

# Ultimate Casement, Awning and Picture

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## Unit Features

Ultimate Casement: UCA

Ultimate Awning: UAWN

Ultimate Casement Picture: UCAP

Ultimate Casement Narrow Frame: UCANF

Ultimate Awning Narrow Frame: UAWNNF

Ultimate Casement Narrow Frame Picture: UCANFP

Ultimate Casement Corner: UCACNR

### UCA, UCANF, UAWN, UAWNNF Hardware:

- Folding handles
  - Color: Satin Taupe
    - Optional colors: White, Bronze, Matte Black, Satin Chrome, Satin Nickel, Oil Rubbed Bronze, Brass, Antique Brass
- Locks used are a concealed multi-point sequential system
- Stainless steel packages are available for coastal application
- Aluminum pole crank (Optional)
  - Color: mill finish
  - Sizes: 60" (1524), 96" (2438), 138" (3505)

*NOTE: Pole crank operate locks*

### UCA/UCANF Hardware:

- Casement operator includes a crank hardware system that allows the window to open to a full 90 degrees with a minimal reduction of egress net clear opening
  - All steel is covered with an E-Gard™ protection coat and the standard track is stainless steel
  - Operation force at handle is 5 lbs. (2 kg) or less
- Casement hinges allow the user the ability to slide the sash across the frame opening so the sash exterior will rotate toward the user for the easy wash mode
  - Each unit includes one single arm operator or dyad operator depending upon the width of the unit
  - Frame OM width of 20" (508) to under 24" (610) use an 18" (457) wash/egress hinge
  - Frame OM widths greater than 24" (610) use a 22" (559) wash/egress hinge
  - Frame OM widths less than 20" (508) use a dyad hinge (dyad hinges do not have the special easy wash mode feature)
- Optional Factory installed Window Opening Control Device (WOCD)
  - The standard operation of the WOCD limits the operation of the sash to an opening of less than 4" (102)
  - The sash arm detaches from the lock housing by a two-step function actuation to allow the normal operation of the unit.
  - The WOCD re-engages when the unit is fully closed
  - Hardware meets the ASTM F2090-17
  - WOCD is Coastal compliant.
  - Minimum operable unit size: 20" (508) x 19 1/8" (486)
  - Maximum operable unit size:
    - 44" (1118) width
    - If the width is greater than 36" (914) and less than 44" (1118), then 92" (2337) maximum height
    - If the width is less than or equal to 36" (914), then 96 1/8" (2442)
  - Components
    - The WOCD hardware is handed
    - The Lock Housing and sash arm are comprised of multiple stainless steel, injection-molded components, and a single stainless steel spring
    - The Lock Housing fits within a pocket on the jamb.
    - The Sash Arm will fit within a pocket between the jamb/sill cover and the locking hardware.
- Hinges used are steel coated with an E-Gard™ protection coat and hinge track is stainless steel
- Each unit contains two hinges that connect stiles of sash to jamb material
- Hinges are designed to support up to a 210 lb. (95 kg) sash
- Optional power drive operator:
  - Motor is metal cased
  - Motor cover is plastic
  - Cover colors: Satin Taupe, White and Bronze
  - Field installed
  - Available for all size CN 16 and wider
- Remote control available as an option

**Unit Features****UAWN/UAWNNF Hardware:**

- Optional Op-O-Lock Hardware (only available with UAWN)
  - Requires a folding handle
  - Minimum frame OM width is 28" (711)
  - Minimum frame height is 15 1/8" (384)
  - Maximum frame OM width is 72" (1829)
  - Maximum frame OM height is 47 1/8" (1197)
- Custodial Sash Limiters
  - If Casement frame OM is larger than 36" (914) x 102" (2591), 40" (1016) x 92" (2337), or 44" (1118) x 71.125" (1807) custodial limiters will be applied, limiting travel
  - If Awning frame OM is larger than 72" (1829) x 72" (1829) custodial limiters will be applied, limiting travel

**Optional Glass:**

- Gas Fill: Air or Argon
- Dual-pane insulating glass thickness: 3/4"
- Triple-pane insulating glass thickness: 1"
- Insulating Glass Coatings
  - Low E1
  - Low E2
  - Low E3
  - Low ERS
  - Low ELR

**Mulling:**

- For mull performance, refer to the General Mulling chapter of the ADM.

## Unit Features

### Lock Status Sensor (Optional):

- Available for UCA, UCANF, UAWN, UAWNNF
- Refer to **Lock Status Sensor Installation Instructions** for requirements.
- Lock Status Sensor detects a locked or unlocked status. It allows easy integration with home automation systems using a wired or wireless connection.
  - For wired option, check with local codes on potential contractor requirements for low voltage networking connections.
  - Wireless option available. Requires purchase of secondary transmitter for operation. Marvin will prep for this option.
- Wireless Lock Status Sensor is located within the frame.
- Sensor Location
  - UCA/UCANF – will always be on locking side
  - UAWN/UAWNNF – will always be on right-hand locking side (from exterior)
- For Wired or Wireless, Black or White Magnet Covers available only visible on secondary surface. Cover color dependent upon interior finish.
  - White: Prime and White Painted Interior Finish
  - Black: Bare and all other finish options

Egress and Vent Openings: Casement - Full and Narrow Frame

CN	Clear Opening Width		Clear Opening Height		Egress Opening			Opening Vent Width		Opening Vent Height		Vent Opening	
	ft - in	mm	ft - in	mm	ft <sup>2</sup>	m <sup>2</sup>	E	ft - in	mm	ft - in	mm	ft <sup>2</sup>	m <sup>2</sup>
1614	0-6 13/32	(163)	0-8 1/64	(203)	0.36	(0.03)		0-11 1/64	(280)	0-8 1/64	(203)	0.61	(0.06)
1616	0-6 13/32	(163)	0-10 1/64	(254)	0.44	(0.04)		0-11 1/64	(280)	0-10 1/64	(254)	0.77	(0.07)
1618	0-6 13/32	(163)	1-0 1/64	(305)	0.53	(0.05)		0-11 1/64	(280)	1-0 1/64	(305)	0.92	(0.09)
1620	0-6 13/32	(163)	1-2 1/64	(356)	0.62	(0.06)		0-11 1/64	(280)	1-2 1/64	(356)	1.07	(0.10)
1624	0-6 13/32	(163)	1-6 1/64	(457)	0.80	(0.07)		0-11 1/64	(280)	1-6 1/64	(457)	1.38	(0.13)
1628	0-6 13/32	(163)	1-10 1/64	(559)	0.98	(0.09)		0-11 1/64	(280)	1-10 1/64	(559)	1.68	(0.16)
1632	0-6 13/32	(163)	2-2 1/64	(661)	1.16	(0.11)		0-11 1/64	(280)	2-2 1/64	(661)	1.99	(0.18)
1636	0-6 13/32	(163)	2-6 1/64	(762)	1.33	(0.12)		0-11 1/64	(280)	2-6 1/64	(762)	2.30	(0.21)
1640	0-6 13/32	(163)	2-10 1/64	(864)	1.51	(0.14)		0-11 1/64	(280)	2-10 1/64	(864)	2.60	(0.24)
1644	0-6 13/32	(163)	3-2 1/64	(965)	1.69	(0.16)		0-11 1/64	(280)	3-2 1/64	(965)	2.91	(0.27)
1648	0-6 13/32	(163)	3-6 1/64	(1067)	1.87	(0.17)		0-11 1/64	(280)	3-6 1/64	(1067)	3.21	(0.30)
1654	0-6 13/32	(163)	4-0 1/64	(1219)	2.13	(0.20)		0-11 1/64	(280)	4-0 1/64	(1219)	3.67	(0.34)
1656	0-6 13/32	(163)	4-2 1/64	(1270)	2.22	(0.21)		0-11 1/64	(280)	4-2 1/64	(1270)	3.83	(0.36)
1660	0-6 13/32	(163)	4-6 1/64	(1372)	2.40	(0.22)		0-11 1/64	(280)	4-6 1/64	(1372)	4.13	(0.38)
1664	0-6 13/32	(163)	4-10 1/64	(1473)	2.58	(0.24)		0-11 1/64	(280)	4-10 1/64	(1473)	4.44	(0.41)
1672 T	0-6 13/32	(163)	5-6 1/64	(1677)	2.93	(0.27)		0-11 1/64	(280)	5-6 1/64	(1677)	5.05	(0.47)
1678 T	0-6 13/32	(163)	6-0 1/64	(1829)	3.20	(0.30)		0-11 1/64	(280)	6-0 1/64	(1829)	5.51	(0.51)
1684 T	0-6 13/32	(163)	6-6 1/64	(1981)	3.47	(0.32)		0-11 1/64	(280)	6-6 1/64	(1981)	5.97	(0.55)
1692 T	0-6 13/32	(163)	7-2 1/64	(2185)	3.82	(0.36)		0-11 1/64	(280)	7-2 1/64	(2185)	6.58	(0.61)
1696 T	0-6 13/32	(163)	7-6 1/64	(2286)	4.00	(0.37)		0-11 1/64	(280)	7-6 1/64	(2286)	6.89	(0.64)
1814	0-8 13/32	(213)	0-8 1/64	(203)	0.47	(0.04)		1-1 1/64	(331)	0-8 1/64	(203)	0.72	(0.07)
1816	0-8 13/32	(213)	0-10 1/64	(254)	0.58	(0.05)		1-1 1/64	(331)	0-10 1/64	(254)	0.90	(0.08)
1818	0-8 13/32	(213)	1-0 1/64	(305)	0.70	(0.07)		1-1 1/64	(331)	1-0 1/64	(305)	1.09	(0.10)
1820	0-8 13/32	(213)	1-2 1/64	(356)	0.82	(0.08)		1-1 1/64	(331)	1-2 1/64	(356)	1.27	(0.12)
1824	0-8 13/32	(213)	1-6 1/64	(457)	1.05	(0.10)		1-1 1/64	(331)	1-6 1/64	(457)	1.63	(0.15)
1828	0-8 13/32	(213)	1-10 1/64	(559)	1.28	(0.12)		1-1 1/64	(331)	1-10 1/64	(559)	1.99	(0.18)
1832	0-8 13/32	(213)	2-2 1/64	(661)	1.52	(0.14)		1-1 1/64	(331)	2-2 1/64	(661)	2.35	(0.22)
1836	0-8 13/32	(213)	2-6 1/64	(762)	1.75	(0.16)		1-1 1/64	(331)	2-6 1/64	(762)	2.71	(0.25)
1840	0-8 13/32	(213)	2-10 1/64	(864)	1.98	(0.18)		1-1 1/64	(331)	2-10 1/64	(864)	3.07	(0.29)
1844	0-8 13/32	(213)	3-2 1/64	(965)	2.22	(0.21)		1-1 1/64	(331)	3-2 1/64	(965)	3.44	(0.32)
1848	0-8 13/32	(213)	3-6 1/64	(1067)	2.45	(0.23)		1-1 1/64	(331)	3-6 1/64	(1067)	3.80	(0.35)
1854	0-8 13/32	(213)	4-0 1/64	(1219)	2.80	(0.26)		1-1 1/64	(331)	4-0 1/64	(1219)	4.34	(0.40)
1856	0-8 13/32	(213)	4-2 1/64	(1270)	2.92	(0.27)		1-1 1/64	(331)	4-2 1/64	(1270)	4.52	(0.42)
1860	0-8 13/32	(213)	4-6 1/64	(1372)	3.15	(0.29)		1-1 1/64	(331)	4-6 1/64	(1372)	4.88	(0.45)
1864	0-8 13/32	(213)	4-10 1/64	(1473)	3.38	(0.31)		1-1 1/64	(331)	4-10 1/64	(1473)	5.24	(0.49)
1872 T	0-8 13/32	(213)	5-6 1/64	(1677)	3.85	(0.36)		1-1 1/64	(331)	5-6 1/64	(1677)	5.97	(0.55)
1878 T	0-8 13/32	(213)	6-0 1/64	(1829)	4.20	(0.39)		1-1 1/64	(331)	6-0 1/64	(1829)	6.51	(0.60)
1884 T	0-8 13/32	(213)	6-6 1/64	(1981)	4.55	(0.42)		1-1 1/64	(331)	6-6 1/64	(1981)	7.05	(0.66)
1892 T	0-8 13/32	(213)	7-2 1/64	(2185)	5.02	(0.47)		1-1 1/64	(331)	7-2 1/64	(2185)	7.77	(0.72)
1896 T	0-8 13/32	(213)	7-6 1/64	(2286)	5.25	(0.49)		1-1 1/64	(331)	7-6 1/64	(2286)	8.14	(0.76)
2014	1-0 57/64	(327)	0-8 1/64	(203)	0.72	(0.07)		1-3 1/64	(381)	0-8 1/64	(203)	0.84	(0.08)
2016	1-0 57/64	(327)	0-10 1/64	(254)	0.90	(0.08)		1-3 1/64	(381)	0-10 1/64	(254)	1.04	(0.10)

NOTE: Refer to Product Performance Chapter for International Building Code. Net Clear Opening drawings are pictured with the conversion tables.

Egress and Vent Openings: Casement - Full and Narrow Frame

CN	Clear Opening Width		Clear Opening Height		Egress Opening			Opening Vent Width		Opening Vent Height		Vent Opening	
	ft - in	mm	ft - in	mm	ft <sup>2</sup>	m <sup>2</sup>	E	ft - in	mm	ft - in	mm	ft <sup>2</sup>	m <sup>2</sup>
2018	1-0 57/64	(327)	1-0 1/64	(305)	1.08	(0.10)		1-3 1/64	(381)	1-0 1/64	(305)	1.25	(0.12)
2020	1-0 57/64	(327)	1-2 1/64	(356)	1.25	(0.12)		1-3 1/64	(381)	1-2 1/64	(356)	1.46	(0.14)
2024	1-0 57/64	(327)	1-6 1/64	(457)	1.61	(0.15)		1-3 1/64	(381)	1-6 1/64	(457)	1.88	(0.17)
2028	1-0 57/64	(327)	1-10 1/64	(559)	1.97	(0.18)		1-3 1/64	(381)	1-10 1/64	(559)	2.30	(0.21)
2032	1-0 57/64	(327)	2-2 1/64	(661)	2.33	(0.22)		1-3 1/64	(381)	2-2 1/64	(661)	2.71	(0.25)
2036	1-0 57/64	(327)	2-6 1/64	(762)	2.69	(0.25)		1-3 1/64	(381)	2-6 1/64	(762)	3.13	(0.29)
2040	1-0 57/64	(327)	2-10 1/64	(864)	3.04	(0.28)		1-3 1/64	(381)	2-10 1/64	(864)	3.55	(0.33)
2044	1-0 57/64	(327)	3-2 1/64	(965)	3.40	(0.32)		1-3 1/64	(381)	3-2 1/64	(965)	3.96	(0.37)
2048	1-0 57/64	(327)	3-6 1/64	(1067)	3.76	(0.35)		1-3 1/64	(381)	3-6 1/64	(1067)	4.38	(0.41)
2054	1-0 57/64	(327)	4-0 1/64	(1219)	4.30	(0.40)		1-3 1/64	(381)	4-0 1/64	(1219)	5.01	(0.47)
2056	1-0 57/64	(327)	4-2 1/64	(1270)	4.48	(0.42)		1-3 1/64	(381)	4-2 1/64	(1270)	5.22	(0.48)
2060	1-0 57/64	(327)	4-6 1/64	(1372)	4.83	(0.45)		1-3 1/64	(381)	4-6 1/64	(1372)	5.63	(0.52)
2064	1-0 57/64	(327)	4-10 1/64	(1473)	5.19	(0.48)		1-3 1/64	(381)	4-10 1/64	(1473)	6.05	(0.56)
2072 T	1-0 57/64	(327)	5-6 1/64	(1677)	5.91	(0.55)		1-3 1/64	(381)	5-6 1/64	(1677)	6.88	(0.64)
2078 T	1-0 57/64	(327)	6-0 1/64	(1829)	6.45	(0.60)		1-3 1/64	(381)	6-0 1/64	(1829)	7.51	(0.70)
2084 T	1-0 57/64	(327)	6-6 1/64	(1981)	6.98	(0.65)		1-3 1/64	(381)	6-6 1/64	(1981)	8.13	(0.76)
2092 T	1-0 57/64	(327)	7-2 1/64	(2185)	7.70	(0.72)		1-3 1/64	(381)	7-2 1/64	(2185)	8.97	(0.83)
2096 T	1-0 57/64	(327)	7-6 1/64	(2286)	8.06	(0.75)		1-3 1/64	(381)	7-6 1/64	(2286)	9.39	(0.87)
2414	1-4 57/64	(429)	0-8 1/64	(203)	0.94	(0.09)		1-7 1/64	(483)	0-8 1/64	(203)	1.06	(0.10)
2416	1-4 57/64	(429)	0-10 1/64	(254)	1.17	(0.11)		1-7 1/64	(483)	0-10 1/64	(254)	1.32	(0.12)
2418	1-4 57/64	(429)	1-0 1/64	(305)	1.41	(0.13)		1-7 1/64	(483)	1-0 1/64	(305)	1.59	(0.15)
2420	1-4 57/64	(429)	1-2 1/64	(356)	1.64	(0.15)		1-7 1/64	(483)	1-2 1/64	(356)	1.85	(0.17)
2424	1-4 57/64	(429)	1-6 1/64	(457)	2.11	(0.20)		1-7 1/64	(483)	1-6 1/64	(457)	2.38	(0.22)
2428	1-4 57/64	(429)	1-10 1/64	(559)	2.58	(0.24)		1-7 1/64	(483)	1-10 1/64	(559)	2.91	(0.27)
2432	1-4 57/64	(429)	2-2 1/64	(661)	3.05	(0.28)		1-7 1/64	(483)	2-2 1/64	(661)	3.43	(0.32)
2436	1-4 57/64	(429)	2-6 1/64	(762)	3.52	(0.33)		1-7 1/64	(483)	2-6 1/64	(762)	3.96	(0.37)
2440	1-4 57/64	(429)	2-10 1/64	(864)	3.99	(0.37)		1-7 1/64	(483)	2-10 1/64	(864)	4.49	(0.42)
2444	1-4 57/64	(429)	3-2 1/64	(965)	4.46	(0.41)		1-7 1/64	(483)	3-2 1/64	(965)	5.02	(0.47)
2448	1-4 57/64	(429)	3-6 1/64	(1067)	4.93	(0.46)		1-7 1/64	(483)	3-6 1/64	(1067)	5.55	(0.52)
2454	1-4 57/64	(429)	4-0 1/64	(1219)	5.63	(0.52)		1-7 1/64	(483)	4-0 1/64	(1219)	6.34	(0.59)
2456	1-4 57/64	(429)	4-2 1/64	(1270)	5.87	(0.54)		1-7 1/64	(483)	4-2 1/64	(1270)	6.60	(0.61)
2460	1-4 57/64	(429)	4-6 1/64	(1372)	6.34	(0.59)		1-7 1/64	(483)	4-6 1/64	(1372)	7.13	(0.66)
2464	1-4 57/64	(429)	4-10 1/64	(1473)	6.80	(0.63)		1-7 1/64	(483)	4-10 1/64	(1473)	7.66	(0.71)
2472 T	1-4 57/64	(429)	5-6 1/64	(1677)	7.74	(0.72)		1-7 1/64	(483)	5-6 1/64	(1677)	8.72	(0.81)
2478 T	1-4 57/64	(429)	6-0 1/64	(1829)	8.45	(0.78)		1-7 1/64	(483)	6-0 1/64	(1829)	9.51	(0.88)
2484 T	1-4 57/64	(429)	6-6 1/64	(1981)	9.15	(0.85)		1-7 1/64	(483)	6-6 1/64	(1981)	10.30	(0.96)
2492 T	1-4 57/64	(429)	7-2 1/64	(2185)	10.09	(0.94)		1-7 1/64	(483)	7-2 1/64	(2185)	11.36	(1.06)
2496 T	1-4 57/64	(429)	7-6 1/64	(2286)	10.56	(0.98)		1-7 1/64	(483)	7-6 1/64	(2286)	11.89	(1.10)
2614	1-6 57/64	(480)	0-8 1/64	(203)	1.05	(0.10)		1-9 1/64	(534)	0-8 1/64	(203)	1.17	(0.11)
2616	1-6 57/64	(480)	0-10 1/64	(254)	1.31	(0.12)		1-9 1/64	(534)	0-10 1/64	(254)	1.46	(0.14)
2618	1-6 57/64	(480)	1-0 1/64	(305)	1.58	(0.15)		1-9 1/64	(534)	1-0 1/64	(305)	1.75	(0.16)
2620	1-6 57/64	(480)	1-2 1/64	(356)	1.84	(0.17)		1-9 1/64	(534)	1-2 1/64	(356)	2.04	(0.19)

NOTE: Refer to Product Performance Chapter for International Building Code. Net Clear Opening drawings are pictured with the conversion tables.

Egress and Vent Openings: Casement - Full and Narrow Frame

CN	Clear Opening Width		Clear Opening Height		Egress Opening			Opening Vent Width		Opening Vent Height		Vent Opening	
	ft - in	mm	ft - in	mm	ft <sup>2</sup>	m <sup>2</sup>	E	ft - in	mm	ft - in	mm	ft <sup>2</sup>	m <sup>2</sup>
2624	1-6 57/64	(480)	1-6 1/64	(457)	2.36	(0.22)		1-9 1/64	(534)	1-6 1/64	(457)	2.63	(0.24)
2628	1-6 57/64	(480)	1-10 1/64	(559)	2.89	(0.27)		1-9 1/64	(534)	1-10 1/64	(559)	3.21	(0.30)
2632	1-6 57/64	(480)	2-2 1/64	(661)	3.41	(0.32)		1-9 1/64	(534)	2-2 1/64	(661)	3.80	(0.35)
2636	1-6 57/64	(480)	2-6 1/64	(762)	3.94	(0.37)		1-9 1/64	(534)	2-6 1/64	(762)	4.38	(0.41)
2640	1-6 57/64	(480)	2-10 1/64	(864)	4.46	(0.41)		1-9 1/64	(534)	2-10 1/64	(864)	4.96	(0.46)
2644	1-6 57/64	(480)	3-2 1/64	(965)	4.99	(0.46)		1-9 1/64	(534)	3-2 1/64	(965)	5.55	(0.52)
2648	1-6 57/64	(480)	3-6 1/64	(1067)	5.51	(0.51)		1-9 1/64	(534)	3-6 1/64	(1067)	6.13	(0.57)
2654	1-6 57/64	(480)	4-0 1/64	(1219)	6.30	(0.59)		1-9 1/64	(534)	4-0 1/64	(1219)	7.01	(0.65)
2656	1-6 57/64	(480)	4-2 1/64	(1270)	6.56	(0.61)		1-9 1/64	(534)	4-2 1/64	(1270)	7.30	(0.68)
2660	1-6 57/64	(480)	4-6 1/64	(1372)	7.09	(0.66)		1-9 1/64	(534)	4-6 1/64	(1372)	7.88	(0.73)
2664	1-6 57/64	(480)	4-10 1/64	(1473)	7.61	(0.71)		1-9 1/64	(534)	4-10 1/64	(1473)	8.47	(0.79)
2672 T	1-6 57/64	(480)	5-6 1/64	(1677)	8.66	(0.80)		1-9 1/64	(534)	5-6 1/64	(1677)	9.63	(0.90)
2678 T	1-6 57/64	(480)	6-0 1/64	(1829)	9.45	(0.88)		1-9 1/64	(534)	6-0 1/64	(1829)	10.51	(0.98)
2684 T	1-6 57/64	(480)	6-6 1/64	(1981)	10.23	(0.95)		1-9 1/64	(534)	6-6 1/64	(1981)	11.39	(1.06)
2692 T	1-6 57/64	(480)	7-2 1/64	(2185)	11.28	(1.05)		1-9 1/64	(534)	7-2 1/64	(2185)	12.55	(1.17)
2696 T	1-6 57/64	(480)	7-6 1/64	(2286)	11.81	(1.10)		1-9 1/64	(534)	7-6 1/64	(2286)	13.14	(1.22)
2814	1-8 57/64	(531)	0-8 1/64	(203)	1.16	(0.11)		1-11 1/64	(585)	0-8 1/64	(203)	1.28	(0.12)
2816	1-8 57/64	(531)	0-10 1/64	(254)	1.45	(0.13)		1-11 1/64	(585)	0-10 1/64	(254)	1.60	(0.15)
2818	1-8 57/64	(531)	1-0 1/64	(305)	1.74	(0.16)		1-11 1/64	(585)	1-0 1/64	(305)	1.92	(0.18)
2820	1-8 57/64	(531)	1-2 1/64	(356)	2.03	(0.19)		1-11 1/64	(585)	1-2 1/64	(356)	2.24	(0.21)
2824	1-8 57/64	(531)	1-6 1/64	(457)	2.61	(0.24)		1-11 1/64	(585)	1-6 1/64	(457)	2.88	(0.27)
2828	1-8 57/64	(531)	1-10 1/64	(559)	3.19	(0.30)		1-11 1/64	(585)	1-10 1/64	(559)	3.52	(0.33)
2832	1-8 57/64	(531)	2-2 1/64	(661)	3.77	(0.35)		1-11 1/64	(585)	2-2 1/64	(661)	4.16	(0.39)
2836	1-8 57/64	(531)	2-6 1/64	(762)	4.35	(0.40)		1-11 1/64	(585)	2-6 1/64	(762)	4.80	(0.45)
2840	1-8 57/64	(531)	2-10 1/64	(864)	4.93	(0.46)		1-11 1/64	(585)	2-10 1/64	(864)	5.44	(0.51)
2844	1-8 57/64	(531)	3-2 1/64	(965)	5.51	(0.51)		1-11 1/64	(585)	3-2 1/64	(965)	6.08	(0.56)
2848	1-8 57/64	(531)	3-6 1/64	(1067)	6.09	(0.57)	E	1-11 1/64	(585)	3-6 1/64	(1067)	6.71	(0.62)
2854	1-8 57/64	(531)	4-0 1/64	(1219)	6.96	(0.65)	E	1-11 1/64	(585)	4-0 1/64	(1219)	7.67	(0.71)
2856	1-8 57/64	(531)	4-2 1/64	(1270)	7.26	(0.67)	E	1-11 1/64	(585)	4-2 1/64	(1270)	7.99	(0.74)
2860	1-8 57/64	(531)	4-6 1/64	(1372)	7.84	(0.73)	E	1-11 1/64	(585)	4-6 1/64	(1372)	8.63	(0.80)
2864	1-8 57/64	(531)	4-10 1/64	(1473)	8.42	(0.78)	E	1-11 1/64	(585)	4-10 1/64	(1473)	9.27	(0.86)
2872 T	1-8 57/64	(531)	5-6 1/64	(1677)	9.58	(0.89)	E	1-11 1/64	(585)	5-6 1/64	(1677)	10.55	(0.98)
2878 T	1-8 57/64	(531)	6-0 1/64	(1829)	10.45	(0.97)	E	1-11 1/64	(585)	6-0 1/64	(1829)	11.51	(1.07)
2884 T	1-8 57/64	(531)	6-6 1/64	(1981)	11.32	(1.05)	E	1-11 1/64	(585)	6-6 1/64	(1981)	12.47	(1.16)
2892 T	1-8 57/64	(531)	7-2 1/64	(2185)	12.48	(1.16)	E	1-11 1/64	(585)	7-2 1/64	(2185)	13.75	(1.28)
2896 T	1-8 57/64	(531)	7-6 1/64	(2286)	13.06	(1.21)	E	1-11 1/64	(585)	7-6 1/64	(2286)	14.39	(1.34)
3014	1-10 57/64	(581)	0-8 1/64	(203)	1.27	(0.12)		2-1 1/64	(635)	0-8 1/64	(203)	1.39	(0.13)
3016	1-10 57/64	(581)	0-10 1/64	(254)	1.59	(0.15)		2-1 1/64	(635)	0-10 1/64	(254)	1.74	(0.16)
3018	1-10 57/64	(581)	1-0 1/64	(305)	1.91	(0.18)		2-1 1/64	(635)	1-0 1/64	(305)	2.09	(0.19)
3020	1-10 57/64	(581)	1-2 1/64	(356)	2.23	(0.21)		2-1 1/64	(635)	1-2 1/64	(356)	2.43	(0.23)
3024	1-10 57/64	(581)	1-6 1/64	(457)	2.86	(0.27)		2-1 1/64	(635)	1-6 1/64	(457)	3.13	(0.29)
3028	1-10 57/64	(581)	1-10 1/64	(559)	3.50	(0.33)		2-1 1/64	(635)	1-10 1/64	(559)	3.82	(0.36)

NOTE: Refer to Product Performance Chapter for International Building Code. Net Clear Opening drawings are pictured with the conversion tables.



