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Metric (SI) conversion figures are included throughout these details for reference. Numbers in parentheses ( ) are millimeters unless otherwise noted.

The following metric (SI ) units are found in these details:

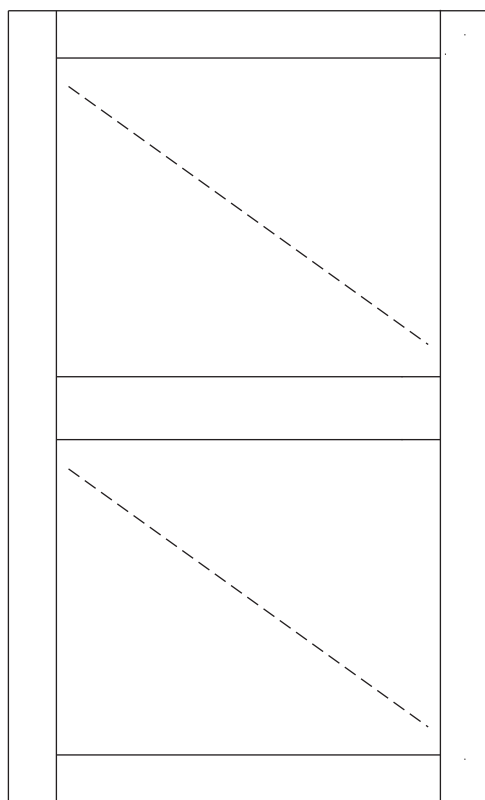
m – meter  
cm – centimeter  
mm – millimeter  
s – second  
Pa – pascal  
MPa – megapascal

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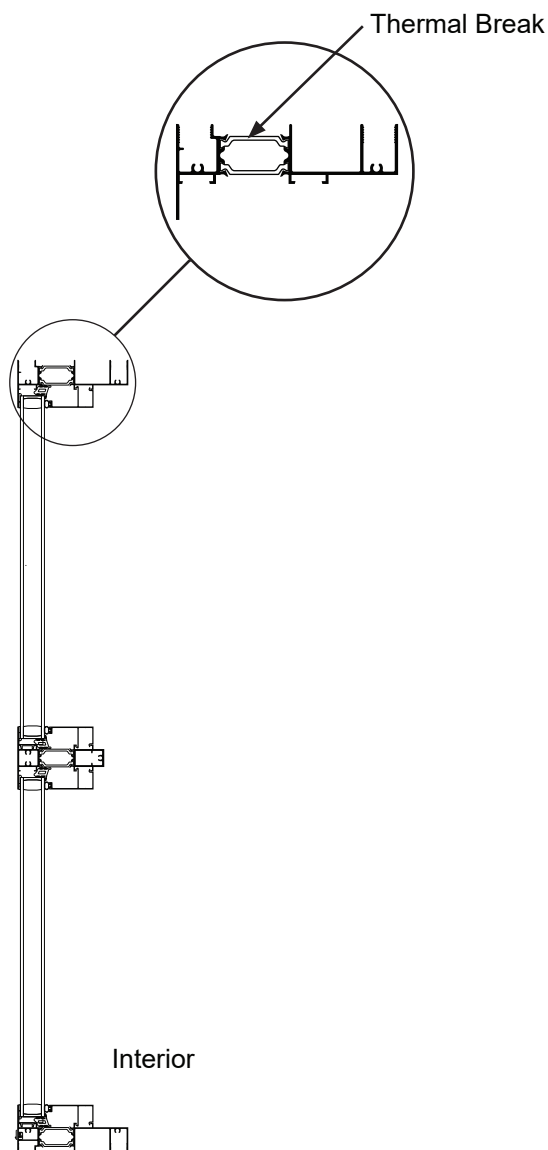
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### **Standard Features**

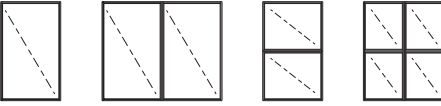
- High Performance Architectural Grade Window
- Tested to U.S. and Canadian Standards
- Polyamide Thermal Break
- Screw and Spline Frame Corner Joinery
- Factory Silicone Glazed
- Interior Applied Glazing Bead
- Architectural Anodized Finishes and Applied Coatings
- Interior and Exterior Dual Finish Options
- Two Year Manufacturer's Warranty
- Optional Bevel Face



Fixed Window



For specific product applications,  
consult your Kawneer representative.

<b>CLASS and GRADE</b>	CLASS AW-PG70-FW
<b>TESTING METHOD</b>	AAMA / WDMA / CSA / 101 / I.S.2 / A440 (NAFS)
<b>FRAME DEPTH</b>	4-5/8" Overall Frame Depth
<b>TYPICAL WALL THICKNESS</b>	.070" Nominal
<b>TYPICAL MAXIMUM WINDOW SIZE</b>	60" x 99"
<b>TYPICAL MINIMUM WINDOW SIZE</b>	17" x 17"
<b>TYPICAL CONFIGURATIONS</b>	
<b>STANDARD INFILL OPTIONS</b>	1" and 1-1/2"
<b>STANDARD HARDWARE</b>	Not Applicable
<b>OPTIONAL HARDWARE</b>	Not Applicable
<b>OTHER OPTIONS</b>	<p>Between the Glass Muntins</p> <p>Historic Beveled Exterior Glazed-in Muntins (1-1/2" max. overall thickness)</p> <p>Exterior and Interior Tape Applied Muntins</p> <p>Perimeters and Sills</p> <p>Exterior Pannings and Interior Trims</p> <p>True Intermediate Muntin</p> <p>Structural Mullions</p> <p>H-Mullion for vertical stacking</p> <p>Strap Anchors</p> <p>Male/Female horizontally stacked</p>

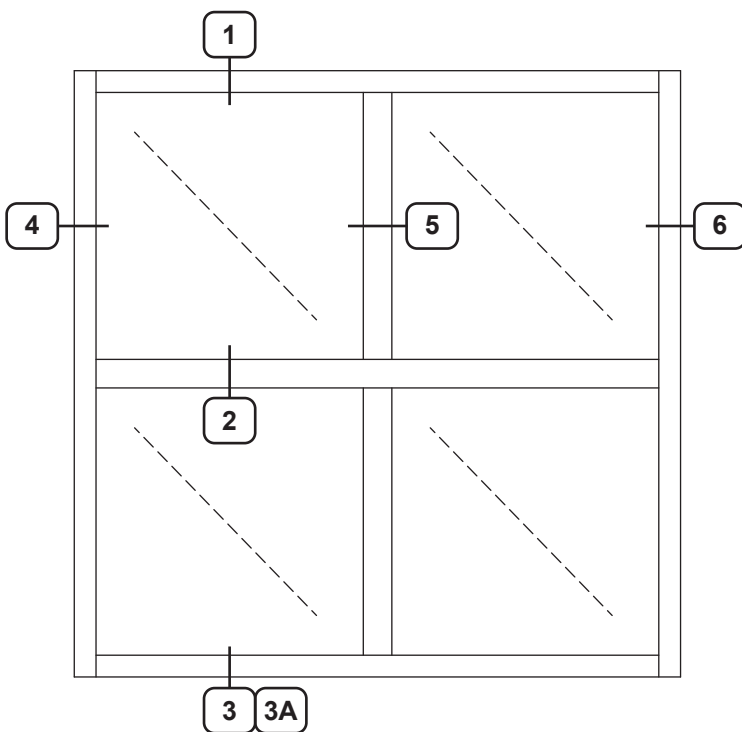
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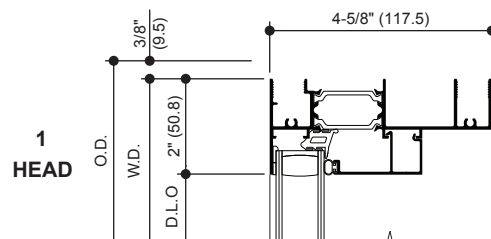
Additional information and CAD details are available at [www.kawneer.com](http://www.kawneer.com)

### AA®5450 FIXED WINDOW (1" Double Glazed)

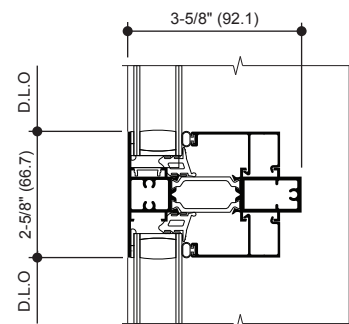


#### TYPICAL ELEVATION

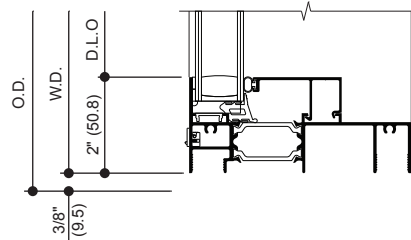
Log onto [www.kawneer.com](http://www.kawneer.com) for other configurations



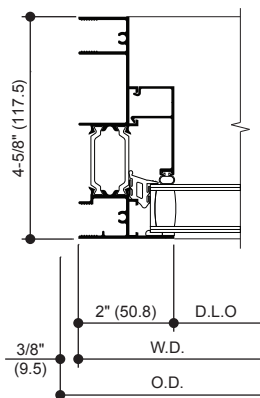
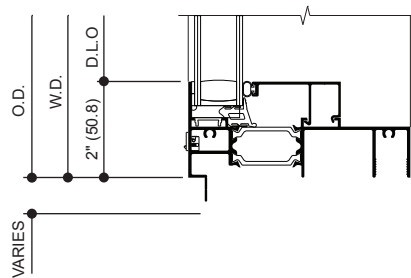
#### 2 HORIZONTAL



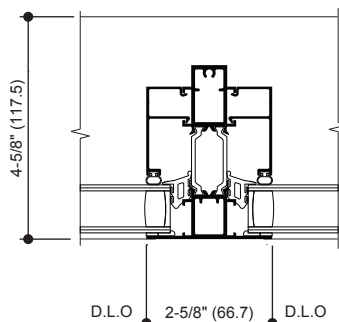
#### 3 SILL



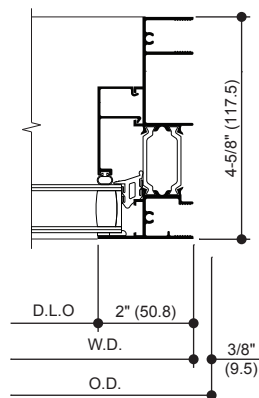
#### 3A SILL (Panning)



#### 4 JAMB



#### 5 VERTICAL



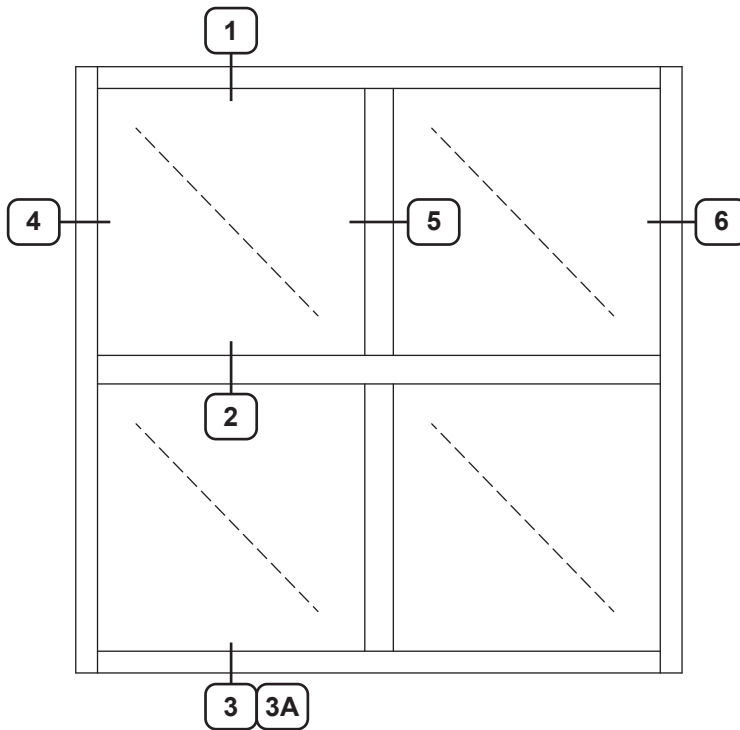
#### 6 JAMB

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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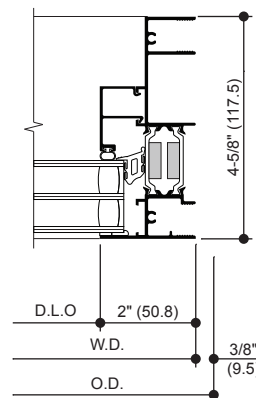
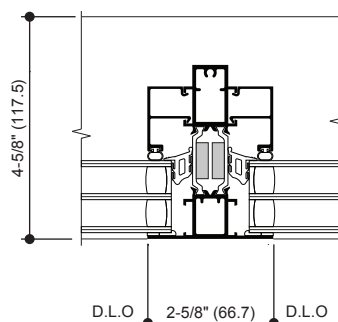
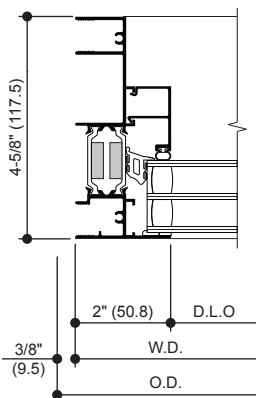
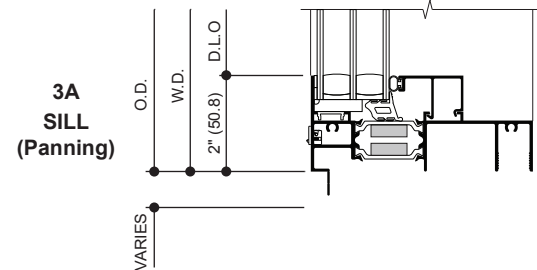
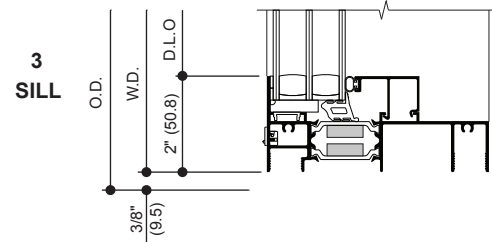
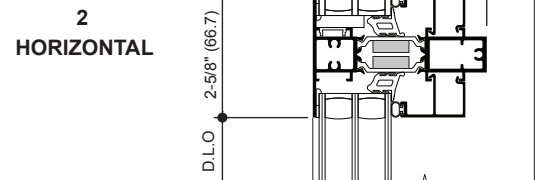
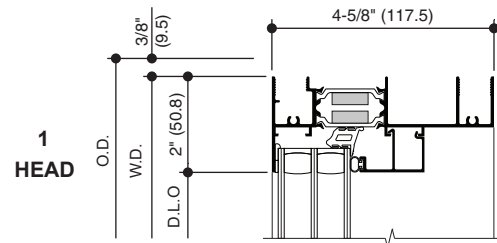
Additional information and CAD details are available at [www.kawneer.com](http://www.kawneer.com)

### AA®5450 FIXED WINDOW (1-1/2" Triple Glazed)



#### TYPICAL ELEVATION

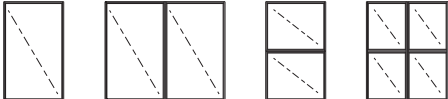
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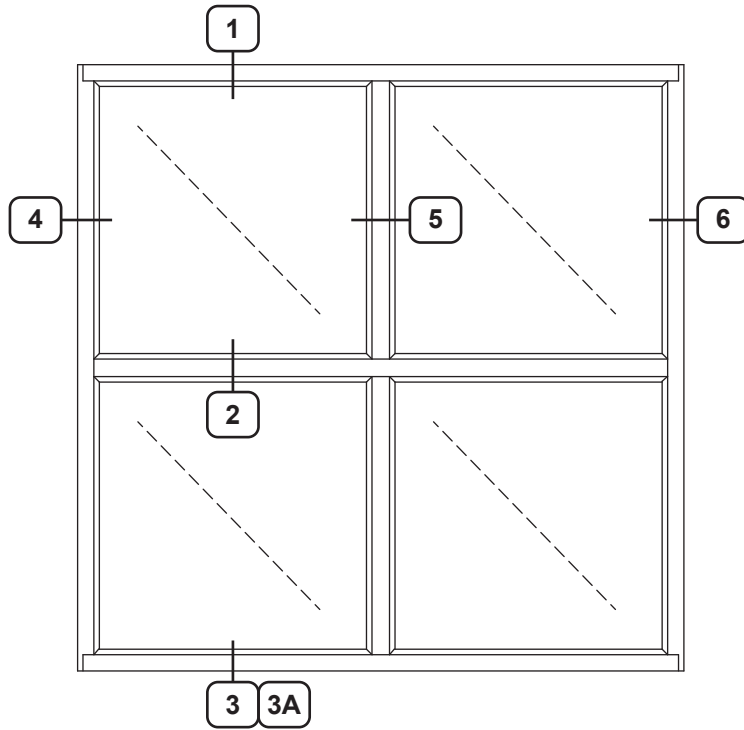
<b>CLASS and GRADE</b>	CLASS AW-PG70-FW
<b>TESTING METHOD</b>	AAMA / WDMA / CSA / 101 / I.S.2 / A440 (NAFS)
<b>FRAME DEPTH</b>	4-5/8" Overall Frame Depth
<b>TYPICAL WALL THICKNESS</b>	.070" Nominal
<b>TYPICAL MAXIMUM WINDOW SIZE</b>	60" x 99"
<b>TYPICAL MINIMUM WINDOW SIZE</b>	17" x 17"
<b>TYPICAL CONFIGURATIONS</b>	
<b>STANDARD INFILL OPTIONS</b>	1" and 1-1/2"
<b>STANDARD HARDWARE</b>	Not Applicable
<b>OPTIONAL HARDWARE</b>	Not Applicable
<b>OTHER OPTIONS</b>	Between the Glass Muntins Exterior and Interior Tape Applied Muntins Perimeters and Sills Exterior Pannings and Interior Trims True Intermediate Muntin Structural Mullions H-Mullion for vertical stacking Strap Anchors Male/Female horizontally stacked

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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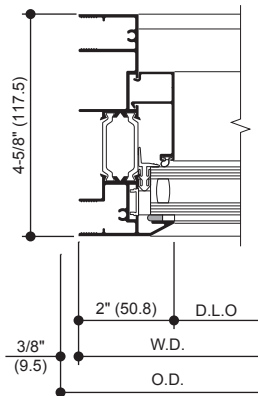
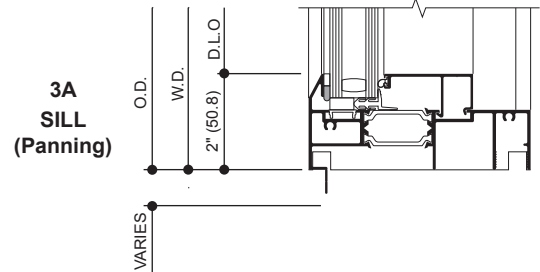
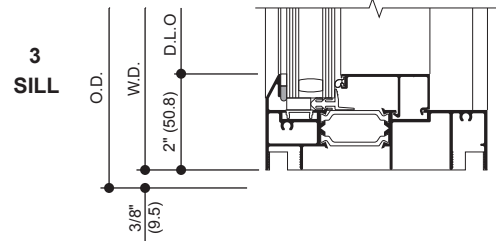
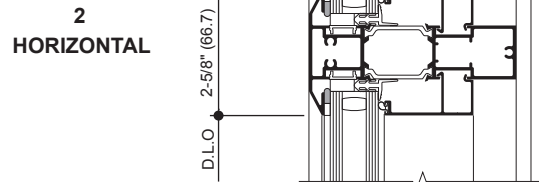
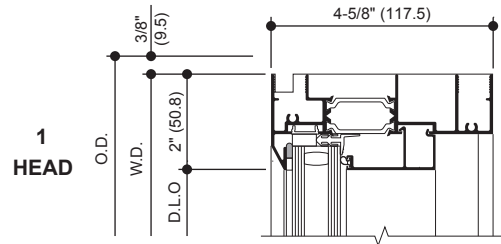
Additional information and CAD details are available at [www.kawneer.com](http://www.kawneer.com)

### AA®5450 FIXED WINDOW (1" Double Glazed)

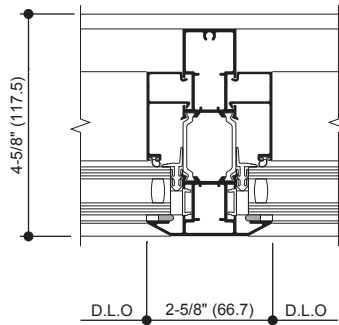


#### TYPICAL ELEVATION

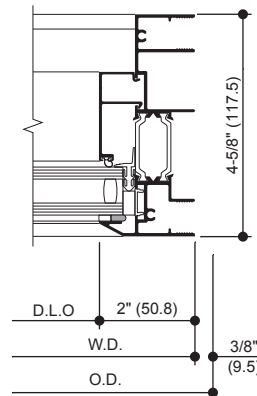
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**4  
JAMB**



**5  
VERTICAL**



**6  
JAMB**

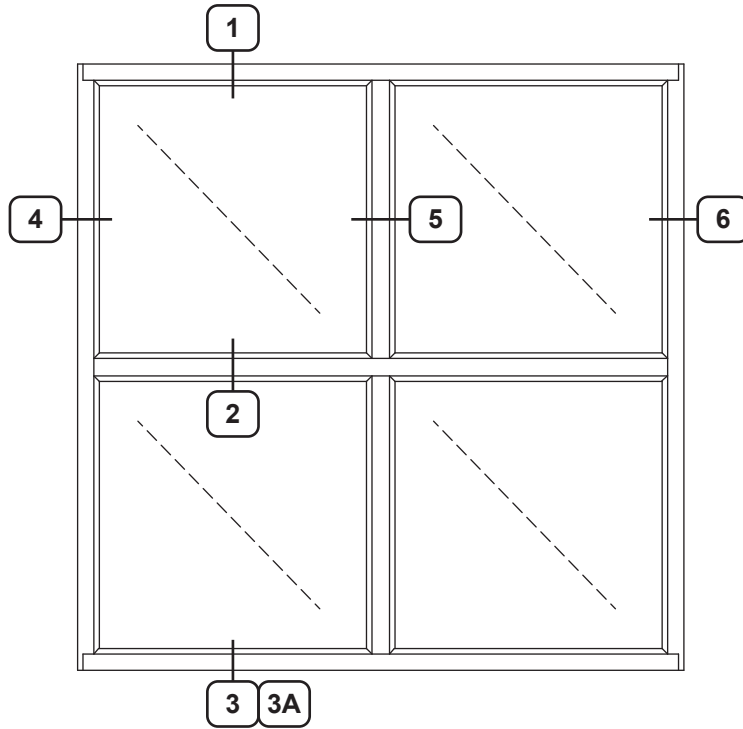
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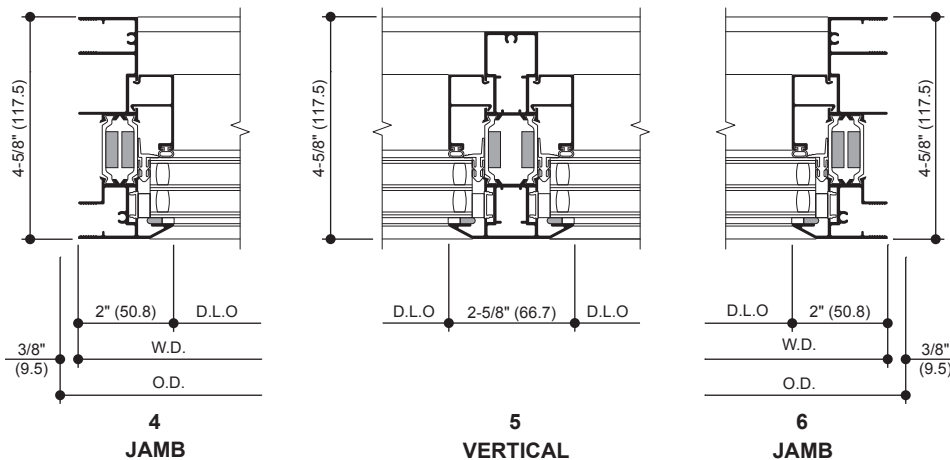
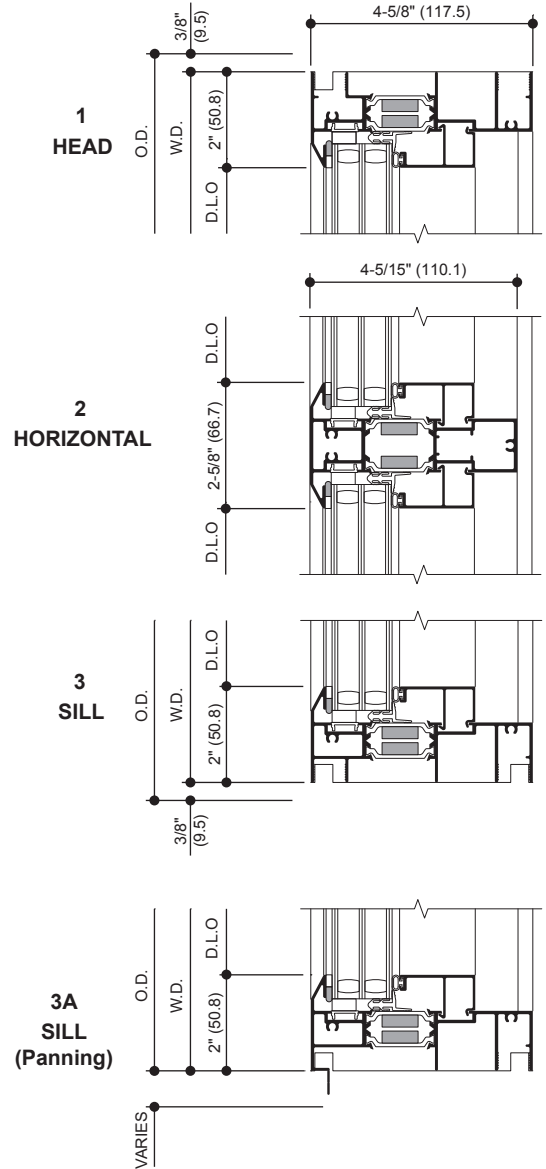
Additional information and CAD details are available at [www.kawneer.com](http://www.kawneer.com)

### AA®5450 FIXED WINDOW (1-1/2" Triple Glazed)



TYPICAL ELEVATION

Log onto [www.kawneer.com](http://www.kawneer.com) for other configurations

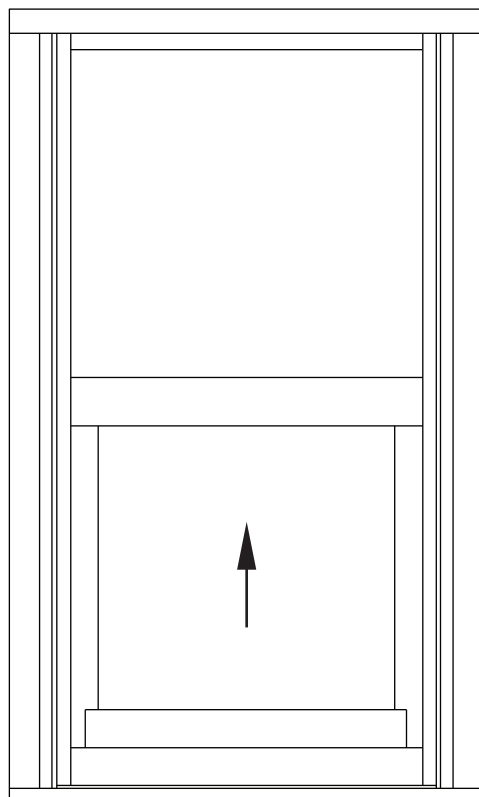


Laws and building and safety codes governing the design and use of Kawneer products, such as glazed entrance, window, and curtain wall products, vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

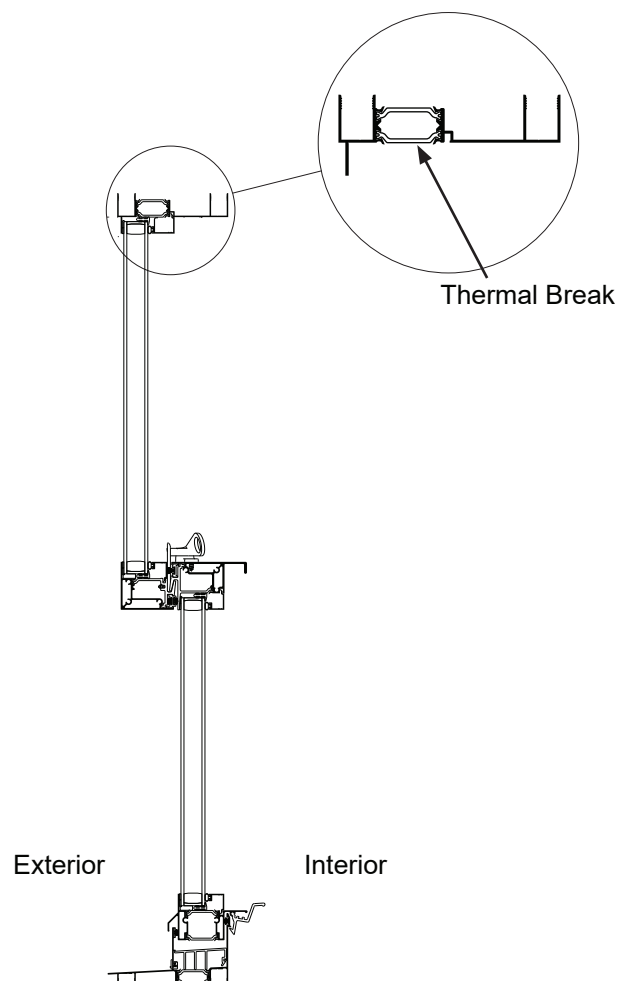
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**Standard Features**

- High Performance Architectural Grade Window
- Tested to U.S. and Canadian Standards
- Polyamide Thermal Break
- Screw and Spline Frame Corner Joinery
- Factory Silicone Glazed
- Interior Applied Glazing Bead
- Architectural Anodized Finishes and Applied Coatings
- Interior and Exterior Dual Finish Options
- Two Year Manufacturer's Warranty
- Optional Bevel Face



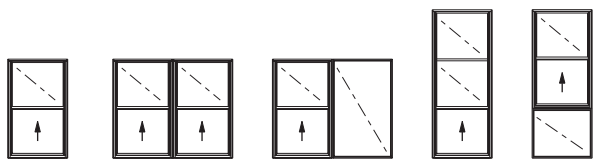
Single Hung Window



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consult your Kawneer representative.

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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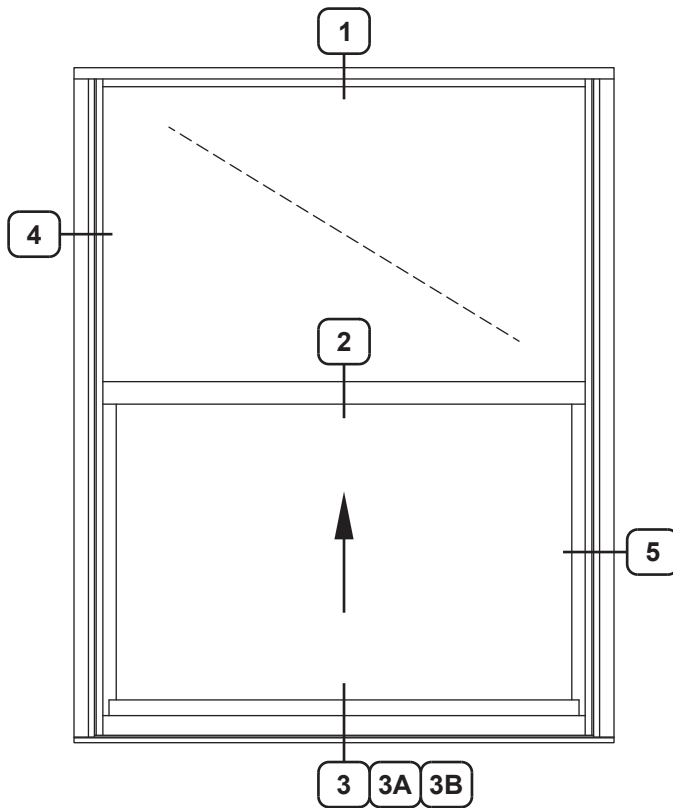
<b>CLASS and GRADE</b>	CLASS AW-PG65-H
<b>TESTING METHOD</b>	AAMA / WDMA / CSA / 101 / I.S.2 / A440 (NAFS)
<b>FRAME DEPTH</b>	4-5/8" Overall Frame Depth
<b>TYPICAL WALL THICKNESS</b>	.070" Nominal
<b>TYPICAL MAXIMUM WINDOW SIZE</b>	60" x 99"
<b>TYPICAL MINIMUM WINDOW SIZE</b>	24" x 36"
<b>TYPICAL CONFIGURATIONS</b>	
<b>STANDARD INFILL OPTIONS</b>	1" and 1-1/2"
<b>STANDARD HARDWARE</b>	Heavy Duty Balances White Bronze Sweep Locks Sash Stops
<b>OPTIONAL HARDWARE</b>	Sill Auto Locks
<b>OTHER OPTIONS</b>	Between the Glass Muntins Historic Beveled Exterior Glazed-in Muntins (1-1/2" max. overall thickness) Exterior and Interior Tape Applied Muntins Perimeters and Sills Exterior Pannings and Interior Trims True Intermediate Muntin Structural Mullions Male /Female horizontally stacked H-Mullion for vertical stacking Tri-lite Configuration Strap Anchors

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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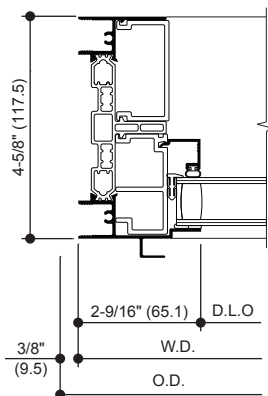
Additional information and CAD details are available at [www.kawneer.com](http://www.kawneer.com)

## AA®5450 SINGLE HUNG WINDOW (1" Double Glazed)

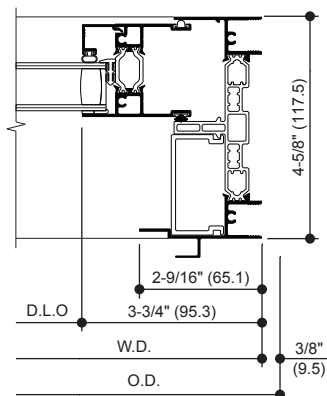


### TYPICAL ELEVATION

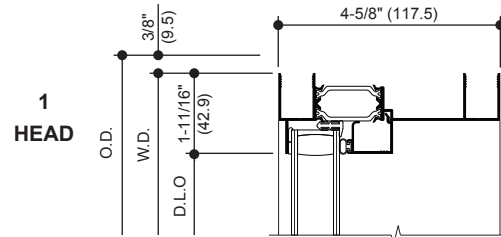
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**4**  
FIXED JAMB

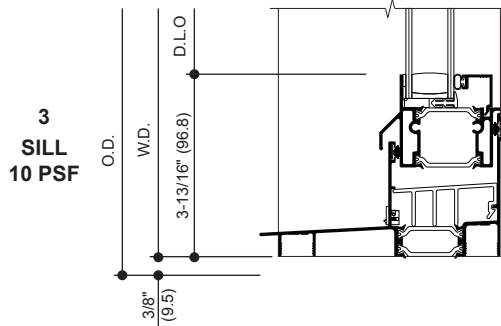


**5**  
OPERABLE JAMB



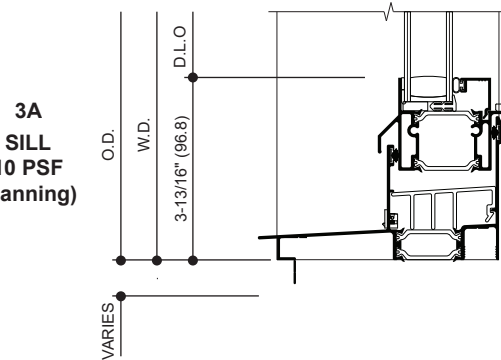
**1**  
HEAD

**2**  
HORIZONTAL

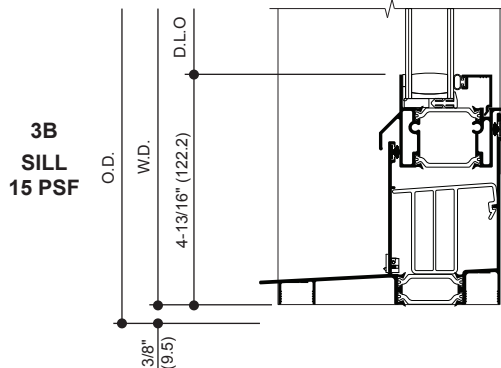


**3**  
SILL  
10 PSF

**3A**  
SILL  
10 PSF  
(Panning)



**3B**  
SILL  
15 PSF



Note:

15 PSF sill also available for use with panning.

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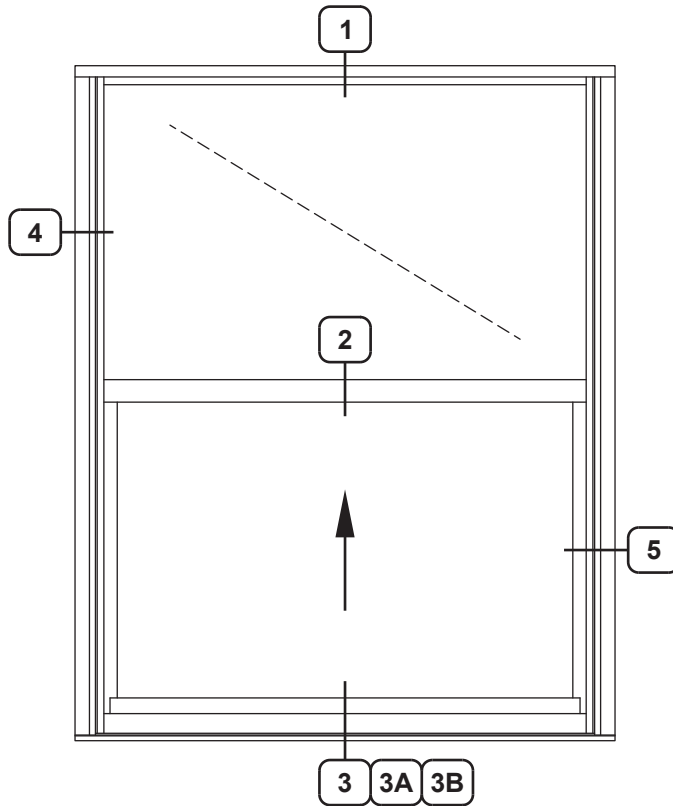
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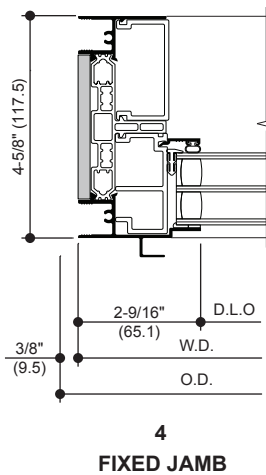
Additional information and CAD details are available at [www.kawneer.com](http://www.kawneer.com)

## AA®5450 SINGLE HUNG WINDOW (1-1/2" Triple Glazed)

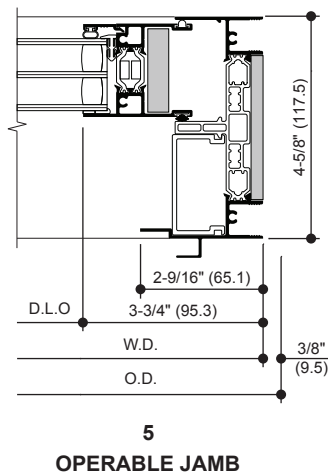


### TYPICAL ELEVATION

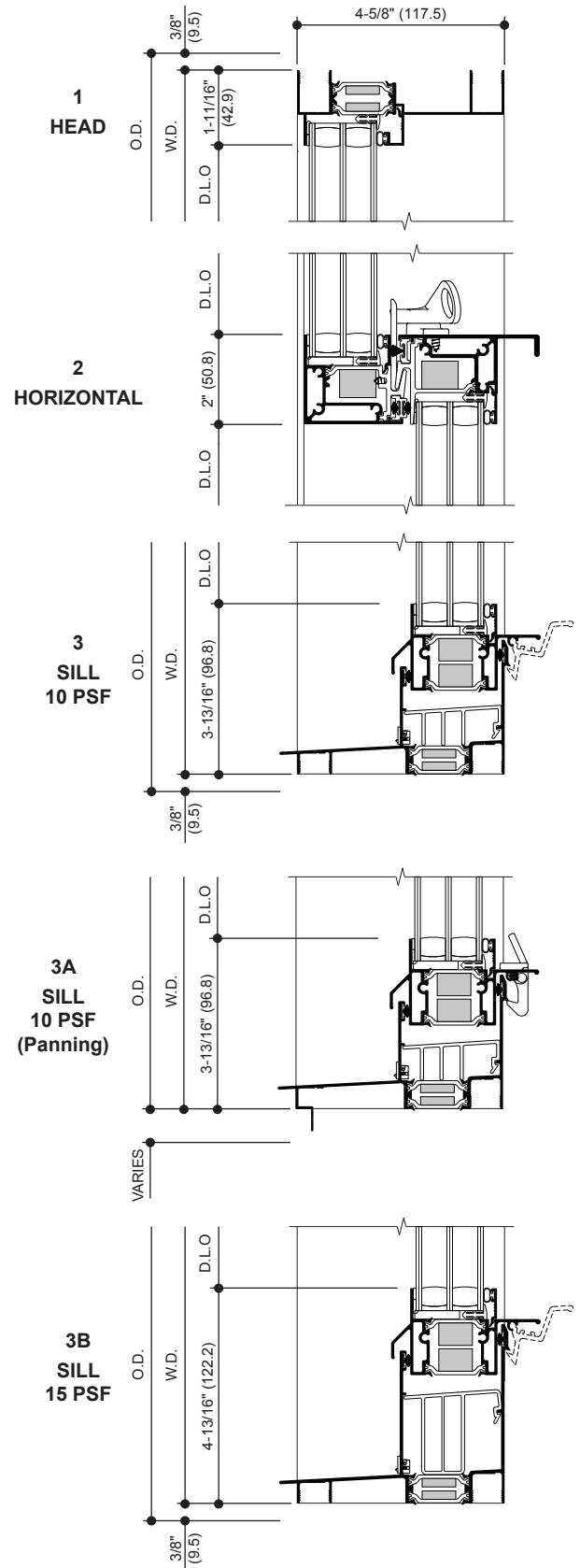
Log onto [www.kawneer.com](http://www.kawneer.com) for other configurations



4  
FIXED JAMB



5  
OPERABLE JAMB

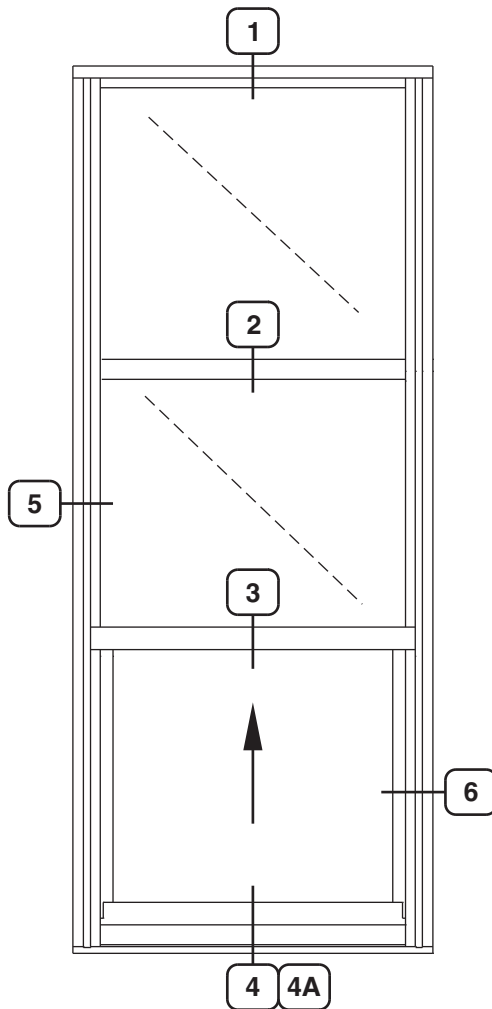


Note:

15 PSF sill also available for use with panning.

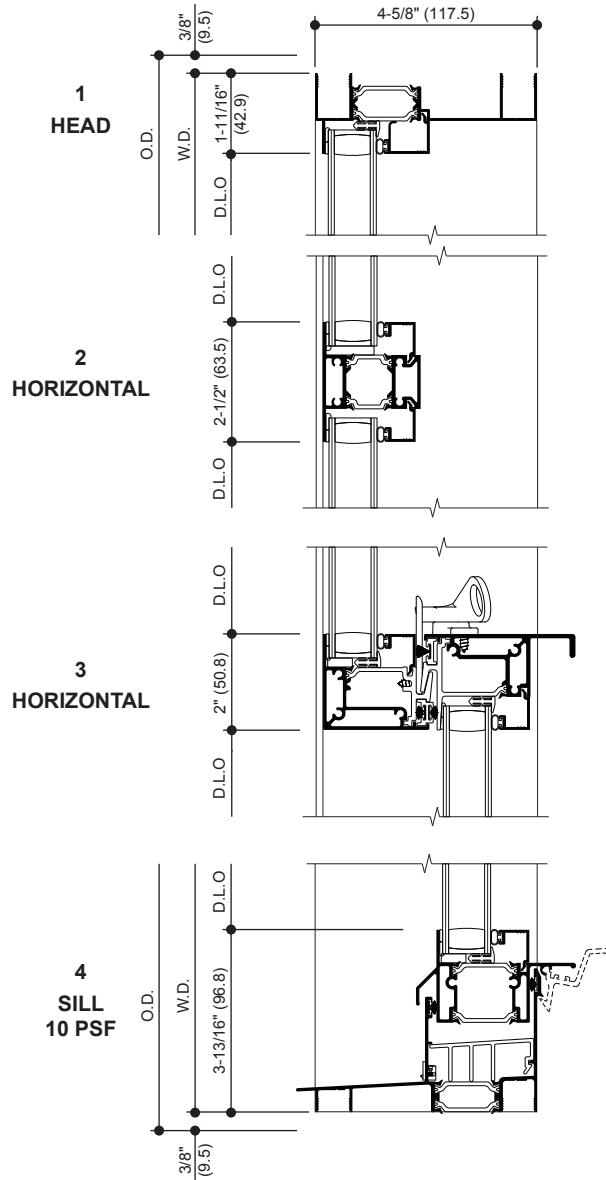
Additional information and CAD details are available at [www.kawneer.com](http://www.kawneer.com)

### AA®5450 SINGLE HUNG WINDOW (Tri-Lite 1" Double Glazed)



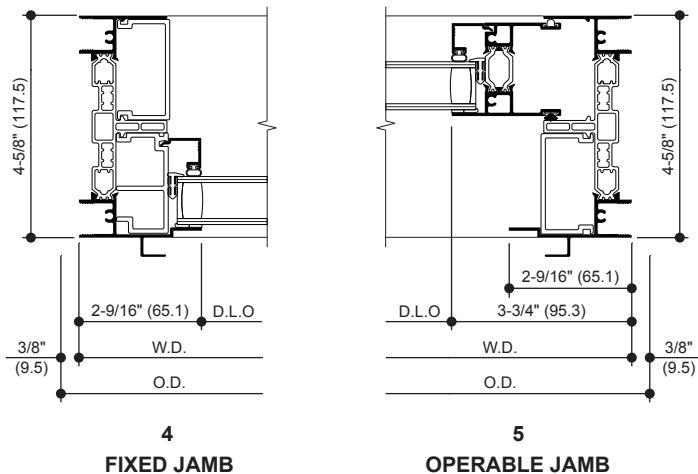
TYPICAL ELEVATION

Log onto [www.kawneer.com](http://www.kawneer.com) for other configurations

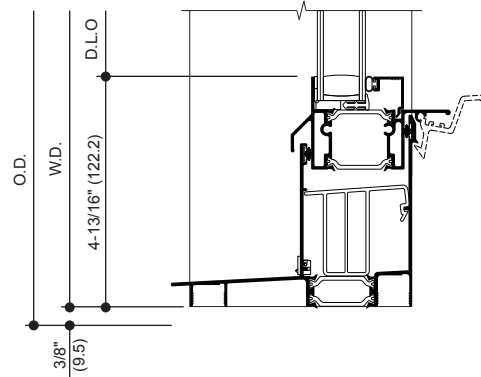


Note:

10 PSF sill also available for use with panning.



4A  
SILL  
15 PSF



Note:

15 PSF sill also available for use with panning.

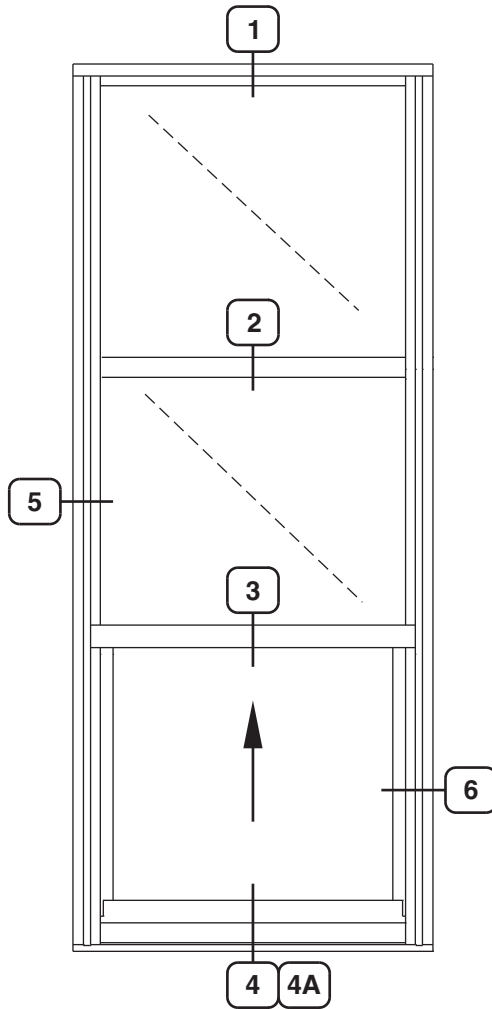
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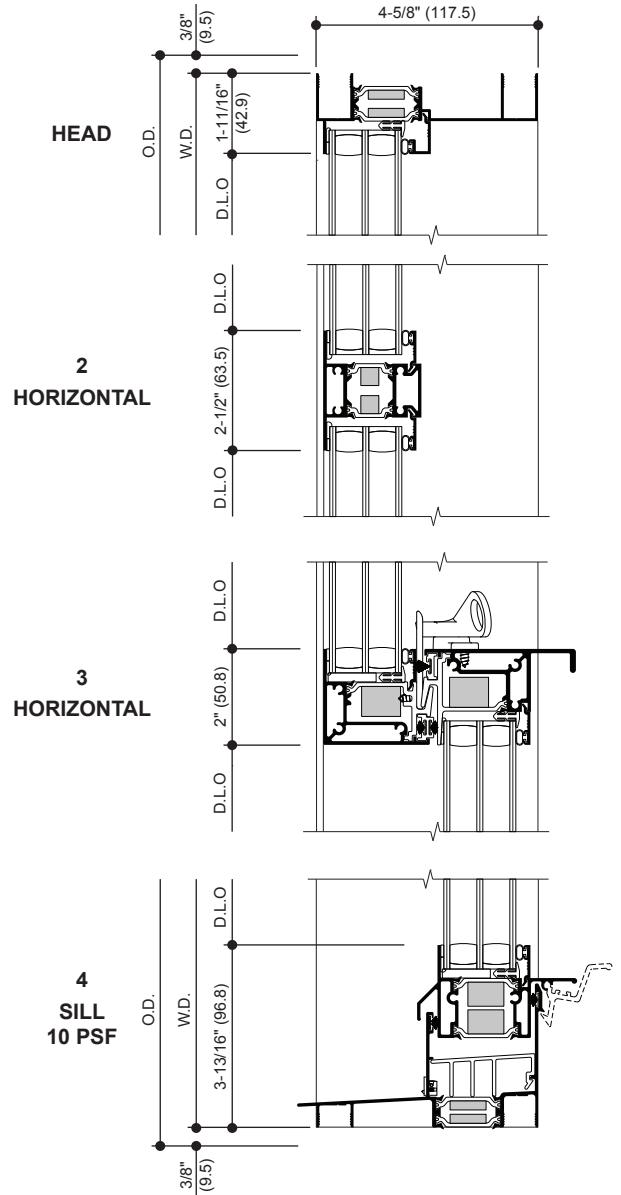
Additional information and CAD details are available at [www.kawneer.com](http://www.kawneer.com)

## AA®5450 SINGLE HUNG WINDOW (Tri-Lite 1-1/2" Triple Glazed)

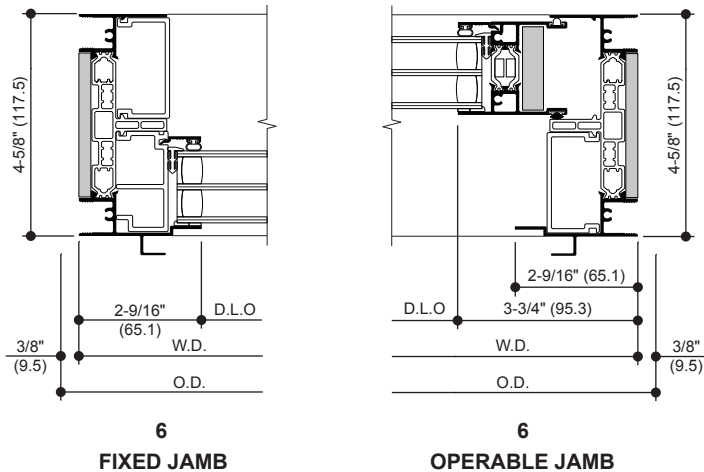


TYPICAL ELEVATION

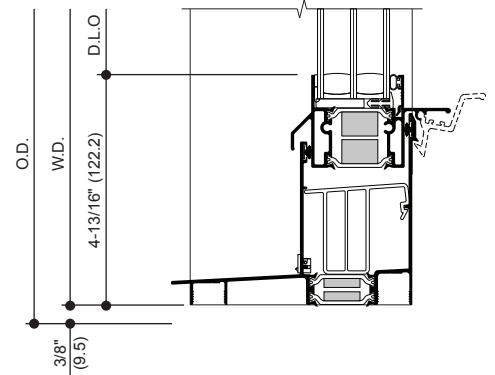
Log onto [www.kawneer.com](http://www.kawneer.com) for other configurations



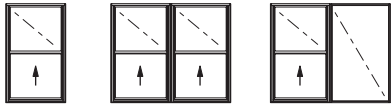
Note:  
10 PSF sill also available for use with panning.



4A  
SILL  
15 PSF



Note:  
15 PSF sill also available for use with panning.

