



Calculation based on ISO 15099

Product name: Cascadia Universal Inswing Door (Single)				Center-of-glass properties		
ASHRAE/IECC /DOE North American Climate Zone	North, East, South- facing West - facing			Cardinal E180/ Arg/ E180/ Arg/ i89(#6) (6mm) 44,0mm No Grids		
Climate specific recommendations:		Whole-window installed U-value		Ucog-Value		
		W/m2K	BTU/hr.ft2.F	SHGC	W/m2K	BTU/hr.ft2.F
8		0.87	0.15	0.487	0.653	0.115
7		0.86	0.15	0.487	0.642	0.113
6		0.86	0.15	0.487	0.635	0.112
5		0.86	0.15	0.487	0.634	0.112
4		0.86	0.15	0.487	0.632	0.111
Marine North		0.85	0.15	0.487	0.631	0.111
Marine South	✓	0.85	0.15	0.487	0.628	0.111
3	✓	0.85	0.15	0.487	0.630	0.111
2 West		0.83	0.15	0.487	0.589	0.104
2 East		0.83	0.15	0.487	0.589	0.104
Cascadia Universal Inswing D		FRAME		Psi-spacer		Psi-opaque
Cardinal Endur		Frame height		Ψ		
		mm	in	W/m2K	BTU/hr.ft.F	W/mK
Head		132	5.21	0.98	0.17	0.157
Sill		146	5.74	1.01	0.18	BTU/hr.ft.F
left jamb		132	5.21	0.99	0.17	0.091
right jamb		132	5.21	0.99	0.17	Grade C


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Product name: Cascadia Universal Inswing Door (Single)				Center-of-glass properties		
ASHRAE/IECC /DOE North American Climate Zone	North, East, West - facing	South- facing			Cardinal E180/ Arg/ E180/ Arg/ i89(#6) (6mm) 44,0mm SDL/no Internal grids < 25.4mm	
Climate specific recommendations:			Whole-window installed U-value		Ucog-Value	
			W/m2K	BTU/hr.ft2.F	SHGC	BTU/hr.ft2.F
					W/m2K	
8			0.87	0.15	0.421	0.115
7			0.86	0.15	0.421	0.113
6			0.86	0.15	0.421	0.112
5			0.86	0.15	0.421	0.112
4			0.86	0.15	0.421	0.111
Marine North			0.85	0.15	0.421	0.111
Marine South	✓		0.85	0.15	0.421	0.111
3	✓		0.85	0.15	0.421	0.111
2 West			0.83	0.15	0.421	0.104
2 East			0.83	0.15	0.421	0.104
Cascadia Universal Inswing D Cardinal Endur		FRAME		Psi-spacer		Psi-opaque
		Frame height		U-frame		Ψ
		mm	in	W/m2K	BTU/hr.ft2.F	W/mK
	Head	132	5.21	0.98	0.17	0.006
	Sill	146	5.74	1.01	0.18	0.006
	left jamb	132	5.21	0.99	0.17	0.007
	right jamb	132	5.21	0.99	0.17	0.007
						W/mK
						BTU/hr.ft.F
						Grade C


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		Whole-window installed U-value		Ucog-Value		
		W/m2K	BTU/hr.ft2.F	SHGC	W/m2K	BTU/hr.ft2.F
Climate specific recommendations:						
8		0.87	0.15	0.421	0.653	0.115
7		0.86	0.15	0.421	0.642	0.113
6		0.86	0.15	0.421	0.635	0.112
5		0.86	0.15	0.421	0.634	0.112
4		0.86	0.15	0.421	0.632	0.111
Marine North		0.85	0.15	0.421	0.631	0.111
Marine South	✓	0.85	0.15	0.421	0.628	0.111
3	✓	0.85	0.15	0.421	0.630	0.111
2 West		0.83	0.15	0.421	0.589	0.104
2 East		0.83	0.15	0.421	0.589	0.104
Cascadia Universal Inswing D		FRAME		Psi-spacer		Psi-opaque
Cardinal Endur		Frame height		Ψ		W/mK
		mm	in	W/m2K	BTU/hr.ft2.F	
Head		132	5.21	0.98	0.17	0.157
Sill		146	5.74	1.01	0.18	BTU/hr.ft.F
left jamb		132	5.21	0.99	0.17	0.091
right jamb		132	5.21	0.99	0.17	Grade C


