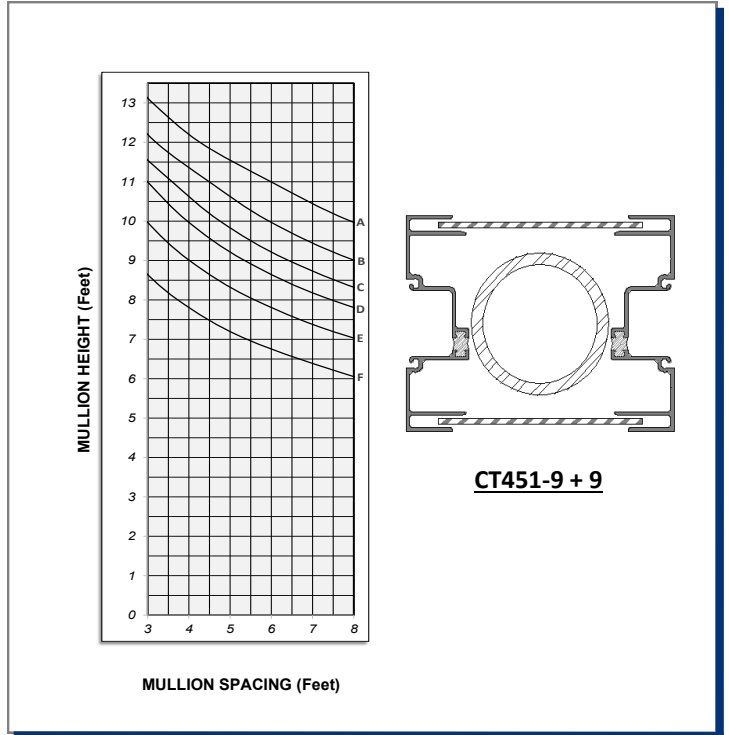
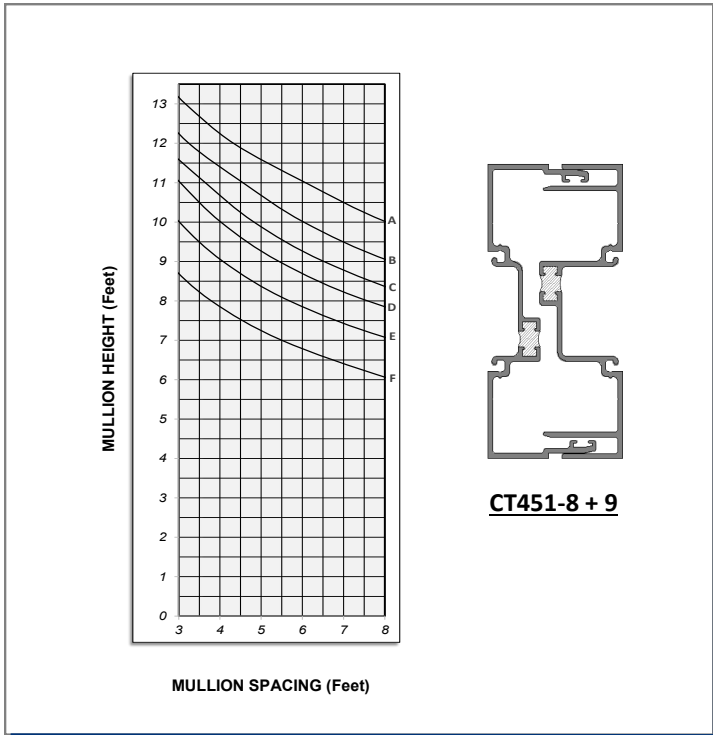
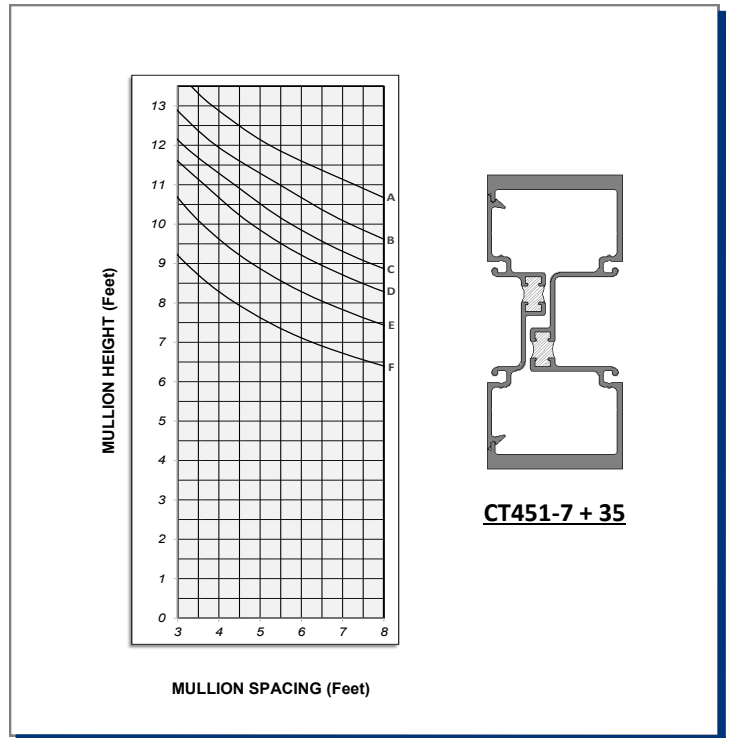
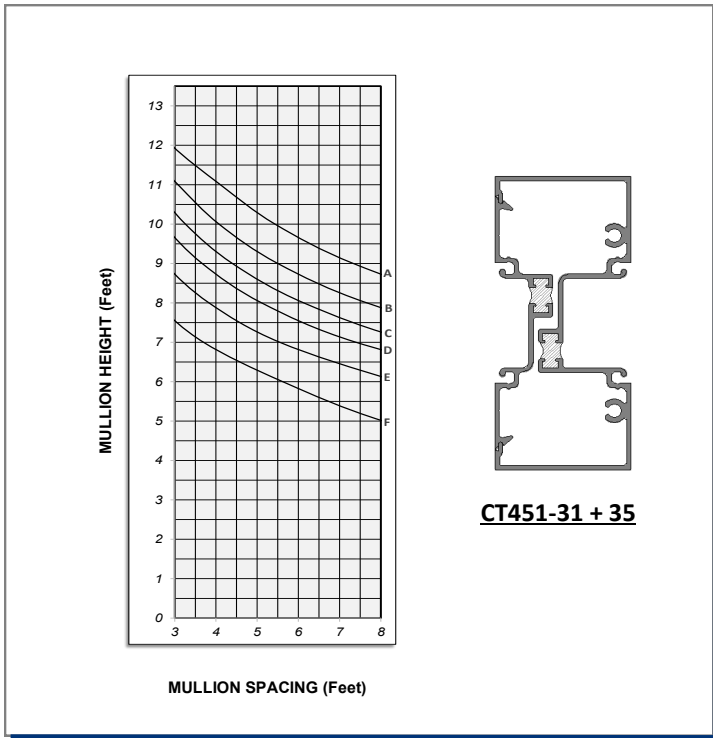


