



Calculation based on ISO 15099

Product name: Cascadia Universal Tilt Slide Door			Center-of-glass properties		
ASHRAE/IECC/ DOE North American Climate Zone	South-facing	North, East, West -facing			
			Cardinal E366/ Arg/ E180/ Arg/ i89(#6) (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			0.79	0.14	0.230 0.625 0.110
7			0.78	0.14	0.230 0.612 0.108
6			0.78	0.14	0.230 0.601 0.106
5		✓	0.77	0.14	0.230 0.600 0.106
4		✓	0.77	0.14	0.230 0.597 0.105
Marine North		✓	0.77	0.14	0.230 0.595 0.105
Marine South	✓	✓	0.77	0.14	0.230 0.592 0.104
3	✓	✓	0.77	0.14	0.230 0.594 0.105
2 West	✓	✓	0.74	0.13	0.230 0.555 0.098
2 East	✓	✓	0.74	0.13	0.230 0.555 0.098
Cascadia Universal Tilt Slide Door			FRAME		Psi-spacer
Cardinal Endur			Frame height		Ψ
Horizontal two lite left			mm in	W/m2K BTU/hr.ft2.F	W/mK BTU/hr.ft.F
left head			169 6.64	0.97 0.17	0.006 0.004
left sill			169 6.64	0.88 0.16	0.006 0.004
left jamb			146 5.74	0.92 0.16	0.007 0.004
right MR			93 3.67	0.93 0.16	0.007 0.004
Cascadia Universal Tilt Slide Door			FRAME		Psi-spacer
Cardinal Endur			Frame height		Ψ
Horizontal two lite right			mm in	W/m2K BTU/hr.ft2.F	W/mK BTU/hr.ft.F
right head			81 3.20	1.24 0.22	0.001 0.001
right sill			81 3.20	1.20 0.21	0.002 0.001
right jamb			58 2.27	1.23 0.22	0.007 0.004
left MR			93 3.66	1.52 0.27	0.010 0.006
					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				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		W/m2K		BTU/hr.ft2.F		
8				0.79		0.14		0.193		0.625		0.110		
7				0.78		0.14		0.193		0.612		0.108		
6				0.78		0.14		0.193		0.601		0.106		
5				0.77		0.14		0.193		0.600		0.106		
4				0.77		0.14		0.193		0.597		0.105		
Marine North			<input checked="" type="checkbox"/>	0.77		0.14		0.193		0.595		0.105		
Marine South		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	0.77		0.14		0.193		0.592		0.104	
3		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	0.77		0.14		0.193		0.594		0.105	
2 West		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	0.74		0.13		0.193		0.555		0.098	
2 East		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	0.74		0.13		0.193		0.555		0.098	
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		0.97 0.17		0.006		0.004				
left sill				169 6.64		0.88 0.16		0.006		0.004				
left jamb				146 5.74		0.92 0.16		0.007		0.004				
right MR				93 3.67		0.93 0.16		0.007		0.004				
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		1.24 0.22		0.001		0.001		0.128		
right sill				81 3.20		1.20 0.21		0.002		0.001		BTU/hr.ft.F		
right jamb				58 2.27		1.23 0.22		0.007		0.004		0.074		
left MR				93 3.66		1.52 0.27		0.010		0.006		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			Cardinal E366/ Arg/ E180/ Arg/ i89(#6) (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		0.79	0.14	0.193	0.625 0.110
7		0.78	0.14	0.193	0.612 0.108
6		0.78	0.14	0.193	0.601 0.106
5		0.77	0.14	0.193	0.600 0.106
4		0.77	0.14	0.193	0.597 0.105
Marine North		0.77	0.14	0.193	0.595 0.105
Marine South	✓	0.77	0.14	0.193	0.592 0.104
3	✓	0.77	0.14	0.193	0.594 0.105
2 West	✓	0.74	0.13	0.193	0.555 0.098
2 East	✓	0.74	0.13	0.193	0.555 0.098


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	0.97	0.17	0.006 0.004
left sill	169	6.64	0.88	0.16	0.006 0.004
left jamb	146	5.74	0.92	0.16	0.007 0.004
right MR	93	3.67	0.93	0.16	0.007 0.004

Cascadia Universal Tilt Slide Door		FRAME		Psi-spacer		Psi-opaque
Cardinal Endur Horizontal two lite right	Frame height		U-frame		Ψ	W/mK BTU/hr.ft.F Grade B
	mm	in	W/m2K	BTU/hr.ft2.F	W/mK BTU/hr.ft.F	
right head	81	3.20	1.24	0.22	0.001 0.001	0.128
right sill	81	3.20	1.20	0.21	0.002 0.001	
right jamb	58	2.27	1.23	0.22	0.007 0.004	0.074
left MR	93	3.66	1.52	0.27	0.010 0.006	

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

Calculation based on ISO 15099


Product name: Cascadia Universal Tilt Slide Door			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 Ucog-Value W/m2K BTU/hr.ft2.F		
8			0.85	0.15	0.193
7			0.84	0.15	0.193
6			0.83	0.15	0.193
5			0.83	0.15	0.193
4		✓	0.83	0.15	0.193
Marine North		✓	0.83	0.15	0.193
Marine South	✓	✓	0.82	0.15	0.193
3	✓	✓	0.83	0.15	0.193
2 West	✓	✓	0.80	0.14	0.193
2 East	✓	✓	0.80	0.14	0.193

