


Calculation based on ISO 15099

Product name: <b>Cascadia Universal Tilt Slide Door</b>			Center-of-glass properties		
ASHRAE/IECC/ DOE North American Climate Zone	South- facing	North, East, West -facing			
			Cardinal E366/ Arg/ Clear/ Arg/ E180 (6mm) 44,0mm No Grids		
Climate specific recommendations:			Whole-window installed U-value		
			W/m2K	BTU/hr.ft2.F	Ucog-Value
				SHGC	W/m2K BTU/hr.ft2.F
8			0.86	0.15	0.239 0.710 0.125
7			0.84	0.15	0.239 0.693 0.122
6			0.84	0.15	0.239 0.681 0.120
5			0.84	0.15	0.239 0.680 0.120
4		✓	0.83	0.15	0.239 0.679 0.120
Marine North		✓	0.83	0.15	0.239 0.679 0.120
Marine South	✓	✓	0.84	0.15	0.239 0.681 0.120
3	✓	✓	0.83	0.15	0.239 0.680 0.120
2 West	✓	✓	0.84	0.15	0.239 0.686 0.121
2 East	✓	✓	0.84	0.15	0.239 0.686 0.121

Cascadia Universal Tilt Slide Door		FRAME		Psi-spacer	
Cardinal Endur		Frame height		U-frame	
Horizontal two lite left		mm	in	W/m2K	BTU/hr.ft2.F
left head		169	6.64	0.92	0.16
left sill		169	6.64	0.83	0.15
left jamb		146	5.74	0.86	0.15
right MR		93	3.67	0.83	0.15


  

Cascadia Universal Tilt Slide Door		FRAME		Psi-spacer		Psi-opaque
Cardinal Endur		Frame height		U-frame		
Horizontal two lite right		mm	in	W/m2K	BTU/hr.ft2.F	W/mK
right head		81	3.20	1.14	0.20	0.129
right sill		81	3.20	1.09	0.19	BTU/hr.ft.F
right jamb		58	2.27	1.08	0.19	0.074
left MR		93	3.66	1.43	0.25	Grade B

For horizontal slider the right MR is the right jamb for the left segment and the left MR is the left jamb for the right segment

Valid through August 2021

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Product name: <b>Cascadia Universal Tilt Slide Door</b>		Center-of-glass properties			
ASHRAE/IECC/ DOE North American Climate Zone	North, South- facing East, West -facing			Cardinal E366/ 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		0.86	0.15	0.201	0.710 0.125
7		0.84	0.15	0.201	0.693 0.122
6		0.84	0.15	0.201	0.681 0.120
5		0.84	0.15	0.201	0.680 0.120
4		0.83	0.15	0.201	0.679 0.120
Marine North		0.83	0.15	0.201	0.679 0.120
Marine South	✓	0.84	0.15	0.201	0.681 0.120
3	✓	0.83	0.15	0.201	0.680 0.120
2 West	✓	0.84	0.15	0.201	0.686 0.121
2 East	✓	0.84	0.15	0.201	0.686 0.121

Cascadia Universal Tilt Slide Door		FRAME		Psi-spacer	
Cardinal Endur Horizontal two lite left	Frame height		U-frame		Ψ
	mm	in	W/m2K	BTU/hr.ft2.F	W/mK BTU/hr.ft.F
left head	169	6.64	0.92	0.16	0.015 0.009
left sill	169	6.64	0.83	0.15	0.016 0.009
left jamb	146	5.74	0.86	0.15	0.016 0.009
right MR	93	3.67	0.83	0.15	0.016 0.009


  

Cascadia Universal Tilt Slide Door		FRAME		Psi-spacer		Psi-opaque
Cardinal Endur Horizontal two lite right	Frame height		U-frame		Ψ	
	mm	in	W/m2K	BTU/hr.ft2.F	W/mK BTU/hr.ft.F	
right head	81	3.20	1.14	0.20	0.009 0.005	0.129
right sill	81	3.20	1.09	0.19	0.010 0.006	BTU/hr.ft.F
right jamb	58	2.27	1.08	0.19	0.016 0.009	0.074
left MR	93	3.66	1.43	0.25	0.021 0.012	Grade B

For horizontal slider the right MR is the right jamb for the left segment and the left MR is the left jamb for the right segment

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Product name: <b>Cascadia Universal Tilt Slide Door</b>			Center-of-glass properties		
ASHRAE/IECC/ DOE North American Climate Zone	South-facing	North, East, West -facing			
Climate specific recommendations:			Whole-window installed U-value W/m2K      BTU/hr.ft2.F SHGC      W/m2K      BTU/hr.ft2.F		
8			0.86	0.15	0.201
7			0.84	0.15	0.201
6			0.84	0.15	0.201
5			0.84	0.15	0.201
4			0.83	0.15	0.201
Marine North		✓	0.83	0.15	0.201
Marine South	✓	✓	0.84	0.15	0.201
3	✓	✓	0.83	0.15	0.201
2 West	✓	✓	0.84	0.15	0.201
2 East	✓	✓	0.84	0.15	0.201

