

Section 12110

PHOTO MURALS

Round Virtual Skylight

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Transparent photo mural light fixture lens and units.
- B. Transparent photo mural back-lit wall unit.

1.02 RELATED SECTIONS

- A. Section 06114- Wood Blocking and Curbing: Wood blocking shims.
- B. Section 09260- Gypsum Board Assemblies: Roughed-in wall openings.
- C. Section 09511- Suspended Acoustical Ceilings: Suspended panel ceilings for recessed screens.
- D. Division 16- Electrical: Electrical current required for installation and operation of illuminated wall murals, with suitable terminals.
- E. Division 16- Electrical: Lay-in light fixtures.
- F. Division 16- Electrical: Electrical wiring including connections to controls.

1.03 REFERENCES

- A. ASTM B 209- Specification for Aluminum and Aluminum-Alloy Sheet and Plate; 2004.
- B. ASTM B 209M- Specification for Aluminum and Aluminum-Alloy Sheet and Plate (Metric); 2004.
- C. ASTM B 221- Specification for Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes (Metric); 2005a.
- D. ASTM B 221M- Specification for Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes (Metric); 2005a
- E. ASTM B 449- Specification for Chromate Treatments on Aluminum, 1993 (2004).
- F. ASTM D 635- Test Method for Rate of Burning and /or Extent and Time of Self-Supporting Plastics in a Horizontal Position; 2003.
- G. ASTM D 1730- Practices for Preparation of Aluminum and Aluminum-Alloy Surfaces for Painting; 2003.
- H. ASTM E 84- Test Method for Surface Burning Characteristics of Building Materials; 2006.
- I. NFPA 70- National Electrical Code; National Fire Protection Association; 2005.
- J. UBC 26-7- Method of Test for Determining Classification of Approved Light-Transmitting Plastics.
- K. UL (ECMD) - Electrical Construction Materials Directory; Underwriters Laboratories Inc.; current edition.

1.04 SUBMITTALS

- A. Product Data
- B. Shop Drawings: For custom installations, indicate dimensions, verified field measurements, mounting details, and interface with adjacent construction.

- C. Samples:
  1. Acrylic panels
  2. Manufacturer's standard image library.
- D. Operation and Maintenance Data: Operation and maintenance instructions.
- 1.05 QUALITY ASSURANCE
  - A. Electrical Components: Listed and classified by UL as suitable for the purpose specified and indicated.
- 1.06 DELIVERY, STORAGE, AND HANDLING
  - A. Deliver products undamaged.
  - B. Coordinate delivery with scheduled installation date to allow minimum storage time at site.
  - C. Store products in clean, dry location. Protect from sliding, abuse and moisture. Follow manufacturer's instructions.
- 1.07 PROJECT CONDITIONS
  - A. Verify existing conditions and substrates before starting work. Correct unsatisfactory conditions before proceeding.
- 1.08 WARRANTY
  - A. Warrant the work of this section for one year to be free of defects in materials or workmanship as indicated by the following :
    1. Noticeable discoloration, streaking, blooming, darkening, or fading.
    2. Loose, broken or missing parts.
    3. Noticeable deterioration of finish.

## PART 2 PRODUCTS

- 2.01 MANUFACTURES
  - A. TESS USA, Inc.: [www.tessusainc.com](http://www.tessusainc.com).
  - B. Substitutions: See Section 01600- Product Requirements.
- 2.02 MATERIALS
  - A. Aluminum Extrusions: ASTM B221.
  - B. Acrylic Panels: ASTM D635, CC1 Burn Rating, fire retardant acrylic plastic.
  - C. Fasteners: Stainless steel.
  - D. Provide mounting hardware, brackets, supports, fasteners, and other mounting accessories required for a complete installation, in accordance with manufacturer's recommendations for specified substrates and mountings.
- 2.03 MANUFACTURED UNITS
  - A. Linear Accelerator Ceiling or Wall Mural Transparencies: Type 1

Ceiling-mounted, illuminated assembly

- B. Frame: TESS / Armstrong Frame and Grid Kit (Standard)
- C. Housing: Aluminum sheet
- D. Pattern: **Adequate for 10' Round Skylight-can be adapted for other circumferences**
- E. Lighting: Fluorescent tube fixtures System

- F. Outlet will be tied to an on/off switch conveniently located with the room near the door.
- G. Electrical characteristics: Fixtures to be hard wired in sequence and tied to a convenient on/off switch within room.
- H. Ceiling Mural Transparencies: Type 2
  - 1. Model: TESS Ceiling Panel
  - 2. Size: **10 foot diameter x 1/8 inch-can be adapted to other circumferences**
  - 3. Material: Translucent photo mural print laminated to acrylic sheet.
  - 4. Pattern: As selected.
  - 5. Light Fixture: Division 16.

### PART 3 EXECUTION

#### 3.01 PREPARATION

- A. Coordinate installation with adjacent construction and fixtures, including ceilings, walls, lighting, and ceiling devices.

#### 3.02 INSTALLATION

- A. Use standard materials for Linear Accelerator Rooms.
- B. Fit lay-in acrylic panels within light fixture frame, free from damaged edges or other defects detrimental to appearance and function.
- C. Install units according to manufacturers' printed instructions. Use skilled workers familiar with items and installation requirements.
- D. Install units true, plumb and level. Securely and rigidly anchor to substrate. Use tamper-proof fasteners.
- E. Sequence installation to ensure electrical connections are effected in an orderly and expeditious manner.
- F. Perform required cutting, fitting and patching. Coordinate work fully with other trades involved.

#### 3.03 CLEANING

- A. Test, clean and adjust fixtures to ensure proper working order.
- B. Remove masking/protection from finished surfaces. Thoroughly wash and clean fixtures.

END OF SECTION