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scorpioco.com

Submittal

JOB NAME: Lake County Fire Station Wind Mitigation **DATE:** 12/22/2025

OWNER/ARCHITECT JOB#: 25-923 **SCORPIO JOB #:** 25061

SPEC SECTION: Storefront **SPEC NUMBER:** 08 43 00 **REV:** 0

SUBCONTRACTOR/VENDOR: Lake Glass & Mirror, Inc.

SUPPLIER: See Submittal

CONTRACTOR COMMENTS:	CONTRACTOR'S STAMP:
Product data sheets for impact-resistant storefront windows.	<div style="border: 2px solid black; padding: 10px;"> <p style="text-align: center;">SHOP DRAWINGS / SUBMITTAL REVIEW</p> <p style="font-size: 8px; text-align: center;">SUBMITTAL WAS REVIEWED FOR DESIGN AND GENERAL CONFORMANCE TO CONTRACT DOCUMENTS ONLY. THE SUBMITTING CONTRACTOR IS RESPONSIBLE FOR CONFIRMING AND CORRELATING DIMENSIONS AT THE JOB SITE FOR TOLERANCES, CLEARANCES, QUANTITIES, FABRICATION PROCESS AND TECHNIQUE OF CONSTRUCTION, COORDINATION OF HIS WORK WITH OTHER TRADES AND FULL COMPLIANCE WITH CONTRACT DOCUMENTS.</p> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: right;"> <p>Scorpio.</p> <p style="font-size: 8px;">3911 W. University Ave. Gainesville, FL 32607 f: 352.363.6070</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"><input checked="" type="checkbox"/> REVIEWED</div> <div style="text-align: center;"><input type="checkbox"/> REVIEWED W/ CHANGES</div> <div style="text-align: center;"><input type="checkbox"/> REVISE AND RESUBMIT</div> <div style="text-align: center;"><input type="checkbox"/> REJECTED</div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <p>BY Ana Palm</p> <p>DATE 12/22/25</p> </div> <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <p>SUBMITTAL# 12</p> <p>SPEC 08 43 00</p> </div> </div>
ARCHITECT COMMENTS:	ARCHITECT'S STAMP:
	<div style="border: 1px solid red; padding: 5px;"> <p style="font-size: 8px; margin: 0;"> <input checked="" type="checkbox"/> Reviewed – No Comments <input type="checkbox"/> Reviewed – See Comments <input type="checkbox"/> Revise and Resubmit <input type="checkbox"/> Rejected – Re-Submittal Required </p> <p style="font-size: 8px; margin: 0;"> This review is only for general conformance with the design concept of the project and general compliance with the information give in the Contract Documents. Quantities and exact dimensions are the responsibility of the contractor and/or subcontractor. This review does not affect the requirements of any contract, nor imply any approval of construction methods and/or safety requirements. This review does not authorize a change in contract value. </p> <p style="font-size: 8px; margin: 0;"> Forefront Architecture & Engineering, LLC FL License No. AR102538 FL License No. CA30900 Signature Date 1/7/26 Project 25-10518 Fire Station Hazard Mitigation </p> </div>
ENGINEER COMMENTS:	ENGINEER'S STAMP:



SINGLE-SOURCE HURRICANE RESISTANT SOLUTIONS & MORE

IR 500/501/501T/501UT
FRAMING SYSTEMS AND
350/500 IR ENTRANCES

Kawneer provides a single-source solution to the growing need for hurricane resistant products in Eastern and Gulf Coast states from New York through Texas.

IR 500/501 Framing Systems and 350/500 IR Entrances are large missile impact resistant, fully tested and easy to fabricate and install. In addition, IR 501T and IR 501UT Framing provides improved thermal performance to increase energy efficiency by employing IsoLock™ thermal breaks.

Our hurricane resistant framing systems are designed and engineered for single-span storefronts, low- to mid-rise ribbon window and punched opening applications.

Building: Cancer Center of Sacred Heart Hospital

Location: Pensacola, Florida

Architect: Caldwell Associates Architects

Customer: Merritt Glass Co., Inc.

Photography: © CJ Berg

TESTING

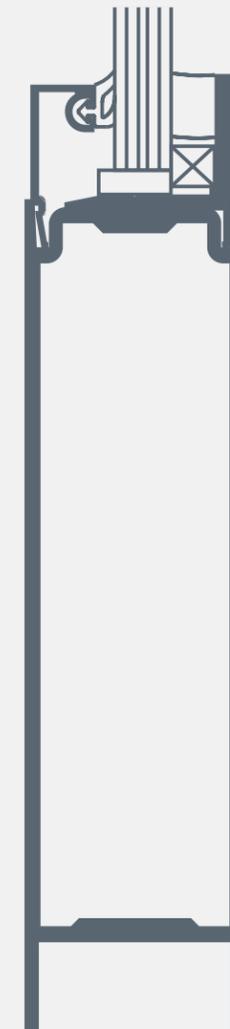
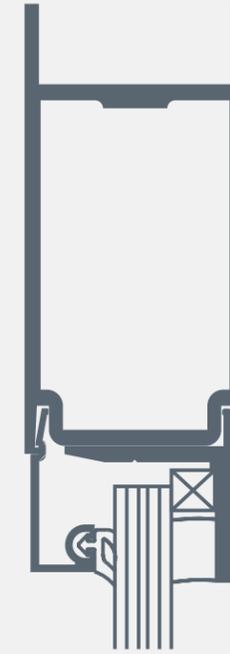
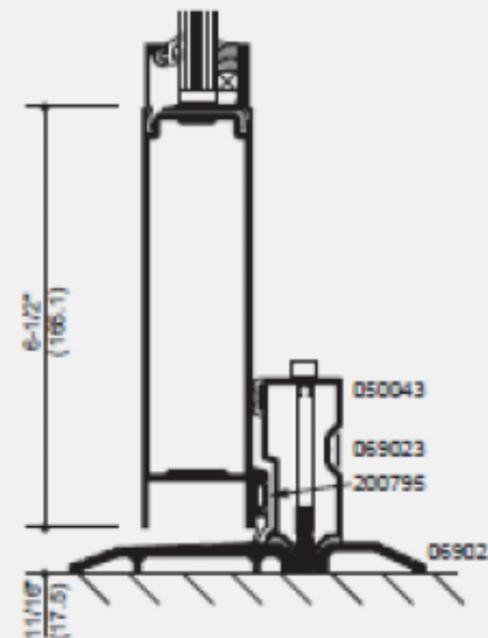
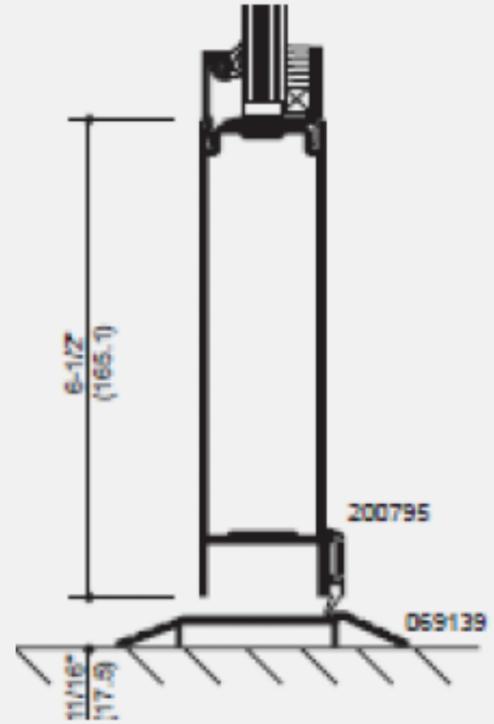
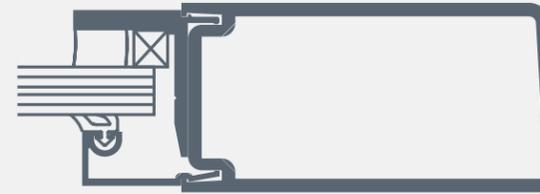
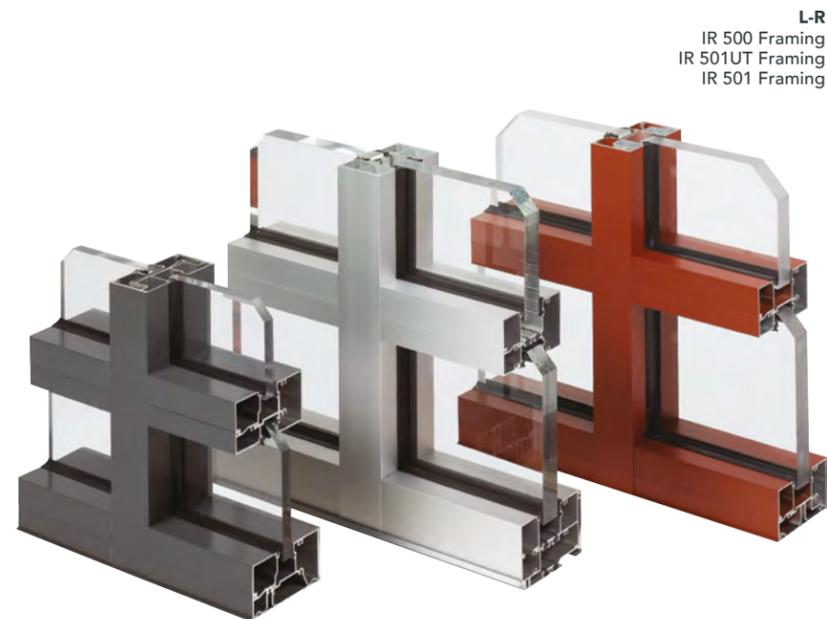
IR 500/501/501T/501 Framing Systems are tested to high velocity hurricane zone requirements of the International Building Code and Florida building code, which meet ASTM E1886 and TAS 201 and TAS 203 for impact and cycle pressure differentials. Additionally, all of our systems have been tested to ASTM E331, ASTM E283 and ASTM E330 for air, water and structural performance.

For thermal and acoustical performance, IR 501T/IR 501UT have been tested to AAMA 1503, AAMA 1801 and ASTM E1425.

FABRICATION

All IR 500/501/501T/501UT Framing Systems offer a flush glazed look with either interior structural silicone seal (wet glazed) or optional EPDM gasket (dry glazed) for large missile applications. Screw spline fabrication provides the option to pre-assemble units with controlled shop labor costs and smaller field crews. The framing systems are center glazed from the exterior side and are designed to accept 350/500 IR Entrances.

	IR 500	IR 501	IR 501T/IR 501UT	IR 501T/IR 501UT
Typical Detail				
Sightline	2-1/2" (63.5 mm)	2-1/2" (63.5 mm)	2-3/4" (69.85 mm)	2-3/4" (69.85 mm)
System Depth	5" (127 mm)	5" (127 mm)	5" (127 mm)	5" (127 mm)
Infill Options	9/16", 5/8" (Impact), 1/4" (Non-Impact)	1-5/16" (Impact), 1" (Non-Impact)	1-5/16" (Impact)	1-5/16" (Impact)
Thermal	No	No	IsoLock™ Thermal Breaks	IsoLock™ Thermal Breaks
Hurricane Resistant Tested	Large Missile	Small Missile Large Missile	Small Missile Large Missile	Small Missile Large Missile



350/500 IR ENTRANCES

Entrances are 1-3/4" (44.45 mm) deep and provide the extra strength for applications where more stringent code requirements call for windborne debris protection.

TESTING

350/500 IR Entrances are tested to the High Velocity Hurricane Zone requirements of the International Building Code and Florida Building Code. Meeting ASTM E1886, and TAS 201 and TAS 203 for impact and cycle pressure differentials and TAS 202 for Water Performance.

FEATURES

350 IR Entrances feature standard 3-1/2" (88.9 mm) vertical stiles, 3-1/2" (88.9 mm) top rails and 6-1/2" (165.1 mm) bottom rails. 500 IR Entrances feature standard 5" (127 mm) vertical stiles, 5" (127 mm) top rails and 6-1/2" (165.1 mm) bottom rails. Bottom rail options are 7-1/2" (190.5 mm) and 10" (254 mm) for aesthetics or applications where higher bottom rails are required to meet local building codes. 350/500 IR Entrances are single acting and available in singles or pairs to suit any project. The entrances feature the proven dual moment welded corner construction with 16 welds per door and Kawneer's limited lifetime warranty.

Standard hinging hardware includes top, bottom and intermediate offset pivots, 1-1/2" pair of butt hinges or continuous geared hinges. Standard MS 1850 three-point locks are available as well as concealed vertical rod exit device hardware options.

Water Performance option available in accordance to ASTM E331 and TAS 202 test standards.

Entrances accommodate 1/4", 7/16" and 9/16" impact resistant glazing infills using square glass stops with an interior silicone seal. Additional glazing options include 3M VHB Structural Glazing Tape and dry/dry glazing gaskets. Pairs include an adjustable astragal, utilizing pile weathering with a polymeric fin at the meeting stiles, and all doors include an EPDM blade gasket at the threshold. Polymeric bulb weather-stripping is used in the door frames.

Standard door jambs, transom bars and headers from the IR 500/501/501T/501UT Framing Systems are designed for use with 350/500 IR Entrances. Optional door frames include Trifab™ VersaGlaze™ 450 center glazed, Trifab™ VersaGlaze™ 451 center glazed, and 1600 Wall System™ subframes.



Building: Tarpon Springs Public Safety Building
Location: Tarpon Springs, Florida
Architect: Gee & Jenson, Engineers, Architects, Planners, Inc.,
West Palm Beach, Florida
Glazing Contractor: Ashe Glass & Mirror, Temple Terrace, Florida
Photography: © Gordon Schenck, Jr.

