



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 E366/ 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		0.85	0.15	0.230	0.625	0.110
7		0.84	0.15	0.230	0.612	0.108
6		0.83	0.15	0.230	0.601	0.106
5		0.83	0.15	0.230	0.600	0.106
4		0.83	0.15	0.230	0.597	0.105
Marine North		0.83	0.15	0.230	0.595	0.105
Marine South	✓	0.83	0.15	0.230	0.592	0.104
3	✓	0.83	0.15	0.230	0.594	0.105
2 West	✓	0.81	0.14	0.230	0.555	0.098
2 East	✓	0.81	0.14	0.230	0.555	0.098
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	0.97	0.17	0.157
Sill		146	5.74	1.01	0.18	BTU/hr.ft.F
left jamb		132	5.21	0.98	0.17	0.091
right jamb		132	5.21	0.98	0.17	Grade C


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ASHRAE/IECC /DOE North American Climate Zone	North, East, South- facing West - facing			Cardinal E366/ 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
8		0.85	0.15	0.199	0.110
7		0.84	0.15	0.199	0.108
6		0.83	0.15	0.199	0.106
5		0.83	0.15	0.199	0.106
4	✓	0.83	0.15	0.199	0.105
Marine North	✓	0.83	0.15	0.199	0.105
Marine South	✓	0.83	0.15	0.199	0.104
3	✓	0.83	0.15	0.199	0.105
2 West	✓	0.81	0.14	0.199	0.098
2 East	✓	0.81	0.14	0.199	0.098
Cascadia Universal Inswing D		FRAME		Psi-spacer	
Cardinal Endur		U-frame		Ψ	
		mm	in	W/mK	BTU/hr.ft.F
Head		132	5.21	0.007	0.004
Sill		146	5.74	0.007	0.004
left jamb		132	5.21	0.007	0.004
right jamb		132	5.21	0.007	0.004
				W/mK	
				BTU/hr.ft.F	
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Climate specific recommendations:			Whole-window installed U-value		Ucog-Value			
			W/m2K	BTU/hr.ft2.F	SHGC	W/m2K	BTU/hr.ft2.F	
8			0.85	0.15	0.199	0.625	0.110	
7			0.84	0.15	0.199	0.612	0.108	
6			0.83	0.15	0.199	0.601	0.106	
5			0.83	0.15	0.199	0.600	0.106	
4		✓	0.83	0.15	0.199	0.597	0.105	
Marine North		✓	0.83	0.15	0.199	0.595	0.105	
Marine South	✓	✓	0.83	0.15	0.199	0.592	0.104	
3	✓	✓	0.83	0.15	0.199	0.594	0.105	
2 West	✓	✓	0.81	0.14	0.199	0.555	0.098	
2 East	✓	✓	0.81	0.14	0.199	0.555	0.098	
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	0.97	0.17	0.007	0.004	0.157
Sill		146	5.74	1.01	0.18	0.007	0.004	BTU/hr.ft.F
left jamb		132	5.21	0.98	0.17	0.007	0.004	0.091
right jamb		132	5.21	0.98	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 E366/ 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			0.91	0.16	0.199	0.625	0.110	
7			0.90	0.16	0.199	0.612	0.108	
6			0.89	0.16	0.199	0.601	0.106	
5			0.89	0.16	0.199	0.600	0.106	
4			0.89	0.16	0.199	0.597	0.105	
Marine North		✓	0.89	0.16	0.199	0.595	0.105	
Marine South	✓	✓	0.89	0.16	0.199	0.592	0.104	
3	✓	✓	0.89	0.16	0.199	0.594	0.105	
2 West	✓	✓	0.86	0.15	0.199	0.555	0.098	
2 East	✓	✓	0.86	0.15	0.199	0.555	0.098	
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	0.97	0.17	0.007	0.004	0.157
Sill		146	5.74	1.01	0.18	0.007	0.004	BTU/hr.ft.F
left jamb		132	5.21	0.98	0.17	0.007	0.004	0.091
right jamb		132	5.21	0.98	0.17	0.007	0.004	Grade C


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Climate specific recommendations:			Whole-window installed U-value		Ucog-Value			
			W/m2K	BTU/hr.ft2.F	SHGC	W/m2K	BTU/hr.ft2.F	
8			0.85	0.15	0.170	0.625	0.110	
7			0.84	0.15	0.170	0.612	0.108	
6			0.83	0.15	0.170	0.601	0.106	
5			0.83	0.15	0.170	0.600	0.106	
4		✓	0.83	0.15	0.170	0.597	0.105	
Marine North		✓	0.83	0.15	0.170	0.595	0.105	
Marine South	✓	✓	0.83	0.15	0.170	0.592	0.104	
3	✓	✓	0.83	0.15	0.170	0.594	0.105	
2 West	✓	✓	0.81	0.14	0.170	0.555	0.098	
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Cardinal Endur		Frame height		U-frame		Ψ		W/mK
		mm	in	W/m2K	BTU/hr.ft2.F	W/mK	BTU/hr.ft.F	
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Cardinal Endur		Frame height		U-frame		Ψ		W/mK
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					W/m2K	
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