
39	2.810	-0.108	-0.078	-0.091	-0.333	11111	1.76	38702.8588	3	248	5.189	1.253	0.798	0.649	2.315	11111	1.24	39406.8364	1
39	2.780	-0.117	-0.084	-0.103	-0.294	11111	1.06	38704.6656	3	253	5.129	0.923	0.587	0.514	1.701	11111	1.12	39050.7649	3
39	2.818	-0.103	-0.073	-0.105	-0.315	11111	1.09	38704.7388	3	253	5.138	0.941	0.603	0.519	1.695	11111	1.12	39365.8969	1
39	2.791	-0.118	-0.074	-0.083	-0.327	11111	1.42	38704.8201	3	264	2.289	0.065	0.016	-0.017	-0.181	11111	1.13	39050.7865	3
39	2.810	-0.155	-0.092	-0.108	-0.289	11111	1.08	39440.7209	1	264	2.285	0.076	-0.021	0.004	-0.155	11111	1.14	39372.8635	3
39	2.836	-0.142	-0.091	-0.097	-0.283	11111	1.25	39448.7540	1	264	2.261	0.082	0.001	0.010	-0.154	11111	1.13	39407.8037	1
45	5.206	1.269	0.762	0.444	2.304	11111	1.03	38641.8459	1	265	4.880	0.739	0.454	0.423	1.218	11111	1.12	39050.7761	3
45	5.227	1.268	0.754	0.678	2.325	11111	2.52	38890.9757	3	265	4.860	0.750	0.454	0.419	1.219	11111	1.12	39365.9070	1
45	5.233	1.271	0.753	0.663	2.337	11111	2.25	38921.9012	3	269	3.931	0.121	0.072	0.026	0.154	11111	1.01	39050.7870	3
45	5.206	1.258	0.736	0.685	2.343	11111	1.02	39190.8235	3	269	3.906	0.115	0.043	0.037	0.153	11111	1.01	39372.8843	3
45	5.229	1.264	0.737	0.661	2.320	11111	1.03	39205.8386	3	271	4.624	0.705	0.399	0.424	1.232	11111	1.05	38752.6377	3
45	5.217	1.249	0.739	0.672	2.318	11111	1.03	39206.8013	3	271	4.628	0.722	0.451	0.402	1.205	11111	1.01	39372.8946	3
45	5.247	1.276	0.737	0.670	2.324	11111	1.03	39208.8181	3	285	4.545	0.901	0.580	0.528	1.759	11111	1.68	39054.7651	3
45	5.229	1.269	0.747	0.668	2.335	11111	1.03	39209.7924	3	294	4.525	0.790	0.408	0.446	1.259	11111	1.11	39013.8972	1
45	5.209	1.270	0.746	0.664	2.306	11111	2.16	39042.9595	3	294	4.508	0.722	0.454	0.449	1.258	11111	1.10	39054.7539	3
45	5.201	1.258	0.737	0.668	2.320	11111	1.03	39044.7814	3	334	3.769	0.893	0.578	0.486	1.608	11111	1.36	39054.7753	3
45	5.185	1.244	0.752	0.662	2.320	11111	1.02	39050.7408	3	334	3.762	0.889	0.565	0.465	1.612	11111	1.36	39410.7930	3
45	5.180	1.243	0.748	0.666	2.320	11111	1.02	39051.7452	3	335	4.247	-0.003	0.006	-0.025	-0.107	11111	1.03	39018.8773	3
45	5.215	1.266	0.763	0.676	2.332	11111	1.03	39053.7612	3	335	4.272	0.012	0.001	-0.033	-0.098	11111	1.04	39054.7850	3
45	5.177	1.253	0.754	0.666	2.299	11111	1.03	39091.6585	1	337	2.504	1.277	0.792	0.658	2.361	11111	1.01	39018.8890	3
45	5.174	1.234	0.723	0.661	2.316	11111	2.48	39140.7064	3	337	2.532	1.274	0.804	0.665	2.373	11111	1.00	39055.7729	3
45	5.210	1.262	0.747	0.655	2.294	11111	2.27	39280.9174	3	343	4.383	0.141	0.072	0.068	0.225	11111	1.09	39019.8397	3
45	5.193	1.281	0.752	0.675	2.303	11111	1.16	39298.9789	1	343	4.415	0.124	0.101	0.048	0.219	11111	1.08	39056.7619	3
45	5.201	1.266	0.738	0.657	2.308	11111	1.09	39304.9882	1	343	4.491	0.747	0.473	0.465	1.420	11111	1.01	39026.8546	3
45	5.220	1.254	0.747	0.670	2.315	11111	1.03	39359.5979	1	343	4.793	0.026	0.027	-0.008	0.025	11111	1.01	39026.8643	3
45	5.244	1.254	0.743	0.659	2.298	11111	1.09	39365.8187	1	343	4.816	0.037	0.050	-0.004	0.039	11111	1.00	39057.7736	3
45	5.153	1.237	0.724	0.653	2.282	11111	1.05	39373.8183	1	349	5.132	0.788	0.502	0.453	1.467	11111	1.03	39026.8753	3
45	5.190	1.270	0.726	0.694	2.329	11111	1.03	39375.8315	1	349	5.170	0.802	0.529	0.471	1.485	11111	1.03	39057.7828	3
45	5.238	1.257	0.733	0.681	2.326	11111	1.03	39376.8275	3	349	4.988	0.798	0.499	0.465	1.432	11111	1.23	39028.8598	3
45	5.214	1.278	0.761	0.667	2.300	11111	1.08	39432.7549	1	349	5.037	0.809	0.537	0.435	1.416	11111	1.23	39060.7635	3
45	5.223	1.271	0.751	0.676	2.310	11111	1.03	39451.6632	1	352	4.770	0.854	0.531	0.474	1.471	11111	1.00	39019.8626	3
45	5.218	1.247	0.739	0.684	2.337	11111	1.03	39475.5979	1	352	4.814	0.821	0.536	0.463	1.480	11111	1.00	39056.7823	3
45	5.169	1.240	0.737	0.670	2.316	11111	1.05	39474.6260	1	360	4.916	0.747	0.473	0.465	1.420	11111	1.01	39026.8546	3
45	5.192	1.226	0.739	0.649	2.344	11111	1.04	39487.5812	3	360	4.949	0.760	0.497	0.456	1.404	11111	1.01	39057.7600	3
45	5.183	1.215	0.726	0.667	2.346	11111	1.14	39488.6264	3	363	4.733	0.026	0.027	-0.008	0.025	11111	1.01	39026.8643	3
48	4.934	1.321	0.773	0.771	2.573	11111	1.61	39019.8352	3	363	4.893	0.753	0.463	0.472	1.360	11111	1.03	39019.8500	3
48	4.872	1.288	0																

TABLE 8 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 52

B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS	B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS
458	4.272	0.441	0.275	0.226	0.580	11111	1.04	38641.8720	1	617	2.333	0.877	0.560	0.497	1.601	11111	2.32	39148.7597	3
458	4.223	0.422	0.258	0.226	0.597	11111	1.03	38708.7760	3	617	2.216	0.836	0.535	0.489	1.595	01111	1.06	39150.6028	3
458	4.249	0.443	0.275	0.242	0.620	11111	1.03	39359.9421	5	617	2.325	0.878	0.553	0.482	1.581	11111	1.02	39151.5706	3
458	4.194	0.423	0.274	0.222	0.594	11111	1.02	39408.8043	3	617	2.308	0.886	0.562	0.481	1.573	11111	1.04	39365.9176	1
464	3.920	0.986	0.648	0.485	1.792	11111	1.07	38708.7868	3	617	2.338	0.896	0.566	0.453	1.543	11111	1.01	39375.9240	1
464	3.956	0.990	0.657	0.524	1.859	11111	1.04	39359.9442	1	617	2.320	0.882	0.559	0.463	1.566	11111	1.03	39376.9043	3
464	3.930	0.988	0.622	0.524	1.813	11111	1.04	39410.8060	3	617	2.302	0.875	0.552	0.483	1.576	11111	1.02	39377.9106	1
477	4.967	-0.031	-0.015	-0.041	-0.146	11111	1.01	39025.8869	3	617	2.335	0.901	0.572	0.483	1.582	11111	1.02	39410.8633	3
477	4.990	-0.010	0.002	-0.047	-0.152	11111	1.01	39359.9565	1	617	2.306	0.889	0.556	0.487	1.574	11111	1.02	39411.8542	1
483	5.140	0.529	0.324	0.290	0.694	11111	1.04	38641.8838	1	617	2.349	0.866	0.539	0.489	1.581	11111	1.01	39431.7870	1
483	5.116	0.496	0.294	0.265	0.717	11111	1.02	39044.8069	3	617	2.322	0.880	0.566	0.486	1.576	11111	1.07	39444.8052	1
483	5.139	0.520	0.338	0.266	0.754	11111	1.02	39359.9665	1	617	2.332	0.879	0.562	0.482	1.562	11111	1.06	39448.7851	1
483	5.064	0.482	0.294	0.257	0.692	11111	1.02	39408.8213	3	617	2.325	0.878	0.553	0.473	1.570	11111	1.02	39406.8748	1
489	4.830	1.080	0.689	0.588	1.985	11111	1.14	39045.8467	3	617	2.307	0.868	0.537	0.480	1.577	11111	1.17	39469.7707	1
489	4.822	1.099	0.691	0.529	1.941	11111	1.17	39375.8693	1	617	2.332	0.868	0.541	0.484	1.572	11111	1.15	39470.7635	1
493	5.494	0.718	0.445	0.319	1.036	11111	1.05	39045.8561	3	617	2.343	0.885	0.551	0.462	1.537	11111	1.05	39472.7171	1
493	5.432	0.695	0.442	0.312	0.991	11111	1.04	39375.8814	1	617	2.324	0.883	0.551	0.474	1.567	11111	1.07	39473.7223	1
493	5.485	0.709	0.457	0.312	1.028	11111	1.02	39410.8197	3	617	2.337	0.904	0.561	0.505	1.612	11111	1.31	39474.7873	1
496	4.141	0.176	0.005	0.001	-0.107	11111	1.05	39044.8243	3	617	2.325	0.877	0.553	0.488	1.571	11111	1.51	39487.7841	3
496	4.076	0.148	-0.017	0.033	-0.109	11111	1.06	39375.8933	1	617	2.313	0.852	0.541	0.499	1.584	11111	1.04	39499.6367	1
496	4.091	0.173	0.013	0.021	-0.111	11111	1.05	39410.8320	3	617	2.323	0.865	0.554	0.479	1.559	11111	1.06	39500.6470	1
509	3.725	0.629	0.382	0.299	0.842	11111	1.51	39044.8356	3	617	2.318	0.859	0.550	0.484	1.576	11111	1.01	39501.5780	1
509	3.745	0.620	0.377	0.320	0.866	11111	1.51	39375.9105	1	617	2.324	0.874	0.556	0.479	1.584	11111	1.01	39502.5965	1
510	4.511	0.710	0.442	0.427	1.264	11111	1.13	39045.8669	3	617	2.307	0.831	0.533	0.492	1.569	11111	1.02	39504.5638	1
510	4.490	0.724	0.447	0.401	1.244	11111	1.20	39376.8445	3	617	2.312	0.851	0.539	0.490	1.591	11111	1.01	39505.5701	1
531	4.729	0.270	0.164	0.147	0.378	11111	1.39	39051.7873	3	617	2.247	0.813	0.530	0.484	1.594	11111	1.01	39508.5644	1
531	4.725	0.272	0.193	0.145	0.383	11111	1.51	39376.8541	3	617	2.326	0.876	0.559	0.485	1.577	11111	1.01	39509.5746	1
539	4.007	0.828	0.506	0.474	1.522	11111	1.37	39051.7963	3	618	5.816	0.579	0.350	0.337	0.584	11111	1.11	39016.9195	3
539	3.980	0.810	0.537	0.499	1.550	11111	1.46	39376.8652	3	618	5.812	0.585	0.331	0.341	0.591	11111	1.11	39044.8503	3
542	3.357	-0.066	-0.050	-0.074	-0.208	11111	1.17	39051.8065	3	620	4.839	0.094	0.066	0.023	0.117	11111	1.01	39016.9302	3
542	3.360	-0.066	-0.048	-0.062	-0.201	11111	1.19	39376.8791	3	620	4.837	0.097	0.055	0.026	0.138	11111	1.01	39044.8622	3
544	3.569	0.414	0.262	0.215	0.552	11111	1.01	39052.7805	3	622	3.085	0.130	0.076	0.030	0.164	11111	1.00	38751.6469	3
544	3.543	0.409	0.253	0.224	0.545	11111	1.01	39376.8948	3	622	3.073	0.108	0.072	0.049	0.169	11111	1.01	39044.8719	3
545	3.891	-0.004	0.006	-0.055	-0.021	11111	1.03	39052.7906	3	648	6.137	1.257	0.781	0.645	2.305	11111	1.06	39016.9437	3
545	3.914	0.014	0.018	-0.068	-0.070	11111	1.03	39410.8470	3	648	6.198	1.277	0.812	0.628	2.318	11111	1.05	39051.8422	3
549	4.842	0.704	0.455	0.415	1.245	11111	1.15	39052.8090	3	649	4.591	0.687	0.414	0.411	1.144	11111	1.10	39018.9314	3
549	4.850	0.705	0.447	0.398	1.232	11111	1.15	39411.8179	1	649	4.586	0.662	0.401	0.417	1.149	11111	1.11	39051.8522	3
553	2.725	0.093	0.077	0.031	0.163	11111	1.02	39052.8000	3	664	4.054	0.016	0.028	-0.026	0.017	11111	1.01	39018.9410	3
553	2.712	0.091	0.065	0.008	0.160	11111	1.02	39411.8288	1	664	4.042	-0.004	0.016	-0.015	0.020	11111	1.01	39057.8402	3
569	4.846	0.215	0.152	0.138	0.350	11111	1.03	39053.7714	3	681	5.518	1.724	0.367	1.406	1.276	11111	1.26	38752.6822	3
569	4.869	0.245	0.149	0.106	0.320	11111	1.02	39411.8409	1	681	4.527	1.445	0.378	1.280	1.509	11111	1.24	38764.6352	1
575	4.548	0.115	0.079	0.066	0.205	11111	1.28	39053.7814	3	681	3.882	1.329	0.352	1.185	1.631	11111	1.33	38786.6156	1
575	4.504	0.120	0.063	0.040	0.204	11111	1.28	39451.7362	1	681	3.842	1.300	0.371	1.270	1.683	11111	1.26	38789.5821	1
580	3.986	0.026	0.042	-0.034	0.016	11111	1.30	39053.7906	3	681	3.844	1.375	0.431	1.204	1.732	11111	1.33	38791.6029	1
580	3.954	0.005	0.005	-0.016	0.010	11111	1.30	39431.7606	1	681	6.146	1.854	0.505	1.300	1.275	11111	1.36	39084.8079	1
590	5.022	-0.012	0.006	-0.021	-0.119	11111	1.08	39053.8010	3	681	3.270	1.183	0.333	1.056	1.620	11111	1.24	39139.6078	3
590	4.982	-0.011	-0.020	-0.039	-0.113	11111	1.08	39451.7116	1	681	3.405	1.255	0.349	1.095	1.616	11111	1.26	39151.5918	3
595	3.830	0.037	0.021	0.013	0.006	11111	1.22	38786.5968	1	681	9.888	3.096	0.915	1.274	0.926	11111	1.23	39359.9865	1
595	3.859	0.055	0.058	-0.074	-0.061	11111	1.26	38708.8224	3	681	9.420	2.902	0.804	1.365	0.900	11111	1.26	39372.9137	3
603	2.434	0.947	0.616	0.538	1.533	11111	1.09	38708.8332	3	699	6.330	0.309	0.169	0.213	0.247	11111	1.12	39019.8751	3
603	2.414	0.878	0.596	0.520	1.578	11111	1.07	38764.6678	1	699	6.364	0.289	0.189	0.209	0.242	11111	1.11	39057.8499	3
617	2.324	0.875	0.546	0.502	1.614	11111	1.22	38641.8360	1	707	4.547	0.146	0.113	0.015	0.150	11111	1.22	39025.8980	3
617	2.346	0.882	0.575	0.475	1.558	11111	1.01	38641.9496	1	707	4.495	0.116	0.089	0.022	0.157	11111	1.22	39076.7680	3
617	2.319	0.849	0.561	0.494	1.611	11111	1.02	38751.6205	3	708	4.895	-0.009	-0.010	-0.018	0.022	11111	1.07	39057.8596	3
617	2.296	0.857	0.549	0.479	1.562	11111	1.07	38752.5797	3	699	5.167	1.243	0.795	0.639	0.000	11111	1.06	39019.8845	3
617	2.318	0.884	0.542	0.492	1.604	11111	1.01	38764.8457	1	699	5.182	1.222	0.797	0.640	2.273	11111	1.07	39057.8596	3
617	2.337	0.866	0.534	0.473	1.559	11111	1.03	38786.5794	1	699	5.157	1.192	0.767	0.635	2.292	11111	1.05		

TABLE 8 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 52

B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS	B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS
718	4.283	-0.036	-0.017	-0.023	-0.056	11111	2.85	39139.7917	3	875	5.179	0.059	0.054	0.016	0.071	11111	1.24	39091.7465	1
718	4.270	-0.042	-0.006	-0.035	-0.052	11111	1.10	39140.5811	3	875	5.230	0.085	0.062	0.000	0.095	11111	1.26	39360.0088	1
718	4.281	-0.043	-0.022	-0.018	-0.043	11111	1.11	39147.6032	3	875	5.196	0.076	0.040	0.013	0.094	11111	2.05	39372.6323	3
718	4.274	-0.041	-0.030	-0.023	-0.049	11111	2.42	39147.7568	3	875	5.210	0.063	0.035	0.041	0.145	11111	1.24	39372.9837	3
718	4.275	-0.024	-0.021	-0.037	-0.063	11111	1.15	39148.6211	3	875	5.198	0.087	0.039	0.006	0.095	11111	1.29	39376.0102	1
718	4.293	-0.034	-0.015	-0.020	-0.061	11111	2.30	39148.7496	3	875	5.181	0.053	0.035	0.029	0.090	11111	1.26	39377.9885	1
718	4.161	-0.073	-0.041	-0.015	-0.028	01111	1.14	39150.6123	3	875	5.208	0.072	0.047	0.010	0.098	11111	1.24	39406.8865	1
718	4.290	-0.040	-0.013	-0.037	-0.062	11111	1.10	39151.5799	3	875	5.185	0.046	0.017	0.023	0.104	11111	2.12	39409.7277	3
718	4.297	-0.026	-0.010	-0.036	-0.069	11111	1.17	39359.9336	1	875	5.198	0.079	0.044	0.016	0.105	11111	1.26	39409.0434	3
718	4.325	-0.045	-0.020	-0.024	-0.040	11111	1.40	39365.8625	1	875	5.222	0.081	0.056	0.017	0.109	11111	2.28	39410.7171	3
718	4.328	-0.004	0.005	-0.024	-0.059	11111	1.10	39375.9346	1	875	5.238	0.095	0.060	0.027	0.117	11111	1.26	39410.0754	3
718	4.290	-0.021	-0.006	-0.053	-0.078	11111	1.10	39377.9214	1	875	5.189	0.063	0.038	0.040	0.122	11111	1.27	39431.8510	1
718	4.282	-0.026	-0.013	-0.032	-0.057	11111	1.12	39407.8300	1	875	5.000	0.070	0.024	0.000	0.111	01101	1.48	39433.8892	0
718	4.249	-0.038	-0.021	-0.048	-0.090	11111	1.10	39408.8493	3	875	5.219	0.070	0.047	0.019	0.111	11111	1.35	39434.8691	1
718	4.203	-0.047	-0.015	-0.047	-0.076	11111	1.10	39443.7777	1	875	5.179	0.022	0.033	0.009	0.097	11111	1.32	39487.6066	3
718	4.299	-0.039	-0.018	-0.041	-0.060	11111	1.10	39444.7582	1	879	4.727	0.065	0.045	0.018	0.069	11111	1.01	39402.8923	3
718	4.296	-0.037	-0.012	-0.047	-0.065	11111	1.10	39457.7029	1	879	4.692	0.063	0.032	0.001	0.048	11111	1.14	39173.6197	3
718	4.304	-0.017	-0.019	-0.041	-0.073	11111	1.10	39459.7277	1	879	4.727	0.065	0.045	0.018	0.069	11111	1.01	39402.8923	3
718	4.300	-0.028	-0.007	-0.032	-0.051	11111	1.24	39461.7942	1	882	5.272	0.964	0.609	0.518	1.737	11111	1.01	39402.9040	3
718	4.285	-0.034	-0.018	-0.040	-0.063	11111	1.11	39476.6975	1	882	5.249	0.922	0.576	0.502	1.706	11111	1.07	39174.5911	3
718	4.282	-0.040	-0.031	-0.026	-0.041	11111	1.10	39479.6615	1	896	4.702	-0.027	0.002	-0.066	-0.163	11111	1.10	38752.7013	3
718	4.290	-0.028	-0.011	-0.020	-0.058	11111	1.84	39487.7980	3	896	4.692	-0.053	-0.027	-0.064	-0.177	11111	1.35	39173.6293	3
718	4.272	-0.045	-0.019	-0.041	-0.046	11111	1.13	39499.6684	1	911	2.944	1.256	0.741	0.727	2.433	11111	1.22	38786.6459	1
718	4.288	-0.033	-0.012	-0.041	-0.059	11111	1.16	39500.6634	1	911	2.973	1.289	0.771	0.729	2.443	11111	1.14	39054.8483	3
718	4.289	-0.048	-0.014	-0.038	-0.073	11111	1.10	39501.5937	1	915	3.109	0.578	0.353	0.333	0.822	11111	1.07	39106.9546	3
718	4.297	-0.033	-0.008	-0.034	-0.068	11111	1.10	39502.6138	1	915	3.115	0.572	0.353	0.320	0.847	11111	1.07	39054.8582	3
718	4.264	-0.057	-0.037	-0.026	-0.050	11111	1.10	39504.5765	1	921	3.717	1.270	0.568	0.911	2.295	11111	1.01	39018.9533	3
718	4.306	-0.056	-0.018	-0.050	-0.059	11111	1.10	39505.5819	1	921	3.780	1.285	0.563	0.895	2.243	11111	1.01	39054.8674	3
718	4.299	-0.057	-0.025	-0.036	-0.059	11111	1.10	39506.5788	1	932	4.869	0.016	0.027	0.001	0.045	11111	1.34	39016.9664	3
718	4.289	-0.046	-0.028	-0.043	-0.075	11111	1.10	39507.5992	1	932	4.874	0.029	0.018	-0.002	0.061	11111	1.35	39054.8776	3
718	4.283	-0.061	-0.042	-0.046	-0.078	11111	1.10	39508.5824	1	932	4.888	0.021	0.038	0.004	0.048	11111	1.34	39139.6447	3
788	5.030	0.449	0.283	0.234	0.647	11111	1.07	38708.8525	3	936	2.139	-0.027	-0.023	-0.023	-0.076	11111	1.08	39473.6355	1
788	5.053	0.445	0.265	0.241	0.679	11111	1.01	39138.5993	3	936	2.123	0.006	-0.009	-0.041	-0.144	11111	1.06	38708.8633	3
799	4.251	0.423	0.253	0.216	0.577	11111	1.05	39026.9020	3	936	2.164	0.015	-0.002	-0.044	-0.088	11111	1.03	39054.8878	3
799	4.266	0.422	0.237	0.213	0.545	11111	1.04	39138.6101	3	936	2.127	0.023	0.007	-0.028	-0.089	11111	1.02	39406.9084	1
801	4.666	-0.059	-0.038	-0.064	-0.177	11111	1.00	39026.9113	3	936	2.175	0.034	0.004	-0.044	-0.098	11111	1.03	39448.8150	1
801	4.669	-0.080	-0.056	-0.052	-0.177	11111	1.01	39138.6199	3	936	3.054	0.104	0.056	0.001	-0.009	11111	1.11	39456.6671	1
804	3.510	0.072	0.051	0.015	0.116	11111	1.15	39026.9211	3	936	3.187	0.124	0.062	0.018	-0.001	11111	1.07	39456.6855	1
804	3.517	0.090	0.051	-0.004	0.106	11111	1.15	39139.6218	3	936	2.478	0.000	-0.035	-0.030	0.103	11111	1.05	39459.6949	1
811	4.272	-0.035	-0.010	-0.074	-0.171	11111	1.46	39028.8953	3	936	2.417	0.009	-0.007	-0.042	-0.122	11111	1.02	39459.7143	3
811	4.233	-0.058	-0.032	-0.054	-0.175	11111	1.47	39139.6324	3	936	2.167	0.025	0.008	-0.059	-0.111	11111	1.05	39468.7750	1
813	4.387	0.300	0.186	0.114	0.336	11111	1.08	39028.9059	3	941	4.077	0.796	0.515	0.375	1.257	11111	1.02	39018.9630	3
813	4.334	0.257	0.169	0.123	0.355	11111	1.08	39140.5936	3	941	4.045	0.736	0.454	0.427	1.318	11111	1.02	39055.8550	3
818	4.615	0.437	0.268	0.202	0.541	11111	1.59	39028.9166	3	947	4.903	0.831	0.530	0.499	1.535	11111	1.01	39018.9737	3
818	4.536	0.369	0.235	0.243	0.577	11111	1.59	39140.6044	3	947	4.904	0.835	0.522	0.471	1.539	11111	1.01	39055.8649	3
824	4.831	0.848	0.546	0.494	1.541	11111	1.00	39029.8944	3	951	4.594	0.757	0.475	0.469	1.389	11111	1.03	39026.9491	3
824	4.789	0.814	0.536	0.480	1.532	11111	1.00	39140.6145	3	951	4.612	0.770	0.483	0.457	1.411	11111	1.03	39055.8748	3
834	4.265	1.295	0.836	0.775	2.341	11111	1.09	39029.9045	3	972	4.880	-0.011	0.001	-0.023	-0.031	11111	1.02	39026.9314	3
834	4.239	1.269	0.813	0.779	2.449	11111	1.09	39140.6243	3	972	4.925	-0.002	0.009	-0.033	-0.034	11111	1.03	39055.8854	3
838	0.000	0.000	-0.017	-0.044	-0.121	00111	1.00	39029.9137	3	984	4.857	0.206	0.121	0.080	0.278	11111	1.50	38705.7431	3
838	3.613	-0.052	-0.012	-0.067	-0.134	11111	1.02	39140.6346	3	984	4.906	0.199	0.147	0.076	0.264	11111	1.34	39056.8436	3
838	3.653	-0.040	-0.070	-0.070	-0.138	11111	1.01	39151.6027	3	985	4.861	-0.044	-0.035	-0.067	-0.210	11111	1.19	39056.8589	3
840	4.332	0.326	0.187	0.154	0.407	11111	1.02	39042.8439	3	991	5.220	1.072	0.712	0.684	2.058	11111	1.02	38705.7817	3
840	4.325	0.282	0.169	0.188	0.421	11111	1.02	39151.6121	3	991	5.198	1.074	0.715	0.685	2.120	11111	1.00	39056.8693	3
843	4.985	1.256	0.793	0.646	2.317	11111	1.01	39042.8546	3	996	4.993	0.539	0.345	0.282	0.791	11111	1.15	39026.9542	3
843	4.995	1.235	0.776	0.667	2.327	11111	1.03	39151.6216	3	996	5.038	0.544	0.353	0.295	0.819	11111	1.15	39057.8691	3
854	4.134	0.613	0.360	0.336	0.919	11111	1.07	39042.8655	3	999	4.909	1.241	0.807	0.690	2.326	11111	1.		

