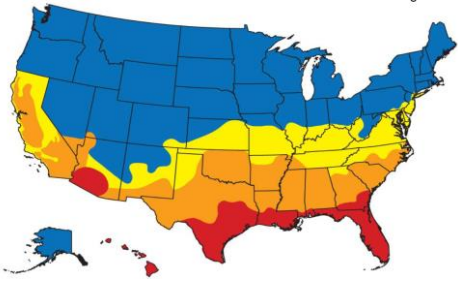


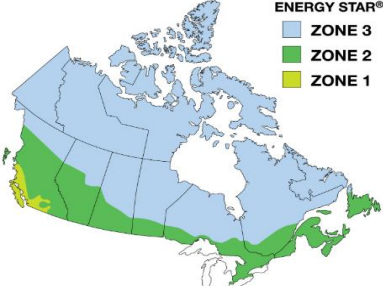
Thermal Performance Data

Premium Awning Windows (8211)

WEATHER SHIELD.

WINDOWS & DOORS

US Qualification Criteria	Climate Zone	U-Value	SHGC	
 <p>As of January 2016</p>	Northern	<=0.27	Any	Prescriptive
		=0.28	>=0.32	Equivalent Energy Performance
		=0.29	>=0.37	
	North-Central	=0.30	>=0.42	
		<=0.30	<=0.40	
	South-Central	<=0.30	<=0.25	
Southern	<=0.40	<=0.25		

Canadian Qualification Criteria	Climate Zone	U-Value	or	Energy Rating
 <p>ENERGY STAR® ZONE 3 ZONE 2 ZONE 1</p> <p>As of February 2015</p>	Zone 1	<=1.60		>=25
	Zone 2	<=1.40		>=29
	Zone 3	<=1.20		>=34
	Air Leakage <= 0.3 cfm/ft2			

U-Value

A measurement of how much energy a material conducts. The lower the U-Value, the greater the insulating effect.

Solar Heat Gain Coefficient (SHGC)

Measures how well a window or door prevents heat from passing through it. The lower a window or door's SHGC, the less heat it allows to pass through it.

Visible Light Transmittance

The amount of light in the visible portion of the spectrum that passes through a glazing material.

Condensation Resistance Rating

Measures how well a window resists the formation of condensation on the inside surface. The higher the number the better resistance to condensation.

Energy Rating

A value demonstrating the balance between U-Value, SHGC and air leakage. The higher the number, the more efficient the product.

R-Value

A measurement of how much a material resists heat transfer.

A higher R-Value means a greater insulating effect and a lower rate of heat flow out of the home.

While **R-value** measures resistance to heat transfer, **U-value** measures the rate of heat transfer.

In simple terms, **U-value** is the mathematical reciprocal of **R-value**; that is, **U = 1/R and R = 1/U**.

^a Total Unit calculations are derived from computer simulations that are then verified by 3rd party testing in accordance with NFRC 100, NFRC 200, and NFRC 500.

^b Published values reflect 3mm/3mm glass lite thicknesses.

ENERGY PERFORMANCE DATA

Premium Awning Windows (8211)