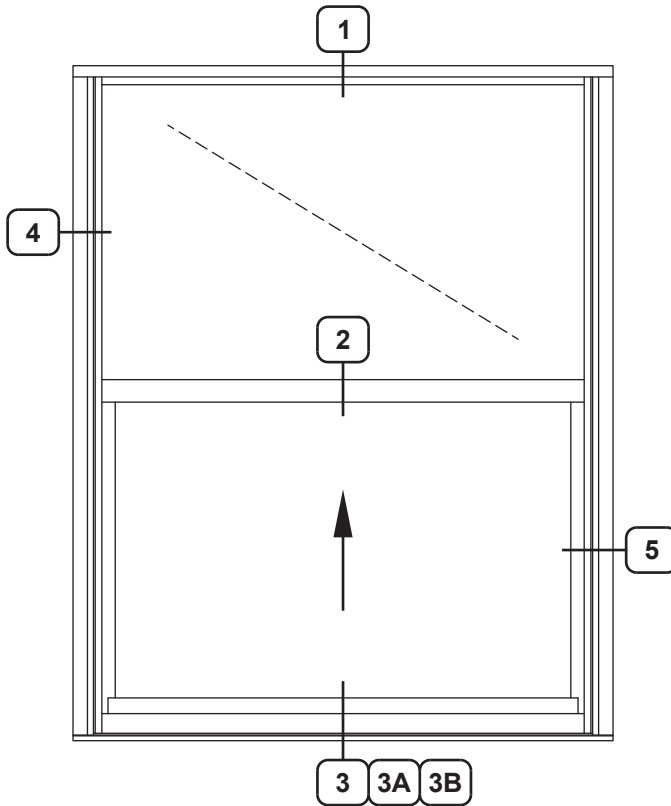
<b>CLASS and GRADE</b>	CLASS AW-PG65-H
<b>TESTING METHOD</b>	AAMA / WDMA / CSA / 101 / I.S.2 / A440 (NAFS)
<b>FRAME DEPTH</b>	4-5/8" Overall Frame Depth
<b>TYPICAL WALL THICKNESS</b>	.070" Nominal
<b>TYPICAL MAXIMUM WINDOW SIZE</b>	60" x 99"
<b>TYPICAL MINIMUM WINDOW SIZE</b>	24" x 36"
<b>TYPICAL CONFIGURATIONS</b>	
<b>STANDARD INFILL OPTIONS</b>	1" and 1-1/4"
<b>STANDARD HARDWARE</b>	Heavy Duty Balances White Bronze Sweep Locks Sash Stops
<b>OPTIONAL HARDWARE</b>	Sill Auto Locks
<b>OTHER OPTIONS</b>	Between the Glass Muntins Exterior and Interior Tape Applied Muntins Perimeters and Sills Exterior Pannings and Interior Trims True Intermediate Muntin Structural Mullions Male /Female horizontally stacked H-Mullion for vertical stacking Tri-lite Configuration Strap Anchors

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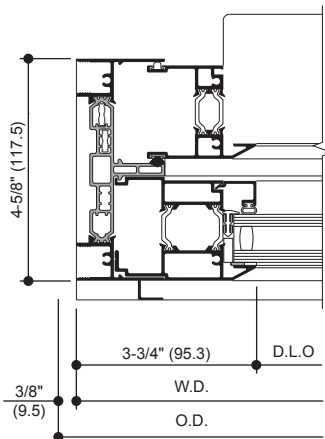
Additional information and CAD details are available at [www.kawneer.com](http://www.kawneer.com)

## AA®5450 SINGLE HUNG WINDOW (1" Double Glazed)

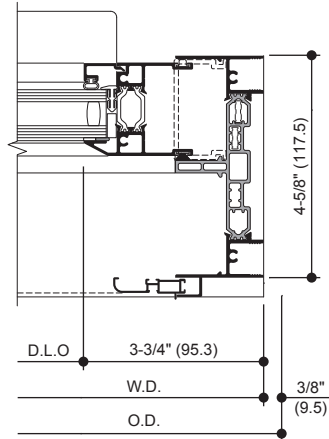


### TYPICAL ELEVATION

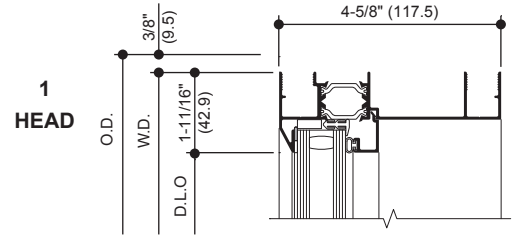
Log onto [www.kawneer.com](http://www.kawneer.com) for other configurations



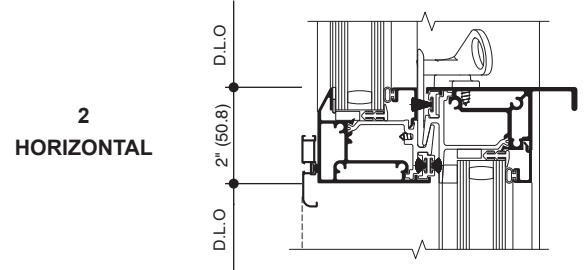
4  
FIXED JAMB



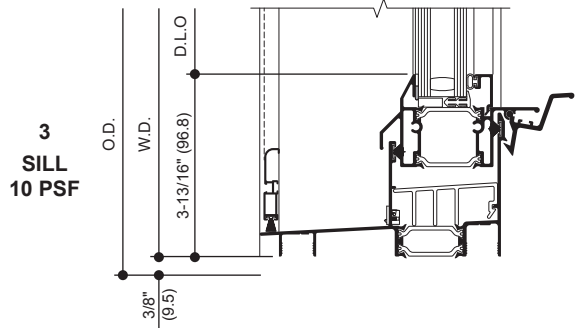
5  
OPERABLE JAMB



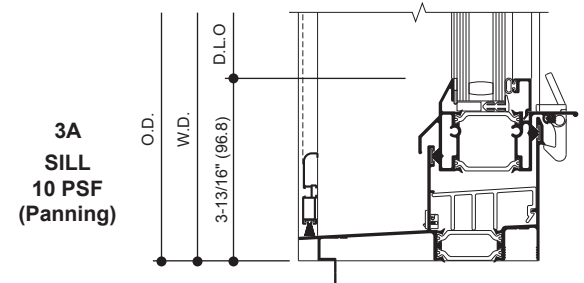
1  
HEAD



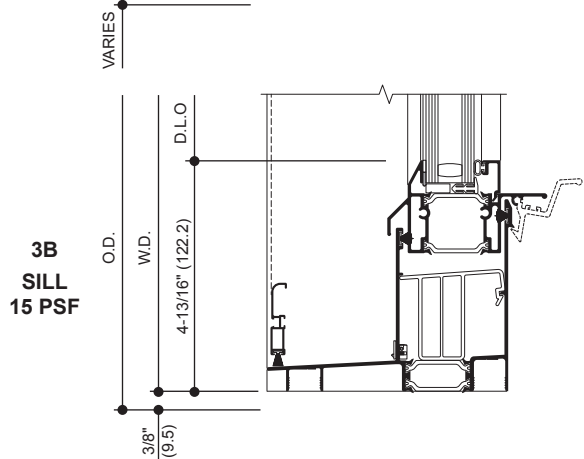
2  
HORIZONTAL



3  
SILL  
10 PSF



3A  
SILL  
10 PSF  
(Panning)

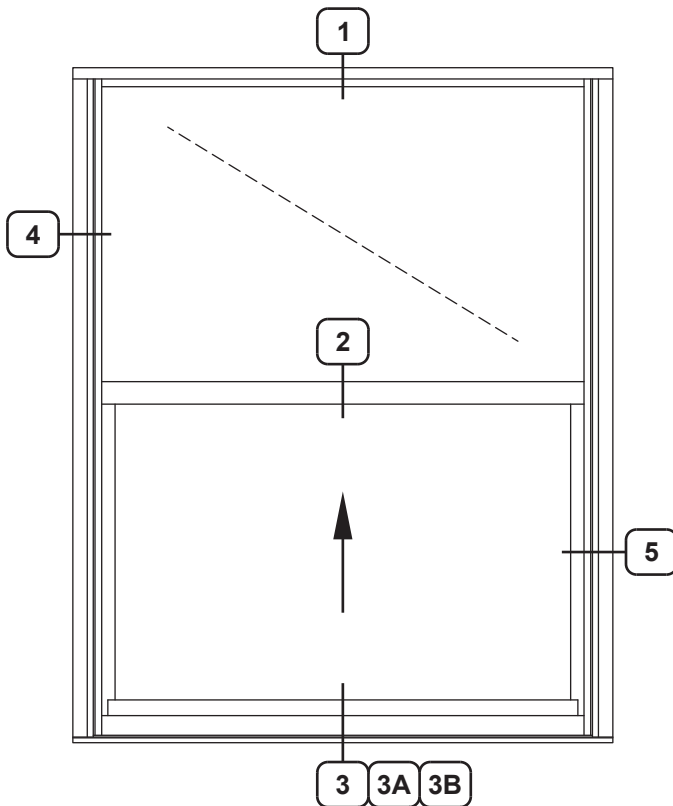


3B  
SILL  
15 PSF

Note:  
15 PSF sill also available for use with panning.

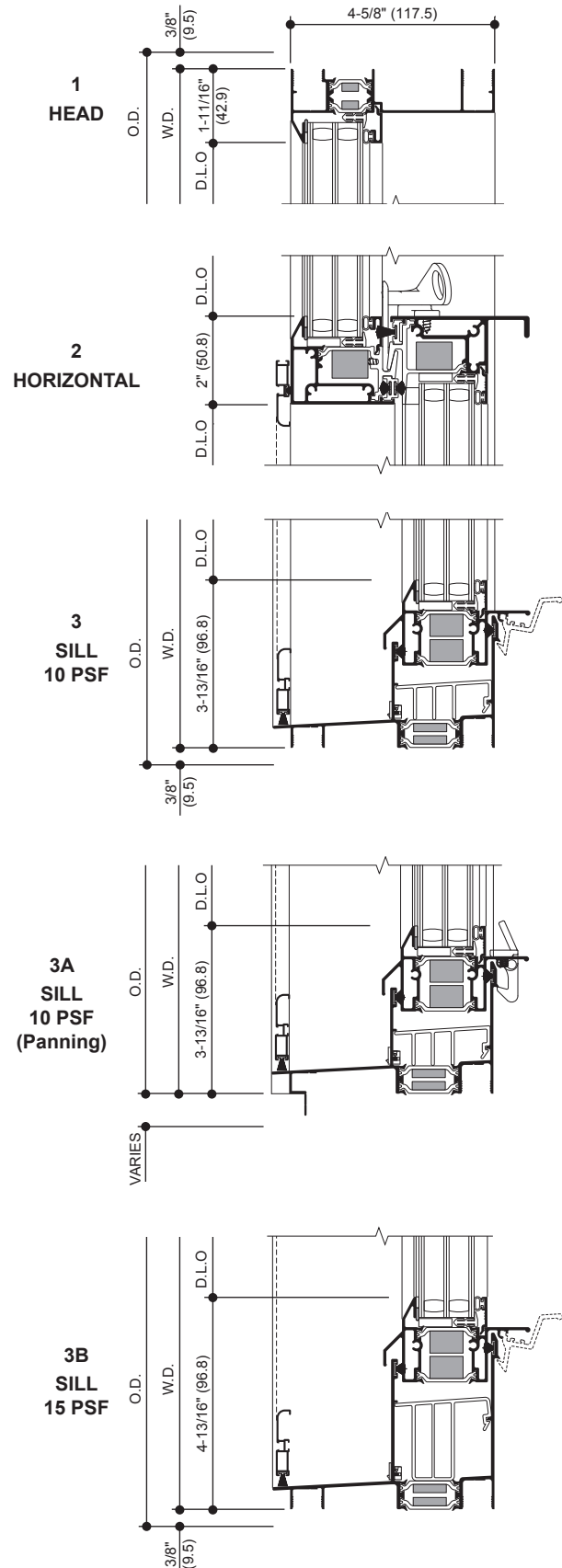
Additional information and CAD details are available at [www.kawneer.com](http://www.kawneer.com)

## AA®5450 SINGLE HUNG WINDOW (1-1/4" Triple Glazed)



### TYPICAL ELEVATION

Log onto [www.kawneer.com](http://www.kawneer.com) for other configurations



Note:

15 PSF sill also available for use with panning.

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## HEAVY DUTY BALANCES



A class 5 adjustable spiral balance with excellent operating forces capable of balancing heavier sash weights. The balance utilizes stainless steel components and is cycle tested for longevity.

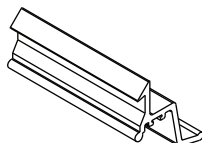
Class 6 is optional.

## SWEEP LOCK AND KEEPER



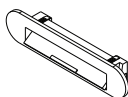
White Bronze sweep locks and keepers with a durable brushed nickel finish and cycle tested for longevity.

## AUTO LOCK



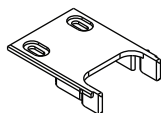
An optional spring operated auto lock conveniently located under the sash lift handle or an optional white bronze spring operated autolock located on the handle. The lock automatically engages the integral sill keeper upon closing the sash.

## COVERED WEEPS



Weep with an integral hinged cover to allow maximum drainage of infiltrating water with a positive closing cover to block drafts and insects. The weep is available in black and white finishes.

## SASH CAMS



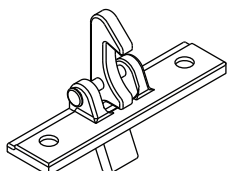
Adjustable glass filled nylon cams located left and right on the sash ensure proper alignment and smooth operation.

## SASH STOPS



Black rigid vinyl sash stops are inserted into the vertical jambs without exposed fasteners to prevent excessive sash travel.

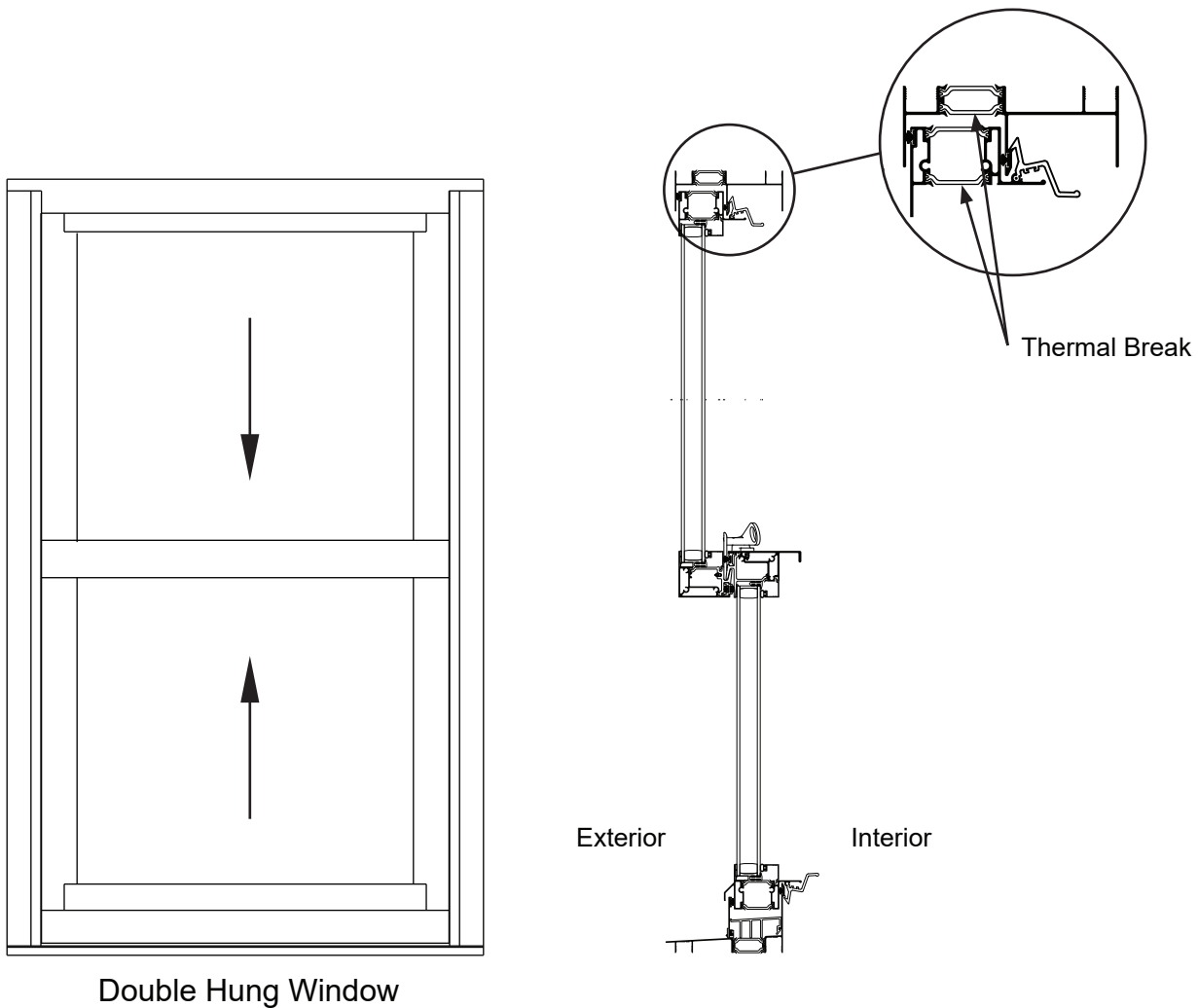
## WHITE BRONZE SILL AUTO LOCK



A White Bronze spring operated auto lock located on the lower sash. The lock automatically engages the integral keeper securing the lower sash in the closed position. The auto lock is an option for the lower sash.

**Standard Features**

- High Performance Architectural Grade Window
- Tested to U.S. and Canadian Standards
- Polyamide Thermal Break
- Screw and Spline Frame Corner Joinery
- Factory Silicone Glazed
- Interior Applied Glazing Bead
- Architectural Anodized Finishes and Applied Coatings
- Interior and Exterior Dual Finish Options
- Two Year Manufacturer's Warranty
- Optional Bevel Face

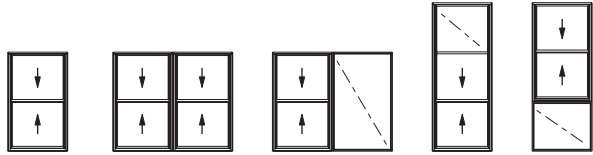


For specific product applications,  
consult your Kawneer representative.

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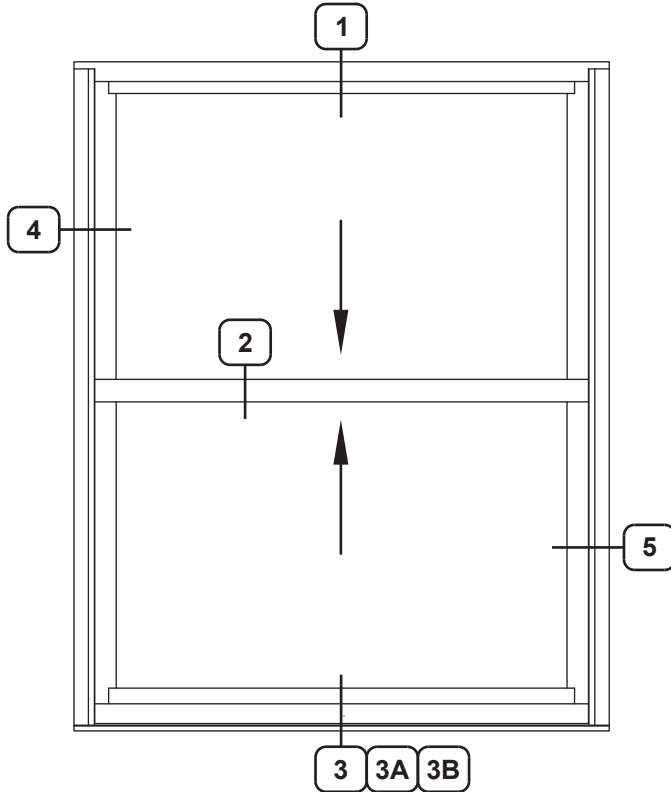
<b>CLASS and GRADE</b>	CLASS AW-PG65-H
<b>TESTING METHOD</b>	AAMA / WDMA / CSA / 101 / I.S.2 / A440 (NAFS)
<b>FRAME DEPTH</b>	4-5/8" Overall Frame Depth
<b>TYPICAL WALL THICKNESS</b>	.070" Nominal
<b>TYPICAL MAXIMUM WINDOW SIZE</b>	60" x 99"
<b>TYPICAL MINIMUM WINDOW SIZE</b>	24" x 36"
<b>TYPICAL CONFIGURATIONS</b>	
<b>STANDARD INFILL OPTIONS</b>	1" and 1-1/2"
<b>STANDARD HARDWARE</b>	Heavy Duty Balances Zinc Die Cast Sweep Locks Sash Stops Aluminum Upper Sash Auto Lock
<b>OPTIONAL HARDWARE</b>	Aluminum or White Bronze Sill Auto Locks
<b>OTHER OPTIONS</b>	Between the Glass Muntins Historic Beveled Exterior Glazed-in Muntins (1-1/2" max. overall thickness) Exterior and Interior Tape Applied Muntins Perimeters and Sills Exterior Pannings and Interior Trims True Intermediate Muntin Structural Mullions Male/Female horizontally stacked H-Mullion for vertical stacking Strap Anchors

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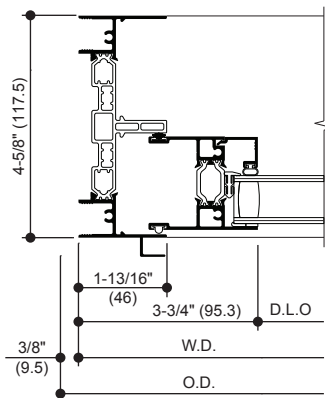
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## AA®5450 DOUBLE HUNG WINDOW (1" Double Glazed)

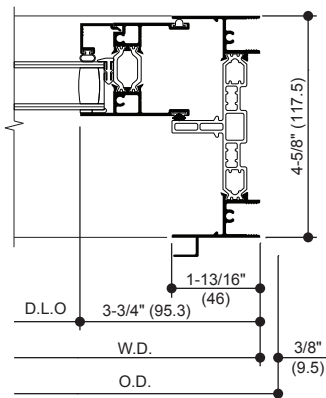


### TYPICAL ELEVATION

Log onto [www.kawneer.com](http://www.kawneer.com) for other configurations

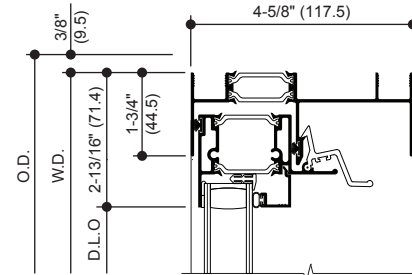


**4  
OPERABLE JAMB**

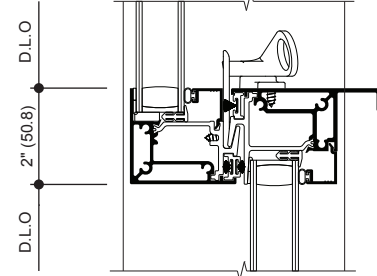


**5  
OPERABLE JAMB**

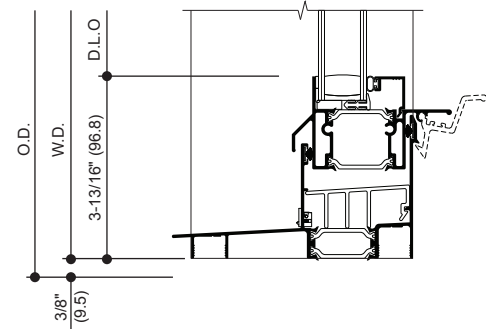
**1  
HEAD**



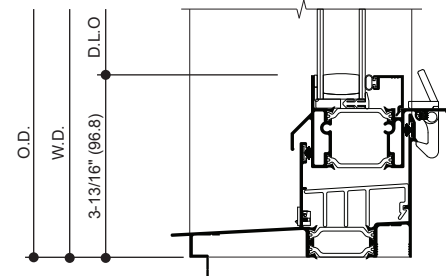
**2  
HORIZONTAL**



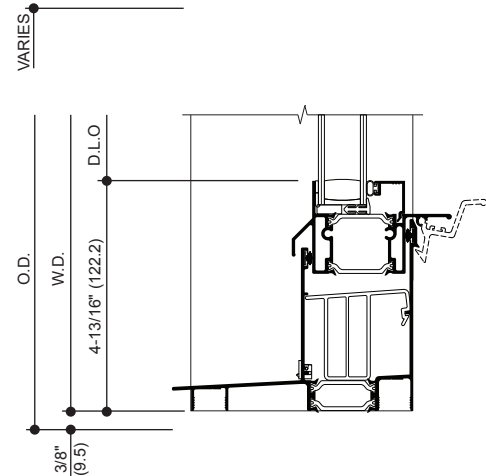
**3  
SILL  
10 PSF**



**3A  
SILL  
10 PSF  
(Panning)**



**3B  
SILL  
15 PSF**



**Note:**  
15 PSF sill also available for use with panning.

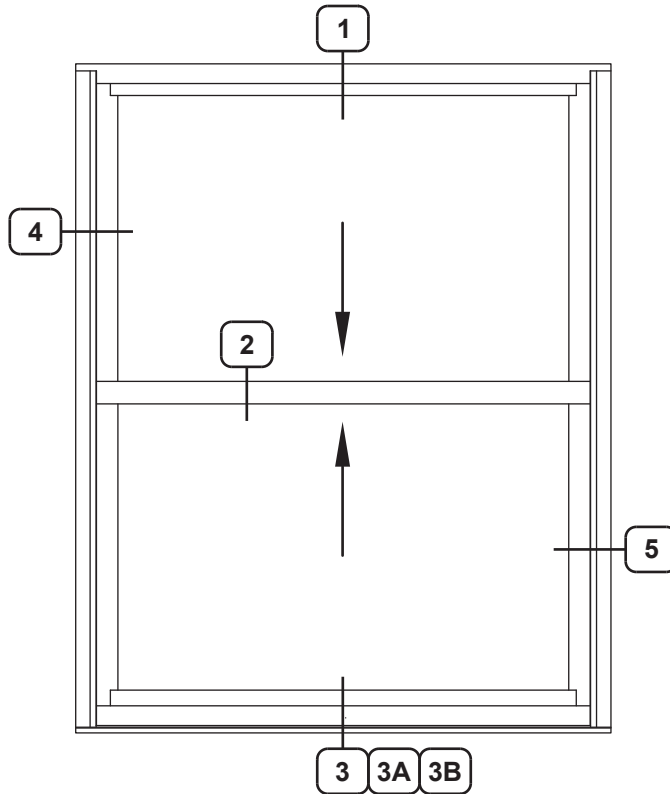
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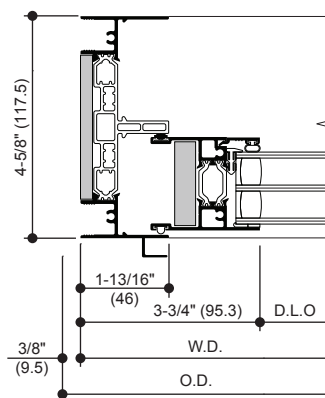
Additional information and CAD details are available at [www.kawneer.com](http://www.kawneer.com)

## AA®5450 DOUBLE HUNG WINDOW (1-1/2" Triple Glazed)

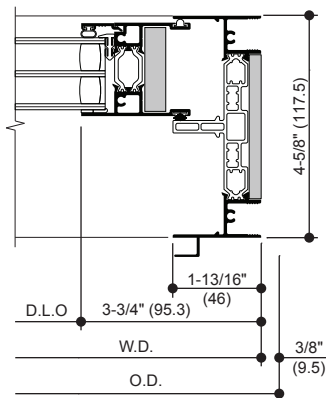


### TYPICAL ELEVATION

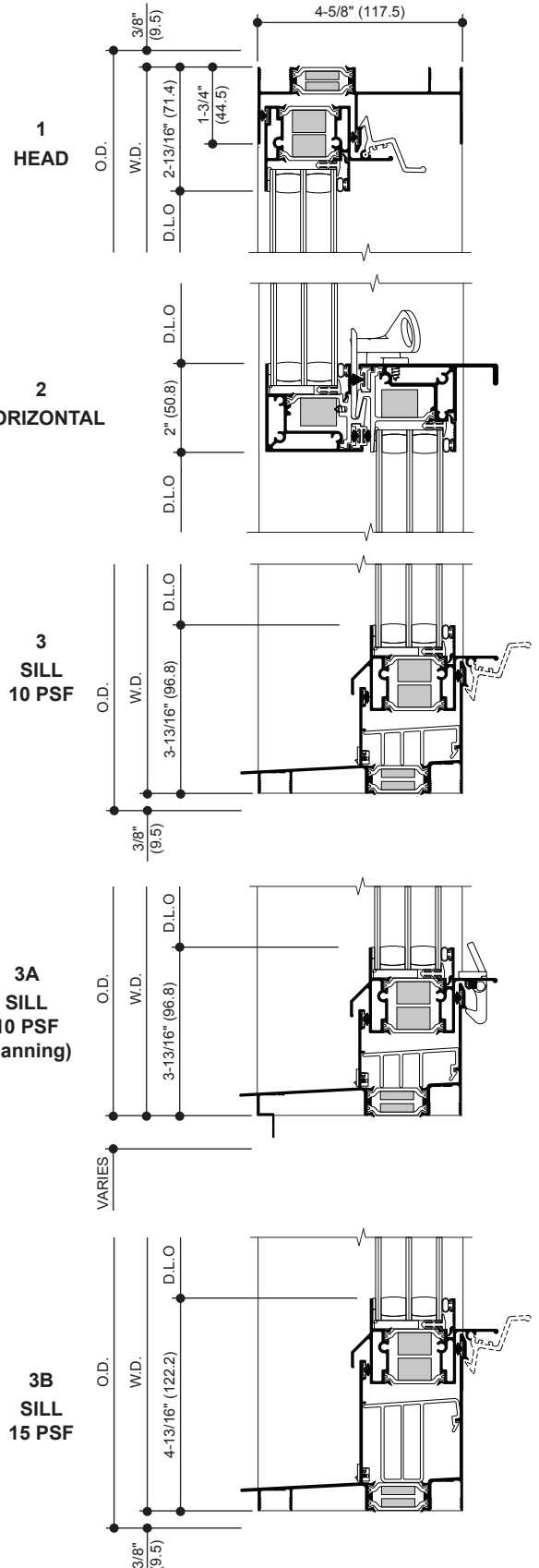
Log onto [www.kawneer.com](http://www.kawneer.com) for other configurations



**4**  
OPERABLE JAMB



**5**  
OPERABLE JAMB



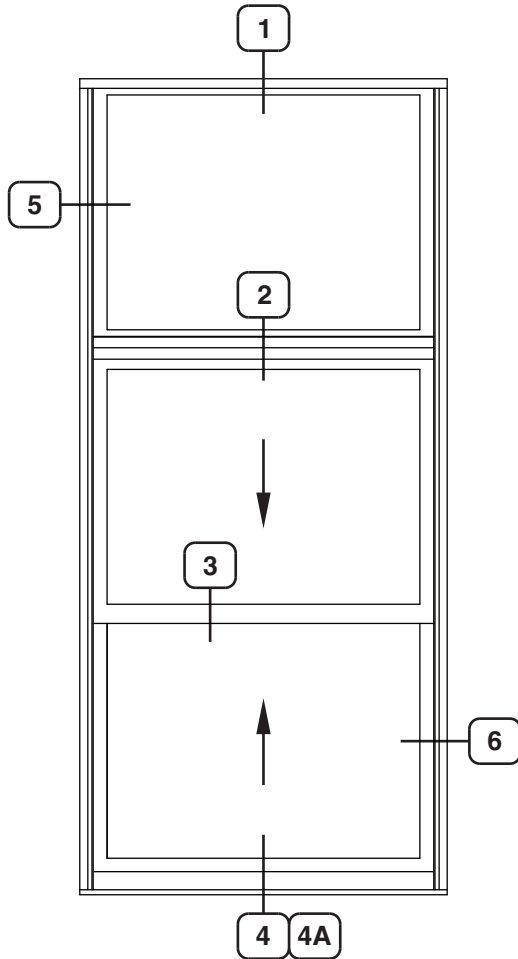
Note:  
15 PSF sill also available for use with panning.

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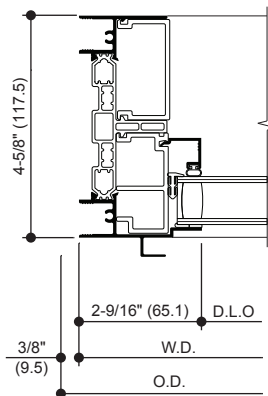
Additional information and CAD details are available at [www.kawneer.com](http://www.kawneer.com)

### AA®5450 DOUBLE HUNG WINDOW (Tri-Lite 1" Double Glazed)

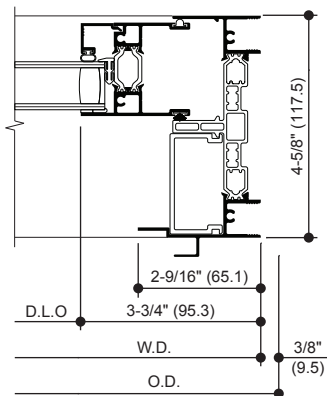


TYPICAL ELEVATION

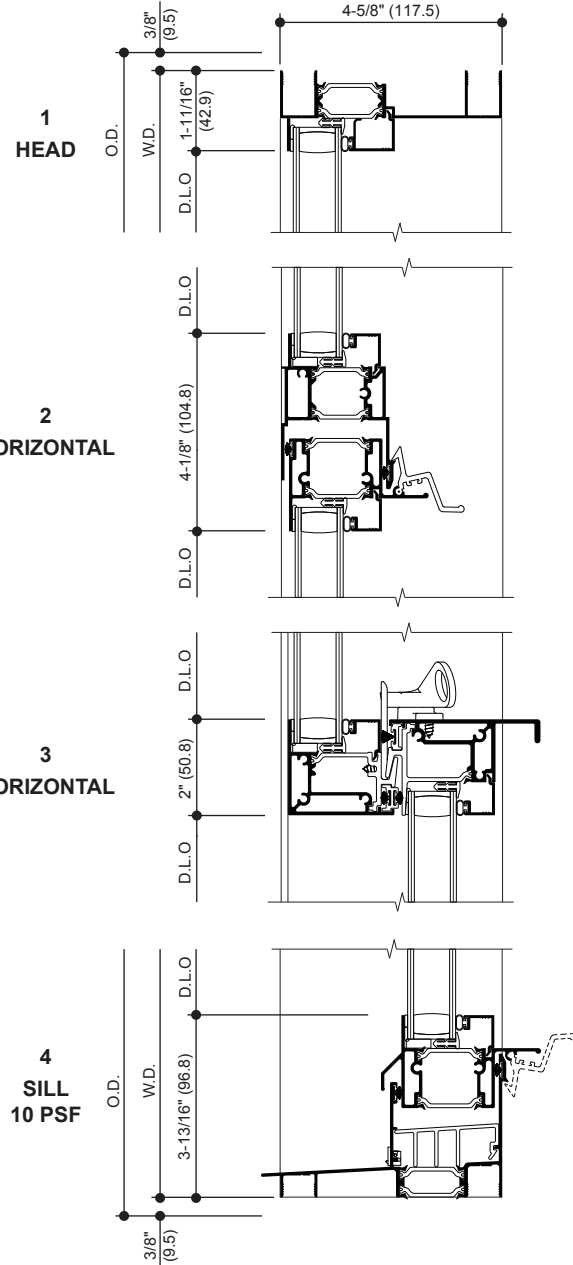
Log onto [www.kawneer.com](http://www.kawneer.com) for other configurations



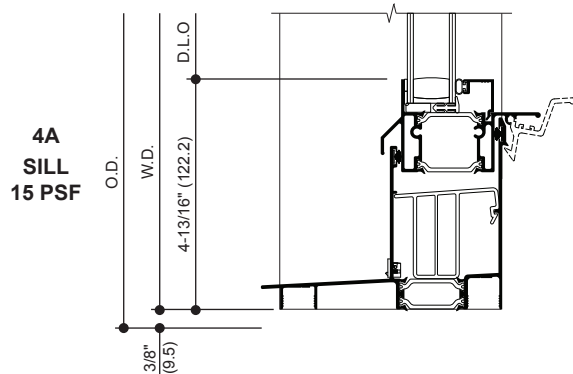
**5**  
FIXED JAMB



**6**  
OPERABLE JAMB



Note:  
10 PSF sill also available for use with panning.



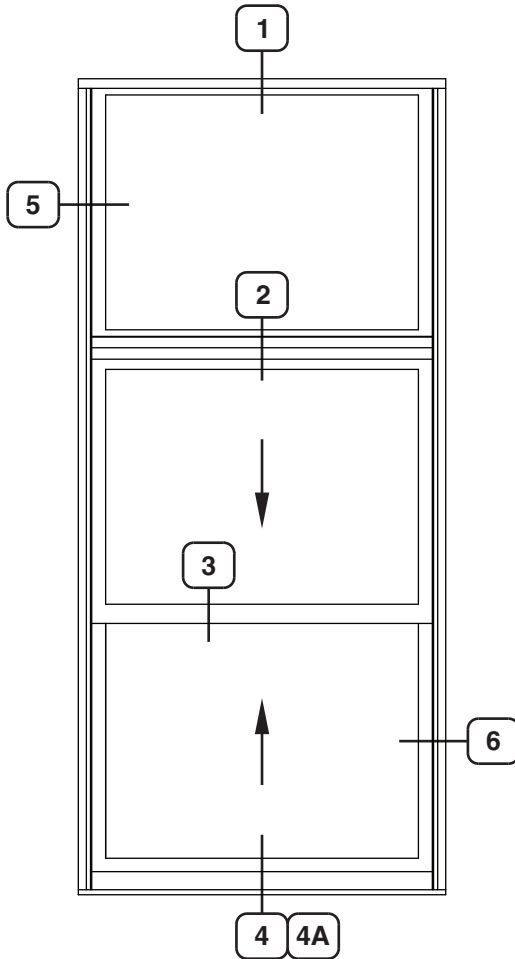
Note:  
15 PSF sill also available for use with panning.

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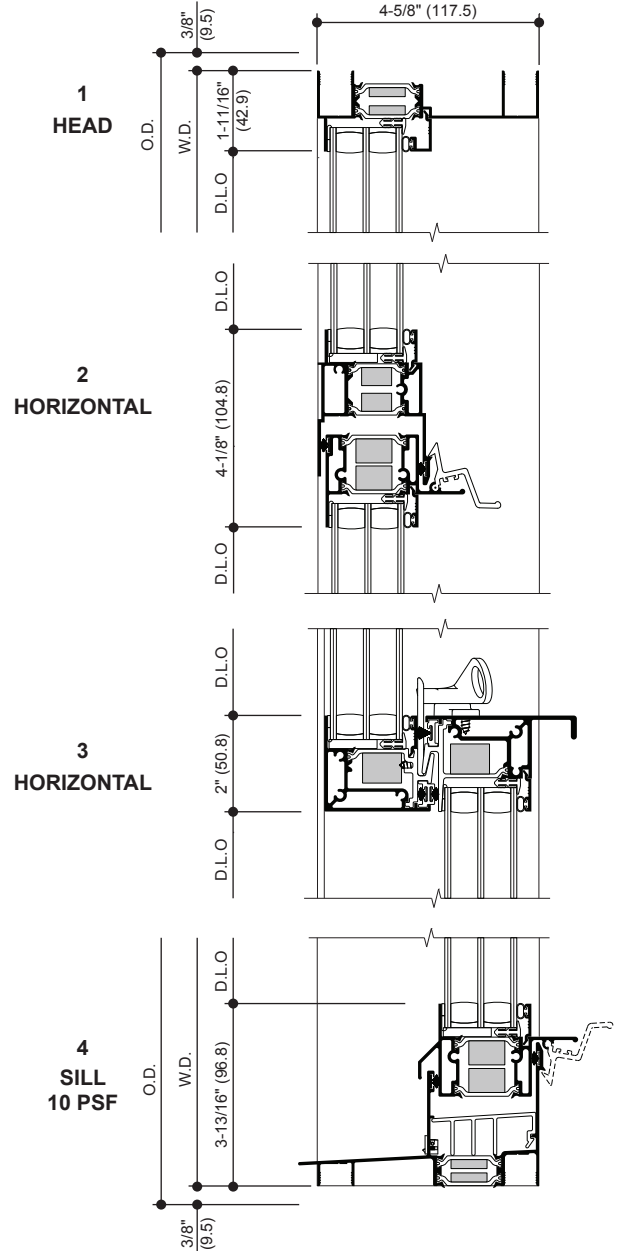
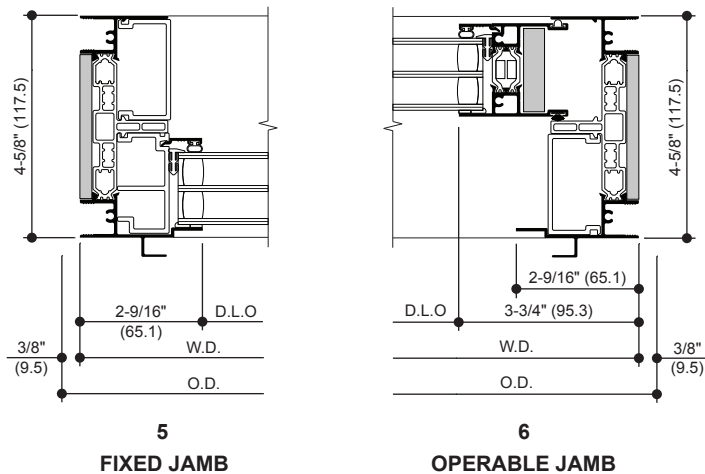
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## AA®5450 DOUBLE HUNG WINDOW (Tri-Lite 1-1/2" Triple Glazed)



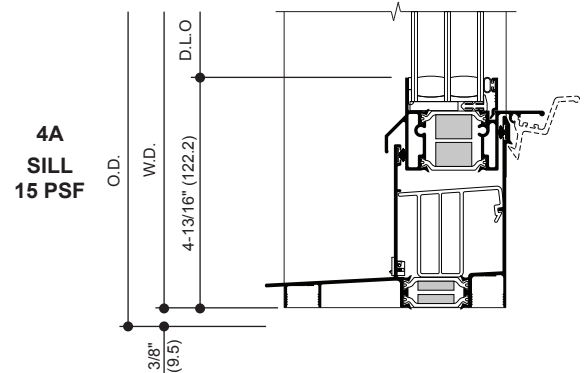
TYPICAL ELEVATION

Log onto [www.kawneer.com](http://www.kawneer.com) for other configurations



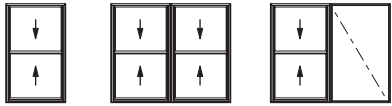
Note:

10 PSF sill also available for use with panning.



Note:

15 PSF sill also available for use with panning.

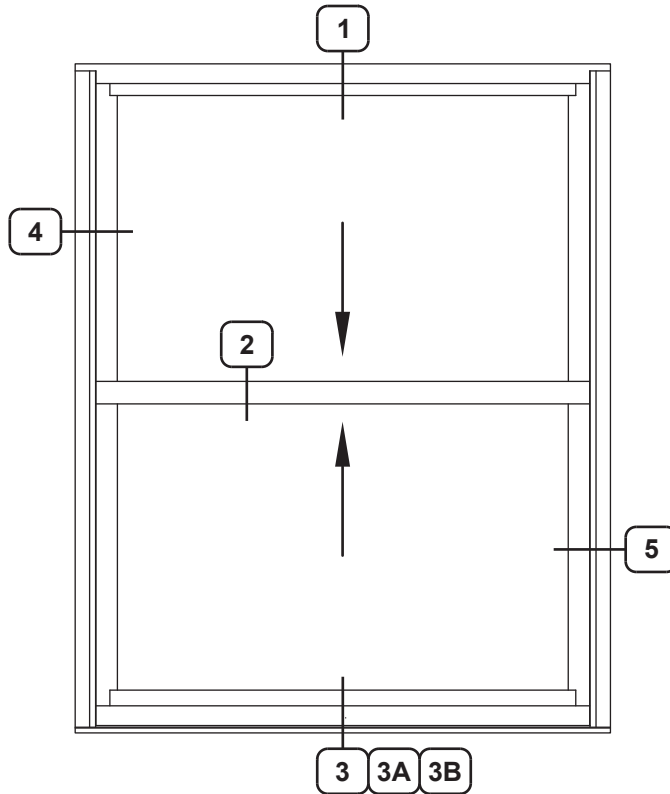
<b>CLASS and GRADE</b>	CLASS AW-PG65-H
<b>TESTING METHOD</b>	AAMA / WDMA / CSA / 101 / I.S.2 / A440 (NAFS)
<b>FRAME DEPTH</b>	4-5/8" Overall Frame Depth
<b>TYPICAL WALL THICKNESS</b>	.070" Nominal
<b>TYPICAL MAXIMUM WINDOW SIZE</b>	60" x 99"
<b>TYPICAL MINIMUM WINDOW SIZE</b>	24" x 36"
<b>TYPICAL CONFIGURATIONS</b>	
<b>STANDARD INFILL OPTIONS</b>	1" and 1-1/4"
<b>STANDARD HARDWARE</b>	Heavy Duty Balances Zinc Die Cast Sweep Locks Sash Stops Aluminum Upper Sash Auto Lock
<b>OPTIONAL HARDWARE</b>	Aluminum or White Bronze Sill Auto Locks
<b>OTHER OPTIONS</b>	Between the Glass Muntins Exterior and Interior Tape Applied Muntins Perimeters and Sills Exterior Pannings and Interior Trims True Intermediate Muntin Structural Mullions Male/Female horizontally stacked H-Mullion for vertical stacking Strap Anchors

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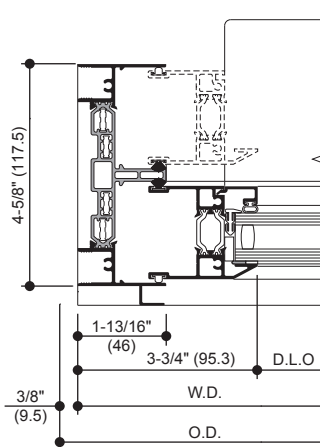
Additional information and CAD details are available at [www.kawneer.com](http://www.kawneer.com)

## AA<sup>®</sup>5450 DOUBLE HUNG WINDOW (1" Double Glazed)

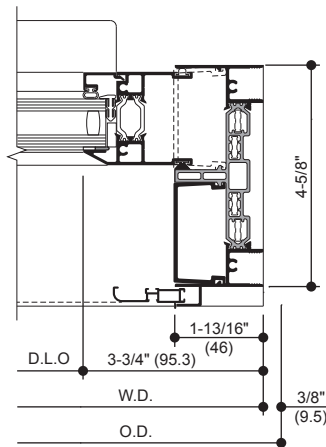


### TYPICAL ELEVATION

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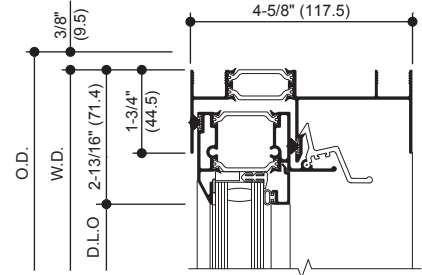


**4**  
OPERABLE JAMB

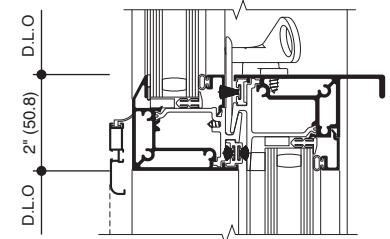


**5**  
OPERABLE JAMB

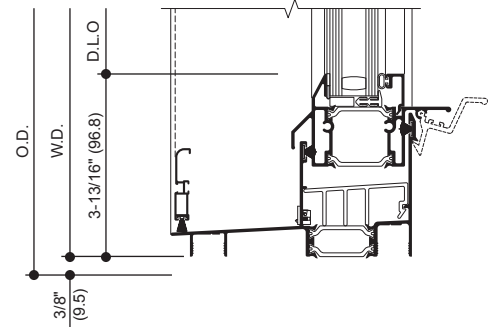
**1**  
HEAD



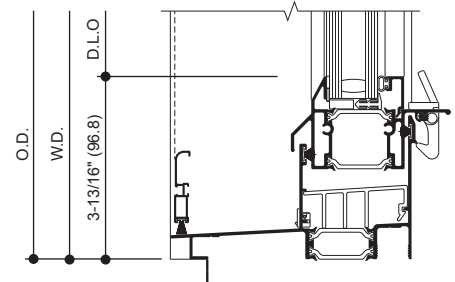
**2**  
HORIZONTAL



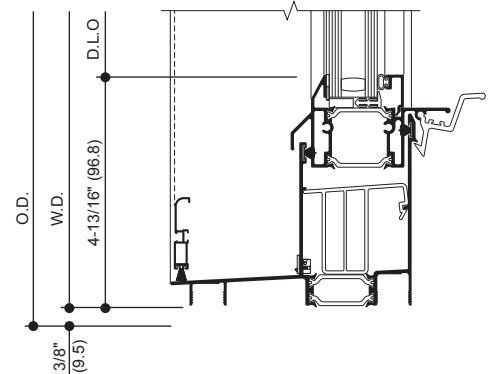
**3**  
SILL  
10 PSF



**3A**  
SILL  
10 PSF  
(Panning)



**3B**  
SILL  
15 PSF

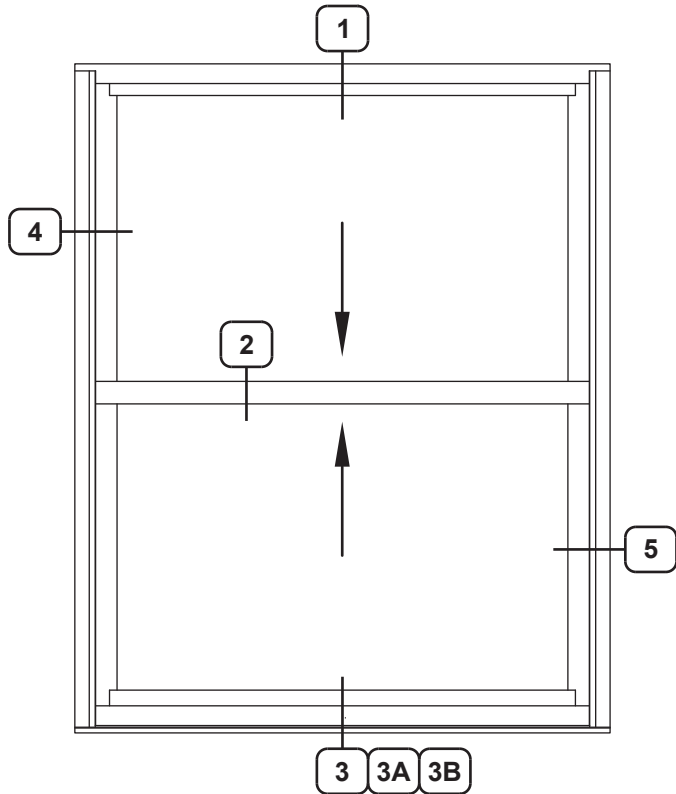


Note:

15 PSF sill also available for use with panning.

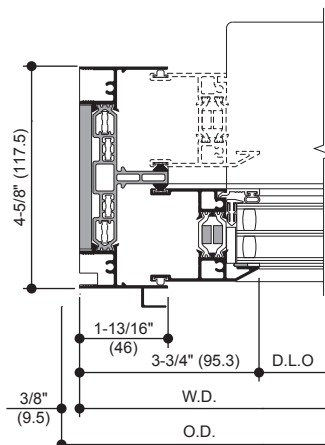
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## AA®5450 DOUBLE HUNG WINDOW (1-1/4" Triple Glazed)

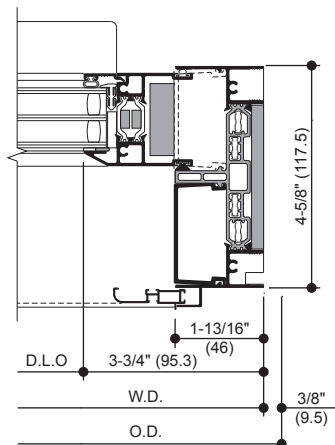


TYPICAL ELEVATION

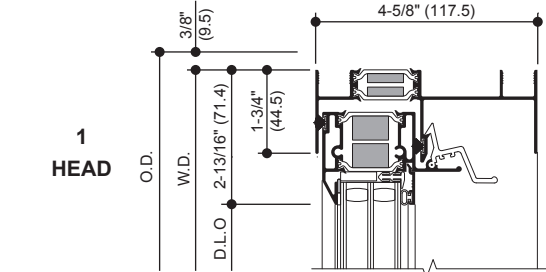
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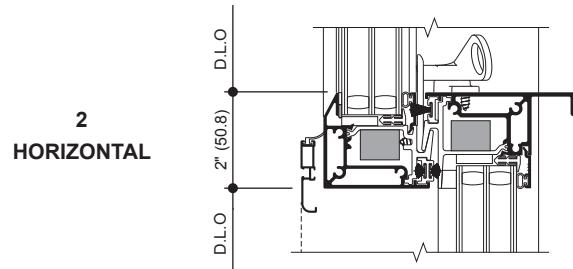
4  
OPERABLE JAMB



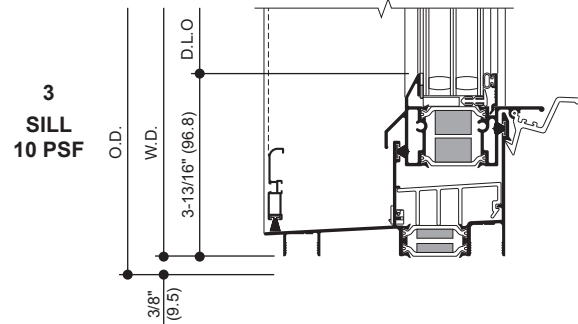
5  
OPERABLE JAMB



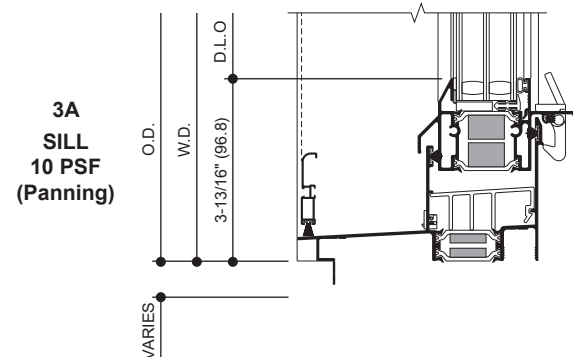
1  
HEAD



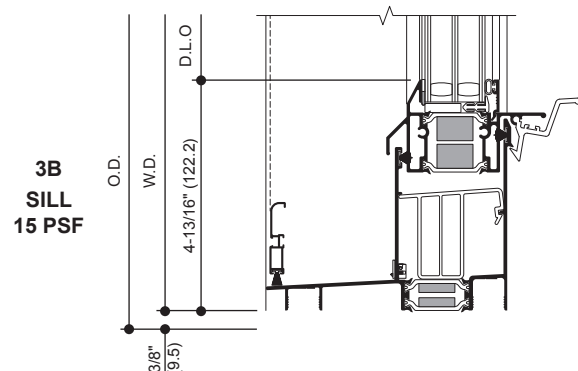
2  
HORIZONTAL



3  
SILL  
10 PSF



3A  
SILL  
10 PSF  
(Panning)



3B  
SILL  
15 PSF

Note:

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## HEAVY DUTY BALANCES



A class 5 adjustable spiral balance with excellent operating forces capable of balancing heavier sash weights. The balance utilizes stainless steel components and is cycle tested for longevity.

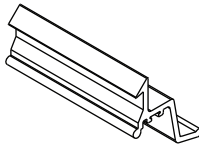
Class 6 is optional.

## SWEEP LOCK AND KEEPER



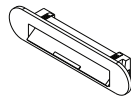
White Bronze sweep locks and keepers with a durable brushed nickel finish and cycle tested for longevity.

## AUTO LOCK AND KEEPER



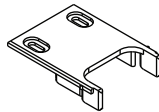
An aluminum spring operated auto lock located on the upper sash. The lock automatically engages the integral keeper securing the sash in the closed position. The auto lock is an option for the lower sash, but is standard for the upper sash.

## COVERED WEEPS



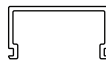
A weep with an integral hinged cover to allow maximum drainage of infiltrating water with a positive closing cover to block drafts and insects. The weep is available in black and white finishes.

## SASH CAMS

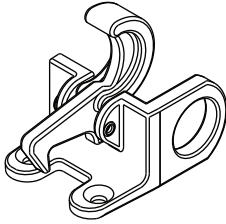


Adjustable glass filled nylon cams located left and right on the sash ensure proper alignment and smooth operation.

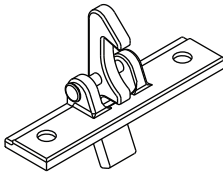
## SASH STOPS



Black rigid vinyl sash stops are inserted into the vertical jambs without exposed fasteners to prevent excessive sash travel.

**UPPER SASH SNAP LOCK**

A White Bronze spring operated auto lock located on the upper sash. The lock automatically engages the integral keeper securing the upper sash in the closed position. The snap lock is an option for the upper sash.

**WHITE BRONZE SILL AUTO LOCK**

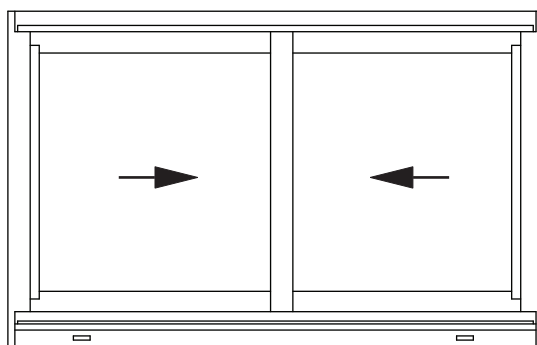
A White Bronze spring operated auto lock located on the lower sash. The lock automatically engages the integral keeper securing the lower sash in the closed position. The auto lock is an option for the lower sash.

