

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.
© 2014, Kawneer Company, Inc.

FIXED WINDOW 2-9
PROJECT-IN WINDOW 10-14
PROJECT-OUT WINDOW 15-18
INSWING CASEMENT WINDOW 19-24
OUTSWING CASEMENT WINDOW 25-29
RECEPTORS, SUB SILLS AND ANCHORING 30
PANNING 31
WIND LOAD CHARTS 32-33
THERMAL CHARTS 34-61

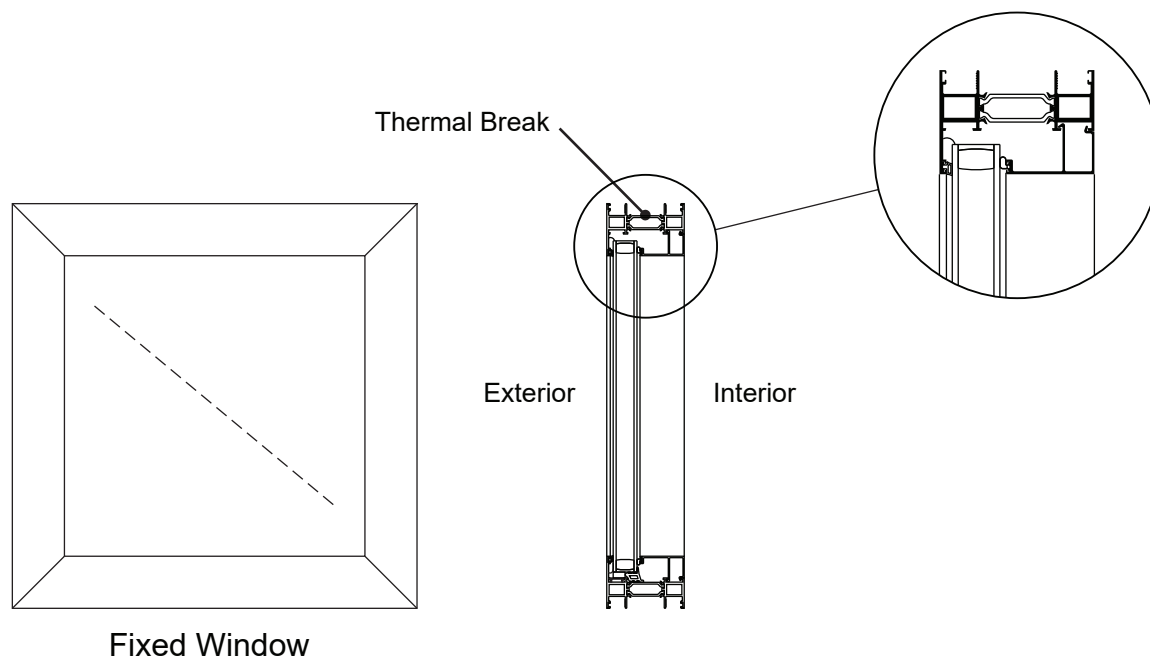
Metric (SI) conversion figures are included throughout these details for reference. Numbers in parentheses () are millimeters unless otherwise noted.

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

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

Standard Features

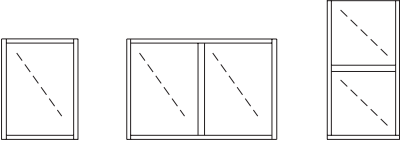
- Architectural Grade Window
- Tested to US and Canadian Standards
- Polyamide Thermal Break
- Tubular Profiles
- 45° Mitered Frame Corners
- Staked Corner Joinery
- Factory Silicone Glazed
- Factory Heel Bead
- Interior Applied Glazing Bead
- Architectural Anodized Finishes and Applied Coatings
- Interior and Exterior Dual Finish Options



For specific product applications,
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.

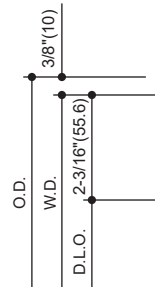
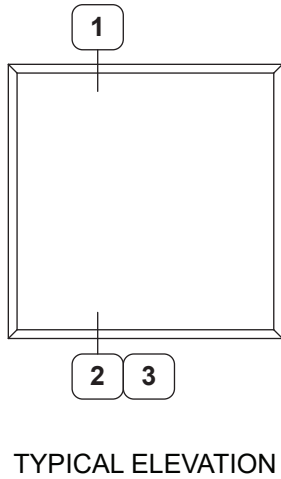
Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© 2014, Kawneer Company, Inc.

CLASS and GRADE	Architectural Class AW-PG80-FW
TESTING STANDARD	AAMA / WDMA CSA 101 / I.S.2 / A440-05 / A440-08
FRAME DEPTH	3-1/4" Overall Frame Depth
TYPICAL WALL THICKNESS	.080" Nominal Frame
TYPICAL MAXIMUM SIZE	60" x 99"
TYPICAL MINIMUM SIZE	17" x 17"
TYPICAL CONFIGURATIONS	
INFILL OPTIONS	1" and 1-3/4" (Other infill options available upon request.)
STANDARD HARDWARE	Not Applicable
OPTIONAL HARDWARE	Not Applicable
OTHER OPTIONS	Structural Mullions Vertically or Horizontally Stacked Receptor and Sub Sill Panning Internal Blinds Exterior or Interior Muntins 1" High Thermal Option Outside Glazing Option

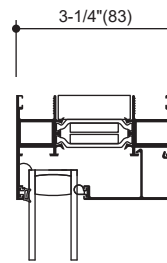
Laws and building and safety codes governing the design and use of Kawneer products, such as glazed entrance, window, and curtain wall products, vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© 2014, Kawneer Company, Inc.

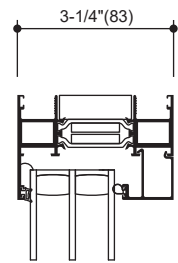
Additional information and CAD details are available at www.kawneer.com



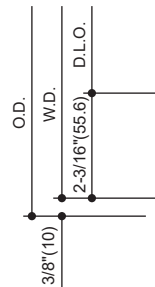
1
HEAD



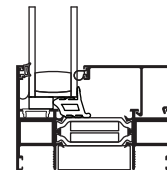
1
OPTIONAL
1" HIGH THERMAL
HEAD



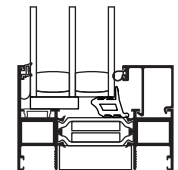
1
OPTIONAL
1-3/4" HIGH THERMAL
HEAD



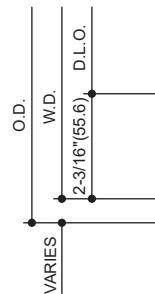
2
SILL



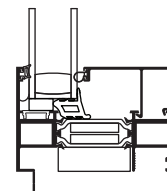
2
OPTIONAL
1" HIGH THERMAL
SILL



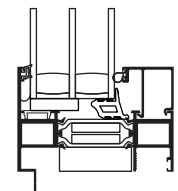
2
OPTIONAL
1-3/4" HIGH THERMAL
SILL



3
SILL



3
OPTIONAL
1" HIGH THERMAL
SILL



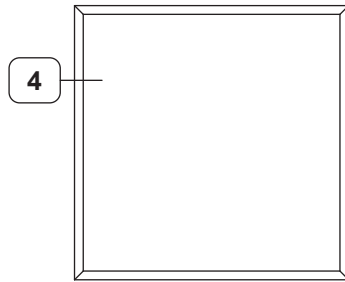
3
OPTIONAL
1-3/4" HIGH THERMAL
SILL

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.

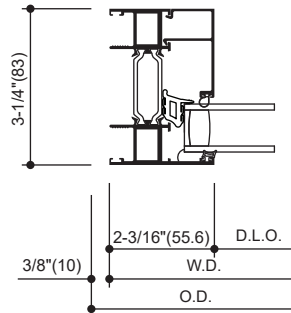
Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.

© 2014, Kawneer Company, Inc.

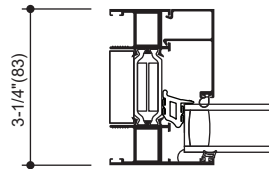
Additional information and CAD details are available at www.kawneer.com



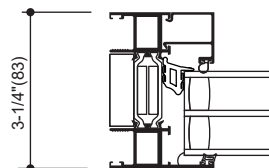
TYPICAL ELEVATION



4
JAMB



4
OPTIONAL
1" HIGH THERMAL
JAMB

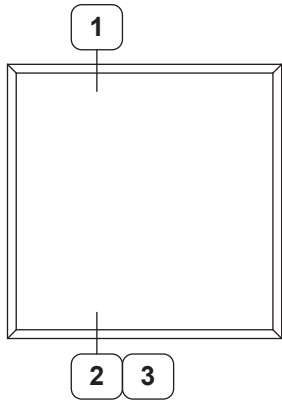


4
OPTIONAL
1-3/4" HIGH THERMAL
JAMB

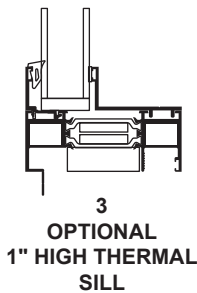
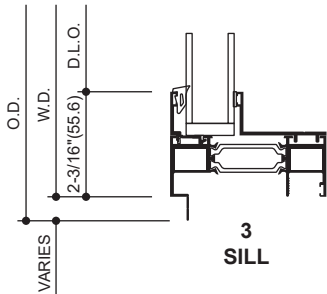
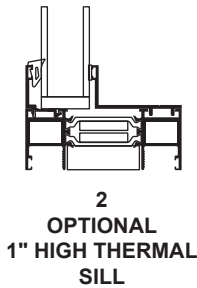
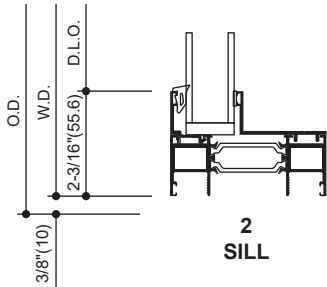
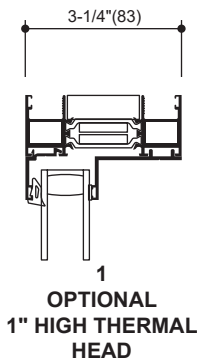
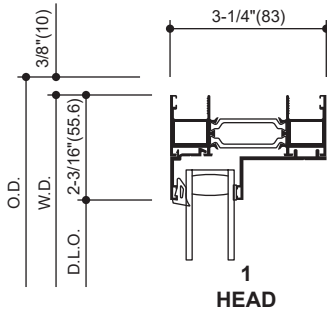
Laws and building and safety codes governing the design and use of Kawneer products, such as glazed entrance, window, and curtain wall products, vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© 2014, Kawneer Company, Inc.

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



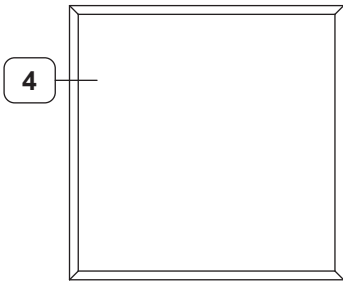
TYPICAL ELEVATION



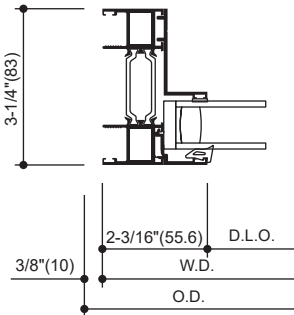
Laws and building and safety codes governing the design and use of Kawneer products, such as glazed entrance, window, and curtain wall products, vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© 2014, Kawneer Company, Inc.

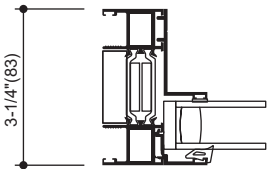
Additional information and CAD details are available at www.kawneer.com



TYPICAL ELEVATION



4
JAMB

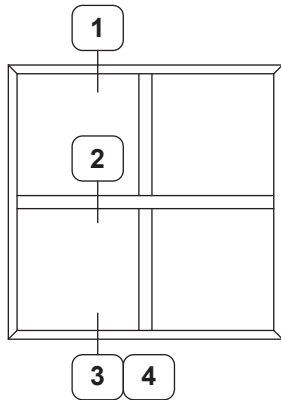


4
OPTIONAL
1" HIGH THERMAL
JAMB

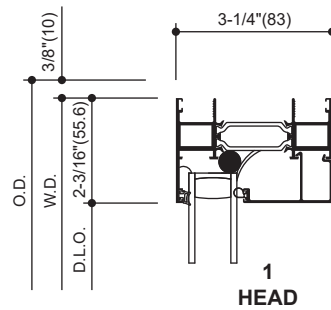
Laws and building and safety codes governing the design and use of Kawneer products, such as glazed entrance, window, and curtain wall products, vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© 2014, Kawneer Company, Inc.

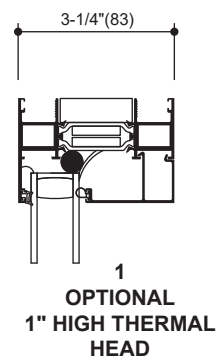
Additional information and CAD details are available at www.kawneer.com



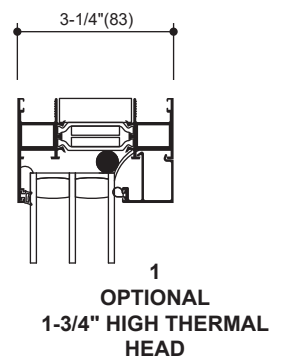
TYPICAL ELEVATION



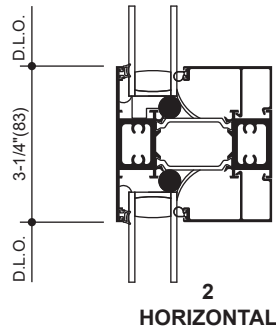
1
HEAD



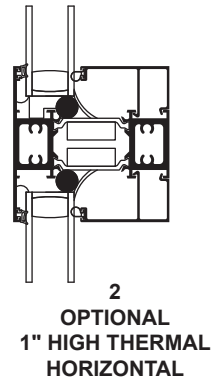
1
OPTIONAL
1" HIGH THERMAL
HEAD



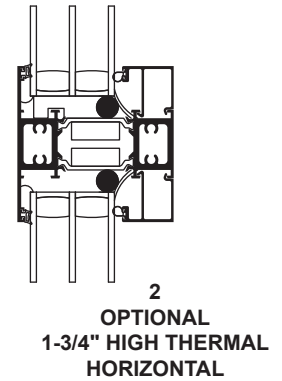
1
OPTIONAL
1-3/4" HIGH THERMAL
HEAD



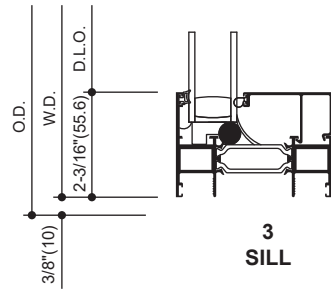
2
HORIZONTAL



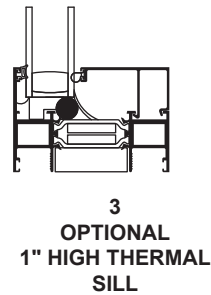
2
OPTIONAL
1" HIGH THERMAL
HORIZONTAL



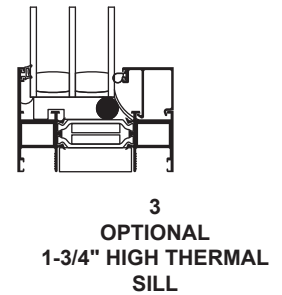
2
OPTIONAL
1-3/4" HIGH THERMAL
HORIZONTAL



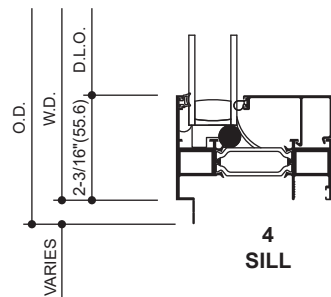
3
SILL



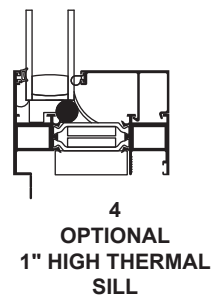
3
OPTIONAL
1" HIGH THERMAL
SILL



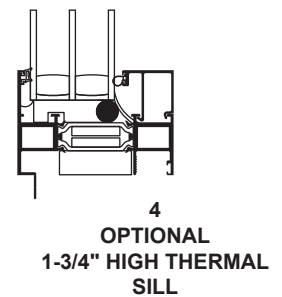
3
OPTIONAL
1-3/4" HIGH THERMAL
SILL



4
SILL



4
OPTIONAL
1" HIGH THERMAL
SILL

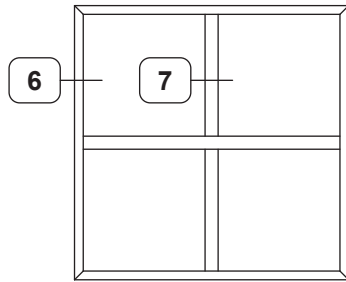


4
OPTIONAL
1-3/4" HIGH THERMAL
SILL

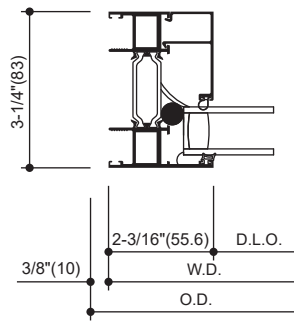
Laws and building and safety codes governing the design and use of Kawneer products, such as glazed entrance, window, and curtain wall products, vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© 2014, Kawneer Company, Inc.

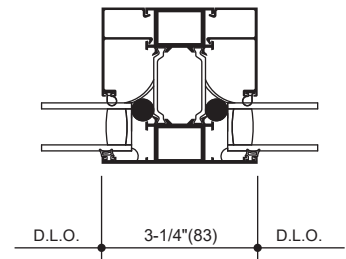
Additional information and CAD details are available at www.kawneer.com



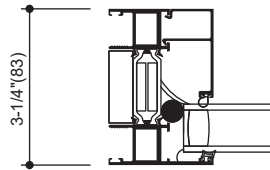
TYPICAL ELEVATION



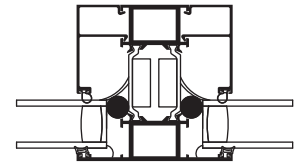
6
JAMB



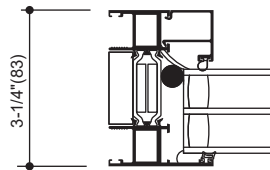
7
VERTICAL



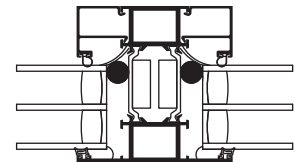
6
OPTIONAL
1" HIGH THERMAL
JAMB



7
OPTIONAL
1" HIGH THERMAL
VERTICAL



6
OPTIONAL
1-3/4" HIGH THERMAL
JAMB



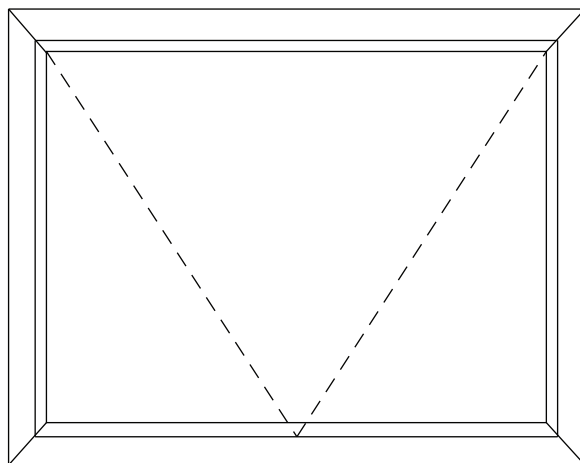
7
OPTIONAL
1-3/4" HIGH THERMAL
VERTICAL

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.

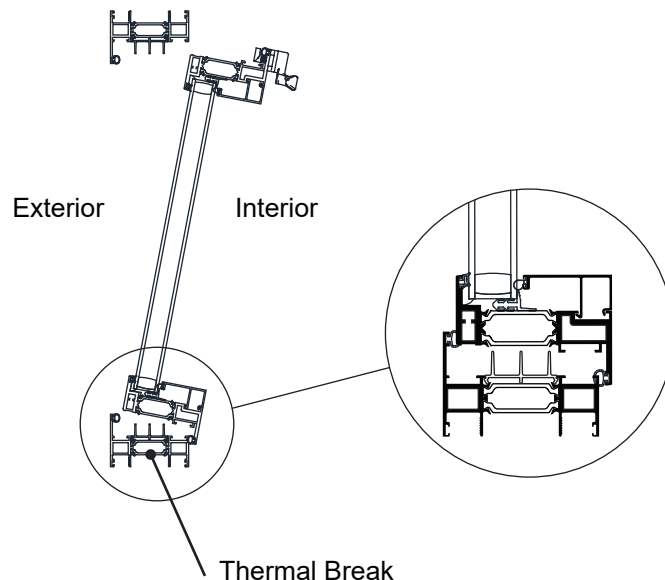
Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© 2014, Kawneer Company, Inc.

Standard Features

- Architectural Grade Window
- Tested to US and Canadian Standards
- Polyamide Thermal Break
- Tubular Profiles
- 45° Mitered Vent and Frame Corners
- Staked Corner Joinery
- Factory Silicone Glazed
- Adjustable EURO-Groove Mounted Hardware
- Interior Applied Glazing Bead
- Architectural Anodized Finishes and Applied Coatings
- Interior and Exterior Dual Finish Options



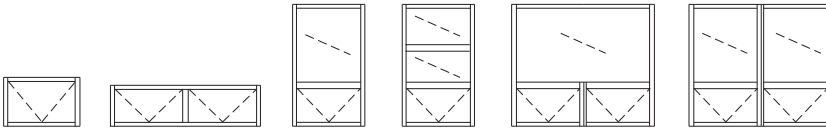
Project-In Window



For specific product applications,
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.