Egress and Vent Openings: Casement - Full and Narrow Frame

CN	Clear Opening Width		Clear Opening Height		Egress Opening			Opening Vent Width		Opening Vent Height		Vent Opening	
	ft - in	mm	ft - in	mm	ft <sup>2</sup>	m <sup>2</sup>	E	ft - in	mm	ft - in	mm	ft <sup>2</sup>	m <sup>2</sup>
3032	1-10 57/64	(581)	2-2 1/64	(661)	4.13	(0.38)		2-1 1/64	(635)	2-2 1/64	(661)	4.52	(0.42)
3036	1-10 57/64	(581)	2-6 1/64	(762)	4.77	(0.44)		2-1 1/64	(635)	2-6 1/64	(762)	5.21	(0.48)
3040	1-10 57/64	(581)	2-10 1/64	(864)	5.41	(0.50)		2-1 1/64	(635)	2-10 1/64	(864)	5.91	(0.55)
3044	1-10 57/64	(581)	3-2 1/64	(965)	6.04	(0.56)	E	2-1 1/64	(635)	3-2 1/64	(965)	6.60	(0.61)
3048	1-10 57/64	(581)	3-6 1/64	(1067)	6.68	(0.62)	E	2-1 1/64	(635)	3-6 1/64	(1067)	7.30	(0.68)
3054	1-10 57/64	(581)	4-0 1/64	(1219)	7.63	(0.71)	E	2-1 1/64	(635)	4-0 1/64	(1219)	8.34	(0.77)
3056	1-10 57/64	(581)	4-2 1/64	(1270)	7.95	(0.74)	E	2-1 1/64	(635)	4-2 1/64	(1270)	8.69	(0.81)
3060	1-10 57/64	(581)	4-6 1/64	(1372)	8.59	(0.80)	E	2-1 1/64	(635)	4-6 1/64	(1372)	9.38	(0.87)
3064	1-10 57/64	(581)	4-10 1/64	(1473)	9.22	(0.86)	E	2-1 1/64	(635)	4-10 1/64	(1473)	10.08	(0.94)
3072 T	1-10 57/64	(581)	5-6 1/64	(1677)	10.49	(0.97)	E	2-1 1/64	(635)	5-6 1/64	(1677)	11.47	(1.07)
3078 T	1-10 57/64	(581)	6-0 1/64	(1829)	11.45	(1.06)	E	2-1 1/64	(635)	6-0 1/64	(1829)	12.51	(1.16)
3084 T	1-10 57/64	(581)	6-6 1/64	(1981)	12.40	(1.15)	E	2-1 1/64	(635)	6-6 1/64	(1981)	13.55	(1.26)
3092 T	1-10 57/64	(581)	7-2 1/64	(2185)	13.67	(1.27)	E	2-1 1/64	(635)	7-2 1/64	(2185)	14.94	(1.39)
3096 T	1-10 57/64	(581)	7-6 1/64	(2286)	14.31	(1.33)	E	2-1 1/64	(635)	7-6 1/64	(2286)	15.64	(1.45)
3214	2-0 57/64	(632)	0-8 1/64	(203)	1.38	(0.13)		2-3 1/64	(686)	0-8 1/64	(203)	1.50	(0.14)
3216	2-0 57/64	(632)	0-10 1/64	(254)	1.73	(0.16)		2-3 1/64	(686)	0-10 1/64	(254)	1.88	(0.17)
3218	2-0 57/64	(632)	1-0 1/64	(305)	2.08	(0.19)		2-3 1/64	(686)	1-0 1/64	(305)	2.25	(0.21)
3220	2-0 57/64	(632)	1-2 1/64	(356)	2.42	(0.22)		2-3 1/64	(686)	1-2 1/64	(356)	2.63	(0.24)
3224	2-0 57/64	(632)	1-6 1/64	(457)	3.11	(0.29)		2-3 1/64	(686)	1-6 1/64	(457)	3.38	(0.31)
3228	2-0 57/64	(632)	1-10 1/64	(559)	3.80	(0.35)		2-3 1/64	(686)	1-10 1/64	(559)	4.13	(0.38)
3232	2-0 57/64	(632)	2-2 1/64	(661)	4.50	(0.42)		2-3 1/64	(686)	2-2 1/64	(661)	4.88	(0.45)
3236	2-0 57/64	(632)	2-6 1/64	(762)	5.19	(0.48)		2-3 1/64	(686)	2-6 1/64	(762)	5.63	(0.52)
3240	2-0 57/64	(632)	2-10 1/64	(864)	5.88	(0.55)	E	2-3 1/64	(686)	2-10 1/64	(864)	6.38	(0.59)
3244	2-0 57/64	(632)	3-2 1/64	(965)	6.57	(0.61)	E	2-3 1/64	(686)	3-2 1/64	(965)	7.13	(0.66)
3248	2-0 57/64	(632)	3-6 1/64	(1067)	7.26	(0.67)	E	2-3 1/64	(686)	3-6 1/64	(1067)	7.88	(0.73)
3254	2-0 57/64	(632)	4-0 1/64	(1219)	8.30	(0.77)	E	2-3 1/64	(686)	4-0 1/64	(1219)	9.01	(0.84)
3256	2-0 57/64	(632)	4-2 1/64	(1270)	8.64	(0.80)	E	2-3 1/64	(686)	4-2 1/64	(1270)	9.38	(0.87)
3260	2-0 57/64	(632)	4-6 1/64	(1372)	9.34	(0.87)	E	2-3 1/64	(686)	4-6 1/64	(1372)	10.13	(0.94)
3264	2-0 57/64	(632)	4-10 1/64	(1473)	10.03	(0.93)	E	2-3 1/64	(686)	4-10 1/64	(1473)	10.88	(1.01)
3272 T	2-0 57/64	(632)	5-6 1/64	(1677)	11.41	(1.06)	E	2-3 1/64	(686)	5-6 1/64	(1677)	12.38	(1.15)
3278 T	2-0 57/64	(632)	6-0 1/64	(1829)	12.45	(1.16)	E	2-3 1/64	(686)	6-0 1/64	(1829)	13.51	(1.26)
3284 T	2-0 57/64	(632)	6-6 1/64	(1981)	13.48	(1.25)	E	2-3 1/64	(686)	6-6 1/64	(1981)	14.64	(1.36)
3292 T	2-0 57/64	(632)	7-2 1/64	(2185)	14.87	(1.38)	E	2-3 1/64	(686)	7-2 1/64	(2185)	16.14	(1.50)
3296 T	2-0 57/64	(632)	7-6 1/64	(2286)	15.56	(1.45)	E	2-3 1/64	(686)	7-6 1/64	(2286)	16.89	(1.57)
3614	2-4 57/64	(734)	0-8 1/64	(203)	1.61	(0.15)		2-7 1/64	(788)	0-8 1/64	(203)	1.73	(0.16)
3616	2-4 57/64	(734)	0-10 1/64	(254)	2.01	(0.19)		2-7 1/64	(788)	0-10 1/64	(254)	2.16	(0.20)
3618	2-4 57/64	(734)	1-0 1/64	(305)	2.41	(0.22)		2-7 1/64	(788)	1-0 1/64	(305)	2.59	(0.24)
3620	2-4 57/64	(734)	1-2 1/64	(356)	2.81	(0.26)		2-7 1/64	(788)	1-2 1/64	(356)	3.02	(0.28)
3624	2-4 57/64	(734)	1-6 1/64	(457)	3.61	(0.34)		2-7 1/64	(788)	1-6 1/64	(457)	3.88	(0.36)
3628	2-4 57/64	(734)	1-10 1/64	(559)	4.42	(0.41)		2-7 1/64	(788)	1-10 1/64	(559)	4.74	(0.44)
3632	2-4 57/64	(734)	2-2 1/64	(661)	5.22	(0.48)		2-7 1/64	(788)	2-2 1/64	(661)	5.60	(0.52)
3636	2-4 57/64	(734)	2-6 1/64	(762)	6.02	(0.56)	E	2-7 1/64	(788)	2-6 1/64	(762)	6.46	(0.60)

NOTE: Refer to Product Performance Chapter for International Building Code. Net Clear Opening drawings are pictured with the conversion tables.

Egress and Vent Openings: Casement - Full and Narrow Frame

CN	Clear Opening Width		Clear Opening Height		Egress Opening			Opening Vent Width		Opening Vent Height		Vent Opening	
	ft - in	mm	ft - in	mm	ft <sup>2</sup>	m <sup>2</sup>	E	ft - in	mm	ft - in	mm	ft <sup>2</sup>	m <sup>2</sup>
3640	2-4 57/64	(734)	2-10 1/64	(864)	6.82	(0.63)	E	2-7 1/64	(788)	2-10 1/64	(864)	7.33	(0.68)
3644	2-4 57/64	(734)	3-2 1/64	(965)	7.63	(0.71)	E	2-7 1/64	(788)	3-2 1/64	(965)	8.19	(0.76)
3648	2-4 57/64	(734)	3-6 1/64	(1067)	8.43	(0.78)	E	2-7 1/64	(788)	3-6 1/64	(1067)	9.05	(0.84)
3654	2-4 57/64	(734)	4-0 1/64	(1219)	9.63	(0.89)	E	2-7 1/64	(788)	4-0 1/64	(1219)	10.34	(0.96)
3656	2-4 57/64	(734)	4-2 1/64	(1270)	10.03	(0.93)	E	2-7 1/64	(788)	4-2 1/64	(1270)	10.77	(1.00)
3660	2-4 57/64	(734)	4-6 1/64	(1372)	10.84	(1.01)	E	2-7 1/64	(788)	4-6 1/64	(1372)	11.63	(1.08)
3664	2-4 57/64	(734)	4-10 1/64	(1473)	11.64	(1.08)	E	2-7 1/64	(788)	4-10 1/64	(1473)	12.49	(1.16)
3672 T	2-4 57/64	(734)	5-6 1/64	(1677)	13.24	(1.23)	E	2-7 1/64	(788)	5-6 1/64	(1677)	14.22	(1.32)
3678 T	2-4 57/64	(734)	6-0 1/64	(1829)	14.45	(1.34)	E	2-7 1/64	(788)	6-0 1/64	(1829)	15.51	(1.44)
3684 T	2-4 57/64	(734)	6-6 1/64	(1981)	15.65	(1.45)	E	2-7 1/64	(788)	6-6 1/64	(1981)	16.80	(1.56)
3692 T	2-4 57/64	(734)	7-2 1/64	(2185)	17.26	(1.60)	E	2-7 1/64	(788)	7-2 1/64	(2185)	18.53	(1.72)
3696 T	2-4 57/64	(734)	7-6 1/64	(2286)	18.06	(1.68)	E	2-7 1/64	(788)	7-6 1/64	(2286)	19.39	(1.80)
4014	2-8 57/64	(835)	0-8 1/64	(203)	1.83	(0.17)		2-11 1/64	(889)	0-8 1/64	(203)	1.95	(0.18)
4016	2-8 57/64	(835)	0-10 1/64	(254)	2.29	(0.21)		2-11 1/64	(889)	0-10 1/64	(254)	2.43	(0.23)
4018	2-8 57/64	(835)	1-0 1/64	(305)	2.74	(0.25)		2-11 1/64	(889)	1-0 1/64	(305)	2.92	(0.27)
4020	2-8 57/64	(835)	1-2 1/64	(356)	3.20	(0.30)		2-11 1/64	(889)	1-2 1/64	(356)	3.41	(0.32)
4024	2-8 57/64	(835)	1-6 1/64	(457)	4.11	(0.38)		2-11 1/64	(889)	1-6 1/64	(457)	4.38	(0.41)
4028	2-8 57/64	(835)	1-10 1/64	(559)	5.03	(0.47)		2-11 1/64	(889)	1-10 1/64	(559)	5.35	(0.50)
4032	2-8 57/64	(835)	2-2 1/64	(661)	5.94	(0.55)	E	2-11 1/64	(889)	2-2 1/64	(661)	6.33	(0.59)
4036	2-8 57/64	(835)	2-6 1/64	(762)	6.85	(0.64)	E	2-11 1/64	(889)	2-6 1/64	(762)	7.30	(0.68)
4040	2-8 57/64	(835)	2-10 1/64	(864)	7.77	(0.72)	E	2-11 1/64	(889)	2-10 1/64	(864)	8.27	(0.77)
4044	2-8 57/64	(835)	3-2 1/64	(965)	8.68	(0.81)	E	2-11 1/64	(889)	3-2 1/64	(965)	9.24	(0.86)
4048	2-8 57/64	(835)	3-6 1/64	(1067)	9.60	(0.89)	E	2-11 1/64	(889)	3-6 1/64	(1067)	10.22	(0.95)
4054	2-8 57/64	(835)	4-0 1/64	(1219)	10.97	(1.02)	E	2-11 1/64	(889)	4-0 1/64	(1219)	11.67	(1.08)
4056	2-8 57/64	(835)	4-2 1/64	(1270)	11.42	(1.06)	E	2-11 1/64	(889)	4-2 1/64	(1270)	12.16	(1.13)
4060	2-8 57/64	(835)	4-6 1/64	(1372)	12.34	(1.15)	E	2-11 1/64	(889)	4-6 1/64	(1372)	13.13	(1.22)
4064	2-8 57/64	(835)	4-10 1/64	(1473)	13.25	(1.23)	E	2-11 1/64	(889)	4-10 1/64	(1473)	14.11	(1.31)
4072 T	2-8 57/64	(835)	5-6 1/64	(1677)	15.08	(1.40)	E	2-11 1/64	(889)	5-6 1/64	(1677)	16.05	(1.49)
4078 T	2-8 57/64	(835)	6-0 1/64	(1829)	16.45	(1.53)	E	2-11 1/64	(889)	6-0 1/64	(1829)	17.51	(1.63)
4084 T	2-8 57/64	(835)	6-6 1/64	(1981)	17.82	(1.66)	E	2-11 1/64	(889)	6-6 1/64	(1981)	18.97	(1.76)
4092 T	2-8 57/64	(835)	7-2 1/64	(2185)	19.65	(1.83)	E	2-11 1/64	(889)	7-2 1/64	(2185)	20.92	(1.94)

NOTE: Refer to Product Performance Chapter for International Building Code. Net Clear Opening drawings are pictured with the conversion tables.

**Daylight Measurements: Casement - Full and Narrow Frame**

Ultimate Casement Daylight Measurements		Width										
		CN	16		18		20		24		26	
		DLO	0-10 13/64 (259)	1-0 13/64 (310)	1-2 13/64 (361)	1-6 13/64 (462)	1-8 13/64 (513)					
CN	DLO Height	Square Feet (Square Meters)										
		Standard Bottom Rail										
14	0-7 21/64 (186)	0.52 (0.05)	0.62 (0.06)	0.72 (0.07)	0.93 (0.09)	1.03 (0.10)						
16	0-9 21/64 (237)	0.66 (0.06)	0.79 (0.07)	0.92 (0.09)	1.18 (0.11)	1.31 (0.12)						
18	0-11 21/64 (288)	0.80 (0.07)	0.96 (0.09)	1.12 (0.10)	1.43 (0.13)	1.59 (0.15)						
20	1-1 21/64 (339)	0.95 (0.09)	1.13 (0.11)	1.32 (0.12)	1.69 (0.16)	1.87 (0.17)						
24	1-5 21/64 (440)	1.23 (0.11)	1.47 (0.14)	1.71 (0.16)	2.19 (0.20)	2.43 (0.23)						
28	1-9 21/64 (542)	1.51 (0.14)	1.81 (0.17)	2.10 (0.20)	2.70 (0.25)	2.99 (0.28)						
32	2-1 21/64 (643)	1.80 (0.17)	2.15 (0.20)	2.50 (0.23)	3.20 (0.30)	3.56 (0.33)						
36	2-5 21/64 (745)	2.08 (0.19)	2.49 (0.23)	2.89 (0.27)	3.71 (0.34)	4.12 (0.38)						
40	2-9 21/64 (847)	2.36 (0.22)	2.83 (0.26)	3.29 (0.31)	4.21 (0.39)	4.68 (0.43)						
44	3-1 21/64 (948)	2.65 (0.25)	3.17 (0.29)	3.68 (0.34)	4.72 (0.44)	5.24 (0.49)						
48	3-5 21/64 (1050)	2.93 (0.27)	3.50 (0.33)	4.08 (0.38)	5.23 (0.49)	5.80 (0.54)						
54	3-11 21/64 (1202)	3.36 (0.31)	4.01 (0.37)	4.67 (0.43)	5.98 (0.56)	6.64 (0.62)						
56	4-1 21/64 (1253)	3.50 (0.32)	4.18 (0.39)	4.87 (0.45)	6.24 (0.58)	6.92 (0.64)						
60	4-5 21/64 (1355)	3.78 (0.35)	4.52 (0.42)	5.26 (0.49)	6.74 (0.63)	7.48 (0.70)						
64	4-9 21/64 (1456)	4.06 (0.38)	4.86 (0.45)	5.66 (0.53)	7.25 (0.67)	8.05 (0.75)						
72	5-5 21/64 (1659)	4.63 (0.43)	5.54 (0.51)	6.45 (0.60)	8.26 (0.77)	9.17 (0.85)						
78	5-11 21/64 (1812)	5.06 (0.47)	6.05 (0.56)	7.04 (0.65)	9.02 (0.84)	10.01 (0.93)						
84	6-5 21/64 (1964)	5.48 (0.51)	6.56 (0.61)	7.63 (0.71)	9.78 (0.91)	10.85 (1.01)						
92	7-1 21/64 (2167)	6.05 (0.56)	7.23 (0.67)	8.42 (0.78)	10.79 (1.00)	11.98 (1.11)						
96	7-5 21/64 (2269)	6.33 (0.59)	7.57 (0.70)	8.81 (0.82)	11.30 (1.05)	12.54 (1.16)						
		Tall Bottom Rail										
14	0-5 53/64 (148)	0.41 (0.04)	0.49 (0.05)	0.58 (0.05)	0.74 (0.07)	0.82 (0.08)						
16	0-7 53/64 (199)	0.56 (0.05)	0.66 (0.06)	0.77 (0.07)	0.99 (0.09)	1.10 (0.10)						
18	0-9 53/64 (250)	0.70 (0.06)	0.83 (0.08)	0.97 (0.09)	1.24 (0.12)	1.38 (0.13)						
20	0-11 53/64 (301)	0.84 (0.08)	1.00 (0.09)	1.17 (0.11)	1.50 (0.14)	1.66 (0.15)						
24	1-3 53/64 (402)	1.12 (0.10)	1.34 (0.12)	1.56 (0.15)	2.00 (0.19)	2.22 (0.21)						
28	1-7 53/64 (504)	1.41 (0.13)	1.68 (0.16)	1.96 (0.18)	2.51 (0.23)	2.78 (0.26)						
32	1-11 53/64 (605)	1.69 (0.16)	2.02 (0.19)	2.35 (0.22)	3.01 (0.28)	3.34 (0.31)						
36	2-3 53/64 (707)	1.97 (0.18)	2.36 (0.22)	2.75 (0.26)	3.52 (0.33)	3.91 (0.36)						
40	2-7 53/64 (809)	2.26 (0.21)	2.70 (0.25)	3.14 (0.29)	4.03 (0.37)	4.47 (0.42)						
44	2-11 53/64 (910)	2.54 (0.24)	3.04 (0.28)	3.54 (0.33)	4.53 (0.42)	5.03 (0.47)						
48	3-3 53/64 (1012)	2.82 (0.26)	3.38 (0.31)	3.93 (0.37)	5.04 (0.47)	5.59 (0.52)						
54	3-9 53/64 (1164)	3.25 (0.30)	3.89 (0.36)	4.52 (0.42)	5.80 (0.54)	6.43 (0.60)						
56	3-11 53/64 (1215)	3.39 (0.32)	4.06 (0.38)	4.72 (0.44)	6.05 (0.56)	6.71 (0.62)						
60	4-3 53/64 (1317)	3.67 (0.34)	4.39 (0.41)	5.11 (0.48)	6.55 (0.61)	7.27 (0.68)						
64	4-7 53/64 (1418)	3.96 (0.37)	4.73 (0.44)	5.51 (0.51)	7.06 (0.66)	7.84 (0.73)						
72	5-3 53/64 (1621)	4.53 (0.42)	5.41 (0.50)	6.30 (0.59)	8.07 (0.75)	8.96 (0.83)						
78	5-9 53/64 (1774)	4.95 (0.46)	5.92 (0.55)	6.89 (0.64)	8.83 (0.82)	9.80 (0.91)						
84	6-3 53/64 (1926)	5.38 (0.50)	6.43 (0.60)	7.48 (0.70)	9.59 (0.89)	10.64 (0.99)						
92	6-11 53/64 (2129)	5.94 (0.55)	7.11 (0.66)	8.27 (0.77)	10.60 (0.98)	11.76 (1.09)						
96	7-3 53/64 (2231)	6.23 (0.58)	7.45 (0.69)	8.67 (0.81)	11.11 (1.03)	12.33 (1.15)						

