

# SPECIFICATIONS 086200

## Glass Unit Skylights

### PART I - GENERAL

#### 1.02 Section Includes:

Summary: To Specifier: PLEASE EDIT LIST BELOW TO SUIT PROJECT REQUIREMENTS.

- A. The work of this Section includes glass unit skylights, fixed or operable, of the following types:
  - 1. Curb-mounted residential flat glass skylights.
  - 2. Self-flashing residential flat glass skylights.
  - 3. Curb-mounted Commercial flat glass skylights.
  - 4. Self-flashing Commercial flat glass skylights.
  
- B. Related Sections: Other Specification Sections that directly relate to the work of this Section include, but are not limited to the following:
  - 1. Section 07510 - Built-Up Bituminous Roofing.
  - 2. Section 07525 - Modified Sheet Roofing.
  - 3. Section 07530 - Single Ply Membrane Roofing.
  - 4. Section 07600 - Flashing and Sheet Metal.
  - 5. Section 07610 - Sheet Metal Roofing.

#### 1.03 References

- A. Aluminum Association (AA): Specifications for Aluminum Structures.
- B. American Architectural Manufacturers Association (AAMA):
  - 1. AAMA/WDMA/CSA/101/LS.2/A440 North American Fenestration Standard/Specification for windows, doors, and skylights. (Includes standard test methods for air infiltration, water penetration, and structural loading)
  - 2. AAMA 603.8-92 Pigmented Organic Coating on Extruded Aluminum
  - 3. AAMA 611 – Voluntary Standard for Anodized Architectural Aluminum
  - 4. ASTM A 193 / A 193M – 08b Standard Specification for Alloy-Steel and Stainless Steel Bolting Materials for High Temperature or High Pressure Service and Other Special Purpose Applications
- C. American Standards and Test Methods
  - 1. ASTM B-209 – Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate
  - 2. ASTM B-221 – Standard Specification for Aluminum and Aluminum-Alloy Extruded Profiles.
  - 3. ASSTM D -1667-05 – Standard Specification for Flexible Cellular Materials – Closed Cell
- D. International Building Code – IBC (current edition if applicable)
- E. California Title 24 Building Code – CBC (current edition if applicable)
- F. National Roofing Contractors Association 9NRCA). Roofing and Waterproofing Manual

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### **Glass Unit Skylights**

#### 1.04 Performance Requirements

- A. Skylights are tested for compliance by a National Accreditation & Management Institute and rated by the National Fenestration Rating Council (NFRC) for thermal performance.

#### 1.05 Submittals

- A. Product Data: Submit manufacturer's product data, and recommendations for installation of the unit skylights and acceptable methods for the cleaning of the frame and glazing.
- B. Shop Drawings: Shop drawings shall be submitted for approval prior to fabrication. Include details for framing members, glazing materials, sealant, fasteners, anchors, and thickness' and types of formed flashing and closures.
- C. Samples: If required, provide 12" x 12" glass samples for approval in specified thickness and tint. For aluminum, if other than mill finish required, submit a verification sample for of finish and color specified.

#### 1.06 Quality Assurance

- A. Manufacturer: Unit skylights shall be manufactured by a firm with practical experience in the fabrication and installation of the type of unit skylights detailed in this project. Manufacturers proposed for use, which are not named in this Section, shall submit evidence of ability to meet performance and fabrication requirements specified not less than 10 days prior to bid date.
- A. Installer: Unit skylights shall be installed by workmen with a minimum of 5 years of experience in installation of similar units.

#### 1.07 Delivery, Storage and Handling

- A. Deliver materials and products in labeled packages. Store and handle in strict compliance with manufacturer's instructions and recommendations. Protect from impact damage to glass due to construction operations.

#### 1.08 Project Conditions

- A. Field Measurements: When applicable, take accurate field measurements before fabrication.

#### 1.09 Warranty

- A. Skylight Warranty: Provide written warranty by manufacturer, agreeing to repair or replace work which exhibits defects in materials or workmanship and guarantee a weather tight and leak free performance. "Defects" is defined as uncontrolled leakage of water and abnormal aging or deterioration.

1. Warranty Period: 10 years from date of skylight completion.

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### Glass Unit Skylights

#### PART II - PRODUCTS

##### 2.01 Acceptable Manufacturer

- A. Provide glass glazed unit skylights by Skyco Skylights, 2995 Airway Avenue, Suite B, Costa Mesa, CA, 92626, Phone: (949) 629-4090 [www.skycoskylights.com](http://www.skycoskylights.com).
- B. Or Approved Equal
- C. Alternate manufacturers must pre-qualify to bid not less than 10 days prior to bid date and provide evidence that alternate products meet the performance requirements.