TABLE 8 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 52

B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS	B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS
1017	1.924	0.417	0.243	0.226	0.545	11111	1.08	39459.7045	1	1138	5.442	0.062	0.047	0.003	0.120	11111	1.28	39050.8649	3
1017	1.971	0.437	0.270	0.216	0.551	11111	1.13	39459.8375	1	1138	5.421	0.072	0.042	0.000	0.121	11111	1.29	39372.9630	3
1017	1.959	0.423	0.272	0.200	0.547	11111	1.08	39468.7873	1	1140	5.495	-0.015	0.005	-0.036	-0.075	11111	1.04	39482.7483	3
1017	1.932	0.405	0.242	0.213	0.559	11111	1.18	39473.6160	1	1142	3.743	-0.028	-0.003	-0.066	-0.173	11111	1.01	39042.9284	3
1030	3.847	0.693	0.435	0.417	1.164	11111	1.12	39028.9757	3	1142	3.698	-0.048	-0.028	-0.014	-0.159	11111	1.03	39375.9641	1
1030	3.833	0.697	0.423	0.417	1.107	11111	1.09	39091.7598	1	1142	3.710	-0.049	-0.035	-0.048	-0.142	11111	1.01	39482.7137	3
1034	5.069	-0.026	-0.008	-0.019	-0.125	11111	1.04	39029.9372	3	1144	5.676	-0.013	-0.003	-0.024	-0.117	11111	1.02	39042.9386	3
1034	5.033	-0.082	-0.048	-0.024	-0.137	11111	1.05	39135.6306	1	1144	5.643	-0.027	-0.006	-0.004	-0.104	11111	1.02	39375.9735	1
1035	4.403	0.446	0.258	0.271	0.393	11111	1.13	39029.9483	3	1145	4.353	0.014	0.013	-0.086	-0.196	11111	1.03	39042.9476	3
1035	4.430	0.405	0.216	0.248	0.383	11111	1.13	39135.6437	1	1145	4.287	-0.046	-0.021	-0.051	-0.184	11111	1.02	39375.9816	1
1038	3.798	0.004	0.017	-0.028	-0.075	11111	1.11	39029.9687	3	1145	4.311	-0.037	0.000	-0.044	-0.134	11011	1.09	39482.7764	3
1038	3.738	-0.032	-0.018	-0.050	-0.132	11111	1.08	39091.7695	1	1148	4.647	0.071	0.047	0.015	0.037	11111	1.29	39050.8752	3
1040	4.714	0.553	0.323	0.311	0.501	11111	1.12	39044.8943	3	1148	4.659	0.074	0.042	0.016	0.042	11111	1.30	39372.9730	3
1040	4.809	0.515	0.309	0.334	0.514	11111	1.12	39135.6552	1	1149	3.921	0.045	0.013	-0.027	-0.125	11111	1.01	39050.8859	3
1040	4.686	0.552	0.318	0.324	0.479	11111	1.11	39408.8968	3	1149	3.872	-0.005	0.018	-0.031	-0.154	11111	1.01	39375.9902	1
1044	4.680	-0.045	-0.031	-0.040	-0.156	11111	1.05	39044.8835	3	1151	5.787	0.018	0.016	-0.013	-0.063	11111	1.01	39050.8958	3
1044	4.675	-0.040	-0.040	-0.031	-0.157	11111	1.05	39139.6554	3	1151	5.779	-0.002	-0.004	-0.036	-0.074	11111	1.07	39377.9333	1
1046	5.125	0.038	0.023	-0.002	0.066	11111	1.09	39045.8808	3	1155	4.962	1.262	0.834	0.953	2.728	11111	1.20	39050.9193	3
1046	5.159	0.018	0.030	-0.035	0.039	11111	1.09	39139.6648	3	1155	4.871	1.464	0.810	0.960	2.732	11111	1.24	39372.9398	3
1052	4.737	1.089	0.695	0.573	2.001	11111	1.04	39045.8898	3	1156	4.213	0.040	0.005	-0.039	-0.069	11111	1.02	39051.8669	3
1052	4.735	1.063	0.685	0.566	1.993	11111	1.05	39139.6745	3	1156	4.176	0.036	0.010	-0.022	-0.087	11111	1.06	39377.9422	1
1066	4.392	0.767	0.492	0.502	1.580	11111	1.08	38705.7986	3	1156	4.185	0.047	-0.005	-0.007	-0.078	11111	1.04	39409.8676	3
1066	4.393	0.785	0.480	0.531	1.556	11111	1.06	39147.6177	3	1162	4.871	1.277	0.782	0.695	2.448	11111	1.44	38751.7439	3
1070	4.746	-0.045	-0.013	-0.048	-0.135	11111	1.26	39045.9025	3	1162	4.881	1.276	0.773	0.687	2.416	11111	1.51	39176.6030	3
1070	4.723	-0.047	-0.045	-0.029	-0.115	11111	1.27	39147.6278	3	1165	2.931	0.010	-0.019	-0.037	-0.173	11111	1.05	38751.7602	3
1084	3.955	0.748	0.505	0.304	1.104	11111	2.04	38702.7081	3	1165	2.863	-0.021	-0.022	-0.032	-0.137	11111	1.04	39377.9510	1
1084	3.945	0.757	0.479	0.313	1.120	11111	1.36	38702.8139	3	1165	2.885	0.000	-0.018	-0.042	-0.138	11111	1.03	39409.8784	3
1084	3.972	0.762	0.484	0.322	1.104	11111	1.41	38702.8823	3	1165	2.865	-0.015	-0.027	-0.021	-0.153	11111	1.01	39488.6827	3
1084	3.975	0.763	0.497	0.315	1.092	11111	1.71	38702.9360	3	1165	2.874	-0.002	-0.020	-0.038	-0.142	11111	1.04	39488.7331	3
1084	3.928	0.742	0.469	0.306	1.088	11111	2.44	38704.6824	3	1172	5.481	-0.010	-0.014	-0.038	-0.110	11111	1.01	39051.8795	3
1084	3.966	0.746	0.481	0.320	1.107	11111	1.53	38704.7559	3	1172	5.442	-0.019	-0.007	-0.038	-0.114	11111	1.03	39377.9609	1
1084	3.976	0.756	0.496	0.316	1.113	11111	1.35	38704.8361	3	1172	5.436	-0.056	-0.016	-0.021	-0.123	11111	1.02	39488.6689	3
1084	3.971	0.766	0.503	0.315	1.095	11111	1.49	38704.8965	3	1178	3.679	-0.001	-0.017	-0.043	-0.130	11111	1.01	39051.8900	3
1084	3.953	0.752	0.501	0.309	1.100	11111	1.72	38704.9312	3	1178	3.623	-0.019	-0.001	-0.042	-0.141	11111	1.02	39377.9703	1
1084	3.969	0.734	0.474	0.316	1.102	11111	1.52	38705.7548	3	1178	3.635	-0.023	-0.008	-0.027	-0.125	11111	1.06	39487.6616	3
1084	3.964	0.723	0.468	0.309	1.097	11111	2.25	38705.6967	3	1180	5.011	-0.001	-0.019	-0.010	-0.108	11111	1.03	39052.8575	3
1084	3.991	0.759	0.515	0.309	1.104	11111	1.37	39107.6106	3	1180	5.018	0.020	-0.004	-0.047	-0.133	11111	1.02	39377.9792	1
1084	3.975	0.765	0.477	0.316	1.108	11111	2.86	39042.7429	3	1180	5.016	0.030	-0.020	-0.029	-0.121	11111	1.02	39409.8902	3
1084	3.960	0.756	0.497	0.316	1.086	11111	1.38	39045.9323	3	1180	0.000	-0.037	-0.021	-0.021	-0.123	01111	1.04	39487.6525	3
1084	3.974	0.749	0.496	0.330	1.109	11111	2.66	39056.7106	3	1183	6.222	-0.007	-0.013	-0.077	-0.115	11111	1.37	39487.8222	3
1084	3.982	0.769	0.492	0.319	1.092	11111	2.33	39057.7205	3	1203	2.961	0.142	0.078	0.096	0.038	11111	1.01	39052.8677	3
1084	4.012	0.779	0.519	0.307	1.096	11111	2.16	39060.7207	3	1203	2.909	0.158	0.071	0.112	0.056	11111	1.00	39409.9012	3
1084	3.978	0.741	0.489	0.333	1.120	11111	1.35	39028.9267	3	1204	4.969	-0.036	-0.020	-0.028	-0.091	11111	1.16	39052.8791	3
1084	4.077	0.780	0.497	0.297	1.074	11111	1.35	39011.7797	1	1204	4.941	-0.024	-0.024	-0.040	-0.123	11111	1.16	39408.9081	3
1084	3.991	0.698	0.468	0.296	1.053	11111	1.45	39172.6072	3	1211	4.648	0.578	0.337	0.323	0.813	11111	1.23	39052.8890	3
1084	3.953	0.729	0.447	0.331	1.102	11111	2.32	39172.6925	3	1211	4.667	0.567	0.337	0.305	0.813	11111	1.26	39457.7493	1
1084	3.953	0.741	0.469	0.325	1.095	11111	1.43	39173.6003	3	1220	2.886	-0.089	-0.054	-0.063	-0.255	11111	1.04	39053.8395	3
1084	3.960	0.740	0.462	0.294	1.082	11111	1.37	39174.5695	3	1220	2.885	-0.094	-0.060	-0.068	-0.272	11111	1.03	39411.8680	1
1084	3.960	0.725	0.473	0.305	1.097	11111	1.41	39175.5885	3	1228	4.098	0.107	0.079	0.027	-0.077	11111	1.03	39053.8489	3
1084	3.945	0.738	0.479	0.319	1.096	11111	2.44	39175.6892	3	1228	4.069	0.116	0.062	0.031	-0.070	11111	1.01	39411.8815	1
1084	3.974	0.736	0.459	0.314	1.096	11111	1.41	39176.5831	3	1231	3.424	1.254	0.806	0.638	2.345	11111	1.48	39053.8583	3
1084	3.911	0.753	0.487	0.323	1.111	11111	2.66	39176.6944	3	1231	3.357	1.245	0.818	0.651	2.344	11111	1.48	39440.7985	1
1084	3.964	0.751	0.466	0.317	1.106	11111	2.03	39372.8741	3	1239	3.761	-0.030	-0.035	-0.075	-0.168	11111	1.08	39053.8682	3
1084	3.993	0.774	0.482	0.306	1.099	11111	1.37	39376.0189	1	1239	3.436	-0.035	-0.035	-0.074	-0.185	11111	1.13	39440.7752	1
1084	3.981	0.760	0.500	0.310	1.076	11111	1.37	39377.9982	1	1251	3.933	-0.006	0.024	-0.024	0.013	11111	1.44	38708.7277	3
1084	3.969	0.749	0.492	0.315	1.097	11111	1.37	39476.7100	1	1251	3.831	0.016	-0.003	-0.010	0.051	11111	1.16	38786.6722	1
1084	3.972	0.748	0.485	0.323	1.131														

TABLE 8 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 52

B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS	B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS
1318	5.200	0.918	0.563	0.505	1.637	11111	1.64	39019.9080	3	1481	4.129	0.830	0.510	0.473	1.478	11111	1.46	39053.9304	3
1318	5.155	0.889	0.559	0.474	1.611	11111	1.36	39148.6518	3	1481	4.132	0.857	0.550	0.446	1.448	11111	1.48	39499.6748	1
1319	6.413	0.350	0.217	0.158	0.453	11111	1.05	39509.6606	1	1496	4.737	1.258	0.659	0.776	2.326	11111	1.63	39054.9095	3
1320	4.333	0.039	0.009	-0.045	-0.128	11111	1.15	39751.7828	3	1496	4.713	1.237	0.662	0.767	2.317	11111	1.63	39499.6876	1
1320	4.185	-0.039	-0.011	-0.006	-0.079	01111	1.09	39150.6271	3	1497	4.235	-0.102	-0.081	-0.043	-0.145	11111	1.01	39055.9228	3
1324	4.638	0.041	0.039	0.021	0.051	11111	1.05	39025.9888	3	1497	4.299	-0.066	-0.040	-0.060	-0.162	11111	1.02	39479.7664	1
1324	4.561	0.017	0.007	0.014	0.053	01111	1.05	39150.6379	3	1520	3.991	-0.090	-0.079	-0.075	-0.200	11111	1.24	39055.9323	3
1324	4.624	0.086	0.043	0.007	0.046	11111	1.05	39409.9269	3	1520	4.014	-0.074	-0.037	-0.067	-0.195	11111	1.23	39500.6923	1
1325	4.671	0.704	0.456	0.320	0.983	11111	1.33	39026.0096	3	1542	4.317	0.083	0.060	0.050	-0.055	11111	1.22	39056.8809	3
1325	4.543	0.671	0.438	0.317	0.994	01111	1.32	39150.6574	3	1542	4.381	0.131	0.066	0.050	-0.066	11111	1.20	39459.8135	1
1325	4.635	0.691	0.440	0.312	0.986	11111	1.32	39431.8881	1	1543	3.305	0.369	0.225	0.207	0.517	11111	1.12	39056.8911	3
1329	5.025	0.206	0.144	0.097	0.335	11111	1.02	39026.9887	3	1543	3.314	0.391	0.231	0.202	0.519	11111	1.14	39461.7706	1
1329	4.965	0.210	0.137	0.101	0.303	11111	1.02	39408.9325	3	1544	4.348	-0.017	0.008	0.000	0.026	11111	1.10	39056.9010	3
1346	3.898	0.724	0.452	0.439	1.319	11111	1.05	39026.9976	3	1544	4.414	0.060	0.030	-0.015	-0.014	11111	1.09	39459.8025	1
1346	3.856	0.738	0.450	0.421	1.269	11111	1.05	39409.9483	3	1547	5.134	0.161	0.105	0.063	0.248	11111	1.03	39057.9235	3
1350	4.900	0.035	0.011	-0.002	-0.084	11111	1.03	39028.9876	3	1547	5.165	0.156	0.106	0.099	0.283	11111	1.03	39479.7519	1
1350	4.866	0.046	0.022	0.002	-0.087	11111	1.03	39409.9384	3	1547	5.177	0.191	0.124	0.079	0.257	11111	1.04	39500.7318	1
1351	5.677	0.257	0.142	0.114	0.346	11111	1.05	39502.6815	1	1552	3.651	-0.093	-0.066	-0.094	-0.270	11111	1.13	39057.9325	3
1351	5.646	0.234	0.151	0.098	0.336	11111	1.13	39506.6047	1	1552	3.695	-0.070	-0.038	-0.073	-0.232	11111	1.14	39461.7832	1
1356	5.344	0.223	0.141	0.094	0.283	11111	1.03	39411.9068	1	1560	4.413	0.201	0.128	0.090	0.284	11111	1.28	39057.9418	3
1356	5.344	0.182	0.118	0.059	0.258	11111	1.09	39506.6172	1	1560	4.448	0.231	0.148	0.093	0.281	11111	1.29	39500.6798	1
1373	4.025	0.740	0.473	0.443	1.333	11111	1.04	39028.9966	3	1567	3.706	-0.113	-0.083	-0.064	-0.240	11111	1.41	39059.8155	3
1373	3.981	0.734	0.452	0.424	1.287	11111	1.04	39408.9601	3	1567	3.714	-0.092	-0.075	-0.083	-0.258	11111	1.32	39473.7007	1
1376	5.730	0.245	0.164	0.104	0.380	11111	1.06	39506.6319	1	1568	4.508	-0.036	-0.023	0.007	-0.004	11111	1.17	39059.8261	3
1380	4.883	0.151	0.116	0.054	0.209	11111	1.05	39029.0044	3	1568	4.501	0.038	0.006	-0.013	-0.046	11111	1.07	39459.8259	1
1380	4.851	0.136	0.085	0.053	0.205	11111	1.04	39411.8950	1	1570	4.715	0.021	-0.009	0.036	0.126	11111	1.21	39459.8372	3
1385	6.095	0.325	0.197	0.165	0.429	11111	1.04	39507.6649	1	1570	4.687	0.034	0.026	-0.006	0.109	11111	1.31	39472.7370	1
1387	4.325	0.151	0.111	0.030	0.186	11111	1.02	39029.9796	3	1577	3.149	1.121	0.712	0.680	2.267	11111	1.07	39059.8469	3
1387	4.264	0.129	0.082	0.032	0.162	11111	1.02	39411.9221	1	1577	3.051	1.130	0.731	0.648	2.231	11111	1.23	39474.6627	1
1389	4.325	0.049	0.049	-0.014	0.063	11111	1.04	39029.9966	3	1580	4.429	0.873	0.537	0.520	1.608	11111	1.13	39059.8560	3
1389	4.327	0.049	0.028	-0.004	0.080	11111	1.05	39431.9887	1	1580	4.394	0.880	0.563	0.492	1.595	11111	1.12	39457.7698	1
1392	4.398	0.269	0.182	0.101	0.303	11111	1.02	39029.9879	3	1592	5.012	0.016	0.008	-0.006	0.038	11111	1.04	39059.8659	3
1392	4.383	0.260	0.159	0.104	0.286	11111	1.01	39411.9338	1	1592	4.902	0.002	0.011	-0.014	0.045	11111	1.28	39474.6502	1
1394	4.563	0.230	0.151	0.094	0.265	11111	1.05	39044.9194	3	1601	4.815	1.027	0.630	0.641	2.027	11111	1.23	38705.9386	3
1394	4.580	0.249	0.155	0.099	0.288	11111	1.05	39411.9464	1	1601	4.839	1.025	0.679	0.630	2.013	11111	1.17	39500.7191	1
1396	4.888	0.708	0.450	0.452	1.279	11111	1.05	39044.9478	3	1603	4.293	0.673	0.407	0.448	1.142	11111	1.13	39059.9169	3
1396	4.960	0.745	0.463	0.448	1.282	11111	1.05	39448.8428	1	1603	4.209	0.668	0.410	0.441	1.150	11111	1.32	39473.6588	1
1408	5.972	0.274	0.159	0.131	0.386	11111	1.06	39506.6449	1	1605	3.119	0.494	0.286	0.317	0.512	11111	1.02	38702.8898	3
1409	3.807	0.738	0.477	0.448	1.402	11111	1.04	38705.8970	3	1605	3.128	0.505	0.303	0.505	0.505	11111	1.03	38704.8595	3
1409	3.767	0.746	0.472	0.439	1.370	11111	1.07	39431.9298	1	1605	3.177	0.512	0.288	0.301	0.549	11111	1.04	38751.7232	3
1411	4.100	0.709	0.457	0.410	1.293	11111	1.08	38705.9095	3	1605	3.150	0.479	0.285	0.294	0.534	11111	1.03	38757.7340	3
1411	4.078	0.716	0.433	0.417	1.280	11111	1.08	38752.7685	3	1605	3.129	0.389	0.237	0.322	0.532	11111	1.03	38789.6306	1
1411	4.133	0.728	0.476	0.407	1.271	11111	1.07	38786.6846	1	1605	3.185	0.464	0.264	0.321	0.557	11111	1.02	38791.6453	1
1411	4.109	0.715	0.466	0.422	1.252	11111	1.07	39502.6440	1	1605	3.125	0.448	0.267	0.308	0.528	11111	1.03	39712.6317	3
1411	4.066	0.675	0.444	0.446	1.247	11111	1.17	39506.5908	1	1605	3.115	0.476	0.293	0.298	0.500	11111	1.05	39406.9212	1
1411	4.078	0.716	0.452	0.406	1.262	11111	1.07	39509.6266	1	1611	4.881	0.229	0.123	0.121	0.294	11111	1.42	39059.9280	3
1412	3.479	0.168	0.101	0.049	0.232	11111	1.08	38752.7797	3	1611	4.844	0.228	0.153	0.106	0.305	11111	1.41	39468.8033	1
1412	3.467	0.146	0.062	0.055	0.218	11111	1.09	38786.6943	1	1612	4.179	1.127	0.693	0.571	1.425	11111	1.02	39059.9386	3
1412	3.444	0.139	0.073	0.066	0.226	11111	1.19	39504.9519	1	1612	4.109	1.098	0.691	0.571	1.409	11111	1.02	39172.6615	3
1412	3.498	0.219	0.101	-0.025	0.173	11111	1.17	39505.5961	1	1612	4.128	1.130	0.728	0.558	1.396	11111	1.03	39406.9341	1
1412	3.494	0.170	0.095	0.006	0.193	11111	1.10	39507.6166	1	1617	4.821	-0.126	-0.076	-0.067	-0.237	11111	1.32	39059.9490	3
1412	3.482	0.156	0.072	0.009	0.194	11111	1.13	39508.6009	1	1617	4.779	-0.112	-0.069	-0.073	-0.229	11111	1.30	39500.7053	1
1412	3.498	0.169	0.092	0.044	0.213	11111	1.12	39509.7304	1	1620	4.675	0.128	0.104	0.049	0.193	11111	1.03	38752.7921	3
1427	4.824	0.116	0.105	0.045	0.188	11111	1.05	39044.9610	3	1620	0.000	0.123	0.072	0.058	0.204	01111	1.03	38791.6813	1
1427	4.867	0.152	0.095	0.046	0.202	11111	1.04	39459.7920	1	1621	4.916	-0.043	-0.019	-0.018	-0.059	11111	1.71	39059.9584	3
1437	5.241	0.984	0.630	0.582	1.895	11111	1.18	39045.9419	3	1621	4.891	-0.030	-0.015	-0.032	-0.074	11111	1.65	39499.7006	1
1437	5.218	0.962	0.602	0.582	1.902</td														

TABLE 8 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 52

B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS	B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS	
1696	4.432	-0.062	-0.043	-0.045	-0.103	11111	1.41	39051.9695	3	1655	4.571	-0.158	-0.073	-0.113	-0.361	11111	1.35	39045.0238	3	
1696	4.424	-0.073	-0.042	-0.055	-0.154	11111	1.45	39174.6528	3	1655	4.580	-0.165	-0.092	-0.102	-0.324	11111	2.49	39045.8236	3	
1698	4.752	0.864	0.551	0.505	1.692	11111	1.17	39051.9803	3	1655	4.552	-0.164	-0.111	-0.096	-0.334	11111	2.22	39050.8214	3	
1698	4.742	0.862	0.559	0.484	1.649	11111	1.20	39174.6623	3	1655	4.568	-0.173	-0.112	-0.099	-0.334	11111	1.35	39052.0049	3	
1702	3.263	-0.060	-0.053	-0.060	-0.159	11111	1.51	39052.9505	3	1655	4.552	-0.190	-0.130	-0.081	-0.312	11111	1.31	39052.9779	3	
1702	3.280	-0.060	-0.034	-0.065	-0.167	11111	1.64	39174.6712	3	1655	4.575	-0.189	-0.109	-0.098	-0.337	11111	1.32	39053.9816	3	
1705	4.332	-0.058	-0.053	-0.037	-0.129	11111	1.42	39052.9417	3	1655	4.566	-0.178	-0.103	-0.099	-0.329	11111	1.32	39054.9801	3	
1705	4.367	-0.035	-0.027	-0.052	-0.163	11111	1.58	39174.6805	3	1655	4.580	-0.152	-0.089	-0.115	-0.347	11111	2.48	39055.7968	3	
1708	0.247	0.615	0.389	0.376	1.009	11111	1.04	39019.0153	3	1655	4.542	-0.179	-0.127	-0.103	-0.349	11111	1.35	39055.9932	3	
1708	0.246	0.615	0.375	0.336	1.004	11111	1.12	39174.6998	3	1655	4.570	-0.118	-0.101	-0.111	-0.366	11111	1.40	39057.0063	3	
1713	0.182	0.052	0.005	0.024	-0.117	11111	1.44	38751.7091	3	1655	4.571	-0.150	-0.083	-0.132	-0.365	11111	1.34	39057.9817	3	
1713	0.163	0.042	0.016	0.005	-0.112	11111	1.32	38752.7569	3	1655	4.576	-0.170	-0.088	-0.101	-0.346	11111	1.30	39084.8684	1	
1713	0.180	0.012	-0.003	0.073	-0.084	11111	1.34	38764.7124	1	1655	4.568	-0.156	-0.095	-0.105	-0.339	11111	1.32	39135.7062	3	
1713	0.181	0.035	0.028	-0.010	-0.119	11111	1.32	39406.9618	1	1655	4.583	-0.169	-0.100	-0.080	-0.326	11111	1.30	39139.7091	3	
1726	4.905	0.996	0.645	0.519	1.769	11111	1.01	38751.8007	3	1655	4.603	-0.152	-0.089	-0.115	-0.347	11111	2.48	39150.7968	3	
1726	4.897	0.992	0.638	0.535	1.764	11111	1.02	38752.8045	3	1655	4.568	-0.164	-0.092	-0.097	-0.339	11111	1.32	39151.7165	3	
1729	4.853	0.526	0.321	0.270	0.745	11111	1.03	38751.8145	3	1655	4.523	-0.164	-0.101	-0.092	-0.325	11111	2.34	39151.8385	3	
1729	4.864	0.478	0.296	0.266	0.722	11111	1.03	39175.6571	3	1655	4.582	-0.169	-0.088	-0.094	-0.318	11111	1.31	39154.6635	3	
1729	4.875	0.530	0.324	0.269	0.725	11111	1.01	39409.9731	3	1655	4.554	-0.179	-0.110	-0.092	-0.325	11111	2.31	39154.8289	3	
1735	3.572	-0.078	-0.079	-0.052	-0.163	11111	1.29	39052.9602	3	1655	4.587	-0.133	-0.088	-0.109	-0.344	11111	1.39	39171.6908	1	
1735	3.577	-0.064	-0.032	-0.081	-0.177	11111	1.32	39175.6478	3	1655	4.567	-0.190	-0.106	-0.114	-0.355	11111	1.31	39172.6182	3	
1756	4.248	-0.177	-0.118	-0.090	-0.312	11111	1.44	39052.9692	3	1655	4.570	-0.169	-0.090	-0.111	-0.359	11111	2.23	39172.7760	3	
1756	4.257	-0.152	-0.095	-0.098	-0.347	11111	1.45	39175.6390	3	1655	4.555	-0.166	-0.098	-0.107	-0.341	11111	1.31	39173.6090	3	
1765	4.686	-0.129	-0.093	-0.061	-0.232	11111	1.18	39053.9433	3	1655	4.578	-0.161	-0.091	-0.098	-0.343	11111	2.33	39173.7735	3	
1765	4.696	-0.127	-0.082	-0.069	-0.223	11111	1.24	39175.6680	3	1655	4.565	-0.181	-0.104	-0.104	-0.359	11111	1.32	39174.6022	3	
1770	4.998	-0.083	-0.045	-0.062	-0.233	11111	1.20	38705.9548	3	1655	4.621	-0.164	-0.095	-0.079	-0.327	11111	2.31	39174.7744	3	
1770	4.952	-0.093	-0.080	-0.056	-0.237	11111	1.14	39053.9521	3	1655	4.557	-0.189	-0.124	-0.088	-0.319	11111	1.30	39175.6283	3	
1770	4.978	-0.074	-0.038	-0.060	-0.215	11111	1.21	39501.6688	1	1655	4.567	-0.172	-0.100	-0.096	-0.335	11111	2.34	39175.7729	3	
1781	5.669	-0.139	-0.093	-0.092	-0.283	11111	1.18	39053.9616	3	1655	4.540	-0.175	-0.104	-0.112	-0.351	11111	1.30	39176.6331	3	
1781	5.648	-0.147	-0.100	-0.089	-0.261	11111	1.27	39175.6774	3	1655	4.620	-0.171	-0.108	-0.098	-0.345	11111	2.21	39176.7644	3	
1784	4.346	0.696	0.424	0.439	1.245	11111	1.32	39053.9713	3	1655	4.562	-0.197	-0.121	-0.104	-0.343	11111	1.30	39178.6961	1	
1784	4.373	0.730	0.453	0.412	1.215	11111	1.46	39501.6559	1	1655	4.533	-0.205	-0.137	-0.082	-0.338	11111	1.30	39184.5921	1	
1788	3.310	1.702	-0.063	-0.079	-0.292	10111	1.22	38708.9013	3	1655	4.585	-0.174	-0.096	-0.078	-0.316	11111	1.39	39197.6182	3	
1788	3.323	-0.079	-0.036	-0.057	-0.248	11111	1.28	38787.7300	1	1655	4.576	-0.165	-0.083	-0.102	-0.332	11111	1.31	39490.6015	3	
1788	3.350	-0.087	-0.058	-0.076	-0.275	11111	1.22	39408.9730	3	1655	4.559	-0.131	-0.077	-0.119	-0.364	11111	1.30	39202.6466	3	
1789	4.922	-0.129	-0.080	-0.102	-0.303	11111	1.16	39054.9375	3	1655	4.574	-0.167	-0.095	-0.092	-0.343	11111	1.35	39406.9473	1	
1789	4.954	-0.114	-0.062	-0.070	-0.278	11111	1.21	39501.6807	1	1655	4.569	-0.172	-0.099	-0.112	-0.354	11111	2.30	39408.8375	3	
1790	1.560	-0.176	-0.123	-0.098	-0.312	11111	1.13	38708.9258	3	1655	4.604	-0.165	-0.115	-0.090	-0.300	11111	1.30	39408.9813	3	
1790	1.628	-0.122	-0.075	-0.105	-0.298	11111	1.14	39501.6926	1	1655	4.593	-0.142	-0.091	-0.082	-0.325	11111	1.31	39409.9610	3	
1791	1.638	-0.078	-0.048	-0.079	-0.909	11110	1.06	38708.9581	3	1655	4.599	-0.130	-0.089	-0.088	-0.334	11111	1.31	39411.9586	1	
1791	1.671	-0.047	-0.063	-0.049	-0.176	11111	1.01	39440.9085	1	1655	4.000	0.000	0.000	-0.096	-0.100	0.000	0.010	1.30	39433.9176	0
1810	4.826	-0.137	-0.085	-0.053	-0.250	11111	1.10	38708.9682	3	1655	4.551	-0.180	-0.096	-0.079	-0.315	11111	1.49	39440.8934	1	
1810	4.858	-0.087	-0.062	-0.045	-0.195	11111	1.02	39499.7449	1	1655	4.555	-0.168	-0.107	-0.102	-0.349	11111	1.31	39442.8726	1	
1811	4.530	-0.142	-0.095	-0.090	-0.281	11111	1.15	39054.9692	3	1655	4.571	-0.164	-0.097	-0.109	-0.334	11111	1.38	39488.6219	3	
1811	4.565	-0.120	-0.076	-0.082	-0.278	11111	1.16	39501.7042	1	1655	4.580	-0.135	-0.090	-0.104	-0.335	11111	1.34	39488.7402	3	
1829	3.006	0.609	0.358	0.370	1.024	11111	1.67	39054.9599	3	1655	4.549	-0.182	-0.108	-0.102	-0.326	11111	2.40	39488.6151	3	
1829	2.988	0.621	0.377	0.374	1.025	11111	1.71	39476.7659	1	1655	4.589	-0.155	-0.083	-0.102	-0.332	11111	1.51	39470.7352	1	
1839	4.192	-0.089	-0.046	-0.091	-0.186	11111	1.12	39054.9702	3	1655	4.557	-0.170	-0.114	-0.097	-0.334	11111	1.31	39488.8331	1	
1839	4.195	-0.089	-0.067	-0.069	-0.193	11111	1.20	39504.6603	1	1655	4.654	-0.182	-0.108	-0.102	-0.326	11111	2.40	39488.7154	3	
1843	4.767	0.274	0.130	0.225	0.280	11111	1.00	39055.9448	3	1655	4.582	-0.240	0.123	0.061	0.197	11111	1.56	39056.9461	3	
1843	4.824	0.221	0.090	0.204	0.287	11111	1.20	39474.6942	1	1655	4.645	0.240	0.137	0.089	0.221	11111	1.69	39476.7451	1	
1845	4.987	1.586	0.875	1.123	2.982	11111	1.03	39055.9566	3	1868	5.319	-0.073	-0.078	-0.098	-0.277	11111	1.20	39056.9565	3	
1845	4.895	1.594	0.927	1.091	2.946	11111	1.04	39499.7572	1	1868	5.342	-0.080	-0.060	-0.080	-0.245	11111	1.20	39468.8197	1	
1852	2.164	-0.155	-0.114	-0.089	-0.301	11111	1.18	39055.9659	3	1868	5.319	-0.076	-0.035	-0.031	-0.216	11111	1.11	39752.8169	3	
1852	2.208	-0.119	-0.091	-0.073	-0.293	11111	1.24	39504.6731	1	1868	4.391	-0.079	-0.057	-0.040	-0.221	11111	1.10	39504.7029	1	
1855	4.579	-0.119	-0.075	-0.099	-0.338	11111	2.18	38705.7684	3	1879	3.364	-0.065	-0.032	-0.087	-0.293	11111	1.08	39057.9518	3	
1855	4.581	-0.185	-0.094	-0.096																

