

SPECTRAL EVOLUTION OF GALAXIES. IV A CATALOGUE OF THEORETICAL PREDICTIONS OF COSMOLOGICAL INTEREST

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RESUMEN

Se presenta en forma de tablas numéricas, un conjunto de resultados de los modelos evolutivos de galaxias, preparados por el autor. Estos datos se presentan gráficamente en los artículos I y III de esta serie.

ABSTRACT

This paper presents in the form of numerical tables a set of results from the author's spectral evolutionary models for galaxies. These data are displayed in pictorial form in Papers I and III of this series.

Key words: GALAXIES-EVOLUTION – SPECTROPHOTOMETRY – STELLAR CONTENT – ULTRAVIOLET SPECTRA – SPACE TELESCOPE

I. INTRODUCTION

This is the fourth of a series of papers describing the results of the spectral evolutionary models for galaxies of Bruzual (1981). Paper I (Bruzual 1983a) describes the results of the models applied to early-type stellar systems. Paper II (Bruzual 1983b) presents an atlas of *IUE* spectra of late-type stars, globular clusters, and early-type galaxies compiled by the author. These data are used as ingredients (the stellar data) and as comparison spectra (the galaxy data) to construct and test the predictions of the synthesis program. Paper III (Bruzual 1983c) contains a series of predictions of cosmological interest applicable to some of the UV bandpasses that will be available in the *Space Telescope Faint Object Camera*. Paper III is complementary to Paper I as the latter is oriented towards ground based work. Because of reasons of space, in Papers I and III the results were presented in pictorial form only. Due to the nature of these predictions, it is useful to have the results both in pictorial and in numerical form. In this way reading and interpolation errors easily made when using small scale plots can be minimized.

In this paper, section I presents the results of Papers I and III in the form of numerical tables. Section II contains a summary of the definitions used to compute the quantities given in the tables. Section III briefly summarizes the photometric systems used in this investigation. The results are presented in section IV. Table 2 is provided to help the reader find the required quantity in the numerous tables. The conclusions of this work are given in Papers I and III, and are not repeated here.

II. DEFINITIONS

This section contains cosmological expressions that have been used throughout this investigation. These expressions can be found in most textbooks (Peebles 1971; Weinberg 1972) and are repeated here for reasons of completeness. Only Friedmann cosmologies with zero cosmological constant are considered.

a) Energy Received from a Source at Redshift z

Let $F_\lambda[\lambda, t(z)]$ represent the energy emitted per unit wavelength by a source in the rest frame of the source. It is assumed that the spectrum of the source evolves in time. The function $t(z)$ represents the age of the source measured from $t = 0$ when observed at redshift z . $t(z)$ is also a function of H_0 and q_0 (see below). If one observes this source at redshift z , the amount of energy received at wavelength λ inside the wavelength interval $d\lambda$ will be the energy emitted by the source at wavelength $\lambda(1+z)^{-1}$ inside the interval $(1+z)^{-1} d\lambda$, dimmed by the effect of the distance to the source. Commonly, observations are performed through a filter of response function $R(\lambda)$. Thus the total energy received from the source through this filter is given by

$$E_R(z) = E_0 \left[\frac{l_0}{l} \right]^2 \frac{1 + z_0}{1 + z} \frac{T_R[z, t(z)]}{T_R[z_0, t(z_0)]}, \quad (1)$$

where

TABLE 1

PHOTOMETRIC SYSTEMS*

| System | Colors | Filters | $\lambda_{\text{eff}}(\text{A})$ | $\Delta\lambda(\text{A})$ | Reference |
|---------------------------------------|---|---|--|---|-----------|
| <i>UBV</i> | $U - B = U_3 - B_2$ $B - V = B_3 - V$ | U_3 B_2 B_3 V | 3652 4448 4417 5505 | 201 363 362 367 | 1 |
| <i>U⁺ J⁺ FN</i> | $U^+ - J^+$ $J^+ - F$ $F - N$ | $U^+ = \text{IIIa} - J + \text{UG5}$ $J^+ = \text{IIIa} - J + \text{GG385}$ $F = 127 - 02 + \text{GG495}$ $N = \text{IV} - N + \text{RG695}$ | 3606 4627 6167 7941 | 223 487 599 562 | 2 |
| <i>RIJHKL</i> | $V - R$ $V - K$ $J - K$ $H - K$ | R I J H K L | 6940 8781 12488 16500 21951 34371 | 754 869 1198 879 1772 2354 | 3 |
| <i>ST</i> | $14 - 17$ $17 - 22$ $22 - 27$ $27 - B, 27 - V$ | B 140 B 175 B 220 B 275 | 1405 1751 2200 2750 | 120 166 210 252 | 4 |

(1) Azusienis and Straizys (1969); Buser (1978).

(2) Kron (1978); Koo and Kron (1980, private communication).

(3) Johnson (1965); Lebofsky (1980, private communication).

(4) Macchietto *et al.* (1980); Djorgovski (1980, private communication).

$$(\text{*}) \quad \lambda_{\text{eff}} = \int_{-\infty}^{\infty} \lambda R(\lambda) d\lambda / \int_{-\infty}^{\infty} R(\lambda) d\lambda, \quad (\Delta\lambda)^2 = \int_{-\infty}^{\infty} (\lambda - \lambda_{\text{eff}})^2 R(\lambda) d\lambda / \int_{-\infty}^{\infty} R(\lambda) d\lambda.$$

$$(1+z)^{-1} T_R[z, t(z)] = (1+z)^{-1}$$

$$\times \int_{-\infty}^{\infty} F_{\lambda}[\lambda(1+z)^{-1}, t(z)] R(\lambda) d\lambda, \quad (2)$$

represents the energy transmitted by the filter, l is the luminosity distance from the source to the observer (Weinberg 1972), and E_0 is the energy received at some reference distance l_0 , with corresponding redshift z_0 . Expressing this energy in a magnitude scale,

$$m_R(z) - M_R = 5 \log \frac{l}{l_0} + 2.5 \log \frac{1+z}{1+z_0} - 2.5 \log \frac{T_R[z, t(z)]}{T_R[z_0, t(z_0)]}, \quad (3)$$

where $m_R(z) = -2.5 \log E_R(z)$, and $M_R = -2.5 \log E_0$.

b) *Distance Modulus*

For $z = z_0$, (3) gives the distance modulus, namely

$$m_R(z) - M_R = 42.384 - 5 \log h$$

$$+ 5 \log \begin{cases} \frac{q_0 z + (q_0 - 1)[(1 + 2q_0 z)^{1/2} - 1]}{q_0^2} & q_0 \neq 0. \\ z(1 + \frac{z}{2}) & q_0 = 0. \end{cases} \quad (4)$$

The numerical factor in the right hand side of (4) is equal to $5 \log(c/H_0 l_0)$; l_0 has been taken as 10 pc, and $h = H_0/100$. In this case M_R is the absolute magnitude of the source in the given band.

c) *k and Evolutionary Corrections*

The k -correction gives the magnitude difference between a source observed at redshift z and a source with identical spectrum observed at $z = 0$. The spectral evolution that takes place in the intervening time is neglected. Thus (Peebles 1971)

$$k(z) = 2.5 \log(1+z) - 2.5 \log \frac{T_R[z, t(0)]}{T_R[0, t(0)]}. \quad (5)$$

TABLE 2
INDEX OF TABLES

| Quantity | Table | Paper |
|------------------------|-------|-------|
| $V(z)$ | 3 | I |
| $B(z)$ | 4 | |
| $V - \text{CORR}(z)^*$ | 5 | |
| $F(z)$ | 6 | |
| $K(z)$ | 7 | |
| $(U - B)(z)$ | 8 | I |
| $(B - V)(z)$ | 9 | |
| $(U^+ - J^+)(z)$ | 10 | |
| $(J^+ - F)(z)$ | 11 | |
| $(F - N)(z)$ | 12 | |
| $(V - R)(z)$ | 13 | |
| $(V - K)(z)$ | 14 | |
| $(J - K)(z)$ | 15 | |
| $(H - K)(z)$ | 16 | |
| $B(z) - B(0)$ | 17 | I |
| $V(z) - V(0)$ | 18 | |
| $F(z) - F(0)$ | 19 | |
| $K(z) - K(0)$ | 20 | |
| $14(z)$ | 21 | III |
| $22(z)$ | 22 | |
| $27(z)$ | 23 | |
| $V(z)$ | 24 | |
| $(14 - 17)(z)$ | 25 | III |
| $(17 - 22)(z)$ | 26 | |
| $(22 - 27)(z)$ | 27 | |
| $(27 - B)(z)$ | 28 | |
| $(27 - V)(z)$ | 29 | |
| $(B - V)(z)$ | 30 | |

(*) $V - \text{CORR}$ = corrected V magnitude, in the notation of Kristian *et al.* (1978).

The evolutionary correction $e(z)$, on the other hand, gives the magnitude difference between a source at redshift z , with a spectrum corresponding to age $t(z)$, and a similar source with a spectrum corresponding to age $t(0)$, redshifted by an amount z . This corresponds to

$$e(z) = -2.5 \log \frac{T_R[z, t(z)]}{T_R[z, t(0)]} . \quad (6)$$

For $l_0 = 10$ pc, $z_0 \approx 0$, and the sum of the second and third terms in the right hand side of (3) represents the sum of $k_R(z)$ and $e_R(z)$, namely

$$m_R(z) - M_R = 5 \log \frac{l}{l_0} + k_R(z) + e_R(z) . \quad (7)$$

The combined correction $k_R(z) + e_R(z)$ is the quantity plotted in Paper I and listed in the corresponding tables in section IV. In Paper I and in the table headings the combined correction has been denoted as $R(z) - R(0)$, where

$$R(z) - R(0) \equiv k_R(z) + e_R(z) , \quad (8)$$

and R represents any of the bandpasses in use. This notation emphasizes the fact that the difference in the absolute magnitude to be assigned to a galaxy at redshift z and a nearby galaxy is due both to evolution and redshifting of the spectrum.

d) Look-Back Time as a Function of z

The age of a source, $t(q_0, z)$, observed at redshift z is given by

$$H_0 t(q_0, z) = \frac{(1 + 2q_0 z)^{1/2}}{(1 - 2q_0)(1 + z)} + q_0 (2q_0 - 1)^{-3/2} \\ \times \cos^{-1} \left[\frac{1 - q_0(1 - z)}{q_0(1 + z)} \right] . \quad (9)$$

Where $\cos^{-1}(X) = \cos^{-1}(X)$ if $q_0 > 0.5$, and $\cos^{-1}(X) = (-1)^{1/2} \cosh^{-1}(X)$ if $q_0 < 0.5$. For $q_0 = 0.5$, $H_0 t(q_0, z) = \frac{2}{3} (1 + z)^{-3/2}$.

For any cosmology the age of the universe is given by $t(q_0, 0)$. The look-back time $\Delta t(q_0, z)$ from $z = 0$ to redshift z is given by

$$\Delta t(q_0, z) = t(q_0, 0) - t(q_0, z) . \quad (10)$$

III. PHOTOMETRIC SYSTEMS

Throughout this work, model predictions in several broad band color systems (photoelectric and photographic) have been computed. This requires knowledge of the filter response functions and the zero points for the given color. The magnitude of a source with spectral energy distribution $F_\lambda(\lambda)$ at zero redshift observed through a filter of response function $R(\lambda)$ is given by

$$C = 2.5 \log \int_{-\infty}^{\infty} F_\lambda R(\lambda) d\lambda , \quad (11)$$

where C is a constant that defines the magnitude system. Table 1 lists the color systems, filter characteristics, and the references from which the functions $R(\lambda)$ were obtained. The filter effective wavelength, λ_{eff} , and half-width, $\Delta\lambda$, were computed from

$$\lambda_{eff} = \frac{\int_{-\infty}^{\infty} \lambda R(\lambda) d\lambda}{\int_{-\infty}^{\infty} R(\lambda) d\lambda},$$

and

$$(\Delta\lambda)^2 = \frac{\int_{-\infty}^{\infty} (\lambda - \lambda_{eff})^2 R(\lambda) d\lambda}{\int_{-\infty}^{\infty} R(\lambda) d\lambda}.$$

respectively. The photographic *U* and *J* bands are denoted *U*⁺ and *J*⁺ to differentiate them from the *U* band of the *UBV* system, and the *J* band of the *RIJHKL* system, respectively.

Four *UV* bandpasses accessible to the *Space Telescope* cameras have been used in this work. These bandpasses are also listed in Table 1. The *B* stands for broad band, and the three digit number gives the effective wavelength in nm. These bands were selected because they cover the region of interest in the *UV*, are available in both modes of the *Faint Object Camera* and in the *Wide Field Camera*, and are wide enough to allow the detection of relatively faint sources. In what follows the magnitudes corresponding to these bandpasses will be denoted 14, 17, 22, and 27, respectively (see Paper III for details).

All the filter response functions are listed in Table 3 and plotted in Figure 2 of Bruzual (1981). In the case of the *UV* filters the response functions take into account the efficiencies of both the *Space Telescope* and the *Faint Object Camera* as a function of wavelength. These functions were kindly provided by G. Djorgovski.

For all the synthetic colors computed in this work the zero points were established from the spectrum of an A0 V star, i.e. this star was required to have all colors = 0. The optical spectrum of this star was taken from Straizys and Sviderskiene (1972). In the *UV* the *AOO-2* spectrum of a Lyrae (Code and Meade 1979) was used.

IV. RESULTS

As in Papers I and III, time is measured in Gyr (1 Gyr = 10⁹ year), and H_0 in km s⁻¹ Mpc⁻¹. In both cases the units will not be indicated. The age of galaxies is denoted by t_g , and, as before, τ always refers to the time scale appearing in the star formation rate (see Paper I).

Due to the current uncertainties in the value of H_0 , it was decided in Papers I and III to present the model results for $H_0 = 50$, and $H_0 = 100$. For intermediate values a linear interpolation should suffice. For every quantity two tables, (a) and (b), are included. Table (a) was computed with $H_0 = 50$, $q_0 = 0$, and $t_g = 16$. Table (b) with $H_0 = 100$, $q_0 = 0$, and $t_g = 9$. This is the same

notation used in the previous papers. In the table headings, $H_0 = H_0$, $Q_0 = q_0$, $T_g = t_g$, and $Z = z$. This change in notation was introduced because of the inability of the computer printer to reproduce the notation used in the text.

a) Results from Paper I

The predicted magnitudes, colors, and combined corrections in the z range from 0 to 2 for the models discussed in Paper I are listed in Tables 3 to 20. Table 2 should help locating the required tables. The tables have been ordered according to the photometric systems, in the same order as in Table 1.

The predicted quantities are listed for the c-model ($\tau = 1$), and $\mu = 0.7, 0.6$, and 0.5 models (all with $x = 1.35$). The predictions for the c-model when Horizontal Branch (HB) stars are added according to the two schemes described in Paper I are also included. For comparison the corresponding quantities for a non-evolving spectral energy distribution (that for the c-model at $z = 0$) at the appropriate redshift are also given. In the table headings these models are identified as C, 0.70, 0.60, 0.50, HB1, HB2, and N.E., respectively. See Paper I for more details about model definitions.

All the spectra were scaled to an absolute magnitude $V_0 = -23.0$ at a distance modulus of 25 for the $H_0 = 50$ cosmology. For typical colors of $B - V = 1.0$ and $V - K = 3.3$, this corresponds to $B_0 = -22.0$, and $K_0 = -26.3$. In the *F* band an absolute magnitude $F_0 = -23.8$ was assigned. No attempt was made to determine the best possible absolute magnitude in each of the bands.

The first line in Tables 3 through 7 corresponds to a distance modulus of 25 magnitudes ($H_0 = 50$), and 23.5 magnitudes ($H_0 = 100$), and hence the value $z = 0$ should be ignored. Note that for $H_0 = 100$ the galaxies are intrinsically fainter by 1.5 magnitudes than for $H_0 = 50$.

b) Results from Paper III

The predicted magnitudes and colors for the *Space Telescope* photometric system given in Table 1 are listed in Tables 21 through 30. In this case the range from 0.004 to 3 is covered in z . The combined corrections were thought of little use in this wavelength range and were not computed.

The models used in Paper III are: μ -models with $\mu = 0.90, 0.70, 0.50, 0.30, 0.15, 0.01$ (all with $x = 1.35$), and a d-model with $\tau = 10$, and $x = 0.85$. In the table headings the μ -models are identified by the value of μ , the d-model by the value of x . See Paper I for more details about model definitions.

All the spectra were scaled to an absolute magnitude $J_0^+ = -21.0$ at a distance modulus of 25 for the $H_0 = 50$ cosmology. The corresponding V_0 magnitudes were assigned according to a procedure described in Paper III.

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TABLE 3a

| Z | C | B(Z) vs. Z. (H ₀ =50, g ₀ =0, T _g =16). | | | | | |
|-------|------|--|------|------|------|------|------|
| | | 0.70 | 0.60 | 0.50 | HB1 | HB2 | N.E. |
| 0.000 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| 0.025 | 14.0 | 14.0 | 14.0 | 14.0 | 14.0 | 14.0 | 14.0 |
| 0.050 | 15.6 | 15.6 | 15.6 | 15.6 | 15.6 | 15.6 | 15.7 |
| 0.075 | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 | 16.8 |
| 0.100 | 17.4 | 17.4 | 17.4 | 17.4 | 17.4 | 17.4 | 17.5 |
| 0.125 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 | 18.0 |
| 0.150 | 18.6 | 18.6 | 18.6 | 18.6 | 18.6 | 18.6 | 18.8 |
| 0.175 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | 19.0 | 19.3 |
| 0.200 | 19.5 | 19.4 | 19.4 | 19.3 | 19.4 | 19.4 | 19.8 |
| 0.225 | 19.9 | 19.8 | 19.8 | 19.8 | 19.8 | 19.8 | 20.0 |
| 0.250 | 20.2 | 20.2 | 20.1 | 20.1 | 20.2 | 20.1 | 20.5 |
| 0.275 | 20.5 | 20.5 | 20.5 | 20.4 | 20.5 | 20.4 | 20.9 |
| 0.300 | 20.8 | 20.8 | 20.7 | 20.6 | 20.8 | 20.7 | 21.3 |
| 0.325 | 21.1 | 21.0 | 21.0 | 20.9 | 21.1 | 21.0 | 21.6 |
| 0.350 | 21.3 | 21.3 | 21.2 | 21.1 | 21.3 | 21.2 | 21.9 |
| 0.375 | 21.6 | 21.5 | 21.5 | 21.4 | 21.6 | 21.4 | 22.2 |
| 0.400 | 21.8 | 21.7 | 21.7 | 21.6 | 21.8 | 21.7 | 22.5 |
| 0.425 | 22.0 | 22.0 | 21.9 | 21.8 | 22.0 | 21.9 | 22.8 |
| 0.450 | 22.2 | 22.2 | 22.1 | 22.0 | 22.2 | 22.1 | 23.0 |
| 0.475 | 22.5 | 22.4 | 22.3 | 22.2 | 22.5 | 22.3 | 23.4 |
| 0.500 | 22.7 | 22.6 | 22.5 | 22.3 | 22.7 | 22.5 | 23.6 |
| 0.525 | 23.0 | 22.9 | 22.8 | 22.9 | 22.9 | 22.7 | 23.9 |
| 0.550 | 23.2 | 23.1 | 23.0 | 22.7 | 23.1 | 23.0 | 24.2 |
| 0.575 | 23.4 | 23.3 | 23.1 | 22.8 | 23.4 | 23.1 | 24.5 |
| 0.600 | 23.7 | 23.5 | 23.4 | 23.0 | 23.6 | 23.4 | 24.9 |
| 0.625 | 23.9 | 23.7 | 23.5 | 23.1 | 23.8 | 23.6 | 25.1 |
| 0.650 | 24.1 | 24.0 | 23.7 | 23.3 | 24.0 | 23.8 | 25.5 |
| 0.675 | 24.4 | 24.1 | 23.9 | 23.4 | 24.2 | 24.0 | 25.7 |
| 0.700 | 24.6 | 24.3 | 24.0 | 23.5 | 24.5 | 24.2 | 26.0 |
| 0.725 | 24.8 | 24.5 | 24.1 | 23.5 | 24.7 | 24.4 | 26.3 |
| 0.750 | 25.1 | 24.6 | 24.2 | 23.5 | 24.9 | 24.5 | 26.6 |
| 0.775 | 25.3 | 24.8 | 24.3 | 23.6 | 25.0 | 24.7 | 26.8 |
| 0.800 | 25.5 | 24.9 | 24.4 | 23.6 | 25.2 | 24.9 | 27.1 |
| 0.825 | 25.8 | 25.0 | 24.4 | 23.7 | 25.4 | 25.0 | 27.4 |
| 0.850 | 26.0 | 25.1 | 24.5 | 23.7 | 25.6 | 25.2 | 27.7 |
| 0.875 | 26.2 | 25.2 | 24.5 | 23.7 | 25.7 | 25.3 | 27.9 |
| 0.900 | 26.3 | 25.2 | 24.5 | 23.7 | 25.9 | 25.4 | 28.2 |
| 0.925 | 26.4 | 25.2 | 24.4 | 23.6 | 26.0 | 25.5 | 28.4 |
| 0.950 | 26.6 | 25.2 | 24.4 | 23.6 | 26.1 | 25.6 | 28.6 |
| 0.975 | 26.7 | 25.3 | 24.4 | 23.6 | 26.2 | 25.7 | 28.9 |
| 1.000 | 26.9 | 25.3 | 24.4 | 23.6 | 26.3 | 25.8 | 29.1 |
| 1.100 | 27.1 | 25.2 | 24.3 | 23.5 | 26.6 | 26.0 | 29.9 |
| 1.200 | 27.2 | 25.0 | 24.2 | 23.5 | 26.9 | 26.3 | 30.7 |
| 1.300 | 27.4 | 24.9 | 24.1 | 23.4 | 27.1 | 26.5 | 31.4 |
| 1.400 | 27.7 | 24.7 | 23.9 | 23.3 | 27.4 | 26.6 | 32.2 |
| 1.500 | 28.0 | 24.6 | 23.8 | 23.3 | 27.6 | 26.9 | 32.6 |
| 1.600 | 28.3 | 24.5 | 23.7 | 23.2 | 28.0 | 27.1 | 33.4 |
| 1.700 | 28.8 | 24.2 | 23.5 | 23.1 | 28.2 | 27.3 | 33.6 |
| 1.800 | 29.3 | 24.0 | 23.4 | 23.0 | 28.5 | 27.5 | 34.2 |
| 1.900 | 29.7 | 23.9 | 23.4 | 23.0 | 28.8 | 27.8 | 34.5 |
| 2.000 | 30.4 | 23.9 | 23.4 | 23.0 | 29.1 | 27.9 | 34.8 |

TABLE 3b

| Z | C | B(Z) vs. Z. (H ₀ =100, g ₀ =0, T _g =9). | | | | | |
|-------|------|--|------|------|------|------|------|
| | | 0.70 | 0.60 | 0.50 | HB1 | HB2 | N.E. |
| 0.000 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| 0.025 | 14.0 | 14.0 | 14.0 | 14.0 | 14.0 | 14.0 | 14.0 |
| 0.050 | 15.6 | 15.6 | 15.6 | 15.6 | 15.6 | 15.6 | 15.7 |
| 0.075 | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 | 16.7 |
| 0.100 | 17.4 | 17.4 | 17.3 | 17.3 | 17.4 | 17.4 | 17.5 |
| 0.125 | 18.0 | 18.0 | 17.9 | 17.9 | 18.0 | 18.0 | 18.1 |
| 0.150 | 18.5 | 18.5 | 18.4 | 18.4 | 18.5 | 18.5 | 18.7 |
| 0.175 | 19.0 | 18.9 | 18.9 | 18.8 | 19.0 | 18.9 | 19.2 |
| 0.200 | 19.4 | 19.3 | 19.3 | 19.3 | 19.4 | 19.3 | 19.6 |
| 0.225 | 19.8 | 19.7 | 19.6 | 19.5 | 19.8 | 19.7 | 20.0 |
| 0.250 | 20.1 | 20.0 | 19.9 | 19.8 | 20.1 | 20.0 | 20.4 |
| 0.275 | 20.4 | 20.3 | 20.2 | 20.1 | 20.4 | 20.4 | 20.7 |
| 0.300 | 20.7 | 20.6 | 20.5 | 20.3 | 20.7 | 20.6 | 21.0 |
| 0.325 | 21.0 | 20.8 | 20.7 | 20.5 | 21.0 | 20.9 | 21.3 |
| 0.350 | 21.2 | 21.0 | 20.9 | 20.8 | 21.2 | 21.1 | 21.6 |
| 0.375 | 21.5 | 21.3 | 21.1 | 21.0 | 21.5 | 21.4 | 21.9 |
| 0.400 | 21.7 | 21.5 | 21.3 | 21.1 | 21.7 | 21.6 | 22.1 |
| 0.425 | 21.9 | 21.7 | 21.5 | 21.3 | 22.0 | 21.8 | 22.4 |
| 0.450 | 22.1 | 21.9 | 21.7 | 21.7 | 22.2 | 22.0 | 22.7 |
| 0.475 | 22.4 | 22.1 | 21.9 | 21.9 | 22.4 | 22.3 | 23.0 |
| 0.500 | 22.6 | 22.3 | 22.0 | 21.7 | 22.6 | 22.5 | 23.2 |
| 0.525 | 22.8 | 22.5 | 22.2 | 21.9 | 22.8 | 22.7 | 23.5 |
| 0.550 | 23.0 | 22.6 | 22.3 | 22.0 | 23.0 | 22.9 | 23.7 |
| 0.575 | 23.2 | 22.8 | 22.4 | 22.1 | 23.2 | 23.1 | 24.0 |
| 0.600 | 23.5 | 23.0 | 22.6 | 22.2 | 23.5 | 23.3 | 24.3 |
| 0.625 | 23.6 | 23.1 | 22.7 | 22.7 | 23.7 | 23.5 | 24.5 |
| 0.650 | 23.9 | 23.3 | 22.8 | 22.4 | 23.9 | 23.7 | 24.9 |
| 0.675 | 24.1 | 23.4 | 22.9 | 22.5 | 24.1 | 23.9 | 25.1 |
| 0.700 | 24.3 | 23.5 | 23.0 | 22.8 | 24.3 | 24.0 | 25.4 |
| 0.725 | 24.4 | 23.5 | 23.0 | 22.6 | 24.4 | 24.2 | 25.6 |
| 0.750 | 24.6 | 23.6 | 23.1 | 22.6 | 24.6 | 24.4 | 25.9 |
| 0.775 | 24.7 | 23.7 | 23.1 | 22.7 | 24.7 | 24.5 | 26.1 |
| 0.800 | 24.8 | 23.7 | 23.1 | 22.7 | 24.8 | 24.6 | 26.4 |
| 0.825 | 25.0 | 23.8 | 23.2 | 22.7 | 25.0 | 24.7 | 26.6 |
| 0.850 | 25.1 | 23.8 | 23.2 | 22.8 | 25.1 | 24.8 | 26.8 |
| 0.875 | 25.2 | 23.8 | 23.3 | 22.8 | 25.2 | 24.9 | 27.1 |
| 0.900 | 25.3 | 23.9 | 23.3 | 22.8 | 25.3 | 25.0 | 27.3 |
| 0.925 | 25.4 | 23.9 | 23.3 | 22.9 | 25.4 | 25.1 | 27.5 |
| 0.950 | 25.5 | 23.9 | 23.3 | 22.9 | 25.5 | 25.2 | 27.7 |
| 0.975 | 25.6 | 24.0 | 23.4 | 22.9 | 25.6 | 25.3 | 27.9 |
| 1.000 | 25.7 | 24.0 | 23.4 | 23.0 | 25.7 | 25.4 | 28.1 |
| 1.100 | 26.0 | 24.0 | 23.4 | 23.0 | 26.1 | 25.8 | 28.9 |
| 1.200 | 26.4 | 23.9 | 23.3 | 23.0 | 26.4 | 26.1 | 29.6 |
| 1.300 | 26.7 | 23.9 | 23.3 | 23.0 | 26.7 | 26.4 | 30.3 |
| 1.400 | 27.1 | 23.9 | 23.4 | 23.1 | 27.1 | 26.7 | 31.2 |
| 1.500 | 27.6 | 23.9 | 23.4 | 23.1 | 27.4 | 27.0 | 32.0 |
| 1.600 | 27.9 | 23.9 | 23.5 | 23.2 | 27.7 | 27.2 | 32.8 |
| 1.700 | 28.1 | 23.9 | 23.4 | 23.2 | 28.0 | 27.5 | 33.4 |
| 1.800 | 28.9 | 23.9 | 23.5 | 23.3 | 28.4 | 27.7 | 34.0 |
| 1.900 | 29.3 | 23.9 | 23.5 | 23.3 | 28.7 | 28.0 | 34.4 |
| 2.000 | 29.8 | 23.9 | 23.5 | 23.4 | 28.9 | 28.3 | 34.9 |

TABLE 4a

V(Z) vs. Z. (He=50, Ge=0, Tg=16).