##### 2.02 Materials and Fabrication

- A. Curb Mounted (A-G-CM1) single laminated glass (A-G-CM2) Insulated glass Self Flashing Skylights (A-G-SF): Factory assembled units consisting of glass as specified below, 0.065" extruded aluminum frame and 0.065" extruded aluminum glass retaining cap. Skylight frame shall have an integral condensate gutter with weep holes. (Self-flashing skylights will have a \_\_\_\_" high (Please specify 4", 9" OR 12") Self-flashing frame with .065 wall thickness, and a 3" roof flange for anchorage.)
  1. Type: (Model A-G-CM1 (single laminated glass) or A-G-CM2 (Insulated glass) or A-G-SF (Model A-C-G-CM or A-C-G-SF for Circular) (Model A-G-O for manually operable or Model A-G-OE for electrically operable).
  2. Glazing: single laminated glass or dual seal silicone insulated glass (**specify one**) Glass to be tempered over laminated to meet building code requirements. Glass thickness as required to meet the span and loads required for the application.
  3. Glass Color: Clear or (**please specify if tint is required**)
  4. Glass performance requirements: **Note – There are numerous glazing configurations available to meet any specific requirement; including configurations to meet LEED credit criteria and other Code related criteria as it applies to the skylight application.**
    - a. Visible Light Transmittance (VLT) **Insert value:** \_\_\_\_\_
    - b. Solar Heat Gain Coefficient (SHGC) **Insert value:** \_\_\_\_\_
    - c. U-Factor: **Insert value:** \_\_\_\_\_
  4. Drainage Control: Unit shall have sufficient drainage slots to weep condensate gutters to remove all moisture to the exterior).
  6. Size: (**Insert inside curb dimensions here if not indicated on drawings**).
  7. Curb: If required (Insert 4", 9" or 12" height) non-insulated curb, Insulated curb (IC), insulated curb with wood nailer (ICN), or double wall insulated curb (IC2)
  8. Finish of frame: (**Insert** mill, powder coat or Kynar) color to be: (Insert color)
  9. If required, **Insert:(Thermally broken frame (TB)** to minimize condensation on interior portion of frame) (Note TB frames not available in a circular model)
  10. Sealant: Continuous 50-year silicone seal between glass and retainer cap for a water-tight and air-tight seal.

##### 2.03 FABRICATION

- A. Fabricate free of visual distortions and defects. Weld corners and joints
- B. All fasteners and hardware shall be corrosion resistant.
- C. Provide for removal of condensation with an integral gutter and weep system.
- D. Provide a weather tight assembly.

##### 2.04 DELIVERY, STORAGE AND HANDLING

- A. Handle, deliver and store in manufacturer's original packaging, follow the manufacturer's recommendations. Store in a manner as to prevent damage.
- B. Exercise caution when hoisting units to the roof so as not to scratch, bend or damage.

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#### **PART III - EXECUTION**

##### 3.01 Execution

- A. Take field dimensions and examine conditions of substrates, supports, and other conditions under which this work is to be performed, and notify Contractor in writing, of circumstances detrimental to the proper completion of the work. Do not proceed with work until unsatisfactory conditions are corrected.

##### 3.02 Installation

- A. Strictly comply with manufacturer's instructions and recommendations. Match profiles, sizes and spacing indicated on approved shop drawings.
- B. Coordinate installation with adjacent work such as roofing, sheet metal and other work to ensure creations of a complete weatherproof assembly. Anchor work securely to supporting structure, but allow for differential and thermal movement.
- C. Isolate between aluminum and dissimilar metals with a protective coating or plastic strip to prevent electrolytic corrosion.

##### 3.03 Adjusting, Cleaning and Protection

- A. After installation, remove shipping labels and part number markings from components. Do not remove "risk of fall" label from units.
- B. Do not store skylights with the protective covering in the sun. The plastic covering should be removed as soon as possible.
- C. Clean all exposed surfaces including metal and glazing using non-abrasive materials and methods recommended by manufacturer of material or product being cleaned. Remove and replace work that cannot be successfully cleaned.
- D. Re-clean as necessary to prevent damage. Protect completed work from damage and deterioration and inspect immediately before final acceptance of a project.

**END OF SECTION**