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Product name: Cascadia Universal Inswing Door (Single)				Center-of-glass properties				
ASHRAE/IECC /DOE North American Climate Zone	North, East, West - facing	South- facing	<div> Passive House Institute US</div>			Cardinal E180/ Arg/ E180/ Arg/ i89(#6) (6mm) 44,0mm Internal grids And SDL with Internal grids < 25.4mm		
Climate specific recommendations:			Whole-window installed U-value		Ucog-Value			
			W/m2K	BTU/hr.ft2.F	SHGC	W/m2K	BTU/hr.ft2.F	
8			0.93	0.16	0.421	0.653	0.115	
7			0.92	0.16	0.421	0.642	0.113	
6			0.91	0.16	0.421	0.635	0.112	
5			0.91	0.16	0.421	0.634	0.112	
4			0.91	0.16	0.421	0.632	0.111	
Marine North			0.91	0.16	0.421	0.631	0.111	
Marine South	<input checked="" type="checkbox"/>		0.91	0.16	0.421	0.628	0.111	
3	<input checked="" type="checkbox"/>		0.91	0.16	0.421	0.630	0.111	
2 West			0.88	0.16	0.421	0.589	0.104	
2 East			0.88	0.16	0.421	0.589	0.104	
Cascadia Universal Inswing D		FRAME				Psi-spacer		Psi-opaque
Cardinal Endur		Frame height		U-frame		Ψ		W/mK
		mm	in	W/m2K	BTU/hr.ft2.F	W/mK	BTU/hr.ft.F	
Head		132	5.21	0.98	0.17	0.006	0.004	0.157
Sill		146	5.74	1.01	0.18	0.006	0.004	BTU/hr.ft.F
left jamb		132	5.21	0.99	0.17	0.007	0.004	0.091
right jamb		132	5.21	0.99	0.17	0.007	0.004	Grade C


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Product name: Cascadia Universal Inswing Door (Single)				Center-of-glass properties				
ASHRAE/IECC /DOE North American Climate Zone	South-facing	North, East, West - facing	<div> Passive House Institute US</div>			Cardinal E180/ Arg/ E180/ Arg/ i89(#6) (6mm) 44,0mm SDL/no Internal grids >= 25.4mm		
Climate specific recommendations:			Whole-window installed U-value		Ucog-Value			
			W/m2K	BTU/hr.ft2.F	SHGC	W/m2K	BTU/hr.ft2.F	
8			0.87	0.15	0.359	0.653	0.115	
7			0.86	0.15	0.359	0.642	0.113	
6			0.86	0.15	0.359	0.635	0.112	
5			0.86	0.15	0.359	0.634	0.112	
4		✓	0.86	0.15	0.359	0.632	0.111	
Marine North		✓	0.85	0.15	0.359	0.631	0.111	
Marine South	✓		0.85	0.15	0.359	0.628	0.111	
3	✓		0.85	0.15	0.359	0.630	0.111	
2 West			0.83	0.15	0.359	0.589	0.104	
2 East			0.83	0.15	0.359	0.589	0.104	
Cascadia Universal Inswing D		FRAME				Psi-spacer		Psi-opaque
Cardinal Endur		Frame height		U-frame		Ψ		W/mK
		mm	in	W/m2K	BTU/hr.ft2.F	W/mK	BTU/hr.ft.F	
Head		132	5.21	0.98	0.17	0.006	0.004	0.157
Sill		146	5.74	1.01	0.18	0.006	0.004	BTU/hr.ft.F
left jamb		132	5.21	0.99	0.17	0.007	0.004	0.091
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5		0.86	0.15	0.359	0.634
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Cascadia Universal Inswing D Cardinal Endur		FRAME		Psi-spacer	
		Frame height		Ψ	
		mm	in	W/mK	BTU/hr.ft.F
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