



Deflection and Sightline Reference Guide

This document has been developed to assist with process of selecting glass to withstand loads, minimize center of glass deflection and identify the appropriate sightline.

The ability of glass to withstand a load is calculated utilizing ASTM E1300 Standard Practice for Determining Load Resistance of Glass in Buildings.

The glass unit size, ply thicknesses and heat treatment impact the strength and center of glass deflection.

The ability of the insulating unit seal to support the insulating unit and exterior glass ply in a structurally glazed application is calculated utilizing ASTM C1249 Standard Guide for Secondary Seal for Sealed Insulating Glass Units for Structural Sealant Glazing Applications.

Using this Reference Guide

- ① Locate the page with your intended glass unit make-up and heat treatment. See index below.
- ② Locate the applicable load along the left side.
- ③ Within the applicable load section, follow the glass width until it meets the height of your unit.
- ④ Review the center of glass deflection and sightline .

Index

Insulating		Insulating Laminated		Laminated Insulating	
1" HS	pg 2	1-5/16" HS	pg 8	1-5/16" HS	pg 10
1" FT	pg 3	1-5/16" FT	pg 9	1-5/16" FT	pg 11
1-1/16" HS	pg 4				
1-1/16" FT	pg 5				
1-1/8" HS	pg 6				
1-1/8" FT	pg 7				

Definitions

Conventionally Glazed: A framing system captures the glazing in a channel so the framing system surrounds the glass and is visible around the full perimeter of each glass unit.

Deflection (center of glass): The amount the center of a glass lite bends, perpendicular to the plane of the glass surface, under an applied load. When deflection is >1", increase the glass ply thickness or decrease the size to achieve a center of glass ≤1".

Fully Tempered Glass (FT): Glass that has been heat-treated to have either a minimum surface compression of 10000 psi or an edge compression not less than 9700 psi in accordance with the requirements of ASTM C1048 kind FT or meet the requirements of ANSI Z97.1 or CPSC 16 CFR 1201 safety glazing standards. Tempered glass is 4-5 times stronger than annealed glass and when broken breaks into small relatively harmless pieces. Viracon recommends heat soaking all FT glass.

Heat Soak: A process of heating FT glass in a special oven in an attempt to find any impurities in the glass known as nickel sulfide inclusions. Viracon recommends heat soaking all FT glass. For additional information, see our Heat Soak Testing Tech Talk at <http://www.viracon.com/pdf/TTHeatSoak.pdf>

Heat Strengthened (HS): Glass that has been heat-treated to have a surface compression between 3500 and 7500 psi and meets the requirements for ASTM C1048, kind HS. It is 2-3 times stronger than annealed glass. HS is not a safety glazing material and will not meet the requirements of ANSI Z97.1 or CPSC 16 CFR 1201.

Sightline: Edge dimension of insulating glass covered by spacer. All insulating units have a sightline. Insulating glass used in a conventionally glazed system typically utilizes a 1/2" sightline. When used in a structurally glazed system, the insulating glass sightline is calculated based on the unit size and design loads in order to appropriately support the insulating unit and exterior glass ply.

Structurally Glazed: The use of a silicone sealant on one or more sides of the insulating unit for the structural transfer of loads from the glass to its perimeter support system and retention of the glass in the opening. When structurally glazed, the framing system is typically not visible on the exterior facade along the structurally glazed sides.

Two sided structurally glazed: Glass structurally adhered to metal back-up mullion and two sides captured in pocket

Four sided structurally glazed: Glass with four sides structurally adhered to metal back-up mullion.



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1" Insulating Unit																																																			
Constructed with two plies of 1/4" heat strengthened (HS) glass																																																			
Wind Load	Width (Base)	Height																																																	
		24"		36"		48"		60"		72"		84"		96"		108"		120"		132"		144"		156"		168"		180"		192"		204"		216"		228"															
		Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline														
60 psf	24"	0.03"	1/2"	0.05"	1/2"	0.07"	1/2"	0.09"	1/2"	0.09"	1/2"	0.09"	1/2"	0.09"	1/2"	0.09"	1/2"	0.09"	1/2"	0.09"	1/2"	0.10"	1/2"	0.10"	1/2"	0.10"	1/2"	0.10"	1/2"	0.10"	1/2"	0.10"	1/2"	0.10"	1/2"	0.10"	1/2"	0.10"	1/2"												
	36"	0.05"	1/2"	0.15"	9/16"	0.21"	9/16"	0.27"	9/16"	0.32"	9/16"	0.36"	9/16"	0.39"	9/16"	0.41"	9/16"	0.42"	9/16"	0.44"	9/16"	0.44"	9/16"	0.45"	9/16"	0.45"	9/16"	0.46"	9/16"	0.45"	9/16"	0.45"	9/16"	0.45"	9/16"	0.45"	9/16"	0.45"	9/16"	0.45"	9/16"										
	48"	0.07"	1/2"	0.21"	9/16"	0.33"	5/8"	0.43"	5/8"	0.53"	5/8"	0.62"	5/8"	0.71"	5/8"	0.79"	5/8"	0.86"	5/8"	0.93"	5/8"	1.00"	5/8"	1.06"	5/8"	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.										
	60"	0.09"	1/2"	0.27"	9/16"	0.43"	5/8"	0.56"	11/16"	0.69"	11/16"	0.82"	11/16"	0.94"	11/16"	1.06"	11/16"	1.19"	11/16"	1.31"	11/16"	1.44"	11/16"	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.										
	72"	0.09"	1/2"	0.32"	9/16"	0.53"	5/8"	0.69"	11/16"	0.81"	11/16"	0.96"	11/16"	1.11"	11/16"	1.26"	11/16"	1.41"	11/16"	1.57"	11/16"	1.73"	11/16"	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.								
	84"	0.09"	1/2"	0.36"	9/16"	0.62"	5/8"	0.82"	11/16"	0.96"	11/16"	1.07"	3/4"	1.24"	3/4"	1.40"	3/4"	1.57"	3/4"	1.75"	3/4"	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.								
	96"	0.09"	1/2"	0.39"	9/16"	0.71"	5/8"	0.94"	11/16"	1.11"	11/16"	1.24"	3/4"	1.35"	13/16"	1.52"	13/16"	1.70"	13/16"	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.								
	108"	0.09"	1/2"	0.41"	9/16"	0.79"	5/8"	1.06"	11/16"	1.26"	11/16"	1.40"	3/4"	1.52"	13/16"	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.								
	120"	0.09"	1/2"	0.42"	9/16"	0.86"	5/8"	1.19"	11/16"	1.41"	11/16"	1.57"	3/4"	1.70"	13/16"	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.								
	132"	0.09"	1/2"	0.44"	9/16"	0.93"	5/8"	1.31"	11/16"	1.57"	11/16"	1.75"	3/4"	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.								
50 psf	24"	0.00"	1/2"	0.04"	1/2"	0.06"	1/2"	0.07"	1/2"	0.08"	1/2"	0.08"	1/2"	0.08"	1/2"	0.07"	1/2"	0.07"	1/2"	0.08"	1/2"	0.08"	1/2"	0.08"	1/2"	0.08"	1/2"	0.08"	1/2"	0.08"	1/2"	0.08"	1/2"	0.08"	1/2"	0.08"	1/2"	0.08"	1/2"	0.08"	1/2"	0.08"	1/2"	0.08"	1/2"						
	36"	0.04"	1/2"	0.13"	9/16"	0.18"	9/16"	0.23"	9/16"	0.31"	9/16"	0.33"	9/16"	0.35"	9/16"	0.36"	9/16"	0.37"	9/16"	0.38"	9/16"	0.38"	9/16"	0.38"	9/16"	0.38"	9/16"	0.38"	9/16"	0.38"	9/16"	0.38"	9/16"	0.38"	9/16"	0.38"	9/16"	0.38"	9/16"	0.38"	9/16"	0.38"	9/16"	0.38"	9/16"						
	48"	0.06"	1/2"	0.18"	9/16"	0.30"	5/8"	0.39"	5/8"	0.48"	5/8"	0.56"	5/8"	0.63"	5/8"	0.70"	5/8"	0.76"	5/8"	0.82"	5/8"	0.87"	5/8"	0.92"	5/8"	0.98"	5/8"	1.02"	5/8"	1.07"	5/8"	1.08"	5/8"	1.07"	5/8"	1.07"	5/8"	1.07"	5/8"	1.07"	5/8"	1.07"	5/8"	1.07"	5/8"	1.07"	5/8"				
	60"	0.07"	1/2"	0.23"	9/16"	0.39"	5/8"	0.50"	11/16"	0.62"	11/16"	0.74"	11/16"	0.85"	11/16"	0.97"	11/16"	1.07"	11/16"	1.18"	11/16"	1.29"	11/16"	1.41"	11/16"	1.52"	11/16"	1.64"	11/16"	1.75"	11/16"	1.87"	11/16"	1.99"	11/16"	2.10"	11/16"	2.21"	11/16"	2.32"	11/16"	2.43"	11/16"	2.54"	11/16"	2.65"	11/16"	2.76"	11/16"		
	72"	0.08"	1/2"	0.28"	9/16"	0.48"	5/8"	0.62"	11/16"	0.74"	11/16"	0.88"	11/16"	1.02"	11/16"	1.16"	11/16"	1.29"	11/16"	1.44"	11/16"	1.58"	11/16"	1.71"	11/16"	1.85"	11/16"	1.99"	11/16"	2.12"	11/16"	2.26"	11/16"	2.39"	11/16"	2.53"	11/16"	2.66"	11/16"	2.80"	11/16"	2.93"	11/16"	3.07"	11/16"	3.20"	11/16"	3.34"	11/16"	3.47"	11/16"
	84"	0.08"	1/2"	0.31"	9/16"	0.56"	5/8"	0.74"	11/16"	0.88"	11/16"	0.99"	11/16"	1.14"	11/16"	1.25"	3/4"	1.41"	3/4"	1.58"	3/4"	1.75"	3/4"	1.92"	3/4"	2.09"	3/4"	2.26"	3/4"	2.43"	3/4"	2.60"	3/4"	2.77"	3/4"	2.94"	3/4"	3.11"	3/4"	3.28"	3/4"	3.45"	3/4"	3.62"	3/4"	3.79"	3/4"	3.96"	3/4"		
	96"	0.08"	1/2"	0.33"	9/16"	0.63"	5/8"	0.85"	11/16"	1.02"	11/16"	1.14"	11/16"	1.25"	3/4"	1.41"	3/4"	1.58"	3/4"	1.75"	3/4"	1.92"	3/4"	2.09"	3/4"	2.26"	3/4"	2.43"	3/4"	2.60"	3/4"	2.77"	3/4"	2.94"	3/4"	3.11"	3/4"	3.28"	3/4"	3.45"	3/4"	3.62"	3/4"	3.79"	3/4"	3.96"	3/4"	4.13"	3/4"		
	108"	0.07"	1/2"	0.35"	9/16"	0.70"	5/8"	0.97"	11/16"	1.16"	11/16"	1.30"	11/16"	1.41"	3/4"	1.52"	13/16"	1.69"	13/16"	1.86"	13/16"	2.03"	13/16"	2.20"	13/16"	2.37"	13/16"	2.54"	13/16"	2.71"	13/16"	2.88"	13/16"	3.05"	13/16"	3.22"	13/16"	3.39"	13/16"	3.56"	13/16"	3.73"	13/16"	3.90"	13/16"	4.07"	13/16"	4.24"	13/16"		
	120"	0.07"	1/2"	0.36"	9/16"	0.76"	5/8"	1.07"	11/16"	1.29"	11/16"	1.45"	11/16"	1.58"	3/4"	1.69"	13/16"	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.								
	132"	0.08"	1/2"	0.37"	9/16"	0.82"	5/8"	1.18"	11/16"	1.44"	11/16"	1.61"	11/16"	1.75"	3/4"	1.86"	13/16"	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.								
40 psf	24"	0.00"	1/2"	0.01"	1/2"	0.04"	1/2"	0.06"	1/2"	0.06"	1/2"	0.06"	1/2"	0.06"	1/2"	0.06"	1/2"	0.06"	1/2"	0.06"	1/2"	0.07"	1/2"	0.07"	1/2"	0.07"	1/2"	0.07"	1/2"	0.07"	1/2"	0.07"	1/2"	0.07"	1/2"	0.07"	1/2"	0.07"	1/2"	0.07"	1/2"	0.07"	1/2"	0.07"	1/2"						
	36"	0.01"	1/2"	0.03"	1/2"	0.15"	1/2"	0.20"	1/2"	0.23"	1/2"	0.26"	1/2"	0.28"	1/2"	0.29"	1/2"	0.30"	1/2"	0.30"	1/2"	0.30"	1/2"	0.30"	1/2"	0.30"	1/2"	0.30"	1/2"	0.30"	1/2"	0.30"	1/2"	0.30"	1/2"	0.30"	1/2"	0.30"	1/2"	0.30"	1/2"	0.30"	1/2"	0.30"	1/2"						
	48"	0.04"	1/2"	0.15"	1/2"	0.25"	9/16"	0.34"	9/16"	0.41"	9/16"	0.48"	9/16"	0.55"	9/16"	0.60"	9/16"	0.65"	9/16"	0.70"	9/16"	0.74"	9/16"	0.78"	9/16"	0.81"	9/16"	0.84"	9/16"	0.87"	9/16"	0.90"	9/16"	0.93"	9/16"	0.96"	9/16"	0.99"	9/16"	1.02"	9/16"	1.05"	9/16"	1.08"	9/16"	1.11"	9/16"	1.14"	9/16"		
	60"	0.06"	1/2"	0.20"	1/2"	0.34"	9/16"	0.44"	5/8"	0.55"	5/8"	0.66"	5/8"	0.76"	5/8"	0.85"	5/8"	0.95"	5/8"	1.04"	5/8"	1.13"	5/8"	1.22"	5/8"	1.32"	5/8"	1.41"	5/8"	1.51"	5/8"	1.60"	5/8"	1.69"	5/8"	1.78"	5/8"	1.87"	5/8"	1.96"	5/8"	2.05"	5/8"	2.14"	5/8"	2.23"	5/8"	2.32"	5/8"		
	72"	0.06"	1/2"	0.23"	1/2"	0.41"	9/16"	0.55"	5/8"	0.66"	5/8"	0.79"	5/8"	0.91"	5/8"	1.04"	5/8"	1.16"	5/8"	1.28"	5/8"	1.40"	5/8"	1.52"	5/8"	1.64"	5/8"	1.76"	5/8"	1.88"	5/8"	2.00"	5/8"	2.12"	5/8"	2.24"	5/8"	2.36"	5/8"	2.48"	5/8"	2.60"	5/8"	2.72"	5/8"	2.84"	5/8"	2.96"	5/8"		
	84"	0.06"	1/2"	0.26"	1/2"	0.48"	9/16"	0.66"	5/8"	0.79"	5/8"	0.89"	11/16"	1.03"	11/16"	1.17"	11/16"	1.32"	11/16"	1.46"	11/16"	1.61"	11/16"	1.76"	11/16"	1.92"	11/16"	2.07"	11/16"	2.22"	11/16"	2.37"	11/16"	2.52"	11/16"	2.67"	11/16"	2.82"	11/16"	2.97"	11/16"	3.12"	11/16"	3.27"	11/16"	3.42"	11/16"	3.57"	11/16"		
	96"	0.06"	1/2"	0.28"	1/2"	0.55"	9/16"	0.76"	5/8"	0.91"	5/8"	1.03"	11/16"	1.13"	11/16"	1.29"	11/16"	1.44"	11/16"	1.59"	11/16"	1.75"	11/16"	1.92"	11/16"	2.09"	11/16"	2.27"	11/16"	2.44"	11/16"	2.61"	11/16"	2.78"	11/16"	2.95"	11/16"	3.12"	11/16"	3.29"	11/16"	3.46"	11/16"	3.63"	11/16"	3.80"	11/16"	3.97"	11/16"		
	108"	0.06"	1/2"	0.29"	1/2"	0.60"	9/16"	0.85"	5/8"	1.04"	5/8"	1.17"	11/16"	1.29"	11/16"	1.39"	11/16"	1.55"	11/16"	1.71"	11/16"	1.87"	11/16"	2.04"	11/16"	2.22"	11/16"	2.39"	11/16"	2.57"	11/16"	2.74"	11/16"	2.92"	11/16"	3.09"	11/16"	3.27"	11/16"	3.44"	11/16"	3.									



