

CASEMENT

Minimum and Mak mums

LINCOLN WOOD PRODUCTS, INC.

MIN BOX

GLASS

Operating

IF YOU HAVE QUESTIONS REGARDING SIZES OUTSIDE OF THESE LIMITATIONS, CONTACT LINCOLN WOOD PRODUCTS

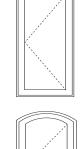
MAX BOX

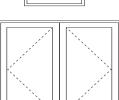
SQUARE

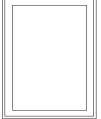
CLAD

SASH

NOTES







	Crank Out	DBL INSUL	16 x 18	42 x 96	х	Single Pane Glass also Available 8:1 Glass Ratio Must be Tempered
		TRPL INSUL	16 x 18	42 x 72 or 36 x 84	х	for frame hinge leg is 25".
	Segment Head	DBL INSUL	20 x 28 leg 25	42 x 96		- Radius Square Sash Clad Not Available Triple Glaze Only Available For Clad Units as Indicated
	*Duchout	DBL INSUL	16 x 18	42 x 90	х	*Rectangle screen Not Allowed on Units < 20" Box Width or > 84" Box Height
	*Pushout	TRPL INSUL	16 x 18	42 x 72 or 36 x 84	Х	8:1 Glass Ratio Must be Tempered Segment Casements: Minimum height for frame hinge leg is 25". Radius Square Sash Clad Not Available Triple Glaze Only Available For Clad Units as Indicated *Rectangle screen Not Allowed on Units < 20" Box Width or > 84" Box Height Minimum 21" Glass Height for WOOD SCREIN Option. Push-Out French Casement RETRACTABLE SCREEN: Maximum Cassette Width = 70". Maximum Box Height = 84" Push-Out French Not Available with Radius Radius French Casement Only Available as Crank-Out 38 square feet maximum for wood SNGL pane TDL units 48 square feet maximum for wood DBL pane TDL units Triple Glaze Only Available For Clad Units DBL Insulated Over 77x77 Box size must be 1"" glass 8:1 Glass Ratio Must be Tempered Lincoln Fit Casement: Radius units not available.
						RETRACTABLE SCREEN: Maximum Cassette Width = 70". Maximum Box
	Pushout French	DBL INSUL	30 x 20	72 x 90	Х	
						Radius French Casement Only Available as Crank-Out
	Studio					
		SNGL PANE	12 X 12	38 sq ft MAX	Х	
	Casement	DBL INSUL	12 X 12	78 x 96	х	pane TDL units
		TRPL INSUL	12 X 12	60 x 90	х	Units DBL Insulated Over 77x77 Box size must
	Lincoln Fit	GLASS	MINIMUM SASH OPENING	MAXIMUM SASH OPENING		
	Operating	DBL INSUL	15-5/8 x 13-1/4	42-3/8 x 84	Х	
	Studio	DBL INSUL	13-5/8 x 13-1/4	78 x 108	Х	
	Bow/Bay Window	N				
				144 Wide MAX	х	
	Transom					
	Over Caseme	ent Studio	13 x 12	78 x 30	Х	Tempered Glass Standard on Glass Size 12" high and Under
	Over 3 Wide 0	Casement	13 x 12	108 x 29	х	_
	Over 3 Wide S	wing Door	13 x 12	110-1/2 x 30	Х	_
	Over DBL Hui	ng Studio	13 x 12	97-3/8 x 30	х	_
	Over 3 Wide I	OBL Hung	13 x 12	100-1/8 x 30	Х	
AWNING						
	Operating					
		SNGL Pane	18 x 18	60 x 60	Х	
	Crank Out	DBL INSUL	18 x 18	60 x 60	Х	
		TRPL INSUL	18 x 18	48 x 36 or 36 x 48	Х	
	Pushout	SNGL Pane	18 x 18	48 x 42	Х	
		DBL INSUL	18 x 18	48 x 42	Х	
Revised: 12/27/24			1			



LINCOLN WOOD PRODUCTS, INC.