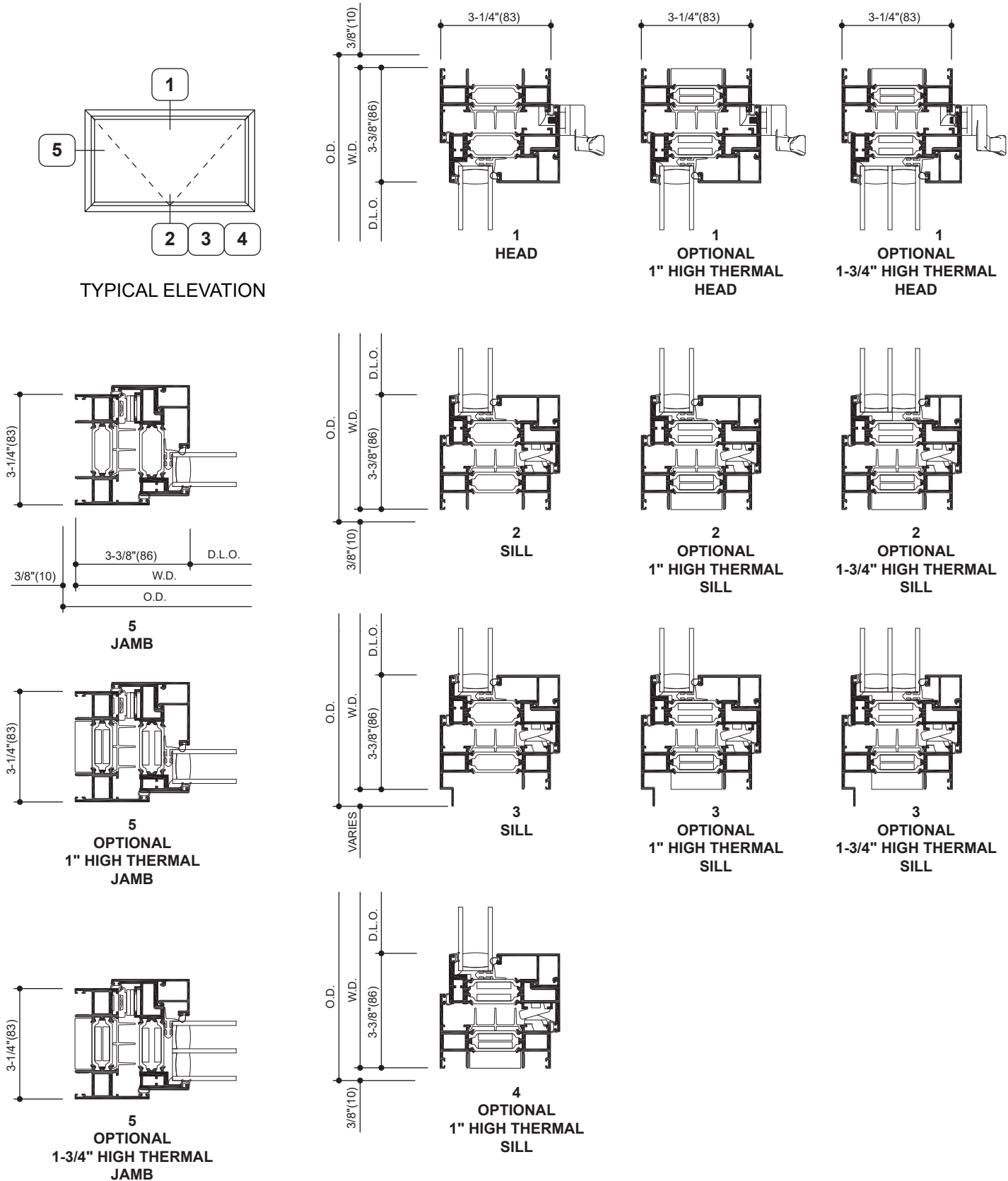
Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© 2014, Kawneer Company, Inc.

CLASS and GRADE	Architectural Grade AW-PG80-AP
TESTING STANDARD	AAMA / WDMA CSA 101 / I.S.2 / A440-05 / A440-08
FRAME DEPTH	3-1/4" Overall Frame Depth
TYPICAL WALL THICKNESS	.080" Nominal Frame / .125" Nominal Vent
TYPICAL MAX. VENT SIZE	60" x 36"
TYPICAL MIN. VENT SIZE	24" x 19"
TYPICAL CONFIGURATIONS	
INFILL OPTIONS	1" and 1-3/4" (Other infill options available upon request.)
STANDARD HARDWARE	Stainless Steel 4-Bar Hinges Cast White Bronze Cam Handles
OPTIONAL HARDWARE	Access Control Locks Pole and Pole Ring Limit Stop
OTHER OPTIONS	Structural Mullions Vertically or Horizontally Stacked Insect Screens Receptor and Sub Sill Panning Internal Blinds Exterior or Interior Muntins 1" High Thermal Option Outside Glazing Option

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.
© 2014, Kawneer Company, Inc.

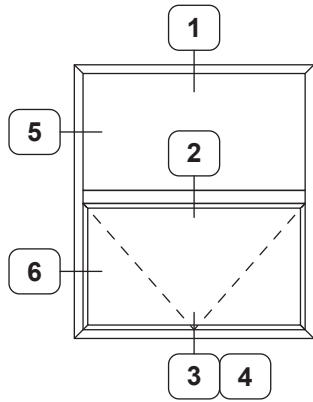
Additional information and CAD details are available at www.kawneer.com



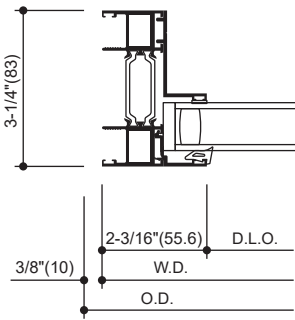
Laws and building and safety codes governing the design and use of Kawneer products, such as glazed entrance, window, and curtain wall products, vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© 2014, Kawneer Company, Inc.

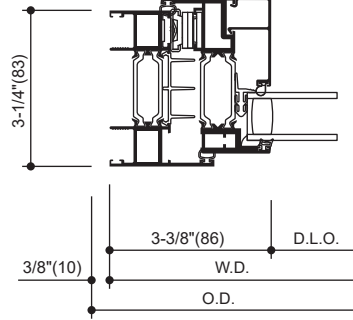
Additional information and CAD details are available at www.kawneer.com



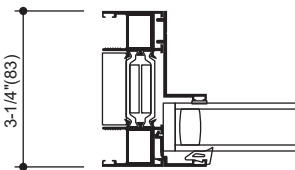
TYPICAL ELEVATION



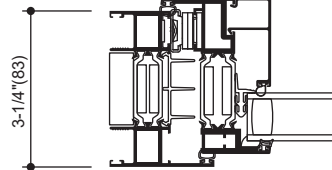
5
FIXED JAMB



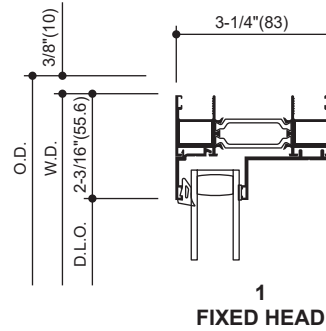
6
PROJECT-IN JAMB



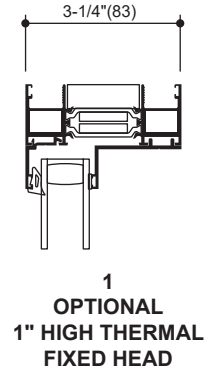
5
OPTIONAL
1" HIGH THERMAL
FIXED JAMB



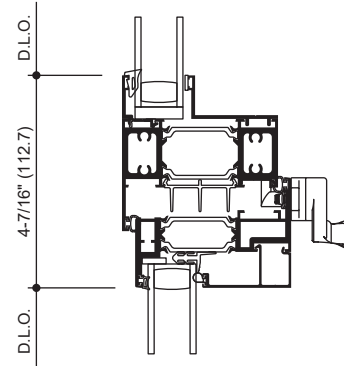
6
OPTIONAL
1" HIGH THERMAL
PROJECT-IN JAMB



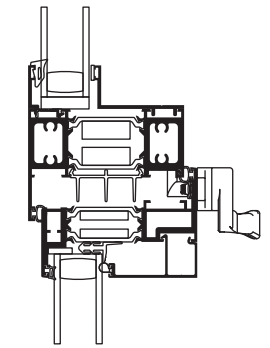
1
FIXED HEAD



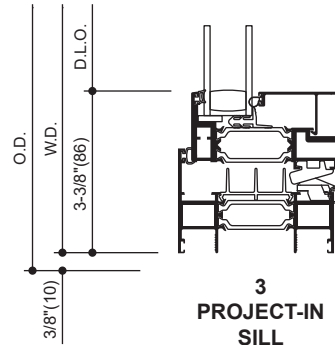
1
OPTIONAL
1" HIGH THERMAL
FIXED HEAD



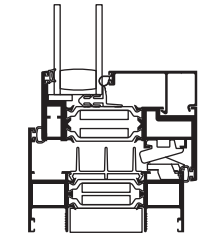
2
PROJECT-IN
HEAD



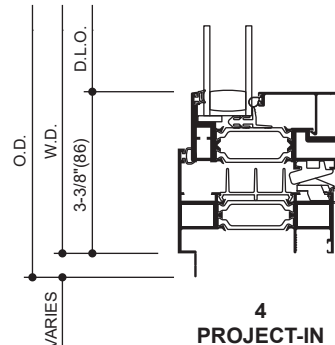
2
OPTIONAL
1" HIGH THERMAL
PROJECT-IN HEAD



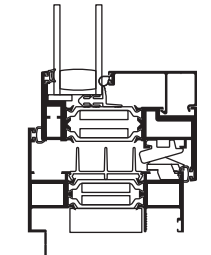
3
PROJECT-IN
SILL



3
OPTIONAL
1" HIGH THERMAL
PROJECT-IN SILL



4
PROJECT-IN
SILL

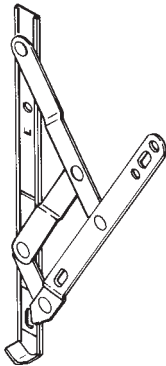


4
OPTIONAL
1" HIGH THERMAL
PROJECT-IN SILL

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.

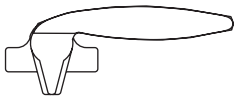
Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© 2014, Kawneer Company, Inc.

**STAINLESS STEEL
4 BAR HINGES**



A standard hinge for ventilators providing approximately 45° to 60° openings depending on size. An optional limit stop is available to restrict hinge travel and limit vent opening.

CAM HANDLE



Cast white bronze cam handles are an alternative to standard multi-point locking for the operation and locking of ventilators.

**CAM HANDLE
WITH POLE RING**



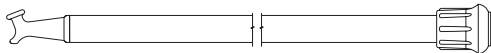
Cast white bronze cam handles with pole ring provide manual operation of ventilators located above reach. These handles are operated with a sash pole.

POLE RING



Cast white bronze pole ring is used in conjunction with locking hardware for sash pole operation of ventilators.

SASH POLE

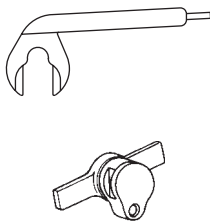


A 3/4" diameter aluminum sash pole with a cast white bronze pull down hook and black rubber tip. Available in 6 ft. and 12 ft. lengths with optional cast white bronze Pole Hanger.

**HANGER
FOR SASH POLE**



**ACCESS CONTROL
LOCK**



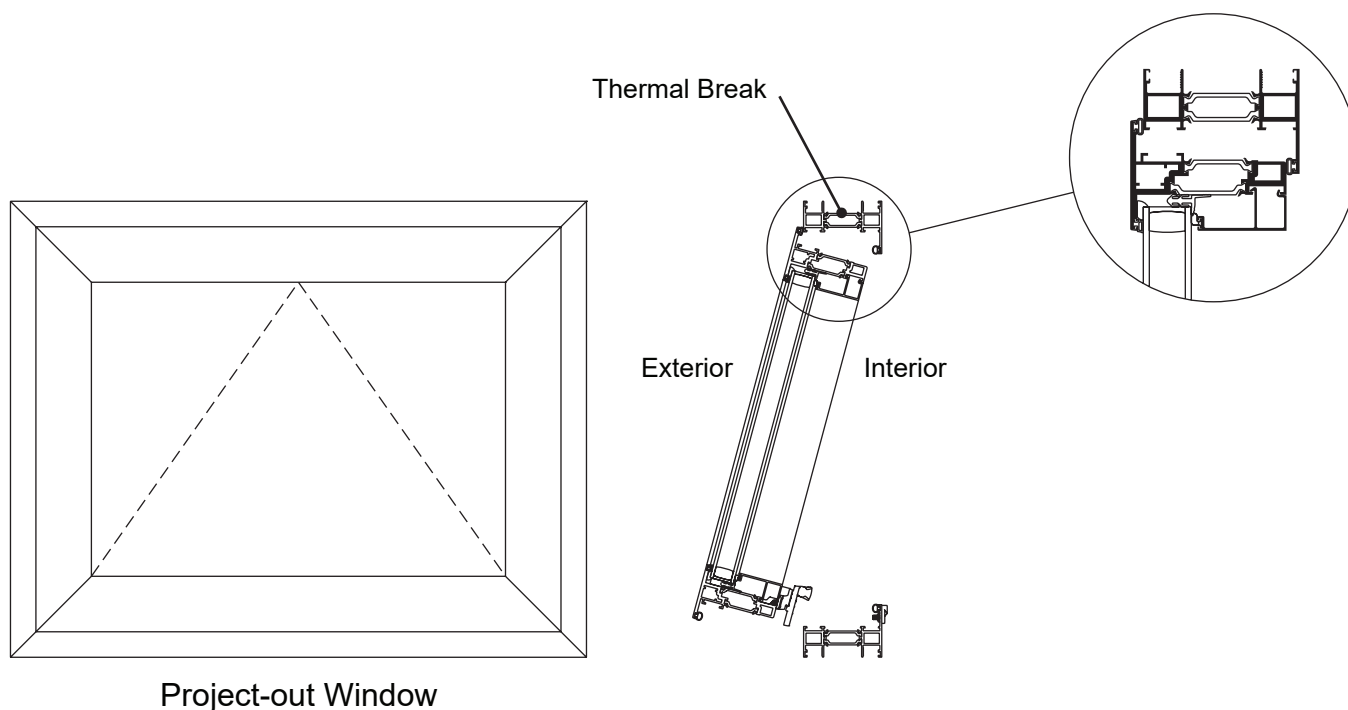
In lieu of cam handles and multi-point locking cast white bronze access control locks are offered for managed control of vent operations. Lock is operated with a manganese bronze removable handle.

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.

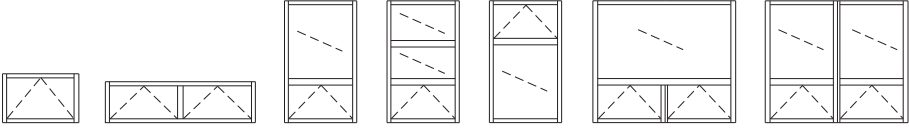
Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© 2014, Kawneer Company, Inc.

Standard Features

- Architectural Grade Window
- Tested to US and Canadian Standards
- Polyamide Thermal Break
- Tubular Profiles
- 45° Mitered Vent and Frame Corners
- Staked Corner Joinery
- Factory Silicone Glazed
- Adjustable EURO-Groove Mounted Hardware
- Interior Applied Glazing Bead
- Architectural Anodized Finishes and Applied Coatings
- Interior and Exterior Dual Finish Options



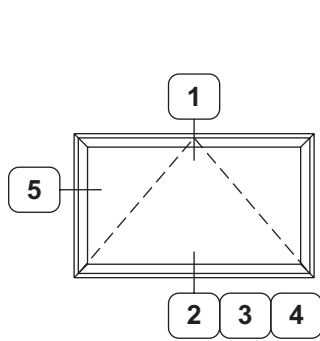
For specific product applications,
consult your Kawneer representative.

CLASS and GRADE	Architectural Grade AW-PG80-AP
TESTING STANDARD	AAMA / WDMA / CSA 101 / I.S.2 / A440-05 / A440-08
FRAME DEPTH	3-1/4" Overall Frame Depth
TYPICAL WALL THICKNESS	.080" Nominal Frame / .125" Nominal Vent
TYPICAL MAX. VENT SIZE	60" x 36"
TYPICAL MIN. VENT SIZE	24" x 19"
INFILL OPTIONS	1" and 1-3/4" (Other infill options available upon request.)
TYPICAL CONFIGURATIONS	
STANDARD HARDWARE	Stainless Steel 4-Bar Hinges Cast White Bronze Cam Handles
OPTIONAL HARDWARE	Access Control Locks Pole and Pole Ring Limit Stop Roto Operator Omni Drive Hardware (5 lb) operating force. Savio ADA Hardware Hardware (5 lb) operating force. (Consult Application Engineering on project specific application.)
OTHER OPTIONS	Structural Mullions Vertically or Horizontally Stacked Insect Screens Receptor and Sub Sill Panning Internal Blinds Exterior or Interior Muntins 1" High Thermal Option

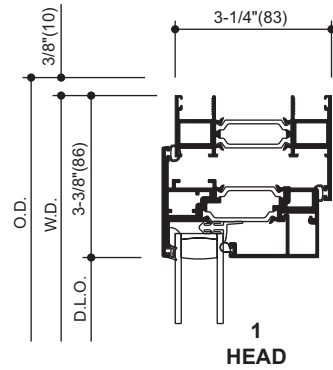
Laws and building and safety codes governing the design and use of Kawneer products, such as glazed entrance, window, and curtain wall products, vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© 2014, Kawneer Company, Inc.

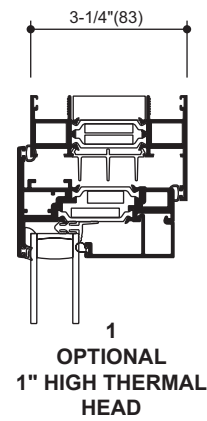
Additional information and CAD details are available at www.kawneer.com



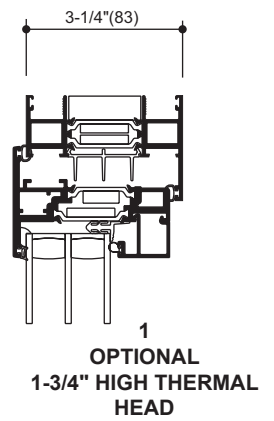
TYPICAL ELEVATION



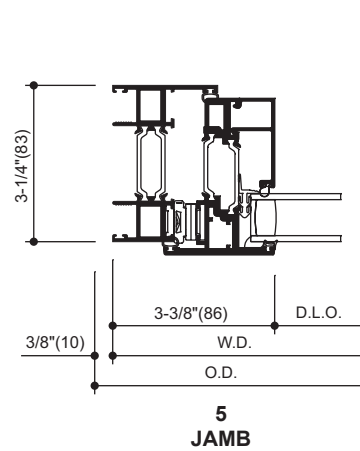
1
HEAD



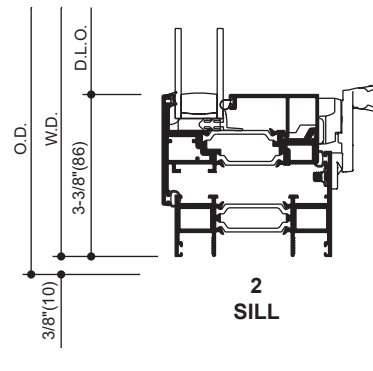
1
OPTIONAL
1" HIGH THERMAL
HEAD



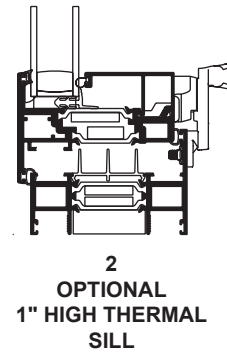
1
OPTIONAL
1-3/4" HIGH THERMAL
HEAD



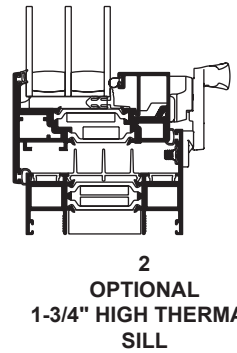
5
JAMB



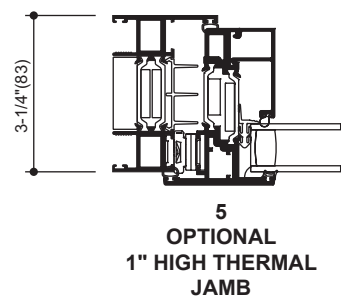
2
SILL



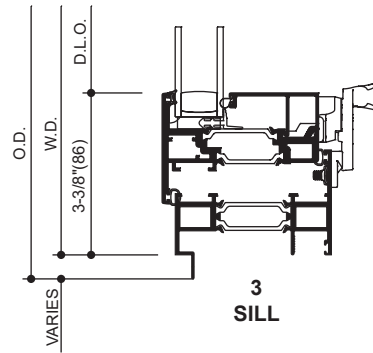
2
OPTIONAL
1" HIGH THERMAL
SILL



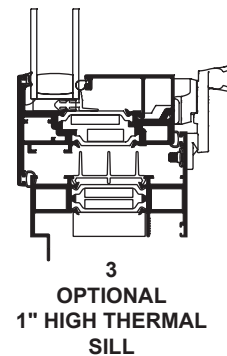
2
OPTIONAL
1-3/4" HIGH THERMAL
SILL



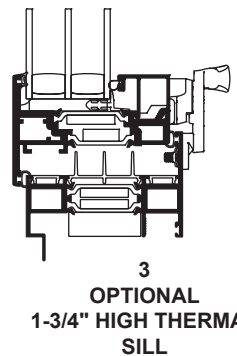
5
OPTIONAL
1" HIGH THERMAL
JAMB



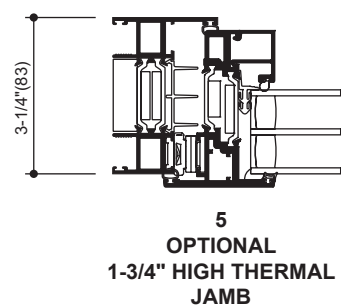
3
SILL



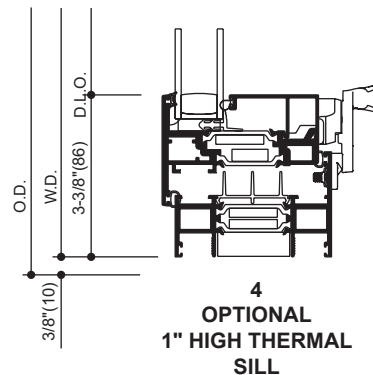
3
OPTIONAL
1" HIGH THERMAL
SILL



3
OPTIONAL
1-3/4" HIGH THERMAL
SILL



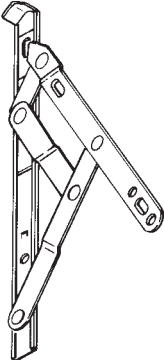
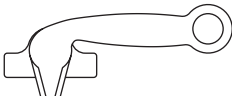
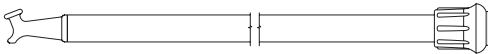
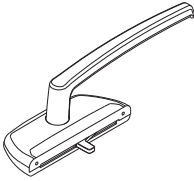
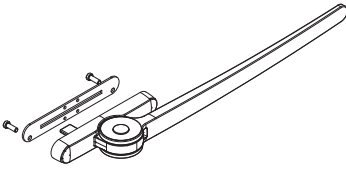
5
OPTIONAL
1-3/4" HIGH THERMAL
JAMB



4
OPTIONAL
1" HIGH THERMAL
SILL

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.
© 2014, Kawneer Company, Inc.