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1" Insulating Unit																																					
Constructed with two plies of 1/4" fully tempered (FT) glass																																					
Wind Load	Width (Base)	Height																																			
		24"		36"		48"		60"		72"		84"		96"		108"		120"		132"		144"		156"		168"		180"		192"		204"		216"		228"	
		Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline		
60 psf	24"	0.03"	1/2"	0.05"	1/2"	0.07"	1/2"	0.09"	1/2"	0.09"	1/2"	0.09"	1/2"	0.09"	1/2"	0.09"	1/2"	0.09"	1/2"	0.10"	1/2"	0.10"	1/2"	0.10"	1/2"	0.10"	1/2"	0.10"	1/2"	0.10"	1/2"	0.10"	1/2"	0.10"	1/2"		
	36"	0.05"	1/2"	0.15"	9/16"	0.21"	9/16"	0.27"	9/16"	0.32"	9/16"	0.36"	9/16"	0.39"	9/16"	0.41"	9/16"	0.42"	9/16"	0.44"	9/16"	0.44"	9/16"	0.45"	9/16"	0.46"	9/16"	0.45"	9/16"	0.45"	9/16"	0.45"	9/16"	0.45"	9/16"		
	48"	0.07"	1/2"	0.21"	9/16"	0.33"	5/8"	0.43"	5/8"	0.53"	5/8"	0.62"	5/8"	0.71"	5/8"	0.79"	5/8"	0.86"	5/8"	0.93"	5/8"	1.00"	5/8"	1.06"	5/8"	1.13"	5/8"	1.19"	5/8"	1.25"	5/8"	**	5/8"	**	5/8"		
	60"	0.09"	1/2"	0.27"	9/16"	0.43"	5/8"	0.56"	11/16"	0.69"	11/16"	0.82"	11/16"	0.94"	11/16"	1.06"	11/16"	1.19"	11/16"	1.31"	11/16"	1.44"	11/16"	1.57"	11/16"	1.71"	11/16"	1.86"	11/16"	2.01"	11/16"	**	11/16"	**	11/16"		
	72"	0.09"	1/2"	0.32"	9/16"	0.53"	5/8"	0.69"	11/16"	0.81"	11/16"	0.96"	11/16"	1.11"	11/16"	1.26"	11/16"	1.41"	11/16"	1.57"	11/16"	1.73"	11/16"	1.91"	11/16"	2.09"	11/16"	2.29"	11/16"	2.51"	11/16"	**	11/16"	**	11/16"		
	84"	0.09"	1/2"	0.36"	9/16"	0.62"	5/8"	0.82"	11/16"	0.96"	11/16"	1.07"	3/4"	1.24"	3/4"	1.40"	3/4"	1.57"	3/4"	1.75"	3/4"	1.93"	3/4"	2.12"	3/4"	2.33"	3/4"	2.55"	3/4"	2.79"	3/4"	**	3/4"	**	3/4"		
	96"	0.09"	1/2"	0.39"	9/16"	0.71"	5/8"	0.94"	11/16"	1.11"	11/16"	1.24"	3/4"	1.35"	13/16"	1.52"	13/16"	1.70"	13/16"	1.88"	13/16"	2.07"	13/16"	2.27"	13/16"	2.48"	13/16"	2.71"	13/16"	2.95"	13/16"	**	13/16"	**	13/16"		
	108"	0.09"	1/2"	0.41"	9/16"	0.79"	5/8"	1.06"	11/16"	1.26"	11/16"	1.40"	3/4"	1.52"	13/16"	1.63"	7/8"	1.81"	7/8"	2.00"	7/8"	2.19"	7/8"	2.39"	7/8"	2.60"	7/8"	2.82"	7/8"	3.06"	7/8"	**	7/8"	**	7/8"		
120"	0.09"	1/2"	0.42"	9/16"	0.86"	5/8"	1.19"	11/16"	1.41"	11/16"	1.57"	3/4"	1.70"	13/16"	1.81"	7/8"	1.92"	15/16"	2.11"	15/16"	2.30"	15/16"	2.50"	15/16"	2.70"	15/16"	2.92"	15/16"	3.15"	15/16"	**	15/16"	**	15/16"			
132"	0.09"	1/2"	0.44"	9/16"	0.93"	5/8"	1.31"	11/16"	1.57"	11/16"	1.75"	3/4"	1.88"	13/16"	2.00"	7/8"	2.11"	15/16"	2.21"	1"	2.40"	1"	2.59"	1"	2.80"	1"	3.01"	1"	3.23"	1"	**	1"	**	1"			
50 psf	24"	0.00"	1/2"	0.04"	1/2"	0.06"	1/2"	0.07"	1/2"	0.08"	1/2"	0.08"	1/2"	0.08"	1/2"	0.07"	1/2"	0.07"	1/2"	0.08"	1/2"	0.08"	1/2"	0.08"	1/2"	0.08"	1/2"	0.08"	1/2"	0.08"	1/2"	**	1/2"	**	1/2"		
	36"	0.04"	1/2"	0.13"	9/16"	0.18"	9/16"	0.23"	9/16"	0.28"	9/16"	0.31"	9/16"	0.33"	9/16"	0.35"	9/16"	0.36"	9/16"	0.37"	9/16"	0.38"	9/16"	0.38"	9/16"	0.38"	9/16"	0.38"	9/16"	0.38"	9/16"	0.38"	9/16"	**	9/16"	**	9/16"
	48"	0.06"	1/2"	0.18"	9/16"	0.30"	5/8"	0.39"	5/8"	0.48"	5/8"	0.56"	5/8"	0.63"	5/8"	0.70"	5/8"	0.76"	5/8"	0.82"	5/8"	0.87"	5/8"	0.92"	5/8"	0.98"	5/8"	1.02"	5/8"	1.07"	5/8"	**	5/8"	**	5/8"		
	60"	0.07"	1/2"	0.23"	9/16"	0.39"	5/8"	0.50"	11/16"	0.62"	11/16"	0.74"	11/16"	0.85"	11/16"	0.97"	11/16"	1.07"	11/16"	1.18"	11/16"	1.29"	11/16"	1.41"	11/16"	1.52"	11/16"	1.65"	11/16"	1.77"	11/16"	**	11/16"	**	11/16"		
	72"	0.08"	1/2"	0.28"	9/16"	0.48"	5/8"	0.62"	11/16"	0.74"	11/16"	0.88"	11/16"	1.02"	11/16"	1.16"	11/16"	1.29"	11/16"	1.44"	11/16"	1.58"	11/16"	1.74"	11/16"	1.90"	11/16"	2.07"	11/16"	2.26"	11/16"	**	11/16"	**	11/16"		
	84"	0.08"	1/2"	0.31"	9/16"	0.56"	5/8"	0.74"	11/16"	0.88"	11/16"	0.99"	11/16"	1.14"	11/16"	1.30"	11/16"	1.45"	11/16"	1.61"	11/16"	1.78"	11/16"	1.95"	11/16"	2.14"	11/16"	2.34"	11/16"	2.55"	11/16"	**	11/16"	**	11/16"		
	96"	0.08"	1/2"	0.33"	9/16"	0.63"	5/8"	0.85"	11/16"	1.02"	11/16"	1.14"	11/16"	1.25"	3/4"	1.41"	3/4"	1.58"	3/4"	1.75"	3/4"	1.92"	3/4"	2.11"	3/4"	2.30"	3/4"	2.51"	3/4"	2.73"	3/4"	**	3/4"	**	3/4"		
	108"	0.07"	1/2"	0.35"	9/16"	0.70"	5/8"	0.97"	11/16"	1.16"	11/16"	1.30"	11/16"	1.41"	3/4"	1.52"	13/16"	1.69"	13/16"	1.86"	13/16"	2.04"	13/16"	2.23"	13/16"	2.42"	13/16"	2.63"	13/16"	2.85"	13/16"	**	13/16"	**	13/16"		
120"	0.07"	1/2"	0.36"	9/16"	0.76"	5/8"	1.07"	11/16"	1.29"	11/16"	1.45"	11/16"	1.58"	3/4"	1.69"	13/16"	1.79"	7/8"	1.97"	7/8"	2.15"	7/8"	2.33"	7/8"	2.53"	7/8"	2.73"	7/8"	2.94"	7/8"	**	7/8"	**	7/8"			
132"	0.08"	1/2"	0.37"	9/16"	0.82"	5/8"	1.18"	11/16"	1.44"	11/16"	1.61"	11/16"	1.75"	3/4"	1.86"	13/16"	1.97"	7/8"	2.07"	15/16"	2.25"	15/16"	2.43"	15/16"	2.62"	15/16"	2.82"	15/16"	3.03"	15/16"	**	15/16"	**	15/16"			
40 psf	24"	0.00"	1/2"	0.01"	1/2"	0.04"	1/2"	0.06"	1/2"	0.06"	1/2"	0.06"	1/2"	0.06"	1/2"	0.06"	1/2"	0.06"	1/2"	0.07"	1/2"	0.07"	1/2"	0.07"	1/2"	0.07"	1/2"	0.07"	1/2"	0.07"	1/2"	**	1/2"	**	1/2"		
	36"	0.01"	1/2"	0.03"	1/2"	0.15"	1/2"	0.20"	1/2"	0.23"	1/2"	0.26"	1/2"	0.28"	1/2"	0.29"	1/2"	0.30"	1/2"	0.30"	1/2"	0.30"	1/2"	0.31"	1/2"	0.31"	1/2"	0.31"	1/2"	0.31"	1/2"	0.31"	1/2"	**	1/2"	**	1/2"
	48"	0.04"	1/2"	0.15"	1/2"	0.25"	9/16"	0.34"	9/16"	0.41"	9/16"	0.48"	9/16"	0.55"	9/16"	0.60"	9/16"	0.65"	9/16"	0.70"	9/16"	0.74"	9/16"	0.78"	9/16"	0.81"	9/16"	0.88"	9/16"	0.88"	9/16"	**	9/16"	**	9/16"		
	60"	0.06"	1/2"	0.20"	1/2"	0.34"	9/16"	0.44"	5/8"	0.55"	5/8"	0.66"	5/8"	0.76"	5/8"	0.85"	5/8"	0.95"	5/8"	1.04"	5/8"	1.13"	5/8"	1.22"	5/8"	1.32"	5/8"	1.41"	5/8"	1.51"	5/8"	**	5/8"	**	5/8"		
	72"	0.06"	1/2"	0.23"	1/2"	0.41"	9/16"	0.55"	5/8"	0.66"	5/8"	0.79"	5/8"	0.91"	5/8"	1.04"	5/8"	1.16"	5/8"	1.28"	5/8"	1.41"	5/8"	1.54"	5/8"	1.68"	5/8"	1.82"	5/8"	1.98"	5/8"	**	5/8"	**	5/8"		
	84"	0.06"	1/2"	0.26"	1/2"	0.48"	9/16"	0.66"	5/8"	0.79"	5/8"	0.89"	11/16"	1.03"	11/16"	1.17"	11/16"	1.32"	11/16"	1.46"	11/16"	1.61"	11/16"	1.76"	11/16"	1.92"	11/16"	2.09"	11/16"	2.28"	11/16"	**	11/16"	**	11/16"		
	96"	0.06"	1/2"	0.28"	1/2"	0.55"	9/16"	0.76"	5/8"	0.91"	5/8"	1.03"	11/16"	1.13"	11/16"	1.29"	11/16"	1.44"	11/16"	1.59"	11/16"	1.75"	11/16"	1.92"	11/16"	2.09"	11/16"	2.27"	11/16"	2.47"	11/16"	**	11/16"	**	11/16"		
	108"	0.06"	1/2"	0.29"	1/2"	0.60"	9/16"	0.85"	5/8"	1.04"	5/8"	1.17"	11/16"	1.29"	11/16"	1.39"	11/16"	1.55"	11/16"	1.71"	11/16"	1.87"	11/16"	2.04"	11/16"	2.22"	11/16"	2.40"	11/16"	2.60"	11/16"	**	11/16"	**	11/16"		
120"	0.06"	1/2"	0.30"	1/2"	0.65"	9/16"	0.95"	5/8"	1.16"	5/8"	1.32"	11/16"	1.44"	11/16"	1.55"	11/16"	1.64"	3/4"	1.81"	3/4"	1.98"	3/4"	2.15"	3/4"	2.32"	3/4"	2.51"	3/4"	2.70"	3/4"	**	3/4"	**	3/4"			
132"	0.06"	1/2"	0.30"	1/2"	0.70"	9/16"	1.04"	5/8"	1.28"	5/8"	1.46"	11/16"	1.59"	11/16"	1.71"	11/16"	1.81"	3/4"	1.90"	13/16"	2.07"	13/16"	2.24"	13/16"	2.42"	13/16"	2.60"	13/16"	2.79"	13/16"	**	13/16"	**	13/16"			
30 psf	24"	0.01"	1/2"	0.02"	1/2"	0.03"	1/2"	0.04"	1/2"	0.04"	1/2"	0.05"	1/2"	0.04"	1/2"	0.04"	1/2"	0.04"	1/2"	0.05"	1/2"	0.05"	1/2"	0.05"	1/2"	0.05"	1/2"	0.05"	1/2"	0.05"	1/2"	**	1/2"	**	1/2"		
	36"	0.02"	1/2"	0.08"	1/2"	0.12"	1/2"	0.15"	1/2"	0.18"	1/2"	0.20"	1/2"	0.22"	1/2"	0.22"	1/2"	0.23"	1/2"	0.23"	1/2"	0.23"	1/2"	0.23"	1/2"	0.23"	1/2"	0.23"	1/2"	0.23"	1/2"	**	1/2"	**	1/2"		
	48"	0.03"	1/2"	0.12"	1/2"	0.21"	1/2"	0.27"	1/2"	0.34"	1/2"	0.40"	1/2"	0.45"	1/2"	0.49"	1/2"	0.53"	1/2"	0.56"	1/2"	0.59"	1/2"	0.62"	1/2"	0.64"	1/2"	0.66"	1/2"	0.68"	1/2"	**	1/2"	**	1/2"		
	60"	0.04"	1/2"	0.15"	1/2"	0.27"	1/2"	0.38"	9/16"	0.47"	9/16"	0.56"	9/16"	0.64"	9/16"	0.72"	9/16"	0.80"	9/16"	0.87"	9/16"	0.94"	9/16"	1.01"	9/16"	1.08"	9/16"	1.15"	9/16"	1.22"	9/16"	**	9/16"	**	9/16"		
	72"	0.04"	1/2"	0.18"	1/2"	0.34"	1/2"	0.47"	9/16"	0.57"	9/16"	0.68"	9/16"	0.79"	9/16"	0.90"	9/16"	1.00"	9/16"	1.11"	9/16"	1.21"	9/16"	1.32"	9/16"	1.43"	9/16"	1.54"	9/16"	1.66"	9/16"	**	9/16"	**	9/16"		
	84"	0.05"	1/2"	0.20"	1/2"	0.40"	1/2"	0.56"	9/16"	0.68"	9/16"	0.78"	5/8"	0.90"	5/8"	1.03"	5/8"	1.15"	5/8"	1.28"	5/8"	1.40"	5/8"	1.53"	5/8"	1.67"	5/8"	1.81"	5/8"	1.96"	5/8"	**	5/8"	**	5/8"		
	96"	0.04"	1/2"	0.22"	1/2"	0.45"	1/2"	0.64"	9/16"	0.79"	9/16"	0.90"	5/8"	1.00"	5/8"	1.14"	5/8"	1.27"	5/8"	1.41"	5/8"	1.55"	5/8"	1.69"	5/8"	1.84"	5/8"	2.00"	5/8"	2.16"	5/8"	**	5/8"	**	5/8"		
	108"	0.04"	1/2"	0.22"	1/2"	0.49"	1/2"	0.72"	9/16"	0.90"	9/16"	1.03"	5/8"	1.14"	5/8"	1.23"	11/16"	1																			



