

**SPECIFICATIONS
OPERABLE SKYLIGHTS
2011**

The General Conditions, any Supplementary General Conditions and Division 1-General Requirements are hereby made a part of this Section as fully as if repeated herein.

PART 1. GENERAL

1.01 DESCRIPTION:

A. Work includes: all operable skylights including (translucent panels) (glass) (acrylic domes), rollers and track, neoprene seals, motors including all electrical operating accessories, and installation accessories.

B. Related Work Specified Elsewhere:

1. Curb Construction.
2. Curb Flashings.
3. Painting of metal surfaces (as required).
4. Setting of remote control switches (furnished by Rollamatic), weatherproof junction boxes, connecting wiring to control switches, conduit and fittings on service side of junction boxes and all electrical connections.

1.02 QUALIFICATION: Operable skylight assemblies shall be the products of a manufacturer who has regularly engaged in the design and fabrication of operable skylights of the type required for the Project for at least five (5) years and who can provide evidence of five (5) installations in which the skylights have satisfactorily performed for at least three (3) years.

1.03 SHOP DRAWINGS: Submit for review of Architect, prior to commencing any factory fabrication, complete shop drawings indicating all work to be done. 1.04 **GUARANTEE:** Operable skylight assembly shall be guaranteed for a period of five (5) years from date of acceptance of project against defective workmanship and materials.

PART 2. PRODUCTS

2.01 SKYLIGHT MANUFACTURER: Rollamatic Roofs, Incorporated, 1500A Burke Avenue, San Francisco, California 94124.

2.02 MATERIALS:

A. Skylight frames:

1. Formed members: Cold formed steel conforming to ASTM A653, 16 gauge (.0625") (1.59mm) min, with hot dip galvanized coating conforming to ASTM A924, G90 Designation (1.25 oz.)

MATERIALS: (continued)

2. Tubes: ASTM A36 with hot dip galvanized coating (after fabrication) conforming to ASTM A123.
 3. Plates, Bars and Shapes: ASTM A36, with hot dip galvanized coating (after fabrication) conforming to ASTM A123.
- B. Glazing Caps: Formed galvanized metal as specified for frames, removable, 16gauge (.0625") (1.59mm) min.
- C. Glazing: (Architect to select one of the following):

1. Translucent Panels: Double faced, sandwich panel construction, 2-3/4" (69.8mm) thick Nominal, regular-Shoji grid pattern, fiberglass grid core with smooth, fiberglass reinforced, acrylic-polyester resin face sheets. Clear coated for exterior face and translucent white color for interior face. Panels shall have "U" factor not greater than 0.40. Panels shall be factory assembled and sealed.

Architect to select grid pattern size desired. Other panel thickness, grid sizes and patterns, face sheet colors, "U" factors, and aluminum finishes are available. Consult with Rollamatic. "U" factor and colors selected for interior and exterior face sheets will determine light transmission and shading coefficient characteristics. Where required by local codes and regulations, panels can be fabricated using approved fire retardant materials.

2. Glass:**
 - A) 7/16" (13.1mm) laminated glass (clear) (bronze) (gray) and (green) tints.
 - B) 1-3/16" (30.2mm) Insulated laminated glass - make-up: 1/4" (clear) (bronze) (gray) and (green) tints tempered over 1/2" airspace over 7/16" clear, tempered laminated glass (3/16" clear tempered over 0.60" clear polyvinyl butyral inner layer over 3/16" clear tempered)

** Many options available including low-e, electrochromatic (switch glass) and photovoltaic glass.

Items in parenthesis require verification or selection by Architect. Thickness should be determined according to size. Other glass types are available including reflective, insulating, rolled pattern and wired.

MATERIALS: (continued)

3. Acrylic Domes:
Thermoformed, one-piece, virgin acrylic plastic, (free-form) (pyramid) type, (single) (double) dome, (white translucent) (clear transparent) (bronze transparent) (for outer dome) (and) (clear transparent (for inner dome)).

Items in parenthesis require verification or selection by Architect. Other colors and plastic having varying light transmission qualities are available.

Where translucent or transparent panels are not required, rigid insulated panels fabricated of galvanized steel, stainless steel, aluminum or other materials can be furnished.

- D. Rollers: Heavy duty, sealed roller bearing, cast aluminum with polyurethane rubber treads.
- E. Roller Tracks: Formed galvanized steel, 10 gauge (0.141") (3.58mm).
- F. Weather stripping: Formed Ethylen-Propylene-Diene-Monomer (EDPM)
- G. Accessories:
 1. Glazing Materials: Preformed butyl-polyisobutylene tape and one component, solvent release type, acrylic sealant as per glazing type and condition.
 2. Fasteners: Hot dip galvanized or stainless steel. All fasteners for glazing caps shall have neoprene washers.
- H. Sealant: Dow 791 silicone sealant.

2.03 DESIGN LIVE LOADS: Skylight assembly shall be designed to support a minimum live load of 20 pounds per square foot (97.64 Kg/sq m) with a maximum deflection of 1/120 of unsupported span. (Assemblies can be designed to meet any special live load and deflection requirements)

2.04 OPERATION: Assembly shall be electrically operated by means of a 1/4HP, 115-volts, single phase, 60 cycle, reversible type motor supplying power by means of a gear drive to roller wheels connected by a steel shaft. All electrical components except retractable cord shall be fully enclosed and readily accessible for service. Electric retractable cord shall be attached to the frame unit and connected to a weatherproof junction box on the roof with watertight fittings. A three -position (open-stop-close) remote control switch shall be furnished under this Section and delivered to the electrical trade for their installation and connection. Remote control switch shall be installed in the location indicated on the Drawings. All electrical components shall meet Underwriters' Laboratories and National Electric Code requirements. (Where size of operating assembly exceeds 300 square feet (27.9 sq. m) in area, a larger motor is required. Rollamatic will provide information concerning motor size for specific assembly sizes.)

2.05 FABRICATION:

- A. Fabricate operable skylights in strict accordance with manufacturer's specifications and recommendations for the particular conditions of the installation.
- B. Provide weep holes or other provisions for elimination of collected moisture from framing assemblies.
- C. Glaze all frames to provide a watertight assembly.

PART 3. EXECUTION

3.01 CONDITION OF SURFACES: Inspect all surfaces to receive skylight components and report all defects, which would interfere with this installation. Starting work implies acceptance of surfaces as satisfactory.

3.02 INSTALLATION:

- A. Coordinate installation of skylights with all other trades whose work adjoins or combines with same.
- B. Install all skylight components in strict accordance with manufacturer's specifications and recommendations so as to produce a watertight installation
- C. Set all roller tracks in sealant.
- D. Adjust controls and limit switches where applicable for proper operation.
- E. Protect dissimilar metals from galvanic corrosion by means of zinc chromate or bituminous paint or butyl isolators.
- F. Touch up all welds and abraded areas in galvanized coatings with zinc-rich paint.

End of Section