| Z | C | 0.70 | 0.60 | 0.50 | HB1 | HB2 | N.E. |
|-------|------|------|------|------|------|------|------|
| 0.000 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| 0.025 | 12.9 | 12.9 | 12.9 | 12.9 | 12.9 | 12.9 | 12.9 |
| 0.050 | 14.5 | 14.5 | 14.4 | 14.4 | 14.5 | 14.5 | 14.5 |
| 0.075 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 | 15.4 |
| 0.100 | 16.1 | 16.1 | 16.1 | 16.1 | 16.0 | 16.0 | 16.0 |
| 0.125 | 16.4 | 16.4 | 16.4 | 16.4 | 16.4 | 16.4 | 16.4 |
| 0.150 | 17.1 | 17.1 | 17.0 | 17.1 | 17.0 | 17.2 | 17.2 |
| 0.175 | 17.5 | 17.5 | 17.4 | 17.5 | 17.4 | 17.7 | 17.7 |
| 0.200 | 17.8 | 17.8 | 17.8 | 17.9 | 17.8 | 18.1 | 18.1 |
| 0.225 | 18.2 | 18.2 | 18.2 | 18.1 | 18.2 | 18.4 | 18.4 |
| 0.250 | 18.5 | 18.5 | 18.5 | 18.5 | 18.4 | 18.6 | 18.6 |
| 0.275 | 18.8 | 18.8 | 18.7 | 18.8 | 18.7 | 19.1 | 19.1 |
| 0.300 | 19.1 | 19.1 | 19.1 | 19.0 | 19.1 | 19.5 | 19.5 |
| 0.325 | 19.4 | 19.4 | 19.4 | 19.3 | 19.4 | 19.8 | 19.8 |
| 0.350 | 19.7 | 19.7 | 19.7 | 19.6 | 19.7 | 20.1 | 20.1 |
| 0.375 | 20.0 | 20.0 | 19.9 | 19.9 | 20.0 | 20.4 | 20.4 |
| 0.400 | 20.2 | 20.2 | 20.2 | 20.1 | 20.2 | 20.7 | 20.7 |
| 0.425 | 20.5 | 20.4 | 20.4 | 20.3 | 20.5 | 21.0 | 21.0 |
| 0.450 | 20.7 | 20.7 | 20.6 | 20.5 | 20.7 | 21.3 | 21.3 |
| 0.475 | 20.9 | 20.9 | 20.8 | 20.7 | 20.9 | 21.5 | 21.5 |
| 0.500 | 21.1 | 21.0 | 21.0 | 20.9 | 21.1 | 21.8 | 21.8 |
| 0.525 | 21.3 | 21.2 | 21.2 | 21.1 | 21.3 | 22.0 | 22.0 |
| 0.550 | 21.4 | 21.4 | 21.3 | 21.2 | 21.5 | 22.3 | 22.3 |
| 0.575 | 21.6 | 21.5 | 21.5 | 21.4 | 21.6 | 22.4 | 22.4 |
| 0.600 | 21.8 | 21.7 | 21.6 | 21.5 | 21.8 | 22.6 | 22.6 |
| 0.625 | 21.9 | 21.9 | 21.8 | 21.6 | 21.9 | 22.8 | 22.8 |
| 0.650 | 22.1 | 22.0 | 21.9 | 21.8 | 22.1 | 23.0 | 23.0 |
| 0.675 | 22.2 | 22.2 | 22.1 | 21.9 | 22.3 | 23.2 | 23.2 |
| 0.700 | 22.4 | 22.3 | 22.2 | 22.0 | 22.4 | 23.4 | 23.4 |
| 0.725 | 22.5 | 22.5 | 22.3 | 22.1 | 22.6 | 23.6 | 23.6 |
| 0.750 | 22.7 | 22.6 | 22.6 | 22.5 | 22.7 | 23.8 | 23.8 |
| 0.775 | 22.9 | 22.7 | 22.6 | 22.3 | 22.9 | 24.0 | 24.0 |
| 0.800 | 23.1 | 22.9 | 22.7 | 22.4 | 23.1 | 24.3 | 24.3 |
| 0.825 | 23.3 | 23.1 | 22.9 | 22.5 | 23.3 | 24.5 | 24.5 |
| 0.850 | 23.4 | 23.2 | 23.0 | 22.7 | 23.4 | 24.7 | 24.7 |
| 0.875 | 23.6 | 23.4 | 23.2 | 22.7 | 23.6 | 24.9 | 24.9 |
| 0.900 | 23.8 | 23.5 | 23.3 | 22.8 | 23.5 | 25.2 | 25.2 |
| 0.925 | 23.9 | 23.6 | 23.3 | 22.9 | 23.7 | 25.4 | 25.4 |
| 0.950 | 24.1 | 23.7 | 23.4 | 22.9 | 24.1 | 25.6 | 25.6 |
| 0.975 | 24.2 | 23.8 | 23.5 | 23.0 | 24.2 | 25.9 | 25.9 |
| 1.000 | 24.3 | 24.0 | 23.6 | 23.1 | 24.4 | 26.1 | 26.1 |
| 1.100 | 25.0 | 24.3 | 23.8 | 23.2 | 25.0 | 26.6 | 27.0 |
| 1.200 | 25.3 | 24.4 | 23.9 | 23.4 | 25.5 | 27.4 | 27.4 |
| 1.300 | 25.8 | 24.5 | 24.0 | 23.6 | 25.6 | 28.7 | 28.7 |
| 1.400 | 25.9 | 24.4 | 23.7 | 23.1 | 25.6 | 29.4 | 29.4 |
| 1.500 | 26.1 | 24.4 | 23.7 | 23.1 | 25.7 | 30.0 | 30.0 |
| 1.600 | 26.3 | 24.3 | 23.8 | 23.1 | 26.4 | 31.3 | 31.3 |
| 1.700 | 26.5 | 24.0 | 23.6 | 23.0 | 26.1 | 31.3 | 31.3 |
| 1.800 | 26.7 | 23.9 | 23.4 | 22.9 | 26.8 | 32.0 | 32.0 |
| 1.900 | 26.9 | 23.8 | 23.3 | 22.9 | 27.0 | 32.6 | 32.6 |
| 2.000 | 27.0 | 23.7 | 23.2 | 22.9 | 27.1 | 33.1 | 33.1 |

TABLE 5a

V-CORR (Z) vs. Z. (He=50, Ge=0, Tg=16).

| Z | C | 0.70 | 0.60 | 0.50 | HB1 | HB2 | N.E. |
|-------|------|------|------|------|------|------|------|
| 0.000 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| 0.025 | 12.9 | 12.9 | 12.9 | 12.9 | 12.9 | 12.9 | 12.9 |
| 0.050 | 14.4 | 14.4 | 14.4 | 14.4 | 14.4 | 14.4 | 14.4 |
| 0.075 | 15.3 | 15.3 | 15.3 | 15.3 | 15.3 | 15.3 | 15.3 |
| 0.100 | 15.9 | 15.9 | 15.9 | 15.9 | 15.9 | 15.9 | 15.9 |
| 0.125 | 16.4 | 16.4 | 16.4 | 16.4 | 16.4 | 16.4 | 16.4 |
| 0.150 | 16.8 | 16.8 | 16.8 | 16.8 | 16.8 | 16.8 | 16.8 |
| 0.175 | 17.1 | 17.1 | 17.1 | 17.1 | 17.2 | 17.1 | 17.3 |
| 0.200 | 17.4 | 17.4 | 17.4 | 17.4 | 17.3 | 17.5 | 17.6 |
| 0.225 | 17.7 | 17.6 | 17.6 | 17.6 | 17.7 | 17.7 | 17.9 |
| 0.250 | 17.9 | 17.9 | 17.8 | 17.8 | 18.0 | 18.0 | 18.1 |
| 0.275 | 18.1 | 18.0 | 18.0 | 18.0 | 18.2 | 18.1 | 18.4 |
| 0.300 | 18.3 | 18.2 | 18.2 | 18.2 | 18.3 | 18.3 | 18.6 |
| 0.325 | 18.4 | 18.4 | 18.3 | 18.3 | 18.5 | 18.5 | 18.8 |
| 0.350 | 18.6 | 18.5 | 18.4 | 18.4 | 18.7 | 18.6 | 19.0 |
| 0.375 | 18.7 | 18.6 | 18.6 | 18.5 | 18.9 | 18.8 | 19.1 |
| 0.400 | 18.8 | 18.8 | 18.7 | 18.7 | 18.6 | 18.9 | 19.3 |
| 0.425 | 19.0 | 18.9 | 18.8 | 18.7 | 18.7 | 19.1 | 19.4 |
| 0.450 | 19.1 | 19.0 | 18.9 | 18.9 | 19.3 | 19.1 | 19.6 |
| 0.475 | 19.2 | 19.1 | 19.0 | 18.9 | 19.4 | 19.3 | 19.7 |
| 0.500 | 19.3 | 19.2 | 19.1 | 19.1 | 19.5 | 19.4 | 19.9 |
| 0.525 | 19.4 | 19.3 | 19.2 | 19.2 | 19.6 | 19.5 | 20.0 |
| 0.550 | 19.5 | 19.3 | 19.2 | 19.2 | 19.6 | 19.5 | 20.0 |
| 0.575 | 19.6 | 19.3 | 19.3 | 19.2 | 19.6 | 19.5 | 20.1 |
| 0.600 | 19.7 | 19.3 | 19.3 | 19.3 | 19.7 | 19.5 | 20.2 |
| 0.625 | 19.8 | 19.3 | 19.3 | 19.3 | 19.7 | 19.6 | 20.3 |
| 0.650 | 19.8 | 19.6 | 19.5 | 19.5 | 19.8 | 19.6 | 20.6 |
| 0.675 | 19.9 | 19.7 | 19.7 | 19.6 | 19.9 | 19.7 | 20.7 |
| 0.700 | 20.0 | 19.9 | 19.7 | 19.7 | 20.1 | 19.9 | 20.8 |
| 0.725 | 20.0 | 19.8 | 19.6 | 19.6 | 20.1 | 19.8 | 20.9 |
| 0.750 | 19.8 | 19.8 | 19.6 | 19.6 | 19.9 | 19.7 | 20.0 |
| 0.775 | 19.7 | 19.7 | 19.7 | 19.7 | 19.8 | 19.7 | 20.1 |
| 0.800 | 19.6 | 19.7 | 19.7 | 19.7 | 19.8 | 19.7 | 20.2 |
| 0.825 | 19.5 | 19.7 | 19.7 | 19.7 | 19.9 | 19.7 | 20.3 |
| 0.850 | 19.4 | 19.7 | 19.7 | 19.7 | 19.9 | 19.7 | 20.4 |
| 0.875 | 19.3 | 19.7 | 19.7 | 19.7 | 19.9 | 19.7 | 20.5 |
| 0.900 | 19.2 | 19.7 | 19.7 | 19.7 | 19.9 | 19.7 | 20.6 |
| 0.925 | 19.1 | 19.7 | 19.7 | 19.7 | 19.9 | 19.7 | 20.7 |
| 0.950 | 19.0 | 19.7 | 19.7 | 19.7 | 19.9 | 19.7 | 20.8 |
| 0.975 | 19.0 | 19.7 | 19.7 | 19.7 | 19.9 | 19.7 | 20.9 |
| 1.000 | 19.0 | 19.7 | 19.7 | 19.7 | 19.9 | 19.7 | 21.0 |
| 1.100 | 19.0 | 19.7 | 19.7 | 19.7 | 19.9 | 19.7 | 21.1 |
| 1.200 | 19.0 | 19.7 | 19.7 | 19.7 | 19.9 | 19.7 | 21.2 |
| 1.300 | 19.0 | 19.7 | 19.7 | 19.7 | 19.9 | 19.7 | 21.3 |
| 1.400 | 19.0 | 19.7 | 19.7 | 19.7 | 19.9 | 19.7 | 21.4 |
| 1.500 | 19.0 | 19.7 | 19.7 | 19.7 | 19.9 | 19.7 | 21.5 |
| 1.600 | 19.0 | 19.7 | 19.7 | 19.7 | 19.9 | 19.7 | 21.6 |
| 1.700 | 19.0 | 19.7 | 19.7 | 19.7 | 19.9 | 19.7 | 21.7 |
| 1.800 | 19.0 | 19.7 | 19.7 | 19.7 | 19.9 | 19.7 | 21.8 |
| 1.900 | 19.0 | 19.7 | 19.7 | 19.7 | 19.9 | 19.7 | 21.9 |
| 2.000 | 19.0 | 19.7 | 19.7 | 19.7 | 19.9 | 19.7 | 22.0 |

TABLE 5b

V-CORR (Z) vs. Z. (He=100, Ge=0, Tg=7).

| Z | C | 0.70 | 0.60 | 0.50 | HB1 | HB2 | N.E. |
|-------|------|------|------|------|------|------|------|
| 0.000 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| 0.025 | 12.9 | 12.9 | 12.9 | 12.9 | 12.9 | 12.9 | 12.9 |
| 0.050 | 14.4 | 14.4 | 14.4 | 14.4 | 14.4 | 14.4 | 14.4 |
| 0.075 | 15.3 | 15.3 | 15.3 | 15.3 | 15.3 | 15.3 | 15.3 |
| 0.100 | 15.9 | 15.9 | 15.9 | 15.9 | 15.9 | 15.9 | 15.9 |
| 0.125 | 16.4 | 16.4 | 16.4 | 16.4 | 16.4 | 16.4 | 16.4 |
| 0.150 | 16.8 | 16.8 | 16.8 | 16.8 | 16.8 | 16.8 | 16.8 |
| 0.175 | 17.1 | 17.1 | 17.1 | 17.1 | 17.2 | 17.1 | 17.3 |
| 0.200 | 17.4 | 17.4 | 17.4 | 17.4 | 17.3 | 17.5 | 17.6 |
| 0.225 | 17.7 | 17.6 | 17.6 | 17.6 | 17.7 | 17.7 | 17.9 |
| 0.250 | 17.9 | 17.8 | 17.8 | 17.8 | 18.0 | 18.0 | 18.1 |
| 0.275 | 18.1 | 18.0 | 18.0 | 18.0 | 18.2 | 18.1 | 18.4 |
| 0.300 | 18.3 | 18.2 | 18.2 | 18.2 | 18.3 | 18.3 | 18.6 |
| 0.325 | 18.4 | 18.4 | 18.3 | 18.3 | 18.5 | 18.5 | 18.8 |
| 0.350 | 18.6 | 18.5 | 18.4 | 18.4 | 18.7 | 18.6 | 19.0 |
| 0.375 | 18.7 | 18.6 | 18.6 | 18.5 | 18.9 | 18.8 | 19.1 |
| 0.400 | 18.8 | 18.8 | 18.7 | 18.6 | 19.0 | 18.9 | 19.3 |
| 0.425 | 19.0 | 18.9 | 18.8 | 18.7 | 19.1 | 19.0 | 19.4 |
| 0.450 | 19.1 | 19.0 | 18.9 | 18.8 | 19.3 | 19.1 | 19.7 |
| 0.475 | 19.2 | 19.1 | 19.0 | 18.9 | 19.4 | 19.3 | 19.7 |
| 0.500 | 19.3 | 19.2 | 19.1 | 19.1 | 19.5 | 19.4 | 19.9 |
| 0.525 | 19.4 | 19.3 | 19.2 | 19.2 | 19.6 | 19.5 | 20.0 |
| 0.550 | 19.5 | 19.3 | 19.2 | 19.2 | 19.7 | 19.6 | 20.1 |
| 0.575 | 19.6 | 19.4 | 19.3 | 19.3 | 19.8 | 19.6 | 20.2 |
| 0.600 | 19.7 | 19.5 | 19.4 | 19.4 | 20.0 | 19.9 | 20.3 |
| 0.625 | 19.8 | 19.6 | 19.5 | 19.4 | 20.0 | 19.8 | 20.6 |
| 0.650 | 19.8 | 19.6 | 19.5 | 19.5 | 20.1 | 19.9 | 20.7 |
| 0.675 | 19.9 | 19.7 | 19.6 | 19.6 | 20.1 | 20.0 | 2 |

SPECTRAL EVOLUTION OF GALAXIES

TABLE 6a

F(Z) vs. Z. (H₀=50, G₀=0, T_g=16).

| Z | C | 0.70 | 0.60 | 0.50 | HB1 | HB2 | N.E. |
|-------|------|------|------|------|------|------|------|
| 0.000 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 0.025 | 12.1 | 12.1 | 12.1 | 12.1 | 12.1 | 12.1 | 12.1 |
| 0.050 | 13.6 | 13.6 | 13.6 | 13.6 | 13.7 | 13.6 | 13.7 |
| 0.075 | 14.6 | 14.6 | 14.6 | 14.6 | 14.6 | 14.6 | 14.6 |
| 0.100 | 15.2 | 15.2 | 15.2 | 15.2 | 15.2 | 15.2 | 15.3 |
| 0.125 | 15.8 | 15.8 | 15.7 | 15.7 | 15.8 | 15.7 | 15.9 |
| 0.150 | 16.2 | 16.2 | 16.2 | 16.2 | 16.2 | 16.2 | 16.4 |
| 0.175 | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 | 16.6 | 16.8 |
| 0.200 | 16.9 | 16.9 | 16.9 | 16.9 | 16.9 | 17.1 | 17.1 |
| 0.225 | 17.2 | 17.2 | 17.2 | 17.2 | 17.3 | 17.2 | 17.5 |
| 0.250 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 | 17.8 |
| 0.275 | 17.8 | 17.8 | 17.8 | 17.7 | 17.8 | 17.7 | 18.1 |
| 0.300 | 18.1 | 18.0 | 18.0 | 18.0 | 18.1 | 18.0 | 18.4 |
| 0.325 | 18.3 | 18.3 | 18.3 | 18.2 | 18.3 | 18.2 | 18.6 |
| 0.350 | 18.5 | 18.5 | 18.5 | 18.4 | 18.5 | 18.5 | 18.9 |
| 0.375 | 18.7 | 18.7 | 18.7 | 18.6 | 18.7 | 18.7 | 19.1 |
| 0.400 | 18.9 | 18.9 | 18.9 | 18.8 | 18.9 | 18.8 | 19.3 |
| 0.425 | 19.1 | 19.1 | 19.1 | 19.0 | 19.1 | 19.0 | 19.6 |
| 0.450 | 19.3 | 19.3 | 19.3 | 19.2 | 19.3 | 19.2 | 19.8 |
| 0.475 | 19.5 | 19.5 | 19.4 | 19.4 | 19.5 | 19.4 | 20.0 |
| 0.500 | 19.7 | 19.7 | 19.6 | 19.6 | 19.7 | 19.6 | 20.2 |
| 0.525 | 19.9 | 19.9 | 19.8 | 19.7 | 19.9 | 19.8 | 20.5 |
| 0.550 | 20.1 | 20.1 | 20.0 | 19.9 | 20.1 | 20.0 | 20.7 |
| 0.575 | 20.3 | 20.3 | 20.2 | 20.1 | 20.3 | 20.2 | 21.0 |
| 0.600 | 20.5 | 20.4 | 20.4 | 20.3 | 20.5 | 20.3 | 21.2 |
| 0.625 | 20.6 | 20.6 | 20.5 | 20.4 | 20.7 | 20.5 | 21.4 |
| 0.650 | 20.8 | 20.8 | 20.7 | 20.5 | 20.8 | 20.7 | 21.6 |
| 0.675 | 21.0 | 20.9 | 20.8 | 20.7 | 21.0 | 20.9 | 21.8 |
| 0.700 | 21.1 | 21.1 | 21.0 | 20.8 | 21.2 | 21.0 | 22.0 |
| 0.725 | 21.3 | 21.3 | 21.2 | 21.0 | 21.4 | 21.3 | 22.3 |
| 0.750 | 21.5 | 21.4 | 21.3 | 21.1 | 21.6 | 21.4 | 22.5 |
| 0.775 | 21.7 | 21.6 | 21.5 | 21.3 | 21.8 | 21.6 | 22.7 |
| 0.800 | 21.8 | 21.7 | 21.6 | 21.4 | 21.9 | 21.7 | 22.9 |
| 0.825 | 22.0 | 21.8 | 21.7 | 21.5 | 22.0 | 21.8 | 23.0 |
| 0.850 | 22.1 | 21.9 | 21.8 | 21.6 | 22.1 | 21.9 | 23.1 |
| 0.875 | 22.2 | 22.1 | 21.9 | 21.7 | 22.3 | 22.0 | 23.3 |
| 0.900 | 22.3 | 22.2 | 22.0 | 21.7 | 22.4 | 22.2 | 23.5 |
| 0.925 | 22.4 | 22.3 | 22.1 | 21.8 | 22.5 | 22.3 | 23.7 |
| 0.950 | 22.5 | 22.4 | 22.2 | 21.9 | 22.6 | 22.4 | 23.8 |
| 0.975 | 22.7 | 22.5 | 22.2 | 21.9 | 22.7 | 22.5 | 24.0 |
| 1.000 | 22.8 | 22.6 | 22.3 | 22.0 | 22.9 | 22.6 | 24.1 |
| 1.100 | 23.2 | 23.2 | 22.6 | 22.2 | 23.3 | 23.0 | 24.6 |
| 1.200 | 23.7 | 22.2 | 22.8 | 22.4 | 23.8 | 23.5 | 25.6 |
| 1.300 | 24.1 | 23.5 | 23.0 | 22.9 | 24.2 | 23.9 | 26.3 |
| 1.400 | 24.3 | 23.6 | 23.0 | 22.6 | 24.6 | 24.3 | 27.1 |
| 1.500 | 24.9 | 23.6 | 23.1 | 22.6 | 25.0 | 24.6 | 28.0 |
| 1.600 | 25.1 | 23.6 | 23.2 | 22.6 | 25.2 | 24.6 | 28.6 |
| 1.700 | 25.4 | 23.9 | 22.9 | 22.6 | 25.6 | 24.9 | 29.5 |
| 1.800 | 25.6 | 23.4 | 22.8 | 22.5 | 25.8 | 25.0 | 30.0 |
| 1.900 | 25.7 | 23.3 | 22.8 | 22.5 | 25.9 | 25.7 | 30.6 |
| 2.000 | 25.7 | 23.2 | 22.7 | 22.5 | 25.9 | 25.6 | 30.9 |

TABLE 6b

F(Z) vs. Z. (H₀=100, G₀=0, T_g=9).

| Z | C | 0.70 | 0.60 | 0.50 | HB1 | HB2 | N.E. |
|-------|------|------|------|------|------|------|------|
| 0.000 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| 0.025 | 12.1 | 12.1 | 12.1 | 12.1 | 12.1 | 12.1 | 12.1 |
| 0.050 | 13.6 | 13.6 | 13.6 | 13.6 | 13.6 | 13.7 | 13.7 |
| 0.075 | 14.6 | 14.6 | 14.5 | 14.6 | 14.6 | 14.6 | 14.6 |
| 0.100 | 15.2 | 15.2 | 15.2 | 15.2 | 15.2 | 15.3 | 15.3 |
| 0.125 | 15.7 | 15.7 | 15.7 | 15.8 | 15.7 | 15.9 | 15.9 |
| 0.150 | 16.2 | 16.2 | 16.1 | 16.2 | 16.2 | 16.3 | 16.3 |
| 0.175 | 16.6 | 16.5 | 16.5 | 16.6 | 16.5 | 16.7 | 16.7 |
| 0.200 | 16.9 | 16.9 | 16.9 | 16.8 | 16.9 | 17.1 | 17.1 |
| 0.225 | 17.2 | 17.2 | 17.1 | 17.2 | 17.2 | 17.4 | 17.4 |
| 0.250 | 17.5 | 17.4 | 17.4 | 17.5 | 17.5 | 17.7 | 17.7 |
| 0.275 | 17.8 | 17.7 | 17.7 | 17.8 | 17.8 | 17.9 | 17.9 |
| 0.300 | 18.0 | 17.9 | 17.9 | 18.0 | 18.0 | 18.3 | 18.3 |
| 0.325 | 18.1 | 18.1 | 18.1 | 18.3 | 18.2 | 18.6 | 18.6 |
| 0.350 | 18.5 | 18.4 | 18.4 | 18.3 | 18.5 | 18.4 | 18.8 |
| 0.375 | 18.7 | 18.6 | 18.5 | 18.7 | 18.6 | 19.0 | 19.0 |
| 0.400 | 18.9 | 18.8 | 18.7 | 18.7 | 18.9 | 18.8 | 19.2 |
| 0.425 | 19.1 | 19.0 | 18.9 | 19.1 | 19.0 | 19.5 | 19.5 |
| 0.450 | 19.2 | 19.2 | 19.1 | 19.0 | 19.3 | 19.2 | 19.7 |
| 0.475 | 19.4 | 19.3 | 19.2 | 19.3 | 19.4 | 19.9 | 19.9 |
| 0.500 | 19.6 | 19.5 | 19.4 | 19.3 | 19.7 | 19.6 | 20.1 |
| 0.525 | 19.8 | 19.7 | 19.6 | 19.5 | 19.7 | 20.3 | 20.3 |
| 0.550 | 20.0 | 19.9 | 19.8 | 19.6 | 20.0 | 19.9 | 20.6 |
| 0.575 | 20.2 | 20.0 | 19.9 | 19.8 | 20.2 | 20.1 | 20.8 |
| 0.600 | 20.3 | 20.2 | 20.1 | 20.1 | 20.4 | 20.3 | 21.0 |
| 0.625 | 20.5 | 20.3 | 20.2 | 20.1 | 20.6 | 20.4 | 21.2 |
| 0.675 | 20.8 | 20.7 | 20.5 | 20.4 | 20.9 | 20.8 | 21.6 |
| 0.700 | 21.0 | 20.9 | 20.8 | 20.6 | 21.2 | 21.1 | 22.0 |
| 0.725 | 21.1 | 21.1 | 20.9 | 20.8 | 21.4 | 21.2 | 22.2 |
| 0.775 | 21.5 | 21.2 | 21.1 | 20.9 | 21.6 | 21.4 | 22.4 |
| 0.800 | 21.6 | 21.3 | 21.2 | 21.0 | 21.7 | 21.5 | 22.3 |
| 0.825 | 21.7 | 21.5 | 21.3 | 21.1 | 21.8 | 21.6 | 22.7 |
| 0.850 | 21.8 | 21.6 | 21.4 | 21.2 | 21.9 | 21.8 | 22.8 |
| 0.875 | 21.9 | 21.7 | 21.5 | 21.3 | 22.1 | 21.9 | 23.0 |
| 0.900 | 22.1 | 21.8 | 21.6 | 21.4 | 22.2 | 21.9 | 23.1 |
| 0.925 | 22.2 | 21.9 | 21.6 | 21.4 | 22.3 | 22.0 | 23.3 |
| 0.950 | 22.3 | 22.0 | 21.7 | 21.5 | 22.4 | 22.2 | 23.4 |
| 0.975 | 22.4 | 22.0 | 21.8 | 21.6 | 22.5 | 22.3 | 23.5 |
| 1.000 | 22.5 | 22.1 | 21.9 | 21.6 | 22.7 | 22.5 | 23.7 |
| 1.100 | 23.0 | 22.4 | 22.1 | 21.9 | 23.1 | 22.9 | 24.3 |
| 1.200 | 23.4 | 22.6 | 22.3 | 22.0 | 23.5 | 23.4 | 25.0 |
| 1.300 | 23.9 | 22.8 | 22.4 | 22.2 | 24.0 | 23.8 | 25.6 |
| 1.400 | 24.3 | 23.0 | 22.6 | 22.3 | 24.3 | 24.2 | 26.4 |
| 1.500 | 24.7 | 23.1 | 22.7 | 22.4 | 24.9 | 24.7 | 27.1 |
| 1.600 | 25.0 | 23.1 | 22.7 | 22.5 | 25.1 | 24.9 | 27.6 |
| 1.700 | 25.3 | 23.2 | 22.8 | 22.6 | 25.5 | 25.2 | 28.5 |
| 1.800 | 25.5 | 23.2 | 22.8 | 22.6 | 25.6 | 25.4 | 28.9 |
| 1.900 | 25.6 | 23.2 | 22.8 | 22.6 | 25.8 | 25.6 | 29.5 |
| 2.000 | 25.6 | 23.2 | 22.8 | 22.7 | 25.8 | 25.6 | 29.8 |

TABLE 7a

K(Z) vs. Z. (H₀=50, G₀=0, T_g=16).

| Z | C | 0.70 | 0.60 | 0.50 | HB1 | HB2 | N.E. |
|-------|------|------|------|------|------|------|------|
| 0.000 | -1.3 | -1.3 | -1.3 | -1.3 | -1.3 | -1.3 | -1.3 |
| 0.025 | 9.5 | 9.5 | 9.5 | 9.5 | 9.5 | 9.5 | 9.6 |
| 0.050 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 |
| 0.075 | 11.8 | 11.8 | 11.8 | 11.8 | 11.8 | 11.8 | 11.9 |
| 0.100 | 12.4 | 12.4 | 12.4 | 12.4 | 12.4 | 12.4 | 12.5 |
| 0.125 | 12.9 | 12.9 | 12.8 | 12.8 | 12.9 | 12.9 | 12.9 |
| 0.150 | 13.2 | 13.2 | 13.2 | 13.2 | 13.2 | 13.2 | 13.3 |
| 0.175 | 13.5 | 13.5 | 13.5 | 13.5 | 13.6 | 13.6 | 13.6 |
| 0.200 | 13.8 | 13.8 | 13.8 | 13.8 | 13.8 | 13.8 | 13.9 |
| 0.225 | 14.0 | 14.0 | 14.0 | 14.0 | 14.1 | 14.0 | 14.2 |
| 0.250 | 14.2 | 14.2 | 14.2 | 14.2 | 14.3 | 14.2 | 14.4 |
| 0.275 | 14.4 | 14.4 | 14.4 | 14.4 | 14.5 | 14.4 | 14.6 |
| 0.300 | 14.6 | 14.6 | 14.6 | 14.6 | 14.6 | 14.6 | 14.6 |
| 0.325 | 14.7 | 14.7 | 14.7 | 14.7 | 14.8 | 14.7 | 15.0 |
| 0.350 | 14.9 | 14.9 | 14.9 | 14.9 | 15.0 | 14.9 | 15.1 |
| 0.375 | 15.0 | 15.0 | 15.0 | 15.0 | 15.1 | 15.0 | 15.3 |
| 0.400 | 15.2 | 15.2 | 15.1 | 15.1 | 15.3 | 15.2 | 15.5 |
| 0.425 | 15.3 | 15.3 | 15.3 | 15.3 | 15.4 | 15.3 | 15.6 |
| 0.450 | 15.4 | 15.4 | 15.4 | 15.4 | 15.5 | 15.4 | 15.8 |
| 0.475 | 15.5 | 15.5 | 15.5 | 15.5 | 15.6 | 15.5 | 15.9 |
| 0.500 | 15.6 | 15.6 | 15.6 | 15.6 | 15.7 | 15.6 | 16.0 |
| 0.525 | 15.8 | 15.7 | 15.7 | 15.7 | 15.9 | 15.8 | 16.1 |
| 0.550 | 15.9 | 15.8 | 15.8 | 15.8 | 15.9 | 15.8 | 16.3 |
| 0.575 | 16.0 | 15.9 | 15.9 | 15.9 | 16.0 | 15.9 | 16.4 |
| 0.600 | 16.1 | 16.0 | 16.0 | 16.0 | 16.2 | 16.0 | 16.5 |
| 0.625 | 16.3 | 16.2 | 16.2 | 16.2 | 16.4 | 16.2 | 16.7 |
| 0.675 | 16.3 | 16.3 | 16.3 | 16.3 | 16.5 | 16.3 | 16.8 |
| 0.700 | 16.4 | 16.4 | 16.4 | 16.4 | 16.5 | 16.4 | 16.9 |
| 0.725 | 16.5 | 16.5 | 16.5 | 16.5 | 16.6 | 16.5 | 17.0 |
| 0.750 | 16.6 | 16.6 | | | | | |

TABLE 8a

U-B vs. Z. (He=50, Ge=0, Tg=16).