CANADIAN ENERGY
PERFORMANCE DATA



Grille Option	Glazing thickness	³NFRC Total Unit Calculations ⁴Glazing Option	CPD #	U-Value	Solar Heat Gain Coefficient	Visible Light Transmittance	Condensation Resistance Rating	US ENERGY STAR V 6.0				CANADIAN ENERGY PERFORMANCE DATA				CANADA ENERGY STAR v 4.1		
								N	NC	SC	S	U-Value (metric)	Maximum Air Leakage Ls/m²	Air Infiltration/Exfiltration Average	Energy Rating	1	2	3
No GIA or SDL	3/4"	Clear Insul	WEA-N-287-00989-00001	0.46	0.54	0.56	42					2.61	0.6	1.02	12			
	3/4"	Insul Low-E	WEA-N-287-00990-00001	0.34	0.27	0.48	52					1.93	0.6	1.02	11			
	3/4"	Insul Low E w/Argon	WEA-N-287-00996-00001	0.30	0.27	0.48	56		Y			1.70	0.6	1.02	16			
	3/4"	Passive Solar	WEA-N-287-00871-00001	0.34	0.47	0.54	53					1.93	0.6	1.02	23			
	3/4"	Passive Solar w/Argon	WEA-N-287-00872-00001	0.31	0.48	0.54	56					1.76	0.6	1.02	27	Y		
	3/4"	Passive Solar Extreme	WEA-N-287-00873-00001	0.30	0.43	0.53	40	Y				1.70	0.6	1.02	26	Y		
	3/4"	Passive Solar Extreme w/Argon	WEA-N-287-00874-00001	0.28	0.43	0.53	44	Y				1.59	0.6	1.02	28	Y		
	3/4"	Zo-e-shield 5	WEA-N-287-00683-00001	0.33	0.20	0.44	54				Y	1.87	0.6	1.02	9			
	3/4"	Zo-e-shield 5 w/ Argon	WEA-N-287-00684-00001	0.29	0.19	0.44	58		Y	Y	Y	1.65	0.6	1.02	13			
	3/4"	Zo-e-shield 5 Extreme	WEA-N-287-00869-00001	0.29	0.19	0.43	41		Y	Y	Y	1.65	0.6	1.02	13			
	3/4"	Zo-e-shield 5 Extreme w/ Argon	WEA-N-287-00870-00001	0.27	0.19	0.43	45	Y	Y	Y	Y	1.53	0.6	1.02	15			
	3/4"	Zo-e-shield 6	WEA-N-287-00885-00001	0.34	0.20	0.43	51				Y	1.93	0.6	1.02	7			
	3/4"	Zo-e-shield 6 w/ Argon	WEA-N-287-00887-00001	0.30	0.19	0.43	54		Y	Y	Y	1.70	0.6	1.02	12			
	3/4"	Zo-e SafeGuard Certified	WEA-N-287-00901-00001	0.34	0.20	0.43	43				Y	1.93	0.6	1.02	7			
	3/4"	Zo-e SafeGuard Certified w/ Argon	WEA-N-287-00903-00001	0.30	0.19	0.43	55		Y	Y	Y	1.70	0.6	1.02	12			
	1"	Zo-e-shield 7	WEA-N-287-00905-00001	0.27	0.18	0.35	63	Y	Y	Y	Y	1.53	0.6	1.02	15			
	1"	Zo-e-shield 7 w/ Argon	WEA-N-287-00907-00001	0.24	0.18	0.35	67	Y	Y	Y	Y	1.36	0.6	1.02	19	Y		
	3/4"	Insul Low-E 240	WEA-N-287-00875-00001	0.34	0.18	0.27	52				Y	1.93	0.6	1.02	6			
	3/4"	Insul Low-E 240 w/Argon	WEA-N-287-00876-00001	0.31	0.18	0.27	56				Y	1.76	0.6	1.02	10			
	3/4"	Insul Low-E 340	WEA-N-287-00877-00001	0.33	0.13	0.27	53				Y	1.87	0.6	1.02	5			
