FIGURE B2-1   Exhaust air discharge velocity (*U*).

TABLE B2-3   Exhaust Air Discharge Velocity

Exhaust Direction/Configuration	Exhaust Air Discharge Velocity (*U*) Modifier
Exhaust is directed away from the outdoor air intake at an angle that is greater than 45 degrees from the direction of a line drawn from the closest exhaust point to the edge of the intake	*U* given a positive value
Exhaust is directed toward the intake bounded by lines drawn from the closest exhaust point to the edge of the intake	*U* given a negative value
Exhaust is directed at an angle between the two above cases	*U* is zero
Vents from gravity (atmospheric) fuel-fired appliances, plumbing vents, and other nonpowered exhausts, or if the exhaust discharge is covered by a cap or other device that dissipates the exhaust airstream	*U* is zero
Hot gas exhausts such as combustion products if the exhaust stream is aimed directly upward and unimpeded by devices such as flue caps or louvers	Add 500 fpm (2.5 m/s) upward velocity to ***U***

For exhaust air composed of more than one class of air, the dilution factor shall be determined by averaging the dilution factors by the volume fraction of each class using Equation B2-3:

$$DF = \sum(DF_i \times Q_i)/\sum Q_i \qquad (B2\text{-}3)$$

where

DF_i =   dilution factor from Table B2-2 for class *i* air.

Q_i =   volumetric flow rate of class *i* air in the exhaust airstream.

c. When the above options do not represent the proposed design, then an exceptional calculation method shall be used to calculate the value of *L* if approved by the authority having jurisdiction. It must be shown that the proposed design will result in dilution factors that are not less than those specified in Table B2-2.

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