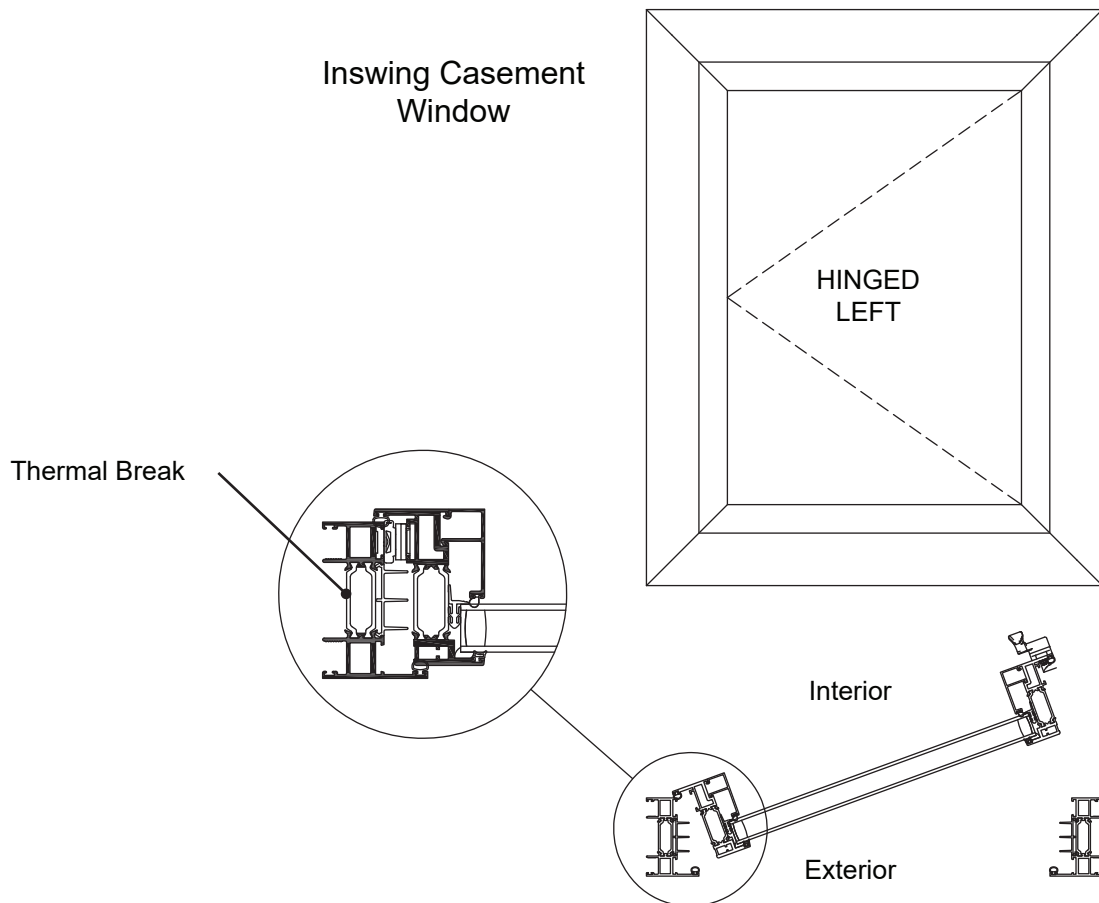
STAINLESS STEEL 4 BAR HINGES		A standard hinge for ventilators providing approximately 45° to 60° openings depending on size. An optional limit stop is available to restrict hinge travel and limit vent opening.
CAM HANDLE		Cast white bronze cam handles are an alternative to standard multi-point locking for the operation and locking of ventilators.
CAM HANDLE WITH POLE RING		Cast white bronze cam handles with pole ring provide manual operation of ventilators located above reach. These handles are operated with a sash pole.
POLE RING		Cast white bronze pole ring is used in conjunction with locking hardware for sash pole operation of ventilators.
SASH POLE		A 3/4" diameter aluminum sash pole with a cast white bronze pull down hook and black rubber tip. Available in 6 ft. and 12 ft. lengths with optional cast white bronze Pole Hanger.
HANGER FOR SASH POLE		
ACCESS CONTROL LOCK		In lieu of cam handles and multi-point locking cast white bronze access control locks are offered for managed control of vent operations. Lock is operated with a manganese bronze removable handle.
OMNI DRIVE HANDLE		Omni Drive hardware to support 5 lb operating force lock handle. Powder coat: black or white.
SAVIO ADA HANDLE		Savio hardware to support 5 lb operating force lock handle. Powder coat: black, white, and silver.

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.

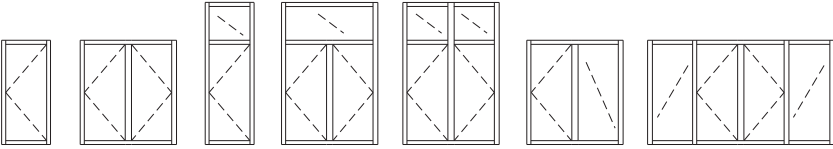
Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© 2014, Kawneer Company, Inc.

Standard Features

- Architectural Grade Window
- Tested to US and Canadian Standards
- Polyamide Thermal Break
- Tubular Profiles
- 45° Mitered Vent and Frame Corners
- Staked Corner Joinery
- Factory Silicone Glazed
- Adjustable EURO-Groove Mounted Hardware
- Interior Applied Glazing Bead
- Architectural Anodized Finishes and Applied Coatings
- Interior and Exterior Dual Finish Options



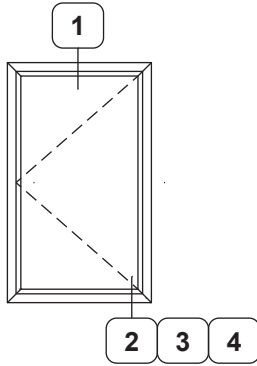
For specific product applications,
consult your Kawneer representative.

CLASS and GRADE	Architectural Grade AW-PG80-C
TESTING STANDARD	AAMA / WDMA / CSA 101 / I.S.2 / A440-05 / A440-08
FRAME DEPTH	3-1/4" Overall Frame Depth
TYPICAL WALL THICKNESS	.080" Nominal Frame / .125" Nominal Vent
TYPICAL MAX. VENT SIZE	42" x 84"
TYPICAL MIN. VENT SIZE	19" x 24"
TYPICAL CONFIGURATIONS	
INFILL OPTIONS	1" and 1-3/4" (Other infill options available upon request.)
STANDARD HARDWARE	Stainless Steel 4-Bar Hinges Cast White Bronze Cam Handles
OPTIONAL HARDWARE	Access Control Locks Pole and Pole Ring Limit Stop Butt Hinges with Friction Adjusters Savio Hardware (5 lb) operating force. (Consult Application Engineering on project specific application.)
OTHER OPTIONS	Structural Mullions Vertically or Horizontally Stacked Insect Screens Receptor and Sub Sill Panning Internal Blinds Exterior or Interior Muntins 1" High Thermal Option

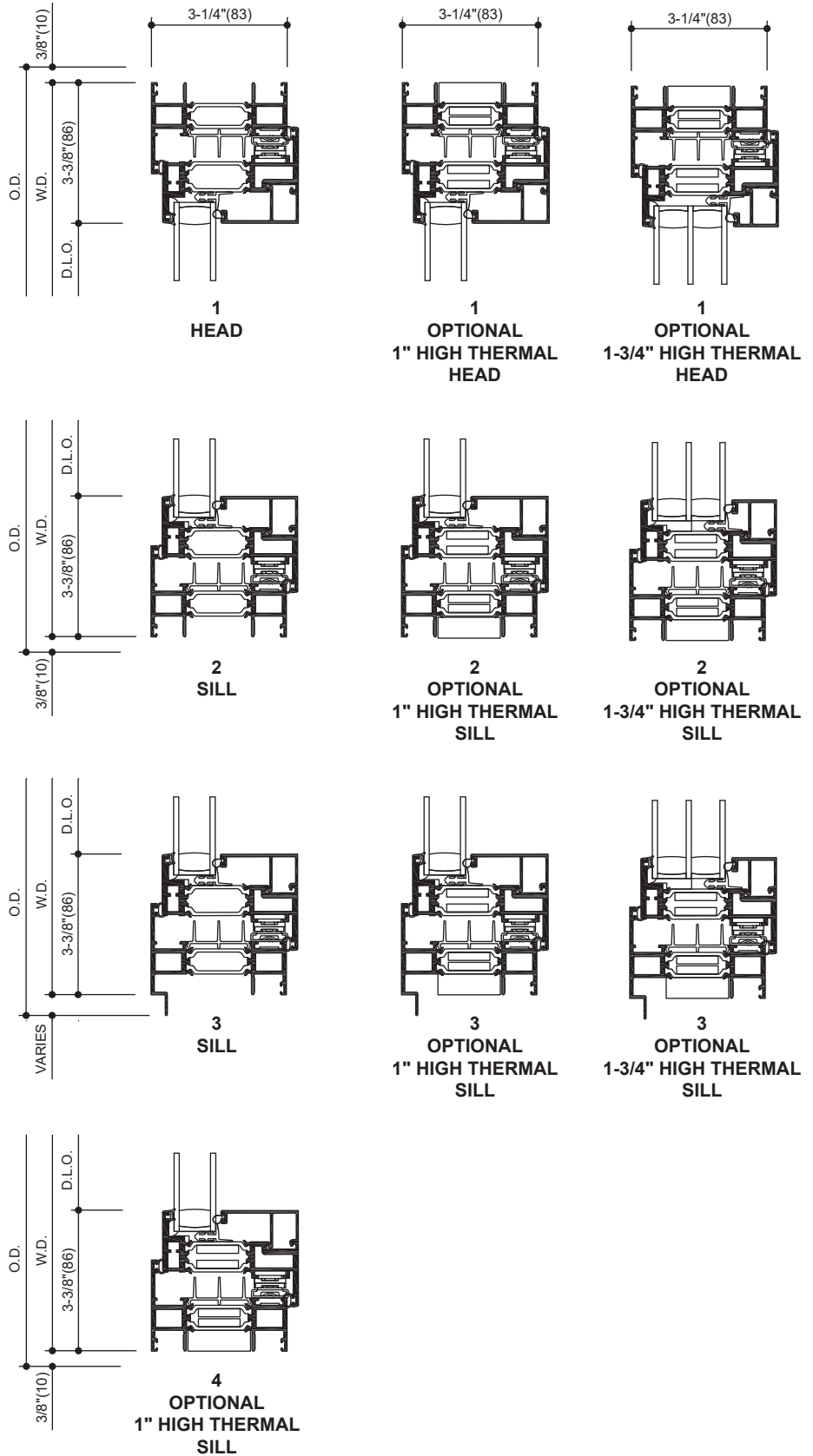
Laws and building and safety codes governing the design and use of Kawneer products, such as glazed entrance, window, and curtain wall products, vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© 2014, Kawneer Company, Inc.

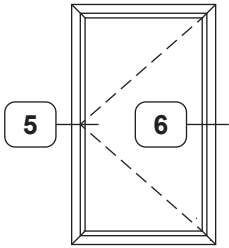
Additional information and CAD details are available at www.kawneer.com



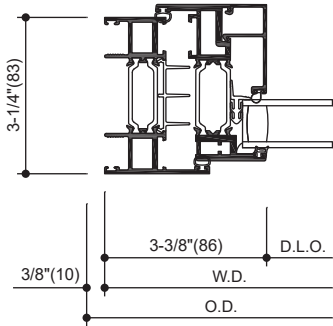
TYPICAL ELEVATION



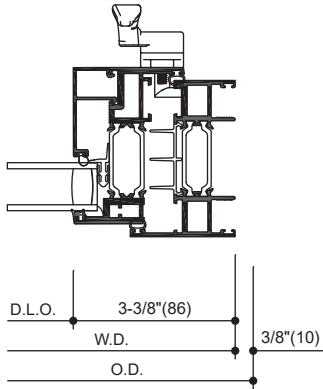
Additional information and CAD details are available at www.kawneer.com



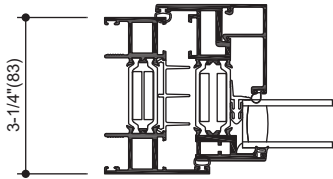
TYPICAL ELEVATION



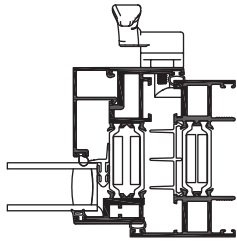
5
JAMB



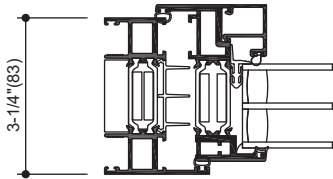
6
JAMB



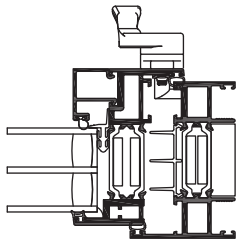
5
OPTIONAL
1" HIGH THERMAL
JAMB



6
OPTIONAL
1" HIGH THERMAL
JAMB



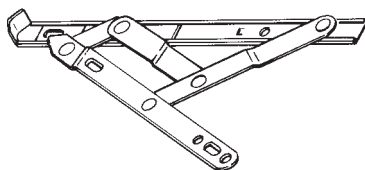
5
OPTIONAL
1-3/4" HIGH THERMAL
JAMB



6
OPTIONAL
1-3/4" HIGH THERMAL
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.

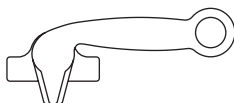
Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© 2014, Kawneer Company, Inc.

**STAINLESS STEEL
4 BAR HINGES**

A standard hinge for ventilators providing approximately 45° to 60° openings depending on size. An optional limit stop is available to restrict hinge travel and limit vent opening.

CAM HANDLE

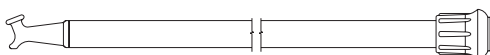
Cast white bronze cam handles are an alternative to standard multi-point locking for the operation and locking of ventilators.

**CAM HANDLE
WITH POLE RING**

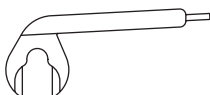
Cast white bronze cam handles with pole ring provide manual operation of ventilators located above reach. These handles are operated with a sash pole.

POLE RING

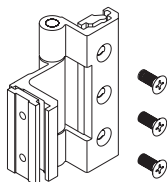
Cast white bronze pole ring is used in conjunction with locking hardware for sash pole operation of ventilators.

SASH POLE

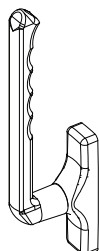
A 3/4" diameter aluminum sash pole with a cast white bronze pull down hook and black rubber tip. Available in 6 ft. and 12 ft. lengths with optional cast white bronze Pole Hanger.

**HANGER
FOR SASH POLE****ACCESS CONTROL
LOCK**

In lieu of cam handles and multi-point locking cast white bronze access control locks are offered for managed control of vent operations. Lock is operated with a manganese bronze removable handle.

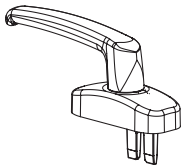
BUTT HINGE

An optional hinge available in clear or bronze anodized finishes or painted to match window. Must be used with Friction Adjusters.

SAVIO HANDLE

Savio hardware to support 5 lb operating force lock handle. Powder coat: black, white, bronze and silver.

MULTI-POINT LOCK
HANDLE



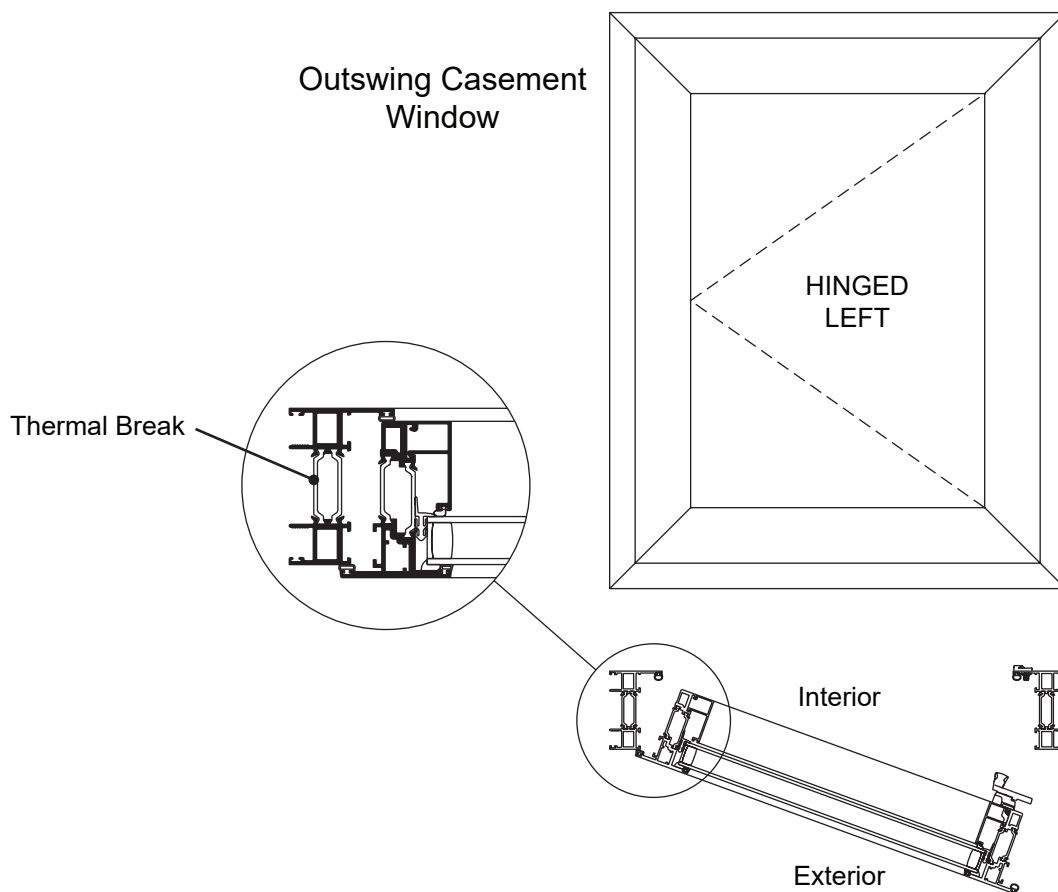
The multi-point lock handle is an alternative to the cam handles for the operation and locking of ventilators. Available in white, black, and satin nickel finishes.

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.

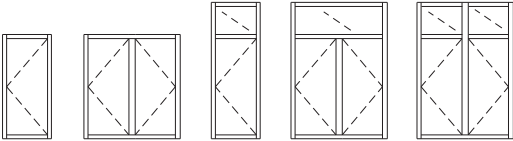
Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© 2014, Kawneer Company, Inc.

Standard Features

- Architectural Grade Window
- Tested to US and Canadian Standards
- Polyamide Thermal Break
- Tubular Profiles
- 45° Mitered Vent and Frame Corners
- Staked Corner Joinery
- Factory Silicone Glazed
- Adjustable EURO-Groove Mounted Hardware
- Interior Applied Glazing Bead
- Architectural Anodized Finishes and Applied Coatings
- Interior and Exterior Dual Finish Options



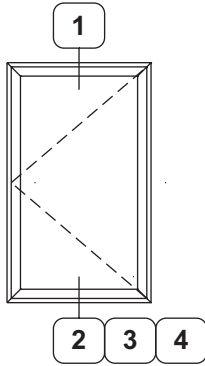
For specific product applications,
consult your Kawneer representative.

CLASS and GRADE	Architectural Grade AW-PG80-C
TESTING STANDARD	AAMA / WDMA / CSA 101 / I.S.2 / A440-05 / A440-08
FRAME DEPTH	3-1/4" Overall Frame Depth
TYPICAL WALL THICKNESS	.080" Nominal Frame / .125" Nominal Vent
TYPICAL MAX. VENT SIZE	36" x 60"
TYPICAL MIN. VENT SIZE	19" x 24"
TYPICAL CONFIGURATIONS	
INFILL OPTIONS	1" and 1-3/4" (Other infill options available upon request.)
STANDARD HARDWARE	Stainless Steel 4-Bar Hinges Cast White Bronze Cam Handles
OPTIONAL HARDWARE	Access Control Locks Pole and Pole Ring Limit Stop Roto Operators Multi-Point Locks Savio ADA Hardware (5 lb) operating force. (Consult Application Engineering on project specific application.)
OTHER OPTIONS	Structural Mullions Vertically or Horizontally Stacked Insect Screens Receptor and Sub Sill Panning Internal Blinds Exterior or Interior Muntins 1" High Thermal Option

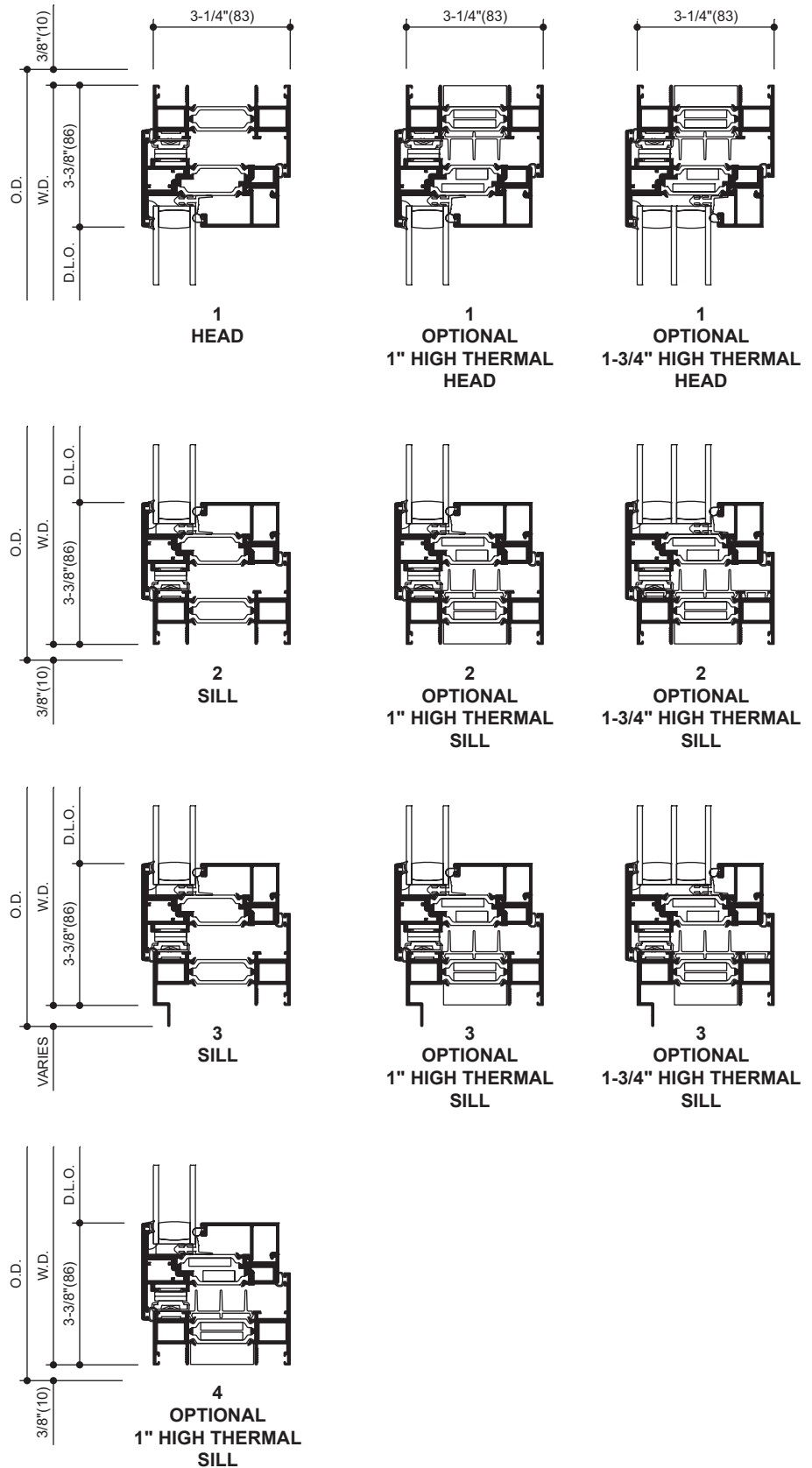
Laws and building and safety codes governing the design and use of Kawneer products, such as glazed entrance, window, and curtain wall products, vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© 2014, Kawneer Company, Inc.

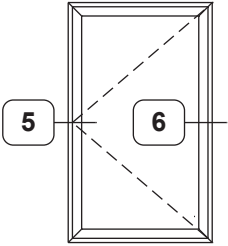
Additional information and CAD details are available at www.kawneer.com



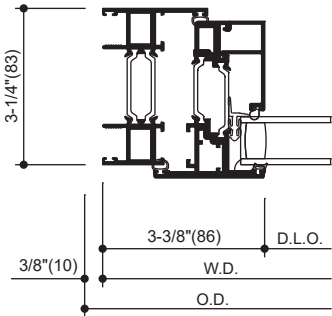
TYPICAL ELEVATION



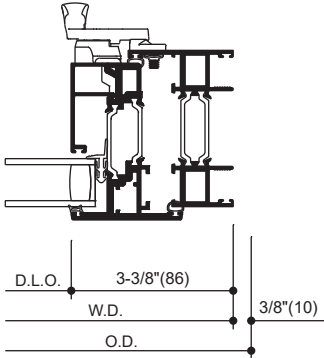
Additional information and CAD details are available at www.kawneer.com



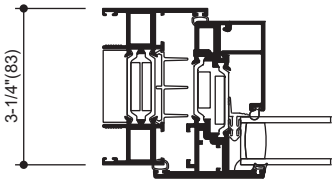
TYPICAL ELEVATION



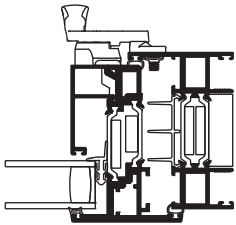
5
JAMB



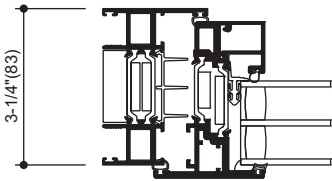
6
JAMB



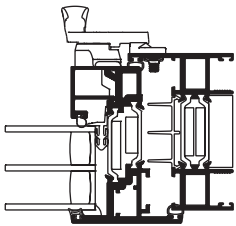
5
OPTIONAL
1" HIGH THERMAL
JAMB



6
OPTIONAL
1" HIGH THERMAL
JAMB



5
OPTIONAL
1-3/4" HIGH THERMAL
JAMB

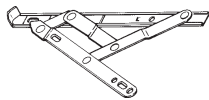


6
OPTIONAL
1-3/4" HIGH THERMAL
JAMB

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.