Daylight Measurements: Casement - Full and Narrow Frame

Ultimate Casement Daylight Measurements			Width										
			CN	28		30		32		36		40	
			DLO	1-10 13/64 (564)	2-0 13/64 (615)	2-2 13/64 (666)	2-6 13/64 (767)	2-10 13/64 (869)					
CN	DLO Height	Square Feet (Square Meters)											
<b>Standard Bottom Rail</b>													
14	0-7 21/64 (186)	1.13 (0.11)	1.23 (0.11)	1.33 (0.12)	1.54 (0.14)	1.74 (0.16)							
16	0-9 21/64 (237)	1.44 (0.13)	1.57 (0.15)	1.70 (0.16)	1.96 (0.18)	2.22 (0.21)							
18	0-11 21/64 (288)	1.75 (0.16)	1.91 (0.18)	2.06 (0.19)	2.38 (0.22)	2.69 (0.25)							
20	1-1 21/64 (339)	2.06 (0.19)	2.24 (0.21)	2.43 (0.23)	2.80 (0.26)	3.17 (0.29)							
24	1-5 21/64 (440)	2.67 (0.25)	2.91 (0.27)	3.15 (0.29)	3.64 (0.34)	4.12 (0.38)							
28	1-9 21/64 (542)	3.29 (0.31)	3.59 (0.33)	3.88 (0.36)	4.48 (0.42)	5.07 (0.47)							
32	2-1 21/64 (643)	3.91 (0.36)	4.26 (0.40)	4.61 (0.43)	5.31 (0.49)	6.02 (0.56)							
36	2-5 21/64 (745)	4.52 (0.42)	4.93 (0.46)	5.34 (0.50)	6.15 (0.57)	6.97 (0.65)							
40	2-9 21/64 (847)	5.14 (0.48)	5.60 (0.52)	6.07 (0.56)	6.99 (0.65)	7.92 (0.74)							
44	3-1 21/64 (948)	5.76 (0.53)	6.28 (0.58)	6.79 (0.63)	7.83 (0.73)	8.87 (0.82)							
48	3-5 21/64 (1050)	6.37 (0.59)	6.95 (0.65)	7.52 (0.70)	8.67 (0.81)	9.82 (0.91)							
54	3-11 21/64 (1202)	7.30 (0.68)	7.96 (0.74)	8.61 (0.80)	9.93 (0.92)	11.24 (1.04)							
56	4-1 21/64 (1253)	7.61 (0.71)	8.29 (0.77)	8.98 (0.83)	10.35 (0.96)	11.72 (1.09)							
60	4-5 21/64 (1355)	8.23 (0.76)	8.97 (0.83)	9.71 (0.90)	11.19 (1.04)	12.67 (1.18)							
64	4-9 21/64 (1456)	8.84 (0.82)	9.64 (0.90)	10.43 (0.97)	12.03 (1.12)	13.62 (1.27)							
72	5-5 21/64 (1659)	10.08 (0.94)	10.98 (1.02)	11.89 (1.10)	13.71 (1.27)	15.52 (1.44)							
78	5-11 21/64 (1812)	11.00 (1.02)	11.99 (1.11)	12.98 (1.21)	14.96 (1.39)	16.95 (1.57)							
84	6-5 21/64 (1964)	11.93 (1.11)	13.00 (1.21)	14.07 (1.31)	16.22 (1.51)	18.37 (1.71)							
92	7-1 21/64 (2167)	13.16 (1.22)	14.35 (1.33)	15.53 (1.44)	17.90 (1.66)	20.27 (1.88)							
96	7-5 21/64 (2269)	13.78 (1.28)	15.02 (1.40)	16.26 (1.51)	18.74 (1.74)	N/A							
<b>Tall Bottom Rail</b>													
14	0-5 53/64 (148)	0.90 (0.08)	0.98 (0.09)	1.06 (0.10)	1.22 (0.11)	1.39 (0.13)							
16	0-7 53/64 (199)	1.21 (0.11)	1.32 (0.12)	1.43 (0.13)	1.64 (0.15)	1.86 (0.17)							
18	0-9 53/64 (250)	1.52 (0.14)	1.65 (0.15)	1.79 (0.17)	2.06 (0.19)	2.34 (0.22)							
20	0-11 53/64 (301)	1.82 (0.17)	1.99 (0.18)	2.15 (0.20)	2.48 (0.23)	2.81 (0.26)							
24	1-3 53/64 (402)	2.44 (0.23)	2.66 (0.25)	2.88 (0.27)	3.32 (0.31)	3.76 (0.35)							
28	1-7 53/64 (504)	3.06 (0.28)	3.33 (0.31)	3.61 (0.34)	4.16 (0.39)	4.71 (0.44)							
32	1-11 53/64 (605)	3.68 (0.34)	4.01 (0.37)	4.34 (0.40)	5.00 (0.46)	5.66 (0.53)							
36	2-3 53/64 (707)	4.29 (0.40)	4.68 (0.43)	5.07 (0.47)	5.84 (0.54)	6.61 (0.61)							
40	2-7 53/64 (809)	4.91 (0.46)	5.35 (0.50)	5.79 (0.54)	6.68 (0.62)	7.56 (0.70)							
44	2-11 53/64 (910)	5.53 (0.51)	6.02 (0.56)	6.52 (0.61)	7.52 (0.70)	8.51 (0.79)							
48	3-3 53/64 (1012)	6.14 (0.57)	6.70 (0.62)	7.25 (0.67)	8.36 (0.78)	9.46 (0.88)							
54	3-9 53/64 (1164)	7.07 (0.66)	7.71 (0.72)	8.34 (0.77)	9.61 (0.89)	10.89 (1.01)							
56	3-11 53/64 (1215)	7.38 (0.69)	8.04 (0.75)	8.71 (0.81)	10.03 (0.93)	11.36 (1.06)							
60	4-3 53/64 (1317)	7.99 (0.74)	8.71 (0.81)	9.43 (0.88)	10.87 (1.01)	12.31 (1.14)							
64	4-7 53/64 (1418)	8.61 (0.80)	9.39 (0.87)	10.16 (0.94)	11.71 (1.09)	13.26 (1.23)							
72	5-3 53/64 (1621)	9.84 (0.91)	10.73 (1.00)	11.62 (1.08)	13.39 (1.24)	15.16 (1.41)							
78	5-9 53/64 (1774)	10.77 (1.00)	11.74 (1.09)	12.71 (1.18)	14.65 (1.36)	16.59 (1.54)							
84	6-3 53/64 (1926)	11.70 (1.09)	12.75 (1.18)	13.80 (1.28)	15.91 (1.48)	18.01 (1.67)							
92	6-11 53/64 (2129)	12.93 (1.20)	14.09 (1.31)	15.26 (1.42)	17.59 (1.63)	19.91 (1.85)							
96	7-3 53/64 (2231)	13.55 (1.26)	14.77 (1.37)	15.99 (1.49)	18.43 (1.71)	N/A							

Vent Openings: Awning - Full and Narrow Frame

CN	Opening Vent Width		Opening Vent Height		Vent Opening	
	ft - in	mm	ft - in	mm	ft <sup>2</sup>	m <sup>2</sup>
	1614	0-11 1/64	(280)	0-8 1/64	(203)	0.61
1616	0-11 1/64	(280)	0-10 1/64	(254)	0.77	(0.07)
1618	0-11 1/64	(280)	1-0 1/64	(305)	0.92	(0.09)
1620	0-11 1/64	(280)	1-2 1/64	(356)	1.07	(0.10)
1624	0-11 1/64	(280)	1-6 1/64	(457)	1.38	(0.13)
1628	0-11 1/64	(280)	1-10 1/64	(559)	1.68	(0.16)
1632	0-11 1/64	(280)	2-2 1/64	(661)	1.99	(0.18)
1636	0-11 1/64	(280)	2-6 1/64	(762)	2.30	(0.21)
1640	0-11 1/64	(280)	2-10 1/64	(864)	2.60	(0.24)
1644	0-11 1/64	(280)	3-2 1/64	(965)	2.91	(0.27)
1648	0-11 1/64	(280)	3-6 1/64	(1067)	3.21	(0.30)
1654	0-11 1/64	(280)	4-0 1/64	(1219)	3.67	(0.34)
1656	0-11 1/64	(280)	4-2 1/64	(1270)	3.83	(0.36)
1660	0-11 1/64	(280)	4-6 1/64	(1372)	4.13	(0.38)
1664	0-11 1/64	(280)	4-10 1/64	(1473)	4.44	(0.41)
1672 T	0-11 1/64	(280)	5-6 1/64	(1677)	5.05	(0.47)
1814	1-1 1/64	(331)	0-8 1/64	(203)	0.72	(0.07)
1816	1-1 1/64	(331)	0-10 1/64	(254)	0.90	(0.08)
1818	1-1 1/64	(331)	1-0 1/64	(305)	1.09	(0.10)
1820	1-1 1/64	(331)	1-2 1/64	(356)	1.27	(0.12)
1824	1-1 1/64	(331)	1-6 1/64	(457)	1.63	(0.15)
1828	1-1 1/64	(331)	1-10 1/64	(559)	1.99	(0.18)
1832	1-1 1/64	(331)	2-2 1/64	(661)	2.35	(0.22)
1836	1-1 1/64	(331)	2-6 1/64	(762)	2.71	(0.25)
1840	1-1 1/64	(331)	2-10 1/64	(864)	3.07	(0.29)
1844	1-1 1/64	(331)	3-2 1/64	(965)	3.44	(0.32)
1848	1-1 1/64	(331)	3-6 1/64	(1067)	3.80	(0.35)
1854	1-1 1/64	(331)	4-0 1/64	(1219)	4.34	(0.40)
1856	1-1 1/64	(331)	4-2 1/64	(1270)	4.52	(0.42)
1860	1-1 1/64	(331)	4-6 1/64	(1372)	4.88	(0.45)
1864	1-1 1/64	(331)	4-10 1/64	(1473)	5.24	(0.49)
1872 T	1-1 1/64	(331)	5-6 1/64	(1677)	5.97	(0.55)
2014	1-3 1/64	(381)	0-8 1/64	(203)	0.84	(0.08)
2016	1-3 1/64	(381)	0-10 1/64	(254)	1.04	(0.10)
2018	1-3 1/64	(381)	1-0 1/64	(305)	1.25	(0.12)
2020	1-3 1/64	(381)	1-2 1/64	(356)	1.46	(0.14)
2024	1-3 1/64	(381)	1-6 1/64	(457)	1.88	(0.17)
2028	1-3 1/64	(381)	1-10 1/64	(559)	2.30	(0.21)
2032	1-3 1/64	(381)	2-2 1/64	(661)	2.71	(0.25)
2036	1-3 1/64	(381)	2-6 1/64	(762)	3.13	(0.29)
2040	1-3 1/64	(381)	2-10 1/64	(864)	3.55	(0.33)
2044	1-3 1/64	(381)	3-2 1/64	(965)	3.96	(0.37)
2048	1-3 1/64	(381)	3-6 1/64	(1067)	4.38	(0.41)
2054	1-3 1/64	(381)	4-0 1/64	(1219)	5.01	(0.47)
2056	1-3 1/64	(381)	4-2 1/64	(1270)	5.22	(0.48)
2060	1-3 1/64	(381)	4-6 1/64	(1372)	5.63	(0.52)
2064	1-3 1/64	(381)	4-10 1/64	(1473)	6.05	(0.56)
2072 T	1-3 1/64	(381)	5-6 1/64	(1677)	6.88	(0.64)

CN	Opening Vent Width		Opening Vent Height		Vent Opening	
	ft - in	mm	ft - in	mm	ft <sup>2</sup>	m <sup>2</sup>
	2414	1-7 1/64	(483)	0-8 1/64	(203)	1.06
2416	1-7 1/64	(483)	0-10 1/64	(254)	1.32	(0.12)
2418	1-7 1/64	(483)	1-0 1/64	(305)	1.59	(0.15)
2420	1-7 1/64	(483)	1-2 1/64	(356)	1.85	(0.17)
2424	1-7 1/64	(483)	1-6 1/64	(457)	2.38	(0.22)
2428	1-7 1/64	(483)	1-10 1/64	(559)	2.91	(0.27)
2432	1-7 1/64	(483)	2-2 1/64	(661)	3.43	(0.32)
2436	1-7 1/64	(483)	2-6 1/64	(762)	3.96	(0.37)
2440	1-7 1/64	(483)	2-10 1/64	(864)	4.49	(0.42)
2444	1-7 1/64	(483)	3-2 1/64	(965)	5.02	(0.47)
2448	1-7 1/64	(483)	3-6 1/64	(1067)	5.55	(0.52)
2454	1-7 1/64	(483)	4-0 1/64	(1219)	6.34	(0.59)
2456	1-7 1/64	(483)	4-2 1/64	(1270)	6.60	(0.61)
2460	1-7 1/64	(483)	4-6 1/64	(1372)	7.13	(0.66)
2464	1-7 1/64	(483)	4-10 1/64	(1473)	7.66	(0.71)
2472 T	1-7 1/64	(483)	5-6 1/64	(1677)	8.72	(0.81)
2614	1-9 1/64	(534)	0-8 1/64	(203)	1.17	(0.11)
2616	1-9 1/64	(534)	0-10 1/64	(254)	1.46	(0.14)
2618	1-9 1/64	(534)	1-0 1/64	(305)	1.75	(0.16)
2620	1-9 1/64	(534)	1-2 1/64	(356)	2.04	(0.19)
2624	1-9 1/64	(534)	1-6 1/64	(457)	2.63	(0.24)
2628	1-9 1/64	(534)	1-10 1/64	(559)	3.21	(0.30)
2632	1-9 1/64	(534)	2-2 1/64	(661)	3.80	(0.35)
2636	1-9 1/64	(534)	2-6 1/64	(762)	4.38	(0.41)
2640	1-9 1/64	(534)	2-10 1/64	(864)	4.96	(0.46)
2644	1-9 1/64	(534)	3-2 1/64	(965)	5.55	(0.52)
2648	1-9 1/64	(534)	3-6 1/64	(1067)	6.13	(0.57)
2654	1-9 1/64	(534)	4-0 1/64	(1219)	7.01	(0.65)
2656	1-9 1/64	(534)	4-2 1/64	(1270)	7.30	(0.68)
2660	1-9 1/64	(534)	4-6 1/64	(1372)	7.88	(0.73)
2664	1-9 1/64	(534)	4-10 1/64	(1473)	8.47	(0.79)
2672 T	1-9 1/64	(534)	5-6 1/64	(1677)	9.63	(0.90)
2814	1-11 1/64	(585)	0-8 1/64	(203)	1.28	(0.12)
2816	1-11 1/64	(585)	0-10 1/64	(254)	1.60	(0.15)
2818	1-11 1/64	(585)	1-0 1/64	(305)	1.92	(0.18)
2820	1-11 1/64	(585)	1-2 1/64	(356)	2.24	(0.21)
2824	1-11 1/64	(585)	1-6 1/64	(457)	2.88	(0.27)
2828	1-11 1/64	(585)	1-10 1/64	(559)	3.52	(0.33)
2832	1-11 1/64	(585)	2-2 1/64	(661)	4.16	(0.39)
2836	1-11 1/64	(585)	2-6 1/64	(762)	4.80	(0.45)
2840	1-11 1/64	(585)	2-10 1/64	(864)	5.44	(0.51)
2844	1-11 1/64	(585)	3-2 1/64	(965)	6.08	(0.56)
2848	1-11 1/64	(585)	3-6 1/64	(1067)	6.71	(0.62)
2854	1-11 1/64	(585)	4-0 1/64	(1219)	7.67	(0.71)
2856	1-11 1/64	(585)	4-2 1/64	(1270)	7.99	(0.74)
2860	1-11 1/64	(585)	4-6 1/64	(1372)	8.63	(0.80)
2864	1-11 1/64	(585)	4-10 1/64	(1473)	9.27	(0.86)
2872 T	1-11 1/64	(585)	5-6 1/64	(1677)	10.55	(0.98)

Vent Openings: Awning - Full and Narrow Frame

CN	Opening Vent Width		Opening Vent Height		Vent Opening	
	ft - in	mm	ft - in	mm	ft <sup>2</sup>	m <sup>2</sup>
3014	2-1 1/64	(635)	0-8 1/64	(203)	1.39	(0.13)
3016	2-1 1/64	(635)	0-10 1/64	(254)	1.74	(0.16)
3018	2-1 1/64	(635)	1-0 1/64	(305)	2.09	(0.19)
3020	2-1 1/64	(635)	1-2 1/64	(356)	2.43	(0.23)
3024	2-1 1/64	(635)	1-6 1/64	(457)	3.13	(0.29)
3028	2-1 1/64	(635)	1-10 1/64	(559)	3.82	(0.36)
3032	2-1 1/64	(635)	2-2 1/64	(661)	4.52	(0.42)
3036	2-1 1/64	(635)	2-6 1/64	(762)	5.21	(0.48)
3040	2-1 1/64	(635)	2-10 1/64	(864)	5.91	(0.55)
3044	2-1 1/64	(635)	3-2 1/64	(965)	6.60	(0.61)
3048	2-1 1/64	(635)	3-6 1/64	(1067)	7.30	(0.68)
3054	2-1 1/64	(635)	4-0 1/64	(1219)	8.34	(0.77)
3056	2-1 1/64	(635)	4-2 1/64	(1270)	8.69	(0.81)
3060	2-1 1/64	(635)	4-6 1/64	(1372)	9.38	(0.87)
3064	2-1 1/64	(635)	4-10 1/64	(1473)	10.08	(0.94)
3072 T	2-1 1/64	(635)	5-6 1/64	(1677)	11.47	(1.07)
3214	2-3 1/64	(686)	0-8 1/64	(203)	1.50	(0.14)
3216	2-3 1/64	(686)	0-10 1/64	(254)	1.88	(0.17)
3218	2-3 1/64	(686)	1-0 1/64	(305)	2.25	(0.21)
3220	2-3 1/64	(686)	1-2 1/64	(356)	2.63	(0.24)
3224	2-3 1/64	(686)	1-6 1/64	(457)	3.38	(0.31)
3228	2-3 1/64	(686)	1-10 1/64	(559)	4.13	(0.38)
3232	2-3 1/64	(686)	2-2 1/64	(661)	4.88	(0.45)
3236	2-3 1/64	(686)	2-6 1/64	(762)	5.63	(0.52)
3240	2-3 1/64	(686)	2-10 1/64	(864)	6.38	(0.59)
3244	2-3 1/64	(686)	3-2 1/64	(965)	7.13	(0.66)
3248	2-3 1/64	(686)	3-6 1/64	(1067)	7.88	(0.73)
3254	2-3 1/64	(686)	4-0 1/64	(1219)	9.01	(0.84)
3256	2-3 1/64	(686)	4-2 1/64	(1270)	9.38	(0.87)
3260	2-3 1/64	(686)	4-6 1/64	(1372)	10.13	(0.94)
3264	2-3 1/64	(686)	4-10 1/64	(1473)	10.88	(1.01)
3272 T	2-3 1/64	(686)	5-6 1/64	(1677)	12.38	(1.15)
3614	2-7 1/64	(788)	0-8 1/64	(203)	1.73	(0.16)
3616	2-7 1/64	(788)	0-10 1/64	(254)	2.16	(0.20)
3618	2-7 1/64	(788)	1-0 1/64	(305)	2.59	(0.24)
3620	2-7 1/64	(788)	1-2 1/64	(356)	3.02	(0.28)
3624	2-7 1/64	(788)	1-6 1/64	(457)	3.88	(0.36)
3628	2-7 1/64	(788)	1-10 1/64	(559)	4.74	(0.44)
3632	2-7 1/64	(788)	2-2 1/64	(661)	5.60	(0.52)
3636	2-7 1/64	(788)	2-6 1/64	(762)	6.46	(0.60)
3640	2-7 1/64	(788)	2-10 1/64	(864)	7.33	(0.68)
3644	2-7 1/64	(788)	3-2 1/64	(965)	8.19	(0.76)
3648	2-7 1/64	(788)	3-6 1/64	(1067)	9.05	(0.84)
3654	2-7 1/64	(788)	4-0 1/64	(1219)	10.34	(0.96)
3656	2-7 1/64	(788)	4-2 1/64	(1270)	10.77	(1.00)
3660	2-7 1/64	(788)	4-6 1/64	(1372)	11.63	(1.08)
3664	2-7 1/64	(788)	4-10 1/64	(1473)	12.49	(1.16)
3672 T	2-7 1/64	(788)	5-6 1/64	(1677)	14.22	(1.32)

CN	Opening Vent Width		Opening Vent Height		Vent Opening	
	ft - in	mm	ft - in	mm	ft <sup>2</sup>	m <sup>2</sup>
4014	2-11 1/64	(889)	0-8 1/64	(203)	1.95	(0.18)
4016	2-11 1/64	(889)	0-10 1/64	(254)	2.43	(0.23)
4018	2-11 1/64	(889)	1-0 1/64	(305)	2.92	(0.27)
4020	2-11 1/64	(889)	1-2 1/64	(356)	3.41	(0.32)
4024	2-11 1/64	(889)	1-6 1/64	(457)	4.38	(0.41)
4028	2-11 1/64	(889)	1-10 1/64	(559)	5.35	(0.50)
4032	2-11 1/64	(889)	2-2 1/64	(661)	6.33	(0.59)
4036	2-11 1/64	(889)	2-6 1/64	(762)	7.30	(0.68)
4040	2-11 1/64	(889)	2-10 1/64	(864)	8.27	(0.77)
4044	2-11 1/64	(889)	3-2 1/64	(965)	9.24	(0.86)
4048	2-11 1/64	(889)	3-6 1/64	(1067)	10.22	(0.95)
4054	2-11 1/64	(889)	4-0 1/64	(1219)	11.67	(1.08)
4056	2-11 1/64	(889)	4-2 1/64	(1270)	12.16	(1.13)
4060	2-11 1/64	(889)	4-6 1/64	(1372)	13.13	(1.22)
4064	2-11 1/64	(889)	4-10 1/64	(1473)	14.11	(1.31)
4072 T	2-11 1/64	(889)	5-6 1/64	(1677)	16.05	(1.49)
4814	3-7 1/64	(1093)	0-8 1/64	(203)	2.39	(0.22)
4816	3-7 1/64	(1093)	0-10 1/64	(254)	2.99	(0.28)
4818	3-7 1/64	(1093)	1-0 1/64	(305)	3.59	(0.33)
4820	3-7 1/64	(1093)	1-2 1/64	(356)	4.19	(0.39)
4824	3-7 1/64	(1093)	1-6 1/64	(457)	5.38	(0.50)
4828	3-7 1/64	(1093)	1-10 1/64	(559)	6.58	(0.61)
4832	3-7 1/64	(1093)	2-2 1/64	(661)	7.77	(0.72)
4836	3-7 1/64	(1093)	2-6 1/64	(762)	8.96	(0.83)
4840	3-7 1/64	(1093)	2-10 1/64	(864)	10.16	(0.94)
4844	3-7 1/64	(1093)	3-2 1/64	(965)	11.35	(1.05)
4848	3-7 1/64	(1093)	3-6 1/64	(1067)	12.55	(1.17)
4854	3-7 1/64	(1093)	4-0 1/64	(1219)	14.34	(1.33)
4856	3-7 1/64	(1093)	4-2 1/64	(1270)	14.94	(1.39)
4860	3-7 1/64	(1093)	4-6 1/64	(1372)	16.13	(1.50)
4864	3-7 1/64	(1093)	4-10 1/64	(1473)	17.33	(1.61)
4872 T	3-7 1/64	(1093)	5-6 1/64	(1677)	19.72	(1.83)
5614	4-3 1/64	(1296)	0-8 1/64	(203)	2.84	(0.26)
5616	4-3 1/64	(1296)	0-10 1/64	(254)	3.55	(0.33)
5618	4-3 1/64	(1296)	1-0 1/64	(305)	4.26	(0.40)
5620	4-3 1/64	(1296)	1-2 1/64	(356)	4.96	(0.46)
5624	4-3 1/64	(1296)	1-6 1/64	(457)	6.38	(0.59)
5628	4-3 1/64	(1296)	1-10 1/64	(559)	7.80	(0.72)
5632	4-3 1/64	(1296)	2-2 1/64	(661)	9.22	(0.86)
5636	4-3 1/64	(1296)	2-6 1/64	(762)	10.63	(0.99)
5640	4-3 1/64	(1296)	2-10 1/64	(864)	12.05	(1.12)
5644	4-3 1/64	(1296)	3-2 1/64	(965)	13.47	(1.25)
5648	4-3 1/64	(1296)	3-6 1/64	(1067)	14.88	(1.38)
5654	4-3 1/64	(1296)	4-0 1/64	(1219)	17.01	(1.58)
5656	4-3 1/64	(1296)	4-2 1/64	(1270)	17.72	(1.65)
5660	4-3 1/64	(1296)	4-6 1/64	(1372)	19.13	(1.78)
5664	4-3 1/64	(1296)	4-10 1/64	(1473)	20.55	(1.91)
5672 T	4-3 1/64	(1296)	5-6 1/64	(1677)	23.39	(2.17)