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System™ are trademarks of Kawneer Company, Inc.

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KAWNEER ANODIZED FINISHES

Kawneer gives you a wide variety of anodized finishes with attractive alternatives. The benefit of a durable, anodized finish is married to the beauty of some very dynamic and exciting colors.

At the start of every design, there's a choice of how you want to finish. Contact your Kawneer sales rep for the information on these and other finishes available from Kawneer.

	KAWNEER FINISH NO.	COLOR	ALUMINUM ASSOCIATION SPECIFICATION	OTHER COMMENTS
	#14	CLEAR	AA-M10C21A41	Architectural Class I (0.7 mils minimum)
	#17	CLEAR	AA-M10C21A31	Architectural Class II (0.4 mils minimum)
	#40	DARK BRONZE	AA-M10C21A44	Architectural Class I (0.7 mils minimum)
	#29	BLACK	AA-M10C21A44	Architectural Class I (0.7 mils minimum)



Features

- IR 501T/IR 501UT is 5" (127) deep and has a 2-3/4" (69.9) sightline {Expansion mullions have a 3" (76.2) sightline}
- Screw Spline fabrication
- IR 501T Single IsoLock® lanced pour and debridge thermal break
- IR 501UT Dual IsoLock® lanced pour and debridge thermal break
- Center glazed
- Outside glazed
- Permanodic® anodized finishes option
- Painted finishes in standard and custom choices

Optional Features

- Integrated entrance framing
- 350 IR/500 IR - single or pairs of entrances
- Strap anchor at head and jamb
- Acoustical rating per AAMA 1801 and ASTM E 1425
- Project specific U-Factor (see thermal charts)

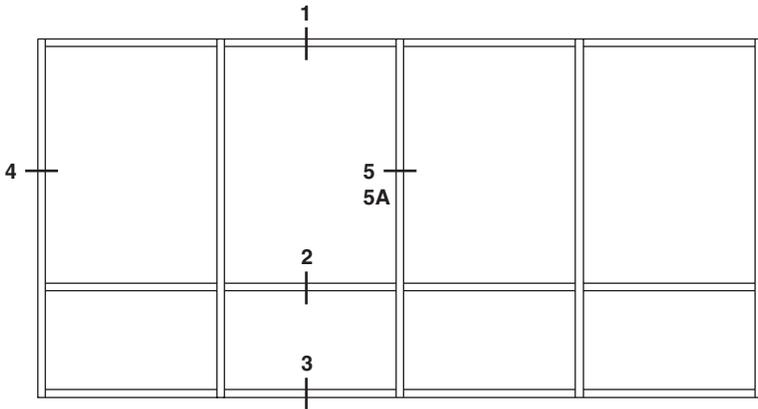
Product Applications

- Impact resistant
- Storefront, ribbon window or punched opening
- Low to mid-rise
- Single span
- GLASSvent® Windows for Storefront Framing are easily incorporated

For specific product applications,
consult your Kawneer representative.

 HURRICANE RESISTANT PRODUCT

Additional information and CAD details are available at www.kawneer.com



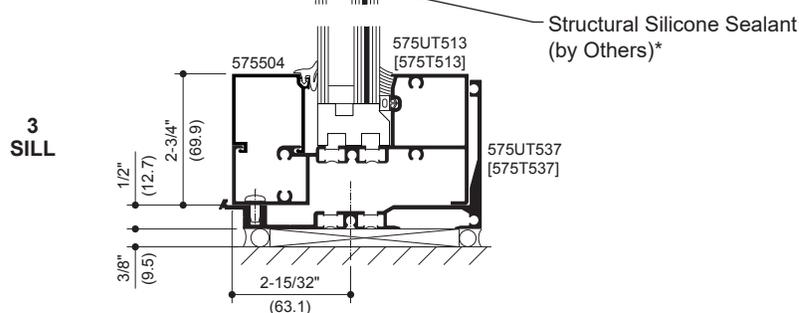
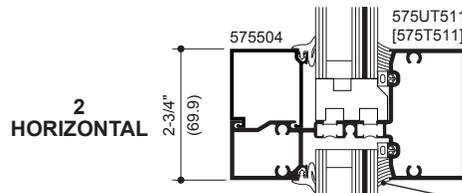
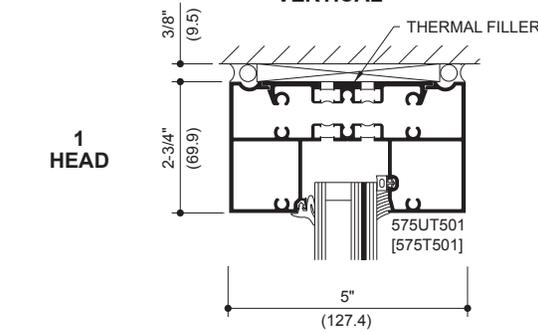
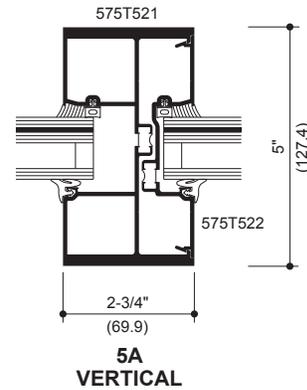
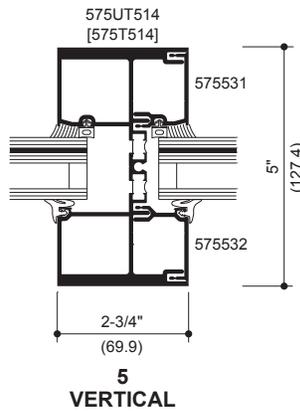
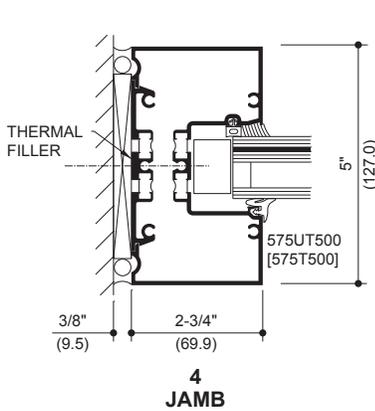
ELEVATION IS NUMBER KEYED TO DETAILS



IR 501T Single IsoLock®
THERMAL BREAK



IR 501UT DUAL IsoLock®
THERMAL BREAK (SHOWN)



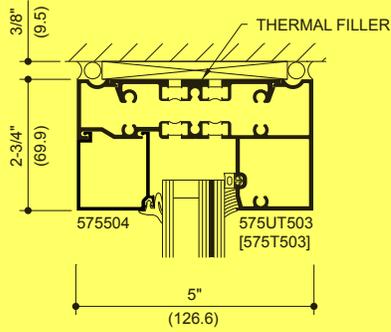
* INSTALLER NOTE: Installer is responsible for all required compatibility review and approvals with the Structural Silicone Manufacturer and the Insulating Glass Unit Manufacturer.



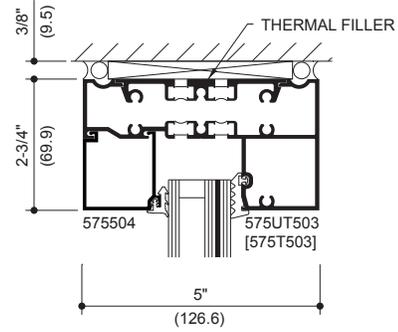
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1-5/16" INFILL (WET GLAZED)

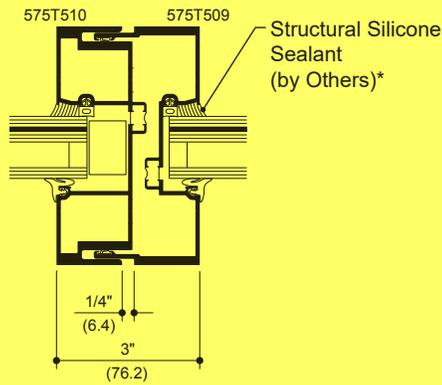
1-5/16" INFILL (DRY GLAZED)



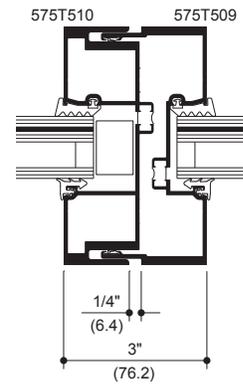
OPTIONAL HEAD WITH STOP



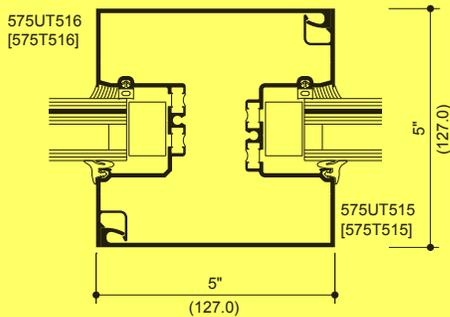
OPTIONAL HEAD WITH STOP



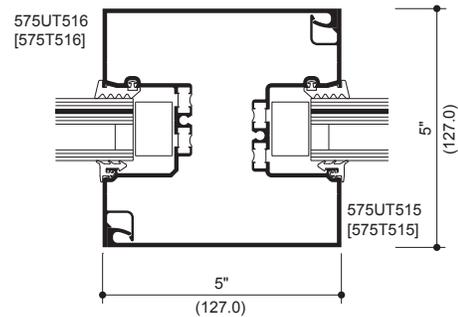
EXPANSION MULLION



EXPANSION MULLION



5" x 5" MULLION



5" x 5" MULLION

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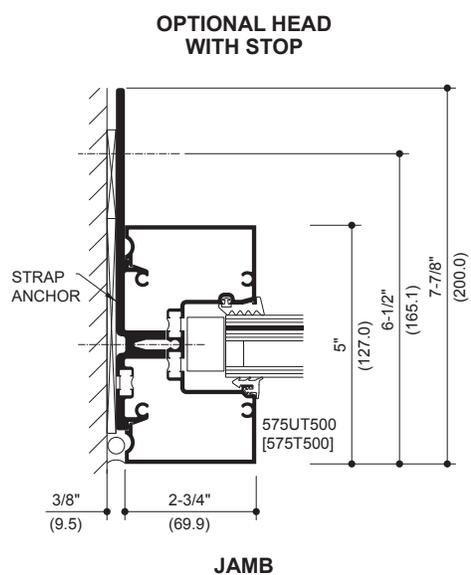
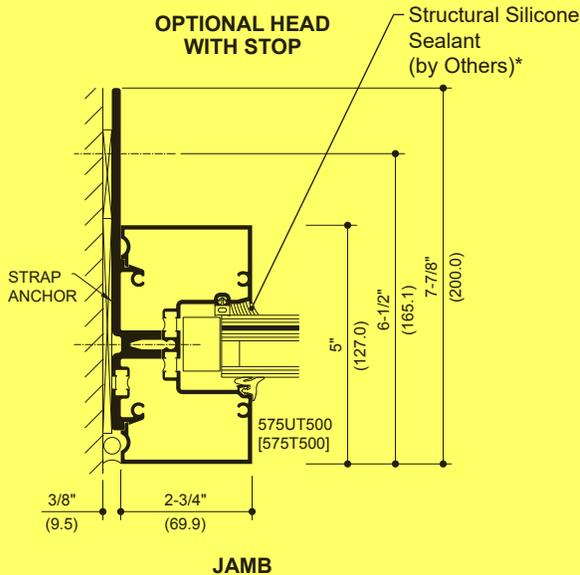
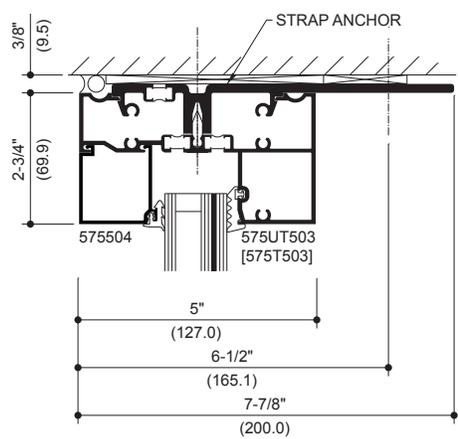
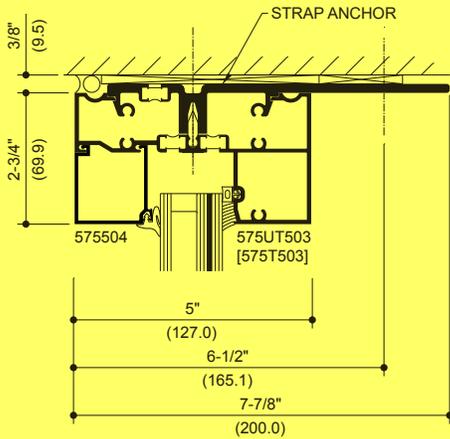
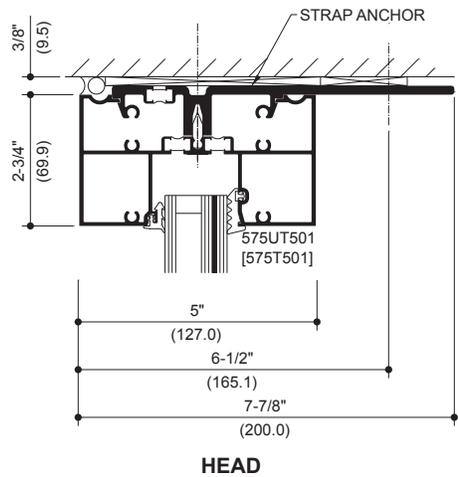
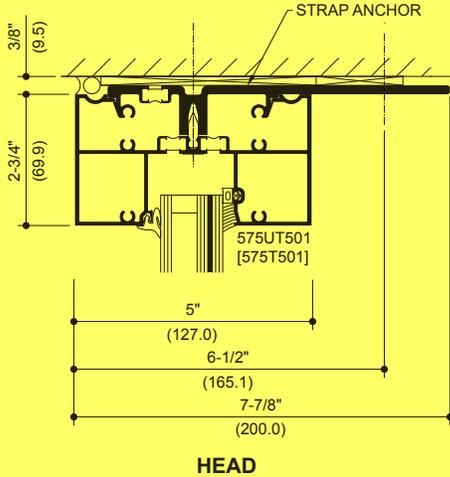
Laws and building and safety codes governing the design and use of Kawneer products, such as glazed entrance, window, and curtain wall products, vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
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Additional information and CAD details are available at www.kawneer.com

