

(This foreword is provided for information only and is not part of the draft addendum.)

## **FOREWORD**

**Draft Addendum 90.1ag – Publication Draft.** When Standard 90.1-1999 was developed, an extensive default table was included for glazed wall systems (e.g. site-built curtainwalls) because NFRC was still developing the certification program for these products. NFRC now has a certification program in place for site-built fenestration. Consequently, compliance should be demonstrated based on the rating for a specific product.

## **Addendum 90.1ag**

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### **SECTIONS 5.2.2.1, 5.2.2.2, A8, TABLE A-17, TABLE A-18, AND TABLE A-19: (I-P AND SI)**

Revise to read as follows -

**5.2.2.1 U-Factor.** *U-factors* shall be determined in accordance with NFRC 100. *U-factors* for *skylights* shall be determined for a slope of 20° above the horizontal. *U-factor* shall be determined by a laboratory accredited by a nationally recognized accreditation organization, such as the National Fenestration Rating Council, and shall be *labeled* and certified by the manufacturer.

#### **Exceptions to 5.2.2.1:**

- (a) *U-factors* from A.8.1 shall be an acceptable alternate for determining compliance with the *U-factor* criteria for *skylights*. Where credit is being taken for a low-emissivity coating, the emissivity of the coating shall be determined in accordance with NFRC 301. Emissivity shall be verified and certified by the manufacturer.
- (b) *U-factors* from A.8.2 shall be an acceptable alternate for determining compliance with the *U-factor* criteria for *vertical fenestration*.
- (c) *U-factors* from A.7 shall be an acceptable alternate for determining compliance with the *U-factor* criteria for *opaque doors*.
- (d) For *garage doors*, NAGDM 105 shall be an acceptable alternate for determining *U-factors*.

**5.2.2.2 Solar Heat Gain Coefficient.** *Solar heat gain coefficient (SHGC)* for the overall *fenestration area* shall be determined in accordance with NFRC 200. *Solar heat gain coefficient* shall be determined by a laboratory accredited by a nationally recognized accreditation organization, such as the National Fenestration Rating Council, and shall be *labeled* and certified by the manufacturer.

#### **Exceptions to 5.2.2.2:**

- (a) *Shading coefficient* of the center of glass multiplied by 0.86 shall be an acceptable alternate for determining compliance with the *SHGC* requirements for the overall *fenestration area*. *Shading coefficient* shall be determined using a spectral data file determined in accordance with NFRC 300. *Shading coefficient* shall be verified and certified by the manufacturer.
- (b) *Solar heat gain coefficient* of the center of glass shall be an acceptable alternate for determining compliance with the *SHGC* requirements for the overall *fenestration area*. *SHGC* shall be determined using a spectral data file determined in accordance with NFRC 300. *SHGC* shall be verified and certified by the manufacturer.

- (c) SHGC from A.8.1 shall be an acceptable alternate for determining compliance with the *SHGC* criteria for *skylights*. Where credit is being taken for a low-emissivity coating, the emissivity of the coating shall be determined in accordance with NFRC 301. Emissivity shall be verified and certified by the manufacturer.
- (d) *SHGC* from A.8.2 shall be an acceptable alternate for determining compliance with the *SHGC* criteria for *vertical fenestration*.

**A8 Fenestration.** All *fenestration* with *U-factors*, *SHGC*, or visible light transmittance determined, certified, and labeled in accordance with NFRC 100, 200, and 300 respectively, as specified in 5.2.2, shall be assigned those values.

**A8.1 Unlabeled Skylights.** *Unlabeled skylights* shall be assigned the *U-factors* in Table A-17 and are allowed to use the *SHGCs* and visible light transmittances in Table A-18. The metal with thermal break frame category shall not be used unless all frame members have a thermal break equal to or greater than ¼ in. (6 mm).

**A8.2 Unlabeled Vertical Fenestration.** *Unlabeled vertical fenestration*, both operable and fixed, shall be assigned the *U-factors*, *SHGCs*, and visible light transmittances in Table A-19. No credit shall be given for any other features, including metal frames with thermal breaks, low-emissivity coatings, gas-fillings, or insulating spacers, other than as determined in accordance with 5.2.2.

**Table A-17 (Section A8.1), Assembly U-Factors for Unlabeled Skylights**

Delete the heading and four columns for vertical installation.

**Table A-18 (Section A8.1 Assembly Solar Heat Gain Coefficients (SHGC) and Assembly Visible Light Transmittances (VLT) for Unlabeled Skylights**

Revise the column heading to delete reference to unlabeled glazed wall systems:

Unlabeled Skylights (includes all: glass/plastic, flat/domed, fixed/operable)

**Table A-19 (Section A8.2) Assembly U-Factors, Assembly Solar Heat Gain Coefficients (SHGC) and Assembly Visible Light Transmittances (VLT) for Unlabeled Vertical Fenestration**

Revise the column heading to read as follows:

Unlabeled Vertical Fenestration