# WINDLOAD CHARTS

A = 15 P.S.F.      D = 30 P.S.F.  
 B = 20 P.S.F.      E = 40 P.S.F.  
 C = 25 P.S.F.      F = 60 P.S.F.

# CT451 SERIES

DESCRIPTION: 2" x 4 1/2" CENTER GLAZED SYSTEM  
 CATEGORY: STOREFRONT  
 SCALE: NTS



RELEASE 01.2015

TRULITE GLASS & ALUMINUM SOLUTIONS | [www.trulite.com](http://www.trulite.com) | 800.432.8132

- ◆ Deflections have been calculated using the algebraic sum of the individual Ix-values.
- ◆ Bending stress has been apportioned by relative Ix of the appropriate members.
- ◆ Mullions are assumed to be a single span, simple beam, uniformly loaded and adequately braced against lateral-torsional buckling. All other complex design conditions shall be reviewed by a design professional.
- ◆ Aluminum extrusions shall be 6063-T6 (Fy=25ksi) alloy. Steel reinforcement if used shall be A36 steel (Fy=36ksi) minimum. Allowable stresses to be derived as per Table 2-21 of Aluminum Design Manual, 2010. Deflection limitation of mullions shall be in accordance with AAMA TIR-A11 of L/175 or 3/4" (which ever is less) for spans up to 13'-6" and L/240 + 1/4 for all others where L is equal to the span of mullion.
- ◆ Design of thermal break system is as per AAMA TIR-A8-08. Shear modulus of thermal break core used on these charts is 40ksi. Full composite system shall be subjected to testing to verify actual effective moment of inertia. A design professional shall be consulted for applicable job condition.
- ◆ Windload pressure determinations shall be as per the 2012 IBC and ASCE 7-10 (nominal/ASD) and according to local governing codes. A professional engineer shall be consulted for the most current laws and local building codes.
- ◆ Selection of perimeter fasteners and attachment of glazing system to the building structure are project specific and therefore shall be reviewed and determined by a design professional.
- ◆ Trulite assumes no responsibility for selecting the appropriate systems for specific projects.