3/4"	Insul Low-E 340 w/Argon	WEA-N-287-00878-00001	0.30	0.13	0.27	56		Y	Y	Y	1.70	0.6	1.02	8				
3/4"	Bronze Low E	WEA-N-287-00865-00011	0.34	0.28	0.37	53					1.93	0.6	1.02	12				
3/4"	Bronze Low E w/Argon	WEA-N-287-00866-00011	0.30	0.28	0.37	56		Y			1.70	0.6	1.02	17				
Less Than 1" GIA or SDL	3/4"	Clear Insul	WEA-N-287-00989-00002	0.46	0.50	0.51	42					2.61	0.6	1.02	10			
	3/4"	Insul Low-E	WEA-N-287-00990-00002	0.34	0.25	0.43	52				Y	1.93	0.6	1.02	10			
	3/4"	Insul Low E w/Argon	WEA-N-287-00996-00002	0.30	0.25	0.43	56		Y	Y	Y	1.70	0.6	1.02	15			
	3/4"	Passive Solar	WEA-N-287-00871-00002	0.34	0.43	0.49	53					1.93	0.6	1.02	21			
	3/4"	Passive Solar w/Argon	WEA-N-287-00872-00002	0.31	0.43	0.49	56					1.76	0.6	1.02	24			
	3/4"	Passive Solar Extreme	WEA-N-287-00873-00002	0.30	0.39	0.48	40		Y			1.70	0.6	1.02	23			
	3/4"	Passive Solar Extreme w/Argon	WEA-N-287-00874-00002	0.28	0.39	0.48	44	Y	Y			1.59	0.6	1.02	26	Y		
	3/4"	Zo-e-shield 5	WEA-N-287-00683-00002	0.33	0.18	0.40	54				Y	1.87	0.6	1.02	7			
	3/4"	Zo-e-shield 5 w/ Argon	WEA-N-287-00684-00002	0.29	0.18	0.40	58		Y	Y	Y	1.65	0.6	1.02	12			
	3/4"	Zo-e-shield 5 Extreme	WEA-N-287-00869-00002	0.29	0.18	0.39	41		Y	Y	Y	1.65	0.6	1.02	12			
	3/4"	Zo-e-shield 5 Extreme w/ Argon	WEA-N-287-00870-00002	0.27	0.17	0.39	45	Y	Y	Y	Y	1.53	0.6	1.02	14			
	3/4"	Zo-e-shield 6	WEA-N-287-00886-00001	0.35	0.18	0.39	50				Y	1.99	0.6	1.02	5			
	3/4"	Zo-e-shield 6 w/ Argon	WEA-N-287-00888-00001	0.31	0.18	0.39	54				Y	1.76	0.6	1.02	10			
	3/4"	Zo-e SafeGuard Certified	WEA-N-287-00902-00001	0.35	0.18	0.39	42				Y	1.99	0.6	1.02	5			
	3/4"	Zo-e SafeGuard Certified w/ Argon	WEA-N-287-00904-00001	0.31	0.18	0.39	54				Y	1.76	0.6	1.02	10			
	1"	Zo-e-shield 7	WEA-N-287-00906-00001	0.27	0.17	0.32	63	Y	Y	Y	Y	1.53	0.6	1.02	14			
	1"	Zo-e-shield 7 w/ Argon	WEA-N-287-00908-00001	0.24	0.16	0.32	67	Y	Y	Y	Y	1.36	0.6	1.02	17	Y		
	3/4"	Insul Low-E 240	WEA-N-287-00875-00002	0.34	0.17	0.25	52				Y	1.93	0.6	1.02	6			
	3/4"	Insul Low-E 240 w/Argon	WEA-N-287-00876-00002	0.31	0.16	0.25	56				Y	1.76	0.6	1.02	9			
	3/4"	Insul Low-E 340	WEA-N-287-00877-00002	0.33	0.12	0.24	53				Y	1.87	0.6	1.02	4			
3/4"	Insul Low-E 340 w/Argon	WEA-N-287-00878-00002	0.30	0.12	0.24	56		Y	Y	Y	1.70	0.6	1.02	8				
