VELUX®

Skylights

Residential skylight

Tested performance information

VSE/VSS Tested Performance Information					
Glass	**04**	**06****	**08**	**10**	**99 94**
Air infiltration/exfiltration * [max. @ 75 Pa (1.57 lbs/ft²) differential pressure]					
l/s/m²	0.2	0.4	0.2	0.3	0.2
cfm/ft²	0.03	0.07	0.03	0.06	0.03
Water resistance @ 3.4 L/m²/min (5 USgal/ft²/hr) * [max. tested differential pressure with no leakage]					
Pascals	720	720	720	720	720
lbs/ft²	15	15	15	15	15
Thermal performance (Certified, complete unit values)					

- VELUX Glass Skylights are rated at 20° slope and labeled with NFRC-certified **U-Factor**, **SHGC**, and **VT** ratings listed in the NFRC Certified Products Directory.
- Ratings for products with standard available fitted shades are on the last page.

	04	**06****	**08**	**10**	**99 94**
U-Factor (Btu/hr·ft²·°F)	0.42	0.40	0.42	0.41	0.37
SHGC	0.23	0.23	0.22	0.23	0.23
VT	0.53	0.52	0.39	0.52	0.52
UV protection, %					
(300-380 mm)	99.9	99.9	99.9	99.9	99.9
Fading protection, % (Krochmann damage function)					
(300-600 mm)	83.1	84.6	88.4	83.2	85.1

Structural Performance [Performance Grade or DP]					
Tested Size	Uplift (lbs/ft²)				
S06	65	65	65	80	65
M08	105	65	105	85	105
C06	n.r.	n.r.	n.r.	90	n.r.
Tested Size	Download (lbs/ft²)				
S06	370	300	370	860	370
M08	440	360	440	1090	440
C06	n.r.	n.r.	n.r.	1200	n.r.

* Tested in accordance with AAMA/WDMA/CSA 101/I.S.2/A440-11 (**NAFS 2011**)
** 06 variant is tested and WDMA Hallmark certified for Wind-Borne debris impact, in accordance with **ASTM E 1886** and **ASTM E 1996**.
Rated for **Wind Zone 3**, **Missile Level C**, **Cycle Pressure +50/-50**
Structural performance ratings also apply to sizes smaller than the Tested Size
VSE and **VSS** skylights are WDMA Hallmark certified: **Products 426-H-670,-678,-679,-682**
(not applicable to copper-clad variants)

04 glass: Tempered over laminated HS (0.030" interlayer)
05 glass: Tempered over tempered
06 glass: Tempered over laminated HS (0.090" interlayer)
08 glass: Same as **04**, with white interlayer
10 glass: Temp. over laminated temp. (0.030" interlayer)
99 94 glass: Same as **04**, with i89 coating on interior surface

CASEMENT/AWNING WINDOWS

Table of Casement and Transom Window Sizes
Scale ⅛" (3) = 1'-0" (305) — 1:96

Window Dimension	1'-5" (432)	1'-8½" (521)	2'-0⅛" (613)	2'-4⅜" (721)	2'-7½" (800)	2'-11¹⁵⁄₁₆" (913)	2'-9¾" (857)	3'-4¾" (1035)	4'-0" (1219)	4'-8½" (1435)
Minimum Rough Opening	1'-5½" (445)	1'-9" (533)	2'-0⅝" (625)	2'-4⅞" (733)	2'-8" (813)	3'-0½" (927)	2'-10¼" (870)	3'-5¼" (1048)	4'-0½" (1232)	4'-9" (1448)
Unobstructed Glass (casement, single sash only)	12⅝" (321)	16⅛" (410)	19¾" (502)	24" (610)	27⅛" (689)	31⁹⁄₁₆" (802)	12⅝" (321)	16⅛" (410)	19¾" (502)	24" (610)
Unobstructed Glass (transom, single sash only)	12³⁄₁₆" (310)	15¹¹⁄₁₆" (398)	19⁵⁄₁₆" (491)	23⁹⁄₁₆" (599)	26¹¹⁄₁₆" (678)	31⅛" (791)	28¹⁵⁄₁₆" (735)	35¹⁵⁄₁₆" (913)	43³⁄₁₆" (1097)	51¹¹⁄₁₆" (1313)