Deflection and Sightline Reference Guide

1-1/16" Insulating Unit																																																	
Constructed with a 5/16" outboard and 1/4" inboard, both plies heat strengthened (HS) glass																																																	
Wind Load	Width (Base)	Height																																															
		24"		36"		48"		60"		72"		84"		96"		108"		120"		132"		144"		156"		168"		180"		192"		204"		216"		228"													
		Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline														
60 psf	24"	0.00"	9/16"	0.02"	9/16"	0.04"	9/16"	0.05"	9/16"	0.05"	9/16"	0.05"	9/16"	0.05"	9/16"	0.05"	9/16"	0.05"	9/16"	0.05"	9/16"	0.06"	9/16"	0.06"	9/16"	0.06"	9/16"	0.06"	9/16"	0.06"	9/16"	0.06"	9/16"	0.06"	9/16"	0.06"	9/16"	**	9/16"										
	36"	0.02"	9/16"	0.09"	11/16"	0.14"	11/16"	0.18"	11/16"	0.22"	11/16"	0.24"	11/16"	0.26"	11/16"	0.27"	11/16"	0.27"	11/16"	0.27"	11/16"	0.27"	11/16"	0.27"	11/16"	0.27"	11/16"	0.27"	11/16"	0.27"	11/16"	0.27"	11/16"	0.27"	11/16"	0.27"	11/16"	**	11/16"										
	48"	0.04"	9/16"	0.14"	11/16"	0.25"	11/16"	0.34"	11/16"	0.42"	11/16"	0.49"	11/16"	0.55"	11/16"	0.60"	11/16"	0.65"	11/16"	0.68"	11/16"	0.72"	11/16"	0.75"	11/16"	0.77"	11/16"	0.79"	11/16"	0.81"	11/16"	0.81"	11/16"	0.81"	11/16"	0.81"	11/16"	**	11/16"										
	60"	0.05"	9/16"	0.18"	11/16"	0.34"	11/16"	0.47"	13/16"	0.58"	13/16"	0.69"	13/16"	0.80"	13/16"	0.90"	13/16"	0.99"	13/16"	1.08"	13/16"	FT req.		FT req.		FT req.		FT req.		FT req.		FT req.		FT req.		FT req.		FT req.											
	72"	0.05"	9/16"	0.22"	11/16"	0.42"	11/16"	0.58"	13/16"	0.71"	7/8"	0.85"	7/8"	0.99"	7/8"	1.12"	7/8"	1.25"	7/8"	1.39"	7/8"	1.53"	7/8"	1.67"	7/8"	1.81"	7/8"	1.95"	7/8"	2.09"	7/8"	2.23"	7/8"	2.37"	7/8"	2.51"	7/8"	2.65"	7/8"	2.79"	7/8"	2.93"	7/8"						
	84"	0.05"	9/16"	0.24"	11/16"	0.49"	11/16"	0.69"	13/16"	0.85"	7/8"	0.98"	1"	1.14"	1"	1.30"	1"	1.45"	1"	1.61"	1"	1.77"	1"	1.93"	1"	2.09"	1"	2.25"	1"	2.41"	1"	2.57"	1"	2.73"	1"	2.89"	1"	3.05"	1"	3.21"	1"	3.37"	1"						
	96"	0.05"	9/16"	0.26"	11/16"	0.55"	11/16"	0.80"	13/16"	0.99"	7/8"	1.14"	1"	1.26"	1-1/16"	1.44"	1-1/16"	1.61"	1-1/16"	1.78"	1-1/16"	1.95"	1-1/16"	2.12"	1-1/16"	2.29"	1-1/16"	2.46"	1-1/16"	2.63"	1-1/16"	2.80"	1-1/16"	2.97"	1-1/16"	3.14"	1-1/16"	3.31"	1-1/16"	3.48"	1-1/16"	3.65"	1-1/16"	3.82"	1-1/16"				
	108"	0.05"	9/16"	0.27"	11/16"	0.60"	11/16"	0.90"	13/16"	1.12"	7/8"	1.30"	1"	1.44"	1-1/16"	1.55"	1-1/16"	1.72"	1-1/16"	1.89"	1-1/16"	2.06"	1-1/16"	2.23"	1-1/16"	2.40"	1-1/16"	2.57"	1-1/16"	2.74"	1-1/16"	2.91"	1-1/16"	3.08"	1-1/16"	3.25"	1-1/16"	3.42"	1-1/16"	3.59"	1-1/16"	3.76"	1-1/16"	3.93"	1-1/16"				
	120"	0.05"	9/16"	0.27"	11/16"	0.65"	11/16"	0.99"	13/16"	1.25"	7/8"	1.45"	1"	1.61"	1-1/16"	1.78"	1-1/16"	1.95"	1-1/16"	2.12"	1-1/16"	2.29"	1-1/16"	2.46"	1-1/16"	2.63"	1-1/16"	2.80"	1-1/16"	2.97"	1-1/16"	3.14"	1-1/16"	3.31"	1-1/16"	3.48"	1-1/16"	3.65"	1-1/16"	3.82"	1-1/16"	3.99"	1-1/16"	4.16"	1-1/16"	4.33"	1-1/16"		
132"	0.06"	9/16"	0.27"	11/16"	0.68"	11/16"	1.08"	13/16"	1.39"	7/8"	1.61"	1"	1.78"	1-1/16"	1.95"	1-1/16"	2.12"	1-1/16"	2.29"	1-1/16"	2.46"	1-1/16"	2.63"	1-1/16"	2.80"	1-1/16"	2.97"	1-1/16"	3.14"	1-1/16"	3.31"	1-1/16"	3.48"	1-1/16"	3.65"	1-1/16"	3.82"	1-1/16"	3.99"	1-1/16"	4.16"	1-1/16"	4.33"	1-1/16"	4.50"	1-1/16"			
50 psf	24"	0.00"	9/16"	0.02"	9/16"	0.03"	9/16"	0.04"	9/16"	0.04"	9/16"	0.04"	9/16"	0.04"	9/16"	0.05"	9/16"	0.05"	9/16"	0.05"	9/16"	0.05"	9/16"	0.05"	9/16"	0.05"	9/16"	0.05"	9/16"	0.05"	9/16"	0.05"	9/16"	0.05"	9/16"	0.05"	9/16"	0.05"	9/16"	**	9/16"								
	36"	0.02"	9/16"	0.08"	5/8"	0.11"	5/8"	0.15"	5/8"	0.18"	5/8"	0.21"	5/8"	0.22"	5/8"	0.23"	5/8"	0.23"	5/8"	0.23"	5/8"	0.23"	5/8"	0.23"	5/8"	0.23"	5/8"	0.23"	5/8"	0.23"	5/8"	0.23"	5/8"	0.23"	5/8"	0.23"	5/8"	0.23"	5/8"	**	5/8"								
	48"	0.03"	9/16"	0.11"	5/8"	0.22"	11/16"	0.29"	11/16"	0.36"	11/16"	0.43"	11/16"	0.48"	11/16"	0.53"	11/16"	0.56"	11/16"	0.59"	11/16"	0.62"	11/16"	0.64"	11/16"	0.64"	11/16"	0.64"	11/16"	0.64"	11/16"	0.64"	11/16"	0.64"	11/16"	0.64"	11/16"	0.64"	11/16"	0.64"	11/16"	**	11/16"						
	60"	0.04"	9/16"	0.15"	5/8"	0.29"	11/16"	0.41"	3/4"	0.52"	3/4"	0.62"	3/4"	0.71"	3/4"	0.80"	3/4"	0.89"	3/4"	0.96"	3/4"	1.04"	3/4"	1.10"	3/4"	1.10"	3/4"	1.10"	3/4"	1.10"	3/4"	1.10"	3/4"	1.10"	3/4"	1.10"	3/4"	1.10"	3/4"	1.10"	3/4"	1.10"	3/4"	1.10"	3/4"				
	72"	0.04"	9/16"	0.18"	5/8"	0.36"	11/16"	0.52"	3/4"	0.64"	13/16"	0.77"	13/16"	0.90"	13/16"	1.02"	13/16"	1.14"	13/16"	1.25"	13/16"	1.37"	13/16"	1.48"	13/16"	1.59"	13/16"	1.70"	13/16"	1.81"	13/16"	1.92"	13/16"	2.03"	13/16"	2.14"	13/16"	2.25"	13/16"	2.36"	13/16"	2.47"	13/16"	2.58"	13/16"	2.69"	13/16"	2.80"	13/16"
	84"	0.04"	9/16"	0.21"	5/8"	0.43"	11/16"	0.62"	3/4"	0.77"	13/16"	0.89"	7/8"	1.04"	7/8"	1.16"	15/16"	1.32"	15/16"	1.48"	15/16"	1.64"	15/16"	1.81"	15/16"	1.97"	15/16"	2.14"	15/16"	2.30"	15/16"	2.47"	15/16"	2.63"	15/16"	2.80"	15/16"	2.96"	15/16"	3.13"	15/16"	3.29"	15/16"	3.46"	15/16"	3.62"	15/16"		
	96"	0.04"	9/16"	0.22"	5/8"	0.48"	11/16"	0.71"	3/4"	0.90"	13/16"	1.04"	7/8"	1.16"	15/16"	1.32"	15/16"	1.48"	15/16"	1.64"	15/16"	1.81"	15/16"	1.97"	15/16"	2.14"	15/16"	2.30"	15/16"	2.47"	15/16"	2.63"	15/16"	2.80"	15/16"	2.96"	15/16"	3.13"	15/16"	3.29"	15/16"	3.46"	15/16"	3.62"	15/16"	3.79"	15/16"		
	108"	0.05"	9/16"	0.23"	5/8"	0.53"	11/16"	0.80"	3/4"	1.02"	13/16"	1.19"	7/8"	1.32"	15/16"	1.44"	1"	1.61"	1"	1.78"	1"	1.95"	1"	2.12"	1"	2.29"	1"	2.46"	1"	2.63"	1"	2.80"	1"	2.97"	1"	3.14"	1"	3.31"	1"	3.48"	1"	3.65"	1"	3.82"	1"				
	120"	0.05"	9/16"	0.23"	5/8"	0.56"	11/16"	0.89"	3/4"	1.14"	13/16"	1.33"	7/8"	1.48"	15/16"	1.61"	1"	1.72"	1-1/8"	1.89"	1-1/8"	2.06"	1-1/8"	2.23"	1-1/8"	2.40"	1-1/8"	2.57"	1-1/8"	2.74"	1-1/8"	2.91"	1-1/8"	3.08"	1-1/8"	3.25"	1-1/8"	3.42"	1-1/8"	3.59"	1-1/8"	3.76"	1-1/8"	3.93"	1-1/8"				
132"	0.05"	9/16"	0.23"	5/8"	0.59"	11/16"	0.96"	3/4"	1.25"	13/16"	1.47"	7/8"	1.64"	15/16"	1.78"	1"	1.91"	1-1/8"	2.06"	1-1/8"	2.21"	1-1/8"	2.36"	1-1/8"	2.51"	1-1/8"	2.66"	1-1/8"	2.81"	1-1/8"	2.96"	1-1/8"	3.11"	1-1/8"	3.26"	1-1/8"	3.41"	1-1/8"	3.56"	1-1/8"	3.71"	1-1/8"	3.86"	1-1/8"					
40 psf	24"	0.00"	1/2"	0.00"	1/2"	0.02"	1/2"	0.03"	1/2"	0.03"	1/2"	0.04"	1/2"	0.03"	1/2"	0.03"	1/2"	0.03"	1/2"	0.04"	1/2"	0.04"	1/2"	0.04"	1/2"	0.04"	1/2"	0.04"	1/2"	0.04"	1/2"	0.04"	1/2"	0.04"	1/2"	0.04"	1/2"	0.04"	1/2"	**	1/2"								
	36"	0.00"	1/2"	0.06"	9/16"	0.09"	9/16"	0.12"	9/16"	0.15"	9/16"	0.17"	9/16"	0.18"	9/16"	0.19"	9/16"	0.18"	9/16"	0.18"	9/16"	0.18"	9/16"	0.18"	9/16"	0.18"	9/16"	0.18"	9/16"	0.18"	9/16"	0.18"	9/16"	0.18"	9/16"	0.18"	9/16"	0.18"	9/16"	0.18"	9/16"	**	9/16"						
	48"	0.02"	1/2"	0.09"	9/16"	0.18"	5/8"	0.25"	5/8"	0.31"	5/8"	0.36"	5/8"	0.41"	5/8"	0.44"	5/8"	0.47"	5/8"	0.50"	5/8"	0.52"	5/8"	0.53"	5/8"	0.53"	5/8"	0.53"	5/8"	0.53"	5/8"	0.53"	5/8"	0.53"	5/8"	0.53"	5/8"	0.53"	5/8"	0.53"	5/8"	**	5/8"						
	60"	0.03"	1/2"	0.12"	9/16"	0.25"	5/8"	0.36"	11/16"	0.45"	11/16"	0.54"	11/16"	0.62"	11/16"	0.70"	11/16"	0.77"	11/16"	0.83"	11/16"	0.89"	11/16"	0.95"	11/16"	1.00"	11/16"	1.05"	11/16"	1.05"	11/16"	1.05"	11/16"	1.05"	11/16"	1.05"	11/16"	1.05"	11/16"	1.05"	11/16"	1.05"	11/16"	**	11/16"				
	72"	0.03"	1/2"	0.15"	9/16"	0.31"	5/8"	0.45"	11/16"	0.57"	11/16"	0.68"	11/16"	0.79"	11/16"	0.90"	11/16"	1.00"	11/16"	1.09"	11/16"	1.18"	11/16"	1.27"	11/16"	1.36"	11/16"	1.45"	11/16"	1.54"	11/16"	1.63"	11/16"	1.72"	11/16"	1.81"	11/16"	1.90"	11/16"	1.99"	11/16"	2.08"	11/16"	2.17"	11/16"	2.26"	11/16"	2.35"	11/16"
	84"	0.04"	1/2"	0.17"	9/16"	0.36"	5/8"	0.54"	11/16"	0.68"	11/16"	0.80"	3/4"	0.93"	3/4"	1.06"	3/4"	1.19"	3/4"	1.32"	3/4"	1.44"	3/4"	1.57"	3/4"	1.70"	3/4"	1.83"	3/4"	1.96"	3/4"	2.09"	3/4"	2.22"	3/4"	2.35"	3/4"	2.48"	3/4"	2.61"	3/4"	2.74"	3/4"	2.87"	3/4"	3.00"	3/4"		
	96"	0.03"	1/2"	0.18"	9/16"	0.41"	5/8"	0.62"	11/16"	0.79"	11/16"	0.93"	3/4"	1.04"	13/16"	1.19"	13/16"	1.34"	13/16"	1.48"	13/16"	1.63"	13/16"	1.78"	13/16"	1.93"	13/16"	2.08"	13/16"	2.23"	13/16"	2.38"	13/16"	2.53"	13/16"	2.68"	13/16"	2.83"	13/16"	2.98"	13/16"	3.13"	13/16"	3.28"	13/16"	3.43"	13/		



Deflection and Sightline Reference Guide

1-1/16" Insulating Unit																																																	
Constructed with a 5/16" outboard and 1/4" inboard, both plies fully tempered (FT) glass																																																	
Wind Load	Width (Base)	Height																																															
		24"		36"		48"		60"		72"		84"		96"		108"		120"		132"		144"		156"		168"		180"		192"		204"		216"		228"													
		Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline														
60 psf	24"	0.00"	9/16"	0.02"	9/16"	0.04"	9/16"	0.05"	9/16"	0.05"	9/16"	0.05"	9/16"	0.05"	9/16"	0.05"	9/16"	0.05"	9/16"	0.06"	9/16"	0.06"	9/16"	0.06"	9/16"	0.06"	9/16"	0.06"	9/16"	0.06"	9/16"	0.06"	9/16"	0.06"	9/16"	0.06"	9/16"	**	9/16"										
	36"	0.02"	9/16"	0.09"	11/16"	0.14"	11/16"	0.18"	11/16"	0.22"	11/16"	0.24"	11/16"	0.26"	11/16"	0.27"	11/16"	0.27"	11/16"	0.27"	11/16"	0.27"	11/16"	0.27"	11/16"	0.27"	11/16"	0.27"	11/16"	0.27"	11/16"	0.27"	11/16"	0.27"	11/16"	0.27"	11/16"	0.27"	11/16"	**	11/16"								
	48"	0.04"	9/16"	0.14"	11/16"	0.25"	11/16"	0.34"	11/16"	0.42"	11/16"	0.49"	11/16"	0.55"	11/16"	0.60"	11/16"	0.65"	11/16"	0.68"	11/16"	0.72"	11/16"	0.75"	11/16"	0.77"	11/16"	0.79"	11/16"	0.81"	11/16"	0.81"	11/16"	0.81"	11/16"	0.81"	11/16"	0.81"	11/16"	0.81"	11/16"	**	11/16"						
	60"	0.05"	9/16"	0.18"	11/16"	0.34"	11/16"	0.47"	13/16"	0.58"	13/16"	0.69"	13/16"	0.80"	13/16"	0.90"	13/16"	0.99"	13/16"	1.08"	13/16"	1.17"	13/16"	1.25"	13/16"	1.33"	13/16"	1.41"	13/16"	1.49"	13/16"	1.49"	13/16"	1.49"	13/16"	1.49"	13/16"	1.49"	13/16"	1.49"	13/16"	1.49"	13/16"	**	13/16"				
	72"	0.05"	9/16"	0.22"	11/16"	0.42"	11/16"	0.58"	13/16"	0.71"	7/8"	0.85"	7/8"	0.99"	7/8"	1.12"	7/8"	1.25"	7/8"	1.39"	7/8"	1.51"	7/8"	1.64"	7/8"	1.78"	7/8"	1.91"	7/8"	2.05"	7/8"	2.05"	7/8"	2.05"	7/8"	2.05"	7/8"	2.05"	7/8"	2.05"	7/8"	2.05"	7/8"	**	7/8"				
	84"	0.05"	9/16"	0.24"	11/16"	0.49"	11/16"	0.69"	13/16"	0.85"	7/8"	0.98"	1"	1.14"	1"	1.30"	1"	1.45"	1"	1.61"	1"	1.77"	1"	1.93"	1"	2.10"	1"	2.27"	1"	2.45"	1"	2.45"	1"	2.45"	1"	2.45"	1"	2.45"	1"	2.45"	1"	2.45"	1"	**	1"				
	96"	0.05"	9/16"	0.26"	11/16"	0.55"	11/16"	0.80"	13/16"	0.99"	7/8"	1.14"	1"	1.26"	1-1/16"	1.44"	1-1/16"	1.61"	1-1/16"	1.78"	1-1/16"	1.96"	1-1/16"	2.14"	1-1/16"	2.33"	1-1/16"	2.52"	1-1/16"	2.73"	1-1/16"	2.73"	1-1/16"	2.73"	1-1/16"	2.73"	1-1/16"	2.73"	1-1/16"	2.73"	1-1/16"	2.73"	1-1/16"	**	1-1/16"				
	108"	0.05"	9/16"	0.27"	11/16"	0.60"	11/16"	0.90"	13/16"	1.12"	7/8"	1.30"	1"	1.44"	1-1/16"	1.56"	1-3/16"	1.74"	1-3/16"	1.93"	1-3/16"	2.12"	1-3/16"	2.31"	1-3/16"	2.50"	1-3/16"	2.71"	1-3/16"	2.92"	1-3/16"	2.92"	1-3/16"	2.92"	1-3/16"	2.92"	1-3/16"	2.92"	1-3/16"	2.92"	1-3/16"	2.92"	1-3/16"	**	1-3/16"				
	120"	0.05"	9/16"	0.27"	11/16"	0.65"	11/16"	0.99"	13/16"	1.25"	7/8"	1.45"	1"	1.61"	1-1/16"	1.74"	1-3/16"	1.86"	1-1/4"	2.05"	1-1/4"	2.25"	1-1/4"	2.45"	1-1/4"	2.65"	1-1/4"	2.86"	1-1/4"	3.08"	1-1/4"	3.08"	1-1/4"	3.08"	1-1/4"	3.08"	1-1/4"	3.08"	1-1/4"	3.08"	1-1/4"	3.08"	1-1/4"	**	1-1/4"				
132"	0.06"	9/16"	0.27"	11/16"	0.68"	11/16"	1.08"	13/16"	1.39"	7/8"	1.61"	1"	1.78"	1-1/16"	1.93"	1-3/16"	2.05"	1-1/4"	2.17"	1-5/16"	2.37"	1-5/16"	2.57"	1-5/16"	2.77"	1-5/16"	2.98"	1-5/16"	3.20"	1-5/16"	3.20"	1-5/16"	3.20"	1-5/16"	3.20"	1-5/16"	3.20"	1-5/16"	3.20"	1-5/16"	3.20"	1-5/16"	**	1-5/16"					
50 psf	24"	0.00"	9/16"	0.02"	9/16"	0.03"	9/16"	0.04"	9/16"	0.04"	9/16"	0.04"	9/16"	0.04"	9/16"	0.05"	9/16"	0.05"	9/16"	0.05"	9/16"	0.05"	9/16"	0.05"	9/16"	0.05"	9/16"	0.05"	9/16"	0.05"	9/16"	0.05"	9/16"	0.05"	9/16"	0.05"	9/16"	0.05"	9/16"	0.05"	9/16"	**	9/16"						
	36"	0.02"	9/16"	0.08"	5/8"	0.11"	5/8"	0.15"	5/8"	0.18"	5/8"	0.21"	5/8"	0.22"	5/8"	0.23"	5/8"	0.23"	5/8"	0.23"	5/8"	0.23"	5/8"	0.23"	5/8"	0.23"	5/8"	0.23"	5/8"	0.23"	5/8"	0.23"	5/8"	0.23"	5/8"	0.23"	5/8"	0.23"	5/8"	0.23"	5/8"	**	5/8"						
	48"	0.03"	9/16"	0.11"	5/8"	0.22"	11/16"	0.29"	11/16"	0.36"	11/16"	0.43"	11/16"	0.48"	11/16"	0.53"	11/16"	0.56"	11/16"	0.59"	11/16"	0.62"	11/16"	0.64"	11/16"	0.64"	11/16"	0.66"	11/16"	0.67"	11/16"	0.67"	11/16"	0.67"	11/16"	0.67"	11/16"	0.67"	11/16"	0.67"	11/16"	0.67"	11/16"	0.67"	11/16"	**	11/16"		
	60"	0.04"	9/16"	0.15"	5/8"	0.29"	11/16"	0.41"	3/4"	0.52"	3/4"	0.62"	3/4"	0.71"	3/4"	0.80"	3/4"	0.89"	3/4"	0.96"	3/4"	1.04"	3/4"	1.10"	3/4"	1.17"	3/4"	1.23"	3/4"	1.30"	3/4"	1.30"	3/4"	1.30"	3/4"	1.30"	3/4"	1.30"	3/4"	1.30"	3/4"	1.30"	3/4"	1.30"	3/4"	**	3/4"		
	72"	0.04"	9/16"	0.18"	5/8"	0.36"	11/16"	0.52"	3/4"	0.64"	13/16"	0.77"	13/16"	0.90"	13/16"	1.02"	13/16"	1.14"	13/16"	1.25"	13/16"	1.37"	13/16"	1.48"	13/16"	1.60"	13/16"	1.71"	13/16"	1.83"	13/16"	1.83"	13/16"	1.83"	13/16"	1.83"	13/16"	1.83"	13/16"	1.83"	13/16"	1.83"	13/16"	1.83"	13/16"	1.83"	13/16"	**	13/16"
	84"	0.04"	9/16"	0.21"	5/8"	0.43"	11/16"	0.62"	3/4"	0.77"	13/16"	0.89"	7/8"	1.04"	7/8"	1.19"	7/8"	1.33"	7/8"	1.47"	7/8"	1.62"	7/8"	1.76"	7/8"	1.91"	7/8"	2.06"	7/8"	2.22"	7/8"	2.22"	7/8"	2.22"	7/8"	2.22"	7/8"	2.22"	7/8"	2.22"	7/8"	2.22"	7/8"	2.22"	7/8"	2.22"	7/8"	**	7/8"
	96"	0.04"	9/16"	0.22"	5/8"	0.48"	11/16"	0.71"	3/4"	0.90"	13/16"	1.04"	7/8"	1.16"	15/16"	1.32"	15/16"	1.48"	15/16"	1.64"	15/16"	1.81"	15/16"	1.97"	15/16"	2.14"	15/16"	2.32"	15/16"	2.50"	15/16"	2.50"	15/16"	2.50"	15/16"	2.50"	15/16"	2.50"	15/16"	2.50"	15/16"	2.50"	15/16"	2.50"	15/16"	2.50"	15/16"	**	15/16"
	108"	0.05"	9/16"	0.23"	5/8"	0.53"	11/16"	0.80"	3/4"	1.02"	13/16"	1.19"	7/8"	1.32"	15/16"	1.44"	1"	1.61"	1"	1.78"	1"	1.96"	1"	2.14"	1"	2.32"	1"	2.50"	1"	2.70"	1"	2.70"	1"	2.70"	1"	2.70"	1"	2.70"	1"	2.70"	1"	2.70"	1"	2.70"	1"	**	1"		
	120"	0.05"	9/16"	0.23"	5/8"	0.56"	11/16"	0.89"	3/4"	1.14"	13/16"	1.33"	7/8"	1.48"	15/16"	1.61"	1"	1.72"	1-1/8"	1.91"	1-1/8"	2.09"	1-1/8"	2.27"	1-1/8"	2.46"	1-1/8"	2.65"	1-1/8"	2.86"	1-1/8"	2.86"	1-1/8"	2.86"	1-1/8"	2.86"	1-1/8"	2.86"	1-1/8"	2.86"	1-1/8"	2.86"	1-1/8"	2.86"	1-1/8"	**	1-1/8"		
132"	0.05"	9/16"	0.23"	5/8"	0.59"	11/16"	0.96"	3/4"	1.25"	13/16"	1.47"	7/8"	1.64"	15/16"	1.78"	1"	1.91"	1-1/8"	2.02"	1-3/16"	2.21"	1-3/16"	2.39"	1-3/16"	2.59"	1-3/16"	2.78"	1-3/16"	2.99"	1-3/16"	2.99"	1-3/16"	2.99"	1-3/16"	2.99"	1-3/16"	2.99"	1-3/16"	2.99"	1-3/16"	2.99"	1-3/16"	2.99"	1-3/16"	**	1-3/16"			
40 psf	24"	0.00"	1/2"	0.00"	1/2"	0.02"	1/2"	0.03"	1/2"	0.03"	1/2"	0.04"	1/2"	0.03"	1/2"	0.03"	1/2"	0.03"	1/2"	0.04"	1/2"	0.04"	1/2"	0.04"	1/2"	0.04"	1/2"	0.04"	1/2"	0.04"	1/2"	0.04"	1/2"	0.04"	1/2"	0.04"	1/2"	0.04"	1/2"	**	1/2"								
	36"	0.00"	1/2"	0.06"	9/16"	0.09"	9/16"	0.12"	9/16"	0.15"	9/16"	0.17"	9/16"	0.18"	9/16"	0.18"	9/16"	0.19"	9/16"	0.18"	9/16"	0.18"	9/16"	0.18"	9/16"	0.18"	9/16"	0.18"	9/16"	0.18"	9/16"	0.18"	9/16"	0.18"	9/16"	0.18"	9/16"	0.18"	9/16"	0.18"	9/16"	0.18"	9/16"	**	9/16"				
	48"	0.02"	1/2"	0.09"	9/16"	0.18"	5/8"	0.25"	5/8"	0.31"	5/8"	0.36"	5/8"	0.41"	5/8"	0.44"	5/8"	0.47"	5/8"	0.50"	5/8"	0.52"	5/8"	0.53"	5/8"	0.53"	5/8"	0.54"	5/8"	0.55"	5/8"	0.55"	5/8"	0.55"	5/8"	0.55"	5/8"	0.55"	5/8"	0.55"	5/8"	0.55"	5/8"	**	5/8"				
	60"	0.03"	1/2"	0.12"	9/16"	0.25"	5/8"	0.36"	11/16"	0.45"	11/16"	0.54"	11/16"	0.62"	11/16"	0.70"	11/16"	0.77"	11/16"	0.83"	11/16"	0.89"	11/16"	0.95"	11/16"	1.00"	11/16"	1.05"	11/16"	1.09"	11/16"	1.09"	11/16"	1.09"	11/16"	1.09"	11/16"	1.09"	11/16"	1.09"	11/16"	1.09"	11/16"	1.09"	11/16"	**	11/16"		
	72"	0.03"	1/2"	0.15"	9/16"	0.31"	5/8"	0.45"	11/16"	0.57"	11/16"	0.68"	11/16"	0.79"	11/16"	0.90"	11/16"	1.00"	11/16"	1.10"	11/16"	1.20"	11/16"	1.30"	11/16"	1.39"	11/16"	1.49"	11/16"	1.58"	11/16"	1.58"	11/16"	1.58"	11/16"	1.58"	11/16"	1.58"	11/16"	1.58"	11/16"	1.58"	11/16"	1.58"	11/16"	1.58"	11/16"	**	11/16"
	84"	0.04"	1/2"	0.17"	9/16"	0.36"	5/8"	0.54"	11/16"	0.68"	11/16"	0.80"	3/4"	0.93"	3/4"	1.06"	3/4"	1.19"	3/4"	1.32"	3/4"	1.44"	3/4"	1.57"	3/4"	1.70"	3/4"	1.83"	3/4"	1.96"	3/4"	1.96"	3/4"	1.96"	3/4"	1.96"	3/4"	1.96"	3/4"	1.96"	3/4"	1.96"	3/4"	1.96"	3/4"	1.96"	3/4"	**	3/4"
	96"	0.03"	1/2"	0.18"	9/16"	0.41"	5/8"	0.62"	11/16"	0.79"	11/16"	0.93"	3/4"	1.04"	13/16"	1.19"	13/16"	1.34"	13/16"	1.48"	13/16"	1.63"	13/16"	1.78"	13/16"	1.93"	13/16"	2.08"	13/																				