Double Hung/Single Hung Double Hung/Single Hung/Lincoln Fit/Replacement Kits MIN GLASS MAX GLASS NOTE Wide Rail 12 x 12 40 x 42 12 x 12 40 x 43-1/16 Narrow Transom Tempered Glass Standard on Glass Size 12" high and Under 8 x 12 40 x 24-3/8 49 square feet Maximum for IG, Tempered and Low-E double pane glass Double Hung Studio/Lincoln FIT Studio 38 square feet Maximum for single pane 1 lite units MIN BOX MAX BOX 38 square feet Maximum for wood single pane TDL units 48 square feet Maximum for wood double pane TDL units Studio 13-3/8 x 15 102 x 88 8:1 Glass Ratio Must be Tempered 1/2 Round Single Hung MIN BOX WIDTH MAX GLASS SIZE Clad 34 40 x 32 Wood 20 40 x 32 Segment Head Single Hung MIN GLASS MAX GLASS NOTE When converted into a single hung a Maximum glass size of 40 x 42 is allowable 16 x 12 40 x 36 Minimum Radius = 17" Lincoln Fit DH Minimum Radius = 12-7/8 **Double Gliders** Units larger than 32 x 48 must be disclaimed - No Warranty for Operation or Performance 16 x 12 32-1/8 x 54 **Triple Gliders** 16/32/16 x 12 24/48/24 x 54



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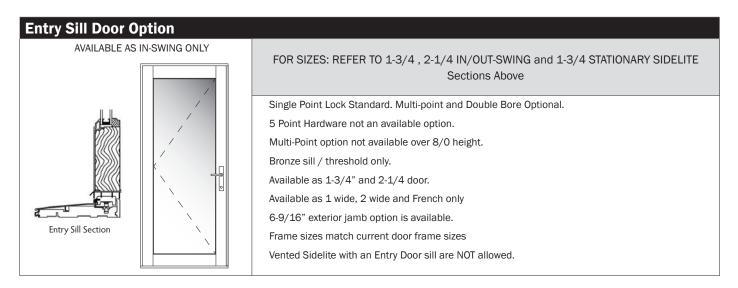
Quantum				
		MIN GLASS	MAX GLASS	NOTE
	Double Hung	16 x 16	48 x 52	Minimum frame radius in house for clad units is 72". Windows with smaller radius must be stretch bent and will be handled as individual request.
	Studio	36 x 32-7/8	72 x 104-7/8	52 square feet Maximum for IG, tempered and low-E double pane GLASS 38 square feet Maximum for single pane 1 lite units 38 square feet Maximum for wood single pane TDL units 52 square feet Maximum for wood double pane TDL units 8:1 GLASS ratio must be tempered
	Segment Head	32x32	48x52	

Slide Door				
		MIN BOX	MAX BOX	NOTE
	Sidelite: Narrow Lifestyle Wide	31-5/16 x 79-1/8 31-7/8 x 79-1/8 32-5/8 x 79-/18	49-5/16 x 98-1/4 49-7/8 x 110-1/4 50-5/8 x 110-1/4	
	2 Wide	58-3/16 x 79-1/8	94-3/16 x 110-1/4	All Doors are Tempered Glass
\rightarrow	3 Wide: Narrow Lifestyle Wide	89-1/2 x 79-1/8 90-1/16 x 79-1/8 90-13/16 x 79-1/8	143-1/2 x 98-1/4 144-1/16 x 110-1/4 144-13/16 x 110-1/4	
	4 Wide	114-1/8 x 79-1/8	186-1/8 x 110-1/4	16/0 (4) Wide Door disclaimer - No Warranty for Operation or Performance
	Transom	31-5/16 x 12	117-13/16 x 28	Tempered Glass Standard on Glass Size 12" and Under Local code may require transom glass to be tempered