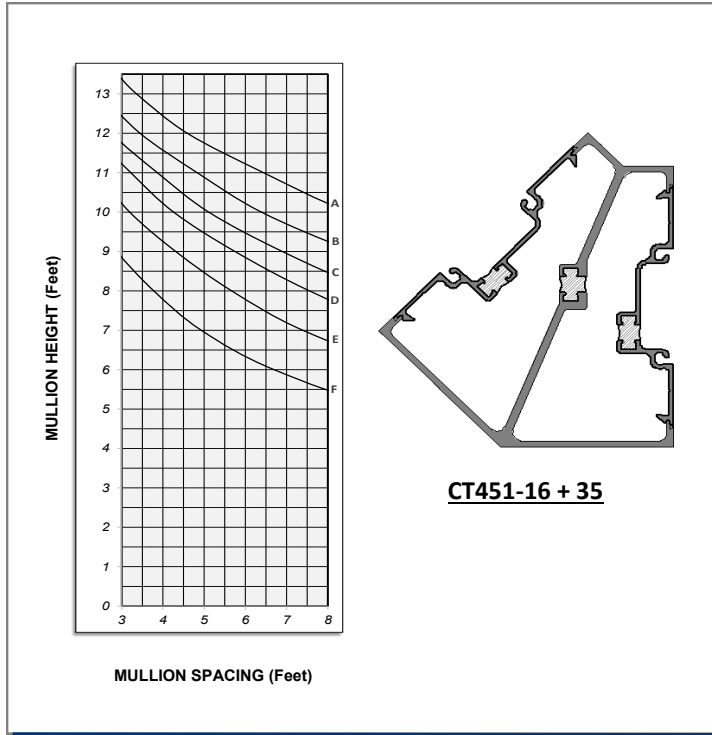
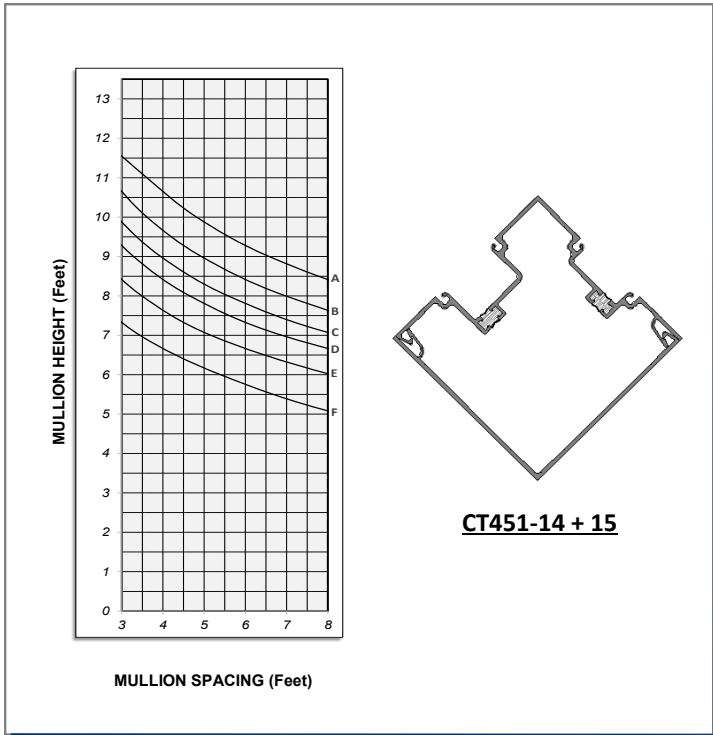
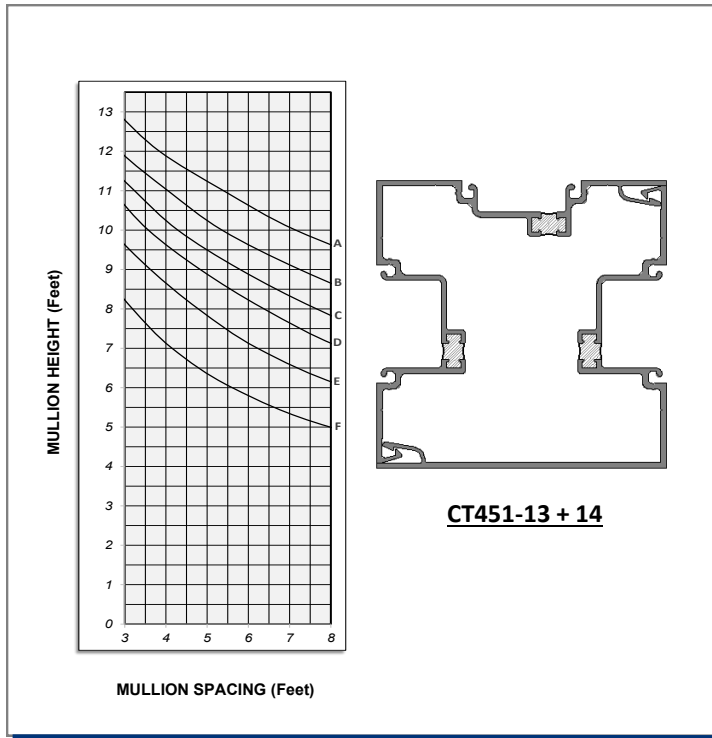
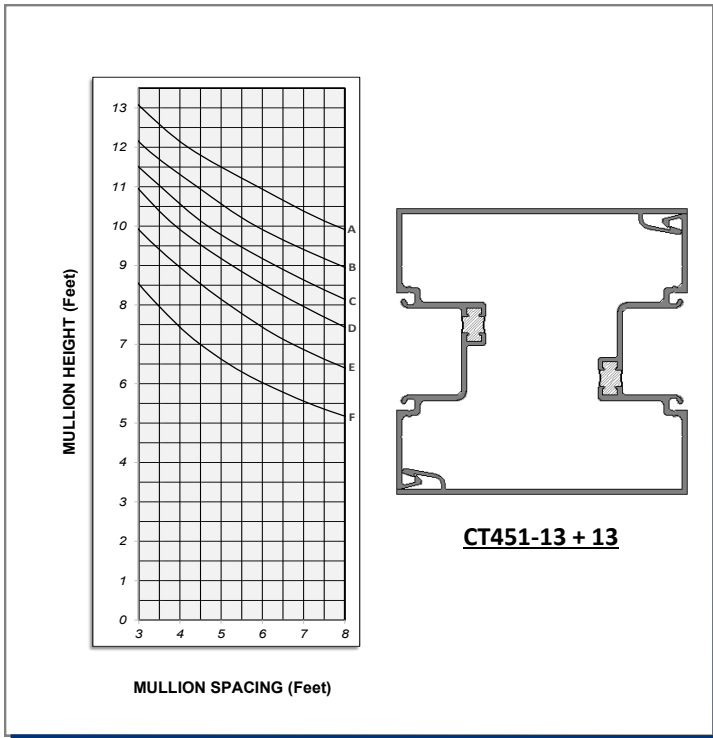