TABLE 8 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 52

B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS	B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS
1907	4.328	0.753	0.458	0.431	1.197	11111	1.25	39061.8517	3	2148	0.000	0.000	0.140	0.112	0.167	00111	1.56	39054.0117	3
1907	4.337	0.763	0.463	0.425	1.198	11111	1.09	39507.7057	1	2148	5.004	0.293	0.103	0.136	0.172	11111	1.53	39184.6411	1
1908	6.353	1.250	0.767	0.686	2.313	11111	1.20	39061.8619	3	2148	5.009	0.334	0.137	0.135	0.171	11111	1.54	39506.7665	1
1908	0.000	0.797	0.675	0.675	2.290	00111	1.09	39499.7725	1	2155	4.694	0.005	0.008	0.005	0.050	11111	1.53	39054.0206	3
1910	2.972	-0.025	-0.081	-0.064	-0.256	11111	1.07	39061.8835	3	2155	4.675	0.008	-0.016	0.026	0.069	11111	1.50	39184.6510	1
1910	2.946	-0.011	-0.054	-0.060	-0.274	11111	1.03	39440.9307	1	2159	4.396	-0.086	-0.045	-0.087	-0.228	11111	1.06	39055.0049	3
1931	3.720	-0.124	-0.091	-0.076	-0.296	11111	1.24	39061.9100	3	2159	4.405	-0.085	-0.064	-0.074	-0.219	11111	1.06	39501.7818	1
1931	3.731	-0.125	-0.066	-0.080	-0.286	11111	1.23	39506.7083	1	2198	4.945	-0.066	-0.044	-0.072	-0.220	11111	1.06	39055.0138	3
1934	4.574	-0.007	-0.036	-0.011	-0.178	11111	1.14	39061.9196	3	2198	4.966	-0.068	-0.055	-0.065	-0.184	11111	1.06	39501.7926	1
1934	4.569	-0.010	-0.020	-0.022	-0.160	11111	1.14	39506.7199	1	2199	4.454	-0.057	-0.066	-0.101	-0.251	11111	1.05	39056.9787	3
1937	4.819	0.105	0.054	0.047	0.159	11111	1.30	39061.9294	3	2199	4.460	-0.088	-0.067	-0.056	-0.214	11111	1.10	39501.8078	1
1937	4.828	0.092	0.071	0.048	0.183	11111	1.32	39506.6940	1	2209	4.770	-0.008	-0.003	-0.020	0.001	11111	1.26	39058.0100	3
1946	4.844	-0.062	-0.031	-0.046	-0.202	11111	1.04	39061.9393	3	2209	4.749	-0.003	-0.007	-0.033	0.022	11111	1.44	39227.6649	3
1946	4.841	-0.065	-0.045	-0.053	-0.177	11111	1.04	39473.6297	1	2216	3.593	1.274	0.662	0.753	2.219	11111	1.02	39056.9887	3
1948	1.736	-0.097	-0.066	-0.083	-0.303	11111	1.21	39061.9487	3	2216	3.593	1.249	0.693	0.796	2.307	11111	1.02	39476.8371	1
1948	1.759	-0.087	-0.053	-0.063	-0.280	11111	1.21	39506.7315	1	2216	3.630	1.218	0.681	0.749	2.237	11111	1.03	39506.7785	1
1963	5.217	0.886	0.572	0.491	1.553	11111	1.18	39084.9028	1	2219	4.553	0.791	0.461	0.443	1.314	11111	1.01	39056.9973	3
1963	5.210	0.891	0.576	0.505	1.577	11111	1.17	39506.7424	1	2219	4.000	0.776	0.478	0.480	1.333	01101	1.00	39433.9508	0
1995	4.777	0.706	0.441	0.429	1.242	11111	1.01	39135.7313	1	2219	4.578	0.781	0.491	0.460	1.333	11111	1.03	39506.7902	1
1995	4.744	0.705	0.434	0.437	1.243	11111	1.18	39479.6957	1	2227	4.283	0.969	0.616	0.572	1.892	11111	1.29	39057.9904	3
1998	3.540	0.071	0.033	0.022	0.132	11111	1.47	39135.7416	1	2227	4.311	0.990	0.614	0.587	1.881	11111	1.32	39473.8742	1
1998	3.666	-0.021	-0.016	-0.013	0.107	11111	1.47	39474.8185	1	2238	4.572	0.025	0.026	0.026	0.025	11111	1.12	39135.7843	1
2004	2.029	-0.081	-0.057	-0.053	0.000	11110	1.35	39135.7512	1	2238	4.464	0.027	0.005	0.003	0.042	11111	1.15	39506.8036	1
2004	2.077	-0.052	-0.063	-0.031	-0.219	11111	1.60	39376.0010	1	2240	6.376	0.421	0.242	0.284	0.428	11111	1.01	39139.7592	3
2010	4.873	-0.061	-0.026	-0.042	-0.086	11111	1.07	39135.7608	1	2240	6.387	0.427	0.261	0.282	0.417	11111	1.03	39500.8024	1
2010	4.898	-0.049	-0.034	-0.040	-0.074	11111	1.07	39501.7579	1	2244	4.989	-0.045	-0.023	-0.058	-0.127	11111	1.46	39057.9988	3
2011	5.217	1.259	0.766	0.705	2.422	11111	1.02	39138.7070	3	2244	5.018	-0.009	-0.011	-0.047	-0.117	11111	1.45	39507.7623	1
2011	5.205	1.297	0.796	0.695	2.409	11111	1.01	39468.8471	1	2266	3.314	1.241	0.657	0.823	2.387	11111	1.02	39139.7704	3
2012	4.264	0.825	0.486	0.493	1.558	11111	1.01	39138.7166	3	2266	3.328	1.272	0.671	0.815	2.393	11111	1.05	39500.8144	1
2012	4.265	0.846	0.535	0.487	1.542	11111	1.02	39468.8601	1	2294	1.968	-0.136	-0.090	-0.096	-0.313	11111	1.59	39139.7809	3
2018	6.658	1.376	0.767	0.822	2.537	11111	1.00	39138.7304	3	2294	0.000	0.000	-0.086	-0.085	0.000	00110	1.62	39433.9897	0
2018	6.753	1.374	0.728	0.860	2.571	11111	1.00	39507.7201	1	2294	1.943	-0.147	-0.083	-0.102	-0.313	11111	1.64	39507.7934	1
2029	5.004	0.018	0.010	0.017	0.061	11111	1.09	39138.7402	3	2298	4.350	0.186	0.117	0.087	0.251	11111	1.14	38787.7462	1
2029	5.009	0.018	0.029	0.003	0.065	11111	1.09	39476.8177	1	2298	4.329	0.148	0.111	0.102	0.280	11111	1.20	39507.8059	1
2034	4.604	0.012	0.014	-0.015	-0.035	11111	1.01	39138.7503	3	2308	6.966	1.850	1.106	1.223	4.098	11111	1.09	39147.6899	3
2034	4.599	0.007	0.001	-0.027	-0.029	11111	1.00	39507.7347	1	2308	7.055	1.924	1.251	1.252	4.187	11111	1.10	39501.8212	1
2035	4.001	0.757	0.466	0.459	1.254	11111	1.69	39138.7598	3	2343	4.166	-0.041	-0.026	-0.068	-0.173	11111	1.08	39500.8289	1
2035	3.994	0.758	0.473	0.445	1.267	11111	1.71	39476.7828	1	2344	5.020	-0.121	-0.083	-0.058	-0.234	11111	1.27	39147.7118	3
2047	4.533	0.484	0.302	0.264	0.686	11111	1.07	39140.6811	3	2344	5.046	-0.095	-0.058	-0.077	-0.251	11111	1.38	39507.8201	1
2047	4.547	0.495	0.292	0.272	0.715	11111	1.02	39473.8143	1	2356	3.724	-0.005	-0.069	-0.084	-0.226	11111	1.30	39147.7228	3
2061	0.895	1.405	0.824	0.979	2.775	11111	1.25	38786.7867	1	2356	3.716	-0.026	-0.061	-0.074	-0.229	11111	1.34	39473.8891	1
2061	0.802	1.393	0.793	2.177	2.720	11111	1.17	38787.7580	1	2385	4.519	0.059	0.014	0.038	0.000	11111	1.10	39147.7345	3
2061	0.743	1.342	0.775	1.012	2.707	11111	1.17	38789.6415	1	2385	4.550	0.092	0.036	0.022	-0.044	11111	1.20	39501.8399	1
2061	0.807	1.359	0.778	1.002	2.732	11111	1.11	38789.6713	1	2392	6.477	0.756	0.462	0.504	1.502	11111	1.38	39147.7463	3
2061	1.102	1.370	0.748	1.017	2.618	11111	1.19	39171.7142	1	2392	6.517	0.758	0.480	0.515	1.519	11111	1.58	39507.8323	1
2061	1.046	1.404	0.775	1.010	2.684	11111	1.12	39406.9757	1	2421	1.966	0.027	0.019	-0.023	-0.002	11111	1.06	39147.7767	3
2077	3.997	0.761	0.467	0.441	1.324	11111	1.10	39140.6918	3	2421	1.948	-0.010	-0.011	-0.011	0.021	11111	1.04	39154.7249	3
2077	3.939	0.754	0.476	0.448	1.355	11111	1.17	39479.7196	1	2427	5.116	0.905	0.569	0.538	1.759	11111	1.10	39148.6650	3
2084	4.834	-0.024	-0.004	-0.002	-0.151	11111	1.05	38705.9791	3	2427	5.118	0.920	0.604	0.526	1.742	11111	1.11	39507.8460	1
2084	4.781	-0.018	-0.037	0.025	-0.150	11111	1.04	38789.6551	1	2429	4.227	0.808	0.521	0.441	1.439	11111	1.70	39148.6966	3
2085	3.799	0.286	0.175	0.144	0.372	11111	1.47	39140.7153	3	2429	4.245	0.809	0.510	0.424	1.429	11111	1.71	39508.7078	1
2085	3.836	0.218	0.122	0.146	0.383	11111	1.46	39474.8060	1	2443	4.713	0.847	0.528	0.511	1.589	11111	1.63	39148.7061	3
2088	1.935	-0.004	0.023	-0.009	0.041	11111	1.03	39140.7292	3	2443	4.724	0.839	0.519	0.505	1.573	11111	1.63	39507.8205	1
2088	1.921	-0.013	-0.009	0.010	0.064	11111	1.02	39154.7053	3	2450	5.199	1.125	0.714	0.689	2.203	11111	1.46	39508.7333	1
2091	4.738	1.313	0.672	0.902	2.405	11111	1.07	39140.7961	3	2450	5.235	1.123	0.716	0.668	2.167	11111	1.47	39508.7333	1
2091	4.745	1.327	0.678	0.910	9.474	11110	1.10	39479.7351	1	2456	4.636	-0.139	-0.091	-0.072	-0.299	11111	1.08	39148.7379	3
2095	2.634	-0.009	0.031	-0.065	-0.122</td														

TABLE 8 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 52

B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS	B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS
2506	4.740	0.798	0.485	0.500	1.548	11111	1.16	39151.7626	3	2852	4.286	0.212	0.167	0.144	0.369	11111	2.29	39227.7782	3
2506	4.753	0.817	0.530	0.492	1.530	11111	1.24	39504.8345	1	2852	4.356	0.218	0.153	0.131	0.340	11111	1.06	39229.6181	3
2527	4.946	1.094	0.745	0.543	1.986	11111	1.49	39151.6438	3	2852	4.233	0.274	0.164	0.139	0.361	11111	1.05	39442.0324	1
2527	4.970	1.103	0.696	0.516	1.994	11111	1.44	39506.8413	1	2852	4.276	0.277	0.176	0.144	0.361	11111	1.38	39470.0441	1
2540	3.687	0.106	0.058	0.031	0.118	11111	1.08	39151.6727	3	2852	4.265	0.280	0.170	0.150	0.399	11111	1.12	39471.9814	1
2540	3.664	0.115	0.070	0.020	0.115	11111	1.12	39506.8602	1	2852	4.297	0.281	0.143	0.119	0.321	11111	1.02	39474.8471	1
2560	4.596	0.670	0.433	0.383	1.066	11111	1.21	39151.6538	3	2852	4.266	0.294	0.179	0.161	0.380	11111	1.15	39487.7700	3
2560	4.573	0.672	0.421	0.368	1.090	11111	1.14	39506.8273	1	2852	4.274	0.295	0.171	0.134	0.353	11111	1.01	39499.8032	1
2564	4.748	0.285	0.170	0.148	0.353	11111	1.13	39151.6845	3	2852	4.261	0.285	0.164	0.147	0.370	11111	1.01	39500.8405	1
2564	4.752	0.294	0.186	0.149	0.353	11111	1.15	39504.8466	1	2852	4.284	0.308	0.173	0.144	0.373	11111	1.04	39504.8582	1
2571	4.755	-0.145	-0.080	-0.068	-0.305	11111	1.66	39151.7259	3	2852	4.270	0.283	0.167	0.150	0.372	11111	1.06	39507.8569	1
2571	4.804	-0.130	-0.096	-0.079	-0.297	11111	1.66	39508.7476	1	2852	4.238	0.268	0.163	0.167	0.402	11111	1.00	39508.7912	1
2574	4.461	1.148	0.732	0.590	2.068	11111	1.40	39151.7531	3	2864	4.860	0.941	0.603	0.577	1.836	11111	1.09	38752.8957	3
2574	4.489	1.162	0.733	0.579	2.067	11111	1.40	39473.8589	1	2864	4.868	0.912	0.584	0.564	1.823	11111	1.11	39175.7532	3
2585	4.955	0.032	0.025	0.057	0.008	11111	1.12	39151.6633	3	2864	4.849	0.939	0.597	0.560	1.822	11111	1.07	39206.6254	3
2585	4.929	0.003	0.016	0.002	0.009	11111	1.04	39172.7227	3	2891	0.000	0.000	0.015	-0.020	0.032	00111	1.69	38702.8237	3
2590	4.723	0.331	0.192	0.171	0.408	11111	1.65	39151.7345	3	2891	1.609	0.040	0.004	-0.003	0.040	11111	1.17	38702.8992	3
2590	4.764	0.317	0.193	0.172	0.407	11111	1.64	39508.7614	1	2891	1.607	0.047	0.009	-0.012	0.047	11111	1.05	38702.9447	3
2596	4.384	0.009	-0.014	0.001	-0.125	11111	1.53	39151.7434	3	2891	1.618	0.050	0.006	-0.009	0.036	11111	2.38	38708.7779	3
2596	4.376	0.005	-0.013	0.000	-0.126	11111	1.54	39508.7792	1	2891	1.598	0.023	0.023	-0.004	0.030	11111	1.29	38704.8679	3
2648	4.946	-0.114	-0.073	-0.079	-0.271	11111	1.24	39052.0261	3	2891	1.585	0.015	0.010	-0.004	0.044	11111	1.13	38704.9049	3
2648	4.993	-0.069	-0.066	-0.067	-0.280	11111	1.24	39061.9979	3	2891	1.605	0.029	0.024	-0.018	0.033	11111	1.05	38704.9397	3
2650	4.441	0.702	0.449	0.483	1.320	11111	1.02	38786.7475	1	2891	1.602	0.035	0.018	-0.011	0.030	11111	1.02	38704.9397	3
2650	3.946	0.550	0.364	0.349	0.919	11111	1.04	38789.7809	1	2891	1.581	0.008	0.005	-0.012	0.027	11111	1.03	38791.7137	1
2650	3.838	0.533	0.310	0.344	0.949	11111	1.04	38789.7027	1	2891	1.589	0.024	0.015	-0.001	0.035	11111	1.05	38837.6901	1
2650	4.094	0.592	0.380	0.373	1.003	11111	1.05	38839.6486	3	2891	1.584	0.008	0.005	-0.012	0.027	11111	1.00	38839.6201	3
2650	4.097	0.611	0.389	0.325	0.942	11111	1.03	39154.7687	3	2891	1.569	0.036	0.014	-0.022	0.045	11111	1.12	38865.6458	1
2650	3.939	0.582	0.357	0.365	1.000	11111	1.05	39178.7216	1	2891	1.594	0.029	0.019	-0.009	0.029	11111	1.08	38866.6275	1
2657	4.100	-0.061	-0.035	-0.042	-0.157	11111	1.49	39053.0194	3	2891	1.591	0.028	0.028	-0.001	0.039	11111	1.01	38787.7962	1
2657	4.115	-0.040	-0.025	-0.065	-0.173	11111	1.54	39174.7265	3	2891	1.638	0.015	0.004	-0.008	0.027	11111	1.03	38791.7137	1
2697	4.711	0.952	0.595	0.566	1.861	11111	1.02	38752.0846	3	2891	1.589	0.024	0.015	-0.001	0.035	11111	1.05	38837.6901	1
2697	4.699	0.923	0.597	0.521	1.802	11111	1.05	39174.7534	3	2891	1.602	0.035	0.018	-0.011	0.030	11111	1.02	38704.9562	3
2701	5.175	0.750	0.479	0.435	1.324	11111	1.25	39054.0312	3	2891	1.581	0.002	0.005	0.000	0.048	11111	1.43	38705.8427	3
2701	5.154	0.764	0.471	0.425	1.318	11111	1.29	39174.7353	3	2891	1.592	0.037	0.031	-0.008	0.062	11111	1.00	38706.0095	3
2714	4.187	0.069	0.051	-0.042	-0.043	11111	1.18	39105.0230	3	2891	1.598	0.006	0.012	-0.030	0.007	11111	1.64	38708.8112	3
2714	4.177	0.028	0.022	-0.045	-0.038	11111	1.23	39174.7438	3	2891	1.591	0.028	0.028	-0.001	0.039	11111	1.01	38787.7962	1
2751	5.031	0.092	0.030	0.028	0.083	11111	1.05	39056.0177	3	2891	1.638	0.015	0.004	-0.008	0.027	11111	1.03	38791.7137	1
2751	5.025	0.097	0.065	-0.002	0.070	11111	1.10	39174.7638	3	2891	1.589	0.024	0.015	-0.001	0.030	11111	1.05	39479.9043	1
2763	3.582	0.069	0.024	0.017	0.132	11111	1.04	39056.0275	3	2905	4.495	1.241	0.781	0.621	2.307	11111	1.00	39058.0283	3
2763	3.624	0.064	0.042	0.006	0.122	11111	1.04	39175.7051	3	2905	4.474	1.218	0.757	0.630	2.329	11111	1.01	39184.6622	1
2777	3.600	0.309	0.190	0.145	0.361	11111	1.02	38786.7596	1	2905	4.483	1.236	0.791	0.622	2.293	11111	1.01	39206.6370	3
2777	3.639	0.349	0.204	0.138	0.351	11111	1.03	38787.7752	1	2930	4.983	0.359	0.215	0.183	0.463	11111	1.00	39058.0366	3
2777	3.644	0.307	0.180	0.140	0.384	11111	1.02	38791.7354	1	2930	4.981	0.322	0.183	0.196	0.448	11111	1.00	39184.6722	1
2812	4.944	0.052	0.021	-0.023	-0.130	11111	1.60	39057.0160	3	2930	4.980	0.351	0.206	0.186	0.471	11111	1.00	39207.6330	1
2812	4.958	-0.015	-0.006	-0.016	-0.089	11111	1.62	39175.7233	3	2970	4.190	0.730	0.458	0.473	1.301	11111	1.39	39060.9858	3
2818	4.602	0.008	-0.017	-0.031	-0.046	11111	1.05	39057.0252	3	2970	4.173	0.745	0.448	0.462	1.389	11111	1.34	39184.6988	1
2818	4.624	-0.029	-0.025	-0.011	-0.019	11111	1.06	39175.7328	3	2970	4.191	0.744	0.463	0.449	1.373	11111	1.35	39207.6435	1
2821	4.037	0.763	0.466	0.428	1.335	11111	1.00	39058.0198	3	2973	4.521	0.896	0.592	0.483	1.518	11111	1.00	38786.7737	1
2821	4.061	0.780	0.463	0.427	1.332	11111	1.03	39175.7421	3	2973	4.494	0.902	0.564	0.464	1.513	11111	1.00	38791.7596	1
2845	2.848	-0.060	-0.065	-0.044	-0.141	11111	1.11	38751.8879	3	2985	3.799	0.673	0.392	0.432	1.233	11111	1.14	39060.9417	3
2845	2.847	-0.068	-0.058	-0.051	-0.115	11111	1.12	38789.7939	1	2985	3.819	0.718	0.433	0.399	1.204	11111	1.01	39154.7786	3
2845	2.889	-0.065	-0.050	-0.064	-0.135	11111	1.10	39202.6383	3	2990	1.371	0.746	0.446	0.439	1.330	11111	1.73	38702.8320	3
2852	4.266	0.269	0.165	0.148	0.369	11111	1.89	38751.6712	3	2990	1.412	0.765	0.478	0.430	1.321	11111	1.18	38702.9068	3
2852	4.241	0.254	0.125	0.144	0.357	11111	1.93	38752.6659	3	2990	1.387	0.770	0.442	0.442	1.329	11111	1.05	38702.9527	3
2852	4.232	0.268	0.139	0.161	0.366	11111	1.00	38791.7484	1	2990	1.408	0.772	0.445	0.429	1.336	11111	1.05	38837.6986	1
2852	4.230	0.143	0.047	0.238	0.444	11111	4.88	39019.8628	3	2990	1.367	0.737	0.460	0.425	1.337	11111	1.01	38839.6589	3
2852	4.248	0.290	0.175	0.138	0.349														

TABLE 8 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 52

B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS	B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS
3173	4.837	0.008	0.026	-0.011	0.021	11111	1.09	39084.9260	1	3403	4.974	0.904	0.581	0.502	1.642	11111	1.18	39135.8812	1
3173	4.875	-0.151	0.000	-0.052	-0.002	11111	1.06	39171.7398	1	3403	4.899	0.916	0.582	0.493	1.633	11111	1.18	39173.7250	3
3173	4.809	0.016	-0.011	0.009	0.031	11111	1.06	39206.6609	3	3403	4.916	0.901	0.554	0.462	1.603	11111	1.18	39207.6866	1
3188	4.579	0.695	0.464	0.461	1.262	11111	1.27	39084.9367	1	3410	4.216	0.028	0.010	0.001	0.000	11111	1.12	38786.8228	1
3188	4.583	0.691	0.438	0.448	1.247	11111	1.23	39172.7343	3	3410	4.147	0.050	-0.001	-0.016	-0.020	11111	1.12	38787.8208	1
3188	4.578	0.712	0.439	0.465	1.274	11111	1.24	39206.6714	3	3410	4.099	0.010	0.008	0.006	0.018	11111	1.12	38791.7925	1
3192	4.406	-0.089	-0.025	-0.084	-0.219	11111	1.62	39084.9628	1	3418	4.721	0.881	0.571	0.541	1.735	11111	1.16	39135.8938	1
3192	4.374	-0.101	-0.060	-0.066	-0.224	11111	1.60	39172.7439	3	3418	4.753	0.902	0.568	0.515	1.730	11111	1.14	39173.7547	3
3192	4.397	-0.084	-0.054	-0.050	-0.202	11111	1.65	39206.6810	3	3429	6.372	0.133	0.078	0.030	0.211	11111	1.02	39482.9159	3
3211	4.969	0.718	0.479	0.402	1.235	11111	1.42	39084.9736	1	3441	5.145	0.800	0.515	0.465	1.406	11111	1.51	39140.8300	3
3211	4.947	0.695	0.439	0.410	1.245	11111	1.42	39172.7537	3	3441	5.141	0.802	0.489	0.455	1.411	11111	1.50	39173.7644	3
3211	4.948	0.709	0.444	0.395	1.241	11111	1.42	39207.6540	1	3449	4.717	0.015	0.037	-0.020	0.002	11111	1.02	39140.8419	3
3249	3.936	1.162	0.734	0.623	2.193	11111	1.10	38751.9261	3	3449	4.704	0.025	0.004	-0.020	0.029	11111	1.04	39176.7183	3
3249	3.936	1.141	0.747	0.632	2.212	11111	1.12	38752.9330	3	3454	4.298	-0.080	-0.071	-0.085	-0.275	11111	1.15	38751.9374	3
3249	4.020	1.202	0.765	0.628	2.201	11111	1.09	38786.8110	1	3454	4.286	-0.092	-0.091	-0.073	-0.263	11111	1.18	38752.9556	3
3249	3.946	1.150	0.753	0.622	2.189	11111	1.09	38787.8080	1	3454	4.315	-0.114	-0.067	-0.050	-0.228	11111	1.14	38789.8182	1
3249	3.966	1.165	0.783	0.604	2.181	11111	1.09	38791.7730	1	3454	4.265	-0.118	-0.033	-0.060	-0.268	11111	1.16	38791.7827	1
3249	3.929	1.147	0.756	0.627	2.195	11111	1.16	38839.7171	3	3454	4.265	-0.139	-0.083	-0.082	-0.255	11111	1.17	38874.6189	3
3249	3.935	1.141	0.722	0.612	2.198	11111	1.28	38872.6610	3	3454	4.267	-0.130	-0.083	-0.085	-0.258	11111	1.28	38875.6549	1
3249	3.896	1.137	0.730	0.620	2.187	11111	1.19	38874.6333	3	3454	4.250	-0.127	-0.081	-0.080	-0.256	11111	1.33	38877.6595	3
3249	3.926	1.134	0.724	0.627	2.181	11111	1.23	38875.6402	1	3454	4.277	-0.111	-0.081	-0.078	-0.248	11111	1.34	38878.6584	3
3249	3.917	1.142	0.717	0.616	2.179	11111	1.27	38875.6450	3	3454	4.296	-0.107	-0.079	-0.082	-0.261	11111	2.58	38888.7234	3
3249	3.931	1.130	0.737	0.629	2.198	11111	1.26	38878.6608	1	3454	4.257	-0.127	-0.085	-0.071	-0.233	11111	2.68	38889.7236	3
3249	3.993	1.161	0.745	0.603	2.159	11111	2.49	38887.7149	3	3454	4.282	-0.120	-0.073	-0.087	-0.248	11111	3.02	38890.7297	3
3249	3.955	1.143	0.732	0.633	2.190	11111	2.38	38886.7085	3	3454	4.312	-0.090	-0.034	-0.087	-0.240	11111	2.22	39025.9984	3
3249	3.931	1.161	0.738	0.628	2.192	11111	2.92	38890.7108	3	3454	4.271	-0.117	-0.081	-0.071	-0.231	11111	2.45	39044.9374	3
3249	3.968	1.199	0.764	0.596	2.184	11111	2.48	39016.9841	3	3454	4.293	-0.100	-0.065	-0.059	-0.201	11111	2.45	39051.9182	3
3249	3.932	1.147	0.759	0.638	2.178	11111	2.42	39025.9614	3	3454	4.262	-0.134	-0.090	-0.068	-0.231	11111	2.28	39052.9220	3
3249	3.957	1.180	0.771	0.604	2.155	11111	2.22	39026.9665	3	3454	4.265	-0.115	-0.076	-0.082	-0.238	11111	2.27	39053.9198	3
3249	3.954	1.186	0.763	0.618	2.182	11111	2.14	39028.9649	3	3454	4.264	-0.113	-0.085	-0.065	-0.223	11111	2.14	39054.9230	3
3249	4.045	1.218	0.783	0.629	2.220	11111	2.22	39029.9586	3	3454	4.259	-0.132	-0.089	-0.070	-0.230	11111	2.34	39055.9114	3
3249	3.955	1.159	0.743	0.620	2.178	11111	2.47	39044.9078	3	3454	4.261	-0.126	-0.065	-0.080	-0.247	11111	2.16	39057.9139	3
3249	3.975	1.155	0.745	0.597	2.158	11111	2.16	39051.9010	3	3454	4.298	-0.115	-0.076	-0.081	-0.242	11111	2.22	39059.9054	3
3249	3.959	1.180	0.751	0.607	2.155	11111	2.14	39052.8990	3	3454	4.232	-0.096	-0.049	-0.081	-0.248	11111	1.18	39060.0328	3
3249	3.975	1.181	0.750	0.608	2.175	11111	2.14	39055.8843	3	3454	4.261	-0.142	-0.096	-0.067	-0.235	11111	2.10	39060.9082	3
3249	3.967	1.170	0.747	0.606	2.160	11111	2.04	39054.8988	3	3454	4.287	-0.130	-0.083	-0.069	-0.238	11111	1.18	39061.0280	3
3249	3.939	1.158	0.748	0.640	2.187	11111	2.02	39055.8973	3	3454	4.274	-0.119	-0.060	-0.063	-0.236	11111	2.23	39061.8995	3
3249	3.947	1.171	0.741	0.640	2.182	11111	2.10	39057.8873	3	3454	4.282	-0.112	-0.067	-0.077	-0.272	11111	1.17	39062.0332	3
3249	3.932	1.156	0.739	0.630	2.187	11111	2.23	39059.8760	3	3454	4.255	-0.104	-0.051	-0.077	-0.234	11111	1.37	39135.9596	1
3249	3.905	1.169	0.759	0.610	2.183	11111	1.11	39060.0236	3	3454	4.274	-0.113	-0.073	-0.080	-0.227	11111	2.24	39136.6888	3
3249	3.914	1.150	0.712	0.622	2.188	11111	2.21	39060.8740	3	3454	4.294	-0.106	-0.053	-0.092	-0.245	11111	1.20	39138.9064	3
3249	3.985	1.152	0.734	0.628	2.175	11111	1.11	39061.0181	3	3454	4.281	-0.116	-0.056	-0.069	-0.226	11111	1.16	39140.8816	3
3249	3.952	1.161	0.709	0.605	2.189	11111	2.15	39061.8739	3	3454	4.275	-0.083	-0.044	-0.092	-0.261	11111	1.19	39147.8787	3
3249	3.983	1.204	0.770	0.595	2.135	11111	1.10	39062.0244	3	3454	4.276	-0.108	-0.057	-0.058	-0.226	11111	2.20	39148.8800	3
3249	3.931	1.159	0.753	0.621	2.185	11111	1.09	39135.8936	1	3454	4.266	-0.125	-0.093	-0.066	-0.237	11111	1.19	39171.7633	1
3249	3.962	1.194	0.757	0.592	2.161	11111	2.40	39138.6538	3	3454	4.284	-0.112	-0.071	-0.086	-0.256	11111	1.18	39178.7915	1
3249	3.953	1.161	0.758	0.619	2.162	11111	1.16	39138.8976	3	3454	4.263	-0.107	-0.075	-0.090	-0.247	11111	1.15	39197.7169	3
3249	3.967	1.175	0.753	0.616	2.163	11111	1.12	39140.8732	3	3454	4.285	-0.125	-0.079	-0.074	-0.237	11111	3.11	39197.8906	3
3249	3.935	1.144	0.739	0.608	2.178	11111	1.16	39199.8595	3	3454	4.272	-0.127	-0.079	-0.071	-0.238	11111	1.14	39199.6954	3
3249	3.958	1.165	0.762	0.620	2.170	11111	1.16	39148.8696	3	3454	4.280	-0.122	-0.084	-0.073	-0.244	11111	2.50	39199.8869	3
3249	3.944	1.151	0.739	0.611	2.176	11111	1.12	39207.6108	1	3454	4.249	-0.094	-0.081	-0.083	-0.242	11111	1.15	39207.6951	3
3249	3.936	1.160	0.746	0.617	2.188	11111	1.14	39178.7820	3	3454	4.300	-0.098	-0.065	-0.095	-0.245	11111	1.19	39207.7131	1
3249	4.051	1.110	0.726	0.608	2.171	11111	1.12	39229.6280	3	3454	4.260	-0.136	-0.096	-0.080	-0.246	11111	1.18	39238.6268	3
3249	3.904	1.125	0.715	0.636	2.194	11111	1.14	39238.6165	1	3454	4.301	-0.108	-0.067	-0.077	-0.249	11111	1.26	39240.6648	3
3249	3.948	1.149	0.736	0.634	2.210	11111	1.09	39440.9951	1	3454	4.262	-0.107	-0.065	-0.074	-0.238	11111	4.63	39243.7861	1
3249	3.897	1.129	0.727	0.624	2.209	11111	1.21	39246.6198	1	3454	4.258	-0.135	-0.082	-0.082	-0.257	11111	1.26	39246.6321	1
3249	3.926	1.112	0.726	0.627	2.183</td														