Vent Openings: Awning - Full and Narrow Frame

CN	Opening Vent Width		Opening Vent Height		Vent Opening	
	ft - in	mm	ft - in	mm	ft <sup>2</sup>	m <sup>2</sup>
6014	4-7 1/64	(1397)	0-8 1/64	(203)	3.06	(0.28)
6016	4-7 1/64	(1397)	0-10 1/64	(254)	3.82	(0.36)
6018	4-7 1/64	(1397)	1-0 1/64	(305)	4.59	(0.43)
6020	4-7 1/64	(1397)	1-2 1/64	(356)	5.35	(0.50)
6024	4-7 1/64	(1397)	1-6 1/64	(457)	6.88	(0.64)
6028	4-7 1/64	(1397)	1-10 1/64	(559)	8.41	(0.78)
6032	4-7 1/64	(1397)	2-2 1/64	(661)	9.94	(0.92)
6036	4-7 1/64	(1397)	2-6 1/64	(762)	11.47	(1.07)
6040	4-7 1/64	(1397)	2-10 1/64	(864)	12.99	(1.21)
6044	4-7 1/64	(1397)	3-2 1/64	(965)	14.52	(1.35)
6048	4-7 1/64	(1397)	3-6 1/64	(1067)	16.05	(1.49)
6054	4-7 1/64	(1397)	4-0 1/64	(1219)	18.34	(1.70)
6056	4-7 1/64	(1397)	4-2 1/64	(1270)	19.11	(1.78)
6060	4-7 1/64	(1397)	4-6 1/64	(1372)	20.64	(1.92)
6064 T	4-7 1/64	(1397)	4-10 1/64	(1473)	22.16	(2.06)
6072 T	4-7 1/64	(1397)	5-6 1/64	(1677)	25.22	(2.34)
6414	4-11 1/64	(1499)	0-8 1/64	(203)	3.28	(0.31)
6416	4-11 1/64	(1499)	0-10 1/64	(254)	4.10	(0.38)
6418	4-11 1/64	(1499)	1-0 1/64	(305)	4.92	(0.46)
6420	4-11 1/64	(1499)	1-2 1/64	(356)	5.74	(0.53)
6424	4-11 1/64	(1499)	1-6 1/64	(457)	7.38	(0.69)
6428	4-11 1/64	(1499)	1-10 1/64	(559)	9.02	(0.84)
6432	4-11 1/64	(1499)	2-2 1/64	(661)	10.66	(0.99)
6436	4-11 1/64	(1499)	2-6 1/64	(762)	12.30	(1.14)
6440	4-11 1/64	(1499)	2-10 1/64	(864)	13.94	(1.29)
6444	4-11 1/64	(1499)	3-2 1/64	(965)	15.58	(1.45)
6448	4-11 1/64	(1499)	3-6 1/64	(1067)	17.22	(1.60)
6454	4-11 1/64	(1499)	4-0 1/64	(1219)	19.68	(1.83)
6456	4-11 1/64	(1499)	4-2 1/64	(1270)	20.50	(1.90)
6460 T	4-11 1/64	(1499)	4-6 1/64	(1372)	22.14	(2.06)
6464 T	4-11 1/64	(1499)	4-10 1/64	(1473)	23.77	(2.21)
6472 T	4-11 1/64	(1499)	5-6 1/64	(1677)	27.05	(2.51)
7214	5-7 1/64	(1702)	0-8 1/64	(203)	3.73	(0.35)
7216	5-7 1/64	(1702)	0-10 1/64	(254)	4.66	(0.43)
7218	5-7 1/64	(1702)	1-0 1/64	(305)	5.59	(0.52)
7220	5-7 1/64	(1702)	1-2 1/64	(356)	6.52	(0.61)
7224	5-7 1/64	(1702)	1-6 1/64	(457)	8.38	(0.78)
7228	5-7 1/64	(1702)	1-10 1/64	(559)	10.24	(0.95)
7232	5-7 1/64	(1702)	2-2 1/64	(661)	12.11	(1.12)
7236	5-7 1/64	(1702)	2-6 1/64	(762)	13.97	(1.30)
7240	5-7 1/64	(1702)	2-10 1/64	(864)	15.83	(1.47)
7244	5-7 1/64	(1702)	3-2 1/64	(965)	17.69	(1.64)
7248	5-7 1/64	(1702)	3-6 1/64	(1067)	19.55	(1.82)
7254 T	5-7 1/64	(1702)	4-0 1/64	(1219)	22.34	(2.08)
7256 T	5-7 1/64	(1702)	4-2 1/64	(1270)	23.27	(2.16)
7260 T	5-7 1/64	(1702)	4-6 1/64	(1372)	25.14	(2.34)
7264 T	5-7 1/64	(1702)	4-10 1/64	(1473)	27.00	(2.51)
7272 T	5-7 1/64	(1702)	5-6 1/64	(1677)	30.72	(2.85)

Daylight Measurement: Awning - Full and Narrow Frame

Ultimate Awning Daylight Measurements			Width										
			CN	16		18		20		24		26	
			DLO	0-10 13/64	(259)	1-0 13/64	(310)	1-2 13/64	(361)	1-6 13/64	(462)	1-8 13/64	(513)
CN	DLO Height		Square Feet (Square Meters)										
Standard Bottom Rail													
14	0-7 21/64	(186)	0.52	(0.05)	0.62	(0.06)	0.72	(0.07)	0.93	(0.09)	1.03	(0.10)	
16	0-9 21/64	(237)	0.66	(0.06)	0.79	(0.07)	0.92	(0.09)	1.18	(0.11)	1.31	(0.12)	
18	0-11 21/64	(288)	0.80	(0.07)	0.96	(0.09)	1.12	(0.10)	1.43	(0.13)	1.59	(0.15)	
20	1-1 21/64	(339)	0.95	(0.09)	1.13	(0.11)	1.32	(0.12)	1.69	(0.16)	1.87	(0.17)	
24	1-5 21/64	(440)	1.23	(0.11)	1.47	(0.14)	1.71	(0.16)	2.19	(0.20)	2.43	(0.23)	
28	1-9 21/64	(542)	1.51	(0.14)	1.81	(0.17)	2.10	(0.20)	2.70	(0.25)	2.99	(0.28)	
32	2-1 21/64	(643)	1.80	(0.17)	2.15	(0.20)	2.50	(0.23)	3.20	(0.30)	3.56	(0.33)	
36	2-5 21/64	(745)	2.08	(0.19)	2.49	(0.23)	2.89	(0.27)	3.71	(0.34)	4.12	(0.38)	
40	2-9 21/64	(847)	2.36	(0.22)	2.83	(0.26)	3.29	(0.31)	4.21	(0.39)	4.68	(0.43)	
44	3-1 21/64	(948)	2.65	(0.25)	3.17	(0.29)	3.68	(0.34)	4.72	(0.44)	5.24	(0.49)	
48	3-5 21/64	(1050)	2.93	(0.27)	3.50	(0.33)	4.08	(0.38)	5.23	(0.49)	5.80	(0.54)	
54	3-11 21/64	(1202)	3.36	(0.31)	4.01	(0.37)	4.67	(0.43)	5.98	(0.56)	6.64	(0.62)	
56	4-1 21/64	(1253)	3.50	(0.32)	4.18	(0.39)	4.87	(0.45)	6.24	(0.58)	6.92	(0.64)	
60	4-5 21/64	(1355)	3.78	(0.35)	4.52	(0.42)	5.26	(0.49)	6.74	(0.63)	7.48	(0.70)	
64	4-9 21/64	(1456)	4.06	(0.38)	4.86	(0.45)	5.66	(0.53)	7.25	(0.67)	8.05	(0.75)	
72	5-5 21/64	(1659)	4.63	(0.43)	5.54	(0.51)	6.45	(0.60)	8.26	(0.77)	9.17	(0.85)	
Tall Bottom Rail													
14	0-5 53/64	(148)	0.41	(0.04)	0.49	(0.05)	0.58	(0.05)	0.74	(0.07)	0.82	(0.08)	
16	0-7 53/64	(199)	0.56	(0.05)	0.66	(0.06)	0.77	(0.07)	0.99	(0.09)	1.10	(0.10)	
18	0-9 53/64	(250)	0.70	(0.06)	0.83	(0.08)	0.97	(0.09)	1.24	(0.12)	1.38	(0.13)	
20	0-11 53/64	(301)	0.84	(0.08)	1.00	(0.09)	1.17	(0.11)	1.50	(0.14)	1.66	(0.15)	
24	1-3 53/64	(402)	1.12	(0.10)	1.34	(0.12)	1.56	(0.15)	2.00	(0.19)	2.22	(0.21)	
28	1-7 53/64	(504)	1.41	(0.13)	1.68	(0.16)	1.96	(0.18)	2.51	(0.23)	2.78	(0.26)	
32	1-11 53/64	(605)	1.69	(0.16)	2.02	(0.19)	2.35	(0.22)	3.01	(0.28)	3.34	(0.31)	
36	2-3 53/64	(707)	1.97	(0.18)	2.36	(0.22)	2.75	(0.26)	3.52	(0.33)	3.91	(0.36)	
40	2-7 53/64	(809)	2.26	(0.21)	2.70	(0.25)	3.14	(0.29)	4.03	(0.37)	4.47	(0.42)	
44	2-11 53/64	(910)	2.54	(0.24)	3.04	(0.28)	3.54	(0.33)	4.53	(0.42)	5.03	(0.47)	
48	3-3 53/64	(1012)	2.82	(0.26)	3.38	(0.31)	3.93	(0.37)	5.04	(0.47)	5.59	(0.52)	
54	3-9 53/64	(1164)	3.25	(0.30)	3.89	(0.36)	4.52	(0.42)	5.80	(0.54)	6.43	(0.60)	
56	3-11 53/64	(1215)	3.39	(0.32)	4.06	(0.38)	4.72	(0.44)	6.05	(0.56)	6.71	(0.62)	
60	4-3 53/64	(1317)	3.67	(0.34)	4.39	(0.41)	5.11	(0.48)	6.55	(0.61)	7.27	(0.68)	
64	4-7 53/64	(1418)	3.96	(0.37)	4.73	(0.44)	5.51	(0.51)	7.06	(0.66)	7.84	(0.73)	
72	5-3 53/64	(1621)	4.53	(0.42)	5.41	(0.50)	6.30	(0.59)	8.07	(0.75)	8.96	(0.83)	



Daylight Measurement: Awning - Full and Narrow Frame

Ultimate Awning Daylight Measurements			Width										
			CN	28		30		32		36		40	
			DLO	1-10 13/64 (564)	2-0 13/64 (615)	2-2 13/64 (666)	2-6 13/64 (767)	2-10 13/64 (869)					
CN	DLO Height	Square Feet (Square Meters)											
<b>Standard Bottom Rail</b>													
14	0-7 21/64 (186)	1.13 (0.11)	1.23 (0.11)	1.33 (0.12)	1.54 (0.14)	1.74 (0.16)							
16	0-9 21/64 (237)	1.44 (0.13)	1.57 (0.15)	1.70 (0.16)	1.96 (0.18)	2.22 (0.21)							
18	0-11 21/64 (288)	1.75 (0.16)	1.91 (0.18)	2.06 (0.19)	2.38 (0.22)	2.69 (0.25)							
20	1-1 21/64 (339)	2.06 (0.19)	2.24 (0.21)	2.43 (0.23)	2.80 (0.26)	3.17 (0.29)							
24	1-5 21/64 (440)	2.67 (0.25)	2.91 (0.27)	3.15 (0.29)	3.64 (0.34)	4.12 (0.38)							
28	1-9 21/64 (542)	3.29 (0.31)	3.59 (0.33)	3.88 (0.36)	4.48 (0.42)	5.07 (0.47)							
32	2-1 21/64 (643)	3.91 (0.36)	4.26 (0.40)	4.61 (0.43)	5.31 (0.49)	6.02 (0.56)							
36	2-5 21/64 (745)	4.52 (0.42)	4.93 (0.46)	5.34 (0.50)	6.15 (0.57)	6.97 (0.65)							
40	2-9 21/64 (847)	5.14 (0.48)	5.60 (0.52)	6.07 (0.56)	6.99 (0.65)	7.92 (0.74)							
44	3-1 21/64 (948)	5.76 (0.53)	6.28 (0.58)	6.79 (0.63)	7.83 (0.73)	8.87 (0.82)							
48	3-5 21/64 (1050)	6.37 (0.59)	6.95 (0.65)	7.52 (0.70)	8.67 (0.81)	9.82 (0.91)							
54	3-11 21/64 (1202)	7.30 (0.68)	7.96 (0.74)	8.61 (0.80)	9.93 (0.92)	11.24 (1.04)							
56	4-1 21/64 (1253)	7.61 (0.71)	8.29 (0.77)	8.98 (0.83)	10.35 (0.96)	11.72 (1.09)							
60	4-5 21/64 (1355)	8.23 (0.76)	8.97 (0.83)	9.71 (0.90)	11.19 (1.04)	12.67 (1.18)							
64	4-9 21/64 (1456)	8.84 (0.82)	9.64 (0.90)	10.43 (0.97)	12.03 (1.12)	13.62 (1.27)							
72	5-5 21/64 (1659)	10.08 (0.94)	10.98 (1.02)	11.89 (1.10)	13.71 (1.27)	15.52 (1.44)							
<b>Tall Bottom Rail</b>													
14	0-5 53/64 (148)	0.90 (0.08)	0.98 (0.09)	1.06 (0.10)	1.22 (0.11)	1.39 (0.13)							
16	0-7 53/64 (199)	1.21 (0.11)	1.32 (0.12)	1.43 (0.13)	1.64 (0.15)	1.86 (0.17)							
18	0-9 53/64 (250)	1.52 (0.14)	1.65 (0.15)	1.79 (0.17)	2.06 (0.19)	2.34 (0.22)							
20	0-11 53/64 (301)	1.82 (0.17)	1.99 (0.18)	2.15 (0.20)	2.48 (0.23)	2.81 (0.26)							
24	1-3 53/64 (402)	2.44 (0.23)	2.66 (0.25)	2.88 (0.27)	3.32 (0.31)	3.76 (0.35)							
28	1-7 53/64 (504)	3.06 (0.28)	3.33 (0.31)	3.61 (0.34)	4.16 (0.39)	4.71 (0.44)							
32	1-11 53/64 (605)	3.68 (0.34)	4.01 (0.37)	4.34 (0.40)	5.00 (0.46)	5.66 (0.53)							
36	2-3 53/64 (707)	4.29 (0.40)	4.68 (0.43)	5.07 (0.47)	5.84 (0.54)	6.61 (0.61)							
40	2-7 53/64 (809)	4.91 (0.46)	5.35 (0.50)	5.79 (0.54)	6.68 (0.62)	7.56 (0.70)							
44	2-11 53/64 (910)	5.53 (0.51)	6.02 (0.56)	6.52 (0.61)	7.52 (0.70)	8.51 (0.79)							
48	3-3 53/64 (1012)	6.14 (0.57)	6.70 (0.62)	7.25 (0.67)	8.36 (0.78)	9.46 (0.88)							
54	3-9 53/64 (1164)	7.07 (0.66)	7.71 (0.72)	8.34 (0.77)	9.61 (0.89)	10.89 (1.01)							
56	3-11 53/64 (1215)	7.38 (0.69)	8.04 (0.75)	8.71 (0.81)	10.03 (0.93)	11.36 (1.06)							
60	4-3 53/64 (1317)	7.99 (0.74)	8.71 (0.81)	9.43 (0.88)	10.87 (1.01)	12.31 (1.14)							
64	4-7 53/64 (1418)	8.61 (0.80)	9.39 (0.87)	10.16 (0.94)	11.71 (1.09)	13.26 (1.23)							
72	5-3 53/64 (1621)	9.84 (0.91)	10.73 (1.00)	11.62 (1.08)	13.39 (1.24)	15.16 (1.41)							

Daylight Measurement: Awning - Full and Narrow Frame

Ultimate Awning Daylight Measurements		Width										
		CN	48		56		60		64		72	
		DLO	3-6 13/64 (1072)	4-2 13/64 (1275)	4-6 13/64 (1377)	4-10 13/64 (1478)	5-6 13/64 (1682)					
CN	DLO Height	Square Feet (Square Meters)										
		Standard Bottom Rail										
14	0-7 21/64 (186)	2.15 (0.20)	2.56 (0.24)	2.76 (0.26)	2.96 (0.28)	3.37 (0.31)						
16	0-9 21/64 (237)	2.74 (0.25)	3.25 (0.30)	3.51 (0.33)	3.77 (0.35)	4.29 (0.40)						
18	0-11 21/64 (288)	3.32 (0.31)	3.95 (0.37)	4.27 (0.40)	4.58 (0.43)	5.21 (0.48)						
20	1-1 21/64 (339)	3.91 (0.36)	4.65 (0.43)	5.02 (0.47)	5.39 (0.50)	6.13 (0.57)						
24	1-5 21/64 (440)	5.08 (0.47)	6.04 (0.56)	6.52 (0.61)	7.01 (0.65)	7.97 (0.74)						
28	1-9 21/64 (542)	6.25 (0.58)	7.44 (0.69)	8.03 (0.75)	8.62 (0.80)	9.81 (0.91)						
32	2-1 21/64 (643)	7.43 (0.69)	8.83 (0.82)	9.54 (0.89)	10.24 (0.95)	11.65 (1.08)						
36	2-5 21/64 (745)	8.60 (0.80)	10.23 (0.95)	11.04 (1.03)	11.86 (1.10)	13.49 (1.25)						
40	2-9 21/64 (847)	9.77 (0.91)	11.62 (1.08)	12.55 (1.17)	13.47 (1.25)	15.33 (1.42)						
44	3-1 21/64 (948)	10.94 (1.02)	13.02 (1.21)	14.05 (1.31)	15.09 (1.40)	17.16 (1.59)						
48	3-5 21/64 (1050)	12.12 (1.13)	14.41 (1.34)	15.56 (1.45)	16.71 (1.55)	19.0 (1.77)						
54	3-11 21/64 (1202)	13.87 (1.29)	16.50 (1.53)	17.82 (1.66)	19.13 (1.78)	21.76 (2.02)						
56	4-1 21/64 (1253)	14.46 (1.34)	17.20 (1.60)	18.57 (1.73)	19.94 (1.85)	22.68 (2.11)						
60	4-5 21/64 (1355)	15.63 (1.45)	18.60 (1.73)	20.08 (1.87)	21.56 (2.00)	24.52 (2.28)						
64	4-9 21/64 (1456)	16.80 (1.56)	19.99 (1.86)	21.58 (2.01)	23.18 (2.15)	26.36 (2.45)						
72	5-5 21/64 (1659)	19.15 (1.78)	22.78 (2.12)	24.59 (2.28)	26.41 (2.45)	30.04 (2.79)						
		Tall Bottom Rail										
14	0-5 53/64 (148)	1.71 (0.16)	2.03 (0.19)	2.20 (0.20)	2.36 (0.22)	2.68 (0.25)						
16	0-7 53/64 (199)	2.30 (0.21)	2.73 (0.25)	2.95 (0.27)	3.17 (0.29)	3.60 (0.33)						
18	0-9 53/64 (250)	2.88 (0.27)	3.43 (0.32)	3.70 (0.34)	3.97 (0.37)	4.52 (0.42)						
20	0-11 53/64 (301)	3.47 (0.32)	4.13 (0.38)	4.45 (0.41)	4.78 (0.44)	5.44 (0.51)						
24	1-3 53/64 (402)	4.64 (0.43)	5.52 (0.51)	5.96 (0.55)	6.40 (0.59)	7.28 (0.68)						
28	1-7 53/64 (504)	5.81 (0.54)	6.92 (0.64)	7.47 (0.69)	8.02 (0.74)	9.12 (0.85)						
32	1-11 53/64 (605)	6.99 (0.65)	8.31 (0.77)	8.97 (0.83)	9.63 (0.90)	10.96 (1.02)						
36	2-3 53/64 (707)	8.16 (0.76)	9.70 (0.90)	10.48 (0.97)	11.25 (1.05)	12.80 (1.19)						
40	2-7 53/64 (809)	9.33 (0.87)	11.10 (1.03)	11.98 (1.11)	12.87 (1.20)	14.64 (1.36)						
44	2-11 53/64 (910)	10.50 (0.98)	12.49 (1.16)	13.49 (1.25)	14.48 (1.35)	16.48 (1.53)						
48	3-3 53/64 (1012)	11.68 (1.08)	13.89 (1.29)	14.99 (1.39)	16.10 (1.50)	18.31 (1.70)						
54	3-9 53/64 (1164)	13.43 (1.25)	15.98 (1.48)	17.25 (1.60)	18.53 (1.72)	21.07 (1.96)						
56	3-11 53/64 (1215)	14.02 (1.30)	16.68 (1.55)	18.01 (1.67)	19.34 (1.80)	21.99 (2.04)						
60	4-3 53/64 (1317)	15.19 (1.41)	18.07 (1.68)	19.51 (1.81)	20.95 (1.95)	23.83 (2.21)						
64	4-7 53/64 (1418)	16.37 (1.52)	19.47 (1.81)	21.02 (1.95)	22.57 (2.10)	25.67 (2.38)						
72	5-3 53/64 (1621)	18.71 (1.74)	22.26 (2.07)	24.03 (2.23)	25.80 (2.40)	29.35 (2.73)						

Daylight Measurement: Picture - Full and Narrow Frame

Ultimate Casement Picture Daylight Measurements		Width										
		CN	40		48		56		60		64	
		DLO	2-10 13/64 (869)	3-6 13/64 (1072)	4-2 13/64 (1275)	4-6 13/64 (1377)	4-10 13/64 (1478)					
CN	DLO Height	Square Feet (Square Meters)										
		Standard Bottom Rail										
12	0-5 21/64 (135)	1.27 (0.12)	1.56 (0.15)	1.86 (0.17)	2.01 (0.19)	2.16 (0.20)						
14	0-7 21/64 (186)	1.74 (0.16)	2.15 (0.20)	2.56 (0.24)	2.76 (0.26)	2.96 (0.28)						
16	0-9 21/64 (237)	2.22 (0.21)	2.74 (0.25)	3.25 (0.30)	3.51 (0.33)	3.77 (0.35)						
18	0-11 21/64 (288)	2.69 (0.25)	3.32 (0.31)	3.95 (0.37)	4.27 (0.40)	4.58 (0.43)						
20	1-1 21/64 (339)	3.17 (0.29)	3.91 (0.36)	4.65 (0.43)	5.02 (0.47)	5.39 (0.50)						
24	1-5 21/64 (440)	4.12 (0.38)	5.08 (0.47)	6.04 (0.56)	6.52 (0.61)	7.01 (0.65)						
28	1-9 21/64 (542)	5.07 (0.47)	6.25 (0.58)	7.44 (0.69)	8.03 (0.75)	8.62 (0.80)						
32	2-1 21/64 (643)	6.02 (0.56)	7.43 (0.69)	8.83 (0.82)	9.54 (0.89)	10.24 (0.95)						
36	2-5 21/64 (745)	6.97 (0.65)	8.60 (0.80)	10.23 (0.95)	11.04 (1.03)	11.86 (1.10)						
40	2-9 21/64 (847)	7.92 (0.74)	9.77 (0.91)	11.62 (1.08)	12.55 (1.17)	13.47 (1.25)						
44	3-1 21/64 (948)	8.87 (0.82)	10.94 (1.02)	13.02 (1.21)	14.05 (1.31)	15.09 (1.40)						
48	3-5 21/64 (1050)	9.82 (0.91)	12.12 (1.13)	14.41 (1.34)	15.56 (1.45)	16.71 (1.55)						
54	3-11 21/64 (1202)	11.24 (1.04)	13.87 (1.29)	16.50 (1.53)	17.82 (1.66)	19.13 (1.78)						
56	4-1 21/64 (1253)	11.72 (1.09)	14.46 (1.34)	17.20 (1.60)	18.57 (1.73)	19.94 (1.85)						
60	4-5 21/64 (1355)	12.67 (1.18)	15.63 (1.45)	18.60 (1.73)	20.08 (1.87)	21.56 (2.00)						
64	4-9 21/64 (1456)	13.62 (1.27)	16.80 (1.56)	19.99 (1.86)	21.58 (2.01)	23.18 (2.15)						
72	5-5 21/64 (1659)	15.52 (1.44)	19.15 (1.78)	22.78 (2.12)	24.59 (2.28)	26.41 (2.45)						
78	5-11 21/64 (1812)	16.95 (1.57)	20.91 (1.94)	24.87 (2.31)	26.85 (2.49)	28.83 (2.68)						
84	6-5 21/64 (1964)	18.37 (1.71)	22.67 (2.11)	26.96 (2.50)	29.11 (2.70)	31.26 (2.90)						
92	7-1 21/64 (2167)	20.27 (1.88)	25.01 (2.32)	29.75 (2.76)	32.12 (2.98)	34.49 (3.20)						
96	7-5 21/64 (2269)	21.22 (1.97)	26.18 (2.43)	31.15 (2.89)	33.63 (3.12)	36.11 (3.35)						
		Tall Bottom Rail										
12	0-3 53/64 (97)	0.91 (0.08)	1.12 (0.10)	1.34 (0.12)	1.44 (0.13)	1.55 (0.14)						
14	0-5 53/64 (148)	1.39 (0.13)	1.71 (0.16)	2.03 (0.19)	2.20 (0.20)	2.36 (0.22)						
16	0-7 53/64 (199)	1.86 (0.17)	2.30 (0.21)	2.73 (0.25)	2.95 (0.27)	3.17 (0.29)						
18	0-9 53/64 (250)	2.34 (0.22)	2.88 (0.27)	3.43 (0.32)	3.70 (0.34)	3.97 (0.37)						
20	0-11 53/64 (301)	2.81 (0.26)	3.47 (0.32)	4.13 (0.38)	4.45 (0.41)	4.78 (0.44)						
24	1-3 53/64 (402)	3.76 (0.35)	4.64 (0.43)	5.52 (0.51)	5.96 (0.55)	6.40 (0.59)						
28	1-7 53/64 (504)	4.71 (0.44)	5.81 (0.54)	6.92 (0.64)	7.47 (0.69)	8.02 (0.74)						
32	1-11 53/64 (605)	5.66 (0.53)	6.99 (0.65)	8.31 (0.77)	8.97 (0.83)	9.63 (0.90)						
36	2-3 53/64 (707)	6.61 (0.61)	8.16 (0.76)	9.70 (0.90)	10.48 (0.97)	11.25 (1.05)						
40	2-7 53/64 (809)	7.56 (0.70)	9.33 (0.87)	11.10 (1.03)	11.98 (1.11)	12.87 (1.20)						
44	2-11 53/64 (910)	8.51 (0.79)	10.50 (0.98)	12.49 (1.16)	13.49 (1.25)	14.48 (1.35)						
48	3-3 53/64 (1012)	9.46 (0.88)	11.68 (1.08)	13.89 (1.29)	14.99 (1.39)	16.10 (1.50)						
54	3-9 53/64 (1164)	10.89 (1.01)	13.43 (1.25)	15.98 (1.48)	17.25 (1.60)	18.53 (1.72)						
56	3-11 53/64 (1215)	11.36 (1.06)	14.02 (1.30)	16.68 (1.55)	18.01 (1.67)	19.34 (1.80)						
60	4-3 53/64 (1317)	12.31 (1.14)	15.19 (1.41)	18.07 (1.68)	19.51 (1.81)	20.95 (1.95)						
64	4-7 53/64 (1418)	13.26 (1.23)	16.37 (1.52)	19.47 (1.81)	21.02 (1.95)	22.57 (2.10)						
72	5-3 53/64 (1621)	15.16 (1.41)	18.71 (1.74)	22.26 (2.07)	24.03 (2.23)	25.80 (2.40)						
78	5-9 53/64 (1774)	16.59 (1.54)	20.47 (1.90)	24.35 (2.26)	26.29 (2.44)	28.23 (2.62)						
84	6-3 53/64 (1926)	18.01 (1.67)	22.23 (2.07)	26.44 (2.46)	28.55 (2.65)	30.65 (2.85)						
92	6-11 53/64 (2129)	19.91 (1.85)	24.57 (2.28)	29.23 (2.72)	31.56 (2.93)	33.89 (3.15)						
96	7-3 53/64 (2231)	20.87 (1.94)	25.74 (2.39)	30.62 (2.85)	33.06 (3.07)	35.50 (3.30)						

