

**SECTION 08622**

**TUBE SKYLIGHT**

**\*\*\*\*\* Active Ventilation Products, Inc. manufactures passive and powered exhaust ventilators, tube skylights, and combination skylight and ventilator units.**

**This guide can be used to prepare a specification for Aura Skylight, a compact, tubular, roof mounted skylight with ceiling light diffuser.**

**The specification section is organized by placing information in three standard parts:**

**PART 1 - GENERAL Describes administrative and procedural requirements.**

**PART 2 - PRODUCTS Describes materials, products, and accessories to be incorporated into the construction project.**

**PART 3 - EXECUTION Describes how the products will be installed at the construction site.**

**Throughout this product guide specification, references are made to other specification sections that might be contained in the project manual. These references are presented as examples and coordination reminders. For each project, these references will need to be revised to reflect actual sections being used.**

**Within the specification text, Imperial dimensions are presented first in brackets followed by System International Metric (SI) equivalents also in brackets. Depending on project requirements, either the Imperial or the SI metric equivalents will need to be deleted.**

**The specifier will need to edit this product specification for a specific project to reflect the options and applications being used. The guide section has been written so that most editing can be accomplished by deleting unnecessary requirements and options. Options are indicated by [ ]. Notes to assist the specifier in selecting options and editing the specification guide are printed in bold and indicated with \*\*\*\*\*. For final editing, all brackets and notes will need to be deleted from the guide.**

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**PART 1 - GENERAL**

**1.1 SUMMARY**

A. Section includes: Roof mounted, tubular skylight with ceiling light diffuser.

**\*\*\*\*\* Aura Skylight can be installed on asphalt shingle, clay and concrete tile, metal panel, and built-up and single ply membrane roofs. Select appropriate paragraph from the following to reflect project conditions. \*\*\*\*\***

- B. Section 07310 - Shingles: Asphalt shingle roofing to receive skylight.
- C. Section 07320 - Roof Tiles: [Clay] [Concrete] tile roof system to receive skylight.
- D. Section 07410 - Metal Roof Panels: Metal roof system to receive skylight.
- E. Section 07500 - Membrane Roofing: [Built-up] [Single ply] membrane roofing to receive skylight.

## **1.2 SUBMITTALS**

- A. Provide in accordance with Section 01330 - Submittal Procedures:
  - 1. Product data for skylight.
  - 2. Shop drawings: Indicate dimensions, construction, and installation details.
  - 3. Manufacturer's installation and maintenance instructions.
  - 4. Copy of warranty required by Paragraph 1.3 for review by Architect.

## **1.3 WARRANTY**

- A. Provide under provisions of Section 01780 - Closeout Submittals: Lifetime warranty to initial owner to cover defects in skylight materials and workmanship.

## **PART 2 - PRODUCTS**

### **2.1 ACCEPTABLE MANUFACTURERS**

- A. Active Ventilation Products, Inc.
  - 1. Address:
    - P.O. Box 1521
    - Newburgh, New York 12551-1521
  - 2. Telephone: 800-247-3463 or 845-565-7770
  - 3. FAX: 845-562-8963
  - 4. Website: www.roofvents.com
  - 5. E-mail: roofvents@aol.com
- B. Requests to use equivalent products of other manufacturers shall be submitted in

accordance with Section 01630 - Product Substitution Procedures.

## 2.2 TUBE SKYLIGHT

**\*\*\*\*\* Various models of Aura Skylight are manufactured by Active Ventilation Products, Inc. ranging in size from 10 to 36 inches (254 to 914 mm) diameter. Model number refers to diameter of skylight. For example, No. AS-10 is a 10 inches (254 mm) diameter skylight. \*\*\*\*\***

- A. Type: Roof mounted, circular, skylight connected by flex tubing to light diffuser installed in ceiling; Aura Skylight Model No. [AS-10] [AS-12] [AS-14] [AS-18] [AS-24] [AS-30] [AS-36] as manufactured by Active Ventilation Products, Inc.
- B. Materials:

**\*\*\*\*\* Skylight frame is provided as mill finished aluminum or with powder paint coating. \*\*\*\*\***

1. Skylight frame: Spun aluminum with [electrostatically applied powder paint coating. Color selected from manufacturer's standard range.] [mill finish.]
2. Ceiling diffuser frame: Spun aluminum with electrostatically applied white powder paint coating.
3. Skylight: Clear, ultraviolet resistant polycarbonate.
4. Ceiling diffuser panel: Frosted polycarbonate.
5. Duct: Flexible aluminum tube.
6. Upper and lower connection rings: Aluminum with mill finish.

**\*\*\*\*\* Edit the following paragraphs to reflect selected model. \*\*\*\*\***

- C. Skylight, tube, and ceiling diffuser nominal diameter: [[10] [12] [14] [18] [24] [30] [36] inches] [[254] [305] [356] [457] [610] [762] [889] mm].

**\*\*\*\*\* Aura Skylights are provided with different roof mounting flanges to accommodate various types of roofing. Typically flanges are square. Circular flanges are optional. Edit the following paragraph to reflect project requirements. \*\*\*\*\***

- D. Skylight mounting flange: [\_\_\_\_\_] [inches] [mm] [square] [diameter] flange fabricated from [[0.025 inch] [0.6 mm] aluminum and designed to accommodate [shingle] [membrane] roofing.] [dead soft aluminum and capable of being formed to [clay] [concrete] roof tiles.]

