

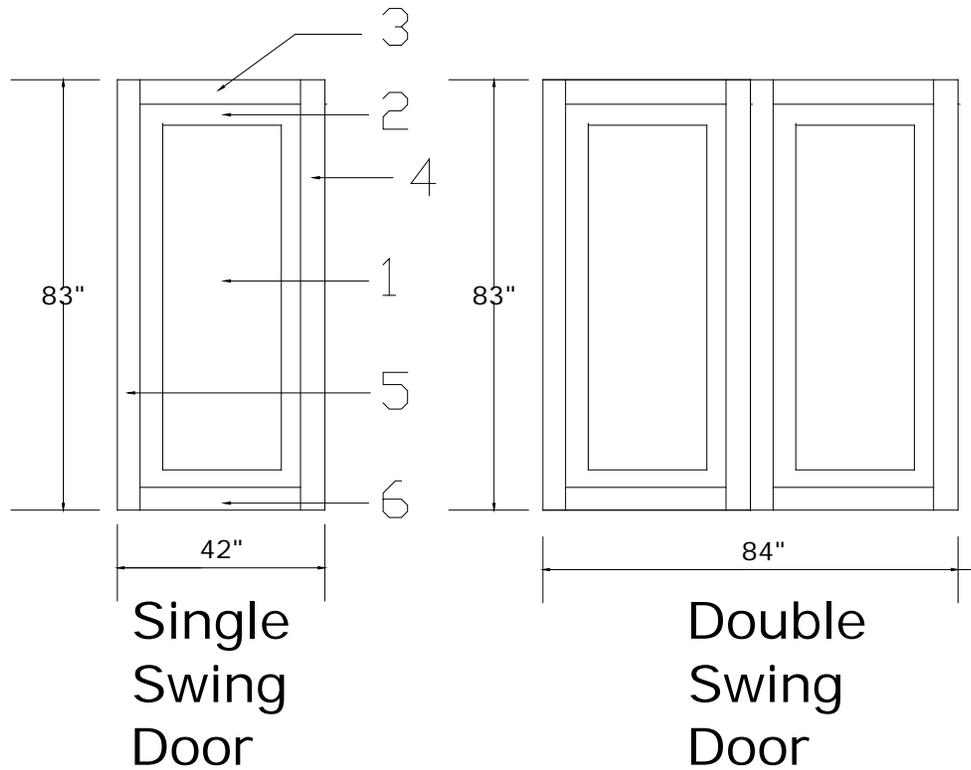
## TECHNICAL BULLETIN 106

### Guidelines for Determining U-factor Through Area-Weighted Calculations

- \* Obtain 'center of glazing' U-factor from glazing manufacturer. For each door model, the door manufacturer should compile a table of these U-factors for glazing options commonly used.
- \* Determine 'edge of glazing' U-factors. These U-factors could be obtained with the assistance of a company that performs NFRC 100 based simulations using WINDOWS software.
- \* Determine top frame, side frame and bottom frame U-factors. Thermal breaks should be accounted for. These U-factors could be obtained with the assistance of a company that performs NFRC 100 based simulations using WINDOWS software.
- \* Verify needed dimensions. Dimensions shown in the diagrams are examples.
- \* Thresholds, surrounding wall components, and weather stripping should not be included in U-factor calculations.
- \* Multiply each individual area by its corresponding U-factor, add together all individual (area x U-factor) numbers, then divide by the gross product area to obtain the area-weighted U-factor.
- \* Consider validating calculations with tested values in accordance with either NFRC 102 using a 7' x 7' sample or ANSI/DASMA 105 using a 10' x 10' sample.