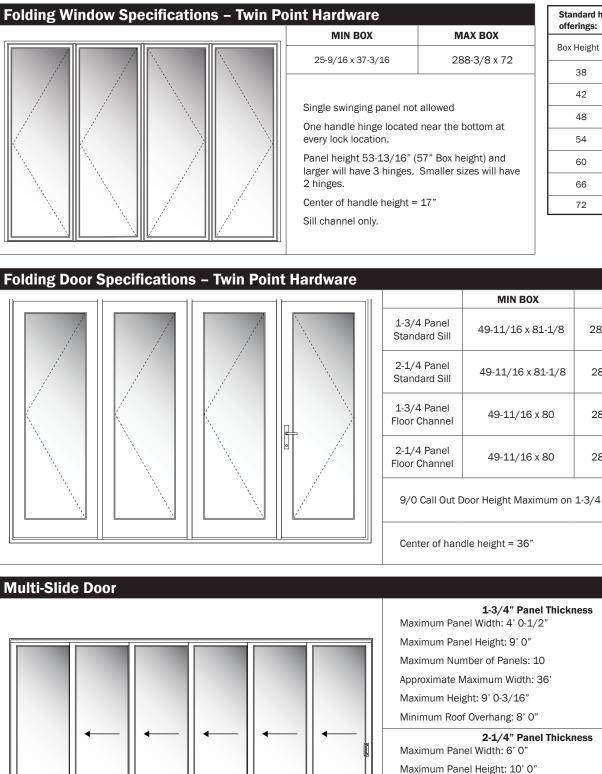
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In/Out-Swing								
		MIN BOX	MAX BOX	NOTE				
	1-3/4"							
	Vented or Stationary Sidelite: Narrow Lifestyle	13-3/8 x 79-1/8 25-3/8 x 79-1/8	25-3/8 x 110-1/4 37-3/8 x 110-1/4	Vented Sidelite with an Entry Door sill are NOT allowed. Radius Doors: 72" Frame Radius Standard.				
	Wide	25-3/8 x 79-1/8	37-3/8 x 110-1/4	Special radius upon request True Radius Door: Not available under 5/0 width.				
	1 Wide Swing Operating Door	31-3/8 x 79-1/8	37-3/8 x 110-1/4	True radius and segment, single wide hinged doors cannot receive 5-point hardware.				
	2 Wide	61-15/16 x 79-1/8	73-15/16 x 110-1/4	Single-Wide, True Radius (bullet-top) hinged Door Guidelines: •No multi-point hardware allowed				
	French Door	49-15/16 x 79-1/8	73-15/16 x 110-1/4	No exterior clad option, wood / primed only Locking systems (hardware) limited to: Single-point Double bore				
	3 Wide Swing	92-1/2 x 79-1/8	110-1/2 x 98-1/4	 Single bore 3 Point Hardware Limitation: Doors with a 				
	4 Wide French Door	99 x 79-1/8	147-1/8 x 98-1/4	frame height less than 73-1/4 can be made as double bore only.				
	2-1/4"							
	1 Wide fixed or Operating Door	31-3/8 x 82-1/4	43-3/8 x 122-1/4	Triple Glaze Doors SDL Bar: 1/4" thick Interior SDL bar only.				
	2 Wide	61-15/16 x 82-1/4	85-15/16 x 122-1/4	Lifestyle Swing Doors w/Triple Glaze: No less than 7-3/16" bottom rail unless the panel uses a mid-rail.				
	French Door	49-15/16 x 82-1/4	85-15/16 x 122-1/4	8:1 glass ratio must be tempered.				
Sizes exceeding those listed above are not certified.								
	Transoms 1-3/4 & 2-1/	/4						
		MIN BOX	MAX BOX	Transoms larger than 9/0 width will be split into				
		13-3/8 x 12	106-1/2 x 28	multiple units. Local code may require transom glass to be tempered 8:1 glass ratio must be tempered.				