Deflection and Sightline Reference Guide

1-1/8" Insulating Unit																																															
Constructed with a 3/8" outboard and 1/4" inboard, both plies heat strengthened (HS) glass																																															
Wind Load	Width (Base)	Height																																													
		24"		36"		48"		60"		72"		84"		96"		108"		120"		132"		144"		156"		168"		180"		192"		204"		216"		228"											
		Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline												
60 psf	24"	0.00"	5/8"	0.00"	5/8"	0.02"	5/8"	0.03"	5/8"	0.03"	5/8"	0.03"	5/8"	0.03"	5/8"	0.03"	5/8"	0.03"	5/8"	0.04"	5/8"	0.04"	5/8"	0.04"	5/8"	0.04"	5/8"	0.04"	5/8"	0.04"	5/8"	0.04"	5/8"	0.04"	5/8"	0.04"	5/8"	0.04"	5/8"								
	36"	0.00"	5/8"	0.06"	11/16"	0.09"	11/16"	0.12"	11/16"	0.14"	11/16"	0.16"	11/16"	0.17"	11/16"	0.18"	11/16"	0.18"	11/16"	0.18"	11/16"	0.18"	11/16"	0.18"	11/16"	0.17"	11/16"	0.17"	11/16"	0.17"	11/16"	0.18"	11/16"	0.18"	11/16"	0.18"	11/16"	0.18"	11/16"	0.18"	11/16"						
	48"	0.02"	5/8"	0.09"	11/16"	0.18"	3/4"	0.25"	3/4"	0.31"	3/4"	0.36"	3/4"	0.41"	3/4"	0.45"	3/4"	0.48"	3/4"	0.50"	3/4"	0.51"	3/4"	0.53"	3/4"	0.53"	3/4"	0.53"	3/4"	0.54"	3/4"	0.54"	3/4"	0.54"	3/4"	0.54"	3/4"	0.54"	3/4"	0.54"	3/4"	0.54"	3/4"				
	60"	0.03"	5/8"	0.12"	11/16"	0.25"	3/4"	0.37"	7/8"	0.47"	7/8"	0.56"	7/8"	0.65"	7/8"	0.73"	7/8"	0.80"	7/8"	0.86"	7/8"	0.92"	7/8"	0.97"	7/8"	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.						
	72"	0.03"	5/8"	0.14"	11/16"	0.31"	3/4"	0.47"	7/8"	0.60"	15/16"	0.72"	15/16"	0.84"	15/16"	0.96"	15/16"	1.07"	15/16"	1.17"	15/16"	1.27"	15/16"	1.37"	15/16"	1.47"	15/16"	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.						
	84"	0.03"	5/8"	0.16"	11/16"	0.36"	3/4"	0.56"	7/8"	0.72"	15/16"	0.85"	1-1/16"	1.00"	1-1/16"	1.14"	1-1/16"	1.28"	1-1/16"	1.42"	1-1/16"	1.56"	1-1/16"	1.70"	1-1/16"	1.84"	1-1/16"	1.98"	1-1/16"	2.12"	1-1/16"	2.26"	1-1/16"	2.40"	1-1/16"	2.54"	1-1/16"	2.68"	1-1/16"	2.82"	1-1/16"	2.96"	1-1/16"				
	96"	0.03"	5/8"	0.17"	11/16"	0.41"	3/4"	0.65"	7/8"	0.84"	15/16"	1.00"	1-1/16"	1.13"	1-3/16"	1.29"	1-3/16"	1.45"	1-3/16"	1.61"	1-3/16"	1.77"	1-3/16"	1.93"	1-3/16"	2.09"	1-3/16"	2.25"	1-3/16"	2.41"	1-3/16"	2.57"	1-3/16"	2.73"	1-3/16"	2.89"	1-3/16"	3.05"	1-3/16"	3.21"	1-3/16"	3.37"	1-3/16"	3.53"	1-3/16"		
	108"	0.03"	5/8"	0.18"	11/16"	0.45"	3/4"	0.73"	7/8"	0.96"	15/16"	1.14"	1-1/16"	1.29"	1-3/16"	1.42"	1-1/4"	1.59"	1-1/4"	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.						
	120"	0.03"	5/8"	0.18"	11/16"	0.48"	3/4"	0.80"	7/8"	1.07"	15/16"	1.28"	1-1/16"	1.45"	1-3/16"	1.59"	1-1/4"	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.	FT req.						
	132"	0.04"	5/8"	0.18"	11/16"	0.50"	3/4"	0.86"	7/8"	1.17"	15/16"	1.42"	1-1/16"	1.61"	1-3/16"	1.77"	1-3/16"	1.93"	1-3/16"	2.09"	1-3/16"	2.25"	1-3/16"	2.41"	1-3/16"	2.57"	1-3/16"	2.73"	1-3/16"	2.89"	1-3/16"	3.05"	1-3/16"	3.21"	1-3/16"	3.37"	1-3/16"	3.53"	1-3/16"	3.69"	1-3/16"	3.85"	1-3/16"	4.01"	1-3/16"	4.17"	1-3/16"
50 psf	24"	0.00"	9/16"	0.00"	9/16"	0.01"	9/16"	0.02"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"				
	36"	0.00"	9/16"	0.05"	11/16"	0.07"	11/16"	0.10"	11/16"	0.12"	11/16"	0.13"	11/16"	0.14"	11/16"	0.15"	11/16"	0.15"	11/16"	0.15"	11/16"	0.15"	11/16"	0.15"	11/16"	0.15"	11/16"	0.15"	11/16"	0.15"	11/16"	0.15"	11/16"	0.15"	11/16"	0.15"	11/16"	0.15"	11/16"	0.15"	11/16"	0.15"	11/16"				
	48"	0.01"	9/16"	0.07"	11/16"	0.16"	11/16"	0.21"	11/16"	0.26"	11/16"	0.31"	11/16"	0.35"	11/16"	0.39"	11/16"	0.43"	11/16"	0.47"	11/16"	0.51"	11/16"	0.55"	11/16"	0.59"	11/16"	0.63"	11/16"	0.67"	11/16"	0.71"	11/16"	0.75"	11/16"	0.79"	11/16"	0.83"	11/16"	0.87"	11/16"	0.91"	11/16"	0.95"	11/16"	0.99"	11/16"
	60"	0.02"	9/16"	0.10"	11/16"	0.21"	11/16"	0.33"	3/4"	0.41"	3/4"	0.49"	3/4"	0.57"	3/4"	0.64"	3/4"	0.70"	3/4"	0.76"	3/4"	0.81"	3/4"	0.85"	3/4"	0.89"	3/4"	0.93"	3/4"	0.97"	3/4"	1.01"	3/4"	1.05"	3/4"	1.09"	3/4"	1.13"	3/4"	1.17"	3/4"	1.21"	3/4"	1.25"	3/4"	1.29"	3/4"
	72"	0.03"	9/16"	0.12"	11/16"	0.26"	11/16"	0.41"	3/4"	0.53"	7/8"	0.64"	7/8"	0.75"	7/8"	0.86"	7/8"	0.96"	7/8"	1.05"	7/8"	1.14"	7/8"	1.22"	7/8"	1.31"	7/8"	1.39"	7/8"	1.47"	7/8"	1.55"	7/8"	1.63"	7/8"	1.71"	7/8"	1.79"	7/8"	1.87"	7/8"	1.95"	7/8"	2.03"	7/8"	2.11"	7/8"
	84"	0.03"	9/16"	0.13"	11/16"	0.31"	11/16"	0.49"	3/4"	0.64"	7/8"	0.77"	15/16"	0.90"	15/16"	1.03"	1"	1.18"	1"	1.32"	1"	1.47"	1"	1.62"	1"	1.76"	1"	1.91"	1"	2.05"	1"	2.20"	1"	2.34"	1"	2.48"	1"	2.62"	1"	2.76"	1"	2.90"	1"				
	96"	0.03"	9/16"	0.14"	11/16"	0.35"	11/16"	0.57"	3/4"	0.75"	7/8"	0.90"	15/16"	1.03"	1"	1.18"	1"	1.32"	1"	1.47"	1"	1.62"	1"	1.76"	1"	1.91"	1"	2.05"	1"	2.20"	1"	2.34"	1"	2.48"	1"	2.62"	1"	2.76"	1"	2.90"	1"	3.04"	1"				
	108"	0.03"	9/16"	0.15"	11/16"	0.39"	11/16"	0.64"	3/4"	0.86"	7/8"	1.03"	15/16"	1.18"	1"	1.30"	1-1/8"	1.46"	1-1/8"	1.63"	1-1/8"	1.79"	1-1/8"	1.95"	1-1/8"	2.11"	1-1/8"	2.27"	1-1/8"	2.43"	1-1/8"	2.59"	1-1/8"	2.75"	1-1/8"	2.91"	1-1/8"	3.07"	1-1/8"	3.23"	1-1/8"	3.39"	1-1/8"	3.55"	1-1/8"		
	120"	0.03"	9/16"	0.15"	11/16"	0.41"	11/16"	0.70"	3/4"	0.96"	7/8"	1.16"	15/16"	1.32"	1"	1.46"	1-1/8"	1.58"	1-3/16"	1.76"	1-3/16"	1.93"	1-3/16"	2.10"	1-3/16"	2.27"	1-3/16"	2.44"	1-3/16"	2.61"	1-3/16"	2.78"	1-3/16"	2.95"	1-3/16"	3.12"	1-3/16"	3.29"	1-3/16"	3.46"	1-3/16"	3.63"	1-3/16"	3.80"	1-3/16"		
	132"	0.03"	9/16"	0.15"	11/16"	0.43"	11/16"	0.76"	3/4"	1.05"	7/8"	1.28"	15/16"	1.47"	1"	1.63"	1-1/8"	1.76"	1-3/16"	1.88"	1-1/4"	2.01"	1-1/4"	2.14"	1-1/4"	2.27"	1-1/4"	2.40"	1-1/4"	2.53"	1-1/4"	2.66"	1-1/4"	2.79"	1-1/4"	2.92"	1-1/4"	3.05"	1-1/4"	3.18"	1-1/4"	3.31"	1-1/4"	3.44"	1-1/4"		
40 psf	24"	0.00"	9/16"	0.00"	9/16"	0.01"	9/16"	0.01"	9/16"	0.02"	9/16"	0.02"	9/16"	0.02"	9/16"	0.02"	9/16"	0.02"	9/16"	0.02"	9/16"	0.02"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"				
	36"	0.00"	9/16"	0.04"	5/8"	0.05"	5/8"	0.08"	5/8"	0.09"	5/8"	0.11"	5/8"	0.11"	5/8"	0.12"	5/8"	0.12"	5/8"	0.12"	5/8"	0.12"	5/8"	0.12"	5/8"	0.12"	5/8"	0.12"	5/8"	0.12"	5/8"	0.12"	5/8"	0.12"	5/8"	0.12"	5/8"	0.12"	5/8"	0.12"	5/8"	0.12"	5/8"				
	48"	0.01"	9/16"	0.05"	5/8"	0.12"	11/16"	0.17"	11/16"	0.21"	11/16"	0.26"	11/16"	0.29"	11/16"	0.32"	11/16"	0.34"	11/16"	0.35"	11/16"	0.36"	11/16"	0.37"	11/16"	0.37"	11/16"	0.37"	11/16"	0.37"	11/16"	0.37"	11/16"	0.37"	11/16"	0.37"	11/16"	0.37"	11/16"	0.37"	11/16"	0.37"	11/16"	0.37"	11/16"		
	60"	0.01"	9/16"	0.08"	5/8"	0.17"	11/16"	0.27"	11/16"	0.35"	11/16"	0.42"	11/16"	0.48"	11/16"	0.55"	11/16"	0.60"	11/16"	0.64"	11/16"	0.68"	11/16"	0.72"	11/16"	0.75"	11/16"	0.79"	11/16"	0.83"	11/16"	0.87"	11/16"	0.91"	11/16"	0.95"	11/16"	0.99"	11/16"	1.03"	11/16"	1.07"	11/16"	1.11"	11/16"	1.15"	11/16"
	72"	0.02"	9/16"	0.09"	5/8"	0.21"	11/16"	0.35"	11/16"	0.46"	3/4"	0.56"	3/4"	0.65"	3/4"	0.75"	3/4"	0.83"	3/4"	0.90"	3/4"	0.99"	3/4"	1.06"	3/4"	1.12"	3/4"	1.19"	3/4"	1.25"	3/4"	1.31"	3/4"	1.37"	3/4"	1.43"	3/4"	1.49"	3/4"	1.55"	3/4"	1.61"	3/4"	1.67"	3/4"		
	84"	0.02"	9/16"	0.11"	5/8"	0.26"	11/16"	0.42"	11/16"	0.56"	3/4"	0.68"	13/16"	0.80"	13/16"	0.91"	13/16"	1.02"	13/16"	1.13"	13/16"	1.24"	13/16"	1.34"	13/16"	1.44"	13/16"	1.54"	13/16"	1.64"	13/16"	1.74"	13/16"	1.84"	13/16"	1.94"	13/16"	2.04"	13/16"	2.14"	13/16"	2.24"	13/16"	2.34"	13/16"	2.44"	13/16"
	96"	0.02"	9/16"	0.11"	5/8"	0.29"	11/16"	0.48"	11/16"	0.65"	3/4"	0.80"	13/16"	0.91"	7/8"	1.05"	7/8"	1.18"	7/8"	1.31"	7/8"	1.44"	7/8"	1.57"	7/8"	1.70"	7/8"	1.82"	7/8"	1.95"	7/8"	2.08"	7/8"	2.21"	7/8"	2.34"	7/8"	2.47"	7/8"	2.60"	7/8"	2.73"	7/8"	2.86"	7/8"		
	108"	0.02"	9/16"	0.12"	5/8"	0.32"	11/16"	0.55"	11/16"	0.75"	3/4"	0.91"																																			