1-5/16" INFILL (WET GLAZED)

1-5/16" INFILL (DRY GLAZED)



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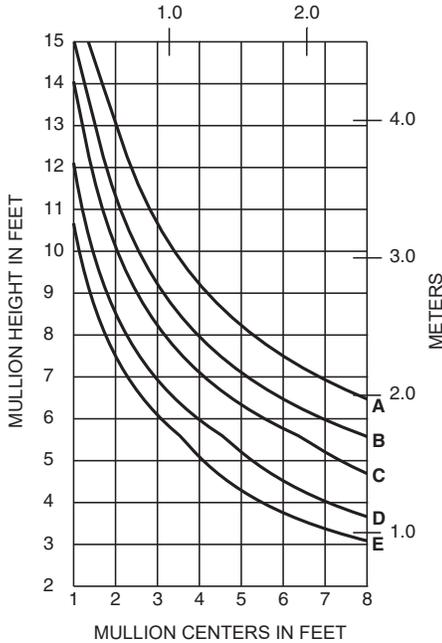
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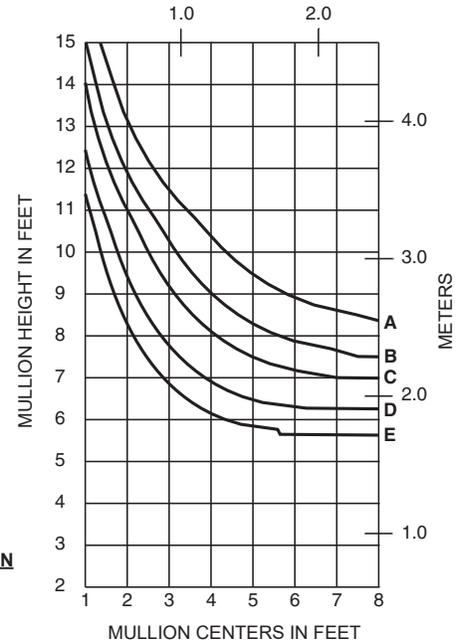


	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	30 PSF (1440)	50 PSF (2400)
B =	40 PSF (1920)	67 PSF (3200)
C =	50 PSF (2400)	83 PSF (4000)
D =	70 PSF (3360)	117 PSF (5600)
E =	90 PSF (4310)	150 PSF (7200)

575T500 WITH HORIZONTALS
METERS



575T500 WITHOUT HORIZONTALS
METERS



WIND LOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505

MAXIMUM ALLOWABLE STRESS AND DEFLECTION for 575T500 and 575UT500

8,000 PSI WITH HORIZONTALS*

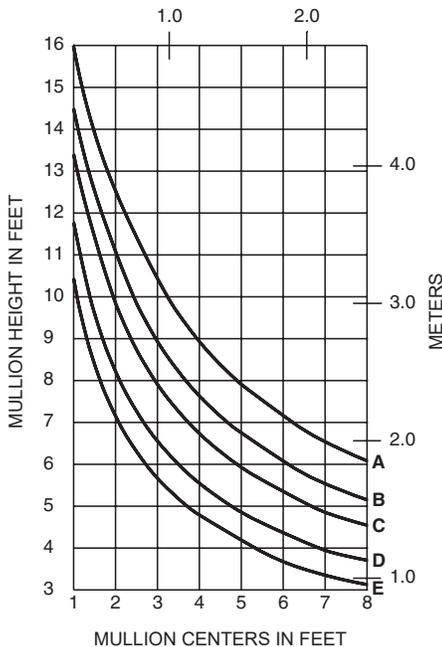
9,000 PSI WITHOUT HORIZONTALS**

1/4" ALLOWABLE DEFLECTION @ JAMBS

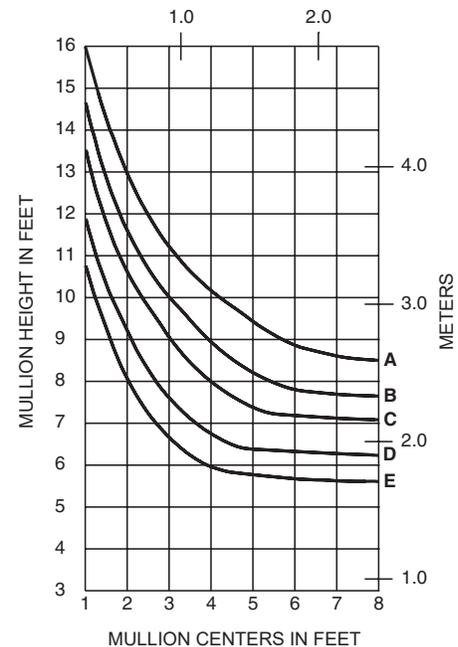
* 92 3/4" maximum DLO with anchors located at top and bottom of intermediate horizontals.

** 84" maximum vertical DLO anchored at top and bottom only. Add perimeter fasteners to increase DLO height.

575UT500 WITH HORIZONTALS
METERS



575UT500 WITHOUT HORIZONTALS
METERS



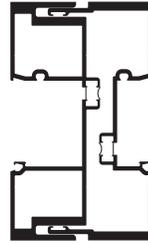
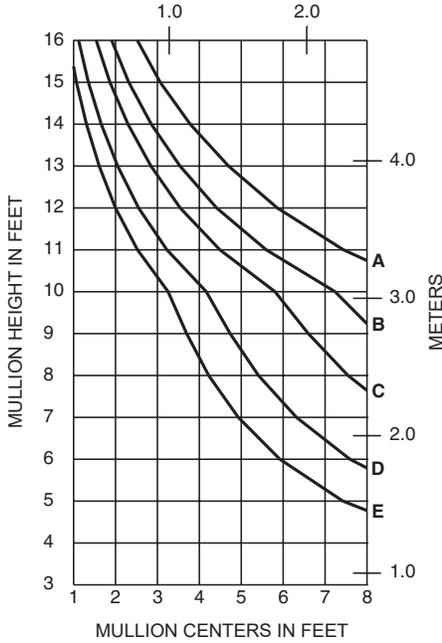
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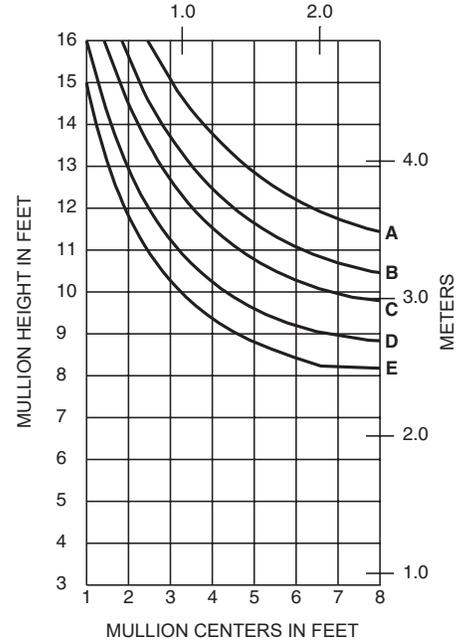
575T509 & 575T510 WITH HORIZONTALS
METERS



575T509 / 575T510

WIND LOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505

575T509 & 575T510 WITHOUT HORIZONTALS
METERS



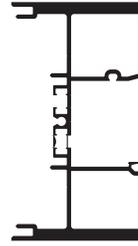
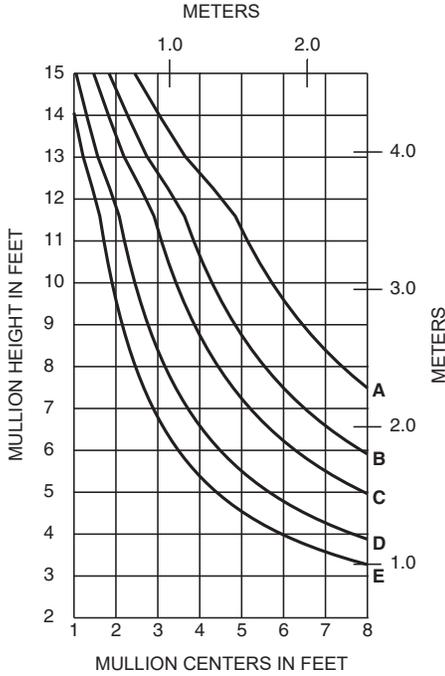
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 HURRICANE RESISTANT PRODUCT

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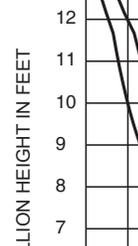
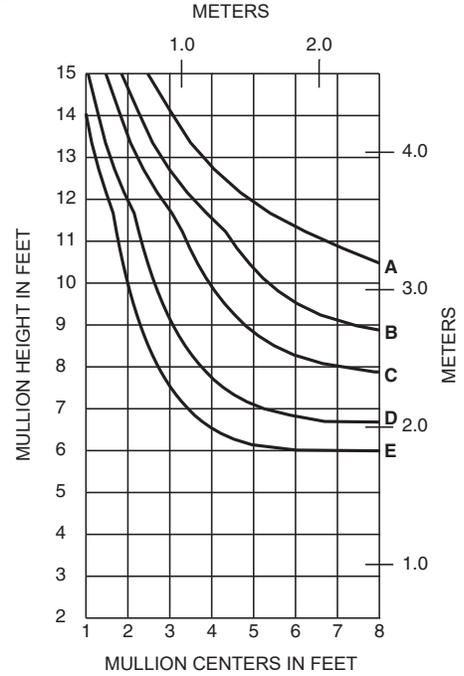
575T514 WITH HORIZONTALS



575T514

WIND LOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505

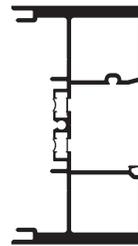
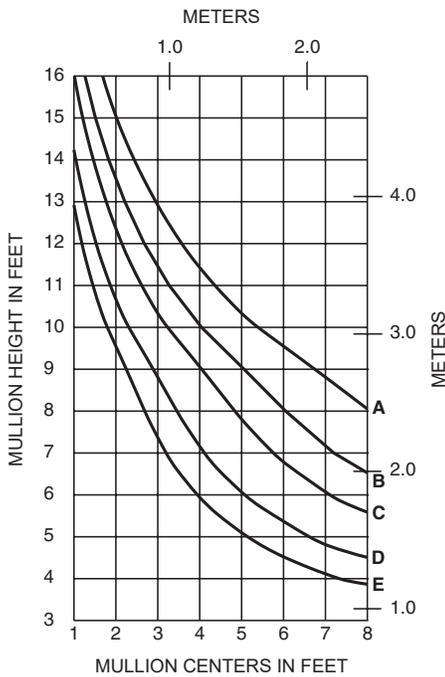
575T514 WITHOUT HORIZONTALS



575T514

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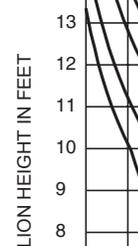
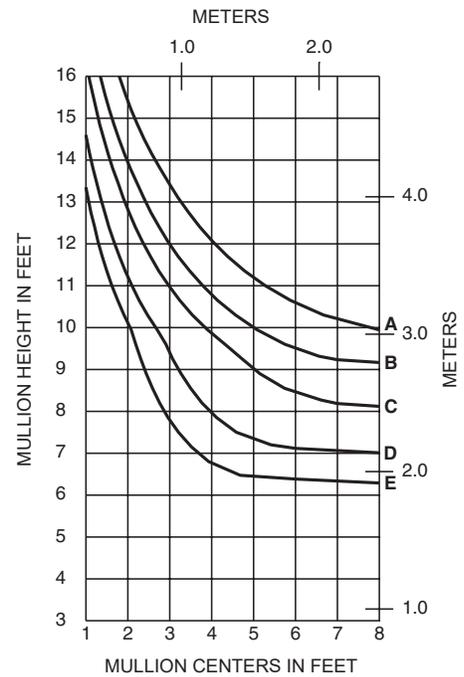
575UT514 WITH HORIZONTALS



575UT514

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575UT514 WITHOUT HORIZONTALS



575UT514

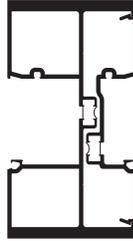
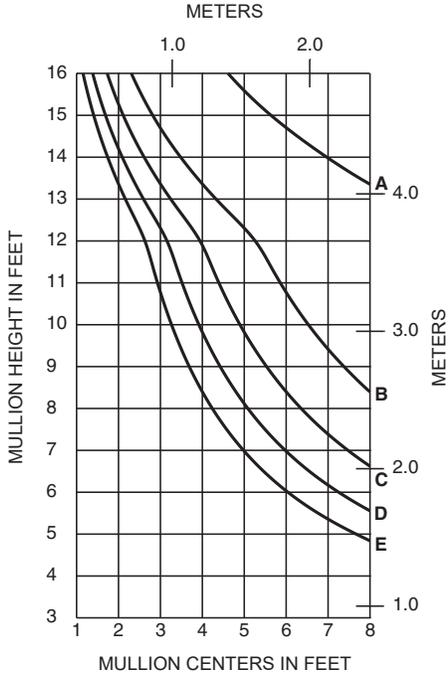
WIND LOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505