Cascadia Universal Tilt Slide Door		FRAME		Psi-spacer	
Cardinal Endur		Frame height		U-frame	
Horizontal two lite left		mm	in	W/m2K	BTU/hr.ft2.F
left head		169	6.64	0.92	0.16
left sill		169	6.64	0.83	0.15
left jamb		146	5.74	0.86	0.15
right MR		93	3.67	0.83	0.15


  

Cascadia Universal Tilt Slide Door		FRAME		Psi-spacer		Psi-opaque
Cardinal Endur		Frame height		U-frame		Ψ
Horizontal two lite right		mm	in	W/m2K	BTU/hr.ft2.F	W/mK
right head		81	3.20	1.14	0.20	0.009
right sill		81	3.20	1.09	0.19	0.010
right jamb		58	2.27	1.08	0.19	0.016
left MR		93	3.66	1.43	0.25	0.021

For horizontal slider the right MR is the right jamb for the left segment and the left MR is the left jamb for the right segment

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Product name: <b>Cascadia Universal Tilt Slide Door</b>			Center-of-glass properties		
ASHRAE/IECC/ DOE North American Climate Zone	South- facing	North, East, West -facing			
Climate specific recommendations:			Whole-window installed U-value W/m2K    BTU/hr.ft2.F		
			SHGC    Ucoq-Value W/m2K    BTU/hr.ft2.F		
8			0.91	0.16	0.201    0.710    0.125
7			0.90	0.16	0.201    0.693    0.122
6			0.89	0.16	0.201    0.681    0.120
5			0.89	0.16	0.201    0.680    0.120
4			0.89	0.16	0.201    0.679    0.120
Marine North		✓	0.89	0.16	0.201    0.679    0.120
Marine South	✓	✓	0.89	0.16	0.201    0.681    0.120
3	✓	✓	0.89	0.16	0.201    0.680    0.120
2 West	✓	✓	0.90	0.16	0.201    0.686    0.121
2 East	✓	✓	0.90	0.16	0.201    0.686    0.121

Cascadia Universal Tilt Slide Door		FRAME		Psi-spacer	
Cardinal Endur Horizontal two lite left	Frame height		U-frame		Ψ
	mm	in	W/m2K	BTU/hr.ft2.F	W/mK    BTU/hr.ft.F
left head	169	6.64	0.92	0.16	0.015    0.009
left sill	169	6.64	0.83	0.15	0.016    0.009
left jamb	146	5.74	0.86	0.15	0.016    0.009
right MR	93	3.67	0.83	0.15	0.016    0.009


  

Cascadia Universal Tilt Slide Door		FRAME		Psi-spacer		Psi-opaque
Cardinal Endur Horizontal two lite right	Frame height		U-frame		Ψ	
	mm	in	W/m2K	BTU/hr.ft2.F	W/mK    BTU/hr.ft.F	W/mK
right head	81	3.20	1.14	0.20	0.009    0.005	0.129
right sill	81	3.20	1.09	0.19	0.010    0.006	BTU/hr.ft.F
right jamb	58	2.27	1.08	0.19	0.016    0.009	0.074
left MR	93	3.66	1.43	0.25	0.021    0.012	Grade B

For horizontal slider the right MR is the right jamb for the left segment and the left MR is the left jamb for the right segment

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Product name: <b>Cascadia Universal Tilt Slide Door</b>		Center-of-glass properties			
ASHRAE/IECC/ DOE North American Climate Zone	North, South- facing East, West -facing			Cardinal E366/ 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		0.86	0.15	0.164	0.710 0.125
7		0.84	0.15	0.164	0.693 0.122
6		0.84	0.15	0.164	0.681 0.120
5		0.84	0.15	0.164	0.680 0.120
4		0.83	0.15	0.164	0.679 0.120
Marine North		0.83	0.15	0.164	0.679 0.120
Marine South	✓	0.84	0.15	0.164	0.681 0.120
3	✓	0.83	0.15	0.164	0.680 0.120
2 West	✓	0.84	0.15	0.164	0.686 0.121
2 East	✓	0.84	0.15	0.164	0.686 0.121
<b>Cascadia Universal Tilt Slide Door</b>		FRAME		Psi-spacer	
<b>Cardinal Endur</b>		Frame height		Ψ	
Horizontal two lite left		mm	in	W/m2K	BTU/hr.ft2.F
left head		169	6.64	0.92	0.16
left sill		169	6.64	0.83	0.15
left jamb		146	5.74	0.86	0.15
right MR		93	3.67	0.83	0.15
<b>Cascadia Universal Tilt Slide Door</b>		FRAME		Psi-spacer	
<b>Cardinal Endur</b>		Frame height		Ψ	
Horizontal two lite right		mm	in	W/m2K	BTU/hr.ft2.F
right head		81	3.20	1.14	0.20
right sill		81	3.20	1.09	0.19
right jamb		58	2.27	1.08	0.19
left MR		93	3.66	1.43	0.25
				Psi-opaque	
				W/mK	
				BTU/hr.ft.F	
				Grade B	