TABLE 8 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 52

B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS	B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS
3569	3.241	0.180	0.112	0.071	0.260	11111	1.07	39148.7914	3	3852	3.673	0.413	0.241	0.223	0.623	11111	1.11	39151.8995	3
3569	3.213	0.166	0.093	0.047	0.237	11111	1.04	39178.7420	1	3852	3.656	0.397	0.242	0.212	0.604	11111	1.09	39199.7049	3
3572	4.323	0.114	0.087	0.061	0.218	11111	1.10	39148.8009	3	3873	3.187	0.596	0.369	0.358	1.018	11111	1.09	39154.7898	3
3572	4.318	0.088	0.071	0.031	0.169	11111	1.07	39178.7508	1	3873	3.185	0.633	0.384	0.350	0.999	11111	1.01	39178.8033	1
3576	5.175	1.231	0.693	0.708	2.293	11111	1.23	39148.8187	3	3881	5.237	0.476	0.278	0.268	0.741	11111	1.07	39154.8002	3
3576	5.126	1.235	0.683	0.697	2.266	11111	1.23	39178.7601	1	3881	5.247	0.494	0.312	0.254	0.709	11111	1.04	39199.7143	3
3579	4.126	0.416	0.254	0.187	0.491	11111	1.02	39148.8290	3	3888	3.871	0.259	0.134	0.124	0.328	11111	1.15	39154.8094	3
3579	4.098	0.391	0.231	0.183	0.499	11111	1.02	39178.7696	1	3888	3.825	0.280	0.172	0.112	0.288	11111	1.12	39199.7243	3
3594	3.597	0.024	0.018	-0.022	-0.049	11111	1.04	38839.6699	3	3894	4.595	0.015	-0.007	0.014	0.047	11111	1.10	39154.8192	3
3594	3.643	0.039	0.042	-0.031	-0.035	11111	1.04	39171.7749	1	3894	4.588	0.044	0.029	-0.001	0.029	11111	1.08	39199.7341	3
3594	3.578	0.040	0.003	-0.010	-0.031	11111	1.04	39206.7066	3	3903	4.327	0.678	0.434	0.412	1.207	11111	1.47	39154.8551	3
3612	4.818	0.752	0.455	0.484	1.369	11111	1.01	38752.9448	3	3903	4.343	0.683	0.410	0.429	1.231	11111	1.47	39199.7494	3
3612	4.813	0.726	0.453	0.506	1.407	11111	1.01	39171.7867	1	3905	4.228	0.958	0.620	0.480	1.743	11111	1.01	39154.8647	3
3612	4.771	0.756	0.460	0.469	1.372	11111	1.02	39206.7166	3	3905	4.221	0.940	0.621	0.448	1.764	11111	1.01	39199.7591	3
3616	4.952	0.421	0.248	0.199	0.573	11111	1.22	39139.8613	3	3950	5.119	1.245	0.760	0.704	2.395	11111	1.10	39154.8739	3
3616	4.972	0.450	0.293	0.206	0.537	11111	1.22	39171.7995	1	3950	5.104	1.258	0.763	0.722	2.407	11111	1.11	39199.7668	3
3616	4.931	0.470	0.268	0.200	0.547	11111	1.23	39206.7275	3	3970	4.515	-0.079	-0.063	-0.014	-0.124	11111	1.42	38869.6480	1
3619	4.534	0.204	0.139	0.111	0.369	11111	1.06	38839.6794	3	3970	4.555	-0.063	-0.060	-0.025	-0.116	11111	1.42	39138.9175	3
3619	4.524	0.215	0.145	0.113	0.361	11111	1.06	39172.7875	3	3970	4.569	-0.051	-0.029	-0.060	-0.144	11111	1.42	39206.7380	3
3619	5.147	0.164	0.123	0.089	0.356	01111	1.08	39229.6399	3	3974	4.533	0.135	0.076	0.086	0.265	11111	1.00	38752.9785	3
3624	4.774	0.276	0.182	0.145	0.449	11111	1.17	39139.8714	3	3974	4.575	0.073	0.045	0.070	0.263	11111	1.00	39171.8553	1
3624	4.720	0.272	0.180	0.152	0.446	11111	1.17	39172.7986	3	3974	4.497	0.146	0.091	0.043	0.214	11111	1.01	39206.7474	3
3624	4.804	0.247	0.174	0.134	0.450	11111	1.18	39229.6545	3	3975	3.546	0.074	0.070	-0.004	-0.102	11111	1.04	38286.8682	1
3662	4.876	0.171	0.097	0.056	0.220	11111	1.08	38839.6915	3	3975	3.585	0.070	0.039	0.005	-0.112	11111	1.07	38791.9091	1
3662	4.844	0.148	0.090	0.075	0.245	11111	1.08	39173.7855	3	3975	3.510	0.020	0.011	-0.012	-0.077	11111	1.04	39227.6842	3
3665	3.929	-0.024	-0.019	-0.055	-0.075	11111	1.15	39139.8827	3	3980	4.771	1.147	0.748	0.582	2.122	11111	1.08	38839.7296	3
3665	3.892	-0.022	-0.017	-0.060	-0.072	11111	1.16	39173.7946	3	3980	4.761	1.161	0.755	0.607	2.139	11111	1.08	38869.6644	1
3690	3.870	0.069	0.023	0.006	0.105	11111	1.01	39139.8922	3	3980	4.742	1.141	0.751	0.569	2.118	11111	1.10	39227.7013	3
3690	3.845	0.081	0.036	-0.006	0.077	11111	1.01	39173.8040	3	3981	4.499	0.238	0.014	-0.017	-0.057	10111	1.19	38752.9909	3
3705	3.587	1.225	0.788	0.641	2.308	11111	1.01	39139.9013	3	3981	4.451	-0.072	-0.044	0.008	-0.026	11111	1.21	38789.8402	1
3705	3.562	1.229	0.803	0.622	2.305	11111	1.00	39174.7864	3	3981	4.475	-0.042	-0.037	-0.015	-0.049	11111	1.18	39238.6432	1
3706	4.982	0.659	0.408	0.426	1.217	11111	1.43	39139.9150	3	3982	1.365	-0.048	-0.030	-0.054	-0.185	11111	1.07	38839.7402	3
3706	4.978	0.666	0.410	0.413	1.212	11111	1.40	39174.7960	3	3982	1.377	-0.062	-0.025	-0.049	-0.133	11111	1.07	39138.9279	3
3709	5.056	0.657	0.407	0.412	1.193	01111	1.50	39150.7810	3	3982	1.393	-0.099	-0.075	-0.063	-0.163	11111	1.07	39282.7654	1
3709	5.010	0.684	0.415	0.393	1.195	11111	1.35	39174.8054	3	3994	3.776	0.758	0.472	0.459	1.399	11111	1.43	38869.6816	1
3731	4.854	0.925	0.611	0.488	1.718	01111	1.06	39150.7939	3	3994	3.867	0.767	0.484	0.423	1.345	11111	1.41	39138.9367	3
3731	4.758	0.949	0.601	0.464	1.703	11111	1.02	39174.8143	3	3994	3.885	0.754	0.473	0.447	1.384	11111	1.42	39240.6603	3
3748	2.433	1.071	0.712	0.603	2.113	01111	1.40	39150.8061	3	4031	3.528	0.270	0.160	0.133	0.337	11111	1.01	38839.7494	3
3748	2.382	1.097	0.709	0.594	2.119	11111	1.34	39175.7640	3	4031	3.543	0.287	0.185	0.138	0.361	11111	1.02	39138.9459	3
3751	4.634	1.087	0.719	0.648	2.181	01111	1.53	39150.8192	3	4031	3.526	0.283	0.165	0.143	0.363	11111	1.02	39240.6713	3
3751	4.666	1.121	0.729	0.616	2.187	11111	1.53	39175.7849	3	4033	3.412	0.024	0.009	-0.001	0.048	11111	1.02	38871.6529	1
3751	4.646	1.091	0.702	0.648	2.201	11111	1.53	39202.7321	3	4033	3.466	0.001	-0.018	-0.024	0.035	11111	1.03	39139.9512	3
3757	3.824	0.292	0.170	0.132	0.377	01111	1.17	39150.8294	3	4039	5.900	0.392	0.209	0.196	0.578	11111	1.16	39254.6980	1
3757	3.757	0.310	0.175	0.138	0.395	11111	1.16	39175.7964	3	4039	5.896	0.401	0.229	0.240	0.563	11111	1.06	39258.6508	3
3757	3.735	0.264	0.156	0.142	0.380	11111	1.17	39202.7428	3	4054	4.915	0.389	0.238	0.194	0.500	11111	1.04	38839.7712	3
3759	4.689	0.376	0.209	0.230	0.513	11111	1.39	39151.7747	3	4054	4.882	0.333	0.196	0.197	0.524	11111	1.05	39139.9608	3
3759	4.731	0.381	0.231	0.211	0.529	11111	1.23	39175.8061	3	4057	2.305	0.863	0.538	0.502	1.506	11111	1.03	38839.7586	3
3771	4.733	0.606	0.345	0.390	0.970	11111	1.31	39151.7846	3	4057	2.287	0.821	0.501	0.496	1.511	11111	1.06	39139.9694	3
3771	4.709	0.616	0.364	0.355	0.956	11111	1.26	39176.7962	3	4057	2.306	0.838	0.518	0.494	1.522	11111	1.03	39202.7591	3
3771	4.754	0.612	0.370	0.335	0.942	11111	1.31	39246.6686	1	4069	3.469	1.274	0.791	0.681	2.343	11111	1.01	38866.6636	1
3773	4.741	1.216	0.749	0.642	2.315	11111	1.07	39151.7942	3	4069	3.510	1.244	0.793	0.653	2.277	11111	1.01	39140.9207	3
3773	4.752	1.241	0.790	0.616	2.313	11111	1.02	39176.8065	3	4069	3.476	1.229	0.756	0.656	2.328	11111	1.02	39202.7688	3
3775	3.344	0.418	0.216	0.246	0.573	11111	1.06	39151.8623	3	4072	4.992	0.035	-0.012	-0.031	-0.086	11111	1.20	38866.6862	1
3775	3.260	0.408	0.231	0.213	0.526	11111	1.06	39197.7280	3	4072	4.986	-0.027	-0.010	-0.040	-0.067	11111	1.20	39140.9307	3
3787	4.617	0.104	0.051	0.046	0.119	11111	1.20	38751.9485	3	4072	4.927	-0.062	-0.026	-0.034	-0.044	11111	1.20	39202.7791	3
3787	4.532	0.070	0.001	0.088	0.141	11111	1.21	38789.8280	1	4090	4.757	0.225	0.146	0.103	0.310	11111	1.00	38871.6659	1
3787	4.531	0.129	0.057	0.019	0.120														

TABLE 8 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 52

B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS	B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS
4163	5.767	1.929	1.277	1.550	5.417	11111	1.43	38874.6720	3	4456	5.918	-0.088	-0.059	-0.079	-0.219	11111	1.05	38878.7150	1
4163	5.639	1.904	1.255	1.468	5.318	11111	1.45	39173.8642	3	4456	5.908	-0.122	-0.083	-0.072	-0.214	11111	1.04	38887.6608	3
4163	5.623	1.870	1.229	1.477	5.311	11111	1.73	39175.9237	3	4456	5.906	-0.108	-0.079	-0.076	-0.204	11111	1.05	38888.6394	3
4166	4.856	0.599	0.353	0.378	1.034	11111	1.01	38877.6753	3	4456	5.879	-0.114	-0.082	-0.069	-0.217	11111	1.05	38889.6286	3
4166	4.866	0.611	0.374	0.364	1.045	11111	1.01	39173.8737	3	4456	5.896	-0.120	-0.083	-0.064	-0.209	11111	1.05	38890.6261	3
4232	3.436	0.950	0.590	0.518	1.735	11111	1.53	38877.6890	3	4456	5.902	-0.116	-0.071	-0.067	-0.192	11111	1.04	38894.6331	3
4232	3.422	0.931	0.576	0.518	1.718	11111	1.58	39173.8929	3	4456	5.922	-0.108	-0.073	-0.087	-0.223	11111	1.04	38896.6407	3
4247	4.043	0.790	0.483	0.449	1.398	11111	1.02	38877.7025	3	4456	5.885	-0.116	-0.081	-0.084	-0.221	11111	1.04	38898.6312	3
4247	4.083	0.812	0.494	0.445	1.405	11111	1.00	39175.8843	3	4456	5.907	-0.255	-0.064	-0.093	-0.222	10111	1.08	38916.6364	3
4247	4.044	0.775	0.477	0.462	1.409	11111	1.07	39270.6548	3	4456	5.907	-0.109	-0.070	-0.070	-0.208	11111	1.36	38933.6610	3
4248	4.672	-0.064	-0.018	-0.031	-0.052	11111	1.04	38887.6731	3	4456	5.899	-0.119	-0.073	-0.067	-0.207	11111	3.08	38933.7552	3
4248	4.708	-0.017	-0.018	-0.037	-0.075	11111	1.02	39175.8574	3	4456	6.262	-0.112	-0.086	-0.067	-0.211	01111	1.04	39135.9757	3
4259	4.331	0.047	0.012	-0.006	0.010	11111	1.02	38878.8837	1	4456	5.914	-0.070	-0.044	-0.076	-0.207	11111	1.05	39138.9975	3
4259	4.355	-0.017	0.006	-0.017	-0.007	11111	1.02	38791.9304	1	4456	5.897	-0.099	-0.081	-0.070	-0.197	11111	1.08	39139.9254	3
4287	4.350	0.804	0.506	0.465	1.464	11111	1.66	38887.6858	3	4456	5.946	-1.00	-0.086	-0.085	-0.207	01111	1.93	39150.7675	3
4287	4.355	0.824	0.524	0.452	1.476	11111	1.58	39175.8862	3	4456	6.003	-0.088	-0.068	-0.080	-0.214	01111	1.04	39150.9409	3
4295	2.363	-0.018	-0.013	-0.026	-0.025	11111	1.13	38887.6985	3	4456	5.904	-0.084	-0.063	-0.071	-0.203	11111	1.05	39172.0519	3
4295	2.344	-0.036	-0.032	-0.028	-0.004	11111	1.12	39175.9005	3	4456	5.914	-0.053	-0.059	-0.086	-0.223	11111	1.05	39184.8282	1
4299	5.192	1.247	0.783	0.682	2.398	11111	1.44	38887.7303	3	4456	5.896	-0.096	-0.088	-0.074	-0.225	11111	1.04	39201.8154	1
4299	5.158	0.259	0.773	0.664	2.411	11111	1.31	39175.9109	1	4456	5.923	-0.089	-0.059	-0.073	-0.200	11111	1.04	39202.8006	3
4299	5.134	1.250	0.775	0.692	2.403	11111	1.37	39270.6677	3	4456	5.884	-0.092	-0.059	-0.089	-0.219	11111	1.13	39227.6604	3
4300	4.450	0.012	-0.008	-0.002	0.063	11111	1.02	38872.6800	3	4456	5.900	-0.083	-0.068	-0.089	-0.219	11111	1.13	39227.9262	3
4300	4.770	-0.004	0.008	-0.002	0.071	01111	1.03	39135.9868	1	4456	5.897	-0.104	-0.057	-0.074	-0.214	11111	1.04	39240.7028	3
4300	4.427	-0.005	0.004	0.000	0.099	11111	1.02	39202.7884	3	4456	5.898	-0.095	-0.067	-0.082	-0.231	11111	2.76	39240.9066	3
4301	2.069	0.788	0.485	0.481	1.432	11111	1.15	38872.6941	3	4456	5.923	-1.06	-0.086	-0.195	-0.215	11111	1.07	39246.7260	1
4301	2.080	0.792	0.495	0.512	1.443	11111	1.15	39139.9672	3	4456	5.877	-0.121	-0.074	-0.064	-0.205	11111	1.04	39247.6956	1
4301	2.036	0.812	0.511	0.454	1.417	11111	1.15	39206.7760	3	4456	5.904	-0.098	-0.094	-0.072	-0.215	11111	1.04	39249.6848	1
4310	4.601	0.280	0.182	0.159	0.384	11111	1.11	38786.9049	1	4456	5.892	-0.125	-0.075	-0.074	-0.215	11111	1.04	39251.6843	1
4310	4.683	0.299	0.166	0.168	0.409	11111	1.11	38787.9000	1	4456	5.921	-0.091	-0.055	-0.134	-0.215	11111	1.15	39254.7381	1
4310	4.710	0.304	0.178	0.149	0.404	11111	1.13	38787.9412	1	4456	5.909	-0.107	-0.064	-0.085	-0.222	11111	1.04	39257.6362	3
4310	4.701	0.297	0.185	0.118	0.361	11111	1.11	39206.7854	3	4456	5.917	-0.109	-0.064	-0.090	-0.213	11111	2.91	39257.8639	3
4335	3.321	0.849	0.527	0.497	1.580	11111	1.03	38872.7089	3	4456	5.885	-0.126	-0.080	-0.087	-0.213	11111	1.04	39258.6324	3
4335	3.315	0.846	0.541	0.506	1.598	11111	1.03	39130.9872	3	4456	5.895	-0.114	-0.082	-0.087	-0.208	11111	3.36	39258.8704	3
4335	3.283	0.887	0.555	0.463	1.559	11111	1.03	39206.7958	3	4456	5.899	-0.121	-0.075	-0.083	-0.235	11111	1.04	39268.6267	3
4357	2.615	0.079	0.045	0.036	0.157	11111	1.06	38872.7370	3	4456	5.896	-0.127	-0.070	-0.071	-0.214	11111	2.35	39268.8170	3
4357	2.606	0.093	0.062	0.031	0.167	11111	1.03	39130.9875	3	4456	5.891	-0.128	-0.071	-0.070	-0.204	11111	1.04	39269.6243	3
4357	2.593	0.090	0.068	0.017	0.161	11111	1.02	39227.7265	3	4456	5.916	-0.100	-0.064	-0.075	-0.217	11111	2.25	39269.8103	3
4359	3.373	-0.001	0.003	-0.034	-0.024	11111	1.11	38872.7492	3	4456	5.907	-0.129	-0.071	-0.073	-0.216	11111	1.04	39270.6281	3
4359	3.340	0.037	0.012	-0.033	-0.023	11111	1.04	39147.9323	3	4456	5.899	-0.121	-0.075	-0.075	-0.216	11111	2.25	39270.6281	3
4359	3.325	-0.008	0.001	-0.027	-0.011	11111	1.05	39227.7368	3	4456	5.907	-0.129	-0.071	-0.073	-0.216	11111	1.04	39270.6281	3
4362	4.994	1.245	0.673	0.811	2.437	11111	1.11	38872.7675	3	4456	5.736	0.700	0.408	0.335	0.820	11111	1.63	38708.9808	3
4362	4.989	1.259	0.679	0.804	2.356	11111	1.01	39147.9459	3	4456	5.488	0.577	0.370	0.310	0.890	11111	1.06	38786.8807	1
4362	5.029	1.258	0.693	0.783	2.357	11111	1.02	39227.7468	3	4456	5.485	0.617	0.359	0.298	0.853	11111	1.00	38787.9240	1
4368	4.524	0.135	0.095	0.093	0.252	11111	1.32	38789.8635	1	4456	5.444	0.614	0.366	0.292	0.882	11111	1.11	38791.8436	1
4368	4.481	0.180	0.127	0.084	0.230	11111	1.23	39148.9386	3	4456	5.460	0.609	0.377	0.295	0.886	11111	1.00	38865.7116	1
4368	4.524	0.173	0.109	0.095	0.234	11111	1.23	39240.6839	3	4456	5.541	0.657	0.458	0.298	0.805	11111	1.00	38866.7331	1
4371	5.569	1.201	0.747	0.607	2.212	11111	1.16	38874.6855	3	4456	4.926	0.702	0.433	0.437	1.284	11111	1.57	38889.6633	3
4371	5.662	1.189	0.754	0.600	2.212	01111	1.16	39150.9129	3	4456	4.899	0.693	0.397	0.425	1.283	11111	1.57	39174.8939	3
4374	3.894	0.470	0.272	0.267	0.496	11111	1.00	38875.6700	1	4456	4.438	1.139	0.693	0.712	2.275	11111	1.12	38866.7525	1
4374	4.015	0.487	0.274	0.260	0.656	01111	1.00	39150.9226	3	4456	4.378	1.163	0.702	0.625	2.208	11111	1.12	39174.9025	3
4377	3.833	1.049	0.673	0.610	2.009	11111	1.00	38875.6821	1	4456	3.960	0.882	0.542	0.515	1.624	11111	1.04	38889.6797	3
4377	3.949	1.071	0.672	0.591	1.986	01111	1.00	39150.9318	3	4456	4.023	0.908	0.561	0.513	1.605	11111	1.04	39154.9953	3
4380	4.777	0.048	0.029	0.020	0.126	11111	1.01	38875.6953	1	4456	4.634	0.465	0.268	0.236	0.623	11111	1.03	38889.6919	3
4380	4.649	0.096	0.039	0.027	0.134	11111	1.01	39151.9121	3	4456	4.605	0.447	0.241	0.225	0.631	11111	1.03	39174.9113	3
4382	3.855	0.833	0.507	0.498	1.502	11111	1.47	38888.6633	3	4456	4.672	0.495	0.279	0.228	0.630	11111	1.02	39178.8824	1
4382	3.875	0.870	0.520	0.491	1.461	11111	1.47	39151.9240	3	4456	2.133	0.045	0.025	0.052	0.162	11111	1.11	38786.8940	1
4386	4.002	-0.008	-0.010	-0.027	-0.098														

TABLE 8 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 52

B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS	B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS
4550	6.612	0.643	0.369	0.328	0.880	11111	1.01	38894.6451	3	4789	4.795	0.002	0.010	-0.026	-0.019	11111	1.03	38890.6706	3
4550	6.624	0.640	0.379	0.329	0.885	11111	1.00	38896.6535	3	4789	4.764	-0.025	-0.000	0.011	-0.015	11111	1.02	39150.9962	3
4550	6.609	0.638	0.369	0.324	0.873	11111	1.01	38898.6429	3	4789	4.783	-0.008	0.005	-0.038	-0.016	11111	1.02	39201.8561	1
4550	6.624	0.653	0.379	0.325	0.873	11111	1.04	38916.6500	3	4813	4.954	0.893	0.582	0.515	1.777	11111	1.32	38890.6807	3
4550	6.613	0.635	0.378	0.331	0.878	11111	1.01	38933.6748	3	4813	4.914	0.900	0.571	0.514	1.773	11111	1.31	39154.9822	3
4550	6.626	0.655	0.374	0.311	0.865	11111	2.12	38933.7667	3	4813	4.970	0.927	0.610	0.506	1.752	11111	1.32	39227.7574	3
4550	6.527	0.636	0.389	0.330	0.871	01111	2.32	39150.7304	3	4825	2.846	0.295	0.179	0.149	0.426	11111	1.23	38786.9517	1
4550	6.718	0.666	0.391	0.317	0.855	01111	1.01	39150.9516	3	4825	2.792	0.277	0.154	0.160	0.419	11111	1.21	38787.9691	1
4550	6.611	0.641	0.376	0.328	0.879	11111	1.02	39172.8625	3	4825	2.841	0.308	0.176	0.162	0.396	11111	1.21	38789.9993	1
4550	6.640	0.651	0.385	0.321	0.880	11111	1.09	39173.9725	3	4825	2.938	0.286	0.182	0.145	0.400	11111	1.20	38791.9721	1
4550	6.651	0.683	0.390	0.361	0.920	11111	1.15	39174.9897	3	4828	4.873	0.023	0.008	0.016	0.103	11111	1.08	38890.6911	3
4550	6.621	0.662	0.379	0.312	0.864	11111	1.03	39175.9336	3	4828	4.889	0.031	0.018	0.025	0.101	11111	1.08	39172.9420	3
4550	6.650	0.673	0.411	0.330	0.871	11111	1.08	39176.9592	3	4828	4.902	0.039	0.031	-0.004	0.102	11111	1.08	39227.7673	3
4550	6.632	0.685	0.397	0.331	0.887	11111	1.01	39178.8919	1	4845	6.075	0.455	0.256	0.192	0.594	11111	1.01	39254.7095	1
4550	6.616	0.632	0.376	0.344	0.884	11111	1.01	39184.8377	1	4845	6.066	0.432	0.266	0.256	0.636	11111	1.03	39258.6602	3
4550	6.586	0.619	0.365	0.341	0.885	11111	1.01	39201.8252	1	4846	5.487	1.666	1.021	1.884	6.771	11111	1.03	38890.7053	3
4550	6.647	0.661	0.391	0.312	0.864	11111	1.01	39202.8130	3	4846	5.059	0.511	0.308	0.329	0.796	11111	1.02	38890.7433	3
4550	6.621	0.649	0.393	0.313	0.875	11111	1.02	39207.7149	3	4846	5.086	0.534	0.401	0.792	11111	1.03	39172.9407	3	
4550	6.592	0.649	0.362	0.340	0.876	11111	2.27	39227.9690	3	4846	5.531	1.670	1.016	1.922	6.732	11111	1.03	39249.7411	1
4550	6.610	0.637	0.376	0.327	0.877	11111	1.00	39240.7133	3	4846	5.570	1.680	1.013	1.908	6.798	11111	1.04	39270.6919	3
4550	6.612	0.654	0.396	0.332	0.875	11111	1.01	39243.6850	3	4902	5.137	1.251	0.682	0.773	2.233	11111	1.39	38890.7533	3
4550	6.606	0.649	0.384	0.314	0.861	11111	1.01	39247.7082	1	4902	5.105	1.266	0.696	0.760	2.283	11111	1.35	39173.9152	3
4550	6.618	0.665	0.395	0.311	0.874	11111	1.08	39249.7601	1	4902	5.111	1.269	0.702	0.750	2.237	11111	1.35	39229.7615	3
4550	6.593	0.641	0.385	0.313	0.859	11111	1.12	39251.7708	1	4905	1.770	-0.025	-0.002	-0.034	-0.036	11111	1.13	38890.7652	3
4550	6.609	0.635	0.367	0.326	0.884	11111	1.01	39257.6452	3	4905	1.761	0.018	0.000	-0.048	-0.033	11111	1.09	39173.9247	3
4550	6.621	0.651	0.387	0.343	0.869	11111	2.20	39257.8886	3	4905	1.812	0.013	0.027	-0.064	-0.058	11111	1.09	39229.7791	3
4550	6.593	0.623	0.384	0.329	0.871	11111	1.01	39258.6408	3	4910	3.742	1.208	0.640	0.749	2.261	11111	1.18	38894.6580	3
4550	6.627	0.668	0.384	0.312	0.862	11111	2.69	39258.9010	3	4910	3.725	1.208	0.631	0.729	2.259	11111	1.14	39173.9342	3
4550	6.619	0.645	0.387	0.317	0.881	11111	2.31	39268.8589	3	4910	3.730	1.205	0.637	0.738	2.250	11111	1.16	39240.7246	3
4550	6.607	0.621	0.375	0.340	0.888	11111	1.00	39269.6343	3	4914	5.670	0.242	0.140	0.136	0.354	11111	1.01	38894.6762	3
4550	6.623	0.644	0.391	0.317	0.857	11111	2.15	39269.6846	3	4914	5.675	0.275	0.130	0.110	0.335	11111	1.01	39174.9433	3
4550	6.618	0.634	0.382	0.319	0.877	11111	1.01	39270.6402	3	4914	5.666	0.264	0.165	0.136	0.322	11111	1.01	39240.7362	3
4550	6.614	0.638	0.368	0.334	0.881	11111	1.03	39272.6640	3	4915	2.938	-0.027	0.006	-0.100	-0.147	11111	1.01	38894.6921	3
4550	6.613	0.632	0.378	0.329	0.866	11111	1.01	39274.6753	3	4915	3.186	-0.050	-0.070	-0.165	-0.154	11111	1.02	39174.9612	3
4550	6.610	0.642	0.386	0.317	0.860	11111	1.08	39278.6603	1	4915	3.194	0.111	0.054	-0.202	-0.264	11111	1.01	39240.7568	3
4550	6.607	0.620	0.375	0.320	0.866	11111	1.03	39280.6466	3	4920	5.174	1.252	0.787	0.641	2.364	11111	1.03	38894.7038	3
4550	6.633	0.655	0.389	0.326	0.866	11111	2.14	39280.8177	3	4920	5.180	1.214	0.746	0.623	2.316	11111	1.07	39174.9792	3
4550	6.603	0.622	0.366	0.324	0.859	11111	1.03	39281.6414	3	4920	5.194	1.260	0.801	0.637	2.331	11111	1.03	39227.7906	3
4550	6.653	0.663	0.390	0.319	0.877	11111	1.65	39482.8649	3	4931	5.015	0.300	0.190	0.161	0.433	11111	1.10	38894.7163	3
4550	6.668	0.686	0.408	0.310	0.871	11111	1.04	39509.0249	1	4931	4.984	0.276	0.168	0.189	0.427	11111	1.10	39154.9938	3
4554	2.419	-0.024	-0.015	-0.014	0.011	11111	1.13	38888.7400	3	4931	4.996	0.311	0.180	0.165	0.416	11111	1.10	39184.9111	1
4554	2.391	-0.032	-0.043	-0.024	0.008	11111	1.08	39174.9204	3	4932	3.060	0.693	0.436	0.413	1.205	11111	1.08	38889.6862	3
4589	4.732	0.090	0.029	0.056	0.118	11111	1.11	38789.9663	1	4932	3.063	0.680	0.418	0.417	1.233	11111	1.07	38896.7004	3
4589	4.673	0.068	0.050	0.064	0.142	11111	1.11	39154.9657	3	4932	3.086	0.709	0.439	0.402	1.196	11111	1.07	39199.8806	3
4608	4.435	0.723	0.442	0.425	1.259	11111	1.09	38865.7372	1	4945	5.236	1.234	0.791	0.619	2.292	11111	1.01	38866.7738	1
4608	4.355	0.719	0.441	0.445	1.273	11111	1.09	38896.6755	3	4945	5.194	1.186	0.767	0.592	2.207	11111	1.00	39149.0150	3
4608	4.340	0.694	0.426	0.458	1.282	11111	1.09	39184.8798	1	4945	5.215	1.217	0.776	0.585	2.188	11111	1.02	39199.9087	3
4662	2.527	-0.049	-0.050	-0.025	-0.140	11111	1.57	38869.7160	1	4946	4.405	0.066	0.016	-0.009	-0.035	11111	1.27	38866.7948	1
4662	2.547	-0.076	-0.050	-0.062	-0.175	11111	1.55	38898.6556	3	4946	4.360	0.012	0.012	-0.017	-0.006	11111	1.27	39149.0247	3
4662	2.633	0.012	0.005	-0.065	-0.165	11111	1.55	39199.8248	3	4946	4.426	0.036	0.018	-0.007	-0.043	11111	1.26	39202.8660	3
4689	3.892	0.072	0.052	-0.024	0.002	11111	1.20	38786.9394	1	4947	4.346	0.483	0.301	0.286	0.693	11111	1.00	38869.7757	1
4689	3.884	0.042	0.000	-0.003	0.009	11111	1.20	38787.9358	1	4947	4.371	0.461	0.291	0.248	0.664	11111	1.00	39151.0067	3
4689	3.912	0.021	0.035	0.000	0.012	11101	1.18	38791.9599	1	4947	4.342	0.452	0.291	0.255	0.658	11111	1.01	39251.7570	1
4695	5.236	0.886	0.574	0.487	1.576	11111	1.15	38869.7323	1	4948	4.346	0.483	0.301	0.286	0.693	11111	1.00	38869.7782	1
4695	5.264	0.896	0.562	0.500	1.563	11111	1.14	38898.6665	3	4948	4.361	0.446	0.291	0.281	0.667	11111	1.00	39151.0267	3
4695	5.275	0.920	0.573	0.501	1.572	11111	1.14	39199.8350	3	4948	4.964	0.581	0.363	0.300	0.843	11111	1.00	39202.8864	3
4697	4.951	0.742	0.436	0.454	1.309	11111													