| Z | C | 0.70 | 0.60 | 0.50 | HB1 | HB2 | N.E. |
|-------|------|-------|-------|-------|-------|-------|-------|
| 0.000 | 0.73 | 0.71 | 0.70 | 0.69 | 0.56 | 0.56 | 0.73 |
| 0.025 | 0.70 | 0.68 | 0.67 | 0.66 | 0.55 | 0.55 | 0.71 |
| 0.050 | 0.68 | 0.66 | 0.65 | 0.63 | 0.54 | 0.54 | 0.70 |
| 0.075 | 0.66 | 0.63 | 0.62 | 0.60 | 0.52 | 0.51 | 0.69 |
| 0.100 | 0.61 | 0.59 | 0.57 | 0.55 | 0.48 | 0.47 | 0.66 |
| 0.125 | 0.58 | 0.55 | 0.54 | 0.51 | 0.45 | 0.44 | 0.64 |
| 0.150 | 0.56 | 0.52 | 0.50 | 0.48 | 0.41 | 0.40 | 0.64 |
| 0.175 | 0.56 | 0.54 | 0.54 | 0.51 | 0.44 | 0.43 | 0.70 |
| 0.200 | 0.64 | 0.59 | 0.56 | 0.52 | 0.49 | 0.43 | 0.76 |
| 0.225 | 0.74 | 0.68 | 0.65 | 0.60 | 0.51 | 0.49 | 0.88 |
| 0.250 | 0.79 | 0.72 | 0.69 | 0.62 | 0.55 | 0.52 | 0.95 |
| 0.275 | 0.87 | 0.78 | 0.75 | 0.66 | 0.60 | 0.56 | 1.08 |
| 0.300 | 0.97 | 0.86 | 0.82 | 0.71 | 0.67 | 0.63 | 1.20 |
| 0.325 | 1.03 | 0.90 | 0.85 | 0.72 | 0.71 | 0.67 | 1.28 |
| 0.350 | 1.24 | 1.11 | 1.06 | 0.87 | 0.87 | 0.82 | 1.57 |
| 0.375 | 1.25 | 1.07 | 0.99 | 0.79 | 0.86 | 0.81 | 1.57 |
| 0.400 | 1.38 | 1.16 | 1.04 | 0.80 | 0.93 | 0.84 | 1.74 |
| 0.425 | 1.21 | 1.13 | 1.08 | 0.80 | 1.00 | 0.92 | 1.87 |
| 0.450 | 1.39 | 1.29 | 1.13 | 0.75 | 1.03 | 0.94 | 1.97 |
| 0.475 | 1.60 | 1.23 | 1.06 | 0.64 | 1.02 | 0.92 | 2.02 |
| 0.500 | 1.76 | 1.32 | 1.07 | 0.59 | 1.07 | 0.95 | 2.15 |
| 0.525 | 1.75 | 1.26 | 0.97 | 0.46 | 1.03 | 0.90 | 2.20 |
| 0.550 | 1.76 | 1.20 | 0.88 | 0.36 | 0.99 | 0.85 | 2.21 |
| 0.575 | 1.74 | 1.11 | 0.79 | 0.22 | 0.92 | 0.78 | 2.22 |
| 0.600 | 1.65 | 0.96 | 0.57 | 0.06 | 0.82 | 0.67 | 2.12 |
| 0.625 | 1.57 | 0.84 | 0.43 | -0.04 | 0.74 | 0.59 | 2.07 |
| 0.650 | 1.46 | 0.68 | 0.26 | -0.20 | 0.62 | 0.46 | 1.96 |
| 0.675 | 1.42 | 0.57 | 0.14 | -0.29 | 0.55 | 0.39 | 1.93 |
| 0.700 | 2.29 | 0.41 | -0.01 | -0.39 | 0.44 | 0.29 | 1.81 |
| 0.725 | 1.28 | 0.29 | -0.13 | -0.47 | 0.39 | 0.23 | 1.77 |
| 0.750 | 1.29 | 0.16 | -0.25 | -0.55 | 0.32 | 0.15 | 1.75 |
| 0.775 | 1.42 | 0.11 | -0.31 | -0.60 | 0.32 | 0.14 | 1.80 |
| 0.800 | 1.43 | -0.01 | -0.41 | -0.66 | 0.26 | 0.08 | 1.78 |
| 0.825 | 1.48 | -0.12 | -0.49 | -0.70 | 0.20 | 0.03 | 1.79 |
| 0.850 | 1.61 | -0.18 | -0.54 | -0.74 | 0.18 | 0.00 | 1.86 |
| 0.875 | 1.37 | -0.29 | -0.61 | -0.78 | 0.14 | -0.04 | 1.89 |
| 0.900 | 1.62 | -0.35 | -0.63 | -0.80 | 0.12 | -0.06 | 1.93 |
| 0.925 | 1.42 | -0.42 | -0.69 | -0.83 | 0.10 | -0.09 | 1.99 |
| 0.950 | 1.60 | -0.47 | -0.73 | -0.85 | 0.06 | -0.12 | 2.01 |
| 0.975 | 1.57 | -0.52 | -0.75 | -0.86 | 0.03 | -0.16 | 1.99 |
| 1.000 | 1.52 | -0.56 | -0.78 | -0.88 | -0.01 | -0.19 | 1.92 |
| 1.100 | 1.26 | -0.67 | -0.83 | -0.90 | -0.05 | -0.24 | 1.71 |
| 1.200 | 1.43 | -0.71 | -0.84 | -0.89 | 0.01 | -0.23 | 1.50 |
| 1.300 | 2.19 | -0.74 | -0.83 | -0.88 | 0.08 | -0.23 | 1.26 |
| 1.400 | 3.25 | -0.79 | -0.85 | -0.88 | 0.10 | -0.26 | 0.90 |
| 1.500 | 3.61 | -0.81 | -0.85 | -0.88 | 0.04 | -0.31 | 0.54 |
| 1.600 | 3.61 | -0.80 | -0.82 | -0.84 | 0.02 | -0.30 | 0.26 |
| 1.700 | 3.75 | -0.76 | -0.78 | -0.79 | 0.07 | -0.22 | 0.10 |
| 1.800 | 3.76 | -0.72 | -0.73 | -0.74 | 0.09 | -0.14 | 0.00 |
| 1.900 | 3.68 | -0.68 | -0.69 | -0.70 | 0.13 | -0.04 | -0.06 |
| 2.000 | 3.46 | -0.64 | -0.65 | -0.66 | 0.21 | 0.07 | -0.11 |

TABLE 8b

U-B vs. Z. (He=100, Ge=0, Tg=9).

| Z | C | 0.70 | 0.60 | 0.50 | HB1 | HB2 | N.E. |
|-------|------|-------|-------|-------|------|-------|------|
| 0.000 | 0.57 | 0.54 | 0.52 | 0.47 | 0.47 | 0.47 | 0.57 |
| 0.025 | 0.53 | 0.51 | 0.49 | 0.44 | 0.46 | 0.46 | 0.54 |
| 0.050 | 0.50 | 0.48 | 0.46 | 0.41 | 0.44 | 0.44 | 0.51 |
| 0.075 | 0.46 | 0.45 | 0.42 | 0.37 | 0.41 | 0.41 | 0.48 |
| 0.100 | 0.41 | 0.36 | 0.36 | 0.32 | 0.37 | 0.37 | 0.44 |
| 0.125 | 0.37 | 0.36 | 0.34 | 0.27 | 0.33 | 0.33 | 0.40 |
| 0.150 | 0.36 | 0.34 | 0.30 | 0.22 | 0.31 | 0.30 | 0.37 |
| 0.175 | 0.42 | 0.39 | 0.33 | 0.22 | 0.35 | 0.34 | 0.43 |
| 0.200 | 0.46 | 0.41 | 0.33 | 0.21 | 0.37 | 0.36 | 0.47 |
| 0.225 | 0.58 | 0.49 | 0.39 | 0.22 | 0.45 | 0.43 | 0.56 |
| 0.250 | 0.64 | 0.53 | 0.41 | 0.21 | 0.49 | 0.47 | 0.64 |
| 0.275 | 0.71 | 0.56 | 0.40 | 0.18 | 0.54 | 0.51 | 0.72 |
| 0.300 | 0.81 | 0.61 | 0.42 | 0.17 | 0.61 | 0.59 | 0.83 |
| 0.325 | 0.87 | 0.63 | 0.41 | 0.13 | 0.66 | 0.63 | 0.90 |
| 0.350 | 1.13 | 0.76 | 0.47 | 0.14 | 0.84 | 0.80 | 1.18 |
| 0.375 | 1.10 | 0.72 | 0.41 | 0.08 | 0.83 | 0.79 | 1.15 |
| 0.400 | 1.23 | 0.74 | 0.38 | 0.04 | 0.91 | 0.85 | 1.30 |
| 0.425 | 1.36 | 0.75 | 0.35 | -0.01 | 0.98 | 0.91 | 1.45 |
| 0.450 | 1.40 | 0.72 | 0.30 | -0.06 | 1.01 | 0.94 | 1.55 |
| 0.475 | 1.40 | 0.62 | 0.20 | -0.13 | 0.99 | 0.91 | 1.57 |
| 0.500 | 1.47 | 0.57 | 0.13 | -0.20 | 1.02 | 0.93 | 1.74 |
| 0.525 | 1.40 | 0.45 | 0.03 | -0.27 | 0.97 | 0.87 | 1.74 |
| 0.550 | 1.34 | 0.35 | -0.06 | -0.33 | 0.91 | 0.81 | 1.74 |
| 0.575 | 1.24 | 0.24 | -0.15 | -0.40 | 0.82 | 0.72 | 1.75 |
| 0.600 | 1.11 | 0.11 | -0.24 | -0.46 | 0.71 | 0.61 | 1.67 |
| 0.625 | 0.98 | 0.00 | -0.41 | -0.52 | 0.61 | 0.51 | 1.59 |
| 0.650 | 0.84 | -0.11 | -0.41 | -0.58 | 0.48 | 0.39 | 1.49 |
| 0.675 | 0.74 | -0.20 | -0.47 | -0.62 | 0.40 | 0.31 | 1.45 |
| 0.700 | 0.61 | -0.34 | -0.54 | -0.67 | 0.20 | 0.23 | 1.23 |
| 0.725 | 0.55 | -0.37 | -0.57 | -0.70 | 0.25 | 0.16 | 1.32 |
| 0.750 | 0.48 | -0.45 | -0.64 | -0.74 | 0.19 | 0.10 | 1.32 |
| 0.775 | 0.49 | -0.50 | -0.68 | -0.77 | 0.19 | 0.10 | 1.45 |
| 0.800 | 0.48 | -0.55 | -0.71 | -0.79 | 0.17 | 0.07 | 1.46 |
| 0.825 | 0.48 | -0.59 | -0.74 | -0.82 | 0.16 | 0.05 | 1.51 |
| 0.850 | 0.52 | -0.62 | -0.77 | -0.84 | 0.17 | 0.03 | 1.65 |
| 0.875 | 0.55 | -0.65 | -0.79 | -0.86 | 0.17 | 0.04 | 1.71 |
| 0.900 | 0.60 | -0.69 | -0.81 | -0.87 | 0.20 | 0.03 | 1.85 |
| 0.925 | 0.64 | -0.70 | -0.83 | -0.89 | 0.20 | 0.03 | 1.93 |
| 0.950 | 0.67 | -0.73 | -0.84 | -0.90 | 0.20 | 0.04 | 2.03 |
| 0.975 | 0.71 | -0.74 | -0.86 | -0.91 | 0.21 | 0.03 | 2.07 |
| 1.000 | 0.74 | -0.76 | -0.87 | -0.92 | 0.21 | 0.02 | 2.06 |
| 1.100 | 0.91 | -0.81 | -0.89 | -0.93 | 0.24 | 0.02 | 2.11 |
| 1.200 | 1.30 | -0.82 | -0.88 | -0.91 | 0.34 | 0.06 | 2.16 |
| 1.300 | 2.17 | -0.82 | -0.87 | -0.90 | 0.46 | 0.11 | 2.24 |
| 1.400 | 3.39 | -0.84 | -0.87 | -0.89 | 0.42 | 0.09 | 2.03 |
| 1.500 | 3.75 | -0.84 | -0.87 | -0.88 | 0.35 | -0.02 | 1.98 |
| 1.600 | 4.43 | -0.81 | -0.83 | -0.84 | 0.33 | -0.04 | 1.12 |
| 1.700 | 4.81 | -0.77 | -0.78 | -0.79 | 0.31 | -0.03 | 0.76 |
| 1.800 | 4.71 | -0.72 | -0.74 | -0.74 | 0.27 | -0.02 | 0.48 |
| 1.900 | 4.23 | -0.68 | -0.69 | -0.70 | 0.26 | 0.04 | 0.25 |
| 2.000 | 3.78 | -0.64 | -0.65 | -0.66 | 0.39 | 0.19 | 0.06 |

TABLE 9a

B-V vs. Z. (He=50, Ge=0, Tg=16).

| Z | C | 0.70 | 0.60 | 0.50 | HB1 | HB2 | N.E. |
|-------|------|------|------|------|------|------|------|
| 0.000 | 0.74 | 0.74 | 0.73 | 0.73 | 0.85 | 0.85 | 0.74 |
| 0.025 | 1.02 | 1.02 | 1.02 | 1.02 | 1.00 | 1.00 | 1.02 |
| 0.050 | 1.10 | 1.10 | 1.10 | 1.10 | 1.08 | 1.08 | 1.11 |
| 0.075 | 1.25 | 1.25 | 1.25 | 1.25 | 1.27 | 1.27 | 1.21 |
| 0.100 | 1.29 | 1.29 | 1.29 | 1.29 | 1.26 | 1.26 | 1.32 |
| 0.125 | 1.35 | 1.35 | 1.35 | 1.35 | 1.32 | 1.32 | 1.30 |
| 0.150 | 1.39 | 1.39 | 1.39 | 1.39 | 1.36 | 1.36 | 1.35 |
| 0.175 | 1.41 | 1.41 | 1.41 | 1.41 | 1.37 | 1.37 | 1.44 |
| 0.200 | 1.45 | 1.42 | 1.42 | 1.42 | 1.40 | 1.40 | 1.44 |
| 0.225 | 1.49 | 1.44 | 1.44 | 1.44 | 1.40 | 1.40 | 1.51 |
| 0.250 | 1.51 | 1.46 | 1.46 | 1.46 | 1.41 | 1.41 | 1.51 |
| 0.275 | 1.53 | 1.47 | 1.47 | 1.47 | 1.44 | 1.44 | 1.53 |
| 0.300 | 1.49 | 1.43 | 1.43 | 1.43 | 1.37 | 1.37 | 1.51 |
| 0.325 | 1.45 | 1.39 | 1.39 | 1.39 | 1.32 | 1.32 | 1.47 |
| 0.350 | 1.48 | 1.42 | 1.42 | 1.42 | 1.36 | 1.36 | 1.47 |
| 0.375 | 1.49 | 1.42 | 1.42 | 1.42 | 1.36 | 1.36 | 1.47 |
| 0.400 | 1.43 | 1.36 | 1.36 | 1.36 | 1.32 | 1.32 | 1.45 |
| 0.425 | 1.44 | 1.36 | 1.36 | 1.36 | 1.32 | 1.32 | 1.46 |
| 0.450 | 1.44 | 1.34 | 1.34 | 1.34 | 1.28 | 1.28 | 1.45 |
| 0.475 | 1.49 | 1.35 | 1.35 | 1.35 | 1.28 | 1.28 | 1.44 |
| 0.500 | 1.53 | 1.45 | 1.45 | 1.45 | 1.36 | 1.36 | 1.51 |
| 0.525 | 1.55 | 1.45 | 1.45 | 1.45 | 1.34 | 1.34 | 1.57 |
| 0.550 | 1.59 | 1.45 | 1.45 | 1.45 | 1.36 | 1.36 | 1.67 |
| 0.575 | 1.65 | 1.47 | 1.47 | 1.47 | 1.38 | 1.38 | 1.75 |
| 0.600 | 1.72 | 1.48 | 1.48 | 1.48 | 1.38 | 1.38 | 1.87 |
| 0.625 | 1.76 | 1.51 | 1.51 | 1.51 | 1.39 | 1.39 | 1.92 |
| 0.650 | 1.84 | 1.40 | 1.40 | 1.40 | 1.30 | 1.30 | 2.06 |
| 0.675 | 1.87 | 1.40 | 1.40 | 1.40 | 0.93 | 0 | |

TABLE 10a

 $U^+ - J^+$ vs. Z. ($H_0 = 50$, $G_0 = 0$, $T_g = 16$).

| Z | C | 0.70 | 0.60 | 0.50 | HB1 | HB2 | N.E. |
|-------|------|-------|-------|-------|------|-------|------|
| 0.000 | 0.90 | 0.88 | 0.87 | 0.85 | 0.71 | 0.71 | 0.90 |
| 0.025 | 0.95 | 0.93 | 0.92 | 0.90 | 0.77 | 0.77 | 0.96 |
| 0.050 | 0.98 | 0.96 | 0.94 | 0.92 | 0.80 | 0.80 | 1.00 |
| 0.075 | 1.03 | 1.00 | 0.98 | 0.96 | 0.84 | 0.83 | 1.07 |
| 0.100 | 1.04 | 1.01 | 0.99 | 0.96 | 0.85 | 0.84 | 1.10 |
| 0.125 | 1.05 | 1.01 | 1.00 | 0.96 | 0.86 | 0.85 | 1.13 |
| 0.150 | 1.07 | 1.03 | 1.01 | 0.97 | 0.87 | 0.85 | 1.18 |
| 0.175 | 1.07 | 1.02 | 0.99 | 0.95 | 0.85 | 0.84 | 1.20 |
| 0.200 | 1.14 | 1.08 | 1.06 | 1.00 | 0.90 | 0.88 | 1.29 |
| 0.225 | 1.28 | 1.21 | 1.17 | 1.10 | 0.99 | 0.96 | 1.44 |
| 0.250 | 1.29 | 1.20 | 1.17 | 1.09 | 1.01 | 0.98 | 1.47 |
| 0.275 | 1.29 | 1.18 | 1.14 | 1.04 | 0.99 | 0.95 | 1.54 |
| 0.300 | 1.42 | 1.29 | 1.23 | 1.11 | 1.06 | 1.02 | 1.67 |
| 0.325 | 1.52 | 1.36 | 1.30 | 1.14 | 1.13 | 1.09 | 1.81 |
| 0.350 | 1.58 | 1.39 | 1.31 | 1.11 | 1.13 | 1.09 | 1.90 |
| 0.375 | 1.63 | 1.42 | 1.33 | 1.10 | 1.20 | 1.13 | 1.99 |
| 0.400 | 1.63 | 1.40 | 1.29 | 1.01 | 1.16 | 1.09 | 2.11 |
| 0.425 | 1.98 | 1.66 | 1.51 | 1.13 | 1.36 | 1.26 | 2.39 |
| 0.450 | 2.03 | 1.67 | 1.48 | 1.06 | 1.39 | 1.29 | 2.48 |
| 0.475 | 1.92 | 1.56 | 1.36 | 0.92 | 1.30 | 1.19 | 2.47 |
| 0.500 | 2.20 | 1.69 | 1.40 | 0.86 | 1.40 | 1.27 | 2.69 |
| 0.525 | 2.27 | 1.71 | 1.39 | 0.82 | 1.43 | 1.29 | 2.84 |
| 0.550 | 2.27 | 1.65 | 1.29 | 0.70 | 1.39 | 1.23 | 2.83 |
| 0.575 | 2.35 | 1.62 | 1.20 | 0.58 | 1.39 | 1.22 | 2.96 |
| 0.600 | 2.31 | 1.53 | 1.08 | 0.45 | 1.34 | 1.15 | 2.90 |
| 0.625 | 2.29 | 1.39 | 0.89 | 0.28 | 1.25 | 1.07 | 2.87 |
| 0.650 | 2.11 | 1.22 | 0.72 | 0.14 | 1.14 | 0.96 | 2.79 |
| 0.675 | 2.22 | 1.15 | 0.61 | 0.04 | 1.11 | 0.91 | 2.78 |
| 0.700 | 1.97 | 0.92 | 0.40 | -0.12 | 0.96 | 0.78 | 2.66 |
| 0.725 | 2.07 | 0.86 | 0.31 | -0.19 | 0.97 | 0.76 | 2.64 |
| 0.750 | 2.24 | 0.77 | 0.19 | -0.28 | 0.97 | 0.74 | 2.79 |
| 0.775 | 2.10 | 0.56 | 0.01 | -0.40 | 0.81 | 0.59 | 2.59 |
| 0.800 | 2.33 | 0.48 | -0.08 | -0.46 | 0.82 | 0.58 | 2.84 |
| 0.825 | 2.26 | 0.32 | -0.20 | -0.34 | 0.71 | 0.47 | 2.65 |
| 0.850 | 2.35 | 0.18 | -0.32 | -0.61 | 0.61 | 0.37 | 2.77 |
| 0.875 | 2.27 | 0.04 | -0.41 | -0.66 | 0.56 | 0.32 | 2.68 |
| 0.900 | 2.28 | -0.08 | -0.49 | -0.71 | 0.51 | 0.27 | 2.78 |
| 0.925 | 2.19 | -0.19 | -0.56 | -0.75 | 0.42 | 0.19 | 2.70 |
| 0.950 | 2.24 | -0.25 | -0.59 | -0.77 | 0.42 | 0.17 | 2.79 |
| 0.975 | 2.20 | -0.31 | -0.64 | -0.79 | 0.37 | 0.13 | 2.73 |
| 1.000 | 2.16 | -0.38 | -0.67 | -0.81 | 0.31 | 0.07 | 2.69 |
| 1.100 | 1.71 | -0.59 | -0.78 | -0.87 | 0.16 | -0.08 | 2.28 |
| 1.200 | 1.85 | -0.65 | -0.81 | -0.88 | 0.20 | -0.08 | 2.08 |
| 1.300 | 2.67 | -0.69 | -0.81 | -0.87 | 0.33 | -0.04 | 1.92 |
| 1.400 | 3.81 | -0.75 | -0.84 | -0.88 | 0.41 | -0.03 | 1.71 |
| 1.500 | 4.20 | -0.77 | -0.83 | -0.86 | 0.39 | -0.07 | 1.29 |
| 1.600 | 4.23 | -0.75 | -0.79 | -0.81 | 0.37 | -0.06 | 0.82 |
| 1.700 | 4.48 | -0.70 | -0.73 | -0.75 | 0.48 | 0.05 | 0.49 |
| 1.800 | 4.64 | -0.69 | -0.71 | -0.72 | 0.50 | 0.11 | 0.35 |
| 1.900 | 4.84 | -0.66 | -0.68 | -0.69 | 0.58 | 0.21 | 0.26 |
| 2.000 | 4.84 | -0.63 | -0.64 | -0.65 | 0.71 | 0.34 | 0.19 |

TABLE 10b

 $U^+ - J^+$ vs. Z. ($H_0 = 100$, $G_0 = 0$, $T_g = 9$).

| Z | C | 0.70 | 0.60 | 0.50 | HB1 | HB2 | N.E. |
|-------|------|-------|-------|-------|------|------|------|
| 0.000 | 0.71 | 0.69 | 0.67 | 0.61 | 0.61 | 0.61 | 0.71 |
| 0.025 | 0.75 | 0.73 | 0.71 | 0.64 | 0.67 | 0.67 | 0.76 |
| 0.050 | 0.76 | 0.74 | 0.71 | 0.64 | 0.68 | 0.68 | 0.77 |
| 0.075 | 0.79 | 0.77 | 0.73 | 0.66 | 0.71 | 0.71 | 0.81 |
| 0.100 | 0.80 | 0.78 | 0.74 | 0.65 | 0.72 | 0.71 | 0.84 |
| 0.125 | 0.80 | 0.78 | 0.73 | 0.63 | 0.72 | 0.72 | 0.84 |
| 0.150 | 0.82 | 0.78 | 0.73 | 0.61 | 0.73 | 0.72 | 0.85 |
| 0.175 | 0.83 | 0.78 | 0.71 | 0.57 | 0.73 | 0.72 | 0.85 |
| 0.200 | 0.94 | 0.86 | 0.76 | 0.56 | 0.79 | 0.79 | 0.94 |
| 0.225 | 1.10 | 0.97 | 0.83 | 0.61 | 0.92 | 0.90 | 1.10 |
| 0.250 | 1.11 | 0.98 | 0.82 | 0.59 | 0.94 | 0.92 | 1.11 |
| 0.275 | 1.08 | 0.92 | 0.75 | 0.50 | 0.90 | 0.88 | 1.10 |
| 0.300 | 1.24 | 1.00 | 0.77 | 0.47 | 1.01 | 0.98 | 1.26 |
| 0.325 | 1.34 | 1.04 | 0.76 | 0.43 | 1.09 | 1.05 | 1.38 |
| 0.350 | 1.40 | 1.02 | 0.70 | 0.35 | 1.11 | 1.07 | 1.44 |
| 0.375 | 1.47 | 1.03 | 0.68 | 0.31 | 1.17 | 1.12 | 1.52 |
| 0.400 | 1.48 | 0.96 | 0.58 | 0.21 | 1.14 | 1.08 | 1.53 |
| 0.425 | 1.80 | 1.07 | 0.61 | 0.19 | 1.34 | 1.24 | 1.91 |
| 0.450 | 1.85 | 1.04 | 0.55 | 0.13 | 1.38 | 1.29 | 1.97 |
| 0.475 | 1.69 | 0.88 | 0.42 | 0.04 | 1.26 | 1.17 | 1.88 |
| 0.500 | 1.85 | 0.83 | 0.34 | -0.04 | 1.34 | 1.23 | 2.18 |
| 0.525 | 1.85 | 0.77 | 0.28 | -0.08 | 1.35 | 1.24 | 2.25 |
| 0.550 | 1.77 | 0.66 | 0.18 | -0.16 | 1.28 | 1.17 | 2.27 |
| 0.575 | 1.75 | 0.57 | 0.10 | -0.22 | 1.24 | 1.14 | 2.36 |
| 0.600 | 1.63 | 0.46 | 0.01 | -0.28 | 1.16 | 1.05 | 2.33 |
| 0.625 | 1.55 | 0.34 | -0.08 | -0.35 | 1.09 | 0.97 | 2.32 |
| 0.650 | 1.39 | 0.22 | -0.17 | -0.42 | 0.97 | 0.85 | 2.15 |
| 0.675 | 1.36 | 0.15 | -0.23 | -0.46 | 0.93 | 0.81 | 2.26 |
| 0.700 | 1.21 | 0.02 | -0.33 | -0.53 | 0.81 | 0.70 | 2.02 |
| 0.725 | 1.15 | -0.07 | -0.39 | -0.57 | 0.77 | 0.65 | 2.12 |
| 0.750 | 1.19 | -0.14 | -0.45 | -0.61 | 0.79 | 0.66 | 2.29 |
| 0.775 | 1.02 | -0.27 | -0.54 | -0.68 | 0.64 | 0.52 | 2.14 |
| 0.800 | 1.11 | -0.31 | -0.57 | -0.70 | 0.69 | 0.56 | 2.38 |
| 0.825 | 1.02 | -0.40 | -0.63 | -0.74 | 0.60 | 0.46 | 2.31 |
| 0.850 | 0.98 | -0.48 | -0.68 | -0.78 | 0.54 | 0.39 | 2.41 |
| 0.875 | 1.01 | -0.51 | -0.70 | -0.80 | 0.55 | 0.39 | 2.43 |
| 0.900 | 1.03 | -0.56 | -0.73 | -0.82 | 0.53 | 0.36 | 2.55 |
| 0.925 | 1.02 | -0.60 | -0.76 | -0.84 | 0.50 | 0.31 | 2.56 |
| 0.950 | 1.08 | -0.62 | -0.77 | -0.85 | 0.52 | 0.32 | 2.72 |
| 0.975 | 1.12 | -0.65 | -0.79 | -0.86 | 0.51 | 0.30 | 2.75 |
| 1.000 | 1.14 | -0.67 | -0.81 | -0.87 | 0.50 | 0.28 | 2.77 |
| 1.100 | 1.26 | -0.77 | -0.86 | -0.90 | 0.46 | 0.20 | 2.66 |
| 1.200 | 1.67 | -0.81 | -0.87 | -0.91 | 0.55 | 0.24 | 2.74 |
| 1.300 | 2.64 | -0.81 | -0.86 | -0.89 | 0.72 | 0.34 | 2.96 |
| 1.400 | 3.91 | -0.83 | -0.87 | -0.90 | 0.73 | 0.31 | 2.92 |
| 1.500 | 4.54 | -0.81 | -0.85 | -0.87 | 0.69 | 0.26 | 2.51 |
| 1.600 | 5.04 | -0.77 | -0.80 | -0.82 | 0.71 | 0.26 | 1.91 |
| 1.700 | 5.32 | -0.72 | -0.74 | -0.79 | 0.77 | 0.31 | 1.41 |
| 1.800 | 5.62 | -0.70 | -0.71 | -0.72 | 0.75 | 0.31 | 1.11 |
| 1.900 | 5.39 | -0.67 | -0.68 | -0.69 | 0.80 | 0.38 | 0.88 |
| 2.000 | 5.01 | -0.63 | -0.65 | -0.65 | 0.97 | 0.58 | 0.65 |

TABLE 11a

 $J^+ - F$ vs. Z. ($H_0 = 50$, $G_0 = 0$, $T_g = 16$).

| Z | C | 0.70 | 0.60 | 0.50 | HB1 | HB2 | N.E. |
|-------|------|------|------|------|------|------|------|
| 0.000 | 1.16 | 1.16 | 1.15 | 1.14 | 1.07 | 1.07 | 1.16 |
| 0.025 | 1.21 | 1.20 | 1.20 | 1.19 | 1.12 | 1.11 | 1.21 |
| 0.050 | 1.24 | 1.26 | 1.25 | 1.24 | 1.17 | 1.17 | 1.27 |
| 0.075 | 1.31 | 1.31 | 1.30 | 1.29 | 1.22 | 1.22 | 1.33 |
| 0.100 | 1.39 | 1.38 | 1.38 | 1.36 | 1.29 | 1.28 | 1.41 |
| 0.125 | 1.44 | 1.44 | 1.43 | 1.42 | 1.34 | 1.34 | 1.47 |
| 0.150 | 1.52 | 1.51 | 1.50 | 1.49 | 1.40 | 1.40 | 1.55 |
| 0.175 | 1.64 | 1.63 | 1.62 | 1.61 | 1.52 | 1.51 | 1.69 |
| 0.200 | 1.70 | 1.68 | 1.67 | 1.65 | 1.57 | 1.56 | 1.76 |
| 0.225 | 1.77 | 1.77 | 1.76 | 1.74 | 1.65 | 1.65 | 1.86 |
| 0.250 | 1.83 | 1.81 | 1.80 | 1.77 | 1.69 | 1.69 | 1.91 |
| 0.275 | 1.88 | 1.86 | 1.85 | 1.82 | 1.74 | 1.74 | 1.98 |
| 0.300 | 2.01 | 1.98 | 1.96 | 1.92 | 1.84 | 1.84 | 2.03 |
| 0.325 | 2.04 | 2.01 | 1.99 | 1.96 | 1.86 | 1.86 | 2.07 |
| 0.350 | 2.09 | 2.06 | 2.04 | 2.01 | 1.92 | 1.92 | 2.11 |
| 0.375 | 2.11 | 2.08 | 2.05 | 2.02 | 1.93 | 1.93 | 2.13 |
| 0.400 | 2.15 | 2.12 | 2.09 | 2.06 | 1.95 | 1.95 | 2.17 |
| 0.425 | 2.19 | 2.16 | 2.13 | 2.09 | 1.98 | 1.98 | 2.21 |
| 0.450 | 2.20 | 2.17 | 2.14 | 2.09 | 2.01 | 2.01 | 2.24 |
| 0.475 | 2.21 | 2.18 | 2.15 | 2.09 | 2.02 | 2.02 | 2.28 |
| 0.500 | 2.24 | 2.21 | 2.18 | 2.12 | 2.03 | 2.03 | 2.31 |
| 0.525 | 2.25 | 2.22 | 2.19 | 2.12 | 2.04 | 2.04 | 2.32 |
| 0.550 | 2.23 | 2.20 | 2.17 | 2.10 | 2.02 | 2.02 | 2.34 |
| 0.575 | 2.25 | 2.22 | 2.19 | 2.12 | 2.04 | 2.04 | 2.36 |
| 0.600 | 2.26 | 2.23 | 2.20 | 2.13 | 2.05 | 2.05 | 2.38 |
| 0.625 | 2.27 | 2.24 | 2.21 | 2.14 | 2.06 | 2.06 | 2.40 |
| 0.650 | 2.28 | 2.25 | 2.22 | 2.15 | 2 | | |

