

SPECIFICATIONS SECTION 07726

UL LISTED HEAT AND SMOKE VENTS

PART 1 – GENERAL

1.01 SUMMARY

- A. Section includes:
 - 1. Prefabricated UL Listed heat and smoke vents, with Sky-Tough™ UL 972 Impact resistant domed lids, curbs, hardware and counter flashing.
 - 2. Prefabricated UL Listed heat and smoke vents with metal lids, curbs, hardware and counter flashing.

- B. Related Sections:
 - 1. Section 07510 – Built-up Bituminous Roofing
 - 2. Section 07525 – Modified Sheet Roofing.
 - 3. Section 07360 – Single Ply Membrane Roofing
 - 4. Section 07600 – Flashing and Sheet Metal Trim
 - 5. Section 07610 – Sheet Metal Roofing

1.02 REFERENCES

- A. Aluminum Association (AA)
 - 1. Specifications for Aluminum Structures.

- B. American Architectural Manufacturers Association (AAMA)
 - 1. AAMA 1600/IS7, Skylight Standard
 - 2. AAMA Skylight Installation Manual
 - 3. AAMA 1505.1-87, Voluntary Standard Uniform Load Test Procedure for Plastic Glazing Skylights by Uniform Static Air Pressure Difference.

- C. American Society for Testing and Materials (ASTM)
 - 1. ASTM D4802 Specification for Poly (Methyl Methacrylate) Acrylic Plastic Sheet
 - 2. ASTM E331 Test Method for Water Penetration of Exterior Windows, Curtain Walls and doors by Static Air Pressure Difference.
 - 3. ASTM A-463 Specification for Steel Sheet, Cold Rolled, Aluminum Coated, Type 1 or Type 2.
 - 4. ASTM A-653 Specification for Steel Sheet, Zinc Coated (Galvanized) or Zinc Alloy Coated by the Hot Dip process.
 - 5. ASTM A 792 Specification for Steel Sheet, Fifty-Five Percent Aluminum-Zinc Alloy coated by the Hot Dip Process.

- D. National Roofing Contractors Association (NRCA)
 - 1. Roofing and Waterproofing Manual.

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- E. Underwriters Laboratory (UL)
 - 1. UL 972 Standard for Burglar and Impact Resistant Glazing.
 - 2. UL 973 Standard for Heat and Smoke Vents
 - F. National Fire Protection Association (NFPA)
 - 1. NFPA 204 Standard for Heat and Smoke Vents
 - G. American Welding Society (AWS)
 - 1. AWS D1.1 Structural Welding Code
- 1.03 PERFORMANCE REQUIREMENTS
- A. Sky-Tough glazed smoke vents shall conform to the recommendations of AAMA 1600/IS7
 - B. Smoke Vents (Sky-Tough glazed or Metal Lids) shall operate automatically, in accordance with the operating requirements of UL 973.
 - C. Glazing material shall be UL 972 Listed for Impact resistance.
 - D. Smoke Vents shall operate automatically by activation of a UL Listed or FM Approved fusible link. Link temperature as required by AHJ.
 - E. Units shall comply with the specific requirements of the Authority Having Jurisdiction (AHJ) and may include any of the following:
 - 1. Exterior and/or interior manual release.
 - 2. Activation by smoke detector
 - 3. Activation by remote manual control utilizing electro-thermal links (ETL)
 - 4. Activation by a re-settable ETL (McCabe Link)
- 1.04 DELIVERY, STORAGE AND HANDLING
- A. Handle, deliver and store in manufacturer's original packaging, following the manufacturer's recommendations. Store in a dry area and in a manner to prevent damage.
 - B. Exercise caution when hoisting unit to the roof so as not to damage the release mechanism.
- 1.05 WARRANTY
- A. Smoke Vent Warranty: Provide written warranty by the manufacturer, agreeing to repair or replace work that exhibits defects in materials or workmanship.
 - B. Warranty period to be 5 years from date of installation.