CUSTOM WIDTHS — 1'-5" to 7'-0⅝"

1'-0" (305) · 1'-0½" (318) · 7³⁄₁₆" (183) · 1'-0"

| CTR1510 | CTR1810 | CTR2010 | CTR2410 | CTR2810 | CTR3010 | CTR2910 | CTR3410 | CTR4010 | CTR4810 |

1'-0" (305) · 1'-0½" (318) · 7³⁄₁₆" (183)

| | | | | | | | CTR21810 | CTR22010 | CTR22410 |

CUSTOM WIDTHS — 1'-5" to 2'-11¹⁵⁄₁₆"

CUSTOM HEIGHTS — 2'-0⅛" to 5'-11⅞"

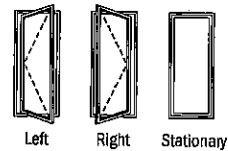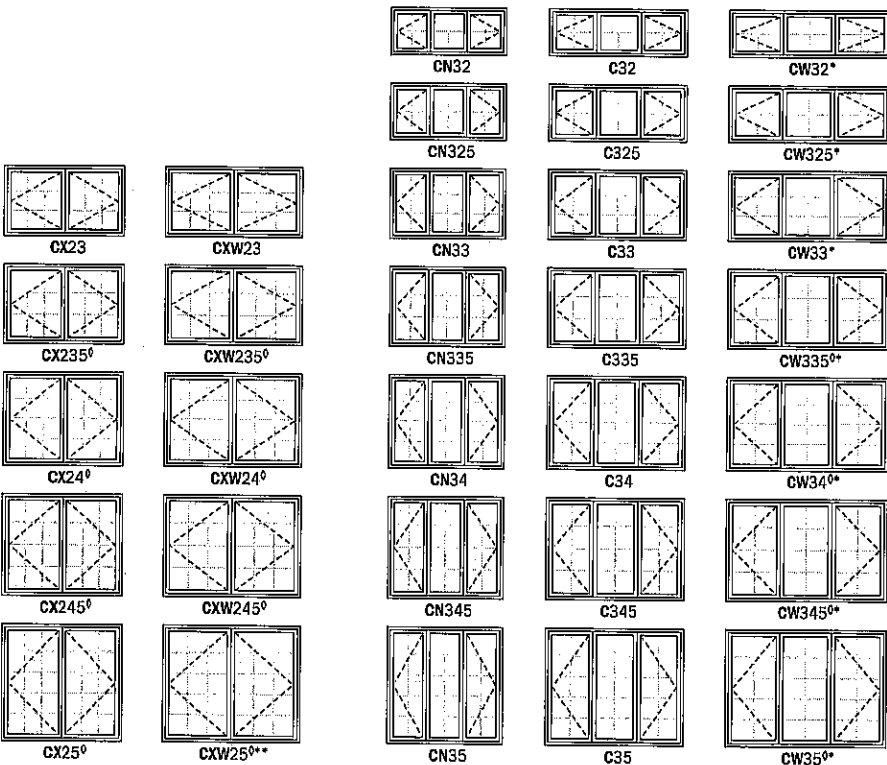| Height									
2'-0⅛" (613) / 2'-0⅝" (625) / 19⁵⁄₁₆" (491) / 11⅞"	CR12	CN12	C12	CW12*			CN22	C22	CW22*
2'-4⅜" (721) / 2'-4⅞" (733) / 23⁹⁄₁₆" (599)	CR125	CN125	C125	CW125*	CX125		CN225	C225	CW225*
2'-11¹⁵⁄₁₆" (913) / 3'-0½" (927) / 31⅛" (791)	CR13	CN13	C13	CW13*	CX13	CXW13	CR23	CN23	C23	CW23*
3'-4¹³⁄₁₆" (1037) / 3'-5⅜" (1051) / 36" (914)	CR135	CN135	C135	CW135◊*	CX135◊	CXW135◊	CR235	CN235	C235	CW235◊*
4'-0" (1219) / 4'-0½" (1232) / 43³⁄₁₆" (1097)	CR14	CN14	C14	CW14◊*	CX14◊	CXW14◊	CR24	CN24	C24	CW24◊*
4'-4¹³⁄₁₆" (1341) / 4'-5⅜" (1356) / 48" (1219)	CR145	CN145	C145	CW145◊*	CX145◊	CXW145◊	CR245	CN245	C245	CW245◊*
4'-11⅞" (1521) / 5'-0⅜" (1534) / 55¹⁄₁₆" (1399)	CR15	CN15	C15	CW15◊*	CX15◊	CXW15◊**	CR25	CN25	C25	CW25◊*
5'-4¹³⁄₁₆" (1646) / 5'-5⅜" (1660) / 60" (1524)	CR155	CN155	C155	CW155◊*	CX155◊	CXW155◊**	CR255	CN255	C255	CW255◊*
5'-11⅞" (1826) / 6'-0⅜" (1838) / 67¹⁄₁₆" (1703)	CR16	CN16	C16	CW16◊*	CX16◊	CXW16◊**	CR26	CN26	C26	CW26◊*