TABLE 12a

| z | c | (He=50, Ge=0, Tg=16). | | | | | |
|-------|------|-----------------------|------|------|------|------|------|
| | | 0.70 | 0.60 | 0.50 | HB1 | HB2 | N.E. |
| 0.000 | 0.86 | 0.87 | 0.87 | 0.86 | 0.83 | 0.83 | 0.86 |
| 0.025 | 0.87 | 0.88 | 0.87 | 0.87 | 0.84 | 0.84 | 0.87 |
| 0.050 | 0.87 | 0.88 | 0.88 | 0.87 | 0.84 | 0.84 | 0.88 |
| 0.075 | 0.91 | 0.92 | 0.91 | 0.90 | 0.87 | 0.87 | 0.91 |
| 0.100 | 0.90 | 0.91 | 0.91 | 0.90 | 0.87 | 0.86 | 0.92 |
| 0.125 | 0.90 | 0.91 | 0.91 | 0.90 | 0.86 | 0.86 | 0.92 |
| 0.150 | 0.95 | 0.96 | 0.95 | 0.94 | 0.90 | 0.91 | 0.97 |
| 0.175 | 0.98 | 0.98 | 0.98 | 0.97 | 0.91 | 0.90 | 0.97 |
| 0.200 | 0.96 | 0.96 | 0.95 | 0.95 | 0.91 | 0.91 | 0.98 |
| 0.225 | 1.01 | 1.01 | 1.00 | 0.96 | 0.96 | 0.96 | 1.04 |
| 0.250 | 1.04 | 1.04 | 1.04 | 1.03 | 0.99 | 0.99 | 1.07 |
| 0.275 | 1.04 | 1.04 | 1.04 | 1.01 | 1.00 | 1.00 | 1.09 |
| 0.300 | 1.12 | 1.12 | 1.10 | 1.07 | 1.06 | 1.06 | 1.16 |
| 0.325 | 1.18 | 1.18 | 1.17 | 1.16 | 1.12 | 1.11 | 1.23 |
| 0.350 | 1.19 | 1.19 | 1.18 | 1.16 | 1.14 | 1.12 | 1.24 |
| 0.375 | 1.22 | 1.22 | 1.21 | 1.19 | 1.17 | 1.15 | 1.27 |
| 0.400 | 1.25 | 1.25 | 1.24 | 1.22 | 1.20 | 1.18 | 1.31 |
| 0.425 | 1.27 | 1.27 | 1.26 | 1.24 | 1.22 | 1.21 | 1.34 |
| 0.450 | 1.32 | 1.30 | 1.27 | 1.26 | 1.23 | 1.23 | 1.39 |
| 0.475 | 1.39 | 1.38 | 1.37 | 1.34 | 1.33 | 1.31 | 1.47 |
| 0.500 | 1.44 | 1.43 | 1.42 | 1.38 | 1.38 | 1.36 | 1.54 |
| 0.525 | 1.50 | 1.48 | 1.47 | 1.43 | 1.43 | 1.41 | 1.60 |
| 0.550 | 1.54 | 1.53 | 1.51 | 1.47 | 1.48 | 1.46 | 1.66 |
| 0.575 | 1.63 | 1.62 | 1.60 | 1.55 | 1.57 | 1.54 | 1.76 |
| 0.600 | 1.68 | 1.66 | 1.64 | 1.58 | 1.61 | 1.59 | 1.83 |
| 0.625 | 1.73 | 1.71 | 1.68 | 1.62 | 1.66 | 1.64 | 1.90 |
| 0.650 | 1.73 | 1.71 | 1.68 | 1.61 | 1.66 | 1.64 | 1.91 |
| 0.675 | 1.80 | 1.78 | 1.74 | 1.67 | 1.73 | 1.71 | 1.99 |
| 0.700 | 1.82 | 1.80 | 1.76 | 1.69 | 1.76 | 1.73 | 2.03 |
| 0.725 | 1.88 | 1.84 | 1.75 | 1.85 | 1.82 | 1.82 | 2.16 |
| 0.750 | 1.98 | 1.94 | 1.88 | 1.78 | 1.91 | 1.87 | 2.23 |
| 0.775 | 2.08 | 2.02 | 1.96 | 1.85 | 2.00 | 1.97 | 2.34 |
| 0.800 | 2.05 | 1.99 | 1.93 | 1.82 | 1.98 | 1.94 | 2.30 |
| 0.825 | 2.03 | 1.97 | 1.91 | 1.79 | 1.97 | 1.93 | 2.29 |
| 0.850 | 2.00 | 1.94 | 1.87 | 1.76 | 1.94 | 1.91 | 2.24 |
| 0.875 | 2.03 | 1.97 | 1.89 | 1.78 | 1.98 | 1.95 | 2.27 |
| 0.900 | 2.07 | 1.90 | 1.82 | 1.70 | 1.92 | 1.89 | 2.22 |
| 0.925 | 2.01 | 1.94 | 1.85 | 1.72 | 1.96 | 1.93 | 2.29 |
| 0.950 | 2.00 | 1.91 | 1.81 | 1.66 | 1.94 | 1.91 | 2.30 |
| 0.975 | 2.01 | 1.92 | 1.81 | 1.66 | 1.96 | 1.92 | 2.30 |
| 1.000 | 2.03 | 1.92 | 1.82 | 1.61 | 1.98 | 1.97 | 2.33 |
| 1.100 | 1.99 | 1.83 | 1.67 | 1.47 | 1.94 | 1.90 | 2.30 |
| 1.200 | 2.02 | 1.73 | 1.51 | 1.28 | 1.93 | 1.89 | 2.46 |
| 1.300 | 2.12 | 1.68 | 1.39 | 1.14 | 2.03 | 1.96 | 2.76 |
| 1.400 | 2.25 | 1.38 | 1.24 | 1.01 | 2.16 | 2.08 | 3.10 |
| 1.500 | 2.27 | 1.41 | 1.08 | 0.86 | 2.18 | 2.09 | 3.34 |
| 1.600 | 2.22 | 1.22 | 0.93 | 0.74 | 2.14 | 2.05 | 3.36 |
| 1.700 | 2.27 | 0.97 | 0.74 | 0.61 | 2.18 | 2.08 | 3.89 |
| 1.800 | 2.06 | 0.74 | 0.58 | 0.48 | 1.98 | 1.88 | 3.63 |
| 1.900 | 1.87 | 0.57 | 0.45 | 0.38 | 1.80 | 1.71 | 3.76 |
| 2.000 | 1.69 | 0.48 | 0.38 | 0.33 | 1.64 | 1.56 | 3.56 |

TABLE 13a

| z | c | (He=50, Ge=0, Tg=16). | | | | | |
|-------|------|-----------------------|------|------|------|------|------|
| | | 0.70 | 0.60 | 0.50 | HB1 | HB2 | N.E. |
| 0.000 | 0.89 | 0.89 | 0.89 | 0.88 | 0.84 | 0.84 | 0.89 |
| 0.025 | 0.91 | 0.91 | 0.91 | 0.91 | 0.89 | 0.88 | 0.91 |
| 0.050 | 0.92 | 0.92 | 0.92 | 0.92 | 0.91 | 0.87 | 0.93 |
| 0.075 | 0.93 | 0.94 | 0.94 | 0.93 | 0.93 | 0.88 | 0.94 |
| 0.100 | 0.95 | 0.95 | 0.95 | 0.95 | 0.94 | 0.90 | 0.96 |
| 0.125 | 0.97 | 0.97 | 0.97 | 0.97 | 0.96 | 0.91 | 0.99 |
| 0.150 | 0.99 | 1.00 | 0.99 | 0.99 | 0.98 | 0.94 | 1.01 |
| 0.175 | 1.05 | 1.05 | 1.05 | 1.05 | 1.04 | 0.99 | 1.05 |
| 0.200 | 1.10 | 1.10 | 1.09 | 1.09 | 1.08 | 1.03 | 1.13 |
| 0.225 | 1.16 | 1.16 | 1.15 | 1.15 | 1.14 | 1.09 | 1.20 |
| 0.250 | 1.23 | 1.23 | 1.22 | 1.21 | 1.20 | 1.15 | 1.27 |
| 0.275 | 1.30 | 1.30 | 1.29 | 1.28 | 1.27 | 1.20 | 1.35 |
| 0.300 | 1.40 | 1.39 | 1.38 | 1.38 | 1.36 | 1.31 | 1.44 |
| 0.325 | 1.47 | 1.47 | 1.46 | 1.46 | 1.45 | 1.39 | 1.57 |
| 0.350 | 1.50 | 1.50 | 1.49 | 1.49 | 1.48 | 1.40 | 1.64 |
| 0.375 | 1.56 | 1.56 | 1.54 | 1.54 | 1.54 | 1.49 | 1.65 |
| 0.400 | 1.60 | 1.60 | 1.54 | 1.54 | 1.54 | 1.54 | 1.70 |
| 0.425 | 1.68 | 1.68 | 1.61 | 1.61 | 1.61 | 1.62 | 1.79 |
| 0.450 | 1.72 | 1.66 | 1.59 | 1.59 | 1.59 | 1.67 | 1.86 |
| 0.475 | 1.76 | 1.69 | 1.61 | 1.61 | 1.71 | 1.69 | 1.99 |
| 0.500 | 1.80 | 1.73 | 1.65 | 1.65 | 1.55 | 1.75 | 1.93 |
| 0.525 | 1.80 | 1.73 | 1.65 | 1.65 | 1.54 | 1.76 | 1.94 |
| 0.550 | 1.84 | 1.76 | 1.68 | 1.68 | 1.57 | 1.80 | 1.97 |
| 0.575 | 1.83 | 1.75 | 1.66 | 1.66 | 1.55 | 1.79 | 1.95 |
| 0.600 | 1.86 | 1.77 | 1.68 | 1.68 | 1.66 | 1.83 | 1.99 |
| 0.625 | 1.84 | 1.74 | 1.66 | 1.66 | 1.93 | 1.80 | 1.95 |
| 0.650 | 1.88 | 1.77 | 1.67 | 1.67 | 1.54 | 1.85 | 2.01 |
| 0.675 | 1.84 | 1.73 | 1.63 | 1.63 | 1.51 | 1.71 | 1.99 |
| 0.700 | 1.80 | 1.73 | 1.61 | 1.61 | 1.56 | 1.86 | 2.03 |
| 0.725 | 1.77 | 1.66 | 1.57 | 1.57 | 1.72 | 1.71 | 1.95 |
| 0.750 | 1.81 | 1.70 | 1.60 | 1.60 | 1.77 | 1.70 | 1.91 |
| 0.775 | 1.87 | 1.77 | 1.66 | 1.54 | 1.87 | 1.85 | 2.11 |
| 0.800 | 1.87 | 1.75 | 1.64 | 1.53 | 1.85 | 1.84 | 2.08 |
| 0.825 | 1.86 | 1.73 | 1.62 | 1.50 | 1.83 | 1.83 | 2.06 |
| 0.850 | 1.85 | 1.72 | 1.61 | 1.49 | 1.83 | 1.82 | 2.01 |
| 0.875 | 1.87 | 1.70 | 1.61 | 1.51 | 1.87 | 1.86 | 2.05 |
| 0.900 | 1.83 | 1.61 | 1.52 | 1.48 | 1.82 | 1.81 | 1.95 |
| 0.925 | 1.77 | 1.66 | 1.57 | 1.45 | 1.74 | 1.72 | 1.95 |
| 0.950 | 1.81 | 1.70 | 1.60 | 1.49 | 1.79 | 1.77 | 2.01 |
| 0.975 | 1.89 | 1.77 | 1.66 | 1.54 | 1.87 | 1.85 | 2.01 |
| 1.000 | 1.87 | 1.75 | 1.64 | 1.53 | 1.85 | 1.84 | 2.08 |
| 1.100 | 1.85 | 1.72 | 1.61 | 1.49 | 1.83 | 1.82 | 2.01 |
| 1.200 | 1.80 | 1.69 | 1.53 | 1.40 | 1.80 | 1.78 | 1.98 |
| 1.300 | 1.87 | 1.70 | 1.60 | 1.40 | 1.84 | 1.82 | 2.06 |
| 1.400 | 2.01 | 1.10 | 0.90 | 0.76 | 1.97 | 1.95 | 2.69 |
| 1.500 | 2.04 | 0.98 | 0.79 | 0.67 | 2.00 | 1.97 | 2.91 |
| 1.600 | 1.98 | 0.85 | 0.69 | 0.59 | 1.94 | 1.91 | 3.08 |
| 1.700 | 1.98 | 0.72 | 0.59 | 0.50 | 1.94 | 1.91 | 3.49 |
| 1.800 | 1.80 | 0.58 | 0.48 | 0.42 | 1.76 | 1.72 | 3.20 |
| 1.900 | 1.40 | 0.46 | 0.39 | 0.34 | 1.37 | 1.34 | 3.38 |
| 2.000 | 1.41 | 0.40 | 0.34 | 0.30 | 1.40 | 1.38 | 3.23 |

TABLE 13a

| z | c | (He=50, Ge=0, Tg=16). | | | | | |
|-------|------|-----------------------|------|------|------|------|------|
| | | 0.70 | 0.60 | 0.50 | HB1 | HB2 | N.E. |
| 0.000 | 0.84 | 0.84 | 0.84 | 0.82 | 0.81 | 0.81 | 0.84 |
| 0.025 | 0.86 | 0.86 | 0.85 | 0.84 | 0.83 | 0.83 | 0.86 |
| 0.050 | 0.87 | 0.87 | 0.86 | 0.84 | 0.84 | 0.84 | 0.87 |
| 0.075 | 0.88 | 0.88 | 0.87 | 0.85 | 0.85 | 0.85 | 0.89 |
| 0.100 | 0.89 | 0.89 | 0.88 | 0.86 | 0.86 | 0.86 | 0.91 |
| 0.125 | 0.91 | 0.91 | 0.90 | 0.87 | 0.88 | 0.87 | 0.93 |
| 0.150 | 0.94 | 0.93 | 0.91 | 0.88 | 0.90 | 0.90 | 0.95 |
| 0.175 | 0.99 | 0.98 | 0.96 | 0.92 | 0.95 | 0.94 | 1.01 |
| 0.200 | 1.04 | 1.02 | 0.99 | 0.97 | 0.99 | 0.94 | 1.06 |
| 0.225 | 1.09 | 1.07 | 1.04 | 1.04 | 0.99 | 1.04 | 1.12 |
| 0.250 | 1.16 | 1.13 | 1.10 | 1.09 | 1.09 | 1.09 | 1.18 |
| 0.275 | 1.22 | 1.18 | 1.14 | 1.08 | 1.16 | 1.15 | 1.25 |
| 0.300 | 1.31 | 1.27 | 1.22 | 1.15 | 1.25 | 1.24 | 1.36 |
| 0.325 | 1.39 | 1.34 | 1.28 | 1.21 | 1.32 | 1.31 | 1.45 |
| 0.350 | 1.46 | 1.41 | 1.35 | 1.27 | 1.40 | 1.39 | 1.54 |
| 0.375 | 1.56 | 1.49 | 1.43 | 1.34 | 1.49 | 1.48 | 1.65 |
| 0.400 | 1.60 | 1.54 | 1.47 | 1.39 | 1.54 | 1.53 | 1.70 |
| 0.425 | 1.68 | 1.61 | 1.54 | 1.45 | 1.62 | 1.61 | 1.79 |
| 0.450 | 1.72 | 1.66 | 1.59 | 1.49 | 1.67 | 1.66 | 1.85 |
| 0.475 | 1.76 | 1.69 | 1.61 | 1.51 | 1.71 | 1.69 | 1.99 |
| 0.500 | 1.80 | 1.73 | 1.65 | 1.54 | 1.76 | 1.75 | 1.93 |
| 0.525 | 1.80 | 1.73 | 1.65 | 1.54 | 1.76 | 1.75 | 1.94 |
| 0.550 | 1.84 | 1.76 | 1.68 | 1.57 | 1.80 | 1.79 | 1.97 |
| 0.575 | 1.83 | 1.75 | 1.66 | 1.55 | 1.79 | 1.78 | 1.95 |

TABLE 14a

V-K vs. Z. (He=50, Qe=0, Tg=14).

| Z | C | 0.70 | 0.60 | 0.50 | HB1 | HB2 | N.E. |
|-------|------|------|------|------|------|------|-------|
| 0.000 | 3.29 | 3.34 | 3.34 | 3.32 | 3.23 | 3.23 | 3.29 |
| 0.025 | 3.39 | 3.45 | 3.43 | 3.42 | 3.33 | 3.32 | 3.40 |
| 0.050 | 3.48 | 3.54 | 3.52 | 3.50 | 3.41 | 3.41 | 3.49 |
| 0.075 | 3.57 | 3.63 | 3.61 | 3.59 | 3.50 | 3.49 | 3.59 |
| 0.100 | 3.65 | 3.71 | 3.69 | 3.67 | 3.58 | 3.58 | 3.68 |
| 0.125 | 3.74 | 3.80 | 3.79 | 3.76 | 3.67 | 3.66 | 3.78 |
| 0.150 | 3.84 | 3.90 | 3.88 | 3.86 | 3.76 | 3.75 | 3.89 |
| 0.175 | 3.95 | 4.01 | 3.99 | 3.96 | 3.86 | 3.85 | 4.00 |
| 0.200 | 4.04 | 4.11 | 4.07 | 4.06 | 3.96 | 3.95 | 4.12 |
| 0.225 | 4.17 | 4.22 | 4.20 | 4.17 | 4.06 | 4.05 | 4.24 |
| 0.250 | 4.28 | 4.33 | 4.31 | 4.28 | 4.17 | 4.15 | 4.37 |
| 0.275 | 4.40 | 4.45 | 4.43 | 4.40 | 4.28 | 4.27 | 4.50 |
| 0.300 | 4.54 | 4.59 | 4.56 | 4.52 | 4.41 | 4.39 | 4.65 |
| 0.325 | 4.68 | 4.72 | 4.70 | 4.65 | 4.54 | 4.52 | 4.81 |
| 0.350 | 4.81 | 4.86 | 4.83 | 4.78 | 4.67 | 4.64 | 4.96 |
| 0.375 | 4.94 | 4.98 | 4.95 | 4.89 | 4.79 | 4.76 | 5.10 |
| 0.400 | 5.06 | 5.10 | 5.07 | 5.00 | 4.91 | 4.88 | 5.24 |
| 0.425 | 5.18 | 5.22 | 5.18 | 5.11 | 5.03 | 4.99 | 5.38 |
| 0.450 | 5.28 | 5.32 | 5.26 | 5.20 | 5.13 | 5.09 | 5.51 |
| 0.475 | 5.37 | 5.41 | 5.36 | 5.28 | 5.23 | 5.19 | 5.62 |
| 0.500 | 5.46 | 5.49 | 5.44 | 5.35 | 5.31 | 5.27 | 5.73 |
| 0.525 | 5.53 | 5.56 | 5.51 | 5.41 | 5.39 | 5.35 | 5.83 |
| 0.550 | 5.60 | 5.63 | 5.58 | 5.47 | 5.46 | 5.42 | 5.93 |
| 0.575 | 5.64 | 5.68 | 5.62 | 5.51 | 5.52 | 5.48 | 6.02 |
| 0.600 | 5.72 | 5.75 | 5.68 | 5.56 | 5.59 | 5.54 | 6.12 |
| 0.625 | 5.77 | 5.80 | 5.73 | 5.59 | 5.64 | 5.60 | 6.20 |
| 0.650 | 5.84 | 5.87 | 5.79 | 5.64 | 5.71 | 5.66 | 6.31 |
| 0.675 | 5.91 | 5.93 | 5.85 | 5.68 | 5.77 | 5.72 | 6.41 |
| 0.700 | 5.97 | 5.99 | 5.90 | 5.71 | 5.84 | 5.78 | 6.50 |
| 0.725 | 6.07 | 6.06 | 5.95 | 5.75 | 5.92 | 5.86 | 6.62 |
| 0.750 | 6.15 | 6.13 | 6.00 | 5.78 | 6.00 | 5.93 | 6.72 |
| 0.775 | 6.25 | 6.20 | 6.06 | 5.81 | 6.09 | 6.01 | 6.86 |
| 0.800 | 6.36 | 6.29 | 6.13 | 5.85 | 6.19 | 6.11 | 6.98 |
| 0.825 | 6.47 | 6.38 | 6.19 | 5.89 | 6.29 | 6.20 | 7.11 |
| 0.850 | 6.59 | 6.46 | 6.25 | 5.92 | 6.39 | 6.29 | 7.25 |
| 0.875 | 6.70 | 6.54 | 6.30 | 5.94 | 6.50 | 6.39 | 7.39 |
| 0.900 | 6.77 | 6.57 | 6.31 | 5.93 | 6.56 | 6.45 | 7.53 |
| 0.925 | 6.87 | 6.64 | 6.34 | 5.92 | 6.66 | 6.54 | 7.68 |
| 0.950 | 6.97 | 6.70 | 6.37 | 5.93 | 6.75 | 6.64 | 7.82 |
| 0.975 | 7.05 | 6.74 | 6.38 | 5.92 | 6.83 | 6.69 | 7.97 |
| 1.000 | 7.20 | 6.83 | 6.43 | 5.93 | 6.76 | 6.81 | 8.4 |
| 1.100 | 7.56 | 8.92 | 6.39 | 5.83 | 7.00 | 7.04 | 8.77 |
| 1.200 | 7.83 | 6.89 | 6.26 | 5.67 | 7.86 | 7.04 | 9.37 |
| 1.300 | 7.94 | 6.74 | 6.07 | 5.48 | 7.68 | 7.44 | 9.94 |
| 1.400 | 7.86 | 6.44 | 6.78 | 5.23 | 7.65 | 7.45 | 10.39 |
| 1.500 | 7.85 | 6.21 | 5.36 | 5.04 | 7.67 | 7.47 | 10.78 |
| 1.600 | 7.89 | 5.97 | 5.33 | 4.83 | 7.62 | 7.51 | 11.21 |
| 1.700 | 7.88 | 5.55 | 4.99 | 4.54 | 7.62 | 7.53 | 11.64 |
| 1.800 | 7.91 | 5.25 | 4.72 | 4.33 | 7.75 | 7.55 | 12.07 |
| 1.900 | 7.94 | 5.00 | 4.50 | 4.14 | 7.78 | 7.57 | 12.48 |
| 2.000 | 7.93 | 4.77 | 4.30 | 3.96 | 7.78 | 7.57 | 12.83 |

TABLE 14b

V-K vs. Z. (He=100, Qe=0, Tg=9).

| Z | C | 0.70 | 0.60 | 0.50 | HB1 | HB2 | N.E. |
|-------|------|------|------|------|------|------|-------|
| 0.000 | 3.22 | 3.29 | 3.27 | 3.24 | 3.18 | 3.18 | 3.22 |
| 0.025 | 3.31 | 3.38 | 3.36 | 3.32 | 3.27 | 3.27 | 3.32 |
| 0.050 | 3.40 | 3.47 | 3.44 | 3.40 | 3.36 | 3.36 | 3.41 |
| 0.075 | 3.48 | 3.55 | 3.52 | 3.48 | 3.44 | 3.44 | 3.50 |
| 0.100 | 3.57 | 3.63 | 3.60 | 3.56 | 3.52 | 3.52 | 3.59 |
| 0.125 | 3.66 | 3.72 | 3.69 | 3.63 | 3.61 | 3.60 | 3.68 |
| 0.150 | 3.76 | 3.81 | 3.77 | 3.71 | 3.70 | 3.70 | 3.78 |
| 0.175 | 3.86 | 3.91 | 3.87 | 3.80 | 3.80 | 3.79 | 3.89 |
| 0.200 | 3.96 | 4.01 | 3.96 | 3.88 | 3.90 | 3.89 | 4.00 |
| 0.225 | 4.07 | 4.10 | 4.05 | 3.97 | 4.00 | 3.99 | 4.11 |
| 0.250 | 4.18 | 4.20 | 4.14 | 4.05 | 4.10 | 4.09 | 4.22 |
| 0.275 | 4.29 | 4.31 | 4.24 | 4.13 | 4.21 | 4.19 | 4.34 |
| 0.300 | 4.41 | 4.42 | 4.34 | 4.22 | 4.32 | 4.31 | 4.48 |
| 0.325 | 4.53 | 4.53 | 4.44 | 4.32 | 4.44 | 4.42 | 4.62 |
| 0.350 | 4.63 | 4.64 | 4.54 | 4.41 | 4.56 | 4.54 | 4.76 |
| 0.375 | 4.76 | 4.74 | 4.64 | 4.54 | 4.67 | 4.65 | 4.89 |
| 0.400 | 4.87 | 4.84 | 4.73 | 4.58 | 4.78 | 4.75 | 5.01 |
| 0.425 | 4.97 | 4.94 | 4.83 | 4.66 | 4.88 | 4.86 | 5.14 |
| 0.450 | 5.06 | 5.03 | 4.91 | 4.74 | 4.98 | 4.95 | 5.25 |
| 0.475 | 5.14 | 5.10 | 4.97 | 4.79 | 5.06 | 5.04 | 5.35 |
| 0.500 | 5.21 | 5.17 | 5.03 | 4.85 | 5.14 | 5.12 | 5.44 |
| 0.525 | 5.29 | 5.23 | 5.08 | 4.89 | 5.21 | 5.19 | 5.52 |
| 0.550 | 5.35 | 5.29 | 5.13 | 4.93 | 5.28 | 5.26 | 5.60 |
| 0.575 | 5.41 | 5.34 | 5.17 | 4.96 | 5.34 | 5.32 | 5.67 |
| 0.600 | 5.48 | 5.39 | 5.22 | 5.00 | 5.41 | 5.35 | 5.75 |
| 0.625 | 5.53 | 5.43 | 5.25 | 5.02 | 5.46 | 5.44 | 5.81 |
| 0.650 | 5.60 | 5.48 | 5.29 | 5.05 | 5.53 | 5.50 | 5.90 |
| 0.675 | 5.66 | 5.53 | 5.32 | 5.07 | 5.59 | 5.56 | 5.97 |
| 0.700 | 5.71 | 5.56 | 5.34 | 5.08 | 5.64 | 5.61 | 6.05 |
| 0.725 | 5.77 | 5.59 | 5.36 | 5.08 | 5.70 | 5.67 | 6.14 |
| 0.750 | 5.82 | 5.62 | 5.37 | 5.08 | 5.75 | 5.72 | 6.22 |
| 0.775 | 5.88 | 5.65 | 5.38 | 5.09 | 5.82 | 5.79 | 6.31 |
| 0.800 | 5.95 | 5.65 | 5.40 | 5.08 | 5.89 | 5.85 | 6.42 |
| 0.825 | 6.02 | 5.72 | 5.41 | 5.09 | 5.95 | 5.92 | 6.50 |
| 0.850 | 6.09 | 5.75 | 5.43 | 5.09 | 6.02 | 5.98 | 6.54 |
| 0.875 | 6.17 | 5.80 | 5.44 | 5.10 | 6.11 | 6.07 | 6.78 |
| 0.900 | 6.23 | 5.80 | 5.44 | 5.09 | 6.16 | 6.13 | 6.87 |
| 0.925 | 6.30 | 5.83 | 5.45 | 5.08 | 6.24 | 6.20 | 7.00 |
| 0.950 | 6.38 | 5.86 | 5.46 | 5.08 | 6.32 | 6.28 | 7.13 |
| 0.975 | 6.45 | 5.87 | 5.46 | 5.07 | 6.38 | 6.34 | 7.23 |
| 1.000 | 6.55 | 5.91 | 5.46 | 5.07 | 6.48 | 6.44 | 7.41 |
| 1.100 | 6.84 | 5.86 | 5.38 | 4.97 | 6.77 | 6.72 | 7.94 |
| 1.200 | 7.05 | 5.71 | 5.22 | 4.83 | 6.97 | 6.92 | 8.46 |
| 1.300 | 7.13 | 5.54 | 5.04 | 4.69 | 7.06 | 7.02 | 8.93 |
| 1.400 | 7.16 | 5.38 | 4.91 | 4.35 | 7.10 | 7.05 | 9.30 |
| 1.500 | 7.21 | 5.24 | 4.77 | 4.42 | 7.15 | 7.11 | 9.61 |
| 1.600 | 7.27 | 5.07 | 4.62 | 4.28 | 7.21 | 7.16 | 10.02 |
| 1.700 | 7.33 | 4.83 | 4.41 | 4.10 | 7.26 | 7.21 | 10.43 |
| 1.800 | 7.39 | 4.61 | 4.21 | 3.93 | 7.32 | 7.26 | 10.90 |
| 1.900 | 7.42 | 4.42 | 4.04 | 3.77 | 7.35 | 7.28 | 11.37 |
| 2.000 | 7.26 | 4.26 | 3.90 | 3.64 | 7.22 | 7.18 | 11.81 |

TABLE 15a

J-K vs. Z. (He=50, Qe=0, Tg=16).

| Z | C | 0.70 | 0.60 | 0.50 | HB1 | HB2 | N.E. |
|-------|------|------|------|------|------|------|------|
| 0.000 | 1.01 | 1.03 | 1.03 | 1.03 | 1.01 | 1.01 | 1.01 |
| 0.025 | 1.07 | 1.09 | 1.08 | 1.08 | 1.07 | 1.07 | 1.07 |
| 0.050 | 1.13 | 1.15 | 1.14 | 1.14 | 1.13 | 1.13 | 1.13 |
| 0.075 | 1.19 | 1.21 | 1.20 | 1.20 | 1.19 | 1.19 | 1.19 |
| 0.100 | 1.24 | 1.27 | 1.26 | 1.26 | 1.25 | 1.25 | 1.25 |
| 0.125 | 1.30 | 1.32 | 1.32 | 1.32 | 1.31 | 1.31 | 1.30 |
| 0.150 | 1.36 | 1.38 | 1.37 | 1.36 | 1.36 | 1.36 | 1.36 |
| 0.175 | 1.41 | 1.43 | 1.43 | 1.43 | 1.41 | 1.41 | 1.41 |
| 0.200 | 1.45 | 1.48 | 1.47 | 1.46 | 1.45 | 1.45 | 1.45 |
| 0.225 | 1.49 | 1.51 | 1.51 | 1.50 | 1.49 | 1.49 | 1.48 |
| 0.250 | 1.52 | 1.54 | 1.53 | 1.52 | 1.52 | 1.52 | 1.52 |
| 0.275 | 1.55 | 1.58 | 1.57 | 1.56 | 1.55 | 1.55 | 1.55 |
| 0.300 | 1.57 | 1.61 | 1.60 | 1.59 | 1.57 | 1.57 | 1.57 |
| 0.325 | 1.60 | 1.63 | 1.62 | 1.61 | 1.60 | 1.60 | 1.59 |
| 0.350 | 1.62 | 1.65 | 1.64 | 1.63 | 1.62 | 1.62 | 1.62 |
| 0.375 | 1.64 | 1.67 | 1.66 | 1.65 | 1.64 | 1.64 | 1.64 |
| 0.400 | 1.66 | 1.69 | 1.68 | 1.66 | 1.65 | 1.65 | 1.66 |
| 0.425 | 1.67 | 1.71 | 1.70 | 1.68 | 1.67 | 1.67 | 1.67 |
| 0.450 | 1.70 | 1.74 | 1.72 | 1.71 | 1.70 | 1.70 | 1.70 |
| 0.500 | 1.71 | 1.75 | 1.74 | 1.73 | 1.73 | 1.73 | 1.73 |
| 0.550 | 1.74 | 1.78 | 1.76 | 1.75 | 1.74 | 1.74 | 1.75 |
| 0.575 | 1.75 | 1.79 | 1.78 | 1.77 | 1.75 | 1.75 | 1.76 |
| 0.600 | 1.76 | 1.80 | 1.78 | 1.76 | 1.76 | 1.76 | 1.77 |
| 0.625 | 1.77 | 1.81 | 1.79 | 1.76 | 1.77 | 1.77 | 1.78 |
| 0.650 | 1.78 | 1.82 | 1.80 | 1.78 | 1.78 | 1.78 | 1.79 |
| 0.675 | 1.79 | 1.83 | 1.81 | 1.79 | 1.79 | 1.79 | 1.81 |
| 0.700 | 1.80 | 1.84 | 1.81 | 1.79 | 1.80 | 1.80 | 1.82 |
| 0.725 | 1.81 | 1.84 | 1.82 | | | | |