Deflection and Sightline Reference Guide

		1-1/8" Insulating Unit																																																	
		Constructed with a 3/8" outboard and 1/4" inboard, both plies fully tempered (FT) glass																																																	
Wind Load	Width (Base)	Height																																																	
		24"		36"		48"		60"		72"		84"		96"		108"		120"		132"		144"		156"		168"		180"		192"		204"		216"		228"															
		Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline																
60 psf	24"	0.00"	5/8"	0.00"	5/8"	0.02"	5/8"	0.03"	5/8"	0.03"	5/8"	0.03"	5/8"	0.03"	5/8"	0.03"	5/8"	0.03"	5/8"	0.03"	5/8"	0.04"	5/8"	0.04"	5/8"	0.04"	5/8"	0.04"	5/8"	0.04"	5/8"	0.04"	5/8"	0.04"	5/8"	0.04"	5/8"	0.04"	5/8"	**	5/8"	**	5/8"	**	5/8"						
	36"	0.00"	5/8"	0.06"	11/16"	0.09"	11/16"	0.12"	11/16"	0.14"	11/16"	0.16"	11/16"	0.17"	11/16"	0.18"	11/16"	0.18"	11/16"	0.18"	11/16"	0.18"	11/16"	0.17"	11/16"	0.17"	11/16"	0.17"	11/16"	0.17"	11/16"	0.17"	11/16"	0.17"	11/16"	0.17"	11/16"	0.17"	11/16"	0.17"	11/16"	**	11/16"	**	11/16"	**	11/16"				
	48"	0.02"	5/8"	0.09"	11/16"	0.18"	3/4"	0.25"	3/4"	0.31"	3/4"	0.36"	3/4"	0.41"	3/4"	0.45"	3/4"	0.48"	3/4"	0.50"	3/4"	0.51"	3/4"	0.53"	3/4"	0.53"	3/4"	0.53"	3/4"	0.54"	3/4"	0.54"	3/4"	0.54"	3/4"	0.54"	3/4"	0.54"	3/4"	0.54"	3/4"	**	3/4"	**	3/4"	**	3/4"				
	60"	0.03"	5/8"	0.12"	11/16"	0.25"	3/4"	0.37"	7/8"	0.47"	7/8"	0.56"	7/8"	0.65"	7/8"	0.73"	7/8"	0.80"	7/8"	0.86"	7/8"	0.92"	7/8"	0.97"	7/8"	1.02"	7/8"	1.06"	7/8"	1.10"	7/8"	1.10"	7/8"	1.10"	7/8"	1.10"	7/8"	1.10"	7/8"	1.10"	7/8"	**	7/8"	**	7/8"	**	7/8"				
	72"	0.03"	5/8"	0.14"	11/16"	0.31"	3/4"	0.47"	7/8"	0.60"	15/16"	0.72"	15/16"	0.84"	15/16"	0.96"	15/16"	1.07"	15/16"	1.17"	15/16"	1.27"	15/16"	1.37"	15/16"	1.46"	15/16"	1.56"	15/16"	1.65"	15/16"	1.65"	15/16"	1.65"	15/16"	1.65"	15/16"	1.65"	15/16"	1.65"	15/16"	1.65"	15/16"	**	15/16"	**	15/16"	**	15/16"		
	84"	0.03"	5/8"	0.16"	11/16"	0.36"	3/4"	0.56"	7/8"	0.72"	15/16"	0.85"	1-1/16"	1.00"	1-1/16"	1.14"	1-1/16"	1.28"	1-1/16"	1.42"	1-1/16"	1.55"	1-1/16"	1.68"	1-1/16"	1.82"	1-1/16"	1.95"	1-1/16"	2.09"	1-1/16"	2.09"	1-1/16"	2.09"	1-1/16"	2.09"	1-1/16"	2.09"	1-1/16"	2.09"	1-1/16"	2.09"	1-1/16"	2.09"	1-1/16"	**	1-1/16"	**	1-1/16"	**	1-1/16"
	96"	0.03"	5/8"	0.17"	11/16"	0.41"	3/4"	0.65"	7/8"	0.84"	15/16"	1.00"	1-1/16"	1.13"	1-3/16"	1.29"	1-3/16"	1.45"	1-3/16"	1.61"	1-3/16"	1.77"	1-3/16"	1.93"	1-3/16"	2.09"	1-3/16"	2.25"	1-3/16"	2.42"	1-3/16"	2.42"	1-3/16"	2.42"	1-3/16"	2.42"	1-3/16"	2.42"	1-3/16"	2.42"	1-3/16"	2.42"	1-3/16"	**	1-3/16"	**	1-3/16"	**	1-3/16"		
	108"	0.03"	5/8"	0.18"	11/16"	0.45"	3/4"	0.73"	7/8"	0.96"	15/16"	1.14"	1-1/16"	1.29"	1-3/16"	1.42"	1-1/4"	1.59"	1-1/4"	1.77"	1-1/4"	1.94"	1-1/4"	2.12"	1-1/4"	2.30"	1-1/4"	2.48"	1-1/4"	2.66"	1-1/4"	2.66"	1-1/4"	2.66"	1-1/4"	2.66"	1-1/4"	2.66"	1-1/4"	2.66"	1-1/4"	2.66"	1-1/4"	**	1-1/4"	**	1-1/4"	**	1-1/4"		
120"	0.03"	5/8"	0.18"	11/16"	0.48"	3/4"	0.80"	7/8"	1.07"	15/16"	1.28"	1-1/16"	1.45"	1-3/16"	1.59"	1-1/4"	1.72"	1-3/8"	1.91"	1-3/8"	2.09"	1-3/8"	2.28"	1-3/8"	2.47"	1-3/8"	2.66"	1-3/8"	2.86"	1-3/8"	2.86"	1-3/8"	2.86"	1-3/8"	2.86"	1-3/8"	2.86"	1-3/8"	2.86"	1-3/8"	2.86"	1-3/8"	**	1-3/8"	**	1-3/8"	**	1-3/8"			
132"	0.04"	5/8"	0.18"	11/16"	0.50"	3/4"	0.86"	7/8"	1.17"	15/16"	1.42"	1-1/16"	1.61"	1-3/16"	1.77"	1-1/4"	1.91"	1-3/8"	2.03"	1-7/16"	2.22"	1-7/16"	2.42"	1-7/16"	2.62"	1-7/16"	2.82"	1-7/16"	3.02"	1-7/16"	3.02"	1-7/16"	3.02"	1-7/16"	3.02"	1-7/16"	3.02"	1-7/16"	3.02"	1-7/16"	**	1-7/16"	**	1-7/16"	**	1-7/16"					
50 psf	24"	0.00"	9/16"	0.00"	9/16"	0.01"	9/16"	0.02"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	**	9/16"	**	9/16"	**	9/16"				
	36"	0.00"	9/16"	0.05"	11/16"	0.07"	11/16"	0.10"	11/16"	0.12"	11/16"	0.13"	11/16"	0.14"	11/16"	0.15"	11/16"	0.15"	11/16"	0.15"	11/16"	0.15"	11/16"	0.15"	11/16"	0.15"	11/16"	0.15"	11/16"	0.15"	11/16"	0.15"	11/16"	0.15"	11/16"	0.15"	11/16"	0.15"	11/16"	0.15"	11/16"	0.15"	11/16"	**	11/16"	**	11/16"	**	11/16"		
	48"	0.01"	9/16"	0.07"	11/16"	0.16"	11/16"	0.21"	11/16"	0.26"	11/16"	0.31"	11/16"	0.35"	11/16"	0.39"	11/16"	0.41"	11/16"	0.43"	11/16"	0.44"	11/16"	0.45"	11/16"	0.45"	11/16"	0.45"	11/16"	0.45"	11/16"	0.45"	11/16"	0.45"	11/16"	0.45"	11/16"	0.45"	11/16"	0.45"	11/16"	0.45"	11/16"	**	11/16"	**	11/16"	**	11/16"		
	60"	0.02"	9/16"	0.10"	11/16"	0.21"	11/16"	0.33"	3/4"	0.41"	3/4"	0.49"	3/4"	0.57"	3/4"	0.64"	3/4"	0.70"	3/4"	0.76"	3/4"	0.81"	3/4"	0.85"	3/4"	0.89"	3/4"	0.89"	3/4"	0.89"	3/4"	0.89"	3/4"	0.89"	3/4"	0.89"	3/4"	0.89"	3/4"	0.89"	3/4"	0.89"	3/4"	**	3/4"	**	3/4"	**	3/4"		
	72"	0.03"	9/16"	0.12"	11/16"	0.26"	11/16"	0.41"	3/4"	0.53"	7/8"	0.64"	7/8"	0.75"	7/8"	0.86"	7/8"	0.96"	7/8"	1.05"	7/8"	1.14"	7/8"	1.22"	7/8"	1.30"	7/8"	1.38"	7/8"	1.46"	7/8"	1.46"	7/8"	1.46"	7/8"	1.46"	7/8"	1.46"	7/8"	1.46"	7/8"	1.46"	7/8"	**	7/8"	**	7/8"	**	7/8"		
	84"	0.03"	9/16"	0.13"	11/16"	0.31"	11/16"	0.49"	3/4"	0.64"	7/8"	0.77"	15/16"	0.90"	15/16"	1.03"	15/16"	1.16"	15/16"	1.28"	15/16"	1.41"	15/16"	1.52"	15/16"	1.64"	15/16"	1.76"	15/16"	1.87"	15/16"	1.97"	15/16"	2.07"	15/16"	2.17"	15/16"	2.27"	15/16"	2.37"	15/16"	2.47"	15/16"	2.57"	15/16"	**	15/16"	**	15/16"	**	15/16"
	96"	0.03"	9/16"	0.14"	11/16"	0.35"	11/16"	0.57"	3/4"	0.75"	7/8"	0.90"	15/16"	1.03"	1"	1.18"	1"	1.32"	1"	1.47"	1"	1.62"	1"	1.76"	1"	1.90"	1"	2.05"	1"	2.20"	1"	2.20"	1"	2.20"	1"	2.20"	1"	2.20"	1"	2.20"	1"	2.20"	1"	**	1"	**	1"	**	1"		
	108"	0.03"	9/16"	0.15"	11/16"	0.39"	11/16"	0.64"	3/4"	0.86"	7/8"	1.03"	15/16"	1.18"	1"	1.30"	1-1/8"	1.46"	1-1/8"	1.63"	1-1/8"	1.79"	1-1/8"	1.95"	1-1/8"	2.11"	1-1/8"	2.28"	1-1/8"	2.44"	1-1/8"	2.44"	1-1/8"	2.44"	1-1/8"	2.44"	1-1/8"	2.44"	1-1/8"	2.44"	1-1/8"	2.44"	1-1/8"	**	1-1/8"	**	1-1/8"	**	1-1/8"		
120"	0.03"	9/16"	0.15"	11/16"	0.41"	11/16"	0.70"	3/4"	0.96"	7/8"	1.16"	15/16"	1.32"	1"	1.46"	1-1/8"	1.58"	1-3/16"	1.76"	1-3/16"	1.93"	1-3/16"	2.11"	1-3/16"	2.28"	1-3/16"	2.46"	1-3/16"	2.64"	1-3/16"	2.64"	1-3/16"	2.64"	1-3/16"	2.64"	1-3/16"	2.64"	1-3/16"	2.64"	1-3/16"	**	1-3/16"	**	1-3/16"	**	1-3/16"					
132"	0.03"	9/16"	0.15"	11/16"	0.43"	11/16"	0.76"	3/4"	1.05"	7/8"	1.28"	15/16"	1.47"	1"	1.63"	1-1/8"	1.76"	1-3/16"	1.88"	1-1/4"	2.06"	1-1/4"	2.24"	1-1/4"	2.43"	1-1/4"	2.61"	1-1/4"	2.80"	1-1/4"	2.80"	1-1/4"	2.80"	1-1/4"	2.80"	1-1/4"	2.80"	1-1/4"	2.80"	1-1/4"	**	1-1/4"	**	1-1/4"	**	1-1/4"					
40 psf	24"	0.00"	9/16"	0.00"	9/16"	0.01"	9/16"	0.01"	9/16"	0.02"	9/16"	0.02"	9/16"	0.02"	9/16"	0.02"	9/16"	0.02"	9/16"	0.02"	9/16"	0.02"	9/16"	0.02"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	**	9/16"	**	9/16"	**	9/16"				
	36"	0.00"	9/16"	0.04"	5/8"	0.05"	5/8"	0.08"	5/8"	0.09"	5/8"	0.11"	5/8"	0.11"	5/8"	0.12"	5/8"	0.12"	5/8"	0.12"	5/8"	0.12"	5/8"	0.12"	5/8"	0.12"	5/8"	0.12"	5/8"	0.12"	5/8"	0.12"	5/8"	0.12"	5/8"	0.12"	5/8"	0.12"	5/8"	0.12"	5/8"	**	5/8"	**	5/8"	**	5/8"				
	48"	0.01"	9/16"	0.05"	5/8"	0.12"	11/16"	0.17"	11/16"	0.21"	11/16"	0.26"	11/16"	0.29"	11/16"	0.32"	11/16"	0.34"	11/16"	0.35"	11/16"	0.36"	11/16"	0.37"	11/16"	0.37"	11/16"	0.37"	11/16"	0.37"	11/16"	0.37"	11/16"	0.37"	11/16"	0.37"	11/16"	0.37"	11/16"	0.37"	11/16"	**	11/16"	**	11/16"	**	11/16"				
	60"	0.01"	9/16"	0.08"	5/8"	0.17"	11/16"	0.27"	11/16"	0.35"	11/16"	0.42"	11/16"	0.48"	11/16"	0.55"	11/16"	0.60"	11/16"	0.64"	11/16"	0.68"	11/16"	0.72"	11/16"	0.77"	11/16"	0.81"	11/16"	0.85"	11/16"	0.89"	11/16"	0.93"	11/16"	0.97"	11/16"	1.01"	11/16"	1.05"	11/16"	1.09"	11/16"	1.13"	11/16"	**	11/16"	**	11/16"	**	11/16"
	72"	0.02"	9/16"	0.09"	5/8"	0.21"	11/16"	0.35"	11/16"	0.46"	3/4"	0.56"	3/4"	0.65"	3/4"	0.75"	3/4"	0.83"	3/4"	0.90"	3/4"	0.97"	3/4"	1.04"	3/4"	1.11"	3/4"	1.18"	3/4"	1.25"	3/4"	1.32"	3/4"	1.39"	3/4"	1.46"	3/4"	1.53"	3/4"	1.60"	3/4"	1.67"	3/4"	1.74"	3						