3/4"	Bronze Low E	WEA-N-287-00865-00012	0.34	0.26	0.33	53					1.93	0.6	1.02	11				
3/4"	Bronze Low E w/Argon	WEA-N-287-00866-00012	0.30	0.25	0.33	56		Y	Y	Y	1.70	0.6	1.02	15				
1" Or Over GIA or SDL	3/4"	Clear Insul	WEA-N-287-00989-00003	0.46	0.45	0.46	42					2.61	0.6	1.02	7			
	3/4"	Insul Low-E	WEA-N-287-00990-00003	0.34	0.23	0.39	52				Y	1.93	0.6	1.02	9			
	3/4"	Insul Low E w/Argon	WEA-N-287-00996-00003	0.30	0.22	0.39	56		Y	Y	Y	1.70	0.6	1.02	13			
	3/4"	Passive Solar	WEA-N-287-00871-00003	0.34	0.39	0.44	53					1.93	0.6	1.02	18			
	3/4"	Passive Solar w/Argon	WEA-N-287-00872-00003	0.31	0.39	0.44	56					1.76	0.6	1.02	22			
	3/4"	Passive Solar Extreme	WEA-N-287-00873-00003	0.30	0.36	0.43	40		Y			1.70	0.6	1.02	22			
	3/4"	Passive Solar Extreme w/Argon	WEA-N-287-00874-00003	0.28	0.36	0.43	44	Y	Y			1.59	0.6	1.02	24	Y		
	3/4"	Zo-e-shield 5	WEA-N-287-00683-00003	0.33	0.17	0.36	54				Y	1.87	0.6	1.02	7			
	3/4"	Zo-e-shield 5 w/ Argon	WEA-N-287-00684-00003	0.29	0.16	0.36	58		Y	Y	Y	1.65	0.6	1.02	11			
	3/4"	Zo-e-shield 5 Extreme	WEA-N-287-00869-00003	0.29	0.16	0.35	41		Y	Y	Y	1.65	0.6	1.02	11			
	3/4"	Zo-e-shield 5 Extreme w/ Argon	WEA-N-287-00870-00003	0.27	0.16	0.35	45	Y	Y	Y	Y	1.53	0.6	1.02	14			
	3/4"	Zo-e-shield 6	WEA-N-287-00886-00002	0.35	0.17	0.35	50				Y	1.99	0.6	1.02	4			
	3/4"	Zo-e-shield 6 w/ Argon	WEA-N-287-00888-00002	0.31	0.16	0.35	54				Y	1.76	0.6	1.02	9			
	3/4"	Zo-e SafeGuard Certified	WEA-N-287-00902-00002	0.35	0.16	0.35	42				Y	1.99	0.6	1.02	4			
	3/4"	Zo-e SafeGuard Certified w/ Argon	WEA-N-287-00904-00002	0.31	0.16	0.35	54				Y	1.76	0.6	1.02	9			
	1"	Zo-e-shield 7	WEA-N-287-00906-00002	0.27	0.15	0.29	63	Y	Y	Y	Y	1.53	0.6	1.02	13			
	1"	Zo-e-shield 7 w/ Argon	WEA-N-287-00908-00002	0.24	0.15	0.29	67	Y	Y	Y	Y	1.36	0.6	1.02	17	Y		
	3/4"	Insul Low-E 240	WEA-N-287-00875-00003	0.34	0.15	0.22	52				Y	1.93	0.6	1.02	4			
	3/4"	Insul Low-E 240 w/Argon	WEA-N-287-00876-00003	0.31	0.15	0.22	56				Y	1.76	0.6	1.02	8			
	3/4"	Insul Low-E 340	WEA-N-287-00877-00003	0.33	0.11	0.22	53				Y	1.87	0.6	1.02	3			
3/4"	Insul Low-E 340 w/Argon	WEA-N-287-00878-00003	0.30	0.11	0.22	56		Y	Y	Y	1.70	0.6	1.02	7				
3/4"	Bronze Low E	WEA-N-287-00865-00013	0.34	0.23	0.30	53				Y	1.93	0.6	1.02	9				
3/4"	Bronze Low E w/Argon	WEA-N-287-00866-00013	0.30	0.23	0.30	56		Y	Y	Y	1.70	0.6	1.02	14				