TABLE 8 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 52

B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS	B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS
5095	5.083	1.285	0.771	0.704	2.444	11111	1.28	38869.8052	1	5351	4.200	0.041	0.015	0.032	0.121	11111	1.05	38874.8487	3
5095	5.097	1.246	0.725	0.720	2.398	11111	1.28	39175.9444	3	5351	4.180	0.009	-0.006	0.013	0.136	11111	1.03	38924.6845	3
5095	5.156	1.237	0.713	0.780	2.463	11111	1.29	39202.9068	3	5351	4.137	0.063	0.010	0.008	0.083	11111	1.03	39206.9006	3
5105	4.914	0.056	-1.006	-0.022	0.001	11011	1.17	38786.9866	1	5359	4.548	0.080	0.045	0.033	0.179	11111	1.43	38887.7812	3
5105	4.936	0.054	0.066	-0.024	0.014	11111	1.17	38787.9795	1	5359	4.522	0.053	0.055	0.032	0.154	11111	1.44	38925.6520	3
5105	4.933	0.089	0.073	-0.066	0.008	11111	1.14	39206.8561	3	5359	4.526	0.102	0.057	0.033	0.150	11111	1.43	39206.9113	3
5107	3.272	0.116	0.089	0.050	0.139	11111	1.19	38786.9975	1	5361	5.039	0.750	0.468	0.472	1.429	11111	1.01	38887.7934	3
5107	3.464	0.057	0.040	0.033	0.123	11111	1.20	38787.9887	1	5361	5.059	0.781	0.489	0.444	1.404	11111	1.01	38924.6951	3
5107	3.376	0.097	0.044	0.040	0.138	11111	1.18	39206.8726	3	5361	5.013	0.782	0.477	0.442	1.408	11111	1.01	39206.9219	3
5110	5.053	0.345	0.183	0.192	0.442	11111	1.00	38887.7441	3	5370	5.140	0.916	0.599	0.494	1.739	11111	1.04	38925.6624	3
5110	5.081	0.360	0.166	0.181	0.420	11111	1.00	39175.9631	3	5370	5.166	0.955	0.628	0.476	1.716	11111	1.04	39227.8503	3
5110	5.040	0.361	0.212	0.172	0.421	11111	1.00	39206.8816	3	5370	5.153	0.935	0.593	0.493	1.737	11111	1.05	39227.7034	3
5112	4.673	0.139	0.092	0.059	0.146	11111	1.05	38870.8035	1	5384	6.390	0.509	0.304	0.288	0.721	11111	1.17	39258.7569	3
5112	4.683	0.069	0.021	0.064	0.181	11111	1.04	39175.9540	3	5384	6.374	0.487	0.288	0.294	0.748	11111	1.30	39226.6631	3
5112	4.690	0.089	0.033	0.036	0.163	11111	1.05	39268.6807	3	5404	4.159	0.412	0.250	0.233	0.575	11111	1.06	38888.7796	3
5127	4.817	0.230	0.128	0.110	0.266	11111	1.00	38871.8032	1	5404	4.140	0.401	0.235	0.224	0.574	11111	1.06	38925.6728	3
5127	4.778	0.201	0.103	0.092	0.267	11111	1.00	39175.9726	3	5404	4.168	0.422	0.263	0.229	0.574	11111	1.06	39227.8606	3
5127	4.806	0.198	0.108	0.095	0.248	11111	1.01	39206.8905	3	5409	4.974	0.540	0.336	0.325	0.821	11111	1.21	38888.7910	3
5154	5.064	1.243	0.747	0.742	2.463	11111	1.08	38887.7558	3	5409	4.940	0.537	0.329	0.311	0.791	11111	1.21	38925.6856	3
5154	5.054	1.268	0.731	0.738	2.407	11111	1.09	39175.9887	3	5409	4.965	0.560	0.337	0.320	0.817	11111	1.23	39227.8798	3
5154	5.024	1.280	0.756	0.758	2.436	11111	1.08	39268.6931	3	5429	3.931	1.009	0.647	0.541	1.834	11111	1.00	38839.9019	3
5185	4.596	0.397	0.259	0.204	0.548	11111	1.03	38888.7549	3	5429	3.904	0.990	0.627	0.545	1.835	11111	1.00	38926.6661	3
5185	4.595	0.392	0.232	0.223	0.555	11111	1.05	39175.9973	3	5429	3.920	1.006	0.648	0.513	1.802	11111	1.00	39240.8291	3
5185	4.588	0.391	0.214	0.220	0.575	11111	1.04	39268.7040	3	5430	4.601	1.089	0.715	0.595	2.071	11111	1.39	38888.8290	3
5191	1.823	-0.135	-0.074	-0.078	-0.219	11111	1.05	38888.7665	3	5430	4.595	1.085	0.685	0.601	2.098	11111	1.38	38926.6546	3
5191	1.821	-0.144	-0.097	-0.072	-0.227	11111	1.05	39155.0326	3	5430	4.613	1.122	0.716	0.587	2.093	11111	1.38	39257.7551	3
5191	1.813	-0.136	-0.099	-0.074	-0.208	11111	1.06	39269.6775	3	5435	3.108	0.161	0.086	0.070	0.236	11111	1.01	38839.9115	3
5200	4.445	1.208	0.781	0.593	2.251	11111	1.05	38889.7394	3	5435	3.095	0.122	0.080	0.079	0.230	11111	1.01	38926.6785	3
5200	4.460	1.208	0.766	0.604	2.265	11111	1.07	39176.0054	3	5435	3.065	0.133	0.067	0.071	0.219	11111	1.01	39268.7396	3
5200	4.443	1.203	0.776	0.597	2.253	11111	1.05	39269.6868	3	5447	4.566	0.336	0.187	0.184	0.398	11111	1.00	38839.9201	3
5219	5.075	1.252	0.692	0.783	2.467	11111	1.00	38889.7509	3	5447	4.548	0.325	0.185	0.150	0.393	11111	1.00	38928.6726	3
5219	5.185	1.262	0.686	0.794	2.423	11111	1.03	39176.0141	3	5447	4.563	0.332	0.187	0.172	0.365	11111	1.00	39240.8385	3
5219	5.113	1.263	0.683	0.818	2.455	11111	1.00	39269.6966	3	5457	4.524	0.084	0.073	-0.084	-0.121	11111	1.04	38870.8316	1
5226	4.953	1.227	0.640	0.773	2.301	11111	1.19	38889.7623	3	5457	4.536	0.029	-0.001	-0.031	-0.051	11111	1.04	38928.6826	3
5226	4.891	1.236	0.650	0.769	2.300	11111	1.21	39176.0239	3	5457	4.526	0.031	0.000	-0.040	-0.057	11111	1.04	39268.7505	3
5226	4.945	1.231	0.622	0.768	2.283	11111	1.19	39256.7140	3	5477	3.794	0.047	0.020	0.016	0.076	11111	1.06	38869.8380	1
5235	2.779	0.471	0.314	0.235	0.706	11111	1.10	38786.9748	1	5477	3.789	0.017	0.012	-0.015	0.065	11111	1.06	38928.6931	3
5235	2.817	0.471	0.279	0.217	0.697	11111	1.17	38787.9468	1	5487	3.947	0.334	0.239	0.182	0.411	11111	1.36	38788.0114	3
5235	2.825	0.516	0.287	0.233	0.687	11111	1.30	38789.9140	1	5487	3.951	0.311	0.181	0.185	0.435	11111	1.28	39229.6557	3
5235	2.826	0.458	0.286	0.233	0.699	11111	1.06	38791.9816	1	5490	5.163	1.295	0.738	0.783	2.489	11111	1.01	38865.8508	1
5235	2.802	0.483	0.286	0.254	0.702	11111	1.05	38865.7877	1	5490	5.152	1.241	0.692	0.798	2.426	11111	1.01	38928.6675	3
5235	2.811	0.480	0.305	0.250	0.698	11111	1.11	38865.8884	1	5490	5.184	1.280	0.735	0.791	2.461	11111	1.02	39172.9864	3
5235	2.764	0.486	0.296	0.251	0.708	11111	1.27	38869.7008	1	5490	5.157	1.292	0.724	0.780	2.456	11111	1.01	39197.9240	3
5235	2.777	0.477	0.292	0.294	0.732	11111	1.03	38869.8198	1	5490	5.152	1.290	0.733	0.788	2.447	11111	1.01	39279.7147	3
5264	4.171	0.111	0.056	0.065	0.099	11111	1.19	38787.0096	1	5490	5.166	1.273	0.713	0.770	0.000	11110	1.01	39266.6792	3
5264	4.240	0.103	0.037	0.032	0.112	11111	1.20	38787.9996	1	5502	4.828	0.738	0.462	0.407	1.255	11111	1.04	38865.8591	1
5264	4.258	0.079	0.037	0.026	0.104	11111	1.16	39269.7272	3	5502	4.849	0.700	0.443	0.453	1.278	11111	1.04	39173.0046	3
5291	3.626	-0.008	-0.008	-0.039	-0.073	11111	1.19	38865.7964	1	5502	4.763	0.692	0.414	0.429	1.277	11111	1.04	39197.9341	3
5291	3.619	-0.032	-0.024	-0.035	-0.094	11111	1.18	38921.6886	3	5505	2.594	0.744	0.476	0.441	1.222	11111	1.01	38865.8684	1
5291	3.677	0.007	-0.007	-0.052	-0.102	11111	1.18	39199.9191	3	5505	2.626	0.732	0.485	0.419	1.224	11111	1.01	39172.9946	3
5299	5.487	1.265	0.515	0.891	2.105	11111	1.03	38865.8062	1	5505	2.615	0.753	0.459	0.440	1.225	11111	1.01	39176.9900	3
5299	5.514	1.248	0.485	0.914	2.084	11111	1.02	38922.6829	1	5511	3.690	0.018	0.008	-0.001	-0.004	11111	1.16	38871.8376	1
5299	5.556	1.266	0.497	0.902	2.031	11111	1.02	39199.9294	3	5511	3.754	0.000	-0.003	-0.013	-0.009	11111	1.16	39173.0130	3
5304	4.870	0.422	0.235	0.291	0.631	11111	1.01	38870.8198	1	5511	3.696	0.013	-0.004	-0.030	-0.010	11111	1.16	39197.9442	3
5304	4.893	0.425	0.244	0.241	0.592	11111	1.01	38922.6939	1	5531	2.785	0.084	0.062	0.043	0.188	11111	1.51	38889.7784	3
5304	4.931	0.429	0.249	0.245	0.622	11111	1.01	39199.9398	3	5531	2.783	0.099	0.064	0.040	0.183	11111	1.50	39173.0215	3
5313	4.974	-0.025	-0.025	-0.052	-0.128														

TABLE 8 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 52

B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS	B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS
5602	3.733	0.715	0.432	0.426	1.261	11111	1.01	38839.9391	3	5733	4.371	0.242	0.164	0.136	0.360	11111	1.01	38875.8349	1
5602	3.697	0.691	0.416	0.436	1.232	11111	1.01	38925.6978	3	5733	4.391	0.280	0.147	0.120	0.343	11111	1.00	38928.7145	3
5616	4.785	0.986	0.620	0.543	1.779	11111	1.00	38871.8557	1	5735	3.056	0.110	0.079	0.012	0.026	11111	1.30	38869.8564	1
5616	4.836	0.944	0.591	0.529	1.770	11111	1.00	38924.7057	3	5735	3.070	0.084	0.033	0.020	0.026	11111	1.30	38928.7050	3
5634	4.977	0.383	0.223	0.212	0.504	11111	1.01	38871.8692	1	5735	3.040	0.075	0.019	0.029	0.032	11111	1.30	39297.7847	3
5634	5.027	0.368	0.205	0.195	0.494	11111	1.02	38925.7341	3	5744	3.611	0.921	0.608	0.472	1.617	11111	1.12	38869.8726	1
5652	4.571	-0.004	0.010	-0.065	-0.134	11111	1.65	38874.8735	3	5744	3.594	0.878	0.562	0.484	1.621	11111	1.13	38929.6788	3
5652	4.537	-0.033	-0.012	-0.036	-0.114	11111	1.63	38926.6961	3	5747	3.729	0.193	0.154	0.097	0.356	11111	1.00	38875.8475	1
5681	3.704	0.717	0.433	0.437	1.209	11111	1.02	38874.8867	3	5747	3.727	0.200	0.117	0.092	0.364	11111	1.01	38929.6891	3
5681	3.726	0.713	0.426	0.449	1.239	11111	1.00	38926.7066	3	5763	5.470	1.238	0.787	0.694	2.352	11111	1.03	38894.7684	3
5685	2.438	-0.027	-0.025	-0.052	-0.179	11111	1.52	38787.0194	1	5764	5.503	-0.084	-0.060	-0.050	-0.202	11111	1.53	38875.8659	1
5685	2.572	-0.057	-0.030	-0.041	-0.179	11111	1.50	38788.0207	1	5764	5.487	-0.087	-0.076	-0.051	-0.209	11111	1.56	39184.9838	1
5685	2.617	-0.070	-0.049	-0.051	-0.138	11111	1.53	38790.0088	1	5774	5.014	0.070	0.047	0.016	0.085	11111	1.01	39185.0053	1
5685	0.000	0.000	-0.035	-0.050	-0.165	00111	2.41	38839.8016	3	5777	4.862	0.789	0.497	0.406	1.318	11111	1.38	38894.7808	3
5685	2.620	-0.028	-0.029	-0.060	-0.176	11111	1.34	38839.9591	3	5777	4.846	0.767	0.473	0.441	1.348	11111	1.36	38929.6994	3
5685	2.639	-0.037	-0.032	-0.054	-0.150	11111	2.13	38872.7249	3	5778	4.146	-0.067	-0.055	-0.050	-0.185	11111	1.00	38893.9492	3
5685	2.544	-0.062	-0.030	-0.038	-0.152	11111	1.37	38872.8093	3	5778	4.121	-0.089	-0.045	-0.175	11111	1.00	39185.0144	1	
5685	2.627	-0.044	-0.026	-0.050	-0.160	11111	1.41	38874.8055	3	5780	5.123	-0.055	-0.045	-0.049	-0.149	11111	1.34	38894.8283	3
5685	2.619	-0.044	-0.031	-0.062	-0.158	11111	1.36	38875.8206	1	5780	5.138	-0.051	-0.032	-0.062	-0.122	11111	1.34	39185.0232	1
5685	2.587	-0.054	-0.041	-0.049	-0.156	11111	2.04	38877.7168	3	5787	4.121	0.751	0.466	0.434	1.293	11111	1.47	38896.8148	3
5685	2.615	-0.055	-0.046	-0.040	-0.139	11111	1.41	38887.7696	3	5787	4.140	0.769	0.455	0.459	1.317	11111	1.47	39199.9666	3
5685	2.596	-0.026	-0.034	-0.048	-0.157	11111	2.22	38887.9569	3	5788	3.800	0.179	0.105	0.094	0.290	11111	1.09	38896.8280	3
5685	2.583	-0.059	-0.033	-0.050	-0.166	11111	1.34	38889.8148	3	5788	3.859	0.218	0.146	0.082	0.286	11111	1.08	39199.9773	3
5685	2.595	-0.059	-0.045	-0.051	-0.164	11111	1.34	38889.8100	3	5793	2.196	-0.044	-0.020	-0.020	-0.033	11111	1.02	38896.8400	3
5685	2.606	-0.060	-0.029	-0.051	-0.164	11111	1.34	38890.8202	3	5793	2.232	0.005	0.009	-0.043	-0.039	11111	1.01	39199.9862	3
5685	2.582	-0.071	-0.034	-0.060	-0.181	11111	1.35	38894.8173	3	5793	2.212	-0.028	-0.016	-0.049	-0.046	11111	1.01	39241.8669	3
5685	2.580	-0.060	-0.033	-0.054	-0.162	11111	1.35	38916.7175	3	5838	5.195	1.283	0.793	0.638	2.314	11111	1.82	38898.7392	3
5685	2.576	-0.073	-0.051	-0.051	-0.152	11111	1.35	38916.7175	3	5838	5.160	1.271	0.789	0.636	2.303	11111	1.62	39206.9535	3
5685	2.627	-0.047	-0.018	-0.068	-0.169	11111	2.33	38916.8827	3	5842	4.552	0.044	0.028	-0.006	0.072	11111	1.08	38898.7495	3
5685	2.554	-0.079	-0.064	-0.042	-0.143	11111	1.34	38917.7234	3	5842	4.521	0.019	0.023	0.000	0.053	11111	1.03	39201.9511	1
5685	2.603	-0.060	-0.026	-0.064	-0.154	11111	2.39	38917.8828	3	5849	3.833	-0.004	-0.001	-0.015	0.002	11111	1.04	38898.7600	3
5685	2.586	-0.060	-0.043	-0.054	-0.170	11111	1.34	38918.7312	3	5849	3.828	0.020	0.035	-0.031	-0.001	11111	1.01	39201.9601	1
5685	2.605	-0.060	-0.039	-0.053	-0.160	11111	1.54	38919.6523	1	5854	2.879	0.860	0.576	0.488	1.654	11111	1.39	38917.9934	1
5685	2.569	-0.083	-0.038	-0.073	-0.194	11111	1.53	38921.6462	3	5854	2.918	0.857	0.553	0.486	1.652	11111	1.39	38921.7922	3
5685	2.576	-0.073	-0.051	-0.051	-0.152	11111	1.35	38921.7923	3	5854	2.931	0.871	0.566	0.493	1.676	11111	1.31	38893.9980	3
5685	2.554	-0.079	-0.064	-0.043	-0.143	11111	1.34	38923.6570	1	5854	2.919	0.859	0.539	0.483	1.647	11111	2.14	38874.7033	3
5685	2.575	-0.082	-0.062	-0.066	-0.156	11111	1.47	38924.6526	3	5854	2.921	0.866	0.557	0.482	1.640	11111	1.11	38875.8780	1
5685	2.593	-0.071	-0.035	-0.055	-0.159	11111	2.34	38924.7156	3	5854	2.917	0.867	0.566	0.476	1.648	11111	1.11	38887.8317	3
5685	2.591	-0.052	-0.034	-0.048	-0.154	11111	2.04	38924.8173	3	5854	2.919	0.862	0.569	0.475	1.645	11111	1.12	38889.8489	3
5685	2.559	-0.079	-0.044	-0.070	-0.176	11111	1.50	38929.6293	3	5854	2.913	0.862	0.561	0.482	1.632	11111	1.14	38890.8679	3
5685	2.591	-0.085	-0.037	-0.039	-0.131	11111	2.38	38929.8949	3	5854	2.924	0.867	0.546	0.475	1.632	11111	2.12	38898.9753	3
5685	2.561	-0.045	-0.029	-0.055	-0.142	11111	1.58	38939.0458	3	5854	2.940	0.862	0.569	0.477	1.631	11111	1.13	38916.7912	3
5685	2.604	-0.052	-0.034	-0.064	-0.154	11111	2.21	39139.9892	3	5854	2.925	0.857	0.548	0.492	1.653	11111	2.31	38916.9345	3
5685	2.593	-0.071	-0.045	-0.067	-0.168	11111	1.44	38928.6492	3	5854	2.905	0.882	0.564	0.472	1.641	11111	1.12	38917.7334	3
5685	2.601	-0.051	-0.040	-0.065	-0.175	11111	2.17	39147.9694	3	5854	2.955	0.898	0.575	0.482	1.645	11111	2.25	38917.7923	3
5685	2.589	-0.065	-0.046	-0.067	-0.164	11111	2.34	39148.9584	3	5854	2.932	0.873	0.570	0.479	1.645	11111	1.11	38918.7422	3
5685	2.586	-0.057	-0.046	-0.056	-0.149	11111	1.42	39149.0498	3	5854	2.913	0.874	0.567	0.479	1.640	11111	1.29	38919.6630	1
5685	2.600	-0.024	-0.013	-0.056	-0.169	11111	1.41	39151.0490	3	5854	2.896	0.849	0.547	0.472	1.622	11111	1.24	38921.6687	3
5685	2.620	-0.044	-0.029	-0.060	-0.163	11111	2.29	39154.9440	3	5854	2.904	0.865	0.561	0.480	1.645	11111	1.11	38921.7426	3
5685	2.574	-0.048	-0.027	-0.062	-0.171	11111	1.37	39155.0523	3	5854	2.893	0.842	0.541	0.477	1.625	11111	1.23	38922.6667	1
5685	2.612	-0.039	-0.029	-0.058	-0.161	11111	1.34	39173.0400	3	5854	2.931	0.864	0.567	0.468	1.624	11111	2.21	38925.9059	3
5685	2.589	-0.063	-0.042	-0.057	-0.144	11111	2.08	39173.9034	3	5854	2.916	0.885	0.571	0.477	1.641	11111	1.11	38923.6648	3
5685	2.626	-0.058	-0.044	-0.060	-0.161	11111	2.42	39174.8841	3	5854	2.922	0.847	0.547	0.483	1.647	11111	1.23	38924.6639	3
5685	2.616	-0.036	-0.024	-0.052	-0.157	11111	2.23	39175.8895	3	5854	2.939	0.879	0.560	0.474	1.647	11111	1.11	38924.7247	3
5685	2.605	-0.036	-0.028	-0.044	-0.178	11111	1.34	39176.0332	3	5854	2.919	0.878	0.550	0.484	1.657	11111	2.49	38924.9195	3
5685	2.624	-0.026	-0.020	-0.077	-0.176	11111	1.36	39185.0328	1	5854	2.875	0.841	0.550	0.473	1.630	11111	1.31	38925.6643	3
5685	2.557	-0.041	-0.041	-0.057	-0.173	11111													

TABLE 8 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 52

B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS	B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS	
5854	2.856	0.880	0.571	0.459	1.647	11111	1.12	39231.8697	1	5947	4.451	0.947	0.583	0.533	1.701	11111	1.02	39258.8612	3	
5854	2.892	0.835	0.532	0.478	1.640	11111	1.13	39241.8364	3	5947	4.452	0.948	0.587	0.518	1.710	11111	1.00	39270.7971	3	
5d54	0.000	0.000	0.594	0.473	1.614	00111	1.12	39246.8747	1	5947	4.441	0.935	0.583	0.530	1.697	11111	1.01	39272.8038	3	
5854	2.923	0.876	0.565	0.493	1.647	11111	1.23	39246.9268	1	5947	4.443	0.941	0.593	0.508	1.698	11111	1.01	39279.7895	3	
5854	2.907	0.870	0.561	0.487	1.649	11111	1.16	39270.7385	3	5947	4.436	0.932	0.590	0.515	1.699	11111	1.02	39298.7495	1	
5854	2.929	0.883	0.574	0.480	1.638	11111	2.21	39270.9610	3	5947	4.440	0.935	0.596	0.520	1.700	11111	1.01	39307.7225	1	
5854	2.909	0.856	0.553	0.476	1.645	11111	1.18	39272.7268	3	5947	4.458	0.936	0.604	0.521	1.727	11111	1.01	39318.6889	1	
5854	2.923	0.881	0.575	0.484	1.643	11111	2.18	39272.9545	3	5958	8.177	1.168	0.754	0.609	2.179	11111	1.01	38916.7805	3	
5854	2.942	0.894	0.570	0.471	1.656	11111	1.12	39281.7573	3	5958	8.145	1.207	0.761	0.585	2.146	11111	1.02	39197.9707	3	
5854	2.932	0.869	0.561	0.490	1.663	11111	1.21	39279.6975	3	5958	10.608	1.294	0.558	0.823	1.990	11111	1.01	39240.6718	3	
5854	2.931	0.887	0.577	0.445	1.629	11111	2.24	39279.9377	3	5958	10.331	1.244	0.526	0.808	1.902	11111	1.01	39296.7201	3	
5854	2.941	0.884	0.581	0.469	1.653	11111	1.12	39280.7434	3	5960	5.003	0.217	0.129	0.093	0.303	11111	1.08	38916.7538	3	
5854	2.927	0.872	0.564	0.487	1.650	11111	1.11	39281.7569	3	5960	5.072	0.202	0.129	0.126	0.319	11111	1.08	39231.9000	1	
5854	2.916	0.881	0.575	0.487	1.644	11111	2.26	39281.9331	3	5971	4.940	-0.033	-0.012	-0.046	-0.091	11111	1.00	38870.8970	1	
5854	2.919	0.875	0.573	0.466	1.627	11111	1.16	39295.6732	1	5971	4.990	-0.046	-0.022	-0.028	-0.086	11111	1.00	39231.9109	1	
5854	2.906	0.869	0.563	0.478	1.644	11111	1.19	39296.6585	3	5972	4.846	0.026	0.034	0.020	0.112	11111	1.02	38869.9079	1	
5854	2.921	0.863	0.557	0.477	1.638	11111	1.14	39297.6759	3	5972	4.829	0.057	0.026	-0.012	0.068	11111	1.02	38923.7403	1	
5854	2.926	0.853	0.550	0.472	1.649	11111	1.14	39298.6777	1	5977	4.201	0.332	0.218	0.220	0.537	11111	1.38	38871.8864	1	
5854	2.911	0.857	0.546	0.486	1.648	11111	1.19	39300.6478	3	5977	4.233	0.361	0.224	0.208	0.517	11111	1.39	38923.7723	1	
5854	2.917	0.867	0.557	0.481	1.648	11111	2.21	39300.8792	3	5982	4.723	-0.043	-0.028	-0.036	-0.148	11111	1.03	38874.9008	3	
5854	2.913	0.864	0.558	0.480	1.650	11111	1.12	39307.6672	1	5982	4.682	-0.059	-0.024	-0.058	-0.152	11111	1.03	38923.7601	1	
5854	2.913	0.861	0.555	0.473	1.642	11111	1.12	39313.6576	1	5984	2.516	-0.015	-0.032	-0.010	-0.138	11111	1.63	38875.8913	1	
5854	2.949	0.896	0.578	0.468	1.628	11111	1.30	39313.7607	1	5984	2.509	-0.032	-0.028	0.000	-0.143	11111	1.63	38924.7363	3	
5859	5.598	0.012	0.012	-0.005	0.035	11111	1.15	38898.7712	3	5986	4.135	0.418	0.257	0.237	0.610	11111	1.12	38875.9087	1	
5859	5.542	0.047	0.006	-0.012	0.003	11111	1.12	39206.9635	3	5986	4.107	0.430	0.249	0.237	0.602	11111	1.11	38923.7502	1	
5867	3.687	0.050	0.029	0.014	0.108	11111	1.06	38898.7818	3	5993	3.949	0.011	0.007	0.009	-0.116	11111	1.66	38887.8454	3	
5867	3.698	0.068	0.056	-0.001	0.077	11111	1.05	39201.9705	1	5993	3.964	-0.008	-0.007	0.007	-0.100	11111	1.66	38924.7471	3	
5867	3.674	0.041	0.021	-0.009	0.072	11111	1.05	39241.8571	3	5997	4.480	0.618	0.396	0.395	1.062	11111	1.67	38887.8569	3	
5868	4.585	0.506	0.295	0.275	0.703	11111	1.11	38898.7927	3	5997	4.491	0.632	0.364	0.385	1.051	11111	1.67	38924.7571	1	
5868	4.512	0.498	0.281	0.259	0.699	11111	1.10	39206.9729	3	6018	4.935	0.788	0.491	0.430	1.347	11111	1.00	38870.9095	1	
5868	4.527	0.477	0.293	0.273	0.663	11111	1.10	39251.8478	1	6018	4.990	0.794	0.488	0.410	1.325	11111	1.01	38924.7678	3	
5868	4.608	0.584	0.436	0.201	0.621	11111	1.11	39252.8517	1	6023	4.227	-0.040	-0.027	-0.033	-0.083	11111	1.38	38877.7311	3	
5879	4.526	1.288	0.803	0.677	2.410	11111	1.04	38898.8342	3	6023	4.248	-0.012	-0.014	-0.047	-0.104	11111	1.02	38925.7475	3	
5879	4.532	1.300	0.802	0.676	2.365	11111	1.03	39197.9977	3	6027	4.005	0.085	0.041	0.034	-0.025	11111	1.63	38887.8736	3	
5879	4.491	1.239	0.768	0.683	2.398	11111	1.04	39241.8475	3	6031	4.942	0.056	0.057	0.006	0.091	11111	1.36	38888.8437	3	
5879	4.495	1.281	0.793	0.680	2.392	11111	1.04	39296.6970	3	6031	4.954	0.081	0.046	0.008	0.103	11111	1.36	38925.7688	3	
5881	3.549	-0.013	-0.020	-0.023	-0.052	11111	1.26	38898.8446	3	6056	3.131	1.221	0.779	0.667	2.361	11111	1.24	38888.8554	3	
5881	3.553	0.002	0.000	-0.036	-0.055	11111	1.24	39227.8910	3	6056	3.133	1.242	0.766	0.674	2.348	11111	1.25	38925.7794	3	
5889	4.824	0.622	0.395	0.360	0.966	11111	1.01	38915.7449	3	6075	3.432	0.705	0.442	0.434	1.260	11111	1.25	38888.8668	3	
5889	4.796	0.609	0.367	0.353	0.968	11111	1.01	39201.9801	1	6075	3.474	0.749	0.452	0.429	1.259	11111	1.26	38926.7392	3	
5892	3.760	0.113	0.069	0.004	0.186	11111	1.13	38915.7568	3	6092	3.876	-0.065	-0.060	-0.072	-0.221	11111	1.03	38839.9855	3	
5892	3.741	0.109	0.076	0.035	0.208	11111	1.13	39227.9161	3	6092	3.899	-0.082	-0.052	-0.089	-0.221	11111	1.04	38865.9890	1	
5899	5.177	1.229	0.786	0.614	2.304	11111	1.02	38915.7681	3	6092	3.861	-0.103	-0.064	-0.071	-0.194	11111	1.04	38873.0002	3	
5899	5.136	1.195	0.775	0.629	2.236	11111	1.03	39228.8787	1	6092	3.898	-0.086	-0.049	-0.089	-0.205	11111	1.07	38915.7316	3	
5901	5.004	0.796	0.572	0.486	0.415	1.332	11111	1.00	39228.8934	3	6092	3.847	-0.077	-0.052	-0.084	-0.203	11111	1.16	38928.7053	3
5902	5.058	0.068	0.026	-0.032	-0.078	11111	1.65	38915.7830	3	6092	3.885	-0.097	-0.065	-0.061	-0.197	11111	2.14	38928.7053	3	
5902	5.004	0.024	0.015	-0.018	-0.066	11111	1.72	39229.8641	3	6092	3.897	-0.077	-0.052	-0.084	-0.203	11111	1.05	39177.0309	3	
5903	4.282	0.029	-0.016	0.013	0.040	11111	1.49	38916.6649	3	6092	3.876	-0.082	-0.034	-0.075	-0.222	11111	1.14	39184.9583	1	
5903	4.196	-0.005	-0.013	0.028	0.039	11111	1.43	39228.9044	1	6092	3.890	-0.072	-0.056	-0.074	-0.192	11111	1.98	39197.9796	3	
5903	4.296	0.045	0.007	0.016	0.020	11111	1.43	39257.7937	3	6092	3.937	-0.088	-0.040	-0.099	-0.246	11111	1.03	39198.0147	3	
5908	4.355	0.768	0.446	0.470	1.358	11111	1.82	38916.6814	3	6092	3.874	-0.074	-0.054	-0.074	-0.187	11111	1.96	39199.7927	3	
5908	4.359	0.792	0.518	0.447	1.315	11111	1.56	39229.8750	3	6092	3.871	-0.065	-0.049	-0.081	-0.212	11111	1.03	39200.0158	3	
5914	4.718	0.471	0.267	0.278	0.646	11111	1.08	38916.6923	3	6092	3.886	-0.086	-0.057	-0.076	-0.198	11111	2.20	39206.7564	3	
5914	4.698	0.471	0.290	0.266	0.621	11111	1.02	39228.9160	1	6092	3.895	-0.097	-0.062	-0.074	-0.185	11111	1.10	39229.8532	3	
5915	5.939	0.028	-0.007	-0.001	-0.041	11111	1.76	38916.7059	3	6092	3.951	-0.086	-0.052	-0.079	-0.208	11111	1.05	39231.9635	1	
5915	5.927	0.034	0.020	-0.020	-0.047	11111	1.63	39229.8870	3	6092	3.912	-0.057	-0.035	-0.081	-0.220	11111	1.07	39238.8475	1	
5933	3.943	0.404	0.223	0.204																