Deflection and Sightline Reference Guide

1-5/16" Insulating Laminated Unit																																							
Constructed with a 1/4" outboard and two plies of 1/4" laminated on the inboard, all plies heat strengthened (HS) glass																																							
Wind Load	Width (Base)	Height																																					
		24"		36"		48"		60"		72"		84"		96"		108"		120"		132"		144"		156"		168"		180"		192"		204"		216"		228"			
		Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline				
60 psf	24"	0.02"	1/2"	0.04"	1/2"	0.07"	1/2"	0.07"	1/2"	0.06"	1/2"	0.06"	1/2"	0.04"	1/2"	0.04"	1/2"	0.04"	1/2"	0.05"	1/2"	0.06"	1/2"	0.06"	1/2"	0.07"	1/2"	0.08"	1/2"	0.10"	1/2"	**	1/2"	**	1/2"	**	1/2"		
	36"	0.04"	1/2"	0.10"	1/2"	0.17"	1/2"	0.20"	1/2"	0.23"	1/2"	0.23"	1/2"	0.21"	1/2"	0.21"	1/2"	0.20"	1/2"	0.18"	1/2"	0.19"	1/2"	0.19"	1/2"	0.18"	1/2"	0.20"	1/2"	**	1/2"	**	1/2"	**	1/2"				
	48"	0.07"	1/2"	0.17"	1/2"	0.24"	1/2"	0.29"	1/2"	0.34"	1/2"	0.39"	1/2"	0.44"	1/2"	0.45"	1/2"	0.47"	1/2"	0.49"	1/2"	0.50"	1/2"	0.51"	1/2"	0.51"	1/2"	0.51"	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"		
	60"	0.07"	1/2"	0.20"	1/2"	0.29"	1/2"	0.38"	1/2"	0.45"	1/2"	0.51"	1/2"	0.58"	1/2"	0.65"	1/2"	0.73"	1/2"	0.77"	1/2"	0.81"	1/2"	0.86"	1/2"	0.91"	1/2"	0.97"	1/2"	1.01"	1/2"	**	1/2"	**	1/2"	**	1/2"		
	72"	0.06"	1/2"	0.23"	1/2"	0.34"	1/2"	0.45"	1/2"	0.54"	1/2"	0.64"	1/2"	0.72"	1/2"	0.81"	1/2"	0.90"	1/2"	1.00"	1/2"	1.09"	1/2"	1.17"	1/2"	FT req.		FT req.		FT req.		FT req.		FT req.					
	84"	0.06"	1/2"	0.23"	1/2"	0.39"	1/2"	0.51"	1/2"	0.64"	1/2"	0.75"	1/2"	0.86"	1/2"	0.96"	1/2"	1.07"	1/2"	1.18"	1/2"	1.30"	1/2"	FT req.		FT req.		FT req.		FT req.		FT req.							
	96"	0.04"	1/2"	0.23"	1/2"	0.44"	1/2"	0.58"	1/2"	0.72"	1/2"	0.86"	1/2"	0.99"	1/2"	1.11"	1/2"	1.24"	1/2"	1.37"	1/2"	FT req.		FT req.		FT req.		FT req.		FT req.		FT req.							
	108"	0.04"	1/2"	0.21"	1/2"	0.45"	1/2"	0.65"	1/2"	0.81"	1/2"	0.96"	1/2"	1.11"	1/2"	1.26"	1/2"	1.40"	1/2"	FT req.		FT req.		FT req.		FT req.		FT req.		FT req.		FT req.							
	120"	0.04"	1/2"	0.21"	1/2"	0.47"	1/2"	0.73"	1/2"	0.90"	1/2"	1.07"	1/2"	1.24"	1/2"	1.40"	1/2"	1.56"	9/16"	FT req.		FT req.		FT req.		FT req.		FT req.		FT req.		FT req.							
	132"	0.05"	1/2"	0.20"	1/2"	0.49"	1/2"	0.77"	1/2"	1.00"	1/2"	1.18"	1/2"	1.37"	1/2"	FT req.		FT req.		FT req.		FT req.		FT req.		FT req.		FT req.		FT req.									
50 psf	24"	0.02"	1/2"	0.03"	1/2"	0.06"	1/2"	0.06"	1/2"	0.05"	1/2"	0.05"	1/2"	0.04"	1/2"	0.04"	1/2"	0.03"	1/2"	0.04"	1/2"	0.05"	1/2"	0.05"	1/2"	0.05"	1/2"	0.06"	1/2"	0.07"	1/2"	0.08"	1/2"	**	1/2"	**	1/2"	**	1/2"
	36"	0.03"	1/2"	0.09"	1/2"	0.14"	1/2"	0.18"	1/2"	0.21"	1/2"	0.21"	1/2"	0.20"	1/2"	0.19"	1/2"	0.18"	1/2"	0.17"	1/2"	0.16"	1/2"	0.16"	1/2"	0.16"	1/2"	0.15"	1/2"	0.17"	1/2"	**	1/2"	**	1/2"	**	1/2"		
	48"	0.06"	1/2"	0.14"	1/2"	0.22"	1/2"	0.26"	1/2"	0.31"	1/2"	0.36"	1/2"	0.40"	1/2"	0.41"	1/2"	0.42"	1/2"	0.43"	1/2"	0.44"	1/2"	0.44"	1/2"	0.44"	1/2"	0.45"	1/2"	0.44"	1/2"	***	1/2"	**	1/2"	**	1/2"		
	60"	0.06"	1/2"	0.18"	1/2"	0.26"	1/2"	0.34"	1/2"	0.41"	1/2"	0.46"	1/2"	0.52"	1/2"	0.59"	1/2"	0.65"	1/2"	0.72"	1/2"	0.79"	1/2"	0.86"	1/2"	0.92"	1/2"	0.80"	1/2"	0.85"	1/2"	0.88"	1/2"	**	1/2"	**	1/2"	**	1/2"
	72"	0.05"	1/2"	0.21"	1/2"	0.31"	1/2"	0.41"	1/2"	0.49"	1/2"	0.57"	1/2"	0.66"	1/2"	0.73"	1/2"	0.82"	1/2"	0.90"	1/2"	0.99"	1/2"	1.05"	1/2"	1.12"	1/2"	1.19"	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"		
	84"	0.04"	1/2"	0.21"	1/2"	0.36"	1/2"	0.46"	1/2"	0.57"	1/2"	0.68"	1/2"	0.78"	1/2"	0.88"	1/2"	0.97"	1/2"	1.07"	1/2"	1.18"	1/2"	1.28"	1/2"	1.39"	1/2"	***	1/2"	***	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"
	96"	0.04"	1/2"	0.20"	1/2"	0.40"	1/2"	0.52"	1/2"	0.66"	1/2"	0.78"	1/2"	0.90"	1/2"	1.01"	1/2"	1.13"	1/2"	1.24"	1/2"	1.36"	1/2"	1.48"	1/2"	***	1/2"	***	1/2"	***	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"
	108"	0.03"	1/2"	0.19"	1/2"	0.41"	1/2"	0.59"	1/2"	0.73"	1/2"	0.88"	1/2"	1.01"	1/2"	1.15"	1/2"	1.28"	1/2"	1.41"	1/2"	1.54"	1/2"	***	1/2"	***	1/2"	***	1/2"	***	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"
	120"	0.04"	1/2"	0.18"	1/2"	0.42"	1/2"	0.65"	1/2"	0.82"	1/2"	0.97"	1/2"	1.13"	1/2"	1.28"	1/2"	1.42"	1/2"	1.57"	1/2"	***	1/2"	***	1/2"	***	1/2"	***	1/2"	***	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"
	132"	0.04"	1/2"	0.17"	1/2"	0.43"	1/2"	0.69"	1/2"	0.90"	1/2"	1.07"	1/2"	1.24"	1/2"	1.41"	1/2"	1.57"	1/2"	1.73"	1/2"	***	1/2"	***	1/2"	***	1/2"	***	1/2"	***	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"
40 psf	24"	0.01"	1/2"	0.03"	1/2"	0.04"	1/2"	0.05"	1/2"	0.04"	1/2"	0.04"	1/2"	0.03"	1/2"	0.03"	1/2"	0.03"	1/2"	0.03"	1/2"	0.03"	1/2"	0.04"	1/2"	0.04"	1/2"	0.05"	1/2"	0.06"	1/2"	0.07"	1/2"	**	1/2"	**	1/2"	**	1/2"
	36"	0.03"	1/2"	0.07"	1/2"	0.11"	1/2"	0.16"	1/2"	0.18"	1/2"	0.18"	1/2"	0.17"	1/2"	0.16"	1/2"	0.15"	1/2"	0.15"	1/2"	0.13"	1/2"	0.13"	1/2"	0.13"	1/2"	0.13"	1/2"	0.12"	1/2"	0.14"	1/2"	**	1/2"	**	1/2"	**	1/2"
	48"	0.04"	1/2"	0.11"	1/2"	0.19"	1/2"	0.24"	1/2"	0.28"	1/2"	0.31"	1/2"	0.35"	1/2"	0.36"	1/2"	0.36"	1/2"	0.36"	1/2"	0.37"	1/2"	0.37"	1/2"	0.37"	1/2"	0.37"	1/2"	0.37"	1/2"	***	1/2"	**	1/2"	**	1/2"		
	60"	0.05"	1/2"	0.16"	1/2"	0.24"	1/2"	0.31"	1/2"	0.36"	1/2"	0.42"	1/2"	0.46"	1/2"	0.52"	1/2"	0.58"	1/2"	0.61"	1/2"	0.63"	1/2"	0.63"	1/2"	0.66"	1/2"	0.69"	1/2"	0.72"	1/2"	0.74"	1/2"	**	1/2"	**	1/2"	**	1/2"
	72"	0.04"	1/2"	0.18"	1/2"	0.28"	1/2"	0.36"	1/2"	0.45"	1/2"	0.51"	1/2"	0.58"	1/2"	0.65"	1/2"	0.72"	1/2"	0.80"	1/2"	0.87"	1/2"	0.92"	1/2"	0.92"	1/2"	0.92"	1/2"	0.97"	1/2"	1.03"	1/2"	***	1/2"	**	1/2"	**	1/2"
	84"	0.04"	1/2"	0.18"	1/2"	0.31"	1/2"	0.42"	1/2"	0.51"	1/2"	0.61"	1/2"	0.69"	1/2"	0.78"	1/2"	0.86"	1/2"	0.95"	1/2"	1.04"	1/2"	1.13"	1/2"	1.23"	1/2"	***	1/2"	***	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"
	96"	0.03"	1/2"	0.17"	1/2"	0.35"	1/2"	0.46"	1/2"	0.58"	1/2"	0.69"	1/2"	0.80"	1/2"	0.90"	1/2"	1.00"	1/2"	1.10"	1/2"	1.21"	1/2"	1.32"	1/2"	***	1/2"	***	1/2"	***	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"
	108"	0.03"	1/2"	0.16"	1/2"	0.36"	1/2"	0.52"	1/2"	0.65"	1/2"	0.78"	1/2"	0.90"	1/2"	1.02"	1/2"	1.14"	1/2"	1.25"	1/2"	1.37"	1/2"	***	1/2"	***	1/2"	***	1/2"	***	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"
	120"	0.03"	1/2"	0.15"	1/2"	0.36"	1/2"	0.58"	1/2"	0.72"	1/2"	0.86"	1/2"	1.00"	1/2"	1.14"	1/2"	1.27"	1/2"	1.40"	1/2"	***	1/2"	***	1/2"	***	1/2"	***	1/2"	***	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"
	132"	0.03"	1/2"	0.15"	1/2"	0.36"	1/2"	0.61"	1/2"	0.80"	1/2"	0.95"	1/2"	1.10"	1/2"	1.25"	1/2"	1.40"	1/2"	1.54"	1/2"	***	1/2"	***	1/2"	***	1/2"	***	1/2"	***	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"
30 psf	24"	0.01"	1/2"	0.02"	1/2"	0.03"	1/2"	0.04"	1/2"	0.03"	1/2"	0.03"	1/2"	0.02"	1/2"	0.02"	1/2"	0.02"	1/2"	0.02"	1/2"	0.03"	1/2"	0.03"	1/2"	0.04"	1/2"	0.04"	1/2"	0.05"	1/2"	**	1/2"	**	1/2"	**	1/2"		
	36"	0.02"	1/2"	0.05"	1/2"	0.09"	1/2"	0.13"	1/2"	0.16"	1/2"	0.15"	1/2"	0.14"	1/2"	0.13"	1/2"	0.12"	1/2"	0.11"	1/2"	0.10"	1/2"	0.10"	1/2"	0.10"	1/2"	0.09"	1/2"	0.11"	1/2"	**	1/2"	**	1/2"	**	1/2"		
	48"	0.03"	1/2"	0.09"	1/2"	0.16"	1/2"	0.20"	1/2"	0.24"	1/2"	0.27"	1/2"	0.30"	1/2"	0.31"	1/2"	0.31"	1/2"	0.30"	1/2"	0.30"	1/2"	0.30"	1/2"	0.30"	1/2"	0.29"	1/2"	***	1/2"	**	1/2"	**	1/2"				
	60"	0.04"	1/2"	0.13"	1/2"	0.20"	1/2"	0.27"	1/2"																														