# WINDLOAD CHARTS

A = 15 P.S.F.  
 B = 20 P.S.F.  
 C = 25 P.S.F.  
 D = 30 P.S.F.  
 E = 40 P.S.F.  
 F = 60 P.S.F.

# CT451 SERIES

DESCRIPTION: 2" x 4 1/2" CENTER GLAZED SYSTEM  
 CATEGORY: STOREFRONT  
 SCALE: NTS



RELEASE 01.2015

TRULITE GLASS & ALUMINUM SOLUTIONS | [www.trulite.com](http://www.trulite.com) | 800.432.8132

- ◆ Deflections have been calculated using the algebraic sum of the individual Ix-values.
- ◆ Bending stress has been apportioned by relative Ix of the appropriate members.
- ◆ Mullions are assumed to be a single span, simple beam, uniformly loaded and adequately braced against lateral-torsional buckling. All other complex design conditions shall be reviewed by a design professional.
- ◆ Aluminum extrusions shall be 6063-T6 (Fy=25ksi) alloy. Steel reinforcement if used shall be A36 steel (Fy=36ksi) minimum. Allowable stresses to be derived as per Table 2-21 of Aluminum Design Manual, 2010. Deflection limitation of mullions shall be in accordance with AAMA TIR-A11 of L/175 or 3/4" (which ever is less) for spans up to 13'-6" and L/240 + 1/4 for all others where L is equal to the span of mullion.
- ◆ Design of thermal break system is as per AAMA TIR-A8-08. Shear modulus of thermal break core used on these charts is 40ksi. Full composite system shall be subjected to testing to verify actual effective moment of inertia. A design professional shall be consulted for applicable job condition.
- ◆ Windload pressure determinations shall be as per the 2012 IBC and ASCE 7-10 (nominal/ASD) and according to local governing codes. A professional engineer shall be consulted for the most current laws and local building codes.
- ◆ Selection of perimeter fasteners and attachment of glazing system to the building structure are project specific and therefore shall be reviewed and determined by a design professional.
- ◆ Trulite assumes no responsibility for selecting the appropriate systems for specific projects.

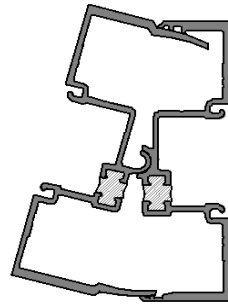
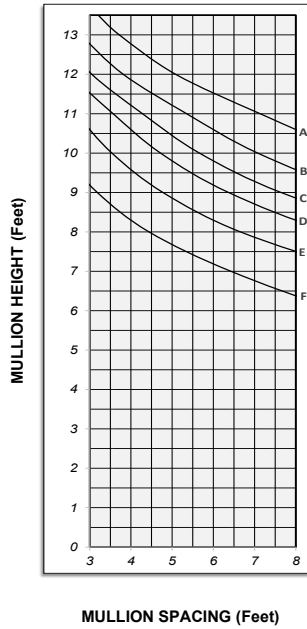


# WINDLOAD CHARTS

A = 15 P.S.F.      D = 30 P.S.F.  
 B = 20 P.S.F.      E = 40 P.S.F.  
 C = 25 P.S.F.      F = 60 P.S.F.