Laws and building and safety codes governing the design and use of Kawneer products, such as glazed entrance, window, and curtain wall products, vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

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	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	15 PSF (720)	25 PSF (1200)
B =	30 PSF (1440)	50 PSF (2400)
C =	40 PSF (1920)	67 PSF (3200)
D =	50 PSF (2400)	83 PSF (4000)
E =	60 PSF (2880)	100 PSF (4790)

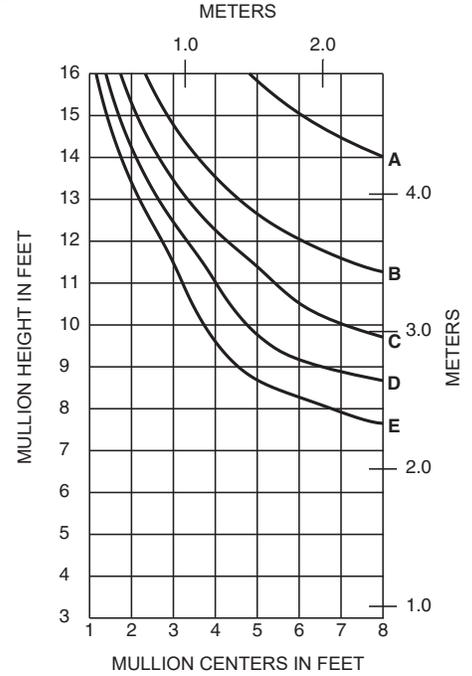
575T521 & 575T522 WITH HORIZONTALS



575T521 / 575T522

WIND LOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505

575T521 & 575T522 WITHOUT HORIZONTALS



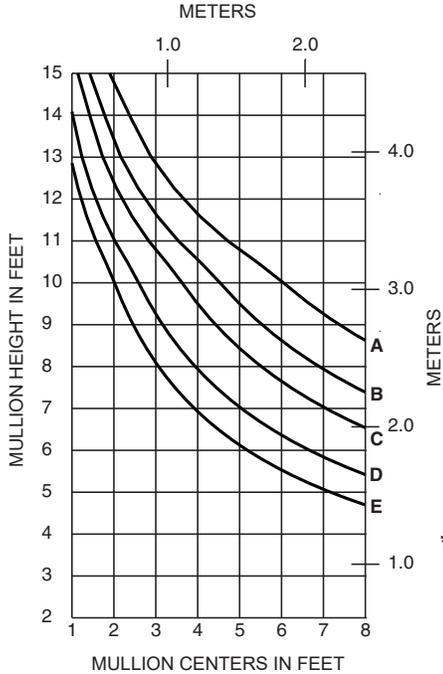
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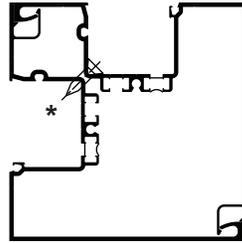
 HURRICANE RESISTANT PRODUCT

	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	30 PSF (1440)	50 PSF (2400)
B =	40 PSF (1920)	67 PSF (3200)
C =	50 PSF (2400)	83 PSF (4000)
D =	70 PSF (3360)	117 PSF (5600)
E =	90 PSF (4310)	150 PSF (7200)

575T515 & 575T535 WITH HORIZONTALS



3/4" ALLOWABLE DEFLECTION

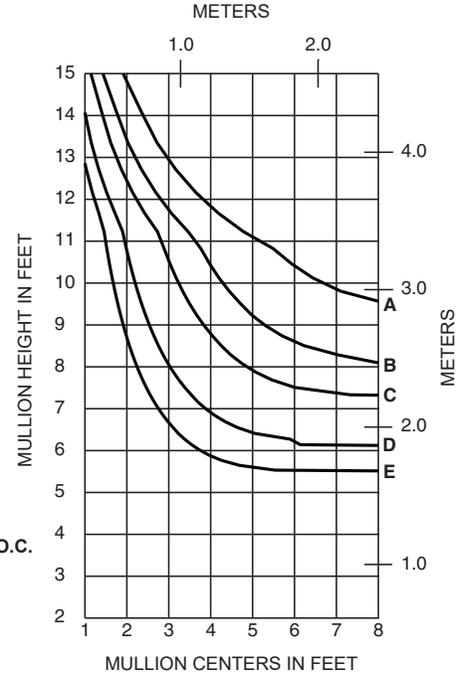


575T515 / 575T535

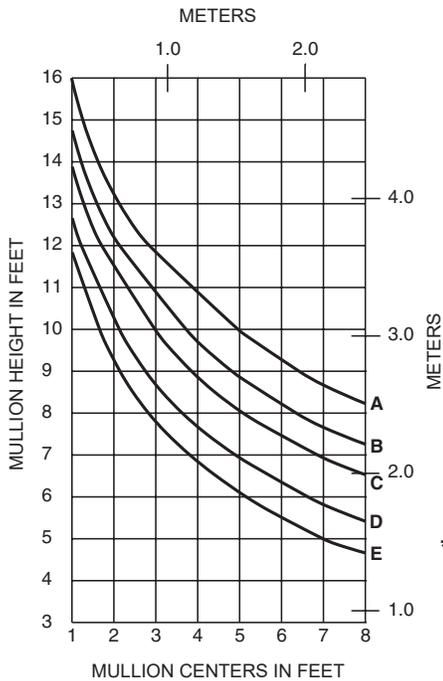
* LOCATE FASTENER 6" FROM EACH END AND 9" O.C.

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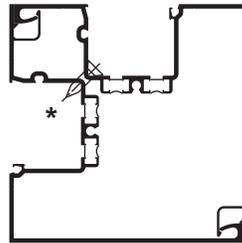
575T515 & 575T535 WITHOUT HORIZONTALS



575UT515 & 575UT535 WITH HORIZONTALS



3/4" ALLOWABLE DEFLECTION

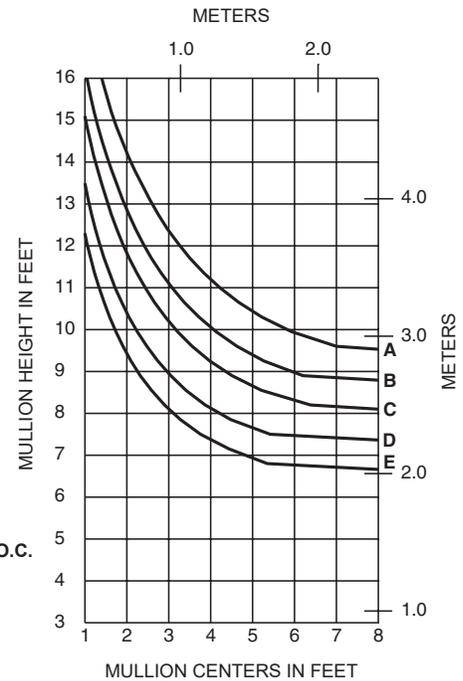


575UT515 / 575UT535

* LOCATE FASTENER 6" FROM EACH END AND 9" O.C.

WIND LOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505

575UT515 & 575UT535 WITHOUT HORIZONTALS

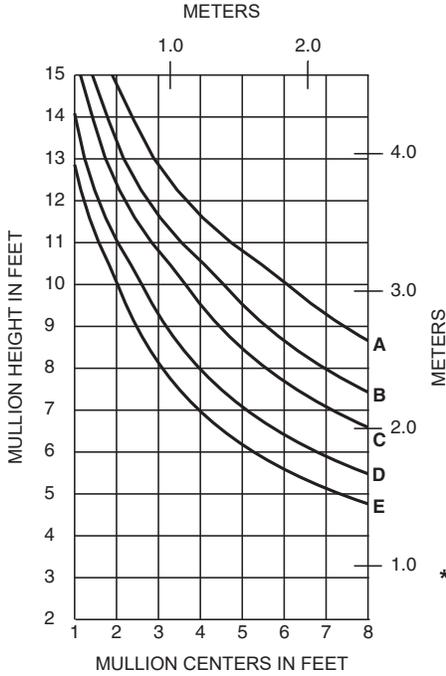


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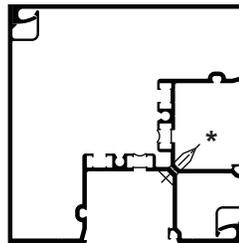
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	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	30 PSF (1440)	50 PSF (2400)
B =	40 PSF (1920)	67 PSF (3200)
C =	50 PSF (2400)	83 PSF (4000)
D =	70 PSF (3360)	117 PSF (5600)
E =	90 PSF (4310)	150 PSF (7200)

575T516 & 575T536 WITH HORIZONTALS



3/4" ALLOWABLE DEFLECTION

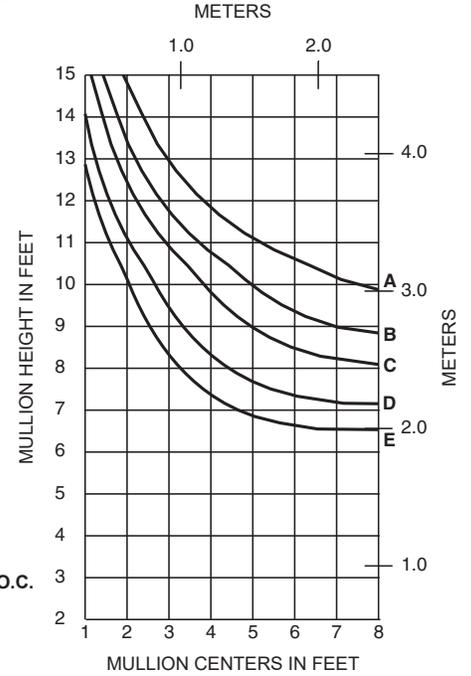


575T516 / 575T536

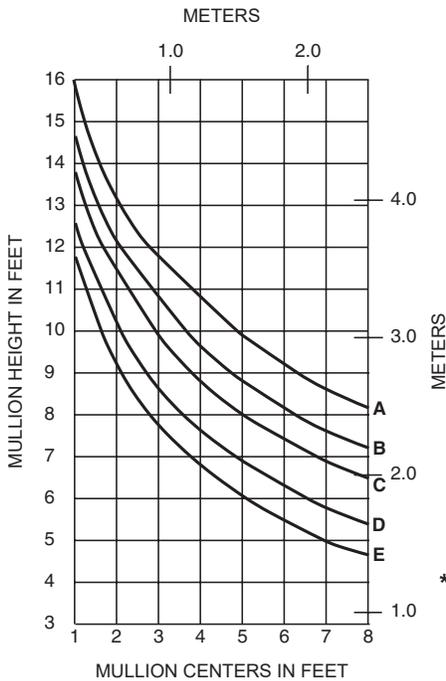
* LOCATE FASTENER 6" FROM EACH END AND 9" O.C.

WIND LOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505

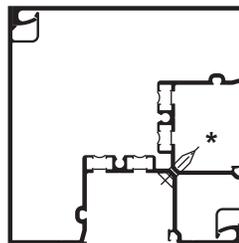
575T516 & 575T536 WITHOUT HORIZONTALS



575UT516 & 575UT536 WITH HORIZONTALS



3/4" ALLOWABLE DEFLECTION

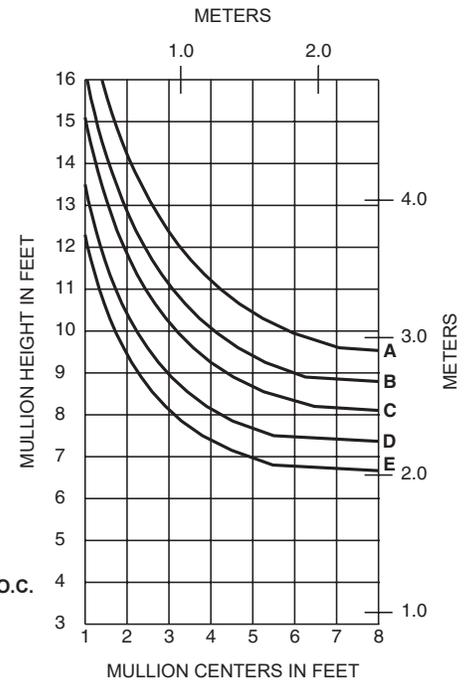


575UT516 / 575UT536

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575UT516 & 575UT536 WITHOUT HORIZONTALS



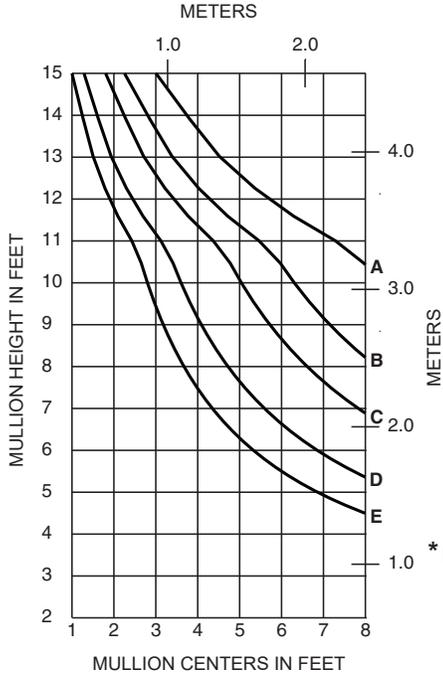
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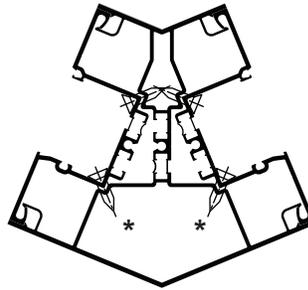


