



Calculation based on ISO 15099

Product name: Universal Fixed Window Interior Glazed				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		0.92	0.16	0.514	0.743	0.131
7		0.91	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		0.91	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
Universal Fixed Window Interior Cardinal Endur		FRAME		Psi-spacer		Psi-opaque
		Frame height		U-frame		W/mK BTU/hr.ft.F
		mm	in	W/m2K	BTU/hr.ft2.F	
	Head	58	2.27	1.09	0.19	0.016
	Sill	58	2.27	1.09	0.19	0.009
	left jamb	58	2.27	1.10	0.19	0.016
	right jamb	58	2.27	1.10	0.19	0.016


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Product name: Universal Fixed Window Interior Glazed				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 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			0.92	0.16	0.452	0.131
7			0.91	0.16	0.452	0.129
6			0.91	0.16	0.452	0.127
5			0.91	0.16	0.452	0.127
4			0.91	0.16	0.452	0.127
Marine North			0.91	0.16	0.452	0.128
Marine South	✓		0.91	0.16	0.452	0.128
3	✓		0.91	0.16	0.452	0.128
2 West			0.92	0.16	0.452	0.130
2 East			0.92	0.16	0.452	0.130
Universal Fixed Window Inte		FRAME		Psi-spacer		Psi-opaque
Cardinal Endur		Frame height		U-frame		W/mK
		mm	in	W/m2K	BTU/hr.ft2.F	
Head		58	2.27	1.09	0.19	0.082
Sill		58	2.27	1.09	0.19	BTU/hr.ft.F
left jamb		58	2.27	1.10	0.19	0.048
right jamb		58	2.27	1.10	0.19	Grade A


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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 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		0.92	0.16	0.452	0.743	0.131
7		0.91	0.16	0.452	0.730	0.129
6		0.91	0.16	0.452	0.723	0.127
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Universal Fixed Window Interior Cardinal Endur		FRAME			Psi-spacer	
		Frame height		U-frame		Psi
		mm	in	W/m2K	BTU/hr.ft2.F	
Head		58	2.27	1.09	0.19	0.016
Sill		58	2.27	1.09	0.19	0.009
left jamb		58	2.27	1.10	0.19	0.016
right jamb		58	2.27	1.10	0.19	0.016
					Psi-opaque	
					W/mK	
					BTU/hr.ft.F	
					Grade A	


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		W/m2K	BTU/hr.ft2.F	SHGC	W/m2K	BTU/hr.ft2.F
8		0.98	0.17	0.452	0.743	0.131
7		0.97	0.17	0.452	0.730	0.129
6		0.96	0.17	0.452	0.723	0.127
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Universal Fixed Window Inte		FRAME		Psi-spacer		Psi-opaque
Cardinal Endur		Frame height		Ψ		W/mK
		mm	in	W/m2K	BTU/hr.ft2.F	
Head		58	2.27	1.09	0.19	0.016
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Climate specific recommendations:			Whole-window installed U-value		Ucog-Value
			W/m2K	BTU/hr.ft2.F	SHGC
8			0.92	0.16	0.394
7			0.91	0.16	0.394
6			0.91	0.16	0.394
5			0.91	0.16	0.394
4			0.91	0.16	0.394
Marine North		✓	0.91	0.16	0.394
Marine South	✓		0.91	0.16	0.394
3	✓		0.91	0.16	0.394
2 West			0.92	0.16	0.394
2 East			0.92	0.16	0.394
Universal Fixed Window Inte		FRAME		Psi-spacer	Psi-opaque
Cardinal Endur		Frame height		Ψ	
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Head		58	2.27	1.09	0.19
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