TABLE 16a

| Z | C | 0.70 | 0.60 | 0.50 | HB1 | HB2 | N.E. |
|-------|------|------|------|------|------|------|------|
| 0.000 | 0.31 | 0.32 | 0.32 | 0.32 | 0.31 | 0.31 | 0.31 |
| 0.025 | 0.35 | 0.36 | 0.36 | 0.35 | 0.35 | 0.35 | 0.35 |
| 0.050 | 0.39 | 0.40 | 0.39 | 0.39 | 0.39 | 0.39 | 0.39 |
| 0.075 | 0.43 | 0.44 | 0.44 | 0.43 | 0.43 | 0.43 | 0.43 |
| 0.100 | 0.47 | 0.48 | 0.48 | 0.48 | 0.47 | 0.47 | 0.47 |
| 0.125 | 0.51 | 0.52 | 0.52 | 0.52 | 0.51 | 0.51 | 0.51 |
| 0.150 | 0.55 | 0.56 | 0.56 | 0.56 | 0.55 | 0.55 | 0.55 |
| 0.175 | 0.59 | 0.60 | 0.60 | 0.59 | 0.59 | 0.59 | 0.59 |
| 0.200 | 0.62 | 0.63 | 0.63 | 0.63 | 0.62 | 0.62 | 0.63 |
| 0.225 | 0.65 | 0.66 | 0.66 | 0.66 | 0.66 | 0.66 | 0.66 |
| 0.250 | 0.68 | 0.69 | 0.69 | 0.69 | 0.68 | 0.68 | 0.68 |
| 0.275 | 0.71 | 0.72 | 0.72 | 0.71 | 0.71 | 0.71 | 0.71 |
| 0.300 | 0.73 | 0.74 | 0.74 | 0.74 | 0.73 | 0.73 | 0.73 |
| 0.325 | 0.75 | 0.77 | 0.76 | 0.76 | 0.76 | 0.76 | 0.76 |
| 0.350 | 0.77 | 0.79 | 0.79 | 0.78 | 0.78 | 0.78 | 0.78 |
| 0.375 | 0.80 | 0.81 | 0.81 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.400 | 0.81 | 0.83 | 0.83 | 0.82 | 0.82 | 0.82 | 0.82 |
| 0.425 | 0.83 | 0.85 | 0.85 | 0.84 | 0.83 | 0.83 | 0.84 |
| 0.450 | 0.85 | 0.87 | 0.87 | 0.86 | 0.85 | 0.85 | 0.85 |
| 0.475 | 0.87 | 0.88 | 0.88 | 0.88 | 0.87 | 0.87 | 0.87 |
| 0.500 | 0.88 | 0.90 | 0.90 | 0.89 | 0.88 | 0.88 | 0.88 |
| 0.525 | 0.89 | 0.91 | 0.91 | 0.91 | 0.90 | 0.90 | 0.90 |
| 0.550 | 0.90 | 0.92 | 0.92 | 0.92 | 0.90 | 0.90 | 0.90 |
| 0.575 | 0.91 | 0.93 | 0.93 | 0.92 | 0.91 | 0.91 | 0.91 |
| 0.600 | 0.92 | 0.94 | 0.94 | 0.93 | 0.90 | 0.90 | 0.90 |
| 0.625 | 0.93 | 0.95 | 0.95 | 0.93 | 0.91 | 0.91 | 0.91 |
| 0.650 | 0.94 | 0.95 | 0.95 | 0.94 | 0.93 | 0.93 | 0.93 |
| 0.675 | 0.93 | 0.96 | 0.95 | 0.95 | 0.93 | 0.93 | 0.94 |
| 0.700 | 0.93 | 0.96 | 0.96 | 0.95 | 0.93 | 0.93 | 0.94 |
| 0.725 | 0.94 | 0.96 | 0.96 | 0.95 | 0.94 | 0.94 | 0.94 |
| 0.750 | 0.94 | 0.97 | 0.96 | 0.95 | 0.94 | 0.94 | 0.94 |
| 0.775 | 0.94 | 0.97 | 0.96 | 0.95 | 0.94 | 0.94 | 0.95 |
| 0.800 | 0.94 | 0.97 | 0.96 | 0.95 | 0.94 | 0.94 | 0.95 |
| 0.825 | 0.94 | 0.97 | 0.96 | 0.95 | 0.94 | 0.94 | 0.95 |
| 0.850 | 0.94 | 0.96 | 0.95 | 0.93 | 0.94 | 0.94 | 0.94 |
| 0.875 | 0.94 | 0.96 | 0.94 | 0.92 | 0.94 | 0.94 | 0.94 |
| 0.900 | 0.94 | 0.97 | 0.96 | 0.94 | 0.94 | 0.94 | 0.96 |
| 0.925 | 0.94 | 0.97 | 0.96 | 0.94 | 0.94 | 0.94 | 0.96 |
| 0.950 | 0.94 | 0.97 | 0.96 | 0.94 | 0.94 | 0.94 | 0.96 |
| 0.975 | 0.94 | 0.97 | 0.96 | 0.94 | 0.94 | 0.94 | 0.96 |
| 1.000 | 0.94 | 0.97 | 0.96 | 0.94 | 0.94 | 0.94 | 0.96 |
| 1.200 | 0.97 | 0.99 | 0.97 | 0.96 | 0.96 | 0.96 | 0.97 |
| 1.300 | 0.99 | 1.00 | 0.99 | 0.97 | 0.97 | 0.97 | 1.04 |
| 1.400 | 1.00 | 1.01 | 0.99 | 0.97 | 0.97 | 0.97 | 1.07 |
| 1.500 | 1.02 | 1.03 | 1.01 | 0.98 | 1.02 | 1.02 | 1.11 |
| 1.600 | 1.03 | 1.03 | 1.00 | 0.97 | 1.03 | 1.02 | 1.13 |
| 1.700 | 1.03 | 1.03 | 1.00 | 0.97 | 1.03 | 1.03 | 1.17 |
| 1.800 | 1.03 | 1.02 | 0.99 | 0.96 | 1.04 | 1.04 | 1.20 |
| 1.900 | 1.03 | 1.01 | 0.97 | 0.94 | 1.04 | 1.04 | 1.23 |
| 2.000 | 1.04 | 0.99 | 0.96 | 0.92 | 1.05 | 1.05 | 1.26 |

TABLE 16b

| Z | C | 0.70 | 0.60 | 0.50 | HB1 | HB2 | N.E. |
|-------|------|------|------|------|------|------|------|
| 0.000 | 0.31 | 0.32 | 0.32 | 0.32 | 0.31 | 0.31 | 0.31 |
| 0.025 | 0.35 | 0.36 | 0.36 | 0.36 | 0.35 | 0.35 | 0.35 |
| 0.050 | 0.39 | 0.40 | 0.40 | 0.40 | 0.39 | 0.39 | 0.39 |
| 0.075 | 0.43 | 0.44 | 0.44 | 0.44 | 0.43 | 0.43 | 0.43 |
| 0.100 | 0.47 | 0.48 | 0.48 | 0.48 | 0.47 | 0.47 | 0.47 |
| 0.125 | 0.51 | 0.52 | 0.52 | 0.52 | 0.51 | 0.51 | 0.51 |
| 0.150 | 0.55 | 0.56 | 0.56 | 0.56 | 0.56 | 0.56 | 0.55 |
| 0.175 | 0.59 | 0.60 | 0.60 | 0.60 | 0.59 | 0.59 | 0.59 |
| 0.200 | 0.63 | 0.63 | 0.63 | 0.63 | 0.63 | 0.63 | 0.63 |
| 0.225 | 0.66 | 0.67 | 0.66 | 0.66 | 0.66 | 0.66 | 0.66 |
| 0.250 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.68 |
| 0.275 | 0.71 | 0.72 | 0.72 | 0.72 | 0.71 | 0.71 | 0.71 |
| 0.300 | 0.74 | 0.75 | 0.74 | 0.74 | 0.74 | 0.74 | 0.73 |
| 0.325 | 0.76 | 0.77 | 0.77 | 0.76 | 0.76 | 0.76 | 0.76 |
| 0.350 | 0.78 | 0.79 | 0.79 | 0.78 | 0.78 | 0.78 | 0.78 |
| 0.375 | 0.80 | 0.81 | 0.81 | 0.80 | 0.80 | 0.80 | 0.80 |
| 0.400 | 0.82 | 0.83 | 0.83 | 0.82 | 0.82 | 0.82 | 0.82 |
| 0.425 | 0.84 | 0.85 | 0.85 | 0.84 | 0.84 | 0.83 | 0.83 |
| 0.450 | 0.85 | 0.87 | 0.87 | 0.86 | 0.85 | 0.85 | 0.85 |
| 0.475 | 0.87 | 0.89 | 0.88 | 0.87 | 0.87 | 0.87 | 0.87 |
| 0.500 | 0.88 | 0.90 | 0.90 | 0.89 | 0.88 | 0.88 | 0.88 |
| 0.525 | 0.90 | 0.92 | 0.91 | 0.90 | 0.90 | 0.90 | 0.89 |
| 0.550 | 0.90 | 0.93 | 0.92 | 0.91 | 0.90 | 0.90 | 0.90 |
| 0.575 | 0.91 | 0.93 | 0.92 | 0.91 | 0.91 | 0.91 | 0.91 |
| 0.600 | 0.92 | 0.94 | 0.93 | 0.92 | 0.92 | 0.92 | 0.91 |
| 0.625 | 0.92 | 0.95 | 0.94 | 0.92 | 0.92 | 0.92 | 0.92 |
| 0.650 | 0.93 | 0.96 | 0.94 | 0.93 | 0.93 | 0.93 | 0.93 |
| 0.675 | 0.93 | 0.96 | 0.95 | 0.93 | 0.93 | 0.93 | 0.93 |
| 0.700 | 0.94 | 0.96 | 0.95 | 0.93 | 0.94 | 0.94 | 0.94 |
| 0.725 | 0.94 | 0.96 | 0.95 | 0.93 | 0.94 | 0.94 | 0.94 |
| 0.750 | 0.94 | 0.96 | 0.95 | 0.93 | 0.94 | 0.94 | 0.94 |
| 0.775 | 0.94 | 0.97 | 0.95 | 0.93 | 0.94 | 0.94 | 0.94 |
| 0.800 | 0.94 | 0.97 | 0.95 | 0.93 | 0.94 | 0.94 | 0.94 |
| 0.825 | 0.94 | 0.96 | 0.95 | 0.93 | 0.94 | 0.94 | 0.95 |
| 0.850 | 0.94 | 0.96 | 0.95 | 0.93 | 0.94 | 0.94 | 0.94 |
| 0.875 | 0.94 | 0.96 | 0.94 | 0.92 | 0.94 | 0.94 | 0.94 |
| 0.900 | 0.94 | 0.95 | 0.94 | 0.92 | 0.94 | 0.94 | 0.94 |
| 0.925 | 0.94 | 0.95 | 0.94 | 0.92 | 0.94 | 0.94 | 0.94 |
| 0.950 | 0.94 | 0.95 | 0.94 | 0.92 | 0.94 | 0.94 | 0.95 |
| 0.975 | 0.94 | 0.96 | 0.94 | 0.92 | 0.94 | 0.94 | 0.95 |
| 1.000 | 0.94 | 0.95 | 0.94 | 0.92 | 0.94 | 0.94 | 0.95 |
| 1.200 | 0.95 | 0.96 | 0.94 | 0.92 | 0.95 | 0.95 | 0.99 |
| 1.300 | 0.96 | 0.97 | 0.95 | 0.92 | 0.96 | 0.96 | 1.01 |
| 1.400 | 0.97 | 0.95 | 0.93 | 0.97 | 0.97 | 0.97 | 1.04 |
| 1.500 | 0.99 | 0.99 | 0.96 | 0.93 | 0.99 | 0.99 | 1.07 |
| 1.600 | 1.00 | 1.00 | 0.99 | 0.92 | 1.00 | 1.00 | 1.09 |
| 1.700 | 1.01 | 0.96 | 0.93 | 0.91 | 1.01 | 1.02 | 1.12 |
| 1.800 | 1.02 | 0.94 | 0.91 | 0.89 | 1.03 | 1.03 | 1.15 |
| 1.900 | 1.02 | 0.92 | 0.89 | 0.87 | 1.03 | 1.03 | 1.17 |
| 2.000 | 1.01 | 0.91 | 0.88 | 0.85 | 1.02 | 1.03 | 1.20 |

TABLE 17a

| Z | C | 0.70 | 0.60 | 0.50 | HB1 | HB2 | N.E. |
|-------|------|------|------|------|------|------|------|
| 0.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.025 | 0.10 | 0.10 | 0.10 | 0.10 | 0.09 | 0.09 | 0.08 |
| 0.050 | 0.20 | 0.20 | 0.20 | 0.20 | 0.19 | 0.19 | 0.18 |
| 0.075 | 0.31 | 0.31 | 0.30 | 0.29 | 0.30 | 0.30 | 0.27 |
| 0.100 | 0.43 | 0.42 | 0.41 | 0.40 | 0.41 | 0.41 | 0.41 |
| 0.125 | 0.54 | 0.54 | 0.53 | 0.52 | 0.52 | 0.52 | 0.51 |
| 0.150 | 0.66 | 0.65 | 0.64 | 0.63 | 0.64 | 0.64 | 0.63 |
| 0.175 | 0.77 | 0.76 | 0.75 | 0.74 | 0.75 | 0.75 | 0.74 |
| 0.200 | 0.87 | 0.86 | 0.85 | 0.84 | 0.85 | 0.85 | 0.84 |
| 0.225 | 0.97 | 0.96 | 0.95 | 0.94 | 0.95 | 0.95 | 0.94 |
| 0.250 | 1.05 | 1.03 | 1.00 | 0.95 | 1.03 | 1.03 | 1.01 |
| 0.275 | 1.11 | 1.10 | 1.08 | 1.02 | 1.12 | 1.12 | 1.04 |
| 0.300 | 1.19 | 1.18 | 1.14 | 1.08 | 1.20 | 1.10 | 1.07 |
| 0.325 | 1.26 | 1.22 | 1.15 | 1.15 | 1.29 | 1.19 | 1.01 |
| 0.350 | 1.32 | 1.26 | 1.14 | 1.08 | 1.35 | 1.24 | 1.01 |
| 0.375 | 1.37 | 1.31 | 1.27 | 1.18 | 1.37 | 1.31 | 1.05 |
| 0.400 | 1.44 | 1.37 | 1.27 | 1.18 | 1.43 | 1.36 | 1.22 |
| 0.425 | 1.52 | 1.44 | 1.34 | 1.24 | 1.51 | 1.43 | 1.20 |
| 0.450 | 1.59 | 1.46 | 1.37 | 1.26 | 1.56 | 1.46 | 1.27 |
| 0.475 | 1.66 | 1.51 | 1.41 | 1.31 | 1.64 | 1.51 | 1.25 |
| 0.500 | 1.76 | 1.56 | 1.41 | 1.31 | 1.64 | 1.49 | 1.24 |
| 0.525 | 1.86 | 1.66 | 1.47 | 1.37 | 1.62 | 1.56 | 1.26 |
| 0.550 | 1.96 | 1.86 | 1.66 | 1.47 | 1.62 | 1.55 | 1.26 |
| 0.575 | 2.04 | 1.95 | 1.84 | 1.66 | 1.60 | 1.58 | 1.26 |
| 0.600 | 2.12 | 2.04 | 1.91 | 1.71 | 1.61 | 1.56 | 1.26 |
| 0.625 | 2.18 | 2.04 | 1.89 | 1.67 | 1.62 | 1.56 | 1.26 |
| 0.650 | 2.24 | 2.12 | 2.01 | 1.81 | 1.63 | 1.52 | 1.26 |
| 0.675 | 2.29 | 2.12 | 2.01 | 1.81 | 1.63 | 1.52 | 1.26 |
| 0.700 | 2.34 | 2.18 | 2.01 | 1.81 | 1.65 | 1.52 | 1.26 |
| 0.725 | 2.39 | 2.18 | 2.01 | 1.81 | 1.65 | 1.52 | 1.26 |
| 0.750 | 2.45 | 2.24 | 2.01 | 1.81 | 1.66 | 1.52 | 1.26 |
| 0.775 | 2.50 | 2.24 | 2.01 | 1.81 | 1. | | |

TABLE 18a

| Z | C | 0.70 | 0.60 | 0.50 | HB1 | HB2 | N.E. |
|-------|------|-------|-------|-------|------|------|------|
| 0.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.025 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.01 | 0.05 |
| 0.050 | 0.04 | 0.04 | 0.04 | 0.03 | 0.04 | 0.03 | 0.09 |
| 0.075 | 0.06 | 0.06 | 0.05 | 0.05 | 0.06 | 0.04 | 0.14 |
| 0.100 | 0.08 | 0.08 | 0.07 | 0.06 | 0.08 | 0.06 | 0.18 |
| 0.125 | 0.10 | 0.10 | 0.09 | 0.08 | 0.11 | 0.08 | 0.23 |
| 0.150 | 0.14 | 0.14 | 0.13 | 0.11 | 0.15 | 0.11 | 0.30 |
| 0.175 | 0.19 | 0.18 | 0.17 | 0.16 | 0.19 | 0.15 | 0.37 |
| 0.200 | 0.24 | 0.24 | 0.22 | 0.20 | 0.25 | 0.19 | 0.45 |
| 0.225 | 0.30 | 0.29 | 0.26 | 0.25 | 0.30 | 0.24 | 0.54 |
| 0.250 | 0.37 | 0.36 | 0.34 | 0.32 | 0.37 | 0.30 | 0.64 |
| 0.275 | 0.45 | 0.44 | 0.42 | 0.39 | 0.45 | 0.37 | 0.76 |
| 0.300 | 0.55 | 0.53 | 0.51 | 0.47 | 0.54 | 0.46 | 0.89 |
| 0.325 | 0.66 | 0.63 | 0.61 | 0.56 | 0.64 | 0.55 | 1.03 |
| 0.350 | 0.76 | 0.73 | 0.70 | 0.65 | 0.74 | 0.64 | 1.16 |
| 0.375 | 0.85 | 0.82 | 0.79 | 0.73 | 0.84 | 0.73 | 1.29 |
| 0.400 | 0.94 | 0.91 | 0.87 | 0.80 | 0.93 | 0.81 | 1.42 |
| 0.425 | 1.02 | 0.99 | 0.95 | 0.88 | 1.02 | 0.89 | 1.55 |
| 0.450 | 1.10 | 1.07 | 1.02 | 0.94 | 1.10 | 0.97 | 1.67 |
| 0.475 | 1.16 | 1.13 | 1.08 | 0.99 | 1.17 | 1.03 | 1.78 |
| 0.500 | 1.22 | 1.18 | 1.13 | 1.03 | 1.23 | 1.09 | 1.88 |
| 0.525 | 1.28 | 1.23 | 1.18 | 1.07 | 1.29 | 1.14 | 1.98 |
| 0.550 | 1.32 | 1.28 | 1.22 | 1.10 | 1.35 | 1.19 | 2.07 |
| 0.575 | 1.36 | 1.31 | 1.24 | 1.12 | 1.39 | 1.23 | 2.16 |
| 0.600 | 1.41 | 1.36 | 1.28 | 1.15 | 1.44 | 1.28 | 2.26 |
| 0.625 | 1.44 | 1.39 | 1.31 | 1.16 | 1.48 | 1.32 | 2.34 |
| 0.650 | 1.49 | 1.44 | 1.35 | 1.19 | 1.54 | 1.37 | 2.44 |
| 0.675 | 1.54 | 1.49 | 1.39 | 1.21 | 1.59 | 1.41 | 2.54 |
| 0.700 | 1.60 | 1.53 | 1.43 | 1.23 | 1.64 | 1.46 | 2.64 |
| 0.725 | 1.67 | 1.59 | 1.47 | 1.25 | 1.72 | 1.52 | 2.76 |
| 0.750 | 1.74 | 1.64 | 1.50 | 1.26 | 1.78 | 1.57 | 2.86 |
| 0.775 | 1.82 | 1.70 | 1.54 | 1.28 | 1.86 | 1.64 | 3.00 |
| 0.800 | 1.93 | 1.77 | 1.60 | 1.31 | 1.95 | 1.72 | 3.13 |
| 0.825 | 2.02 | 1.84 | 1.65 | 1.33 | 2.04 | 1.80 | 3.26 |
| 0.850 | 2.13 | 1.92 | 1.70 | 1.35 | 2.13 | 1.88 | 3.41 |
| 0.875 | 2.23 | 1.98 | 1.73 | 1.35 | 2.23 | 1.97 | 3.55 |
| 0.900 | 2.28 | 2.01 | 1.73 | 1.33 | 2.28 | 2.01 | 3.69 |
| 0.925 | 2.37 | 2.06 | 1.75 | 1.32 | 2.37 | 2.09 | 3.85 |
| 0.950 | 2.46 | 2.11 | 1.76 | 1.31 | 2.46 | 2.16 | 4.00 |
| 1.000 | 2.53 | 2.14 | 1.77 | 2.29 | 2.53 | 2.22 | 4.15 |
| 1.050 | 2.68 | 2.22 | 1.80 | 2.29 | 2.68 | 2.22 | 4.30 |
| 1.100 | 2.80 | 2.27 | 1.82 | 2.30 | 2.80 | 2.27 | 4.46 |
| 1.150 | 2.91 | 2.31 | 1.84 | 2.32 | 2.91 | 2.28 | 4.60 |
| 1.200 | 3.11 | 2.39 | 1.94 | 2.42 | 3.18 | 2.38 | 5.60 |
| 1.300 | 3.29 | 2.40 | 2.01 | 2.31 | 3.27 | 2.42 | 6.18 |
| 1.400 | 3.13 | 1.63 | 0.97 | 0.43 | 3.19 | 2.75 | 6.43 |
| 1.500 | 3.08 | 1.38 | 0.71 | 0.20 | 3.16 | 2.72 | 7.06 |
| 1.600 | 3.09 | 1.09 | 0.44 | -0.03 | 3.19 | 2.73 | 7.50 |
| 1.700 | 3.08 | 0.65 | 0.07 | -0.33 | 3.19 | 2.74 | 7.96 |
| 1.800 | 3.12 | 0.31 | -0.22 | -0.58 | 3.23 | 2.80 | 8.42 |
| 1.900 | 3.14 | 0.05 | -0.46 | -0.79 | 3.25 | 2.81 | 8.85 |
| 2.000 | 3.05 | -0.21 | -0.68 | -0.98 | 3.19 | 2.73 | 9.23 |

TABLE 19a

| Z | C | 0.70 | 0.60 | 0.50 | HB1 | HB2 | N.E. |
|-------|------|------|------|------|------|------|------|
| 0.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.025 | 0.00 | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.03 |
| 0.050 | 0.01 | 0.01 | 0.00 | 0.00 | 0.02 | 0.01 | 0.06 |
| 0.075 | 0.02 | 0.03 | 0.02 | 0.02 | 0.02 | 0.03 | 0.10 |
| 0.100 | 0.04 | 0.04 | 0.04 | 0.04 | 0.05 | 0.05 | 0.14 |
| 0.125 | 0.05 | 0.06 | 0.05 | 0.05 | 0.05 | 0.05 | 0.22 |
| 0.150 | 0.07 | 0.07 | 0.07 | 0.06 | 0.06 | 0.07 | 0.30 |
| 0.175 | 0.09 | 0.09 | 0.08 | 0.07 | 0.08 | 0.07 | 0.37 |
| 0.200 | 0.12 | 0.10 | 0.08 | 0.05 | 0.13 | 0.10 | 0.26 |
| 0.225 | 0.16 | 0.14 | 0.11 | 0.07 | 0.18 | 0.13 | 0.33 |
| 0.250 | 0.20 | 0.19 | 0.15 | 0.13 | 0.23 | 0.18 | 0.48 |
| 0.275 | 0.24 | 0.24 | 0.20 | 0.17 | 0.35 | 0.28 | 0.57 |
| 0.300 | 0.28 | 0.28 | 0.22 | 0.20 | 0.42 | 0.36 | 0.67 |
| 0.325 | 0.32 | 0.32 | 0.27 | 0.24 | 0.48 | 0.41 | 0.76 |
| 0.350 | 0.36 | 0.36 | 0.32 | 0.29 | 0.56 | 0.44 | 0.85 |
| 0.375 | 0.40 | 0.40 | 0.36 | 0.33 | 0.60 | 0.51 | 0.93 |
| 0.400 | 0.43 | 0.42 | 0.32 | 0.29 | 0.63 | 0.54 | 1.00 |
| 0.425 | 0.47 | 0.46 | 0.34 | 0.31 | 0.67 | 0.57 | 1.07 |
| 0.450 | 0.51 | 0.50 | 0.36 | 0.34 | 0.71 | 0.64 | 1.13 |
| 0.475 | 0.55 | 0.54 | 0.38 | 0.36 | 0.75 | 0.67 | 1.23 |
| 0.500 | 0.59 | 0.58 | 0.40 | 0.38 | 0.79 | 0.70 | 1.31 |
| 0.525 | 0.63 | 0.62 | 0.42 | 0.40 | 0.83 | 0.73 | 1.39 |
| 0.550 | 0.66 | 0.65 | 0.44 | 0.42 | 0.86 | 0.76 | 1.45 |
| 0.575 | 0.69 | 0.68 | 0.46 | 0.44 | 0.89 | 0.79 | 1.53 |
| 0.600 | 0.72 | 0.71 | 0.48 | 0.46 | 0.92 | 0.82 | 1.60 |
| 0.625 | 0.75 | 0.74 | 0.50 | 0.48 | 0.95 | 0.85 | 1.68 |
| 0.650 | 0.78 | 0.77 | 0.52 | 0.50 | 0.98 | 0.88 | 1.75 |
| 0.675 | 0.81 | 0.80 | 0.54 | 0.52 | 1.01 | 0.91 | 1.82 |
| 0.700 | 0.84 | 0.83 | 0.56 | 0.54 | 1.04 | 0.94 | 1.90 |
| 0.725 | 0.87 | 0.86 | 0.58 | 0.56 | 1.07 | 0.97 | 1.98 |
| 0.750 | 0.90 | 0.89 | 0.60 | 0.58 | 1.10 | 0.99 | 2.05 |
| 0.775 | 0.93 | 0.92 | 0.62 | 0.60 | 1.12 | 1.01 | 2.13 |
| 0.800 | 0.96 | 0.95 | 0.64 | 0.62 | 1.15 | 1.04 | 2.18 |
| 0.825 | 0.99 | 0.98 | 0.66 | 0.64 | 1.18 | 1.07 | 2.23 |
| 0.850 | 1.02 | 1.01 | 0.68 | 0.66 | 1.20 | 1.11 | 2.27 |
| 0.875 | 1.05 | 1.04 | 0.70 | 0.68 | 1.23 | 1.13 | 2.31 |
| 0.900 | 1.08 | 1.03 | 0.72 | 0.68 | 1.26 | 1.16 | 2.35 |
| 0.925 | 1.11 | 1.06 | 0.74 | 0.70 | 1.29 | 1.19 | 2.39 |
| 0.950 | 1.14 | 1.09 | 0.76 | 0.72 | 1.32 | 1.21 | 2.43 |
| 0.975 | 1.17 | 1.12 | 0.78 | 0.74 | 1.35 | 1.24 | 2.47 |
| 1.000 | 1.20 | 1.15 | 0.80 | 0.76 | 1.38 | 1.27 | 2.50 |
| 1.025 | 1.23 | 1.18 | 0.82 | 0.78 | 1.41 | 1.30 | 2.53 |
| 1.050 | 1.26 | 1.21 | 0.84 | 0.80 | 1.44 | 1.33 | 2.56 |
| 1.075 | 1.29 | 1.24 | 0.86 | 0.82 | 1.47 | 1.36 | 2.59 |
| 1.100 | 1.32 | 1.27 | 0.88 | 0.84 | 1.50 | 1.39 | 2.62 |
| 1.125 | 1.35 | 1.30 | 0.90 | 0.86 | 1.53 | 1.42 | 2.65 |
| 1.150 | 1.38 | 1.33 | 0.92 | 0.88 | 1.56 | 1.45 | 2.68 |
| 1.175 | 1.41 | 1.36 | 0.94 | 0.90 | 1.59 | 1.48 | 2.71 |
| 1.200 | 1.44 | 1.39 | 0.96 | 0.92 | 1.62 | 1.51 | 2.74 |
| 1.225 | 1.47 | 1.42 | 0.98 | 0.94 | 1.65 | 1.54 | 2.77 |
| 1.250 | 1.50 | 1.45 | 1.00 | 0.96 | 1.68 | 1.57 | 2.80 |
| 1.275 | 1.53 | 1.48 | 1.02 | 0.98 | 1.71 | 1.60 | 2.83 |
| 1.300 | 1.56 | 1.51 | 1.04 | 1.00 | 1.74 | 1.63 | 2.86 |
| 1.325 | 1.59 | 1.54 | 1.06 | 1.02 | 1.77 | 1.66 | 2.89 |
| 1.350 | 1.62 | 1.57 | 1.08 | 1.04 | 1.80 | 1.69 | 2.92 |
| 1.375 | 1.65 | 1.60 | 1.10 | 1.06 | 1.83 | 1.72 | 2.95 |
| 1.400 | 1.68 | 1.63 | 1.12 | 1.08 | 1.86 | 1.75 | 2.98 |
| 1.425 | 1.71 | 1.66 | 1.14 | 1.10 | 1.89 | 1.78 | 3.01 |
| 1.450 | 1.74 | 1.69 | 1.16 | 1.12 | 1.92 | 1.81 | 3.04 |
| 1.475 | 1.77 | 1.72 | 1.18 | 1.14 | 1.95 | 1.84 | 3.07 |
| 1.500 | 1.80 | 1.75 | 1.20 | 1.16 | 1.98 | 1.87 | 3.10 |
| 1.525 | 1.83 | 1.78 | 1.22 | 1.18 | 2.01 | 1.90 | 3.13 |
| 1.550 | 1.86 | 1.81 | 1.24 | 1.20 | 2.04 | 1.93 | 3.16 |
| 1.575 | 1.89 | 1.84 | 1.26 | 1.22 | 2.07 | 1.96 | 3.19 |
| 1.600 | 1.92 | 1.87 | 1.28 | 1.24 | 2.10 | 1.99 | 3.22 |
| 1.625 | 1.95 | 1.90 | 1.30 | 1.26 | 2.13 | 2.02 | 3.25 |
| 1.650 | 1.98 | 1.93 | 1.32 | 1.28 | 2.16 | 2.05 | 3.28 |
| 1.675 | 2.01 | 1.96 | 1.34 | 1.30 | 2.19 | 2.08 | 3.31 |
| 1.700 | 2.04 | 1.99 | 1.36 | 1.32 | 2.22 | 2.11 | 3.34 |
| 1.725 | 2.07 | 2.02 | 1.38 | 1.34 | 2.25 | 2.14 | 3.37 |
| 1.750 | 2.10 | 2.05 | 1.40 | 1.36 | 2.28 | 2.17 | 3.40 |
| 1.775 | 2.13 | 2.08 | 1.42 | 1.38 | 2.31 | 2.20 | 3.43 |
| 1.800 | 2.16 | 2.11 | 1.44 | 1.40 | 2.34 | 2.23 | 3.46 |
| 1.825 | 2.19 | 2.14 | 1.46 | 1.42 | 2.37 | 2.26 | 3.49 |
| 1.850 | 2.22 | 2.17 | 1.48 | 1.44 | 2.40 | 2.29 | 3.52 |
| 1.875 | 2.25 | 2.20 | 1.50 | 1.46 | 2.43 | 2.32 | 3.55 |
| 1.900 | 2.28 | 2.23 | 1.52 | 1.48 | 2.46 | 2.35 | 3.58 |
| 1.925 | 2.31 | 2.26 | 1.54 | 1.50 | 2.49 | 2.38 | 3.61 |
| 1.950 | 2.34 | 2.29 | 1.56 | 1.52 | 2.52 | 2.41 | 3.64 |
| 1.975 | 2.37 | 2.32 | 1.58 | 1.54 | 2.55 | 2.44 | 3.67 |
| 2.000 | 2.40 | 2.35 | 1.60 | 1.56 | 2.58 | 2.47 | 3.70 |