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Standard he offerings:	ight
Box Height	Panel Height
38	34-13/16
42	38-13/16
48	44-13/16
54	50-13/16
60	56-13/16
66	62-13/16
72	68-13/16

MAX BOX

288-3/8 x 112-1/4

288-3/8 x 124-1/4

288-3/8 x 111-1/8

288-3/8 x 124-1/4

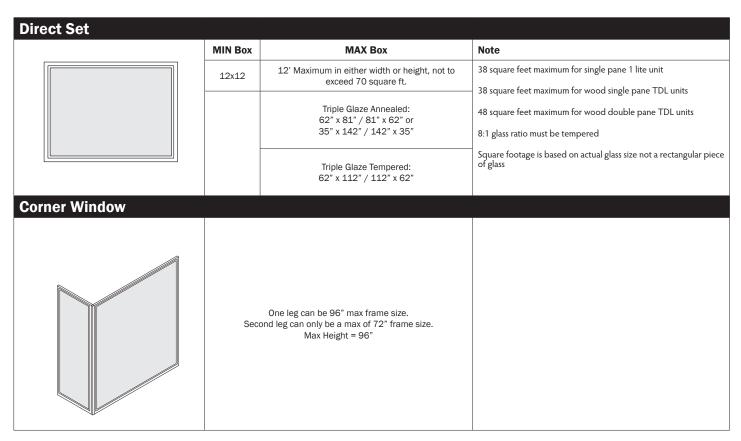
Revised: 12/27/24

Maximum Number of Panels: 10 Approximate Maximum Width: 36' 0" Maximum Height: 10' 3-1/8" Minimum Roof Overhang: 8' 0"



Direct Set Minimum and Max mums

LINCOLN WOOD PRODUCTS, INC.



Specialty units are available within these parameters, other custom shapes may be available upon request. Units not to exceed 70 square ft. See previous page for Triple Glaze Unit limits.

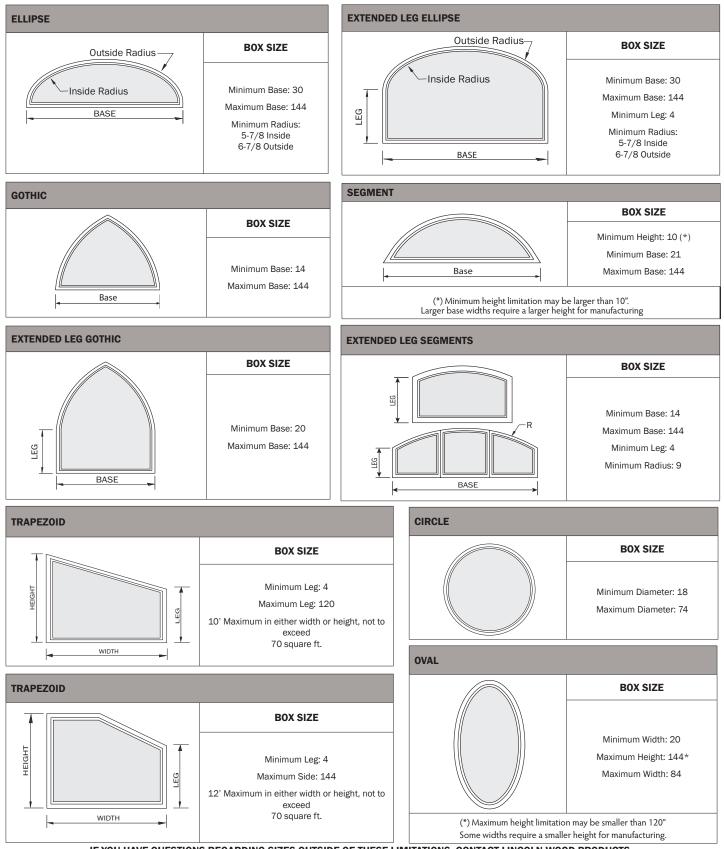
HALF ROUNDS		QUARTER ROUNDS			
	BOX SIZE		BOX SIZE		
BASE	Minimum Base: 18 Maximum Base: 144	BASE	Minimum Base: 14 Maximum Base: 84		
EXTENDED LEG HALF ROUNDS		EXTENDED LEG QUARTER ROUNDS			
	BOX SIZE		BOX SIZE		
BASE	Minimum Base: 18 Maximum Base: 144 Minimum Leg: 4	BASE	Minimum Base: 14 Maximum Base: 84 Minimum Leg: 4		



Direct Set Minimum and Mak mums

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Specialty units are available within these parameters, other custom shapes may be available upon request. Units not to exceed 70 square ft.