**\*\*\*\*\* Aura Skylight is typically mounted directly on roof and can be installed on built-up,**

**single ply, shingle, tile, and metal roofs. Both flat and pitched roofs are suitable substrates although adapters may be required for some roof profiles. Contact Active Ventilation Products, Inc. for special mounting conditions. Edit the following paragraph for project conditions. \*\*\*\*\***

- E. Roof adapters: Provide aluminum mounting collars and adapters as required to accommodate type of roofing [and [\_\_\_\_\_] roof profile].
- F. Sealants: Type as recommended by manufacturer for application and type of roof substrate.
- G. Fasteners: Corrosion resistant screws, nails, staples or other fasteners of type, size, and spacing as recommended by manufacturer for application and type of roof substrate.

### **PART 3 - EXECUTION**

#### **3.1 PREPARATION**

- A. Coordinate provision of skylight with:
  - 1. Roof system specified in Section [\_\_\_\_\_] - [\_\_\_\_\_] to ensure compatibility of substrate to receive skylight.
  - 2. Ceiling system specified in [Section 09260 - Gypsum Board Assemblies] [Section 09510 - Acoustical Ceilings] to ensure proper mounting of ceiling assembly.
- B. Examine site conditions and verify that structural supports and openings are properly sized, prepared, and ready to receive skylight.

#### **3.2 INSTALLATION**

- A. Install in accordance with manufacturer's instructions and approved shop drawings. Coordinate with installation of roofing system, curbs, and flashings to ensure weathertightness.
- B. Ceiling diffuser installation:
  - 1. Accurately cut opening in ceiling using circular template. Coordinate location with skylight location.
  - 2. Ensure wood blocking and supplemental supports are provided for support and attachment of ceiling diffuser.
  - 3. Assemble flexible duct and ceiling diffuser with connector ring. Push duct through ceiling opening and securely anchor light diffuser and duct to blocking.

- C. Locate skylight on roof as indicated on Drawings. Ensure opening does not conflict with roof framing members. Accurately cut opening in roof substrate using template and pilot hole.

**\*\*\*\*\* Depending on type of roof system; nailers, rigid insulation, or rigid roof board may be required. \*\*\*\*\***

- D. Install [preservative treated wood nailers] [rigid board roof insulation] [rigid roof board] as detailed on Drawings and approved shop drawings.
- E. Pull flexible duct taut through skylight opening and insert into upper ring. Cut off excess duct as required. Ensure duct is clear and light passage is direct. Attach to roof substrate with upper connector ring.

**\*\*\*\*\* Include the following paragraph if Aura Skylight is installed on asphalt shingle roof. \*\*\*\*\***

- F. Skylight installation on shingle roof:
1. At location of opening, ensure roofing nails are removed. Roll back up-slope shingles.
  2. Apply sealant to bottom of skylight mounting flange and between roof shingles to receive skylight. Slide roof flange under up-slope shingles such that shingles cover one half of flange.
  3. Anchor skylight securely to roof structure with 4 minimum fasteners per side.
  4. Install sealants to fasteners and shingle edges to achieve weathertightness.

**\*\*\*\*\* Include the following paragraph if Aura Skylight is installed on clay or concrete tile roof. \*\*\*\*\***

- G. Skylight installation on [clay] [concrete] tile roof:
1. Prior to installation of roof tile, install lower flanged curb flashing to roof substrate over opening with appropriate fasteners.
  2. Install sealants to fasteners and flashing edges to achieve weathertightness.
  3. After roof tile is installed to level of skylight and covers down-slope side of lower flashing, push skylight mounting flange onto lower flashing.
  4. Anchor up-slope side of dead soft aluminum roof mounting flange to roof substrate.

5. Install remaining tiles over up-slope portion of skylight mounting flange. Form bottom portion of dead soft aluminum flange to profile of roof tiles.

**\*\*\*\*\* Include the following paragraph if Aura Skylight is installed on metal panel roof system. \*\*\*\*\***

H. Skylight installation on metal panel roof:

1. Ensure openings are centered between ribs of metal roof panel and there is sufficient flat surface to accommodate skylight mounting flange.
2. Apply butyl tape sealant to bottom of roof mounting flange around complete perimeter. Use nylon spacers between roof panel and flange to eliminate sealant migration due to compression.
3. Fasten skylight mounting flange with self-tapping hex head coated fasteners with metal washer and neoprene sealing washer of size and spacing as recommended by manufacturer.

**\*\*\*\*\* Include the following paragraph if Aura Skylight is installed as part of built-up membrane roofing system. \*\*\*\*\***

I. Skylight installation on built-up membrane roofing system:

1. Install skylight as part of built-up roof membrane.
2. Set skylight mounting flange in plastic roofing cement.
3. Securely anchor flange to roof substrate with fasteners of type, size, and spacing recommended by manufacturer.
4. Install flexible base flashing over roof flange as part of roofing operation.

**\*\*\*\*\* Include the following paragraph if Aura Skylight is installed as part of single ply membrane roofing system. \*\*\*\*\***

J. Skylight installation on single ply membrane roofing system:

1. Install skylight as part of single ply membrane roofing.
2. Trim corners of mounting flange to provide smooth radius without sharp points.
3. Apply butyl tape sealant or roofing mastic to bottom of roof mounting flange. Set mounting flange over roof opening onto single ply roof membrane.
4. Securely anchor skylight flange to roof substrate with fasteners of type, size, and spacing recommended by manufacturer.

5. Install piece of single ply roofing over mounting flange. Secure with adhesive, heat welding, or other procedure as part of roofing operation.
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- K. Wash exposed polycarbonate and aluminum surfaces with solution of mild detergent and warm water applied with soft, clean cloths. Do not use abrasive materials.

**END OF SECTION**