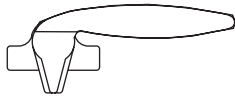
Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© 2014, Kawneer Company, Inc.

**STAINLESS STEEL
4 BAR HINGES**



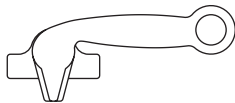
A standard hinge for ventilators providing an opening of up to 45°. An optional limit stop is available to restrict hinge travel and limit vent opening.

CAM HANDLE



Cast white bronze cam handles are an alternative to standard multi-point locking for the operation and locking of ventilators.

**CAM HANDLE
WITH POLE RING**



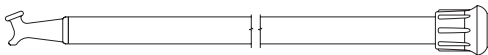
Cast white bronze cam handles with pole ring provide manual operation of ventilators located above reach. These handles are operated with a sash pole.

POLE RING



Cast white bronze pole ring is used in conjunction with locking hardware for sash pole operation of ventilators.

SASH POLE

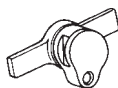
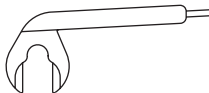


**HANGER
FOR SASH POLE**



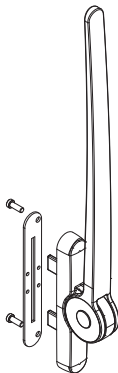
A 3/4" diameter aluminum sash pole with a cast white bronze pull down hook and black rubber tip. Available in 6 ft. and 12 ft. lengths with optional cast white bronze Pole Hanger.

**ACCESS CONTROL
LOCK**



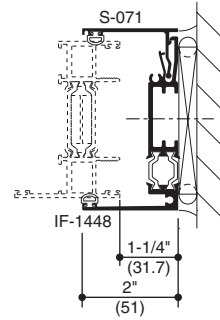
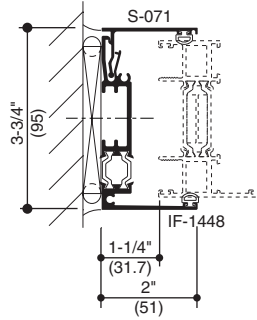
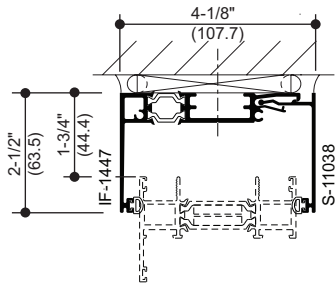
In lieu of cam handles and multi-point locking cast white bronze access control locks are offered for managed control of vent operations. Lock is operated with a manganese bronze removable handle.

**SAVIO ADA
HANDLE**

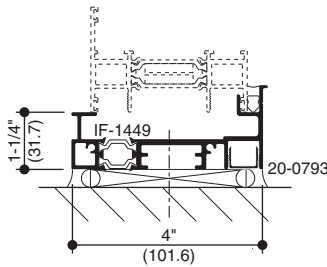


Savio hardware to support 5 lb operating force lock handle. Powder coat: black, white, and silver.

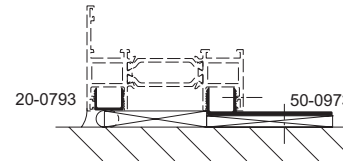
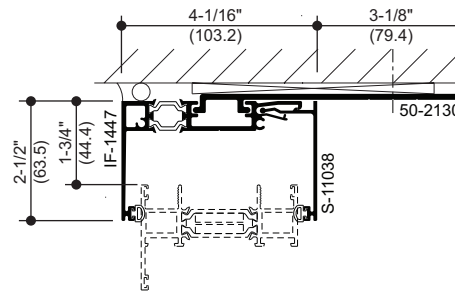
Additional information and CAD details are available at www.kawneer.com



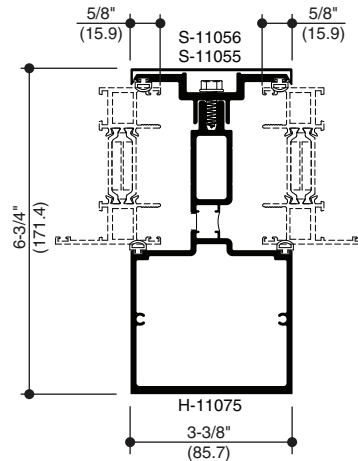
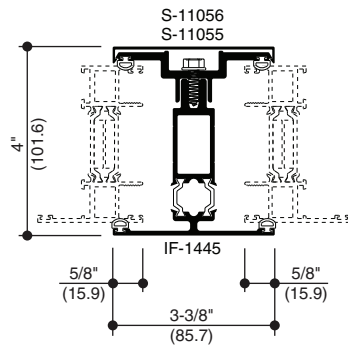
HEAD & JAMB RECEPTORS (INTERIOR INSTALLED)



SUB SILL



ANCHOR



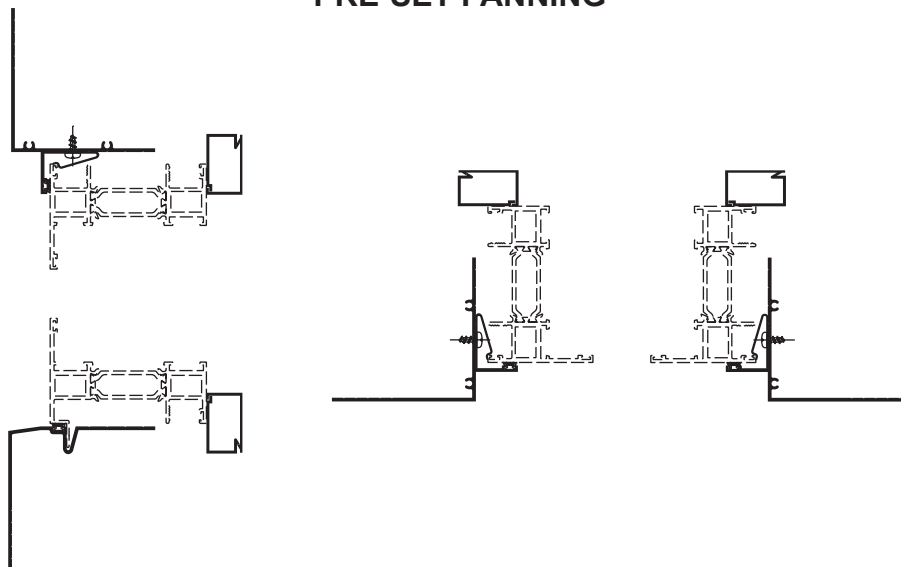
3-PIECE MULLIONS

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.

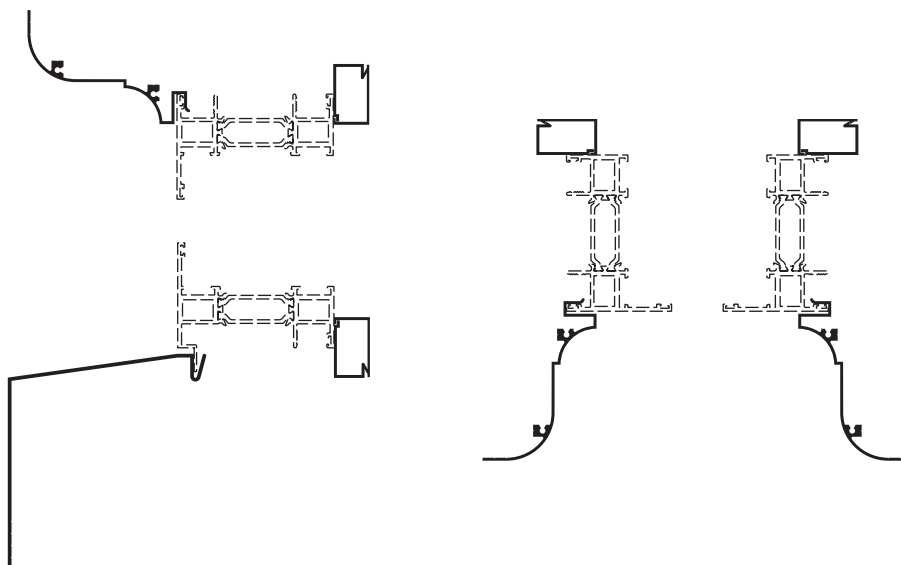
Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© 2014, Kawneer Company, Inc.

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

PRE-SET PANNING



WRAP AROUND PANNING



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.
© 2014, Kawneer Company, Inc.

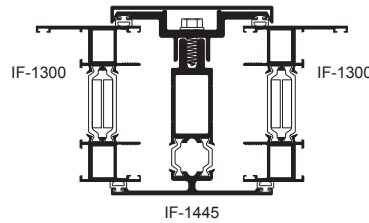
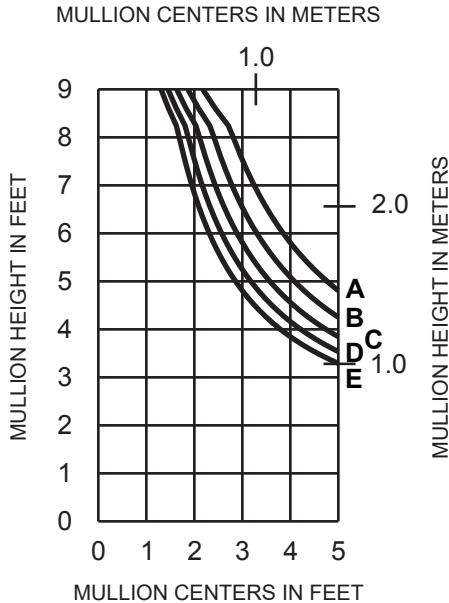
WIND LOAD CHARTS

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.

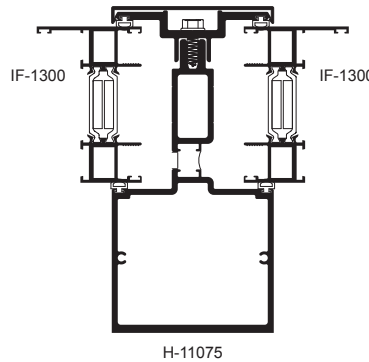
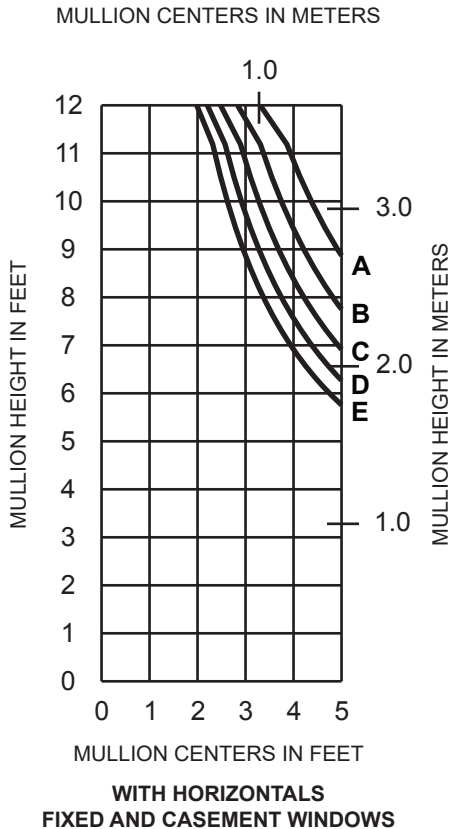
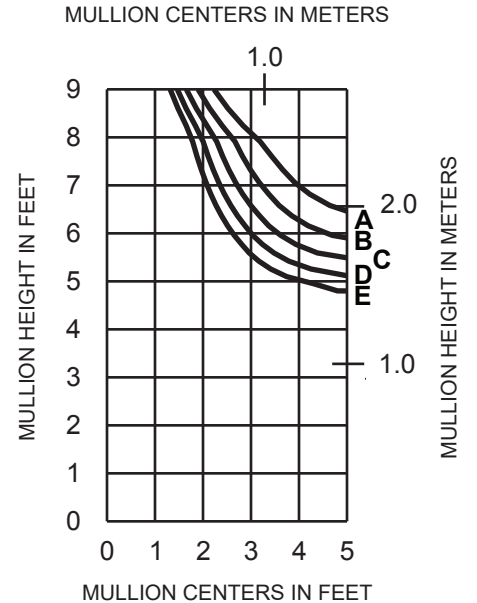
Laws and building and safety codes governing the design and use of Kawneer products, such as glazed entrance, window, and curtain wall products, vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© 2014, Kawneer Company, Inc.

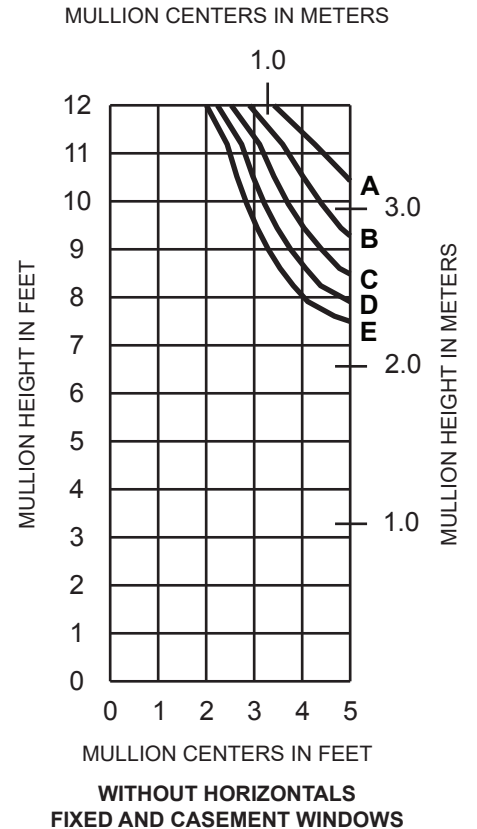
	Allowable Stress Design Load	LRFD Ultimate Design Load
A =	60 PSF (2880)	100 PSF (4790)
B =	70 PSF (3360)	117 PSF (5600)
C =	80 PSF (3830)	133 PSF (6380)
D =	90 PSF (4310)	150 PSF (7200)
E =	100 PSF (4790)	167 PSF (7980)



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



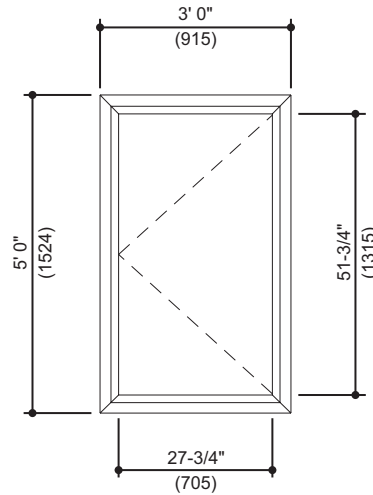
WIND LOAD CHARTS ARE BASED ON
COMPOSITE PROPERTIES WHICH
ARE CALCULATED IN ACCORDANCE
WITH AAMA TIR-8 AND AAMA 505



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.
© 2014, Kawneer Company, Inc.

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



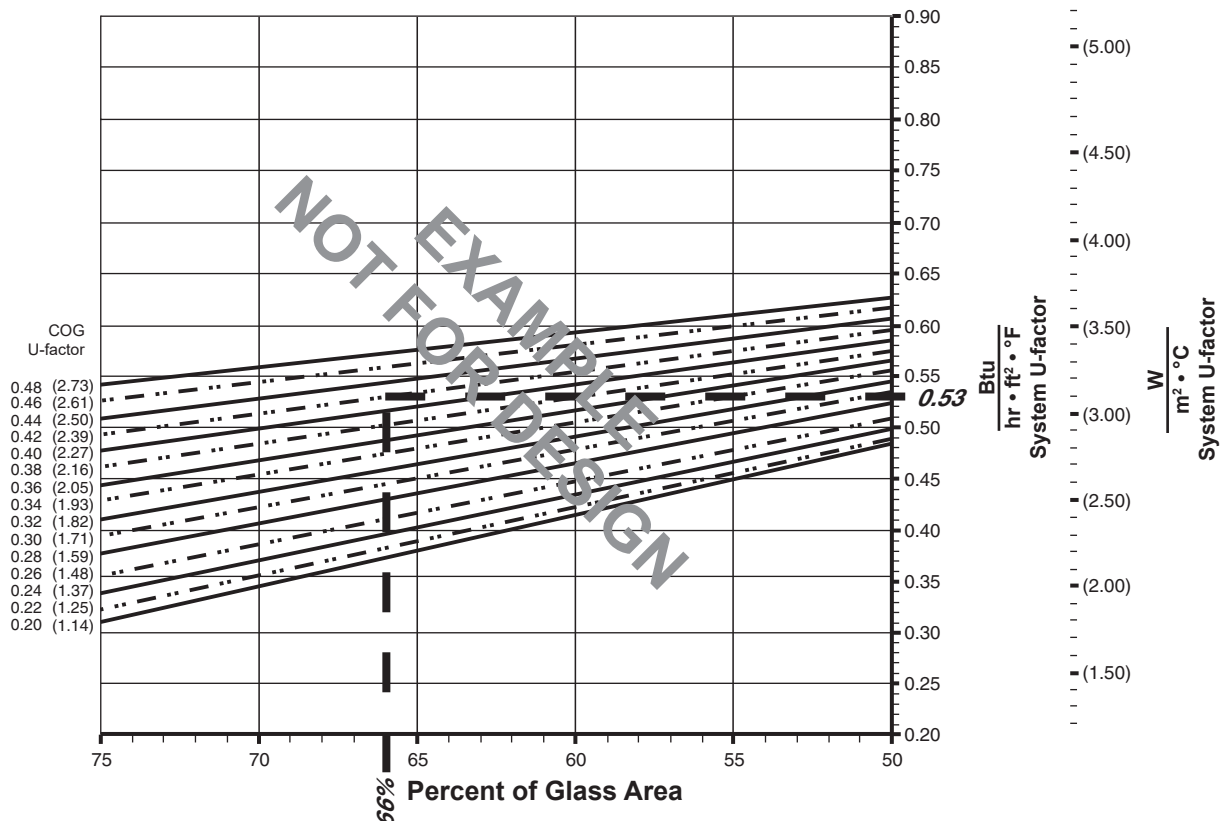
Example Glass U-Factor = 0.42 Btu/hr • ft² • °F

Total Daylight Opening = 27-3/4" • 51-3/4" = 9.97ft²

Total Projected Area = 3' 0" • 5' 0" = 15 ft²

Percent of Glass = (Total Daylight Opening ÷ Total Projected Area)100
 = (9.97 ÷ 15)100 = 66%

System U-factor vs Percent of Glass Area



Based on 66% glass and center of glass (COG) U-factor of 0.42
 System U-factor is equal to 0.53 Btu/hr • ft² • °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.

Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
 © 2014, Kawneer Company, Inc.

FIXED WINDOW WITH 1" GLAZING

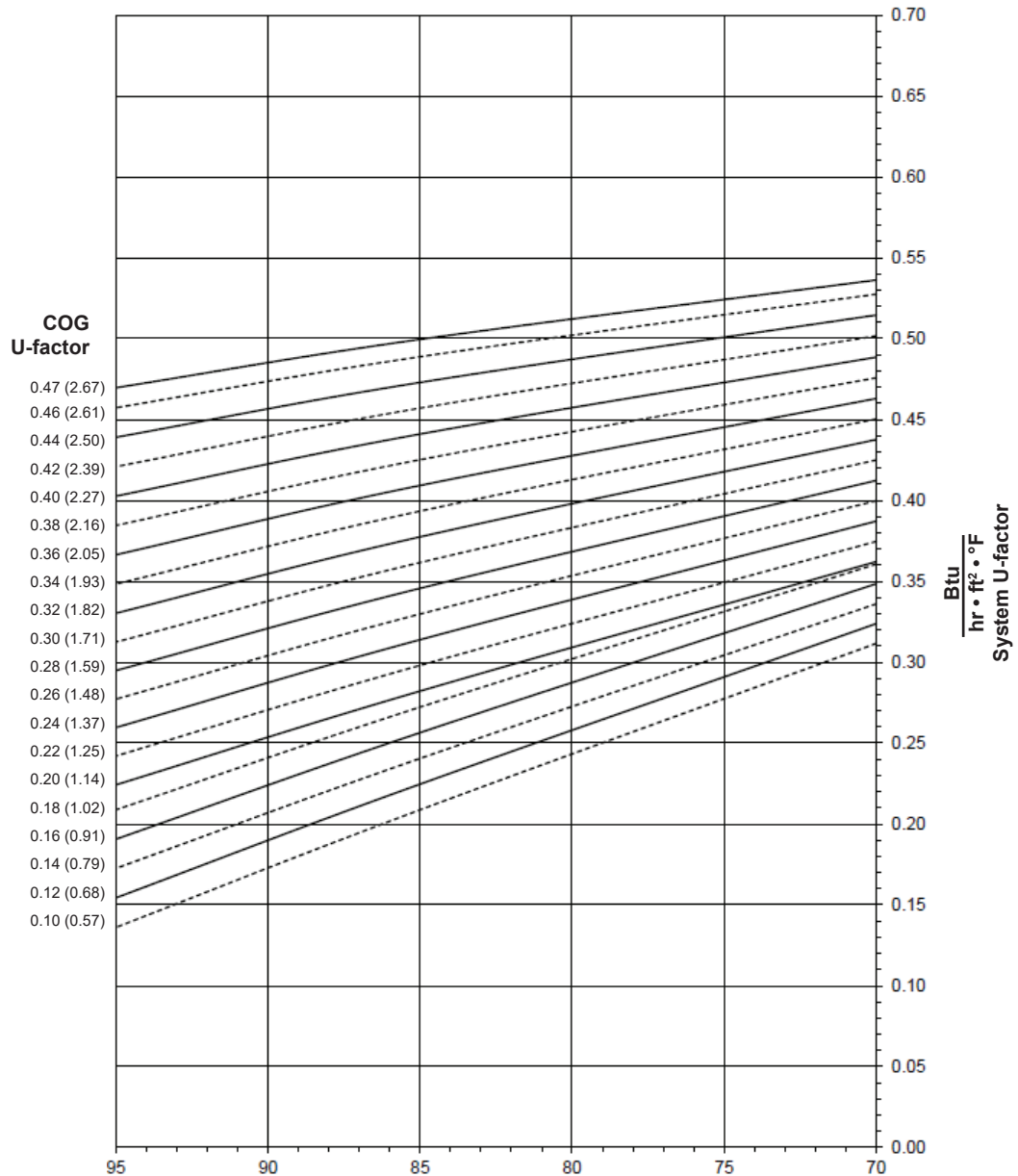
Note:

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:

