

### Windload Charts | AG451T Series Description: 2" X 4 1/2" Center Glazed for 1" Glass

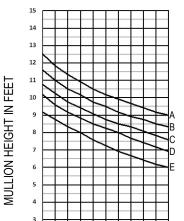
A = 16 P.S.F. (766 Pa) B = 20 P.S.F. (958 Pa) C = 25 P.S.F. (1197 Pa)

Function: Storefront D = 30 P.S.F. (1436 Pa)

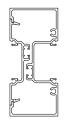
Detail: Design Criteria

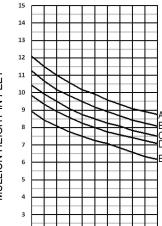
E = 40 P.S.F. (1915 Pa) Scale: N.T.S.

SHEET 1 OF 3



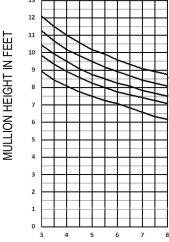
I = 3.052 IN 4  $S_1 = 1.135 \text{ IN}^3$ S<sub>2</sub>= 0.256 IN<sup>3</sup>





I = 2.792 IN 4  $S = 1.229 IN^3$ 







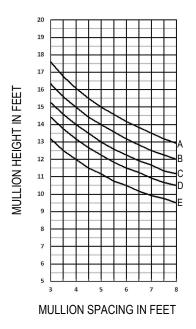
MULLION SPACING IN FEET

TG202 / TG210

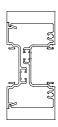
MULLION SPACING IN FEET

TG215

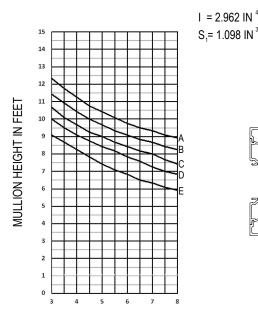
- Mullions are assumed to be single span, simple beam elements, uniformly loaded and adequately braced to prevent lateral-torsional buckling. All other complex design conditions shall be reviewed by Arcadia or a design professional.
- Aluminum extrusions shall be 6063-T6 alloy. Allowable stresses to be derived per Aluminum Design Manual. Deflection limitation of mullions shall be in accordance with AAMA TIR-A11 of L/175 for spans up to 13'-6" and L/240 + 1/4" for all others where L is equal to the span of mullion.
- A design professional shall be consulted to confirm that no lite of glass deflects more than H/175 or 3/4", whichever is less, where H indicates the height of glass
- For mullions containing steel reinforcement, the reinforcement is assumed to be installed for the full length of the mullion. A design professional shall be consulted for instances where steel reinforcement is installed for a partial length of the mullion span.
- Windload pressure determinations shall be per ASCE 7 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 building structure are project specific and therefore shall be reviewed and determined by a design professional.
- Arcadia assumes no responsibility for selecting the appropriate systems for specific projects.



I = 9.061 IN 4 S,= 3.806 IN<sup>3</sup> S<sub>2</sub>= 0.256 IN<sup>3</sup>



TG212 / TG210



 $S_{s} = 0.256 \text{ IN}^{3}$ 



MULLION SPACING IN FEET

TG222 / TG210



15

MULLION HEIGHT IN FEET

## Windload Charts AG451T Series

A = 16 P.S.F. (766 Pa) B = 20 P.S.F. (958 Pa)

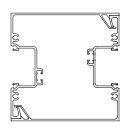
Function: Storefront D = 30 P.S.F. (1436 Pa)

Detail: Design Criteria E = 40 P.S.F. (1915 Pa) Scale: N.T.S.

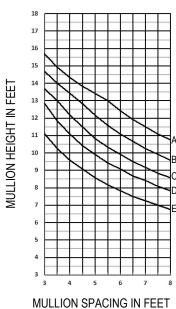
SHEET 2 OF 3

C = 25 P.S.F. (1197 Pa)

14 12 11 10 MULLION SPACING IN FEET I = 4.828 IN 4  $S_1 = 0.851 \text{ IN}^3$  $S_2 = 0.851 \text{ IN}^3$ 

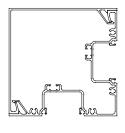


TG207 / TG207



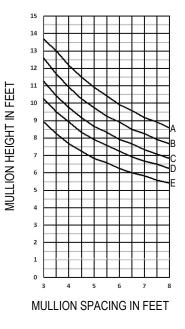
 $Ix = 4.435 IN^4$  $Iy = 4.484 IN^4$ 

Description: 2" X 4 1/2" Center Glazed for 1" Glass

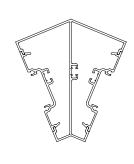


TG209 / TG206

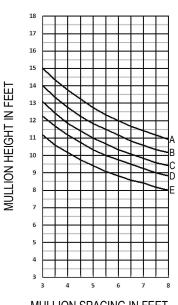
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I = 4.070 IN 4  $S_1 = 1.073 \text{ IN}^3$ S<sub>2</sub>= 0.452 IN<sup>3</sup>