	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	30 PSF (1440)	50 PSF (2400)
B =	40 PSF (1920)	67 PSF (3200)
C =	50 PSF (2400)	83 PSF (4000)
D =	70 PSF (3360)	117 PSF (5600)
E =	90 PSF (4310)	150 PSF (7200)

575T534 & 575T528 WITH HORIZONTALS



3/4" ALLOWABLE DEFLECTION

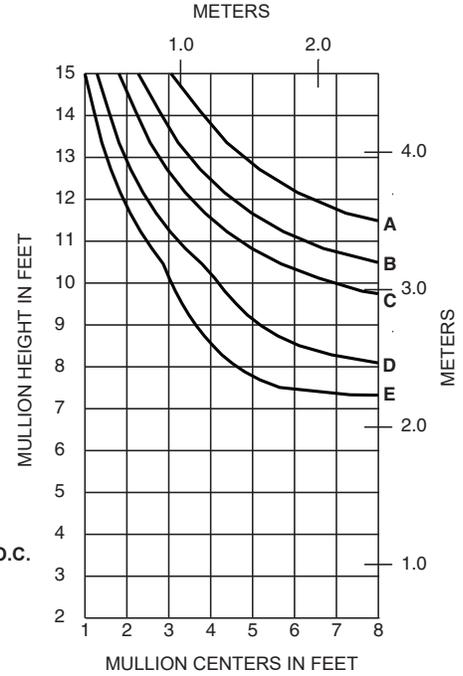


575T534 / 575T528

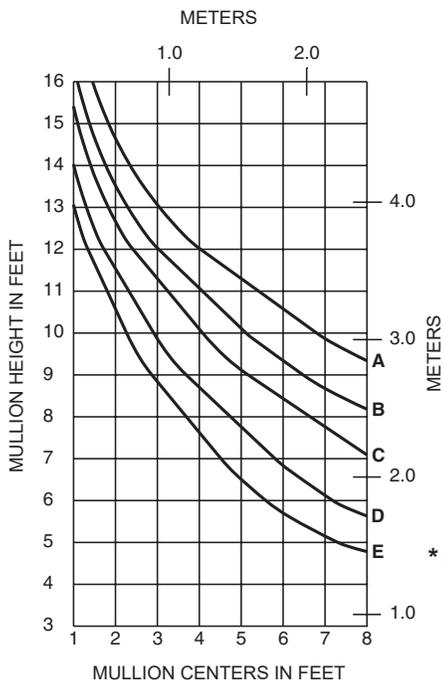
* LOCATE FASTENER 6" FROM EACH END AND 18" O.C.

WIND LOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505

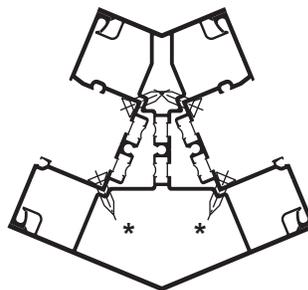
575T534 & 575T528 WITHOUT HORIZONTALS



575UT534 & 575UT528 WITH HORIZONTALS



3/4" ALLOWABLE DEFLECTION

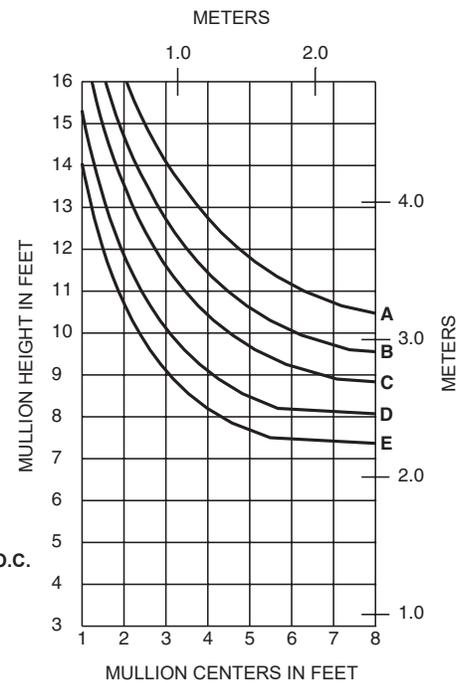


575UT534 / 575UT528

* LOCATE FASTENER 6" FROM EACH END AND 18" O.C.

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575UT534 & 575UT528 WITHOUT HORIZONTALS

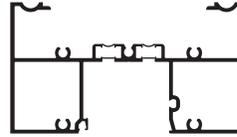
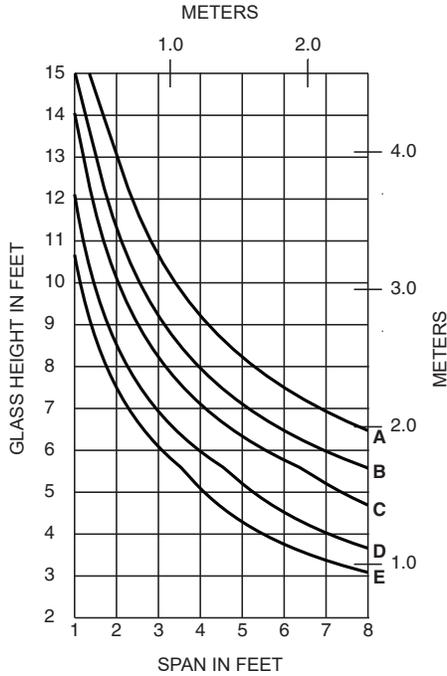


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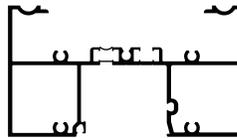
	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	30 PSF (1440)	50 PSF (2400)
B =	40 PSF (1920)	67 PSF (3200)
C =	50 PSF (2400)	83 PSF (4000)
D =	70 PSF (3360)	117 PSF (5600)
E =	90 PSF (4310)	150 PSF (7200)

575T501 SINGLE SPAN



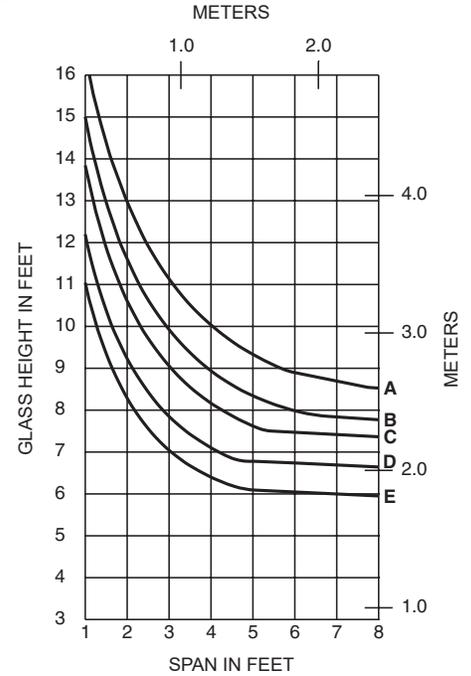
575UT501

WIND LOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505

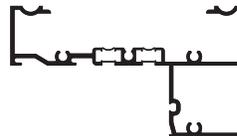
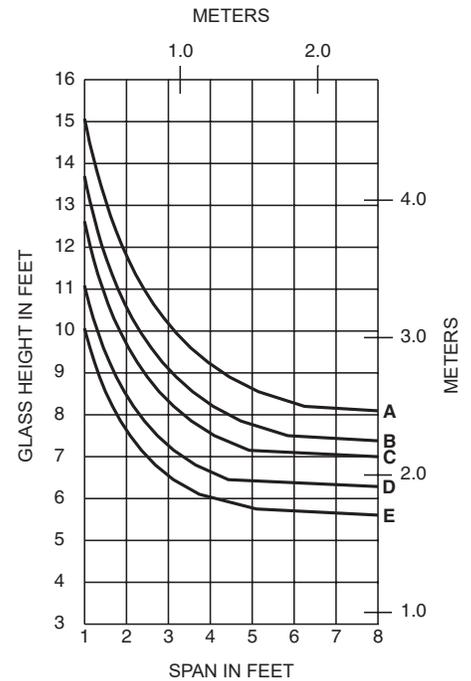


575T501

575UT501 SINGLE SPAN

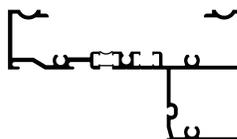


575UT503 SINGLE SPAN



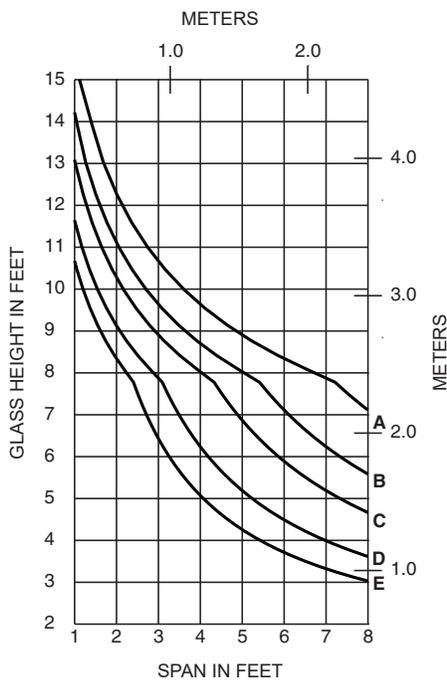
575UT503

WIND LOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505



575T503

575T503 SINGLE SPAN



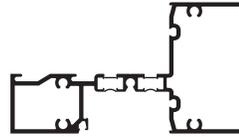
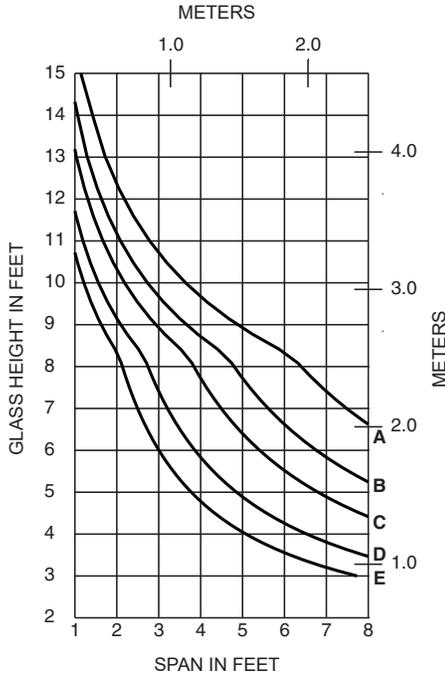
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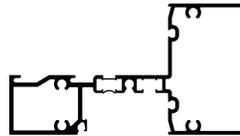


	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	30 PSF (1440)	50 PSF (2400)
B =	40 PSF (1920)	67 PSF (3200)
C =	50 PSF (2400)	83 PSF (4000)
D =	70 PSF (3360)	117 PSF (5600)
E =	90 PSF (4310)	150 PSF (7200)

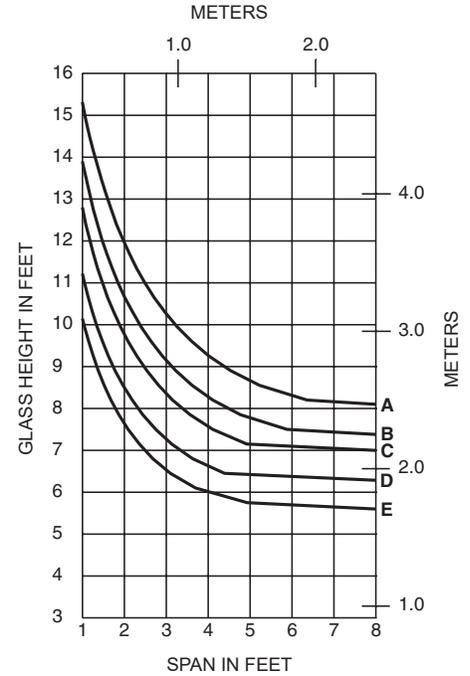
575T511
SINGLE SPAN



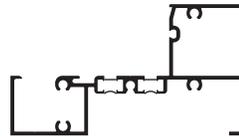
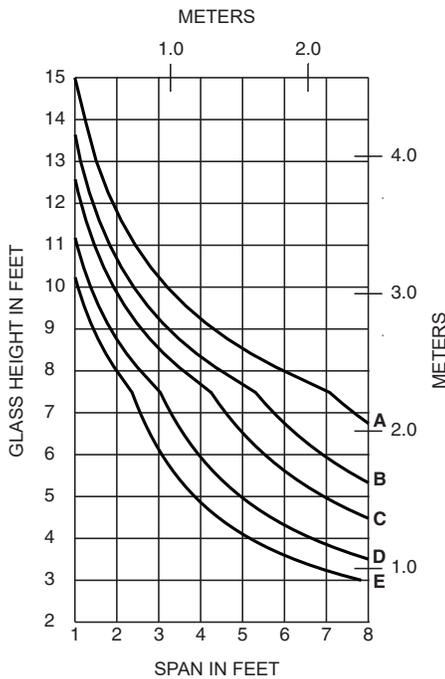
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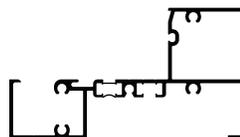
575UT511
SINGLE SPAN