TABLE 19b

| Z | C | 0.70 | 0.60 | 0.50 | HB1 | HB2 | N.E. |
| --- | --- | --- | --- | --- | --- | --- | --- |

<tbl_r cells

TABLE 20a

| Z | C | 0.70 | 0.60 | 0.50 | HB1 | HB2 | N.E. |
|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.025 | -0.07 | -0.07 | -0.07 | -0.06 | -0.07 | -0.08 | -0.05 |
| 0.050 | -0.15 | -0.14 | -0.15 | -0.15 | -0.14 | -0.15 | -0.11 |
| 0.075 | -0.22 | -0.21 | -0.22 | -0.22 | -0.20 | -0.22 | -0.16 |
| 0.100 | -0.35 | -0.36 | -0.35 | -0.36 | -0.32 | -0.35 | -0.23 |
| 0.125 | -0.35 | -0.34 | -0.35 | -0.34 | -0.32 | -0.35 | -0.23 |
| 0.150 | -0.41 | -0.41 | -0.42 | -0.41 | -0.39 | -0.41 | -0.30 |
| 0.175 | -0.47 | -0.47 | -0.47 | -0.47 | -0.43 | -0.47 | -0.34 |
| 0.200 | -0.52 | -0.52 | -0.53 | -0.54 | -0.48 | -0.52 | -0.37 |
| 0.225 | -0.57 | -0.57 | -0.58 | -0.56 | -0.55 | -0.57 | -0.40 |
| 0.250 | -0.61 | -0.62 | -0.63 | -0.64 | -0.56 | -0.62 | -0.43 |
| 0.275 | -0.66 | -0.66 | -0.67 | -0.67 | -0.69 | -0.66 | -0.49 |
| 0.300 | -0.67 | -0.70 | -0.71 | -0.73 | -0.63 | -0.70 | -0.47 |
| 0.325 | -0.73 | -0.73 | -0.73 | -0.77 | -0.66 | -0.73 | -0.49 |
| 0.350 | -0.76 | -0.77 | -0.78 | -0.81 | -0.69 | -0.76 | -0.50 |
| 0.375 | -0.80 | -0.80 | -0.82 | -0.84 | -0.72 | -0.80 | -0.51 |
| 0.400 | -0.83 | -0.84 | -0.85 | -0.88 | -0.75 | -0.83 | -0.53 |
| 0.425 | -0.86 | -0.87 | -0.89 | -0.91 | -0.78 | -0.86 | -0.54 |
| 0.450 | -0.89 | -0.90 | -0.91 | -0.94 | -0.80 | -0.89 | -0.54 |
| 0.475 | -0.91 | -0.92 | -0.94 | -0.97 | -0.82 | -0.92 | -0.55 |
| 0.500 | -0.94 | -0.95 | -0.97 | -1.00 | -0.84 | -0.94 | -0.56 |
| 0.525 | -0.96 | -0.97 | -0.99 | -1.02 | -0.86 | -0.97 | -0.56 |
| 0.550 | -0.98 | -1.00 | -1.02 | -1.05 | -0.88 | -0.99 | -0.57 |
| 0.575 | -1.00 | -1.02 | -1.04 | -1.07 | -0.90 | -1.01 | -0.57 |
| 0.600 | -1.02 | -1.04 | -1.06 | -1.09 | -0.91 | -1.03 | -0.57 |
| 0.625 | -1.04 | -1.05 | -1.08 | -1.11 | -0.93 | -1.05 | -0.57 |
| 0.650 | -1.05 | -1.07 | -1.10 | -1.13 | -0.94 | -1.06 | -0.57 |
| 0.675 | -1.07 | -1.09 | -1.11 | -1.14 | -0.95 | -1.07 | -0.57 |
| 0.700 | -1.08 | -1.10 | -1.13 | -1.16 | -0.96 | -1.09 | -0.57 |
| 0.725 | -1.10 | -1.12 | -1.15 | -1.18 | -0.97 | -1.11 | -0.57 |
| 0.750 | -1.12 | -1.14 | -1.16 | -1.20 | -0.99 | -1.12 | -0.56 |
| 0.775 | -1.13 | -1.15 | -1.18 | -1.21 | -1.00 | -1.14 | -0.56 |
| 0.800 | -1.14 | -1.15 | -1.19 | -1.23 | -1.01 | -1.15 | -0.56 |
| 0.825 | -1.16 | -1.18 | -1.21 | -1.24 | -1.02 | -1.16 | -0.55 |
| 0.850 | -1.17 | -1.19 | -1.22 | -1.25 | -1.02 | -1.18 | -0.55 |
| 0.875 | -1.18 | -1.20 | -1.23 | -1.26 | -1.03 | -1.19 | -0.54 |
| 0.900 | -1.19 | -1.21 | -1.24 | -1.28 | -1.04 | -1.20 | -0.54 |
| 0.925 | -1.20 | -1.22 | -1.26 | -1.29 | -1.05 | -1.21 | -0.53 |
| 0.950 | -1.21 | -1.23 | -1.27 | -1.30 | -1.06 | -1.22 | -0.53 |
| 0.975 | -1.22 | -1.24 | -1.28 | -1.31 | -1.07 | -1.23 | -0.52 |
| 1.000 | -1.23 | -1.25 | -1.29 | -1.32 | -1.07 | -1.24 | -0.52 |
| 1.100 | -1.27 | -1.30 | -1.33 | -1.36 | -1.10 | -1.29 | -0.50 |
| 1.200 | -1.32 | -1.34 | -1.38 | -1.40 | -1.14 | -1.34 | -0.48 |
| 1.300 | -1.36 | -1.38 | -1.42 | -1.44 | -1.18 | -1.39 | -0.46 |
| 1.400 | -1.42 | -1.43 | -1.46 | -1.48 | -1.22 | -1.45 | -0.44 |
| 1.500 | -1.48 | -1.48 | -1.51 | -1.52 | -1.27 | -1.51 | -0.43 |
| 1.600 | -1.51 | -1.52 | -1.54 | -1.55 | -1.30 | -1.54 | -0.41 |
| 1.700 | -1.51 | -1.55 | -1.56 | -1.57 | -1.29 | -1.53 | -0.39 |
| 1.800 | -1.50 | -1.58 | -1.60 | -1.59 | -1.29 | -1.52 | -0.36 |
| 1.900 | -1.51 | -1.60 | -1.62 | -1.60 | -1.29 | -1.53 | -0.33 |
| 2.000 | -1.59 | -1.62 | -1.64 | -1.62 | -1.36 | -1.61 | -0.30 |

TABLE 20b

| Z | C | 0.70 | 0.60 | 0.50 | HB1 | HB2 | N.E. |
|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.000 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.025 | -0.07 | -0.07 | -0.08 | -0.08 | -0.07 | -0.07 | -0.05 |
| 0.050 | -0.15 | -0.15 | -0.15 | -0.15 | -0.13 | -0.14 | -0.11 |
| 0.075 | -0.22 | -0.22 | -0.23 | -0.23 | -0.20 | -0.21 | -0.16 |
| 0.100 | -0.35 | -0.35 | -0.29 | -0.29 | -0.24 | -0.24 | -0.21 |
| 0.125 | -0.35 | -0.35 | -0.36 | -0.36 | -0.32 | -0.33 | -0.25 |
| 0.150 | -0.41 | -0.41 | -0.43 | -0.43 | -0.36 | -0.41 | -0.30 |
| 0.175 | -0.47 | -0.47 | -0.49 | -0.49 | -0.44 | -0.47 | -0.34 |
| 0.200 | -0.53 | -0.53 | -0.54 | -0.54 | -0.48 | -0.53 | -0.40 |
| 0.225 | -0.57 | -0.58 | -0.59 | -0.59 | -0.53 | -0.53 | -0.37 |
| 0.250 | -0.62 | -0.63 | -0.63 | -0.64 | -0.57 | -0.62 | -0.43 |
| 0.275 | -0.66 | -0.67 | -0.68 | -0.68 | -0.60 | -0.66 | -0.43 |
| 0.300 | -0.70 | -0.71 | -0.72 | -0.72 | -0.64 | -0.70 | -0.47 |
| 0.325 | -0.73 | -0.74 | -0.75 | -0.75 | -0.67 | -0.74 | -0.49 |
| 0.350 | -0.76 | -0.78 | -0.79 | -0.79 | -0.69 | -0.77 | -0.50 |
| 0.375 | -0.79 | -0.81 | -0.81 | -0.81 | -0.72 | -0.80 | -0.51 |
| 0.400 | -0.82 | -0.83 | -0.84 | -0.84 | -0.74 | -0.82 | -0.52 |
| 0.425 | -0.84 | -0.86 | -0.87 | -0.86 | -0.76 | -0.85 | -0.53 |
| 0.450 | -0.86 | -0.88 | -0.89 | -0.89 | -0.78 | -0.87 | -0.54 |
| 0.475 | -0.89 | -0.91 | -0.92 | -0.91 | -0.80 | -0.90 | -0.53 |
| 0.500 | -0.91 | -0.93 | -0.94 | -0.93 | -0.82 | -0.92 | -0.56 |
| 0.525 | -0.93 | -0.95 | -0.96 | -0.95 | -0.84 | -0.94 | -0.56 |
| 0.550 | -0.95 | -0.97 | -0.98 | -0.97 | -0.86 | -0.96 | -0.56 |
| 0.575 | -0.97 | -0.99 | -1.00 | -0.98 | -0.87 | -0.98 | -0.57 |
| 0.600 | -0.99 | -1.01 | -1.01 | -1.01 | -0.88 | -1.00 | -0.57 |
| 0.625 | -1.00 | -1.02 | -1.03 | -1.01 | -0.89 | -1.01 | -0.57 |
| 0.650 | -1.01 | -1.03 | -1.04 | -1.02 | -0.91 | -1.03 | -0.57 |
| 0.675 | -1.02 | -1.05 | -1.03 | -1.03 | -0.91 | -1.04 | -0.57 |
| 0.700 | -1.04 | -1.06 | -1.04 | -1.04 | -0.92 | -1.05 | -0.57 |
| 0.725 | -1.05 | -1.07 | -1.07 | -1.05 | -0.94 | -1.07 | -0.56 |
| 0.750 | -1.07 | -1.08 | -1.08 | -1.06 | -0.95 | -1.08 | -0.56 |
| 0.775 | -1.08 | -1.09 | -1.09 | -1.07 | -0.96 | -1.10 | -0.56 |
| 0.800 | -1.09 | -1.10 | -1.10 | -1.07 | -0.97 | -1.11 | -0.56 |
| 0.825 | -1.10 | -1.11 | -1.11 | -1.08 | -0.97 | -1.12 | -0.55 |
| 0.850 | -1.11 | -1.12 | -1.11 | -1.08 | -0.98 | -1.13 | -0.55 |
| 0.875 | -1.12 | -1.12 | -1.12 | -1.09 | -0.99 | -1.14 | -0.54 |
| 0.900 | -1.13 | -1.13 | -1.12 | -1.09 | -0.99 | -1.15 | -0.54 |
| 0.925 | -1.14 | -1.13 | -1.13 | -1.10 | -1.00 | -1.16 | -0.53 |
| 0.950 | -1.14 | -1.14 | -1.13 | -1.10 | -1.00 | -1.16 | -0.53 |
| 0.975 | -1.15 | -1.14 | -1.14 | -1.10 | -1.01 | -1.17 | -0.52 |
| 1.000 | -1.16 | -1.14 | -1.14 | -1.10 | -1.01 | -1.18 | -0.51 |
| 1.200 | -1.14 | -1.16 | -1.16 | -1.12 | -0.99 | -1.14 | -0.49 |
| 1.300 | -1.14 | -1.19 | -1.18 | -1.13 | -0.99 | -1.15 | -0.46 |
| 1.400 | -1.13 | -1.20 | -1.19 | -1.14 | -0.98 | -1.15 | -0.45 |
| 1.500 | -1.17 | -1.22 | -1.21 | -1.16 | -1.01 | -1.18 | -0.44 |
| 1.600 | -1.22 | -1.23 | -1.22 | -1.16 | -1.05 | -1.23 | -0.42 |
| 1.700 | -1.26 | -1.22 | -1.21 | -1.15 | -1.08 | -1.28 | -0.40 |
| 1.800 | -1.29 | -1.20 | -1.19 | -1.14 | -1.11 | -1.31 | -0.37 |
| 1.900 | -1.32 | -1.19 | -1.19 | -1.13 | -1.12 | -1.33 | -0.35 |
| 2.000 | -1.32 | -1.20 | -1.19 | -1.13 | -1.12 | -1.30 | -0.32 |

TABLE 20a

TABLE 21a

| Z | 0.90 | 0.70 | 0.50 | 0.30 | 0.15 | 0.01 | 0.85 |
|-------|------|------|------|------|------|------|------|
| 0.004 | 15.1 | 14.5 | 14.1 | 12.2 | 10.5 | 9.7 | 8.6 |
| 0.050 | 20.6 | 19.9 | 19.4 | 17.4 | 15.8 | 13.2 | 14.0 |
| 0.100 | 22.1 | 21.4 | 20.8 | 18.6 | 17.2 | 16.7 | 15.5 |
| 0.150 | 23.0 | 22.2 | 21.5 | 19.3 | 18.0 | 17.6 | 16.4 |
| 0.200 | 23.6 | 22.9 | 22.0 | 19.8 | 18.6 | 18.2 | 17.0 |
| 0.250 | 24.2 | 23.4 | 22.4 | 20.1 | 19.0 | 18.8 | 17.5 |
| 0.300 | 24.7 | 23.7 | 22.7 | 20.3 | 19.2 | 18.9 | 17.6 |
| 0.350 | 25.3 | 24.6 | 23.4 | 21.1 | 20.1 | 19.6 | 18.4 |
| 0.400 | 26.0 | 25.2 | 24.0 | 22.3 | 21.0 | 20.1 | 18.8 |
| 0.450 | 26.6 | 25.3 | 24.1 | 22.5 | 21.5 | 20.5 | 19.3 |
| 0.500 | 27.1 | 26.2 | 24.9 | 22.7 | 21.3 | 20.3 | 19.1 |
| 0.550 | 27.6 | 26.4 | 24.2 | 22.8 | 21.4 | 20.4 | 19.0 |
| 0.600 | 28.1 | 27.0 | 24.8 | 23.1 | 21.5 | 20.6 | 18.9 |
| 0.650 | 28.6 | 27.4 | 24.2 | 22.9 | 21.6 | 20.7 | 19.3 |
| 0.700 | 27.9 | 26.3 | 24.2 | 22.9 | 21.4 | 20.4 | 19.3 |
| 0.750 | 27.8 | 26.2 | 24.2 | 22.9 | 21.4 | 20.4 | 19.4 |
| 0.800 | 27.7 | 26.2 | 24.2 | 22.9 | 21.4 | 20.5 | 19.5 |
| 0.850 | 27.6 | 26.3 | 24.3 | 22.9 | 21.4 | 20.6 | 19.6 |
| 0.900 | 27.6 | 26.3 | 24.3 | 22.9 | 21.4 | 20.7 | 19.7 |
| 0.950 | 27.6 | 26.3 | 24.3 | 22.9 | 21.4 | 20.8 | 19.8 |
| 1.000 | 27.9 | 26.4 | 24.4 | 23.0 | 21.2 | 21.4 | 20.1 |
| 1.050 | 27.9 | 26.5 | 24.5 | 23.1 | 21.3 | 21.4 | 20.8 |
| 1.100 | 27.5 | 26.2 | 24.2 | 22.9 | 21.1 | 21.1 | 20.8 |
| 1.150 | 27.3 | 26.7 | 24.7 | 23.5 | 21.3 | 21.7 | 20.7 |
| 1.200 | 27.2 | 26.4 | 24.6 | 23.6 | 21.4 | 21.6 | 20.6 |
| 1.250 | 27.1 | 26.4 | 24.6 | 23.6 | 21.4 | 21.7 | 20.5 |
| 1.300 | 27.1 | 26.4 | 24.7 | 23.7 | 21.5 | 21.8 | 20.5 |
| 1.350 | 27.1 | 26.4 | 24.7 | 23.7 | 21.5 | 21.9 | 20.5 |
| 1.400 | 27.1 | 26.4 | 24.8 | 23.8 | 21.6 | 22.0 | 20.5 |
| 1.450 | 27.1 | 26.4 | 24.8 | 23.9 | 21.6 | 22.1 | 20.5 |

TABLE 22a

22 vs. Z. ($H_0=50$, $G_0=0$, $T_g=16$).

| Z | 0.90 | 0.70 | 0.50 | 0.30 | 0.15 | 0.01 | 0.85 |
|-------|------|------|------|------|------|------|------|
| 0.004 | 15.4 | 15.0 | 14.7 | 13.1 | 11.5 | 10.7 | 9.7 |
| 0.050 | 20.9 | 20.5 | 20.1 | 18.3 | 16.8 | 16.1 | 15.1 |
| 0.100 | 22.5 | 22.0 | 21.5 | 19.5 | 18.1 | 17.6 | 16.6 |
| 0.150 | 23.4 | 22.8 | 22.2 | 20.1 | 18.8 | 18.4 | 17.4 |
| 0.200 | 24.1 | 23.5 | 22.7 | 20.5 | 19.3 | 19.0 | 18.0 |
| 0.250 | 24.6 | 24.0 | 23.0 | 20.8 | 19.7 | 19.5 | 18.4 |
| 0.300 | 25.0 | 24.4 | 23.2 | 21.0 | 20.0 | 19.9 | 18.9 |
| 0.350 | 25.4 | 24.7 | 23.4 | 21.2 | 20.3 | 20.2 | 19.2 |
| 0.400 | 25.6 | 24.9 | 23.4 | 21.3 | 20.5 | 20.5 | 19.4 |
| 0.450 | 25.8 | 25.0 | 23.4 | 21.4 | 20.7 | 20.8 | 19.7 |
| 0.500 | 26.0 | 25.1 | 23.0 | 21.4 | 20.8 | 21.0 | 19.9 |
| 0.550 | 26.1 | 25.2 | 23.0 | 21.5 | 21.0 | 21.2 | 20.1 |
| 0.600 | 26.2 | 25.2 | 23.0 | 21.5 | 21.1 | 21.4 | 20.3 |
| 0.650 | 26.4 | 25.3 | 23.0 | 21.7 | 21.2 | 21.6 | 20.5 |
| 0.700 | 26.5 | 25.4 | 23.0 | 21.7 | 21.4 | 21.8 | 20.7 |
| 0.750 | 26.7 | 25.4 | 23.0 | 21.8 | 21.3 | 22.0 | 20.9 |
| 0.800 | 26.9 | 25.5 | 23.3 | 21.9 | 21.6 | 22.1 | 21.0 |
| 0.850 | 27.1 | 25.6 | 23.4 | 21.9 | 21.8 | 22.3 | 21.2 |
| 0.900 | 27.3 | 25.5 | 23.3 | 22.0 | 21.9 | 22.5 | 21.4 |
| 0.950 | 27.4 | 25.5 | 23.3 | 22.0 | 22.0 | 22.6 | 21.5 |
| 1.000 | 27.6 | 25.5 | 23.3 | 22.1 | 22.1 | 22.8 | 21.7 |
| 1.050 | 27.7 | 25.5 | 23.3 | 22.2 | 22.2 | 22.9 | 21.9 |
| 1.100 | 27.8 | 25.4 | 23.3 | 22.3 | 22.4 | 23.1 | 22.0 |
| 1.150 | 27.9 | 25.3 | 23.3 | 22.4 | 22.5 | 23.3 | 22.2 |
| 1.200 | 28.0 | 25.3 | 23.4 | 22.5 | 22.7 | 23.5 | 22.4 |
| 1.250 | 28.1 | 25.3 | 23.5 | 22.7 | 22.9 | 23.7 | 22.6 |
| 1.300 | 28.2 | 25.3 | 23.6 | 22.8 | 23.0 | 23.9 | 22.8 |
| 1.350 | 28.2 | 25.3 | 23.6 | 23.0 | 23.2 | 24.1 | 23.0 |
| 1.400 | 28.3 | 25.3 | 23.8 | 23.1 | 23.4 | 24.4 | 23.3 |
| 1.450 | 28.4 | 25.4 | 23.9 | 23.3 | 23.6 | 24.6 | 23.5 |
| 1.500 | 28.5 | 25.4 | 24.0 | 23.4 | 23.8 | 24.8 | 23.7 |
| 1.550 | 28.6 | 25.5 | 24.1 | 23.6 | 24.0 | 25.0 | 23.9 |
| 1.600 | 28.4 | 25.5 | 24.2 | 23.7 | 24.1 | 25.2 | 24.1 |
| 1.650 | 28.1 | 25.4 | 24.2 | 23.8 | 24.3 | 25.3 | 24.2 |
| 1.700 | 28.0 | 25.4 | 24.2 | 23.9 | 24.4 | 25.5 | 24.4 |
| 1.750 | 27.8 | 25.3 | 24.3 | 24.0 | 24.5 | 25.6 | 24.5 |
| 1.800 | 27.8 | 25.3 | 24.3 | 24.1 | 24.6 | 25.7 | 24.7 |
| 1.850 | 27.7 | 25.3 | 24.3 | 24.1 | 24.7 | 25.8 | 24.8 |
| 1.900 | 27.7 | 25.3 | 24.4 | 24.2 | 24.8 | 25.9 | 24.9 |
| 1.950 | 27.6 | 25.3 | 24.4 | 24.2 | 24.9 | 26.0 | 25.0 |
| 2.000 | 27.5 | 25.3 | 24.4 | 24.3 | 24.9 | 26.1 | 25.2 |
| 2.100 | 27.2 | 25.2 | 24.4 | 24.4 | 25.1 | 26.3 | 25.4 |
| 2.200 | 27.0 | 25.1 | 24.4 | 24.5 | 25.2 | 26.4 | 25.6 |
| 2.300 | 26.7 | 25.0 | 24.5 | 24.5 | 25.3 | 26.6 | 25.8 |
| 2.400 | 26.5 | 24.9 | 24.5 | 24.6 | 25.4 | 26.7 | 26.0 |
| 2.500 | 26.3 | 24.9 | 24.5 | 24.7 | 25.5 | 26.9 | 26.2 |
| 2.600 | 26.0 | 24.9 | 24.5 | 24.8 | 25.6 | 27.0 | 26.4 |
| 2.700 | 25.9 | 24.8 | 24.6 | 24.9 | 25.8 | 27.2 | 26.7 |
| 2.800 | 25.8 | 24.8 | 24.7 | 25.0 | 25.9 | 27.3 | 26.9 |
| 2.900 | 25.6 | 24.8 | 24.7 | 25.1 | 26.0 | 27.5 | 27.1 |
| 3.000 | 25.4 | 24.8 | 24.8 | 25.2 | 26.2 | 27.6 | 27.4 |

TABLE 23a

27 vs. Z. ($H_0=50$, $G_0=0$, $T_g=16$).

| Z | 0.90 | 0.70 | 0.50 | 0.30 | 0.15 | 0.01 | 0.85 |
|-------|------|------|------|------|------|------|------|
| 0.004 | 13.5 | 13.4 | 13.4 | 12.7 | 11.5 | 10.9 | 10.1 |
| 0.050 | 19.4 | 19.3 | 19.1 | 18.1 | 16.9 | 16.4 | 15.5 |
| 0.100 | 21.3 | 21.2 | 20.9 | 19.6 | 18.3 | 17.9 | 17.0 |
| 0.150 | 22.5 | 22.3 | 22.0 | 20.3 | 19.1 | 18.7 | 17.8 |
| 0.200 | 23.5 | 23.2 | 22.7 | 20.8 | 19.6 | 19.3 | 18.4 |
| 0.250 | 24.2 | 23.9 | 23.1 | 21.1 | 20.0 | 19.8 | 18.9 |
| 0.300 | 24.8 | 24.4 | 23.4 | 21.3 | 20.4 | 20.2 | 19.2 |
| 0.350 | 25.3 | 24.8 | 23.6 | 21.5 | 20.6 | 20.6 | 19.6 |
| 0.400 | 25.6 | 25.0 | 23.6 | 21.6 | 21.5 | 20.6 | 19.6 |
| 0.450 | 25.8 | 25.2 | 23.6 | 21.6 | 21.6 | 20.8 | 19.8 |
| 0.500 | 26.0 | 25.3 | 23.5 | 21.7 | 21.6 | 21.0 | 20.0 |
| 0.550 | 26.1 | 25.3 | 23.5 | 21.7 | 21.7 | 21.1 | 20.3 |
| 0.600 | 26.2 | 25.3 | 23.5 | 21.8 | 21.8 | 21.6 | 20.6 |
| 0.650 | 26.4 | 25.4 | 23.4 | 21.8 | 21.8 | 21.4 | 20.4 |
| 0.700 | 26.5 | 25.4 | 23.4 | 21.9 | 21.9 | 21.5 | 20.8 |
| 0.750 | 26.7 | 25.5 | 23.5 | 22.0 | 21.9 | 21.9 | 21.1 |
| 0.800 | 26.8 | 25.5 | 23.5 | 22.0 | 22.0 | 22.1 | 21.3 |
| 0.850 | 26.9 | 25.5 | 23.5 | 22.0 | 22.0 | 22.1 | 21.3 |
| 0.900 | 27.0 | 25.6 | 23.6 | 22.1 | 22.1 | 22.2 | 21.4 |
| 0.950 | 27.0 | 25.6 | 23.6 | 22.1 | 22.1 | 22.2 | 21.5 |
| 1.000 | 27.5 | 25.6 | 23.6 | 22.1 | 22.1 | 22.6 | 21.6 |
| 1.050 | 27.6 | 25.6 | 23.6 | 22.1 | 22.1 | 22.9 | 21.9 |
| 1.100 | 27.6 | 25.6 | 23.6 | 22.1 | 22.1 | 22.9 | 22.1 |
| 1.150 | 27.6 | 25.6 | 23.6 | 22.1 | 22.1 | 22.9 | 22.2 |
| 1.200 | 27.6 | 25.6 | 23.6 | 22.1 | 22.1 | 22.9 | 22.4 |
| 1.250 | 27.6 | 25.6 | 23.6 | 22.1 | 22.1 | 22.9 | 22.5 |
| 1.300 | 27.6 | 25.6 | 23.6 | 22.1 | 22.1 | 22.9 | 22.6 |
| 1.350 | 27.7 | 25.7 | 23.6 | 22.1 | 22.1 | 22.9 | 22.6 |
| 1.400 | 27.7 | 25.7 | 23.6 | 22.1 | 22.1 | 22.9 | 22.7 |
| 1.450 | 27.7 | 25.7 | 23.6 | 22.1 | 22.1 | 22.9 | 22.8 |
| 1.500 | 27.7 | 25.7 | 23.6 | 22.1 | 22.1 | 22.9 | 22.9 |
| 1.550 | 27.7 | 25.7 | 23.6 | 22.1 | 22.1 | 22.9 | 23.0 |
| 1.600 | 27.7 | 25.7 | 23.6 | 22.1 | 22.1 | 22.9 | 23.1 |
| 1.650 | 27.7 | 25.7 | 23.6 | 22.1 | 22.1 | 22.9 | 23.2 |
| 1.700 | 27.7 | 25.7 | 23.6 | 22.1 | 22.1 | 22.9 | 23.2 |
| 1.750 | 27.7 | 25.7 | 23.6 | 22.1 | 22.1 | 22.9 | 23.3 |
| 1.800 | 27.7 | 25.7 | 23.6 | 22.1 | 22.1 | 22.9 | 23.4 |
| 1.850 | 27.7 | 25.7 | 23.6 | 22.1 | 22.1 | 22.9 | 23.5 |
| 1.900 | 27.7 | 25.7 | 23.6 | 22.1 | 22.1 | 22.9 | 23.6 |
| 1.950 | 27.7 | 25.7 | 23.6 | 22.1 | 22.1 | 22.9 | 23.7 |
| 2.000 | 27.7 | 25.7 | 23.6 | 22.1 | 22.1 | 22.9 | 23.7 |
| 2.100 | 27.7 | 25.7 | 23.6 | 22.1 | 22.1 | 22.9 | 23.8 |
| 2.200 | 27.7 | 25.7 | 23.6 | 22.1 | 22.1 | 22.9 | 23.8 |
| 2.300 | 27.7 | 25.7 | 23.6 | 22.1 | 22.1 | 22.9 | 23.9 |
| 2.400 | 27.7 | 25.7 | 23.6 | 22.1 | 22.1 | 22.9 | 23.9 |
| 2.500 | 27.7 | 25.7 | 23.6 | 22.1 | 22.1 | 22.9 | 24.0 |
| 2.600 | 27.7 | 25.7 | 23.6 | 22.1 | 22.1 | 22.9 | 24.1 |
| 2.700 | 27.7 | 25.7 | 23.6 | 22.1 | 22.1 | 22.9 | 24.2 |
| 2.800 | 27.7 | 25.7 | 23.6 | 22.1 | 22.1 | 22.9 | 24.3 |
| 2.900 | 27.7 | 25.7 | 23.6 | 22.1 | 22.1 | 22.9 | 24.4 |
| 3.000 | 27.7 | 25.7 | 23.6 | 22.1 | 22.1 | 22.9 | 24.5 |

TABLE 23b

27 vs. Z. ($H_0=100$, $G_0=0$, $T_g=9$).