Daylight Measurement: Picture - Full and Narrow Frame

Ultimate Casement Picture Daylight Measurements			Width								
			CN	72		80		88		96	
			DLO	5-6 13/64	(1682)	6-2 13/64	(1885)	6-10 13/64	(2088)	7-6 13/64	(2291)
CN	DLO Height		Square Feet (Square Meters)								
			Standard Bottom Rail								
12	0-5 21/64	(135)	2.45	(0.23)	2.75	(0.26)	3.04	(0.28)	3.34	(0.31)	
14	0-7 21/64	(186)	3.37	(0.31)	3.78	(0.35)	4.19	(0.39)	4.59	(0.43)	
16	0-9 21/64	(237)	4.29	(0.40)	4.81	(0.45)	5.33	(0.49)	5.85	(0.54)	
18	0-11 21/64	(288)	5.21	(0.48)	5.84	(0.54)	6.47	(0.60)	7.10	(0.66)	
20	1-1 21/64	(339)	6.13	(0.57)	6.87	(0.64)	7.61	(0.71)	8.35	(0.78)	
24	1-5 21/64	(440)	7.97	(0.74)	8.93	(0.83)	9.90	(0.92)	10.86	(1.01)	
28	1-9 21/64	(542)	9.81	(0.91)	10.99	(1.02)	12.18	(1.13)	13.36	(1.24)	
32	2-1 21/64	(643)	11.65	(1.08)	13.05	(1.21)	14.46	(1.34)	15.87	(1.47)	
36	2-5 21/64	(745)	13.49	(1.25)	15.12	(1.40)	16.75	(1.56)	18.38	(1.71)	
40	2-9 21/64	(847)	15.33	(1.42)	17.18	(1.60)	19.03	(1.77)	20.88	(1.94)	
44	3-1 21/64	(948)	17.16	(1.59)	19.24	(1.79)	21.31	(1.98)	23.39	(2.17)	
48	3-5 21/64	(1050)	19.00	(1.77)	21.30	(1.98)	23.60	(2.19)	25.89	(2.41)	
54	3-11 21/64	(1202)	21.76	(2.02)	24.39	(2.27)	27.02	(2.51)	29.65	(2.75)	
56	4-1 21/64	(1253)	22.68	(2.11)	25.42	(2.36)	28.16	(2.62)	30.90	(2.87)	
60	4-5 21/64	(1355)	24.52	(2.28)	27.48	(2.55)	30.45	(2.83)	33.41	(3.10)	
64	4-9 21/64	(1456)	26.36	(2.45)	29.55	(2.74)	32.73	(3.04)	35.92	(3.34)	
72	5-5 21/64	(1659)	30.04	(2.79)	33.67	(3.13)	37.30	(3.47)	40.93	(3.80)	
78	5-11 21/64	(1812)	32.80	(3.05)	36.76	(3.42)	40.72	(3.78)	44.69	(4.15)	
84	6-5 21/64	(1964)	35.56	(3.30)	39.85	(3.70)	44.15	(4.10)	48.44	(4.50)	
92	7-1 21/64	(2167)	39.23	(3.64)	43.97	(4.09)	48.72	(4.53)	N/A		
96	7-5 21/64	(2269)	41.07	(3.82)	46.04	(4.28)	51.00	(4.74)	N/A		
			Tall Bottom Rail								
12	0-3 53/64	(97)	1.76	(0.16)	1.98	(0.18)	2.19	(0.20)	2.40	(0.22)	
14	0-5 53/64	(148)	2.68	(0.25)	3.01	(0.28)	3.33	(0.31)	3.65	(0.34)	
16	0-7 53/64	(199)	3.60	(0.33)	4.04	(0.38)	4.47	(0.42)	4.91	(0.46)	
18	0-9 53/64	(250)	4.52	(0.42)	5.07	(0.47)	5.61	(0.52)	6.16	(0.57)	
20	0-11 53/64	(301)	5.44	(0.51)	6.10	(0.57)	6.76	(0.63)	7.41	(0.69)	
24	1-3 53/64	(402)	7.28	(0.68)	8.16	(0.76)	9.04	(0.84)	9.92	(0.92)	
28	1-7 53/64	(504)	9.12	(0.85)	10.22	(0.95)	11.32	(1.05)	12.42	(1.15)	
32	1-11 53/64	(605)	10.96	(1.02)	12.28	(1.14)	13.61	(1.26)	14.93	(1.39)	
36	2-3 53/64	(707)	12.80	(1.19)	14.34	(1.33)	15.89	(1.48)	17.44	(1.62)	
40	2-7 53/64	(809)	14.64	(1.36)	16.40	(1.52)	18.17	(1.69)	19.94	(1.85)	
44	2-11 53/64	(910)	16.48	(1.53)	18.47	(1.72)	20.46	(1.90)	22.45	(2.09)	
48	3-3 53/64	(1012)	18.31	(1.70)	20.53	(1.91)	22.74	(2.11)	24.95	(2.32)	
54	3-9 53/64	(1164)	21.07	(1.96)	23.62	(2.19)	26.17	(2.43)	28.71	(2.67)	
56	3-11 53/64	(1215)	21.99	(2.04)	24.65	(2.29)	27.31	(2.54)	29.96	(2.78)	
60	4-3 53/64	(1317)	23.83	(2.21)	26.71	(2.48)	29.59	(2.75)	32.47	(3.02)	
64	4-7 53/64	(1418)	25.67	(2.38)	28.77	(2.67)	31.87	(2.96)	34.98	(3.25)	
72	5-3 53/64	(1621)	29.35	(2.73)	32.90	(3.06)	36.44	(3.39)	39.99	(3.71)	
78	5-9 53/64	(1774)	32.11	(2.98)	35.99	(3.34)	39.87	(3.70)	43.75	(4.06)	
84	6-3 53/64	(1926)	34.87	(3.24)	39.08	(3.63)	43.29	(4.02)	47.51	(4.41)	
92	6-11 53/64	(2129)	38.54	(3.58)	43.20	(4.01)	47.86	(4.45)	N/A		
96	7-3 53/64	(2231)	40.38	(3.75)	45.26	(4.21)	50.14	(4.66)	N/A		

**Minimum and Maximum Guidelines: Full Frame**

Full Frame Minimum and Maximum Frame Sizes									
Unit Type		Min Width		Min Height		Max Width		Max Height	
		in	mm	in	mm	in	mm	in	mm
UCA	Insulating Glass 3/4" (19) or 1" (25)	14	(356)	11 1/2	(292)	36	(914)	102	(2591)
						40	(1016)	96 1/8	(2442)
						44	(1118)	91 1/8	(2315)
CUCA	Lock Status Sensor	14	(356)	17 1/8	(435)	36	(914)	102	(2591)
						40	(1016)	96 1/8	(2442)
UAWN	Insulating Glass 3/4" (19) or 1" (25)	16	(406)	11 1/2	(292)	72	(1829)	72	(1829)
						48	(1219)	96	(2438)
						64	(1626)	81 1/8	(2061)
						81 1/8	(2061)	64	(1626)
						96	(2438)	48 1/8	(1222)
UCAP	Insulating Glass 3/4" (19)	12	(305)	12 7/16	(316)	64	(1626)	104	(2642)
						104	(2642)	64	(1626)
UCAP	Insulating Glass 1" (25) - Tempered	12	(305)	12 7/16	(316)	96 1/8	(2442)	88	(2235)
						88	(2235)	96 1/8	(2442)
						120	(3048)	80	(2032)
						80	(2032)	120	(3048)

**Minimum and Maximum Guidelines: Narrow Frame**

Narrow Frame Minimum and Maximum Frame Sizes									
Unit Type		Min Width		Min Height		Max Width		Max Height	
		in	mm	in	mm	in	mm	in	mm
UCANF	Insulating Glass 3/4" (19)	14	(356)	11 1/2	(292)	36	(914)	102	(2591)
						40	(1016)	96 1/8	(2442)
						44	(1118)	91 1/8	(2315)
CURCA	Lock Status Sensor	14	(356)	17 1/8	(435)	36	(914)	102	(2591)
						40	(1016)	96 1/8	(2442)
UAWNPF	Insulating Glass 3/4" (19)	16	(406)	11 1/2	(292)	48	(1219)	96	(2438)
						64	(1626)	81 1/8	(2061)
						81 1/8	(2061)	64	(1626)
						96	(2438)	48 1/8	(1222)
UAWNPF	Lock Status Sensor	16	(406)	17 1/8	(435)	72	(1829)	81 1/8	(2061)
UCANFP*	Insulating Glass 3/4" (19)	12	(305)	11 1/8	(283)	64	(1626)	104	(2642)
						104	(2642)	64	(1626)

Minimum and Maximum Guidelines: IZ3 and IZ4

IZ3 Minimum and Maximum Frame Size									
Unit Type		Min Width		Min Height		Max Width		Max Height	
		in	mm	in	mm	in	mm	in	mm
UCA	3/4" (19) Insulating Glass	16	(406)	13 1/8	(333)	36	(914)	83 1/8	(2111)
	1" (25) Insulating Glass							96 1/8	(2442)
UAWN	Insulating Glass 3/4" (19)	16	(406)	13 1/8	(333)	48	(1219)	53 1/8	(1349)
UCAP	3/4" (19) Insulating Glass	16	(406)	11 1/8	(283)	48	(1219)	53 1/8	(1349)
						53 1/8	(1349)	48	(1219)
UCAP	3/4" (19) Insulating Glass	16	(406)	11 1/8	(283)	36	(914)	83 1/8	(2111)
						83 1/8	(2111)	36	(914)
UCAP	1" (25) Insulating Glass	16	(406)	11 1/8	(283)	72	(1829)	76 1/2	(1943)
						76 1/2	(1943)	72	(1829)
UCAP	1" (25) Insulating Glass	16	(406)	11 1/8	(283)	60	(1524)	104 11/16	(2659)
						104 11/16	(2659)	60	(1524)

IZ4 Minimum and Maximum Frame Size									
Unit Type		Min Width		Min Height		Max Width		Max Height	
		in	mm	in	mm	in	mm	in	mm
UCA	Insulating Glass 3/4" (19)	16	(406)	13 1/8	(333)	36	(914)	85 45/64	(2177)
UAWN	Insulating Glass 3/4" (19)	16	(406)	13 1/8	(333)	48	(1219)	47 1/8	(1197)
UCAP	3/4" (19) Insulating Glass	16	(406)	11 1/8	(283)	48	(1219)	47 1/8	(1197)
						47 1/8	(1197)	48	(1219)
UCAP	3/4" (19) Insulating Glass	16	(406)	11 1/8	(283)	36	(914)	85 45/64	(2177)
						85 45/64	(2177)	36	(914)
UCAP	1" (25) Insulating Glass	16	(406)	11 1/8	(283)	72	(1829)	71 1/8	(1807)
						71 1/8	(1807)	72	(1829)
UCAP	1" (25) Insulating Glass	16	(406)	11 1/8	(283)	60	(1524)	108	(2743)
						108	(2743)	60	(1524)

**Certified Sizes and Ratings: Full and Narrow Frame**

Product	Air Tested to psf	Water Tested to psf	Structural Tested to psf	Certification Rating	Max Overall Width		Max Overall Height	
					in	mm	in	mm
Ultimate Awning 3/4" (Full and Narrow Frame)	1.57	7.5	60	LC-PG40	48	(1219)	96	(2438)
Ultimate Awning 3/4" (Full and Narrow Frame)	1.57	7.5	75	LC-PG50	56	(1422)	47 1/8	(1197)
Ultimate Awning 3/4" (Full and Narrow Frame)	1.57	7.5	45	LC-PG30	64	(1625)	81 1/8	(2060)
Ultimate Awning 3/4" (Full and Narrow Frame)	1.57	7.5	75	LC-PG50	72	(1829)	63 1/8	(1604)
Ultimate Awning 3/4" (Full and Narrow Frame)	1.57	7.5	45	LC-PG30	81 1/8	(2060)	64	(1625)
Ultimate Awning 3/4" (Full and Narrow Frame)	1.57	7.5	45	LC-PG30	96	(2438)	48 1/8	(1222)
Ultimate Awning 3/4" (Full Frame)	1.57	12	75	CW-PG50	48	(1219)	72	(1829)
Ultimate Awning 3/4" (Full Frame)	1.57	7.5	+75/-60	LC-PG40	72	(1829)	72	(1829)
Ultimate Awning 3/4" (Full Frame)	1.57	7.5	60	LC-PG40	72	(1829)	72	(1829)
Ultimate Casement 3/4" (Full and Narrow Frame)	1.57	7.5	75	CW-PG50	36	(914)	96 1/8	(2442)
Ultimate Casement 3/4" (Full and Narrow Frame)	1.57	7.5	60	CW-PG40	36	(914)	102	(2591)
Ultimate Casement 3/4" (Full and Narrow Frame)	1.57	7.5	75	LC-PG50	40	(1016)	92	(2337)
Ultimate Casement 3/4" (Full and Narrow Frame)	1.57	7.5	60	CW-PG40	40	(1016)	96 1/8	(2442)
Ultimate Casement 3/4" (Full and Narrow Frame)	1.57	7.5	75	LC-PG50	44	(1117)	71 1/8	(1807)
Ultimate Casement 3/4" (Full and Narrow Frame)	1.57	7.5	60	LC-PG40	44	(1117)	91 1/8	(2314)
Ultimate Casement Picture 3/4" (Full and Narrow Frame)	1.57	10.5	75	AW-PG50	60	(1524)	99	(2515)
Ultimate Casement Picture 3/4" (Full and Narrow Frame)	1.57	7.5	75	CW-PG50	64	(1626)	104	(2642)
Ultimate Casement Picture 3/4" (Full and Narrow Frame)	1.57	10.5	75	AW-PG50	99	(2515)	60	(1534)
Ultimate Casement Picture 3/4" (Full and Narrow Frame)	1.57	7.5	75	CW-PG50	104	(2642)	64	(1626)
Ultimate Casement Picture 3/4" (Full Frame)	1.57	7.5	75	CW-PG50	72	(1829)	71 1/8	(1807)
Ultimate Casement Picture 1" (Full Frame)	1.57	7.5	75	CW-PG50	88	(2235)	96 1/8	(2442)
Ultimate Casement Picture 1" (Full Frame)	1.57	7.5	75	CW-PG50	96 1/8	(2442)	88	(2235)
Ultimate Casement Picture 1" (Full Frame)	1.57	7.5	60	CW-PG40	120	(3048)	80	(2032)



**Certified Sizes and Ratings: IZ3 and IZ4**

Product	Air Tested to psf	Water Tested to psf	Structural Tested to psf	Certification Rating	Max Overall Width		Max Overall Height	
					in	mm	in	mm
Clad Ultimate Awning 3/4" StormPlus IZ3 (Full Frame)	1.57	9.75	97.5	CW-PG65	48	(1219)	53 1/8	(1349)
Clad Ultimate Casement 3/4" StormPlus IZ3 (Full Frame)	1.57	9.75	97.5	CW-PG65	36	(914)	83 1/8	(2111)
Clad Ultimate Casement 1" StormPlus IZ3 (Full Frame)	1.57	9.75	97.5	CW-PG65	36	(914)	96 1/8	(2441)
Clad Ultimate Casement Picture 3/4" StormPlus IZ3 (Full Frame)	1.57	9.75	97.5	CW-PG65	48	(1219)	53 1/8	(1349)
Clad Ultimate Casement Picture 3/4" StormPlus IZ3 (Full Frame)	1.57	9.75	97.5	CW-PG65	53 1/8	(1349)	48	(1219)
Clad Ultimate Casement Picture 1" StormPlus IZ3 (Full Frame)	1.57	9.75	97.5	CW-PG65	60	(1524)	104 45/64	(2660)
Clad Ultimate Casement Picture 1" StormPlus IZ3 (Full Frame)	1.57	9.75	97.5	CW-PG65	104 45/64	(1845)	60	(1959)
Clad Ultimate Casement Picture 1" StormPlus IZ3 (Full Frame)	1.57	9.75	97.5	CW-PG65	72 5/8	(1959)	77 1/8	(1845)
Clad Ultimate Casement Picture 1" StormPlus IZ3 (Full Frame)	1.57	9.75	97.5	CW-PG65	77 1/8	(2660)	72 5/8	(1524)
Product	Air Tested to psf	Water Tested to psf	Structural Tested to psf	Certification Rating	Max Overall Width		Max Overall Height	
					in	mm	in	mm
Clad Ultimate Awning 3/4" StormPlus IZ4 (Full Frame)	1.57	10.65	+105/-127.5	+70/-85	48	(1219)	47 1/8	(1197)
Clad Ultimate Casement 3/4" StormPlus IZ4 (Full Frame)	1.57	10.65	+105/-127.5	+70/-85	36	(914)	85 45/64	(2177)
Clad Ultimate Casement Picture 3/4" StormPlus IZ4 (Full Frame)	1.57	10.65	+105/-127.5	+70/-85	36	(914)	85 45/64	(2177)
Clad Ultimate Casement Picture 3/4" StormPlus IZ4 (Full Frame)	1.57	10.65	+105/-127.5	+70/-85	85 45/64	(2177)	36	(914)
Clad Ultimate Casement Picture 1" StormPlus IZ4 (Full Frame)	1.57	10.65	+105/-112.5	+70/-75	60	(1524)	104 45/64	(2660)
Clad Ultimate Casement Picture 1" StormPlus IZ4 (Full Frame)	1.57	10.65	+105/-112.5	+70/-75	72	(1829)	71 1/8	(1807)
Clad Ultimate Casement Picture 1" StormPlus IZ4 (Full Frame)	1.57	10.65	+105/-112.5	+70/-75	104 45/64	(2660)	60	(1524)

**IZ3 and IZ4 modifications made to Ultimate Casements**

IZ3 and IZ4 are Product designed to structurally withstand an 8' 2X4 at 50 ft. per second (34mph)

- Sash are glazed with insulating glass, consisting of inboard lite of laminated glass. The exterior glass is standard annealed glass with optional tempered glass available. Although size of the unit may require exterior piece of glass to be tempered. Sash can not be re-glazed.
- Additional snubbers, keepers and locks applied.
- Structural Installation Brackets or jamb screws are required to install units
- IZ4 operator unit have tie bar hold down applied at each locking point.

**Measurement Conversions: Casement and Awning - Full and Narrow Frame**

Unit Measurements		Width		Height	
From	To				
<b>Inside Opening for Replacement Units</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
OM of Frame (Existing sill <8°)	Inside Opening	+ 3/8	(10)	+ 1/4	(06)
OM of Frame (Existing sill ≥8° - <14°)	Inside Opening	+ 3/8	(10)	+ 1/16	(02)
OM of Frame (Existing sill ≥14°)	Inside Opening	+ 3/8	(10)	+ 7/16	(11)
<b>Rough Opening</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
OM of Frame	Rough Opening	+ 1	(25)	+ 1/2	(13)
Masonry Opening w/BMC	Rough Opening	-2 1/8	(54)	-1 11/16	(43)
Masonry Opening w/Flat Casing	Rough Opening	-5 1/2	(140)	-3 3/8	(86)
Masonry Opening w/BMC (all sides)	Rough Opening	-2 1/8	(54)	-2 3/8	(60)
Masonry Opening w/Flat Casing (all sides)	Rough Opening	-5 1/2	(140)	-5 3/4	(146)
<b>Sash</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
OM of Frame	OM of Sash	-1 11/16	(43)	-1 11/16	(43)
Daylight Opening (Std Btm Rail)	OM of Sash	+ 4 7/64	(104)	+ 4 7/64	(104)
Daylight Opening (Tall Btm Rail)	OM of Sash	+ 4 7/64	(104)	+ 5 39/64	(142)
<b>Glass</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
OM of Frame	Glass	-4 23/32	(120)	-4 23/32	(120)
Daylight Opening	Glass	+ 1 3/32	(28)	+ 1 3/32	(28)
Daylight Opening (Std Btm Rail)	Frame Size	+ 5 13/16	(148)	+ 5 13/16	(148)
Daylight Opening (Tall Btm Rail)	Frame Size	+ 5 13/16	(148)	+ 7 5/16	(186)
<b>Aluminum Screen</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
OM of Frame	OM of Screen	-4 21/32	(118)	-4 29/32	(125)
Daylight Opening (Std Btm Rail)	OM of Screen	+ 1 9/64	(29)	+ 7/8	(22)
Daylight Opening (Tall Btm Rail)	OM of Screen	+ 1 9/64	(29)	+ 2 3/8	(60)
<b>Extruded Aluminum Screen</b>		<b>in</b>	<b>mm</b>	<b>in</b>	<b>mm</b>
OM of Frame	OM of Screen	-4 11/16	(119)	-4 15/16	(126)
Daylight Opening (Std Btm Rail)	OM of Screen	+ 1 7/64	(28)	+ 27/32	(22)
Daylight Opening (Tall Btm Rail)	OM of Screen	+ 1 7/64	(28)	+ 2 11/32	(60)

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**Measurement Conversions: Casement and Awning - Full and Narrow Frame****Egress Formulas with Standard Screen****Clear Opening Width:**

Frame OSM 20" (508) and greater

Clear Opening Width = Frame OSM Width - 7 1/8" (181)

Frame OSM Width less than 20" (508)

Clear Opening Width = Frame OSM Width - 9 9/16" (243)

Clear Opening Height = Frame OSM Height - 5 1/8" (130)

Clear Opening Area (ft. <sup>2</sup>) = (Clear Opening Width x Clear Opening Height) / 144

**Vent Opening with Standard Screen**

Vent Opening Width = Frame OSM Width - 4 31/32" (126)

Vent Opening Height = Frame OSM Height - 5 1/8" (130)

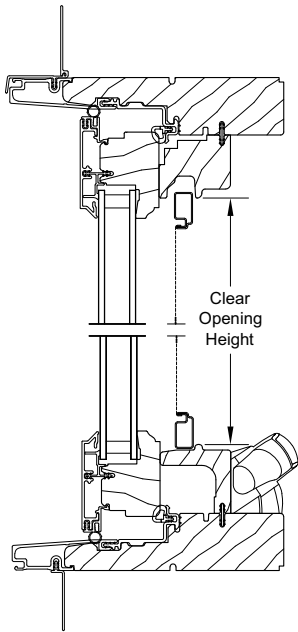
**Awning Sash Travel:**

If call number is 24 or smaller, sash travel is approximately 4 3/4" (121)

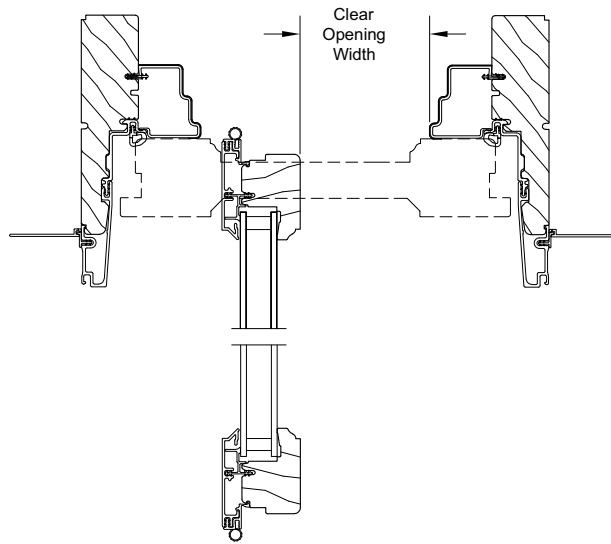
If call number is 24.001 - 32.000, sash travel is approximately 8" (203)