- "Window Dimension" always refers to outside frame to frame dimension.
- "Minimum Rough Opening" dimensions may need to be increased to allow for use of building wraps, flashing, sill panning, brackets, fasteners or other items.
- Dimensions in parentheses are in millimeters.
- ◊ Meet or exceed clear opening area of 5.7 sq.ft. or 0.53 m², clear opening width of 20" (508) and clear opening height of 24" (610) with appropriate hardware, straight or split arm operator, specified.
- *Meet clear opening width of 20" (508) using sill hinge control bracket with split arm operator specified (bracket can be pivoted for cleaning position) and meet clear opening width of 22" (559) with straight arm operator specified.
- **Available with straight arm operators only.

Andersen. WINDOWS•DOORS

5'-2 3/4" (1594)	5'-11 5/8" (1819)	5'-1" (1549)	5'-11 7/8" (1826)	7'-0 5/8" (2149)
5'-3 1/4" (1607)	6'-0 1/8" (1832)	5'-1 1/2" (1562)	6'-0 3/8" (1838)	7'-1 1/8" (2162)
27 1/8" (689)	31 9/16" (802)	16 1/8" (410)	19 3/4" (502)	24" (610)
57 15/16" (1472)	66 13/16" (1697)	56 3/16" (1427)	67 1/16" (1703)	79 13/16" (2027)
CTR5210	CTR51110	CTR5110	CTR6010	CTR7010
CTR22810	CTR23010	CTR31810	CTR32010	CTR32410
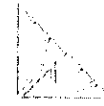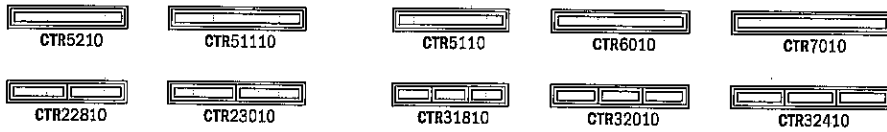
Custom-size windows are available in 1/8" (3) increments. Windows can also be custom sized to match standard sizes ending in a sixteenth of an inch. **Single windows only.**

| | CN32 | C32 | CW32* |
	CN325	C325	CW325*
CX23	CXW23	CN33	C33	CW33*
CX235⁰	CXW235⁰	CN335	C335	CW335⁰*
CX24⁰	CXW24⁰	CN34	C34	CW34⁰*
CX245⁰	CXW245⁰	CN345	C345	CW345⁰*
CX25⁰	CXW25⁰**	CN35	C35	CW35⁰*

Left   Right   Stationary

Choose left, right or stationary as viewed from the exterior. In addition to venting shown in table, other standard configurations are available for single, double and triple windows. Transom **(CTR)** windows are stationary only.