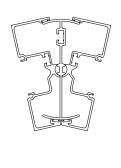


TG145 / TG210



MULLION SPACING IN FEET

I = 5.472 IN 4  $S_{1} = 0.702 \text{ IN}^{3}$ S<sub>2</sub>= 1.634 IN<sup>3</sup>



TF220 / TG224



# Windload Charts | AG451T Series

A = 16 P.S.F. (766 Pa) B = 20 P.S.F. (958 Pa) C = 25 P.S.F. (1197 Pa)

18

Function: Storefront

Detail: Design Criteria

D = 30 P.S.F. (1436 Pa) E = 40 P.S.F. (1915 Pa) Scale: N.T.S.

Description: 2" X 4 1/2" Center Glazed for 1" Glass

I = 4.342 IN 4

 $S_1 = 0.956 \text{ IN}^3$ 

SHEET 3 OF 3

S,= 0.956 IN3

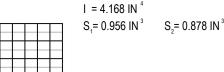
15

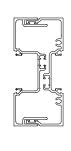
14

12

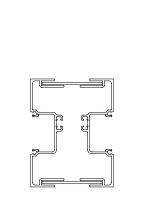
10

MULLION HEIGHT IN FEET





IN FEET 13 12 MULLION HEIGHT 11 10



MULLION SPACING IN FEET

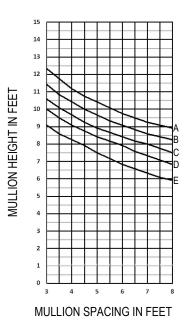
TG204 / TG205

MULLION SPACING IN FEET

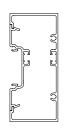
TG204 / TG204

 $S_{s} = 0.256 \text{ IN}^{3}$ 

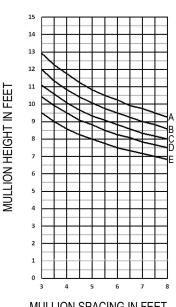
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I = 2.957 IN 4 S,= 1.094 IN<sup>3</sup> S<sub>2</sub>= 0.256 IN<sup>3</sup>



TGDJ / TG210



I = 3.375 IN 4

S,= 1.290 IN<sup>3</sup>

MULLION SPACING IN FEET

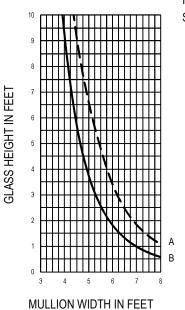
TL259 / TG210

**Deadload Charts | AG451T Series** Description: 2" X 4 1/2" Center Glazed for 1" Glass

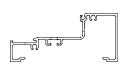
> Function: Storefront Detail: Design Criteria

Deadload Charts for 1" Glass (7.00 PSF) Scale: N.T.S.

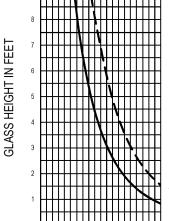
SHEET 1 OF 1

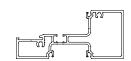






 $I = 0.447 IN^4$  $S = 0.373 \text{ IN}^3$ 





TG203 - 1" GLASS

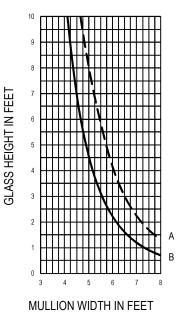
MULLION WIDTH IN FEET

TG213 - 1" GLASS

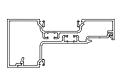
#### **CURVE REPRESENTATION**

A(---) = 1/8 PTS.

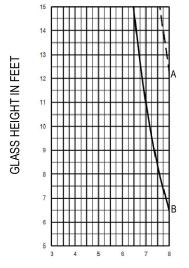
B (——) = 1/4 PTS.



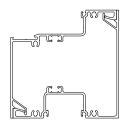
 $I = 0.379 IN^4$  $S = 0.161 \text{ IN}^3$ 



TG233 / TG223 - 1" GLASS



MULLION WIDTH IN FEET



 $I = 3.617 IN^4$ 

 $S = 0.546 \text{ IN}^3$ 

TG20345/TG207 - 1" GLASS