

$$\text{Equation 4.1-1 } SEER = \frac{\sum_{j=1}^8 q_c(T_j)}{\sum_{j=1}^8 e_c(T_j)} = \frac{\sum_{j=1}^8 \frac{q_c(T_j)}{N}}{\sum_{j=1}^8 \frac{e_c(T_j)}{N}}$$

where:

$\frac{q_c(T_j)}{N}$  = the ratio of the total space cooling provided during periods of the space cooling season when the outdoor temperature fell within the range represented by bin temperature  $T_j$  to the total number of hours in the cooling season (N), Btu/h.

$\frac{e_c(T_j)}{N}$  = the electrical energy consumed by the test unit during periods of the space cooling season when the outdoor temperature fell within the range represented by bin temperature  $T_j$  to the total number of hours in the cooling season (N), W.

$T_j$  = the outdoor bin temperature, °F. Outdoor temperatures are grouped or “binned.” Use bins of 5 °F with the 8 cooling season bin temperatures being 67, 72, 77, 82, 87, 92, 97, and 102 °F.

$j$  = the bin number. For cooling season calculations,  $j$  ranges from 1 to 8.