For horizontal slider the right MR is the right jamb for the left segment and the left MR is the left jamb for the right segment


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Product name:		Cascadia Universal Tilt Slide Door				Center-of-glass properties			
ASHRAE/IECC/ DOE North American Climate Zone	North, South-facing East, West -facing		 Passive House Institute US		Cardinal E366/ Arg/ Clear/ Arg/ E180 (6mm) 44,0mm Internal grids And SDL/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			0.86	0.15	0.164	0.710	0.125		
7			0.84	0.15	0.164	0.693	0.122		
6			0.84	0.15	0.164	0.681	0.120		
5			0.84	0.15	0.164	0.680	0.120		
4			0.83	0.15	0.164	0.679	0.120		
Marine North			0.83	0.15	0.164	0.679	0.120		
Marine South			0.84	0.15	0.164	0.681	0.120		
3			0.83	0.15	0.164	0.680	0.120		
2 West			0.84	0.15	0.164	0.686	0.121		
2 East			0.84	0.15	0.164	0.686	0.121		
Cascadia Universal Tilt Slide Door		FRAME				Psi-spacer			
Cardinal Endur		Frame height		U-frame		Ψ			
Horizontal two lite left		mm	in	W/m2K	BTU/hr.ft2.F	W/mK	BTU/hr.ft.F		
left head		169	6.64	0.92	0.16	0.015	0.009		
left sill		169	6.64	0.83	0.15	0.016	0.009		
left jamb		146	5.74	0.86	0.15	0.016	0.009		
right MR		93	3.67	0.83	0.15	0.016	0.009		
Cascadia Universal Tilt Slide Door		FRAME				Psi-spacer		Psi-opaque	
Cardinal Endur		Frame height		U-frame		Ψ			
Horizontal two lite right		mm	in	W/m2K	BTU/hr.ft2.F	W/mK	BTU/hr.ft.F	W/mK	
right head		81	3.20	1.14	0.20	0.009	0.005	0.129	
right sill		81	3.20	1.09	0.19	0.010	0.006	BTU/hr.ft.F	
right jamb		58	2.27	1.08	0.19	0.016	0.009	0.074	
left MR		93	3.66	1.43	0.25	0.021	0.012	Grade B	
For horizontal slider the right MR is the right jamb for the left segment and the left MR is the left jamb for the right segment									

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ASHRAE/IECC/ DOE North American Climate Zone	South-facing	North, East, West -facing			
			Cardinal E366/ Arg/ Clear/ Arg/ E180 (6mm) 44,0mm Internal grids And SDL/Internal grids >= 25.4mm		
Climate specific recommendations:			Whole-window installed U-value		
			W/m2K	BTU/hr.ft2.F	SHGC
8			0.91	0.16	0.164
7			0.90	0.16	0.164
6			0.89	0.16	0.164
5			0.89	0.16	0.164
4			0.89	0.16	0.164
Marine North		✓	0.89	0.16	0.164
Marine South	✓	✓	0.89	0.16	0.164
3	✓	✓	0.89	0.16	0.164
2 West	✓	✓	0.90	0.16	0.164
2 East	✓	✓	0.90	0.16	0.164
			Ucog-Value		
			W/m2K	BTU/hr.ft2.F	
			0.710	0.125	
			0.693	0.122	
			0.681	0.120	
			0.680	0.120	
			0.679	0.120	
			0.679	0.120	
			0.681	0.120	
			0.680	0.120	
			0.686	0.121	
			0.686	0.121	
<b>Cascadia Universal Tilt Slide Door</b>			FRAME		Psi-spacer
<b>Cardinal Endur</b>			Frame height		Ψ
Horizontal two lite left			mm	in	W/mK
					BTU/hr.ft.F
left head			169	6.64	0.92
left sill			169	6.64	0.83
left jamb			146	5.74	0.86
right MR			93	3.67	0.83
<b>Cascadia Universal Tilt Slide Door</b>			FRAME		Psi-spacer
<b>Cardinal Endur</b>			Frame height		Ψ
Horizontal two lite right			mm	in	W/mK
					BTU/hr.ft.F
right head			81	3.20	1.14
right sill			81	3.20	1.09
right jamb			58	2.27	1.08
left MR			93	3.66	1.43
					0.20
					0.19
					0.19
					0.021
					0.009
					0.010
					0.016
					0.021
					0.009
					0.006
					0.009
					0.012
					0.129
					BTU/hr.ft.F
					0.074
					Grade B

For horizontal slider the right MR is the right jamb for the left segment and the left MR is the left jamb for the right segment

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