# CT451 SERIES

DESCRIPTION: 2" x 4 1/2" CENTER GLAZED SYSTEM  
 CATEGORY: STOREFRONT  
 SCALE: NTS



**CT451-32 + 33**



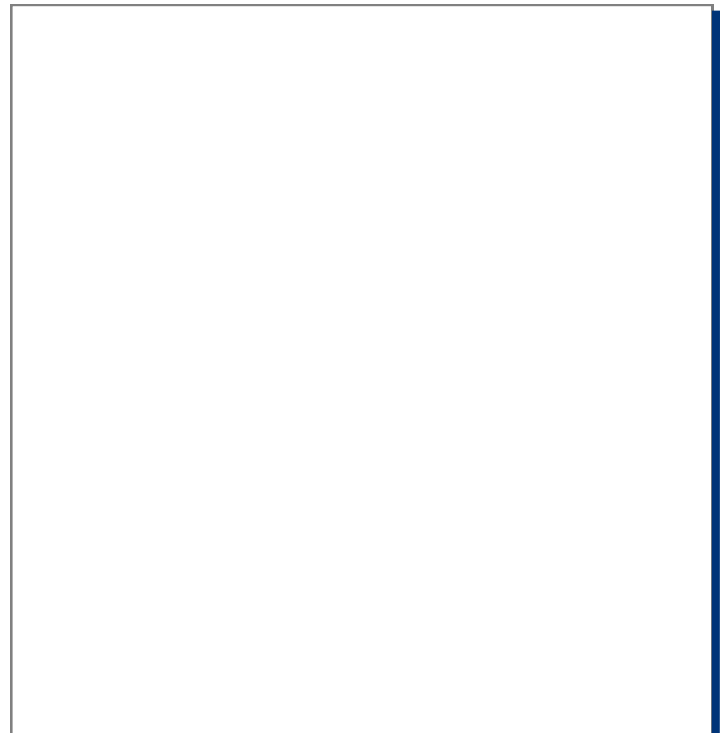
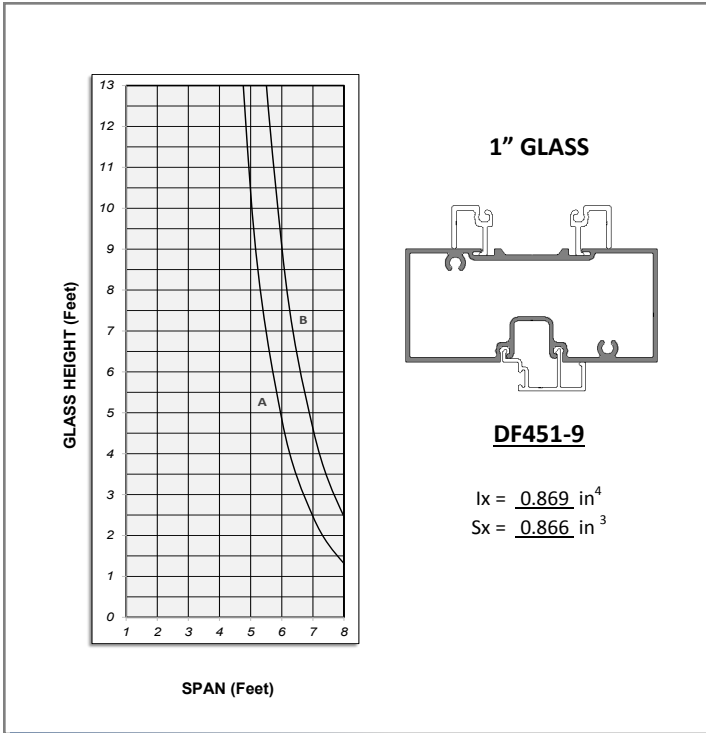
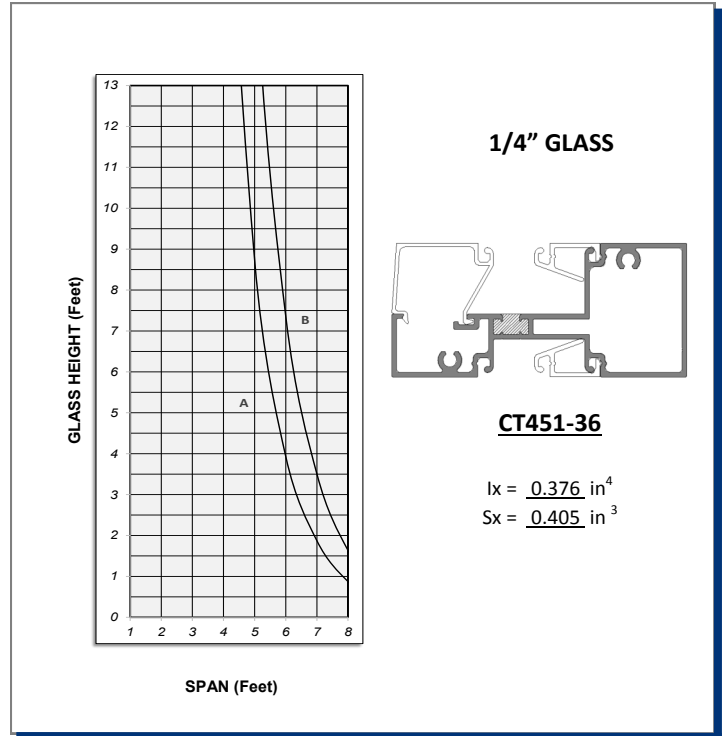
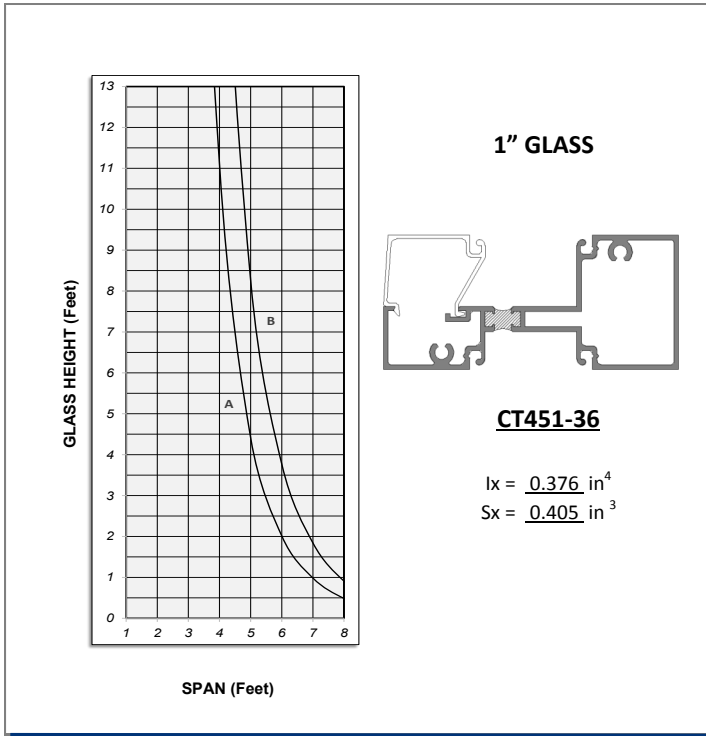
- ◆ Deflections have been calculated using the algebraic sum of the individual Ix-values.
- ◆ Bending stress has been apportioned by relative Ix of the appropriate members.
- ◆ Mullions are assumed to be a single span, simple beam, uniformly loaded and adequately braced against lateral-torsional buckling. All other complex design conditions shall be reviewed by a design professional.
- ◆ Aluminum extrusions shall be 6063-T6 (Fy=25ksi) alloy. Steel reinforcement if used shall be A36 steel (Fy=36ksi) minimum. Allowable stresses to be derived as per Table 2-21 of Aluminum Design Manual, 2010. Deflection limitation of mullions shall be in accordance with AAMA TIR-A11 of L/175 or 3/4" (which ever is less) for spans up to 13'-6" and L/240 + 1/4 for all others where L is equal to the span of mullion.
- ◆ Design of thermal break system is as per AAMA TIR-A8-08. Shear modulus of thermal break core used on these charts is 40ksi. Full composite system shall be subjected to testing to verify actual effective moment of inertia. A design professional shall be consulted for applicable job condition.
- ◆ Windload pressure determinations shall be as per the 2012 IBC and ASCE 7-10 (nominal/ASD) and according to local governing codes. A professional engineer shall be consulted for the most current laws and local building codes.
- ◆ Selection of perimeter fasteners and attachment of glazing system to the building structure are project specific and therefore shall be reviewed and determined by a design professional.
- ◆ Trulite assumes no responsibility for selecting the appropriate systems for specific projects.