TABLE 8 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 52

B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS	B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS
6117	4.598	0.033	0.028	-0.053	-0.028	11111	1.06	38889.8857	3	6118	3.529	1.088	0.704	0.604	2.089	11111	1.01	38865.9439	1
6117	4.634	0.061	0.031	-0.055	-0.033	11111	1.06	38928.7687	3	6118	3.530	1.089	0.697	0.600	2.096	11111	1.06	39270.7874	3
6118	4.593	0.361	0.156	0.173	0.162	11111	1.59	38890.8457	3	6131	5.079	-0.087	-0.040	-0.058	-0.250	11111	1.01	38869.9252	1
6118	4.563	0.355	0.126	0.168	0.164	11111	1.59	38929.7323	3	6131	4.996	-0.127	-0.065	-0.073	-0.272	11111	1.01	39231.9803	1
6129	4.659	0.126	0.102	0.053	0.204	11111	1.32	38890.8569	3	6131	4.959	-0.102	-0.085	-0.068	-0.212	11111	1.01	39296.7544	3
6129	4.666	0.132	0.083	0.054	0.222	11111	1.32	38929.7419	3	6131	5.304	-0.097	-0.066	-0.072	-0.215	11111	1.04	39298.7254	1
6132	2.922	0.677	0.397	0.410	1.186	11111	1.41	38877.7441	3	6136	4.549	0.055	0.030	-0.008	0.040	11111	1.00	38870.9488	1
6132	2.953	0.698	0.416	0.399	1.159	11111	1.15	38929.7537	3	6136	4.632	0.006	0.015	-0.021	0.016	11111	1.01	39241.9484	3
6132	2.937	0.700	0.428	0.413	1.174	11111	1.15	39257.8739	3	6146	4.334	0.006	0.015	-0.010	0.013	11111	1.43	38890.8811	3
6146	5.414	1.519	0.454	1.177	1.524	11111	1.01	38865.9266	1	6146	4.374	0.018	0.012	0.035	0.177	11111	1.87	39014.6610	1
6146	5.294	1.524	0.468	1.162	1.572	11111	1.02	38929.7653	3	6146	4.343	0.020	0.021	0.003	0.028	11111	1.44	39241.9587	3
6146	5.085	1.498	0.483	1.124	1.620	11111	1.02	39241.8775	3	6148	4.174	0.011	0.010	-0.034	-0.060	11111	1.34	38877.7921	3
6146	5.086	1.531	0.513	1.125	1.664	11111	1.05	39295.6988	1	6148	4.163	0.019	0.002	-0.024	-0.050	11111	1.00	39258.8911	3
6146	5.057	1.491	0.478	1.158	1.663	11111	1.03	39297.7128	3	6149	4.576	0.299	0.168	0.197	0.422	11111	1.26	38890.8932	3
6146	5.076	1.515	0.490	1.130	1.625	11111	1.03	39300.7074	3	6149	4.606	0.331	0.191	0.186	0.419	11111	1.27	39258.9117	3
6147	4.451	0.051	0.412	0.408	1.198	11111	1.52	38894.8416	3	6498	4.706	1.117	0.708	0.688	2.167	11111	1.15	38890.9251	3
6147	4.461	0.689	0.405	0.415	1.220	11111	1.52	39200.0054	3	6498	4.721	1.134	0.724	0.682	2.174	11111	1.15	39258.9212	3
6148	2.980	0.666	0.393	0.434	1.234	11111	1.42	38877.7579	3	6526	4.787	1.098	0.708	0.593	2.079	11111	1.01	38872.9572	3
6148	2.991	0.677	0.419	0.420	1.177	11111	1.02	39201.9900	1	6526	4.786	1.098	0.697	0.596	2.113	11111	1.20	39268.7628	3
6149	3.810	0.020	0.013	-0.024	0.019	11111	1.16	38894.8538	3	6536	3.020	0.717	0.441	0.448	1.241	11111	1.29	38877.8068	3
6149	3.813	0.039	0.023	0.001	0.043	11111	1.16	39227.9372	3	6536	3.018	0.726	0.451	0.453	1.220	11111	1.18	39268.7732	3
6159	5.229	1.213	0.768	0.586	2.174	11111	1.07	38872.9091	3	6554	4.969	0.203	0.122	0.105	0.282	11111	1.23	38877.8298	3
6159	5.254	1.205	0.773	0.589	2.171	11111	1.07	39227.9485	3	6554	4.942	0.211	0.109	0.101	0.297	11111	1.17	39268.7843	3
6159	5.243	1.188	0.766	0.593	2.186	11111	1.07	39241.9027	3	6555	4.934	0.218	0.132	0.115	0.350	11111	1.19	38877.8448	3
6161	4.953	-0.041	-0.022	-0.046	-0.092	11111	1.25	38894.8669	3	6555	4.938	0.225	0.128	0.118	0.360	11111	1.15	39268.7945	3
6161	4.947	-0.004	-0.005	-0.044	-0.069	11111	1.24	39201.9994	1	6556	2.124	0.113	0.074	0.048	0.180	11111	1.06	38894.8958	3
6161	4.962	-0.036	-0.009	-0.049	-0.104	11111	1.24	39241.9135	3	6556	2.114	0.124	0.069	0.047	0.201	11111	1.15	39268.8051	3
6168	4.210	0.002	-0.019	-0.011	-0.032	11111	1.04	38917.7452	3	6561	3.583	0.209	0.131	0.091	0.305	11111	1.49	38894.9076	3
6168	4.219	0.002	0.017	-0.015	-0.054	11111	1.02	39202.0179	1	6561	3.607	0.207	0.158	0.091	0.318	11111	1.49	39268.8694	3
6175	2.580	0.057	0.017	0.048	-0.045	11111	1.40	38917.7567	3	6567	4.637	0.139	0.084	0.071	0.082	11111	1.33	38894.9209	3
6175	2.575	0.078	0.022	0.039	-0.070	11111	1.37	39227.9586	3	6567	4.655	0.161	0.073	0.079	0.085	11111	1.32	39269.8583	3
6212	2.885	0.504	0.300	0.275	0.801	11111	1.00	38870.7271	1	6581	4.254	0.049	0.034	0.023	0.098	11111	1.42	38898.8923	3
6212	2.963	0.531	0.332	0.252	0.727	11111	1.00	39228.9267	1	6581	4.259	0.056	0.025	0.020	0.094	11111	1.42	39269.8684	3
6212	2.936	0.523	0.322	0.255	0.756	11111	1.00	39251.8861	1	6588	3.804	-0.099	-0.063	-0.083	-0.248	11111	1.03	38898.8801	3
6212	2.940	0.574	0.382	0.276	0.767	11111	1.03	39252.9257	1	6588	3.756	-0.110	-0.088	-0.072	-0.241	11111	1.18	39269.7669	3
6220	3.704	0.688	0.408	0.396	1.150	11111	1.01	38870.9225	3	6596	4.887	0.370	0.218	0.199	0.492	11111	1.24	38898.8696	3
6220	3.726	0.692	0.410	0.410	1.157	11111	1.01	39231.9431	1	6596	4.872	0.362	0.218	0.212	0.498	11111	1.24	39257.9181	3
6237	4.943	0.337	0.197	0.175	0.408	11111	1.11	38917.7698	3	6603	3.064	0.879	0.570	0.492	1.628	11111	2.28	38839.8785	3
6237	5.031	0.315	0.177	0.182	0.410	11111	1.10	39231.9531	1	6603	3.063	0.889	0.571	0.490	1.642	11111	1.21	38875.0042	3
6243	4.737	0.392	0.223	0.216	0.555	11111	1.38	38917.7800	3	6603	3.057	0.879	0.573	0.473	1.629	11111	1.13	38875.9615	1
6243	4.806	0.405	0.246	0.206	0.552	11111	1.42	39238.8823	1	6603	3.066	0.889	0.570	0.475	1.632	11111	2.33	38877.7726	3
6254	4.862	0.087	0.068	-0.007	0.092	11111	1.03	38917.7907	3	6603	3.066	0.884	0.573	0.478	1.628	11111	1.17	38877.9892	3
6254	4.869	0.075	0.038	-0.009	0.118	11111	1.04	39238.8930	1	6603	3.047	0.876	0.566	0.480	1.628	11111	1.24	38887.9893	3
6281	4.371	-0.055	-0.031	-0.045	-0.136	11111	1.10	38918.7681	3	6603	3.039	0.879	0.564	0.484	1.630	11111	1.18	38888.9638	3
6281	4.357	-0.059	-0.037	-0.055	-0.159	11111	1.10	39240.8874	3	6603	3.079	0.892	0.574	0.480	1.632	11111	1.22	38889.9780	3
6299	3.505	0.890	0.569	0.475	1.604	11111	1.10	38918.7774	3	6603	3.049	0.875	0.568	0.481	1.625	11111	1.28	38890.9902	3
6299	3.474	0.868	0.543	0.485	1.574	11111	1.10	39240.8970	3	6603	3.064	0.874	0.569	0.473	1.624	11111	1.13	38894.9322	3
6299	3.480	0.852	0.551	0.492	1.572	11111	1.11	39241.8876	3	6603	3.049	0.870	0.576	0.484	1.626	11111	2.41	38896.7181	3
6299	3.471	0.872	0.553	0.477	1.605	11111	1.05	39296.7422	3	6603	3.044	0.871	0.565	0.476	1.616	11111	1.17	38896.8522	3
6299	3.492	0.857	0.556	0.473	1.606	11111	1.13	39298.7145	1	6603	3.050	0.876	0.575	0.486	1.615	11111	1.16	38896.9322	3
6299	3.482	0.879	0.561	0.478	1.582	11111	1.12	39300.7194	3	6603	3.065	0.876	0.562	0.483	1.614	11111	2.41	38898.7127	3
6315	5.024	0.441	0.262	0.234	0.561	11111	1.19	38918.7899	3	6603	3.059	0.876	0.545	0.474	1.637	11111	1.13	38921.8165	3
6315	4.985	0.401	0.233	0.230	0.541	11111	1.19	39240.9183	1	6603	3.025	0.862	0.561	0.476	1.646	11111	1.14	38922.8471	1
6322	4.405	0.670	0.413	0.410	1.131	11111	1.55	38918.7566	3	6603	3.032	0.871	0.556	0.481	1.639	11111	1.23	39016.6640	3
6322	4.401	0.677	0.396	0.424	1.143	11111	1.55	39240.9413	3	6603	3.014	0.857	0.544	0.480	1.637	11111	1.21	39018.6196	3
6324	3.950	0.012	0.002	-0.032	-0.031	11111	1.00	38918.8034	3	6603	3.043	0.884	0.580	0.459	1.628	11111	2.15	39024.7118	3
6324	3.906	-0.004	0.008	-0.039	-0.054														

TABLE 8 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 52

B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS	B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS	
6603	3.054	0.885	0.568	0.479	1.632	11111	1.25	39257.9792	3	6695	4.173	0.934	0.609	0.611	1.936	11111	1.28	38919.7100	1	
6603	3.039	0.835	0.570	0.477	1.616	11111	2.36	39258.7286	3	6695	4.168	0.955	0.607	0.615	1.963	11111	1.03	39270.8332	3	
6603	3.063	0.882	0.561	0.485	1.644	11111	1.28	39258.9841	3	6698	3.550	0.737	0.453	0.430	1.330	11111	1.35	38921.8474	3	
6603	3.056	0.878	0.573	0.471	1.624	11111	2.04	39268.7159	3	6698	3.536	0.729	0.443	0.439	1.354	11111	1.39	39270.8438	3	
6603	3.047	0.884	0.574	0.496	1.642	11111	1.26	39268.9501	3	6703	3.946	0.710	0.439	0.399	1.198	11111	1.00	38872.9693	3	
6603	3.036	0.861	0.548	0.485	1.655	11111	2.16	39269.7071	3	6703	3.922	0.714	0.433	0.417	1.223	11111	1.00	39270.8769	3	
6603	3.065	0.899	0.574	0.466	1.616	11111	1.15	39269.9002	3	6705	2.653	1.193	0.762	0.607	2.246	11111	1.34	38919.6993	1	
6603	3.046	0.881	0.566	0.467	1.619	11111	2.01	39274.7015	3	6705	2.652	1.217	0.774	0.623	2.266	11111	1.06	39270.8868	3	
6603	3.050	0.873	0.561	0.477	1.646	11111	1.13	39278.8416	1	6707	4.535	0.355	0.206	0.164	0.378	11111	1.00	38872.9856	3	
6603	3.064	0.890	0.573	0.483	1.636	11111	1.19	39298.8476	1	6707	4.477	0.357	0.186	0.171	0.419	11111	1.20	39272.7680	3	
6603	3.039	0.887	0.579	0.473	1.613	11111	1.13	39306.7611	1	6710	4.699	0.339	0.189	0.179	0.434	11111	1.25	38921.8593	3	
6603	3.036	0.868	0.570	0.469	1.619	11111	1.20	39313.6968	1	6710	4.719	0.344	0.209	0.165	0.422	11111	1.33	39280.7966	3	
6603	3.050	0.895	0.579	0.469	1.613	11111	1.20	39318.7967	1	6712	4.582	0.103	0.024	0.009	-0.097	11111	1.21	38921.7804	3	
6603	3.057	0.864	0.574	0.474	1.616	11111	1.13	39372.6010	3	6712	4.593	0.130	0.027	-0.013	-0.103	11111	1.30	39272.7929	3	
6603	3.065	0.867	0.561	0.463	1.616	11111	2.16	39372.7595	3	6713	4.940	0.877	0.561	0.566	1.738	11111	1.13	38921.7675	3	
6603	3.096	0.896	0.577	0.491	1.658	11111	1.14	39373.6050	1	6713	4.939	0.904	0.561	0.571	1.742	11111	1.22	39272.7826	3	
6603	3.052	0.880	0.582	0.494	1.638	11111	1.14	39376.5968	3	6714	3.992	0.077	0.046	0.053	-0.041	11111	1.20	38921.7923	3	
6603	3.030	0.874	0.559	0.487	1.634	11111	1.14	39377.5975	1	6714	3.988	0.087	0.038	0.046	-0.038	11111	1.21	39280.8060	3	
6603	3.040	0.885	0.577	0.472	1.634	11111	1.14	39377.5975	1	6723	4.466	0.063	0.040	-0.003	0.012	11111	1.17	38921.8371	3	
6603	3.028	0.873	0.557	0.468	1.627	11111	1.31	39407.5827	1	6723	4.472	0.053	0.038	0.000	0.021	11111	1.17	39280.8861	3	
6603	3.059	0.889	0.566	0.506	1.661	11111	1.32	39408.5827	3	6752	4.265	0.754	0.478	0.316	1.068	11111	1.31	38877.8829	3	
6603	3.030	0.844	0.550	0.478	1.615	11111	1.30	39410.5725	3	6752	4.262	0.745	0.471	0.322	1.064	11111	1.15	38929.8205	3	
6623	3.622	0.579	0.361	0.291	0.885	11111	1.23	38919.7216	1	6752	4.242	0.727	0.458	0.340	1.080	11111	1.15	39240.9771	3	
6623	3.501	0.578	0.345	0.321	0.922	11111	1.16	39269.7791	3	6770	4.853	0.696	0.422	0.442	1.273	11111	1.17	38877.9006	3	
6629	3.755	-0.011	-0.010	-0.009	0.050	11111	2.23	38839.8874	3	6770	4.852	0.686	0.426	0.450	1.269	11111	1.09	38929.8301	3	
6629	3.756	0.009	0.003	-0.008	0.054	11111	1.17	38877.9774	3	6771	3.779	0.122	0.080	0.015	0.139	11111	1.13	38877.9157	3	
6629	3.731	0.025	0.010	-0.023	0.039	11111	1.29	38887.9977	3	6771	3.765	0.095	0.055	0.020	0.162	11111	1.09	38929.8385	3	
6629	3.743	0.017	0.003	-0.007	0.039	11111	1.26	38888.9864	3	6779	3.834	-0.006	-0.011	-0.006	-0.038	11111	1.00	38877.9508	3	
6629	3.764	0.020	0.008	-0.008	0.046	11111	1.27	38889.9888	3	6779	3.781	-0.035	-0.040	-0.024	-0.053	11111	1.35	39019.7129	3	
6629	3.748	0.026	0.010	-0.031	0.038	11111	1.15	38890.9144	3	6787	4.333	-0.102	-0.075	-0.066	-0.249	11111	1.02	38877.9640	3	
6629	3.733	0.000	-0.013	-0.010	0.064	11111	1.98	38894.7502	3	6787	4.353	-0.108	-0.066	-0.058	-0.239	11111	1.02	39231.9944	1	
6629	3.739	0.018	-0.002	-0.005	0.041	11111	1.19	38894.9424	3	6789	4.396	0.006	0.012	-0.023	0.017	11111	1.71	38921.8727	3	
6629	0.000	0.000	-0.021	-0.021	0.049	00111	2.10	38896.7378	3	6789	4.369	0.001	0.021	-0.007	0.010	11111	1.71	39257.8963	3	
6629	3.734	-0.011	-0.007	-0.003	0.061	11111	1.15	38896.8848	3	6866	5.040	0.657	0.399	0.420	1.183	11111	1.16	38887.9208	3	
6629	3.738	0.005	-0.012	-0.003	0.061	11111	2.28	38898.7240	3	6866	5.050	0.657	0.396	0.406	1.182	11111	1.14	39241.9702	3	
6629	3.754	0.019	-0.007	-0.008	0.069	0.059	1.15	38921.8270	3	6868	5.316	1.278	0.776	0.676	2.393	11111	1.02	38887.9316	3	
6629	3.762	0.024	0.008	-0.005	0.059	11111	1.17	38922.8561	1	6868	5.379	1.281	0.818	0.663	2.397	11111	1.02	39241.9805	3	
6629	3.749	0.002	-0.003	-0.026	0.033	11111	1.30	39016.6494	3	6869	3.452	0.743	0.466	0.408	1.192	11111	2.31	38704.6064	3	
6629	3.720	-0.025	-0.012	-0.009	0.070	11111	1.26	39018.6316	3	6869	3.453	0.727	0.444	0.404	1.190	11111	2.95	38865.8274	1	
6629	3.771	0.039	0.053	-0.088	0.030	11111	1.69	3919.6889	3	6869	3.468	0.745	0.455	0.393	1.210	11111	1.30	38865.9524	1	
6629	3.737	-0.007	-0.015	-0.015	0.001	0.045	11111	2.41	39204.7221	3	6872	4.615	0.871	0.542	0.496	1.638	11111	1.00	38877.9428	3
6629	3.771	0.005	-0.010	-0.007	0.007	0.018	1.48	39204.7643	3	6872	4.628	0.865	0.543	0.483	1.637	11111	1.00	39241.9901	3	
6629	3.724	-0.019	-0.027	-0.009	0.016	0.054	1.25	39205.6101	3	6884	4.851	0.694	0.432	0.428	1.220	11111	1.34	38888.9276	3	
6629	3.731	-0.006	-0.011	-0.010	0.049	11111	1.27	39207.6111	1	6884	4.880	0.702	0.453	0.420	1.234	11111	1.34	39257.9479	3	
6629	3.767	0.038	0.022	-0.013	0.042	11111	1.22	39242.0077	3	6895	4.127	0.898	0.572	0.486	1.590	11111	1.02	38888.9391	3	
6629	3.743	0.015	0.020	-0.010	0.062	11111	2.28	39172.9734	3	6895	4.147	0.918	0.593	0.489	1.607	11111	1.03	39257.9605	3	
6629	3.743	0.021	-0.001	-0.016	0.036	11111	1.99	39227.8373	3	6896	5.102	1.053	0.653	0.623	1.638	11111	1.66	38888.9515	3	
6629	3.717	0.018	-0.001	-0.008	0.056	11111	1.16	39228.0098	3	6896	5.157	1.095	0.681	0.630	1.652	11111	1.67	39268.8842	3	
6629	3.746	0.005	0.018	-0.008	0.032	11111	1.21	39252.7476	1	6918	5.324	0.460	0.268	0.234	0.537	11111	1.19	38888.9325	3	
6629	3.720	-0.017	-0.008	-0.008	0.061	11111	2.24	39252.7474	3	6918	5.341	0.476	0.301	0.222	0.530	11111	1.19	39268.8953	3	
6629	3.744	-0.003	0.001	-0.005	0.041	11111	1.30	39257.9873	3	6918	5.318	0.456	0.271	0.220	0.526	11111	1.26	39298.7689	3	
6629	3.740	0.008	-0.003	-0.025	0.039	11111	1.21	39241.0047	3	6918	5.302	0.453	0.273	0.214	0.532	11111	1.18	39236.7183	3	
6629	3.767	0.030	0.022	-0.027	0.036	11111	1.79	39251.7856	1	6920	4.236	-0.025	-0.035	-0.065	-0.117	11111	1.29	38889.9519	3	
6629	3.730	-0.021	-0.027	-0.027	0.036	11111	1.79	39251.7856	1	6920	4.219	-0.024	-0.021	-0.055	-0.106	11111	1.28	39258.9325	3	
6629	3.755	0.032	0.004	-0.012	0.037	11111	1.15	39278.8510	1	6923	5.003	0.662	0.031	0.016	0.083	11111	1.12	38889.9653	3	
6629	3.752	0.004	0.007	-0.007	0.049	11111	1.23	39298.8574	1	6923	5.001	0.668	0.041	0.021	0.102	11111	1.12	39268.9056	3	
6629	3.716	-0.010	-0.014	-0.004																

TABLE 8 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 52

B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS	B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS
7020	4.760	0.282	0.176	0.145	0.408	11111	1.34	38896.9193	3	7372	5.000	-0.064	-0.028	-0.045	-0.172	11111	1.01	38898.9421	3
7020	4.823	0.310	0.192	0.153	0.452	11111	1.37	39269.6799	3	7372	4.939	-0.068	-0.046	-0.062	-0.208	11111	1.02	39027.6455	3
7056	4.402	0.183	0.106	0.053	0.252	11111	1.03	38869.9721	1	7377	3.450	0.263	0.156	0.147	0.353	11111	1.15	38898.9535	3
7056	4.390	0.155	0.083	0.048	0.222	11111	1.01	39269.8906	3	7377	3.389	0.239	0.143	0.124	0.343	11111	1.15	39028.6149	3
7056	4.392	0.161	0.100	0.044	0.237	11111	1.08	39300.7574	3	7387	4.841	0.517	0.351	0.286	0.608	11111	1.18	38898.9632	3
7061	4.285	0.365	0.216	0.215	0.524	11111	1.05	38916.8458	3	7387	4.780	0.486	0.309	0.302	0.603	11111	1.19	39028.6246	3
7061	4.298	0.379	0.208	0.213	0.517	11111	1.02	39269.9194	3	7405	4.878	1.215	0.738	0.606	2.209	11111	1.01	38917.8958	3
7063	4.461	0.815	0.521	0.514	1.433	11111	1.28	38916.8558	3	7405	4.828	1.193	0.742	0.613	2.191	11111	1.02	39028.6347	3
7063	4.474	0.841	0.515	0.532	1.418	11111	1.26	39270.8990	3	7417	3.401	0.942	0.601	0.490	1.381	11111	1.00	38917.9072	3
7064	5.149	0.899	0.580	0.489	1.654	11111	1.01	38916.8697	3	7417	3.376	0.932	0.604	0.491	1.374	11111	1.00	39257.9706	3
7064	5.128	0.936	0.589	0.499	1.653	11111	1.01	39270.9100	3	7420	3.833	0.140	0.069	0.057	0.174	11111	1.06	38917.9182	3
7066	5.479	1.056	0.651	0.671	1.740	11111	1.34	38917.8321	3	7420	3.800	0.118	0.041	0.053	0.156	11111	1.06	39269.9409	3
7066	5.788	1.150	0.717	0.760	2.094	11111	1.31	39272.8721	3	7426	4.734	-0.055	-0.043	-0.066	-0.232	11111	1.00	38924.8973	3
7066	6.449	0.933	0.416	0.740	1.672	11111	1.35	39296.7861	1	7426	4.726	-0.072	-0.077	-0.068	-0.215	11111	1.00	39269.9518	3
7066	5.669	0.914	0.548	0.591	1.439	11111	1.27	39376.6294	3	7429	4.767	0.962	0.609	0.449	1.602	11111	1.11	38924.9079	3
7069	4.348	0.056	0.029	0.018	0.196	11111	1.06	38917.8429	3	7429	4.771	0.929	0.602	0.445	1.607	11111	1.11	39269.9620	3
7069	4.373	0.101	0.050	0.022	0.175	11111	1.04	39272.8838	3	7437	5.005	-0.025	-0.016	-0.050	-0.171	11111	1.11	38925.8232	3
7106	3.408	0.106	0.052	0.007	-0.070	11111	1.01	38917.8555	3	7437	5.008	0.005	0.006	-0.059	-0.168	11111	1.03	39270.9316	3
7106	3.389	0.119	0.041	0.013	-0.076	11111	1.00	39240.9878	3	7446	4.989	0.063	0.043	0.039	-0.114	11111	1.40	38925.8352	3
7106	3.395	0.106	0.059	0.024	-0.068	11111	1.20	39297.7313	3	7446	4.967	0.070	0.049	0.040	-0.087	11111	1.30	39270.9423	3
7106	3.563	0.132	0.066	0.012	-0.053	11111	1.12	39300.7465	3	7447	4.340	-0.020	-0.017	-0.043	-0.139	11111	1.24	38925.8588	3
7106	3.496	0.092	0.039	0.002	-0.076	11111	1.07	39407.6103	1	7447	4.358	0.004	0.007	-0.037	-0.148	11111	1.20	39270.9513	3
7106	3.420	0.093	0.051	0.018	-0.057	11111	1.06	39408.6044	3	7462	4.895	0.675	0.411	0.293	0.958	11111	1.26	38925.8686	3
7125	5.005	0.945	0.577	0.523	1.629	11111	1.13	38918.8574	3	7462	4.877	0.665	0.396	0.312	0.976	11111	1.25	39258.9760	3
7125	4.919	0.910	0.548	0.536	1.590	11111	1.12	39272.8973	3	7469	4.599	0.356	0.200	0.174	0.427	11111	1.05	38925.8842	3
7133	4.800	0.666	0.401	0.366	0.951	11111	1.02	38918.8698	3	7469	4.554	0.305	0.187	0.168	0.445	11111	1.05	39018.6547	3
7133	4.772	0.659	0.383	0.375	0.961	11111	1.02	39272.9079	3	7469	4.580	0.340	0.182	0.202	0.466	11111	1.05	39272.9420	3
7137	5.109	0.680	0.417	0.397	1.140	11111	1.05	38922.8693	1	7478	4.930	0.740	0.457	0.419	1.288	11111	1.00	38925.8950	3
7137	5.138	0.703	0.403	0.409	1.159	11111	1.06	39272.9294	3	7478	4.909	0.749	0.455	0.403	1.262	11111	1.07	39278.8627	1
7139	4.432	1.302	0.626	0.904	2.261	11111	1.00	38922.8811	1	7479	4.584	0.614	0.350	0.354	0.980	11111	1.04	38925.9178	3
7139	4.551	1.293	0.604	0.889	2.136	11111	1.03	39279.8500	3	7479	4.556	0.608	0.356	0.348	0.959	11111	1.09	39278.8730	1
7141	4.661	0.136	0.087	0.029	0.186	11111	1.16	38922.9051	1	7488	4.643	0.765	0.469	0.491	1.422	11111	1.05	38925.9273	3
7141	4.666	0.135	0.085	0.037	0.175	11111	1.17	39279.8596	3	7488	4.618	0.767	0.463	0.458	1.391	11111	1.07	39278.8846	1
7157	4.518	1.361	0.475	1.018	1.851	11111	1.02	38922.8920	1	7503	6.156	0.555	0.315	0.282	0.773	11111	1.07	38925.9392	3
7157	4.439	1.369	0.481	1.039	1.893	11111	1.02	39280.8769	3	7503	6.137	0.607	0.390	0.325	0.774	11111	1.09	39252.9479	1
7157	4.381	1.350	0.473	1.022	1.888	11111	1.18	39297.7419	3	7503	6.137	0.538	0.306	0.270	0.746	11111	1.09	39279.8694	3
7176	4.301	0.817	0.499	0.440	1.463	11111	1.05	38924.8614	3	7503	6.119	0.522	0.302	0.265	0.729	11111	1.08	39407.6266	1
7176	4.306	0.828	0.508	0.461	1.462	11111	1.05	39280.8862	3	7504	6.403	0.552	0.326	0.283	0.789	11111	1.08	38925.9490	3
7178	3.221	0.002	-0.021	-0.020	-0.071	11111	2.27	38865.8166	1	7504	6.369	0.588	0.385	0.304	0.774	11111	1.10	39252.9383	1
7178	3.255	0.028	0.018	-0.022	-0.080	11111	1.07	38865.9616	3	7504	6.396	0.534	0.323	0.279	0.774	11111	1.08	39279.8782	3
7178	3.300	0.072	0.004	-0.049	-0.112	11111	1.27	38865.8946	1	7504	6.380	0.530	0.311	0.288	0.762	11111	1.27	39281.7969	3
7178	3.230	0.030	0.017	-0.007	-0.067	11111	1.02	38865.9888	1	7504	6.391	0.529	0.313	0.264	0.751	11111	1.09	39407.6376	1
7178	3.124	-0.014	-0.050	0.011	-0.070	11111	1.10	38870.9363	1	7525	3.124	1.115	0.734	0.667	2.237	11111	1.16	38926.8363	3
7178	3.198	0.001	-0.034	0.002	-0.056	11111	1.02	38870.9782	1	7525	3.113	1.138	0.727	0.661	2.184	11111	1.12	39279.8877	3
7178	3.193	0.002	-0.034	0.001	-0.057	11111	1.13	38871.9253	1	7528	2.887	-0.022	-0.016	-0.004	-0.066	11111	1.06	38926.8463	3
7178	3.193	0.002	-0.034	0.001	-0.057	11111	1.27	39280.8956	3	7528	2.884	0.012	-0.012	-0.030	-0.072	11111	1.04	39279.8974	3
7235	2.986	0.019	-0.009	-0.017	1.476	11111	1.28	38924.8853	3	7536	4.201	1.198	0.651	0.699	1.740	11111	1.05	38926.8689	3
7235	2.953	-0.032	-0.025	-0.013	0.014	11111	1.26	39019.7155	3	7536	4.206	1.207	0.648	0.714	1.743	11111	1.11	39281.8617	3
7236	3.411	-0.046	-0.046	-0.047	-0.137	11111	1.26	38887.9790	3	7546	5.082	0.089	0.064	0.017	1.104	11111	1.04	38926.8793	3
7236	3.389	-0.099	-0.056	-0.028	-0.071	11111	1.69	39019.7292	3	7546	5.039	0.077	0.045	0.031	0.091	11111	1.09	39281.8707	3
7236	3.421	-0.042	-0.049	-0.064	-0.145	11111	1.26	39269.9297	3	7557	0.756	0.188	0.119	0.083	0.264	11111	1.39	38871.9405	1
7298	4.376	-0.083	-0.055	-0.066	-0.222	11111	1.01	38888.9751	3	7557	0.789	0.150	0.092	0.081	0.249	11111	1.30	39019.7427	3
7298	4.377	-0.080	-0.030	-0.061	-0.226	11111	1.17	39024.7138	3	7557	0.821	0.173	0.122	0.064	0.257	11111	1.10	39377.6517	1
7306	4.751	-0.004	-0.005	-0.024	-0.140	11111	1.02	38894.9544	3	7565	8.032	2.543	0.914	1.677	1.725	11111	1.00	38926.8988	3
7306	4.723	-0.044	-0.034	-0.024	-0.125	11111	1.02	39025.6223	3	7564	6.121	1.601	0.556	1.243	1.631	11111	1.08	39240.9660	3
7310	3.293	0.739	0.446	0.433	1.296	11111	1.22	38894.9657	3	7564	7.599	2.031	0.483	1.641	1.117	11111	1.29	39297.7565	3
7310	3.348	0.757	0.499	0.425	1.293														