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.

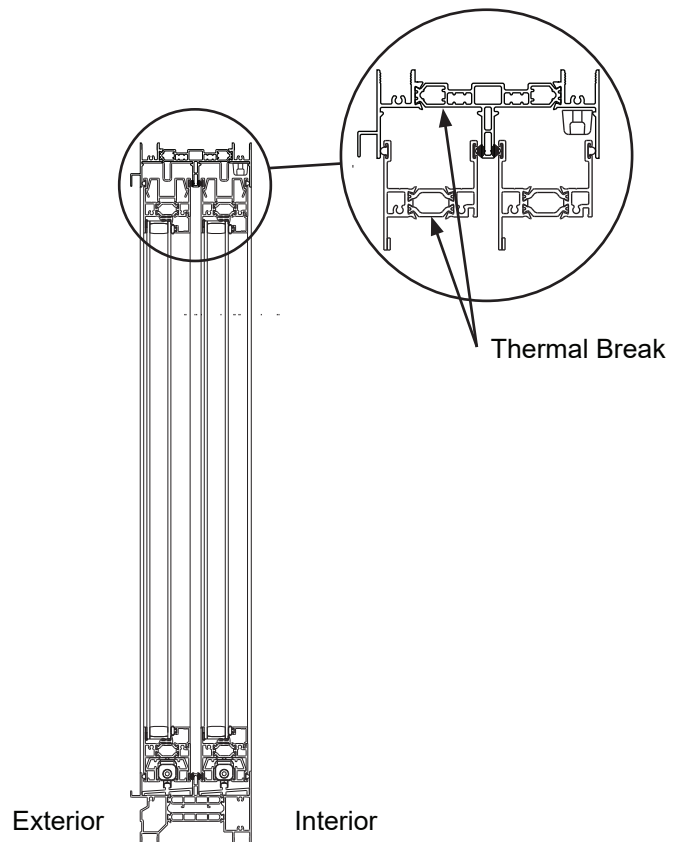
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### **Standard Features**

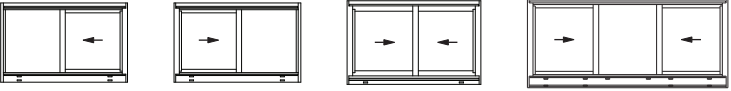
- High Performance Architectural Grade Window
- Tested to U.S. and Canadian Standards
- Polyamide Thermal Break
- Screw and Spline Frame Corner Joinery
- Factory Silicone Glazed
- Interior Applied Glazing Bead
- Architectural Anodized Finishes and Applied Coatings
- Interior and Exterior Dual Finish Options
- Two Year Manufacturer's Warranty



Horizontal Sliding Window



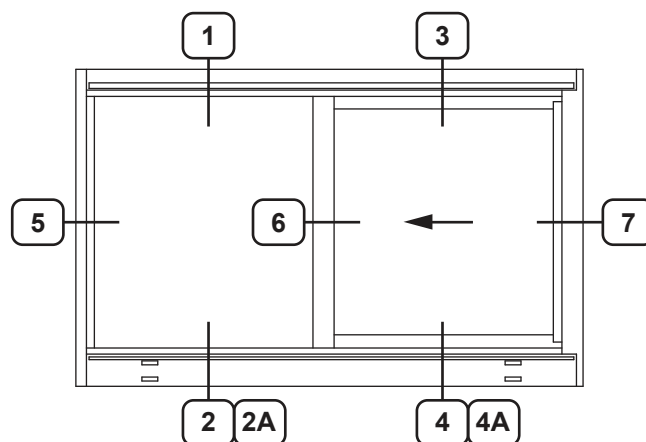
For specific product applications,  
consult your Kawneer representative.

<b>CLASS and GRADE</b>	CLASS AW-PG40-HS (OX / XO / XOX), AW-PG50-HS (XX)
<b>TESTING METHOD</b>	AAMA / WDMA / CSA / 101 / I.S.2 / A440 (NAFS)
<b>FRAME DEPTH</b>	4-5/8" Overall Frame Depth
<b>TYPICAL WALL THICKNESS</b>	0.070" Nominal
<b>TYPICAL MAXIMUM WINDOW SIZE</b>	99" x 79" OX / XO / XX 120" x 79" XOX
<b>TYPICAL MINIMUM WINDOW SIZE</b>	36" x 24"
<b>TYPICAL CONFIGURATIONS</b>	
<b>STANDARD INFILL OPTIONS</b>	1" and 1-1/2"
<b>STANDARD HARDWARE</b>	White Bronze Sweep Locks Sash Stops Aluminum Sash Auto Lock (At XX Inactive Sash)
<b>OPTIONAL HARDWARE</b>	Aluminum Auto Locks
<b>OTHER OPTIONS</b>	Between the Glass Muntins Historic Beveled Exterior Glazed-in Muntins (1-1/2" max. overall thickness) Exterior and Interior Tape Applied Muntins Perimeters and Sills Exterior Pannings and Interior Trims 3 Piece Structural Mullions Male/Female vertically or horizontally stacked H-Mullion for vertical or horizontal stacking Strap Anchors

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**OX HORIZONTAL SLIDING WINDOW**  
(Keyed to details on pages 34 and 35)



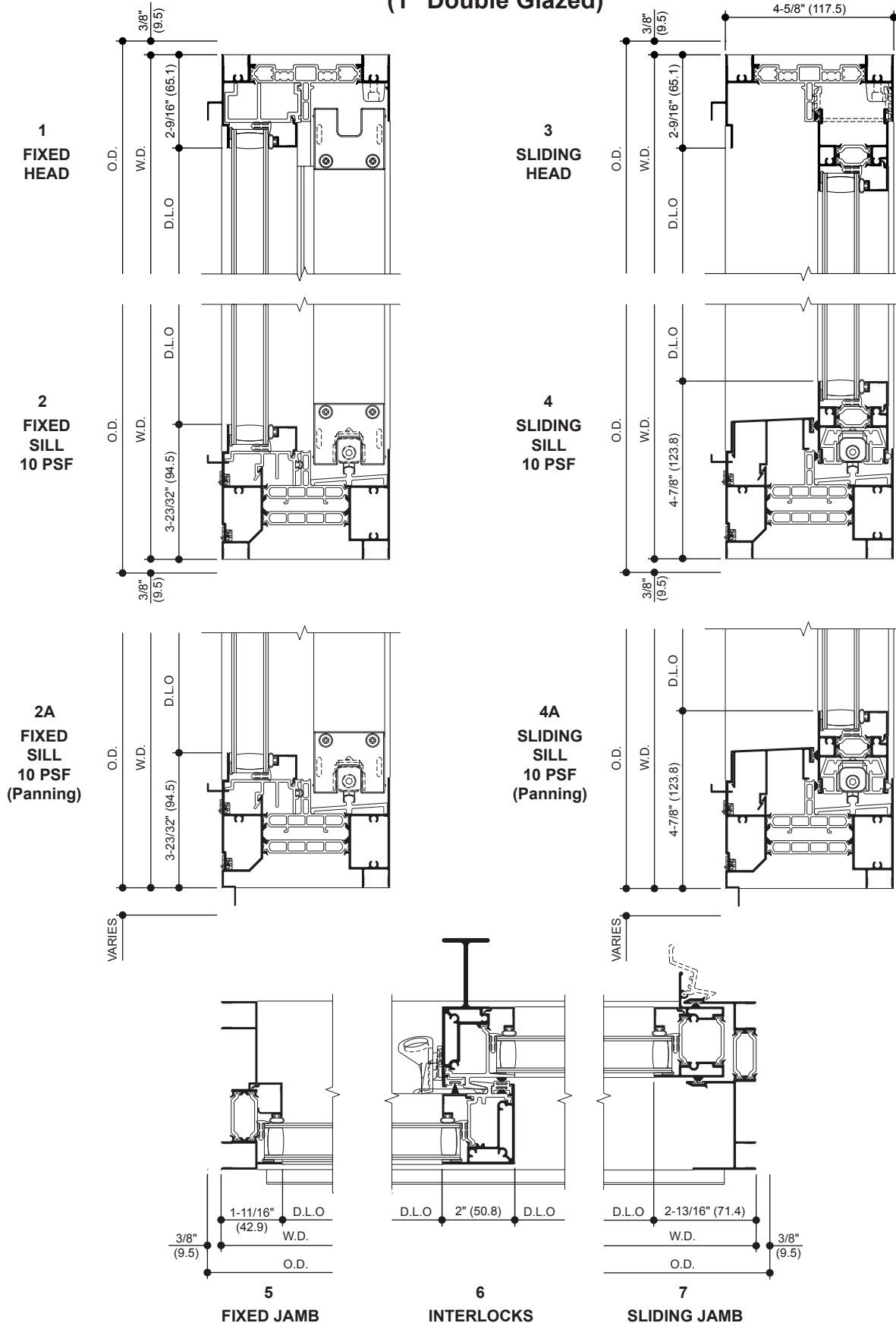
TYPICAL ELEVATION

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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Additional information and CAD details are available at [www.kawneer.com](http://www.kawneer.com)

### OX HORIZONTAL SLIDING WINDOW (1" Double Glazed)



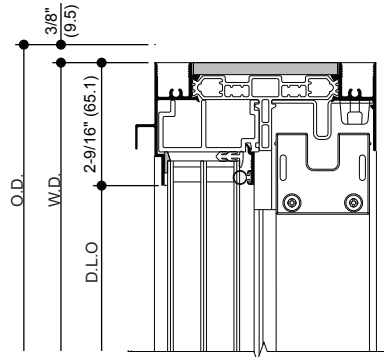
Laws and building and safety codes governing the design and use of Kawneer products, such as glazed entrance, window, and curtain wall products, vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

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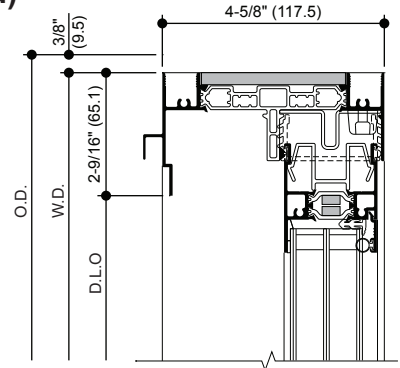
© 2014, Kawneer Company, Inc.

### OX HORIZONTAL SLIDING WINDOW (1-1/2" Triple Glazed)

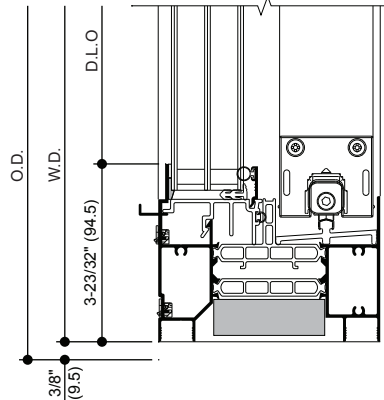
**1  
FIXED  
HEAD**



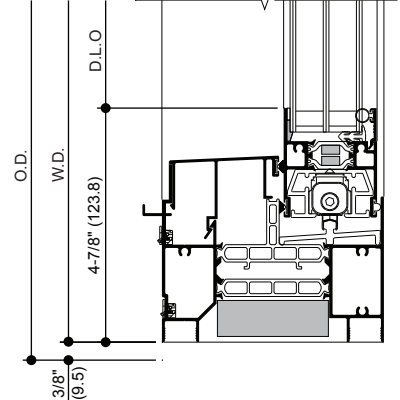
**3  
SLIDING  
HEAD**



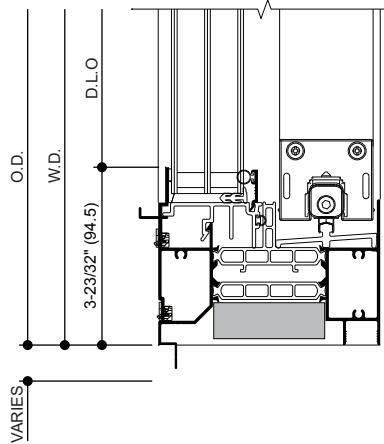
**2  
FIXED  
SILL  
10 PSF**



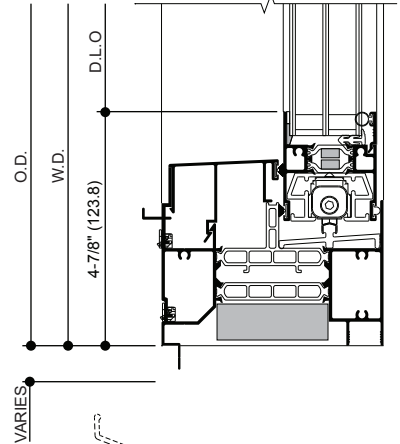
**4  
SLIDING  
SILL  
10 PSF**



**2A  
FIXED  
SILL  
10 PSF  
(Panning)**



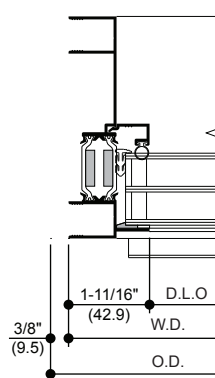
**4A  
SLIDING  
SILL  
10 PSF  
(Panning)**



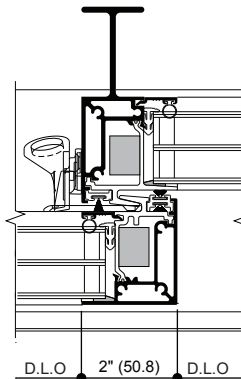
VARIES

VARIES

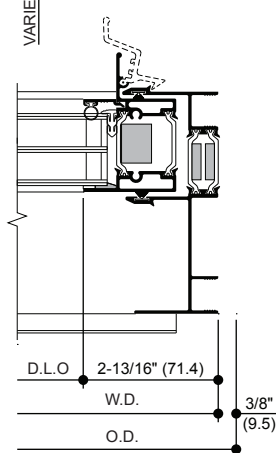
**5  
FIXED JAMB**



**6  
INTERLOCKS**



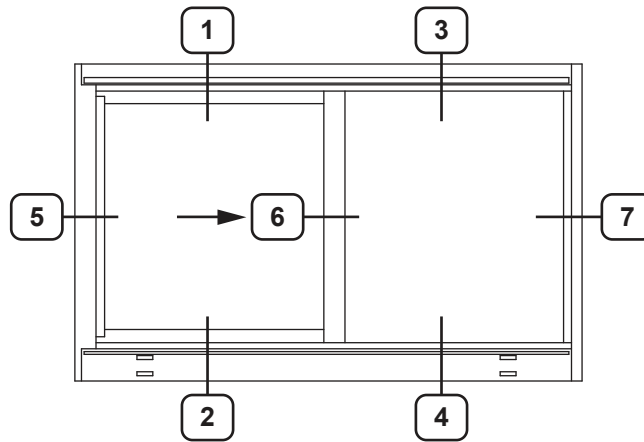
**7  
SLIDING JAMB**



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**XO HORIZONTAL SLIDING WINDOW**  
**(Keyed to details on pages 37 and 38)**



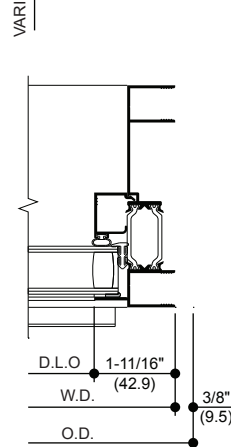
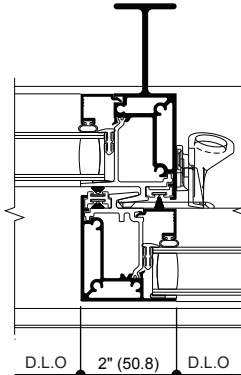
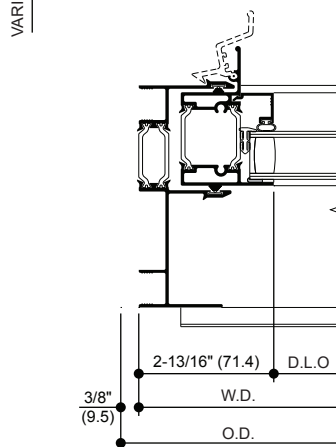
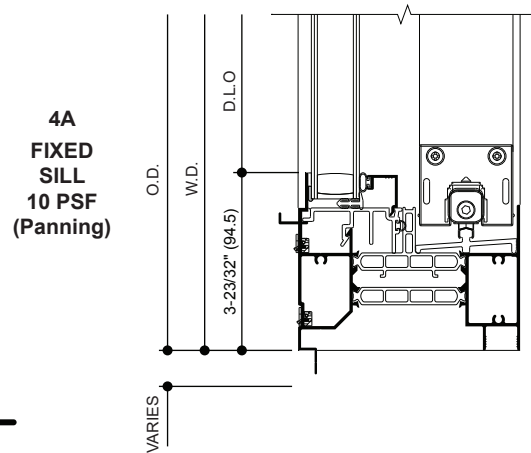
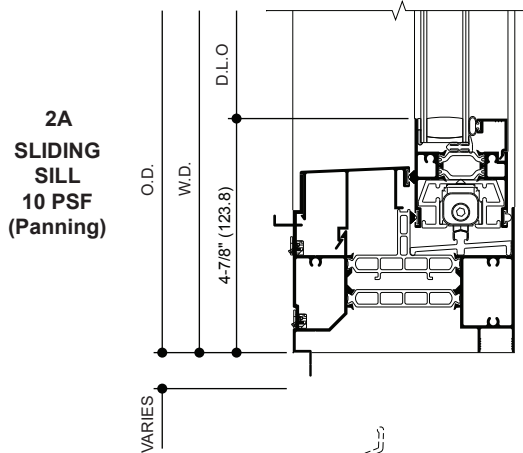
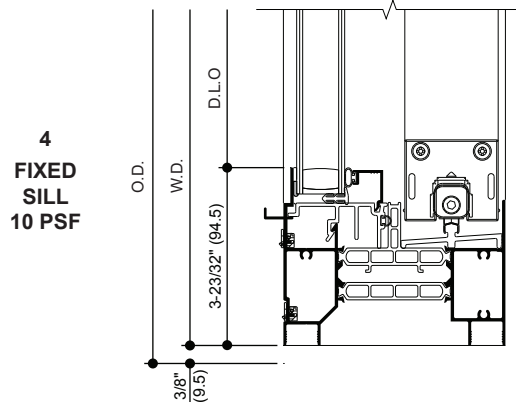
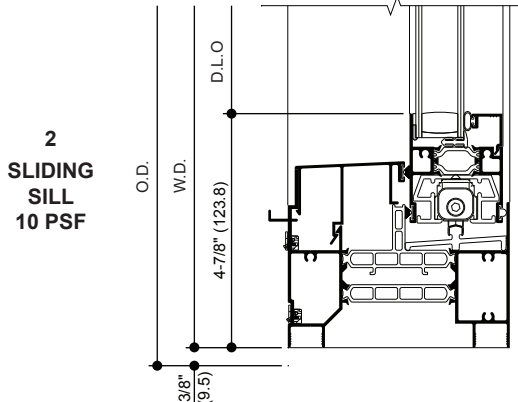
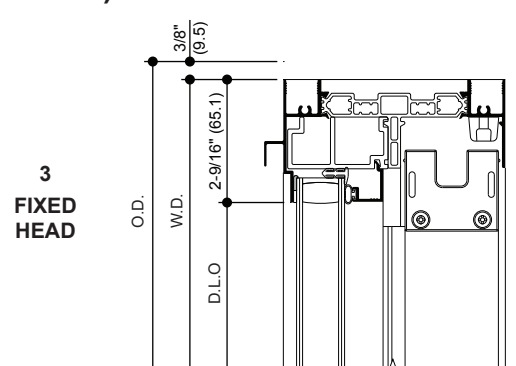
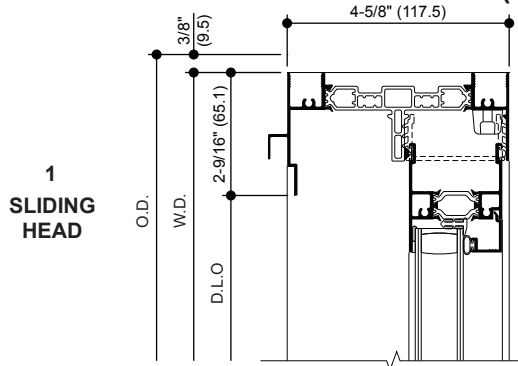
TYPICAL ELEVATION

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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### XO HORIZONTAL SLIDING WINDOW (1" Double Glazed)



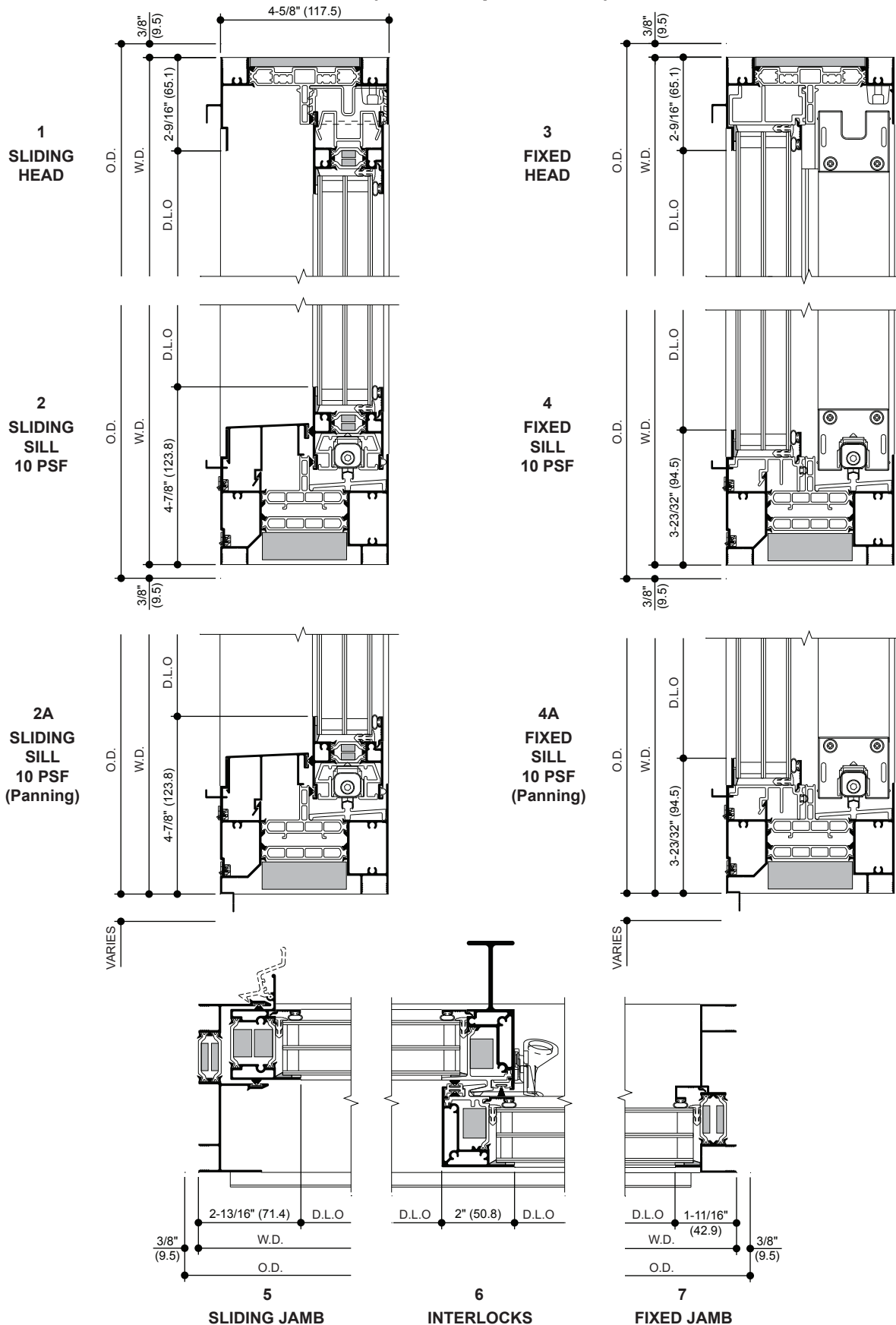
SLIDING JAMB

INTERLOCKS

FIXED JAMB

Additional information and CAD details are available at [www.kawneer.com](http://www.kawneer.com)

### XO HORIZONTAL SLIDING WINDOW (1-1/2" Triple Glazed)

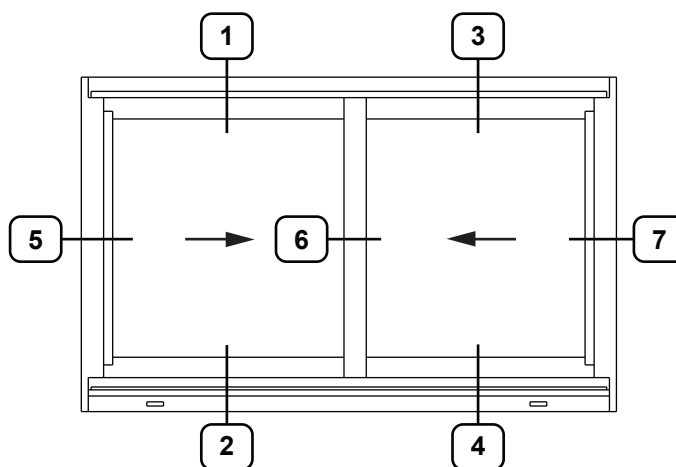


Laws and building and safety codes governing the design and use of Kawneer products, such as glazed entrance, window, and curtain wall products, vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

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**XX HORIZONTAL SLIDING WINDOW  
(Keyed to details on pages 40 and 41)**



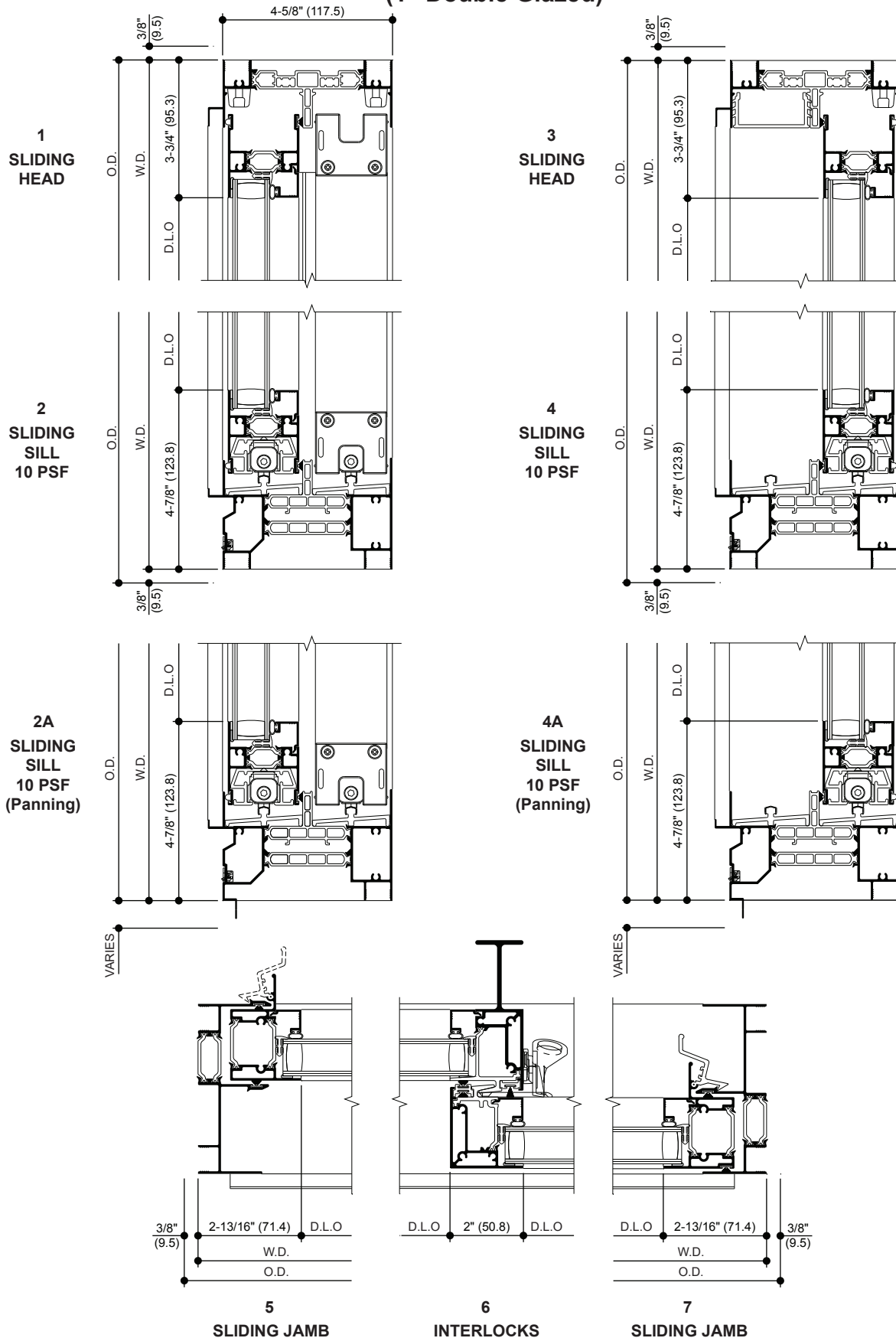
TYPICAL ELEVATION

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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## XX HORIZONTAL SLIDING WINDOW (1" Double Glazed)



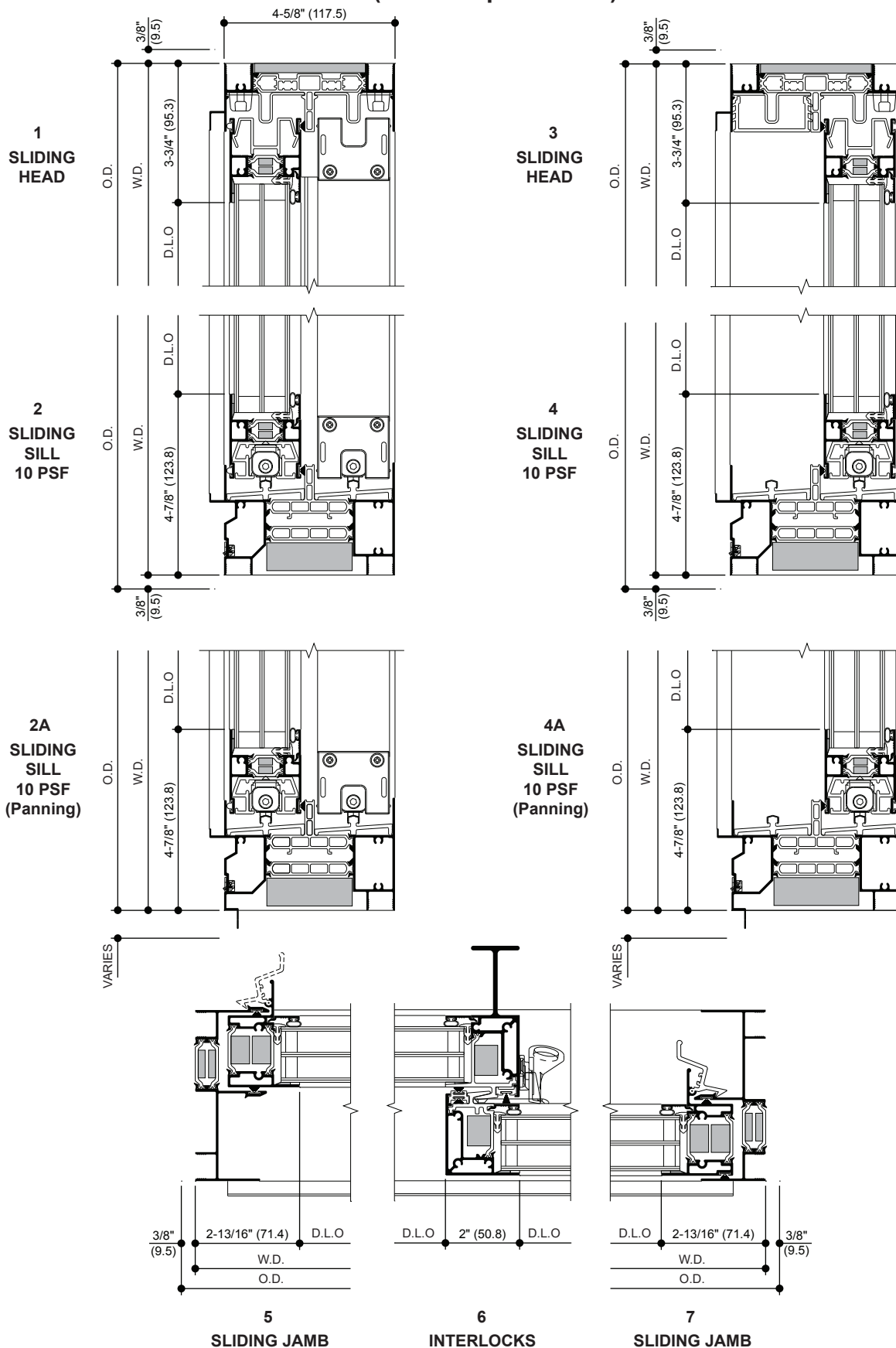
Laws and building and safety codes governing the design and use of Kawneer products, such as glazed entrance, window, and curtain wall products, vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

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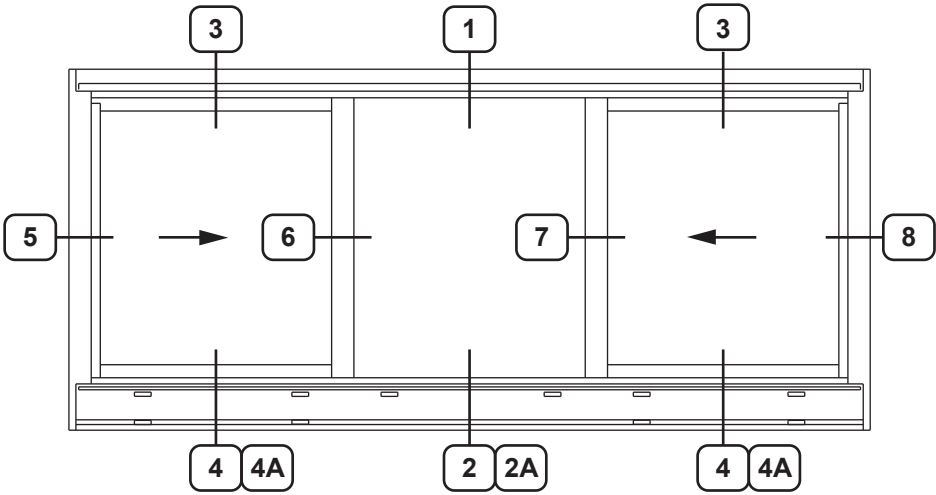
© 2014, Kawneer Company, Inc.

Additional information and CAD details are available at [www.kawneer.com](http://www.kawneer.com)

## XX HORIZONTAL SLIDING WINDOW (1-1/2" Triple Glazed)



XOX HORIZONTAL SLIDING WINDOW  
(Keyed to details on pages 43 and 44)



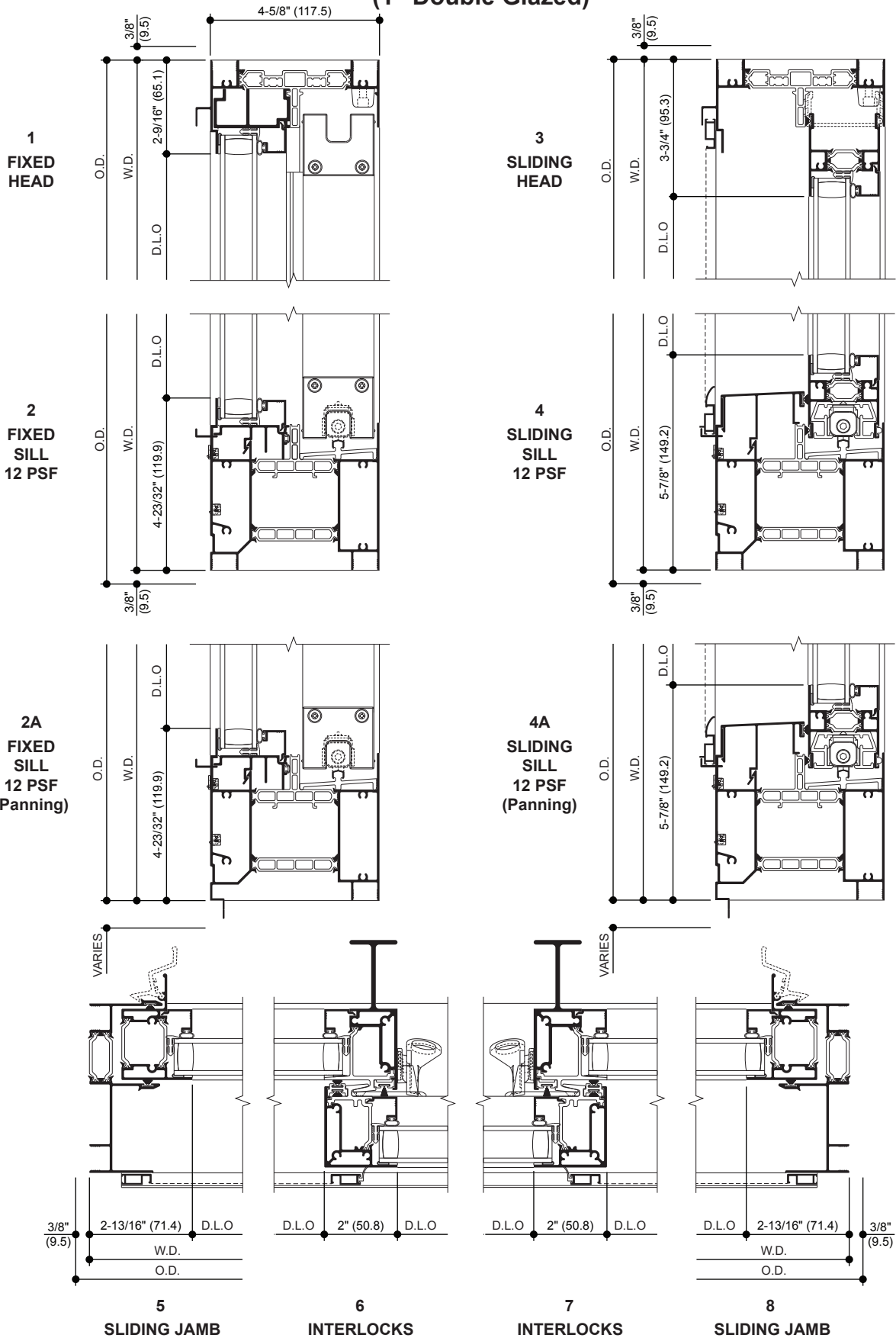
TYPICAL ELEVATION

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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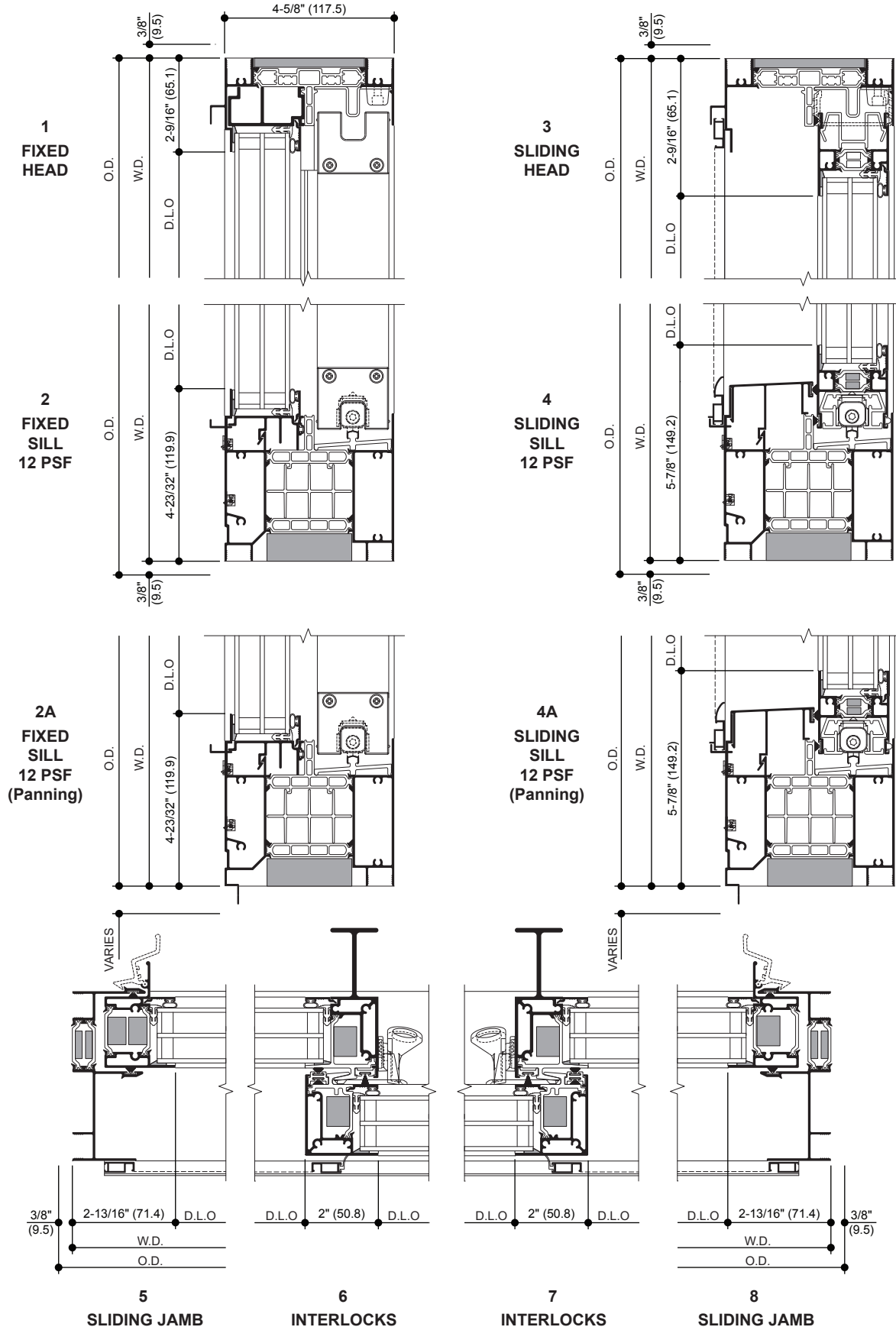
Additional information and CAD details are available at [www.kawneer.com](http://www.kawneer.com)

### XOX HORIZONTAL SLIDING WINDOW (1" Double Glazed)



Additional information and CAD details are available at [www.kawneer.com](http://www.kawneer.com)

**XOX HORIZONTAL SLIDING WINDOW**  
**1-1/2" Triple Glazed - Aluminum Glazing Spacer**



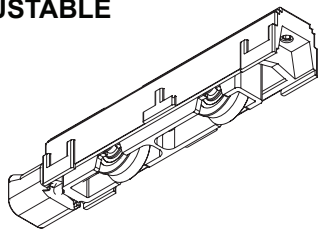
Laws and building and safety codes governing the design and use of Kawneer products, such as glazed entrance, window, and curtain wall products, vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

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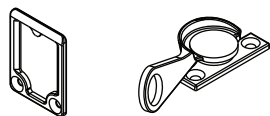


### COMPOSITE ADJUSTABLE TANDEM ROLLER



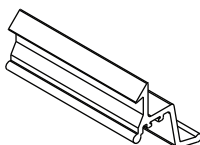
Glass filled nylon housing, die cast zamak roller support, precision sealed ball bearing rollers with nylon tires.

### SWEEP LOCK AND KEEPER



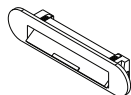
White Bronze sweep locks and keepers with a durable brushed nickel finish and cycle tested for longevity.

### AUTO LOCK AND KEEPER



An aluminum spring operated auto lock. The lock automatically engages the integral keeper securing the sash in the closed position. The auto lock is an option for the jamb sash.

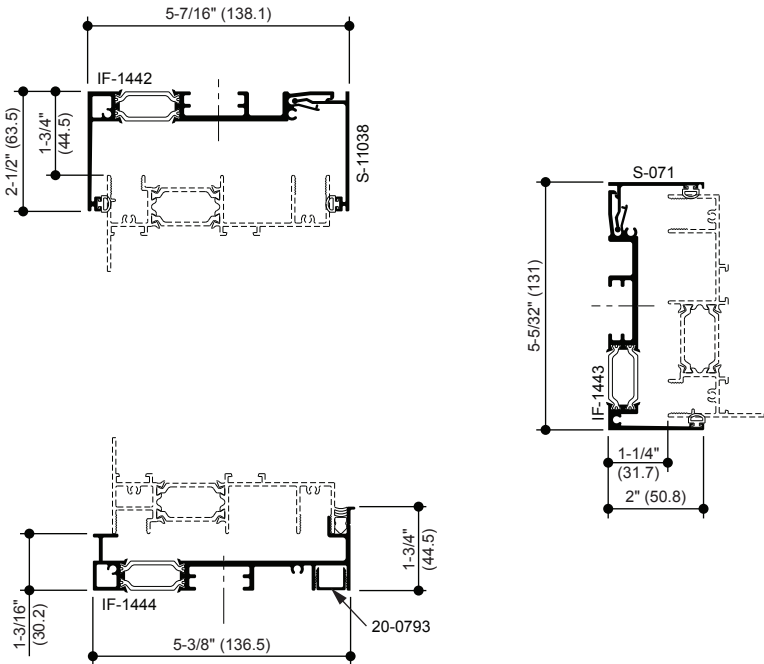
### COVERED WEEPS



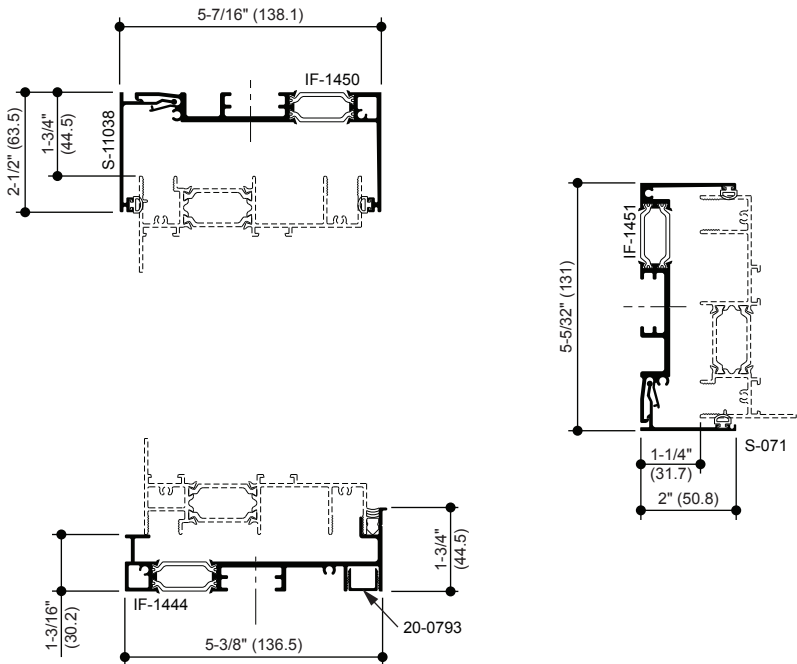
A weep with an integral hinged cover to allow maximum drainage of infiltrating water with a positive closing cover to block drafts and insects. The weep is available in black and white finishes.

Additional information and CAD details are available at [www.kawneer.com](http://www.kawneer.com)

RECEPTOR DETAILS



INTERIOR INSTALLED



EXTERIOR INSTALLED

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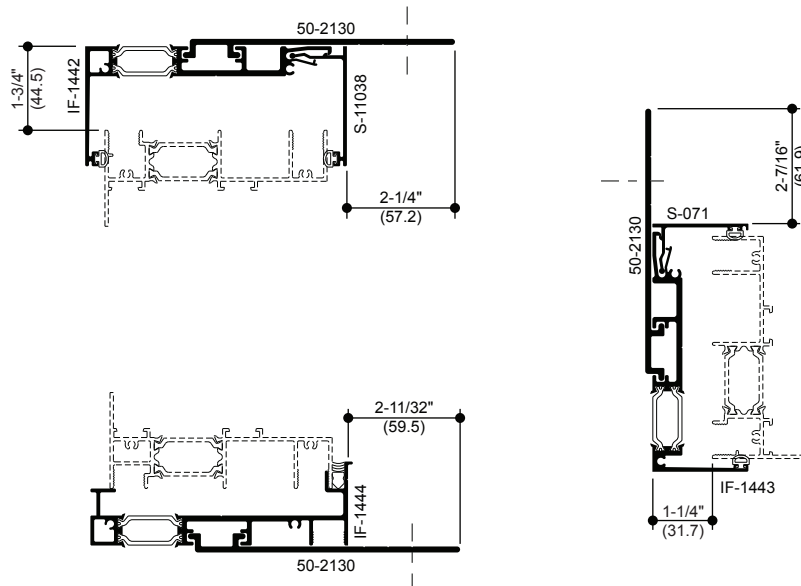
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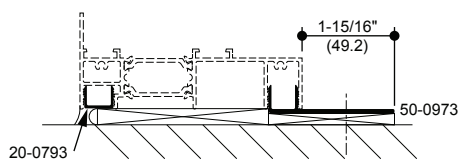
## ANCHOR DETAILS

### NOTE:

Interior glazed shown, exterior glazed similar.



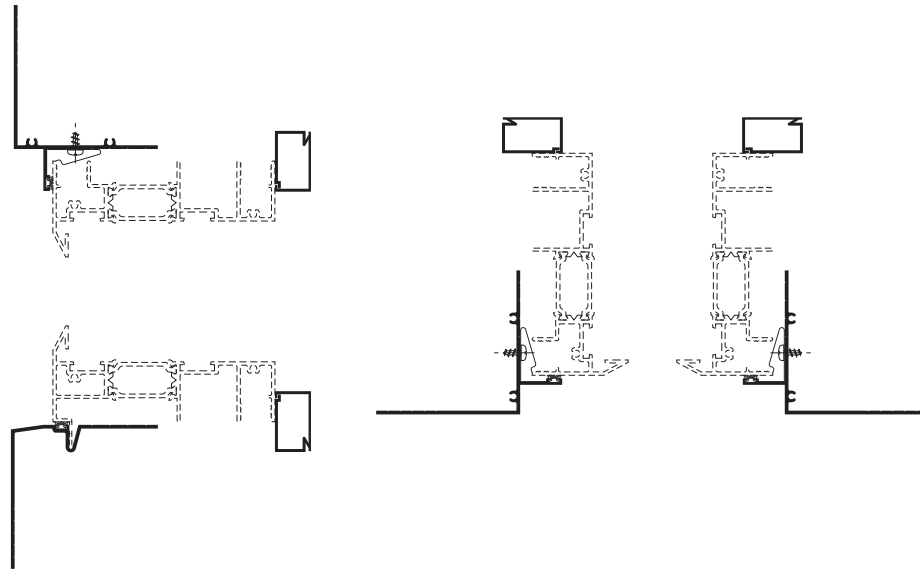
**STRAP ANCHOR WITH RECEPTOR  
(INTERIOR INSTALLED)**



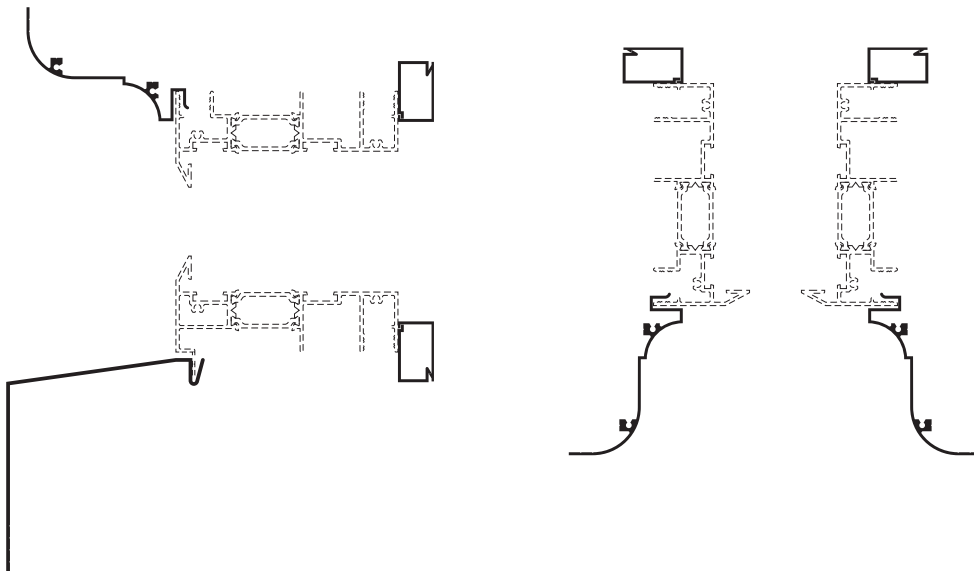
**STRAP ANCHOR WITHOUT RECEPTOR**

Additional information and CAD details are available at [www.kawneer.com](http://www.kawneer.com)

### PRE-SET PANNING



### WRAP AROUND PANNING



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## WIND LOAD CHARTS

Mullions are designed for deflection limitations in accordance with AAMA TIR-A11 of L/175 up to 13' 6" and L/240 +1/4" above 13' 6". These curves are for mullions WITH HORIZONTALS and are based on engineering calculations for stress and deflection. Allowable wind load stress for ALUMINUM 15,152 psi (104MPa), STEEL 30,000 psi (207MPa). Charted curves, in all cases are for the limiting value. Wind load charts contained herein are based upon nominal wind load utilized in allowable stress design. A conversion from Load Resistance Factor Design (LRFD) is provided. To convert ultimate wind loads to nominal loads, multiply ultimate wind loads by a factor of 0.6 per ASCE/SEI 7. A 4/3 increase in allowable stress has not been used to develop these curves. For special situations not covered by these curves, contact your Kawneer representative for additional information.

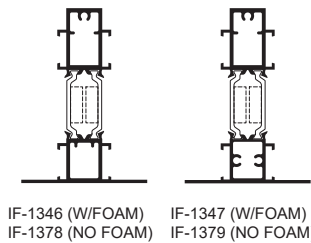
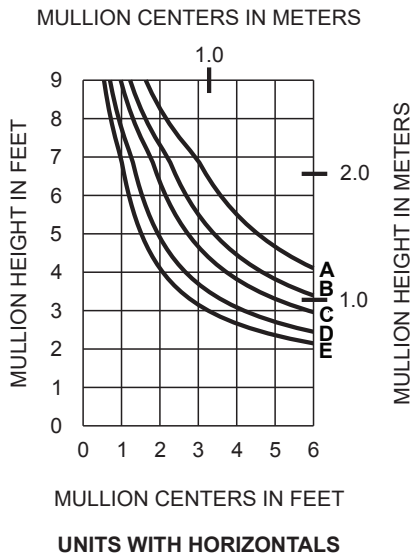
## DEADLOAD CHARTS

Horizontal or deadload limitations are based upon 1/16" (1.6) at operable vents or 1/8" (3.2) at fixed openings, maximum allowable deflection at the center of an intermediate horizontal member. The accompanying charts are calculated for 1" (25.4) thick insulating glass supported on two setting blocks placed at the loading points shown.

