SECTION 08620
E-CLASS FIXED DECK MOUNT SkyWindow®

PART 1-GENERAL

1.1 SUMMARY

A. This section includes the following:
   1. Model EF: E-Class deck mount self-flashing fixed glass unit skylights.

1.2 REFERENCE STANDARDS

A. ASTM E 283 – Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors Under Specific Pressure Differences Across the specimen.
B. ASTM E 330 – Standard Test Method for Structural Performance of Exterior Windows, and Doors Skylights and Curtain Walls by Uniform Static Air Pressure Difference.
C. ASTM E 331 – Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference.
D. National Fenestration Rating Council, NFRC 100, Procedure for Determining Fenestration Product U-factors.
E. National Fenestration Rating Council, NFRC 200, Procedure for Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence.

1.3 PERFORMANCE REQUIREMENTS

A. General: Provide unit skylights capable of withstanding loads as defined by the local codes having jurisdiction where units are to be installed without failure.
B. Units shall be tested to compliance with AAMA\WDMA\CSA\101\I.S.2\A440 as required by the International Building Code.
C. Provide units tested to AAMA\WDMA\CSA\101\I.S.2\A440 with the following rating: SKG-C90 118 x 118 (47 x 47).
D. Water Infiltration: No uncontrolled leakage when tested in accordance with ASTM E331 at a test pressure of 18 psf.
E. Air Infiltration: Air leakage shall not exceed 0.01 scfm per square foot of surface area when tested in accordance with ASTM E283 at differential static pressure of 1.60 psf.
F. Thermal Performance: Provide full system NFRC certified performance as follows:
   1. eMAX3: U-factor = 0.46, SHGC = 0.26, VT = 59%
   2. eMAX3 laminated: U-factor = 0.45, SHGC = 0.25, VT = 58%
   3. Triple Glaze 30-30: U-factor = 0.30, SHGC = 0.22, VT = 42%

1.4 SUBMITTALS

A. Product Data Sheet: For each type of skylight specified, include details of construction and installation, relative to applicable roofing materials.
B. Samples for Selection: Manufacturer's color charts showing a full range of colors available for each type of skylight glazing and aluminum finish.

1.5 WARRANTY

A. General: Warranties specified in this section shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and shall be in addition to and run concurrent with other warranties made by the Contractor under requirements of the Contract Documents.
B. Skylight Warranty: Provide written warranty signed by manufacturer, agreeing to repair or replace work that exhibits defects in materials or workmanship and guaranteeing 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 original date of purchase.
C. Glass Warranty: Provide written warranty signed by manufacturer agreeing to repair or replace work that has or develops defects in the insulating glass. "Defects" is defined as seal failure.
    1. Warranty Period for Insulating Glass: 20 years from date of original purchase.
D. Finish Warranty: Provide written warranty signed by manufacturer agreeing to repair or replace work with finish defects. "Defects" is defined as peeling, chipping, chalking, fading, abnormal aging or deterioration, and failure to perform as required.
    1. Warranty Period for Powder Coat Finish: 10 years from date of Substantial Completion.

PART 2- PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by Wasco Products, Inc., Wells, ME 04090, (800-388-0293).
B. Substitutions: Not Permitted.

2.2 MATERIALS

A. Curb Frame: Bright white high performance ridge PVC with Bronze cap stock, coextruded with soft vinyl flashing. Provide integral condensation gutter system with corners fully welded for waterproof quality.
B. Retainer Frame: Extruded aluminum alloy 6063-T5 (min). ASTM B 221 (ASTM B 221 M) with minimum effective thickness of 0.060 inch (1.5 mm). The aluminum retaining frame is mitered and secured using an aluminum staking corner key.
C. Thermal Break: Fabricate skylight units with thermal chambered PVC frame.
D. Fasteners: Non-magnetic stainless steel or other non-corrosive metal as recommended by manufacturer.
E. Insulating Glass:
    1. eMAX3: Clear tempered Low-E outer, argon filled airspace, clear tempered inner pane.
    2. eMAX3 laminated: Clear tempered Low-E outer, argon filled airspace, heat strengthened laminated inner pane.
    3. Triple Glazed 30- 30: Clear tempered Low-E outer, argon airspace, clear tempered middle pane, argon airspace, clear tempered Low-E inner pane.
F. Lumira Aerogel: 25 mm Multi-wall flat cellular polycarbonate panel filled with Lumira™ aerogel insulation material.

2.3 FABRICATION
A. Framing Components: As follows:
    1. Factory fit and assemble components.
    1. Fabricate components that, when assembled, will have accurately fitted joints with ends coped or mitered.

2. Fabricate components to accommodate expansion, contraction, and field adjustment, and to provide for minimum clearance and shimming at skylight perimeter.
3. Fit and secure PVC frame joints by thermal welding.
4. Fit and secure aluminum retainer joints with corner keys.
5. No site fabrication required.

2.4 ALUMINUM FINISHES (EDIT AS REQUIRED)

A. General: Comply with NAAMM "Metal Finishes Manual" recommendations for application and designations of finishes.
B. Finish designations prefixed by AA conform to the system for designations of aluminum finishes established by the Aluminum Association.
    1. Powder Coat High-Performance Architectural Coating: comply with AAMA 2604. Color:______________ (contact manufacturer for color options)
    2. Copper Cladding

PART 3- EXECUTION

3.1 EXAMINATION
A. Examine substrates and conditions, with installer present, for compliance with requirements for installation tolerances and other conditions affecting skylight performance.
    1. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION
A. General: Comply with manufacturer's written instructions for protecting, handling, and installing skylight components.

3.3 CLEANING AND PROTECTION
A. Clean exposed metal and glass surfaces according to manufacturer's instructions. Touch up damaged metal coatings.
B. Protect skylight surfaces from ongoing construction.
C. Final cleaning by others.

END OF SECTION