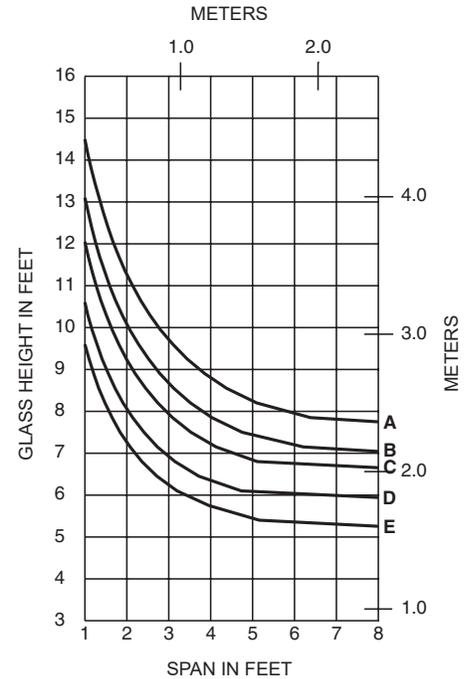
575T513
SINGLE SPAN



WIND LOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505



575UT513
SINGLE SPAN



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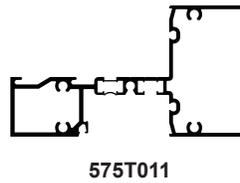
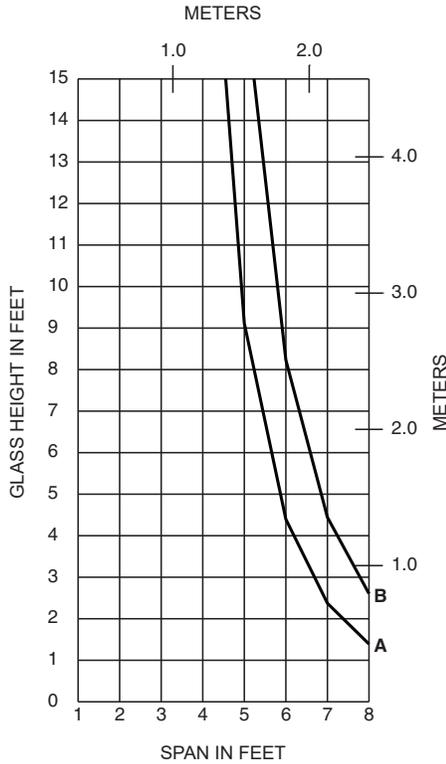
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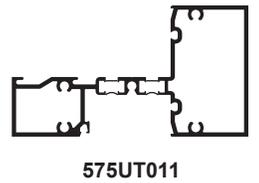
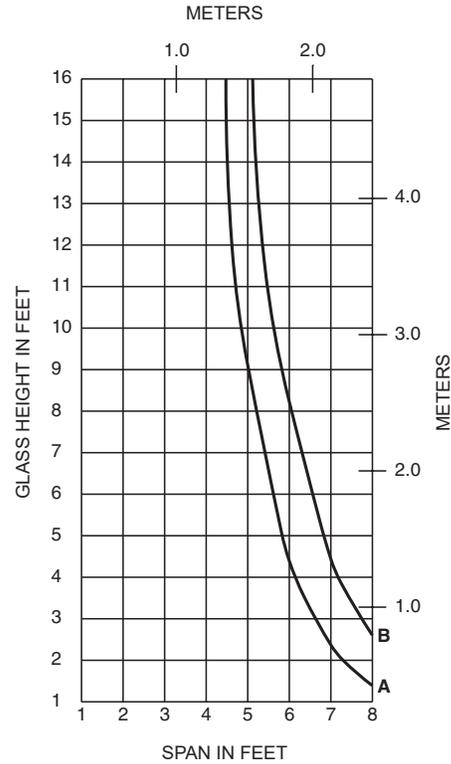
Horizontal or deadload limitations are based upon 1/8" (3.2), maximum allowable deflection at the center of an intermediate horizontal member. The accompanying charts are calculated for 1-5/16" (33.3) thick insulated impact resistant glass supported on two setting blocks placed at the loading points shown.

A = (1/4 POINT LOADING)
B = (1/8 POINT LOADING)

575T011



575UT011

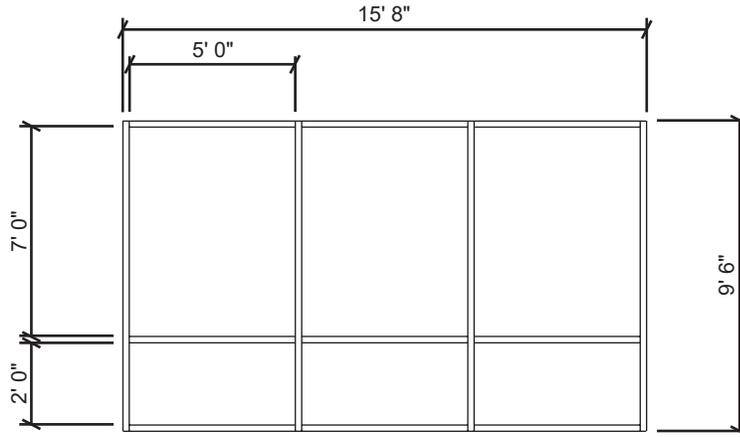


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Generic Project Specific U-factor Example Calculation
 (Percent of Glass will vary on specific products depending on sitelines)



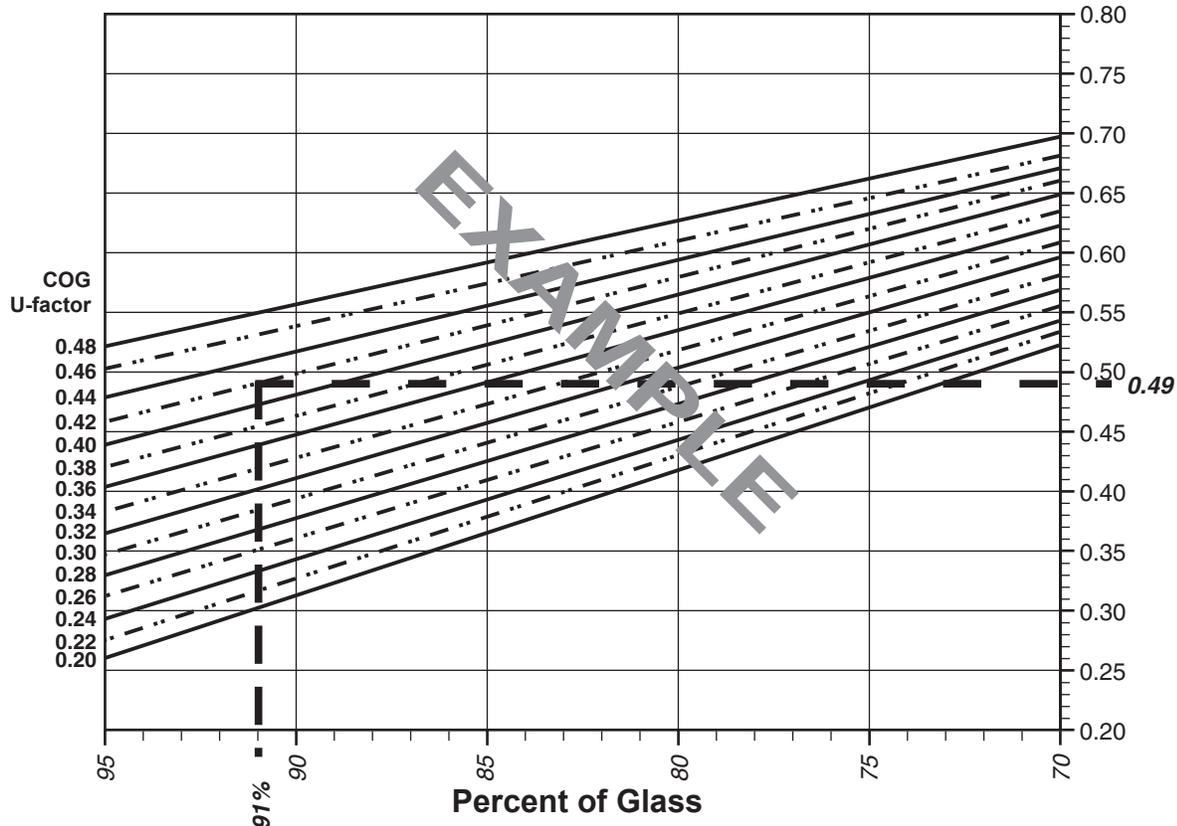
Example Glass U-factor = 0.42 Btu/hr·ft²·°F

Total Daylight Opening = 3(5' x 7') + 3(5' x 2') = 135ft²

Total Projected Area = (Total Daylight Opening + Total Area of Framing System)
 = 15' 8" x 9' 6" = 148.83ft²

Percent of Glass = (Total Daylight Opening ÷ Total Projected Area)
 = (135 ÷ 148.83)100 = 91%

System U-factor vs Percent of Glass Area



Based on 91% glass and center of glass (COG) U-factor of 0.42
System U-factor is equal to 0.49 Btu/hr x ft² x °F

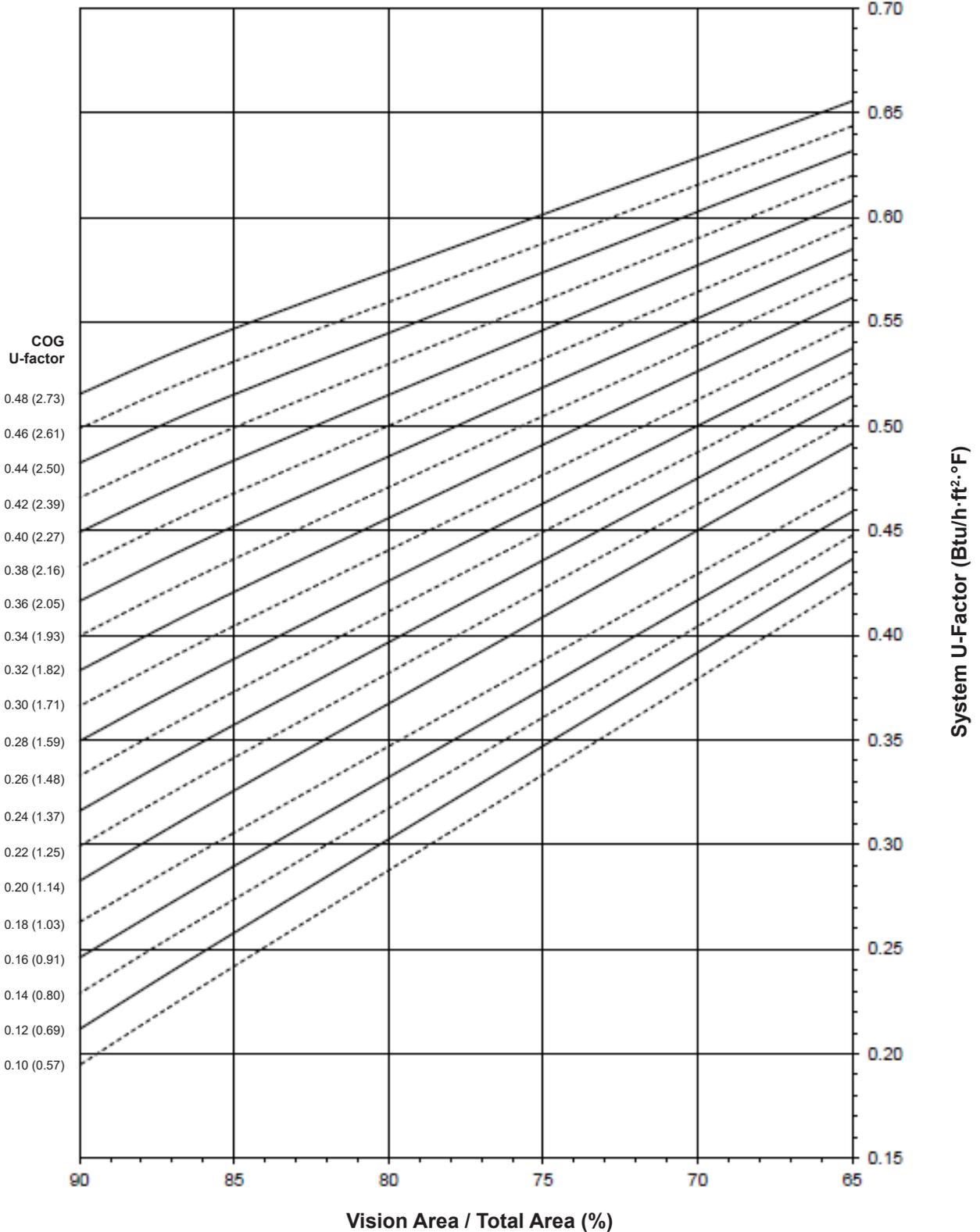
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Note:
Values in parentheses are metric.
COG=Center of Glass.
Charts are generated per AAMA 507.