| Z | 0.90 | 0.70 | 0.50 | 0.30 | 0.15 | 0.01 | 0.85 |
|-------|--------|------|------|------|------|------|------|
| 0.004 | 13.1 | 13.0 | 12.6 | 11.6 | 11.0 | 10.7 | 9.9 |
| 0.050 | 19.0 | 18.9 | 18.1 | 17.0 | 16.5 | 16.2 | 15.4 |
| 0.100 | 21.0 | 20.7 | 19.7 | 18.4 | 17.9 | 17.7 | 16.9 |
| 0.150 | 22.3 | 21.8 | 20.4 | 19.2 | 18.7 | 18.6 | 17.7 |
| 0.200 | 23.3 | 22.5 | 20.9 | 19.7 | 19.3 | 19.2 | 18.3 |
| 0.250 | 24.0 | 23.0 | 21.3 | 20.1 | 19.6 | 19.7 | 18.6 |
| 0.300 | 24.5 | 23.3 | 21.5 | 20.4 | 20.4 | 20.1 | 19.2 |
| 0.350 | 24.9 | 23.5 | 21.7 | 20.7 | 20.4 | 20.4 | 19.5 |
| 0.400 | 25.2 | 23.6 | 21.8 | 20.9 | 20.6 | 20.7 | 19.6 |
| 0.450 | 25.4 | 23.7 | 21.9 | 21.0 | 20.8 | 20.9 | 20.1 |
| 0.500 | 25.5 | 23.7 | 22.0 | 21.2 | 21.1 | 21.3 | 20.5 |
| 0.600 | 25.8 | 23.6 | 22.0 | 21.3 | 21.3 | 21.4 | 20.7 |
| 0.650 | 26.0 | 23.7 | 22.1 | 21.5 | 21.4 | 21.6 | 20.8 |
| 0.700 | 26.2 | 23.8 | 22.2 | 21.5 | 21.5 | 21.8 | 21.0 |
| 0.750 | 26.3 | 23.7 | 22.2 | 21.6 | 21.7 | 21.9 | 21.2 |
| 0.800 | 26.4 | 23.7 | 22.3 | 21.7 | 21.7 | 21.8 | 21.3 |
| 0.850 | 26.6 | 23.8 | 22.3 | 21.8 | 21.9 | 22.2 | 21.5 |
| 0.900 | 26.7 | 23.8 | 22.3 | 21.9 | 22.0 | 22.3 | 21.6 |
| 0.950 | 26.8 | 23.8 | 22.3 | 22.0 | 22.1 | 22.3 | 21.8 |
| 1.000 | 26.9 | 23.8 | 22.3 | 22.0 | 22.1 | 22.3 | 22.0 |
| 1.050 | 26.9 | 23.8 | 22.3 | 22.0 | 22.2 | 22.4 | 22.0 |
| 1.100 | 26.5 | 23.7 | 22.5 | 22.3 | 22.5 | 22.9 | 22.2 |
| 1.150 | 26.3 | 23.7 | 22.6 | 22.3 | 22.6 | 22.6 | 23.0 |
| 1.200 | 26.2 | 23.6 | 22.6 | 22.4 | 22.4 | 22.7 | 23.1 |
| 1.250 | 26.1 | 23.6 | 22.7 | 22.5 | 22.8 | 23.2 | 22.5 |
| 1.300 | 26.0 | 23.6 | 22.7 | 22.5 | 22.7 | 23.2 | 22.7 |
| 1.350 | 26.0</ | | | | | | |

TABLE 24a

| Z | 0.90 | 0.70 | 0.50 | 0.30 | 0.15 | 0.01 | 0.85 |
|-------|------|------|------|------|------|------|------|
| 0.004 | 10.2 | 10.2 | 10.2 | 10.2 | 10.4 | 10.5 | 10.6 |
| 0.050 | 15.7 | 15.7 | 15.7 | 15.7 | 15.9 | 16.1 | 16.2 |
| 0.100 | 17.3 | 17.3 | 17.3 | 17.3 | 17.4 | 17.6 | 17.7 |
| 0.150 | 18.2 | 18.2 | 18.2 | 18.2 | 18.3 | 18.4 | 18.6 |
| 0.200 | 19.1 | 19.1 | 19.0 | 19.0 | 19.0 | 19.3 | 19.3 |
| 0.250 | 19.8 | 19.8 | 19.8 | 19.8 | 19.8 | 19.9 | 19.9 |
| 0.300 | 20.3 | 20.4 | 20.4 | 20.2 | 20.2 | 20.9 | 20.4 |
| 0.350 | 21.1 | 21.1 | 21.0 | 20.8 | 20.7 | 21.1 | 20.9 |
| 0.400 | 21.6 | 21.5 | 21.4 | 21.2 | 21.2 | 21.5 | 21.3 |
| 0.500 | 22.0 | 22.0 | 21.8 | 21.6 | 21.5 | 22.0 | 21.7 |
| 0.550 | 22.3 | 22.3 | 22.3 | 21.9 | 21.9 | 22.3 | 22.0 |
| 0.600 | 22.6 | 22.5 | 22.4 | 22.1 | 22.1 | 22.6 | 22.2 |
| 0.650 | 22.8 | 22.8 | 22.7 | 22.4 | 22.4 | 22.9 | 22.5 |
| 0.700 | 23.1 | 23.1 | 23.0 | 22.6 | 22.6 | 23.1 | 22.7 |
| 0.750 | 23.5 | 23.5 | 23.3 | 22.8 | 22.8 | 23.4 | 22.9 |
| 0.800 | 24.3 | 24.2 | 23.8 | 23.1 | 23.2 | 23.8 | 23.2 |
| 0.850 | 24.8 | 24.6 | 24.1 | 23.3 | 23.3 | 24.0 | 23.4 |
| 0.900 | 25.1 | 24.9 | 24.2 | 23.4 | 23.5 | 24.1 | 23.5 |
| 0.950 | 25.5 | 25.2 | 24.3 | 23.5 | 23.6 | 24.3 | 23.7 |
| 1.000 | 25.9 | 25.5 | 24.4 | 23.6 | 23.7 | 24.2 | 23.8 |
| 1.050 | 26.2 | 25.7 | 24.5 | 23.7 | 23.8 | 24.5 | 23.9 |
| 1.100 | 26.5 | 25.8 | 24.5 | 23.7 | 23.7 | 24.6 | 24.0 |
| 1.150 | 26.7 | 25.8 | 24.5 | 23.8 | 24.0 | 24.8 | 24.2 |
| 1.200 | 26.8 | 25.9 | 24.5 | 23.8 | 24.0 | 24.9 | 24.3 |
| 1.250 | 27.0 | 25.9 | 24.6 | 23.9 | 24.1 | 25.0 | 24.4 |
| 1.300 | 27.0 | 25.9 | 24.5 | 23.9 | 24.2 | 25.1 | 24.5 |
| 1.350 | 27.0 | 25.8 | 24.5 | 23.9 | 24.2 | 25.2 | 24.6 |
| 1.400 | 27.1 | 25.7 | 24.5 | 23.9 | 24.3 | 25.2 | 24.7 |
| 1.450 | 27.1 | 25.7 | 24.5 | 24.0 | 24.4 | 25.3 | 24.8 |
| 1.500 | 27.2 | 25.6 | 24.4 | 24.0 | 24.4 | 25.4 | 24.9 |
| 1.550 | 27.3 | 25.6 | 24.4 | 24.0 | 24.4 | 25.5 | 25.0 |
| 1.600 | 27.3 | 25.5 | 24.4 | 24.0 | 24.5 | 25.5 | 25.0 |
| 1.650 | 27.2 | 25.4 | 24.4 | 24.0 | 24.5 | 25.6 | 25.1 |
| 1.700 | 27.1 | 25.3 | 24.3 | 24.0 | 24.5 | 25.6 | 25.2 |
| 1.750 | 27.0 | 25.2 | 24.3 | 24.0 | 24.6 | 25.7 | 25.3 |
| 1.800 | 27.0 | 25.1 | 24.2 | 24.0 | 24.6 | 25.7 | 25.4 |
| 1.850 | 26.9 | 25.1 | 24.2 | 24.1 | 24.6 | 25.8 | 25.4 |
| 1.900 | 26.9 | 25.0 | 24.2 | 24.1 | 24.7 | 25.8 | 25.5 |
| 1.950 | 26.9 | 25.0 | 24.2 | 24.1 | 24.7 | 25.9 | 25.6 |
| 2.000 | 26.8 | 25.0 | 24.2 | 24.2 | 24.8 | 26.0 | 25.7 |
| 2.100 | 26.6 | 24.8 | 24.2 | 24.2 | 24.8 | 26.1 | 25.8 |
| 2.200 | 26.5 | 24.7 | 24.1 | 24.2 | 24.9 | 26.2 | 26.0 |
| 2.300 | 26.1 | 24.6 | 24.1 | 24.2 | 25.0 | 26.3 | 26.1 |
| 2.400 | 25.9 | 24.5 | 24.0 | 24.2 | 25.0 | 26.3 | 26.3 |
| 2.500 | 25.7 | 24.4 | 24.0 | 24.3 | 25.1 | 26.4 | 26.5 |
| 2.600 | 25.4 | 24.3 | 24.0 | 24.3 | 25.2 | 26.5 | 26.6 |
| 2.700 | 25.2 | 24.3 | 24.1 | 24.4 | 25.3 | 26.6 | 26.8 |
| 2.800 | 25.1 | 24.2 | 24.1 | 24.4 | 25.4 | 26.8 | 27.0 |
| 2.900 | 24.9 | 24.2 | 24.1 | 24.5 | 25.4 | 26.9 | 27.1 |
| 3.000 | 24.6 | 24.1 | 24.1 | 24.6 | 25.5 | 27.0 | 27.3 |

TABLE 25a

| Z | 0.90 | 0.70 | 0.50 | 0.30 | 0.15 | 0.01 | 0.85 |
|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.004 | -0.59 | -0.68 | -0.71 | -0.74 | -0.75 | -0.76 | -0.85 |
| 0.050 | -0.56 | -0.63 | -0.66 | -0.69 | -0.70 | -0.70 | -0.81 |
| 0.100 | -0.53 | -0.60 | -0.62 | -0.64 | -0.65 | -0.66 | -0.79 |
| 0.150 | -0.50 | -0.56 | -0.58 | -0.60 | -0.61 | -0.61 | -0.76 |
| 0.200 | -0.48 | -0.54 | -0.56 | -0.57 | -0.58 | -0.58 | -0.74 |
| 0.250 | -0.46 | -0.51 | -0.53 | -0.54 | -0.55 | -0.55 | -0.71 |
| 0.300 | -0.42 | -0.47 | -0.48 | -0.49 | -0.49 | -0.50 | -0.66 |
| 0.350 | -0.35 | -0.39 | -0.40 | -0.41 | -0.41 | -0.42 | -0.59 |
| 0.400 | -0.25 | -0.26 | -0.27 | -0.30 | -0.30 | -0.30 | -0.48 |
| 0.450 | -0.11 | -0.13 | -0.14 | -0.15 | -0.15 | -0.15 | -0.34 |
| 0.500 | 0.05 | 0.03 | 0.03 | 0.02 | 0.02 | 0.02 | -0.19 |
| 0.550 | 0.22 | 0.21 | 0.21 | 0.20 | 0.20 | 0.20 | -0.03 |
| 0.600 | 0.37 | 0.36 | 0.36 | 0.36 | 0.35 | 0.35 | 0.10 |
| 0.650 | 0.47 | 0.47 | 0.47 | 0.46 | 0.46 | 0.46 | 0.19 |
| 0.700 | 0.51 | 0.51 | 0.51 | 0.50 | 0.50 | 0.50 | 0.22 |
| 0.750 | 0.48 | 0.48 | 0.48 | 0.48 | 0.48 | 0.49 | 0.21 |
| 0.800 | 0.41 | 0.41 | 0.41 | 0.40 | 0.40 | 0.40 | 0.15 |
| 0.850 | 0.26 | 0.26 | 0.26 | 0.26 | 0.26 | 0.26 | 0.06 |
| 0.900 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 | 0.04 |
| 0.950 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.04 |
| 1.000 | -0.11 | -0.12 | -0.12 | -0.12 | -0.12 | -0.12 | -0.25 |
| 1.050 | -0.23 | -0.24 | -0.24 | -0.24 | -0.24 | -0.24 | -0.34 |
| 1.100 | -0.32 | -0.33 | -0.33 | -0.33 | -0.33 | -0.33 | -0.40 |
| 1.150 | -0.39 | -0.39 | -0.39 | -0.39 | -0.39 | -0.39 | -0.45 |
| 1.200 | -0.43 | -0.43 | -0.43 | -0.43 | -0.44 | -0.44 | -0.47 |
| 1.250 | -0.45 | -0.45 | -0.45 | -0.46 | -0.46 | -0.46 | -0.48 |
| 1.300 | -0.46 | -0.46 | -0.46 | -0.46 | -0.46 | -0.46 | -0.48 |
| 1.350 | -0.45 | -0.46 | -0.46 | -0.46 | -0.46 | -0.46 | -0.48 |
| 1.400 | -0.44 | -0.45 | -0.45 | -0.45 | -0.45 | -0.45 | -0.47 |
| 1.450 | -0.43 | -0.43 | -0.43 | -0.43 | -0.43 | -0.43 | -0.45 |
| 1.500 | -0.41 | -0.41 | -0.41 | -0.41 | -0.41 | -0.41 | -0.44 |
| 1.550 | -0.40 | -0.40 | -0.40 | -0.40 | -0.40 | -0.40 | -0.42 |
| 1.600 | -0.38 | -0.38 | -0.38 | -0.38 | -0.38 | -0.38 | -0.40 |
| 1.650 | -0.35 | -0.35 | -0.35 | -0.35 | -0.35 | -0.35 | -0.36 |
| 1.700 | -0.33 | -0.33 | -0.33 | -0.33 | -0.33 | -0.33 | -0.36 |
| 1.750 | -0.31 | -0.31 | -0.31 | -0.31 | -0.31 | -0.31 | -0.34 |
| 1.800 | -0.28 | -0.28 | -0.28 | -0.28 | -0.28 | -0.28 | -0.31 |
| 1.850 | -0.26 | -0.26 | -0.26 | -0.26 | -0.26 | -0.26 | -0.29 |
| 1.900 | -0.23 | -0.23 | -0.23 | -0.23 | -0.23 | -0.23 | -0.27 |
| 1.950 | -0.21 | -0.21 | -0.21 | -0.21 | -0.21 | -0.21 | -0.24 |
| 2.000 | -0.19 | -0.19 | -0.19 | -0.19 | -0.19 | -0.19 | -0.22 |
| 2.100 | -0.15 | -0.15 | -0.15 | -0.15 | -0.15 | -0.15 | -0.18 |
| 2.200 | -0.12 | -0.12 | -0.12 | -0.12 | -0.12 | -0.12 | -0.15 |
| 2.300 | -0.10 | -0.10 | -0.10 | -0.10 | -0.10 | -0.10 | -0.13 |
| 2.400 | -0.07 | -0.07 | -0.07 | -0.07 | -0.07 | -0.07 | -0.13 |
| 2.500 | -0.04 | -0.04 | -0.04 | -0.04 | -0.04 | -0.04 | -0.13 |
| 2.600 | -0.01 | -0.01 | -0.01 | -0.01 | -0.01 | -0.01 | -0.13 |
| 2.700 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | -0.13 |
| 2.800 | -0.03 | -0.03 | -0.03 | -0.03 | -0.03 | -0.03 | -0.13 |
| 2.900 | -0.06 | -0.06 | -0.06 | -0.06 | -0.06 | -0.06 | -0.13 |
| 3.000 | -0.09 | -0.09 | -0.09 | -0.09 | -0.09 | -0.09 | -0.13 |

TABLE 24b

| Z | 0.90 | 0.70 | 0.50 | 0.30 | 0.15 | 0.01 | 0.85 |
|-------|------|------|------|------|------|------|------|
| 0.004 | 10.2 | 10.3 | 10.3 | 10.4 | 10.5 | 10.6 | 10.7 |
| 0.050 | 15.8 | 15.8 | 15.8 | 15.9 | 16.0 | 16.1 | 16.2 |
| 0.100 | 17.3 | 17.3 | 17.3 | 17.4 | 17.5 | 17.7 | 17.8 |
| 0.150 | 18.3 | 18.3 | 18.3 | 18.3 | 18.5 | 18.6 | 18.7 |
| 0.200 | 19.1 | 19.1 | 19.0 | 19.0 | 19.2 | 19.3 | 19.4 |
| 0.250 | 19.8 | 19.7 | 19.7 | 19.6 | 19.8 | 20.0 | 20.0 |
| 0.300 | 20.4 | 20.4 | 20.2 | 20.2 | 20.3 | 20.5 | 20.5 |
| 0.350 | 21.0 | 20.9 | 20.8 | 20.7 | 20.8 | 21.0 | 21.0 |
| 0.400 | 21.5 | 21.4 | 21.2 | 21.1 | 21.3 | 21.5 | 21.4 |
| 0.450 | 21.9 | 21.8 | 21.6 | 21.5 | 21.7 | 21.9 | 21.8 |
| 0.500 | 22.2 | 22.1 | 21.9 | 21.9 | 22.2 | 22.3 | 22.1 |
| 0.600 | 22.5 | 22.4 | 22.2 | 22.1 | 22.3 | 22.5 | 22.3 |
| 0.650 | 23.1 | 23.0 | 22.7 | 22.6 | 22.8 | 23.1 | 22.8 |
| 0.700 | 23.4 | 23.3 | 23.0 | 22.8 | 23.0 | 23.3 | 23.0 |
| 0.750 | 23.8 | 23.6 | 23.1 | 23.0 | 23.2 | 23.5 | 23.2 |
| 0.800 | 24.1 | 23.8 | 23.3 | 23.1 | 23.3 | 23.7 | 23.3 |
| 0.850 | 24.5 | 24.1 | 23.5 | 23.3 | 23.5 | 23.9 | 23.3 |
| 0.900 | 24.8 | 24.3 | 23.6 | 23.4 | 23.6 | 24.0 | 23.6 |
| 0.950 | 25.1 | 24.7 | 23.9 | 23.7 | 23.9 | 24.3 | 23.9 |
| 1.000 | 25.8 | 24.8 | 24.0 | 23.8 | 24.4 | 24.4 | 24.0 |
| 1.050 | 25.9 | 24.9 | 24.0 | 23.9 | 24.1 | 24.5 | 24.1 |
| 1.100 | 26.0 | 24.9 | 24.1 | 23.9 | 24.2 | 24.6 | 24.3 |
| 1.150 | 26.0 | 24.9 | 24.1 | 24.0 | 24.3 | 24.6 | 24.3 |
| 1.200 | 26.2 | 24.9 | 24.1 | 24.1 | 24.3 | 24.8 | 24.4 |
| 1.250 | 26.2 | 24.9 | 24.2 | 24.1 | 24.4 | 24.9 | 24.5 |
| 1.300 | 26.3 | 24.9 | 24.2 | 24.2 | 24.5 | 25.0 | 24.6 |
| 1.350 | 26.3 | 25.0 | 24.2 | 24.2 | 24.6 | 25.0 | 24.7 |
| 1.400 | 26.4 | 25.0 | 24.3 | 24.3 | 24.6 | 25.1 | 24.8 |
| 1.450 | 26.5 | 25.0 | 24.3 | 24.4 | 24.7 | 25.2 | 24.9 |
| 1.500 | 26.5 | 25.0 | 24.3 | 24.4 | 24.8 | 25.3 | |

TABLE 26a

17-22 vs. Z. (He=50, Ge=0, Tg=16).

| Z | 0.90 | 0.70 | 0.50 | 0.30 | 0.15 | 0.01 | 0.85 |
|-------|------|-------|-------|-------|-------|-------|-------|
| 0.004 | 0.36 | 0.15 | 0.05 | -0.18 | -0.24 | -0.25 | -0.31 |
| 0.050 | 0.24 | 0.05 | -0.04 | -0.20 | -0.23 | -0.25 | -0.30 |
| 0.100 | 0.14 | -0.02 | -0.08 | -0.11 | -0.19 | -0.21 | -0.22 |
| 0.150 | 0.08 | -0.05 | -0.11 | -0.17 | -0.18 | -0.19 | -0.26 |
| 0.200 | 0.06 | -0.05 | -0.07 | -0.13 | -0.15 | -0.15 | -0.23 |
| 0.250 | 0.06 | -0.05 | -0.07 | -0.08 | -0.11 | -0.11 | -0.21 |
| 0.300 | 0.08 | -0.03 | -0.03 | -0.03 | -0.04 | -0.07 | -0.19 |
| 0.350 | 0.11 | -0.04 | -0.01 | -0.01 | -0.02 | -0.03 | -0.15 |
| 0.400 | 0.14 | -0.07 | -0.04 | -0.03 | -0.02 | -0.03 | -0.13 |
| 0.450 | 0.14 | -0.10 | -0.04 | -0.03 | -0.02 | -0.03 | -0.13 |
| 0.500 | 0.19 | 0.13 | 0.11 | 0.10 | 0.09 | 0.09 | 0.08 |
| 0.550 | 0.21 | 0.14 | 0.14 | 0.13 | 0.13 | 0.12 | 0.09 |
| 0.600 | 0.24 | 0.20 | 0.18 | 0.17 | 0.17 | 0.16 | 0.01 |
| 0.650 | 0.29 | 0.25 | 0.23 | 0.22 | 0.22 | 0.22 | 0.04 |
| 0.700 | 0.35 | 0.32 | 0.30 | 0.29 | 0.29 | 0.29 | 0.11 |
| 0.750 | 0.44 | 0.40 | 0.37 | 0.36 | 0.36 | 0.36 | 0.20 |
| 0.800 | 0.54 | 0.51 | 0.50 | 0.49 | 0.49 | 0.49 | 0.30 |
| 0.850 | 0.65 | 0.63 | 0.63 | 0.62 | 0.62 | 0.62 | 0.41 |
| 0.900 | 0.78 | 0.77 | 0.76 | 0.76 | 0.75 | 0.75 | 0.53 |
| 0.950 | 0.91 | 0.90 | 0.89 | 0.89 | 0.89 | 0.88 | 0.65 |
| 1.000 | 1.01 | 1.01 | 1.00 | 1.00 | 1.00 | 1.00 | 0.74 |
| 1.050 | 1.10 | 1.10 | 1.10 | 1.09 | 1.09 | 1.09 | 0.82 |
| 1.100 | 1.15 | 1.15 | 1.14 | 1.14 | 1.14 | 1.14 | 0.86 |
| 1.150 | 1.16 | 1.16 | 1.16 | 1.15 | 1.15 | 1.15 | 0.86 |
| 1.200 | 1.13 | 1.14 | 1.13 | 1.13 | 1.13 | 1.13 | 0.86 |
| 1.250 | 1.08 | 1.08 | 1.07 | 1.07 | 1.07 | 1.07 | 0.81 |
| 1.300 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.99 | 0.75 |
| 1.350 | 0.90 | 0.89 | 0.89 | 0.89 | 0.89 | 0.89 | 0.68 |
| 1.400 | 0.79 | 0.79 | 0.78 | 0.78 | 0.78 | 0.78 | 0.59 |
| 1.450 | 0.68 | 0.67 | 0.67 | 0.67 | 0.67 | 0.67 | 0.51 |
| 1.500 | 0.57 | 0.57 | 0.57 | 0.56 | 0.56 | 0.56 | 0.43 |
| 1.550 | 0.48 | 0.47 | 0.47 | 0.47 | 0.47 | 0.47 | 0.36 |
| 1.600 | 0.39 | 0.39 | 0.39 | 0.38 | 0.38 | 0.38 | 0.30 |
| 1.650 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.25 |
| 1.700 | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 | 0.27 | 0.22 |
| 1.750 | 0.24 | 0.24 | 0.24 | 0.24 | 0.24 | 0.24 | 0.20 |
| 1.800 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.18 |
| 1.850 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.18 |
| 1.900 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.18 |
| 1.950 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.21 | 0.19 |
| 2.000 | 0.21 | 0.21 | 0.22 | 0.22 | 0.22 | 0.22 | 0.20 |
| 2.100 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.25 | 0.22 |
| 2.200 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.28 | 0.25 |
| 2.300 | 0.31 | 0.31 | 0.31 | 0.31 | 0.31 | 0.31 | 0.26 |
| 2.400 | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 | 0.32 |
| 2.500 | 0.39 | 0.39 | 0.39 | 0.39 | 0.39 | 0.39 | 0.36 |
| 2.600 | 0.42 | 0.42 | 0.42 | 0.42 | 0.42 | 0.42 | 0.39 |
| 2.700 | 0.46 | 0.46 | 0.46 | 0.46 | 0.46 | 0.46 | 0.43 |
| 2.800 | 0.49 | 0.49 | 0.49 | 0.49 | 0.49 | 0.49 | 0.46 |
| 2.900 | 0.52 | 0.52 | 0.52 | 0.52 | 0.52 | 0.52 | 0.49 |
| 3.000 | 0.54 | 0.54 | 0.54 | 0.54 | 0.54 | 0.54 | 0.51 |

TABLE 27a

22-27 vs. Z. (He=50, Ge=0, Tg=16).

| Z | 0.90 | 0.70 | 0.50 | 0.30 | 0.15 | 0.01 | 0.85 |
|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.004 | 1.84 | 1.56 | 1.34 | 0.42 | -0.05 | -0.16 | -0.33 |
| 0.050 | 1.52 | 1.20 | 0.87 | 0.12 | -0.16 | -0.23 | -0.35 |
| 0.100 | 1.16 | 0.83 | 0.57 | -0.09 | -0.25 | -0.29 | -0.38 |
| 0.150 | 0.83 | 0.51 | 0.25 | -0.22 | -0.31 | -0.33 | -0.40 |
| 0.200 | 0.56 | 0.26 | 0.02 | -0.26 | -0.34 | -0.36 | -0.42 |
| 0.250 | 0.35 | 0.10 | -0.11 | -0.31 | -0.35 | -0.37 | -0.42 |
| 0.300 | 0.21 | -0.01 | -0.19 | -0.32 | -0.35 | -0.36 | -0.41 |
| 0.350 | 0.10 | -0.09 | -0.23 | -0.31 | -0.34 | -0.36 | -0.40 |
| 0.400 | 0.03 | -0.13 | -0.24 | -0.30 | -0.31 | -0.32 | -0.38 |
| 0.450 | -0.03 | -0.16 | -0.23 | -0.27 | -0.29 | -0.30 | -0.36 |
| 0.500 | -0.05 | -0.16 | -0.22 | -0.25 | -0.26 | -0.27 | -0.34 |
| 0.550 | -0.06 | -0.14 | -0.19 | -0.22 | -0.23 | -0.23 | -0.32 |
| 0.600 | -0.04 | -0.12 | -0.16 | -0.19 | -0.21 | -0.20 | -0.30 |
| 0.650 | -0.02 | -0.10 | -0.13 | -0.15 | -0.16 | -0.16 | -0.28 |
| 0.700 | 0.02 | -0.07 | -0.10 | -0.12 | -0.12 | -0.13 | -0.26 |
| 0.750 | 0.03 | -0.04 | -0.07 | -0.09 | -0.09 | -0.10 | -0.24 |
| 0.800 | 0.05 | -0.02 | -0.04 | -0.06 | -0.06 | -0.06 | -0.22 |
| 0.850 | 0.07 | -0.01 | -0.02 | -0.03 | -0.03 | -0.04 | -0.20 |
| 0.900 | 0.09 | 0.01 | -0.01 | -0.02 | -0.02 | -0.01 | -0.18 |
| 0.950 | 0.10 | 0.05 | 0.03 | 0.02 | 0.02 | 0.01 | -0.15 |
| 1.000 | 0.13 | 0.08 | 0.06 | 0.05 | 0.05 | 0.03 | -0.12 |
| 1.050 | 0.16 | 0.11 | 0.10 | 0.09 | 0.09 | 0.08 | -0.09 |
| 1.100 | 0.20 | 0.16 | 0.15 | 0.14 | 0.13 | 0.13 | -0.04 |
| 1.150 | 0.25 | 0.22 | 0.21 | 0.20 | 0.20 | 0.19 | 0.02 |
| 1.200 | 0.32 | 0.29 | 0.28 | 0.27 | 0.27 | 0.27 | 0.09 |
| 1.250 | 0.40 | 0.37 | 0.37 | 0.36 | 0.36 | 0.36 | 0.17 |
| 1.300 | 0.49 | 0.47 | 0.46 | 0.46 | 0.46 | 0.45 | 0.26 |
| 1.350 | 0.59 | 0.57 | 0.57 | 0.56 | 0.56 | 0.56 | 0.35 |
| 1.400 | 0.70 | 0.68 | 0.68 | 0.67 | 0.67 | 0.67 | 0.45 |
| 1.450 | 0.80 | 0.79 | 0.78 | 0.78 | 0.77 | 0.77 | 0.54 |
| 1.500 | 0.89 | 0.86 | 0.87 | 0.87 | 0.87 | 0.87 | 0.62 |
| 1.550 | 0.96 | 0.95 | 0.95 | 0.95 | 0.95 | 0.94 | 0.68 |
| 1.600 | 1.02 | 1.01 | 1.01 | 1.00 | 1.00 | 1.00 | 0.73 |
| 1.650 | 1.05 | 1.04 | 1.04 | 1.03 | 1.03 | 1.03 | 0.76 |
| 1.700 | 1.05 | 1.04 | 1.04 | 1.04 | 1.04 | 1.04 | 0.76 |
| 1.750 | 1.03 | 1.02 | 1.02 | 1.01 | 1.01 | 1.01 | 0.75 |
| 1.800 | 0.98 | 0.96 | 0.97 | 0.97 | 0.97 | 0.97 | 0.71 |
| 1.850 | 0.92 | 0.92 | 0.91 | 0.91 | 0.91 | 0.91 | 0.67 |
| 1.900 | 0.85 | 0.84 | 0.84 | 0.84 | 0.84 | 0.83 | 0.61 |
| 1.950 | 0.76 | 0.76 | 0.75 | 0.75 | 0.75 | 0.75 | 0.55 |
| 2.000 | 0.67 | 0.67 | 0.66 | 0.66 | 0.66 | 0.66 | 0.48 |
| 2.100 | 0.49 | 0.48 | 0.48 | 0.48 | 0.48 | 0.48 | 0.34 |
| 2.200 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.32 | 0.22 |
| 2.300 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.13 |
| 2.400 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.08 |
| 2.500 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.06 |
| 2.600 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.09 | 0.06 |
| 2.700 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.07 |
| 2.800 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.11 | 0.09 |
| 2.900 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.13 | 0.11 |
| 3.000 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.16 | 0.13 |

TABLE 27b

22-27 vs. Z. (He=100, Ge=0, Tg=9).