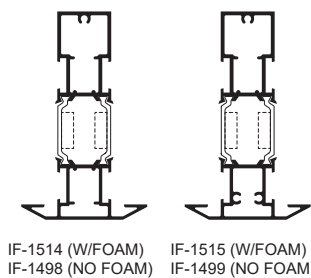
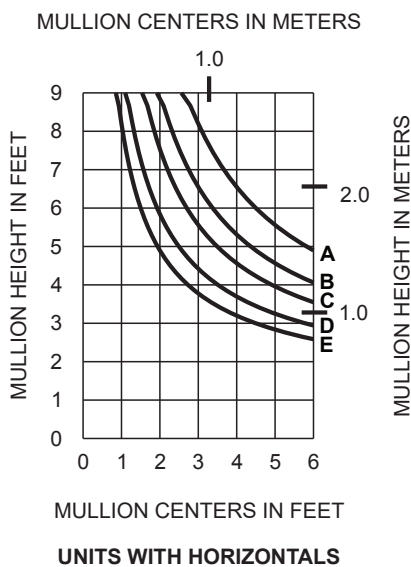
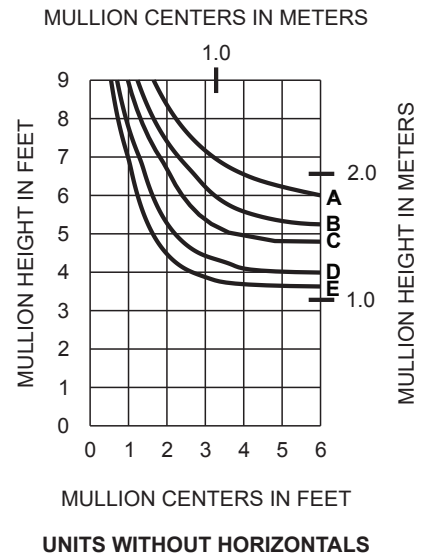
Laws and building and safety codes governing the design and use of Kawneer products, such as glazed entrance, window, and curtain wall products, vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

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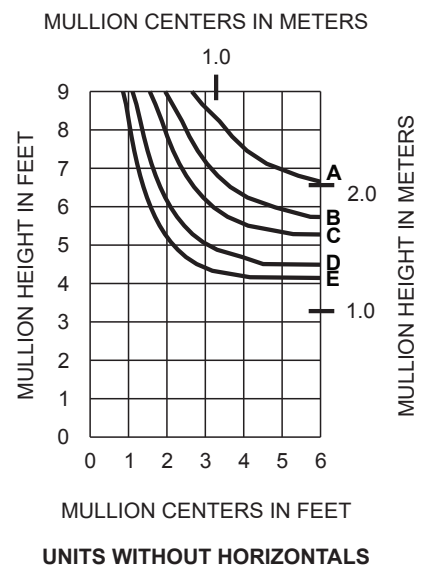
	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	30 PSF (1440)	50 PSF (2400)
B =	40 PSF (1920)	67 PSF (3200)
C =	50 PSF (2400)	83 PSF (4000)
D =	70 PSF (3360)	117 PSF (5600)
E =	90 PSF (4310)	150 PSF (7200)



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



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

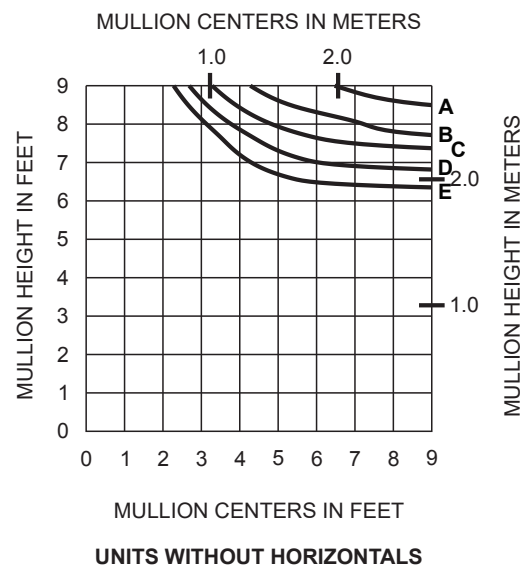
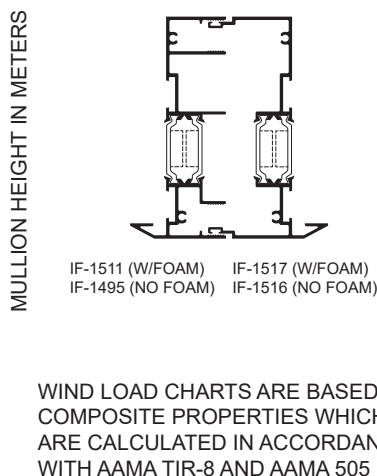
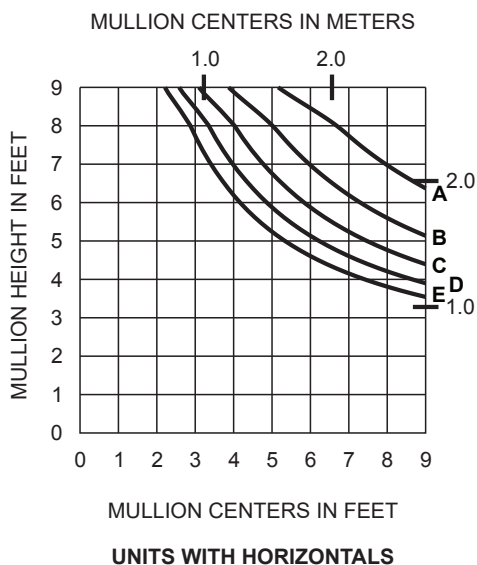
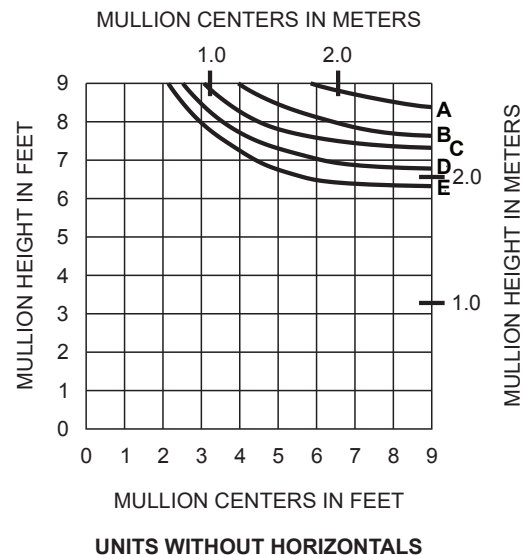
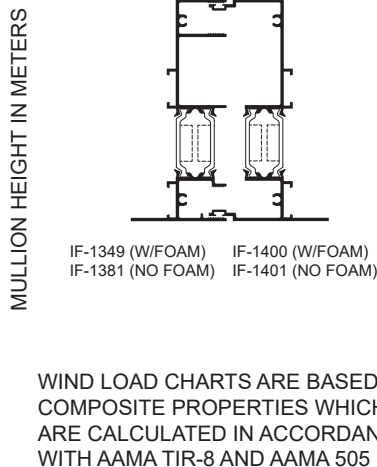
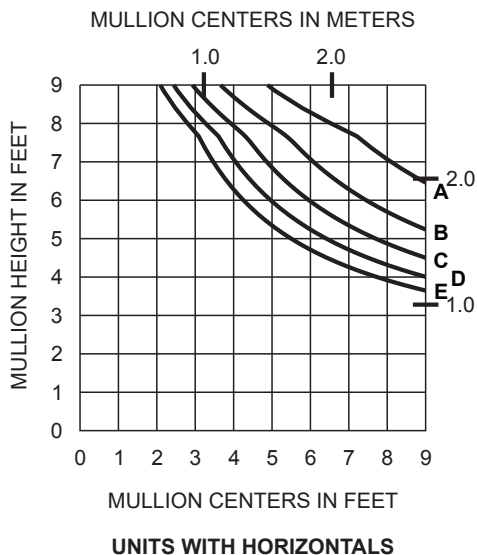


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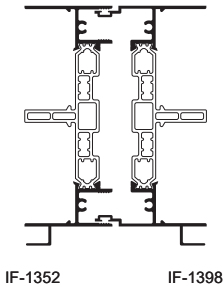
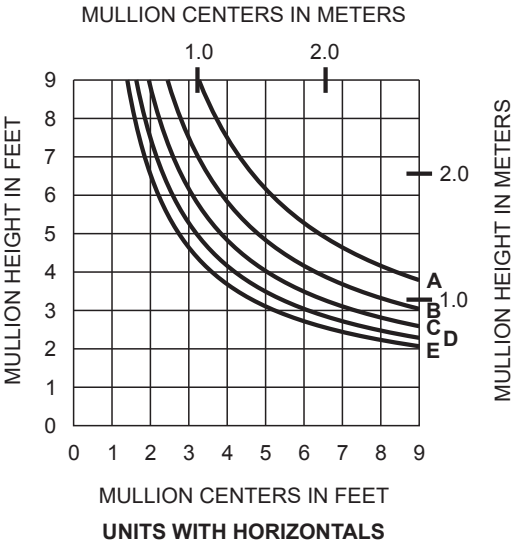
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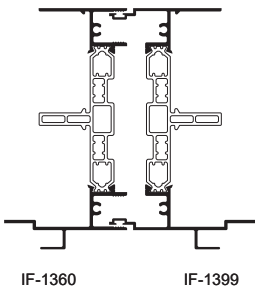
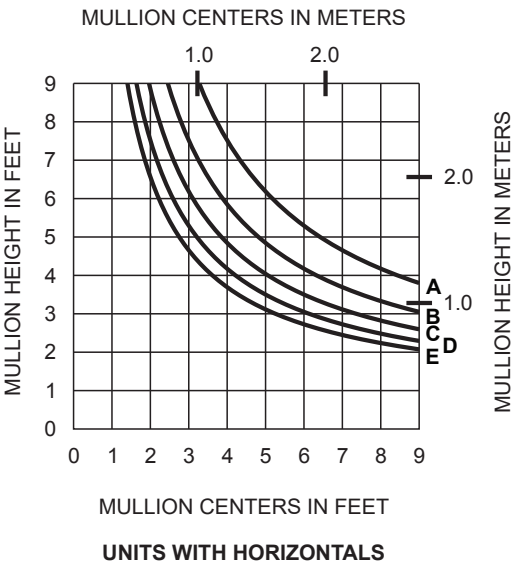
	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	30 PSF (1440)	50 PSF (2400)
B =	40 PSF (1920)	67 PSF (3200)
C =	50 PSF (2400)	83 PSF (4000)
D =	60 PSF (2880)	100 PSF (4790)
E =	70 PSF (3360)	117 PSF (5600)



	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 =	60 PSF (2880)	100 PSF (4790)
E =	70 PSF (3360)	117 PSF (5600)



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



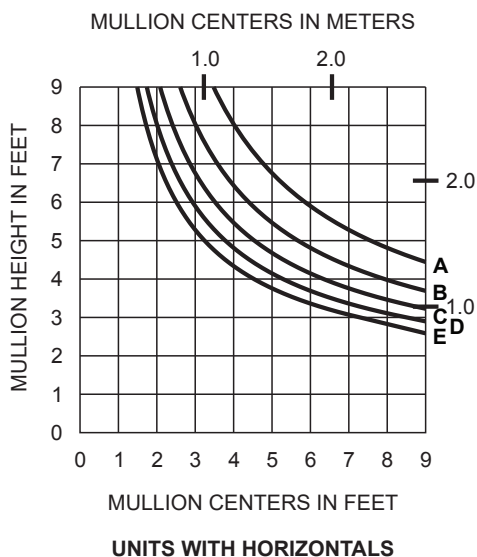
WIND LOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505

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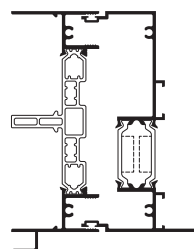
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	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	30 PSF (1440)	50 PSF (2400)
B =	40 PSF (1920)	67 PSF (3200)
C =	50 PSF (2400)	83 PSF (4000)
D =	60 PSF (2880)	100 PSF (4790)
E =	70 PSF (3360)	117 PSF (5600)

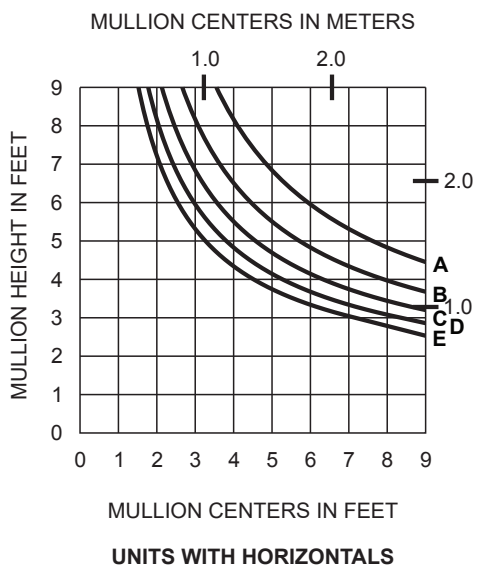


MULLION HEIGHT IN METERS

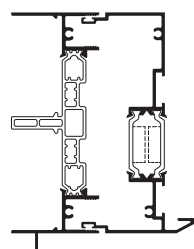


IF-1352 (DH) IF-1360 (SH) IF-1400 (W/FOAM) IF-1401 (NO FOAM)

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



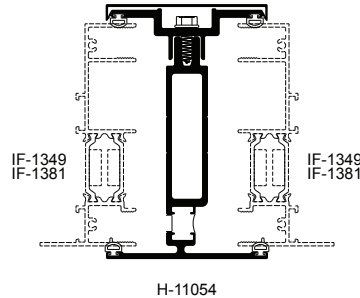
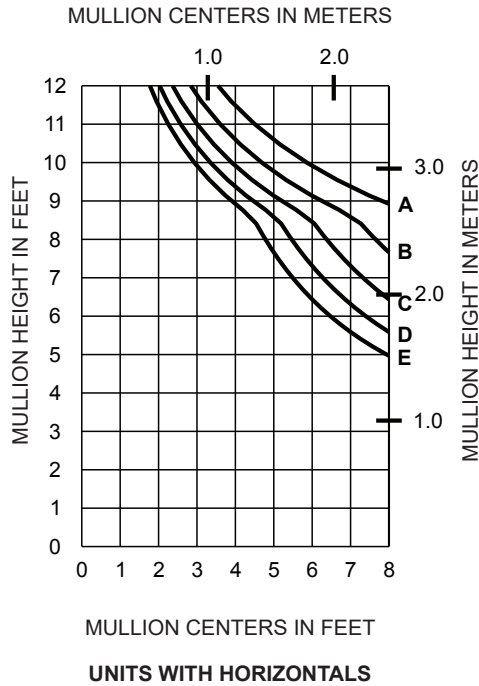
MULLION HEIGHT IN METERS



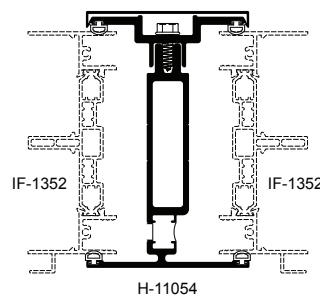
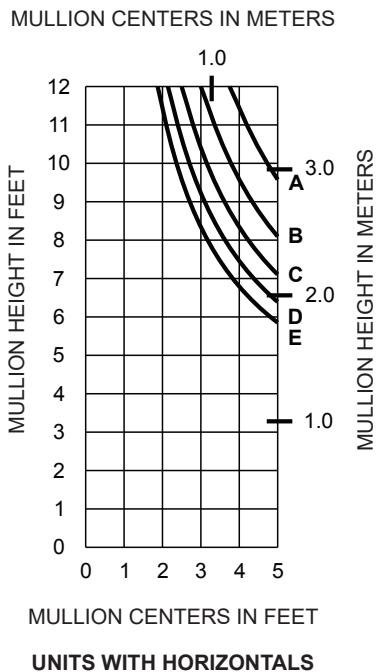
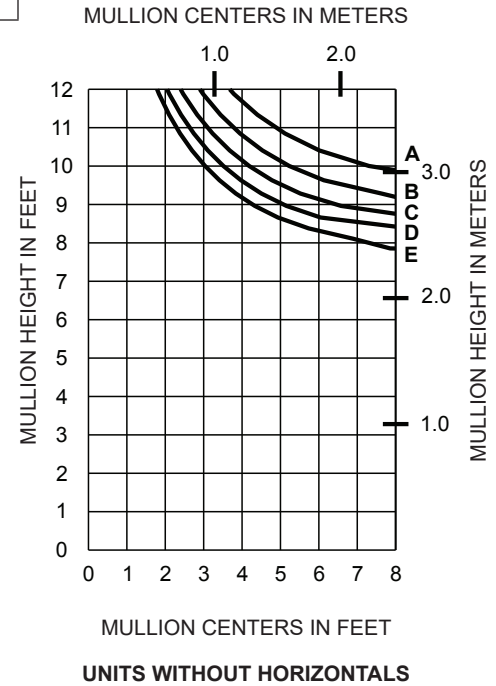
IF-1352 IF-1517 (W/FOAM) IF-1516 (NO FOAM)

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

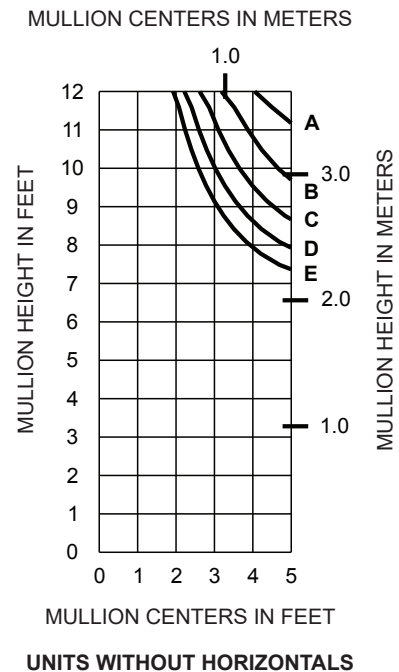
	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	15 PSF (720)	25 PSF (1200)
B =	20 PSF (960)	33 PSF (1580)
C =	25 PSF (1200)	42 PSF (2000)
D =	30 PSF (1440)	50 PSF (2400)
E =	35 PSF (1680)	58 PSF (2780)



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

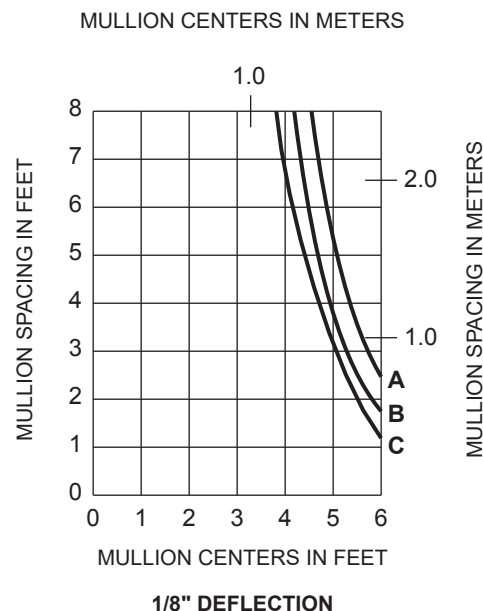
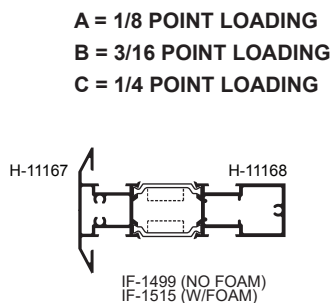
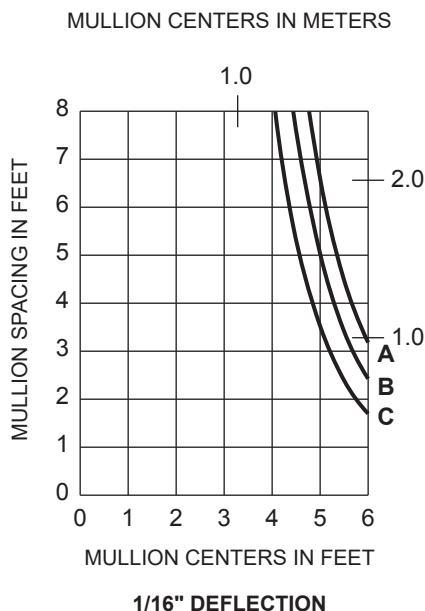
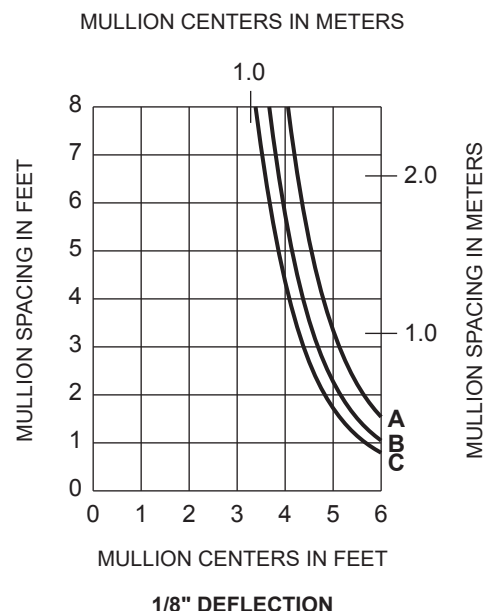
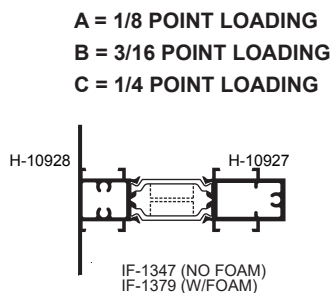
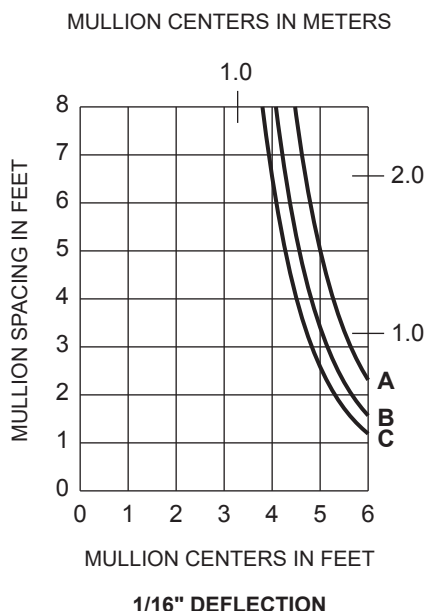


WIND LOAD CHARTS ARE BASED ON  
COMPOSITE PROPERTIES WHICH  
ARE CALCULATED IN ACCORDANCE  
WITH AAMA TIR-8 AND AAMA 505

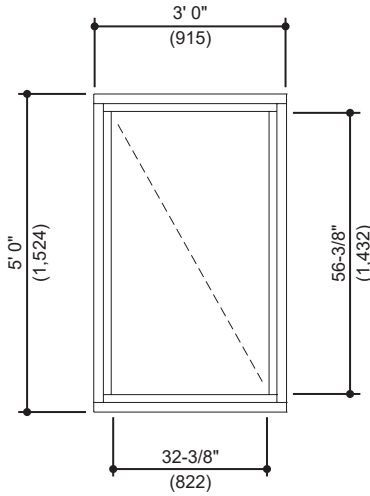


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**Generic Project Specific U-factor Example Calculation**  
**(Percent of glass will vary on specific products depending on sitelines)**



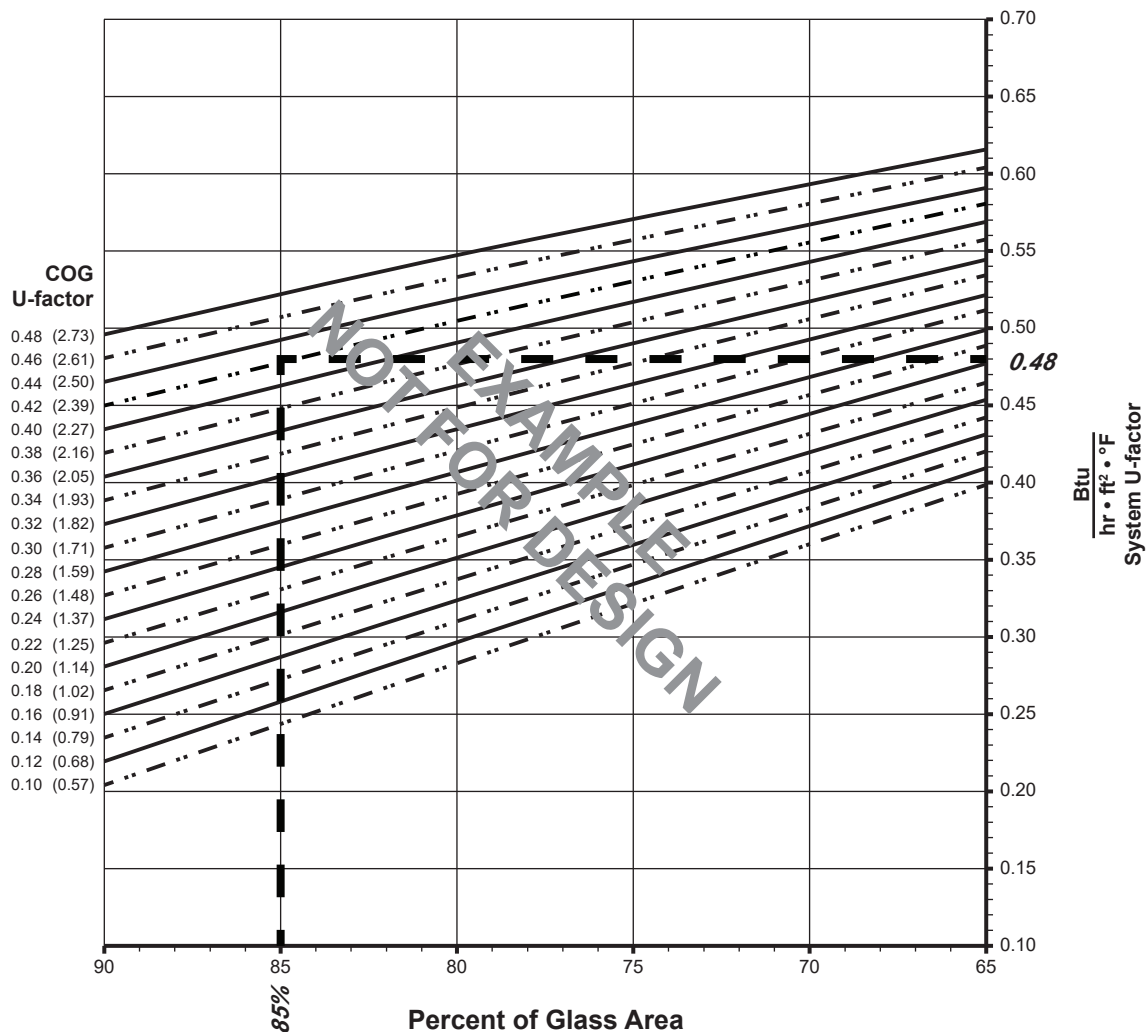
Example Glass U-Factor = 0.42 Btu/hr • ft<sup>2</sup> • °F

Total Daylight Opening = 32-3/8" • 56-3/8" = 12.67ft<sup>2</sup>

Total Projected Area = 3' 0" • 5' 0" = 15 ft<sup>2</sup>

Percent of Glass = (Total Daylight Opening ÷ Total Projected Area)100  
 = (12.67 ÷ 15)100 = 85%

**System U-factor vs Percent of Glass Area**



Based on 85% glass and center of glass (COG) U-factor of 0.42  
 System U-factor is equal to 0.48 Btu/hr • ft<sup>2</sup> • °F

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## AA®5450 FIXED WINDOW (1" Double Glazed - Aluminum Glazing Spacer)

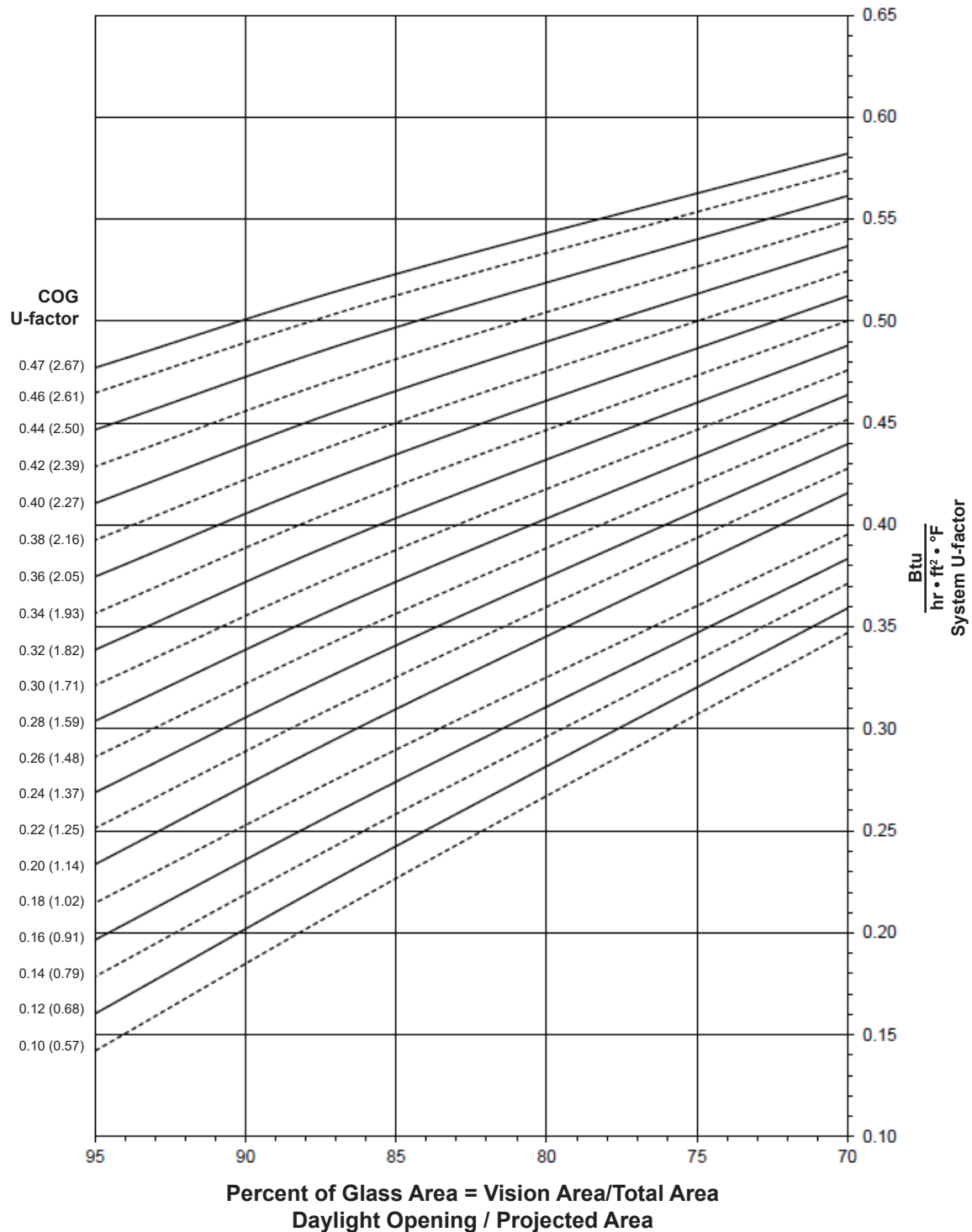
**Note:**

Values in parentheses are metric.

COG = Center of Glass.

Charts are generated per AAMA 507

### System U-factor vs Percent of Glass Area

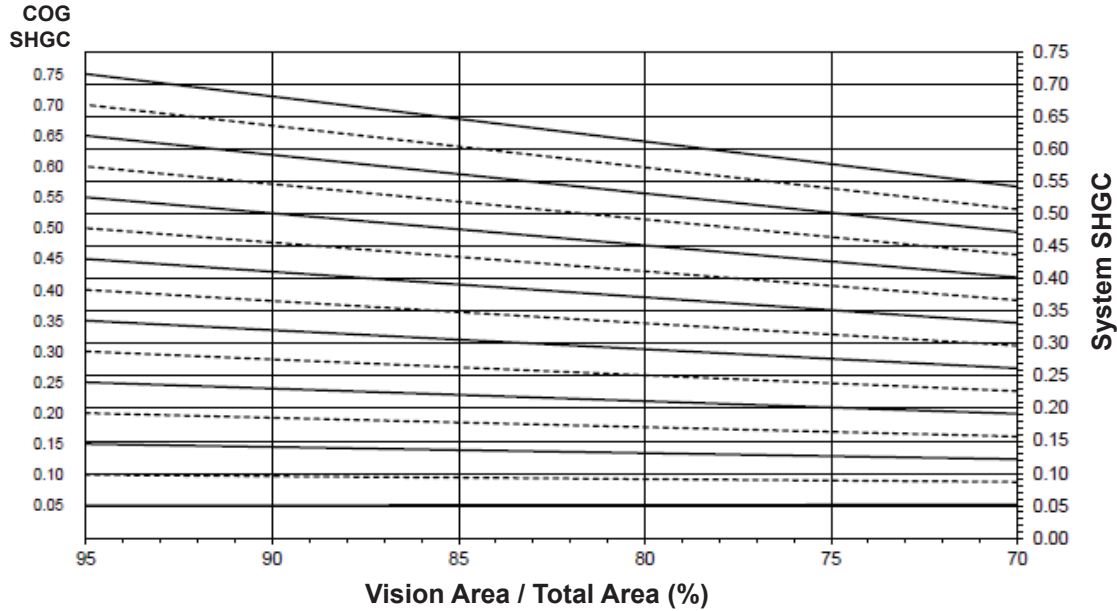
**Notes for System U-factor, SHGC and VT charts:**

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

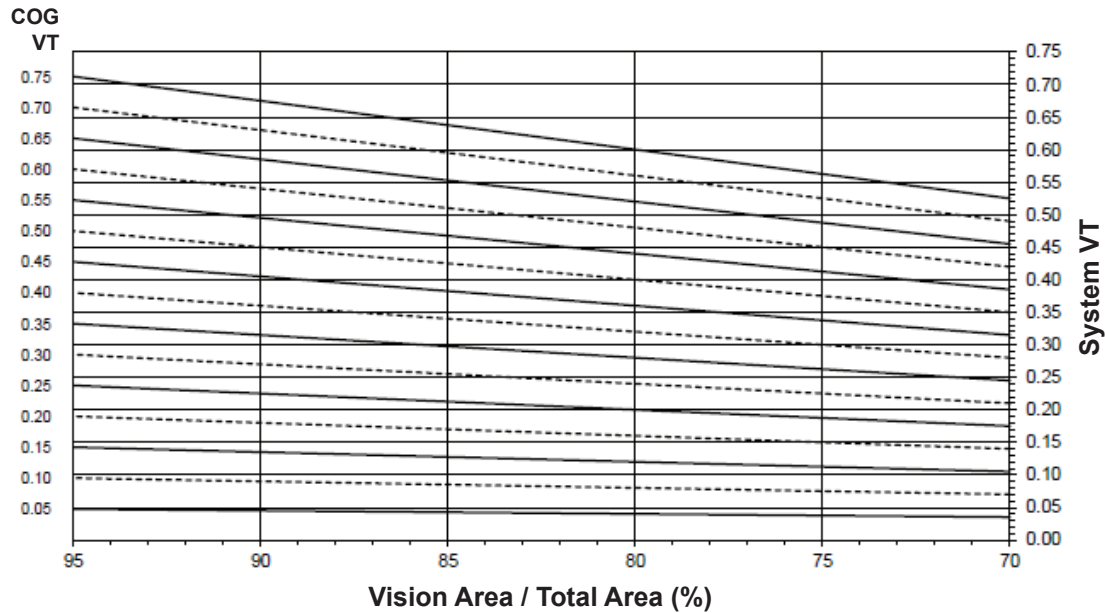
Glass properties are based on center of glass values and are obtained from your glass supplier.

**AA®5450 FIXED WINDOW**  
**1" Double Glazed - Aluminum Glazing Spacer**

**System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area**



**System Visible Transmittance (VT) vs Percent of Vision Area**



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**Thermal Transmittance** <sup>1</sup> (BTU/hr • ft<sup>2</sup> • °F)

Glass U-Factor <sup>3</sup>	Overall U-Factor <sup>4</sup>
0.48	0.52
0.46	0.51
0.44	0.50
0.42	0.48
0.40	0.46
0.38	0.45
0.36	0.43
0.34	0.42
0.32	0.40
0.30	0.39
0.28	0.37
0.26	0.35
0.24	0.34
0.22	0.32
0.20	0.31
0.18	0.29
0.16	0.27
0.14	0.26
0.12	0.24
0.10	0.22

**AA®5450 FIXED WINDOW**  
**1" Double Glazed**  
**Aluminum Glazing Spacer**

**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 1,200 mm wide by 1,500 mm high (47-1/4" by 59-1/16").

**SHGC Matrix** <sup>2</sup>

Glass SHGC <sup>3</sup>	Overall SHGC <sup>4</sup>
0.75	0.65
0.70	0.61
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** <sup>2</sup>

Glass VT <sup>3</sup>	Overall VT <sup>4</sup>
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

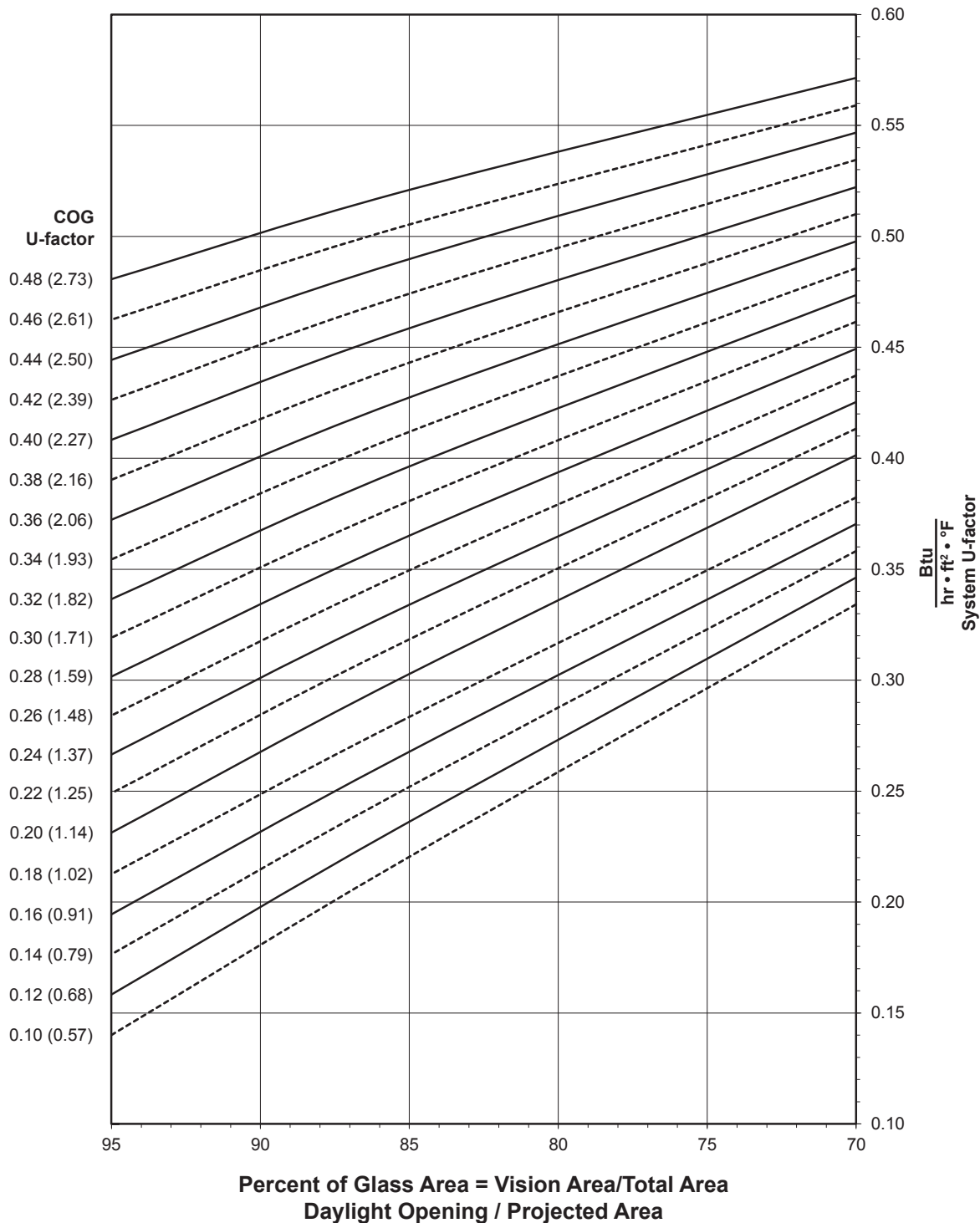
## AA®5450 FIXED WINDOW - BEVEL FACE 1" Double Glazed - Aluminum Glazing Spacer

**Note:**

Values in parentheses are metric.

COG = Center of Glass.

Charts are generated per AAMA 507

**System U-factor vs Percent of Glass Area****Notes for System U-factor, SHGC and VT charts:**

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

Glass properties are based on center of glass values and are obtained from your glass supplier.

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.

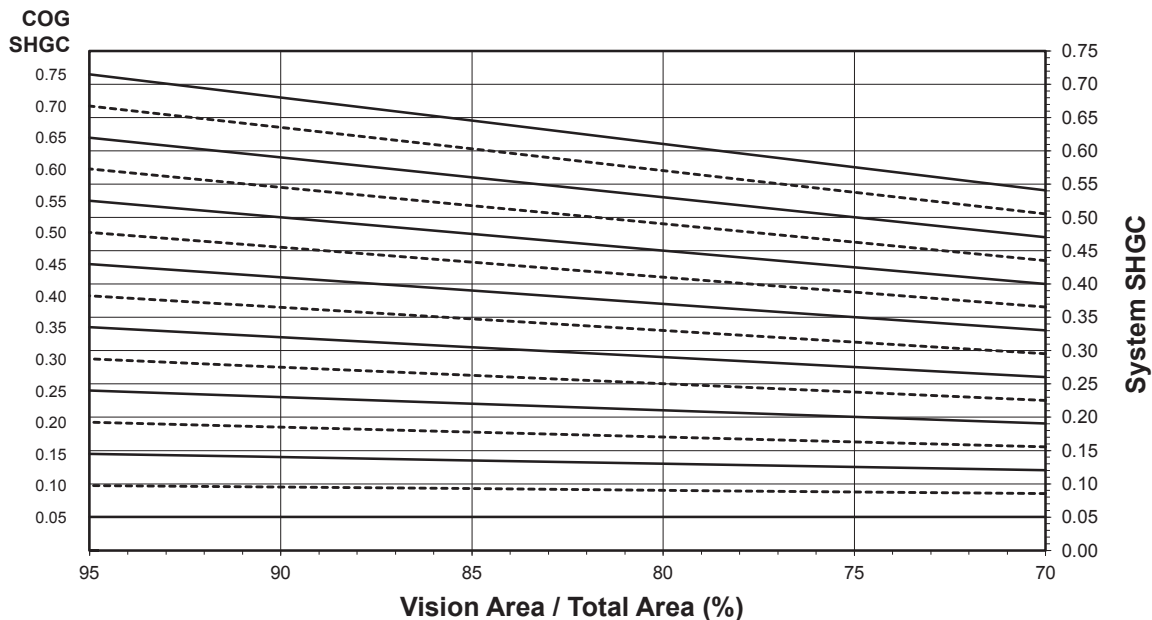
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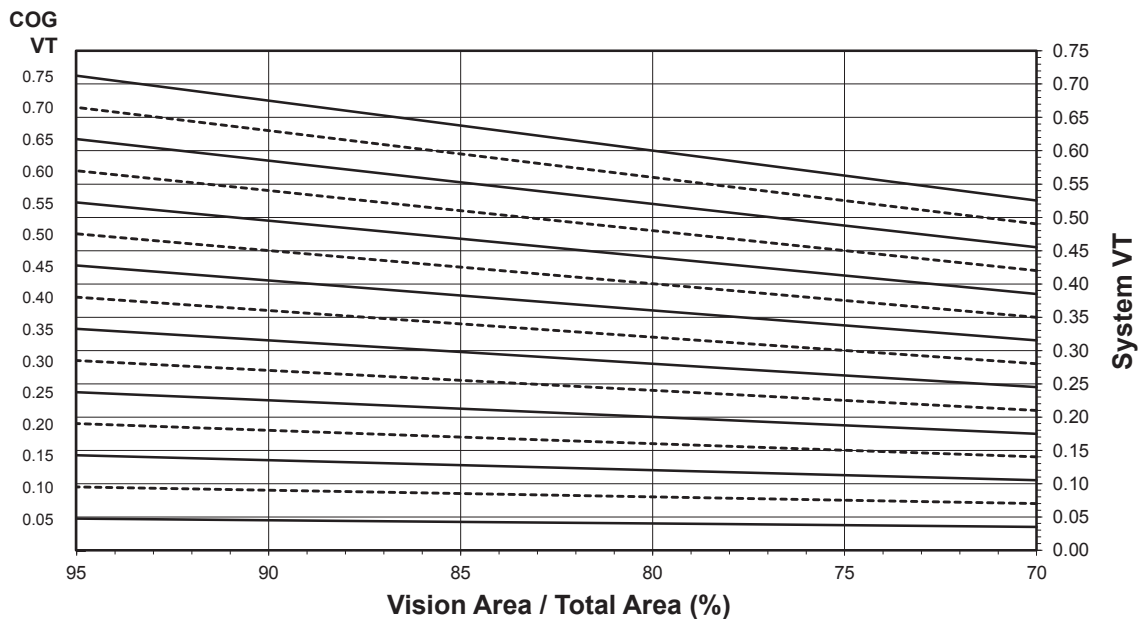


**AA<sup>®</sup>5450 FIXED WINDOW - BEVEL FACE**  
**1" Double Glazed - Aluminum Glazing Spacer**

**System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area**



**System Visible Transmittance (VT) vs Percent of Vision Area**



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**Thermal Transmittance**<sup>1</sup> (BTU/hr • ft<sup>2</sup> • °F)

Glass U-Factor <sup>3</sup>	Overall U-Factor <sup>4</sup>
0.48	0.52
0.46	0.50
0.44	0.49
0.42	0.47
0.40	0.46
0.38	0.44
0.36	0.43
0.34	0.41
0.32	0.39
0.30	0.38
0.28	0.36
0.26	0.36
0.24	0.33
0.22	0.32
0.20	0.30
0.18	0.28
0.16	0.27
0.14	0.25
0.12	0.23
0.10	0.22

**AA®5450 FIXED WINDOW - BEVEL FACE**  
**1" Double Glazed**  
**Aluminum Glazing Spacer**

**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 1,200 mm wide by 1,500 mm high (47-1/4" by 59-1/16").

**SHGC Matrix**<sup>2</sup>

Glass SHGC <sup>3</sup>	Overall SHGC <sup>4</sup>
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**<sup>2</sup>

Glass VT <sup>3</sup>	Overall VT <sup>4</sup>
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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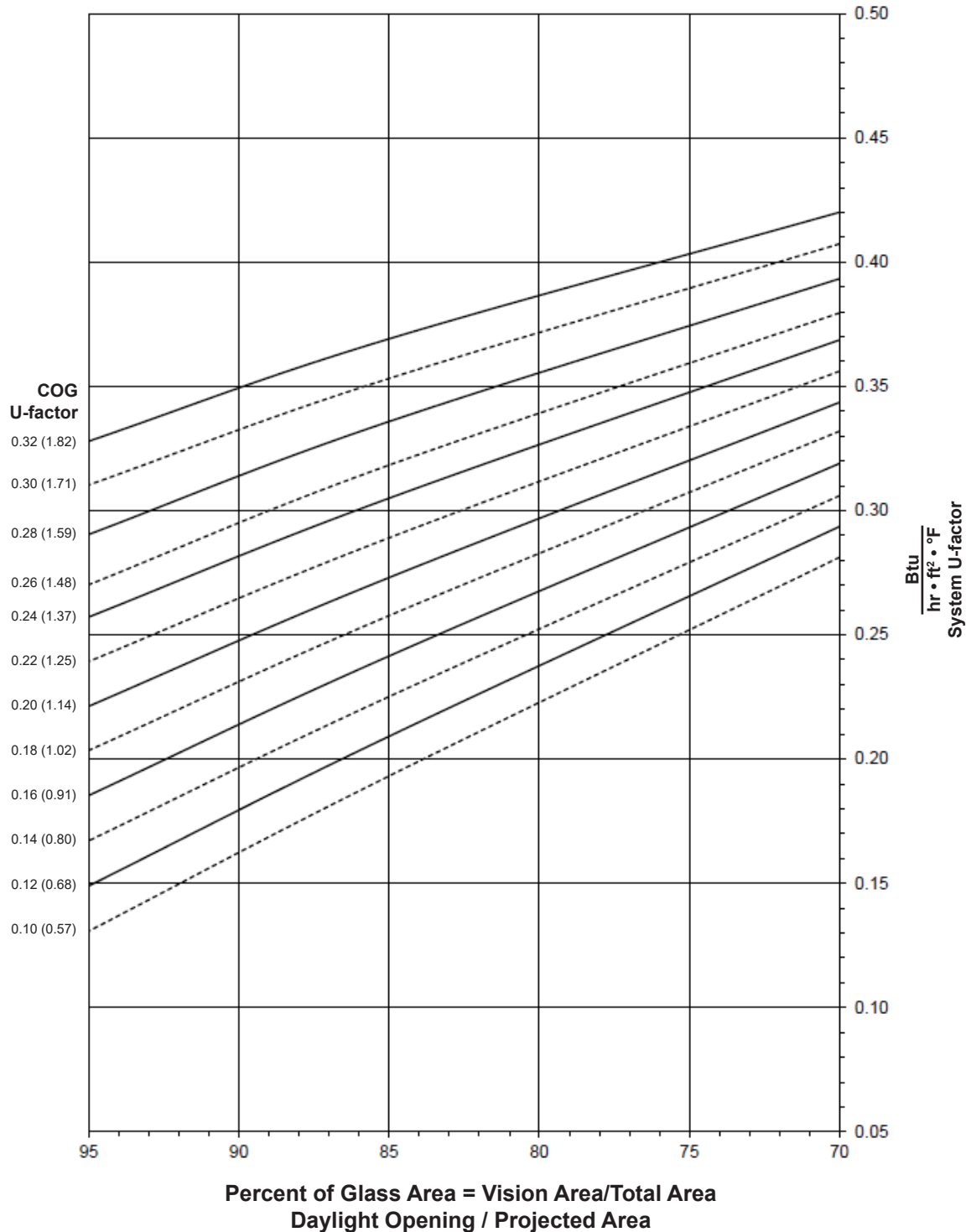
## AA®5450 FIXED WINDOW 1-1/2" Triple Glazed - Aluminum Glazing Spacer

**Note:**

Values in parentheses are metric.

COG = Center of Glass.

Charts are generated per AAMA 507

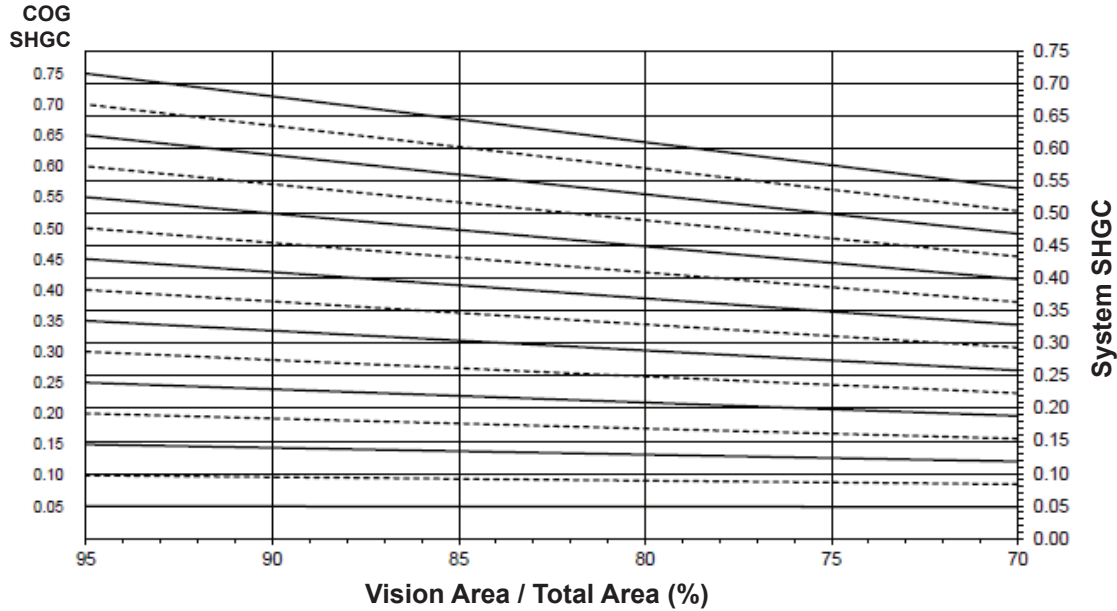
**System U-factor vs Percent of Glass Area****Notes for System U-factor, SHGC and VT charts:**

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

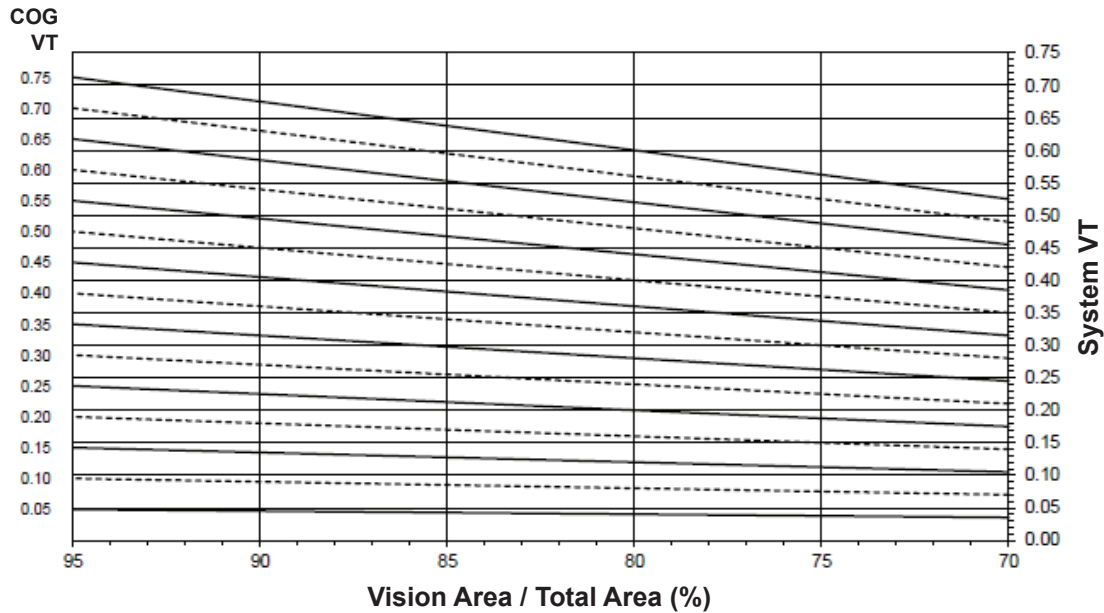
Glass properties are based on center of glass values and are obtained from your glass supplier.