Deflection and Sightline Reference Guide

1-5/16" Insulating Laminated Unit																																					
Constructed with a 1/4" outboard and two plies of 1/4" laminated on the inboard, all plies fully tempered (FT) glass																																					
Wind Load	Width (Base)	Height																																			
		24"		36"		48"		60"		72"		84"		96"		108"		120"		132"		144"		156"		168"		180"		192"		204"		216"		228"	
		Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline		
60 psf	24"	0.02"	1/2"	0.04"	1/2"	0.07"	1/2"	0.07"	1/2"	0.06"	1/2"	0.06"	1/2"	0.04"	1/2"	0.04"	1/2"	0.04"	1/2"	0.05"	1/2"	0.06"	1/2"	0.06"	1/2"	0.07"	1/2"	0.08"	1/2"	0.10"	1/2"	**	1/2"	**	1/2"	**	1/2"
	36"	0.04"	1/2"	0.10"	1/2"	0.17"	1/2"	0.20"	1/2"	0.23"	1/2"	0.23"	1/2"	0.23"	1/2"	0.21"	1/2"	0.21"	1/2"	0.20"	1/2"	0.18"	1/2"	0.19"	1/2"	0.19"	1/2"	0.18"	1/2"	0.20"	1/2"	**	1/2"	**	1/2"	**	1/2"
	48"	0.07"	1/2"	0.17"	1/2"	0.24"	1/2"	0.29"	1/2"	0.34"	1/2"	0.39"	1/2"	0.44"	1/2"	0.45"	1/2"	0.47"	1/2"	0.49"	1/2"	0.50"	1/2"	0.51"	1/2"	0.51"	1/2"	0.51"	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"
	60"	0.07"	1/2"	0.20"	1/2"	0.29"	1/2"	0.38"	1/2"	0.45"	1/2"	0.51"	1/2"	0.58"	1/2"	0.65"	1/2"	0.73"	1/2"	0.77"	1/2"	0.81"	1/2"	0.86"	1/2"	0.91"	1/2"	0.97"	1/2"	1.01"	1/2"	**	1/2"	**	1/2"	**	1/2"
	72"	0.06"	1/2"	0.23"	1/2"	0.34"	1/2"	0.45"	1/2"	0.54"	1/2"	0.64"	1/2"	0.72"	1/2"	0.81"	1/2"	0.90"	1/2"	1.00"	1/2"	1.09"	1/2"	1.17"	1/2"	1.25"	1/2"	1.34"	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"
	84"	0.06"	1/2"	0.23"	1/2"	0.39"	1/2"	0.51"	1/2"	0.64"	1/2"	0.75"	1/2"	0.86"	1/2"	0.96"	1/2"	1.07"	1/2"	1.18"	1/2"	1.30"	1/2"	1.42"	1/2"	1.54"	1/2"	***	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"
	96"	0.04"	1/2"	0.23"	1/2"	0.44"	1/2"	0.58"	1/2"	0.72"	1/2"	0.86"	1/2"	0.99"	1/2"	1.11"	1/2"	1.24"	1/2"	1.37"	1/2"	1.50"	1/2"	1.64"	1/2"	***	1/2"	***	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"
	108"	0.04"	1/2"	0.21"	1/2"	0.45"	1/2"	0.65"	1/2"	0.81"	1/2"	0.96"	1/2"	1.11"	1/2"	1.26"	1/2"	1.40"	1/2"	1.55"	1/2"	1.70"	1/2"	***	1/2"	***	1/2"	***	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"
120"	0.04"	1/2"	0.21"	1/2"	0.47"	1/2"	0.73"	1/2"	0.90"	1/2"	1.07"	1/2"	1.24"	1/2"	1.40"	1/2"	1.56"	9/16"	1.73"	9/16"	***	9/16"	***	9/16"	***	9/16"	***	9/16"	***	9/16"	**	9/16"	**	9/16"	**	9/16"	
132"	0.05"	1/2"	0.20"	1/2"	0.49"	1/2"	0.77"	1/2"	1.00"	1/2"	1.18"	1/2"	1.37"	1/2"	1.55"	1/2"	1.73"	9/16"	1.90"	9/16"	***	9/16"	***	9/16"	***	9/16"	***	9/16"	***	9/16"	**	9/16"	**	9/16"	**	9/16"	
50 psf	24"	0.02"	1/2"	0.03"	1/2"	0.06"	1/2"	0.06"	1/2"	0.05"	1/2"	0.05"	1/2"	0.04"	1/2"	0.04"	1/2"	0.03"	1/2"	0.04"	1/2"	0.05"	1/2"	0.05"	1/2"	0.06"	1/2"	0.07"	1/2"	0.08"	1/2"	**	1/2"	**	1/2"	**	1/2"
	36"	0.03"	1/2"	0.09"	1/2"	0.14"	1/2"	0.18"	1/2"	0.21"	1/2"	0.21"	1/2"	0.20"	1/2"	0.19"	1/2"	0.18"	1/2"	0.17"	1/2"	0.16"	1/2"	0.16"	1/2"	0.16"	1/2"	0.15"	1/2"	0.17"	1/2"	**	1/2"	**	1/2"	**	1/2"
	48"	0.06"	1/2"	0.14"	1/2"	0.22"	1/2"	0.26"	1/2"	0.31"	1/2"	0.36"	1/2"	0.40"	1/2"	0.41"	1/2"	0.42"	1/2"	0.43"	1/2"	0.44"	1/2"	0.44"	1/2"	0.44"	1/2"	0.44"	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"
	60"	0.06"	1/2"	0.18"	1/2"	0.26"	1/2"	0.34"	1/2"	0.41"	1/2"	0.46"	1/2"	0.52"	1/2"	0.59"	1/2"	0.65"	1/2"	0.69"	1/2"	0.73"	1/2"	0.77"	1/2"	0.80"	1/2"	0.85"	1/2"	0.88"	1/2"	**	1/2"	**	1/2"	**	1/2"
	72"	0.05"	1/2"	0.21"	1/2"	0.31"	1/2"	0.41"	1/2"	0.49"	1/2"	0.57"	1/2"	0.66"	1/2"	0.73"	1/2"	0.82"	1/2"	0.90"	1/2"	0.99"	1/2"	1.05"	1/2"	1.12"	1/2"	1.19"	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"
	84"	0.04"	1/2"	0.21"	1/2"	0.36"	1/2"	0.46"	1/2"	0.57"	1/2"	0.68"	1/2"	0.78"	1/2"	0.88"	1/2"	0.97"	1/2"	1.07"	1/2"	1.18"	1/2"	1.28"	1/2"	1.39"	1/2"	***	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"
	96"	0.04"	1/2"	0.20"	1/2"	0.40"	1/2"	0.52"	1/2"	0.66"	1/2"	0.78"	1/2"	0.90"	1/2"	1.01"	1/2"	1.13"	1/2"	1.24"	1/2"	1.36"	1/2"	1.48"	1/2"	***	1/2"	***	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"
	108"	0.03"	1/2"	0.19"	1/2"	0.41"	1/2"	0.59"	1/2"	0.73"	1/2"	0.88"	1/2"	1.01"	1/2"	1.15"	1/2"	1.28"	1/2"	1.41"	1/2"	1.54"	1/2"	***	1/2"	***	1/2"	***	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"
120"	0.04"	1/2"	0.18"	1/2"	0.42"	1/2"	0.65"	1/2"	0.82"	1/2"	0.97"	1/2"	1.13"	1/2"	1.28"	1/2"	1.42"	1/2"	1.57"	1/2"	***	1/2"	***	1/2"	***	1/2"	***	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"	
132"	0.04"	1/2"	0.17"	1/2"	0.43"	1/2"	0.69"	1/2"	0.90"	1/2"	1.07"	1/2"	1.24"	1/2"	1.41"	1/2"	1.57"	1/2"	1.73"	1/2"	***	1/2"	***	1/2"	***	1/2"	***	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"	
40 psf	24"	0.01"	1/2"	0.03"	1/2"	0.04"	1/2"	0.05"	1/2"	0.04"	1/2"	0.04"	1/2"	0.03"	1/2"	0.03"	1/2"	0.03"	1/2"	0.03"	1/2"	0.04"	1/2"	0.04"	1/2"	0.05"	1/2"	0.06"	1/2"	0.07"	1/2"	**	1/2"	**	1/2"	**	1/2"
	36"	0.03"	1/2"	0.07"	1/2"	0.11"	1/2"	0.16"	1/2"	0.18"	1/2"	0.18"	1/2"	0.17"	1/2"	0.16"	1/2"	0.15"	1/2"	0.15"	1/2"	0.13"	1/2"	0.13"	1/2"	0.13"	1/2"	0.12"	1/2"	0.14"	1/2"	**	1/2"	**	1/2"	**	1/2"
	48"	0.04"	1/2"	0.11"	1/2"	0.19"	1/2"	0.24"	1/2"	0.28"	1/2"	0.31"	1/2"	0.35"	1/2"	0.36"	1/2"	0.36"	1/2"	0.36"	1/2"	0.37"	1/2"	0.37"	1/2"	0.37"	1/2"	0.37"	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"
	60"	0.05"	1/2"	0.16"	1/2"	0.24"	1/2"	0.31"	1/2"	0.36"	1/2"	0.42"	1/2"	0.46"	1/2"	0.52"	1/2"	0.58"	1/2"	0.61"	1/2"	0.63"	1/2"	0.66"	1/2"	0.69"	1/2"	0.72"	1/2"	0.74"	1/2"	**	1/2"	**	1/2"	**	1/2"
	72"	0.04"	1/2"	0.18"	1/2"	0.28"	1/2"	0.36"	1/2"	0.45"	1/2"	0.51"	1/2"	0.58"	1/2"	0.65"	1/2"	0.72"	1/2"	0.80"	1/2"	0.87"	1/2"	0.92"	1/2"	0.97"	1/2"	1.03"	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"
	84"	0.04"	1/2"	0.18"	1/2"	0.31"	1/2"	0.42"	1/2"	0.51"	1/2"	0.61"	1/2"	0.69"	1/2"	0.78"	1/2"	0.86"	1/2"	0.95"	1/2"	1.04"	1/2"	1.13"	1/2"	1.23"	1/2"	***	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"
	96"	0.03"	1/2"	0.17"	1/2"	0.35"	1/2"	0.46"	1/2"	0.58"	1/2"	0.69"	1/2"	0.80"	1/2"	0.90"	1/2"	1.00"	1/2"	1.10"	1/2"	1.21"	1/2"	1.32"	1/2"	***	1/2"	***	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"
	108"	0.03"	1/2"	0.16"	1/2"	0.36"	1/2"	0.52"	1/2"	0.65"	1/2"	0.78"	1/2"	0.90"	1/2"	1.02"	1/2"	1.14"	1/2"	1.25"	1/2"	1.37"	1/2"	***	1/2"	***	1/2"	***	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"
120"	0.03"	1/2"	0.15"	1/2"	0.36"	1/2"	0.58"	1/2"	0.72"	1/2"	0.86"	1/2"	1.00"	1/2"	1.14"	1/2"	1.27"	1/2"	1.40"	1/2"	1.54"	1/2"	***	1/2"	***	1/2"	***	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"	
132"	0.03"	1/2"	0.15"	1/2"	0.36"	1/2"	0.61"	1/2"	0.80"	1/2"	0.95"	1/2"	1.10"	1/2"	1.25"	1/2"	1.40"	1/2"	1.54"	1/2"	***	1/2"	***	1/2"	***	1/2"	***	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"	
30 psf	24"	0.01"	1/2"	0.02"	1/2"	0.03"	1/2"	0.04"	1/2"	0.03"	1/2"	0.03"	1/2"	0.02"	1/2"	0.02"	1/2"	0.02"	1/2"	0.02"	1/2"	0.03"	1/2"	0.03"	1/2"	0.04"	1/2"	0.04"	1/2"	0.05"	1/2"	**	1/2"	**	1/2"	**	1/2"
	36"	0.02"	1/2"	0.05"	1/2"	0.09"	1/2"	0.13"	1/2"	0.16"	1/2"	0.15"	1/2"	0.14"	1/2"	0.13"	1/2"	0.12"	1/2"	0.11"	1/2"	0.10"	1/2"	0.10"	1/2"	0.10"	1/2"	0.09"	1/2"	0.11"	1/2"	**	1/2"	**	1/2"	**	1/2"
	48"	0.03"	1/2"	0.09"	1/2"	0.16"	1/2"	0.20"	1/2"	0.24"	1/2"	0.27"	1/2"	0.30"	1/2"	0.31"	1/2"	0.31"	1/2"	0.30"	1/2"	0.30"	1/2"	0.30"	1/2"	0.30"	1/2"	0.29"	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"
	60"	0.04"	1/2"	0.13"	1/2"	0.20"	1/2"	0.27"	1/2"	0.31"	1/2"	0.36"	1/2"	0.40"	1/2"	0.44"	1/2"	0.49"	1/2"	0.51"	1/2"	0.53"	1/2"	0.54"	1/2"	0.56"	1/2"	0.58"	1/2"	0.59"	1/2"	**	1/2"	**	1/2"	**	1/2"
	72"	0.03"	1/2"	0.16"	1/2"	0.24"	1/2"	0.31"	1/2"	0.39"	1/2"	0.44"	1/2"	0.49"	1/2"	0.55"	1/2"	0.62"	1/2"	0.68"	1/2"	0.74"	1/2"	0.78"	1/2"	0.82"	1/2"	0.86"	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"
	84"	0.03"	1/2"	0.15"	1/2"	0.27"	1/2"	0.36"	1/2"	0.44"	1/2"	0.52"	1/2"	0.59"	1/2"	0.67"	1/2"	0.74"	1/2"	0.82"	1/2"	0.89"	1/2"	0.97"	1/2"	1.05"	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"	**	1/2"
	96"	0.02"	1/2"	0.14"	1/2"	0.30"	1/2"	0.40"	1/2"	0.49"	1/2"	0.59"	1/2"	0.69"	1/2"	0.78"	1/2"	0.86"	1/2"	0.95"	1/2"	1.04"	1/2"	1.13"	1/2"	***	1/2"	***	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"
	108"	0.02"	1/2"	0.13"	1/2"	0.31"	1/2"	0.44"	1/2"	0.55"	1/2"	0.67"	1/2"	0.78"	1/2"	0.88"	1/2"	0.98"	1/2"	1.08"	1/2"	1.18"	1/2"	***	1/2"	***	1/2"	***	1/2"	***	1/2"	**	1/2"	**	1/2"	**	1/2"
120"	0.02"	1/2"	0.12"	1/2"																																	



Deflection and Sightline Reference Guide

1-5/16" Laminated Insulating Unit																																																	
Constructed with two plies of 1/4" laminated on the outboard a 1/4" inboard, all plies heat strengthened (HS) glass																																																	
Wind Load	Width (Base)	Height																																															
		24"		36"		48"		60"		72"		84"		96"		108"		120"		132"		144"		156"		168"		180"		192"		204"		216"		228"													
		Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline														
60 psf	24"	0.02"	5/8"	0.04"	5/8"	0.07"	5/8"	0.07"	5/8"	0.06"	5/8"	0.06"	5/8"	0.04"	5/8"	0.04"	5/8"	0.04"	5/8"	0.04"	5/8"	0.05"	5/8"	0.06"	5/8"	0.06"	5/8"	0.07"	5/8"	0.08"	5/8"	0.10"	5/8"	**	5/8"	**	5/8"	**	5/8"										
	36"	0.04"	5/8"	0.10"	11/16"	0.17"	11/16"	0.20"	11/16"	0.23"	11/16"	0.23"	11/16"	0.21"	11/16"	0.21"	11/16"	0.21"	11/16"	0.21"	11/16"	0.20"	11/16"	0.18"	11/16"	0.19"	11/16"	0.19"	11/16"	0.18"	11/16"	0.20"	11/16"	**	11/16"	**	11/16"	**	11/16"										
	48"	0.07"	5/8"	0.17"	11/16"	0.24"	13/16"	0.29"	13/16"	0.34"	13/16"	0.39"	13/16"	0.44"	13/16"	0.45"	13/16"	0.47"	13/16"	0.49"	13/16"	0.50"	13/16"	0.51"	13/16"	0.51"	13/16"	0.51"	13/16"	0.51"	13/16"	0.51"	13/16"	***	13/16"	**	13/16"	**	13/16"	**	13/16"								
	60"	0.07"	5/8"	0.20"	11/16"	0.29"	13/16"	0.38"	7/8"	0.45"	7/8"	0.51"	7/8"	0.58"	7/8"	0.65"	7/8"	0.73"	7/8"	0.77"	7/8"	0.81"	7/8"	0.86"	7/8"	0.91"	7/8"	0.97"	7/8"	1.01"	7/8"	**	7/8"	**	7/8"	**	7/8"	**	7/8"										
	72"	0.06"	5/8"	0.23"	11/16"	0.34"	13/16"	0.45"	7/8"	0.54"	1"	0.64"	1"	0.72"	1"	0.81"	1"	0.90"	1"	1.00"	1"	1.09"	1"	1.17"	1"	FT req.		FT req.		FT req.		FT req.		FT req.		FT req.		FT req.											
	84"	0.06"	5/8"	0.23"	11/16"	0.39"	13/16"	0.51"	7/8"	0.64"	1"	0.75"	1-1/8"	0.86"	1-1/8"	0.96"	1-1/8"	1.07"	1-1/8"	1.18"	1-1/8"	1.30"	1-1/8"	FT req.		FT req.		FT req.		FT req.		FT req.		FT req.		FT req.													
	96"	0.04"	5/8"	0.23"	11/16"	0.44"	13/16"	0.58"	7/8"	0.72"	1"	0.86"	1-1/8"	0.99"	1-1/4"	1.11"	1-1/4"	1.24"	1-1/4"	1.37"	1-1/4"	FT req.		FT req.		FT req.		FT req.		FT req.		FT req.		FT req.		FT req.													
	108"	0.04"	5/8"	0.21"	11/16"	0.45"	13/16"	0.65"	7/8"	0.81"	1"	0.96"	1-1/8"	1.11"	1-1/4"	1.26"	1-5/16"	1.40"	1-5/16"	FT req.		FT req.		FT req.		FT req.		FT req.		FT req.		FT req.		FT req.		FT req.													
	120"	0.04"	5/8"	0.21"	11/16"	0.47"	13/16"	0.73"	7/8"	0.90"	1"	1.07"	1-1/8"	1.24"	1-1/4"	1.40"	1-5/16"	1.56"	1-7/16"	FT req.		FT req.		FT req.		FT req.		FT req.		FT req.		FT req.		FT req.		FT req.													
132"	0.05"	5/8"	0.20"	11/16"	0.49"	13/16"	0.77"	7/8"	1.00"	1"	1.18"	1-1/8"	1.37"	1-1/4"	1.55"	1-5/16"	1.73"	1-7/16"	FT req.		FT req.		FT req.		FT req.		FT req.		FT req.		FT req.		FT req.		FT req.		FT req.												
50 psf	24"	0.02"	9/16"	0.03"	9/16"	0.06"	9/16"	0.06"	9/16"	0.05"	9/16"	0.05"	9/16"	0.04"	9/16"	0.04"	9/16"	0.03"	9/16"	0.04"	9/16"	0.05"	9/16"	0.05"	9/16"	0.05"	9/16"	0.06"	9/16"	0.07"	9/16"	0.08"	9/16"	**	9/16"	**	9/16"	**	9/16"	**	9/16"								
	36"	0.03"	9/16"	0.09"	11/16"	0.14"	11/16"	0.18"	11/16"	0.21"	11/16"	0.21"	11/16"	0.20"	11/16"	0.19"	11/16"	0.18"	11/16"	0.17"	11/16"	0.17"	11/16"	0.16"	11/16"	0.16"	11/16"	0.16"	11/16"	0.15"	11/16"	0.17"	11/16"	**	11/16"	**	11/16"	**	11/16"	**	11/16"								
	48"	0.06"	9/16"	0.14"	11/16"	0.22"	11/16"	0.26"	11/16"	0.31"	11/16"	0.36"	11/16"	0.40"	11/16"	0.41"	11/16"	0.42"	11/16"	0.43"	11/16"	0.44"	11/16"	0.44"	11/16"	0.44"	11/16"	0.45"	11/16"	0.44"	11/16"	0.44"	11/16"	0.45"	11/16"	0.44"	11/16"	0.44"	11/16"	0.44"	11/16"	0.44"	11/16"	0.44"	11/16"				
	60"	0.06"	9/16"	0.18"	11/16"	0.26"	11/16"	0.34"	13/16"	0.41"	13/16"	0.46"	13/16"	0.52"	13/16"	0.59"	13/16"	0.65"	13/16"	0.72"	13/16"	0.79"	13/16"	0.86"	13/16"	0.92"	13/16"	0.99"	13/16"	1.05"	13/16"	1.12"	13/16"	1.19"	13/16"	1.26"	13/16"	1.33"	13/16"	1.40"	13/16"	**	13/16"	**	13/16"	**	13/16"		
	72"	0.05"	9/16"	0.21"	11/16"	0.31"	11/16"	0.41"	13/16"	0.49"	7/8"	0.57"	7/8"	0.66"	7/8"	0.73"	7/8"	0.82"	7/8"	0.90"	7/8"	0.99"	7/8"	1.05"	7/8"	1.12"	7/8"	1.19"	7/8"	1.26"	7/8"	1.33"	7/8"	1.40"	7/8"	1.47"	7/8"	1.54"	7/8"	1.61"	7/8"	1.68"	7/8"	1.75"	7/8"	1.82"	7/8"		
	84"	0.04"	9/16"	0.21"	11/16"	0.36"	11/16"	0.46"	13/16"	0.57"	7/8"	0.68"	1"	0.78"	1"	0.88"	1"	0.97"	1"	1.07"	1"	1.18"	1"	1.28"	1"	1.39"	1"	1.49"	1"	1.59"	1"	1.69"	1"	1.79"	1"	1.89"	1"	1.99"	1"	2.09"	1"	2.19"	1"	2.29"	1"				
	96"	0.04"	9/16"	0.20"	11/16"	0.40"	11/16"	0.52"	13/16"	0.66"	7/8"	0.78"	1"	0.90"	1-1/16"	1.01"	1-1/16"	1.13"	1-1/16"	1.24"	1-1/16"	1.36"	1-1/16"	1.48"	1-1/16"	1.60"	1-1/16"	1.72"	1-1/16"	1.84"	1-1/16"	1.96"	1-1/16"	2.08"	1-1/16"	2.20"	1-1/16"	2.32"	1-1/16"	2.44"	1-1/16"	2.56"	1-1/16"	2.68"	1-1/16"	2.80"	1-1/16"		
	108"	0.03"	9/16"	0.19"	11/16"	0.41"	11/16"	0.59"	13/16"	0.73"	7/8"	0.88"	1"	1.01"	1-1/16"	1.15"	1-3/16"	1.28"	1-3/16"	1.41"	1-3/16"	1.54"	1-3/16"	1.67"	1-3/16"	1.80"	1-3/16"	1.93"	1-3/16"	2.06"	1-3/16"	2.19"	1-3/16"	2.32"	1-3/16"	2.45"	1-3/16"	2.58"	1-3/16"	2.71"	1-3/16"	2.84"	1-3/16"	2.97"	1-3/16"	3.10"	1-3/16"		
	120"	0.04"	9/16"	0.18"	11/16"	0.42"	13/16"	0.65"	13/16"	0.82"	7/8"	0.97"	1"	1.13"	1-1/16"	1.28"	1-3/16"	1.42"	1-1/4"	1.57"	1-1/4"	1.71"	1-1/4"	1.85"	1-1/4"	1.99"	1-1/4"	2.13"	1-1/4"	2.27"	1-1/4"	2.41"	1-1/4"	2.55"	1-1/4"	2.69"	1-1/4"	2.83"	1-1/4"	2.97"	1-1/4"	3.11"	1-1/4"	3.25"	1-1/4"				
132"	0.04"	9/16"	0.17"	11/16"	0.43"	11/16"	0.69"	13/16"	0.90"	7/8"	1.07"	1"	1.24"	1-1/16"	1.41"	1-3/16"	1.57"	1-1/4"	1.73"	1-3/8"	1.89"	1-3/8"	2.05"	1-3/8"	2.21"	1-3/8"	2.37"	1-3/8"	2.53"	1-3/8"	2.69"	1-3/8"	2.85"	1-3/8"	3.01"	1-3/8"	3.17"	1-3/8"	3.33"	1-3/8"	3.49"	1-3/8"	3.65"	1-3/8"					
40 psf	24"	0.01"	9/16"	0.03"	9/16"	0.04"	9/16"	0.05"	9/16"	0.04"	9/16"	0.04"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.04"	9/16"	0.04"	9/16"	0.05"	9/16"	0.06"	9/16"	0.07"	9/16"	0.08"	9/16"	**	9/16"	**	9/16"	**	9/16"	**	9/16"						
	36"	0.03"	9/16"	0.07"	5/8"	0.11"	5/8"	0.16"	5/8"	0.18"	5/8"	0.18"	5/8"	0.17"	5/8"	0.16"	5/8"	0.15"	5/8"	0.15"	5/8"	0.13"	5/8"	0.13"	5/8"	0.13"	5/8"	0.13"	5/8"	0.13"	5/8"	0.12"	5/8"	0.14"	5/8"	**	5/8"	**	5/8"	**	5/8"	**	5/8"						
	48"	0.04"	9/16"	0.11"	5/8"	0.19"	11/16"	0.24"	11/16"	0.28"	11/16"	0.31"	11/16"	0.35"	11/16"	0.36"	11/16"	0.36"	11/16"	0.36"	11/16"	0.36"	11/16"	0.37"	11/16"	0.37"	11/16"	0.37"	11/16"	0.37"	11/16"	0.37"	11/16"	0.37"	11/16"	0.37"	11/16"	0.37"	11/16"	0.37"	11/16"	0.37"	11/16"	0.37"	11/16"				
	60"	0.05"	9/16"	0.16"	5/8"	0.24"	11/16"	0.31"	11/16"	0.36"	11/16"	0.42"	11/16"	0.46"	11/16"	0.52"	11/16"	0.58"	11/16"	0.61"	11/16"	0.63"	11/16"	0.63"	11/16"	0.63"	11/16"	0.66"	11/16"	0.69"	11/16"	0.72"	11/16"	0.74"	11/16"	0.74"	11/16"	0.74"	11/16"	0.74"	11/16"	0.74"	11/16"	0.74"	11/16"	0.74"	11/16"	0.74"	11/16"
	72"	0.04"	9/16"	0.18"	5/8"	0.28"	11/16"	0.36"	11/16"	0.45"	13/16"	0.51"	13/16"	0.58"	13/16"	0.65"	13/16"	0.72"	13/16"	0.80"	13/16"	0.87"	13/16"	0.92"	13/16"	0.99"	13/16"	1.05"	13/16"	1.11"	13/16"	1.17"	13/16"	1.23"	13/16"	1.29"	13/16"	1.35"	13/16"	1.41"	13/16"	1.47"	13/16"	1.53"	13/16"	1.59"	13/16"	1.65"	13/16"
	84"	0.04"	9/16"	0.18"	5/8"	0.31"	11/16"	0.42"	11/16"	0.51"	13/16"	0.61"	7/8"	0.69"	7/8"	0.78"	7/8"	0.86"	7/8"	0.95"	7/8"	1.04"	7/8"	1.13"	7/8"	1.23"	7/8"	1.32"	7/8"	1.41"	7/8"	1.50"	7/8"	1.59"	7/8"	1.68"	7/8"	1.77"	7/8"	1.86"	7/8"	1.95"	7/8"	2.04"	7/8"	2.13"	7/8"	2.22"	7/8"
	96"	0.03"	9/16"	0.17"	5/8"	0.35"	11/16"	0.46"	11/16"	0.58"	13/16"	0.69"	7/8"	0.80"	15/16"	0.90"	15/16"	1.00"	15/16"	1.10"	15/16"	1.21"	15/16"	1.32"	15/16"	1.42"	15/16"	1.52"	15/16"	1.62"	15/16"	1.72"	15/16"	1.82"	15/16"	1.92"	15/16"	2.02"	15/16"	2.12"	15/16"	2.22"	15/16"	2.32"	15/16"	2.42"	15/16"	2.52"	15/16"
	108"	0.03"	9/16"	0.16"	5/8"	0.36"	11/16"	0.52"	11/16"	0.65"	13/16"	0.78"	7/8"	0.90"	15/16"	1.02"	1"	1.14"	1"	1.25"	1"	1.37"	1"	1.48"	1"	1.59"	1"	1.70"	1"	1.81"	1"	1.92"	1"	2.03"	1"	2.14"	1"	2.25"	1"	2.36"	1"	2.47"	1"	2.58"	1"				
	120"	0.03"	9/16"	0.15"	5/8"	0.36"	11/16"	0.58"	11/16"	0.72"	13/16"	0.86"	7/8"	1.00"	15/16"	1.14"	1"	1.27"	1-1/16"	1.40"	1-1/16"	1.53"	1-1/16"	1.66"	1-1/16"	1.79"	1-1/16"	1.92"	1-1/1																				