Double and triple windows shown have one continuous outer frame.

Transom (CTR) window can be used over casement or awning windows and may be rotated 90° and used as a sidelight with casement, awning or picture windows.

- "Window Dimension" always refers to outside frame to frame dimension.
- "Minimum Rough Opening" dimensions may need to be increased to allow for use of building wraps, flashing, sill panning, brackets, fasteners or other items.
- Dimensions in parentheses are in millimeters.
◊ Meet or exceed clear opening area of 5.7 sq. ft. or 0.53 m², clear opening width of 20" (508) and clear opening height of 24" (610) with appropriate hardware, straight or split arm operator, specified.
*Meet clear opening width of 20" (508) using sill hinge control bracket with split arm operator specified (bracket can be pivoted for cleaning position) and meet clear opening width of 22" (559) with straight arm operator specified.
**Available with straight arm operators only.
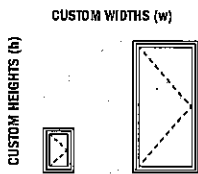
Custom/Replacement Window Size Range
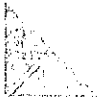
Available in ¹/₈" (3) increments between minimum and maximum widths and heights. Windows can also be custom sized to match standard sizes ending in a sixteenth of an inch. Some restrictions apply, contact your Andersen supplier.

Custom sizing is available for single windows only. To achieve custom-size double or triple combinations, join custom-size single windows. For minimum rough opening dimensions for joined windows see specific joining instruction guides.

Measurement guide for custom sized windows can be found at andersenwindows.com/measure.

Minimum and maximum widths and heights.

CUSTOM WIDTHS (w)

CUSTOM HEIGHTS (h)

Casement Stationary/Venting
(w) 1'-5" (432) to 2'-11 ¹⁵/₁₆" (913) X (h) 2'-0 ¹/₈" (613) to 5'-11 ⁷/₈" (1826)

Casement/Awning Transom (CTR)
(w) 1'-5" (432) to 7'-0 ⁵/₈" (2150) X (h) 1'-0" (305)

Custom/Replacement Casement Window Opening Specifications

Clear Opg.				Min. R.O.	
	Width = window width − 5.81" (148)	Width ≥ 24 ¹/₈" (613) with straight arm operator			Width = window width + ¹/₂" (13)
	=(window width − 9.66" (245)) X 1.07	Width ≥ 28 ³/₈" (721) with straight arm operator & control bracket			Height = window height + ¹/₂" (13)
	= window width − 9.70" (246)	Width ≥ 17" (432) with split arm operator			
	Height = window height − 4.43" (113)	Height ≥ 40 ¹³/₁₆" (1037) and < 48" (1219); Width ≥ 28 ³/₈" (721) and < 31 ¹/₂" (800)			
	= window height − 4.85" (123)	All other window heights			
Vent Opg.				**Unobstr.**	
	Width = window width − 5.81" (148)	Width ≥ 24 ¹/₈" (613) with straight arm operator			Width = window width − 4.40" (112)
	= window width − 6.10" (155)	Width ≥ 17" (432) with split arm operator			Height = window height − 4.95" (126)
	Height = window height − 4.43" (113)	Height ≥ 40 ¹³/₁₆" (1037) and < 48" (1219); Width ≥ 28 ³/₈" (721) and < 31 ¹/₂" (800)			
	= window height − 4.85" (123)	All other window heights			

• Dimensions in parentheses are in millimeters.
• Refer to andersenwindows.com/measure for detailed instructions on how to properly measure for custom-size windows.