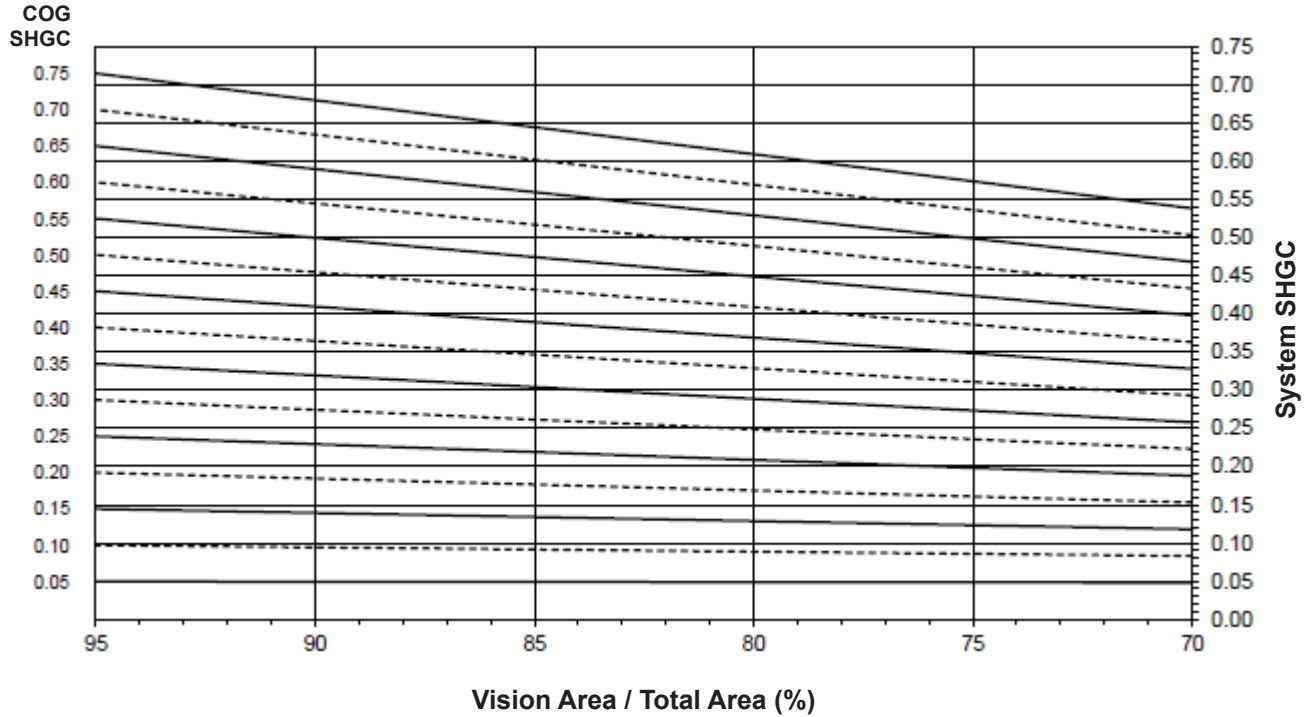
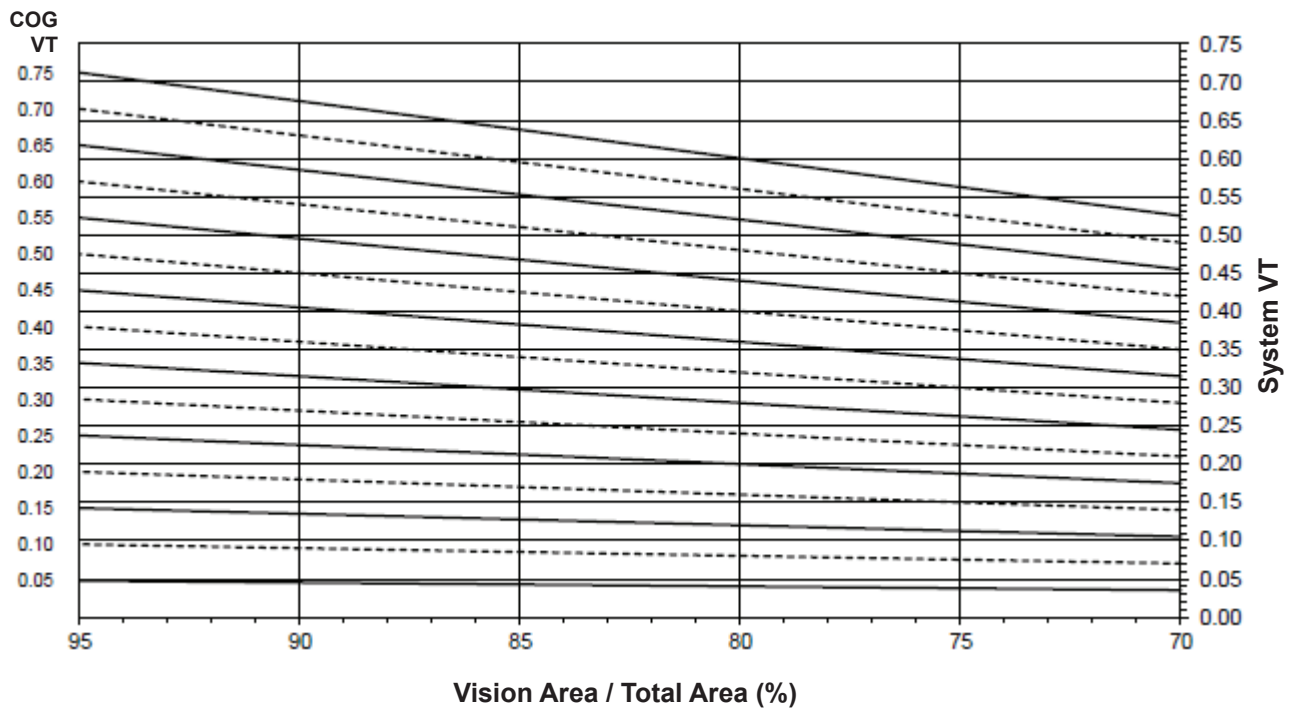
For glass values that are not listed, linear interpolation is permitted.

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.
© 2014, Kawneer Company, Inc.

FIXED WINDOW WITH 1" GLAZING

System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision AreaSystem 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.
© 2014, Kawneer Company, Inc.

Thermal Transmittance ¹ (BTU/hr • ft² • °F)

Glass U-Factor ³	Overall U-Factor ⁴
0.48	0.50
0.46	0.49
0.44	0.47
0.42	0.46
0.40	0.44
0.38	0.42
0.36	0.41
0.34	0.39
0.32	0.38
0.30	0.36
0.28	0.35
0.26	0.33
0.24	0.31
0.22	0.30
0.20	0.28
0.18	0.27
0.16	0.26
0.14	0.24
0.12	0.22
0.10	0.21

FIXED WINDOW WITH 1" GLAZING

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 ²

Glass SHGC ³	Overall SHGC ⁴
0.75	0.64
0.70	0.60
0.65	0.56
0.60	0.52
0.55	0.47
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 ²

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

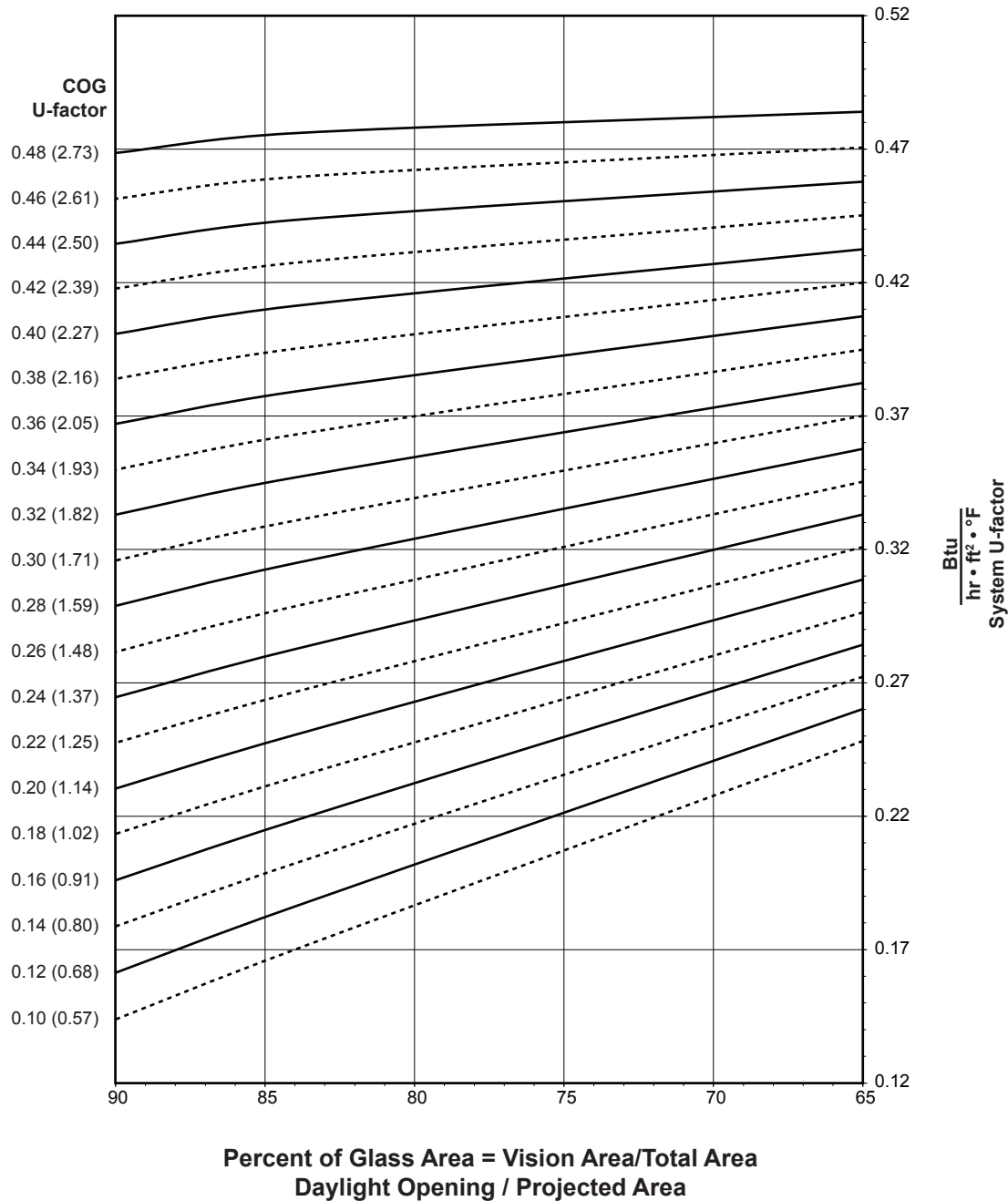
FIXED HIGH THERMAL WINDOW WITH 1" GLAZING

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.

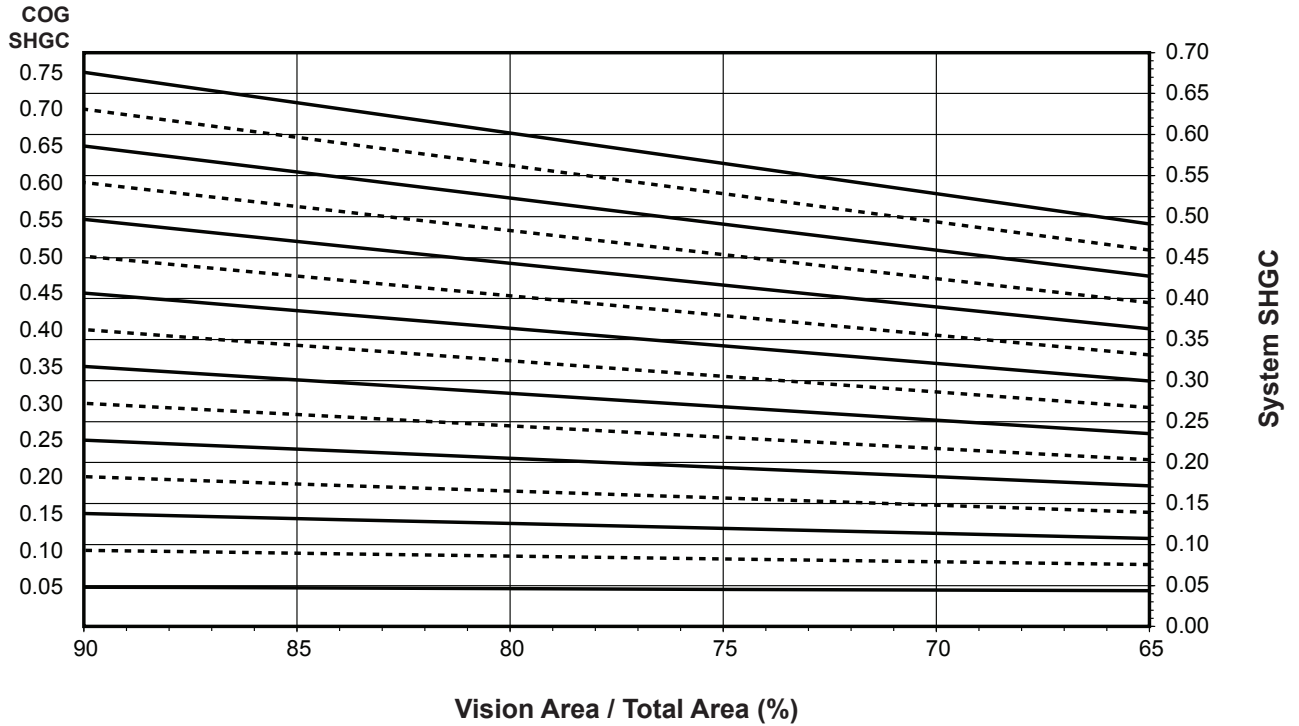
Glass properties are based on center of glass values and are obtained from your glass supplier.

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.

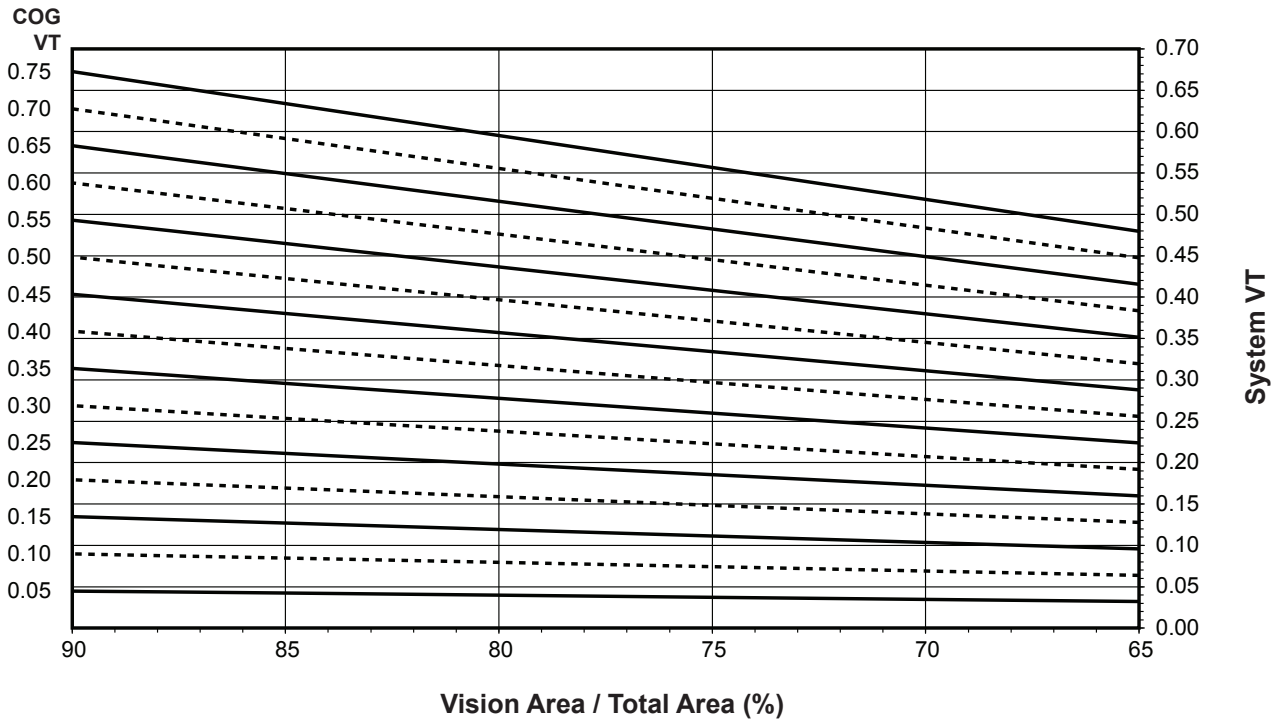
Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© 2014, Kawneer Company, Inc.

FIXED HIGH THERMAL WINDOW WITH 1" GLAZING

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.
© 2014, Kawneer Company, Inc.

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

Glass U-Factor ³	Overall U-Factor ⁴
0.48	0.48
0.46	0.46
0.44	0.44
0.42	0.43
0.40	0.41
0.38	0.40
0.36	0.38
0.34	0.36
0.32	0.35
0.30	0.33
0.28	0.31
0.26	0.30
0.24	0.28
0.22	0.27
0.20	0.25
0.18	0.23
0.16	0.22
0.14	0.20
0.12	0.19
0.10	0.17

**FIXED HIGH THERMAL WINDOW
WITH 1" GLAZING**

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 Matrix²

Glass SHGC ³	Overall SHGC ⁴
0.75	0.63
0.70	0.59
0.65	0.55
0.60	0.51
0.55	0.46
0.50	0.42
0.45	0.38
0.40	0.34
0.35	0.30
0.30	0.26
0.25	0.21
0.20	0.17
0.15	0.13
0.10	0.09
0.05	0.05

Visible Transmittance²

Glass VT ³	Overall VT ⁴
0.75	0.63
0.70	0.58
0.65	0.54
0.60	0.50
0.55	0.46
0.50	0.42
0.45	0.38
0.40	0.33
0.35	0.29
0.30	0.25
0.25	0.21
0.20	0.17
0.15	0.13
0.10	0.08
0.05	0.04

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.
© 2014, Kawneer Company, Inc.

FIXED WINDOW WITH 1-3/4" GLAZING

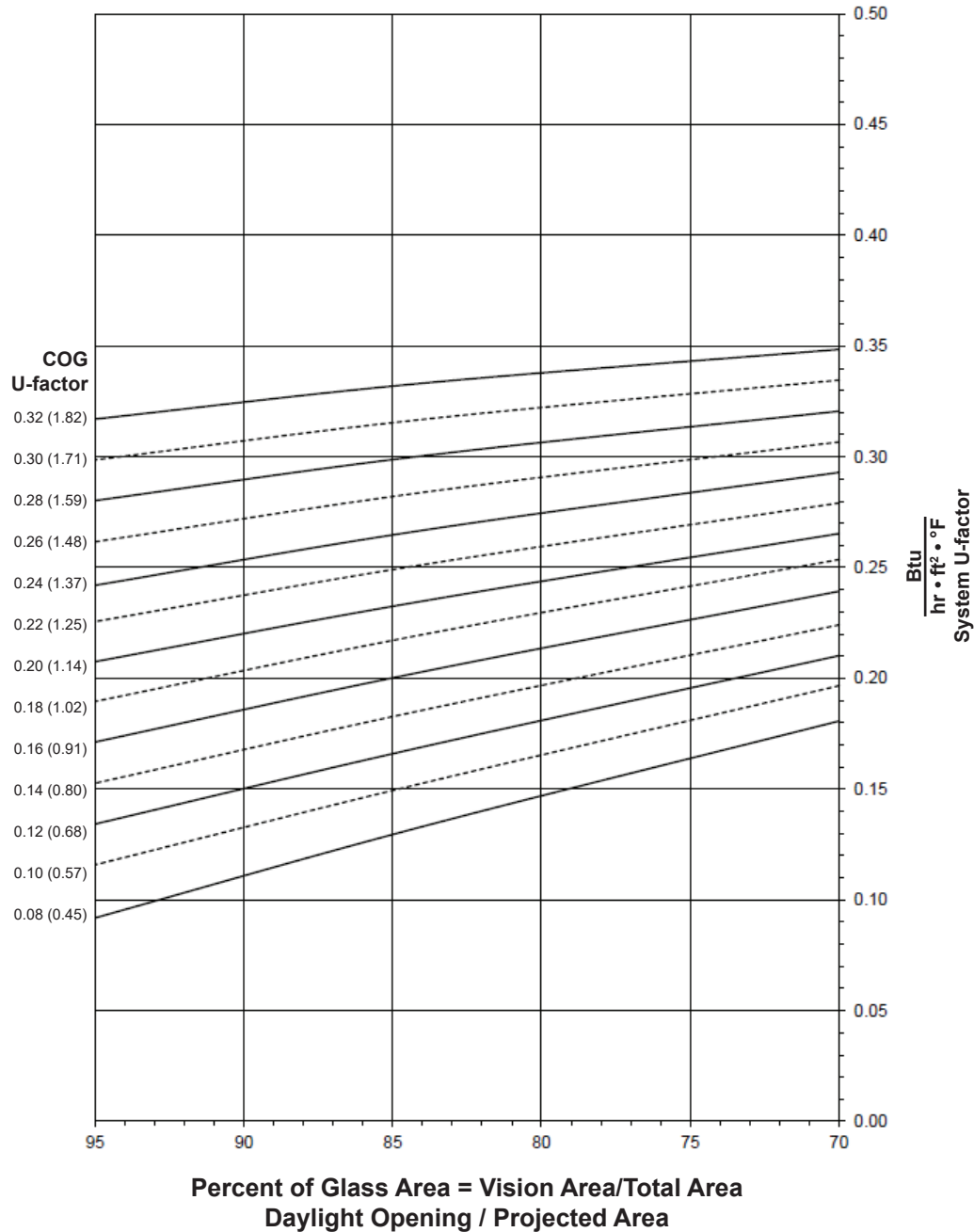
Note:

Values in parentheses are metric.

COG = Center of Glass.