IR 501T Framing (575T514 Three Piece Mullion) System U-Factor for Vision Glass

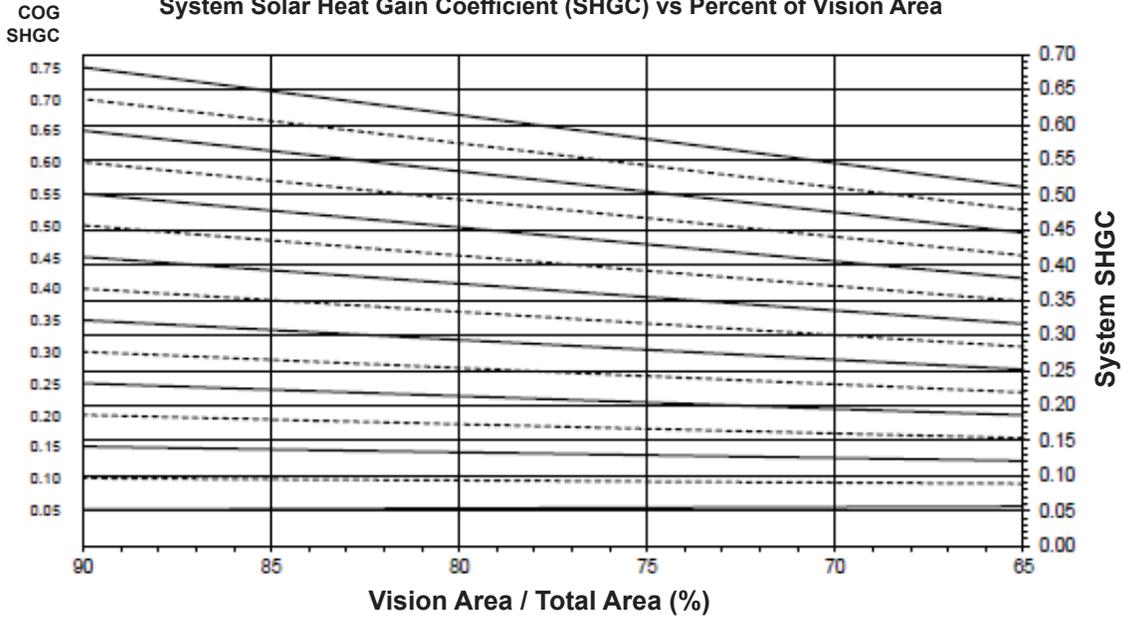


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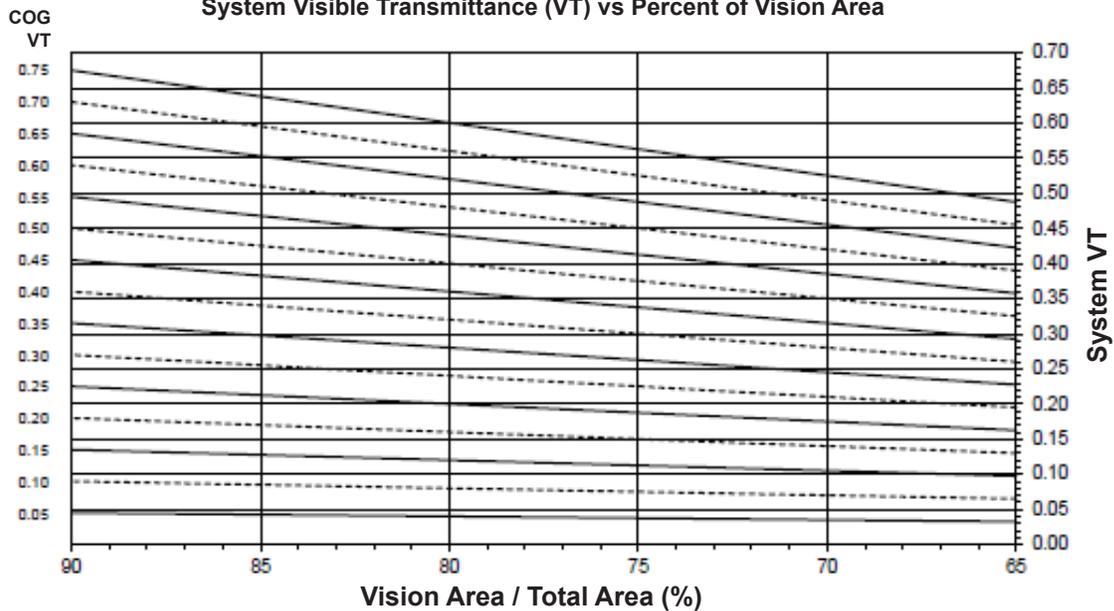


IR 501T Framing (575T514 Three Piece Mullion) System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area



Charts are generated per AAMA 507.

IR 501T Framing (575T514 Three Piece Mullion) System Visible Transmittance (VT) vs Percent of Vision Area



Charts are generated per AAMA 507.

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Thermal Transmittance ¹ (BTU/hr • ft ² • °F)

Glass U-Factor ³	Overall U-Factor ⁴
0.48	0.55
0.46	0.53
0.44	0.51
0.42	0.50
0.40	0.48
0.38	0.47
0.36	0.45
0.34	0.44
0.32	0.42
0.30	0.40
0.28	0.39
0.26	0.37
0.24	0.36
0.22	0.34
0.20	0.33
0.18	0.31
0.16	0.29
0.14	0.27
0.12	0.26
0.10	0.24

**IR 501T Framing
(575T514 Three Piece Mullion)**

NOTE: For glass values that are not listed, linear interpolation is permitted.

1. U-Factors are determined in accordance with NFRC 100.
2. SHGC and VT values are determined in accordance with NFRC 200.
3. Glass properties are based on center of glass values and are obtained from your glass supplier.
4. Overall U-Factor, SHGC, and VT Matrices are based on the standard NFRC specimen size of 2,000 mm wide by 2,000 mm high (78-3/4" by 78-3/4").

SHGC Matrix ²

Glass SHGC ³	Overall SHGC ⁴
0.75	0.65
0.70	0.61
0.65	0.56
0.60	0.52
0.55	0.48
0.50	0.44
0.45	0.39
0.40	0.35
0.35	0.31
0.30	0.27
0.25	0.22
0.20	0.18
0.15	0.14
0.10	0.10
0.05	0.05

Visible Transmittance ²

Glass VT ³	Overall VT ⁴
0.75	0.64
0.70	0.60
0.65	0.55
0.60	0.51
0.55	0.47
0.50	0.43
0.45	0.38
0.40	0.34
0.35	0.30
0.30	0.26
0.25	0.21
0.20	0.17
0.15	0.13
0.10	0.09
0.05	0.04

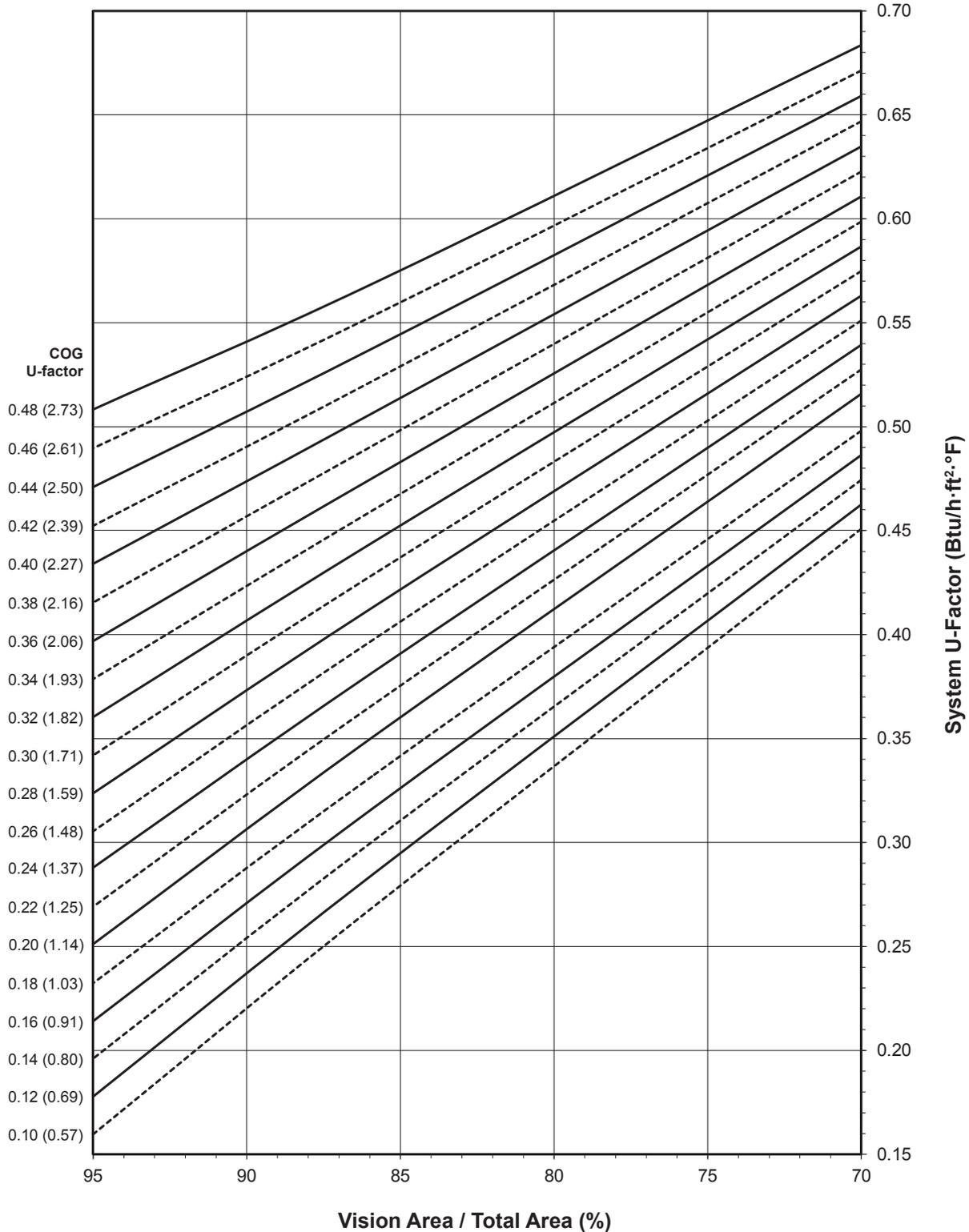
Laws and building and safety codes governing the design and use of Kawneer products, such as glazed entrance, window, and curtain wall products, vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

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Note:
 Values in parentheses are metric.
 COG=Center of Glass.
 Charts are generated per AAMA 507.

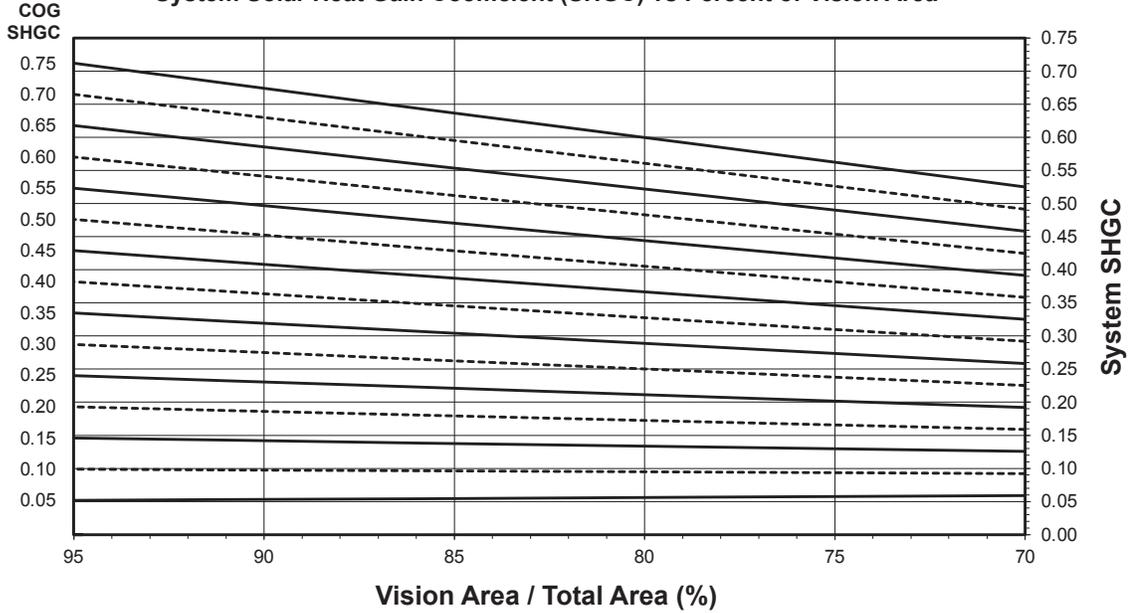
IR 501T Framing (575T521/575T522 Two Piece Mullion) System U-Factor for Vision Glass



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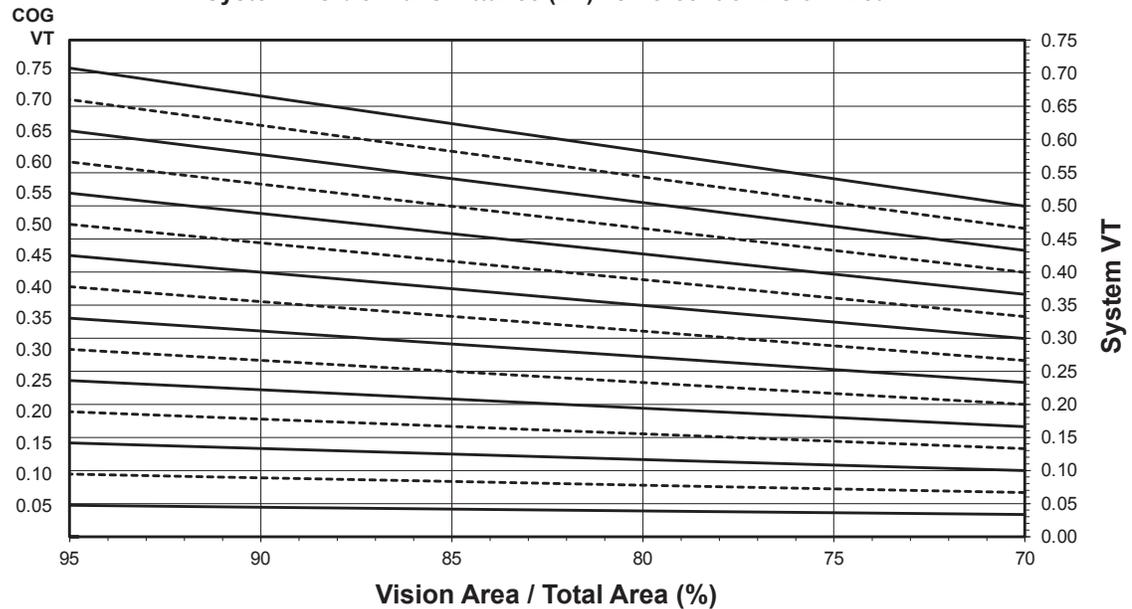
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IR 501T Framing (575T521/575T522 Two Piece Mullion) System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area



Charts are generated per AAMA 507.