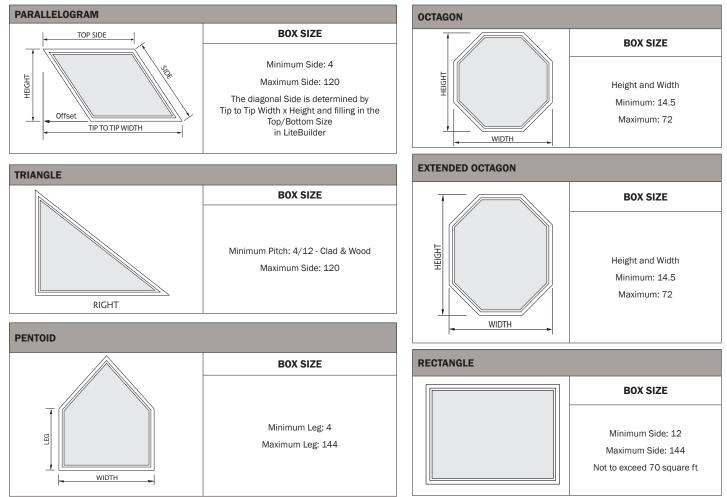




Direct Set Minimum and Mak mums

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Vented/Fix d Sash Set Minimum and Max mums

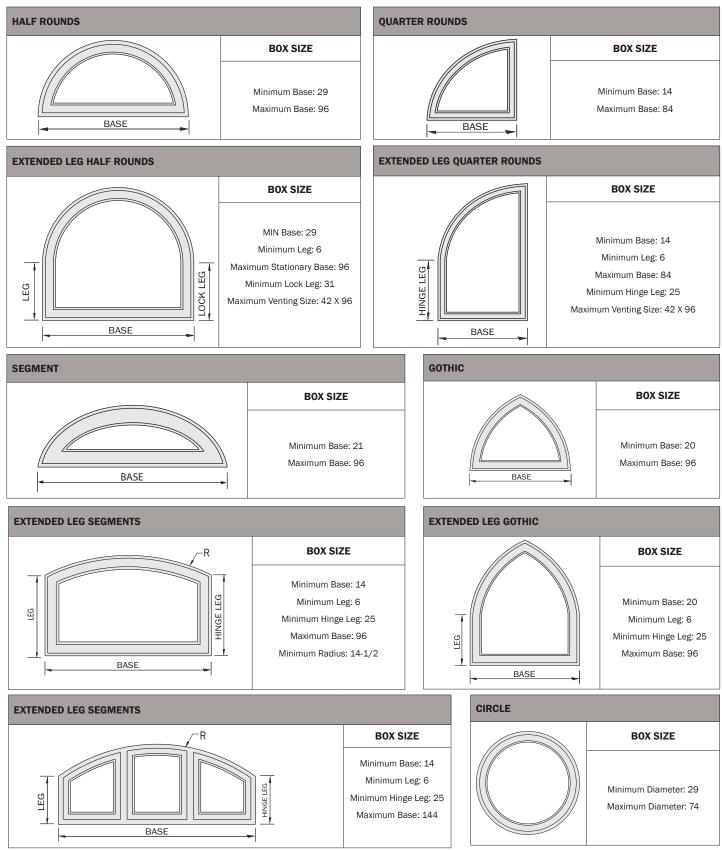
Radius and Geometric Sash Set Units								
			Note					
	Insulated Glass	Radius and Geometric Shapes not to exceed 27 square feet w/internal grills and 35 square feet w/o Internal grills	 13-1/2" Minimum Sash Radius for Clad Sash Set (Putty Glaze Clad) 29" Minimum Box Size for Sash Set Half Rounds w/Putty Glaze Sash Clad Square footage is based on actual glass size not a rectangular piece of glass Radius Square Sash Clad Not Available 					
	SNGL Pane	Radius and Geometric Shapes not to exceed 38 square feet						
	Units do not meet egress opening requirements							



Vented/Fix d Sash Set Minimum and Max mums

LINCOLN WOOD PRODUCTS, INC.

