



Calculation based on ISO 15099

Product name: <b>Cascadia Universal Outswing Door (Single)</b>				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		0.92	0.16	0.514	0.723	0.127
5		0.92	0.16	0.514	0.723	0.127
4		0.92	0.16	0.514	0.724	0.127
Marine North	✓	0.92	0.16	0.514	0.725	0.128
Marine South		0.92	0.16	0.514	0.729	0.128
3		0.92	0.16	0.514	0.726	0.128
2 West		0.93	0.16	0.514	0.736	0.130
2 East		0.93	0.16	0.514	0.736	0.130
Cascadia Universal Outswing		FRAME		Psi-spacer		Psi-opaque
Cardinal Endur		Frame height		Ψ		W/mK
		mm	in	W/m2K	BTU/hr.ft2.F	
Head		132	5.21	0.89	0.16	0.019
Sill		151	5.93	0.97	0.17	0.011
left jamb		132	5.21	0.90	0.16	0.019
right jamb		132	5.21	0.90	0.16	0.011
						Grade C


Valid through November 2022

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Product name: <b>Cascadia Universal Outswing Door (Single)</b>				Center-of-glass properties		
ASHRAE/IECC /DOE North American Climate Zone	South- facing	North, East, West - facing	<div> Passive House Institute US</div> <div>Cardinal E180/ Arg/ Clear/ Arg/ E180 (6mm) 44,0mm   SDL/no Internal grids   </div>			


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Product name: <b>Cascadia Universal Outswing Door (Single)</b>				Center-of-glass properties		
ASHRAE/IECC /DOE North American Climate Zone	North, East, West - facing	South- facing			Cardinal E180/ Arg/ Clear/ Arg/ E180 (6mm) 44,0mm Internal grids And SDL with Internal grids < 25.4mm maintain 3mm clearance	
			Whole-window installed U-value		<b>Ucog-Value</b>	
<b>Climate specific recommendations:</b>			W/m2K	BTU/hr.ft2.F	SHGC	BTU/hr.ft2.F
					W/m2K	
8			0.93	0.16	0.443	0.131
7			0.92	0.16	0.443	0.129
6			0.92	0.16	0.443	0.127
5			0.92	0.16	0.443	0.127
4			0.92	0.16	0.443	0.127
Marine North			0.92	0.16	0.443	0.128
Marine South	✓		0.92	0.16	0.443	0.128
3	✓		0.92	0.16	0.443	0.128
2 West			0.93	0.16	0.443	0.130
2 East			0.93	0.16	0.443	0.130
<b>Cascadia Universal Outswing</b>		<b>FRAME</b>		<b>Psi-spacer</b>		<b>Psi-opaque</b>
<b>Cardinal Endur</b>		Frame height		U-frame		W/mK
		mm	in	W/m2K	BTU/hr.ft2.F	
Head		132	5.21	0.89	0.16	0.160
Sill		151	5.93	0.97	0.17	BTU/hr.ft.F
left jamb		132	5.21	0.90	0.16	0.092
right jamb		132	5.21	0.90	0.16	Grade C


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ASHRAE/IECC /DOE North American Climate Zone	North, East, West - facing	South-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		
Climate specific recommendations:			Whole-window installed U-value		Ucog-Value			
			W/m2K	BTU/hr.ft2.F	SHGC	W/m2K	BTU/hr.ft2.F	
8			0.99	0.17	0.443	0.743	0.131	
7			0.98	0.17	0.443	0.730	0.129	
6			0.97	0.17	0.443	0.723	0.127	
5			0.97	0.17	0.443	0.723	0.127	
4			0.97	0.17	0.443	0.724	0.127	
Marine North			0.97	0.17	0.443	0.725	0.128	
Marine South	<input checked="" type="checkbox"/>		0.98	0.17	0.443	0.729	0.128	
3	<input checked="" type="checkbox"/>		0.98	0.17	0.443	0.726	0.128	
2 West			0.98	0.17	0.443	0.736	0.130	
2 East			0.98	0.17	0.443	0.736	0.130	
Cascadia Universal Outswing		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	0.89	0.16	0.019	0.011	0.160
Sill		151	5.93	0.97	0.17	0.018	0.011	BTU/hr.ft.F
left jamb		132	5.21	0.90	0.16	0.019	0.011	0.092
right jamb		132	5.21	0.90	0.16	0.019	0.011	Grade C

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ASHRAE/IECC /DOE North American Climate Zone	North, East, West - facing	South-facing	<div> Passive House Institute US</div>			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	0.378	0.743	0.131	
7			0.92	0.16	0.378	0.730	0.129	
6			0.92	0.16	0.378	0.723	0.127	
5			0.92	0.16	0.378	0.723	0.127	
4			0.92	0.16	0.378	0.724	0.127	
Marine North		✓	0.92	0.16	0.378	0.725	0.128	
Marine South	✓		0.92	0.16	0.378	0.729	0.128	
3	✓		0.92	0.16	0.378	0.726	0.128	
2 West			0.93	0.16	0.378	0.736	0.130	
2 East			0.93	0.16	0.378	0.736	0.130	
Cascadia Universal Outswing		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	0.89	0.16	0.019	0.011	0.160
Sill		151	5.93	0.97	0.17	0.018	0.011	BTU/hr.ft.F
left jamb		132	5.21	0.90	0.16	0.019	0.011	0.092
right jamb		132	5.21	0.90	0.16	0.019	0.011	Grade C

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<b>Climate specific recommendations:</b>		W/m2K	BTU/hr.ft2.F	<b>SHGC</b>	W/m2K BTU/hr.ft2.F
8		0.93	0.16	0.378	0.743 0.131
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<b>Cascadia Universal Outswing</b>		<b>FRAME</b>		<b>Psi-spacer</b>	
<b>Cardinal Endur</b>		Frame height		Ψ	
		mm	in	W/m2K	BTU/hr.ft.F
Head		132	5.21	0.89	0.16
Sill		151	5.93	0.97	0.17
left jamb		132	5.21	0.90	0.16
right jamb		132	5.21	0.90	0.16
				W/mK	BTU/hr.ft.F
				0.019	0.011
				0.018	0.011
				0.019	0.011
				0.019	0.011
				W/mK	
				0.160	
				BTU/hr.ft.F	
				0.092	
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		SHGC						
Climate specific recommendations:		W/m2K	BTU/hr.ft2.F	W/m2K		BTU/hr.ft2.F		
8		0.99	0.17	0.378	0.743	0.131		
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		mm	in	W/m2K	BTU/hr.ft2.F	W/mK	BTU/hr.ft.F	
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