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	0.97	0.17
left sill		169	6.64	0.88	0.16
left jamb		146	5.74	0.92	0.16
right MR		93	3.67	0.93	0.16
Cascadia Universal Tilt Slide Door		FRAME		Psi-spacer	
Cardinal Endur		Frame height		U-frame	
Horizontal two lite right		mm	in	W/m2K	BTU/hr.ft2.F
right head		81	3.20	1.24	0.22
right sill		81	3.20	1.20	0.21
right jamb		58	2.27	1.23	0.22
left MR		93	3.66	1.52	0.27

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

Calculation based on ISO 15099

Product name: Cascadia Universal Tilt Slide Door		Center-of-glass properties			
ASHRAE/IECC/ DOE North American Climate Zone	North, South- facing East, 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	W/m2K BTU/hr.ft2.F
8		0.79	0.14	0.158	0.625 0.110
7		0.78	0.14	0.158	0.612 0.108
6		0.78	0.14	0.158	0.601 0.106
5		0.77	0.14	0.158	0.600 0.106
4		0.77	0.14	0.158	0.597 0.105
Marine North		0.77	0.14	0.158	0.595 0.105
Marine South	✓	0.77	0.14	0.158	0.592 0.104
3	✓	0.77	0.14	0.158	0.594 0.105
2 West	✓	0.74	0.13	0.158	0.555 0.098
2 East	✓	0.74	0.13	0.158	0.555 0.098


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	0.97	0.17	0.006 0.004
left sill	169	6.64	0.88	0.16	0.006 0.004
left jamb	146	5.74	0.92	0.16	0.007 0.004
right MR	93	3.67	0.93	0.16	0.007 0.004

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	1.24	0.22	0.001 0.001	0.128
right sill	81	3.20	1.20	0.21	0.002 0.001	BTU/hr.ft.F
right jamb	58	2.27	1.23	0.22	0.007 0.004	0.074
left MR	93	3.66	1.52	0.27	0.010 0.006	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

Calculation based on ISO 15099

Product name:		Cascadia Universal Tilt Slide Door				Center-of-glass properties			
ASHRAE/IECC/ DOE North American Climate Zone	South-facing		North, East, West -facing		 Passive House Institute US		Cardinal E366/ Arg/ E180/ Arg/ i89(#6) (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			0.79	0.14		0.158	0.625	0.110	
7			0.78	0.14		0.158	0.612	0.108	
6			0.78	0.14		0.158	0.601	0.106	
5			0.77	0.14		0.158	0.600	0.106	
4			0.77	0.14		0.158	0.597	0.105	
Marine North			0.77	0.14		0.158	0.595	0.105	
Marine South			0.77	0.14		0.158	0.592	0.104	
3			0.77	0.14		0.158	0.594	0.105	
2 West			0.74	0.13		0.158	0.555	0.098	
2 East			0.74	0.13		0.158	0.555	0.098	
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	0.97	0.17	0.006	0.004	
left sill			169	6.64	0.88	0.16	0.006	0.004	
left jamb			146	5.74	0.92	0.16	0.007	0.004	
right MR			93	3.67	0.93	0.16	0.007	0.004	
Cascadia Universal Tilt Slide Door			FRAME				Psi-spacer		Psi-opaque
Cardinal Endur			Frame height		U-frame		Ψ		W/mK BTU/hr.ft.F 0.074 Grade B
Horizontal two lite right			mm	in	W/m2K	BTU/hr.ft2.F	W/mK	BTU/hr.ft.F	
right head			81	3.20	1.24	0.22	0.001	0.001	
right sill			81	3.20	1.20	0.21	0.002	0.001	
right jamb			58	2.27	1.23	0.22	0.007	0.004	
left MR			93	3.66	1.52	0.27	0.010	0.006	
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			Cardinal E366/ Arg/ E180/ Arg/ i89(#6) (6mm) 44,0mm Internal grids And SDL/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		0.85	0.15	0.158	0.625 0.110
7		0.84	0.15	0.158	0.612 0.108
6		0.83	0.15	0.158	0.601 0.106
5		0.83	0.15	0.158	0.600 0.106
4	✓	0.83	0.15	0.158	0.597 0.105
Marine North	✓	0.83	0.15	0.158	0.595 0.105
Marine South	✓	0.82	0.15	0.158	0.592 0.104
3	✓	0.83	0.15	0.158	0.594 0.105
2 West	✓	0.80	0.14	0.158	0.555 0.098
2 East	✓	0.80	0.14	0.158	0.555 0.098
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	0.97	0.17
left sill		169	6.64	0.88	0.16
left jamb		146	5.74	0.92	0.16
right MR		93	3.67	0.93	0.16
Cascadia Universal Tilt Slide Door		FRAME		Psi-spacer	
Cardinal Endur		Frame height		U-frame	
Horizontal two lite right		mm	in	W/m2K	BTU/hr.ft2.F
right head		81	3.20	1.24	0.22
right sill		81	3.20	1.20	0.21
right jamb		58	2.27	1.23	0.22
left MR		93	3.66	1.52	0.27
				W/mK	BTU/hr.ft.F
				0.001	0.001
				0.002	0.001
				0.007	0.004
				0.010	0.006
				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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