TABLE 8 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 52

B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS	B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS
7602	3.938	0.710	0.413	0.339	1.019	11111	1.20	38928.8364	3	7871	4.653	0.048	0.023	0.024	0.127	11111	1.05	39025.6542	3
7602	3.956	0.717	0.442	0.347	1.035	11111	1.24	39300.0058	3	7871	4.724	0.032	0.037	0.021	0.171	11111	1.48	39318.7251	1
7613	4.941	-0.039	-0.027	-0.038	-0.156	11111	1.04	38928.8464	3	7882	3.713	0.353	0.212	0.198	0.503	11111	1.05	39025.6640	3
7613	4.943	-0.020	-0.025	-0.041	-0.162	11111	1.20	39300.7684	3	7882	3.739	0.356	0.222	0.217	0.584	11111	1.40	39318.7368	1
7615	4.147	0.770	0.477	0.442	1.354	11111	1.02	38928.8683	3	7884	4.517	0.665	0.412	0.426	1.219	11111	1.20	39025.6747	3
7615	4.152	0.801	0.496	0.429	1.329	11111	1.11	39300.7963	3	7884	4.522	0.677	0.408	0.411	1.251	11111	1.43	39318.7699	1
7619	4.963	0.124	0.069	0.030	0.122	11111	1.07	38928.8782	3	7891	4.786	-0.069	-0.026	-0.043	-0.057	11111	1.02	39026.6604	3
7619	5.022	0.178	0.107	0.070	0.198	11111	1.09	39304.9187	1	7891	4.814	-0.003	0.002	-0.037	-0.049	11111	1.27	39318.7486	1
7635	3.976	1.268	0.826	0.625	2.312	11111	1.03	38928.8886	3	7906	3.754	-0.045	-0.026	-0.047	-0.100	11111	1.06	39026.6696	3
7635	3.970	1.261	0.808	0.640	2.366	11111	1.08	39304.9289	1	7906	3.768	-0.034	-0.022	-0.051	-0.084	11111	1.26	39318.7599	1
7653	4.725	0.163	0.099	0.061	0.209	11111	1.00	38928.8979	3	7924	1.305	0.108	0.071	0.056	0.006	11111	1.08	38641.7838	1
7653	4.737	0.178	0.107	0.034	0.199	11111	1.08	39304.9417	1	7924	1.296	0.096	0.060	0.097	0.012	11111	1.50	38751.5875	3
7678	5.726	0.488	0.280	0.343	0.492	11111	1.02	38916.8980	3	7924	1.274	0.098	0.037	0.077	0.035	11111	1.39	38752.5681	3
7678	5.719	0.505	0.287	0.326	0.487	11111	1.00	39016.6793	3	7924	1.279	0.141	0.063	0.104	0.037	11111	1.88	38764.5908	1
7685	4.871	0.998	0.639	0.544	1.909	11111	1.23	38916.9096	3	7924	1.296	0.105	0.058	0.065	0.036	11111	1.03	39026.6910	3
7685	4.842	0.984	0.643	0.550	1.908	11111	1.23	39016.6677	3	7924	1.333	0.088	0.041	0.101	0.062	11111	1.03	39058.5904	3
7708	5.005	-0.036	-0.025	-0.085	-0.251	11111	1.01	38916.9212	3	7924	1.313	0.120	0.053	0.061	0.059	11111	1.05	39377.6628	1
7708	4.985	-0.055	-0.025	-0.120	-0.285	11111	1.01	39016.6894	3	7924	1.325	0.103	0.052	0.085	0.041	11111	1.15	39406.7182	1
7710	3.148	-0.022	-0.022	-0.022	-0.084	11111	1.47	38870.9641	1	7928	4.453	0.261	0.166	0.088	0.278	11111	1.05	39027.6566	3
7710	3.201	-0.065	-0.032	-0.042	-0.106	11111	1.19	39016.6993	3	7928	4.468	0.242	0.156	0.120	0.327	11111	1.08	39359.7964	1
7724	4.996	0.034	0.027	-0.002	0.096	11111	1.05	38917.9423	3	7939	5.173	0.890	0.555	0.488	1.602	11111	1.01	39027.6682	3
7724	4.956	0.050	0.022	0.014	0.097	11111	1.05	39268.9706	3	7939	5.229	0.885	0.567	0.515	1.629	11111	1.14	39359.6822	1
7730	4.895	0.109	0.069	0.031	0.094	11111	1.03	38917.9526	3	7942	4.465	0.774	0.454	0.452	1.424	11111	1.00	39028.6668	3
7730	4.869	0.110	0.074	0.018	0.093	11111	1.05	39046.6255	1	7942	4.423	0.771	0.495	0.447	1.399	11111	1.02	39365.7719	1
7735	4.173	1.066	0.689	0.579	1.523	11111	1.04	38917.9644	3	7947	4.076	0.680	0.415	0.345	1.017	11111	1.05	39029.6631	3
7735	4.123	1.060	0.660	0.588	1.467	11111	1.03	39269.9733	3	7947	4.074	0.701	0.449	0.340	1.033	11111	1.08	39365.7817	1
7736	5.025	0.173	0.083	0.055	0.139	11111	1.01	38921.9172	3	7949	2.726	0.771	0.465	0.445	1.336	11111	1.08	38641.7932	1
7736	4.983	0.150	0.070	0.067	0.173	11111	1.00	39270.9172	3	7949	2.674	0.757	0.447	0.442	1.342	11111	1.01	39029.6324	3
7739	4.798	-0.107	-0.052	-0.055	-0.227	11111	1.01	38921.9290	3	7949	2.699	0.781	0.485	0.439	1.353	11111	1.04	39365.7910	1
7739	4.778	-0.085	-0.093	-0.066	-0.216	11111	1.01	39272.9661	3	7950	3.743	0.001	-0.008	-0.029	-0.033	11111	1.35	39029.6535	3
7740	4.378	0.140	0.086	0.048	0.136	11111	1.10	38921.9424	3	7950	3.835	0.024	0.018	-0.024	0.006	11111	1.45	39372.6623	3
7740	4.321	0.101	0.049	0.028	0.119	11111	1.12	39279.9080	3	7951	4.814	1.272	0.679	0.795	2.423	11111	1.26	39029.6636	3
7744	4.861	1.046	0.652	0.520	1.726	11111	1.00	38924.9306	3	7951	4.918	1.290	0.701	0.788	2.391	11111	1.33	39372.6721	3
7744	4.857	1.030	0.670	0.526	1.710	11111	1.02	39279.9176	3	7955	4.632	0.440	0.268	0.244	0.649	11111	1.10	39028.6590	3
7747	4.492	0.816	0.507	0.484	1.383	11111	1.42	38924.9422	3	7955	4.620	0.417	0.257	0.245	0.637	11111	1.21	39372.6218	3
7747	4.495	0.790	0.497	0.507	1.357	11111	1.44	39279.9276	3	7957	3.645	0.703	0.432	0.387	1.163	11111	1.15	39028.6710	3
7750	4.397	-0.012	-0.017	-0.029	-0.082	11111	1.42	38928.9248	3	7957	3.637	0.709	0.447	0.400	1.164	11111	1.23	39372.6314	3
7750	4.366	-0.032	-0.022	-0.014	-0.050	11111	1.42	39046.6097	1	7977	4.898	0.369	0.213	0.242	0.333	11111	1.04	39029.6846	3
7751	4.463	1.250	0.797	0.694	1.978	11111	1.05	38924.9632	3	7977	4.967	0.381	0.223	0.250	0.350	11111	1.11	39372.6413	3
7751	4.417	1.266	0.777	0.691	1.967	11111	1.04	39280.9828	3	7990	4.795	0.231	0.182	0.152	0.405	11111	1.34	39042.6319	3
7754	3.801	0.719	0.452	0.405	1.209	11111	1.44	38924.9515	3	7990	4.877	0.283	0.166	0.142	0.415	11111	1.34	39373.7047	1
7754	3.830	0.743	0.446	0.401	1.189	11111	1.42	39280.9386	3	7995	4.752	0.610	0.382	0.374	1.051	11111	1.01	39042.6220	3
7763	4.934	0.508	0.290	0.255	0.353	11111	1.01	38928.9387	3	7995	4.752	0.617	0.364	0.371	1.043	11111	1.02	39373.6917	1
7763	4.966	0.527	0.287	0.264	0.341	11111	1.00	39280.9477	3	8001	4.774	-0.091	-0.028	-0.058	-0.182	11111	1.02	39042.6625	3
7767	5.891	0.159	0.105	0.073	0.018	11111	1.03	38928.9500	3	8001	4.751	-0.088	-0.066	-0.053	-0.177	11111	1.06	39373.6694	1
7767	5.895	0.163	0.070	0.097	0.018	11111	1.01	39280.9566	3	8020	5.809	0.418	0.215	0.292	0.453	11111	1.03	39045.6225	3
7773	4.751	-0.028	-0.019	-0.032	-0.069	11111	1.50	38929.8662	3	8020	5.776	0.433	0.236	0.295	0.454	11111	1.09	39373.6599	1
7773	4.766	-0.009	0.010	-0.055	-0.088	11111	1.54	39281.8916	3	8028	3.965	0.025	-0.012	0.003	0.007	11111	1.01	39045.6320	3
7776	3.282	0.665	0.406	0.351	0.903	11111	1.52	38929.8783	3	8028	3.974	0.042	-0.015	-0.015	-0.034	11111	1.04	39373.6678	1
7776	3.295	0.673	0.421	0.350	0.891	11111	1.56	39281.9003	3	8047	4.593	0.093	0.008	0.025	-0.094	11111	1.04	39373.6502	1
7796	2.398	0.527	0.325	0.310	0.831	11111	1.02	38929.8887	3	8060	4.909	0.136	0.114	0.052	0.171	11111	1.67	38916.9501	3
7796	2.387	0.527	0.345	0.309	2.319	11110	1.03	39281.9101	3	8060	4.863	0.097	0.072	0.041	0.190	11111	1.66	39016.7281	3
7796	2.380	0.507	0.328	0.309	0.848	11111	1.26	39406.7382	1	8075	4.134	-0.021	-0.006	-0.015	-0.008	11111	1.55	38921.9606	3
7796	2.378	0.508	0.323	0.315	0.854	11111	1.01	39406.6223	3	8075	4.092	-0.012	-0.002	-0.025	-0.006	11111	1.56	39056.6136	3
7806	4.794	1.068	0.682	0.555	1.921	11111	1.00	38929.8992	3	8079	4.149	1.243	0.815	0.726	2.321	11111	1.02	38916.9620	3
7806	4.771	1.050	0.674	0.574	1.946	11111	1.00	39298.8887	1	8079	4.116	1.204	0.775	0.744	2.348	11111	1.03	39016.7413	3
7822	4.829	0.307	0.181	0.191	0.438</td														

TABLE 8 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 52

B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS	B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS
8115	3.492	0.723	0.460	0.466	1.383	11111	1.04	39372.6850	3	8334	4.483	0.482	0.285	0.309	0.476	11111	1.14	39053.6343	3
8115	3.442	0.693	0.429	0.445	1.324	11111	1.20	39406.7551	1	8334	4.395	0.444	0.250	0.324	0.495	11111	1.16	39376.7044	3
8115	3.446	0.708	0.443	0.448	1.344	11111	1.00	39408.6334	3	8335	4.238	-0.037	-0.014	-0.048	-0.188	11111	1.05	39053.6547	3
8123	4.614	0.438	0.244	0.229	0.554	11111	1.08	38929.9507	3	8335	4.219	-0.069	-0.049	-0.047	-0.169	11111	1.05	39376.7361	3
8123	4.574	0.409	0.668	0.243	0.574	11011	1.48	39058.9181	3	8383	5.447	1.565	0.887	0.952	2.045	11111	1.17	39053.6643	3
8130	3.843	0.350	0.205	0.184	0.442	11111	1.01	38929.9509	3	8383	5.423	1.560	0.857	0.918	2.007	11111	1.17	39376.7361	3
8130	3.841	0.295	0.168	0.229	0.488	11111	1.02	39059.6272	3	8383	5.455	1.598	0.881	0.984	2.172	11111	1.23	39407.7541	1
8131	4.024	0.437	0.249	0.213	0.614	11111	1.13	39018.7231	3	8402	4.720	-0.009	-0.020	-0.053	-0.161	11111	1.22	39016.7651	3
8131	4.016	0.459	0.245	0.222	0.604	11111	1.13	39060.6055	3	8402	4.725	-0.013	-0.020	-0.039	-0.147	11111	1.22	39056.6522	3
8143	4.236	0.155	0.071	0.078	0.039	11111	1.05	39019.7606	3	8413	5.253	1.148	0.746	0.561	2.128	11111	1.15	39016.7773	3
8143	4.383	0.182	0.088	0.121	0.127	11111	1.01	39060.6160	3	8413	5.294	1.162	0.768	0.552	2.147	11111	1.14	39056.6620	3
8146	4.401	0.009	-0.041	-0.046	-0.194	11111	1.04	39019.7602	3	8414	3.151	0.687	0.425	0.468	1.312	11111	1.18	38705.6151	3
8146	4.348	0.026	-0.016	-0.021	-0.156	11111	1.00	39061.6069	3	8414	3.215	0.706	0.457	0.448	1.270	11111	1.21	39056.6784	3
8162	2.497	0.174	0.092	0.085	0.272	11111	1.21	39019.7785	3	8417	4.326	0.268	0.190	0.153	0.441	11111	1.20	39016.7885	3
8162	2.485	0.164	0.101	0.088	0.281	11111	1.16	39061.6185	3	8417	4.345	0.285	0.181	0.165	0.430	11111	1.18	39057.6394	3
8162	2.520	0.169	0.104	0.089	0.268	11111	1.18	39377.6766	1	8418	4.241	-0.061	-0.082	-0.038	-0.101	11111	1.49	38705.6338	3
8167	4.488	0.672	0.393	0.403	1.133	11111	1.54	39025.7032	3	8418	4.285	-0.052	-0.026	-0.045	-0.093	11111	1.46	39057.6574	3
8167	4.492	0.681	0.434	0.398	1.111	11111	1.63	39279.9486	3	8430	3.850	0.355	0.198	0.195	0.503	11111	1.01	38705.5964	3
8173	4.332	0.801	0.502	0.484	1.503	11111	1.03	39025.7136	3	8430	3.858	0.343	0.217	0.224	0.506	11111	1.01	39375.7743	1
8173	4.367	0.841	0.536	0.457	1.480	11111	1.05	39279.9580	3	8430	3.878	0.369	0.214	0.193	0.512	11111	1.09	39468.5854	1
8225	4.923	1.241	0.763	0.680	2.373	11111	1.02	39025.7239	3	8450	3.530	0.002	-0.002	0.014	0.106	11111	1.15	38705.6460	3
8225	4.984	1.269	0.801	0.657	2.338	11111	1.02	39279.9855	3	8450	3.569	0.046	0.034	0.022	0.107	11111	1.13	39057.6683	3
8232	3.094	0.610	0.382	0.382	1.071	11111	1.27	39028.6948	3	8454	4.352	0.367	0.215	0.230	0.543	11111	1.01	39018.7711	3
8232	3.099	0.638	0.404	0.365	1.048	11111	1.32	39281.9563	3	8454	4.424	0.381	0.233	0.247	0.561	11111	1.01	39059.6606	3
8238	3.188	-0.164	-0.116	-0.110	-0.307	11111	1.27	39026.7023	3	8465	3.693	1.115	0.717	0.763	2.282	11111	1.12	39018.7855	3
8238	3.189	-0.137	-0.095	-0.103	-0.321	11111	1.32	39281.9128	3	8465	3.796	1.125	0.727	0.728	2.264	11111	1.11	39060.6341	3
8252	4.209	0.674	0.410	0.391	1.135	11111	1.03	39028.7151	3	8468	5.047	0.708	0.430	0.396	1.173	11111	1.32	39024.7841	3
8252	4.186	0.683	0.403	0.401	1.119	11111	1.06	39281.9465	3	8468	5.014	0.667	0.394	0.425	1.195	11111	1.30	39060.6448	3
8255	5.144	0.827	0.527	0.448	1.462	11111	1.01	39031.6721	3	8469	5.110	0.240	0.141	0.172	0.143	11111	1.14	39024.7764	3
8255	5.146	0.854	0.552	0.441	1.440	11111	1.10	39300.8695	3	8469	5.171	0.237	0.134	0.165	0.167	11111	1.13	39060.6549	3
8260	4.667	-0.061	-0.059	-0.066	-0.253	11111	1.63	39031.6950	3	8485	4.854	1.094	0.702	0.597	1.910	11111	1.05	39024.7885	3
8260	4.602	-0.059	-0.075	-0.072	-0.267	11111	1.73	39300.9011	3	8485	4.859	1.057	0.690	0.607	1.969	11111	1.01	39061.6386	3
8262	5.735	1.580	0.523	1.184	1.782	11111	1.03	39031.6846	3	8494	4.242	0.220	0.135	0.105	0.306	11111	1.10	39026.7248	3
8262	5.953	1.591	0.492	1.220	1.730	11111	1.07	39306.8733	1	8494	4.252	0.211	0.145	0.153	0.354	11111	1.10	39061.6492	3
8262	5.684	1.523	0.496	1.184	1.831	11111	1.03	39410.6366	3	8498	4.473	1.056	0.682	0.621	2.111	11111	1.00	39026.7355	3
8264	4.739	0.140	0.097	0.050	0.193	11111	1.31	39042.6530	3	8498	4.491	1.051	0.703	0.643	2.129	11111	1.01	39061.6592	3
8264	4.763	0.137	0.056	0.066	0.237	11111	1.39	39306.8853	1	8499	4.398	0.706	0.442	0.420	1.311	11111	1.32	39026.7458	3
8278	3.765	0.230	0.156	0.114	0.401	11111	1.54	39042.6781	3	8499	4.414	0.749	0.478	0.412	1.285	11111	1.43	39300.9158	3
8278	0.000	0.000	0.156	0.113	0.444	0.011	0.59	39306.8956	1	8518	3.856	-0.046	-0.019	-0.041	-0.061	11111	1.21	39028.7278	3
8278	3.766	0.239	0.142	0.103	0.383	11111	1.53	39407.6554	1	8518	3.875	-0.010	0.015	-0.061	-0.100	11111	1.28	39300.9284	3
8279	4.839	0.273	0.162	0.193	0.237	11111	1.15	39042.6640	3	8520	5.033	-0.095	-0.056	-0.050	-0.206	11111	1.07	39028.7381	3
8279	4.844	0.290	0.158	0.217	0.253	11111	1.18	39372.6989	3	8520	4.990	-0.066	-0.042	-0.070	-0.245	11111	1.07	39304.9634	1
8288	4.923	0.667	0.391	0.411	1.117	11111	1.60	39045.6529	3	8522	4.834	-0.001	0.013	-0.002	-0.038	11111	1.01	39028.7466	3
8288	4.929	0.684	0.396	0.408	1.124	11111	1.66	39372.7203	3	8522	4.834	0.069	0.039	-0.033	-0.016	11111	1.00	39375.7859	1
8297	6.874	1.996	1.294	1.457	5.532	11111	1.02	39042.6952	3	8523	4.523	-0.080	-0.044	-0.062	-0.168	11111	1.03	39029.7195	3
8297	6.711	1.964	1.260	1.396	4.948	11111	1.01	39372.7368	3	8523	4.571	-0.042	-0.044	-0.059	-0.160	11111	1.03	39376.7697	3
8297	6.890	2.031	1.296	1.490	5.264	11111	1.01	39407.6790	1	8538	4.662	0.760	0.473	0.427	1.302	11111	1.06	39029.7294	3
8301	4.693	-0.071	-0.065	-0.028	-0.152	11111	1.06	39045.6629	3	8538	4.670	0.782	0.476	0.444	1.324	11111	1.06	39376.7803	3
8301	4.691	-0.055	-0.055	-0.060	-0.180	11111	1.06	39372.7488	3	8539	4.663	0.131	0.031	0.014	-0.111	11111	1.17	39031.7278	3
8308	2.789	1.092	0.716	0.725	2.246	11111	1.08	39051.6341	3	8539	4.609	0.146	0.019	0.025	-0.105	11111	1.17	39376.7907	3
8308	2.807	1.134	0.743	0.698	2.233	11111	1.09	39372.7796	3	8541	4.623	0.139	0.076	0.064	0.020	11111	1.05	39031.7379	3
8309	4.604	0.380	0.228	0.228	0.525	11111	1.01	39052.6112	3	8541	4.642	0.120	0.085	0.066	0.038	11111	1.13	39377.6926	1
8309	4.547	0.410	0.232	0.170	0.526	11111	1.01	39375.7304	1	8551	5.066	0.850	0.528	0.432	1.359	11111	1.14	39031.7474	3
8313	4.582	0.798	0.526	0.552	1.580	11111	1.04	39052.6201	3	8551	5.068	0.815	0.509	0.458	0.000	11110	1.18	39377.7301	1
8313	4.539	0.816	0.490	0.483	1.518	11111	1.04	39375.7414	1	8551	5.060	0.825	0.504	0.475	1.445	11111	1.18	39408.6434	3
8315	4.257	0.377	0.235	0.182	0.462	11111	1.01	39052.6292	3	8558	3.790	0.369	0.216	0.180	0.464	11111	1.20	39042.7193	3
8315	4.195	0.360	0.215	0.191	0.412														

TABLE 8 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 52

B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS	B.S.	52	52-6-	52-58	45-52	40-52	WTS	AM	J.D.	LS
8613	4.690	0.201	0.113	0.120	0.273	11111	1.06	39051.6776	3	8622	4.856	-0.126	-0.076	-0.081	-0.292	11111	1.06	39411.7533	1
8613	4.656	0.171	0.094	0.092	0.275	11111	1.06	39408.7137	3	8622	4.853	-0.108	-0.075	-0.070	-0.295	11111	1.08	39412.6155	1
8622	4.842	-0.113	-0.077	-0.079	-0.322	11111	1.02	38702.5996	3	8622	4.855	-0.115	-0.064	-0.084	-0.298	11111	1.01	39431.6649	1
8622	4.840	-0.108	-0.072	-0.083	-0.319	11111	1.01	38702.6539	3	8622	4.824	-0.141	-0.093	-0.072	-0.242	11111	1.02	39432.5976	1
8622	4.849	-0.098	-0.091	-0.074	-0.303	11111	1.01	38704.6203	3	8622	4.830	-0.144	-0.085	-0.052	-0.273	11111	1.01	39441.6187	1
8622	4.830	-0.120	-0.101	-0.077	-0.295	11111	1.06	38704.6916	3	8622	4.874	-0.109	-0.071	-0.067	-0.284	11111	1.04	39442.5585	1
8622	4.867	-0.095	-0.082	-0.086	-0.324	11111	1.04	38705.6726	3	8622	4.841	-0.139	-0.096	-0.070	-0.284	11111	1.04	39443.5551	1
8622	4.824	-0.123	-0.078	-0.070	-0.309	11111	2.26	38872.9417	3	8622	4.800	-0.110	-0.076	-0.070	-0.276	01111	1.27	39448.7191	1
8622	4.850	-0.105	-0.060	-0.072	-0.300	11111	2.71	38874.9181	3	8622	4.844	-0.122	-0.081	-0.078	-0.283	11111	1.17	39451.6857	1
8622	4.843	-0.119	-0.075	-0.066	-0.302	11111	2.06	38877.9384	3	8622	4.818	-0.165	-0.080	-0.069	-0.260	11111	1.01	39459.5466	1
8622	4.831	-0.122	-0.074	-0.059	-0.283	11111	2.49	38887.8907	3	8622	4.861	-0.115	-0.073	-0.064	-0.292	11111	1.03	39461.5996	1
8622	4.833	-0.102	-0.066	-0.062	-0.279	11111	2.68	38888.8811	3	8622	4.855	-0.121	-0.092	-0.040	-0.281	11111	1.01	39468.5584	1
8622	4.867	-0.095	-0.056	-0.076	-0.297	11111	2.16	38889.9003	3	8622	4.830	-0.118	-0.083	-0.068	-0.293	11111	1.46	39468.6969	1
8622	4.847	-0.120	-0.087	-0.072	-0.295	11111	2.03	38890.9047	3	8622	4.850	-0.149	-0.082	-0.056	-0.274	11111	1.05	39473.5794	1
8622	4.854	-0.108	-0.066	-0.078	-0.306	11111	1.22	38894.9861	3	8622	4.819	-0.147	-0.079	-0.071	-0.271	11111	1.11	39474.6034	1
8622	4.827	-0.102	-0.083	-0.072	-0.287	11111	1.18	38896.9910	3	8622	4.864	-0.106	-0.063	-0.065	-0.286	11111	1.65	39501.6284	1
8622	4.856	-0.109	-0.062	-0.093	-0.299	11111	2.81	38915.8033	3	8632	4.841	-0.991	0.642	0.561	1.851	11111	1.02	39501.6880	3
8622	4.839	-0.091	-0.052	-0.073	-0.302	11111	2.22	38916.8233	3	8632	4.800	0.999	0.628	0.550	1.823	11111	1.03	39408.7268	3
8622	4.856	-0.094	-0.062	-0.070	-0.289	11111	1.08	38916.9722	3	8634	3.432	-0.024	-0.014	-0.071	-0.184	11111	1.15	38705.6867	3
8622	4.850	-0.110	-0.062	-0.077	-0.303	11111	2.66	38917.8026	3	8634	3.401	-0.056	-0.038	-0.058	-0.123	11111	1.08	39409.6966	3
8622	4.873	-0.112	-0.063	-0.068	-0.288	11111	1.07	38917.9760	3	8641	4.808	-0.032	0.013	-0.008	-0.008	11111	1.00	39052.6711	3
8622	4.858	-0.107	-0.074	-0.071	-0.305	11111	2.28	38918.8151	3	8641	4.816	-0.016	-0.013	-0.034	-0.028	11111	1.00	39409.7116	3
8622	4.907	-0.079	-0.037	-0.071	-0.301	11111	1.05	38921.9743	1	8649	5.028	1.060	0.693	0.591	1.962	11111	1.60	39052.6800	3
8622	4.850	-0.108	-0.061	-0.085	-0.309	11111	1.19	38922.9192	1	8649	5.029	1.044	0.664	0.556	1.964	11111	1.62	39410.6757	3
8622	4.866	-0.102	-0.071	-0.074	-0.298	11111	2.45	38924.7911	3	8650	3.128	0.638	0.399	0.379	1.081	11111	1.03	39054.6270	3
8622	4.854	-0.107	-0.059	-0.073	-0.296	11111	1.04	38924.9770	3	8650	3.144	0.638	0.387	0.377	1.059	11111	1.00	39411.6940	1
8622	4.841	-0.120	-0.081	-0.067	-0.311	11111	2.41	38925.7901	3	8665	4.317	0.425	0.278	0.225	0.556	11111	1.09	39054.6369	3
8622	4.878	-0.089	-0.065	-0.081	-0.291	11111	1.06	38925.9587	3	8665	4.309	0.406	0.237	0.235	0.553	11111	1.07	39411.7070	1
8622	4.849	-0.109	-0.061	-0.081	-0.304	11111	2.43	38926.7867	3	8667	4.208	0.756	0.484	0.471	1.443	11111	1.02	39054.6464	3
8622	4.840	-0.109	-0.068	-0.069	-0.298	11111	1.03	38928.9804	3	8667	4.188	0.760	0.481	0.469	1.440	11111	1.02	39411.7181	1
8622	4.857	-0.109	-0.063	-0.084	-0.284	11111	1.01	38928.9822	3	8679	4.441	1.222	0.793	0.648	2.351	11111	1.46	39054.6571	3
8622	4.865	-0.092	-0.068	-0.065	-0.295	11111	2.46	38929.7771	3	8679	4.450	1.213	0.754	0.640	2.336	11111	1.45	39410.6882	3
8622	4.862	-0.099	-0.055	-0.063	-0.304	11111	1.02	38929.9778	3	8684	3.746	0.662	0.413	0.436	1.230	11111	1.01	38689.6854	1
8622	4.835	-0.159	-0.075	-0.076	-0.264	11111	1.03	39013.8182	1	8684	3.721	0.693	0.434	0.409	1.194	11111	1.03	39411.7298	1
8622	4.869	-0.103	-0.085	-0.064	-0.300	11111	1.02	39016.7983	3	8694	3.750	0.773	0.507	0.544	1.413	11111	1.20	39054.6687	3
8622	4.861	-0.111	-0.074	-0.071	-0.295	11111	1.02	39018.7964	3	8694	3.735	0.767	0.486	0.443	1.401	11111	1.22	39411.7420	1
8622	4.867	-0.106	-0.075	-0.066	-0.295	11111	1.05	39019.8216	3	8698	4.165	1.265	0.768	0.762	2.371	11111	1.31	39054.6787	3
8622	4.854	-0.113	-0.053	-0.081	-0.301	11111	1.03	39024.7960	3	8698	4.126	1.287	0.763	0.738	2.355	11111	1.43	39431.7090	1
8622	4.854	-0.101	-0.070	-0.071	-0.292	11111	1.03	39026.7833	3	8670	5.098	0.977	0.639	0.517	1.771	11111	1.58	39054.7203	3
8622	4.868	-0.114	-0.070	-0.076	-0.297	11111	1.04	39028.7882	3	8702	5.034	0.959	0.576	0.519	1.740	11111	1.57	39459.5671	1
8622	4.866	-0.110	-0.078	-0.074	-0.293	11111	1.03	39029.7826	3	8709	3.284	0.043	0.037	0.014	0.077	11111	1.54	39054.7084	3
8622	4.854	-0.108	-0.078	-0.067	-0.297	11111	1.11	39031.6672	3	8709	3.294	0.032	0.033	-0.008	0.073	11111	1.50	39410.7017	3
8622	4.863	-0.109	-0.058	-0.073	-0.284	11111	1.01	39035.7186	1	8717	4.932	-0.009	0.029	-0.025	-0.008	11111	1.15	39054.7308	3
8622	4.867	-0.097	-0.089	-0.072	-0.302	11111	1.06	39053.6089	3	8717	4.868	-0.012	-0.012	-0.015	-0.004	11111	1.11	39432.6695	1
8622	4.844	-0.125	-0.070	-0.063	-0.287	11111	2.11	39042.9173	3	8729	5.641	0.547	0.348	0.271	0.796	11111	1.02	39055.6821	3
8622	4.871	-0.118	-0.091	-0.059	-0.274	11111	1.05	39044.7712	3	8729	5.610	0.514	0.329	0.294	0.804	11111	1.04	39431.6845	1
8622	4.861	-0.116	-0.085	-0.063	-0.275	11111	1.13	39045.6010	3	8729	5.609	0.539	0.292	0.293	0.794	11111	1.02	39432.6456	1
8622	4.861	-0.089	-0.071	-0.068	-0.283	11111	1.03	39050.6375	3	8748	5.077	1.105	0.741	0.570	2.120	11111	1.61	39055.6711	3
8622	4.862	-0.110	-0.075	-0.066	-0.291	11111	1.08	39050.7515	3	8748	5.024	1.100	0.679	0.573	2.070	11111	1.61	39459.5801	1
8622	4.873	-0.112	-0.067	-0.073	-0.298	11111	2.35	39050.9076	3	8752	5.407	1.213	0.799	0.785	2.005	11111	1.10	39055.6929	3
8622	4.847	-0.119	-0.087	-0.039	-0.296	11111	2.04	39279.8396	3	8752	5.505	1.276	0.812	0.809	2.106	11111	1.14	39411.7678	1
8622	4.870	-0.102	-0.064	-0.083	-0.308	11111	1.11	39279.9669	3	8775	2.869	1.287	0.672	0.825	2.460	11111	1.00	39019.7907	3
8622	4.858	-0.093	-0.074	-0.063	-0.295	11111	1.10	39280.9657	3	8775	2.845	1.281	0.709	0.821	2.489	11111	1.02	39053.7199	3
8622	4.845	-0.126	-0.100	-0.067	-0.299	11111	2.61	39281.8077	3	8780	4.889	0.801	0.492	0.466	1.383	11111	1.05	39019.8011	3
8622	4.862	-0.105	-0.070	-0.074	-0.281	11111	1.10	39281.9657	3	8780	4.915	0.792	0.492	0.457	1.417	11111	1.05	39057.6902	3
8622	4.842	-0.127	-0.085	-0.066	-0.291	11111	2.56	39297.7679	3	8781	2.530	-0.041	-0.009	-0.006	-0.051	11111	1.05	38869.6945	1
8622	4.841	-0.105	-0.082	-0.054	-0.271														