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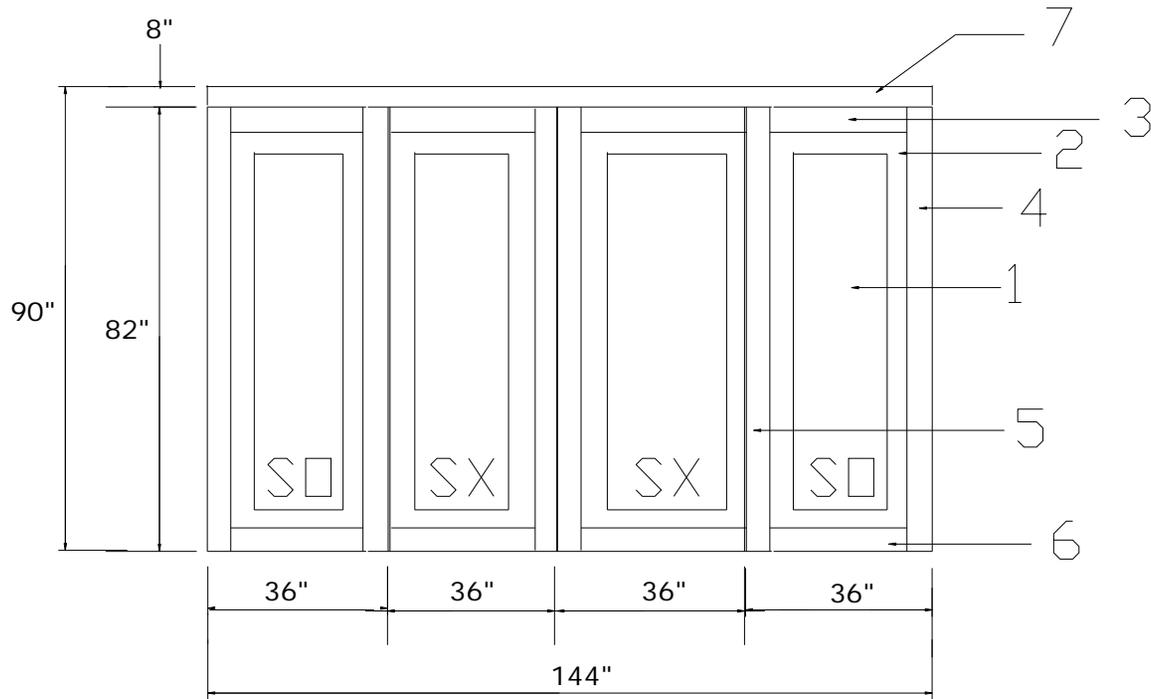
## Diagrams for Use in Area-Weighted U-factor Calculations for Automatic Doors



- Notations**
1. Center of glazing
  2. Edge of glazing, 2.5" width
  3. Top frame
  4. Left side frame
  5. Right side frame
  6. Bottom frame

For double swing door, use area notations for each door leaf.

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**Notations**

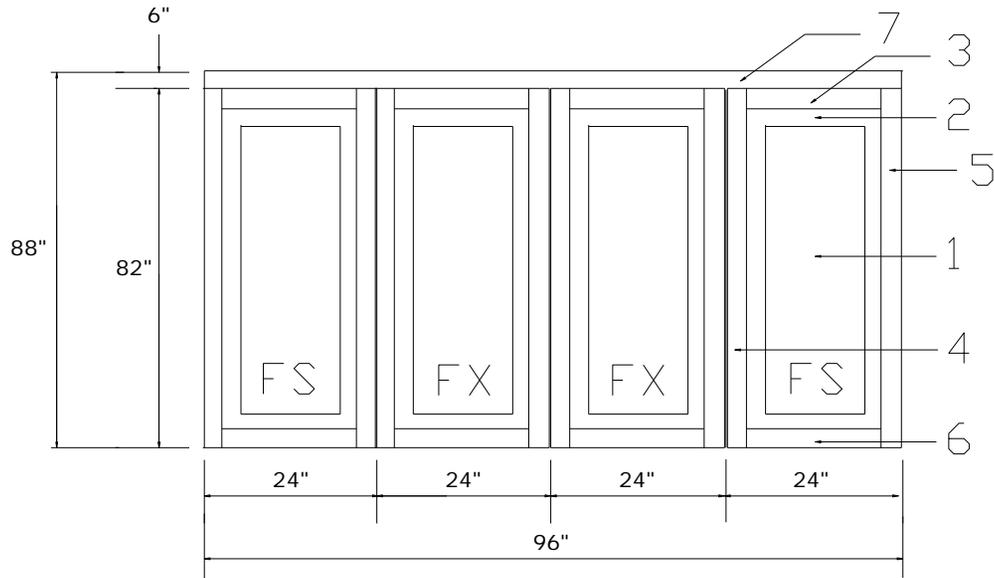
- 1. Center of glazing
- 2. Edge of glazing, 2.5" width
- 3. Top frame
- 4. Left side frame
- 5. Right side frame
- 6. Bottom frame
- 7. Header

SO: Fixed Panel  
SX: Sliding Panel

Use area notations 1-6 shown, for each fixed panel and sliding panel

Sliding Door

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Folding Door

**Notations**

- 1. Center of glazing
- 2. Edge of glazing, 2.5" width
- 3. Top frame
- 4. Left side frame
- 5. Right side frame
- 6. Bottom frame
- 7. Header

FS: Leading Panel  
 FX: Trailing Panel

Use area notations 1-6 shown, for each panel.