IR 501T Framing (575T521/575T522 Two Piece Mullion) System Visible Transmittance (VT) vs Percent of Vision Area



Charts are generated per AAMA 507.

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Thermal Transmittance¹ (BTU/hr • ft² • °F)

Glass U-Factor ³	Overall U-Factor ⁴
0.48	0.57
0.46	0.55
0.44	0.54
0.42	0.52
0.40	0.51
0.38	0.49
0.36	0.48
0.34	0.46
0.32	0.44
0.30	0.43
0.28	0.41
0.26	0.40
0.24	0.38
0.22	0.37
0.20	0.35
0.18	0.33
0.16	0.32
0.14	0.30
0.12	0.28
0.10	0.27

IR 501T Framing
(575T521/575T522 Two Piece Mullion)

NOTE: For glass values that are not listed, linear interpolation is permitted.

1. U-Factors are determined in accordance with NFRC 100.
2. SHGC and VT values are determined in accordance with NFRC 200.
3. Glass properties are based on center of glass values and are obtained from your glass supplier.
4. Overall U-Factor, SHGC, and VT Matrices are based on the standard NFRC specimen size of 2,000 mm wide by 2,000 mm high (78-3/4" by 78-3/4").

SHGC Matrix²

Glass SHGC ³	Overall SHGC ⁴
0.75	0.64
0.70	0.60
0.65	0.56
0.60	0.52
0.55	0.48
0.50	0.43
0.45	0.39
0.40	0.35
0.35	0.31
0.30	0.26
0.25	0.22
0.20	0.18
0.15	0.14
0.10	0.10
0.05	0.05

Visible Transmittance²

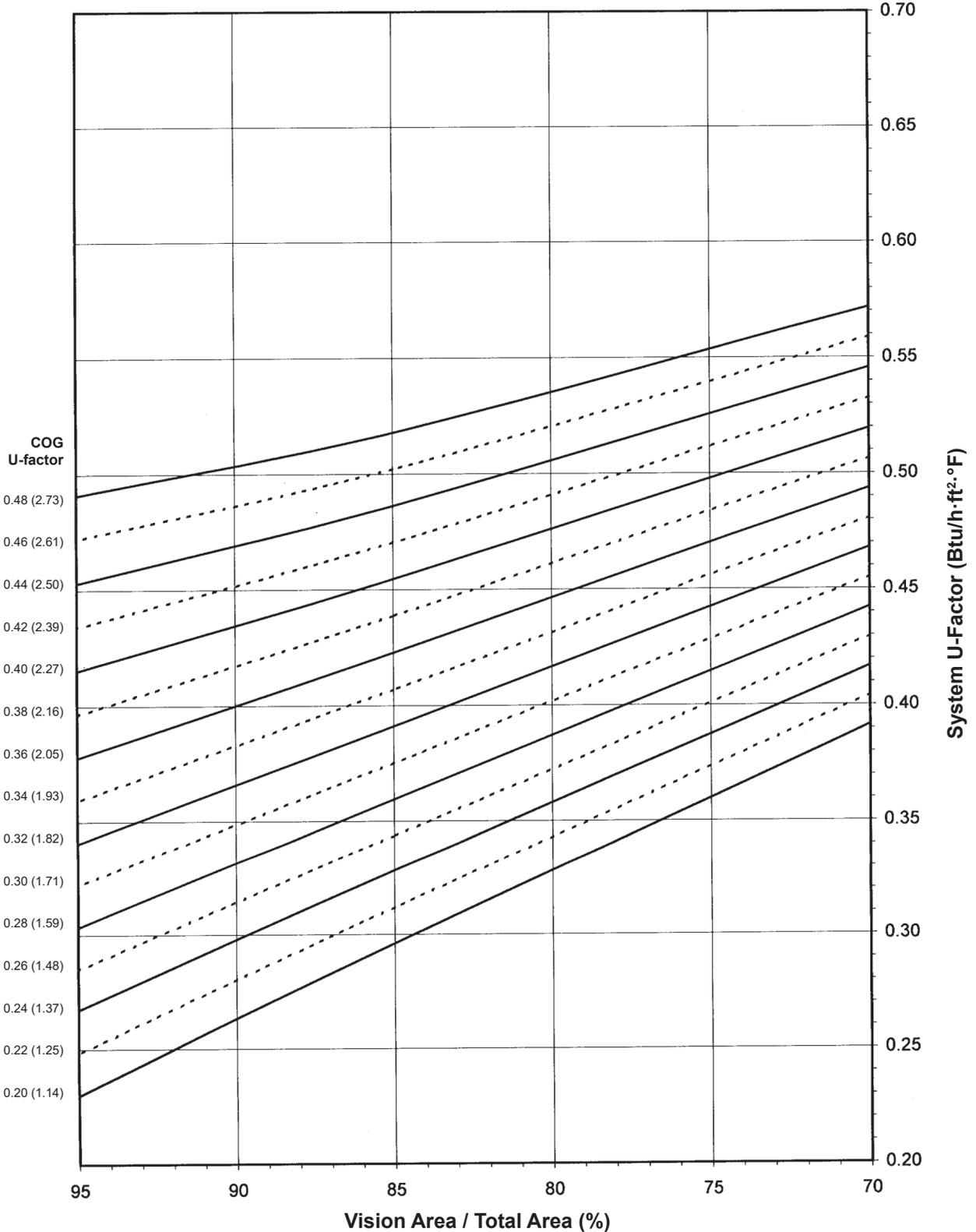
Glass VT ³	Overall VT ⁴
0.75	0.63
0.70	0.59
0.65	0.55
0.60	0.51
0.55	0.46
0.50	0.42
0.45	0.38
0.40	0.34
0.35	0.29
0.30	0.25
0.25	0.21
0.20	0.17
0.15	0.13
0.10	0.08
0.05	0.04

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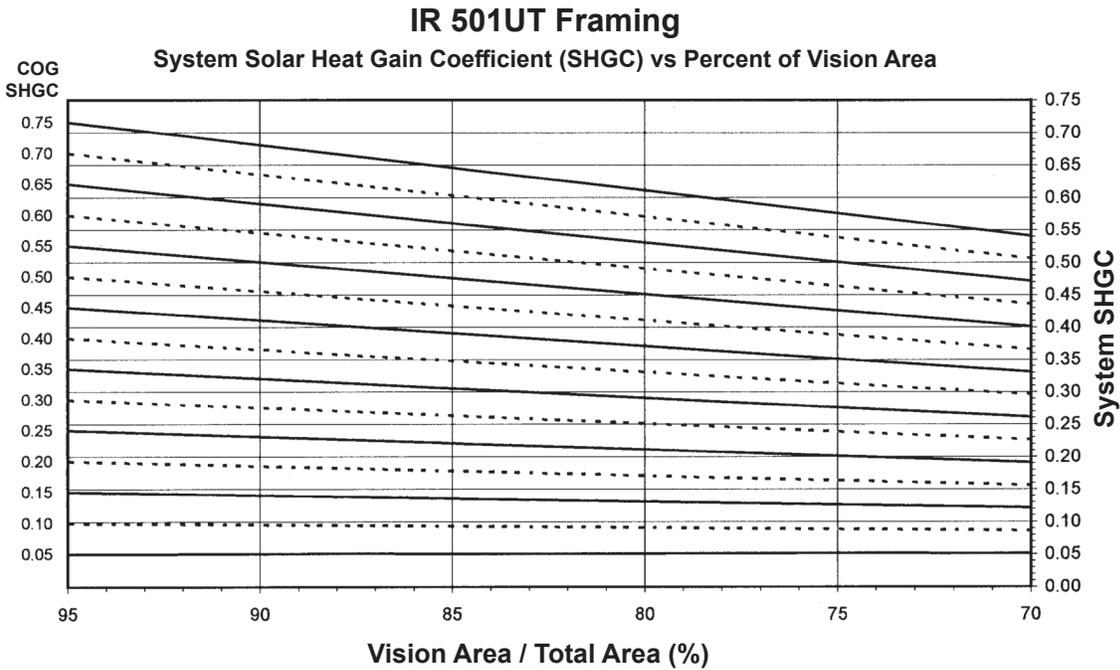
Note:
 Values in parentheses are metric.
 COG=Center of Glass.
 Charts are generated per AAMA 507.

IR 501UT Framing
System U-Factor for Vision Glass

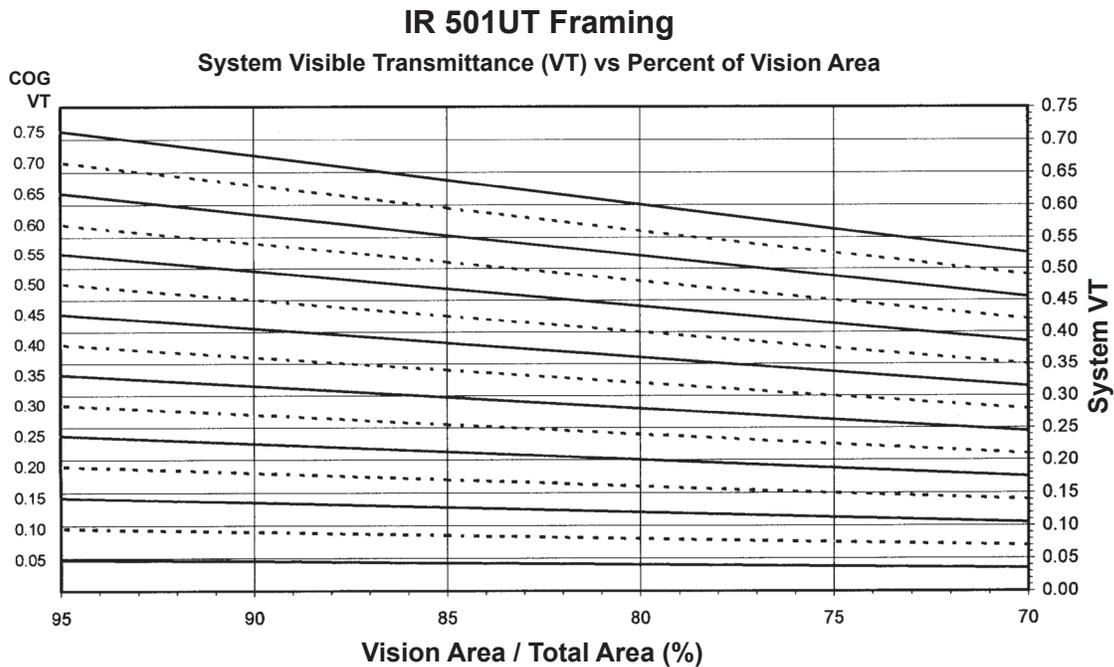


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Charts are generated per AAMA 507.



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Thermal Transmittance ¹ (BTU/hr • ft ² • °F)

Glass U-Factor ³	Overall U-Factor ⁴
0.48	0.52
0.46	0.50
0.44	0.49
0.42	0.47
0.40	0.45
0.38	0.44
0.36	0.42
0.34	0.41
0.32	0.39
0.30	0.38
0.28	0.36
0.26	0.34
0.24	0.33
0.22	0.31
0.20	0.30

IR 501UT Framing

NOTE: For glass values that are not listed, linear interpolation is permitted.

1. U-Factors are determined in accordance with NFRC 100.
2. SHGC and VT values are determined in accordance with NFRC 200.
3. Glass properties are based on center of glass values and are obtained from your glass supplier.
4. Overall U-Factor, SHGC, and VT Matricies are based on the standard NFRC specimen size of 2,000 mm wide by 2,000 mm high (78-3/4" by 78-3/4").

SHGC Matrix ²

Glass SHGC ³	Overall SHGC ⁴
0.75	0.65
0.70	0.60
0.65	0.56
0.60	0.52
0.55	0.48
0.50	0.43
0.45	0.39
0.40	0.35
0.35	0.31
0.30	0.26
0.25	0.22
0.20	0.18
0.15	0.14
0.10	0.09
0.05	0.05

Visible Transmittance ²

Glass VT ³	Overall VT ⁴
0.75	0.64
0.70	0.60
0.65	0.55
0.60	0.51
0.55	0.47
0.50	0.43
0.45	0.38
0.40	0.34
0.35	0.30
0.30	0.26
0.25	0.21
0.20	0.17
0.15	0.13
0.10	0.09
0.05	0.04

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