# DEADLOAD CHARTS

A = 1/4 Point Loading  
B = 1/8 Point Loading

# CT451 SERIES

DESCRIPTION: 2" x 4 1/2" CENTER GLAZED SYSTEM  
CATEGORY: STOREFRONT  
SCALE: NTS



RELEASE 01.2015

TRULITE GLASS & ALUMINUM SOLUTIONS | [www.trulite.com](http://www.trulite.com) | 800.432.8132

- ◆ Deflections have been calculated using the algebraic sum of the individual  $I_x$ -values.
- ◆ Bending stress has been apportioned by relative  $I_x$  of the appropriate members.
- ◆ Transoms are assumed to be single span and glass deadload is concentrated at  $L/4$  or  $L/8$ , where  $L$  is equal to the span of transom.
- ◆ Aluminum extrusions shall be 6063-T6 ( $F_y=25\text{ksi}$ ) alloy. Steel reinforcement if used shall be A36 steel ( $F_y=36\text{ksi}$ ) minimum. Allowable stresses to be derived as per Table 2-21 of Aluminum Design Manual, 2010. Deflection limitation of transoms shall be  $L/360$  as per IBC 2012 Sect. 1604.3 or  $1/8"$  (which ever is less).
- ◆ For transoms containing steel reinforcement, the reinforcement is assumed to be installed for the full length of the transom. A design professional shall be consulted for instances where steel reinforcement is installed for a partial length of the transom span.
- ◆ Deadload considered is based on  $1/4"$  thick or  $1"$  ( actual total glass thickness =  $0.5"$ ) thick glass and weight of transom member plus reinforcement if any.
- ◆ Selection of perimeter fasteners and attachment of glazing system to the building structure are project specific and therefore shall be reviewed and determined by a design professional.
- ◆ Trulite assumes no responsibility for selecting the appropriate systems for specific projects.