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PART 2 PRODUCTS

2.01 PLASTIC DOMED LID UL LISTED HEAT AND SMOKE VENTS

- A. Manufacturers: Subject to compliance with requirements. Approved manufacturers are:
 - 1. ACRALIGHT International Skylights, 1831 S. Ritchey Street, Santa Ana, CA 92705 (800 325-5355) (Fax: 714 258-7033) www.acralight.com
 - 2. Or Approved equal. (Prior approval shall be obtained 10 days prior to bid date)
- B. Manufactured units: UL Listed smoke and heat vent, Double-Lid, with UL or FM approved fusible link, link temperature as required.
 - 1. ACRALIGHT International Skylights Model Number S-ULSV (for galvanized steel) or A-ULSV (for aluminum)
 - 2. Finish: Manufacturer's standard mill finish aluminum or galvanized steel.
 - 3. Inside curb dimension to be 48" x 96" or as shown on drawings.
 - 4. Plastic Drop-out smoke vents are not permitted
- C. Lids: Sky-Tough UL 972 Listed white glazing outer dome, (optional clear inner dome) in aluminum or galvanized steel frame. Designed to withstand a 30 psf uplift load in the closed position. Units shall be furnished with an exterior and/or interior manual release handle. When released, lids shall open against a 10 psf positive external load and lock in the open position.
- D. Curbs: curbs to be manufacturer's standard aluminum or galvanized steel, 12" high (or as noted on drawings) with 1" thick insulation and/or a 1" x 4" wood nailer.
- E. Steel Security Bars: Optional steel burglar bars by ACRALIGHT International Skylights shall be ½" steel bars welded and assembled into a 1 ½" x 1 ½" x 1/8" steel angle frame. ACRALIGHT International Skylights (800 325-4355), or approved equal.

2.02 METAL LID UL LISTED HEAT AND SMOKE VENTS

- A. Manufacturers: Subject to compliance with requirements. Approved manufacturers are:
 - 1. ACRALIGHT International Skylights, 1831 S. Ritchey Street, Santa Ana, CA 92705 (800 325-4355) (Fax: 714 258-7033) www.acralight.com
 - 2. Or Approved equal (Prior approval shall be obtained 10 days prior to bid date)
- B. Manufactured units: UL Listed heat and smoke vent with Double-Lid, with UL or FM approved fusible link, link temperature as required by Authority Having Jurisdiction (AHJ).
 - 1. ACRALIGHT International Skylights Model Number S-ULSV-ML (for galvanized steel) or A-ULSV-ML (for aluminum)
 - 2. Finish: Manufacturer's standard mill finish aluminum or galvanized steel.
 - 3. Inside curb dimension to be 48" x 96" or as shown on drawings.

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- C. Lids: Aluminum or galvanized steel lids with 1" rigid insulation and interior metal liner. Designed to withstand a 30 psf uplift load in the closed position. Units shall be furnished with an interior and/or exterior manual release handle. When released, lids shall open against a 10 psf positive external load and lock in the open position.
- D. Curbs: curbs to be manufacturer's standard aluminum or galvanized steel, 12" high (or as noted on drawings) with 1" thick insulation and a 1" x 4" wood nailer.
- E. Steel Security Bars: Optional steel burglar bars by ACRALIGHT International Skylights shall be ½" steel bars welded and assembled into a 1 ½" x 1 ½" x 1/8" steel angle frame. ACRALIGHT International Skylights (800 325-4355), or approved equal.

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.
- D. Provide a weather tight assembly.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install completely assembled smoke vents with curbs in accordance with manufacturer's instructions. Coordinate roof membrane installation requirements specified in other Sections.
- B. Smoke Vent curbs bearing on roof deck:
 - 1. Set units in place and secure curb flange to steel roof deck by self tapping non-corrosive screw fasteners, spaced at a maximum of 12" on center, staggered.
- C. Apply bituminous paint on metal surfaces of units in contact with cementitious material and dissimilar metals.
- D. After installation, remove shipping screws and test vents to insure that vents operate as intended.

3.02 INSPECTION AND MAINTENANCE

- A. Inspect and maintain smoke vents in accordance with the requirements of the NFPA 204, Standard For Heat and Smoke Vents, 2007 Edition.

END OF SECTION