Deflection and Sightline Reference Guide

1-5/16" Laminated Insulating Unit																																									
Constructed with two plies of 1/4" laminated on the outboard a 1/4" inboard, all plies fully tempered (FT) glass																																									
Wind Load	Width (Base)	Height																																							
		24"		36"		48"		60"		72"		84"		96"		108"		120"		132"		144"		156"		168"		180"		192"		204"		216"		228"					
		Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline	Deflection	Sightline						
60 psf	24"	0.02"	5/8"	0.04"	5/8"	0.07"	5/8"	0.07"	5/8"	0.06"	5/8"	0.06"	5/8"	0.04"	5/8"	0.04"	5/8"	0.04"	5/8"	0.04"	5/8"	0.05"	5/8"	0.06"	5/8"	0.06"	5/8"	0.07"	5/8"	0.08"	5/8"	0.10"	5/8"	**	5/8"	**	5/8"	**	5/8"		
	36"	0.04"	5/8"	0.10"	11/16"	0.17"	11/16"	0.20"	11/16"	0.23"	11/16"	0.23"	11/16"	0.23"	11/16"	0.21"	11/16"	0.21"	11/16"	0.21"	11/16"	0.20"	11/16"	0.18"	11/16"	0.19"	11/16"	0.19"	11/16"	0.18"	11/16"	0.20"	11/16"	**	11/16"	**	11/16"	**	11/16"		
	48"	0.07"	5/8"	0.17"	11/16"	0.24"	13/16"	0.29"	13/16"	0.34"	13/16"	0.39"	13/16"	0.44"	13/16"	0.45"	13/16"	0.47"	13/16"	0.49"	13/16"	0.50"	13/16"	0.51"	13/16"	0.51"	13/16"	0.51"	13/16"	0.51"	13/16"	0.51"	13/16"	***	13/16"	**	13/16"	**	13/16"	**	13/16"
	60"	0.07"	5/8"	0.20"	11/16"	0.29"	13/16"	0.38"	7/8"	0.45"	7/8"	0.51"	7/8"	0.58"	7/8"	0.65"	7/8"	0.73"	7/8"	0.77"	7/8"	0.81"	7/8"	0.86"	7/8"	0.91"	7/8"	0.97"	7/8"	1.01"	7/8"	**	7/8"	**	7/8"	**	7/8"	**	7/8"		
	72"	0.06"	5/8"	0.23"	11/16"	0.34"	13/16"	0.45"	7/8"	0.54"	1"	0.64"	1"	0.72"	1"	0.81"	1"	0.90"	1"	1.00"	1"	1.09"	1"	1.17"	1"	1.25"	1"	1.34"	1"	***	1"	**	1"	**	1"	**	1"	**	1"		
	84"	0.06"	5/8"	0.23"	11/16"	0.39"	13/16"	0.51"	7/8"	0.64"	1"	0.75"	1-1/8"	0.86"	1-1/8"	0.96"	1-1/8"	1.07"	1-1/8"	1.18"	1-1/8"	1.30"	1-1/8"	1.42"	1-1/8"	1.54"	1-1/8"	***	1-1/8"	***	1-1/8"	**	1-1/8"	**	1-1/8"	**	1-1/8"	**	1-1/8"		
	96"	0.04"	5/8"	0.23"	11/16"	0.44"	13/16"	0.58"	7/8"	0.72"	1"	0.86"	1-1/8"	0.99"	1-1/4"	1.11"	1-1/4"	1.24"	1-1/4"	1.37"	1-1/4"	1.50"	1-1/4"	1.64"	1-1/4"	***	1-1/4"	***	1-1/4"	***	1-1/4"	**	1-1/4"	**	1-1/4"	**	1-1/4"	**	1-1/4"		
	108"	0.04"	5/8"	0.21"	11/16"	0.45"	13/16"	0.65"	7/8"	0.81"	1"	0.96"	1-1/8"	1.11"	1-1/4"	1.26"	1-5/16"	1.40"	1-5/16"	1.55"	1-5/16"	1.70"	1-5/16"	***	1-5/16"	***	1-5/16"	***	1-5/16"	***	1-5/16"	**	1-5/16"	**	1-5/16"	**	1-5/16"	**	1-5/16"		
	120"	0.04"	5/8"	0.21"	11/16"	0.47"	13/16"	0.73"	7/8"	0.90"	1"	1.07"	1-1/8"	1.24"	1-1/4"	1.40"	1-5/16"	1.56"	1-7/16"	1.73"	1-7/16"	***	1-7/16"	***	1-7/16"	***	1-7/16"	***	1-7/16"	**	1-7/16"	**	1-7/16"	**	1-7/16"	**	1-7/16"				
132"	0.05"	5/8"	0.20"	11/16"	0.49"	13/16"	0.77"	7/8"	1.00"	1"	1.18"	1-1/8"	1.37"	1-1/4"	1.55"	1-5/16"	1.73"	1-7/16"	1.90"	1-5/8"	***	1-5/8"	***	1-5/8"	***	1-5/8"	***	1-5/8"	**	1-5/8"	**	1-5/8"	**	1-5/8"	**	1-5/8"					
50 psf	24"	0.02"	9/16"	0.03"	9/16"	0.06"	9/16"	0.06"	9/16"	0.05"	9/16"	0.05"	9/16"	0.04"	9/16"	0.04"	9/16"	0.03"	9/16"	0.04"	9/16"	0.05"	9/16"	0.05"	9/16"	0.06"	9/16"	0.07"	9/16"	0.08"	9/16"	0.08"	9/16"	**	9/16"	**	9/16"	**	9/16"	**	9/16"
	36"	0.03"	9/16"	0.09"	11/16"	0.14"	11/16"	0.18"	11/16"	0.21"	11/16"	0.21"	11/16"	0.20"	11/16"	0.19"	11/16"	0.18"	11/16"	0.17"	11/16"	0.16"	11/16"	0.16"	11/16"	0.16"	11/16"	0.15"	11/16"	0.17"	11/16"	**	11/16"	**	11/16"	**	11/16"	**	11/16"		
	48"	0.06"	9/16"	0.14"	11/16"	0.22"	11/16"	0.26"	11/16"	0.31"	11/16"	0.36"	11/16"	0.40"	11/16"	0.41"	11/16"	0.42"	11/16"	0.43"	11/16"	0.44"	11/16"	0.44"	11/16"	0.44"	11/16"	0.45"	11/16"	0.44"	11/16"	***	11/16"	**	11/16"	**	11/16"	**	11/16"		
	60"	0.06"	9/16"	0.18"	11/16"	0.26"	11/16"	0.34"	13/16"	0.41"	13/16"	0.46"	13/16"	0.52"	13/16"	0.59"	13/16"	0.65"	13/16"	0.69"	13/16"	0.73"	13/16"	0.77"	13/16"	0.80"	13/16"	0.84"	13/16"	0.88"	13/16"	**	13/16"	**	13/16"	**	13/16"	**	13/16"		
	72"	0.05"	9/16"	0.21"	11/16"	0.31"	11/16"	0.41"	13/16"	0.49"	7/8"	0.57"	7/8"	0.66"	7/8"	0.73"	7/8"	0.82"	7/8"	0.90"	7/8"	0.99"	7/8"	1.05"	7/8"	1.12"	7/8"	1.19"	7/8"	***	7/8"	**	7/8"	**	7/8"	**	7/8"	**	7/8"		
	84"	0.04"	9/16"	0.21"	11/16"	0.36"	11/16"	0.46"	13/16"	0.57"	7/8"	0.68"	1"	0.78"	1"	0.88"	1"	0.97"	1"	1.07"	1"	1.18"	1"	1.28"	1"	1.39"	1"	***	1"	**	1"	**	1"	**	1"	**	1"				
	96"	0.04"	9/16"	0.20"	11/16"	0.40"	11/16"	0.52"	13/16"	0.66"	7/8"	0.78"	1"	0.90"	1-1/16"	1.01"	1-1/16"	1.13"	1-1/16"	1.24"	1-1/16"	1.36"	1-1/16"	1.48"	1-1/16"	***	1-1/16"	***	1-1/16"	***	1-1/16"	**	1-1/16"	**	1-1/16"	**	1-1/16"	**	1-1/16"		
	108"	0.03"	9/16"	0.19"	11/16"	0.41"	11/16"	0.59"	13/16"	0.73"	7/8"	0.88"	1"	1.01"	1-1/16"	1.15"	1-3/16"	1.28"	1-3/16"	1.41"	1-3/16"	1.54"	1-3/16"	***	1-3/16"	***	1-3/16"	***	1-3/16"	***	1-3/16"	**	1-3/16"	**	1-3/16"	**	1-3/16"	**	1-3/16"		
	120"	0.04"	9/16"	0.18"	11/16"	0.42"	11/16"	0.65"	13/16"	0.82"	7/8"	0.97"	1"	1.13"	1-1/16"	1.28"	1-3/16"	1.42"	1-1/4"	1.57"	1-1/4"	***	1-1/4"	***	1-1/4"	***	1-1/4"	***	1-1/4"	**	1-1/4"	**	1-1/4"	**	1-1/4"	**	1-1/4"				
132"	0.04"	9/16"	0.17"	11/16"	0.43"	11/16"	0.69"	13/16"	0.90"	7/8"	1.07"	1"	1.24"	1-1/16"	1.41"	1-3/16"	1.57"	1-1/4"	1.73"	1-3/8"	***	1-3/8"	***	1-3/8"	***	1-3/8"	***	1-3/8"	**	1-3/8"	**	1-3/8"	**	1-3/8"	**	1-3/8"					
40 psf	24"	0.01"	9/16"	0.03"	9/16"	0.04"	9/16"	0.05"	9/16"	0.04"	9/16"	0.04"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.03"	9/16"	0.04"	9/16"	0.04"	9/16"	0.05"	9/16"	0.06"	9/16"	0.07"	9/16"	**	9/16"	**	9/16"	**	9/16"	**	9/16"		
	36"	0.03"	9/16"	0.07"	5/8"	0.11"	5/8"	0.16"	5/8"	0.18"	5/8"	0.18"	5/8"	0.17"	5/8"	0.16"	5/8"	0.15"	5/8"	0.15"	5/8"	0.13"	5/8"	0.13"	5/8"	0.13"	5/8"	0.12"	5/8"	0.14"	5/8"	**	5/8"	**	5/8"	**	5/8"	**	5/8"		
	48"	0.04"	9/16"	0.11"	5/8"	0.19"	11/16"	0.24"	11/16"	0.28"	11/16"	0.31"	11/16"	0.35"	11/16"	0.36"	11/16"	0.36"	11/16"	0.36"	11/16"	0.36"	11/16"	0.37"	11/16"	0.37"	11/16"	0.37"	11/16"	0.37"	11/16"	***	11/16"	**	11/16"	**	11/16"	**	11/16"		
	60"	0.05"	9/16"	0.16"	5/8"	0.24"	11/16"	0.31"	11/16"	0.36"	11/16"	0.42"	11/16"	0.46"	11/16"	0.52"	11/16"	0.58"	11/16"	0.61"	11/16"	0.63"	11/16"	0.66"	11/16"	0.69"	11/16"	0.72"	11/16"	0.74"	11/16"	**	11/16"	**	11/16"	**	11/16"	**	11/16"		
	72"	0.04"	9/16"	0.18"	5/8"	0.28"	11/16"	0.36"	11/16"	0.45"	13/16"	0.51"	13/16"	0.58"	13/16"	0.65"	13/16"	0.72"	13/16"	0.80"	13/16"	0.87"	13/16"	0.92"	13/16"	0.97"	13/16"	1.03"	13/16"	***	13/16"	**	13/16"	**	13/16"	**	13/16"	**	13/16"		
	84"	0.04"	9/16"	0.18"	5/8"	0.31"	11/16"	0.42"	11/16"	0.51"	13/16"	0.61"	7/8"	0.69"	7/8"	0.78"	7/8"	0.86"	7/8"	0.95"	7/8"	1.04"	7/8"	1.13"	7/8"	1.23"	7/8"	***	7/8"	***	7/8"	**	7/8"	**	7/8"	**	7/8"	**	7/8"		
	96"	0.03"	9/16"	0.17"	5/8"	0.35"	11/16"	0.46"	11/16"	0.58"	13/16"	0.69"	7/8"	0.80"	15/16"	0.90"	15/16"	1.00"	15/16"	1.10"	15/16"	1.21"	15/16"	1.32"	15/16"	***	15/16"	***	15/16"	***	15/16"	**	15/16"	**	15/16"	**	15/16"	**	15/16"		
	108"	0.03"	9/16"	0.16"	5/8"	0.36"	11/16"	0.52"	11/16"	0.65"	13/16"	0.78"	7/8"	0.90"	15/16"	1.02"	1"	1.14"	1"	1.25"	1"	1.37"	1"	***	1"	***	1"	***	1"	**	1"	**	1"	**	1"	**	1"				
	120"	0.03"	9/16"	0.15"	5/8"	0.36"	11/16"	0.58"	11/16"	0.72"	13/16"	0.86"	7/8"	1.00"	15/16"	1.14"	1"	1.27"	1-1/16"	1.40"	1-1/16"	1.54"	1-1/8"	***	1-1/16"	***	1-1/16"	***	1-1/16"	**	1-1/16"	**	1-1/16"	**	1-1/16"	**	1-1/16"				
132"	0.03"	9/16"	0.15"	5/8"	0.36"	11/16"	0.61"	11/16"	0.80"	7/8"	0.95"	7/8"	1.10"	1-1/16"	1.25"	1"	1.40"	1-1/16"	1.54"	1-1/8"	***	1-1/8"	***	1-1/8"	***	1-1/8"	**	1-1/8"	**	1-1/8"	**	1-1/8"	**	1-1/8"							
30 psf	24"	0.01"	1/2"	0.02"	1/2"	0.03"	1/2"	0.04"	1/2"	0.03"	1/2"	0.02"	1/2"	0.02"	1/2"	0.02"	1/2"	0.02"	1/2"	0.03"	1/2"	0.03"	1/2"	0.04"	1/2"	0.04"	1/2"	0.05"	1/2"	**	1/2"	**	1/2"	**	1/2"	**	1/2"				
	36"	0.02"	1/2"	0.05"	9/16"	0.09"	9/16"	0.13"	9/16"	0.16"	9/16"	0.15"	9/16"	0.14"	9/16"	0.13"	9/16"	0.12"	9/16"	0.11"	9/16"	0.10"	9/16"	0.10"	9/16"	0.10"	9/16"	0.09"	9/16"	0.11"	9/16"	**	9/16"	**	9/16"	**	9/16"				
	48"	0.03"	1/2"	0.09"	9/16"	0.16"	5/8"	0.20"	5/8"	0.24"	5/8"	0.27"	5/8"	0.30"	5/8"	0.31"	5/8"	0.31"	5/8"	0.30"	5/8"	0.30"	5/8"	0.30"	5/8"	0.30"	5/8"	0.29													