If call number is greater than 32, sash travel is approximately 11 1/2" (292)

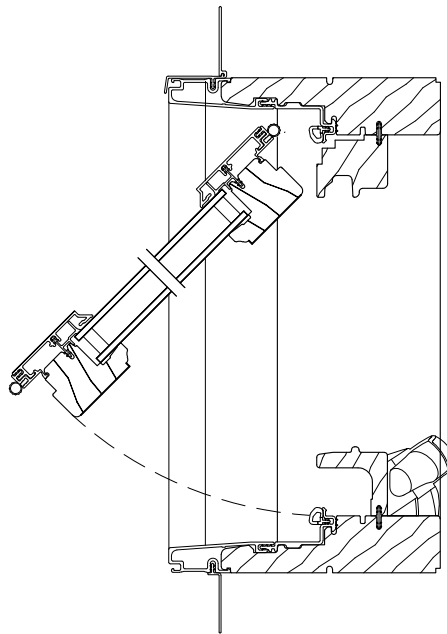
**Egress and Vent Opening Measurements for Full Frame Casement and Awning**



Head Jamb and Sill

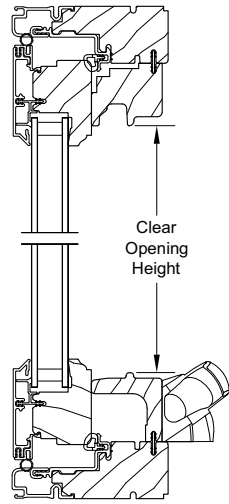


Jambs

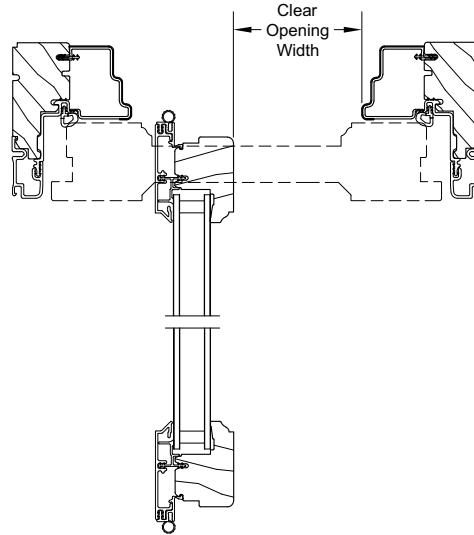


Vent Opening

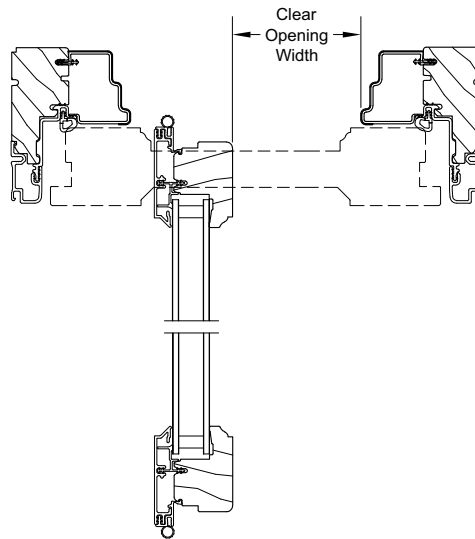
**Egress and Vent Opening Measurements for Narrow Frame Casement and Awning**



Head Jamb and Sill



Jambs

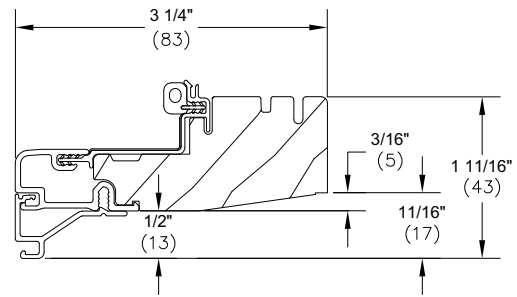


Jambs

**Field Measurement for Narrow Frame Units**

Operator. Awning, Stationary, Picture Conversion from Field Measurement to Frame OSM		
Width		
Condition	Formula	
If blind stop width is 1/2" (13) or less	Frame OM Width - inside opening width - 0.375 (10)	
Height		
Condition	Type of Sill Bevel	Formula
If old sill angle is less than 8°	Flat-bottom sill	Frame OM Height = inside opening height - 0.250 (6)
If old sill angle is greater than 8° and less than 14°	8-degree bottom sill	Frame OM Height = inside opening height - 0.0563 (1) (frame IM height has a .250 clearance)
If old is angle is 14° or greater	14-degree bottom sill	Frame OM Height = inside height + .431 (11) (frame IM Height has a .250 clearance)

Interior Frame Size to Frame Size (exterior)	
Frame Bevel	Conversions
0°	0
8°	+3/16" (5)
14°	+11/16" (17)



Standard Unit Measurements: Casement

Standard Ultimate Casement Unit Measurements												
Width												
CN	Masonry Opening		Rough Opening		Frame Size		Sash Size		Screen Size		Daylight Opening	
	ft - in	mm	ft - in	mm	ft - in	mm	ft-in	mm	ft-in	mm	ft - in	mm
16	1-4 1/2	(419)	1-5	(432)	1-4	(406)	1-2 5/16	(363)	0-11 11/32	(288)	0-10 13/64	(259)
18	1-6 1/2	(470)	1-7	(483)	1-6	(457)	1-4 5/16	(414)	1-1 11/32	(339)	1-0 13/64	(310)
20	1-8 1/2	(521)	1-9	(533)	1-8	(508)	1-6 5/16	(465)	1-3 11/32	(390)	1-2 13/64	(361)
24	2-0 1/2	(622)	2-1	(635)	2-0	(610)	1-10 5/16	(567)	1-7 11/32	(491)	1-6 13/64	(462)
26	2-2 1/2	(673)	2-3	(686)	2-2	(660)	2-0 5/16	(617)	1-9 11/32	(542)	1-8 13/64	(513)
28	2-4 1/2	(724)	2-5	(737)	2-4	(711)	2-2 5/16	(668)	1-11 11/32	(593)	1-10 13/64	(564)
30	2-6 1/2	(775)	2-7	(787)	2-6	(762)	2-4 5/16	(719)	2-1 11/32	(644)	2-0 13/64	(615)
32	2-8 1/2	(826)	2-9	(838)	2-8	(813)	2-6 5/16	(770)	2-3 11/32	(695)	2-2 13/64	(666)
36	3-0 1/2	(927)	3-1	(940)	3-0	(914)	2-10 5/16	(871)	2-7 11/32	(796)	2-6 13/64	(767)
40	3-4 1/2	(1029)	3-5	(1041)	3-4	(1016)	3-2 5/16	(973)	2-11 11/32	(898)	2-10 13/64	(869)

Standard Ultimate Casement Unit Measurements														
Height														
CN	Masonry Opening		Rough Opening		Frame Size		Sash Size		Screen Size		Daylight Opening (Std Bottom Rail)		Daylight Opening (Tall Bottom Rail)	
	ft - in	mm	ft - in	mm	ft - in	mm	ft-in	mm	ft-in	mm	ft - in	mm	ft - in	mm
14	1-1 3/8	(340)	1-1 5/8	(346)	1-1 1/8	(333)	0-11 7/16	(290)	0-8 7/32	(209)	0-7 21/64	(186)	0-5 53/64	(148)
16	1-3 3/8	(391)	1-3 5/8	(397)	1-3 1/8	(384)	1-1 7/16	(341)	0-10 7/32	(259)	0-9 21/64	(237)	0-7 53/64	(199)
18	1-5 3/8	(441)	1-5 5/8	(448)	1-5 1/8	(435)	1-3 7/16	(392)	1-0 7/32	(310)	0-11 21/64	(288)	0-9 53/64	(250)
20	1-7 3/8	(492)	1-7 5/8	(498)	1-7 1/8	(486)	1-5 7/16	(443)	1-2 7/32	(361)	1-1 21/64	(339)	0-11 53/64	(301)
24	1-11 3/8	(594)	1-11 5/8	(600)	1-11 1/8	(587)	1-9 7/16	(544)	1-6 7/32	(463)	1-5 21/64	(440)	1-3 53/64	(402)
28	2-3 3/8	(695)	2-3 5/8	(702)	2-3 1/8	(689)	2-1 7/16	(646)	1-10 7/32	(564)	1-9 21/64	(542)	1-7 53/64	(504)
32	2-7 3/8	(797)	2-7 5/8	(803)	2-7 1/8	(791)	2-5 7/16	(748)	2-2 7/32	(666)	2-1 21/64	(643)	1-11 53/64	(605)
36	2-11 3/8	(899)	2-11 5/8	(905)	2-11 1/8	(892)	2-9 7/16	(849)	2-6 7/32	(767)	2-5 21/64	(745)	2-3 53/64	(707)
40	3-3 3/8	(1000)	3-3 5/8	(1006)	3-3 1/8	(994)	3-1 7/16	(951)	2-10 7/32	(869)	2-9 21/64	(847)	2-7 53/64	(809)
44	3-7 3/8	(1102)	3-7 5/8	(1108)	3-7 1/8	(1095)	3-5 7/16	(1052)	3-2 7/32	(971)	3-1 21/64	(948)	2-11 53/64	(910)
48	3-11 3/8	(1203)	3-11 5/8	(1210)	3-11 1/8	(1197)	3-9 7/16	(1154)	3-6 7/32	(1072)	3-5 21/64	(1050)	3-3 53/64	(1012)
54	4-5 3/8	(1356)	4-5 5/8	(1362)	4-5 1/8	(1349)	4-3 7/16	(1306)	4-0 7/32	(1225)	3-11 21/64	(1202)	3-9 53/64	(1164)
56	4-7 3/8	(1407)	4-7 5/8	(1413)	4-7 1/8	(1400)	4-5 7/16	(1357)	4-2 7/32	(1275)	4-1 21/64	(1253)	3-11 53/64	(1215)
60	4-11 3/8	(1508)	4-11 5/8	(1514)	4-11 1/8	(1502)	4-9 7/16	(1459)	4-6 7/32	(1377)	4-5 21/64	(1355)	4-3 53/64	(1317)
64	5-3 3/8	(1610)	5-3 5/8	(1616)	5-3 1/8	(1603)	5-1 7/16	(1560)	4-10 7/32	(1479)	4-9 21/64	(1456)	4-7 53/64	(1418)
72	5-11 3/8	(1813)	5-11 5/8	(1819)	5-11 1/8	(1807)	5-9 7/16	(1764)	5-6 7/32	(1682)	5-5 21/64	(1659)	5-3 53/64	(1621)
78	6-5 3/8	(1965)	6-5 5/8	(1972)	6-5 1/8	(1959)	6-3 7/16	(1916)	6-0 7/32	(1834)	5-11 21/64	(1812)	5-9 53/64	(1774)
84	6-11 3/8	(2118)	6-11 5/8	(2124)	6-11 1/8	(2111)	6-9 7/16	(2068)	6-6 7/32	(1987)	6-5 21/64	(1964)	6-3 53/64	(1926)
92	7-7 3/8	(2321)	7-7 5/8	(2327)	7-7 1/8	(2315)	7-5 7/16	(2272)	7-2 7/32	(2190)	7-1 21/64	(2167)	6-11 53/64	(2129)
96	7-11 3/8	(2423)	7-11 5/8	(2429)	7-11 1/8	(2416)	7-9 7/16	(2373)	7-6 7/32	(2291)	7-5 21/64	(2269)	7-3 53/64	(2231)

NOTE: A CN4096 is not a standard size.

Standard Unit Measurements: Awning

Standard Awning Unit Measurements												
Width												
CN	Masonry Opening		Rough Opening		Frame Size		Sash Size		Screen Size		Daylight Opening	
	ft - in	mm	ft - in	mm	ft - in	mm	ft-in	mm	ft-in	mm	ft - in	mm
16	1-4 1/2	(419)	1-5	(432)	1-4	(406)	1-2 5/16	(363)	0-11 11/32	(288)	0-10 13/64	(259)
18	1-6 1/2	(470)	1-7	(483)	1-6	(457)	1-4 5/16	(414)	1-1 11/32	(339)	1-0 13/64	(310)
20	1-8 1/2	(521)	1-9	(533)	1-8	(508)	1-6 5/16	(465)	1-3 11/32	(390)	1-2 13/64	(361)
24	2-0 1/2	(622)	2-1	(635)	2-0	(610)	1-10 5/16	(567)	1-7 11/32	(491)	1-6 13/64	(462)
26	2-2 1/2	(673)	2-3	(686)	2-2	(660)	2-0 5/16	(617)	1-9 11/32	(542)	1-8 13/64	(513)
28	2-4 1/2	(724)	2-5	(737)	2-4	(711)	2-2 5/16	(668)	1-11 11/32	(593)	1-10 13/64	(564)
30	2-6 1/2	(775)	2-7	(787)	2-6	(762)	2-4 5/16	(719)	2-1 11/32	(644)	2-0 13/64	(615)
32	2-8 1/2	(826)	2-9	(838)	2-8	(813)	2-6 5/16	(770)	2-3 11/32	(695)	2-2 13/64	(666)
36	3-0 1/2	(927)	3-1	(940)	3-0	(914)	2-10 5/16	(871)	2-7 11/32	(796)	2-6 13/64	(767)
40	3-4 1/2	(1029)	3-5	(1041)	3-4	(1016)	3-2 5/16	(973)	2-11 11/32	(898)	2-10 13/64	(869)
48	4-0 1/2	(1232)	4-1	(1245)	4-0	(1219)	3-10 5/16	(1176)	3-7 11/32	(1101)	3-6 13/64	(1072)
56	4-8 1/2	(1435)	4-9	(1448)	4-8	(1422)	4-6 5/16	(1379)	4-3 11/32	(1304)	4-2 13/64	(1275)
60	5-0 1/2	(1537)	5-1	(1549)	5-0	(1524)	4-10 5/16	(1481)	4-7 11/32	(1406)	4-6 13/64	(1377)
64	5-4 1/2	(1638)	5-5	(1651)	5-4	(1626)	5-2 5/16	(1583)	4-11 11/32	(1507)	4-10 13/64	(1478)
72	6-0 1/2	(1842)	6-1	(1854)	6-0	(1829)	5-10 5/16	(1786)	5-7 11/32	(1711)	5-6 13/64	(1682)

Standard Awning Unit Measurements														
Height														
CN	Masonry Opening		Rough Opening		Frame Size		Sash Size		Screen Size		Daylight Opening (Std Btm Rail)		Daylight Opening (Tall Btm Rail)	
	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm	ft - in	mm
14	1-1 3/8	(340)	1-1 5/8	(346)	1-1 1/8	(333)	0-11 7/16	(290)	0-8 7/32	(209)	0-7 21/64	(186)	0-5 53/64	(148)
16	1-3 3/8	(391)	1-3 5/8	(397)	1-3 1/8	(384)	1-1 7/16	(341)	0-10 7/32	(259)	0-9 21/64	(237)	0-7 53/64	(199)
18	1-5 3/8	(441)	1-5 5/8	(448)	1-5 1/8	(435)	1-3 7/16	(392)	1-0 7/32	(310)	0-11 21/64	(288)	0-9 53/64	(250)
20	1-7 3/8	(492)	1-7 5/8	(498)	1-7 1/8	(486)	1-5 7/16	(443)	1-2 7/32	(361)	1-1 21/64	(339)	0-11 53/64	(301)
24	1-11 3/8	(594)	1-11 5/8	(600)	1-11 1/8	(587)	1-9 7/16	(544)	1-6 7/32	(463)	1-5 21/64	(440)	1-3 53/64	(402)
28	2-3 3/8	(695)	2-3 5/8	(702)	2-3 1/8	(689)	2-1 7/16	(646)	1-10 7/32	(564)	1-9 21/64	(542)	1-7 53/64	(504)
32	2-7 3/8	(797)	2-7 5/8	(803)	2-7 1/8	(791)	2-5 7/16	(748)	2-2 7/32	(666)	2-1 21/64	(643)	1-11 53/64	(605)
36	2-11 3/8	(899)	2-11 5/8	(905)	2-11 1/8	(892)	2-9 7/16	(849)	2-6 7/32	(767)	2-5 21/64	(745)	2-3 53/64	(707)
40	3-3 3/8	(1000)	3-3 5/8	(1006)	3-3 1/8	(994)	3-1 7/16	(951)	2-10 7/32	(869)	2-9 21/64	(847)	2-7 53/64	(809)
44	3-7 3/8	(1102)	3-7 5/8	(1108)	3-7 1/8	(1095)	3-5 7/16	(1052)	3-2 7/32	(971)	3-1 21/64	(948)	2-11 53/64	(910)
48	3-11 3/8	(1203)	3-11 5/8	(1210)	3-11 1/8	(1197)	3-9 7/16	(1154)	3-6 7/32	(1072)	3-5 21/64	(1050)	3-3 53/64	(1012)
54	4-5 3/8	(1356)	4-5 5/8	(1362)	4-5 1/8	(1349)	4-3 7/16	(1306)	4-0 7/32	(1225)	3-11 21/64	(1202)	3-9 53/64	(1164)
56	4-7 3/8	(1407)	4-7 5/8	(1413)	4-7 1/8	(1400)	4-5 7/16	(1357)	4-2 7/32	(1275)	4-1 21/64	(1253)	3-11 53/64	(1215)
60	4-11 3/8	(1508)	4-11 5/8	(1514)	4-11 1/8	(1502)	4-9 7/16	(1459)	4-6 7/32	(1377)	4-5 21/64	(1355)	4-3 53/64	(1317)
64	5-3 3/8	(1610)	5-3 5/8	(1616)	5-3 1/8	(1603)	5-1 7/16	(1560)	4-10 7/32	(1479)	4-9 21/64	(1456)	4-7 53/64	(1418)
72	5-11 3/8	(1813)	5-11 5/8	(1819)	5-11 1/8	(1807)	5-9 7/16	(1764)	5-6 7/32	(1682)	5-5 21/64	(1659)	5-3 53/64	(1621)



**Standard Unit Measurements: 3/4" Casement Picture**

Standard 3/4" Casement Picture Unit Measurements										
Width										
CN	Masonry Opening		Rough Opening		Frame Size		Sash Size		Daylight Opening	
	ft - in	mm	ft - in	mm	ft - in	mm	ft-in	mm	ft - in	mm
40	3-4 1/2	(1029)	3-5	(1041)	3-4	(1016)	3-2 5/16	(973)	2-10 13/64	(869)
48	4-0 1/2	(1232)	4-1	(1245)	4-0	(1219)	3-10 5/16	(1176)	3-6 13/64	(1072)
56	4-8 1/2	(1435)	4-9	(1448)	4-8	(1422)	4-6 5/16	(1379)	4-2 13/64	(1275)
60	5-0 1/2	(1537)	5-1	(1549)	5-0	(1524)	4-10 5/16	(1481)	4-6 13/64	(1377)
64	5-4 1/2	(1638)	5-5	(1651)	5-4	(1626)	5-2 5/16	(1583)	4-10 13/64	(1478)
72	6-0 1/2	(1842)	6-1	(1854)	6-0	(1829)	5-10 5/16	(1786)	5-6 13/64	(1682)
80	6-8 1/2	(2045)	6-9	(2057)	6-8	(2032)	6-6 5/16	(1989)	6-2 13/64	(1885)
88	7-4 1/2	(2248)	7-5	(2261)	7-4	(2235)	7-2 5/16	(2192)	6-10 13/64	(2088)
96	8-0 1/2	(2451)	8-1	(2464)	8-0	(2438)	7-10 5/16	(2395)	7-6 13/64	(2291)

Standard 3/4" Casement Picture Unit Measurements												
Height												
CN	Masonry Opening		Rough Opening		Frame Size		Sash Size		Daylight Opening (Std Btm Rail)		Daylight Opening (Tall Btm Rail)	
	ft - in	mm	ft - in	mm	ft - in	mm	ft-in	mm	ft - in	mm	ft - in	mm
12	0-11 3/8	(289)	0-11 5/8	(295)	0-11 1/8	(283)	0-9 7/16	(240)	0-5 21/64	(135)	0-3 53/64	(97)
14	1-1 3/8	(340)	1-1 5/8	(346)	1-1 1/8	(333)	0-11 7/16	(290)	0-7 21/64	(186)	0-5 53/64	(148)
16	1-3 3/8	(391)	1-3 5/8	(397)	1-3 1/8	(384)	1-1 7/16	(341)	0-9 21/64	(237)	0-7 53/64	(199)
18	1-5 3/8	(441)	1-5 5/8	(448)	1-5 1/8	(435)	1-3 7/16	(392)	0-11 21/64	(288)	0-9 53/64	(250)
20	1-7 3/8	(492)	1-7 5/8	(498)	1-7 1/8	(486)	1-5 7/16	(443)	1-1 21/64	(339)	0-11 53/64	(301)
24	1-11 3/8	(594)	1-11 5/8	(600)	1-11 1/8	(587)	1-9 7/16	(544)	1-5 21/64	(440)	1-3 53/64	(402)
28	2-3 3/8	(695)	2-3 5/8	(702)	2-3 1/8	(689)	2-1 7/16	(646)	1-9 21/64	(542)	1-7 53/64	(504)
32	2-7 3/8	(797)	2-7 5/8	(803)	2-7 1/8	(791)	2-5 7/16	(748)	2-1 21/64	(643)	1-11 53/64	(605)
36	2-11 3/8	(899)	2-11 5/8	(905)	2-11 1/8	(892)	2-9 7/16	(849)	2-5 21/64	(745)	2-3 53/64	(707)
40	3-3 3/8	(1000)	3-3 5/8	(1006)	3-3 1/8	(994)	3-1 7/16	(951)	2-9 21/64	(847)	2-7 53/64	(809)
44	3-7 3/8	(1102)	3-7 5/8	(1108)	3-7 1/8	(1095)	3-5 7/16	(1052)	3-1 21/64	(948)	2-11 53/64	(910)
48	3-11 3/8	(1203)	3-11 5/8	(1210)	3-11 1/8	(1197)	3-9 7/16	(1154)	3-5 21/64	(1050)	3-3 53/64	(1012)
54	4-5 3/8	(1356)	4-5 5/8	(1362)	4-5 1/8	(1349)	4-3 7/16	(1306)	3-11 21/64	(1202)	3-9 53/64	(1164)
56	4-7 3/8	(1407)	4-7 5/8	(1413)	4-7 1/8	(1400)	4-5 7/16	(1357)	4-1 21/64	(1253)	3-11 53/64	(1215)
60	4-11 3/8	(1508)	4-11 5/8	(1514)	4-11 1/8	(1502)	4-9 7/16	(1459)	4-5 21/64	(1355)	4-3 53/64	(1317)
64	5-3 3/8	(1610)	5-3 5/8	(1616)	5-3 1/8	(1603)	5-1 7/16	(1560)	4-9 21/64	(1456)	4-7 53/64	(1418)
72	5-11 3/8	(1813)	5-11 5/8	(1819)	5-11 1/8	(1807)	5-9 7/16	(1764)	5-5 21/64	(1659)	5-3 53/64	(1621)
78	6-5 3/8	(1965)	6-5 5/8	(1972)	6-5 1/8	(1959)	6-3 7/16	(1916)	5-11 21/64	(1812)	5-9 53/64	(1774)
84	6-11 3/8	(2118)	6-11 5/8	(2124)	6-11 1/8	(2111)	6-9 7/16	(2068)	6-5 21/64	(1964)	6-3 53/64	(1926)
92	7-7 3/8	(2321)	7-7 5/8	(2327)	7-7 1/8	(2315)	7-5 7/16	(2272)	7-1 21/64	(2167)	6-11 53/64	(2129)
96	7-11 3/8	(2423)	7-11 5/8	(2429)	7-11 1/8	(2416)	7-9 7/16	(2373)	7-5 21/64	(2269)	7-3 53/64	(2231)

NOTE: Maximum glass size per sash is 41 sq. ft. (3.8 sq. meters). The following picture sizes are greater than 41 sq. ft. (3.8 sq. meters) : 7272, 7278, 7284, 7292, 8092, 8096, 8872, 8878, 8884, 8892, 8896, 9672, 9678, 9684, 9692, 9696.

For safety and/or code requirements, Marvin recommends tempered glass in all units with a frame size height of 71 1/8" (1807) or larger.

Units with Frame Size 25.2 sq. ft. (2.3 sq. meters) and larger may require tempered glass.