**AA®5450 FIXED WINDOW**  
**1-1/2" Triple Glazed - Aluminum Glazing Spacer**

**System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area**



**System Visible Transmittance (VT) vs Percent of Vision Area**



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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## AA®5450 FIXED WINDOW 1-1/2" Triple Glazed Aluminum Glazing Spacer

### Thermal Transmittance<sup>1</sup> (BTU/hr • ft<sup>2</sup> • °F)

Glass U-Factor <sup>3</sup>	Overall U-Factor <sup>4</sup>
0.32	0.37
0.30	0.35
0.28	0.33
0.26	0.32
0.24	0.30
0.22	0.29
0.20	0.27
0.18	0.26
0.16	0.24
0.14	0.22
0.12	0.21
0.10	0.19

**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 1,200 mm wide by 1,500 mm high (47-1/4" by 59-1/16").

### SHGC Matrix<sup>2</sup>

Glass SHGC <sup>3</sup>	Overall Glass U-Factor <sup>4</sup>
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	0.13
0.10	0.09
0.05	0.05

### Visible Transmittance<sup>2</sup>

Glass VT <sup>3</sup>	Overall VT <sup>4</sup>
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

**AA®5450 FIXED WINDOW - BEVEL FACE**  
**1-1/2" Triple Glazed - Aluminum Glazing Spacer**

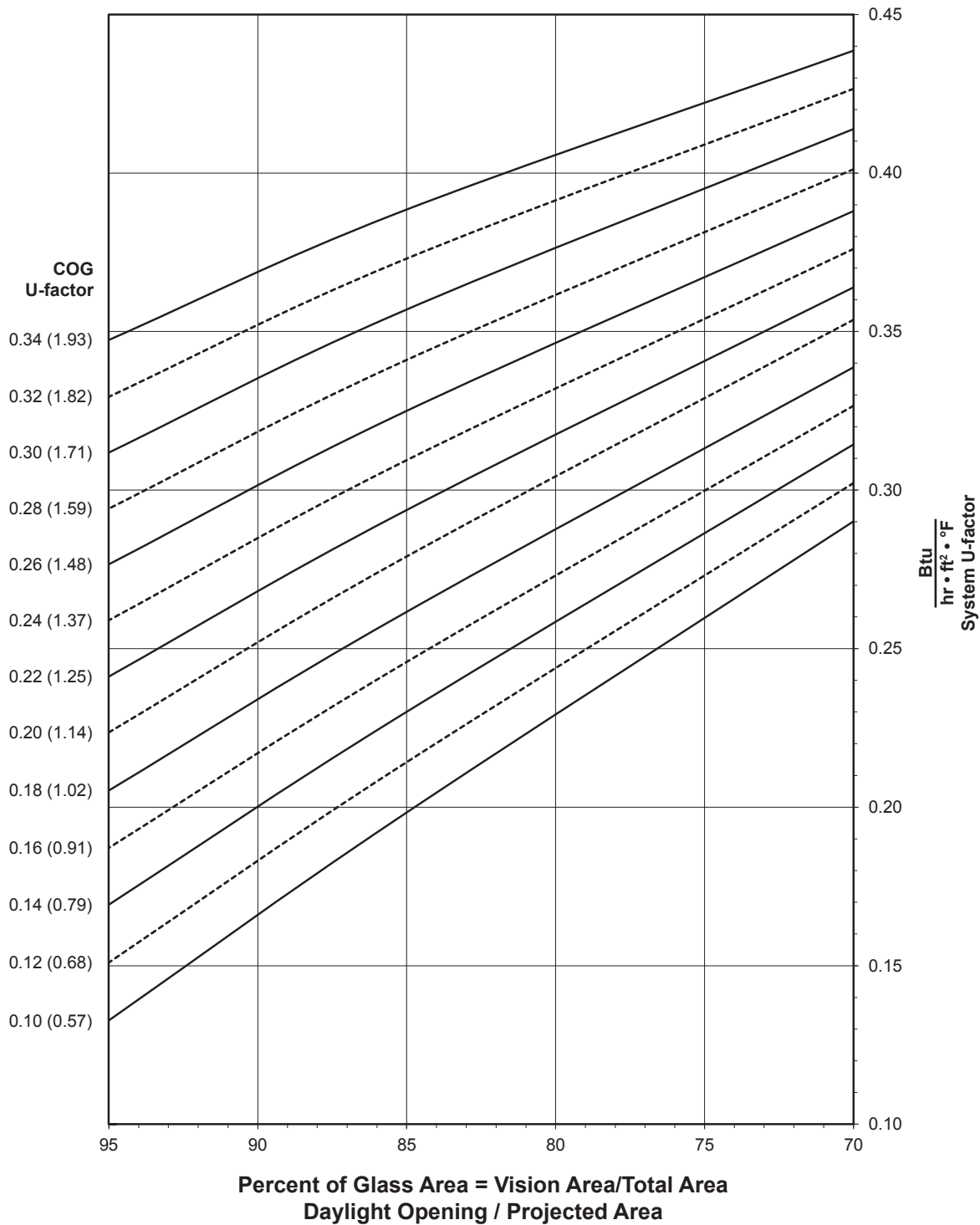
**Note:**

Values in parentheses are metric.

COG = Center of Glass.

Charts are generated per AAMA 507

**System U-factor vs Percent of Glass Area**

**Notes for System U-factor, SHGC and VT charts:**

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

Glass properties are based on center of glass values and are obtained from your glass supplier.

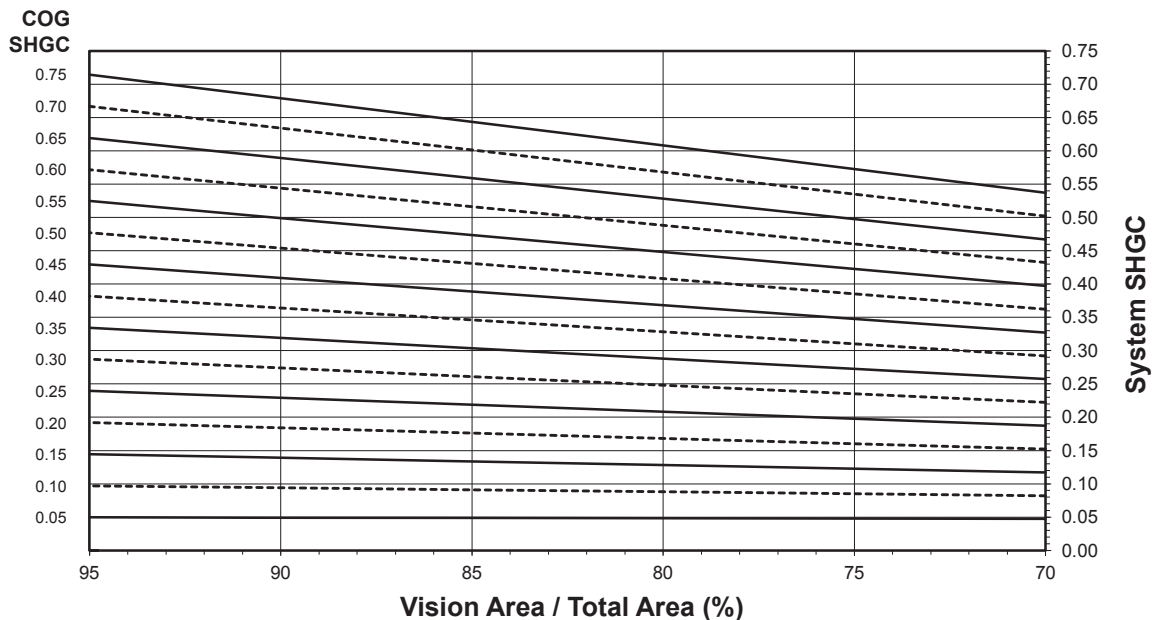
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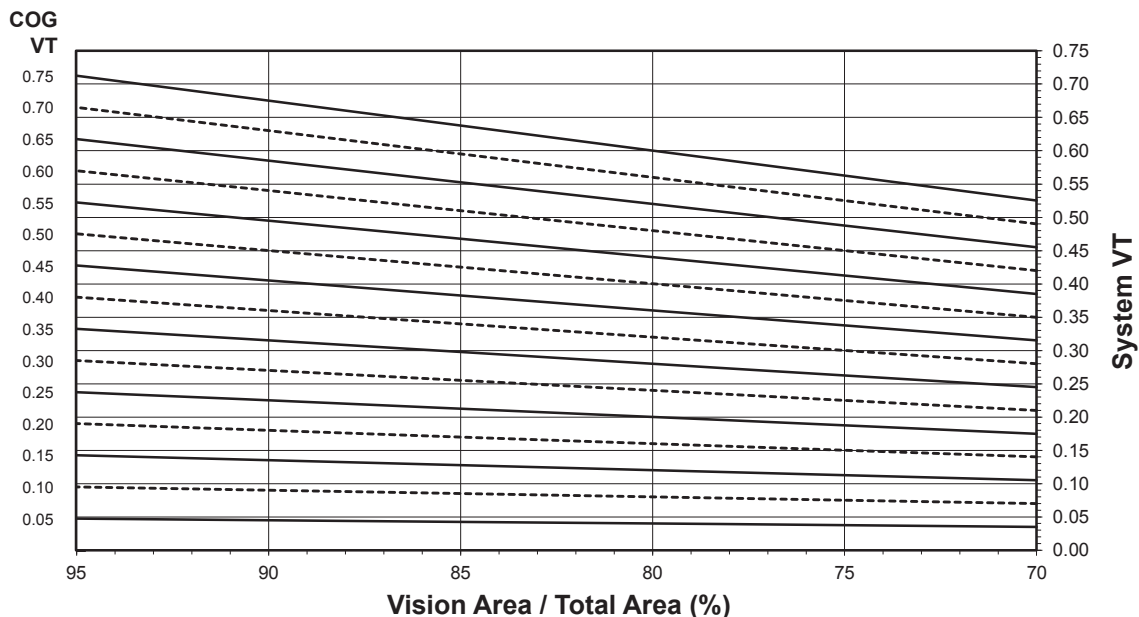
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**AA®5450 FIXED WINDOW - BEVEL FACE**  
**1-1/2" Triple Glazed - Aluminum Glazing Spacer**

**System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area**



**System Visible Transmittance (VT) vs Percent of Vision Area**



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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## AA®5450 FIXED WINDOW - BEVEL FACE 1-1/2" Triple Glazed Aluminum Glazing Spacer

### Thermal Transmittance <sup>1</sup> (BTU/hr • ft<sup>2</sup> • °F)

Glass U-Factor <sup>3</sup>	Overall U-Factor <sup>4</sup>
0.34	0.39
0.32	0.37
0.30	0.36
0.28	0.34
0.26	0.32
0.24	0.31
0.22	0.29
0.20	0.28
0.18	0.26
0.16	0.24
0.14	0.23
0.12	0.21
0.10	0.20

**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 1,200 mm wide by 1,500 mm high (47-1/4" by 59-1/16").

### SHGC Matrix <sup>2</sup>

Glass SHGC <sup>3</sup>	Overall SHGC <sup>4</sup>
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	0.30
0.30	0.26
0.25	0.22
0.20	0.18
0.15	0.13
0.10	0.09
0.05	0.05

### Visible Transmittance <sup>2</sup>

Glass VT <sup>3</sup>	Overall VT <sup>4</sup>
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

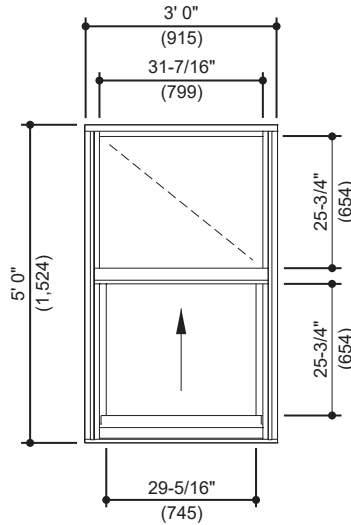
Laws and building and safety codes governing the design and use of Kawneer products, such as glazed entrance, window, and curtain wall products, vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

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



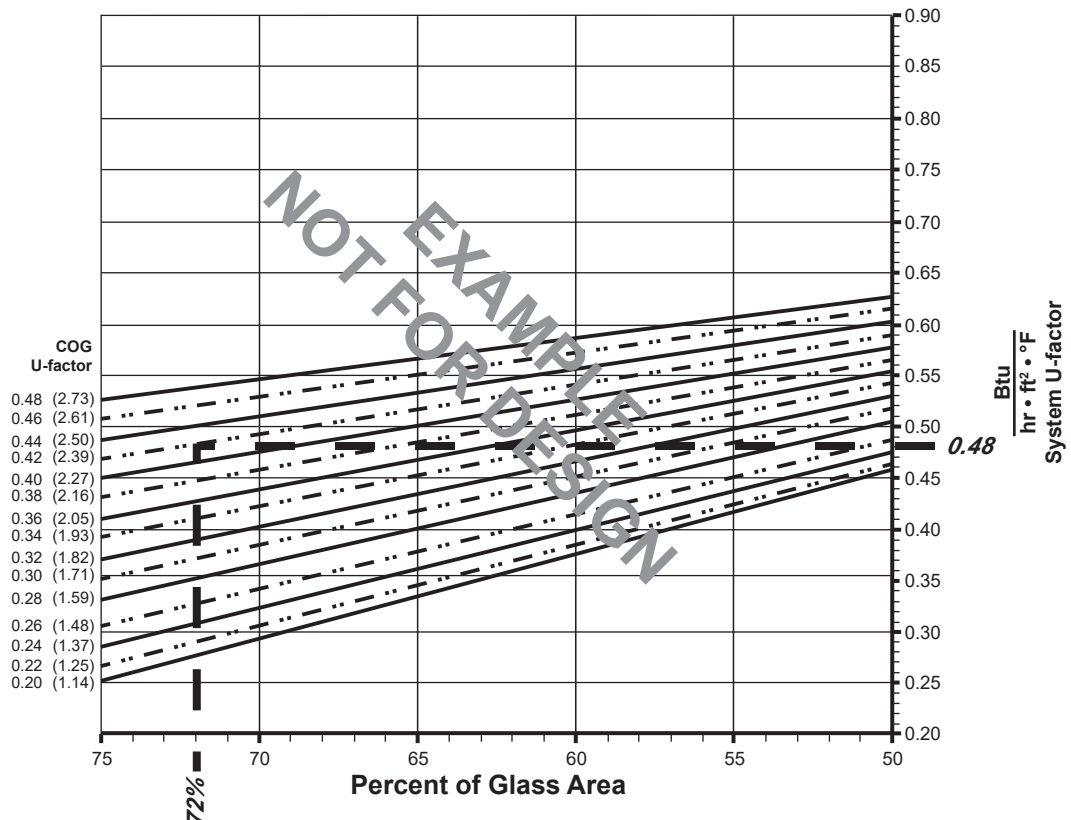
Example Glass U-Factor = 0.42 Btu/hr • ft<sup>2</sup> • °F

Total Daylight Opening = (31-7/16" • 25-3/4") + (29-5/16" • 25-3/4") = 10.86 ft<sup>2</sup>

Total Projected Area = 3' 0" • 5' 0" = 15 ft<sup>2</sup>

Percent of Glass = (Total Daylight Opening ÷ Total Projected Area)100  
= (10.86 ÷ 15)100 = 72%

**System U-factor vs Percent of Glass Area**



Based on 72% glass and center of glass (COG) U-factor of 0.42  
System U-factor is equal to 0.48 Btu/hr • ft<sup>2</sup> • °F

## AA®5450 SINGLE HUNG WINDOW

### 1" Double Glazed - Aluminum Glazing Spacer - 10lb. Sill

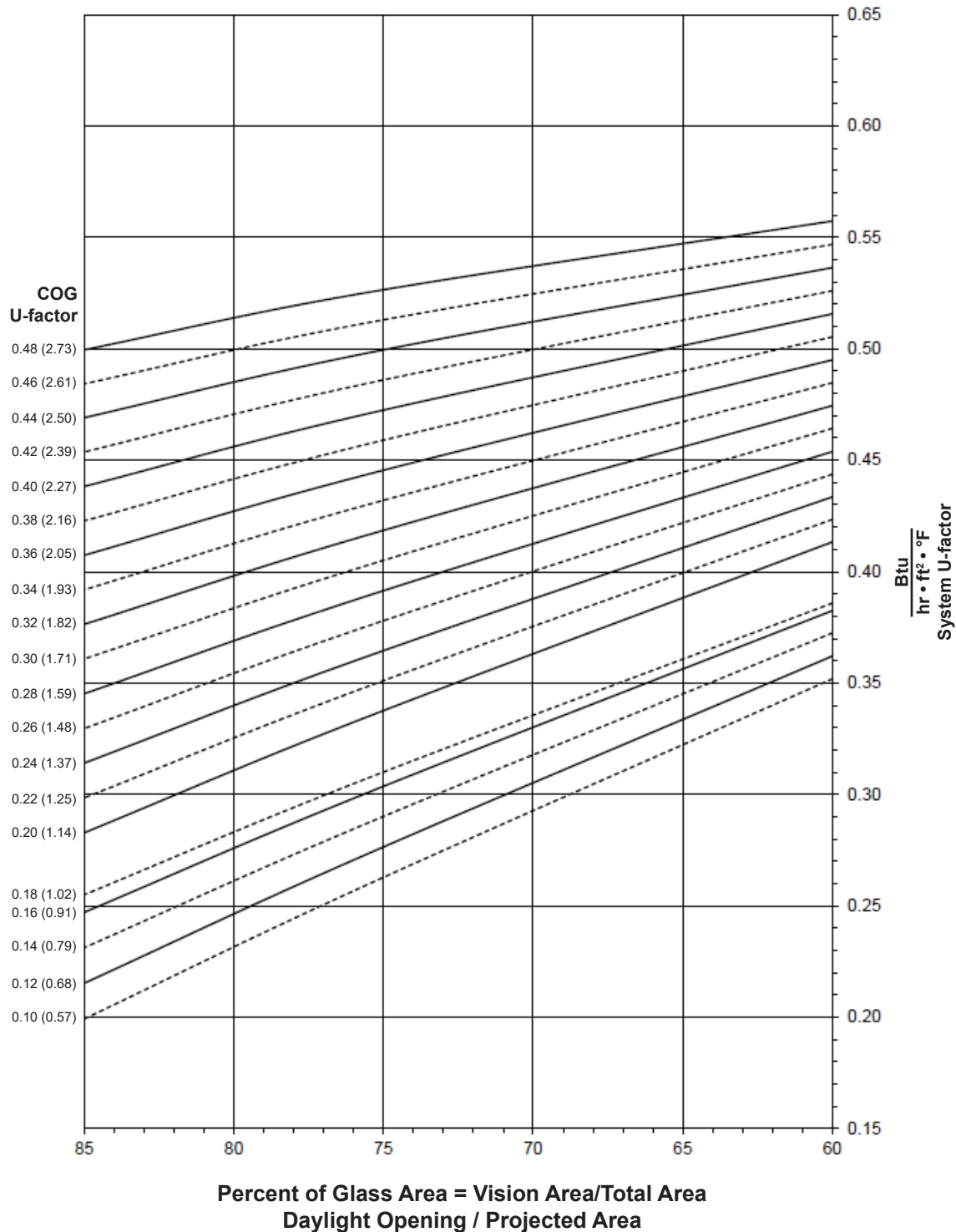
**Note:**

Values in parentheses are metric.

COG = Center of Glass.

Charts are generated per AAMA 507

#### System U-factor vs Percent of Glass Area

**Notes for System U-factor, SHGC and VT charts:**

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

Glass properties are based on center of glass values and are obtained from your glass supplier.

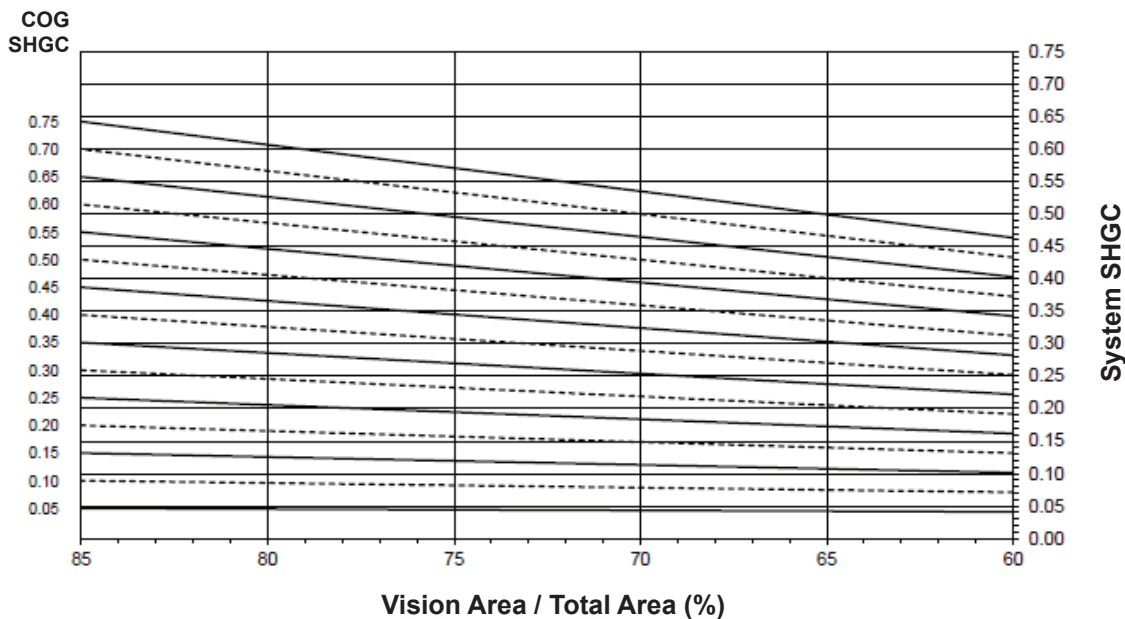
Laws and building and safety codes governing the design and use of Kawneer products, such as glazed entrance, window, and curtain wall products, vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.

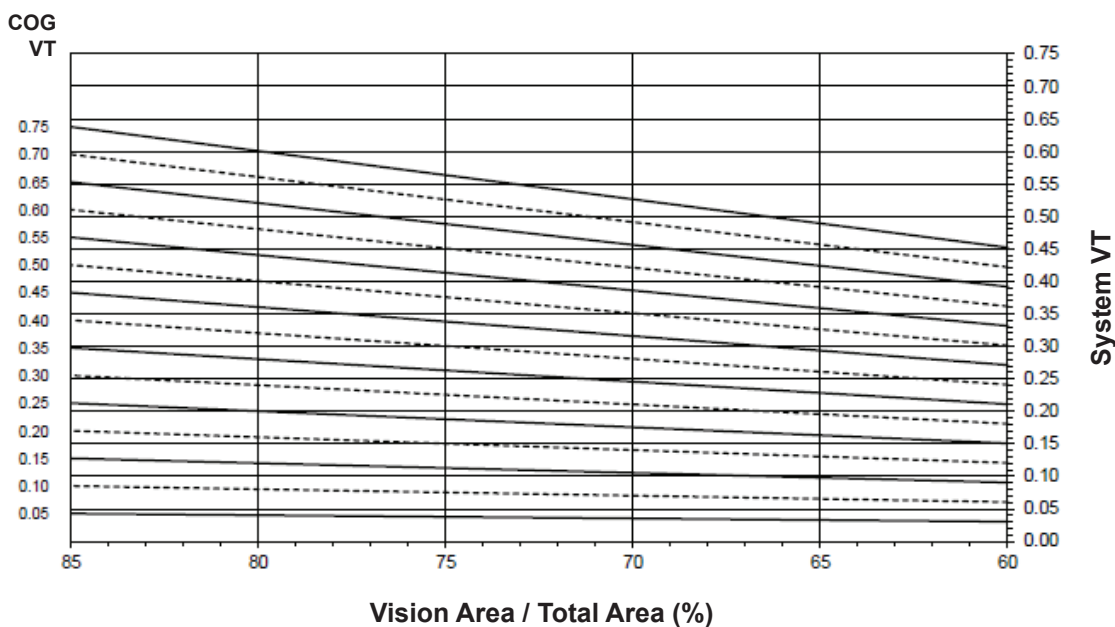
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**AA®5450 SINGLE HUNG WINDOW**  
**1" Double Glazed - Aluminum Glazing Spacer - 10lb. Sill**

**System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area**



**System Visible Transmittance (VT) vs Percent of Vision Area**



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

Glass U-Factor <sup>3</sup>	Overall U-Factor <sup>4</sup>
0.48	0.53
0.46	0.51
0.44	0.50
0.42	0.48
0.40	0.47
0.38	0.46
0.36	0.44
0.34	0.43
0.32	0.42
0.30	0.40
0.28	0.39
0.26	0.38
0.24	0.36
0.22	0.35
0.20	0.33
0.18	0.31
0.16	0.30
0.14	0.29
0.12	0.27
0.10	0.26

**AA®5450 SINGLE HUNG WINDOW**  
**1" Double Glazed**  
**Aluminum Glazing Spacer**  
**10lb. Sill**

**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 1,200 mm wide by 1,500 mm high (47-1/4" by 59-1/16").

SHGC Matrix <sup>2</sup>

Glass SHGC <sup>3</sup>	Overall SHGC <sup>4</sup>
0.75	0.57
0.70	0.54
0.65	0.50
0.60	0.46
0.55	0.42
0.50	0.39
0.45	0.35
0.40	0.31
0.35	0.27
0.30	0.23
0.25	0.20
0.20	0.16
0.15	0.12
0.10	0.08
0.05	0.04

Visible Transmittance <sup>2</sup>

Glass VT <sup>3</sup>	Overall VT <sup>4</sup>
0.75	0.57
0.70	0.53
0.65	0.49
0.60	0.45
0.55	0.42
0.50	0.38
0.45	0.34
0.40	0.30
0.35	0.27
0.30	0.23
0.25	0.19
0.20	0.15
0.15	0.11
0.10	0.08
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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**AA®5450 SINGLE HUNG WINDOW - BEVEL FACE**  
**1" Double Glazed - Aluminum Glazing Spacer - 10lb. Sill**

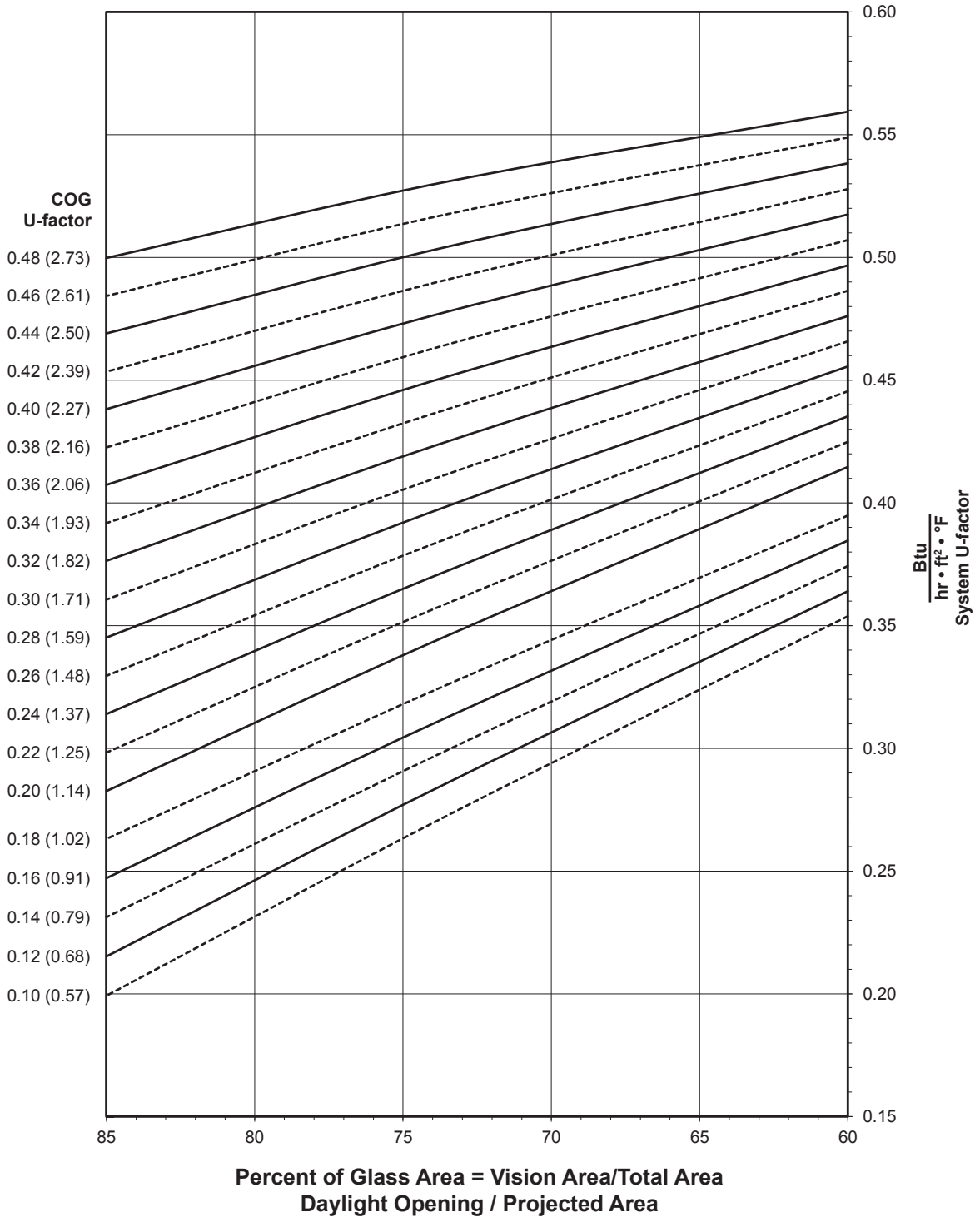
**Note:**

Values in parentheses are metric.

COG = Center of Glass.

Charts are generated per AAMA 507

**System U-factor vs Percent of Glass Area**



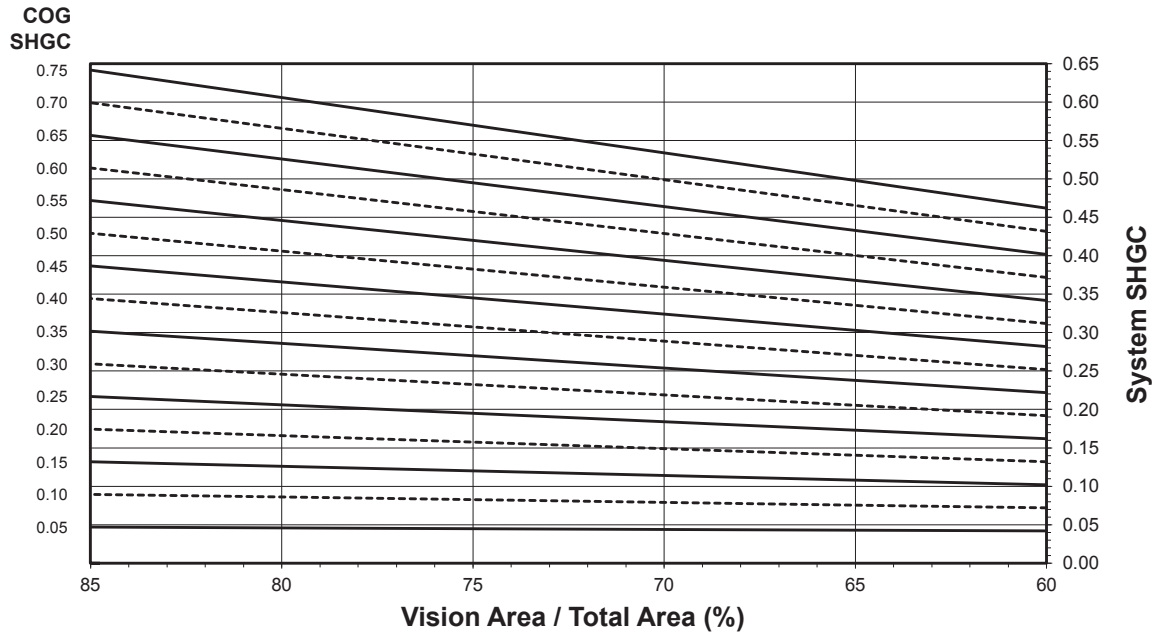
**Notes for System U-factor, SHGC and VT charts:**

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

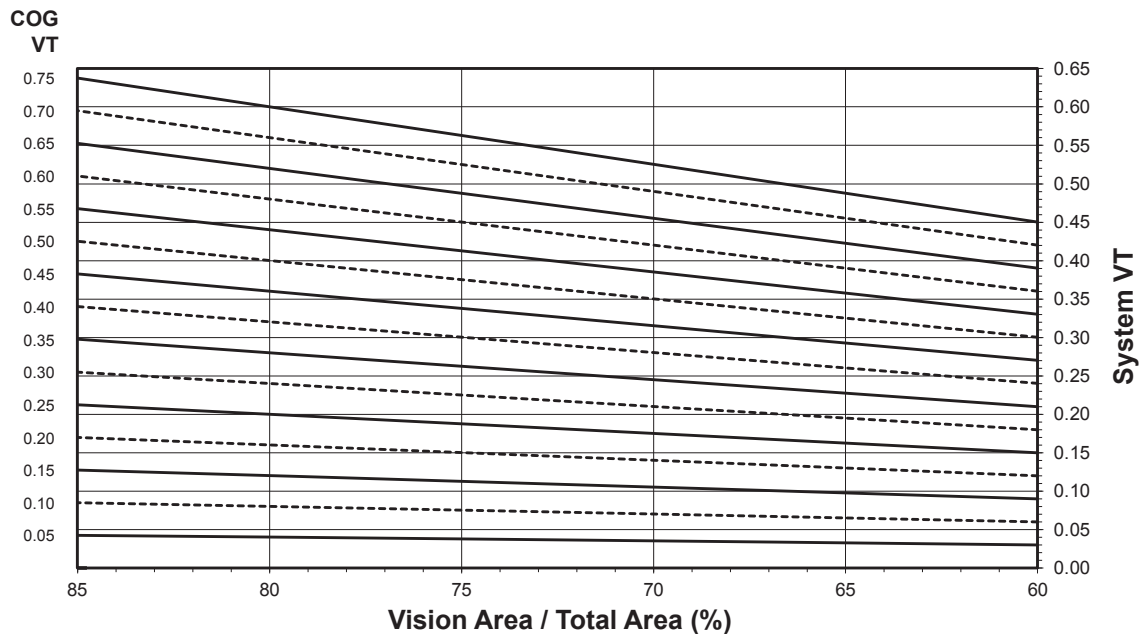
Glass properties are based on center of glass values and are obtained from your glass supplier.

**AA®5450 SINGLE HUNG WINDOW - BEVEL FACE**  
**1" Double Glazed - Aluminum Glazing Spacer - 10lb. Sill**

**System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area**



**System Visible Transmittance (VT) vs Percent of Vision Area**



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**Thermal Transmittance**<sup>1</sup> (BTU/hr • ft<sup>2</sup> • °F)

Glass U-Factor <sup>3</sup>	Overall U-Factor <sup>4</sup>
0.48	0.53
0.46	0.52
0.44	0.50
0.42	0.49
0.40	0.48
0.38	0.46
0.36	0.45
0.34	0.44
0.32	0.43
0.30	0.41
0.28	0.40
0.26	0.39
0.24	0.37
0.22	0.36
0.20	0.35
0.18	0.33
0.16	0.31
0.14	0.30
0.12	0.29
0.10	0.27

**AA®5450 SINGLE HUNG WINDOW**  
**- BEVEL FACE**  
**1" Double Glazed**  
**Aluminum Glazing Spacer**  
**10lb. Sill**

**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 1,200 mm wide by 1,500 mm high (47-1/4" by 59-1/16").

**SHGC Matrix**<sup>2</sup>

Glass SHGC <sup>3</sup>	Overall SHGC <sup>4</sup>
0.75	0.56
0.70	0.52
0.65	0.49
0.60	0.45
0.55	0.41
0.50	0.38
0.45	0.34
0.40	0.30
0.35	0.26
0.30	0.23
0.25	0.19
0.20	0.15
0.15	0.12
0.10	0.08
0.05	0.04

**Visible Transmittance**<sup>2</sup>

Glass VT <sup>3</sup>	Overall VT <sup>4</sup>
0.75	0.55
0.70	0.51
0.65	0.48
0.60	0.44
0.55	0.40
0.50	0.37
0.45	0.33
0.40	0.29
0.35	0.26
0.30	0.22
0.25	0.18
0.20	0.15
0.15	0.11
0.10	0.07
0.05	0.04



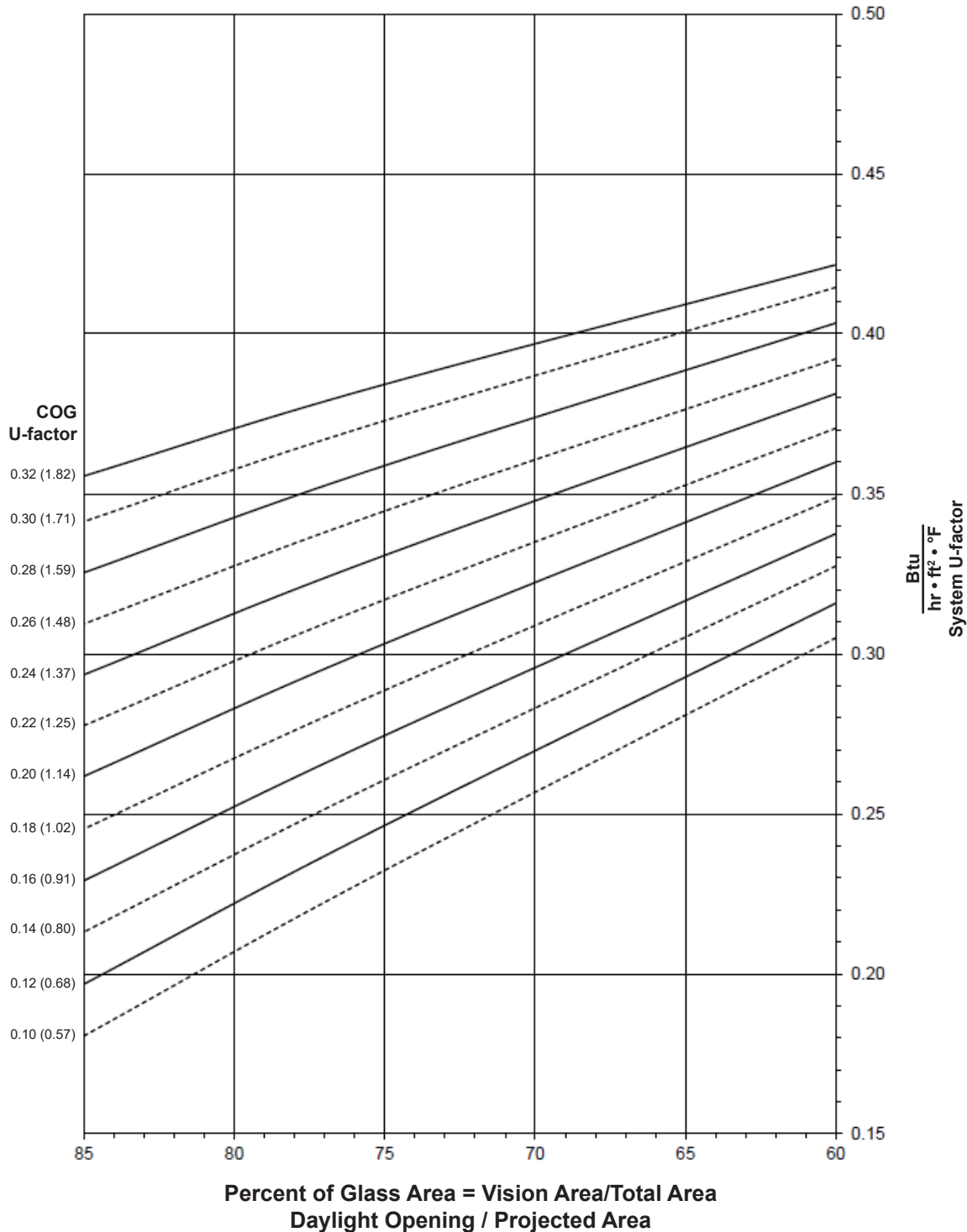
**AA®5450 SINGLE HUNG WINDOW**  
**1-1/2" Triple Glazed - Aluminum Glazing Spacer - 10lb. Sill**

**Note:**

Values in parentheses are metric.

COG = Center of Glass.

Charts are generated per AAMA 507

**System U-factor vs Percent of Glass Area****Notes for System U-factor, SHGC and VT charts:**

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

Glass properties are based on center of glass values and are obtained from your glass supplier.

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.

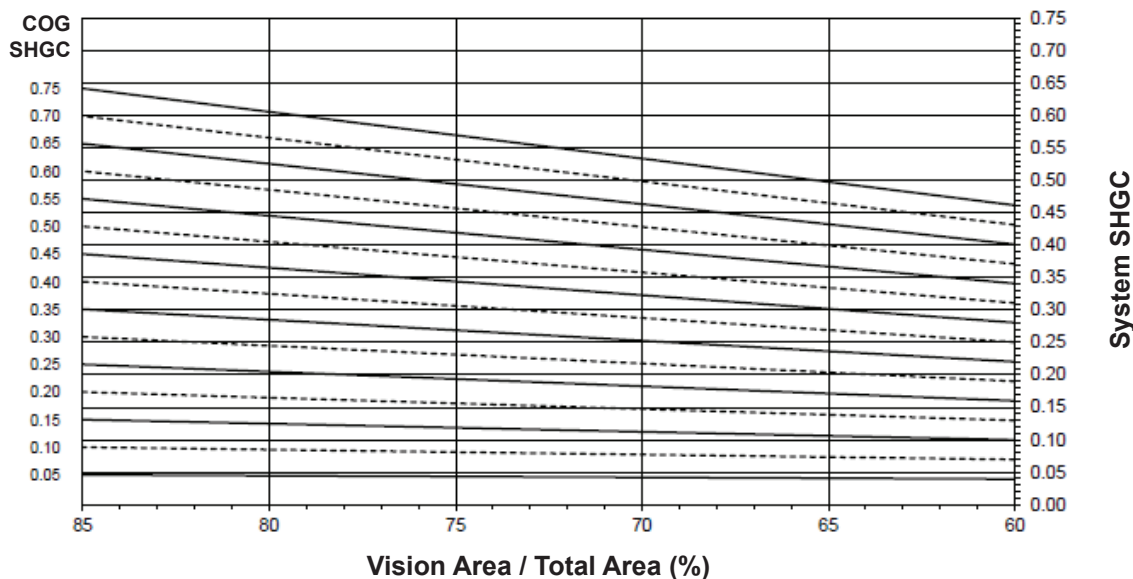
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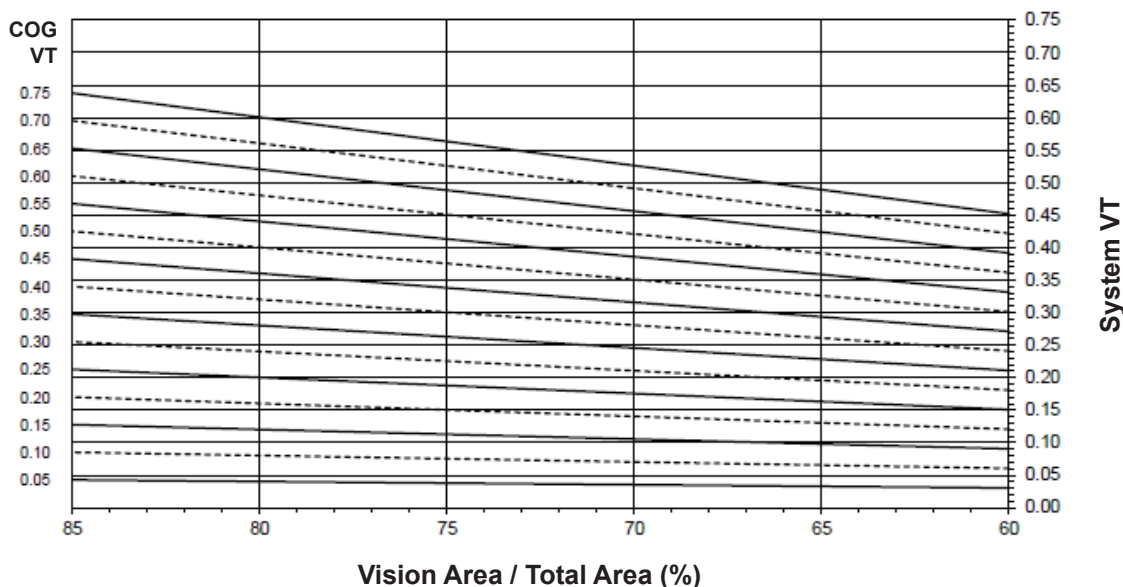


**AA®5450 SINGLE HUNG WINDOW**  
**1-1/2" Triple Glazed - Aluminum Glazing Spacer - 10lb. Sill**

**System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area**



**System Visible Transmittance (VT) vs Percent of Vision Area**



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

Glass U-Factor <sup>3</sup>	Overall U-Factor <sup>4</sup>
0.32	0.38
0.30	0.37
0.28	0.36
0.26	0.34
0.24	0.33
0.22	0.31
0.20	0.30
0.18	0.29
0.16	0.27
0.14	0.26
0.12	0.24
0.10	0.23

**AA®5450 SINGLE HUNG WINDOW**  
**1-1/2" Triple Glazed**  
**Aluminum Glazing Spacer**  
**10lb. Sill**

**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 1,200 mm wide by 1,500 mm high (47-1/4" by 59-1/16").

SHGC Matrix<sup>2</sup>

Glass SHGC <sup>3</sup>	Overall Glass U-Factor <sup>4</sup>
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	0.13
0.10	0.09
0.05	0.05

Visible Transmittance<sup>2</sup>

Glass VT <sup>3</sup>	Overall VT <sup>4</sup>
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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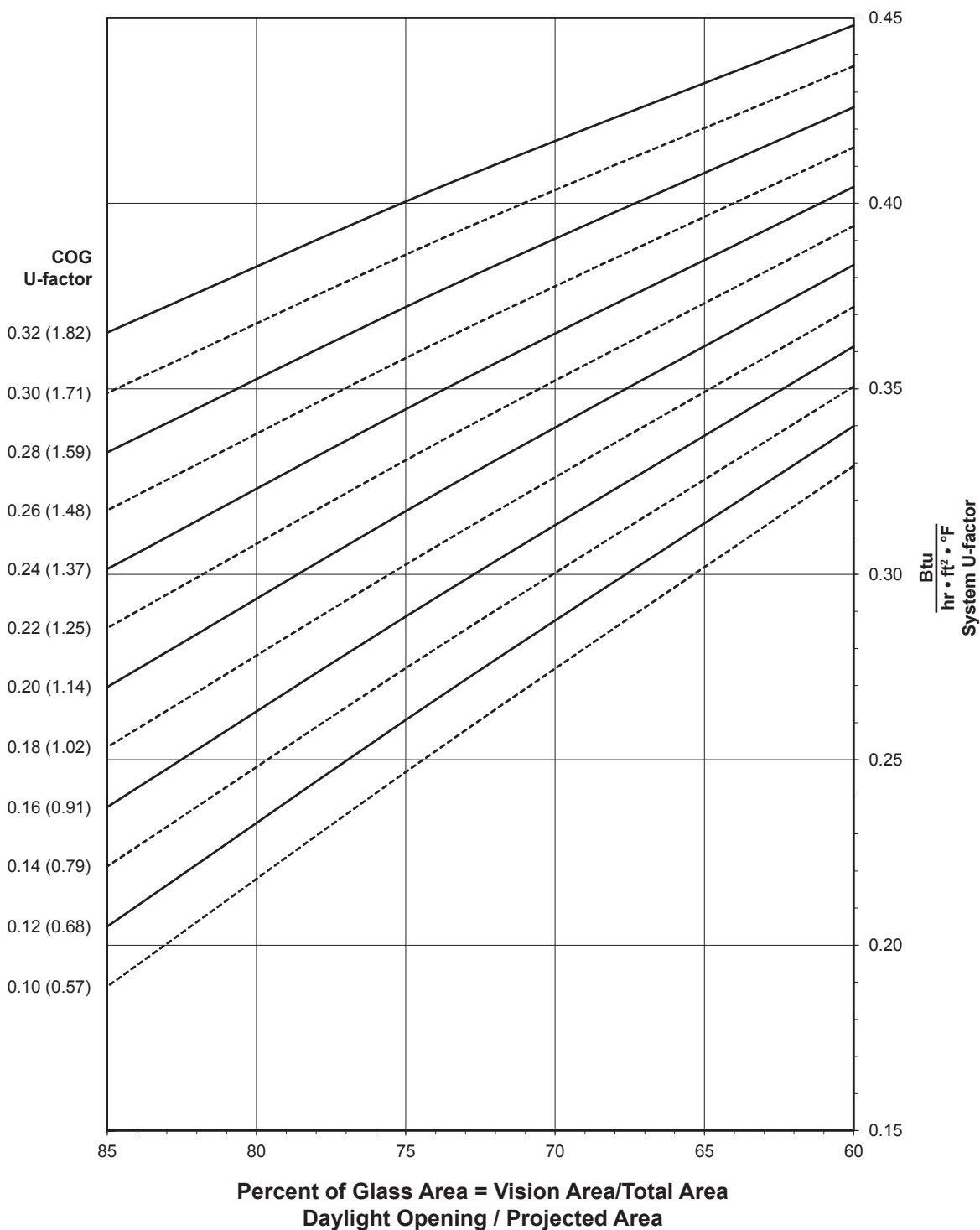
**AA®5450 SINGLE HUNG WINDOW - BEVEL FACE**  
**1-1/4" Triple Glazed - Aluminum Glazing Spacer - 10lb. Sill**

**Note:**

Values in parentheses are metric.

COG = Center of Glass.

Charts are generated per AAMA 507

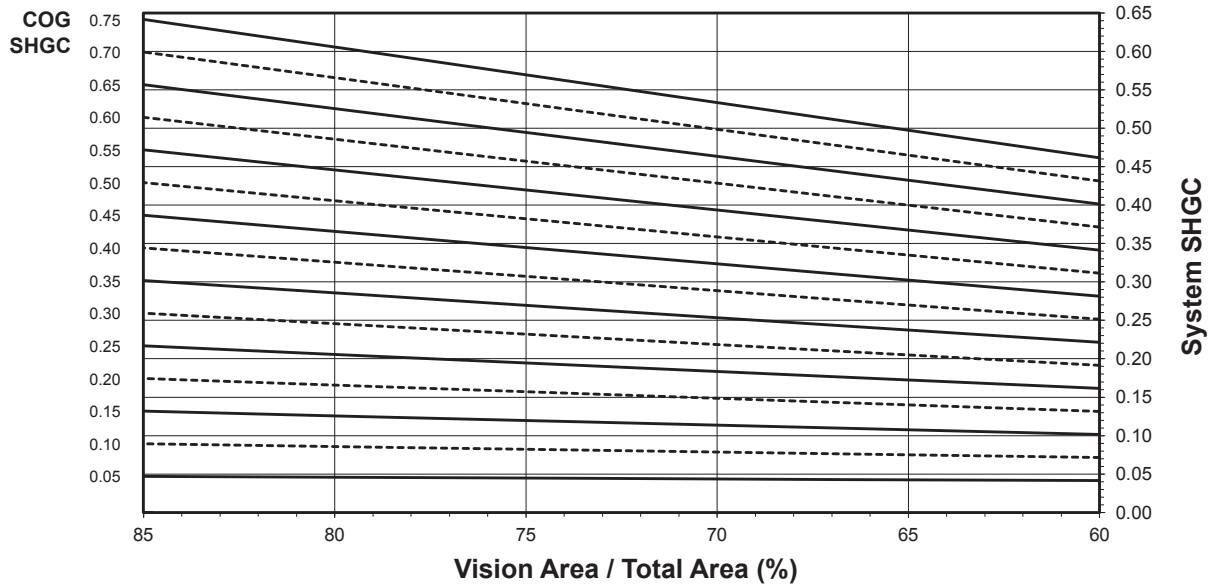
**System U-factor vs Percent of Glass Area****Notes for System U-factor, SHGC and VT charts:**

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

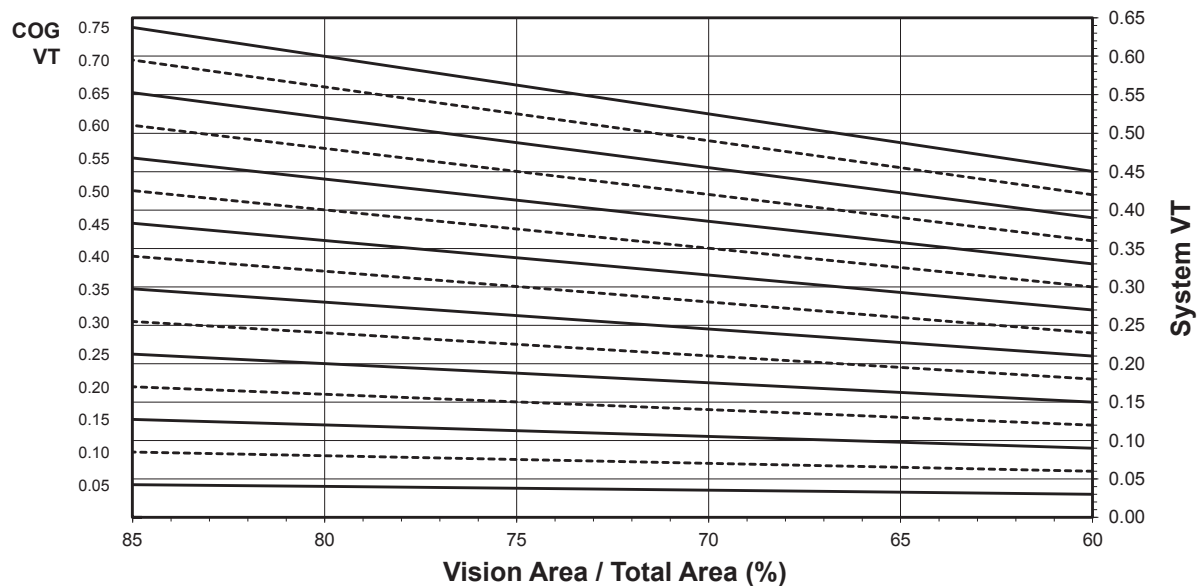
Glass properties are based on center of glass values and are obtained from your glass supplier.

**AA®5450 SINGLE HUNG WINDOW - BEVEL FACE**  
**1-1/4" Triple Glazed - Aluminum Glazing Spacer - 10lb. Sill**

**System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area**



**System Visible Transmittance (VT) vs Percent of Vision Area**



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**AA®5450 SINGLE HUNG WINDOW  
- BEVEL FACE  
1-1/4" Triple Glazed  
Aluminum Glazing Spacer  
10lb. Sill**

**Thermal Transmittance <sup>1</sup> (BTU/hr • ft<sup>2</sup> • °F)**

Glass U-Factor <sup>3</sup>	Overall U-Factor <sup>4</sup>
0.32	0.41
0.30	0.39
0.28	0.38
0.26	0.36
0.24	0.35
0.22	0.34
0.20	0.32
0.18	0.31
0.16	0.30
0.14	0.28
0.12	0.27
0.10	0.26

**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 1,200 mm wide by 1,500 mm high (47-1/4" by 59-1/16").

**SHGC Matrix <sup>2</sup>**

Glass SHGC <sup>3</sup>	Overall SHGC <sup>4</sup>
0.75	0.56
0.70	0.52
0.65	0.48
0.60	0.45
0.55	0.41
0.50	0.37
0.45	0.34
0.40	0.30
0.35	0.26
0.30	0.23
0.25	0.19
0.20	0.15
0.15	0.12
0.10	0.08
0.05	0.04

**Visible Transmittance <sup>2</sup>**

Glass VT <sup>3</sup>	Overall VT <sup>4</sup>
0.75	0.55
0.70	0.51
0.65	0.48
0.60	0.44
0.55	0.40
0.50	0.37
0.45	0.33
0.40	0.29
0.35	0.26
0.30	0.22
0.25	0.18
0.20	0.15
0.15	0.11
0.10	0.07
0.05	0.04

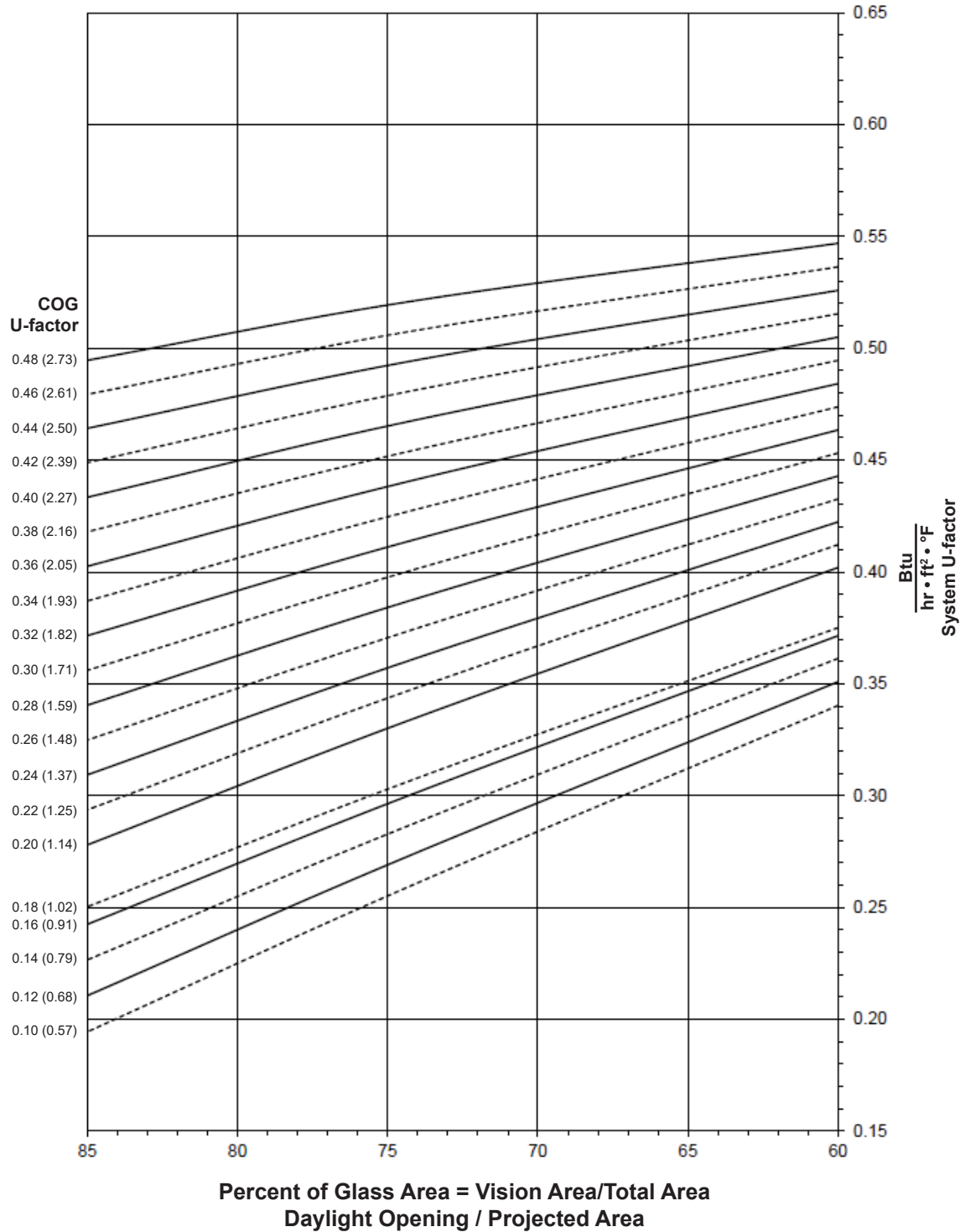
**AA®5450 SINGLE HUNG WINDOW**  
**1" Double Glazed - Aluminum Glazing Spacer - 15lb. Sill**

**Note:**

Values in parentheses are metric.

