

AREA WEIGHTED AVERAGE CALCULATION WORKSHEET WS-2R

Project Title	Date
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This worksheet should be used to calculate weight-averaged U-factors for prescriptive envelope compliance. R-values can never be area weighted; only area-weight U-factors.

Whenever two or more types of a building feature, material or construction assembly occur in a building, a weighted average of the different types must be calculated. Weighted averaging is simply a mathematical technique for combining different amounts of various components into a single number. Weighted averaging is frequently done when there is more than one level of floor, wall, or ceiling insulation in a building, or more than one type of window.

- a. "Area" can be replaced throughout the formula by "Length" or any other unit of measure used for the value being averaged.
- b. "Value" can be replaced throughout the formula by "U-factor," "Solar Heat Gain Coefficient," or any other value that varies throughout a residence and is appropriate to weight average.

Item No.	Type 1 Value ^b		Type 1 Area ^a		Type 2 Value ^b		Type 2 Area ^a		Type 3 Value ^b		Type 3 Area ^a		Total Area		Weighted Average Value
	[()]	x	()	+	()	x	()	+	()	x	()]	÷		=	
	[()]	x	()	+	()	x	()	+	()	x	()]	÷		=	
	[()]	x	()	+	()	x	()	+	()	x	()]	÷		=	
	[()]	x	()	+	()	x	()	+	()	x	()]	÷		=	
	[()]	x	()	+	()	x	()	+	()	x	()]	÷		=	
	[()]	x	()	+	()	x	()	+	()	x	()]	÷		=	
	[()]	x	()	+	()	x	()	+	()	x	()]	÷		=	
	[()]	x	()	+	()	x	()	+	()	x	()]	÷		=	