**Standard Unit Measurements: 1" Casement Picture**

Standard 1" Casement Picture Unit Measurements										
Width										
CN	Masonry Opening		Rough Opening		Frame Size		Sash Size		Daylight Opening	
	ft - in	mm	ft - in	mm	ft - in	mm	ft-in	mm	ft - in	mm
40	3-4 1/2	(1029)	3-5	(1041)	3-4	(1016)	3-2 5/16	(973)	2-10 13/64	(869)
48	4-0 1/2	(1232)	4-1	(1245)	4-0	(1219)	3-10 5/16	(1176)	3-6 13/64	(1072)
56	4-8 1/2	(1435)	4-9	(1448)	4-8	(1422)	4-6 5/16	(1379)	4-2 13/64	(1275)
60	5-0 1/2	(1537)	5-1	(1549)	5-0	(1524)	4-10 5/16	(1481)	4-6 13/64	(1377)
64	5-4 1/2	(1638)	5-5	(1651)	5-4	(1626)	5-2 5/16	(1583)	4-10 13/64	(1478)
72	6-0 1/2	(1842)	6-1	(1854)	6-0	(1829)	5-10 5/16	(1786)	5-6 13/64	(1682)
80	6-8 1/2	(2045)	6-9	(2057)	6-8	(2032)	6-6 5/16	(1989)	6-2 13/64	(1885)
88	7-4 1/2	(2248)	7-5	(2261)	7-4	(2235)	7-2 5/16	(2192)	6-10 13/64	(2088)
96	8-0 1/2	(2451)	8-1	(2464)	8-0	(2438)	7-10 5/16	(2395)	7-6 13/64	(2291)

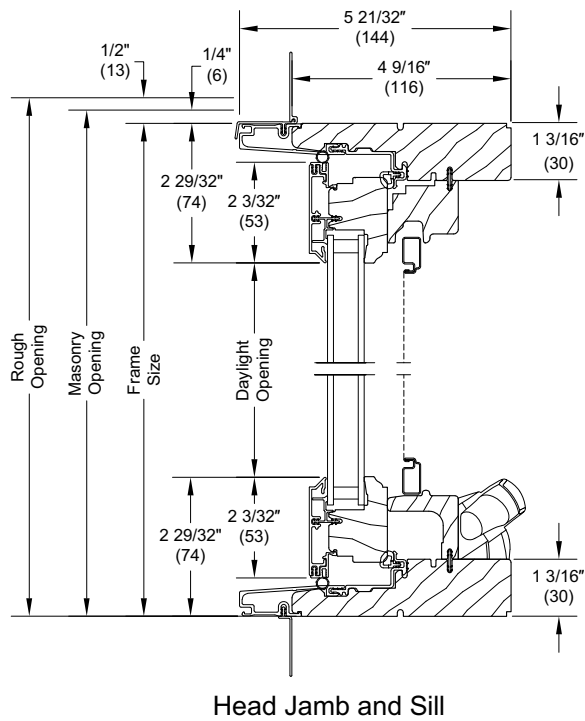
Standard 1" Casement Picture Unit Measurements												
Height												
CN	Masonry Opening		Rough Opening		Frame Size		Sash Size		Daylight Opening (Std Btm Rail)		Daylight Opening (Tall Btm Rail)	
	ft - in	mm	ft - in	mm	ft - in	mm	ft-in	mm	ft - in	mm	ft - in	mm
12	0-11 3/8	(289)	0-11 5/8	(295)	0-11 1/8	(283)	0-9 7/16	(240)	0-5 21/64	(135)	0-3 53/64	(97)
14	1-1 3/8	(340)	1-1 5/8	(346)	1-1 1/8	(333)	0-11 7/16	(290)	0-7 21/64	(186)	0-5 53/64	(148)
16	1-3 3/8	(391)	1-3 5/8	(397)	1-3 1/8	(384)	1-1 7/16	(341)	0-9 21/64	(237)	0-7 53/64	(199)
18	1-5 3/8	(441)	1-5 5/8	(448)	1-5 1/8	(435)	1-3 7/16	(392)	0-11 21/64	(288)	0-9 53/64	(250)
20	1-7 3/8	(492)	1-7 5/8	(498)	1-7 1/8	(486)	1-5 7/16	(443)	1-1 21/64	(339)	0-11 53/64	(301)
24	1-11 3/8	(594)	1-11 5/8	(600)	1-11 1/8	(587)	1-9 7/16	(544)	1-5 21/64	(440)	1-3 53/64	(402)
28	2-3 3/8	(695)	2-3 5/8	(702)	2-3 1/8	(689)	2-1 7/16	(646)	1-9 21/64	(542)	1-7 53/64	(504)
32	2-7 3/8	(797)	2-7 5/8	(803)	2-7 1/8	(791)	2-5 7/16	(748)	2-1 21/64	(643)	1-11 53/64	(605)
36	2-11 3/8	(899)	2-11 5/8	(905)	2-11 1/8	(892)	2-9 7/16	(849)	2-5 21/64	(745)	2-3 53/64	(707)
40	3-3 3/8	(1000)	3-3 5/8	(1006)	3-3 1/8	(994)	3-1 7/16	(951)	2-9 21/64	(847)	2-7 53/64	(809)
44	3-7 3/8	(1102)	3-7 5/8	(1108)	3-7 1/8	(1095)	3-5 7/16	(1052)	3-1 21/64	(948)	2-11 53/64	(910)
48	3-11 3/8	(1203)	3-11 5/8	(1210)	3-11 1/8	(1197)	3-9 7/16	(1154)	3-5 21/64	(1050)	3-3 53/64	(1012)
54	4-5 3/8	(1356)	4-5 5/8	(1362)	4-5 1/8	(1349)	4-3 7/16	(1306)	3-11 21/64	(1202)	3-9 53/64	(1164)
56	4-7 3/8	(1407)	4-7 5/8	(1413)	4-7 1/8	(1400)	4-5 7/16	(1357)	4-1 21/64	(1253)	3-11 53/64	(1215)
60	4-11 3/8	(1508)	4-11 5/8	(1514)	4-11 1/8	(1502)	4-9 7/16	(1459)	4-5 21/64	(1355)	4-3 53/64	(1317)
64	5-3 3/8	(1610)	5-3 5/8	(1616)	5-3 1/8	(1603)	5-1 7/16	(1560)	4-9 21/64	(1456)	4-7 53/64	(1418)
72	5-11 3/8	(1813)	5-11 5/8	(1819)	5-11 1/8	(1807)	5-9 7/16	(1764)	5-5 21/64	(1659)	5-3 53/64	(1621)
78	6-5 3/8	(1965)	6-5 5/8	(1972)	6-5 1/8	(1959)	6-3 7/16	(1916)	5-11 21/64	(1812)	5-9 53/64	(1774)
84	6-11 3/8	(2118)	6-11 5/8	(2124)	6-11 1/8	(2111)	6-9 7/16	(2068)	6-5 21/64	(1964)	6-3 53/64	(1926)
92	7-7 3/8	(2321)	7-7 5/8	(2327)	7-7 1/8	(2315)	7-5 7/16	(2272)	7-1 21/64	(2167)	6-11 53/64	(2129)
96	7-11 3/8	(2423)	7-11 5/8	(2429)	7-11 1/8	(2416)	7-9 7/16	(2373)	7-5 21/64	(2269)	7-3 53/64	(2231)

*NOTE: Maximum glass size per sash is 61 sq. ft. (5.7 sq. meters) 9692 and 9696 are greater than 61 sq. feet (5.7 sq. meters) of glass. For safety and/or code requirements. Marvin recommends tempered glass in all units with a frame height of 71 1/8" (1807) or larger. Units with frame size 25.2 sq. ft. (2.37 sq. meters) and larger may require tempered glass.*

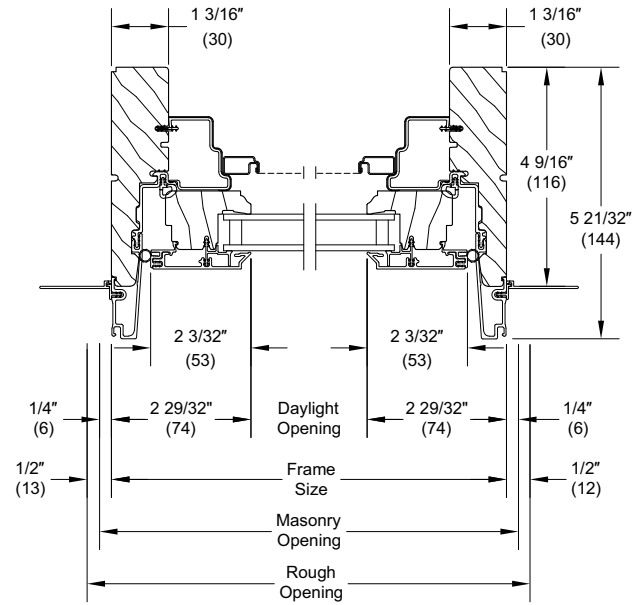
**Section Details: Operating/Stationary/Picture - 3/4" (19) IG**

Scale: 3" = 1' 0"

**Operating**

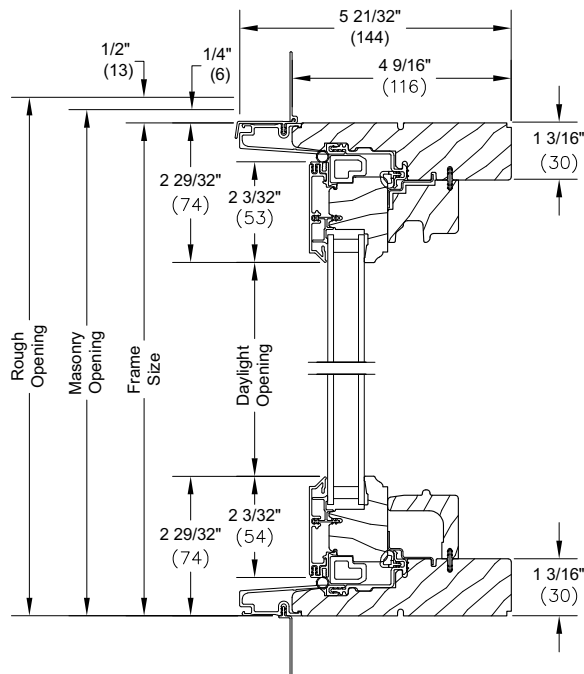


**Head Jamb and Sill**

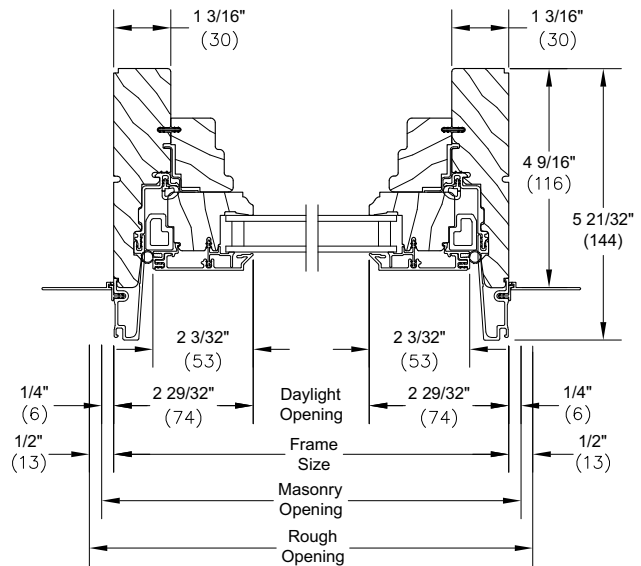


**Jambs**

**Stationary/Picture**



**Head Jamb and Sill**

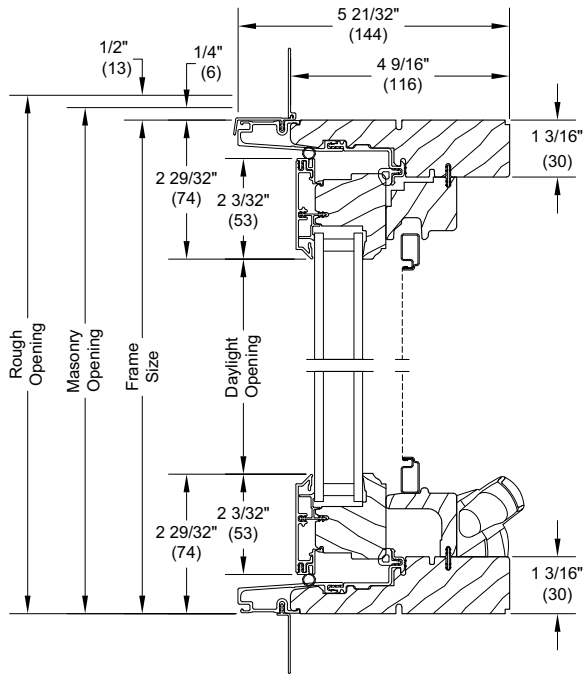


**Jambs**

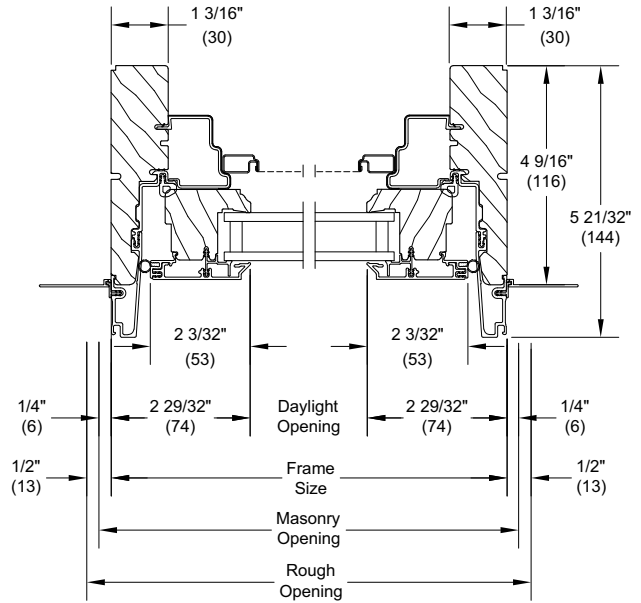
**Section Details: Operating/Stationary/Picture - 1" (25) IG**

Scale: 3" = 1' 0"

**Operating**

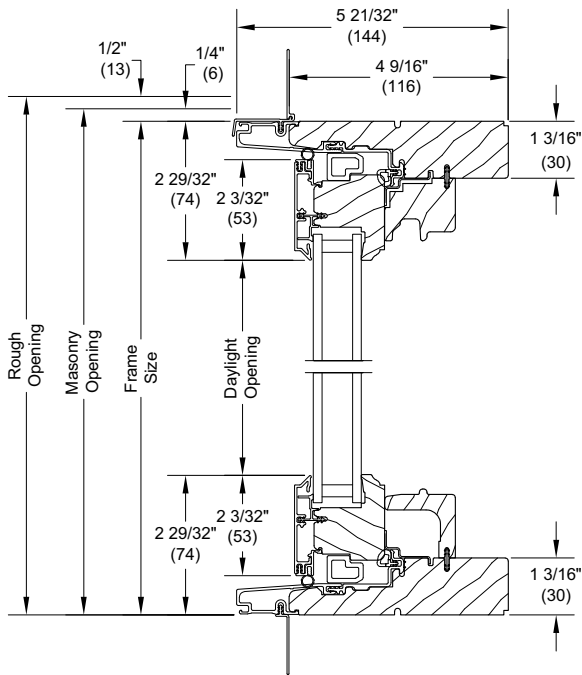


**Head Jamb and Sill**

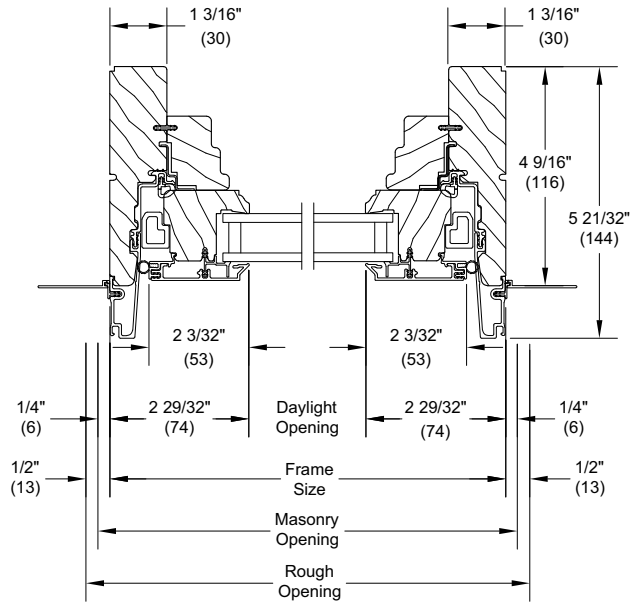


**Jambs**

**Stationary/Picture**



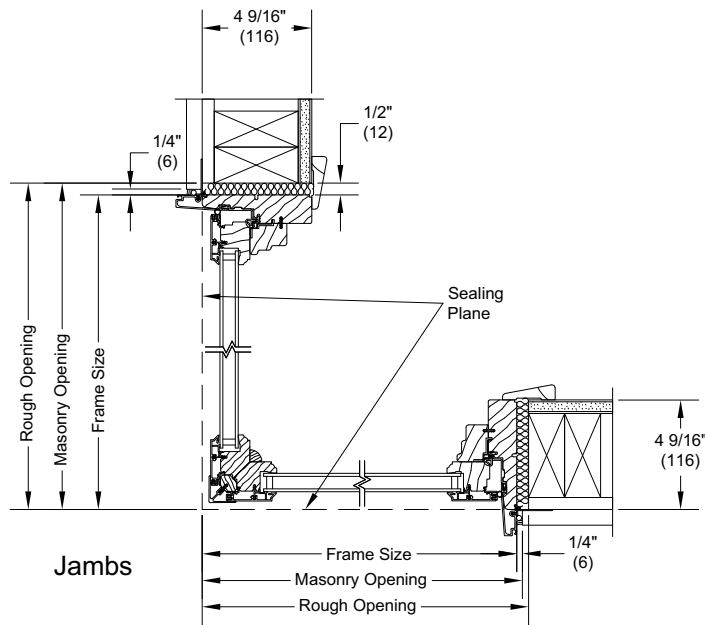
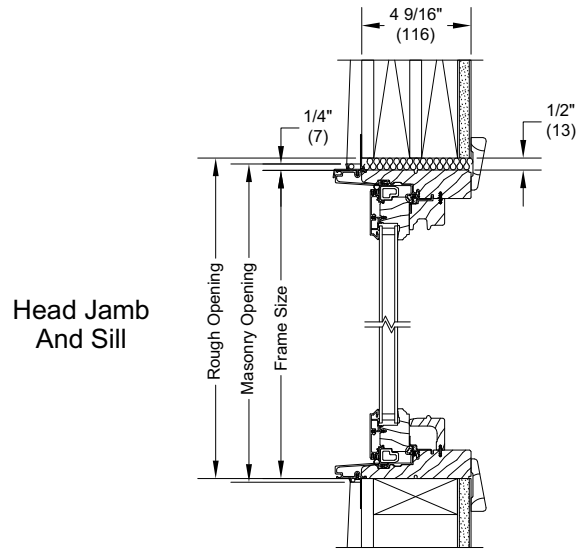
**Head Jamb and Sill**



**Jambs**

**Section Details: Ultimate Casement Corner Units**

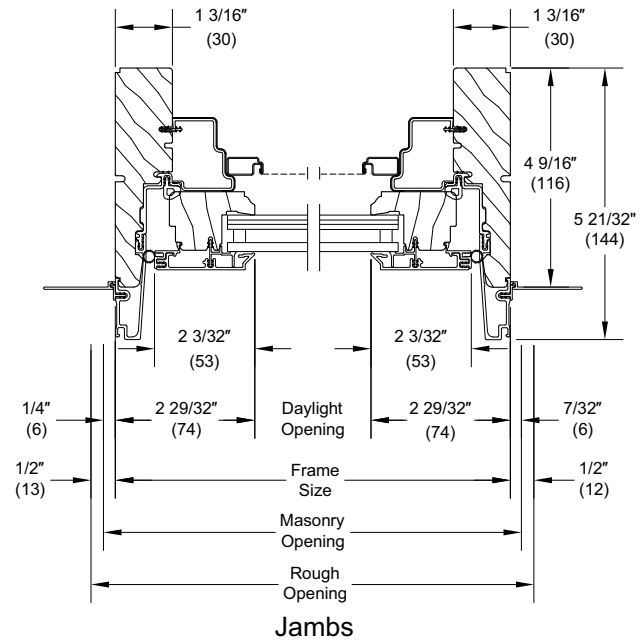
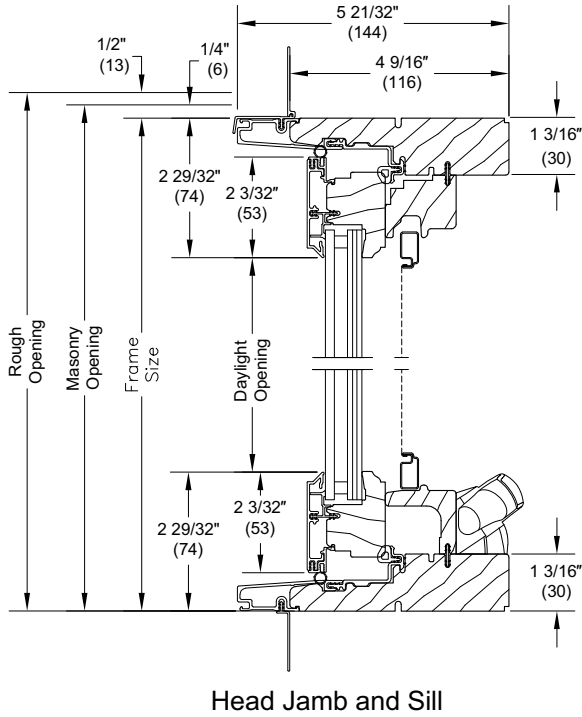
Scale: 3" = 1' 0"



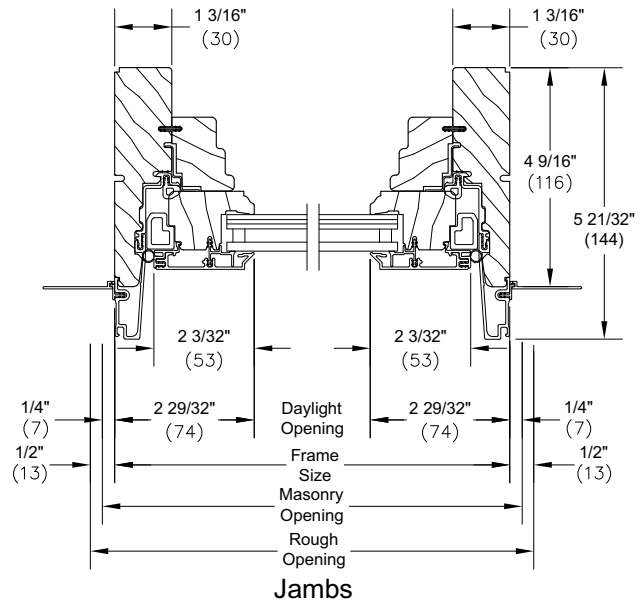
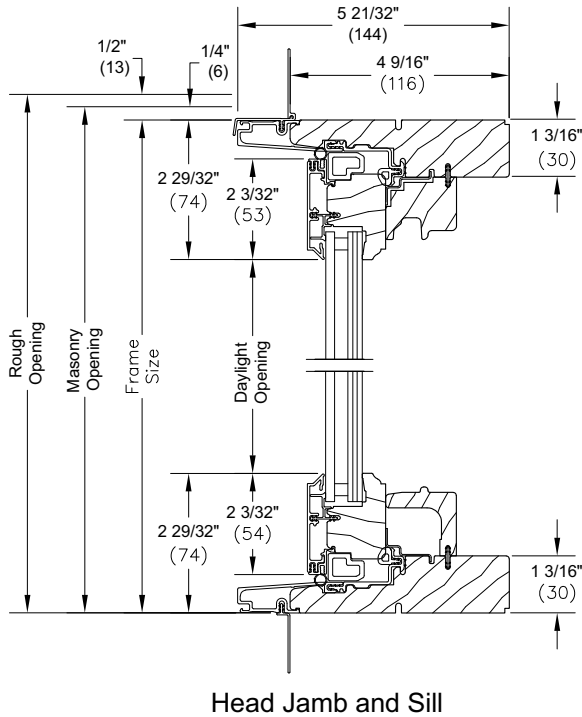
**Section Details: IZ3/IZ4 Operating/Stationary/Picture - 3/4" (19) IG**

Scale: 3" = 1' 0"