COG = Center of Glass.

Charts are generated per AAMA 507

**System U-factor vs Percent of Glass Area****Notes for System U-factor, SHGC and VT charts:**

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

Glass properties are based on center of glass values and are obtained from your glass supplier.

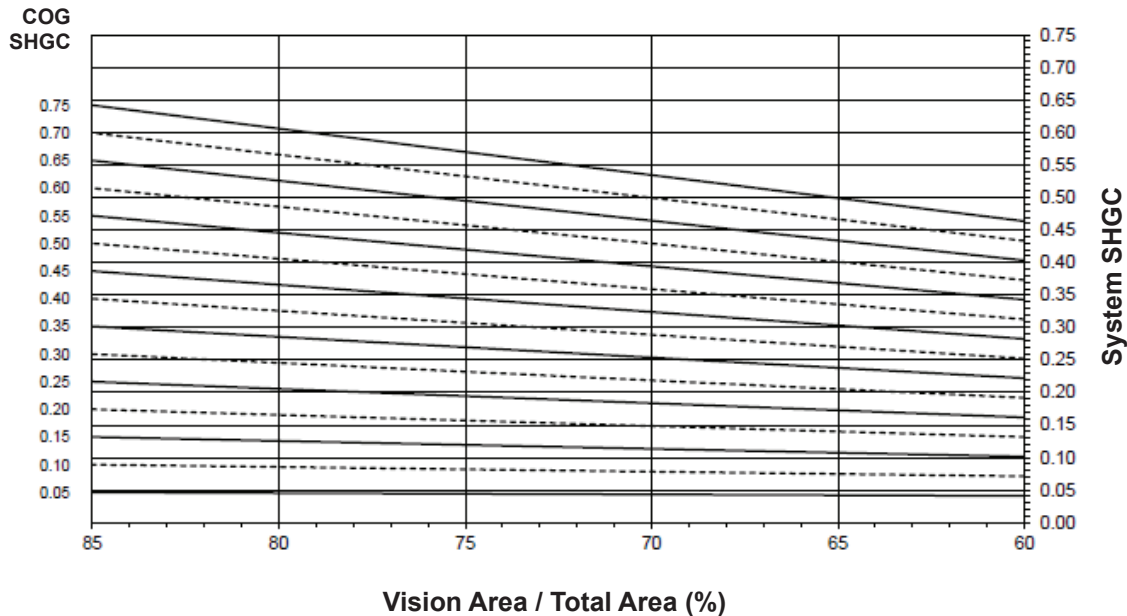
Laws and building and safety codes governing the design and use of Kawneer products, such as glazed entrance, window, and curtain wall products, vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

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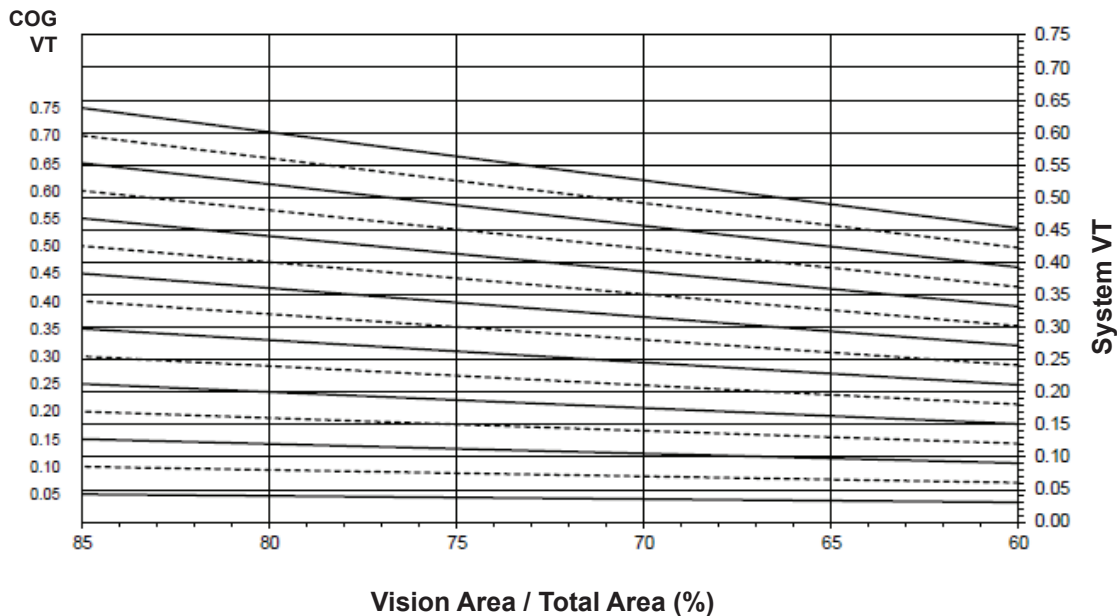
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**AA®5450 SINGLE HUNG WINDOW**  
**1" Double Glazed - Aluminum Glazing Spacer - 15lb. Sill**

**System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area**



**System Visible Transmittance (VT) vs Percent of Vision Area**



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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**Thermal Transmittance** <sup>1</sup> (BTU/hr • ft<sup>2</sup> • °F)

Glass U-Factor <sup>3</sup>	Overall U-Factor <sup>4</sup>
0.48	0.52
0.46	0.51
0.44	0.49
0.42	0.48
0.40	0.47
0.38	0.45
0.36	0.44
0.34	0.43
0.32	0.41
0.30	0.40
0.28	0.39
0.26	0.37
0.24	0.36
0.22	0.35
0.20	0.33
0.18	0.31
0.16	0.30
0.14	0.29
0.12	0.27
0.10	0.26

**SHGC Matrix** <sup>2</sup>

Glass SHGC <sup>3</sup>	Overall SHGC <sup>4</sup>
0.75	0.56
0.70	0.53
0.65	0.49
0.60	0.45
0.55	0.42
0.50	0.38
0.45	0.34
0.40	0.30
0.35	0.27
0.30	0.23
0.25	0.19
0.20	0.16
0.15	0.12
0.10	0.08
0.05	0.04

**AA®5450 SINGLE HUNG WINDOW**  
**1" Double Glazed**  
**Aluminum Glazing Spacer**  
**15lb. Sill**

**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 1,200 mm wide by 1,500 mm high (47-1/4" by 59-1/16").

**Visible Transmittance** <sup>2</sup>

Glass VT <sup>3</sup>	Overall VT <sup>4</sup>
0.75	0.56
0.70	0.52
0.65	0.48
0.60	0.45
0.55	0.41
0.50	0.37
0.45	0.33
0.40	0.30
0.35	0.26
0.30	0.22
0.25	0.19
0.20	0.15
0.15	0.11
0.10	0.07
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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**AA®5450 SINGLE HUNG WINDOW - BEVEL FACE**  
**1" Double Glazed - Aluminum Glazing Spacer - 15lb. Sill**

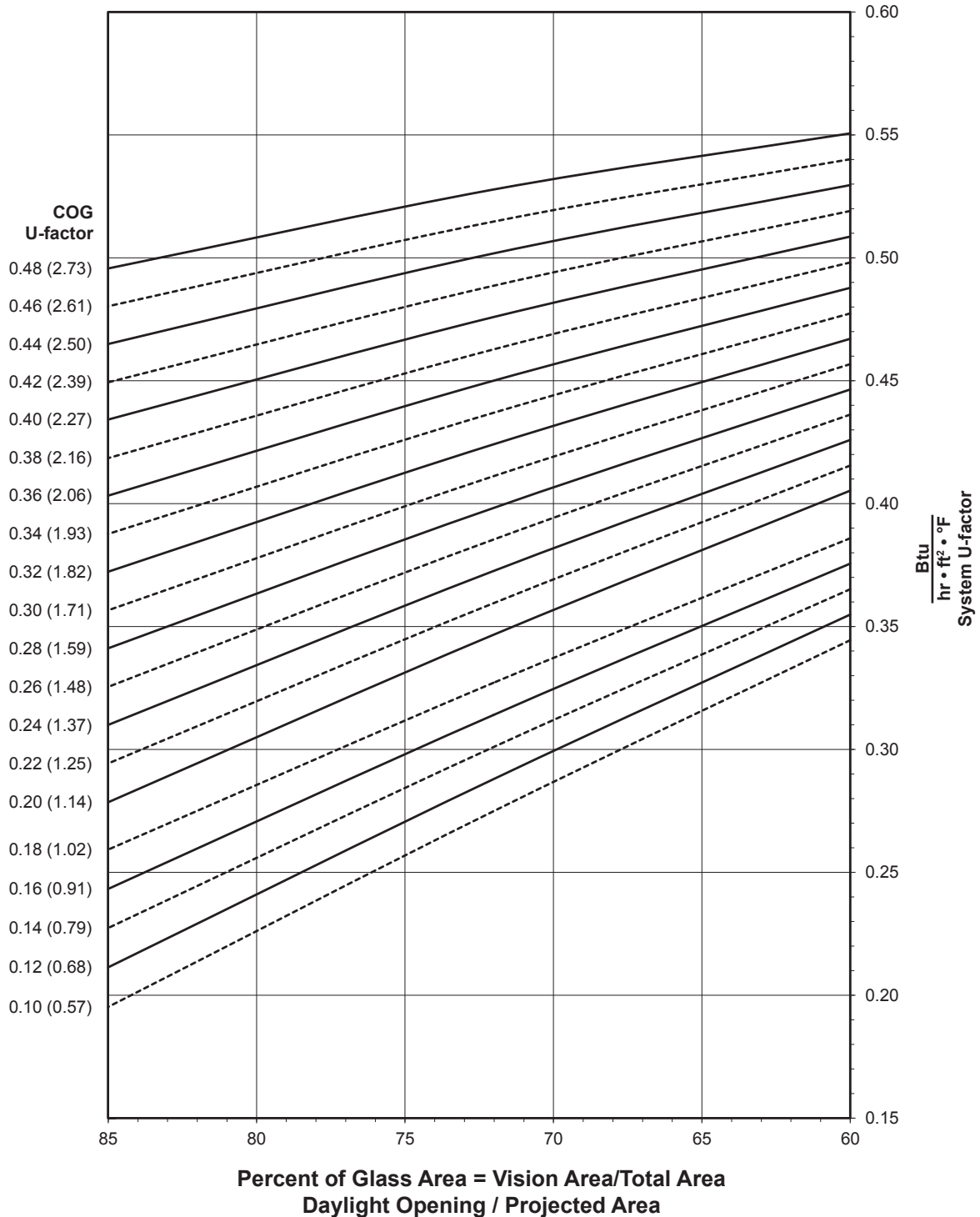
**Note:**

Values in parentheses are metric.

COG = Center of Glass.

Charts are generated per AAMA 507

**System U-factor vs Percent of Glass Area**



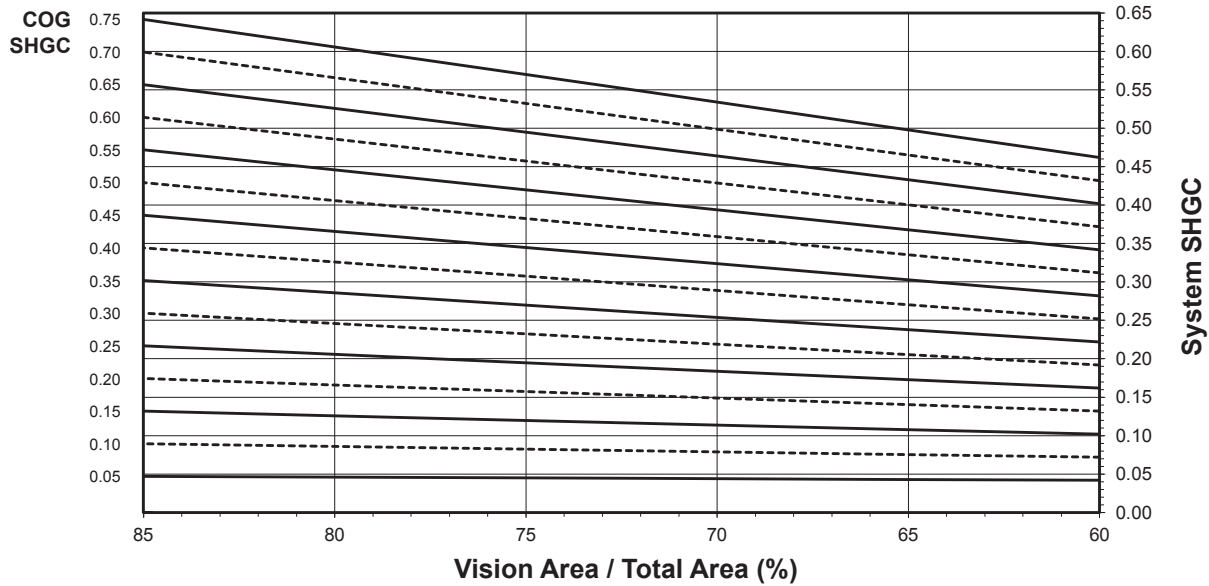
**Notes for System U-factor, SHGC and VT charts:**

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

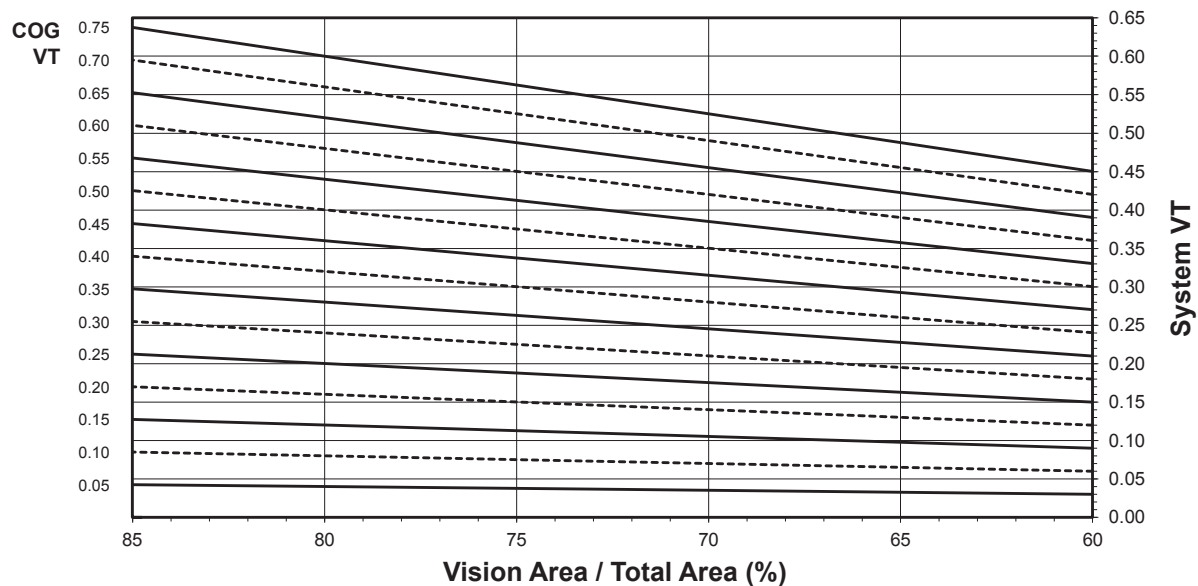
Glass properties are based on center of glass values and are obtained from your glass supplier.

**AA®5450 SINGLE HUNG WINDOW - BEVEL FACE**  
**1" Double Glazed - Aluminum Glazing Spacer - 15lb. Sill**

**System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area**



**System Visible Transmittance (VT) vs Percent of Vision Area**



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**Thermal Transmittance**<sup>1</sup> (BTU/hr • ft<sup>2</sup> • °F)

Glass U-Factor <sup>3</sup>	Overall U-Factor <sup>4</sup>
0.48	0.53
0.46	0.51
0.44	0.50
0.42	0.49
0.40	0.48
0.38	0.46
0.36	0.45
0.34	0.44
0.32	0.42
0.30	0.41
0.28	0.40
0.26	0.39
0.24	0.37
0.22	0.36
0.20	0.35
0.18	0.33
0.16	0.31
0.14	0.30
0.12	0.29
0.10	0.27

**AA®5450 SINGLE HUNG WINDOW**  
**- BEVEL FACE**  
**1" Double Glazed**  
**Aluminum Glazing Spacer**  
**15lb. Sill**

**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 1,200 mm wide by 1,500 mm high (47-1/4" by 59-1/16").

**SHGC Matrix**<sup>2</sup>

Glass SHGC <sup>3</sup>	Overall SHGC <sup>4</sup>
0.75	0.55
0.70	0.51
0.65	0.48
0.60	0.44
0.55	0.40
0.50	0.37
0.45	0.33
0.40	0.30
0.35	0.26
0.30	0.22
0.25	0.19
0.20	0.15
0.15	0.12
0.10	0.08
0.05	0.04

**Visible Transmittance**<sup>2</sup>

Glass VT <sup>3</sup>	Overall VT <sup>4</sup>
0.75	0.54
0.70	0.50
0.65	0.47
0.60	0.43
0.55	0.40
0.50	0.36
0.45	0.32
0.40	0.29
0.35	0.25
0.30	0.22
0.25	0.18
0.20	0.14
0.15	0.11
0.10	0.07
0.05	0.04

AA<sup>®</sup>5450 SINGLE HUNG WINDOW

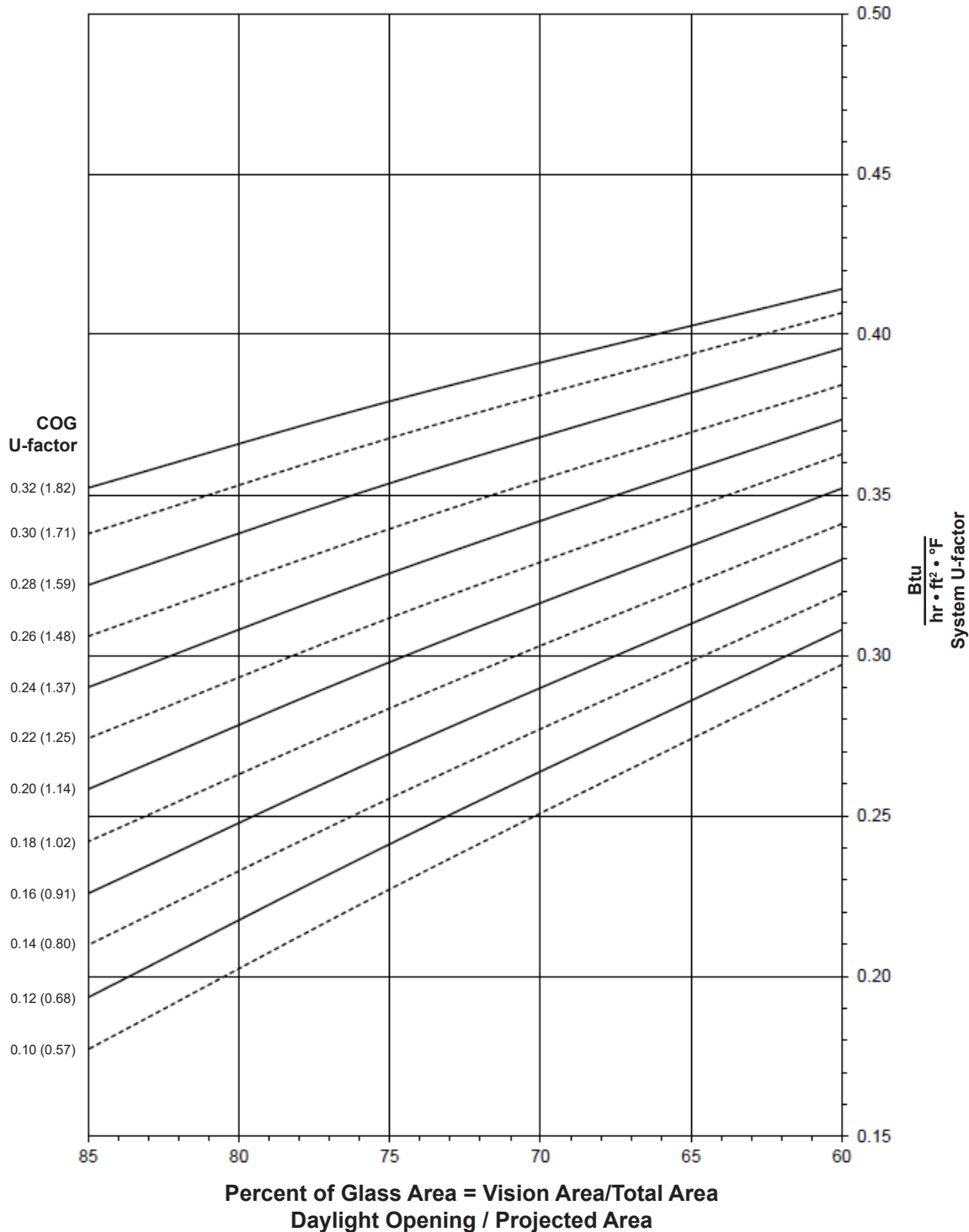
## 1-1/2" Triple Glazed - Aluminum Glazing Spacer - 15lb. Sill

**Note:**

Values in parentheses are metric.

COG = Center of Glass.

Charts are generated per AAMA 507

**System U-factor vs Percent of Glass Area****Notes for System U-factor, SHGC and VT charts:**

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

Glass properties are based on center of glass values and are obtained from your glass supplier.

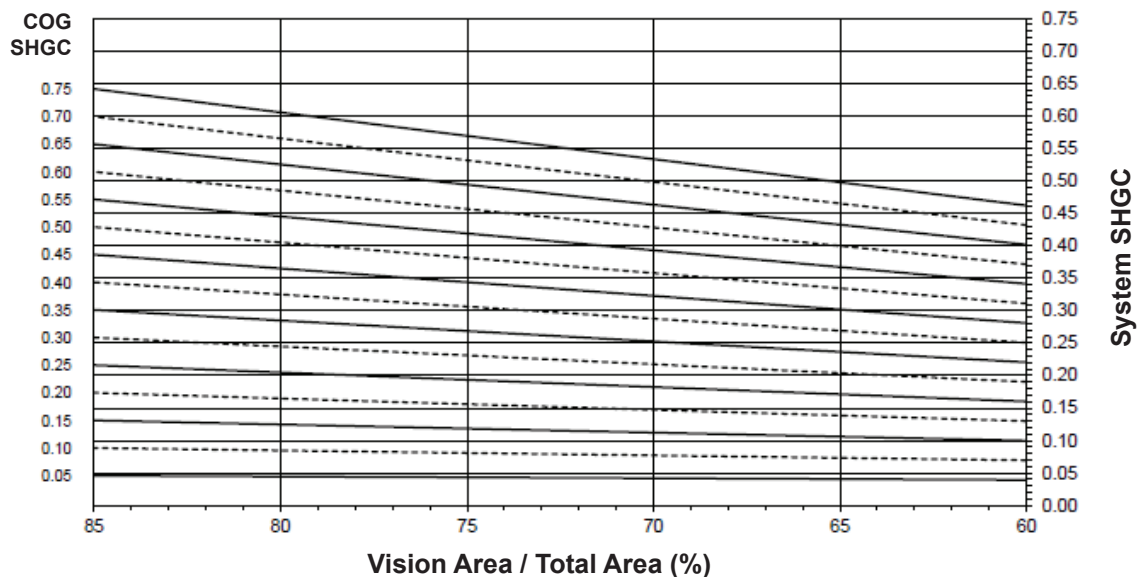
Laws and building and safety codes governing the design and use of Kawneer products, such as glazed entrance, window, and curtain wall products, vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

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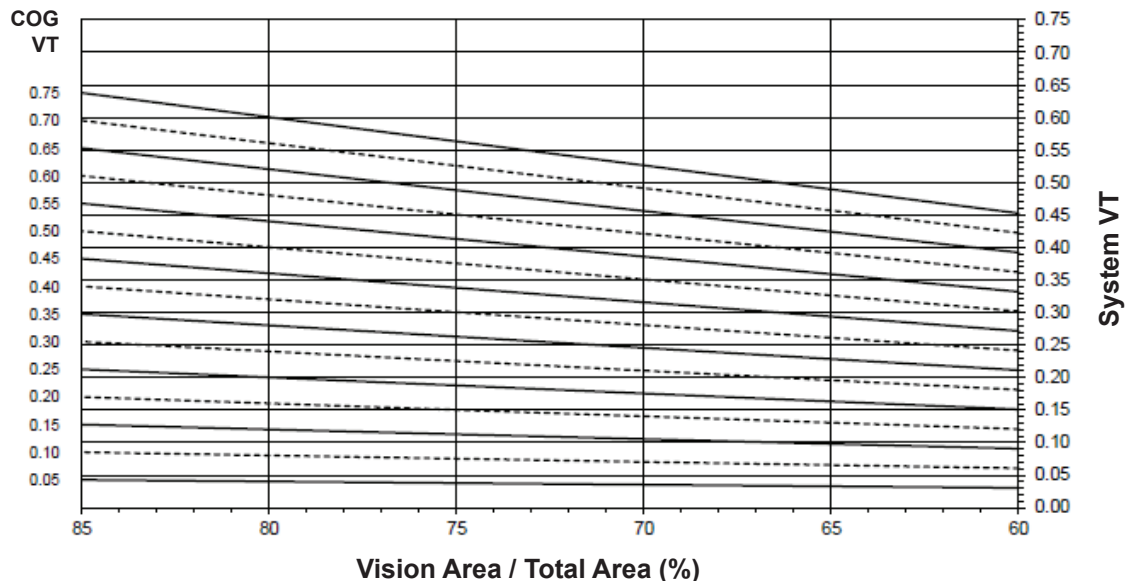
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**AA®5450 SINGLE HUNG WINDOW**  
**1-1/2" Triple Glazed - Aluminum Glazing Spacer - 15lb. Sill**

**System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area**



**System Visible Transmittance (VT) vs Percent of Vision Area**



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

Glass U-Factor <sup>3</sup>	Overall U-Factor <sup>4</sup>
0.32	0.38
0.30	0.37
0.28	0.36
0.26	0.34
0.24	0.33
0.22	0.31
0.20	0.30
0.18	0.29
0.16	0.27
0.14	0.26
0.12	0.24
0.10	0.23

## AA®5450 SINGLE HUNG WINDOW

## 1-1/2" Triple Glazed

## Aluminum Glazing Spacer

## 15lb. Sill

**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 1,200 mm wide by 1,500 mm high (47-1/4" by 59-1/16").

SHGC Matrix<sup>2</sup>

Glass SHGC <sup>3</sup>	Overall Glass U-Factor <sup>4</sup>
0.75	0.56
0.70	0.53
0.65	0.49
0.60	0.45
0.55	0.41
0.50	0.38
0.45	0.34
0.40	0.30
0.35	0.27
0.30	0.23
0.25	0.19
0.20	0.15
0.15	0.12
0.10	0.08
0.05	0.04

Visible Transmittance<sup>2</sup>

Glass VT <sup>3</sup>	Overall VT <sup>4</sup>
0.75	0.59
0.70	0.52
0.65	0.48
0.60	0.45
0.55	0.41
0.50	0.37
0.45	0.33
0.40	0.30
0.35	0.26
0.30	0.22
0.25	0.19
0.20	0.15
0.15	0.11
0.10	0.07
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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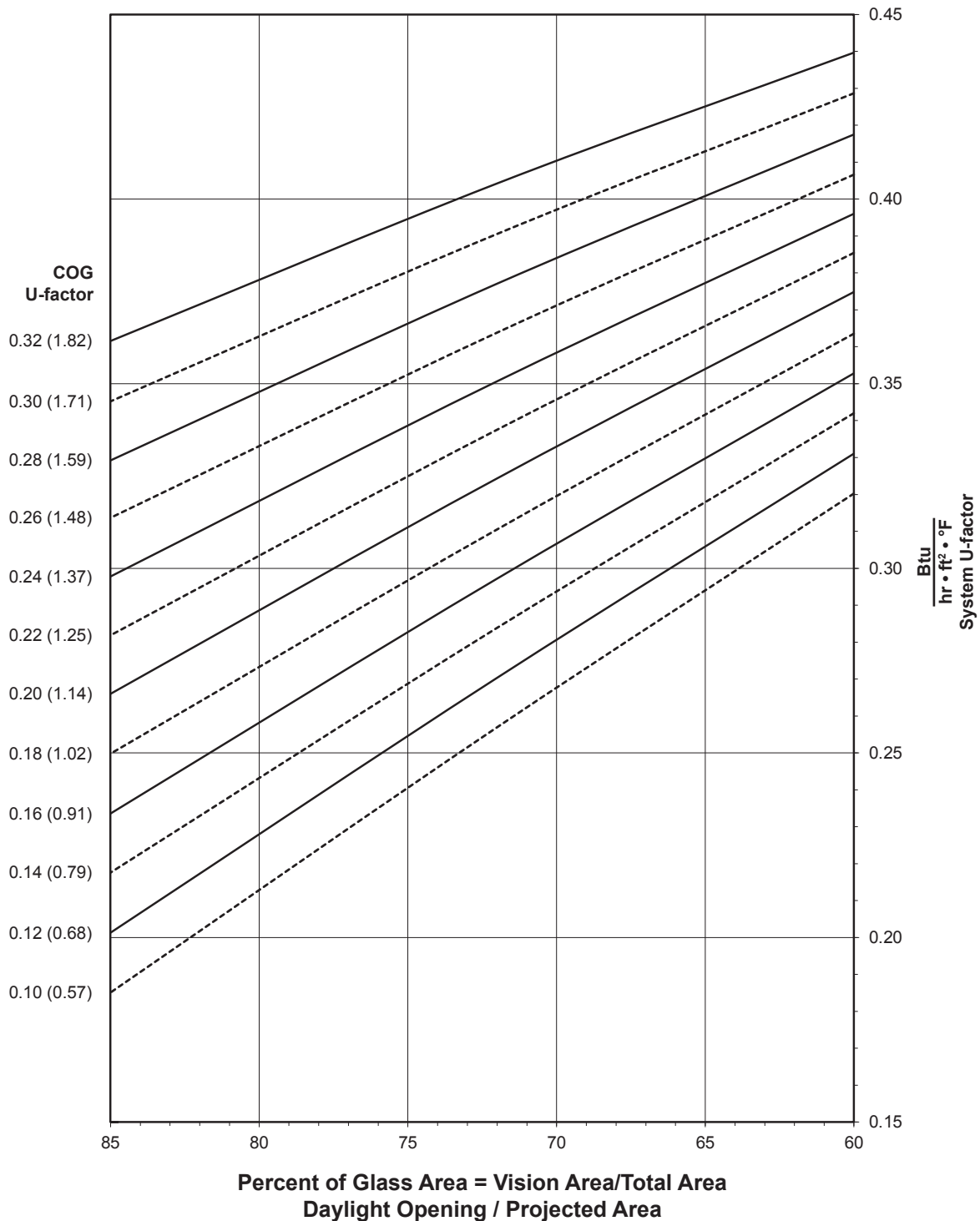
## AA®5450 SINGLE HUNG WINDOW - BEVEL FACE 1-1/4" Triple Glazed - Aluminum Glazing Spacer - 15lb. Sill

**Note:**

Values in parentheses are metric.

COG = Center of Glass.

Charts are generated per AAMA 507

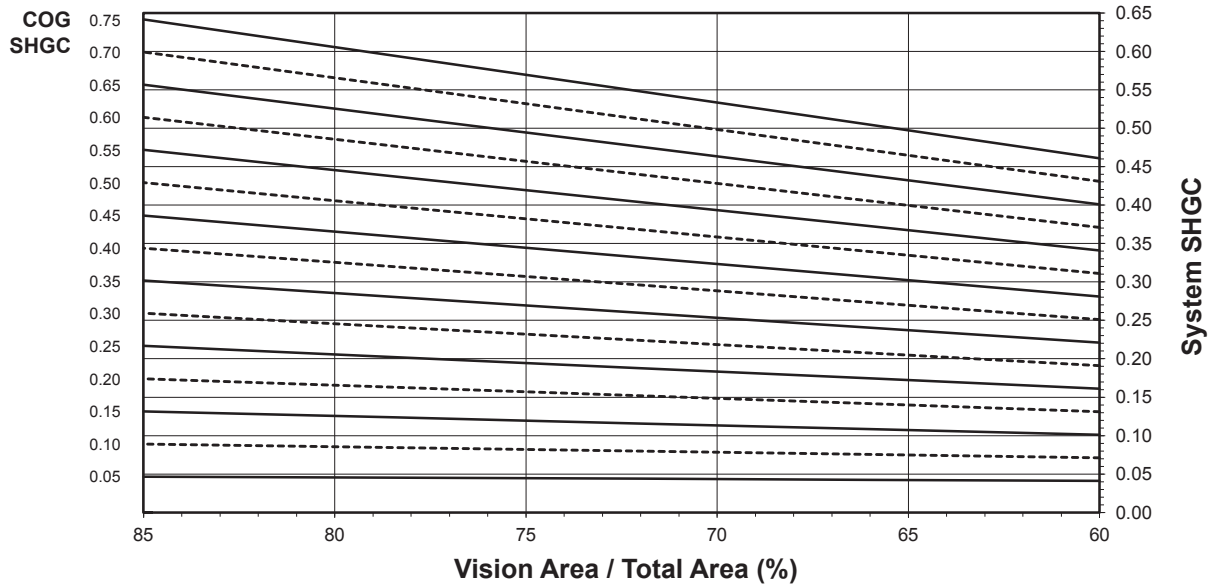
**System U-factor vs Percent of Glass Area****Notes for System U-factor, SHGC and VT charts:**

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

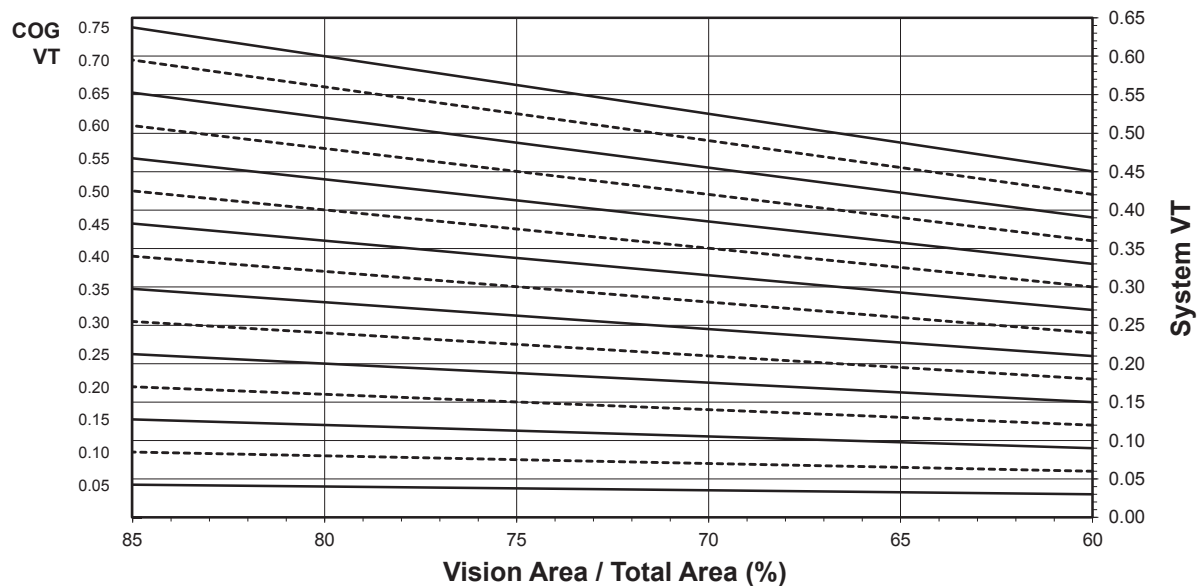
Glass properties are based on center of glass values and are obtained from your glass supplier.

**AA®5450 SINGLE HUNG WINDOW - BEVEL FACE**  
**1-1/4" Triple Glazed - Aluminum Glazing Spacer - 15lb. Sill**

**System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area**



**System Visible Transmittance (VT) vs Percent of Vision Area**



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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**AA®5450 SINGLE HUNG WINDOW  
- BEVEL FACE  
1-1/4" Triple Glazed  
Aluminum Glazing Spacer  
15lb. Sill**

**Thermal Transmittance <sup>1</sup> (BTU/hr • ft<sup>2</sup> • °F)**

Glass U-Factor <sup>3</sup>	Overall U-Factor <sup>4</sup>
0.32	0.40
0.30	0.39
0.28	0.38
0.26	0.36
0.24	0.35
0.22	0.34
0.20	0.32
0.18	0.31
0.16	0.30
0.14	0.28
0.12	0.27
0.10	0.26

**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 1,200 mm wide by 1,500 mm high (47-1/4" by 59-1/16").

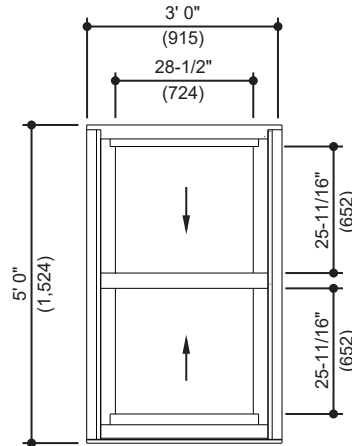
**SHGC Matrix <sup>2</sup>**

Glass SHGC <sup>3</sup>	Overall SHGC <sup>4</sup>
0.75	0.55
0.70	0.51
0.65	0.48
0.60	0.44
0.55	0.40
0.50	0.37
0.45	0.33
0.40	0.30
0.35	0.26
0.30	0.22
0.25	0.19
0.20	0.15
0.15	0.12
0.10	0.08
0.05	0.04

**Visible Transmittance <sup>2</sup>**

Glass VT <sup>3</sup>	Overall VT <sup>4</sup>
0.75	0.54
0.70	0.50
0.65	0.47
0.60	0.43
0.55	0.40
0.50	0.36
0.45	0.32
0.40	0.29
0.35	0.25
0.30	0.22
0.25	0.18
0.20	0.14
0.15	0.11
0.10	0.07
0.05	0.04

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



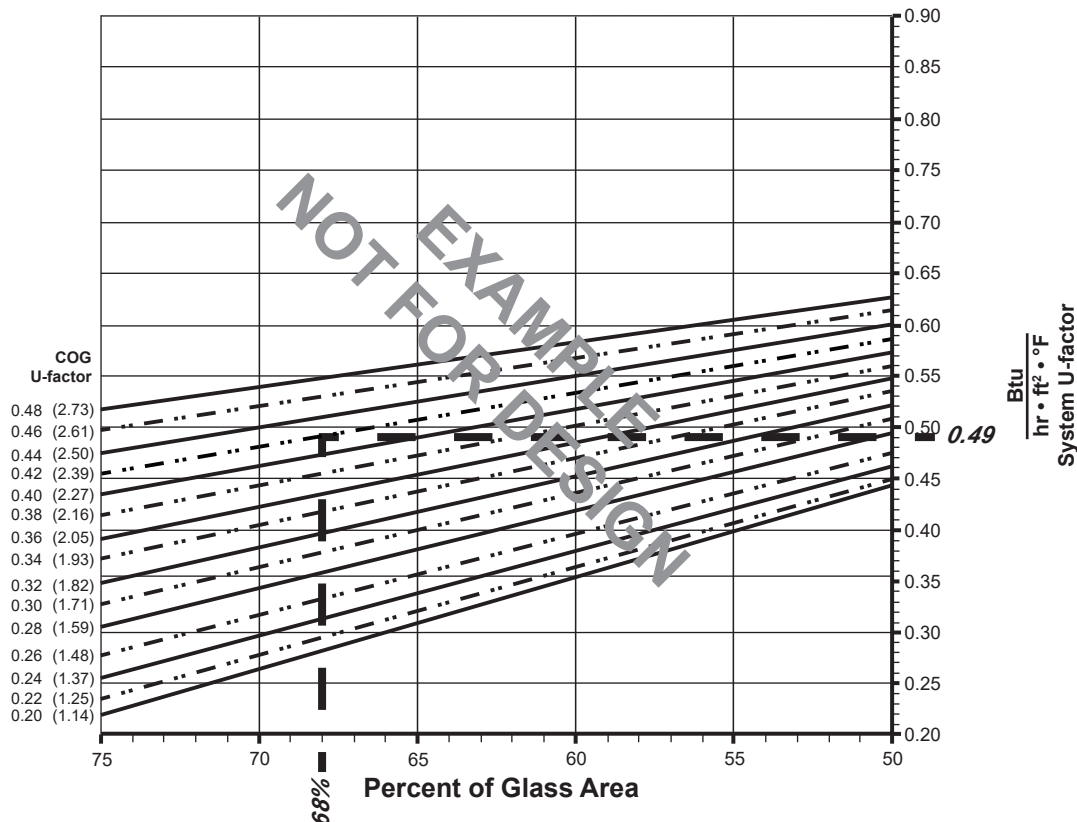
Example Glass U-Factor = 0.42 Btu/hr • ft<sup>2</sup> • °F

Total Daylight Opening = (28-1/2" • 25-11/16") + (28-1/2" • 25-11/16") = 10.17 ft<sup>2</sup>

Total Projected Area = 3' 0" • 5' 0" = 15 ft<sup>2</sup>

Percent of Glass = (Total Daylight Opening ÷ Total Projected Area)100  
 = (10.17 ÷ 15)100 = 68%

**System U-factor vs Percent of Glass Area**



Based on 68% glass and center of glass (COG) U-factor of 0.42  
 System U-factor is equal to 0.49 Btu/hr • ft<sup>2</sup> • °F

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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**AA®5450 DOUBLE HUNG WINDOW**  
**1" Double Glazed - Aluminum Glazing Spacer - 10lb. Sill**

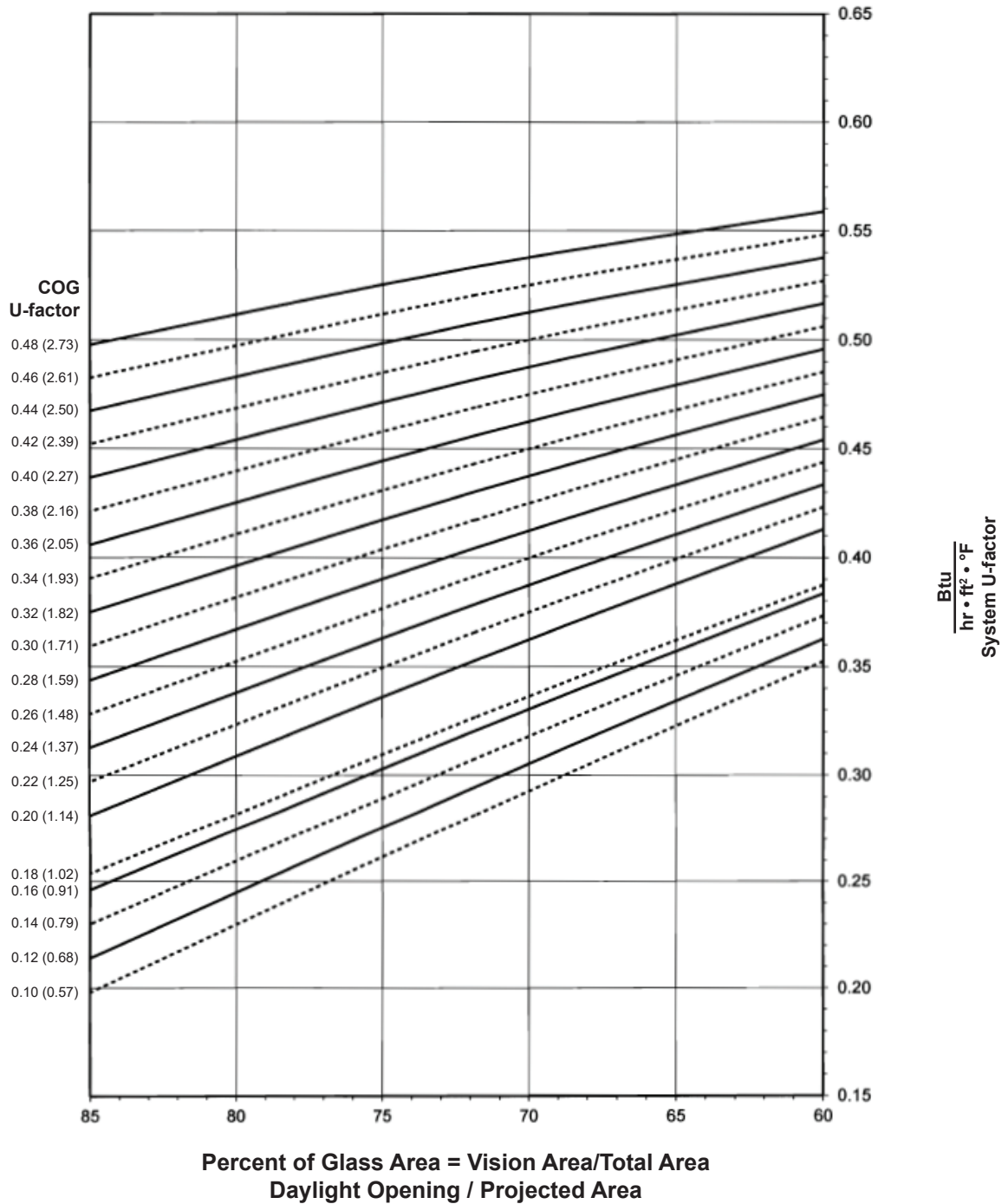
**Note:**

Values in parentheses are metric.

COG = Center of Glass.

Charts are generated per AAMA 507

**System U-factor vs Percent of Glass Area**



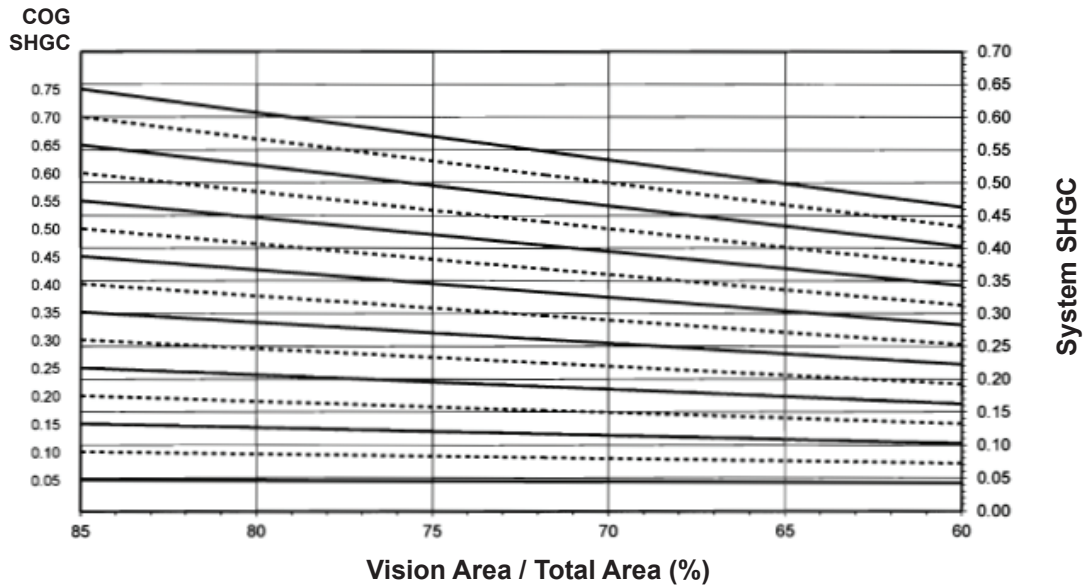
**Notes for System U-factor, SHGC and VT charts:**

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

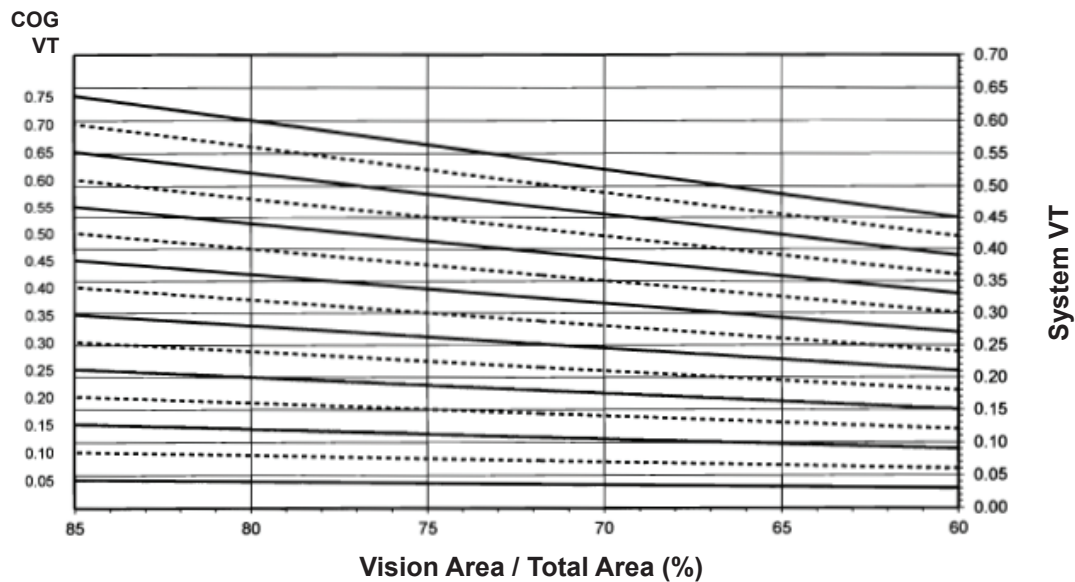
Glass properties are based on center of glass values and are obtained from your glass supplier.

**AA®5450 DOUBLE HUNG WINDOW**  
**1" Double Glazed - Aluminum Glazing Spacer - 10lb. Sill**

**System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area**



**System Visible Transmittance (VT) vs Percent of Vision Area**



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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**Thermal Transmittance** <sup>1</sup> (BTU/hr • ft<sup>2</sup> • °F)

Glass U-Factor <sup>3</sup>	Overall U-Factor <sup>4</sup>
0.48	0.53
0.46	0.52
0.44	0.52
0.42	0.49
0.40	0.48
0.38	0.47
0.36	0.46
0.34	0.44
0.32	0.43
0.30	0.42
0.28	0.40
0.26	0.39
0.24	0.38
0.22	0.37
0.20	0.35
0.18	0.33
0.16	0.32
0.14	0.31
0.12	0.29
0.10	0.28

**AA®5450 DOUBLE HUNG WINDOW**  
**1" Double Glazed**  
**Aluminum Glazing Spacer**  
**10lb. Sill**

**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 960 mm wide by 2,090 mm high (37-3/4" by 82-3/8").

**SHGC Matrix** <sup>2</sup>

Glass SHGC <sup>3</sup>	Overall SHGC <sup>4</sup>
0.75	0.55
0.70	0.51
0.65	0.48
0.60	0.44
0.55	0.40
0.50	0.37
0.45	0.33
0.40	0.30
0.35	0.26
0.30	0.22
0.25	0.19
0.20	0.15
0.15	0.12
0.10	0.08
0.05	0.04

**Visible Transmittance** <sup>2</sup>

Glass VT <sup>3</sup>	Overall VT <sup>4</sup>
0.75	0.54
0.70	0.50
0.65	0.47
0.60	0.43
0.55	0.40
0.50	0.36
0.45	0.32
0.40	0.29
0.35	0.25
0.30	0.22
0.25	0.18
0.20	0.14
0.15	0.11
0.10	0.07
0.05	0.04

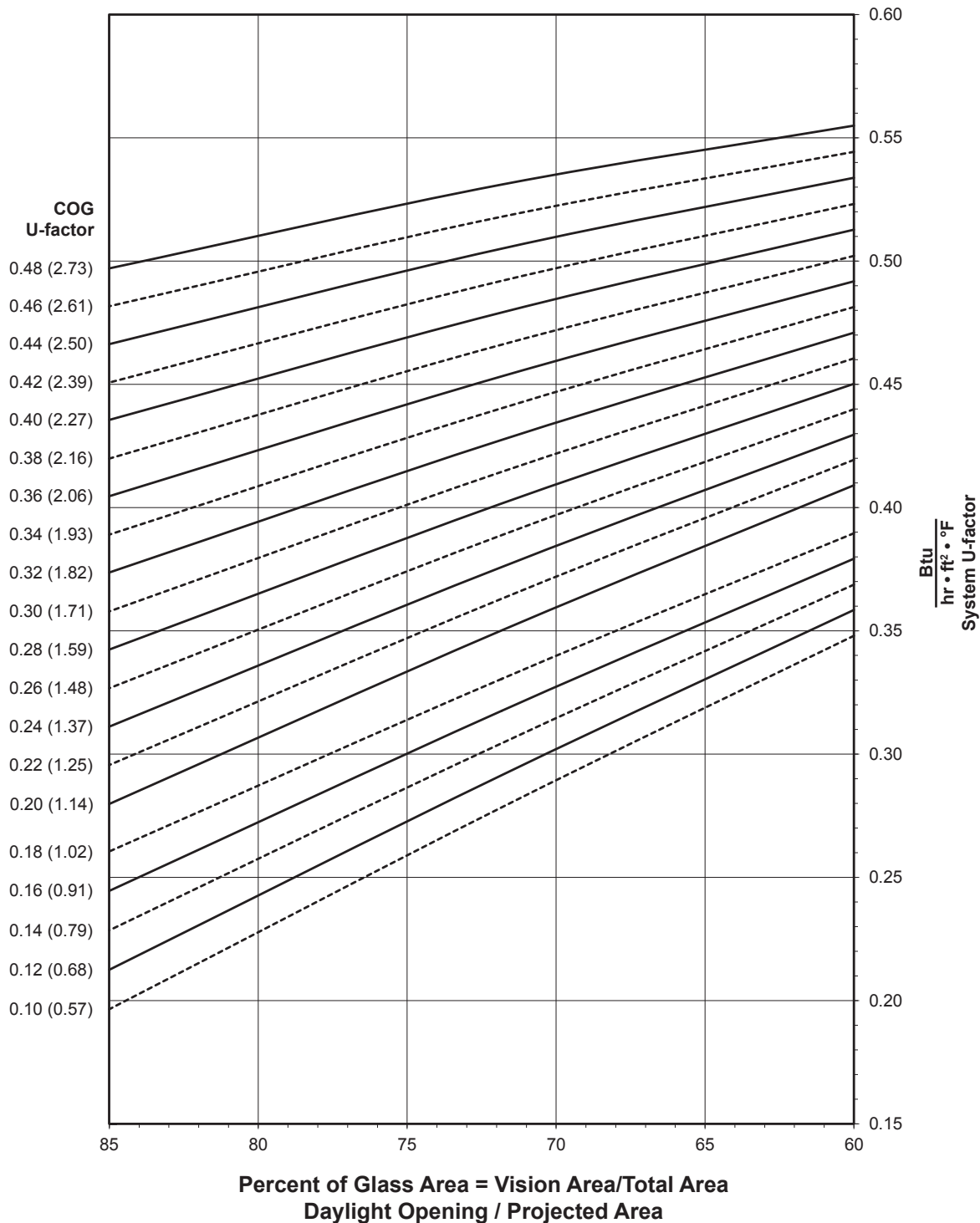
**AA®5450 DOUBLE HUNG WINDOW - BEVEL FACE**  
**1" Double Glazed - Aluminum Glazing Spacer - 10lb. Sill**

**Note:**

Values in parentheses are metric.

COG = Center of Glass.

Charts are generated per AAMA 507

**System U-factor vs Percent of Glass Area****Notes for System U-factor, SHGC and VT charts:**

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

Glass properties are based on center of glass values and are obtained from your glass supplier.