Charts are generated per AAMA 507

System U-factor vs Percent of Glass Area

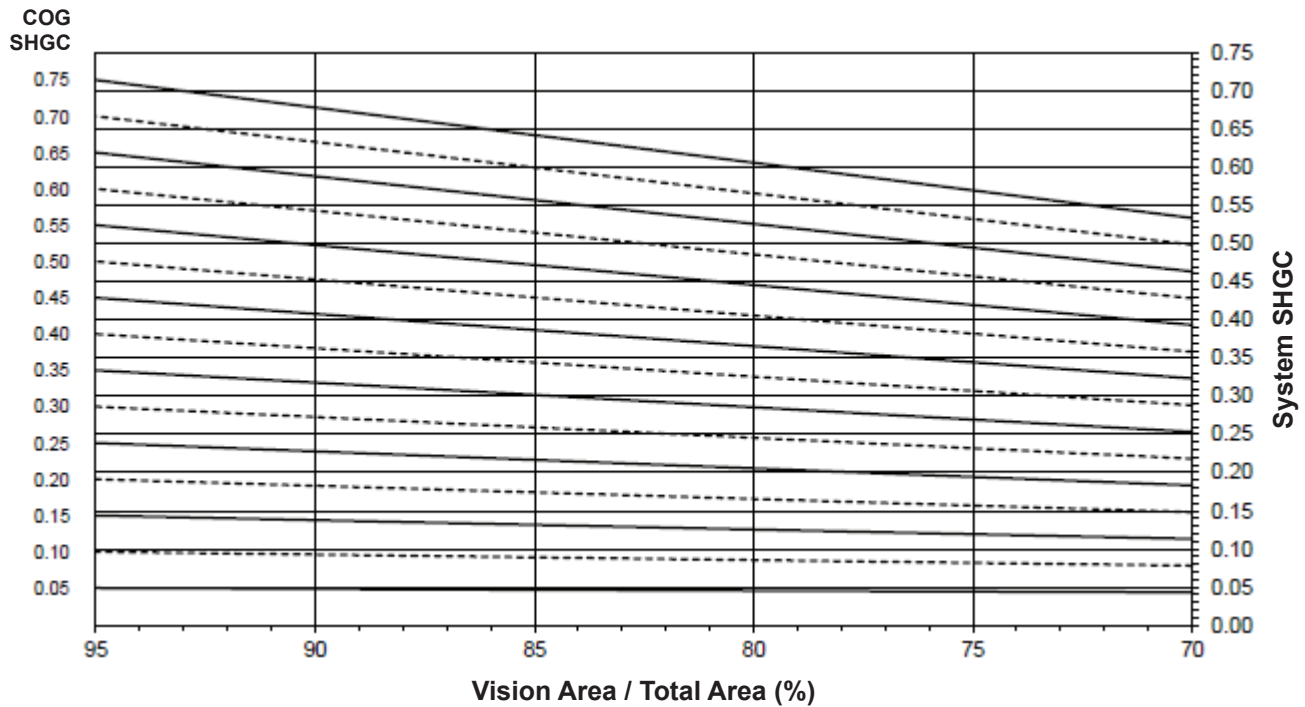
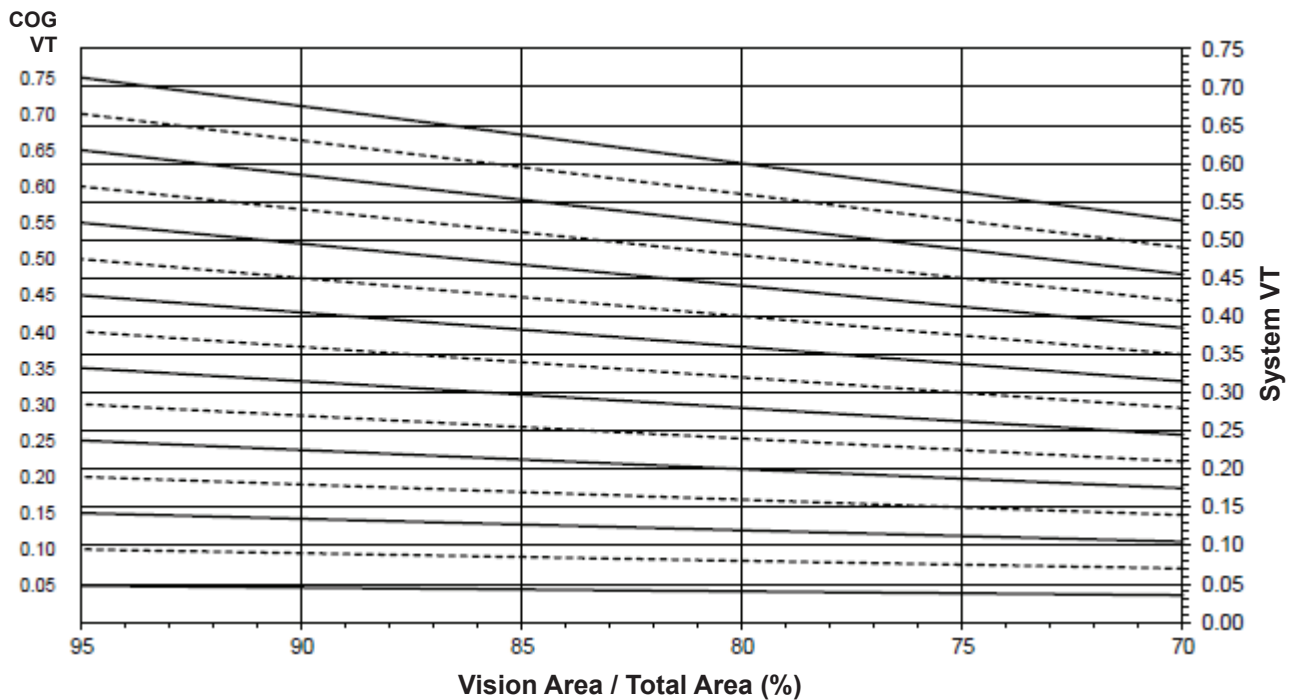


Notes for System U-factor, SHGC and VT charts:

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.

FIXED WINDOW WITH 1-3/4" GLAZING

System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision AreaSystem 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.
© 2014, Kawneer Company, Inc.

FIXED WINDOW WITH 1-3/4" GLAZING

Thermal Transmittance ¹ (BTU/hr • ft² • °F)

Glass U-Factor ³	Overall U-Factor ⁴
0.32	0.33
0.30	0.32
0.28	0.30
0.26	0.28
0.24	0.27
0.22	0.25
0.20	0.23
0.18	0.22
0.16	0.20
0.14	0.19
0.12	0.17
0.10	0.15
0.08	0.13

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 ²

Glass SHGC ³	Overall SHGC ⁴
0.75	0.63
0.70	0.59
0.65	0.55
0.60	0.51
0.55	0.47
0.50	0.42
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	0.05

Visible Transmittance ²

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

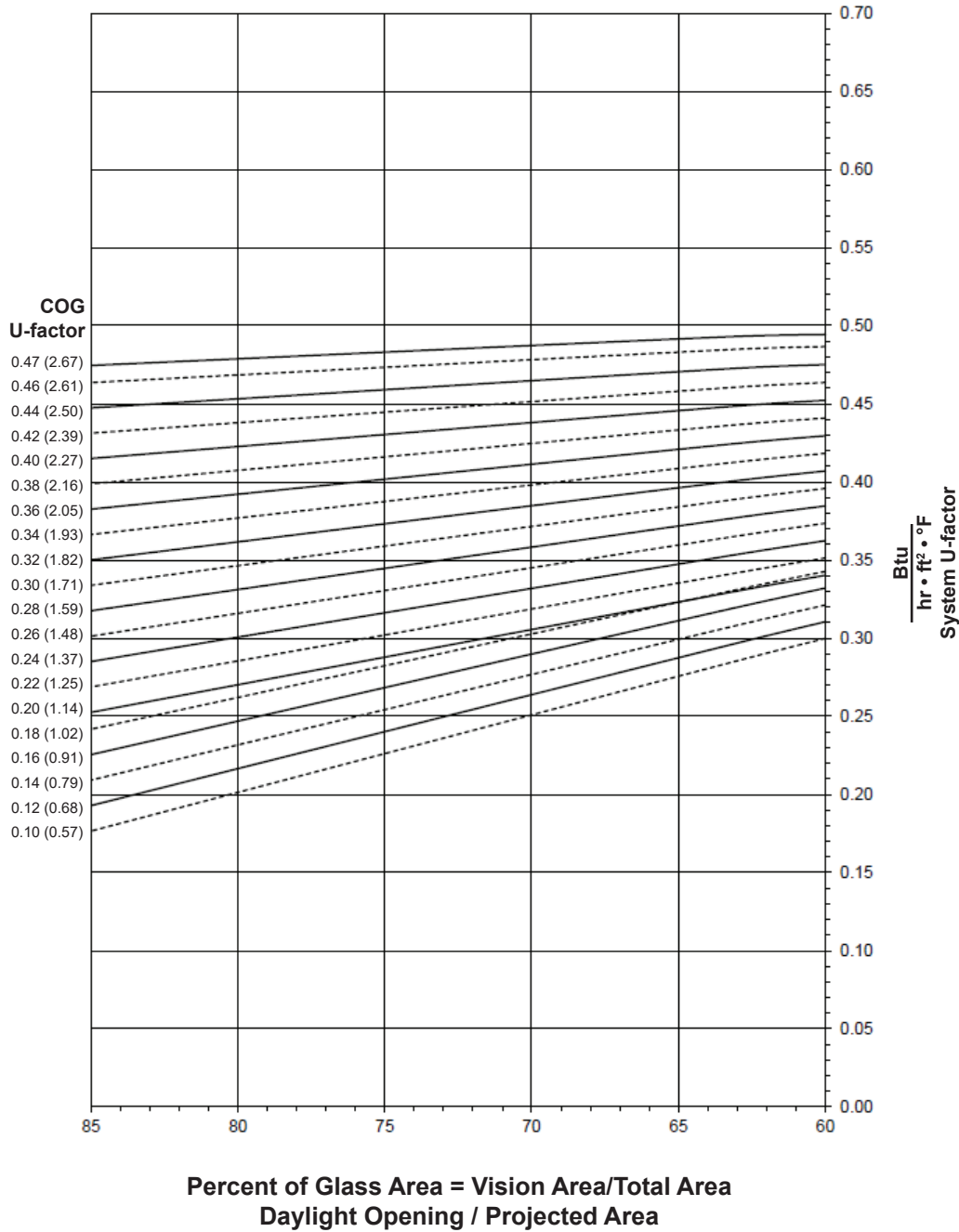
PROJECT-IN WINDOW WITH 1" GLAZING

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.

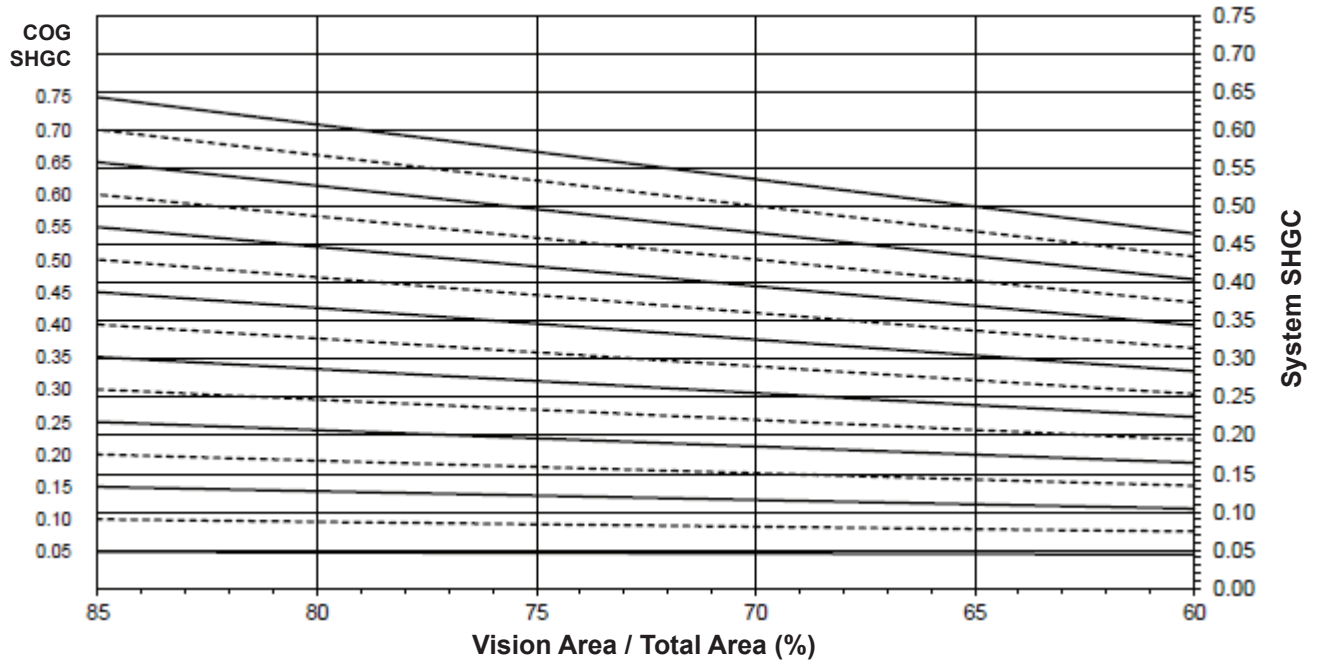
Glass properties are based on center of glass values and are obtained from your glass supplier.

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.

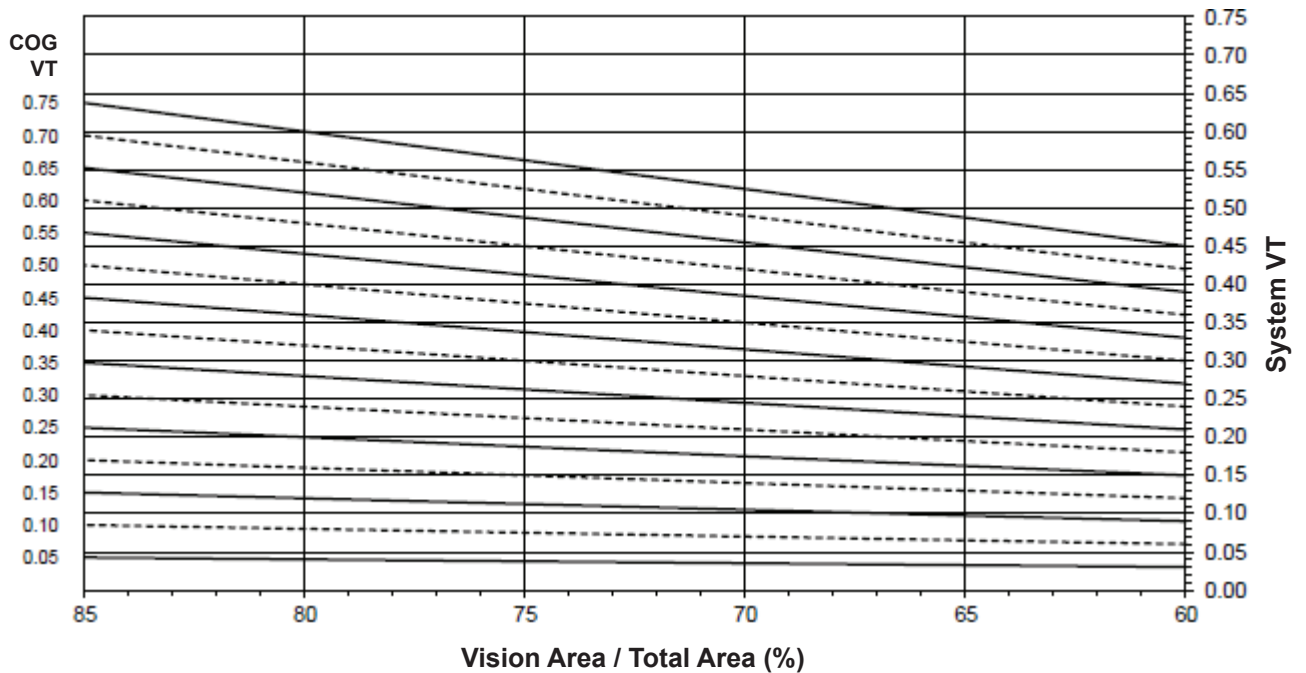
Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© 2014, Kawneer Company, Inc.

PROJECT-IN WINDOW WITH 1" GLAZING

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.
© 2014, Kawneer Company, Inc.

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

Glass U-Factor ³	Overall U-Factor ⁴
0.47	0.49
0.46	0.48
0.44	0.47
0.42	0.46
0.40	0.45
0.38	0.44
0.36	0.42
0.34	0.41
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	0.33
0.18	0.33
0.16	0.32
0.14	0.31
0.12	0.30
0.10	0.28

**PROJECT-IN WINDOW
WITH 1" GLAZING**

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 600 mm high (59-1/16" by 23-5/8").

SHGC Matrix²

Glass SHGC ³	Overall SHGC ⁴
0.75	0.49
0.70	0.46
0.65	0.42
0.60	0.39
0.55	0.36
0.50	0.33
0.45	0.30
0.40	0.27
0.35	0.23
0.30	0.20
0.25	0.17
0.20	0.14
0.15	0.11
0.10	0.08
0.05	0.04

Visible Transmittance²

Glass VT ³	Overall VT ⁴
0.75	0.47
0.70	0.44
0.65	0.41
0.60	0.38
0.55	0.35
0.50	0.32
0.45	0.28
0.40	0.25
0.35	0.22
0.30	0.19
0.25	0.16
0.20	0.13
0.15	0.09
0.10	0.06
0.05	0.03

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.
© 2014, Kawneer Company, Inc.

PROJECT-IN HIGH THERMAL WINDOW WITH 1" GLAZING

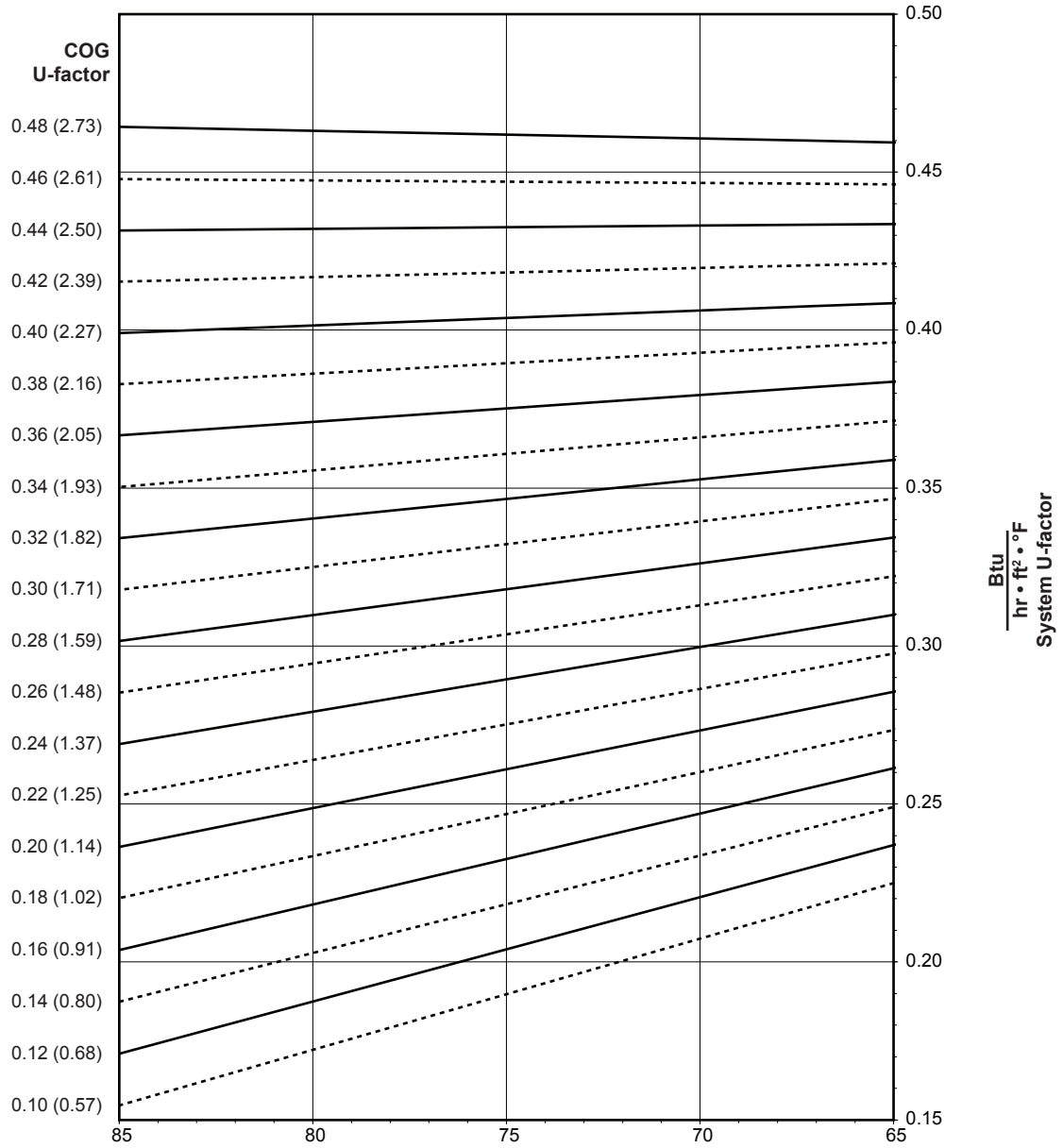
Note:

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:

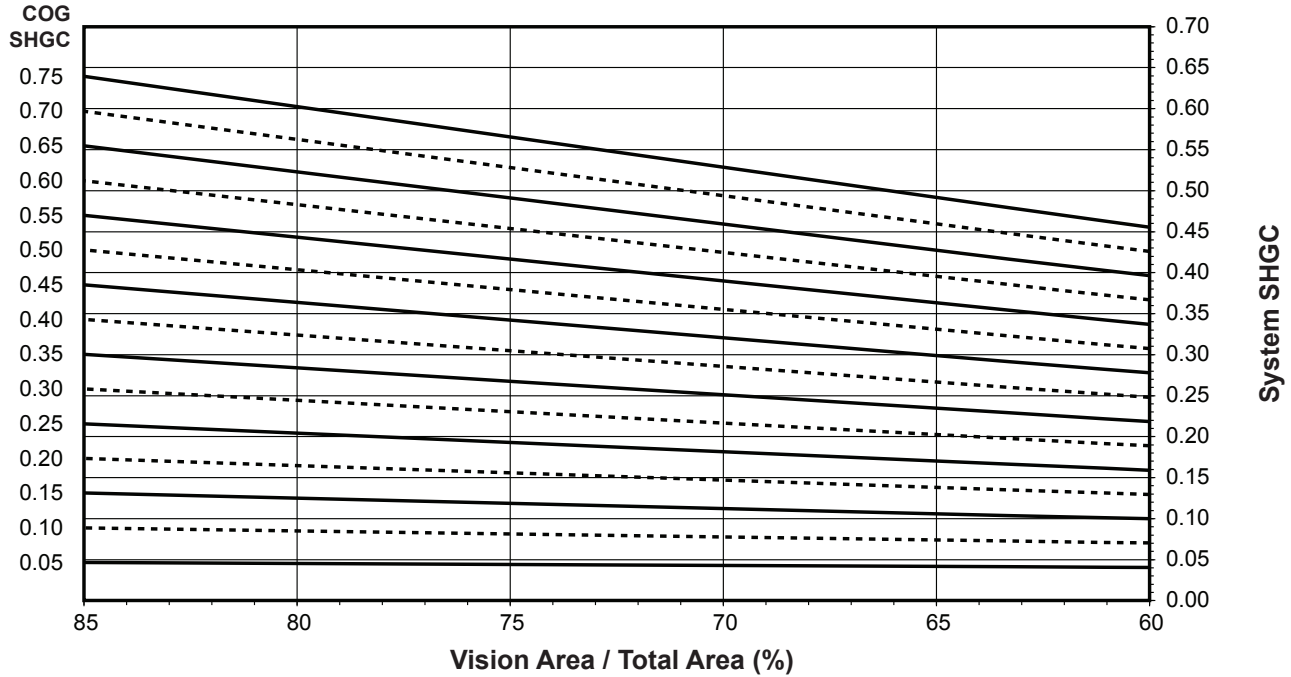
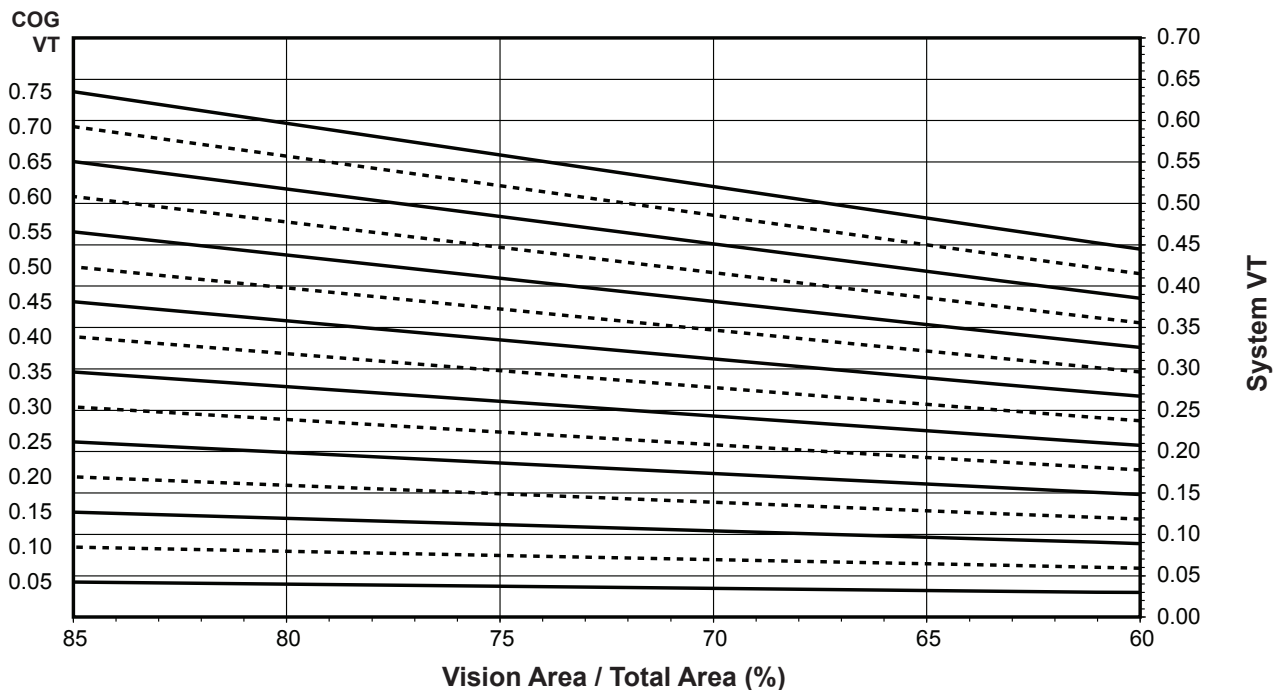
For glass values that are not listed, linear interpolation is permitted.