Specialty units are available within these parameters, other custom shapes are available upon request. Double Pane Units not to exceed 27 square feet w/internal grills and 58 square feet w/o Internal grills. Single Pane Units not to exceed 38 square feet.

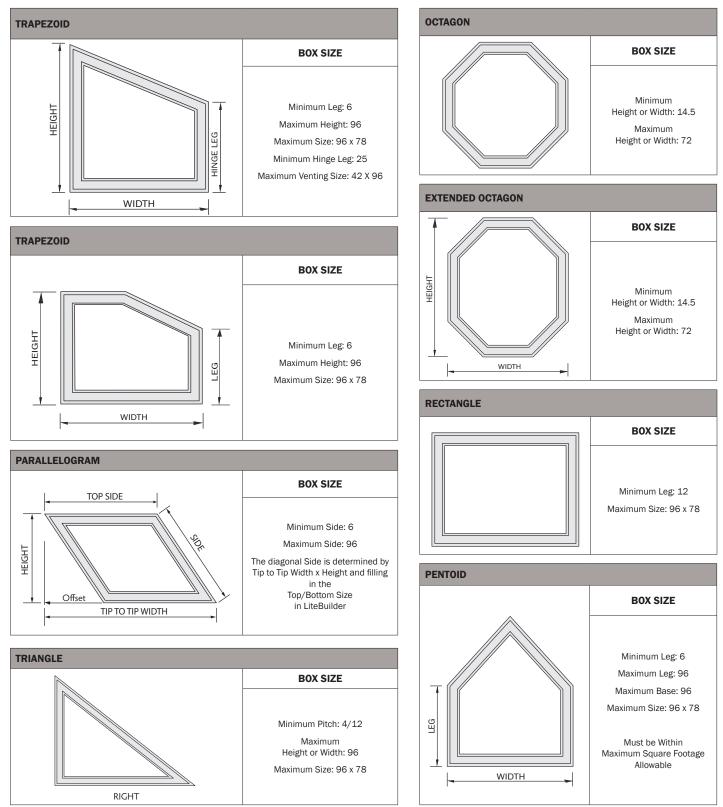




Vented/Fix d Sash Set Minimum and Max mums

LINCOLN WOOD PRODUCTS, INC.

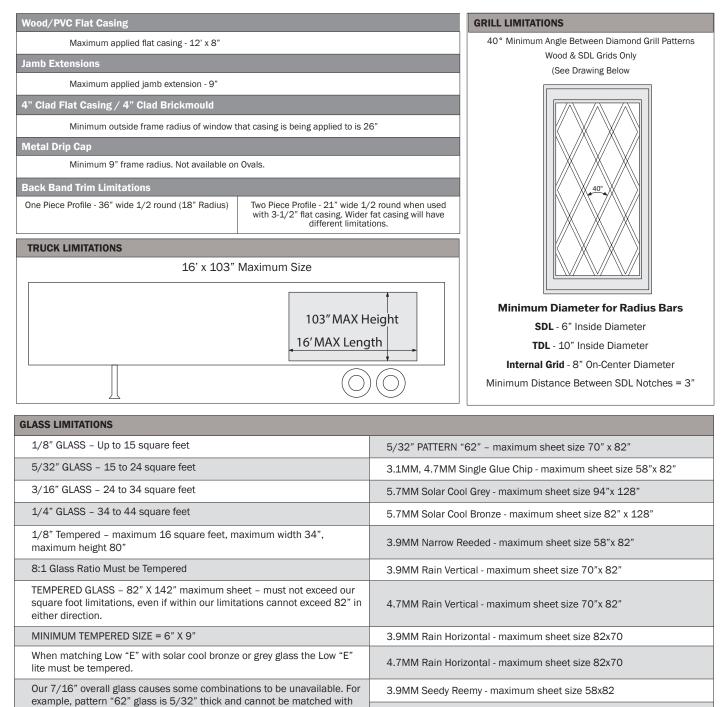
Specialty units are available within these parameters, other custom shapes are available upon request. Double Pane Units not to exceed 27 square feet w/internal grills and 58 square feet w/o Internal grills. Single Pane Units not to exceed 38 square feet.