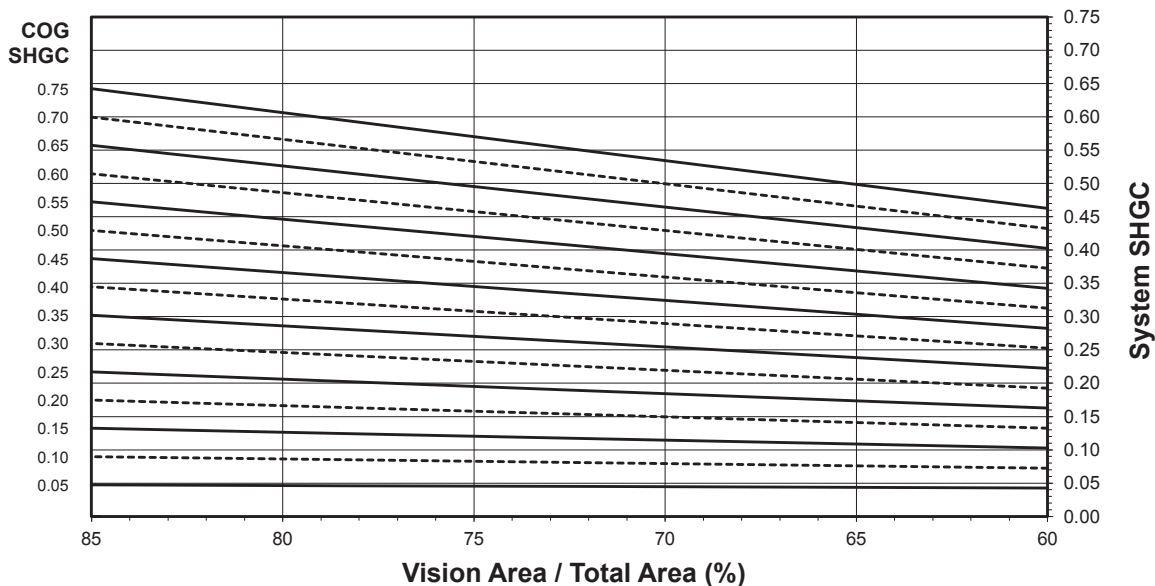
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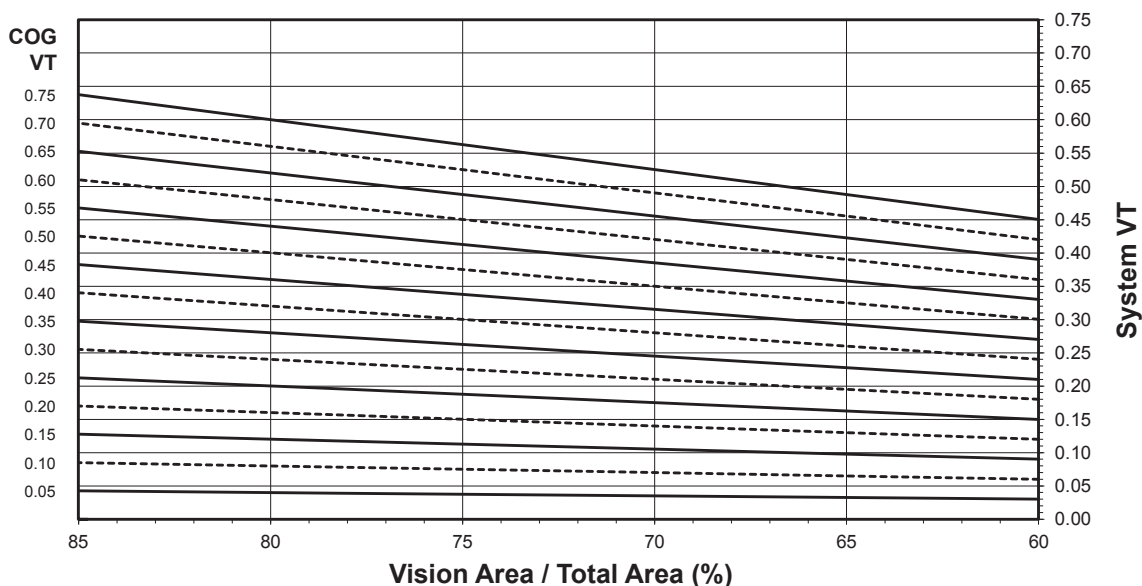
© 2014, Kawneer Company, Inc.

**AA®5450 DOUBLE HUNG WINDOW - BEVEL FACE**  
**1" Double Glazed - Aluminum Glazing Spacer - 10lb. Sill**

**System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area**



**System Visible Transmittance (VT) vs Percent of Vision Area**





**Thermal Transmittance**<sup>1</sup> (BTU/hr • ft<sup>2</sup> • °F)

Glass U-Factor <sup>3</sup>	Overall U-Factor <sup>4</sup>
0.48	0.53
0.46	0.52
0.44	0.51
0.42	0.49
0.40	0.48
0.38	0.47
0.36	0.45
0.34	0.44
0.32	0.43
0.30	0.41
0.28	0.40
0.26	0.39
0.24	0.38
0.22	0.36
0.20	0.35
0.18	0.33
0.16	0.32
0.14	0.30
0.12	0.29
0.10	0.28

**AA®5450 DOUBLE HUNG WINDOW**  
**- BEVEL FACE**  
**1" Double Glazed**  
**Aluminum Glazing Spacer**  
**10lb. Sill**

**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 1,200 mm wide by 1,500 mm high (47-1/4" by 59-1/16").

**SHGC Matrix**<sup>2</sup>

Glass SHGC <sup>3</sup>	Overall SHGC <sup>4</sup>
0.75	0.55
0.70	0.51
0.65	0.48
0.60	0.44
0.55	0.40
0.50	0.37
0.45	0.33
0.40	0.30
0.35	0.26
0.30	0.22
0.25	0.19
0.20	0.15
0.15	0.12
0.10	0.08
0.05	0.04

**Visible Transmittance**<sup>2</sup>

Glass VT <sup>3</sup>	Overall VT <sup>4</sup>
0.75	0.54
0.70	0.50
0.65	0.47
0.60	0.43
0.55	0.40
0.50	0.36
0.45	0.32
0.40	0.29
0.35	0.25
0.30	0.22
0.25	0.18
0.20	0.14
0.15	0.11
0.10	0.07
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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## AA®5450 DOUBLE HUNG WINDOW

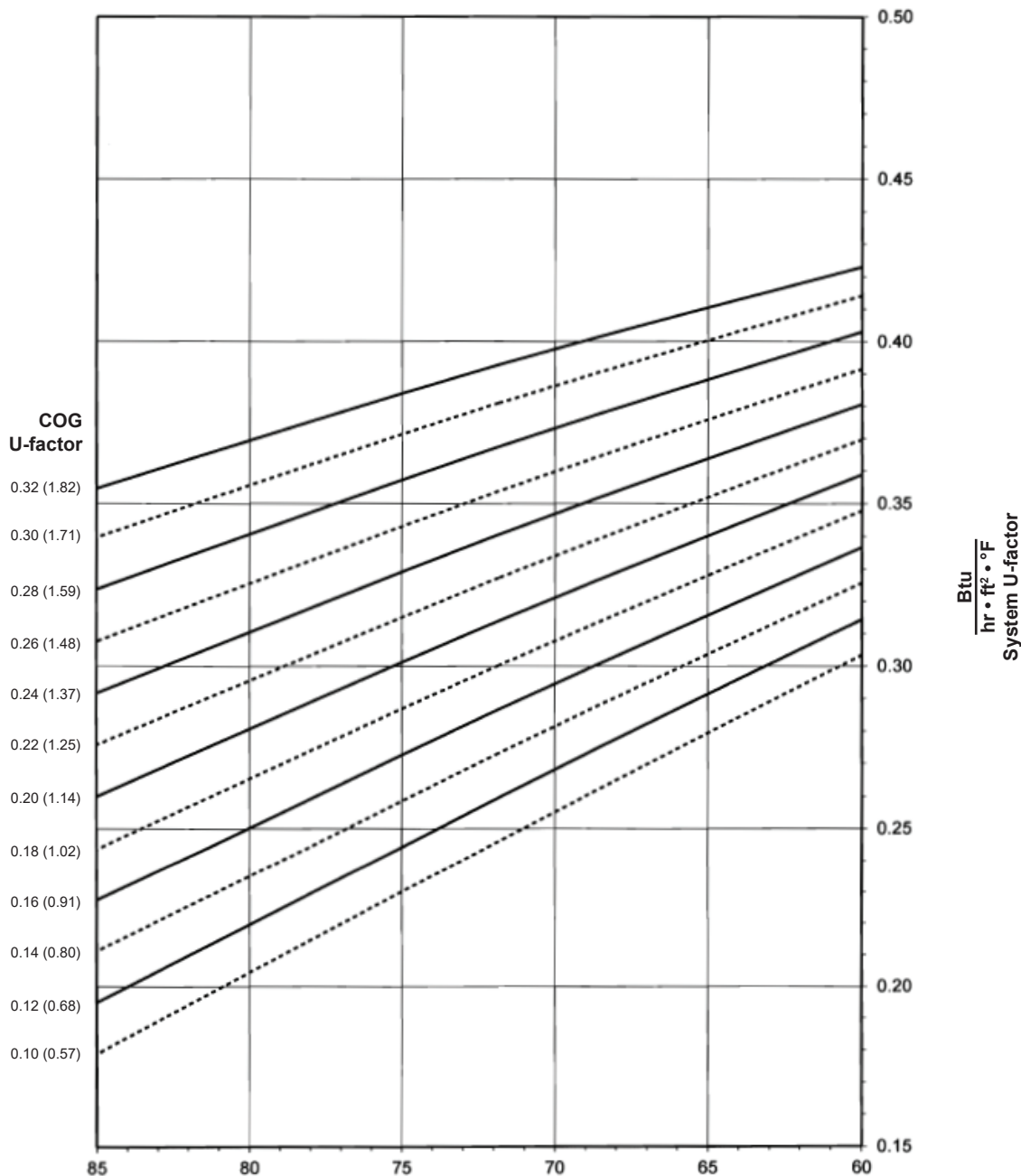
## 1-1/2" Triple Glazed - Aluminum Glazing Spacer - 10lb. Sill

**Note:**

Values in parentheses are metric.

COG = Center of Glass.

Charts are generated per AAMA 507

**System U-factor vs Percent of Glass Area**

**Percent of Glass Area = Vision Area/Total Area**  
**Daylight Opening / Projected Area**

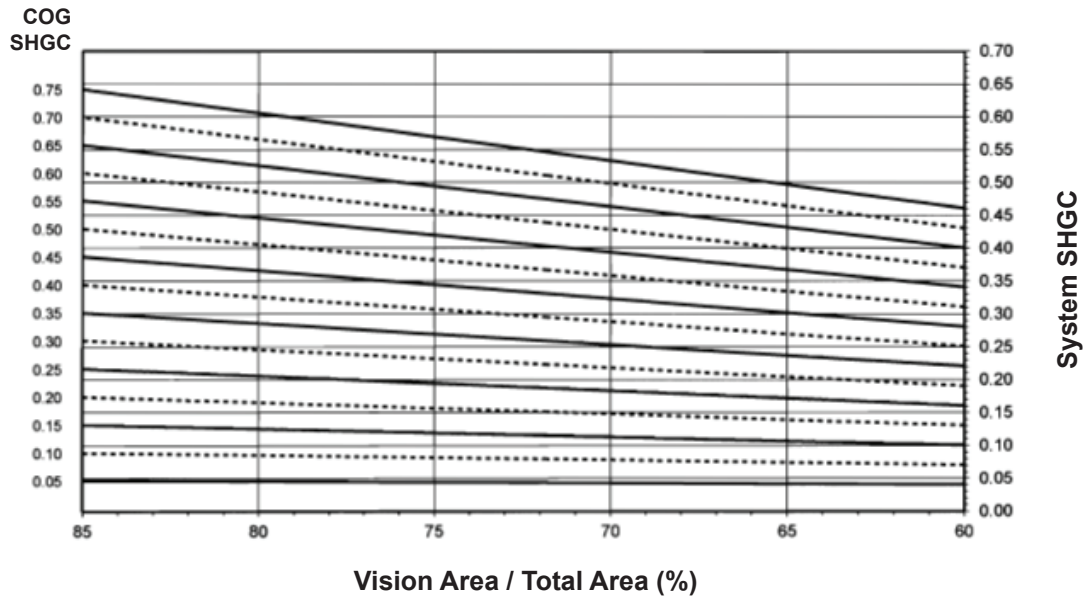
**Notes for System U-factor, SHGC and VT charts:**

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

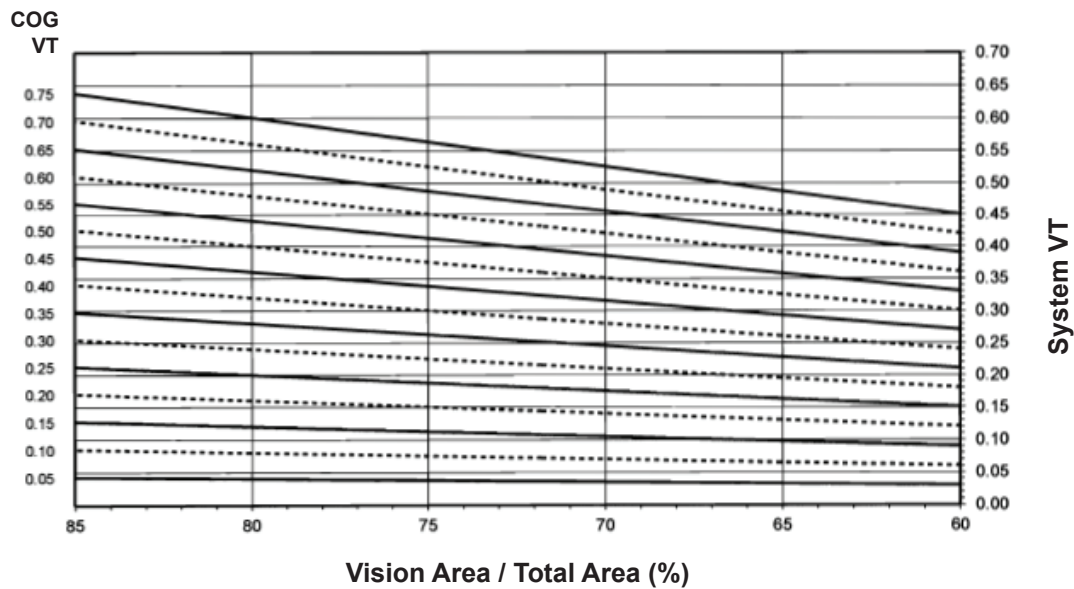
Glass properties are based on center of glass values and are obtained from your glass supplier.

**AA®5450 DOUBLE HUNG WINDOW**  
**1-1/2" Triple Glazed - Aluminum Glazing Spacer - 10lb. Sill**

**System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area**



**System Visible Transmittance (VT) vs Percent of Vision Area**



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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**AA®5450 DOUBLE HUNG WINDOW**  
**1-1/2" Triple Glazed**  
**Aluminum Glazing Spacer**  
**10lb. Sill**

**Thermal Transmittance<sup>1</sup> (BTU/hr • ft<sup>2</sup> • °F)**

Glass U-Factor <sup>3</sup>	Overall U-Factor <sup>4</sup>
0.32	0.39
0.30	0.38
0.28	0.37
0.26	0.35
0.24	0.34
0.22	0.33
0.20	0.31
0.18	0.30
0.16	0.29
0.14	0.27
0.12	0.26
0.10	0.25

**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 960 mm wide by 2,090 mm high (37-3/4" by 82-3/8").

**SHGC Matrix<sup>2</sup>**

Glass SHGC <sup>3</sup>	Overall Glass U-Factor <sup>4</sup>
0.75	0.55
0.70	0.51
0.65	0.47
0.60	0.44
0.55	0.40
0.50	0.37
0.45	0.33
0.40	0.29
0.35	0.26
0.30	0.22
0.25	0.19
0.20	0.15
0.15	0.12
0.10	0.08
0.05	0.04

**Visible Transmittance<sup>2</sup>**

Glass VT <sup>3</sup>	Overall VT <sup>4</sup>
0.75	0.54
0.70	0.50
0.65	0.47
0.60	0.43
0.55	0.40
0.50	0.36
0.45	0.32
0.40	0.29
0.35	0.25
0.30	0.22
0.25	0.18
0.20	0.14
0.15	0.11
0.10	0.07
0.05	0.04

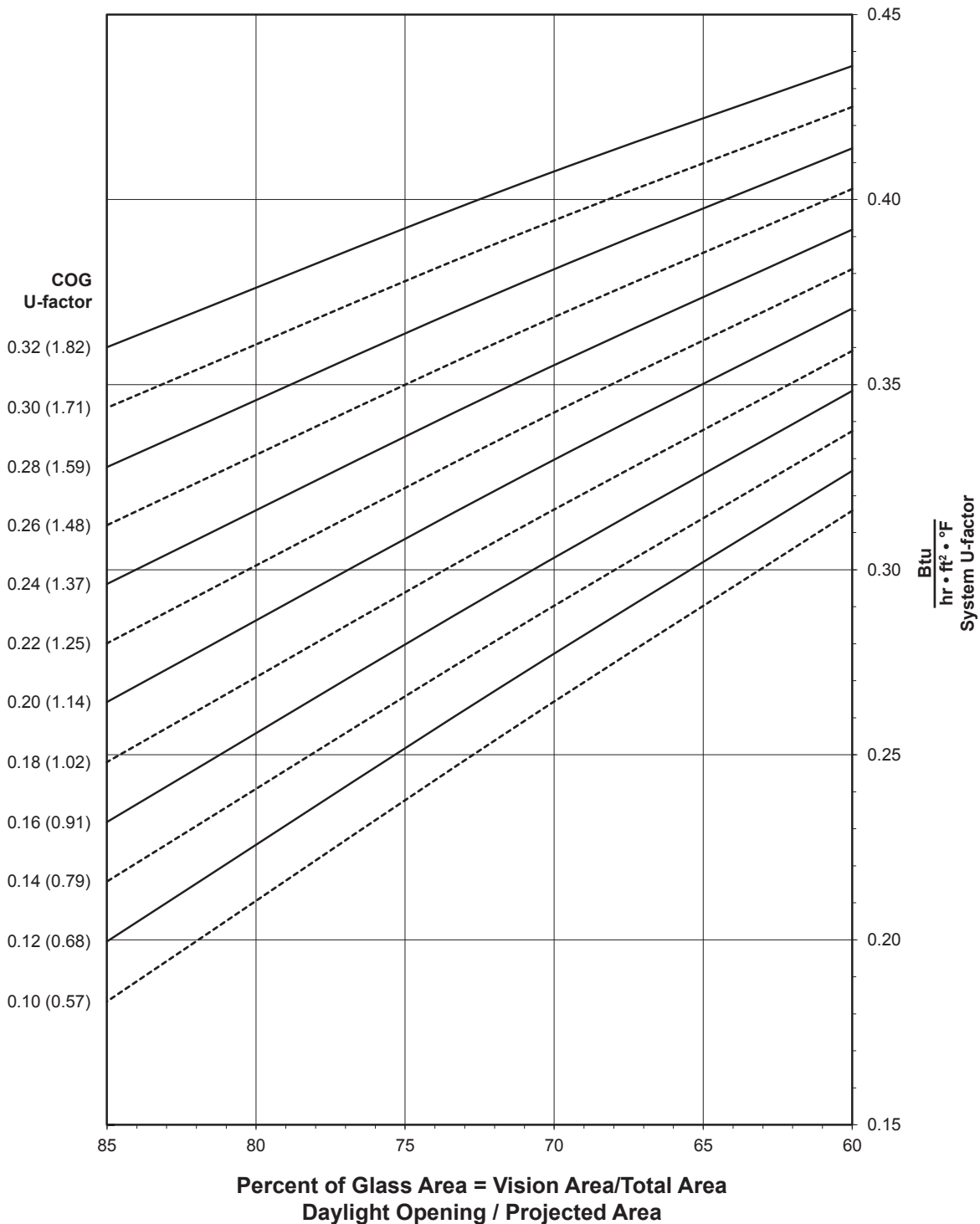
**AA®5450 DOUBLE HUNG WINDOW - BEVEL FACE**  
**1-1/4" Triple Glazed - Aluminum Glazing Spacer - 10lb. Sill**

**Note:**

Values in parentheses are metric.

COG = Center of Glass.

Charts are generated per AAMA 507

**System U-factor vs Percent of Glass Area****Notes for System U-factor, SHGC and VT charts:**

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

Glass properties are based on center of glass values and are obtained from your glass supplier.

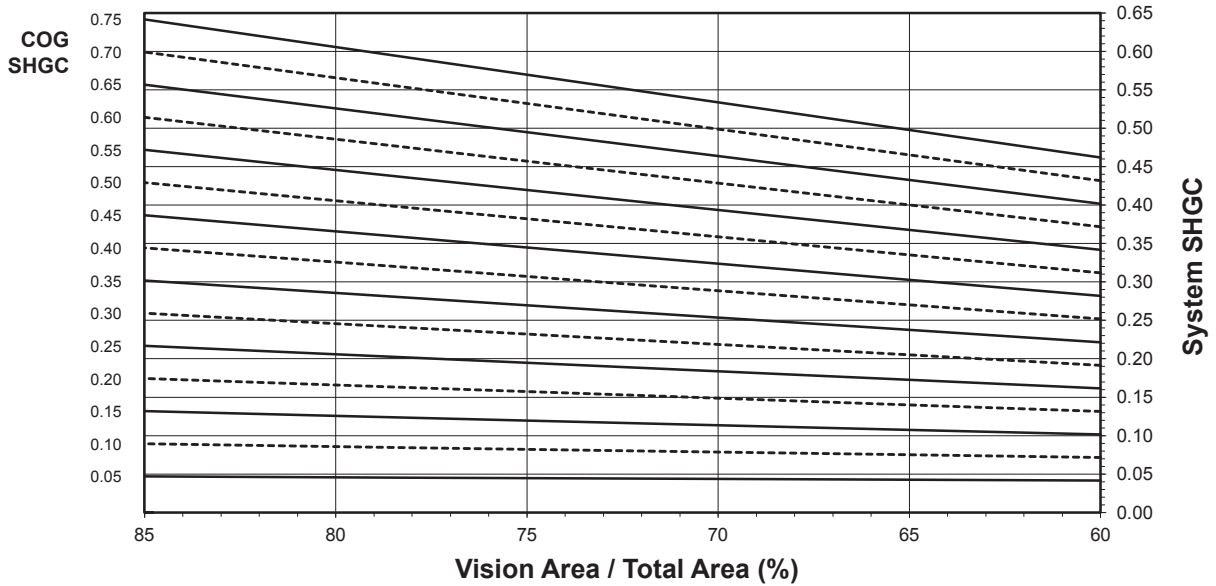
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Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.

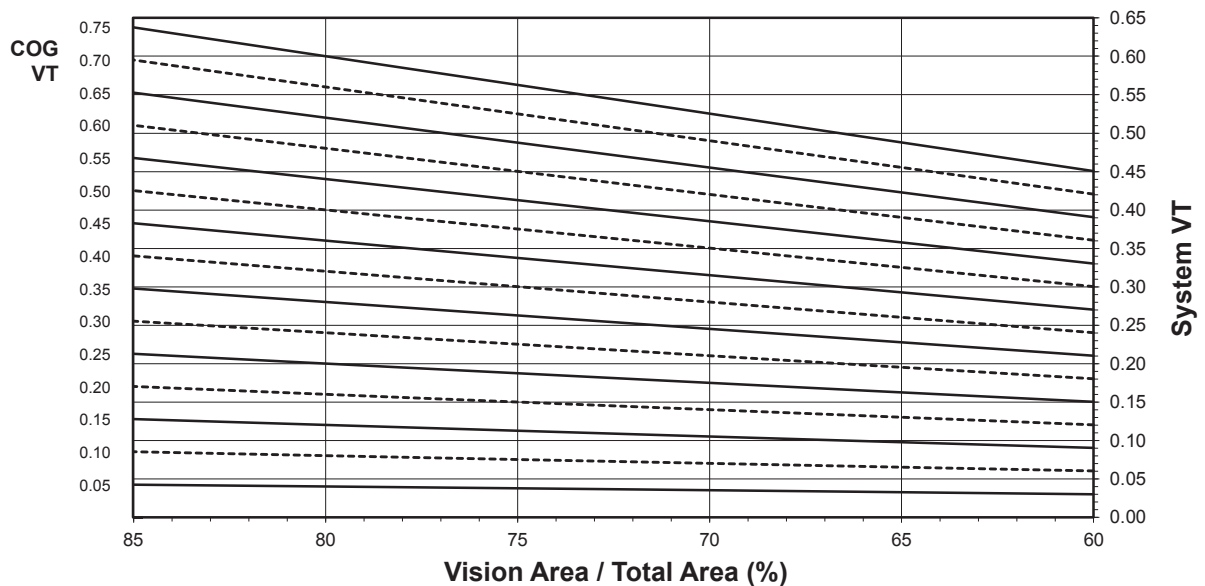
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**AA®5450 DOUBLE HUNG WINDOW - BEVEL FACE**  
**1-1/4" Triple Glazed - Aluminum Glazing Spacer - 10lb. Sill**

**System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area**



**System Visible Transmittance (VT) vs Percent of Vision Area**



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

Glass U-Factor <sup>3</sup>	Overall U-Factor <sup>4</sup>
0.32	0.40
0.30	0.39
0.28	0.38
0.26	0.36
0.24	0.35
0.22	0.34
0.20	0.32
0.18	0.31
0.16	0.30
0.14	0.28
0.12	0.27
0.10	0.25

**AA®5450 DOUBLE HUNG WINDOW**  
**- BEVEL FACE**  
**1-1/4" Triple Glazed**  
**Aluminum Glazing Spacer**  
**10lb. Sill**

**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 1,200 mm wide by 1,500 mm high (47-1/4" by 59-1/16").

SHGC Matrix <sup>2</sup>

Glass SHGC <sup>3</sup>	Overall SHGC <sup>4</sup>
0.75	0.55
0.70	0.51
0.65	0.47
0.60	0.44
0.55	0.40
0.50	0.37
0.45	0.33
0.40	0.30
0.35	0.26
0.30	0.22
0.25	0.19
0.20	0.15
0.15	0.12
0.10	0.08
0.05	0.04

Visible Transmittance <sup>2</sup>

Glass VT <sup>3</sup>	Overall VT <sup>4</sup>
0.75	0.54
0.70	0.50
0.65	0.47
0.60	0.43
0.55	0.40
0.50	0.36
0.45	0.32
0.40	0.29
0.35	0.25
0.30	0.22
0.25	0.18
0.20	0.14
0.15	0.11
0.10	0.07
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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**AA®5450 DOUBLE HUNG WINDOW**  
**1" Double Glazed - Aluminum Glazing Spacer - 15lb. Sill**

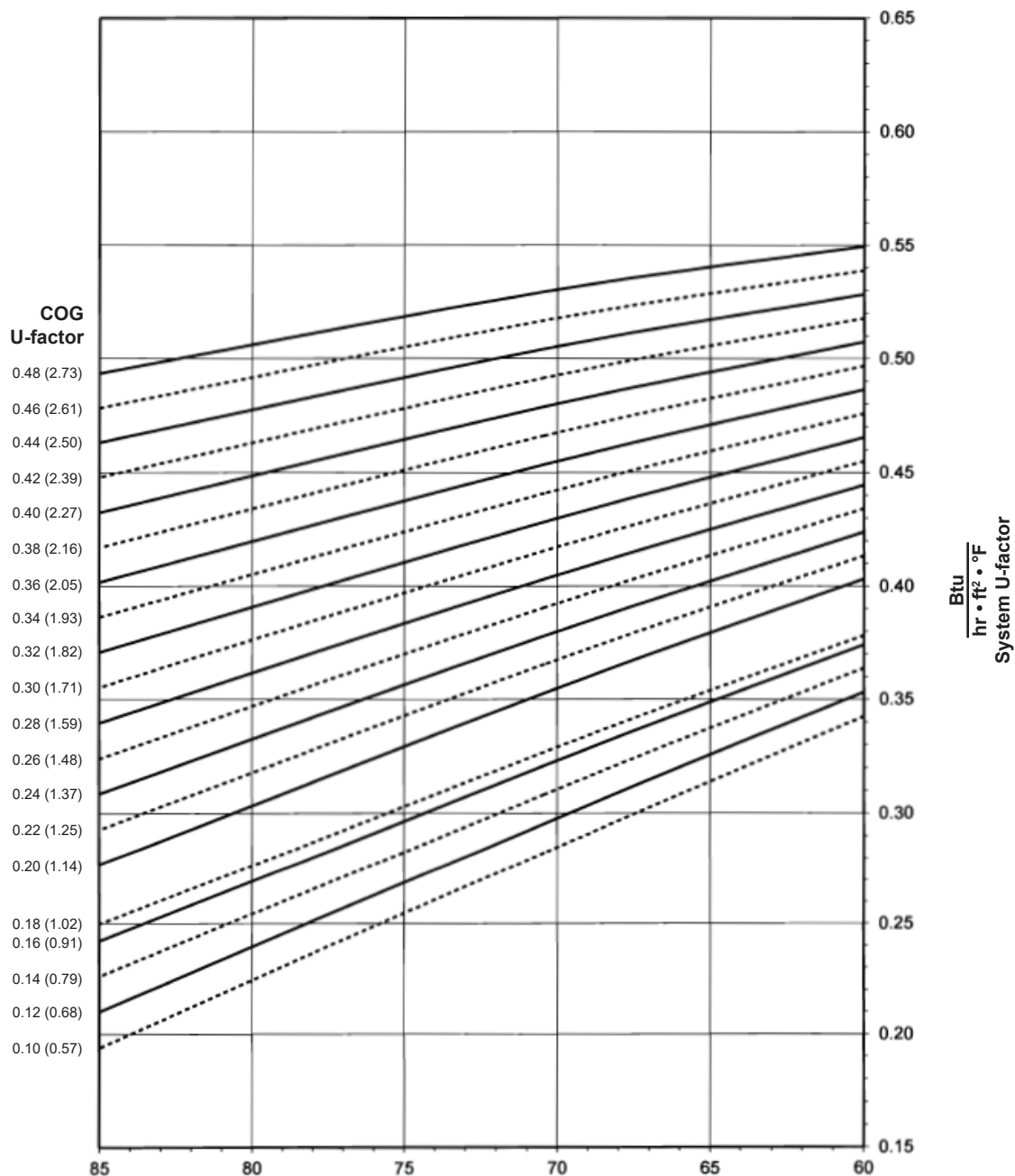
**Note:**

Values in parentheses are metric.

COG = Center of Glass.

Charts are generated per AAMA 507

**System U-factor vs Percent of Glass Area**



**Percent of Glass Area = Vision Area/Total Area  
Daylight Opening / Projected Area**

**Notes for System U-factor, SHGC and VT charts:**

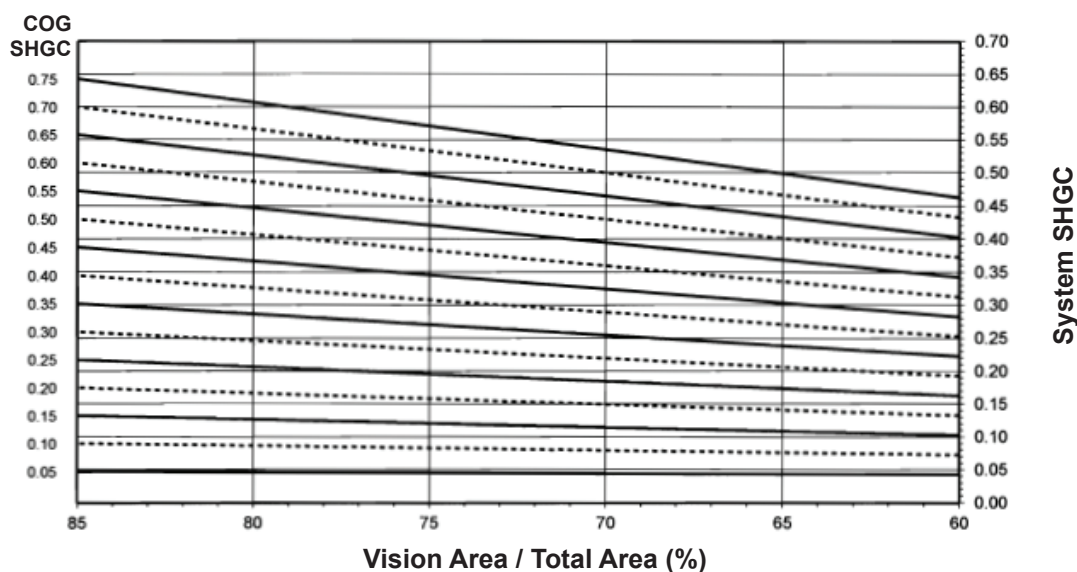
For glass values that are not listed, linear interpolation is permitted.

Glass properties are based on center of glass values and are obtained from your glass supplier.

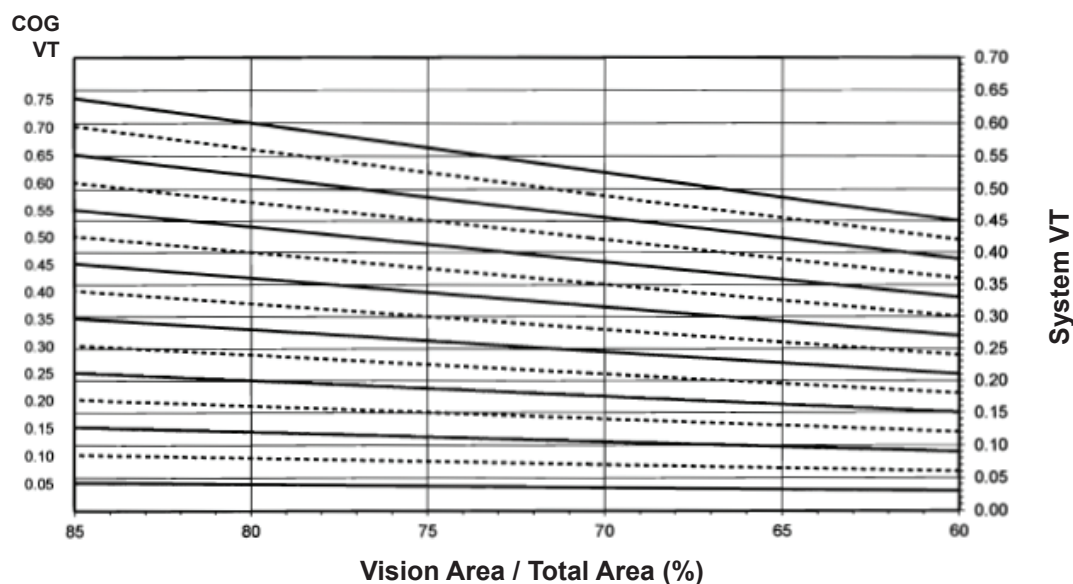


**AA®5450 DOUBLE HUNG WINDOW**  
**1" Double Glazed - Aluminum Glazing Spacer - 15lb. Sill**

**System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area**



**System Visible Transmittance (VT) vs Percent of Vision Area**



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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**Thermal Transmittance** <sup>1</sup> (BTU/hr • ft<sup>2</sup> • °F)

Glass U-Factor <sup>3</sup>	Overall U-Factor <sup>4</sup>
0.48	0.53
0.46	0.52
0.44	0.50
0.42	0.49
0.40	0.48
0.38	0.47
0.36	0.45
0.34	0.44
0.32	0.43
0.30	0.42
0.28	0.40
0.26	0.39
0.24	0.38
0.22	0.37
0.20	0.35
0.18	0.33
0.16	0.32
0.14	0.31
0.12	0.30
0.10	0.28

**AA®5450 DOUBLE HUNG WINDOW**  
**1" Double Glazed**  
**Aluminum Glazing Spacer**  
**15lb. Sill**

**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 960 mm wide by 2,090 mm high (37-3/4" by 82-3/8").

**SHGC Matrix** <sup>2</sup>

Glass SHGC <sup>3</sup>	Overall SHGC <sup>4</sup>
0.75	0.54
0.70	0.50
0.65	0.47
0.60	0.43
0.55	0.40
0.50	0.36
0.45	0.33
0.40	0.29
0.35	0.26
0.30	0.22
0.25	0.19
0.20	0.15
0.15	0.11
0.10	0.08
0.05	0.04

**Visible Transmittance** <sup>2</sup>

Glass VT <sup>3</sup>	Overall VT <sup>4</sup>
0.75	0.53
0.70	0.49
0.65	0.46
0.60	0.42
0.55	0.39
0.50	0.35
0.45	0.32
0.40	0.28
0.35	0.25
0.30	0.21
0.25	0.18
0.20	0.14
0.15	0.11
0.10	0.07
0.05	0.04

## AA®5450 DOUBLE HUNG WINDOW - BEVEL FACE

### 1" Double Glazed - Aluminum Glazing Spacer - 15lb. Sill

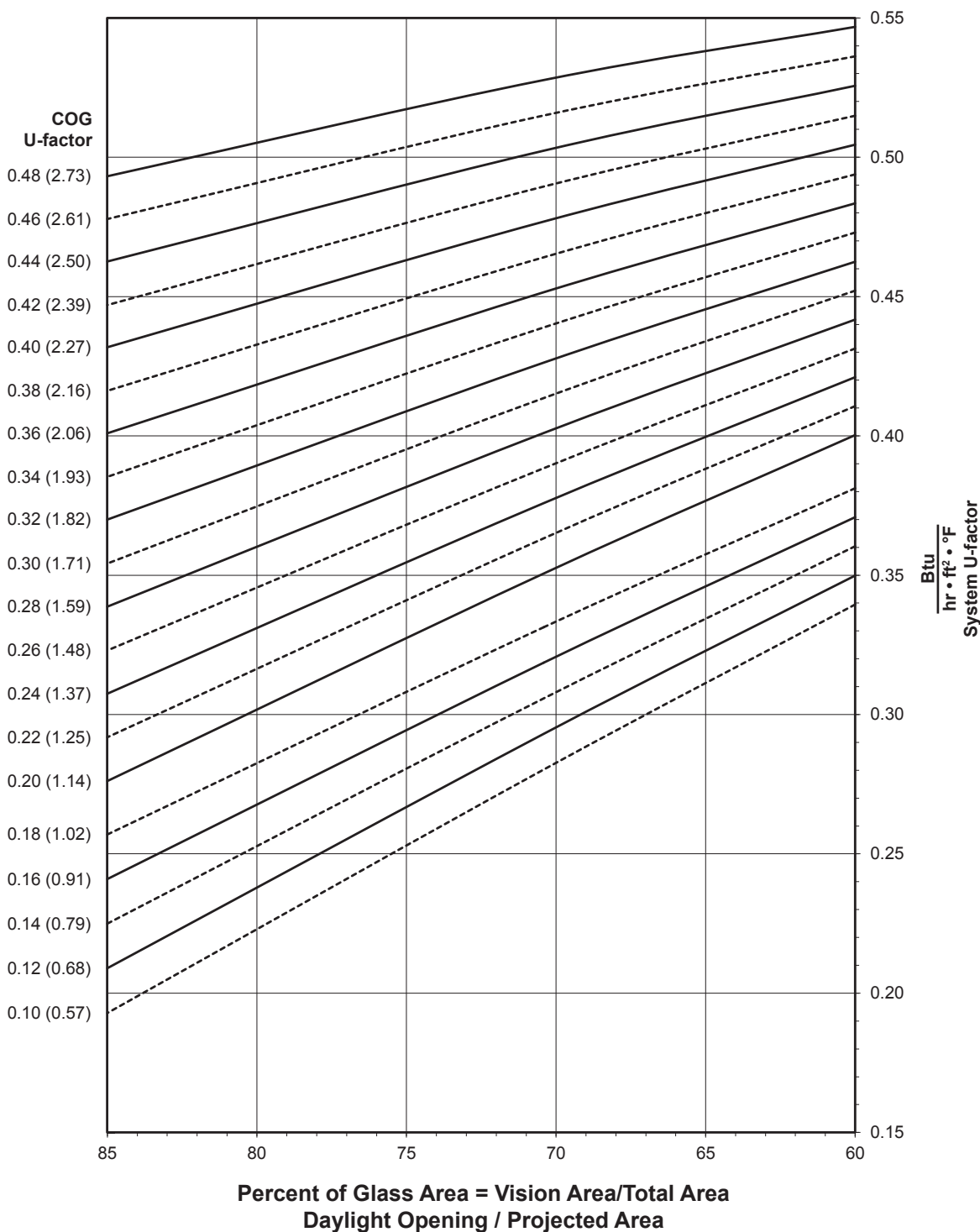
**Note:**

Values in parentheses are metric.

COG = Center of Glass.

Charts are generated per AAMA 507

#### System U-factor vs Percent of Glass Area

**Notes for System U-factor, SHGC and VT charts:**

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

Glass properties are based on center of glass values and are obtained from your glass supplier.

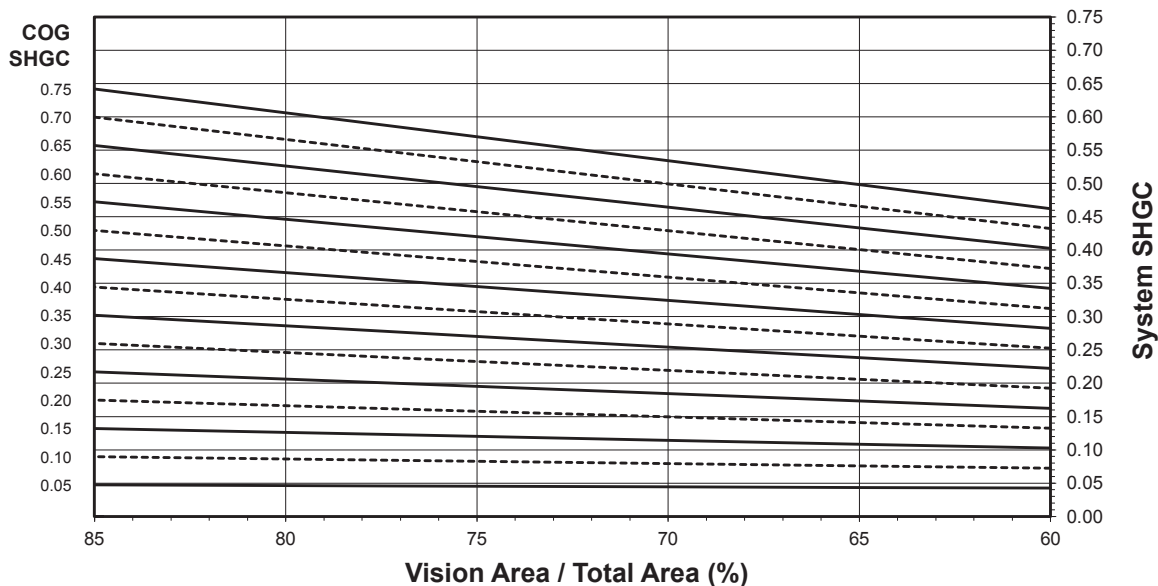
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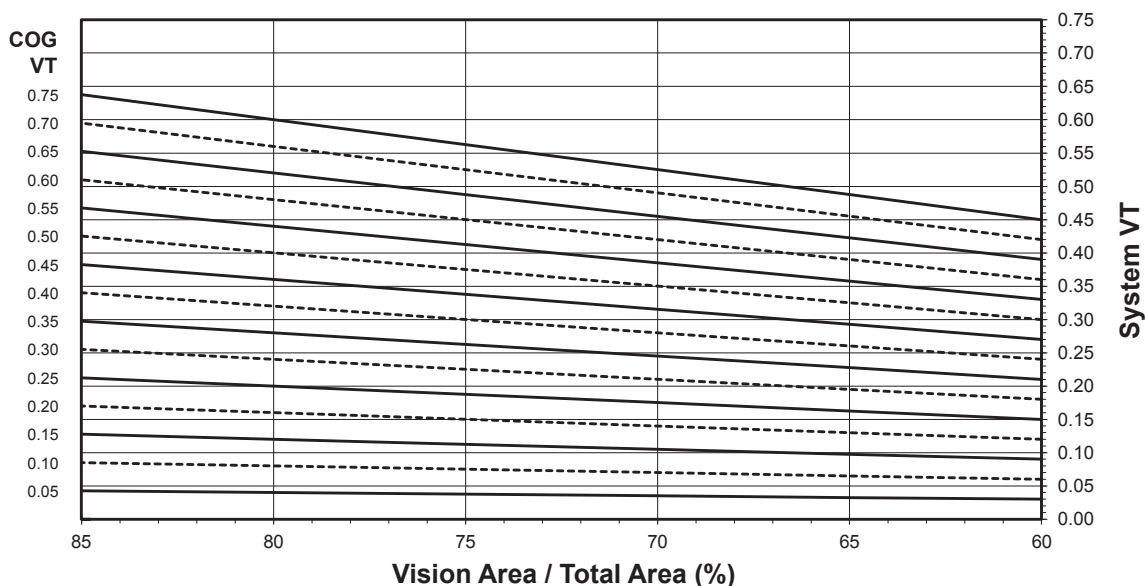
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**AA®5450 DOUBLE HUNG WINDOW - BEVEL FACE**  
**1" Double Glazed - Aluminum Glazing Spacer - 15lb. Sill**

**System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area**



**System Visible Transmittance (VT) vs Percent of Vision Area**



**Thermal Transmittance**<sup>1</sup> (BTU/hr • ft<sup>2</sup> • °F)

Glass U-Factor <sup>3</sup>	Overall U-Factor <sup>4</sup>
0.48	0.53
0.46	0.51
0.44	0.50
0.42	0.49
0.40	0.48
0.38	0.46
0.36	0.45
0.34	0.44
0.32	0.43
0.30	0.41
0.28	0.40
0.26	0.39
0.24	0.39
0.22	0.36
0.20	0.35
0.18	0.33
0.16	0.32
0.14	0.31
0.12	0.29
0.10	0.28

**AA®5450 DOUBLE HUNG WINDOW**  
**- BEVEL FACE**  
**1" Double Glazed**  
**Aluminum Glazing Spacer**  
**15lb. Sill**

**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 1,200 mm wide by 1,500 mm high (47-1/4" by 59-1/16").

**SHGC Matrix**<sup>2</sup>

Glass SHGC <sup>3</sup>	Overall SHGC <sup>4</sup>
0.75	0.54
0.70	0.50
0.65	0.47
0.60	0.43
0.55	0.40
0.50	0.36
0.45	0.33
0.40	0.29
0.35	0.26
0.30	0.22
0.25	0.19
0.20	0.15
0.15	0.11
0.10	0.08
0.05	0.04

**Visible Transmittance**<sup>2</sup>

Glass VT <sup>3</sup>	Overall VT <sup>4</sup>
0.75	0.53
0.70	0.49
0.65	0.46
0.60	0.42
0.55	0.39
0.50	0.35
0.45	0.32
0.40	0.28
0.35	0.25
0.30	0.21
0.25	0.18
0.20	0.14
0.15	0.11
0.10	0.07
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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**AA®5450 DOUBLE HUNG WINDOW**  
**1-1/2" Triple Glazed - Aluminum Glazing Spacer - 15lb. Sill**

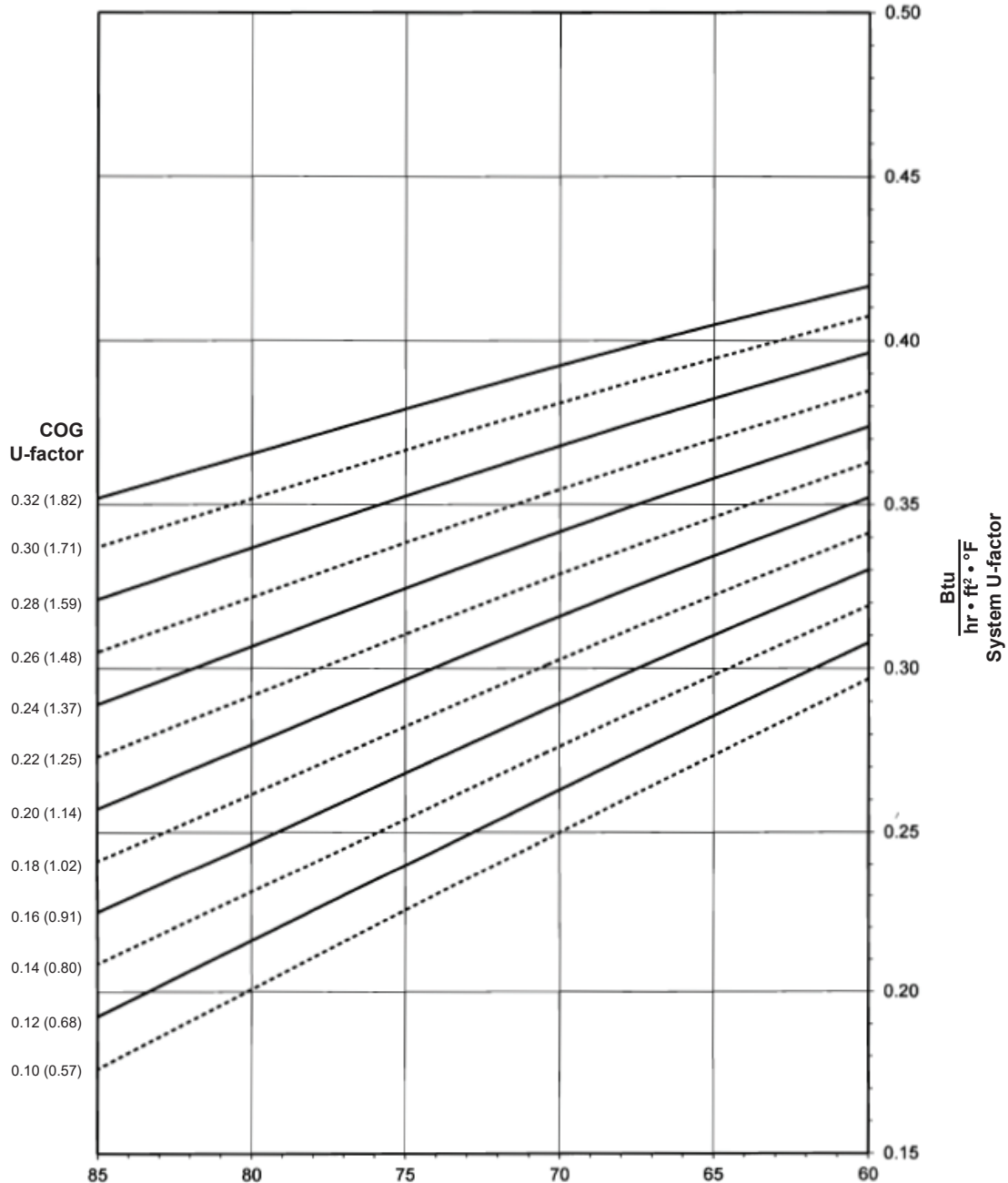
**Note:**

Values in parentheses are metric.

COG = Center of Glass.

Charts are generated per AAMA 507

**System U-factor vs Percent of Glass Area**



**Percent of Glass Area = Vision Area/Total Area**  
**Daylight Opening / Projected Area**

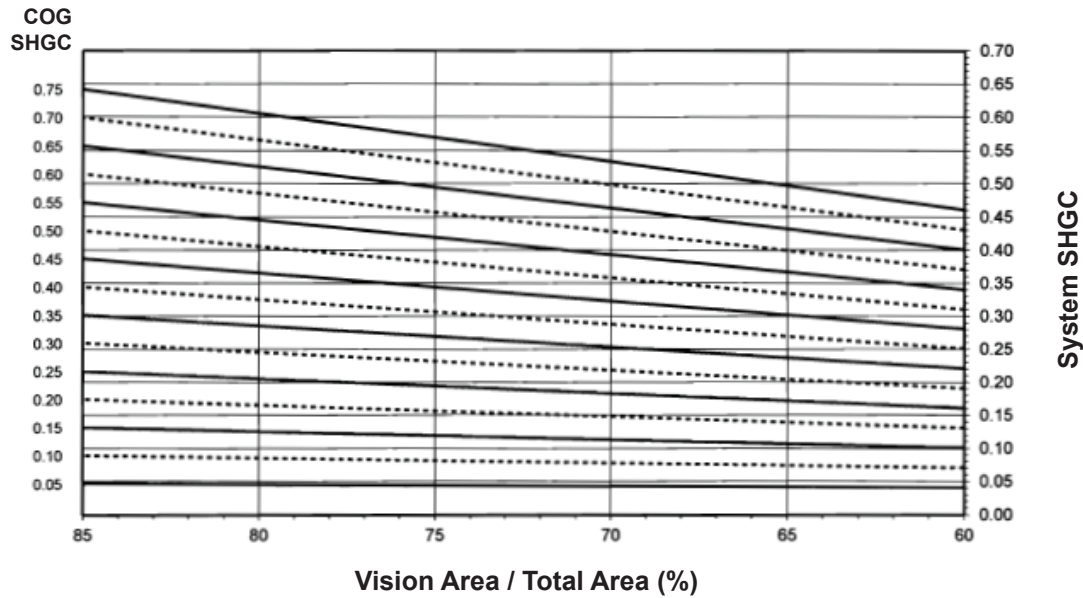
**Notes for System U-factor, SHGC and VT charts:**

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

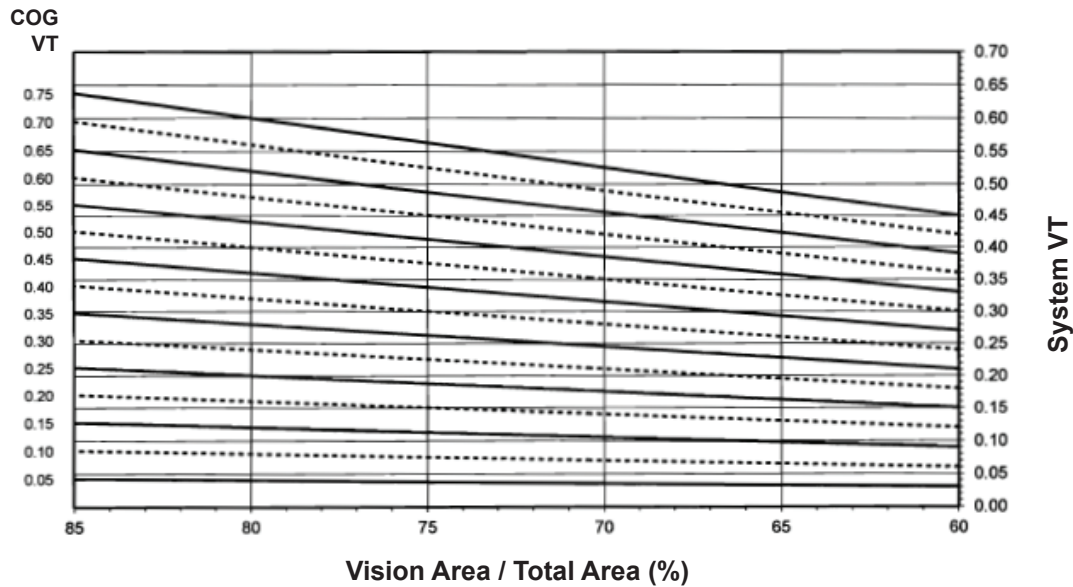
Glass properties are based on center of glass values and are obtained from your glass supplier.