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

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.
© 2014, Kawneer Company, Inc.

PROJECT-IN HIGH THERMAL WINDOW WITH 1" GLAZING

System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision AreaSystem 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.
© 2014, Kawneer Company, Inc.

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

Glass U-Factor ³	Overall U-Factor ⁴
0.48	0.46
0.46	0.45
0.44	0.43
0.42	0.42
0.40	0.41
0.38	0.40
0.36	0.39
0.34	0.37
0.32	0.36
0.30	0.35
0.28	0.34
0.26	0.33
0.24	0.31
0.22	0.30
0.20	0.29
0.18	0.28
0.16	0.27
0.14	0.25
0.12	0.24
0.10	0.23

**PROJECT-IN HIGH THERMAL WINDOW
WITH 1" GLAZING**

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 600 mm high (59-1/16" by 23-5/8").

SHGC Matrix²

Glass SHGC ³	Overall SHGC ⁴
0.75	0.48
0.70	0.45
0.65	0.42
0.60	0.39
0.55	0.35
0.50	0.32
0.45	0.29
0.40	0.26
0.35	0.23
0.30	0.20
0.25	0.17
0.20	0.14
0.15	0.10
0.10	0.07
0.05	0.04

Visible Transmittance²

Glass VT ³	Overall VT ⁴
0.75	0.47
0.70	0.44
0.65	0.41
0.60	0.38
0.55	0.34
0.50	0.31
0.45	0.28
0.40	0.25
0.35	0.22
0.30	0.19
0.25	0.16
0.20	0.13
0.15	0.09
0.10	0.06
0.05	0.03

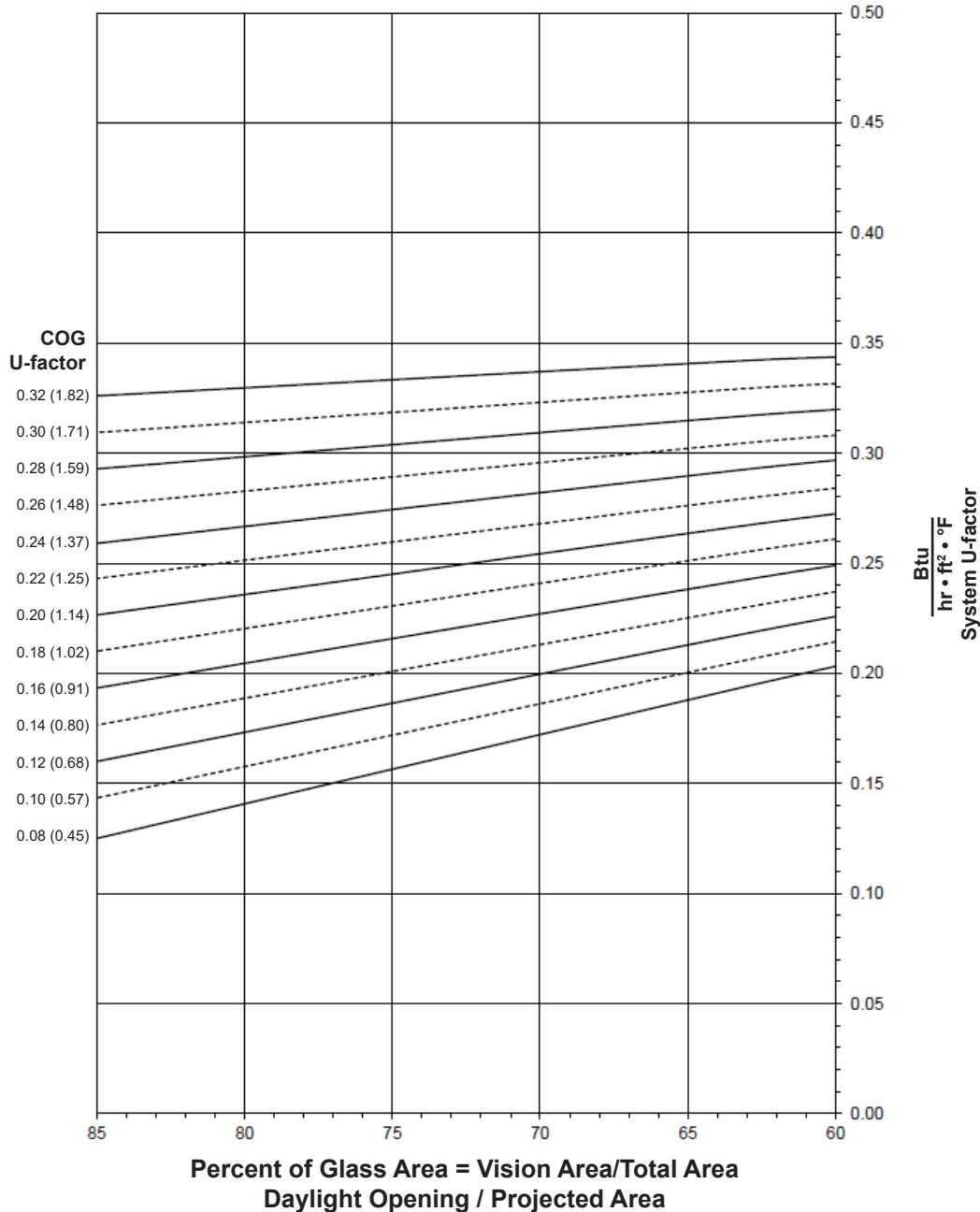
PROJECT-IN WINDOW WITH 1-3/4" GLAZING

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.

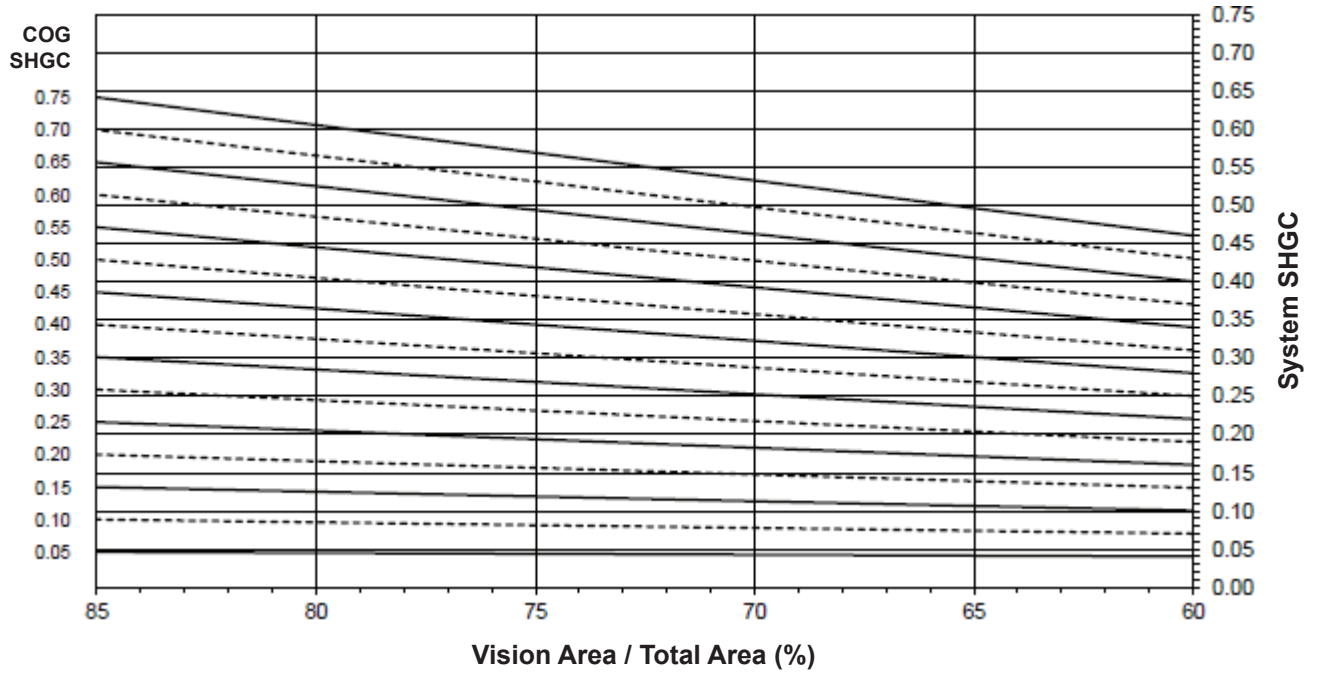
Glass properties are based on center of glass values and are obtained from your glass supplier.

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.

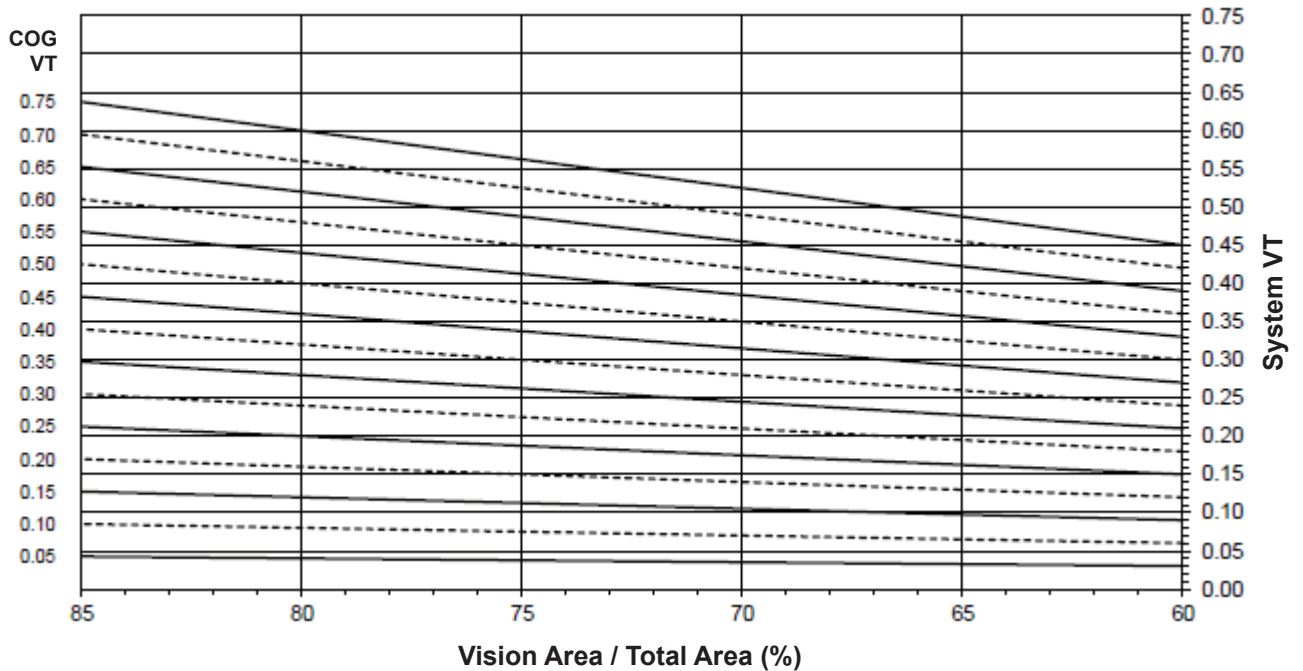
Kawneer reserves the right to change configuration without prior notice when deemed necessary for product improvement.
© 2014, Kawneer Company, Inc.

PROJECT-IN WINDOW WITH 1-3/4" GLAZING

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.
© 2014, Kawneer Company, Inc.

PROJECT-IN WINDOW WITH 1-3/4" GLAZING

Thermal Transmittance ¹ (BTU/hr • ft² • °F)

Glass U-Factor ³	Overall U-Factor ⁴
0.32	0.34
0.30	0.33
0.28	0.32
0.26	0.30
0.24	0.29
0.22	0.28
0.20	0.27
0.18	0.25
0.16	0.24
0.14	0.23
0.12	0.22
0.10	0.21
0.08	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 1,500 mm wide by 600 mm high (59-1/16" by 23-5/8").

SHGC Matrix ²

Glass SHGC ³	Overall SHGC ⁴
0.75	0.48
0.70	0.45
0.65	0.42
0.60	0.39
0.55	0.36
0.50	0.33
0.45	0.29
0.40	0.26
0.35	0.23
0.30	0.20
0.25	0.17
0.20	0.14
0.15	0.10
0.10	0.07
0.05	0.04

Visible Transmittance ²

Glass VT ³	Overall VT ⁴
0.75	0.47
0.70	0.44
0.65	0.41
0.60	0.38
0.55	0.35
0.50	0.32
0.45	0.28
0.40	0.25
0.35	0.22
0.30	0.19
0.25	0.16
0.20	0.13
0.15	0.09
0.10	0.06
0.05	0.03

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.
© 2014, Kawneer Company, Inc.

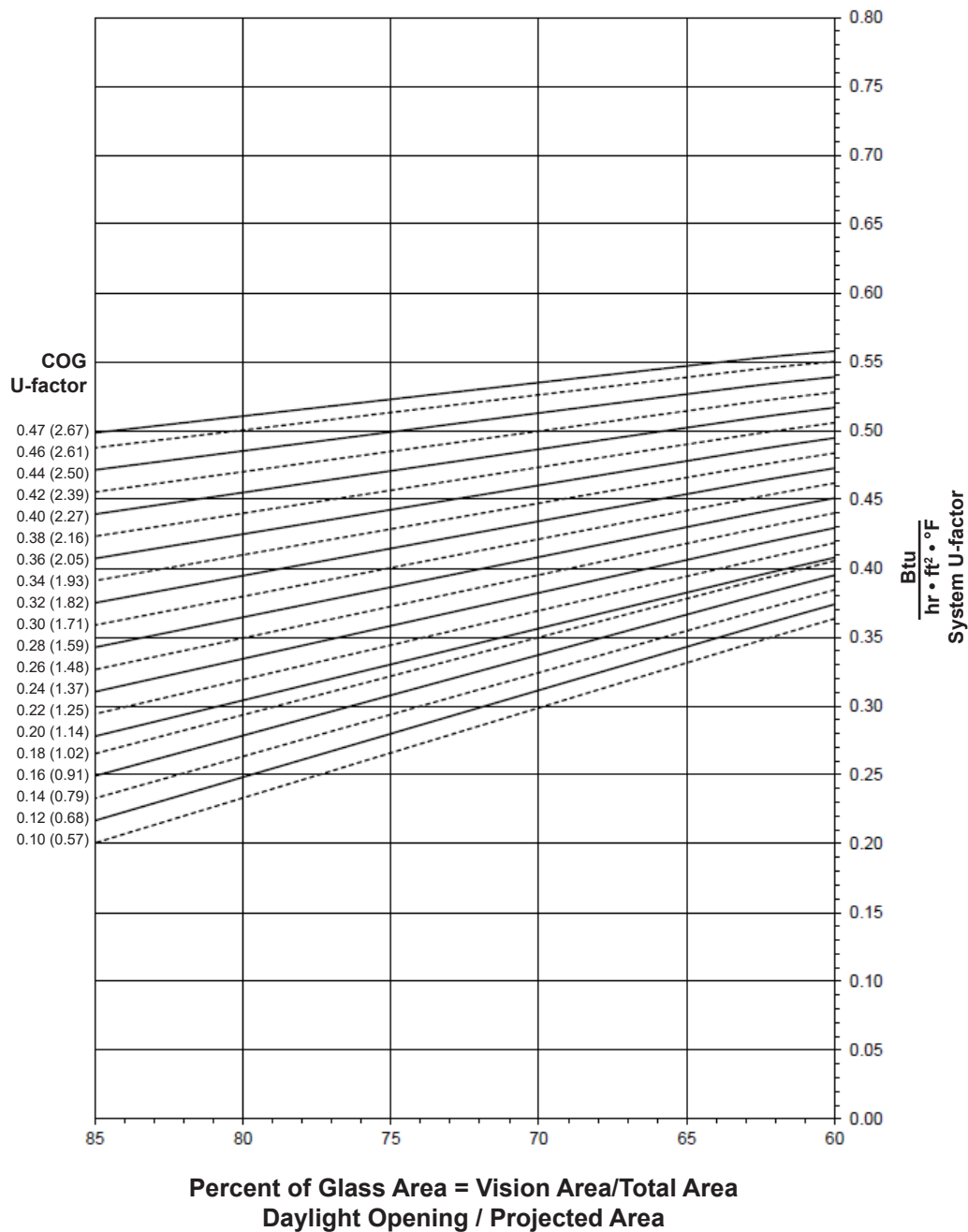
PROJECT-OUT WINDOW WITH 1" GLAZING

Note:

Values in parentheses are metric.

COG = Center of Glass.

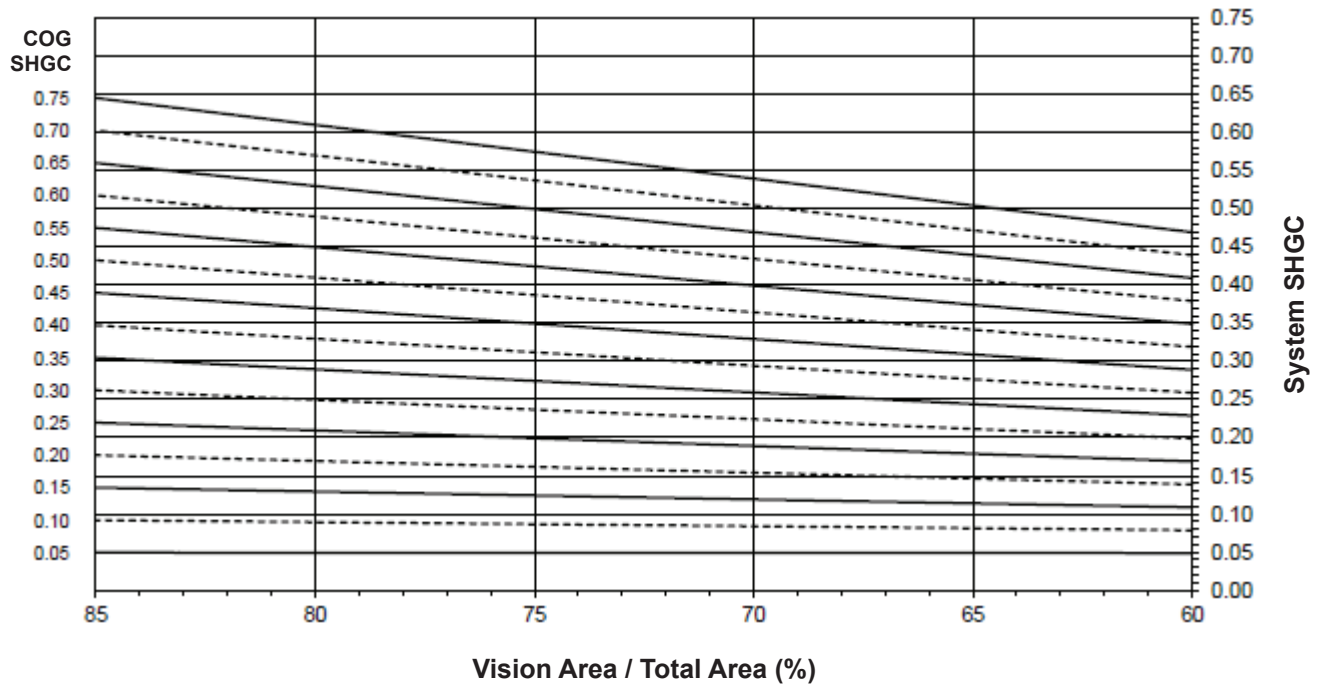
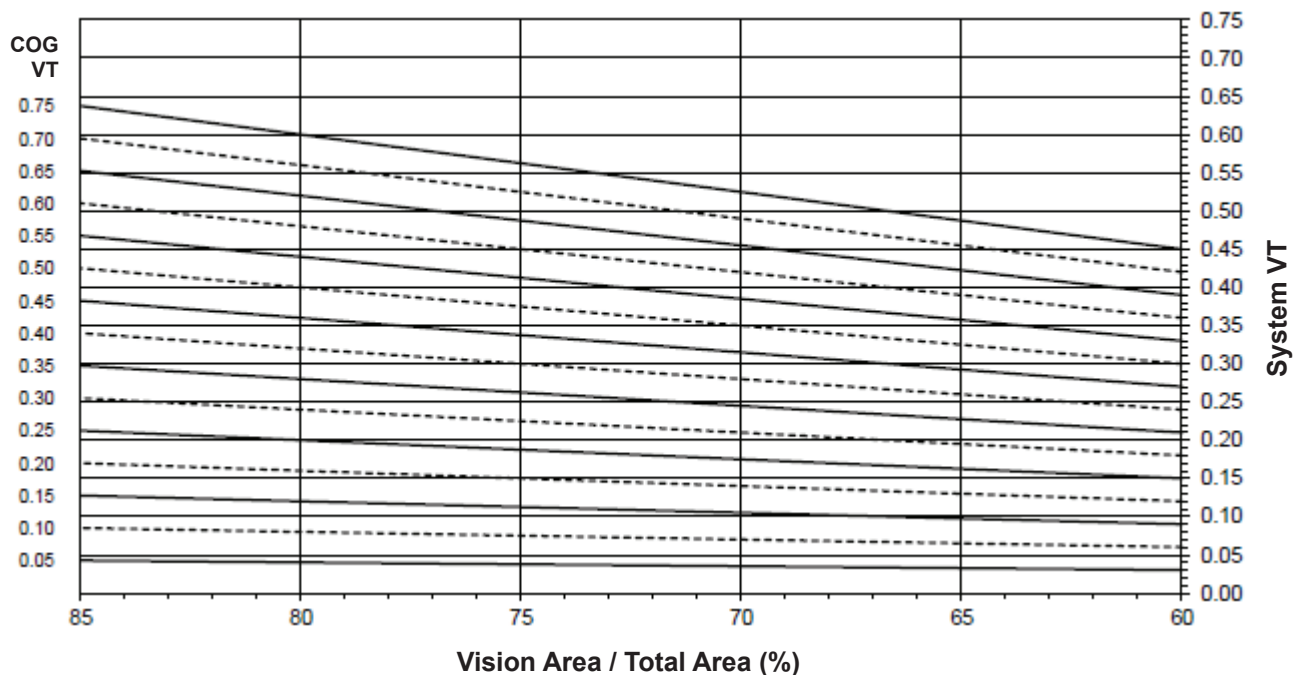
Charts are generated per AAMA 507

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.