LINCOLN WOOD PRODUCTS, INC.

LINEAL, BACK BAND, GLASS, GRILL AND TRUCK LIMITATIONS



3.1MM, 5.7MM Matte Frost - maximum sheet size 61x86

Unsupported grilles in air space cannot exceed 68" in length

3.9MM Spraylite - maximum sheet size 58x82

3.9MM Hammered - maximum sheet size 58x82

3.9MM Florex - maximum sheet size 58X82

square feet

tempered for this thickness of glass.

with our overall glass thickness.

Spandrel Glass is only available in 1/4" thickness and must be matched

1/8" LAMINATED - maximum sheet size 48" x 84" - cannot exceed 9

Triple glaze internal grilles always located in exterior air space.

with either heat strengthened or tempered lite. This could cause problems



LINCOLN WOOD PRODUCTS, INC.

CARDINAL IG UNIT SIZE LIMITS ¹ AND MAXIMUM DIMENSIONS PER AIR SPACE

		AN	NEALED GLAS	SS	HEAT TREATED GLASS Maximum Dimensions I Space		e Per Air			
	Minimum		Maximum Area ³ (ft							
Glass Thickness (mm)	Recommended Short Glass Dimension for Argon Filled Unit ² (in)	Maximum Long Dimension (in)	Aspect Ratio Less than 2	Aspect Ratio Greater than 2	Maximum Short Dimension (in)	Maximum Long Dimension (in)	Maximum Area ³ (ft ²)	Airspace Dimension (mm)	Maximum Long Dimension (in)	Maximum Area ³ (ft ²)
2.2	8	70	9	6	-	70	15	5.5	70	15
3.0	12	80	14	10	36	80	20	6.5 & 7.0	80	20
3.9	16	90	19	16	48	90	30	8.0	90	30
4.7	20	100	25	21	60	100	40	9.8	100	40
5.7	24	120	32	29	831⁄2	143½	60	≥11.5	143½	60

1. Limits shown do not apply to shapes or units fabricated with mismatched glass thicknesses.

- 2. Minimum dimensions do not apply to breather tube units.
- 3. Maximum area based on 40 psf design windload and/or safe handling limit.
- 4. This chart applies to both 2-pane IGUs and 3-pane IGUs.
- 5. The suggested limit on maximum short dimension for Heat Treated glass is based on reducing the potential of bi-stable glass (oil canning and soft centered).
- 6. The maximum short and long dimension for 5.7 mm glass is based on the size of the tempering line and also allows for glass trim.
- 7. These are guidelines only, and is not a substitute for the ASTM standard E1300.

IG Construction (mm)	ANNEALED GLASS Maximum Square Footage	Maximum Length (Inches)			Maximum Length (inches)					
2.2 / 2.2	10	72	NA	NA	72					
3.0 / 3.0	15	82	20	36	84					
3.9 / 3.9	24	90	30	48	96					
4.7 / 4.7	33	140	50	60	140					
5.7 / 5.7	50	143.5	60	80	143.5					

CARDINAL IG SQUARE FOOT LIMITS

- 1. Square footage limits are based on handling and manufacturing limits only. The above limits do not take into account windload requirements.
- 2. The squareness factor/oil canning factor for Heat Treated Glass is based on reducing the potential of bi-stable glass (oil canning and soft center).
- 3. All factors must be met for fabrication allowance. For example: An IG unit constructed with 3mm tempered glass that has a dimension of 37"x74" has a square footage of 19 square feet and its maximum length is 74 inches. Both of these criteria are under the specified limits for 3mm tempered glass, however, the short dimension is greater than the maximum 36 inches allowed, therefore, it does not meet the Squareness Factor.