| Z | 0.90 | 0.70 | 0.50 | 0.30 | 0.15 | 0.01 | 0.85 |
|-------|------|-------|-------|-------|----------|-------|-------|
| 0.004 | 2.08 | 1.67 | 0.66 | 0.02 | -0.12 | -0.18 | -0.34 |
| 0.050 | 1.78 | 1.25 | 0.29 | -0.12 | -0.20 | -0.24 | -0.36 |
| 0.100 | 1.42 | 0.82 | 0.03 | -0.22 | -0.27 | -0.29 | -0.39 |
| 0.150 | 1.04 | 0.43 | -0.13 | -0.28 | -0.32 | -0.33 | -0.41 |
| 0.200 | 0.72 | 0.19 | -0.22 | -0.32 | -0.34 | -0.36 | -0.42 |
| 0.250 | 0.50 | 0.05 | -0.26 | -0.33 | -0.34 | -0.37 | -0.42 |
| 0.300 | 0.41 | -0.03 | -0.27 | -0.33 | -0.35 | -0.36 | -0.42 |
| 0.350 | 0.36 | -0.07 | -0.27 | -0.32 | -0.34 | -0.35 | -0.40 |
| 0.400 | 0.32 | -0.09 | -0.26 | -0.30 | -0.32 | -0.32 | -0.39 |
| 0.450 | 0.28 | -0.11 | -0.24 | -0.28 | -0.29 | -0.30 | -0.37 |
| 0.500 | 0.29 | -0.12 | -0.22 | -0.23 | -0.26 | -0.27 | -0.35 |
| 0.550 | 0.28 | -0.11 | -0.19 | -0.22 | -0.23 | -0.23 | -0.33 |
| 0.600 | 0.25 | -0.10 | -0.17 | -0.19 | -0.19 | -0.20 | -0.30 |
| 0.650 | 0.21 | -0.08 | -0.13 | -0.15 | -0.16 | -0.16 | -0.28 |
| 0.700 | 0.17 | -0.06 | -0.10 | -0.12 | -0.12 | -0.13 | -0.26 |
| 0.750 | 0.13 | -0.04 | -0.07 | -0.09 | -0.09 | -0.10 | -0.24 |
| 0.800 | 0.10 | -0.02 | -0.04 | -0.06 | -0.06 | -0.06 | -0.22 |
| 0.850 | 0.09 | 0.00 | -0.02 | -0.03 | -0.03 | -0.04 | -0.20 |
| 0.900 | 0.10 | 0.05 | 0.03 | 0.02 | 0.02 | 0.01 | -0.18 |
| 0.950 | 0.15 | 0.11 | 0.10 | 0.09 | 0.09 | 0.08 | -0.09 |
| 1.000 | 0.19 | 0.16 | 0.15 | 0.14 | 0.13 | 0.13 | -0.04 |
| 1.100 | 0.24 | 0.22 | 0.21 | 0.20 | 0.20 | 0.19 | 0.02 |
| 1.200 | 0.31 | 0.29 | 0.28 | 0.27 | 0.27 | 0.27 | 0.09 |
| 1.250 | 0.40 | 0.37 | 0.37 | 0.36 | 0.36 | 0.36 | 0.17 |
| 1.300 | 0.49 | 0.47 | 0.46 | 0.46 | 0.46 | 0.45 | 0.26 |
| 1.350 | 0.59 | 0.57 | 0.57 | 0.56 | 0.56 | 0.56 | 0.35 |
| 1.400 | 0.70 | 0.68 | 0.68 | 0.67 | 0.67</td | | |

TABLE 28a

| 27-B vs. Z. (He=50, Ge=0, Tg=16). | | | | | | | | |
|-----------------------------------|-------|-------|-------|-------|-------|-------|-------|--|
| Z | 0.90 | 0.70 | 0.50 | 0.30 | 0.15 | 0.01 | 0.85 | |
| 0.004 | 2.31 | 2.24 | 2.15 | 1.48 | 0.38 | -0.24 | -1.00 | |
| 0.050 | 2.51 | 2.41 | 2.27 | 1.34 | 0.18 | -0.38 | -1.13 | |
| 0.100 | 2.67 | 2.52 | 2.31 | 1.04 | -0.07 | -0.57 | -1.24 | |
| 0.150 | 2.77 | 2.56 | 2.23 | 0.64 | -0.32 | -0.76 | -1.43 | |
| 0.200 | 2.81 | 2.53 | 2.04 | 0.35 | -0.54 | -0.94 | -1.54 | |
| 0.250 | 2.76 | 2.42 | 1.97 | 0.03 | -0.98 | -1.10 | -1.67 | |
| 0.300 | 2.74 | 2.37 | 1.91 | -0.57 | -0.98 | -1.25 | -1.75 | |
| 0.350 | 2.76 | 2.39 | 1.83 | -0.83 | -1.30 | -1.38 | -1.83 | |
| 0.400 | 2.43 | 1.89 | 0.49 | -0.83 | -1.30 | -1.49 | -1.88 | |
| 0.450 | 2.24 | 1.63 | 0.30 | -1.03 | -1.30 | -1.58 | -1.92 | |
| 0.500 | 2.01 | 1.31 | 0.11 | -1.23 | -1.34 | -1.63 | -1.96 | |
| 0.550 | 1.73 | 0.97 | -0.47 | -1.41 | -1.43 | -1.72 | -1.98 | |
| 0.600 | 1.40 | 0.56 | -0.84 | -1.34 | -1.70 | -1.77 | -2.00 | |
| 0.650 | 1.05 | 0.17 | -1.12 | -1.64 | -1.76 | -1.81 | -2.01 | |
| 0.700 | 0.71 | -0.20 | -1.33 | -1.71 | -1.86 | -1.84 | -2.02 | |
| 0.750 | 0.37 | -0.54 | -1.48 | -1.76 | -1.82 | -1.86 | -2.02 | |
| 0.800 | 0.06 | -0.83 | -1.58 | -1.73 | -1.84 | -1.87 | -2.02 | |
| 0.850 | -0.18 | -1.02 | -1.64 | -1.80 | -1.85 | -1.87 | -2.02 | |
| 0.900 | -0.30 | -1.16 | -1.67 | -1.80 | -1.84 | -1.86 | -2.01 | |
| 0.950 | -0.39 | -1.25 | -1.68 | -1.79 | -1.82 | -1.84 | -2.00 | |
| 1.000 | -0.45 | -1.30 | -1.67 | -1.77 | -1.80 | -1.82 | -1.98 | |
| 1.050 | -0.48 | -1.33 | -1.65 | -1.74 | -1.77 | -1.78 | -1.96 | |
| 1.100 | -0.44 | -1.35 | -1.63 | -1.70 | -1.73 | -1.75 | -1.93 | |
| 1.150 | -0.41 | -1.36 | -1.60 | -1.66 | -1.69 | -1.70 | -1.90 | |
| 1.200 | -0.40 | -1.35 | -1.58 | -1.62 | -1.65 | -1.66 | -1.87 | |
| 1.250 | -0.41 | -1.34 | -1.53 | -1.58 | -1.60 | -1.62 | -1.84 | |
| 1.300 | -0.45 | -1.33 | -1.49 | -1.54 | -1.58 | -1.60 | -1.81 | |
| 1.350 | -0.52 | -1.33 | -1.47 | -1.51 | -1.53 | -1.54 | -1.79 | |
| 1.400 | -0.59 | -1.32 | -1.43 | -1.47 | -1.49 | -1.50 | -1.76 | |
| 1.450 | -0.66 | -1.31 | -1.40 | -1.43 | -1.45 | -1.46 | -1.73 | |
| 1.500 | -0.71 | -1.28 | -1.36 | -1.37 | -1.40 | -1.41 | -1.69 | |
| 1.550 | -0.74 | -1.24 | -1.30 | -1.33 | -1.35 | -1.35 | -1.65 | |
| 1.600 | -0.82 | -1.19 | -1.24 | -1.27 | -1.28 | -1.29 | -1.60 | |
| 1.650 | -0.87 | -1.13 | -1.18 | -1.20 | -1.21 | -1.22 | -1.54 | |
| 1.700 | -0.86 | -1.06 | -1.10 | -1.12 | -1.13 | -1.14 | -1.47 | |
| 1.750 | -0.82 | -0.98 | -1.02 | -1.04 | -1.05 | -1.05 | -1.40 | |
| 1.800 | -0.77 | -0.89 | -0.93 | -0.95 | -0.95 | -0.96 | -1.32 | |
| 1.850 | -0.69 | -0.80 | -0.83 | -0.85 | -0.86 | -0.86 | -1.23 | |
| 1.900 | -0.60 | -0.70 | -0.73 | -0.74 | -0.75 | -0.76 | -1.14 | |
| 1.950 | -0.51 | -0.59 | -0.62 | -0.63 | -0.64 | -0.65 | -1.05 | |
| 2.000 | -0.41 | -0.48 | -0.51 | -0.52 | -0.53 | -0.54 | -0.95 | |
| 2.100 | -0.22 | -0.26 | -0.30 | -0.32 | -0.32 | -0.33 | -0.77 | |
| 2.200 | -0.07 | -0.12 | -0.14 | -0.15 | -0.16 | -0.17 | -0.63 | |
| 2.300 | -0.01 | -0.03 | -0.04 | -0.04 | -0.05 | -0.05 | -0.52 | |
| 2.400 | 0.13 | 0.09 | -0.03 | -0.04 | -0.05 | -0.05 | -0.42 | |
| 2.500 | 0.19 | 0.15 | 0.13 | 0.12 | 0.12 | 0.12 | -0.36 | |
| 2.600 | 0.20 | 0.18 | 0.16 | 0.16 | 0.15 | 0.15 | -0.31 | |
| 2.700 | 0.22 | 0.19 | 0.18 | 0.17 | 0.17 | 0.17 | -0.28 | |
| 2.800 | 0.22 | 0.20 | 0.19 | 0.18 | 0.18 | 0.18 | -0.25 | |
| 2.900 | 0.21 | 0.20 | 0.19 | 0.18 | 0.18 | 0.18 | -0.23 | |
| 3.000 | 0.20 | 0.19 | 0.18 | 0.18 | 0.17 | 0.17 | -0.22 | |

TABLE 29a

| 27-V vs. Z. (He=50, Ge=0, Tg=16). | | | | | | | | |
|-----------------------------------|-------|-------|-------|-------|-------|-------|-------|--|
| Z | 0.90 | 0.70 | 0.50 | 0.30 | 0.15 | 0.01 | 0.85 | |
| 0.004 | 3.33 | 3.26 | 3.13 | 2.43 | 1.17 | 0.36 | -0.56 | |
| 0.050 | 3.70 | 3.59 | 3.44 | 2.41 | 1.07 | 0.29 | -0.45 | |
| 0.100 | 4.04 | 3.89 | 3.64 | 2.28 | 0.94 | 0.22 | -0.74 | |
| 0.150 | 4.31 | 4.09 | 3.73 | 2.06 | 0.78 | 0.13 | -0.83 | |
| 0.200 | 4.15 | 4.15 | 3.63 | 1.77 | 0.59 | 0.01 | -0.94 | |
| 0.250 | 4.46 | 4.10 | 3.40 | 1.46 | 0.38 | -0.13 | -1.06 | |
| 0.300 | 3.93 | 3.03 | 1.09 | 0.15 | -0.30 | -1.18 | | |
| 0.350 | 4.19 | 3.70 | 2.63 | 0.73 | -0.10 | -0.49 | -1.32 | |
| 0.400 | 4.02 | 3.44 | 2.19 | 0.38 | -0.36 | -0.70 | -1.48 | |
| 0.450 | 3.85 | 3.22 | 1.79 | 0.07 | -0.59 | -0.90 | -1.42 | |
| 0.500 | 3.69 | 2.97 | 1.39 | -0.21 | -0.79 | -1.06 | -1.73 | |
| 0.550 | 3.55 | 2.76 | 1.08 | -0.43 | -0.96 | -1.20 | -1.81 | |
| 0.600 | 3.40 | 2.50 | 0.73 | -0.63 | -1.09 | -1.33 | -1.87 | |
| 0.650 | 3.24 | 2.25 | 0.43 | -0.86 | -1.20 | -1.39 | -1.91 | |
| 0.700 | 3.04 | 1.98 | 0.19 | -0.96 | -1.30 | -1.46 | -1.95 | |
| 0.750 | 2.82 | 1.61 | -0.14 | -1.10 | -1.39 | -1.53 | -1.97 | |
| 0.800 | 2.56 | 1.27 | -0.43 | -1.23 | -1.47 | -1.58 | -1.99 | |
| 0.850 | 2.29 | 0.93 | -0.67 | -1.34 | -1.53 | -1.62 | -2.00 | |
| 0.900 | 2.06 | 0.55 | -0.88 | -1.42 | -1.57 | -1.63 | -2.00 | |
| 0.950 | 1.83 | 0.22 | -1.03 | -1.48 | -1.60 | -1.66 | -2.00 | |
| 1.000 | 1.59 | -0.06 | -1.18 | -1.52 | -1.62 | -1.67 | -2.00 | |
| 1.050 | 1.36 | -0.31 | -1.27 | -1.55 | -1.63 | -1.68 | -1.99 | |
| 1.100 | 1.16 | -0.58 | -1.35 | -1.57 | -1.64 | -1.67 | -1.98 | |
| 1.150 | 0.98 | -0.76 | -1.40 | -1.58 | -1.63 | -1.66 | -1.97 | |
| 1.200 | 0.84 | -0.88 | -1.43 | -1.57 | -1.62 | -1.65 | -1.95 | |
| 1.250 | 0.75 | -0.95 | -1.43 | -1.56 | -1.61 | -1.63 | -1.94 | |
| 1.300 | 0.67 | -1.01 | -1.43 | -1.55 | -1.59 | -1.61 | -1.92 | |
| 1.350 | 0.58 | -1.07 | -1.42 | -1.53 | -1.56 | -1.59 | -1.90 | |
| 1.400 | 0.51 | -1.10 | -1.41 | -1.50 | -1.54 | -1.56 | -1.88 | |
| 1.450 | 0.46 | -1.10 | -1.38 | -1.47 | -1.50 | -1.52 | -1.85 | |
| 1.500 | 0.41 | -0.99 | -1.35 | -1.43 | -1.46 | -1.48 | -1.81 | |
| 1.550 | 0.37 | -0.97 | -1.30 | -1.38 | -1.41 | -1.42 | -1.77 | |
| 1.600 | 0.36 | -1.02 | -1.18 | -1.24 | -1.27 | -1.28 | -1.65 | |
| 1.650 | 0.26 | -0.17 | -1.10 | -1.16 | -1.18 | -1.20 | -1.55 | |
| 1.700 | -0.17 | -0.96 | -1.10 | -1.16 | -1.18 | -1.20 | -1.58 | |
| 1.750 | -0.21 | -0.89 | -1.01 | -1.04 | -1.08 | -1.10 | -1.49 | |
| 1.800 | -0.20 | -0.80 | -0.91 | -0.95 | -0.97 | -0.99 | -1.40 | |
| 1.850 | -0.17 | -0.70 | -0.80 | -0.84 | -0.86 | -0.87 | -1.30 | |
| 1.900 | -0.12 | -0.59 | -0.68 | -0.72 | -0.74 | -0.75 | -1.20 | |
| 1.950 | -0.06 | -0.48 | -0.54 | -0.60 | -0.62 | -0.63 | -1.10 | |
| 2.000 | -0.01 | -0.37 | -0.44 | -0.48 | -0.50 | -0.51 | -1.00 | |
| 2.100 | 0.10 | -0.16 | -0.22 | -0.28 | -0.26 | -0.27 | -0.80 | |
| 2.200 | 0.24 | 0.04 | -0.01 | -0.04 | -0.05 | -0.05 | -0.63 | |
| 2.300 | 0.35 | 0.20 | 0.16 | 0.14 | 0.12 | 0.11 | -0.48 | |
| 2.400 | 0.44 | 0.32 | 0.29 | 0.27 | 0.25 | 0.25 | -0.37 | |
| 2.500 | 0.50 | 0.40 | 0.37 | 0.35 | 0.34 | 0.33 | -0.29 | |
| 2.600 | 0.53 | 0.45 | 0.42 | 0.41 | 0.40 | 0.39 | -0.23 | |
| 2.700 | 0.56 | 0.49 | 0.46 | 0.44 | 0.43 | 0.43 | -0.19 | |
| 2.800 | 0.58 | 0.51 | 0.49 | 0.47 | 0.46 | 0.46 | -0.15 | |
| 2.900 | 0.59 | 0.53 | 0.51 | 0.49 | 0.49 | 0.48 | -0.11 | |
| 3.000 | 0.59 | 0.54 | 0.52 | 0.51 | 0.50 | 0.49 | -0.08 | |

TABLE 29b

| 27-V vs. Z. (He=100, Ge=0, Tg=9). | | | | | | | | |
|-----------------------------------|------|-------|-------|-------|-------|-------|-------|--|
| Z | 0.90 | 0.70 | 0.50 | 0.30 | 0.15 | 0.01 | 0.85 | |
| 0.004 | 2.86 | 2.78 | 2.30 | 1.22 | 0.55 | 0.14 | -0.79 | |
| 0.050 | 3.25 | 3.10 | 2.33 | 1.13 | 0.47 | 0.08 | -0.67 | |
| 0.100 | 3.65 | 3.40 | 2.03 | 1.02 | 0.39 | 0.02 | -0.54 | |
| 0.150 | 3.55 | 3.51 | 2.18 | 0.86 | 0.28 | 0.06 | -1.02 | |
| 0.200 | 3.45 | 3.46 | 1.94 | 0.87 | 0.24 | 0.18 | -1.10 | |
| 0.250 | 3.42 | 3.30 | 1.64 | 0.47 | -0.01 | -0.20 | -1.17 | |
| 0.300 | 3.06 | 2.23 | 1.18 | 0.24 | -0.19 | -0.43 | -1.30 | |
| 0.350 | 2.85 | 2.56 | 0.93 | -0.02 | -0.40 | -0.61 | -1.43 | |
| 0.400 | 3.48 | 2.24 | 0.61 | -0.27 | -0.61 | -0.80 | -1.36 | |
| 0.450 | 3.50 | 1.91 | 0.31 | -0.51 | -0.82 | -0.99 | -1.69 | |
| 0.500 | 3.29 | 1.52 | 0.01 | -0.72 | -1.00 | -1.13 | -1.79 | |
| 0.550 | 3.14 | 1.21 | -0.23 | -0.89 | -1.14 | -1.28 | -1.86 | |
| 0.600 | 3.01 | 0.93 | -0.43 | -1.03 | -1.25 | -1.37 | -1.81 | |
| 0.650 | 2.90 | 0.72 | -0.62 | -1.11 | -1.34 | -1.45 | -1.95 | |
| 0.700 | 2.77 | 0.47 | -0.76 | -1.25 | -1.42 | -1.52 | -1.98 | |
| 0.750 | 2.54 | 0.15 | -0.92 | -1.34 | -1.49 | -1.57 | -2.00 | |
| 0.800 | 2.32 | -0.12 | -1.07 | -1.42 | -1.54 | -1.62 | -2.01 | |
| 0.850 | 2.08 | -0.36 | -1.19 | -1.48 | -1.59 | -1.65 | -2.02 | |
| 0.900 | 1.86 | -0.53 | -1.28 | -1.53 | -1.62 | -1.67 | -2.02 | |
| 0.950 | 1.64 | -0.71 | -1.31 | -1.56 | -1.64 | -1.68 | -2.02 | |
| 1.000 | 1.42 | -0.88 | -1.41 | -1.59 | -1.65 | -1.69 | -2.01 | |
| 1.050 | 1.12 | -0.98 | -1.45 | -1.60 | -1.65 | -1.69 | -2.00 | |
| 1.100 | 0.60 | -1.11 | -1.48 | -1.61 | -1.65 | -1.68 | -1.99 | |
| 1.150 | 0.23 | -1.20 | -1 | | | | | |

TABLE 30a

| Z | 0.90 | 0.70 | 0.50 | 0.30 | 0.15 | 0.01 | 0.85 |
|-------|------|------|------|-------|-------|-------|-------|
| 0.004 | 1.02 | 1.02 | 1.01 | 0.95 | 0.79 | 0.60 | 0.44 |
| 0.050 | 1.18 | 1.16 | 1.08 | 0.89 | 0.68 | 0.48 | |
| 0.100 | 1.37 | 1.37 | 1.35 | 1.24 | 1.01 | 0.79 | 0.55 |
| 0.150 | 1.54 | 1.53 | 1.50 | 1.36 | 1.11 | 0.89 | 0.60 |
| 0.200 | 1.64 | 1.63 | 1.59 | 1.42 | 1.15 | 0.95 | 0.62 |
| 0.250 | 1.67 | 1.68 | 1.63 | 1.43 | 1.17 | 0.97 | 0.61 |
| 0.300 | 1.69 | 1.67 | 1.61 | 1.39 | 1.13 | 0.95 | 0.57 |
| 0.350 | 1.63 | 1.61 | 1.51 | 1.30 | 1.04 | 0.88 | 0.50 |
| 0.400 | 1.59 | 1.57 | 1.50 | 1.20 | 0.94 | 0.79 | 0.40 |
| 0.450 | 1.51 | 1.49 | 1.49 | 1.12 | 0.84 | 0.78 | 0.21 |
| 0.500 | 1.48 | 1.46 | 1.40 | 1.04 | 0.74 | 0.59 | 0.23 |
| 0.550 | 1.42 | 1.39 | 1.35 | 0.98 | 0.68 | 0.52 | 0.17 |
| 0.600 | 1.30 | 1.29 | 1.24 | 0.91 | 0.61 | 0.47 | 0.13 |
| 0.650 | 1.21 | 1.19 | 1.08 | 0.85 | 0.64 | 0.42 | 0.10 |
| 0.700 | 1.24 | 1.21 | 1.17 | 1.48 | 0.76 | 0.50 | 0.07 |
| 0.750 | 1.23 | 1.21 | 1.17 | 1.32 | 0.66 | 0.44 | 0.03 |
| 0.800 | 1.20 | 1.19 | 1.15 | 1.15 | 0.56 | 0.38 | 0.04 |
| 0.850 | 1.18 | 1.16 | 1.15 | 0.97 | 0.66 | 0.32 | 0.02 |
| 0.900 | 1.16 | 1.14 | 1.14 | 0.79 | 0.38 | 0.27 | 0.01 |
| 0.950 | 1.21 | 1.17 | 1.07 | 0.63 | 0.31 | 0.22 | 0.00 |
| 1.000 | 1.23 | 1.24 | 1.19 | 0.49 | 0.24 | 0.18 | -0.02 |
| 1.050 | 1.24 | 1.02 | 0.38 | 0.19 | 0.13 | 0.11 | -0.03 |
| 1.100 | 1.59 | 0.78 | 0.28 | 0.13 | 0.09 | 0.07 | -0.04 |
| 1.150 | 1.39 | 0.60 | 0.20 | 0.09 | 0.06 | 0.04 | -0.06 |
| 1.200 | 1.25 | 0.47 | 0.14 | 0.05 | 0.02 | 0.01 | -0.08 |
| 1.250 | 1.16 | 0.39 | 0.09 | 0.02 | 0.00 | -0.02 | -0.10 |
| 1.300 | 1.12 | 0.33 | 0.06 | 0.00 | -0.02 | -0.04 | -0.11 |
| 1.350 | 1.10 | 0.27 | 0.04 | -0.02 | -0.04 | -0.05 | -0.12 |
| 1.400 | 1.10 | 0.23 | 0.03 | -0.03 | -0.05 | -0.06 | -0.12 |
| 1.450 | 1.11 | 0.20 | 0.02 | -0.04 | -0.05 | -0.07 | -0.12 |
| 1.500 | 1.12 | 0.18 | 0.01 | -0.04 | -0.06 | -0.07 | -0.12 |
| 1.550 | 1.11 | 0.16 | 0.00 | -0.04 | -0.06 | -0.07 | -0.12 |
| 1.600 | 0.98 | 0.14 | 0.00 | -0.04 | -0.06 | -0.07 | -0.12 |
| 1.650 | 0.81 | 0.11 | 0.00 | -0.04 | -0.06 | -0.07 | -0.12 |
| 1.700 | 0.69 | 0.10 | 0.00 | -0.04 | -0.05 | -0.06 | -0.11 |
| 1.750 | 0.62 | 0.09 | 0.01 | -0.02 | -0.04 | -0.04 | -0.10 |
| 1.800 | 0.56 | 0.10 | 0.02 | -0.01 | -0.02 | -0.03 | -0.08 |
| 1.850 | 0.52 | 0.10 | 0.03 | 0.01 | 0.00 | -0.01 | -0.07 |
| 1.900 | 0.49 | 0.11 | 0.05 | 0.02 | 0.01 | 0.00 | -0.06 |
| 1.950 | 0.45 | 0.11 | 0.06 | 0.03 | 0.02 | -0.02 | -0.05 |
| 2.000 | 0.41 | 0.12 | 0.07 | 0.04 | 0.04 | 0.03 | -0.04 |
| 2.100 | 0.33 | 0.13 | 0.09 | 0.07 | 0.06 | 0.04 | -0.03 |
| 2.200 | 0.31 | 0.16 | 0.13 | 0.12 | 0.11 | 0.11 | 0.00 |
| 2.300 | 0.31 | 0.21 | 0.18 | 0.17 | 0.17 | 0.16 | 0.03 |
| 2.400 | 0.31 | 0.24 | 0.21 | 0.20 | 0.20 | 0.19 | 0.05 |
| 2.500 | 0.33 | 0.26 | 0.24 | 0.23 | 0.22 | 0.22 | 0.07 |
| 2.600 | 0.33 | 0.28 | 0.26 | 0.25 | 0.23 | 0.24 | 0.08 |
| 2.700 | 0.34 | 0.30 | 0.28 | 0.27 | 0.26 | 0.26 | 0.09 |
| 2.800 | 0.36 | 0.32 | 0.30 | 0.29 | 0.29 | 0.28 | 0.10 |
| 2.900 | 0.37 | 0.33 | 0.32 | 0.31 | 0.31 | 0.30 | 0.12 |
| 3.000 | 0.37 | 0.35 | 0.34 | 0.33 | 0.32 | 0.32 | 0.14 |

TABLE 30b

| Z | 0.90 | 0.70 | 0.50 | 0.30 | 0.15 | 0.01 | 0.85 |
|-------|------|------|-------|-------|-------|-------|-------|
| 0.004 | 0.95 | 0.94 | 0.90 | 0.76 | 0.63 | 0.52 | 0.35 |
| 0.050 | 1.10 | 1.08 | 1.02 | 0.86 | 0.71 | 0.59 | 0.36 |
| 0.100 | 1.27 | 1.26 | 1.17 | 0.98 | 0.82 | 0.71 | 0.45 |
| 0.150 | 1.43 | 1.40 | 1.30 | 1.08 | 0.92 | 0.80 | 0.50 |
| 0.200 | 1.52 | 1.48 | 1.36 | 1.14 | 0.98 | 0.87 | 0.53 |
| 0.250 | 1.56 | 1.54 | 1.40 | 1.14 | 1.01 | 0.90 | 0.53 |
| 0.300 | 1.57 | 1.53 | 1.39 | 1.14 | 0.97 | 0.89 | 0.50 |
| 0.350 | 1.53 | 1.48 | 1.31 | 1.04 | 0.92 | 0.83 | 0.44 |
| 0.400 | 1.53 | 1.46 | 1.24 | 0.97 | 0.82 | 0.73 | 0.39 |
| 0.450 | 1.54 | 1.46 | 1.17 | 0.97 | 0.73 | 0.63 | 0.24 |
| 0.500 | 1.42 | 1.47 | 1.10 | 0.77 | 0.62 | 0.53 | 0.18 |
| 0.550 | 1.72 | 1.30 | 1.04 | 0.70 | 0.59 | 0.47 | 0.13 |
| 0.600 | 1.83 | 1.52 | 0.98 | 0.63 | 0.49 | 0.41 | 0.09 |
| 0.650 | 1.94 | 1.53 | 0.92 | 0.58 | 0.45 | 0.37 | 0.07 |
| 0.700 | 2.00 | 1.48 | 0.85 | 0.52 | 0.40 | 0.33 | 0.05 |
| 0.750 | 1.99 | 1.35 | 0.74 | 0.46 | 0.35 | 0.30 | 0.03 |
| 0.800 | 1.93 | 1.20 | 0.64 | 0.40 | 0.31 | 0.26 | 0.02 |
| 0.850 | 1.83 | 1.04 | 0.54 | 0.34 | 0.26 | 0.22 | 0.01 |
| 0.900 | 1.71 | 0.90 | 0.45 | 0.29 | 0.23 | 0.19 | 0.00 |
| 0.950 | 1.59 | 0.76 | 0.37 | 0.24 | 0.19 | 0.16 | -0.01 |
| 1.000 | 1.45 | 0.63 | 0.30 | 0.19 | 0.15 | 0.13 | -0.02 |
| 1.050 | 1.30 | 0.51 | 0.23 | 0.15 | 0.12 | 0.10 | -0.03 |
| 1.100 | 1.08 | 0.38 | 0.17 | 0.10 | 0.08 | 0.07 | -0.05 |
| 1.150 | 0.90 | 0.28 | 0.12 | 0.07 | 0.05 | 0.03 | -0.07 |
| 1.200 | 0.78 | 0.20 | 0.07 | 0.03 | 0.01 | 0.00 | -0.08 |
| 1.250 | 0.69 | 0.15 | 0.04 | 0.00 | -0.01 | -0.02 | -0.10 |
| 1.300 | 0.65 | 0.12 | 0.02 | -0.02 | -0.03 | -0.04 | -0.11 |
| 1.350 | 0.63 | 0.10 | 0.00 | -0.03 | -0.05 | -0.05 | -0.12 |
| 1.400 | 0.61 | 0.09 | -0.01 | -0.04 | -0.05 | -0.06 | -0.12 |
| 1.450 | 0.60 | 0.08 | -0.01 | -0.05 | -0.06 | -0.07 | -0.12 |
| 1.500 | 0.58 | 0.07 | -0.02 | -0.05 | -0.06 | -0.07 | -0.12 |
| 1.550 | 0.56 | 0.07 | -0.02 | -0.05 | -0.06 | -0.07 | -0.12 |
| 1.600 | 0.52 | 0.06 | -0.02 | -0.05 | -0.06 | -0.07 | -0.12 |
| 1.650 | 0.47 | 0.05 | -0.02 | -0.05 | -0.06 | -0.07 | -0.12 |
| 1.700 | 0.43 | 0.06 | -0.01 | -0.04 | -0.05 | -0.06 | -0.11 |
| 1.750 | 0.40 | 0.06 | 0.00 | -0.03 | -0.04 | -0.05 | -0.10 |
| 1.800 | 0.39 | 0.07 | 0.01 | -0.01 | -0.02 | -0.03 | -0.09 |
| 1.850 | 0.37 | 0.08 | 0.03 | 0.00 | -0.01 | -0.01 | -0.07 |
| 1.900 | 0.36 | 0.09 | 0.04 | 0.02 | 0.01 | 0.00 | -0.06 |
| 1.950 | 0.34 | 0.10 | 0.05 | 0.03 | 0.02 | 0.02 | -0.05 |
| 2.000 | 0.32 | 0.10 | 0.06 | 0.04 | 0.03 | 0.03 | -0.05 |
| 2.100 | 0.28 | 0.12 | 0.09 | 0.07 | 0.06 | 0.06 | -0.03 |
| 2.200 | 0.28 | 0.16 | 0.13 | 0.12 | 0.11 | 0.11 | 0.00 |
| 2.300 | 0.30 | 0.21 | 0.18 | 0.17 | 0.17 | 0.16 | 0.03 |
| 2.400 | 0.31 | 0.23 | 0.21 | 0.20 | 0.20 | 0.19 | 0.03 |
| 2.500 | 0.32 | 0.26 | 0.24 | 0.23 | 0.23 | 0.22 | 0.07 |
| 2.600 | 0.33 | 0.28 | 0.26 | 0.25 | 0.25 | 0.23 | 0.08 |
| 2.700 | 0.34 | 0.30 | 0.27 | 0.26 | 0.26 | 0.24 | 0.08 |
| 2.800 | 0.36 | 0.32 | 0.29 | 0.29 | 0.29 | 0.26 | 0.09 |
| 2.900 | 0.37 | 0.33 | 0.32 | 0.31 | 0.32 | 0.31 | 0.11 |
| 3.000 | 0.39 | 0.35 | 0.34 | 0.34 | 0.33 | 0.32 | 0.12 |