TABLE 8 INDIVIDUAL OBSERVATIONS RELATIVE TO FILTER 52

B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS	B.S.	52	52-63	52-58	45-52	40-52	WTS	AM	J.D.	LS
8830	4.605	0.241	0.137	0.132	0.352	11111	1.05	39076.6541	3	8860	5.227	1.290	0.739	0.754	2.456	11111	1.05	39025.7955	3
8830	0.000	0.000	0.152	0.120	0.332	00111	1.07	39409.7656	3	8860	5.252	1.300	0.723	0.763	2.475	11111	1.04	39028.7685	3
8832	5.848	0.893	0.608	0.296	1.281	11111	2.10	38887.9072	3	8860	5.238	1.305	0.740	0.768	2.471	11111	1.10	39298.9559	1
8832	5.871	0.910	0.613	0.275	1.281	11111	2.20	38888.8969	3	8872	4.958	0.653	0.378	0.384	1.079	11111	1.23	39028.7787	3
8832	5.869	0.917	0.586	0.336	1.289	11111	1.95	38915.8400	3	8872	4.954	0.676	0.425	0.363	1.036	11111	1.29	39300.9408	3
8832	5.852	0.904	0.585	0.300	1.282	11111	2.02	38916.8345	3	8880	4.637	0.112	0.083	0.061	0.193	11111	1.07	38705.7109	3
8832	5.909	0.925	0.626	0.284	1.256	11111	1.17	38917.9864	3	8880	4.592	0.132	0.065	0.043	0.150	11111	1.01	39373.8292	1
8832	5.872	0.913	0.611	0.294	1.296	11111	2.05	38918.8267	3	8892	4.197	0.829	0.506	0.479	1.467	11111	1.68	39029.7411	3
8832	5.869	0.902	0.617	0.305	1.296	11111	1.28	38922.9318	1	8892	4.213	0.841	0.502	0.468	1.436	11111	1.67	39373.8497	1
8832	5.877	0.901	0.591	0.321	1.299	11111	2.02	38924.8135	3	8905	4.583	0.503	0.306	0.284	0.699	11111	1.01	39029.7627	3
8832	5.876	0.963	0.639	0.300	1.264	11111	1.14	38924.9860	3	8905	4.547	0.471	0.262	0.249	0.659	11111	1.02	39373.8388	1
8832	5.864	0.916	0.617	0.271	1.285	11111	2.14	38925.8008	3	8906	4.775	1.172	0.763	0.596	2.194	11111	1.68	39029.7527	3
8832	5.904	0.918	0.616	0.304	1.294	11111	1.16	38925.9688	3	8906	4.877	1.217	0.765	0.631	2.241	11111	1.70	39375.8468	1
8832	5.888	0.927	0.642	0.263	1.245	11111	2.11	38926.8004	3	8911	4.985	0.057	0.066	-0.034	0.031	11111	1.17	39031.7676	3
8832	5.889	0.943	0.616	0.281	1.264	11111	1.13	38926.9890	3	8911	4.967	0.064	0.056	-0.045	0.052	11111	1.20	39375.8570	1
8832	5.892	0.939	0.622	0.291	1.273	11111	2.10	38928.7953	3	8916	4.556	0.834	0.526	0.460	1.441	11111	1.12	39031.7765	3
8832	5.892	0.916	0.613	0.295	1.291	11111	1.14	38928.9731	3	8916	4.568	0.817	0.518	0.460	1.465	11111	1.12	39377.8284	1
8832	5.869	0.897	0.586	0.308	1.280	11111	2.14	38929.7893	3	8923	4.780	0.738	0.458	0.418	1.224	11111	1.07	39031.7858	3
8832	5.876	0.919	0.615	0.299	1.288	11111	1.15	38929.9694	3	8923	4.772	0.702	0.442	0.422	1.260	11111	1.07	39377.8391	1
8832	5.894	0.965	0.611	0.301	1.250	11111	1.13	39013.8570	1	8926	4.893	-0.050	-0.028	-0.046	-0.173	11111	1.12	39024.7552	3
8832	5.865	0.902	0.616	0.299	1.291	11111	1.11	39016.8212	3	8926	4.865	-0.052	-0.031	-0.056	-0.188	11111	1.11	39410.7428	3
8832	5.887	0.908	0.617	0.291	1.271	11111	1.11	39018.8270	3	8961	3.982	0.821	0.503	0.424	1.232	11111	1.04	39042.7652	3
8832	5.874	0.914	0.614	0.290	1.284	11111	1.21	39031.6581	3	8961	4.025	0.819	0.508	0.420	1.238	11111	1.05	39409.7770	3
8832	5.860	0.916	0.588	0.298	1.272	11111	1.33	39035.6080	1	8965	4.299	-0.051	-0.057	-0.023	-0.106	11111	1.02	39045.7279	3
8832	5.894	0.925	0.624	0.305	1.293	11111	1.10	39035.7302	1	8965	4.292	-0.039	-0.035	-0.051	-0.134	11111	1.03	39468.6662	1
8832	5.861	0.883	0.598	0.302	1.291	11111	1.26	39042.6090	3	8969	4.219	0.402	0.241	0.236	0.575	11111	1.21	38702.6102	3
8832	5.889	0.917	0.598	0.294	1.282	11111	1.23	39045.6111	3	8969	4.230	0.428	0.257	0.237	0.580	11111	1.12	38702.6678	3
8832	5.892	0.909	0.600	0.000	1.266	11101	1.13	39050.6487	3	8969	4.233	0.425	0.243	0.229	0.583	11111	1.19	38702.7312	3
8832	5.862	0.891	0.604	0.306	1.288	11111	1.19	39051.6100	3	8969	4.230	0.423	0.235	0.242	0.565	11111	2.19	38702.8440	3
8832	5.853	0.898	0.600	0.297	1.281	11111	1.16	39053.6231	3	8969	4.240	0.438	0.251	0.227	0.584	11111	1.16	38704.6293	3
8832	5.873	0.894	0.607	0.295	1.283	11111	1.17	39054.6160	3	8969	4.229	0.434	0.232	0.228	0.593	11111	1.14	38704.7014	3
8832	5.895	0.931	0.624	0.291	1.287	11111	1.11	39055.6579	3	8969	4.221	0.441	0.257	0.232	0.570	11111	1.74	38704.8113	3
8832	5.886	0.898	0.596	0.279	1.280	11111	1.18	39056.6017	3	8969	4.262	0.426	0.229	0.246	0.588	11111	1.12	39045.7366	3
8832	5.852	0.889	0.609	0.318	1.300	11111	2.04	39056.9221	3	8969	4.248	0.419	0.239	0.224	0.587	11111	1.16	39468.6185	1
8832	5.894	0.905	0.588	0.298	1.290	11111	1.19	39057.5932	3	8974	3.502	0.796	0.496	0.417	1.378	11111	1.41	39045.7462	3
8832	5.878	0.925	0.617	0.287	1.288	11111	1.23	39058.5779	3	8974	3.474	0.804	0.497	0.398	1.345	11111	1.44	39459.6670	1
8832	5.820	0.917	0.611	0.276	1.276	11111	1.18	39060.5924	3	8976	4.148	-0.034	-0.010	-0.064	-0.114	11111	1.02	39050.7078	3
8832	5.831	0.875	0.584	0.308	1.310	11111	1.17	39061.5956	3	8976	4.139	-0.067	-0.034	-0.059	-0.120	11111	1.18	39468.6855	1
8832	5.885	0.910	0.597	0.296	1.283	11111	1.10	39076.6420	3	8982	4.990	0.618	0.379	0.347	1.001	11111	1.57	39050.7273	3
8832	5.884	0.915	0.618	0.293	1.275	11111	2.11	39241.9371	3	8982	4.987	0.610	0.378	0.366	1.015	11111	1.71	39468.6358	1
8832	5.879	0.919	0.610	0.295	1.267	11111	2.00	39270.8668	3	8984	4.548	0.143	0.096	0.072	0.235	11111	1.17	39051.7103	3
8832	5.863	0.904	0.625	0.291	1.310	11111	2.04	39272.8579	3	8984	4.563	0.165	0.098	0.045	0.216	11111	1.40	39468.6729	1
8832	5.892	0.931	0.628	0.289	1.280	11111	1.22	39279.9756	3	8988	4.459	-0.058	-0.033	0.003	-0.044	11111	1.47	39051.7206	3
8832	5.872	0.916	0.614	0.305	1.275	11111	1.21	39280.9746	3	8988	4.469	-0.042	-0.022	-0.046	-0.046	11111	1.65	39468.6474	1
8832	5.896	0.937	0.623	0.285	1.280	11111	1.20	39281.9746	3	8997	5.155	0.708	0.432	0.401	1.201	11111	1.00	39051.7335	3
8832	5.865	0.903	0.589	0.300	1.280	11111	2.25	39296.7771	3	8997	5.129	0.703	0.445	0.420	1.206	11111	1.01	39432.7049	1
8832	5.890	0.938	0.623	0.282	1.274	11111	2.19	39297.7784	3	9045	4.817	0.860	0.590	0.575	1.444	11111	1.11	39052.7000	3
8832	5.894	0.933	0.624	0.299	1.272	11111	1.19	39300.7864	3	9045	4.821	0.845	0.535	0.662	1.372	11111	1.16	39459.6824	1
8832	5.877	0.926	0.626	0.286	1.281	11111	1.12	39300.9711	3	9064	5.055	1.245	0.700	0.755	2.259	11111	1.01	39052.7097	3
8832	5.815	0.931	0.616	0.299	1.289	11111	1.17	39365.7612	1	9064	5.009	1.275	0.682	0.770	2.269	11111	1.03	39432.7225	1
8832	5.904	0.926	0.613	0.296	1.282	11111	1.11	39432.6223	1	9071	4.898	-0.019	0.002	-0.008	-0.140	11111	1.09	39052.7334	3
8832	5.894	0.918	0.602	0.295	1.277	11111	1.11	39440.6677	1	9071	4.905	-0.031	-0.017	-0.009	-0.151	11111	1.09	39461.6276	1
8832	5.891	0.920	0.611	0.302	1.282	11111	1.10	39407.7413	1	9072	4.146	0.362	0.237	0.177	0.435	11111	1.11	39052.7438	3
8832	5.852	0.910	0.607	0.312	1.298	11111	1.23	39443.7306	1	9072	4.138	0.368	0.210	0.177	0.452	11111	1.12	39440.6925	1
8832	5.889	0.908	0.603	0.288	1.285	11111	1.15	39411.7798	1	9089	4.829	1.243	0.648	0.842	2.345	11111	1.29	39052.7536	3
8832	5.875	0.911	0.603	0.285	1.282	11111	1.20	39411.7798	1	9089	4.796	1.252	0.634	0.795	2.318	11111	1.41	39468.6598	1
8834	4.638	1.234	0.743	0.657	2.310														

TABLE 9 DATA FOR .365 μ FILTER

B.S.	33-40	33-36	WT	J.D.	B.S.	33-40	33-36	WT	J.D.	B.S.	33-40	33-36	WT	J.D.
3	0.201	0.368	11	38641.8624	1017	0.353	0.375	11	38641.9584	1855	-1.467	-0.355	11	38752.6542
21	-0.147	0.104	11	38702.6345	1017	0.305	0.364	11	38704.8509	1855	-1.467	-0.361	11	38752.7440
21	-0.157	0.112	11	38702.6810	1017	0.330	0.342	11	38751.6839	1855	-1.482	-0.343	11	38764.6973
21	-0.146	0.097	11	38702.7514	1017	0.332	0.366	11	38752.7147	1855	-1.458	-0.349	11	38787.7071
21	-0.122	0.120	11	38704.6385	1017	0.341	0.360	11	38764.6518	1855	-1.490	-0.378	11	38789.6679
21	-0.123	0.115	11	38704.7302	1066	0.266	0.397	11	38705.7986	1855	-1.462	-0.373	11	38839.7055
21	-0.196	0.114	11	38708.7120	1084	-0.160	0.085	11	38702.7081	1876	-1.367	-0.313	11	38752.8169
39	-1.238	-0.329	11	38689.6272	1084	-0.178	0.102	11	38702.8139	2061	1.077	0.774	11	38786.7867
39	-1.265	-0.326	11	38702.6437	1084	-0.169	0.088	11	38702.8823	2061	1.167	0.832	11	38787.7580
39	-1.288	-0.326	11	38702.6896	1084	-0.128	0.115	11	38702.9360	2061	1.254	0.857	11	38789.6415
39	-1.269	-0.321	11	38702.7424	1084	-0.229	0.037	11	38704.6824	2061	1.318	0.990	11	38791.6713
39	-1.211	-0.317	11	38702.8588	1084	-0.159	0.086	11	38704.7559	2084	-1.319	-0.294	11	38705.9791
39	-1.263	-0.320	11	38704.6656	1084	-0.168	0.095	11	38704.8361	2084	-1.285	-0.288	11	38789.6551
39	-1.251	-0.321	11	38704.7388	1084	-0.166	0.103	11	38704.8965	2095	-0.256	-0.013	11	38752.8287
39	-1.262	-0.336	11	38704.8201	1084	-0.174	0.087	11	38704.9312	2095	-0.232	0.001	11	38789.6823
45	1.063	0.722	11	38641.8459	1084	-0.126	0.072	11	38705.7548	2124	-0.077	0.043	11	38705.9897
248	0.889	0.655	11	38752.6245	1101	-0.362	0.063	11	38705.8108	2124	-0.045	0.062	11	38789.6943
271	0.070	0.272	11	38752.6377	1101	-0.374	0.064	11	38786.6581	2134	-0.084	0.177	11	38705.9993
458	-0.399	0.063	11	38641.8720	1131	-1.124	-0.232	11	38705.8207	2134	-0.068	0.155	11	38789.7049
458	-0.396	0.144	11	38708.7760	1135	0.153	0.290	11	38705.8312	2298	-0.100	0.059	11	38787.7462
464	0.560	0.557	11	38708.7868	1162	1.104	0.685	11	38751.7439	2650	0.148	0.312	11	38786.7475
483	-0.291	0.142	11	38641.8838	1165	-0.468	-0.067	11	38751.7602	2650	0.241	0.396	11	38789.7809
595	-0.327	0.012	11	38708.8224	1251	-0.110	0.023	11	38708.7277	2650	0.191	0.397	11	38791.7027
603	0.074	0.212	11	38708.8332	1251	-0.119	-0.140	11	38786.6722	2650	0.174	0.361	11	38839.6486
603	0.140	0.230	11	38764.6678	1256	0.198	0.406	11	38708.7513	2697	0.560	0.471	11	38752.8846
617	0.374	0.483	11	38641.8360	1261	-0.104	0.051	11	38708.7647	2777	-0.098	0.148	11	38786.7596
617	0.404	0.422	11	38641.9496	1303	0.162	0.355	11	38751.6959	2777	-0.144	0.088	11	38787.7752
617	0.402	0.479	11	38751.6205	1311	-0.004	0.258	11	38751.7728	2845	-0.420	-0.086	11	38751.8879
617	0.415	0.407	11	38752.5797	1320	-0.853	-0.198	11	38751.7828	2845	-0.440	-0.123	11	38789.7939
617	0.413	0.459	11	38764.6101	1409	0.188	0.336	11	38705.8970	2852	-0.299	0.030	11	38751.6712
617	0.479	0.460	11	38786.5794	1411	0.064	0.303	11	38705.9095	2852	-0.309	0.081	11	38751.8990
617	0.442	0.441	11	38789.5692	1411	-0.000	0.148	11	38786.6943	2852	-0.299	0.054	11	38752.6659
617	0.345	0.470	11	38791.5702	1409	-0.277	0.066	11	38791.5702	2852	-0.277	0.068	11	38791.7484
622	0.013	0.071	11	38751.6469	1411	0.064	0.303	11	38705.9095	2854	0.600	0.550	11	38751.9112
681	2.336	1.813	11	38752.6822	1411	0.097	0.325	11	38752.7685	2854	0.594	0.490	11	38789.8044
681	2.083	1.630	11	38764.6352	1411	0.093	0.330	11	38786.6846	2864	0.521	0.516	11	38752.8957
681	1.940	1.630	11	38786.6156	1412	-0.031	0.057	11	38752.7797	2891	-0.140	0.013	11	38702.8237
681	2.010	1.699	11	38789.5821	1412	-0.000	0.148	11	38786.6943	2891	-0.173	0.005	11	38702.8992
681	1.809	2.687	11	38791.6029	1605	0.596	0.487	11	38705.9386	2891	-0.059	0.060	11	38704.7779
718	-0.185	-0.003	11	38751.6324	1605	0.519	0.606	11	38702.8908	2891	-0.151	-0.007	11	38704.8679
718	-0.261	-0.028	11	38752.5903	1605	0.551	0.616	11	38704.8595	2891	-0.172	-0.012	11	38704.9049
753	0.085	0.226	11	38789.6163	1605	0.621	0.660	11	38751.7232	2891	-0.170	-0.004	11	38704.9397
753	0.059	0.163	11	38791.6127	1605	0.578	0.591	11	38752.7340	2891	-0.156	-0.008	11	38704.9562
779	-1.257	-0.294	11	38708.8429	1605	0.659	0.705	11	38791.6453	2891	-0.128	0.010	11	38705.8427
779	-1.233	-0.287	11	38791.5932	1620	0.020	0.080	11	38752.7921	2891	-0.147	0.018	11	38706.0095
788	-0.383	0.110	11	38708.8525	1620	0.066	0.117	11	38791.6813	2891	-0.156	0.016	11	38708.8112
875	-0.016	0.112	11	38786.6325	1666	0.065	0.127	11	38786.7321	2891	-0.153	-0.029	11	38787.7962
875	-0.024	0.000	10	38791.5806	1666	0.030	0.139	11	38791.6920	2891	-0.095	-0.009	11	38791.7137
896	-0.694	-0.140	11	38752.7013	1713	-0.932	-0.195	11	38751.7091	2891	-0.149	-0.003	11	38837.6901
911	0.971	0.697	11	38786.6459	1713	-0.913	-0.116	11	38752.7569	2891	-0.138	-0.013	11	38839.6201
936	-0.633	-0.104	11	38708.8633	1726	0.511	0.507	11	38751.8007	2973	0.337	0.419	11	38786.7737
937	-0.350	0.079	11	38702.6250	1729	-0.365	0.077	11	38751.8145	2973	0.187	0.330	11	38702.8320
937	-0.401	0.055	11	38702.6983	1770	-1.239	-0.305	11	38705.9548	2990	0.175	0.339	11	38702.9068
937	-0.397	0.077	11	38702.7608	1778	-1.345	-0.294	11	38708.9013	2990	0.249	0.356	11	38704.7868
937	-0.402	0.059	11	38702.8687	1778	-1.347	-0.339	11	38787.7300	2990	0.173	0.332	11	38704.8763
937	-0.377	0.074	11	38702.9271	1790	-1.276	-0.285	11	38708.9258	2990	0.193	0.338	11	38704.9129
937	-0.393	0.054	11	38704.6739	1790	-1.276	-0.285	11	38708.9258	2990	0.169	0.323	11	38704.9480
937	-0.371	0.067	11	38704.7473	1790	-1.276	-0.285	11	38708.9258	2990	0.190	0.346	11	38704.9643
937	-0.379	0.063	11	38704.8276	1790	-1.276	-0.285	11	38708.9258	2990	0.209	0.372	11	38708.8017
937	-0.369	0.089	11	38704.8873	1790	-1.276	-0.285	11	38708.9258	2990	0.142	0.310	11	38786.7990
937	-0.373	0.074	11	38704.9223	1810	-1.082	-0.280	11	38708.9682	2990	0.170	0.323	11	38787.7690
991	0.765	0.598	11	38705.7817	1855	-1.467	-0.365	11	38705.7684	2990	0.201	0.342	11	38839.6589
984	-0.124	0.082	11	38705.7431	1855	-1.456	-0.369	11	38705.9267	2990	0.190	0.345	11	38865.6576
984	0.082	0.082	11	38705.7431	1855	-1.469	-0.387	11	38708.7395	2990	0.191	0.347	11	38866.6450
991	0.765	0.598	11	38705.7817	1855	-1.567	-0.402	11	38708.9148	2990	0.174	0.332	11	38868.6483
991	0.765	0.598	11	38705.7817	1855	-1.487	-0.384	11	38751.6584	2990	0.188	0.324	11	38869.6321

TABLE 9 DATA FOR .365 μ FILTER

B.S.	33-40	33-36	WT	J.D.	B.S.	33-40	33-36	WT	J.D.	B.S.	33-40	33-36	WT	J.D.
3145	0.480	0.487	11	38752.9110	4310	-0.191	0.081	11	38786.9049	5107	-0.071	-0.005	11	38787.9887
3249	0.817	0.565	11	38751.9261	4310	-0.192	0.084	11	38787.9000	5112	-0.022	0.056	11	38870.8035
3249	0.816	0.589	11	38752.9330	4368	0.130	0.239	11	38789.8635	5127	-0.056	0.109	11	38871.8032
3249	0.788	0.549	11	38786.8110	4386	-0.103	0.033	11	38786.9159	5235	-0.193	0.159	11	38786.9748
3249	0.782	0.571	11	38787.8080	4392	0.205	0.373	11	38865.7012	5235	-0.201	0.120	11	38787.9468
3249	0.865	0.631	11	38791.7730	4399	-0.172	0.095	11	38789.9421	5235	-0.241	0.117	11	38789.9140
3249	0.816	0.573	11	38839.7171	4456	-0.946	-0.222	11	38751.8559	5235	-0.229	0.108	11	38791.9816
3410	-0.059	-0.046	11	38786.8228	4456	-0.954	-0.253	11	38752.8532	5235	-0.262	0.116	11	38869.8198
3410	-0.056	-0.020	11	38787.8208	4456	-0.973	-0.257	11	38753.0011	5235	-0.258	0.123	11	38871.7615
3410	-0.031	0.077	11	38791.7925	4456	-0.954	-0.208	11	38789.7682	5264	0.122	0.065	11	38787.0096
3454	-1.038	-0.259	11	38751.9374	4456	-0.945	-0.289	11	38789.9767	5264	0.088	0.131	11	38787.9996
3454	-1.048	-0.247	11	38752.9556	4456	-0.979	-0.304	11	38791.8983	5291	-0.089	0.049	11	38865.7964
3454	-1.112	-0.270	11	38789.8182	4471	0.140	0.314	11	38866.7148	5299	1.281	0.976	11	38865.8062
3454	-1.069	-0.275	11	38791.7827	4496	-0.257	0.125	11	38786.8807	5304	-0.385	0.033	11	38870.8198
3492	-0.130	0.036	11	38752.9220	4496	-0.323	0.034	11	38787.9240	5313	-0.662	-0.165	11	38871.8200
3492	-0.141	-0.088	11	38786.8339	4496	-0.318	0.107	11	38791.8436	5340	0.580	0.549	11	38871.9099
3492	-0.081	0.054	11	38791.8113	4496	-0.330	0.069	11	38865.7116	5429	0.626	0.506	11	38839.9019
3594	0.058	0.106	11	38839.6699	4496	-0.313	0.047	11	38866.7331	5429	-0.434	0.008	11	38839.9201
3612	0.192	0.365	11	38752.9448	4517	0.960	0.715	11	38866.7525	5447	-0.522	-0.119	11	38870.8316
3619	-0.136	0.064	11	38839.6794	4534	-0.113	-0.015	11	38786.8940	5477	-0.070	0.005	11	38869.8380
3662	-0.107	0.049	11	38839.6915	4534	-0.067	0.031	11	38787.8682	5487	-0.355	0.021	11	38788.0114
3787	0.095	0.124	11	38751.9485	4534	-0.081	0.034	11	38791.8868	5490	1.121	6.449	11	38865.8508
3787	0.106	0.124	11	38789.8280	4534	-0.072	0.048	11	38869.6174	5502	0.140	0.347	11	38865.8591
3787	0.092	0.143	11	38791.8218	4534	-0.108	-0.010	11	38869.7601	5505	0.113	0.221	11	38865.8684
3799	0.009	0.092	11	38791.8331	4534	-0.124	-0.020	11	38870.7822	5511	-0.091	0.050	11	38871.8376
3800	0.079	0.322	11	38751.9604	4534	-0.082	0.054	11	38870.8495	5547	-0.522	-0.119	11	38870.8316
3800	0.063	0.325	11	38752.9672	4534	-0.091	0.033	11	38871.6379	5575	-0.070	0.005	11	38869.8380
3800	0.005	0.276	11	38837.7100	4534	-0.084	0.017	11	38871.7125	5577	-0.355	0.021	11	38788.0114
3809	-0.137	0.338	11	38837.7194	4540	-0.358	0.046	11	38786.9283	5590	0.121	6.449	11	38865.8508
3815	-0.198	0.124	11	38837.7285	4540	-0.356	0.066	11	38787.9122	5592	0.140	0.347	11	38865.8591
3970	-0.405	-0.044	11	38869.6480	4550	-0.393	0.091	11	38752.8409	5595	0.113	0.221	11	38865.8684
3974	-0.162	0.028	11	38752.9785	4550	-0.383	0.110	11	38789.7553	5600	0.851	0.611	11	38839.9299
3974	-0.106	0.067	11	38791.8553	4589	0.113	0.616	11	38789.9663	5601	0.208	0.350	11	38870.8686
3975	-0.145	0.167	11	38786.8682	4608	0.001	0.281	11	38865.7372	5602	0.117	0.336	11	38839.9391
3975	-0.183	0.097	11	38791.9091	4660	-0.042	0.058	11	38865.7473	5616	0.512	0.473	11	38871.8557
3980	0.826	0.577	11	38839.7296	4662	-0.502	-0.040	11	38869.7160	5634	-0.437	0.005	11	38871.8692
3980	0.806	0.593	11	38869.6644	4662	-0.056	0.068	11	38786.9394	5685	-0.480	-0.051	11	38787.0194
3981	-0.098	0.049	11	38752.9909	4689	0.024	0.056	11	38787.9358	5685	-0.494	-0.062	11	38788.0207
3981	-0.096	0.025	11	38789.8402	4689	0.022	0.078	11	38789.9885	5685	-0.527	-0.115	11	38790.0088
3982	-0.510	-0.114	11	38839.7402	4689	0.038	0.030	11	38791.9599	5685	-0.482	-0.081	11	38839.8016
3994	0.215	0.395	11	38869.6816	4695	0.527	0.529	11	38869.7323	5685	-0.478	-0.082	11	38839.9591
4031	0.095	0.195	11	38839.7494	4716	0.066	0.315	11	38865.7566	5735	0.291	0.268	11	38869.8564
4033	-0.016	0.035	11	38871.6529	4737	0.408	0.429	11	38865.7660	5744	0.435	0.450	11	38869.8726
4054	-0.356	0.058	11	38839.7712	4737	0.512	0.358	11	38868.7271	5778	-0.785	-0.194	11	38839.9492
4057	0.301	0.413	11	38839.7586	4785	-0.458	0.009	11	38868.7431	5854	0.483	0.485	11	38791.9934
4069	0.928	0.626	11	38866.6636	4825	-0.390	0.054	11	38786.9517	5854	0.481	0.447	11	38839.7922
4072	-0.275	-0.036	11	38866.6862	4825	-0.388	0.035	11	38789.9993	5854	0.459	0.443	11	38839.9680
4090	-0.015	0.098	11	38871.6659	4932	0.135	0.334	11	38839.8682	5901	0.182	0.286	11	38870.8842
4094	0.859	0.639	11	38871.6835	4954	0.734	0.439	11	38866.7738	5947	0.518	0.490	11	38839.9767
4100	-0.010	0.225	11	38871.6975	4963	-0.052	0.024	11	38866.7948	5971	-0.376	-0.098	11	38870.8970
4112	-0.454	0.029	11	38871.7270	4983	-0.416	0.038	11	38869.7757	5972	-0.051	0.029	11	38869.9079
4119	-0.743	-0.174	11	38789.8507	5017	-0.003	0.139	11	38869.7870	5977	-0.359	0.074	11	38871.8864
4119	-0.765	-0.149	11	38791.9196	5019	-0.323	0.114	11	38871.7782	6018	0.123	0.287	11	38870.9095
4132	-0.126	0.054	11	38865.6781	5095	1.077	0.742	11	38869.8052	6092	-0.831	-0.215	11	38839.9855
4133	-1.332	-0.289	11	38865.6868	5105	-0.108	0.050	11	38786.9866	6092	-0.847	-0.220	11	38865.8980
4259	0.038	0.116	11	38791.9304	5105	-0.111	0.017	11	38787.9795	6093	-0.238	0.085	11	38865.9084

TABLE 9 DATA FOR .365 μ FILTER

B.S.	33-40	33-36	WT	J.D.	B.S.	33-40	33-36	WT	J.D.	B.S.	33-40	33-36	WT	J.D.
6103	0.175	0.341	11	38865.9009	7178	0.018	0.125	11	38865.9616	8450	-0.027	0.053	11	38705.6460
6146	2.070	1.579	11	38865.9266	7178	0.021	0.087	11	38869.8946	8622	-1.493	-0.363	11	38702.5996
6212	-0.347	0.092	11	38870.9227	7178	0.049	0.147	11	38869.9888	8622	-1.498	-0.370	11	38702.6539
6378	-0.012	0.089	11	38869.9394	7178	0.006	0.105	11	38870.9363	8622	-1.495	-0.366	11	38702.7189
6396	-0.618	-0.115	11	38865.9356	7178	-0.001	0.107	11	38870.9782	8622	-1.474	-0.371	11	38704.6203
6418	0.732	0.549	11	38865.9439	7178	0.026	0.134	11	38871.9253	8622	-1.466	-0.362	11	38704.6916
6431	-1.080	-0.285	11	38869.9252	7328	0.117	0.277	11	38870.0064	8622	-1.501	-0.367	11	38704.7960
6436	-0.136	-0.015	11	38870.9488	7557	-0.134	0.085	11	38871.9405	8622	-1.453	-0.365	11	38705.6726
6603	0.471	0.407	11	38839.8785	7570	0.225	0.410	11	38871.9573	8634	-0.366	-0.075	11	38705.6867
6629	-0.073	-0.002	11	38839.8874	7592	-0.272	0.013	11	38871.9733	8684	0.053	0.275	11	38689.6854
6869	0.021	0.251	11	38704.6064	7710	-0.213	0.013	11	38870.9641	8762	-0.809	-0.188	11	38705.6986
6869	0.078	0.437	11	38865.8274	7924	-0.151	0.235	11	38641.7838	8773	-0.773	-0.178	11	38752.6131
6869	0.046	0.315	11	38865.9524	7924	-0.143	0.207	11	38751.5875	8781	-0.092	0.009	11	38689.6945
7001	-0.095	-0.023	11	38869.9563	7924	-0.204	0.167	11	38752.5681	8797	-1.270	-0.242	11	38870.9993
7056	-0.032	0.097	11	38869.9721	7949	0.214	0.357	11	38641.7932	8880	0.005	0.094	11	38705.7109
					8115	0.064	0.272	11	38689.6712	8969	-0.450	0.035	11	38702.6102
					8414	0.139	0.328	11	38705.6151	8969	-0.461	0.033	11	38702.6678
					8418	-0.496	-0.123	11	38705.6338	8969	-0.445	0.041	11	38702.7312
					8430	-0.395	0.031	11	38705.5964	8969	-0.372	0.039	11	38702.8440
										8969	-0.431	0.047	11	38704.6293
										8969	-0.434	0.028	11	38704.7014
										8969	-0.469	0.024	11	38704.8113

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