**AA®5450 DOUBLE HUNG WINDOW**  
**1-1/2" Triple Glazed - Aluminum Glazing Spacer - 15lb. Sill**

**System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area**



**System Visible Transmittance (VT) vs Percent of Vision Area**



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**AA®5450 DOUBLE HUNG WINDOW**  
**1-1/2" Triple Glazed**  
**Aluminum Glazing Spacer**  
**15lb. Sill**

**Thermal Transmittance<sup>1</sup> (BTU/hr • ft<sup>2</sup> • °F)**

Glass U-Factor <sup>3</sup>	Overall U-Factor <sup>4</sup>
0.32	0.39
0.30	0.38
0.28	0.37
0.26	0.35
0.24	0.34
0.22	0.33
0.20	0.31
0.18	0.30
0.16	0.29
0.14	0.27
0.12	0.26
0.10	0.25

**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 960 mm wide by 2,090 mm high (37-3/4" by 82-3/8").

**SHGC Matrix<sup>2</sup>**

Glass SHGC <sup>3</sup>	Overall Glass U-Factor <sup>4</sup>
0.75	0.54
0.70	0.50
0.65	0.47
0.60	0.43
0.55	0.39
0.50	0.36
0.45	0.32
0.40	0.29
0.35	0.25
0.30	0.22
0.25	0.18
0.20	0.15
0.15	0.11
0.10	0.08
0.05	0.04

**Visible Transmittance<sup>2</sup>**

Glass VT <sup>3</sup>	Overall VT <sup>4</sup>
0.75	0.53
0.70	0.49
0.65	0.46
0.60	0.42
0.55	0.39
0.50	0.35
0.45	0.32
0.40	0.28
0.35	0.25
0.30	0.21
0.25	0.18
0.20	0.14
0.15	0.11
0.10	0.07
0.05	0.04



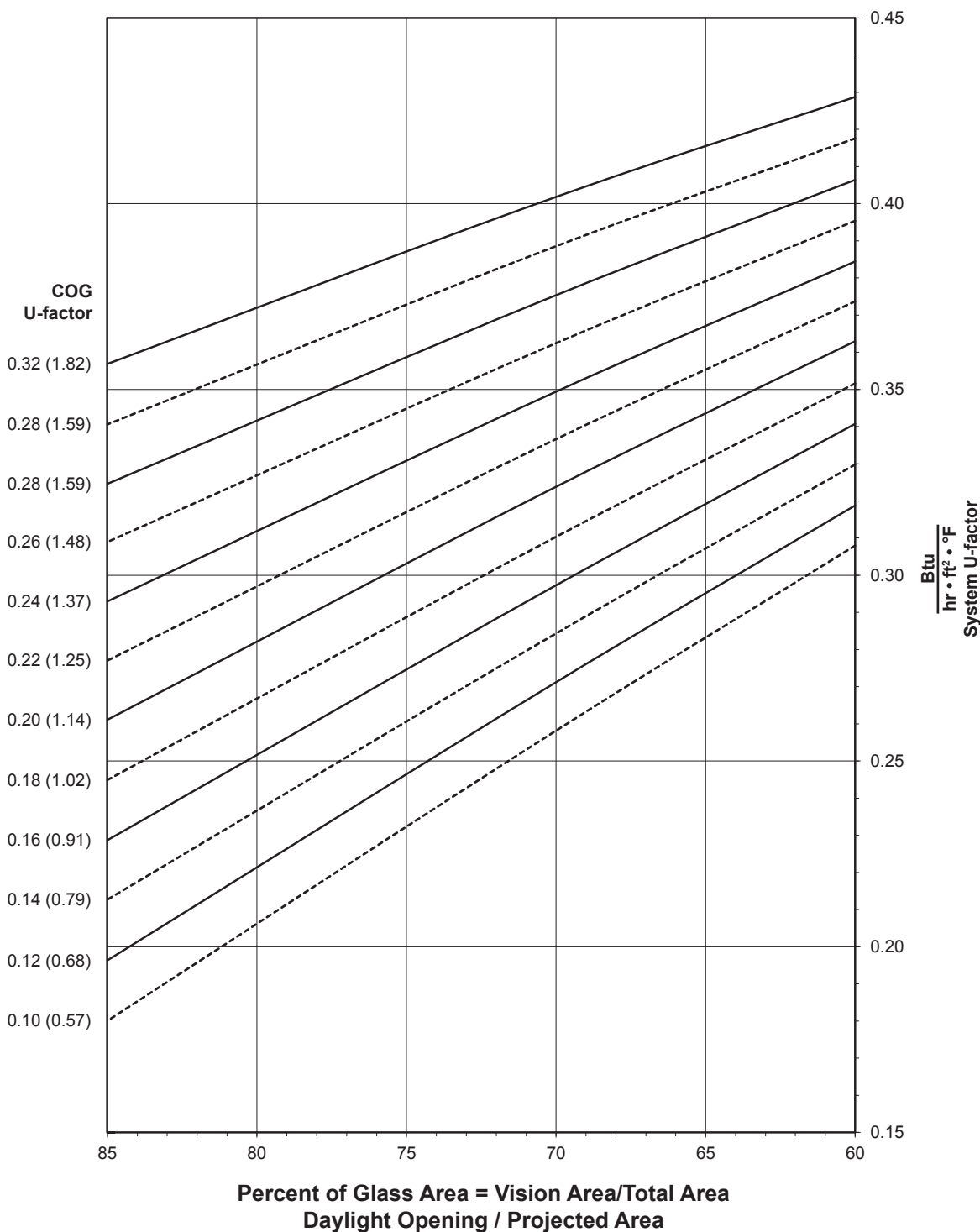
**AA®5450 DOUBLE HUNG WINDOW - BEVEL FACE**  
**1-1/4" Triple Glazed - Aluminum Glazing Spacer - 15lb. Sill**

**Note:**

Values in parentheses are metric.

COG = Center of Glass.

Charts are generated per AAMA 507

**System U-factor vs Percent of Glass Area****Notes for System U-factor, SHGC and VT charts:**

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

Glass properties are based on center of glass values and are obtained from your glass supplier.

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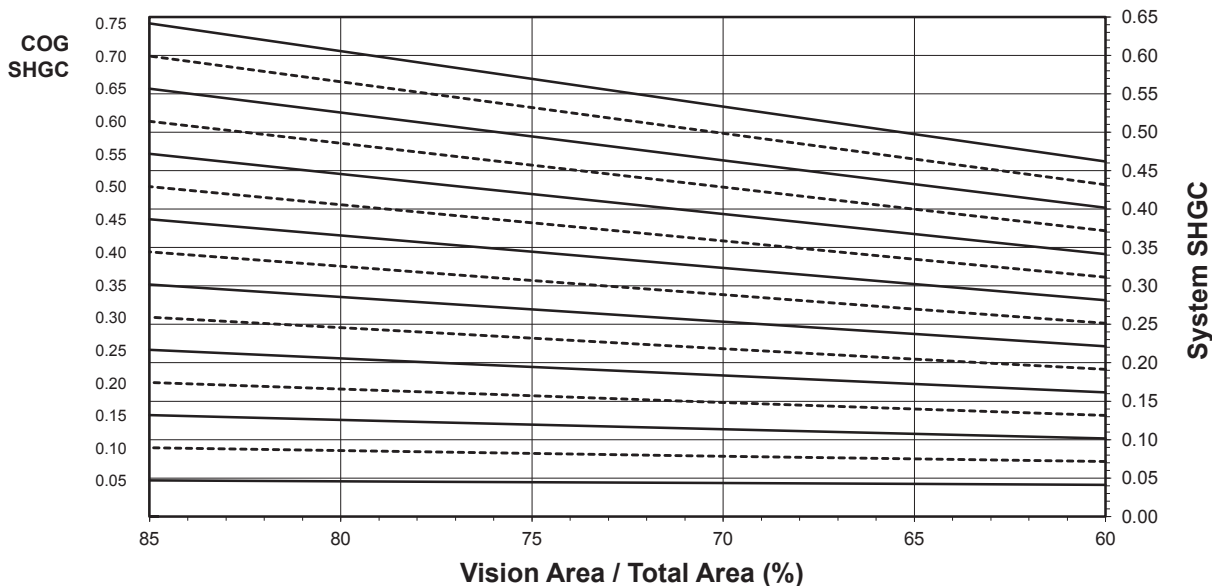
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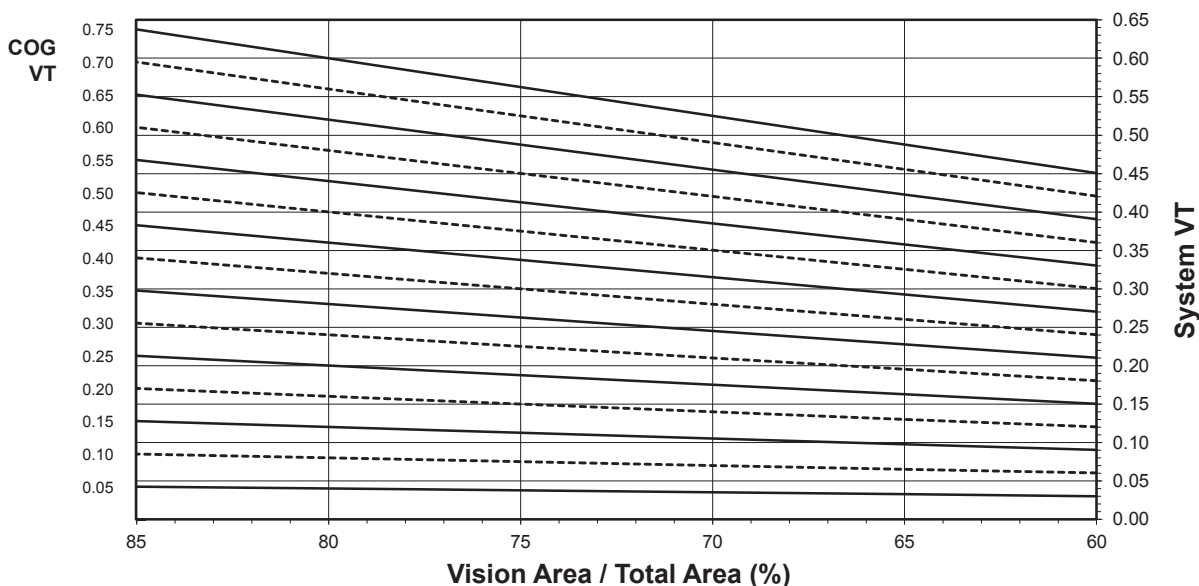


**AA®5450 DOUBLE HUNG WINDOW - BEVEL FACE**  
**1-1/4" Triple Glazed - Aluminum Glazing Spacer - 15lb. Sill**

**System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area**



**System Visible Transmittance (VT) vs Percent of Vision Area**



**AA®5450 BEVELED DOUBLE HUNG WINDOW**  
**- BEVEL FACE**  
**1-1/4" Triple Glazed**  
**Aluminum Glazing Spacer**  
**15lb. Sill**

**Thermal Transmittance <sup>1</sup> (BTU/hr • ft<sup>2</sup> • °F)**

Glass U-Factor <sup>3</sup>	Overall U-Factor <sup>4</sup>
0.32	0.40
0.30	0.39
0.28	0.37
0.26	0.36
0.24	0.35
0.22	0.34
0.20	0.32
0.18	0.31
0.16	0.30
0.14	0.28
0.12	0.27
0.10	0.26

**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 1,200 mm wide by 1,500 mm high (47-1/4" by 59-1/16").

**SHGC Matrix <sup>2</sup>**

Glass SHGC <sup>3</sup>	Overall SHGC <sup>4</sup>
0.75	0.54
0.70	0.50
0.65	0.47
0.60	0.43
0.55	0.40
0.50	0.36
0.45	0.33
0.40	0.29
0.35	0.25
0.30	0.22
0.25	0.18
0.20	0.15
0.15	0.11
0.10	0.08
0.05	0.04

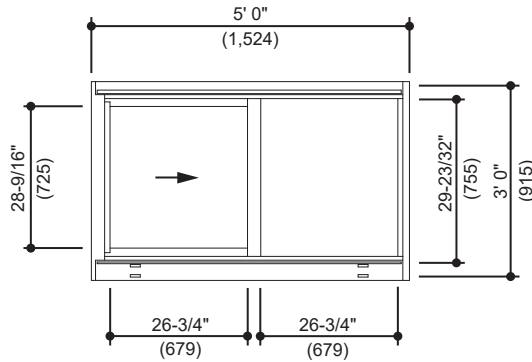
**Visible Transmittance <sup>2</sup>**

Glass VT <sup>3</sup>	Overall VT <sup>4</sup>
0.75	0.53
0.70	0.49
0.65	0.46
0.60	0.42
0.55	0.39
0.50	0.35
0.45	0.32
0.40	0.28
0.35	0.25
0.30	0.21
0.25	0.18
0.20	0.14
0.15	0.11
0.10	0.07
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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**Generic Project Specific U-factor Example Calculation**  
(Percent of glass will vary on specific products depending on sitelines)



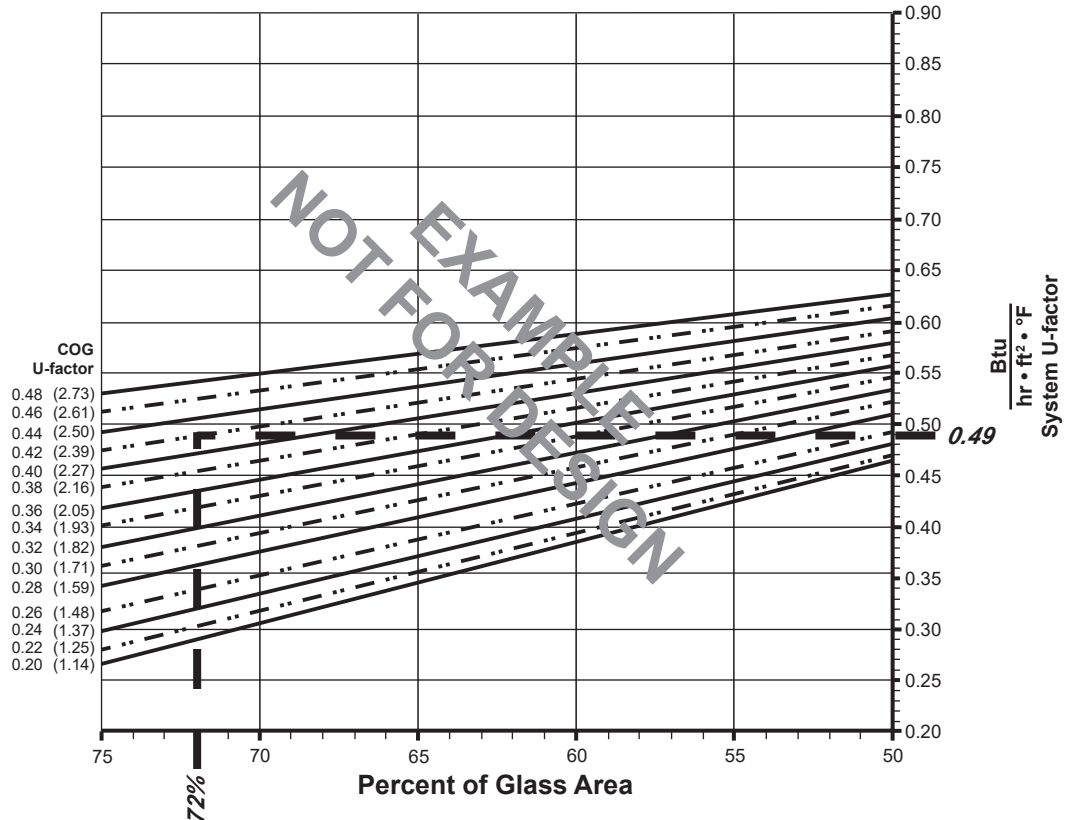
Example Glass U-Factor = 0.42 Btu/hr • ft<sup>2</sup> • °F

Total Daylight Opening = (28-9/16" • 26-3/4") + (29-23/32" • 26-3/4") = 10.83 ft<sup>2</sup>

Total Projected Area = 3' 0" • 5' 0" = 15 ft<sup>2</sup>

Percent of Glass = (Total Daylight Opening ÷ Total Projected Area)100  
= (10.83 ÷ 15)100 = 72%

**System U-factor vs Percent of Glass Area**



Based on 72% glass and center of glass (COG) U-factor of 0.42  
System U-factor is equal to 0.49 Btu/hr • ft<sup>2</sup> • °F

## AA®5450 OX / XO HORIZONTAL SLIDING WINDOW

### 1" Double Glazed - Aluminum Glazing Spacer - 10lb. Sill

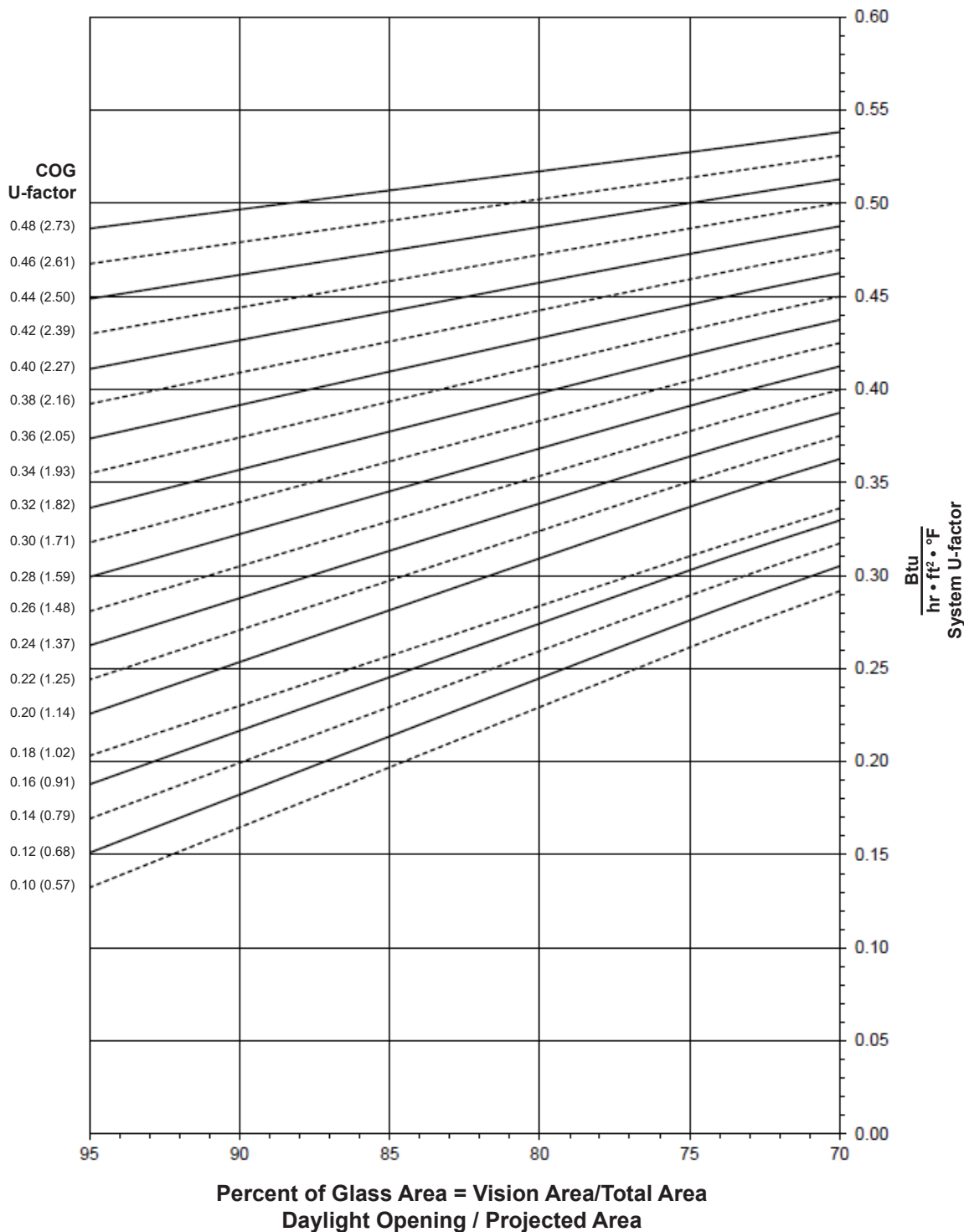
**Note:**

Values in parentheses are metric.

COG = Center of Glass.

Charts are generated per AAMA 507

**System U-factor vs Percent of Glass Area**

**Notes for System U-factor, SHGC and VT charts:**

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

Glass properties are based on center of glass values and are obtained from your glass supplier.

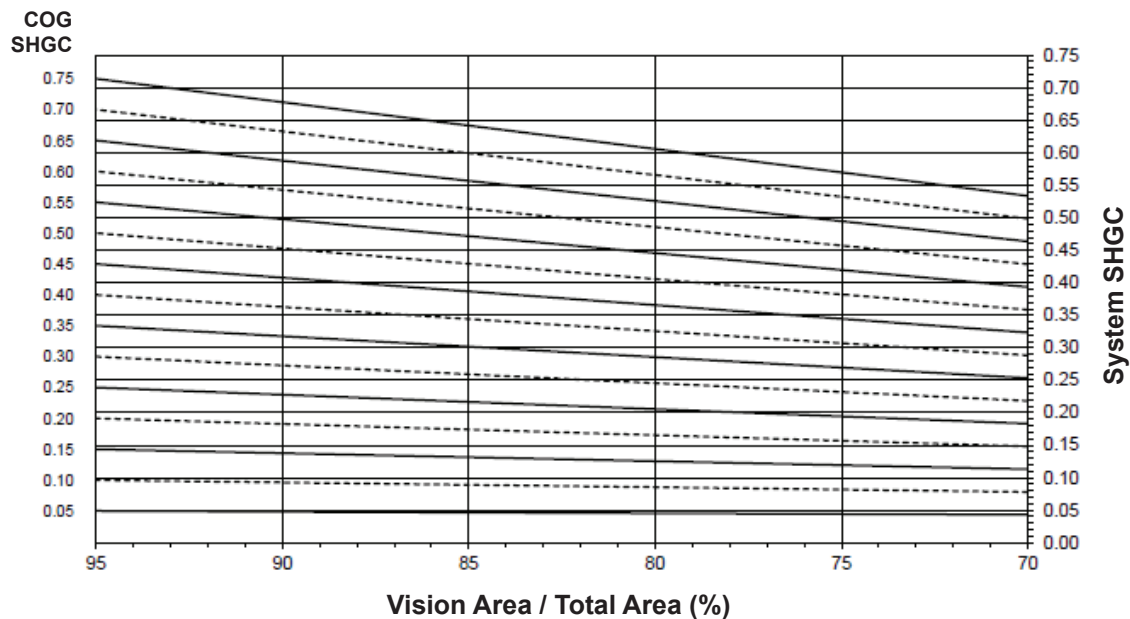
Laws and building and safety codes governing the design and use of Kawneer products, such as glazed entrance, window, and curtain wall products, vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.

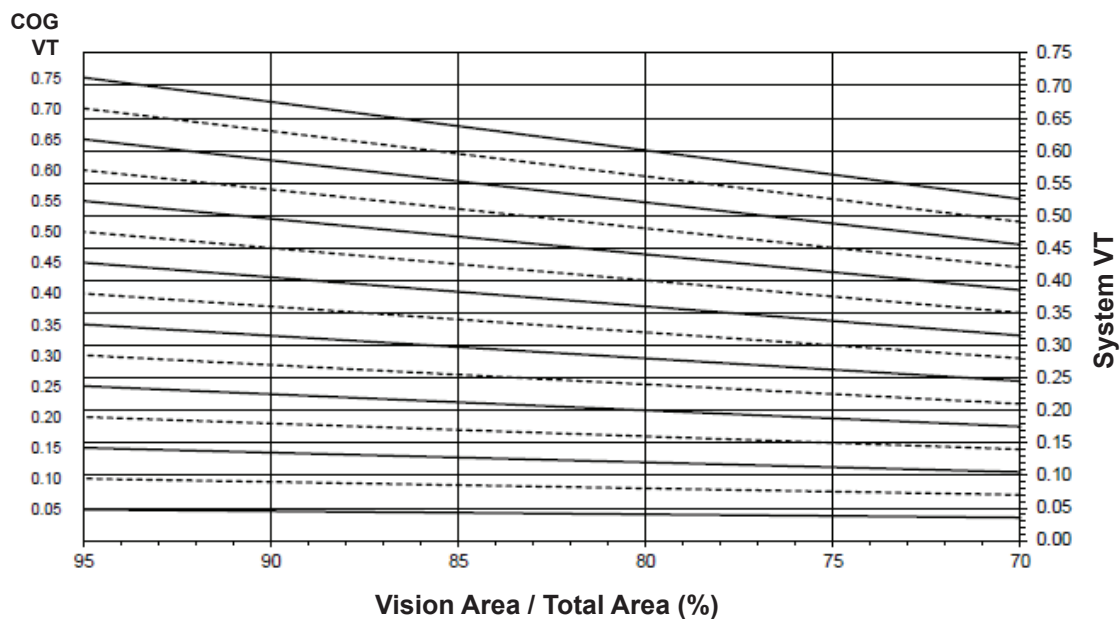
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**AA®5450 OX / XO HORIZONTAL SLIDING WINDOW**  
**1" Double Glazed - Aluminum Glazing Spacer - 10lb Sill**

**System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area**



**System Visible Transmittance (VT) vs Percent of Vision Area**



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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**Thermal Transmittance** <sup>1</sup> (BTU/hr • ft<sup>2</sup> • °F)

Glass U-Factor <sup>3</sup>	Overall U-Factor <sup>4</sup>
0.48	0.53
0.46	0.51
0.44	0.50
0.42	0.49
0.40	0.47
0.38	0.46
0.36	0.45
0.34	0.43
0.32	0.42
0.30	0.40
0.28	0.39
0.26	0.38
0.24	0.36
0.22	0.35
0.20	0.34
0.18	0.31
0.16	0.30
0.14	0.29
0.12	0.28
0.10	0.26

**AA®5450 OX / XO HORIZONTAL  
SLIDING WINDOW  
1" Double Glazed  
Aluminum Glazing Spacer  
-10lb. Sill**

**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 1,500 mm wide by 1,200 mm high (59-1/16" by 47-1/4").

**SHGC Matrix** <sup>2</sup>

Glass SHGC <sup>3</sup>	Overall SHGC <sup>4</sup>
0.75	0.57
0.70	0.53
0.65	0.49
0.60	0.46
0.55	0.42
0.50	0.38
0.45	0.34
0.40	0.31
0.35	0.27
0.30	0.23
0.25	0.19
0.20	0.16
0.15	0.12
0.10	0.08
0.05	0.04

**Visible Transmittance** <sup>2</sup>

Glass VT <sup>3</sup>	Overall VT <sup>4</sup>
0.75	0.56
0.70	0.53
0.65	0.49
0.60	0.45
0.55	0.41
0.50	0.38
0.45	0.34
0.40	0.30
0.35	0.26
0.30	0.23
0.25	0.19
0.20	0.15
0.15	0.11
0.10	0.08
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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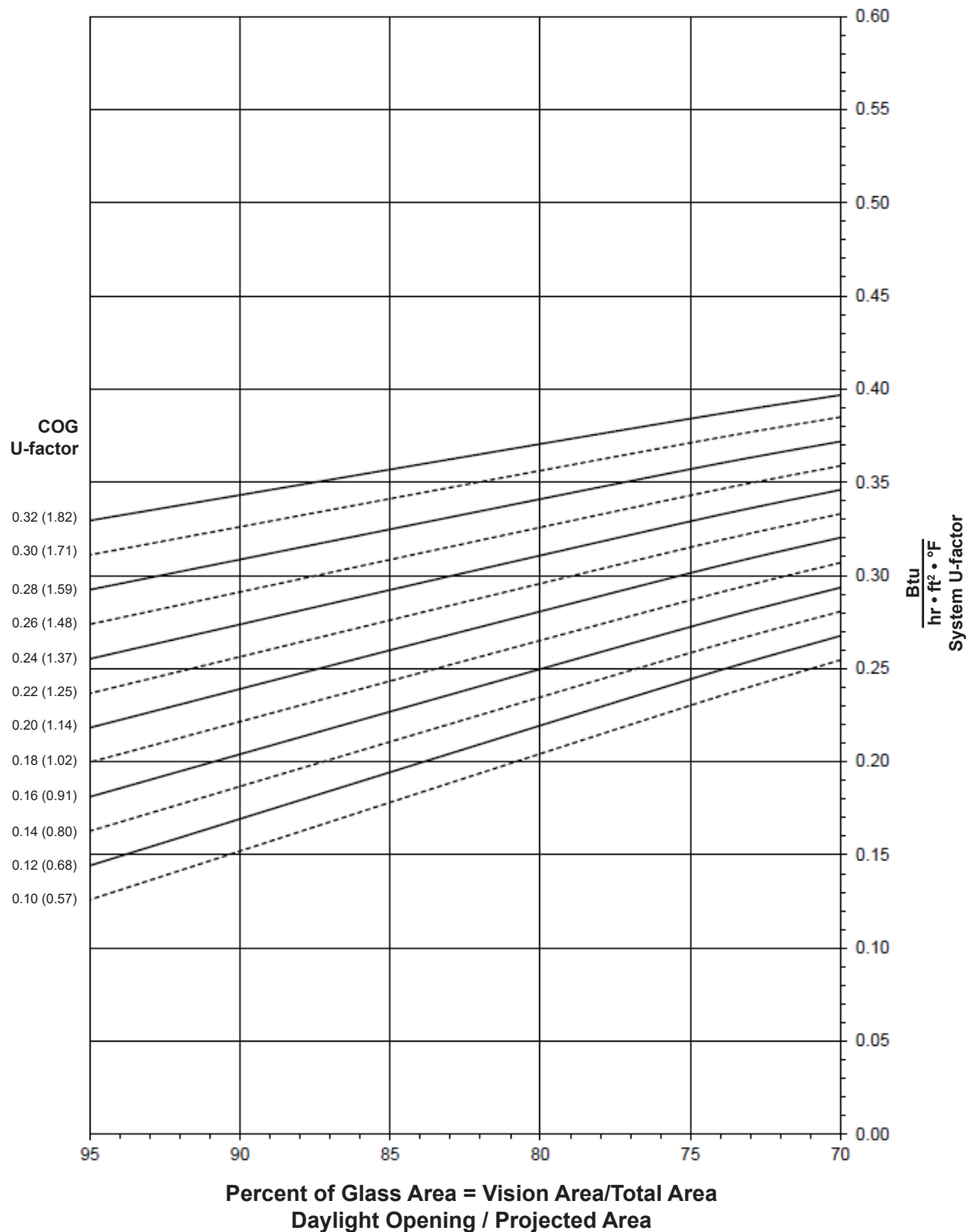
**AA®5450 OX / XO HORIZONTAL SLIDING WINDOW**  
**1-1/2" Triple Glazed - Aluminum Glazing Spacer - 10lb. Sill**

**Note:**

Values in parentheses are metric.

COG = Center of Glass.

Charts are generated per AAMA 507

**System U-factor vs Percent of Glass Area****Notes for System U-factor, SHGC and VT charts:**

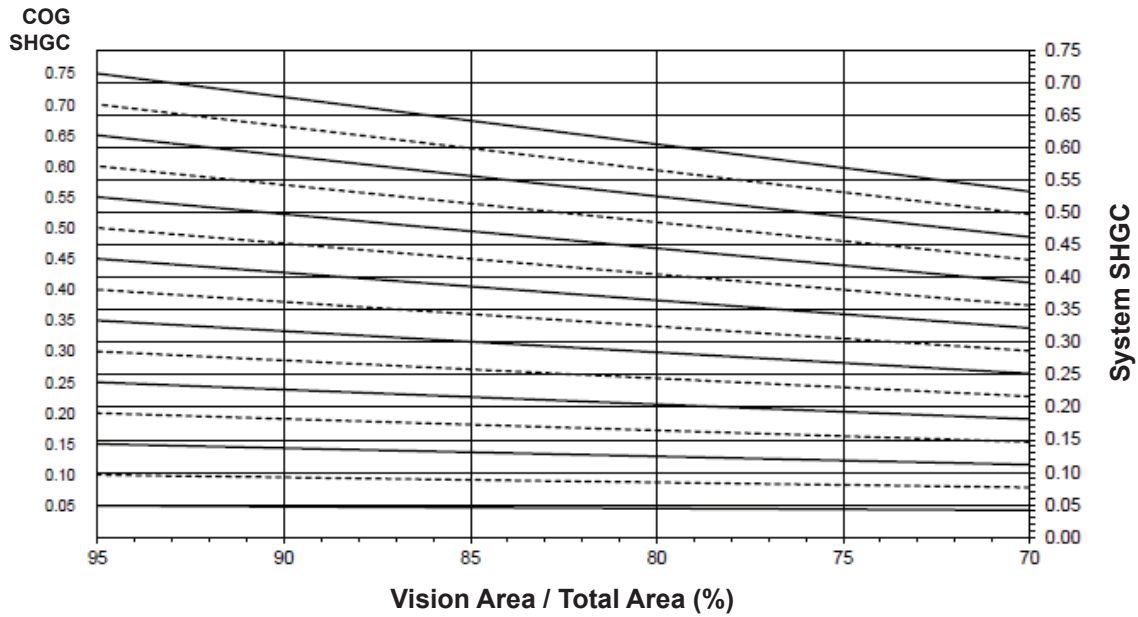
For glass values that are not listed, linear interpolation is permitted.

Glass properties are based on center of glass values and are obtained from your glass supplier.

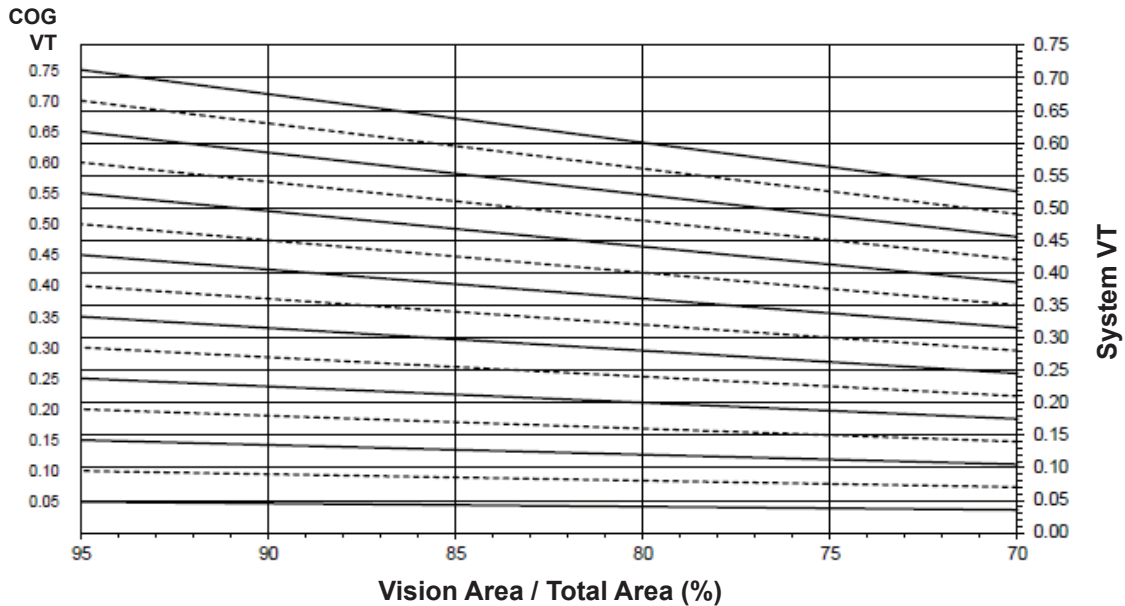


**AA®5450 OX / XO HORIZONTAL SLIDING WINDOW**  
**1-1/2" Triple Glazed - Aluminum Glazing Spacer - 10lb. Sill**

**System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area**



**System Visible Transmittance (VT) vs Percent of Vision Area**



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

Glass U-Factor <sup>3</sup>	Overall U-Factor <sup>4</sup>
0.32	0.38
0.30	0.37
0.28	0.36
0.26	0.34
0.24	0.33
0.22	0.31
0.20	0.30
0.18	0.29
0.16	0.27
0.14	0.26
0.12	0.24
0.10	0.23

**AA®5450 OX / XO HORIZONTAL  
SLIDING WINDOW  
1-1/2" Triple Glazed  
Aluminum Glazing Spacer  
10lb. Sill**

**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 1,500 mm wide by 1,200 mm high (59-1/16" by 47-1/4").

SHGC Matrix<sup>2</sup>

Glass SHGC <sup>3</sup>	Overall Glass U-Factor <sup>4</sup>
0.75	0.57
0.70	0.53
0.65	0.49
0.60	0.46
0.55	0.42
0.50	0.38
0.45	0.34
0.40	0.31
0.35	0.27
0.30	0.23
0.25	0.19
0.20	0.16
0.15	0.12
0.10	0.08
0.05	0.04

Visible Transmittance<sup>2</sup>

Glass VT <sup>3</sup>	Overall VT <sup>4</sup>
0.75	0.56
0.70	0.53
0.65	0.49
0.60	0.45
0.55	0.41
0.50	0.38
0.45	0.34
0.40	0.30
0.35	0.26
0.30	0.23
0.25	0.19
0.20	0.15
0.15	0.11
0.10	0.08
0.05	0.04

**AA®5450 XX HORIZONTAL SLIDING WINDOW**  
**1" Double Glazed - Aluminum Glazing Spacer - 10lb. Sill**

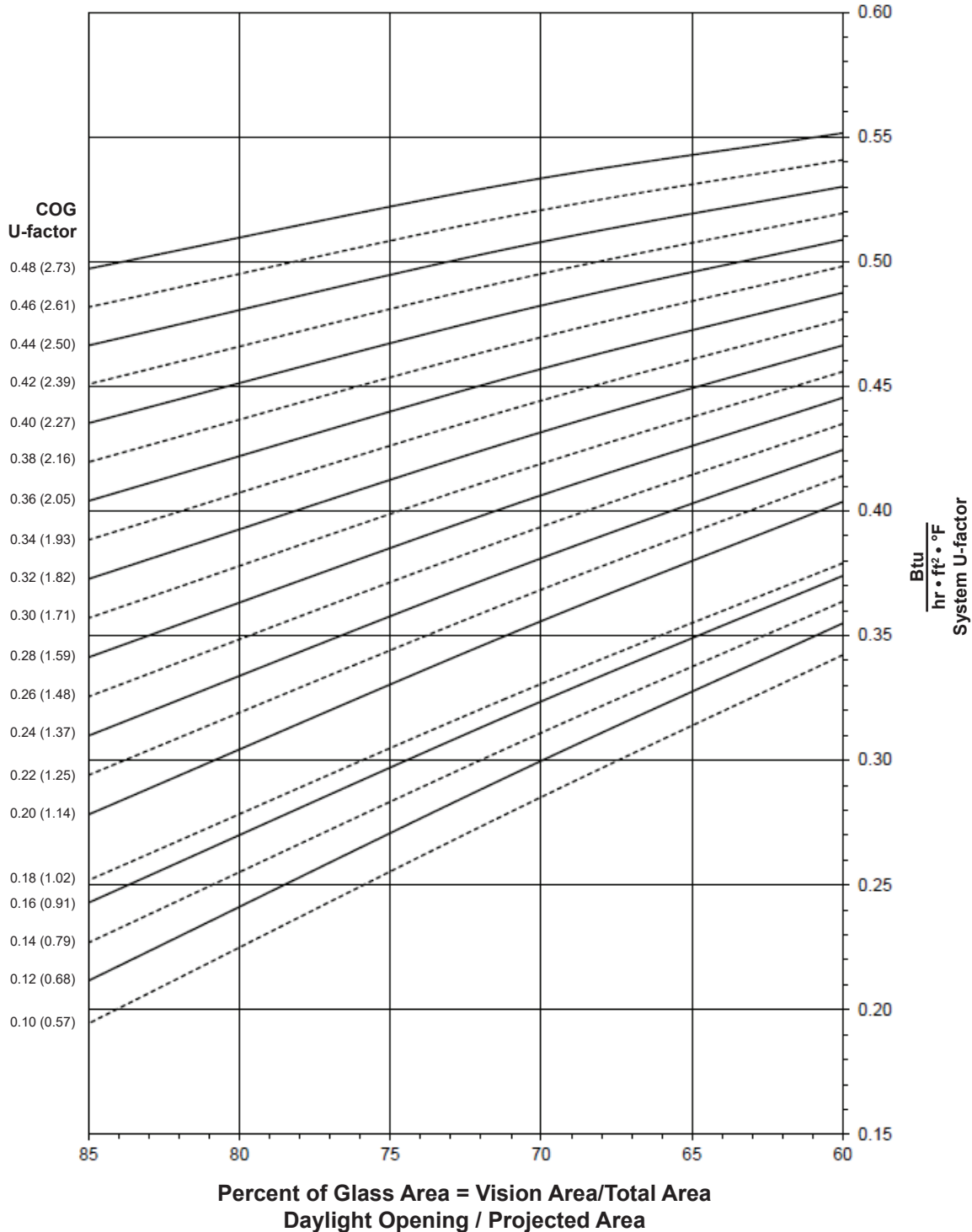
**Note:**

Values in parentheses are metric.

COG = Center of Glass.

Charts are generated per AAMA 507

**System U-factor vs Percent of Glass Area**

**Notes for System U-factor, SHGC and VT charts:**

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

Glass properties are based on center of glass values and are obtained from your glass supplier.

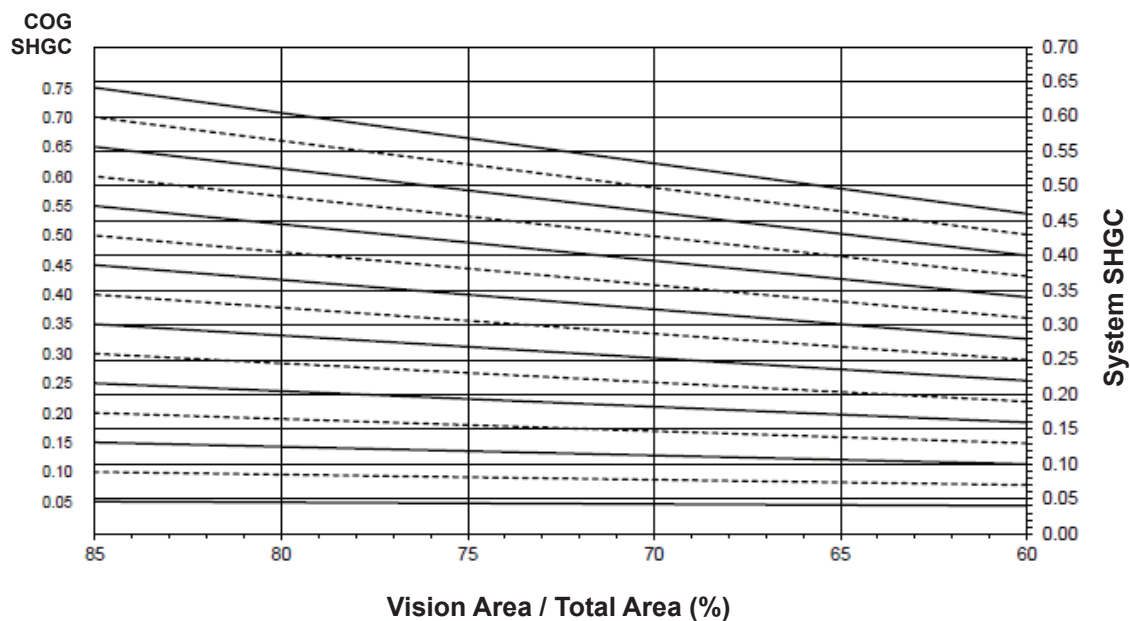
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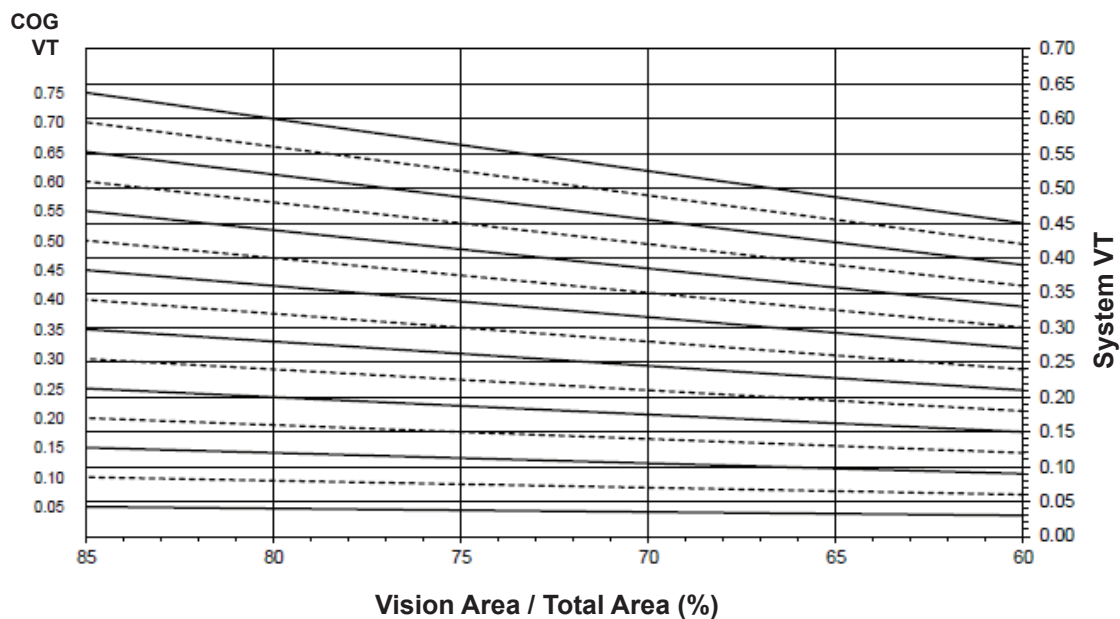
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**AA®5450 XX HORIZONTAL SLIDING WINDOW**  
**1" Double Glazed - Aluminum Glazing Spacer - 10lb. Sill**

**System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area**



**System Visible Transmittance (VT) vs Percent of Vision Area**



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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**Thermal Transmittance** <sup>1</sup> (BTU/hr • ft<sup>2</sup> • °F)

Glass U-Factor <sup>3</sup>	Overall U-Factor <sup>4</sup>
0.48	0.53
0.46	0.52
0.44	0.50
0.42	0.49
0.40	0.48
0.38	0.47
0.36	0.45
0.34	0.44
0.32	0.43
0.30	0.41
0.28	0.40
0.26	0.39
0.24	0.38
0.22	0.36
0.20	0.35
0.18	0.32
0.16	0.32
0.14	0.30
0.12	0.29
0.10	0.28

**AA®5450 XX HORIZONTAL  
SLIDING WINDOW  
1" Double Glazed  
Aluminum Glazing Spacer  
10lb. Sill**

**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 1,500 mm wide by 1,200 mm high (59-1/16" by 47-1/4").

**SHGC Matrix** <sup>2</sup>

Glass SHGC <sup>3</sup>	Overall SHGC <sup>4</sup>
0.75	0.54
0.70	0.51
0.65	0.47
0.60	0.43
0.55	0.40
0.50	0.36
0.45	0.33
0.40	0.29
0.35	0.26
0.30	0.22
0.25	0.19
0.20	0.15
0.15	0.11
0.10	0.08
0.05	0.04

**Visible Transmittance** <sup>2</sup>

Glass VT <sup>3</sup>	Overall VT <sup>4</sup>
0.75	0.53
0.70	0.50
0.65	0.46
0.60	0.43
0.55	0.39
0.50	0.36
0.45	0.32
0.40	0.28
0.35	0.25
0.30	0.21
0.25	0.18
0.20	0.14
0.15	0.11
0.10	0.07
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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**AA®5450 XX HORIZONTAL SLIDING WINDOW**  
**1-1/2" Triple Glazed - Aluminum Glazing Spacer - 10lb. Sill**

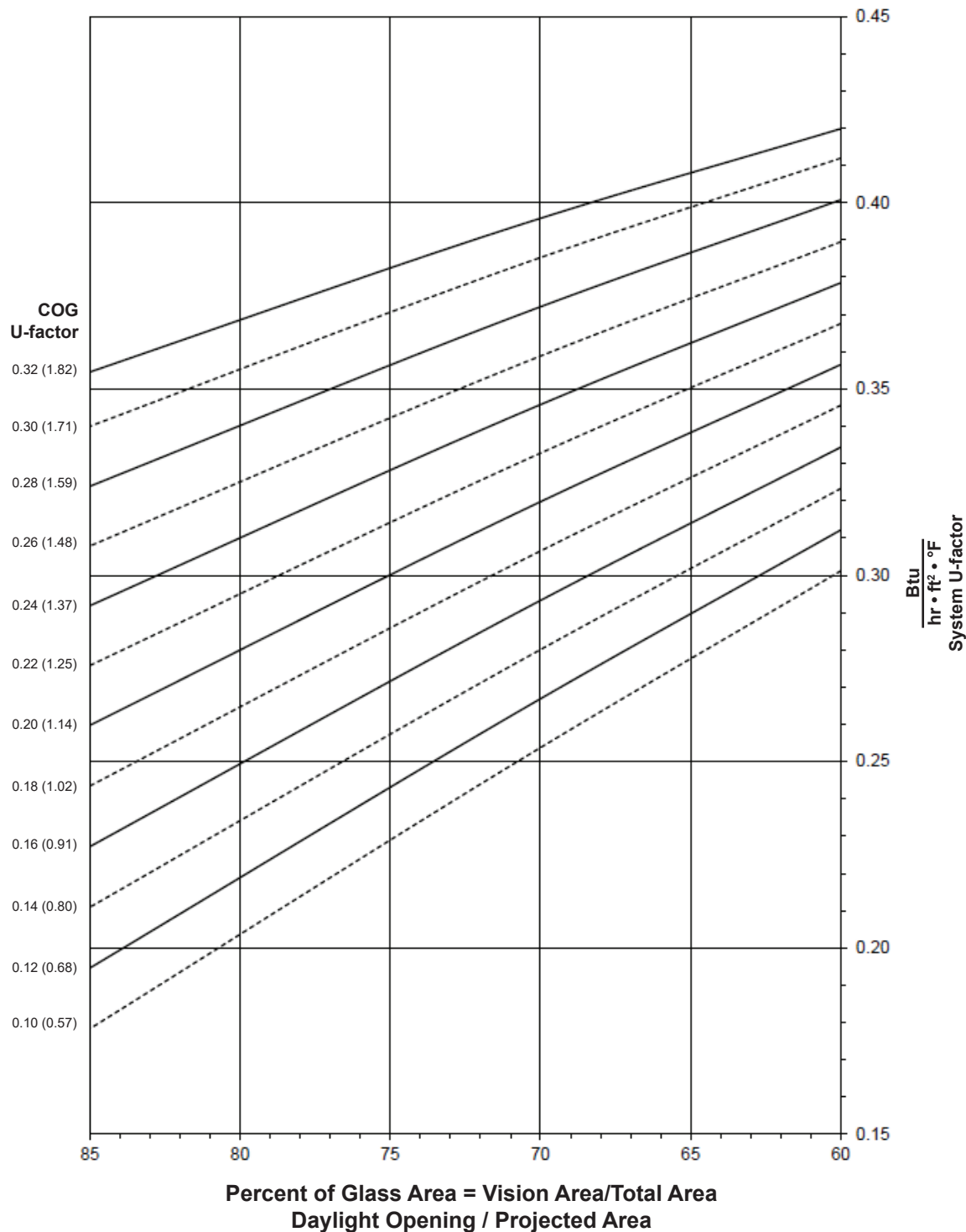
**Note:**

Values in parentheses are metric.

COG = Center of Glass.

Charts are generated per AAMA 507

**System U-factor vs Percent of Glass Area**



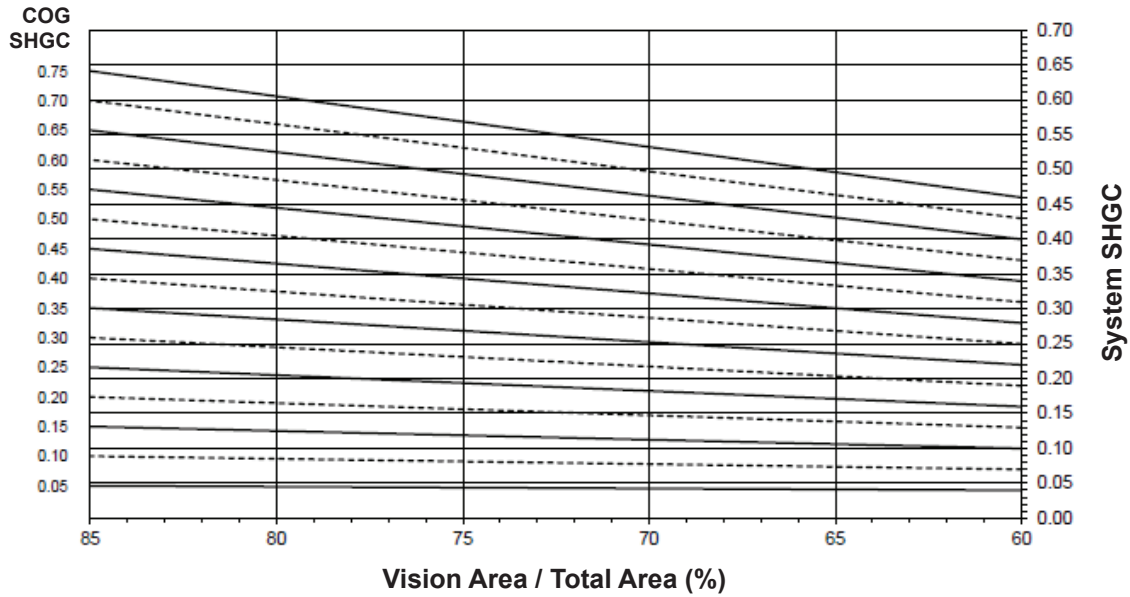
**Notes for System U-factor, SHGC and VT charts:**

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

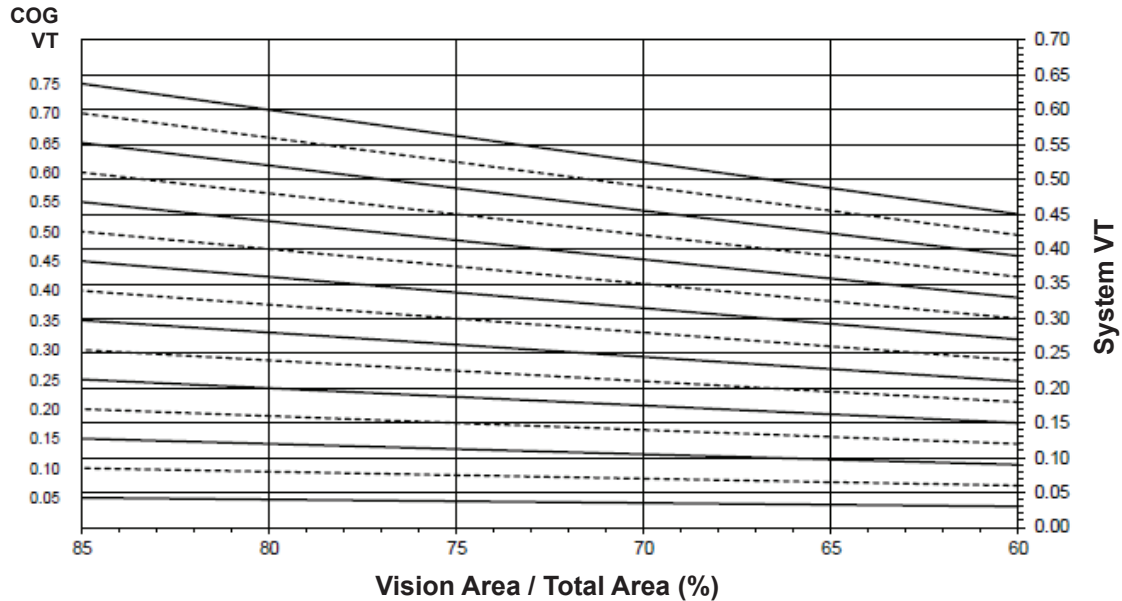
Glass properties are based on center of glass values and are obtained from your glass supplier.

**AA®5450 XX HORIZONTAL SLIDING WINDOW**  
**1-1/2" Triple Glazed - Aluminum Glazing Spacer - 10lb. Sill**

**System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area**



**System Visible Transmittance (VT) vs Percent of Vision Area**



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

Glass U-Factor <sup>3</sup>	Overall U-Factor <sup>4</sup>
0.32	0.39
0.30	0.38
0.28	0.37
0.26	0.35
0.24	0.34
0.22	0.33
0.20	0.32
0.18	0.30
0.16	0.29
0.14	0.27
0.12	0.26
0.10	0.25

**AA®5450 XX HORIZONTAL  
SLIDING WINDOW  
1-1/2" Triple Glazed  
Aluminum Glazing Spacer  
10lb. Sill**

**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 1,500 mm wide by 1,200 mm high (59-1/16" by 47-1/4").

SHGC Matrix<sup>2</sup>

Glass SHGC <sup>3</sup>	Overall Glass U-Factor <sup>4</sup>
0.75	0.54
0.70	0.51
0.65	0.47
0.60	0.43
0.55	0.40
0.50	0.36
0.45	0.33
0.40	0.29
0.35	0.26
0.30	0.22
0.25	0.18
0.20	0.15
0.15	0.11
0.10	0.08
0.05	0.04

Visible Transmittance<sup>2</sup>

Glass VT <sup>3</sup>	Overall VT <sup>4</sup>
0.75	0.53
0.70	0.50
0.65	0.46
0.60	0.43
0.55	0.39
0.50	0.36
0.45	0.32
0.40	0.28
0.35	0.25
0.30	0.21
0.25	0.18
0.20	0.14
0.15	0.11
0.10	0.07
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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