



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/ Clear/ Arg/ E180 (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		0.93	0.16	0.514	0.743	0.131
7		0.92	0.16	0.514	0.730	0.129
6		0.91	0.16	0.514	0.723	0.127
5		0.91	0.16	0.514	0.723	0.127
4		0.91	0.16	0.514	0.724	0.127
Marine North	✓	0.91	0.16	0.514	0.725	0.128
Marine South		0.92	0.16	0.514	0.729	0.128
3		0.91	0.16	0.514	0.726	0.128
2 West		0.92	0.16	0.514	0.736	0.130
2 East		0.92	0.16	0.514	0.736	0.130
Cascadia Universal Inswing D		FRAME		Psi-spacer		Psi-opaque
Cardinal Endur		Frame height		Ψ		
		mm	in	W/m2K	BTU/hr.ft2.F	W/mK
Head		132	5.21	0.91	0.16	0.157
Sill		146	5.74	0.95	0.17	BTU/hr.ft.F
left jamb		132	5.21	0.92	0.16	0.091
right jamb		132	5.21	0.92	0.16	Grade C


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ASHRAE/IECC /DOE North American Climate Zone	North, East, South- facing West - facing			Cardinal E180/ Arg/ Clear/ Arg/ E180 (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		0.93	0.16	0.444	0.743	0.131
7		0.92	0.16	0.444	0.730	0.129
6		0.91	0.16	0.444	0.723	0.127
5		0.91	0.16	0.444	0.723	0.127
4		0.91	0.16	0.444	0.724	0.127
Marine North		0.91	0.16	0.444	0.725	0.128
Marine South	✓	0.92	0.16	0.444	0.729	0.128
3	✓	0.91	0.16	0.444	0.726	0.128
2 West		0.92	0.16	0.444	0.736	0.130
2 East		0.92	0.16	0.444	0.736	0.130
Cascadia Universal Inswing D		FRAME		Psi-spacer		Psi-opaque
Cardinal Endur		Frame height		Ψ		
		mm	in	W/m2K	BTU/hr.ft2.F	W/mK
Head		132	5.21	0.91	0.16	0.016
Sill		146	5.74	0.95	0.17	0.009
left jamb		132	5.21	0.92	0.16	0.016
right jamb		132	5.21	0.92	0.16	0.016
						0.009
						0.091
						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/ Clear/ Arg/ E180 (6mm) 44,0mm Internal grids And SDL with Internal grids < 25.4mm maintain 3mm clearance	
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	0.444	0.743	0.131	
7		0.92	0.16	0.444	0.730	0.129	
6		0.91	0.16	0.444	0.723	0.127	
5		0.91	0.16	0.444	0.723	0.127	
4		0.91	0.16	0.444	0.724	0.127	
Marine North		0.91	0.16	0.444	0.725	0.128	
Marine South	✓	0.92	0.16	0.444	0.729	0.128	
3	✓	0.91	0.16	0.444	0.726	0.128	
2 West		0.92	0.16	0.444	0.736	0.130	
2 East		0.92	0.16	0.444	0.736	0.130	
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	BTU/hr.ft.F		
Head	132	5.21	0.91	0.16	0.016	0.009	0.157
Sill	146	5.74	0.95	0.17	0.016	0.009	BTU/hr.ft.F
left jamb	132	5.21	0.92	0.16	0.016	0.009	0.091
right jamb	132	5.21	0.92	0.16	0.016	0.009	Grade C

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			Whole-window installed U-value		Ucog-Value
Climate specific recommendations:			W/m2K	BTU/hr.ft2.F	SHGC
					W/m2K
					BTU/hr.ft2.F
8			0.98	0.17	0.444
7			0.97	0.17	0.444
6			0.97	0.17	0.444
5			0.97	0.17	0.444
4			0.97	0.17	0.444
Marine North			0.97	0.17	0.444
Marine South	✓		0.97	0.17	0.444
3	✓		0.97	0.17	0.444
2 West			0.98	0.17	0.444
2 East			0.98	0.17	0.444

Cascadia Universal Inswing D Cardinal Endur	FRAME				Psi-spacer		Psi-opaque
	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	0.91	0.16	0.016	0.009	0.157
Sill	146	5.74	0.95	0.17	0.016	0.009	BTU/hr.ft.F
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		W/m2K	BTU/hr.ft2.F	SHGC	W/m2K BTU/hr.ft2.F
8		0.93	0.16	0.378	0.743 0.131
7		0.92	0.16	0.378	0.730 0.129
6		0.91	0.16	0.378	0.723 0.127
5		0.91	0.16	0.378	0.723 0.127
4		0.91	0.16	0.378	0.724 0.127
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Cardinal Endur		U-frame		Ψ	
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Cardinal Endur		U-frame		Ψ	
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