**Operating**



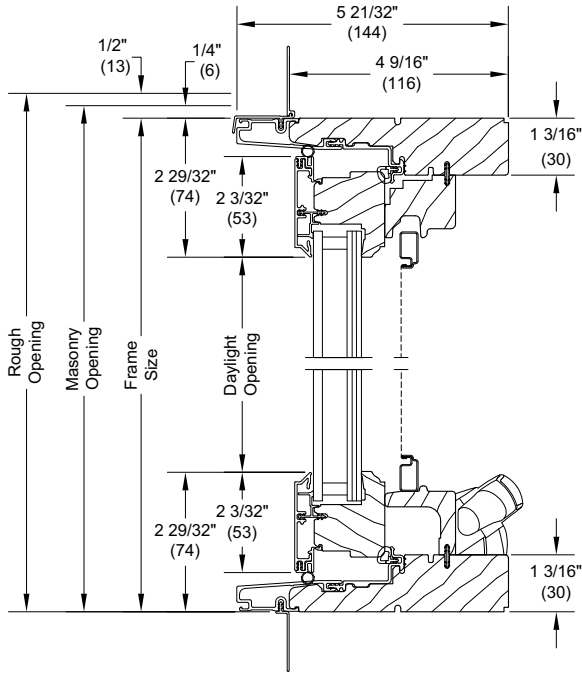
**Stationary/Picture**



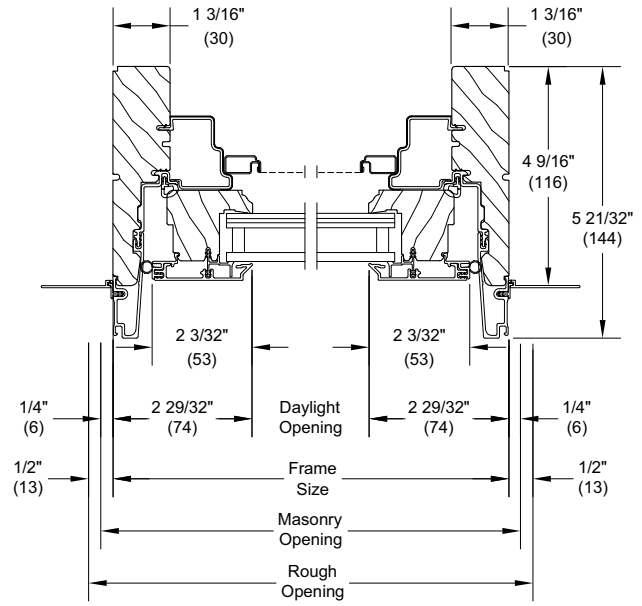
**Section Details: IZ3/IZ4 Operating and Stationary/Picture - 1" (25) IG**

Scale: 3" = 1' 0"

**Operating**

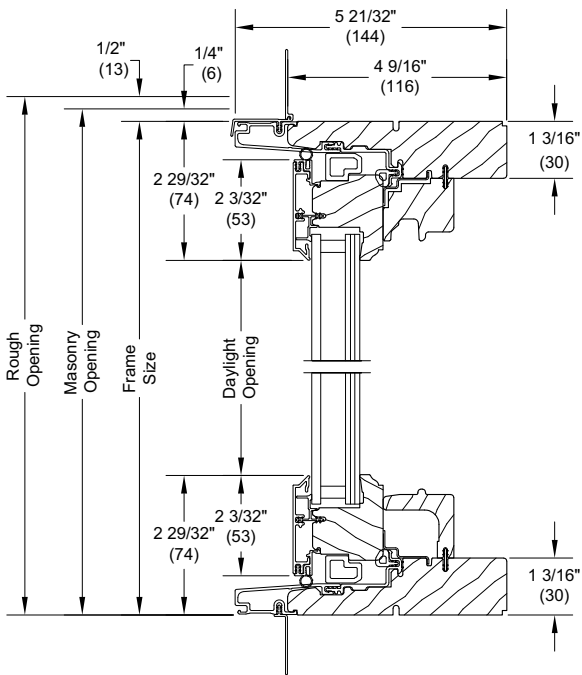


**Head Jamb and Sill**

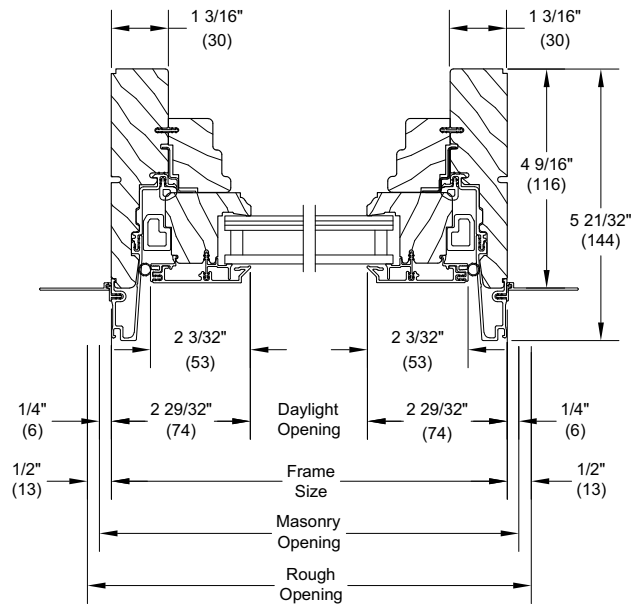


**Jambs**

**Stationary/Picture**



**Head Jamb and Sill**

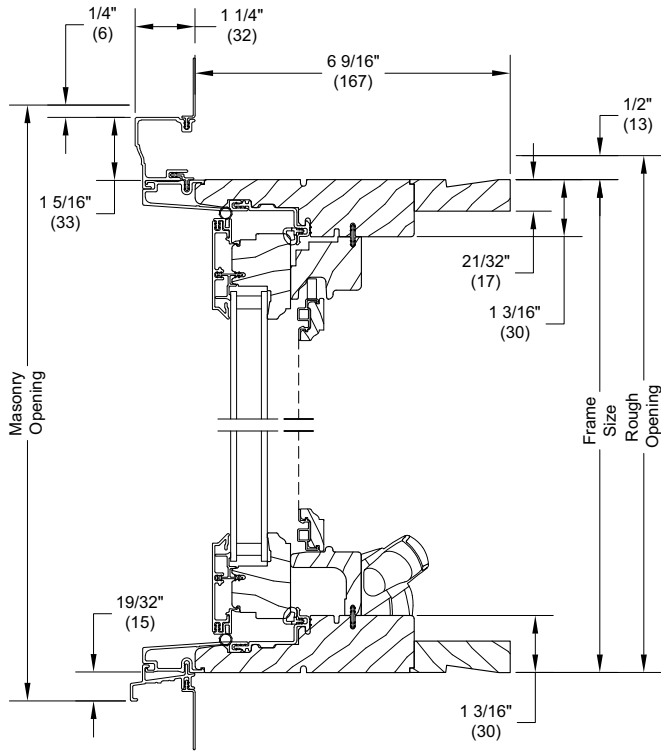


**Jambs**

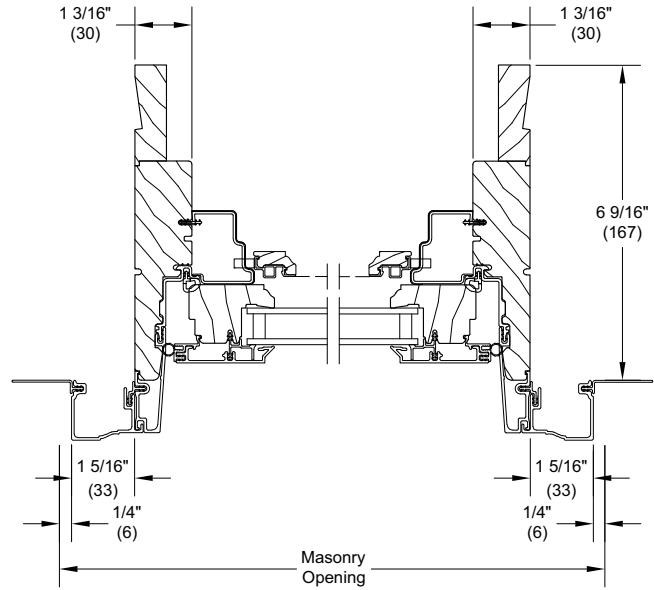
**Section Details: Casing, 6 9/16" (167) Jambs, Wood Screen**

Scale: 3" = 1' 0"

**Clad BMC**

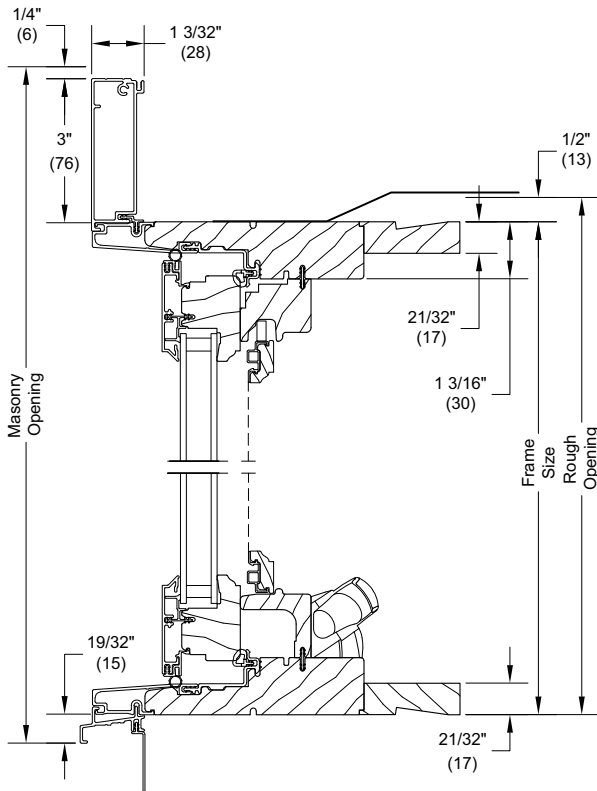


**Head Jamb and Sill**

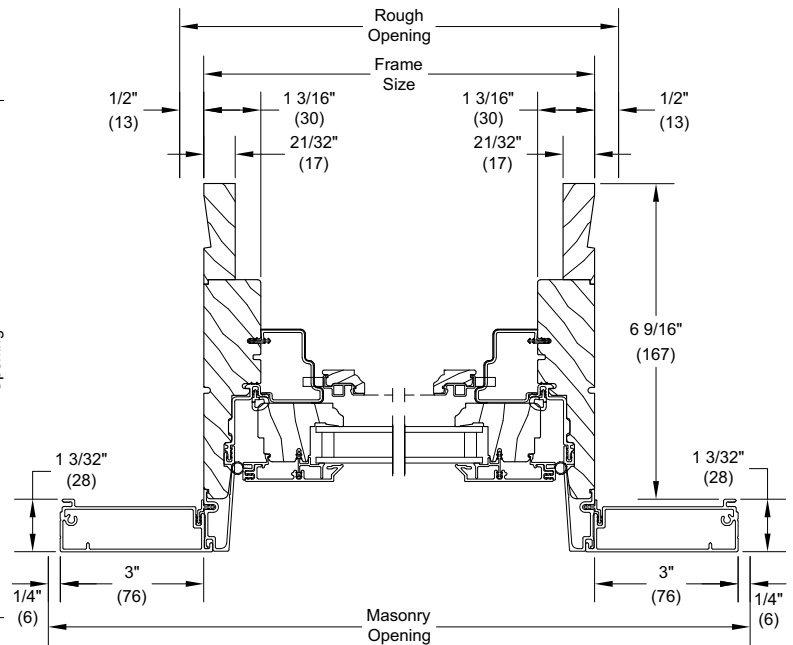


**Jambs**

**Clad Flat Casing**



**Head Jamb And Sill  
Clad Flat Casing with Wood Screen**

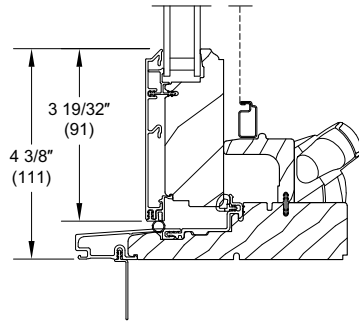


**Jambs  
Clad Flat Casing with Wood Screen**

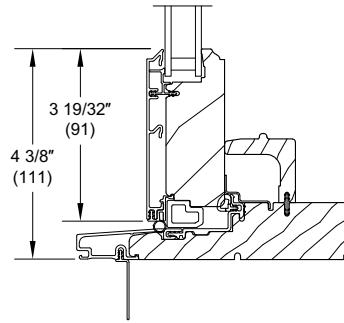


**Section Details: Tall Bottom Rail Option**

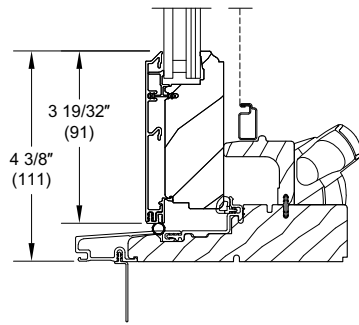
Scale: 3" = 1' 0"



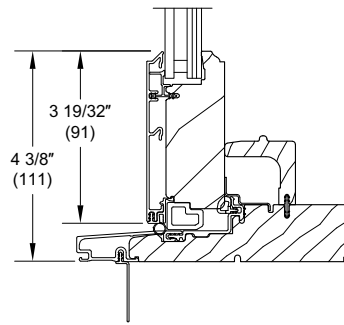
Standard Operator



Standard Stationary



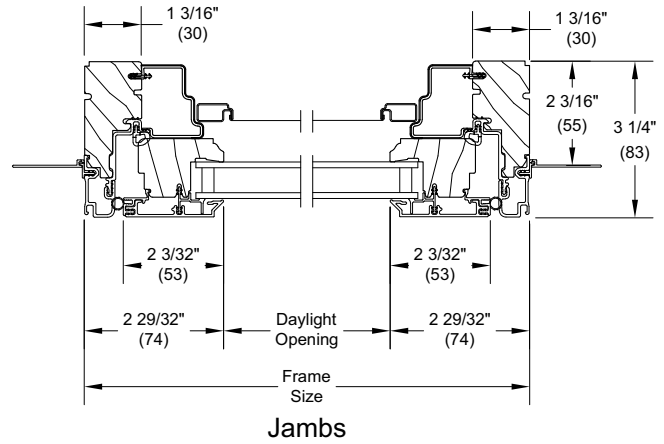
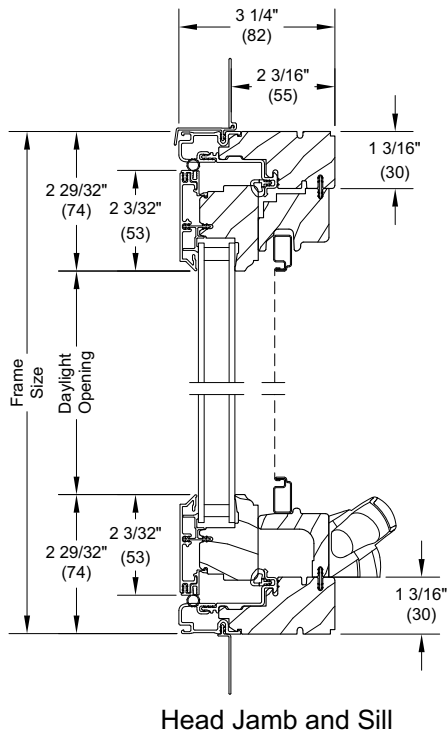
IZ3 Operator



IZ3 Stationary

**Section Details: Casement / Awning Operating - Narrow Frame**

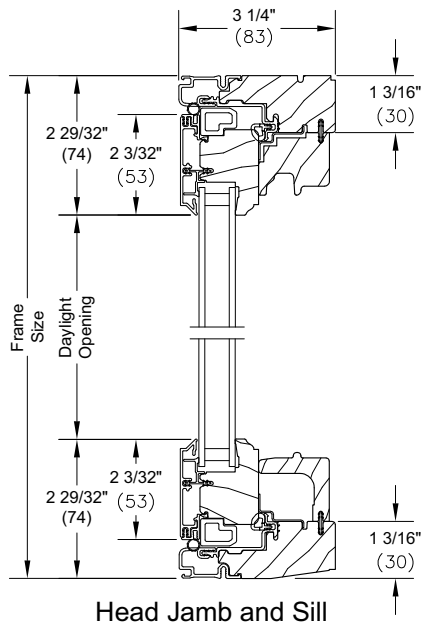
Scale: 3" = 1' 0"



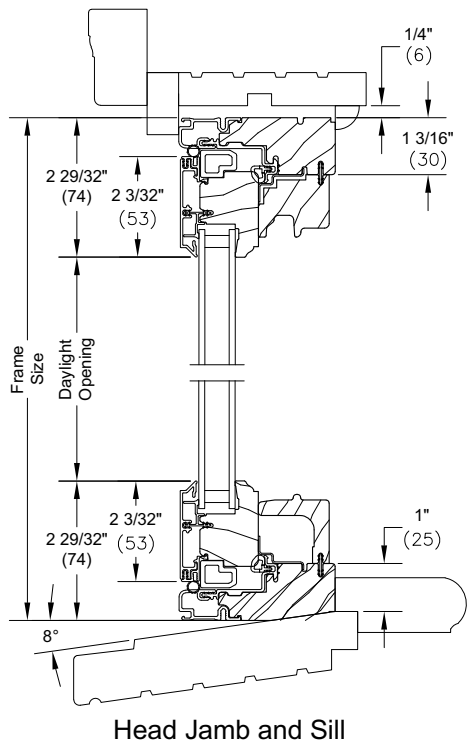
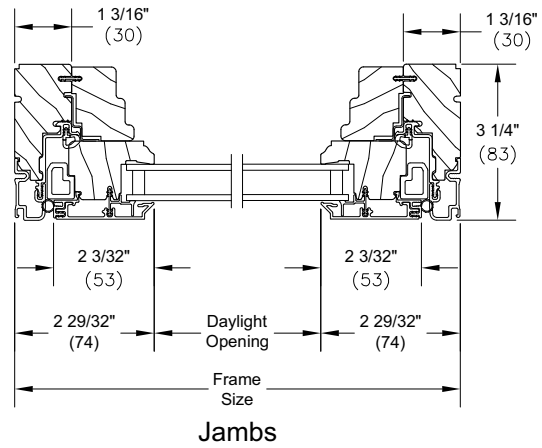
*NOTE: Square sticking is the default for the narrow frame product.*

**Section Details: Narrow Frame UCA/UAWN Operating/Picture - DH Frame w/ Sloped Sill**

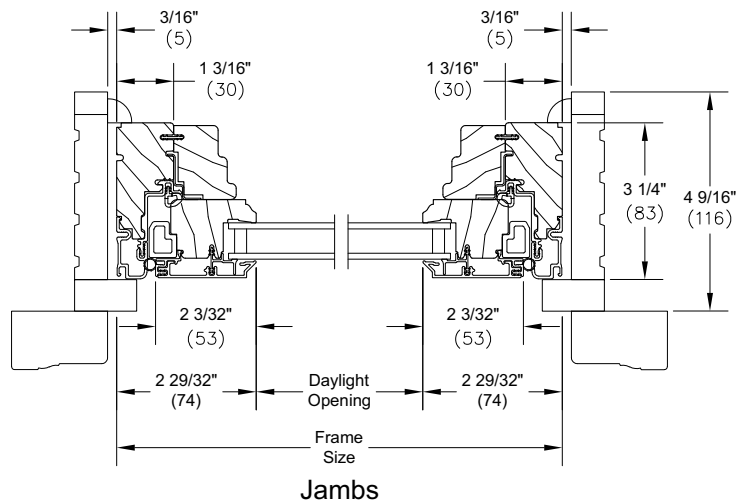
Scale: 3" = 1' 0"



**UCANF Picture - Casement Frame w/sloped Sill**

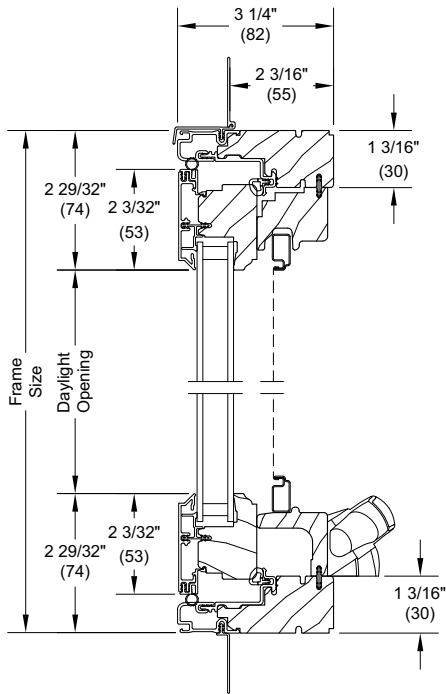


**UCANF Picture - Double Hung Frame w/sloped Sill**



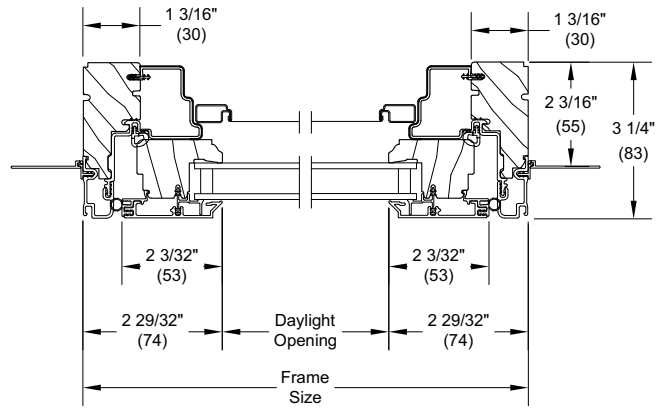
**Section Details: Narrow Frame Casement / Awning Operating / Picture - Casement Frame**

Scale: 3" = 1' 0"

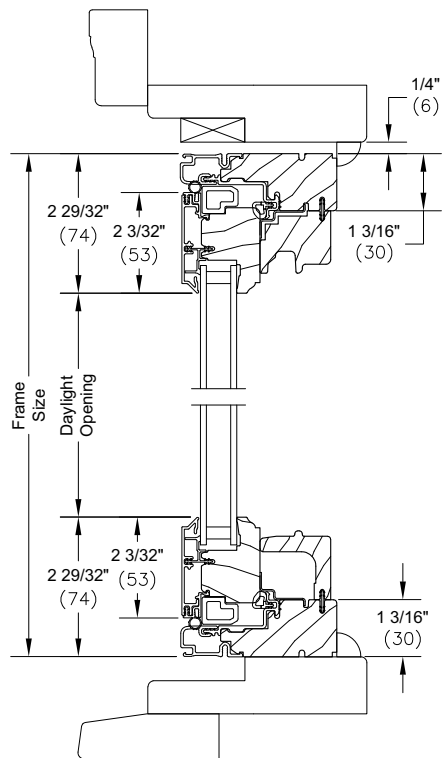


**Head Jamb and Sill**

**UCANF Operator - Casement Frame**

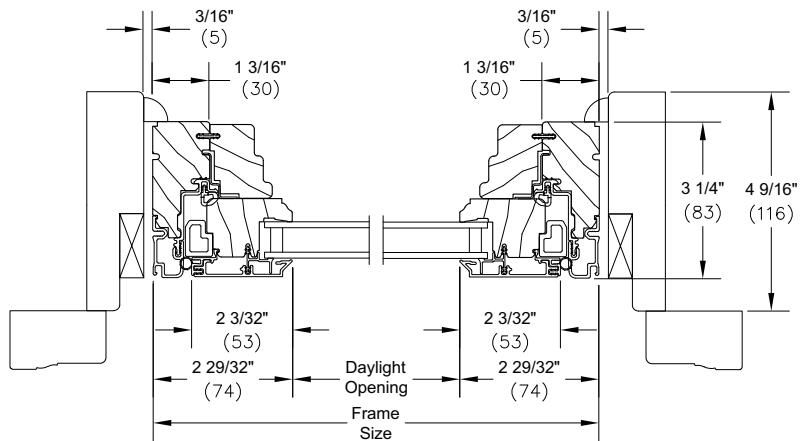


**Jambs**



**Head Jamb and Sill**

**UCANF Picture - Casement Frame**

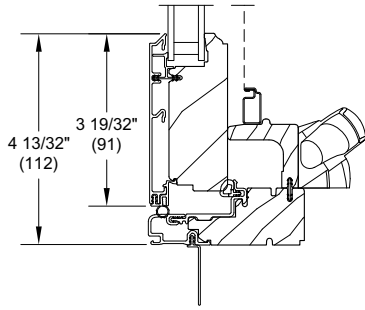


**Jambs**

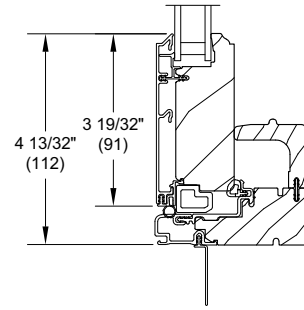
*NOTE: Square sticking is the default for the narrow product.*

**Section Details: Tall Bottom Rail Option - Narrow Frame**

Scale: 3" = 1' 0"

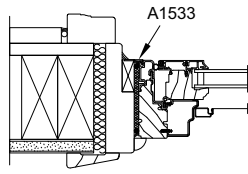


Operator (3/4" IG)

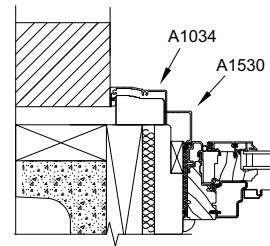


Stationary (3/4" IG)

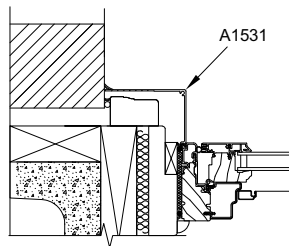
**Section Details: Clad Applications - Narrow Frame**



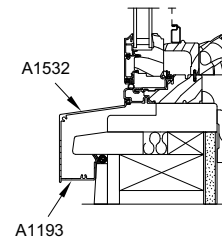
Frame Expander



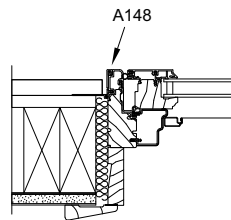
Panning (BMC shown)



Panning (Masonry shown)



Sill Panning



Panning with Kerf Cover