Windload Charts | AR450+ Series Description: 2" X 4 1/2" Center Glazed for 3/8",1/2",9/16"

B = 20 P.S.F. (958 Pa)

Function: Storefront Detail: Design Criteria

C = 25 P.S.F. (1197 Pa) D = 30 P.S.F. (1436 Pa)

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

I = 8.461 IN 4

SHEET 1 OF 2

13

12

11

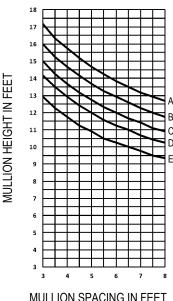
10

MULLION HEIGHT IN FEET

I = 2.750 IN ⁴ S,= 1.087 IN³ S₂= 0.171 IN³



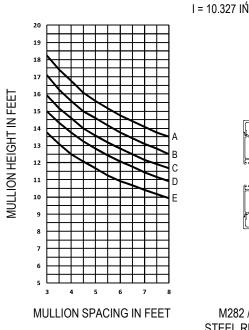
M282 / GF280



MULLION SPACING IN FEET

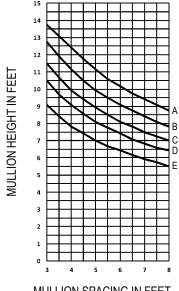
M282 / GF280 WITH STEEL REINFORCEMENT 1 1/4" X 4 1/4" X 10 GA.

- 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.



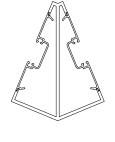
MULLION SPACING IN FEET

M282 / GF280 WITH STEEL REINFORCEMENT



MULLION SPACING IN FEET

I = 4.109 IN S,= 1.147 IN³ $S_{a} = 0.304 \text{ IN}^{3}$



C145 / GF280

1 1/4" X 4 1/4" X 6 GA.
Consult Your Local Arcadia Representative For Special Applications Not Covered By These Curves.



MULLION SPACING IN FEET

MULLION HEIGHT IN FEET

Windload Charts | AR450+ Series

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

Function: Storefront

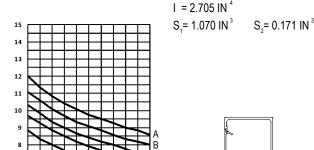
C = 25 P.S.F. (1197 Pa) Detail: Design Criteria D = 30 P.S.F. (1436 Pa)

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

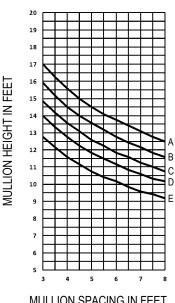
SHEET 2 OF 2

Description: 2" X 4 1/2" Center Glazed for 3/8",1/2",9/16"

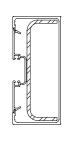
I = 8.215 IN 4



DJ201 / GF280



MULLION SPACING IN FEET



DJ201 / GF280 WITH STEEL REINFORCEMENT 1 1/4" X 4 3/16" X 10 GA.

- 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.



Deadload Charts | AR450+ Series

Description: 2" X 4 1/2" Center Glazed for 3/8",1/2",9/16"

Function: Storefront

SHEET 1 OF 2

Deadload Charts for 3/8" Glass (4.88 PSF) 1/2" Glass (6.50 PSF) Detail: Design Criteria

9/16" Glass (6.83 PSF) | Scale: N.T.S.

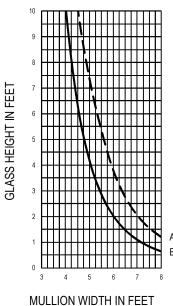
GLASS HEIGHT IN FEET

MULLION WIDTH IN FEET

 $I = 0.334 \text{ IN}^4$ $S = 0.324 \text{ IN}^3$



HM283 - 3/8" GLASS



 $I = 0.334 \text{ IN}^4$ $S = 0.324 \text{ IN}^3$

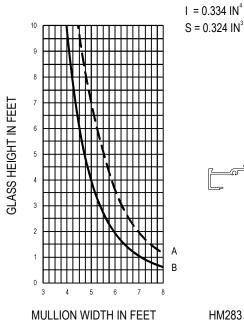


HM283 - 1/2" GLASS

CURVE REPRESENTATION

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

B (----) = 1/4" PTS.





HM283 - 9/16" GLASS



Deadload Charts | AR450+ Series

Description: 2" X 4 1/2" Center Glazed for 3/8",1/2",9/16"

Function: Storefront 1/2" Glass (6.50 PSF) Detail: Design Criteria

9/16" Glass (6.83 PSF) | Scale: N.T.S.

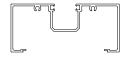
SHEET 2 OF 2

Deadload Charts for 3/8" Glass (4.88 PSF)

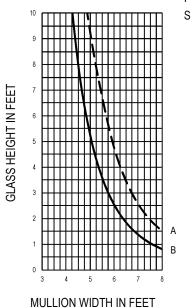
MULLION WIDTH IN FEET

GLASS HEIGHT IN FEET

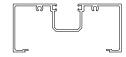
 $I = 0.419 IN^4$ $S = 0.319 \text{ IN}^3$



M282 - 3/8" GLASS



 $I = 0.419 \text{ IN}^4$ $S = 0.319 \text{ IN}^3$

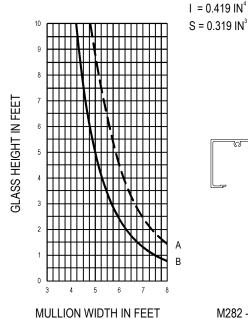


M282 - 1/2" GLASS

CURVE REPRESENTATION

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

B (——) = 1/4" PTS.



M282 - 9/16" GLASS