PROJECT-OUT WINDOW WITH 1" GLAZING

System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision AreaSystem 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.
© 2014, Kawneer Company, Inc.

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

Glass U-Factor ³	Overall U-Factor ⁴
0.48	0.55
0.46	0.54
0.44	0.53
0.42	0.52
0.40	0.51
0.38	0.50
0.36	0.48
0.34	0.47
0.32	0.46
0.30	0.45
0.28	0.44
0.26	0.43
0.24	0.41
0.22	0.40
0.20	0.39
0.18	0.39
0.16	0.38
0.14	0.37
0.12	0.35
0.10	0.34

PROJECT-OUT WINDOW
WITH 1" GLAZING

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 600 mm high (59-1/16" by 23-5/8").

SHGC Matrix ²

Glass SHGC ³	Overall SHGC ⁴
0.75	0.49
0.70	0.46
0.65	0.43
0.60	0.40
0.55	0.37
0.50	0.33
0.45	0.30
0.40	0.27
0.35	0.24
0.30	0.21
0.25	0.18
0.20	0.14
0.15	0.11
0.10	0.08
0.05	0.05

Visible Transmittance ²

Glass VT ³	Overall VT ⁴
0.75	0.47
0.70	0.44
0.65	0.41
0.60	0.38
0.55	0.35
0.50	0.32
0.45	0.28
0.40	0.25
0.35	0.22
0.30	0.19
0.25	0.16
0.20	0.13
0.15	0.09
0.10	0.06
0.05	0.03

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.
© 2014, Kawneer Company, Inc.

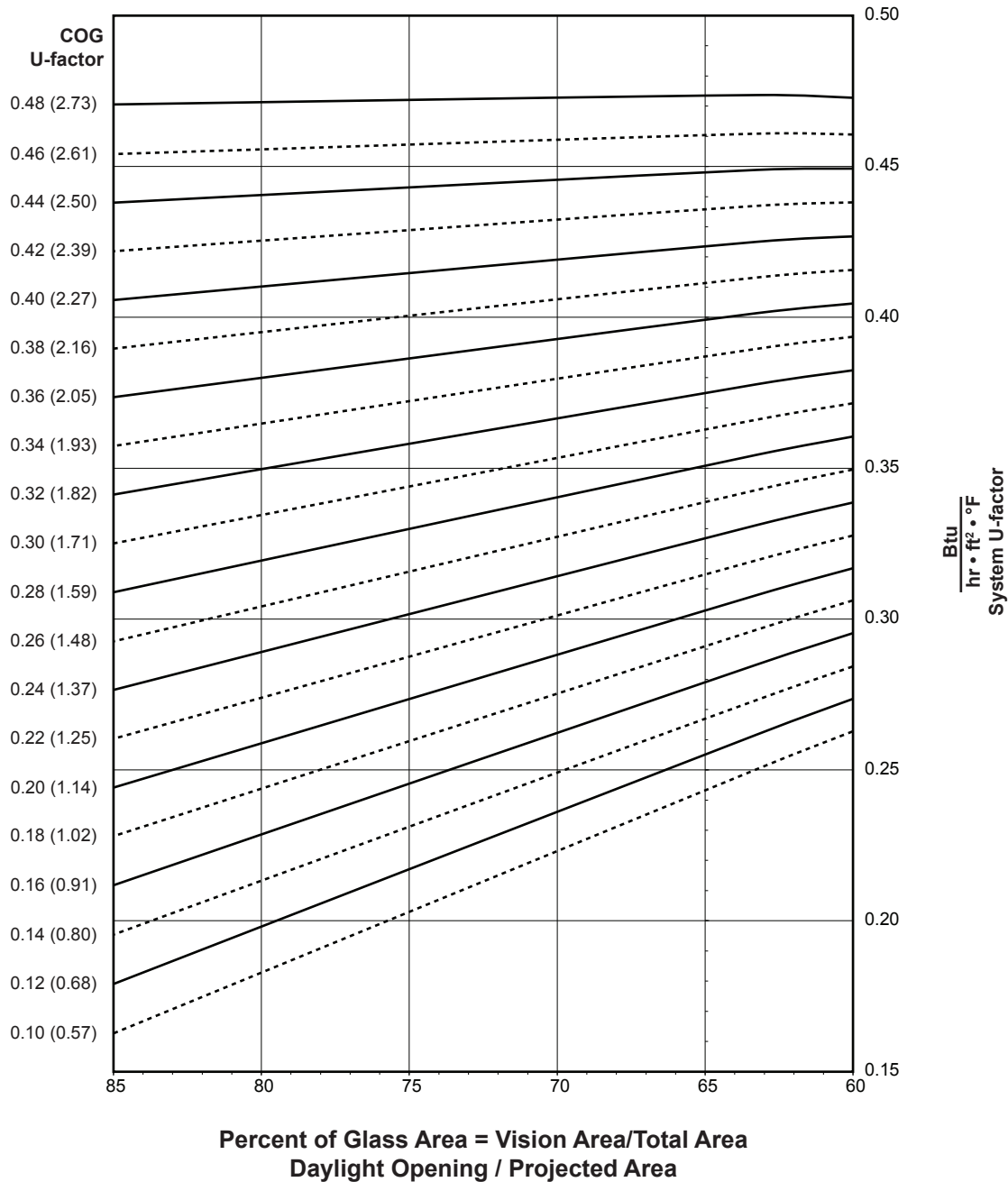
PROJECT-OUT HIGH THERMAL WINDOW WITH 1" GLAZING

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.

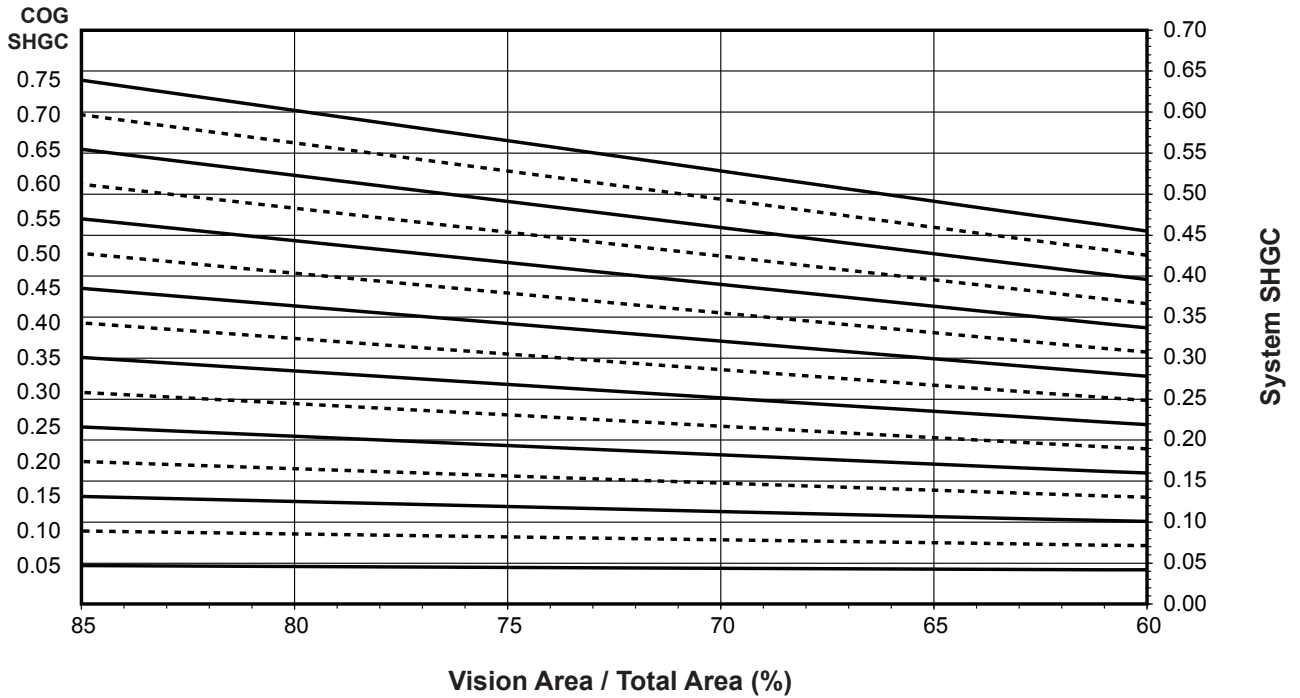
Laws and building and safety codes governing the design and use of Kawneer products, such as glazed entrance, window, and curtain wall products, vary widely. Kawneer does not control the selection of product configurations, operating hardware, or glazing materials, and assumes no responsibility therefor.

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

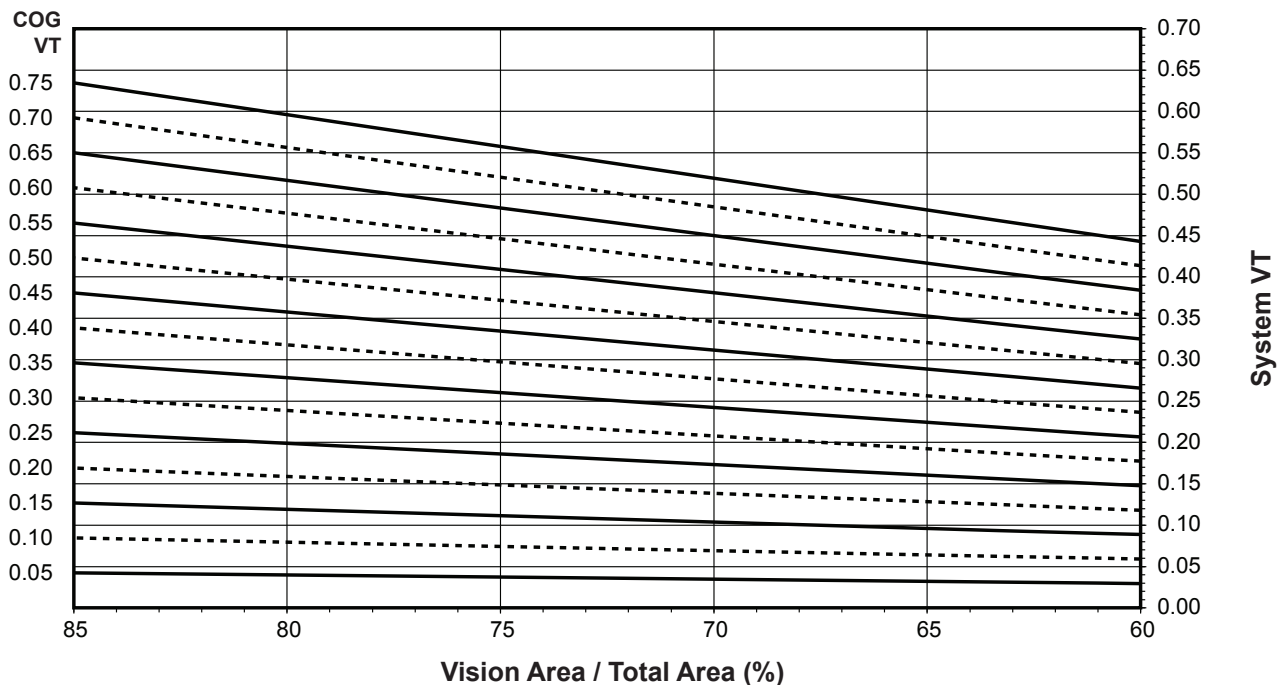
© 2014, Kawneer Company, Inc.

PROJECT-OUT HIGH THERMAL WINDOW WITH 1" GLAZING

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.
© 2014, Kawneer Company, Inc.

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

Glass U-Factor ³	Overall U-Factor ⁴
0.48	0.47
0.46	0.46
0.44	0.45
0.42	0.44
0.40	0.43
0.38	0.41
0.36	0.40
0.34	0.39
0.32	0.38
0.30	0.37
0.28	0.35
0.26	0.34
0.24	0.33
0.22	0.32
0.20	0.31
0.18	0.30
0.16	0.28
0.14	0.27
0.12	0.26
0.10	0.25

**PROJECT-OUT HIGH THERMAL WINDOW
WITH 1" GLAZING**

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 600 mm high (59-1/16" by 23-5/8").

SHGC Matrix²

Glass SHGC ³	Overall SHGC ⁴
0.75	0.48
0.70	0.45
0.65	0.42
0.60	0.39
0.55	0.35
0.50	0.32
0.45	0.29
0.40	0.26
0.35	0.23
0.30	0.20
0.25	0.17
0.20	0.14
0.15	0.10
0.10	0.07
0.05	0.04

Visible Transmittance²

Glass VT ³	Overall VT ⁴
0.75	0.47
0.70	0.44
0.65	0.41
0.60	0.37
0.55	0.34
0.50	0.31
0.45	0.28
0.40	0.25
0.35	0.22
0.30	0.19
0.25	0.16
0.20	0.12
0.15	0.09
0.10	0.06
0.05	0.03

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.
© 2014, Kawneer Company, Inc.

PROJECT-OUT WINDOW WITH 1-3/4" GLAZING

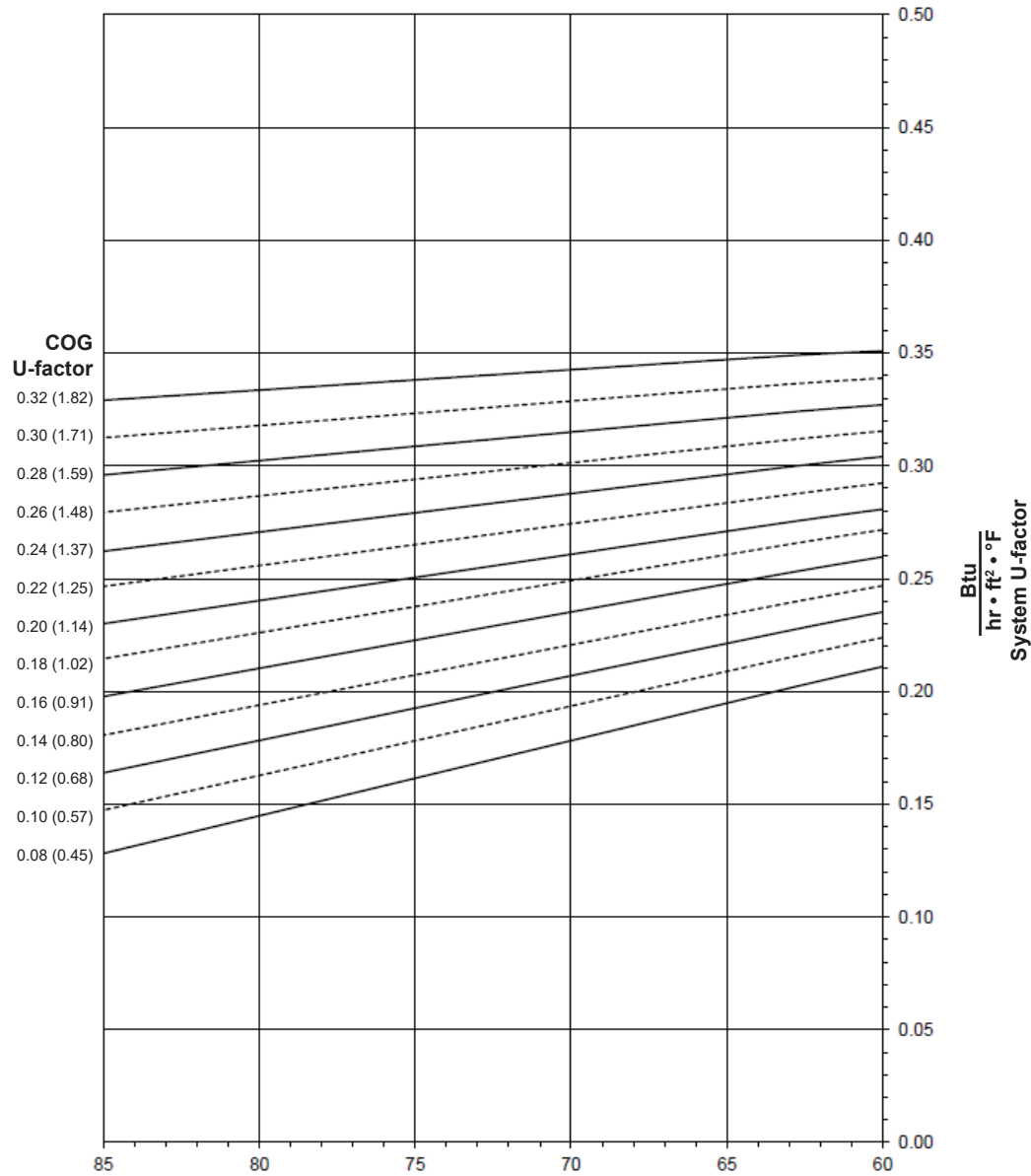
Note:

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:

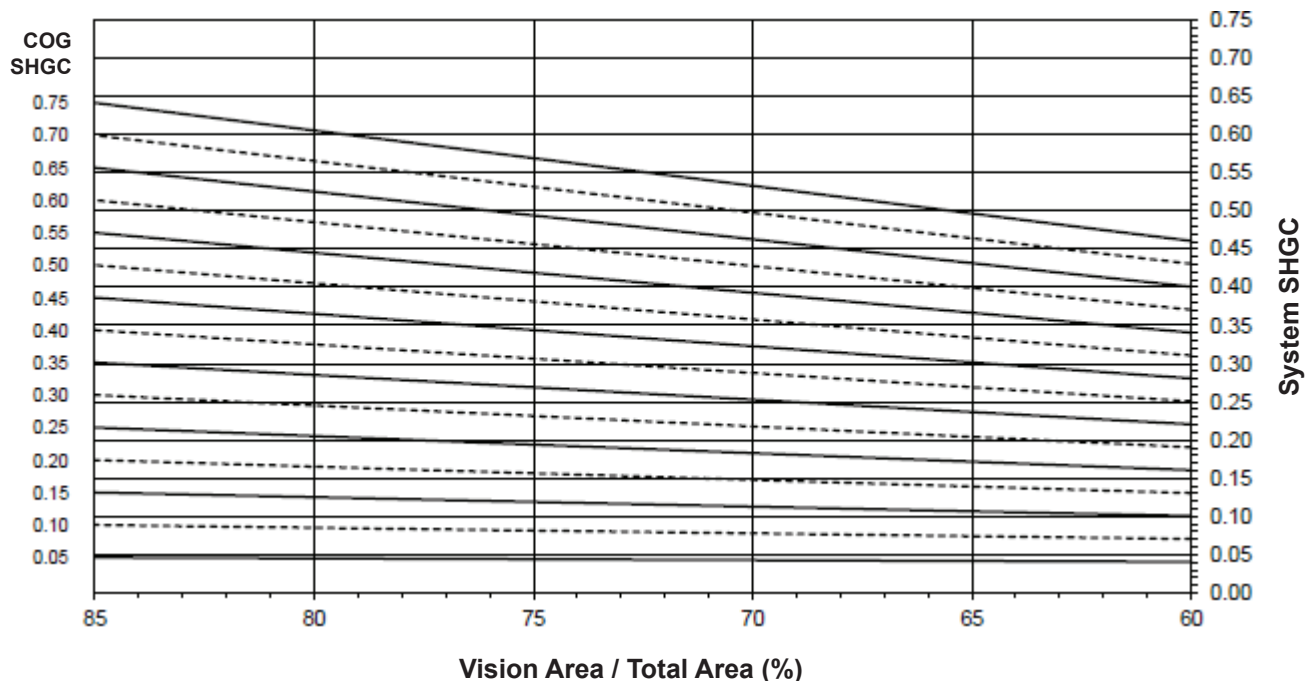
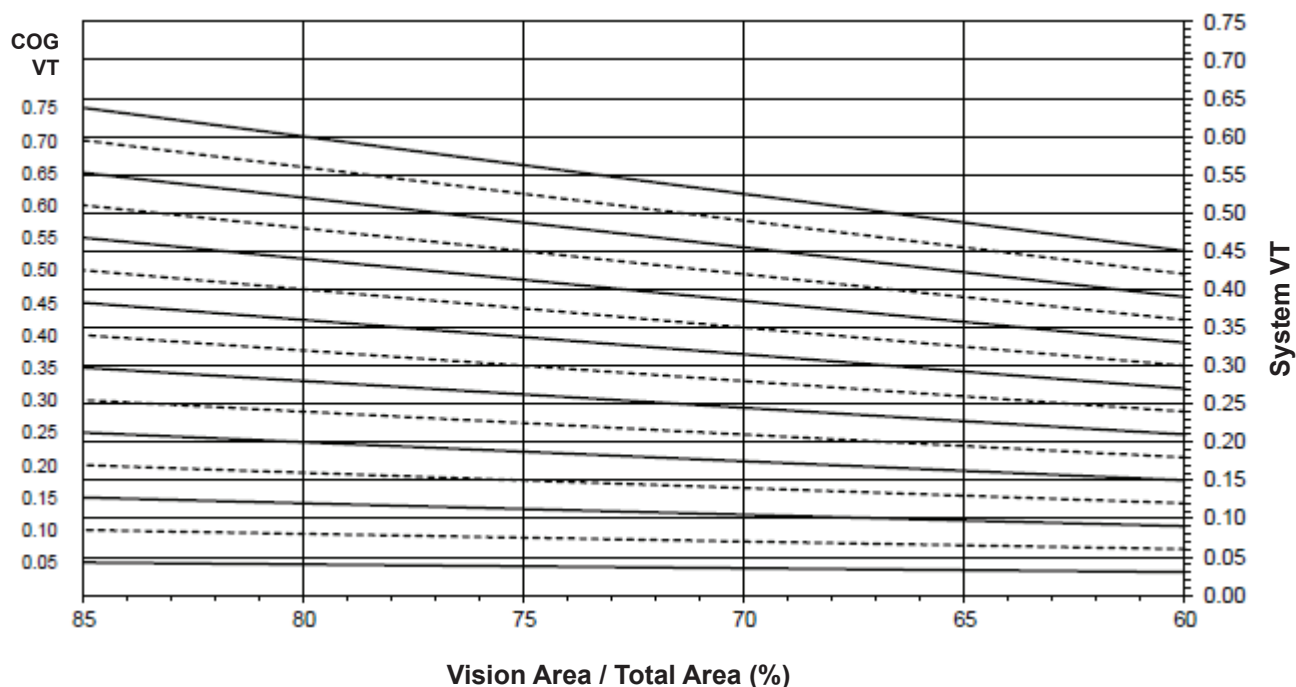
For glass values that are not listed, linear interpolation is permitted.

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

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.
© 2014, Kawneer Company, Inc.

PROJECT-OUT WINDOW WITH 1-3/4" GLAZING

System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision AreaSystem 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.
© 2014, Kawneer Company, Inc.

PROJECT-OUT WINDOW WITH 1-3/4" GLAZING

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

Glass U-Factor ³	Overall U-Factor ⁴
0.32	0.35
0.30	0.34
0.28	0.32
0.26	0.31
0.24	0.30
0.22	0.29
0.20	0.27
0.18	0.26
0.16	0.25
0.14	0.24
0.12	0.23
0.10	0.21
0.08	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 1,500 mm wide by 600 mm high (59-1/16" by 23-5/8").

SHGC Matrix ²

Glass SHGC ³	Overall SHGC ⁴
0.75	0.48
0.70	0.45
0.65	0.42
0.60	0.39
0.55	0.36
0.50	0.33
0.45	0.29
0.40	0.26
0.35	0.23
0.30	0.20
0.25	0.17
0.20	0.14
0.15	0.10
0.10	0.07
0.05	0.04

Visible Transmittance ²

Glass VT ³	Overall VT ⁴
0.75	0.47
0.70	0.44
0.65	0.41
0.60	0.38
0.55	0.35
0.50	0.32
0.45	0.28
0.40	0.25
0.35	0.22
0.30	0.19
0.25	0.16
0.20	0.13
0.15	0.09
0.10	0.06
0.05	0.03

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.
© 2014, Kawneer Company, Inc.